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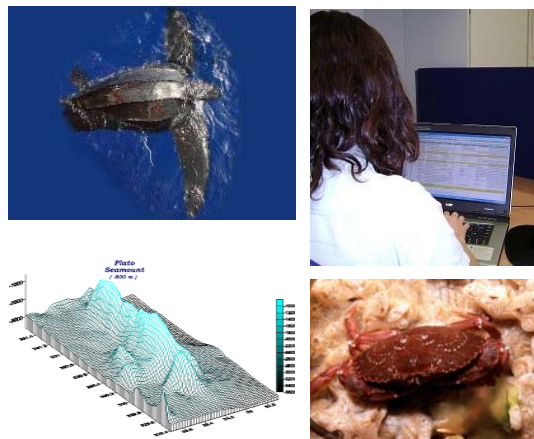
**LEGAL ASPECTS OF MARINE
ENVIRONMENTAL DATA**

Framework Service Contract, No. FISH/2006/09 – LOT2

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Acronyms and abbreviations

Aarhus Convention	Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, Aarhus,
CFP Framework Regulation	Council Regulation (EC) No 2371/2002 of 20 December 2002 on the conservation and sustainable exploitation of fisheries resources under the Common Fisheries Policy
Control Regulation	Regulation (EEC) No 2847/93 establishing a control system applicable to the common fisheries policy
Copyright Harmonisation Directive	Directive 2001/29/EC on the harmonisation of certain aspects of copyright and related rights in the information society
Data Protection Directive	Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data
Database Directive	European Community Directive 96/9/EC of 11 March 1996 on the legal protection of databases
EC	European Community
EDMED	European Directory of Marine Environmental Datasets
EMODNet	proposed European Marine Observation and Data Network
Environmental Information Directive	Directive 2003/4/EC of 28 January 2003 on public access to environmental information and repealing Council Directive 90/313/EE
Environmental Information Regulation	Regulation 1367/2006/EC of 6 September 2006 on the application of the provisions of the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters to Community institutions and bodies
EU	European Union
HELCOM	Helsinki Commission
ICES	International Council for the Exploration of the Seas

INSPIRE Directive	Directive 2007/2/EC of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community
IPR	intellectual property right
ISO	International Standards Organisation
NEAFC	North East Atlantic Fisheries Commission
NGO	non-government organisation
OBONT	obligations on the net
OSPAR	Convention for the Protection of the Marine Environment of the North-East Atlantic, 1992
PSI	public sector information
PSI Directive	Directive 2003/98/EC of 17 November 2003 on the re-use of public sector information
Re-use Decision	Commission Decision 2006/291/EC/Euratom of 7 April 2006 on the re-use of Commission information
ToR	Terms of Reference
Transparency Regulation	Regulation 1049/2001 of 30 May 2001 regarding public access to European Parliament, Council and Commission documents
VMS	vessel monitoring system
WMO	World Meteorological Organisation

1 Introduction

1. Large quantities of data relating to the marine environment are collected and stored all over Europe for a wide variety of purposes and by a variety of public and private entities.
2. Such data, which record a wide range of natural and human-activity in and around the oceans, are a key pre-requisite for effective strategic decision-making on maritime policy. At the same time, these data, and the research they relate to, have a major role in promoting the development of economic activities relating to the maritime sector and the creation of new industrial products and services.
3. In order to improve access to marine environmental data, the European Commission has proposed the establishment of a European Marine Observation and Data Network (EMODNet) that will ensure that the data is compiled in a comprehensive and compatible system, and made accessible as a tool for better governance, expansion of value-added services and sustainable development.
4. Legal issues are one of a number of potential obstacles to the achievement of this objective.
5. In particular, notwithstanding the existence of a number of instruments adopted at Community level that are designed to improve data flows, including instruments that focus explicitly on environmental data, this is an area that is regulated in accordance not only with national legislation but also by the individual data policies of individual data centres.
6. Intellectual property rights, which are claimed by European data holders even in cases where data has been produced using public funding (from both Community and national sources), are in particular seen as an obstacle to improved data flows. The situation is contrasted with the United States where there are fewer restrictions on access to public-funded environmental data with, it is claimed, a resulting benefit to American industrial research and development.
7. The variation in approaches reflects political or philosophical differences as much as anything else. Are such data a resource that should be exploited by data centres in order to maximise their own revenues and sustainable operations at the same time providing them with a business incentive to respond to the needs of the market? Or are the benefits to individual data centres outweighed by the increased costs to individual data users and society as a whole? The answers to these economic questions are far beyond the scope of this Study.
8. Instead, this Study examines existing legal rights and restrictions relating to access to marine environmental data by analysing a representative sample of the data types that will be available through EMODNet, both at European Community (EC) level and pursuant to national legal systems. A key objective of this Study is to

determine how the relevant legal rules are applied in practice. A copy of the Terms of Reference (ToR) for this Study is attached as Annex A¹.

9. The background to this Study is the ongoing development of a Maritime Policy for the European Union (EU). On 10 October 2007 the European Commission adopted a Communication² setting out its vision for an Integrated Maritime Policy for the EU, together with a detailed action plan³ setting out a work programme for the years ahead. This vision was welcomed by the European Council of December 14, 2007 and the Commission was invited to come forward with the initiatives and proposals contained in the action plan. It is anticipated that a Communication on EMODnet will be adopted later in 2008.
10. The ToR for this Study specify three separate tasks. These are headed:
 - 1) Collection of information on access rights and restrictions on marine data
 - 2) Analysis of general legal issues regarding access to data
 - 3) Analysis of regulatory data provided to the Commission under the Common Fisheries Policy
11. While task 3) is somewhat 'stand-alone', tasks 1) and 2) are closely linked.
12. As to its content this Study is set out in seven Parts, including this introduction, which seek to respond to the specific questions asked in the ToR.
13. As the law relating to this Study is largely established at international and EC level Part Two contains an analysis of the international law and EC legal framework relevant to marine environmental data.
14. Part Three contains a description of the data collection exercise undertaken whereby a representative sample of marine environmental data types was gathered from a number of European countries and international organisations in Europe.⁴ Part Three contains a summary of the findings: the actual results of the data collection exercise are contained a separate database that has been supplied to the Commission. The design and layout of this database is also described in Part Three.
15. Part Four contains a general legal analysis of the national legislation of the countries in which the data collection exercise took place in order to evaluate the extent to which obligations under EC law have been implemented and also to examine the practical effectiveness of such legislation at the national level having regard to the findings of the data collection exercise.
16. Part Five contains an analysis of the 'legal restriction' meta-data headings for spatial data proposed in ISO Standard 19115 and, based on the findings of the data

¹ The Terms of Reference in fact refer to two separate studies contained in the same work package. The Terms of Reference relating to the present Study are those relating to task one.

² COM (2007) 575, 10.10.2007, p. 6.

³ SEC (2007) 1278, 10.10.2007, p. 8.

⁴ As already mentioned, the data types relate to the categories of data that it is anticipated will be available through EMODNet

collection exercise, proposes a more comprehensive description of legal access conditions to marine environmental data in Europe.

17. Part Six considers the issue of access to marine environmental data, or more specifically one aspect of marine environmental data, from a different perspective. Rather than considering the restrictions on the flow and use of marine environmental data from the perspective of potential data users, this Part considers the potential restrictions on publication by an individual data holder, namely the European Commission. Specifically, this Part contains an analysis, based on a database supplied by the Commission of the legal conditions under which data reported to the Commission by the Member States under the Common Fisheries Policy can be disseminated and published to third parties.

18. Finally some conclusions are drawn in Part Seven.

2 Background: relevant legal framework under international and EC law

19. In seeking to improve access to marine environmental data and to promote its use and re-use for a range of purposes, including technical innovation, it is necessary to consider two separate, yet closely related, areas of law.
20. The first is intellectual property law and the potential restrictions that may arise regarding marine environmental data as a result of the existence (and exercise) of intellectual property rights in such data.
21. The second area of law is the body of legal instruments that have been developed at international and European Community level to facilitate access to information and/or its re-use. These, as will be seen, include instruments that relate specifically to access to environmental information (including spatial data), as well as instruments that seek to promote the re-use of public sector information (which may include environmental data).
22. It is the tension between these two areas of law that provides the background to the discussion that follows.
23. Finally, access restrictions may also originate from privacy and data protection laws and regulations. Such restrictions will arise if marine environmental data contain “personal data”⁵. As the concept of “personal data” is defined very broadly, it cannot be excluded that marine environmental data (especially if they relate to human factors or activities) could, in certain circumstances, include personal data. For example, data relating to the course and position of fishing vessels acquired through a satellite based vessel monitoring system (VMS) contains potentially personal data.⁶ Access to and use of such data may be significantly affected by the requirements of data protection law.

2.1 Intellectual property rights

24. “Intellectual property” generally refers to creations of the (human) mind such as inventions, literary and artistic works, symbols, names, images, and designs used in commerce.
25. Intellectual property is usually divided into two categories: (1) industrial property, which includes inventions (patents), trademarks, industrial designs and geographic indications of source; and (2) copyright (or “author’s rights”), which generally includes literary and artistic creations⁷ but also technology-based works⁸.

⁵ See Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data.

⁶ A full discussion of the type of data transmitted pursuant to a VMS and the reasons why it is potentially personal data is contained in a separate sister Study on Legal Aspects of Maritime Surveillance Data prepared under the same ToR as the present Study.

⁷ For instance, novels, poems, plays, films, musical works, artistic works such as drawings, paintings, photographs and sculptures, and architectural designs. Rights related to copyright also include those of

26. Intellectual property right (IPR) protect the interests of creators by giving them **property rights**⁹ over their creations. Such property rights relate to the items of information or knowledge which can be incorporated in tangible objects in an unlimited number of copies (and not to those objects or copies as such). IPR are usually also characterised by certain limitations, such as a limited duration in time in the case of copyright or patents.
27. Under the general heading of IPR are included a number of different types of rights including patents, trademarks and copyright as well as database rights.
28. In most countries, IPRs are protected by statute law with the objective of giving formal legal expression to the moral and economic rights of creators over their creations and to the rights of the public in accessing those creations. Such laws usually also aim to promote creativity and the dissemination and application of its results.
29. For a range of reasons, in particular their potential impacts on international trade, this an area that is also regulated under international law as well as EC law.
30. Within the context of marine environmental data, and thus within the framework of this Study, copyright and database rights are probably the most relevant in that they potentially impose the most significant IPR restrictions on access to and use of data.
31. Other intellectual property rights that might be potentially relevant to this Study include patents and trademarks.

2.1.1 Copyright and database rights

32. It is difficult to define the term “data” in a more or less accurate way. However, specifically with regard to marine environmental data, reference could be made to the very broad definition of the term “information” in the Environmental Information Directive (i.e. “any information in written, visual, aural, electronic or any other material form”¹⁰) or to the definition of “document” in the PSI Directive (i.e. “any content whatever its medium (written on paper or stored in electronic form or as a sound, visual or audiovisual recording) or any part of such content”¹¹). The relevance of these two instruments is considered in more detail below.

performing artists in their performances, producers of phonograms in their recordings, and those of broadcasters in their radio and television programs.

⁸ For instance, computer programs and electronic databases.

⁹ The basic principle of a “property right” is that the owner of such a right may use it as s/he wishes (and indeed may decide not to use it) and that nobody else can lawfully use it without his/her authorisation.

¹⁰ Article 2 (1) of the Directive 2003/4/EC of 28 January 2003 on public access to environmental information and repealing Council Directive 90/313/EEC (“the Environmental Information Directive”), *OJL* 41/26 of 14 February 2003.

¹¹ Article 2 (3) of the Directive 2003/98/EC of 17 November 2003 on the re-use of public sector information (the “PSI Directive”), *OJL* 345/90 of 31 December 2003; a comparable definition can be found in Article 3 (a) of the Regulation 1049/2001 of 30 May 2001 regarding public access to European Parliament, Council and Commission documents (the “Transparency Regulation”), *OJL* 145/43.

33. With respect to the term “data”, a distinction is frequently made between three levels of data¹²:

- raw data (unprocessed basic information, e.g. numbers);
- processed data (with value added by the body handling the data); and
- data products (specifically designed or tailored to meet certain information needs or requests).

34. From a legal perspective there is a general understanding that IPR in general, and copyright in particular, cannot be extended to cover the basic information, the ‘raw data’ such as the read out from a technical or measuring device. However, the ordering or manipulation of such data by putting them into a table or spreadsheet is sufficient to establish copyright in the particular arrangement of words and numbers so created.

Stonehaven Data from Standard monitoring Site Station 40cm diameter, 200 micron mesh, vertical net tow, 50m - 0m		Numbers in Species category as number per cubic metre on sampling date								
Short Species Name	Full Species Name	Date	03/07/2006	12/07/2006	17/07/2006	24/07/2006	07/01/2008	15/01/2008	21/01/2008	29/01/2008
FORAMIN-CLA	Foraminifera spp unidentified		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
GLOBIGE-FAM	Globerigina species		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
TINTINA-ORDS	Tintinnida species		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Fig 2.1 Zooplankton diversity data (species identification and counts): Stonehaven/Loch Ewe Ecosystem Monitoring: Zooplankton (species abundance data from: Jan 2008, July 2006, July 1998). Crown copyright used with the permission of Fisheries Research Services Marine Laboratory, Aberdeen.

35. To take by way of example the data sample in Fig 2.1, the IPR are held not in the measurements *per se*, the numbers (or in this case the zeros) that record those measurements, but rather in the ordering of these numbers in this particular format on the spreadsheet in question.

36. To the extent that this data has been manipulated by entry into a spreadsheet it has been processed sufficiently to no longer be classified as ‘raw’ data and thus it may benefit from copyright protection. The same applies *a fortiori* to specifically designed data products.¹³

37. Environmental information may potentially take the form of a “literary” work protected by copyright, or it may be part of a database which is sufficiently creative to be protected by copyright and/or by a specific “*sui generis*” database right if substantial financial and professional efforts were involved in the creation¹⁴.

¹² See for instance, the discussion in Section 4.1 of the background paper on EMODnet in relation to the various levels of data processing and services (p. 12), where it is provided that EMODnet should not directly aim to provide “made-to-measure solutions that meet the needs of specific end-users”, but that these should be provided by the market and paid for by the end-users.

¹³ In some (other) contexts the notion of ‘raw data’ may also be understood to include compiled or assimilated but unrefined data that has yet to be enhanced, manipulated or processed into a ‘refined’ product. See further the Office of Fair Trading report *The Commercial Use of Public Information*, 2006, London.

¹⁴ See below, at para. 44. It is to be noted that the definition of “document” in Article 2 (3) of the PSI Directive includes databases (but not computer programmes).

38. For the purposes of copyright protection, the term “literary work” is understood to include every original work of authorship, irrespective of its literary merit¹⁵. Copyright arises automatically and without formality upon creation of the work, generally once it is fixed in some material (reproducible) form.
39. International harmonisation of copyright law has been achieved to a certain extent through, *inter alia*, the minimum standards set out by the Berne Convention¹⁶, the World Trade Organisation (WTO) Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS)¹⁷, the World Intellectual Property Organisation (WIPO) Copyright Treaty of 20 December 1996 (WCT) and, within the EU, through a number of copyright-related Directives, including Directive 96/9/EC of 11 March 1996 on the legal protection of databases (the “Database Directive”¹⁸) and Directive 2001/29/EC of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society (the “Copyright Harmonisation Directive”)¹⁹. It should nevertheless be noted that, although subject to both international and EC law, the subsistence and enforcement of copyright will mainly occur at the national level²⁰.
40. Databases (in any form) can also benefit from copyright protection. The term “Database” is broadly defined as “a collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means”²¹.
41. Copyright protection will be accorded to databases that “by reason of the selection or arrangement of their contents” constitute the author’s own intellectual creation²² (i.e. concept of originality). The copyright protection does not extend to the data contained in the database (which may however be subject to copyright in its own right).
42. The *author* of the database will be the natural person(s) who created the database or (where national legislation permits it) the legal person designated as the rightholder by that legislation²³ (e.g. the employer of the database creator).
43. In addition, or alternatively, there may be a “*sui generis* database right” protecting the content of the database (irrespective whether there has been creativity in its arrangement), provided that there has been a substantial (qualitative and/or quantitative) investment in obtaining, verifying or presenting the material²⁴.

¹⁵ It may, *inter alia*, include books or other writings, illustrations, maps, photographs or other images. Such works could be generated by public authorities as well as produced by private companies or individuals.

¹⁶ Berne Convention for the Protection of Literary and Artistic Works of 9 September 1886, as revised.

¹⁷ Annex 1C to the Agreement establishing the WTO (Marrakesh, 15 April 1994).

¹⁸ OJ L 77/20 of 27 March 1996.

¹⁹ OJ L 167/10 of 22 June 2001.

²⁰ For instance, the question as to whether any particular data, communication, document or collation thereof is a copyright work will be a matter for national law. The approach to this may be different according to the jurisdiction, principally according to the standard of originality in each jurisdiction.

²¹ Article 1 (2) of the Database Directive.

²² Article 3 (1) of the Database Directive.

²³ Article 4 (1) of the Database Directive.

²⁴ Article 7 of the Database Directive.

44. The *sui generis* database right should protect the *maker*²⁵ of the database against the unauthorised extraction and/or re-utilisation of the whole or a substantial part of the database.
45. In essence, the *sui generis* right aims to protect the investment of time, money and effort incurred by database producers in relation to non-original (in terms of intellectual creativity) databases. The *sui generis* right applies irrespective of the eligibility of the database (or of its contents) for protection by (ordinary) copyright or other rights.
46. Public or private sector databases containing marine environmental data may therefore be protected by both copyright (if they are intellectual creations in terms of their arrangement or selection of the data) and/or by the *sui generis* database right (if they are the product of a substantial investment in obtaining, verifying or presenting the data).

Box 2.1: The scope of the *sui generis* database right

It is to be noted that the scope of the *sui generis* right was severely curtailed by the European Court of Justice in a series of judgements rendered on 9 November 2004²⁶. The Court distinguished between the resources used in the “creation” of materials that make up the contents of a database and the “obtaining” of such data in order to assemble the contents of a database. Only the latter activity is considered protected under the *sui generis* right. This leaves no protection for bodies which “create” the data that makes up the contents of a database. In its 2005 working paper evaluating the Database Directive, the DG Internal Market and Services concludes that the aforementioned differentiation operated by the Court demonstrates that the *sui generis* protection of databases comes precariously close to protecting basic information (or “raw” data)²⁷. It should also be noted that the *personal* scope of the *sui generis* right is restricted to database makers and right-holders who are nationals of a Member State or who have their habitual residence in the territory of the Community²⁸. The *sui generis* right is also particular to the EU; it does not exist in the US for instance. It is also provided in the Database Directive²⁹, that the *sui generis* right can be transferred, assigned or granted under a contractual licence.

47. Where copyright subsists, the proprietor will have the exclusive right to authorise third parties to use the protected materials. There are generally two types of rights under copyright: (i) economic rights (which allow the author to derive financial benefits from the use of his works by others); and (ii) moral rights (which allow the author to take certain actions in order to preserve the personal link between himself and the work³⁰).
48. Rights owners will usually be able, under applicable copyright law, to prohibit or authorise the (direct or indirect, temporary or permanent) reproduction of the work by others, the communication of the work to the public, the distribution of copies

²⁵ This term is as such not defined in the Database Directive but is understood to refer to the person who has taken the initiative and the risk of investing in the database (cf. recital (41) of the Directive).

²⁶ The judgements of the European Court of Justice on the scope of the *sui generis* right can be consulted on http://ec.europa.eu/internal_market/copyright/prot-databases/jurisprudence_en.htm.

²⁷ DG Internal Market and Services Working Paper of 12 December 2005 – First evaluation of Directive 96/9/EC on the legal protection of databases; this working paper can be consulted on http://ec.europa.eu/internal_market/copyright/docs/databases/evaluation_report_en.pdf

²⁸ Article 11 of the Database Directive.

²⁹ Article 7 (3) of the Database Directive.

³⁰ These moral rights include the so-called right of paternity (*i.e.* the right to claim the authorship of the work) and the so-called right of integrity (*i.e.* the right to object to actions in relation to the work which are prejudicial to the author’s honour or reputation).

of the work to the public (by sale or otherwise), the rental of copies, as well as the alteration (including translation) of the work.

49. Copyright protection thus effectively means that the re-use, and in some cases, the access to copyright material will not be possible without the author's consent. At the very least, it will not be possible to transfer copyright material from the copyright proprietor to another without the said copyright proprietor's consent and it will also not be possible to pass it on between third parties without consent. Consent of the copyright owner may thus be essential in order for copyright not to pose a barrier to the flow of copyright material containing marine environmental data.
50. In most countries, the copyright regime will allow for limitations of copyright and the possibility of defences and permitted acts in certain circumstances whereby a document may be dealt with without infringing copyright. A typical example is the free use of copyright material to make a quotation for the purposes of criticism and review (providing the author is acknowledged), or the use of a work for teaching purposes or for the purpose of news reporting. In addition, many laws allow for *individuals* to reproduce a work exclusively for their personal, private and non-commercial use.
51. Article 5 of the Copyright Harmonisation Directive provides for a long list of exceptions to copyright protection that Member States can incorporate into their national copyright laws. The exact nature and scope of these exceptions will in essence be regulated at Member State level. The list of optional exceptions includes, *inter alia*, copies made for private use³¹ or the purposes of teaching or scientific research³², translations and reproductions for the benefit of the disabled, reporting current economical, religious or political topics, extracts for criticism and review and for the purposes of public security³³. Generally, these defences do not assist in the sharing of copyrighted material without consent between, for example, commercial entities or public authorities. Moreover, the defences listed in the Copyright Harmonisation Directive are exhaustive; Member States may not enact any other new defences. Current EC copyright law thus restricts the scope for the development of further defences and permitted acts in the Member States.
52. In addition, all the exceptions to copyright listed in the Copyright Harmonisation Directive need to satisfy the so-called 'three-step test'³⁴. This test requires that the exceptions and limitations provided for shall only be applied: (i) in certain special cases; (ii) which do not conflict with a normal exploitation of the work or other subject-matter; and (iii) do not unreasonably prejudice the legitimate interests of the right-holder.
53. Under the laws of many countries, owners of copyright can transfer their economic rights in the work to third parties, in return for payment³⁵.

³¹ See also Article 6 (2) (a) of the Database Directive.

³² See also Article 6 (2) (b) of the Database Directive.

³³ See also Article 6 (2) (c) of the Database Directive.

³⁴ Article 5 (5) of the Copyright Harmonisation Directive (see also Article 6 (3) of the Database Directive). The "three-step test" has its origins in Article 9 (2) of the Berne Convention.

³⁵ The moral rights in a work cannot be transferred as they are personal to the author. It should be noted, however, that the author of a work may not necessarily also be the owner of the copyright. For instance, if the work is created by an author who is employed for the purpose of creating that work, the employer

54. Such payment (“royalties”) is usually made dependant on the actual use of the work by the third party. Copyright owners will usually not “sell” their copyright as such (*i.e.* transfer their property rights), but will use licensing. In relation to copyright, licensing means that the owner of the copyright retains ownership but authorises a third party (on an exclusive or non-exclusive basis) to carry out certain acts covered by his economic rights, generally for a specific period of time and for a specific purpose which is defined in the licence agreement³⁶.
55. As discussed above, where marine environmental data is covered by copyright, the data centre that supplies the data may require the execution of a licence agreement including provisions on the protection of its copyright in the data.
56. Sometimes the ownership of the IPR in data can be mixed. For instance, the IPR in certain data sets may be held by a public sector body but may include data for which the IPR are held by a (private) third party supplier (for instance, photographs or satellite images). In that case, the public sector body may only be able to grant user rights for the part of the data in which it holds the IPR. For the other parts, applicants may first need to clear their access and re-use rights with the relevant rights holder (provided the public sector body would not itself be authorised by that rights holder to directly clear this – e.g. through licence terms).

2.1.2 Patents

57. Patents protect the rights of inventors. Simply put, a patent is the right granted to an inventor by a national or regional patent office (e.g. the European Patent Office in Munich), which allows the inventor to exclude anyone else from commercially exploiting the invention for a limited period (generally 20 years).
58. In return for this exclusive right, the inventor must adequately disclose the patented invention to the public (this will be an essential requirement of the patent application process). Again, there are harmonising legal instruments at: (i) international level, namely the Paris Convention for the Protection of Industrial Property of 20 March 1883, as revised at Stockholm on 14 July 1967 (the Paris Convention and the Patent Cooperation Treaty, Washington, 19 June 1970, (the PCT); and (ii) European Economic Area (EEA) level in the form of the European Patent Convention (Munich) 1973, as revised (the EPC).³⁷
59. However, the importance of patents with regard to the issue of access to and re-use of marine environmental data is probably rather low. Marine environmental data are not patentable as such, while “presentations of information” are deemed not to constitute an invention under the EPC (and are thus excluded from patentability)³⁸.

will be the owner of the copyright (*i.e.* the economic rights) in the work (where this is allowed under local copyright law).

³⁶ Copyright holders will of course not want to lose the commercial value of the data through unauthorised or uncontrolled use or distribution of the data by third parties.

³⁷ The EPC sets out the patentability requirements for all Member States, but patent enforcement remains a matter for national law.

³⁸ Article 52 (2) (d) of the EPC (and equivalent provisions in Member States’ patent laws).

It is therefore unlikely that patent law would form a real barrier to the availability and use of marine environmental data as such³⁹.

2.1.3 Trademarks

60. The same can probably be said for trademarks. A trademark is a sign or combination of signs⁴⁰ which distinguishes the goods or services of one enterprise from those of another (in connection with the marketing of those goods or services).
61. In order to benefit from protection, trademarks are to be registered (for instance, as a Community trademark with the Office for Harmonisation in the Internal Market (OHIM), Trade Marks and Designs Registration Office, in Alicante).
62. As with other types of IPR, trademark law has been harmonised to a certain extent at international⁴¹ and EU level⁴².
63. The owner of a registered trademark has an exclusive right to use the mark and to prevent unauthorised use of the mark (or a confusingly similar mark) by third parties. The period of protection may vary, but trademarks can be renewed indefinitely on payment of corresponding registration fees. Enforcement is usually done through the courts which may block trademark infringements. Trademark owners may contractually license their trademark to third parties (e.g. for the provision of goods or services under the trademark).
64. As with patent law, it does not seem very likely that trademark law poses much of a barrier to the availability and use of marine environmental data.
65. Trademarks may be relevant if marine environmental data is available in the form of a product or service for which a specific trademark has registered and users intend to market or distribute such “marine data” product or service (e.g. in combination with another product or service).
66. Such “re-users” might then have to commit to contractual licence terms with regard to the use of the licensor’s trademark (e.g. to use it only in accordance with the instructions of the licensor, not use it in connection with other trademarks, use it only for specified purposes or activities, etc.).
67. In that case, the restrictions originating from trademarks will essentially be similar to those originating from copyright: the user of the data will have to comply with contractual IPR provisions restricting his possibilities to freely use and disseminate the data.

³⁹ Patent law is more likely to be relevant for the methods and processes that are developed for the collection or the processing of marine environmental data.

⁴⁰ These can be words, letters, numerals, pictures, shapes, colours, etc.

⁴¹ The Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks (Madrid, 27 June 1989) (the Madrid Protocol) and the Singapore Treaty on the Law of Trademarks, Regulations and Supplementary Resolution by the Diplomatic Conference (Singapore, 27 March 2007) (not yet in force) (the Singapore Treaty).

⁴² Council Regulation (EC) No 40/94 of 20 December 1993 on the Community trade mark.

2.1.4 Data ownership

68. It follows from the foregoing that IPR held in marine environmental data constitute a potential legal barrier to the free access and dissemination of data and thus to the improvement of data flows.
69. This also clearly appears from the analysis of the legal framework in relation to the access to environmental data and the re-use of public sector information where IPR are explicitly referenced as potential grounds for the refusal of access to data (for a detailed analysis, see below, 2.2)⁴³.
70. In relation to IPR held in data, it is useful to make a preliminary distinction between the “data holder” (*i.e.* the person “physically” holding the data) and the “data owner” (*i.e.* the person holding IPR in the data).
71. The data holder is not necessarily also the data owner and may therefore be unable to grant access to the data or to make the data available for re-use without the authorisation or consent of the owner of the IPR⁴⁴.
72. Third parties may then have to re-direct their request for access or re-use of the data to the relevant right-holder.
73. For instance, data (including the potential IPR in those data) do not always belong to those who have collected it or who are processing it. They may belong to the employer of the person or to the (public or private) organisation that has paid for the data collection (by, for example, commissioning and funding the research that led to the collection and processing of the data).
74. The “data owner” has the right to exploit the data (or to not exploit it). This implies the right to use, sell, disseminate, and even destroy the data and thus also the right to define the conditions for access to and (re-)use of the data by third parties.
75. In the case of data held by an organisation the rules regarding the use and exploitation of data will generally be the subject of a data policy setting out the rules and procedures to be observed by the members of the organisation when dealing with the data.
76. Data owners are basically free to authorise the (re-)use of the data in accordance with their own data policies. Public sector data owners, however, will have to

⁴³ For instance, Member States may provide for a request for environmental information to be refused if disclosure of the information would adversely affect intellectual property rights. Also, Community institutions are required to refuse access to a document where disclosure of that document would undermine the protection of commercial interests of a natural or legal person, including intellectual property. In addition, the PSI Directive does not apply to documents for which third parties hold intellectual property rights.

⁴⁴ This is also reflected, to a certain extent, in the legal framework in relation to the access to environmental data and the re-use of public sector information (see below). For instance, under the legal regime governing the re-use of public sector information, if an applicant’s request for re-use is refused based on the protection of the IPR of third parties, public sector bodies need to include a reference to the (natural or legal) person who is the holder of those rights (where known), or to the licensor from which the public sector body obtained the relevant material.

ensure that their data policies are compliant with the legal framework on the re-use of public sector information (in case they would be affected by and decide to make the data available under this regime)⁴⁵.

77. In addition, public sector owners of environmental data will have to ensure that their data policy takes into account the specific legal framework on the access to environmental information⁴⁶.
78. As with other types of property, IPR may be jointly owned by two or more natural or legal persons. Data ownership (and the subsequent exploitation of the data) can become a complex issue when the data collection was jointly funded by several organisations.
79. All parties involved will then have to agree on the way the data will be exploited (or not) and how benefits deriving from such exploitation will be allocated. Usually, contractual arrangements will be made between the organisation(s) funding the data collection and the relevant data collectors in order to establish the ownership rights (i.e. the IPR) in the data.

2.1.5 Licences

80. If right holders decide to make the data available to third parties, their relevant data policies will generally recommend or impose the use of a formal licence agreement to control the release and further use of the data.
81. Data owners have the ability to establish such formal licence agreements for the (re-)use of their data⁴⁷.
82. A licence is a contractual document whereby a person (usually described as “the licensor”) grants permission to another person (usually described as “the licensee”) to use the data in respect of which the data owner holds the IPR.
83. The licence will govern the further use (and dissemination) of the data by the licensee who will be obliged to observe the conditions and restrictions contained in the licence.
84. It is important to note that data owners usually do not “sell” data or the IPR they hold in that data. Instead they only “sell” a right to use the data (subject to the licence conditions) and, for that purpose, provide access to the data.
85. The property rights in the data will explicitly remain with the data owner/licensor. Indeed a licence may require the licensee to either destroy or return the data to the licensor upon termination of the licence agreement⁴⁸.

⁴⁵ See below, 2.2.4.

⁴⁶ See below, 2.2.1 and 2.2.2.

⁴⁷ Public sector data owners will of course have to comply with the specific requirements contained in the access and re-use legislations (see below, 2.2.4).

⁴⁸ Such termination can occur upon the expiry of the agreed term of the licence or following a termination by one of the parties (e.g. for breach of the licence terms by the other party). The types of

86. A licence to use data, like many other types of contract, can be created in a number of different ways.
87. Licences may take the form of a standard contract to which applicants can adhere (e.g. a click-licence for data that are made accessible on the internet), or may be (to a certain extent) open for negotiation on an individual basis⁴⁹.
88. Sometimes, data are made available for re-use subject to a mere “legal notice” or a “disclaimer”⁵⁰.
89. This will especially be the case if data are made available on a “without conditions” basis, i.e. free of charge and without any specific re-use restrictions to be observed (although users will typically be required to always acknowledge the data source).
90. Sometimes clicking on a webpage or using a web-site is sufficient. In the context of software simply opening the wrapper is deemed to provide evidence of agreement by the user (licensee) to be bound by the licence conditions.
91. Licence agreements will usually address all the issues that are relevant to control the dissemination and further use of the data that are made available. This may include provisions on liability⁵¹ and the proper use of the data (non-alteration of the information etc.). Public sector bodies making information available under the re-use legal regime (which is discussed in more detail below) will need to ensure that their licence conditions (including their provisions on pricing) are fair and transparent and do not unnecessarily restrict competition or the possibilities for re-use⁵².
92. Commercial data suppliers will normally grant the licence subject to the payment of a market-based licence fee. Public sector data owners will have to observe the specific rules in relation to charging contained in both the legal framework for the re-use of public sector information⁵³ and the access regime for environmental data⁵⁴. This also includes observance of the transparency rules that are prescribed in relation to charging in such cases.
93. Typically, licences will contain provisions on the uses to which the data may be put by the licensee.

condition are considered in more detail in Part Five below in connection with marine environmental data.

⁴⁹ For instance, under the legal regime applicable to the re-use of public sector information, it is explicitly provided that standard re-use licences may be established by the Member States, but that these licences should be open to adaptation “to meet particular licence applications” (see below, 2.3.4).

⁵⁰ See for instance http://ec.europa.eu/information_society/policy/psi/reuse_legal_notice/index_en.htm or http://ec.europa.eu/geninfo/legal_notices_en.htm#disclaimer with regard to the re-use of information available on the Europa portal website.

⁵¹ Typically, the data supplier will want to exclude any liability towards the licensee or third parties for damages incurred through the use of the data by the licensee.

⁵² See also below, 2.2.4.

⁵³ See below, 2.2.4.

⁵⁴ See below, 2.1.1 and 2.2.2.

94. For instance, licences may provide that the licensee may not use the data for commercial purposes (e.g. to provide a data service to third parties) or for other purposes than explicitly stated in the licence (except as otherwise agreed in writing with the licensor), e.g. exclusive internal use or another specified use.
95. Licences may also contain provisions with regard to the confidentiality of the data (for instance, prohibiting the disclosure of the data to any person who does not need the data for the specific purpose allowed under the licence). Of course, access and use restrictions will more frequently occur (and may have a wider scope) in licence agreements concluded with (private or public) organisations supplying data on a commercial basis (which obviously need to protect their commercial interests in the data) than in licences with public authorities or governmental agencies.
96. Licences will also specifically address the protection of the data supplier's IPR in the data. These IPR provisions may of course affect the licensee's possibilities to use and disseminate the data as he will be required to comply with the restrictions imposed by these provisions (for instance, not reproduce or distribute any copyrighted data without the prior consent of the right-holder or at all times display the copyright notice of the data supplier).
97. Obviously, in cases where marine environmental data are involved, the aforementioned contractual commitments may seriously impact on the ability of the licensee to re-use and disseminate such data⁵⁵.
98. As a general rule, users sourcing marine environmental data under a licence agreement need to be aware that the conditions imposed by the licence may significantly restrict their ability to freely use the data or share them with other recipients. At least, the use and further sharing of any such data may be subject to the prior authorisation or consent of the supplier of the data (and of the rights holder, in case this would be a different person or entity).

2.1.6 Data policies

99. Data centres may of course also voluntarily waive the exploitation of their IPR. In fact, the approach to IPR (*i.e.* the extent to which it is claimed) may be significantly different depending on the nature of the relevant data centre.
100. Public authorities and governmental agencies may take a much more open or "liberal" approach to IPR than private sector data providers (who will keep their IPR tightly controlled for commercial reasons). The level of IPR restrictions may of course also be directly related to the (potential) commercial value of the data and the costs incurred in the collection of the data.
101. Public sector data centres often also seem to differentiate depending on the nature of the applicants, e.g. grant free and unrestricted access to the data for scientific research or other non-commercial uses, while restricting access for purely commercial re-use. Nevertheless, specifically in relation to marine

⁵⁵ Moreover, a breach of the relevant contractual obligations could expose the licensee to a potential termination of the agreement and liability.

environmental data, access will be significantly influenced by existing access regulations, as will be analysed below (see Box 2.2).

Box 2.2: Encouraging the adoption of data policies

In a recent recommendation⁵⁶, the European Commission specifically encouraged universities and public research organisations to establish and publicise policies and procedures for the management of their IPR (including rules to promote the identification, exploitation and (“where appropriate”) protection of their IPR, with a view of maximising the socio-economic benefits). Universities and public research organisations are also invited to develop and publicise a publication and dissemination policy to promote the broad dissemination of research and development results (while keeping any delays due to the protection of IPR to a minimum). With regard to the transfer of IPR held by the research institutions, the Commission recommends the development and publication of a licensing policy (which may include “adequate compensation”, financial or otherwise, for the granting of exploitation rights).

In its 2007 Principles and Guidelines for Access to Research Data from Public Funding⁵⁷, the Organisation for Economic Co-operation and Development (OECD) also recommended research institutions to specifically address IPR when establishing data access arrangements, with a view of facilitating broad (non-commercial) access to research data while at the same time protecting the commercial interests of the research institution (through schemes of delayed or partial access or the adoption of a licensing mechanism). The public sector holders of IPR in research data are nevertheless invited to facilitate access to the data, particularly for public research and other public-interest purposes.

2.2 Instruments that promote access to environmental data and the re-use of environmental data

102. Although such legal instruments are generally designed to *facilitate* data access, they may also contain specific exceptions, conditions or grounds for *refusal* of access. The relevant legal framework with regard to access to environmental information held by public authorities mainly consists of the following instruments:

2.2.1 The Aarhus Convention

103. The Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (the “Aarhus Convention”) was concluded at Aarhus in Denmark on 25 June 1998 under the auspices of the United Nations Economic Commission for Europe.⁵⁸

104. The Aarhus Convention aims at granting the public rights and imposing obligations upon public authorities regarding access to information and public participation and access to justice regarding environmental matters. The EC and the Member States are party to the Aarhus Convention.⁵⁹

⁵⁶ Commission Recommendation on the management of intellectual property in knowledge transfer activities and Code of Practice for universities and other public research organisations, C/2008/1329 of 10 April 2008.

⁵⁷ Available on: <http://www.oecd.org/dataoecd/9/61/38500813.pdf>.

⁵⁸ 38 *ILM* (1999), 517.

⁵⁹ The Aarhus Convention was approved by the EC on 17 February 2005 by Council Decision 2005/370/EC, *OJL* 124 of 17 May 2005.

105. In connection with the implementation of the Aarhus Convention, a number of instruments have been adopted at Community level including the directive and regulation that are considered in the following sections.

2.2.2 The Environmental Information Directive

106. Directive 2003/4/EC of 28 January 2003 on public access to environmental information and repealing Council Directive 90/313/EEC (“the Environmental Information Directive”)⁶⁰ seeks to make Member States’ laws on access to environmental data consistent with the Aarhus Convention.⁶¹

107. The objective of the Environmental Information Directive is to guarantee the right of access to environmental information held by, or for, public authorities and to set out the basic terms and conditions of, and practical arrangements for, the exercise of this right of access.

108. In addition, the Environmental Information Directive aims to ensure that environmental information is actively and progressively made available and disseminated to the public in the widest possible sense (in particular through the use of information and communication technologies).

109. The effect of the Environmental Information Directive is that Member States must ensure that their public authorities are required to make available environmental information held by or for them to any “applicant” requesting for that information and without the applicant having to state an interest⁶².

110. The term “applicant” means “any natural or legal person requesting environmental information”⁶³.

111. “Environmental information” is broadly defined as follows⁶⁴:

Any information in written, visual, aural, electronic or any other material form on:

(a) the state of the elements of the environment, such as air and atmosphere, water, soil, land, landscape and natural sites including wetlands, coastal and marine areas, biological diversity and its components, including genetically modified organisms, and the interaction among these elements;

(b) factors, such as substances, energy, noise, radiation or waste, including radioactive waste, emissions, discharges and other releases into the environment, affecting or likely to affect the elements of the environment referred to in (a);

(c) measures (including administrative measures), such as policies, legislation, plans, programmes, environmental agreements, and activities affecting or likely to affect the elements and factors referred to in (a) and (b) as well as measures or activities designed to protect those elements;

(d) reports on the implementation of environmental legislation;

(e) cost-benefit and other economic analyses and assumptions used within the framework of the measures and activities referred to in (c); and

⁶⁰ OJL 41/26 of 14 February 2003.

⁶¹ Member States had to implement the Environmental Information Directive by 14 February 2005.

⁶² Article 3 (1) of the Environmental Information Directive.

⁶³ Article 2 (5) of the Environmental Information Directive.

⁶⁴ Article 2 (1) of the Environmental Information Directive.

(f) the state of human health and safety, including the contamination of the food chain, where relevant, conditions of human life, cultural sites and built structures inasmuch as they are or may be affected by the state of the elements of the environment referred to in (a) or, through those elements, by any of the matters referred to in (b) and (c).

112. Marine environmental data may thus be included in the scope of the Directive.

113. The Environmental Information Directive applies to environmental information held by “public authorities”. Such entities are broadly defined as⁶⁵:

- (a) government or other public administration, including public advisory bodies, at national, regional or local level;
- (b) any natural or legal person performing public administrative functions under national law, including specific duties, activities or services in relation to the environment; and
- (c) any natural or legal person having public responsibilities or functions, or providing public services, relating to the environment under the control of a body or person falling within (a) or (b).

114. The definition encompasses government or public administrations whether or not they have specific responsibilities for the environment. It is further provided⁶⁶ that Member States may exclude from the definition “bodies or institutions acting in a judicial or legislative capacity”.

115. The Environmental Information Directive applies to information held by a public authority (*i.e.* information in its possession which was produced or received by that authority), as well as information held for a public authority (*i.e.* information which is physically held by a natural or legal person on behalf of a public authority).

116. Environmental information should be made available to applicants as soon as possible and within a reasonable time and having regard to any timescale specified by the applicant⁶⁷. Public authorities should make the information available in the form or format requested by the applicant unless it is already publicly available in another form or format or it is reasonable to make it available in another form or format. In addition, public authorities should be required to make all reasonable efforts to maintain the environmental information held by or for them in forms or formats that are readily reproducible and accessible by electronic means⁶⁸.

117. Member States are required to determine the practical arrangements under which environmental information is effectively made available. This includes the designation of information officers, the availability of publicly accessible lists of public authorities and registers or lists of environmental information held by or for public authorities. Member States’ public authorities also need to adequately inform “the public” (which includes associations, organisations and groups of persons) of the rights they enjoy as a result of the Environmental Information Directive and provide information, guidance and advice to this end⁶⁹.

⁶⁵ Article 2 (2) of the Environmental Information Directive.

⁶⁶ In Article 2 (2).

⁶⁷ Article 3 (2) of the Environmental Information Directive refers to a maximum period of one month after receipt of the applicant’s request, or two months if the volume and complexity of the information make it impossible to comply with the one month period.

⁶⁸ Article 3 (4) of the Environmental Information Directive.

⁶⁹ Article 3 (5) of the Environmental Information Directive.

118. Pursuant to the Environmental Information Directive, the disclosure of information is the general rule. However, Member States may provide that a request for environmental information can be refused by public authorities in specific and clearly defined cases. This will be the case if one of the exceptions laid down by Article 4 of the Environmental Information Directive is applied. According to this Article, Member States may provide for a request to be refused if:

- (a) the information requested is not held by or for the public authority to which the request is addressed⁷⁰;
- (b) the request is manifestly unreasonable;
- (c) the request is formulated in too general a manner;
- (d) the request concerns material in the course of completion or unfinished documents or data⁷¹;
- (e) the request concerns internal communications, taking into account the public interest served by disclosure.

119. In addition, Member States may provide for a request for environmental information to be refused if disclosure of the information would adversely affect:

- (a) the confidentiality of the proceedings of public authorities, where such confidentiality is provided for by law;
- (b) international relations, public security or national defence;
- (c) the course of justice, the ability of any person to receive a fair trial or the ability of a public authority to conduct an enquiry of a criminal or disciplinary nature;
- (d) the confidentiality of commercial or industrial information where such confidentiality is provided for by national or Community law to protect a legitimate economic interest, including the public interest in maintaining statistical confidentiality and tax secrecy;
- (e) intellectual property rights;
- (f) the confidentiality of personal data and/or files relating to a natural person where that person has not consented to the disclosure of the information to the public, where such confidentiality is provided for by national or Community law;
- (g) the interests or protection of any person who supplied the information requested on a voluntary basis without being under, or capable of being put under, a legal obligation to do so, unless that person has consented to the release of the information concerned;
- (h) the protection of the environment to which such information relates, such as the location of rare species⁷².

120. If the request relates to *emissions* into the environment, Member States' authorities may not rely upon the refusal grounds listed under (a), (d), (f), (g) and (h).

⁷⁰ It is further provided that in such a case, where that public authority is aware that the information is held by or for another public authority, it shall, as soon as possible, transfer the request to that other authority and inform the applicant accordingly or inform the applicant of the public authority to which it believes it is possible to apply for the information requested.

⁷¹ It is further provided that where a request is refused on the basis that it concerns material in the course of completion, the public authority shall state the name of the authority preparing the material and the estimated time needed for completion.

⁷² In certain instances, there may be legitimate reasons to restrict access to data on the location of biological resources for the sake of conservation.

121. It is also explicitly provided in the Environmental Information Directive that the aforementioned grounds for refusal “shall be interpreted in a restrictive way”, taking into account (for each particular case) the public interest served by disclosure (i.e. balance of interest between the application of a refusal ground and the public interest of disclosure). With regard to the exception relating to the confidentiality of personal data, it is explicitly provided that Member States shall ensure that the requirements of the Data Protection Directive are complied with.

Box 2.3 Commission v. France, Case C-233/00

The Court of Justice confirmed that the refusal grounds provided in relation to access to environmental information must be interpreted strictly and are considered to be the subject of an exhaustive list. France was found to have included in its national law a refusal ground which was not explicitly mentioned in the list of exceptions provided in Council Directive 90/313/EEC of 7 June 1990 on the freedom of access to information on the environment (which was repealed by the Environmental Information Directive). France had made it possible for its public authorities to refuse access to environmental data if this would generally prejudice “secrets protected by legislation”. The Court found that, by doing so, France had failed to implement the Directive in a correct way⁷³.

122. The reasons for a refusal should be provided to the applicant in writing or electronically within the time limits laid down in the Environmental Information Directive (see above). The notification must state the reasons for the refusal and include information on the review procedure provided for in accordance with Article 6 (see below.).

123. Public authorities are allowed to make environmental information only partly available where it is possible to separate out any information falling within the scope of the exceptions from the rest of the information requested. Generally, Member States may draw up a publicly accessible list of criteria on the basis of which the authorities concerned may decide how to handle requests⁷⁴.

124. Article 6 of the Environmental Information Directive also provides a right for the applicants to seek an administrative and judicial review of the acts (or the omissions) of a public authority in relation to an information request.

125. Any applicant who considers that his request for information has been ignored, wrongfully refused (whether in full or in part), inadequately answered or otherwise not dealt with in accordance with the provisions of the Directive should have access to a procedure in which the acts or omissions of the public authority concerned can be reconsidered by that or another public authority or reviewed administratively by an independent and impartial body established by law⁷⁵. In addition, applicants should have access to a review procedure before a court of law or another independent and impartial body established by law, in which the acts or omissions of the public authority concerned can be reviewed and whose decisions may become final and binding on the public authority holding the data⁷⁶.

⁷³ Judgement of the Court of Justice of 26 June 2003, Commission v. France, Case C-233/00.

⁷⁴ Article 4 (3) of the Environmental Information Directive.

⁷⁵ It is further specified that such procedures shall be expeditious and either free of charge or inexpensive.

⁷⁶ Member States may also provide that third parties incriminated by the disclosure of information may have access to legal recourse.

126. The Environmental Information Directive also addresses the issue of charges⁷⁷. As a general rule, the Directive allows public authorities to make a charge for supplying environmental data to applicants provided the charge does “not exceed a reasonable amount”⁷⁸. This implies that, generally, charges may not exceed the actual cost of producing the material in question. Where charges are made, public authorities are required to publish and make available to applicants a schedule of such charges as well as information on the circumstances in which a charge may be levied or waived.
127. The Environmental Information Directive provides that advance payments for the supply of the data should be limited. However, in particular cases, where public authorities make available environmental information on a commercial basis, and where this is necessary in order to guarantee the continuation of collecting and publishing such information, a market-based charge is considered to be reasonable and an advance payment may be required⁷⁹.
128. In addition to guaranteeing the public access to environmental information as described above, Member States are also required by the Environmental Information Directive to actively and systematically make available and disseminate environmental information to the public in the widest possible sense⁸⁰. To that end, Member States need to ensure that their public authorities organise the environmental information which is relevant to their functions and which is held by or for them. In particular, Member States need to ensure that environmental information progressively becomes available in electronic databases which are easily accessible to the public (e.g. by creating links to internet sites). The minimum information to be made available and disseminated in such a way is defined in Article 7 (2) of the Environmental Information Directive and includes *inter alia* policies and plans relating to the environment, environmental impact studies and data (or summaries of data) derived from the monitoring of activities affecting, or likely to affect, the environment.
129. The Member States were required to implement the Environmental Information Directive by 14 February 2005⁸¹. They are of course entitled to maintain or introduce any national measures providing for broader access to environmental information than required by the Directive.

2.2.3 The Environmental Information Regulation

130. Regulation 1367/2006/EC of 6 September 2006 on the application of the provisions of the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters to Community institutions and bodies (the Environmental Information

⁷⁷ Article 5 of the Environmental Information Directive.

⁷⁸ Article 5 (1) however stipulates that access to any public registers or lists referred to in the Directive shall be free of charge. The same applies to the *in situ* examination of information by applicants.

⁷⁹ Recital 18 and Article 5 (3) of the Environmental Information Directive.

⁸⁰ Articles 1(b) and 7 of the Environmental Information Directive.

⁸¹ Member States are required to report to the Commission no later than 14 August 2009 on the experience gained in the application of the Directive.

Regulation)⁸² concerns access to environmental information held by Community institutions and bodies.

131. The Environmental Information Regulation contains similar definitions and principles as the Environmental Information Directive⁸³.

132. “Community institution or body” is broadly defined as “public institution, body, office or agency established by, or on the basis of, the Treaty except when acting in a judicial or legislative capacity”. However, the provisions of the Environmental Information Regulation on access to environmental information are also made applicable to Community institutions or bodies acting in a legislative capacity. The definition of “environmental data” is similar to the one in the Environmental Information Directive and may thus include marine environmental data.

133. With regard to access to environmental data, the Environmental Information Regulation is to be read in conjunction with Regulation 1049/2001 of 30 May 2001 regarding public access to European Parliament, Council and Commission documents (the “Transparency Regulation”)⁸⁴ which gives effect to the right of public access to documents and lays down the general principles and limits on such access in accordance with Article 255(2) of the EC Treaty⁸⁵.

134. However, the Aarhus Convention contains provisions that are not, in whole or in part, to be found in the Transparency Regulation, in particular with regard to the collection and dissemination of environmental information. The Environmental Information Regulation aims at addressing these issues.

135. As a general rule, the Transparency Regulation is made applicable to requests by applicants for access to environmental information held by Community institutions and bodies⁸⁶. It is provided that the Transparency Regulation shall apply to any request by an applicant for access to environmental information held by Community institutions and bodies “without discrimination as to citizenship, nationality or domicile and, in the case of a legal person, without discrimination as to where it has its registered seat or an effective centre of its activities”⁸⁷.

136. The applicability of the Transparency Regulation to requests for access to environmental data also includes the applicability of the exceptions (i.e. grounds for refusal of access) provided for in Article 4 of the Transparency Regulation,

⁸² OJ L 264/13 of 25 September 2006.

⁸³ The Environmental Information Regulation, however, has a broader material scope as it also contains rules with regard to public participation in plans and programmes relating to the environment and access to justice in environmental matters.

⁸⁴ OJ L 145/43. For a detailed analysis of the Transparency Regulation, see also Section 6.5.1 of the study on maritime reporting and surveillance data.

⁸⁵ Article 255(2) of the EC Treaty provides a general right of access to European Parliament, Council and Commission documents for “any citizen of the Union, and any natural or legal person residing or having its registered office in a Member State”.

⁸⁶ Article 3 of Environmental Information Regulation.

⁸⁷ The *personal* scope of the Environmental Information Regulation is thus broader than the scope of the Transparency Regulation which grants an access right to the citizens of the EU and all natural or legal persons residing or having their registered office in a Member State (although it is provided that institutions may also grant access to natural or legal persons not residing or not having their registered office in a Member State, subject to the same principles, conditions and limits).

however subject to any more specific provisions contained in Article 6 of the Environmental Information Regulation.

137. Article 4 (1) of the Transparency Regulation allows the institutions to refuse access to a document “where disclosure of that document would undermine the protection of”:

(a) the public interest as regards:

- public security,
- defence and military matters,
- international relations,
- the financial, monetary or economic policy of the Community or a Member State.

(b) privacy and the integrity of the individual, in particular in accordance with Community legislation regarding the protection of personal data.

138. These exceptions are compulsory and absolute: should disclosure of a document cause harm to one of the interests mentioned, then access must be refused.

139. In accordance with Article 4 (2) of the Transparency Regulation, the institutions must also refuse access to a document where disclosure of that document would undermine the protection of:

- commercial interests⁸⁸ of a natural or legal person, including intellectual property⁸⁹,
- court proceedings and legal advice,
- the purpose of inspections, investigations and audits.⁹⁰

140. These exceptions are compulsory but not absolute: they apply unless there is “an overriding public interest in disclosure” (the “public interest test”). This means that the information will have to be made accessible if the balance of interests shows an overriding public interest in disclosure (even if the information could reasonably fall under one of the exceptions).

⁸⁸ This also covers confidentiality agreements concluded by institutions or bodies acting in a banking capacity (cf. recital 15 of the Environmental Information Regulation).

⁸⁹ The purpose of this exception clearly is to protect the business secrets and interests (including reputation) of undertakings which they may have communicated in the context of investigations relating to the observance of Community rules (e.g. competition rules). Interesting guidance on what is meant by terms such as “business secrets” may also be found in the case law of the European Court of Justice or the Court of First Instance (e.g. judgment of the Court of 24 June 1986, AKZO Chemie, Case 53/85 which holds that “it is undoubtedly for the Commission to assess whether or not a particular document contains business secrets” but that undertakings should receive the opportunity to challenge the assessment made by the Commission; or judgment of the Court of First Instance of 18 September 1996, Postbank, Case T-353/94: “business secrets are information of which not only disclosure to the public but also mere transmission to a person other than the one that provided the information may seriously harm the latter’s interests”).

⁹⁰ Statistics show that in most of the cases the Commission refuses access on the basis of the protection of the purpose of inspections, investigations and audits (cf. Report from the Commission on the implementation of the principles in EC Regulation 1049/2001 regarding public access to European Parliament, Council and Commission documents (COM/2004/45 final of 30 January 2004, p. 16, or Report from the Commission on the application in 2006 of EC Regulation 1049/2001 regarding public access to European Parliament, Council and Commission documents (COM/2007/841 final of 20 December 2007, p. 4).

141. In the same way, access to documents drawn up by an institution for internal use or received by an institution, and which relate to a matter where the decision has not (yet) been taken by the institution, must be refused if disclosure of the document would seriously undermine the institution's decision-making process (again, unless there would be an overriding public interest in disclosure)⁹¹.
142. As regards third party documents (for instance, documents of Member State authorities or of private undertakings), the institution must consult the relevant third party with a view to assessing whether one of the exceptions in Article 4 (1) or (2) could apply (unless it is clear that the document must or must not be disclosed)⁹².
143. Also, Member States may request an institution *not* to disclose a document originating from that Member State without its prior agreement⁹³. On the other hand, if Member States receive a request for access to a document in their possession, originating from an institution, they must consult with that institution in order to take a decision that remains in line with the objectives of the Transparency Regulation (unless it is clear that the document must or must not be disclosed)⁹⁴.
144. In addition to the exceptions that the institutions could invoke in order to refuse access to certain information, Article 9 of the Transparency Regulation also contains a specific provision with regard the treatment of "sensitive documents". Sensitive documents are documents originating from the institutions or their agencies, from Member States, third countries or international organisations, which are classified as "TOP SECRET", "SECRET" or "CONFIDENTIAL" in accordance with the data security rules and policies⁹⁵ of the relevant institution and which protect essential interests of the EU or of one or more of its Member States in the areas covered by Article 4 (1) (a) of the Transparency Regulation (notably public security, defence and military matters). Sensitive documents must be released only with the consent of the originator⁹⁶.
145. An institution which decides to refuse access to a sensitive document must give the reasons for its decision in a manner which does not harm the interests protected in Article 4 of the Transparency Regulation. Institutions are also required to make their rules concerning sensitive documents public.

⁹¹ Article 4 (3) of the Transparency Regulation.

⁹² Article 4 (4) of the Transparency Regulation. It should be noted that where a Community institution or body receives a request for access to environmental information which is not held by that Community institution or body, it must, as promptly as possible, but within 15 working days at the latest, inform the applicant of the Community institution or body or the Member States' public authority to which it believes it is possible to apply for the information requested or transfer the request to the relevant Community institution or body or the public authority and inform the applicant accordingly (Article 7 of the Environmental Information Regulation).

⁹³ Article 4 (5) of the Transparency Regulation.

⁹⁴ Article 5 of the Transparency Regulation. See also Case C-64/05 *Sweden, supported by Finland, v Commission supported by Spain* (judgment of 18 December 2007).

⁹⁵ For a further discussion on data security policies, see below, 2.27.

⁹⁶ Sensitive, classified documents are thus as such not *excluded* from the right of access.

146. All these access restrictions thus in principle also apply to requests for environmental information under the Environmental Information Regulation, subject to the specifications provided in Article 6 of the Environmental Information Regulation. For instance, with regard to the exceptions provided in Article 4 (2), first and third indents of the Transparency Regulation⁹⁷ (see above), it is provided in the Environmental Information Regulation that “an overriding public interest in disclosure shall be deemed to exist where the information requested relates to emissions into the environment”.
147. Furthermore, in addition to the exceptions set out in Article 4 of the Transparency Regulation, Community institutions and bodies may refuse access to environmental information where disclosure of the information would adversely affect the protection of the environment to which the information relates, such as the breeding sites of rare species⁹⁸.
148. As a general rule, the grounds for refusal as regards access to environmental information must be interpreted in a restrictive way, taking into account the public interest served by disclosure and whether the information requested relates to emissions in the environment. It is to be noted that the exceptions to the general principle of accessibility provided by the Transparency Regulation are also to be interpreted in a restrictive way.
149. For instance, if only parts of the requested document are covered by any of the exceptions set out in Article 4 of the Transparency Regulation, then the remaining parts of the document must be released. Further, it is provided that the exceptions of the Transparency Regulation shall only apply for the period during which protection is justified on the basis of the content of the document and not longer than a period of 30 years. However, in the case of documents covered by the exceptions relating to privacy or commercial interests and in the case of sensitive documents, the exceptions may, if necessary, continue to apply after 30 years⁹⁹.
150. The European Community case law based on the Transparency Regulation also shows that the exceptions to the right of access need to be interpreted in a (very) restrictive way¹⁰⁰.
151. In addition to regulating the public access to environmental data held by Community institutions and bodies, Article 4 of the Environmental Information Regulation also provides an obligation for these institutions and bodies to actively and systematically make available and disseminate environmental information to the public in the widest possible sense. To that end, Community institutions and bodies are required to organise the environmental information which is relevant to their functions and which is held by them. In particular, Community institutions need to ensure that environmental information progressively becomes available in electronic databases which are easily accessible to the public (e.g. by creating links

⁹⁷ With the exception of investigations, in particular those concerning possible infringements of Community law.

⁹⁸ Article 6 (2) of the Environmental Information Regulation.

⁹⁹ Article 4 (7) of the Transparency Regulation.

¹⁰⁰ By way of example: judgement of the Court of First Instance of 13 April 2005, Verein für Konsumenteninformation, Case T-2/03: “exceptions to the principle of access to documents must be interpreted strictly”.

to internet sites). The minimum information to be made available and disseminated in such a way is defined in Article 4 (2) of the Environmental Information Regulation and includes *inter alia* environmental impact studies, risk assessments and data (or summaries of data) derived from the monitoring of activities affecting, or likely to affect, the environment.

152. Finally, in relation to public access to Community documents, it should be noted that very recently, on 30 April 2008, the Commission issued a Proposal for a (new) Transparency Regulation¹⁰¹. One of the reasons for the review of the existing Transparency Regulation is precisely the adoption of the Environmental Information Regulation applying the Aarhus Convention to the institutions and bodies of the European Community (and the need to bring the Transparency Regulation in line with the Environmental Information Regulation).

2.2.4 The PSI Directive

153. In addition to the (Community and Member State) legislation on access to public information, reference also needs to be made to the legislation concerning the re-use of public sector data. Directive 2003/98/EC of 17 November 2003 on the re-use of public sector information (the “PSI Directive”)¹⁰² provides for minimum rules applicable as to the re-use of public sector information resources in the Member States, while the Re-use Decision (see below, 2.2.5) contains similar re-use principles for information held by the European Commission and on its behalf by the Publications Office of the European Communities.

154. This “re-use legislation” builds upon, and is without prejudice to, the existing access regimes in the Member States. It does not apply in cases in which citizens or companies have to prove a particular interest under the access regime to obtain access to the documents¹⁰³.

155. The PSI Directive defines “re-use” as “the use by persons or legal entities of documents held by public sector bodies, for commercial or non-commercial purposes other than the initial purpose within the public task for which the documents were produced”¹⁰⁴. Exchange of documents between public sector bodies purely in pursuit of their public tasks does not constitute re-use. However, to avoid cross-subsidies, it is stipulated that re-use should include further use of documents *within* the public sector body itself for activities falling outside the scope of its public tasks¹⁰⁵.

156. “Document” is generically defined by the PSI Directive as¹⁰⁶:

¹⁰¹ COM/2008/229 final of 30 April 2008.

¹⁰² OJ L 345/90 of 31 December 2003.

¹⁰³ Article 1 (3) of the PSI Directive.

¹⁰⁴ Article 2 (4) of the PSI Directive.

¹⁰⁵ Activities falling outside the public task will typically include the supply of documents that are produced and charged for exclusively on a commercial basis and in competition with others in the market (cf. recital 9 of the PSI Directive). The PSI Directive does thus as such not exclude the situation where public sector bodies (trans)act themselves in the private or commercial sphere (e.g. resale of data to commercial companies); this situation will then fall under the regime of the PSI Directive.

¹⁰⁶ Article 2 (3) of the PSI Directive; the definition generally covers databases and other information (e.g. meteorological information, maps, traffic data, environmental and hydrographic data, etc.)

- (a) any content whatever its medium (written on paper or stored in electronic form or as a sound, visual or audiovisual recording);
- (b) any part of such content.

157. The re-use legislation may thus also affect marine environmental data where these data are “held by public sector bodies”¹⁰⁷. The term “public sector bodies” is defined as “the State, regional or local authorities, bodies governed by public law and associations formed by one or several such authorities or one or several such bodies governed by public law”¹⁰⁸. In addition, “body governed by public law” is defined as any body:

- (a) established for the specific purpose of meeting needs in the general interest, not having an industrial or commercial character; and
- (b) having legal personality; and
- (c) financed, for the most part by the State, or regional or local authorities, or other bodies governed by public law; or subject to management supervision by those bodies; or having an administrative, managerial or supervisory board, more than half of whose members are appointed by the State, regional or local authorities or by other bodies governed by public law.

158. Public undertakings are not covered by these definitions.

159. It is important to emphasize that the PSI Directive does not require Member States to allow the re-use of public sector information, but states that “where re-use of documents held by public authorities is allowed”, these documents need to be re-usable for commercial and non-commercial purposes in accordance with the conditions laid down in the Directive (and where possible, the documents should then be made available through electronic means)¹⁰⁹. The decision whether or not to authorise re-use, however, remains with the Member States or the public sector body concerned¹¹⁰.

160. The aim of the PSI Directive is to provide a general framework for the conditions governing re-use of public sector documents in order ensure fair, proportionate and non-discriminatory conditions for the re-use of such information. In that respect, the PSI Directive is to be considered as a minimum standard for the facilitation of re-use; Member States are free to adopt more open data policies allowing for a more extensive re-use of public data as provided for in the PSI Directive¹¹¹. The objective is to lower the (legal, economical and technical)

produced, collected and stored by public sector bodies. The definition does not cover computer programmes.

¹⁰⁷ Generally, a document held by a public sector body is a document where the public sector body has the right to authorise re-use (cf. recital 11 of the PSI Directive).

¹⁰⁸ Article 2 (1) of the PSI Directive.

¹⁰⁹ Article 3 of the PSI Directive.

¹¹⁰ The PSI Directive of course aims to encourage public sector bodies to make the documents they hold available for re-use. For instance, Member States need to ensure that practical arrangements are in place to facilitate the search for documents available for re-use, such as assets lists of main documents (accessible preferably online) and portal sites that are linked to decentralised assets lists (Article 9 of the PSI Directive).

¹¹¹ Member States had to implement the PSI Directive by 1 July 2005. Some Member States have implemented the PSI Directive by adopting specific “re-use” laws; others have amended their existing

barriers which individuals or companies may face while developing new cross-border information services and products based on public data resources¹¹².

Box 2.4 Barriers to the use of PSI

Examples of barriers to the re-use of PSI are for instance:

- lack of information on the data that are available and the conditions for the re-use of these data (i.e. lack of re-use “culture” in Member States);
- different administrative rules, traditions and practices in Member States;
- language issues hindering cross-border re-use;
- competition issues (i.e. public sector bodies developing commercial activities in parallel with the fulfilment of their public tasks, but in fact sponsored by public funding);
- exclusivity deals concluded by public sector bodies with certain third parties;
- quality of the available public sector information (e.g. lack of common standards, metadata and quality control).

161. The PSI Directive applies to documents that are made accessible for re-use when public sector bodies license, sell, disseminate, exchange or give out information. This is the main difference with the access to (environmental) information legal regime where information is made available following a specific request from an applicant.

162. Within the framework of this Study, it is important to note that, as a general rule, the PSI Directive does not apply to the following categories of data/documents¹¹³:

(a) documents the supply of which is an activity falling outside the scope of the public task of the public sector bodies concerned as defined by law or by other binding rules in the Member State, or in the absence of such rules as defined in line with common administrative practice in the Member State in question;

(b) documents for which third parties hold intellectual property rights;

(c) documents which are excluded from access by virtue of the access regimes in the Member States, including on the grounds of:

- the protection of national security (i.e. State security), defence, or public security;

- statistical or commercial confidentiality;

(d) documents held by public service broadcasters and their subsidiaries, and by other bodies or their subsidiaries for the fulfilment of a public service broadcasting remit;

(e) documents held by educational and research establishments, such as schools, universities, archives, libraries and research facilities including, where relevant, organisations established for the transfer of research results;

(f) documents held by cultural establishments, such as museums, libraries, archives, orchestras, operas, ballets and theatres.

163. Marine environmental data held by public sector bodies will thus not be affected by the PSI regime if they fall under one of the aforementioned situations, for instance if they are held by public educational or research institutions, or if

transparency or freedom of information laws to incorporate the re-use provisions. By 8 May 2008, all 27 Member States had notified complete transposition of the PSI Directive.

¹¹² “Re-use” under the PSI regime in principle implies that the recipient of the data adds value to the data and develops specific products and services on the basis of the data. The need for expansion of value-added data services is, for instance, also explicitly referred to in the Commission’s Communication with regard to an Integrated Maritime Policy for the European Union (COM/2007/575 final of 10 October 2007, p. 6) and the background paper on EMODnet (p. 12 and p. 16 and further).

¹¹³ Article 1 (2) of the PSI Directive.

third parties would have intellectual property rights on the data¹¹⁴, or if the data would be protected by commercial confidentiality or interests of public security under a Member State's access regime. In that case, Member States could decide, even if they generally allow re-use of public sector data, that these specific data are not to be made available for re-use purposes.

164. It is also provided that the PSI Directive “leaves intact and in no way affects” the existing rules in relation to data protection, and in particular does not alter the obligations and rights set out in the Data Protection Directive¹¹⁵.

165. Article 4 of the PSI Directive further provides a number of requirements with regard to the processing of requests for re-use by the public sector bodies concerned. For instance, public sector bodies are required to respond to requests from applicants “within a reasonable time that is consistent with the time-frames laid down for the processing of requests for access to documents”¹¹⁶.

166. In the request for re-use is refused, public sector bodies are required to communicate the grounds for refusal to the applicant on the basis of the relevant provisions of the access regime in that Member State or of the specific national provisions adopted pursuant to the PSI Directive. If the negative decision is based on the protection of the IPR of third parties, the public sector body needs to include a reference to the (natural or legal) person who is the holder of those rights (where known), or to the licensor from which the public sector body obtained the relevant material¹¹⁷. Negative decisions also need to contain a reference to the means of redress in case the applicant would like to appeal the decision¹¹⁸.

167. With regard to the conditions for re-use, the PSI Directive provides that public sector bodies may allow for re-use without conditions, or may impose conditions through a licence (“where appropriate”)¹¹⁹.

¹¹⁴ Article 4 (5) of the PSI Directive provides that the obligations imposed by it shall only apply insofar as they are compatible with the provisions of international agreements on the protection of IPR, in particular the Berne Convention and the TRIPS Agreement. The IPR of third parties are thus not affected by the PSI Directive. It is specified in recital 22 of the PSI Directive that the term “intellectual property rights” refers to copyright and related rights only (including sui generis forms of protection, such as the database right). The PSI Directive does not apply to documents covered by industrial property rights, such as patents, registered designs and trademarks. It is also provided that the PSI Directive does not affect the existence or ownership of IPR of public sector bodies and that it does not limit the exercise of such rights in any way beyond the boundaries set by the Directive. Public sector bodies are invited, however, to exercise their copyright in a way that “facilitates re-use”.

¹¹⁵ Article 1 (4) of the PSI Directive.

¹¹⁶ Public sector bodies are in particular required, within the specified time frames, to make the document available for re-use to the applicant or, if a licence is needed, to finalise the licence offer to the applicant. Requests are to be processed through electronic means, where possible and appropriate. Where no time limits or other rules regulating the timely provision of documents have been established, public sector bodies are required to process the request and to deliver the documents for re-use (or finalise the licence offer to the applicant) within a timeframe of not more than 20 working days after receipt of the request. This timeframe may be extended by another 20 working days for extensive or complex requests.

¹¹⁷ Article 4 (3) of the PSI Directive.

¹¹⁸ As a general rule, public sector bodies are required to ensure that applicants for re-use of documents are informed of the available means of redress relating to decisions or practices affecting them (cf. Article 7 of the PSI Directive).

¹¹⁹ Article 8 (1) of the PSI Directive.

168. Licences should address relevant issues, such as liability, the proper use of documents, guaranteeing non-alteration and the acknowledgement of source¹²⁰, etc. It is provided that licence conditions should be fair and transparent and may not unnecessarily restrict the possibilities for re-use and must not be used to restrict competition.
169. Licences may, for instance, also include provisions regarding the protection of the data centre's IPR, or an obligation for the licensee to inform the data centre of the results of the re-use and of the prices applied for the services and products that are based on the re-use. The licence may include an audit right for the licensor or an obligation for the licensee to share with the licensor any knowledge gathered through the re-use of the data. The licence can of course also impose obligations onto the licensor, such as warranties with regard to the quality or the timely delivery of the data¹²¹.
170. Where licences are used by Member States, standard licences for the re-use of public sector documents need to be available in digital format¹²². These standard licences must be capable of being adapted to meet particular licence applications. Member States are also required to encourage their public sector bodies to use the standard licences¹²³.
171. It is also explicitly stipulated that public sector bodies should respect competition rules when establishing the principles for re-use of documents. The re-use needs to be open to all potential actors in the market, even if one or more market players already exploit added-value products based on these documents. Exclusive arrangements (such as licences) with third parties are therefore prohibited¹²⁴.
172. By way of exception, it is recognised that an exclusive right to re-use specific public sector information may sometimes be necessary in order to provide a service of general economic interest (for instance, if no commercial publisher would publish the information without such an exclusive right)¹²⁵.
173. The PSI Directive also establishes a number of principles in relation to charging for public sector information¹²⁶. It is stipulated that, where charges are made, "the total income from supplying and allowing re-use of documents shall not exceed the cost of collection, production, reproduction and dissemination"¹²⁷,

¹²⁰ Recital 17 of the PSI Directive.

¹²¹ Cf. recital 12 of the PSI Directive.

¹²² Some Member States have effectively done this, for instance Belgium, where the federal administration made a standard licence agreement available online; it can be consulted on: <http://www.simplification.fgov.be/doc/1140020011-2519.pdf>.

¹²³ Article 8 (2) of the PSI Directive.

¹²⁴ Article 11 (1) of the PSI Directive.

¹²⁵ Article 11 (2) of the PSI Directive; in that case, the validity of the reason for granting the exclusive right shall be subject to regular review (in any event, every three years). Any exclusive arrangements established *after* the entry into force of the PSI Directive shall be transparent and made public, while any *existing* exclusive arrangements shall be terminated at the end of the contract or in any case not later than 31 December 2008 (unless the arrangement would qualify for the "general economic interest" exception of Article 11 (2) of the PSI Directive).

¹²⁶ Article 6 of the PSI Directive.

¹²⁷ Production includes creation and collation, while dissemination may also include user support (recital 14 of the PSI Directive).

together with a reasonable return on investment¹²⁸. Charges should be cost-oriented over the appropriate accounting period and calculated in line with the accounting principles applicable to the public sector bodies involved”.

174. It is provided that any excessive pricing should be precluded and that therefore the recovery of costs, together with a reasonable return on investment, constitutes an upper limit to the charges. Of course, Member States or public sector bodies maintain the right to apply lower charges or no charges at all. In fact, Member States are invited to encourage public sector bodies to make documents available at charges that do not exceed the marginal costs for reproducing and disseminating the documents¹²⁹.
175. In this respect, reference should also be made to the specific provisions of the PSI Directive with regard to transparency and non-discrimination. Article 10 provides that any applicable conditions for the re-use of documents shall be non-discriminatory for comparable categories of re-use. This means, for example, that public sector bodies may exchange information between them free of charge for the exercise of public tasks, whilst charging other parties for the re-use of the same documents. In the same way, public sector bodies may adopt a differentiated charging policy for commercial and non-commercial re-use of the data¹³⁰.
176. However, if documents are re-used by a public sector body as input for its commercial activities which fall outside the scope of its public tasks, the same charges and other conditions shall apply to the supply of the documents for those activities as apply to other users¹³¹.
177. Furthermore, Article 7 of the PSI Directive provides that any applicable conditions and standard charges for the re-use of data must be pre-established and published, through electronic means where possible and appropriate. On request, the public sector body is required to indicate the calculation basis for the published charge, as well as “the factors that will be taken into account in the calculation of charges for atypical cases”.
178. Finally, in relation to the re-use of public sector information, it should be noted that the European Commission is currently assessing the implementation, impact

¹²⁸ This is with due regard to the self-financing requirements of the public sector body concerned, where applicable.

¹²⁹ Recital 14 of the PSI Directive. The background paper on EMODnet (p. 17) provides in that respect that “charging above the virtually zero marginal cost of providing the data is economically inappropriate for government-funded services”. Reference can also be made to Resolution 25 of the World Meteorological Organisation (WMO) on the exchange of hydrological data and products which stipulates that Members should provide to the research and education communities, for their non-commercial activities, “free and unrestricted access” to all hydrological data and products exchanged under the auspices of the WMO. “Free and unrestricted” is defined as “non discriminatory and without charge” (i.e. at no more than the cost of reproduction and delivery, without charge for the data and product themselves). The re-export of hydrological data and products, for commercial purposes, outside the receiving country may however be made subject to certain conditions. Resolution 40 takes a similar approach to meteorological data.

¹³⁰ Recital 19 of the PSI Directive. Public sector bodies may thus in principle charge for the provision of data depending on the use to which the data will be put (e.g. charge higher rates for re-use in commercial applications than for re-use in scientific research). This implies that adequate (contractual) arrangements will be put in place with regard to the restrictions on such use.

¹³¹ Article 10 (2) of the PSI Directive.

and scope of the PSI Directive. It has launched an online public consultation to that effect, the results of which will feed into the review of the PSI Directive which the Commission is required to carry out in 2008¹³².

2.2.5 The Re-Use Decision

179. As the European Commission is also holder of many data of all kinds which could be re-used in added-value information products and services, the Commission has adopted a specific Decision to determine the conditions for the re-use of “documents held by the Commission or on its behalf by the Office for Official Publications of the European Communities (Publications Office)..

180. This is Commission Decision 2006/291/EC/Euratom of 7 April 2006 on the re-use of Commission information (the “Re-use Decision”)¹³³ which contains largely similar definitions and re-use principles as the PSI Directive.

181. The Re-use Decision applies to “public documents authored by the Commission or by public and private entities on its behalf: (a) which have been published by the Commission or by the Publications Office on its behalf through publications, websites or other dissemination tools; or (b) which have not been published for economic or other practical reasons, such as studies, reports and other data”¹³⁴.

182. It does not apply¹³⁵:

- (a) to software or to documents covered by industrial property rights such as patents, trademarks, registered designs, logos and names;
- (b) to documents for which the Commission is not in a position to allow re-use in view of intellectual property rights of third parties;
- (c) to the research results of the Joint Research Centre;
- (d) to documents made accessible to a party under specific rules governing privileged access to documents.

183. The Re-use Decision does not affect the provisions of the Transparency Regulation and should be implemented and applied in full compliance with the data protection rules applicable to the Community institutions (i.e. the Data Protection Regulation 45/2001).

184. With regard to the processing of re-use applications, the Re-use Decision requires the Commission (or Publications Office)¹³⁶ to handle applications

¹³² See Article 13 of the PSI Directive, as well as the online consultation which is available on http://ec.europa.eu/information_society/policy/psi/index_en.htm.

¹³³ OJ L 107/38 of 20 April 2006.

¹³⁴ Article 2 (1) of the Re-use Decision; the exchange of documents between the Commission and other public sector bodies which use these documents purely in the pursuit of their public tasks does not constitute re-use (Article 3 of the Re-use Decision).

¹³⁵ Article 2 (2) of the Re-use Decision.

¹³⁶ Article 11 of the Re-use Decision provides that the power to take decisions on behalf of the Commission on applications for re-use is delegated to the Directors-General and Heads of Service, who need to ensure that their data policies and procedures meet the requirements of the Re-use Decision. To

promptly and to either allow the re-use or indicate (in writing) the total or partial refusal of the application, within 15 working days from registration of the application¹³⁷. Any refusal of the application must state the reasons and must inform the applicant of the right to bring an action before the Court of First Instance of the European Communities or to lodge a complaint with the European Ombudsman. If the refusal is based on the protection of the IPR of third parties, the reply to the applicant must include a reference to the natural or legal person who is the holder of the rights (where known), or alternatively to the licensor from which the Commission has obtained the relevant material (where known)¹³⁸.

185. The Commission services are further invited to limit the need to make individual re-use applications by indicating whether documents are re-usable (e.g. by general notices on web pages)¹³⁹. The search for documents is to be facilitated by practical arrangements, such as asset-lists of main documents available for re-use¹⁴⁰.

186. The Commission may allow the re-use of its data “without conditions” or it may impose conditions, where appropriate through a licence or through a disclaimer¹⁴¹. According to Article 9 of the Re-use Decision, typical conditions for re-use will include “the obligation for the re-user to acknowledge the source of the documents, the obligation not to distort the original meaning or message of the documents, and non-liability of the Commission for any consequence stemming from the re-use”. It is provided that any conditions imposed may not unnecessarily restrict possibilities for re-use.

187. Re-use conditions need to be non-discriminatory “for comparable categories of re-use”¹⁴². The re-use of Commission documents needs to be open to all potential actors in the market and no exclusive rights may be granted, except where such an exclusive right would be necessary for the provision of a service in the public interest. In that case, the validity of the reason for granting such an exclusive right needs to be reviewed on a regular basis (in any event, after three years). Exclusive arrangements are to be made public.

188. With respect to charging, the Re-use Decision provides that “the re-use of documents shall in principle be free of charge”¹⁴³. However, in specific cases, marginal costs incurred for the reproduction and dissemination of documents may be recovered. Also, in cases where the Commission decides to adapt a document in order to satisfy a specific application, the costs involved in the adaptation may be recovered from the applicant¹⁴⁴. Applicable re-use conditions and standard re-use

this end, they shall designate an official to consider applications for re-use and coordinate the response of the Directorate-General or Service.

¹³⁷ Article 5 (3) of the Re-use Decision; in exceptional cases (for example in case of very long documents or a very large number of documents), the time-limit of 15 working days may be extended by another 15 working days.

¹³⁸ Article 5 (5) of the Re-use Decision.

¹³⁹ Article 5 (1) of the Re-use Decision.

¹⁴⁰ Article 8 (2) of the Re-use Decision.

¹⁴¹ For examples of disclaimers, see http://eur-lex.europa.eu/en/editorial/legal_notice.htm#droits or http://ec.europa.eu/information_society/policy/psi/reuse_legal_notice/index_en.htm.

¹⁴² Article 10 (1) of the Re-use Decision.

¹⁴³ Article 7 (1) of the Re-use Decision.

¹⁴⁴ Article 7 (3) of the Re-use Decision; when assessing the need to recover such costs, the Commission is required to take into account the effort necessary for the adaptation as well as the potential advantages

charges need to be pre-established and published (through electronic means, where possible and appropriate).

2.2.6 The INSPIRE Directive

189. In addition, marine environmental data could qualify as spatial information in the meaning of Directive 2007/2/EC of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (“the INSPIRE Directive”)¹⁴⁵ which also contains provisions in relation to access and use of data to be implemented by Member States.
190. The INSPIRE Directive contains specific provisions in relation to access to and use of “spatial data”. The INSPIRE Directive entered into force on 15 May 2007 leaving EU Member States until 15 May 2009 to implement the text.
191. The INSPIRE initiative seeks to trigger the creation of a European spatial information infrastructure that delivers to users integrated spatial information services. These services should allow the users to identify and access spatial or geographical information from a wide range of sources, from the local level to the global level, in an inter-operable way for a variety of uses (including e-commerce applications). The target users of INSPIRE include policy-makers, planners and managers at European, national and local level and the citizens, organisations and enterprises. Possible services are the visualisation of information layers, overlay of information from different sources, spatial and temporal analysis, etc.
192. INSPIRE will be based on the national infrastructures for spatial information that are created by the Member States and that are made compatible with common implementing rules and are supplemented with measures at EU level. These measures should ensure that the infrastructures for spatial information created by the Member States are compatible and usable in an EU and trans-border context.
193. The INSPIRE Directive imposes a general obligation upon public authorities to make “spatial data” accessible to all possible actors and share them across borders amongst Member States (subject to some exemptions). INSPIRE is relevant for this Study in so far as marine environmental data would qualify as “spatial information” in the meaning of the INSPIRE Directive.
194. As the INSPIRE project is complementary to related policy initiatives, the INSPIRE Directive is explicitly made subject to specific other legal regimes regarding access and dissemination of certain data¹⁴⁶. For instance, there is certainly a degree of overlap between the spatial information covered by the INSPIRE Directive and the information covered by the Environmental Information Directive. In the same way, the objectives of INSPIRE are complementary to those of the PSI Directive. The INSPIRE Directive therefore applies without prejudice to these texts¹⁴⁷.

the re-use may bring to the Communities (for example in terms of spreading information on the functioning of the Communities or in terms of the image of the institution to the outside world).

¹⁴⁵ OJ L 108/1 of 24 April 2007.

¹⁴⁶ Article 2(1) of the INSPIRE Directive.

¹⁴⁷ Recitals 7 and 8 of the INSPIRE Directive.

195. The material scope of the INSPIRE Directive is basically built around the definitions of “spatial data” and “public authority”¹⁴⁸:

2. “**spatial data**” means any data with a direct or indirect reference to a specific location or geographical area;

9. “**public authority**” means:

(a) any government or other public administration, including public advisory bodies, at national, regional or local level;

(b) any natural or legal person performing public administrative functions under national law, including specific duties, activities or services in relation to the environment; and

(c) any natural or legal person having public responsibilities or functions, or providing public services relating to the environment under the control of a body or person falling within (a) or (b) Member States may provide that when bodies or institutions are acting in a judicial or legislative capacity, they are not to be regarded as a public authority for the purposes of this Directive; this opt-out option could be a barrier to dissemination.

196. The INSPIRE Directive applies, therefore, to spatial data held by or on behalf of public authorities and to the use of spatial data by public authorities in the performance of their public tasks. Subject to certain conditions, however, it should also apply to spatial data held by natural or legal persons other than public authorities, provided that those natural or legal persons act under the control of a public authority.

197. Certain spatial data sets and services relevant to Community policies that directly or indirectly affect the environment are, however, held and operated by private third parties or entities.

198. Member States should therefore offer third parties the possibility of contributing to the national infrastructures, provided that this does not impair the cohesion and ease of use of the spatial data and spatial data services covered by those infrastructures.

199. It is important to stress that the INSPIRE Directive shall only cover spatial data sets which fulfill the following conditions¹⁴⁹:

(a) they relate to an area where a Member State has and/or exercises jurisdictional rights¹⁵⁰;

(b) they are in electronic format;

(c) they are held by or on behalf of any of the following:

(i) a public authority, having been produced or received by a public authority, or being managed or updated by that authority and falling within the scope of its public tasks;

(ii) a third party to whom the network has been made available in accordance with Article 12;

(d) they relate to one or more of the themes listed in Annex I, II or III.

200. INSPIRE’s material scope of application is rather broad and could thus seriously affect the use, sharing and processing of marine environmental data, such as for example:

ANNEX I of the INSPIRE Directive:

¹⁴⁸ Article 3 of the INSPIRE Directive.

¹⁴⁹ Article 4 (1) of the INSPIRE Directive.

¹⁵⁰ Excluding e.g. outer space or high seas.

3. Geographical names: names of areas, regions, localities, cities, suburbs, towns or settlements, or any geographical or topographical feature of public or historical interest.
7. Transport networks: road, rail, air and water transport networks and related infrastructure. Includes links between different networks (including the trans-European transport network).
8. Hydrography: hydrographic elements, including marine areas and all other water bodies and items related to them, including river basins and sub-basins.
9. Protected sites: area designated or managed within a framework of international, Community and Member States' legislation to achieve specific conservation objectives.

ANNEX II of the INSPIRE Directive:

1. Elevation: digital elevation models for land, ice and ocean surface. Includes terrestrial elevation, bathymetry and shoreline.
2. Land cover: physical and biological cover of the earth's surface including artificial surfaces, agricultural areas, forests, (semi-)natural areas, wetlands, water bodies.
3. Orthoimagery: geo-referenced image data of the Earth's surface, from either satellite or airborne sensors.
4. Geology: geology characterised according to composition and structure. Includes bedrock, aquifers and geomorphology.

ANNEX III of the INSPIRE Directive:

11. Area management/restriction/regulation zones and reporting units: areas managed, regulated or used for reporting at international, European, national, regional and local levels. Includes dumping sites, restricted areas around drinking water sources, nitrate-vulnerable zones, regulated fairways at sea or large inland waters, areas for the dumping of waste, noise restriction zones, prospecting and mining permit areas, river basin districts, relevant reporting units and coastal zone management areas.
12. Natural risk zones: vulnerable areas characterized according to natural hazards (all atmospheric, hydrologic, seismic, volcanic and wildfire phenomena that, because of their location, severity, and frequency, have the potential to seriously affect society), e.g. floods, landslides and subsidence, avalanches, forest fires, earthquakes, volcanic eruptions.
14. Meteorological geographical features: weather conditions and their measurements; precipitation, temperature, evapotranspiration, wind speed and direction.
15. Oceanographic geographical features: physical conditions of oceans (currents, salinity, wave heights, etc.).
16. Sea regions: physical conditions of seas and saline water bodies divided into regions and sub-regions with common characteristics.
18. Habitats and biotopes: geographical areas characterized by specific ecological conditions, processes, structure, and (life support) functions that physically support the organisms that live there. Includes terrestrial and aquatic areas distinguished by geographical, abiotic and biotic features, whether entirely natural or semi-natural.

201. The description of the aforementioned data themes referred to in Annexes I, II and III of the INSPIRE Directive may be adapted by the Commission in order to take into account the evolving needs for spatial data in support of EU policies that affect the environment¹⁵¹. The Commission shall also be empowered to adopt implementing rules laying down technical arrangements for the interoperability and harmonisation of spatial data sets and services, rules governing the conditions

¹⁵¹ Article 4 (7) of the INSPIRE Directive.

concerning access to such sets and services, as well as rules concerning the technical specifications and obligations of network services¹⁵².

202. The INSPIRE Directive further lays down a number of principles concerning the access to and the sharing of spatial data. The objective of INSPIRE is to assist policy-making in relation to policies and activities that may have a direct or indirect impact on the environment.

203. Therefore, public authorities need to have smooth access to relevant spatial data sets and services during the execution of their public tasks. Such access can be hindered if it would depend on individual ad hoc negotiations between public authorities every time access is required.

204. Consequently Member States are required to take the necessary measures to prevent such practical obstacles to the sharing of data, using for example prior agreements between public authorities¹⁵³.

205. Where a public authority supplies another public authority in the same Member State with spatial data sets and services required for the fulfillment of reporting obligations under Community legislation relating to the environment, the Member State concerned should be free to decide that those spatial data sets and services shall not be subject to any charging. It is provided that the mechanisms for sharing spatial data sets and services between government and other public administrations and natural or legal persons performing public administrative functions under national law should take into account the need to protect the financial viability of public authorities, in particular those that have a duty to raise revenue. In any event, any charges applied may not exceed the cost of collection, production, reproduction and dissemination together with a reasonable return on investment¹⁵⁴.

206. Frameworks for the sharing of spatial data between public authorities upon whom the INSPIRE Directive imposes a duty to share should be neutral (i.e. non discriminatory) in respect of such public authorities within a Member State, but also in respect of such public authorities in other Member States and of the EU institutions. Since the EU institutions and bodies frequently need to integrate and assess spatial information from all the Member States, they should also be able to gain access to and use spatial data and spatial data services in accordance with harmonised conditions¹⁵⁵.

207. In particular, Member States are required to establish and operate a network of the following services for the spatial data sets and services for which metadata have been created in accordance with the INSPIRE Directive¹⁵⁶:

- **discovery services** making it possible to search for spatial data sets and services on the basis of the content of the corresponding metadata and to display the content of the metadata;
- **view services** making it possible, as a minimum, to display, navigate, zoom in/out, pan, or overlay viewable spatial data sets and to display legend information and any relevant content of metadata.

¹⁵² Recital 33 of the INSPIRE Directive.

¹⁵³ Recital 22 of the INSPIRE Directive.

¹⁵⁴ Recital 23 of the INSPIRE Directive.

¹⁵⁵ Recital 25 and Article 17 (8) of the INSPIRE Directive.

¹⁵⁶ Article 11 (1) of the INSPIRE Directive.

208. It is considered important for the successful implementation of an infrastructure for spatial information that a minimum number of services be made available to the public free of charge. Member States are therefore required to make available, as a minimum and free of charge, the services for discovering and, subject to certain specific conditions, viewing spatial data sets¹⁵⁷. By derogation, Member States may allow a public authority supplying a viewing service to apply charges where such charges secure the maintenance of spatial data sets and corresponding data services, especially in cases involving very large volumes of frequently updated data¹⁵⁸.
209. Furthermore, Member States are required to establish and operate a network of the following other services for the spatial data sets and services for which metadata have been created¹⁵⁹:
- **download services**, enabling copies of spatial data sets, or parts of such sets, to be downloaded and, where practicable, accessed directly¹⁶⁰;
 - **transformation services**, enabling spatial data sets to be transformed with a view to achieving interoperability;
 - **services allowing spatial data services to be invoked.**
210. Where public authorities levy charges for the aforementioned services, Member States are required to ensure that e-commerce services are available. Such services may be covered by disclaimers, click-licences or, where necessary, licences¹⁶¹.
211. As a general principle, each Member State is also required to adopt measures for the sharing of spatial data sets and services between its public authorities. Those measures need to enable those public authorities to gain access to spatial data sets and services, and to exchange and use those sets and services, for the purposes of public tasks that may have an impact on the environment¹⁶². The measures need to preclude any restrictions likely to create practical obstacles, occurring at the point of use, to the sharing of spatial data sets and services¹⁶³.
212. Member States may, however, allow public authorities that supply spatial data sets and services to license them to, and/or require payment from, the public authorities or institutions and bodies of the Community that use these spatial data sets and services. Any such charges and licenses must be fully compatible with the general aim of facilitating the sharing of spatial data sets and services between public authorities.
213. Where charges are made, these must be kept to the minimum required to ensure the necessary quality and supply of spatial data sets and services together with a reasonable return on investment, while respecting (where applicable) the

¹⁵⁷ Recital 19 of the INSPIRE Directive.

¹⁵⁸ Article 14 (2) of the INSPIRE Directive.

¹⁵⁹ Article 11 (1) of the INSPIRE Directive.

¹⁶⁰ Those services shall take into account relevant user requirements and shall be easy to use, available to the public and accessible via the internet or any other appropriate means of telecommunication.

¹⁶¹ Article 14 (4) of the INSPIRE Directive.

¹⁶² Article 17 (1) of the INSPIRE Directive.

¹⁶³ Article 17 (2) of the INSPIRE Directive.

self-financing requirements of public authorities supplying spatial data sets and services. Spatial data sets and services provided by Member States to EU institutions and bodies in order to fulfill their reporting obligations under EU legislation relating to the environment cannot be charged for¹⁶⁴.

214. The arrangements for the sharing of spatial data sets and services must be also open, on a reciprocal and equivalent basis, to bodies established by international agreements to which the Community and Member States are parties, for the purposes of tasks that may have an impact on the environment¹⁶⁵.
215. Further, the INSPIRE Directive contains references to possible legal barriers to access or share spatial data, such as IPR held by public authorities or private third parties, data protection regulations and legal restrictions at Member States level.
216. In relation to IPR, it is provided that the INSPIRE Directive does not affect the existence or ownership of public authorities' IPR¹⁶⁶. It remains to be seen in practice whether public authorities throughout the Member States will try to protect their intellectual property and foreclose the recipients targeted by the INSPIRE Directive from access to spatial data.
217. In the case of spatial data sets in respect of which a private third party holds IPR, the public authority may take action under the INSPIRE Directive only with the consent of that third party¹⁶⁷. Here again, it remains to be seen in practice whether private parties will be eager to open up their data sets to the general public (via licences).
218. Further, it is stipulated that the provision of spatial data network services referred to in the INSPIRE Directive should be carried out in full compliance with the principles relating to the protection of personal data. Member States need to ensure that the requirements of the Data Protection Directive are complied with in case the spatial data would contain “personal data” within the meaning of this Directive¹⁶⁸.
219. In addition, the fundamental principles of the INSPIRE Directive may also be weakened by certain allowed restrictions or derogations at Member State level regarding either the access to spatial data by users or the sharing of data amongst public authorities. For instance, Member States may, by way of derogation, limit public access to spatial data sets and services where such access for discovery purposes would adversely affect international relations, public security or national defence¹⁶⁹.
220. In the same sense, Member States may also limit public access to spatial data sets and services through view, download, transformation and other services such

¹⁶⁴ Article 17 (3) of the INSPIRE Directive.

¹⁶⁵ Article 17 (5) of the INSPIRE Directive.

¹⁶⁶ Recital 9 of the INSPIRE Directive.

¹⁶⁷ Article 4 (5) of the INSPIRE Directive.

¹⁶⁸ Recital 24 and Article 13 (3) of the INSPIRE Directive.

¹⁶⁹ Article 13 (1) 1st alinea of the INSPIRE Directive.

as e-commerce services, where such access would adversely affect any of the following¹⁷⁰:

- (a) the confidentiality of the proceedings of public authorities, where such confidentiality is provided for by law;
- (b) international relations, public security or national defence;
- (c) the course of justice, the ability of any person to receive a fair trial or the ability of a public authority to conduct an enquiry of a criminal or disciplinary nature;
- (d) the confidentiality of commercial or industrial information, where such confidentiality is provided for by national or EU law to protect a legitimate economic interest, including the public interest in maintaining statistical confidentiality and tax secrecy;
- (e) intellectual property rights;
- (f) the confidentiality of personal data and/or files relating to a natural person where that person has not consented to the disclosure of the information to the public, where such confidentiality is provided for by national or EU law;
- (g) the interests or protection of any person who supplied the information requested on a voluntary basis without being under, or capable of being put under, a legal obligation to do so, unless that person has consented to the release of the information concerned;
- (h) the protection of the environment to which such information relates, such as the location of rare species.

221. The aforementioned grounds for limiting access are to be interpreted in a restrictive way, taking into account the public interest served by providing access. In every particular case, the public interest served by disclosure is to be weighed against the interest served by limiting or conditioning the access. Also, Member States may not, by virtue of aforementioned points (a), (d), (f), (g) and (h) limit access to information on emissions into the environment¹⁷¹.

222. In addition, where the arrangements for the sharing of spatial data sets and services amongst public authorities are made available, these arrangements may be accompanied by requirements under national law conditioning their use. By way of derogation from this Article, Member States may also limit the sharing of data when this would compromise the course of justice, public security, national defence or international relations¹⁷².

223. In some cases, the *absence* of national regulations in the Member States may restrict access. It is provided that, by way of derogation from the general principle of access to spatial data set forth in the INSPIRE Directive¹⁷³, it shall only cover spatial data sets held by or on behalf of a public authority operating at the lowest level of government within a Member State, if and to the extent that the Member State has laws or regulations requiring their collection or dissemination¹⁷⁴.

224. Finally, it should be noted that the establishment of INSPIRE will represent significant added value for, and will also benefit from, other EU initiatives such as the ‘Global Monitoring for Environment and Security’ programme (GMES)¹⁷⁵.

¹⁷⁰ Article 13 (1) 2nd alinea of the INSPIRE Directive.

¹⁷¹ Article 13 (2) of the INSPIRE Directive.

¹⁷² Article 17 (6) and (7) of the INSPIRE Directive.

¹⁷³ Article 4 (1) of the INSPIRE Directive.

¹⁷⁴ Article 4 (6) of the INSPIRE Directive.

¹⁷⁵ Communication from the Commission to the European Parliament and the Council ‘Global Monitoring for Environment and Security (GMES): Establishing a GMES capacity by 2008 (Action Plan (2004 to 2008)).

225. GMES is a European initiative for the implementation of information services dealing with environment and security. GMES will be based on observation data received from earth observation satellites and ground based information. By observing the main Earth sub-systems (land, air, seas) a number of information services can be developed and used for the definition and monitoring of EU policies in the field of environment and security. These data will be coordinated, analysed and prepared for end-users.
226. Through GMES the state of our environment and its short, medium and long-term evolution will be monitored to support policy decisions or investments. GMES will not only be a tool for EU and national policymakers and governments, but also a set of services for European enterprises and citizens helping to improve their quality of life regarding environment and security.
227. GMES will be built up gradually: it has started with a pilot phase which targets the availability of a first set of operational GMES services by 2008 followed by the development of an extended range of services which meet user requirements.
228. Moreover, by building on these services and adding value to them (possibly using other data and observations), more targeted and customised (tailored) services can be developed addressing for instance health issues, productivity increases and other aspects.
229. GMES will be most certainly relevant for the processing of marine environmental data. Examples of services include oil spills/discharges detection and monitoring at sea.
230. Member States will be obliged to use the data and services resulting from GMES as they become available in accordance with the framework set forth in the INSPIRE Directive¹⁷⁶.

2.2.7 Data security policies

231. Restrictions on the access to marine environmental data may also originate from the rules with regard to the classification of data (data security policy) of the relevant European institutions and bodies and equivalent rules and policies at Member State level. These rules are usually adopted to develop and safeguard activities in areas which require a certain degree of confidentiality.
232. For instance, the sharing of confidential information or data within the Commission or between the Commission and Member States is regulated in the Commission Decision of 29 November 2001 amending its internal Rules of Procedure¹⁷⁷. By this Decision, the Commission adds its “rules on security” to its Rules of Procedure. In Section 4.2 of the Rules on Security, the broad concepts of “EU classified information” (EUCI) and “document” are further defined and clarified.

¹⁷⁶ Recital 10 of the INSPIRE Directive.

¹⁷⁷ OJL 317/1 of 3 December 2001.

233. The term “document” is broadly defined as “any letter, note, minute, report, memorandum, signal/message, sketch, photograph, slide, film, map, chart, plan, notebook, stencil, carbon, typewriter or printer ribbon, tape, cassette, computer disk, CD-ROM, or other physical medium on which information has been recorded”. Marine environmental data could thus fall within the scope of this data security policy.
234. The term “EU classified information” is defined as “any information and material, an unauthorized disclosure of which could cause varying degrees of prejudice to EU interests, or to one or more of its Member States, whether such information originates within the EU or is received from Member States, third States or international organizations”.
235. The Commission imposes four levels of classification of information, whereby no other (external) classifications are permitted, namely:
- (a) “*EU TOP SECRET*”: this classification is applied only to information and material the unauthorized disclosure of which could cause exceptionally grave prejudice to the essential interests of the European Union or of one or more of its Member States;
 - (b) “*EU SECRET*”: this classification is applied only to information and material the unauthorized disclosure of which could seriously harm the essential interests of the European Union or of one or more of its Member States;
 - (c) “*EU CONFIDENTIAL*”: this classification is applied to information and material the unauthorized disclosure of which could harm the essential interests of the European Union or of one or more of its Member States;
 - (d) “*EU RESTRICTED*”: this classification is applied to information and material the unauthorized disclosure of which could be disadvantageous to the interests of the European Union or of one or more of its Member States.
236. The *personal* scope of application of this data sharing policy is also rather wide since the rules with regard to handling EU classified information need to be respected not only within the Commission itself, but also by every institution/persons liaising with the Commission¹⁷⁸. It is stipulated that the rules of security need to be respected by Commission officials and other servants, by personnel seconded to the Commission, as well as within all Commission premises, including its Representations and Offices in the Union and its Delegations in third countries and by contractors external to the Commission.
237. It is further provided that Member States, other institutions, bodies, offices and agencies established by virtue or on the basis of the Treaties shall be allowed to receive EU classified information on the condition that they ensure that, when EU classified information is handled, rules strictly equivalent to the Commission’s rules on security are respected within their services and premises, in particular by:
- (a) members of Member States’ permanent representations to the European Union as well as by members of national delegations attending meetings of the Commission or of its bodies, or participating in other Commission activities;
 - (b) other members of the Member States’ national administrations handling EU classified information, whether they serve in the territory of the Member States or abroad;

¹⁷⁸ Article 2 of the Commission Decision.

- (c) external contractors and seconded personnel, handling EU classified information.
238. Data security policies, such as the one of the Commission referred to above, may imply different degrees of information security and could therefore constitute a possible barrier to the free access and dissemination of marine environmental data, in so far the information would be marked as EU classified information (or equivalent Member State classification). That would trigger the need for those handling the data to comply with the foregoing policy rules.
239. For instance, the Transparency Regulation sets out a specific regime with regard to access to “sensitive information” (i.e. information considered as classified in accordance with the data security policies of the relevant institutions or agencies). In so far as this classified information would contain marine environmental data, the access to such data will obviously be affected by these data security rules (see also above, 102).
240. Data security and classification policies may especially be relevant for the military or State security authorities who, obviously, will not share data if the data is considered classified under their (internal) data security rules.

2.3 Summary

241. In summary the legal position is as follows.
242. Generally, it can be said that IPR can constitute an effective barrier to the free (non-consensual) flow of marine environmental data. This is confirmed by the analysis of the specific legal framework that exists in relation to the access to environmental data and the re-use of public sector information (see above, 2.3).
243. Both areas of law (IP law and the instruments that promote access and/or re-use) allow for the refusal of access to data if such access would be adverse to the protection of IPR.
244. For example, copyright restrictions regarding further reproduction and distribution may still apply to information, even it is covered by the access to environmental information legal regime. As a general rule, where marine environmental data are covered by IPR, applicants may face access and use restrictions which may (or may not) be explicitly stated in the data centre’s data policy and/or laid down in a formal licence agreement.
245. These then are the basic legal rules that govern access to and the use or re-use of marine environmental data.

3 Analysis of a representative sample of marine environmental data

3.1 The Terms of Reference

246. Having examined the legal rules at EC and international level regarding access to, and the use of, marine environmental data, the next question that arises is how is this framework applied in practice?
247. In accordance with the Study ToR, a data collection exercise was undertaken to seek answers to this question. More specifically the ToR called for an investigation of: ‘the rules applied and the legal background to a representative sample of marine data collected and distributed by public or semi-public national or regional organisations, universities (public and private), military bodies, trusts and enterprises’ including situations where private bodies collect data on the basis of public licences or subsidies.
248. For the purposes of the investigation and the discussion that follows, organisations holding relevant marine environmental data are described as ‘data centres’.
249. The ToR further specified that the sampling should aim to cover a spread of organisation types, data types and countries that enable a broad overview on a European scale.
250. How the data collection exercise was performed is described in the following sections together with a summary of findings. The complete set of findings are contained in a separate database that has been supplied to the Commission in accordance with the ToR.

3.2 Countries selected

251. The first question that fell to be answered concerned the countries to be selected for the data collection exercise. Following discussions with the European Commission, and with the agreement of the latter, it was decided to examine the situation in Norway as well as the following six coastal Member States:
- Bulgaria;
 - France;
 - Greece;
 - Poland;
 - Spain;
 - UK.
252. These particular countries were selected for a range of reasons including the fact that they: (a) collectively border each of the main European Seas (the Baltic Sea, the Atlantic Ocean (and North Sea), the Mediterranean Sea and the Black

SEA; (b) include a mix of so-called ‘old’ and ‘new’ Member States; and (c) include the main European legal traditions.¹⁷⁹

253. Norway was included, not only because this country is specifically listed in the ToR, but also because it has a legal regime that has been influential as far as the development of law in this area is concerned.

3.3 Selection of data types

254. The next step was to identify and categorise the types of marine data to be investigated.

255. The following list of data types was provided by the Commission (in the ToR):

- (a) hydrography (bathymetry, coastline);
- (b) geology (sediments, geological substrate, geological hazards (earthquake zones etc), coastal erosion);
- (c) physical oceanography (temperatures, salinity, tides, currents);
- (d) biology (anything living from plankton to whales - except fish) - abundance and diversity);
- (e) fisheries (catch, effort, capacity, discards etc);
- (f) chemistry (pollution, nutrients, sewage etc);
- (g) human activity (oil rigs, gravel extraction, shipping).

256. These data types were next mapped to the existing data categories of the European Directory of Marine Environmental Datasets (EDMED). This was done (a) because much of the data of relevance to the investigation had already of been classified in EDMED; and (b) it was felt that this would help not only in finding data sets for the investigation, but also in enabling comparisons of similar data types to be made across countries. Furthermore as EDMED directory also helps categorises dataset that were not already in the directory by providing examples of how similar data set were classified.

257. The mapping between the data types given by the Commission for the study and the EDMED are shown in the table 3.1.

¹⁷⁹ And also to reflect the make-up and connections of the consortium.

Commission Data Type	EDMED Data Types			
1) hydrography (bathymetry, coastline)	HYDROGRAPHIC SURVEYS (navigation/engineering)	ATLASES & MAPS		
2) geology (sediments, geological substrate, geological hazards (earthquake zones etc), coastal erosion)	GEOLOGY - GEOFYSICS - SEDIMENTATION	COASTAL STUDIES (e.g. shores, estuaries)	SEAFLOOR SAMPLES (e.g. core, dredge, grab)	
3) physical oceanography (temperatures, salinity, tides, currents)	PHYSICAL OCEANOGRAPHY	METEOROLOG Y		
4) biology (anything living from plankton to whales - except fish) - abundance and diversity	MARINE BIOLOGY		SEAFLOOR SAMPLES (e.g. core, dredge, grab)	
5) fisheries (catch, effort, capacity, discards etc)	FISHERIES			UNDERWATER PHOTOGRAPHY
6) chemistry (pollution, nutrients, sewage etc)	OCEAN COMPOSITION			
7) human activity (oil rigs, gravel extraction, shipping)	ENVIRONMENTAL QUALITY/POLLUTION	Accidents/ Response	Maritime Traffic	Shipping/ port information

Table 3.1: Mapping of Commission data types to EDMED data types

3.4 Data collection methodology

258. The data collection exercise was undertaken in two separate stages.

3.4.1 Information gathering stage

259. The first stage was essentially an information gathering exercise. For each selected country a national data analysis consultant, rapidly re-named a 'data hunter', was appointed from the Consortium. The first task of each data hunter was to prepare a comprehensive list of the data centres within the relevant country. In order to ensure, as far as possible, a uniform approach detailed terms of reference and instructions were issued to each data hunter (see Annex B).

260. The data centres were then described, using publicly available information as well as specific enquiries and interviews as necessary, in respect of each data centre. In each case the legal status and funding source of each data centre was identified.

261. Details of 248 data centres were collected, for the seven countries. An example of one of the records is shown in Table 3.2.

Name	Type	Public Ownership
Norwegian Mapping Authority- (NHS)	Hydrographic Service central government (national) executive (management) agency	100
Funding	Mandate	LegalStatus
Publicly funded, central government agency.	Norways national organisation for land surveying, hydrographic surveying and cartography. The main task is to operate national infrastructure of geographical information. Responsible for publishing charts and nautical publications for the coastal and maritime zones around Norway and Svalbard The Norwegian Hydrographic Service has been a division of the Norwegian Mapping Authority since 1986. This means that it is an independent body with responsibility for a separate discipline. The entire division is located in Stavanger. http://www.statkart.no/IPS/?module=Articles;action=ArticleFolder.publicOpenFolder;ID=3552	The Norwegian Hydrographic Service has been a division of the Norwegian Mapping Authority since 1986. This means that it is an independent body with responsibility for a separate discipline. Administred under the Ministry for environment.
		Year Established
		1986

Table 3.2: Example of a record for a data centre

262. The next step was to investigate and report on the data policies of each data centre, with regards to data access and use.

263. The data hunters were therefore asked to obtain answers to the following questions:

- Does the data centre have a formal data policy?
- What does the policy cover, and what does it not cover?
- Is it publically available, if so provide links where possible
- Is there an informal data policy and if so what are its characteristics?
- Is there no data policy?

264. Furthermore, in order to address the issue that, particularly in the larger data centres, different data policies might apply to different categories of data, a separate table in the database was created to relate data policies to particular data sets.

265. The data held by each data centre were then recorded and quantified, with the EDMED classifications being used to record the types of data.

266. A rough estimate of the quantity of relevant data was also made. This estimate was made in two stages: (1) the quantity that the data of that category represented as a percentage of the total amount of data held by the data centre; and (2) the quantity represented by that data as a percentage of the total amount of data in that category held in the country. The estimates of quantity were divided into four

groupings: All (100%); Most (>50-99%); Moderate (>20-<50%); and Small (1-20%).

267. This level of detail was considered necessary in order to be able to justify the sampling across the data categories. The intention was, where relevant, to focus more on long-term data series as opposed to data gathered on the basis of short-term project-funding.

268. A distinction was also made between data that were collected, and available, in real time, or near real time, and data that was archived. An example record for the data holdings of the Norwegian Mapping Authority is shown in Table 3.3.

Data Type	Data Name	Quantity In Data Centre	Quantity In Country	Realtime Data
HYDROGRAPHIC SURVEYS (navigation/engineering)	HYBAS	Most (>50-99%)	Most (>50-99%)	NO
PHYSICAL OCEANOGRAPHY	Water level observation along the Norwegian coast, included Spitzbergen	Small (1-20%)	Moderate (>20-<50%)	NO
COMPUTER MODELS	Sea level data and tide modelling	Small (1-20%)	Moderate (>20-<50%)	NO
HYDROGRAPHIC SURVEYS	Maritime geodata - primary data (shallows, soundings, curves and depth areas, coastline and skerries)	Small (1-20%)	Small (1-20%)	NO
ATLASES & MAPS	Paper charts	Moderate (>20-<50%)	Moderate (>20-<50%)	NO

Table 3.3: Example of a data holdings record

269. After collecting the details of the data holdings of each centre, the data hunters next sought to ascertain how the data is distributed, what restrictions apply to the data, and the availability of the data. The types of restriction were based on the [L081](#) controlled vocabulary of Seadatanet. The details recorded in this section of the investigation related to the information generally available about the distribution of the data. The idea was that the second stage of the data gathering exercise would reveal more information about the practicalities of gaining access to relevant data.

3.4.2 Data gathering stage

270. The next stage in the process was for the data hunters to undertake a sampling exercise. More specifically, the data hunters were required to return to the data centres and ask for specific data sets, and to record their actual experiences of trying to access such data. The data itself was not actually obtained (the Commission indicated that it did not want the data and their and there was anyway no budget for this).

271. A list of specific data sets was provided to the data hunters so that comparisons could be made across the countries, and the data requested was related directly back to the categories provided by the Commission. The specific data sets requested are detailed in Table 3.4.

Type of data	Data to request	Examples of variations to ask for:
1) hydrography (bathymetry, coastline)	Bathymetric profile Navigational charts (with information about wrecks or some other kind of spatial data useful for navigation)	Location: areas with different jurisdiction (for example: In territorial waters, EEZ or other European waters). Timescale: Latest available data and the oldest available data. (pick data at intervals: e.g. 2, 5 and 15 years ago) Instrument: If recorded by different satellites then, just pick different ones. Resolution: Select different resolutions or scales of detail of the data. For example ask for a detailed navigational chart at a local, regional and national level.
2) geology (sediments, geological substrate, geological hazards (earthquake zones etc), coastal erosion)	Seismic profiles for a particular year Sediment cores	Location: areas with different jurisdiction (for example: In territorial waters, EEZ or other European waters). Timescale: Latest available data and the oldest available data. (pick data at intervals: e.g. 2, 5 and 15 years ago) Instrument: If recorded by different satellites or other types of instruments then, just pick different ones.
3) physical oceanography (temperatures, salinity, tides, currents)	CTD profiles (buoy...) recording depth, temperature and Conductivity. Tidal tables Salinity Wind speed and direction Current or drift levels	Time series: Real-time (up to the hour) or archived data. Time scale: Last hour, current month, last 3 months and 6 months data from 2 years ago, from 10 years ago. Instrument: If recorded by different satellites or other types of instruments then, just pick different ones. Location: areas with different jurisdiction (for example: In territorial waters, EEZ or other European waters).
4) biology (anything living from plankton to whales - except fish) - abundance and diversity	Marine mammal. Number of sightings in the past year for a number of species. Zooplankton and/or phytoplankton (abundance and species diversity) recorded Benthic organisms (abundance and species diversity) recorded Location of seagrass beds, mussel beds or other high biodiversity (protected habitats)	Time scale: latest data (for example current month) and older data, (last 3 months and 6 months data from 2 years ago, from 10 years ago). Species: Species with EU or national protection status and other species with no particular 'protection' species. Location: areas with different jurisdiction (for example: In territorial waters, EEZ or other European waters).
5) fisheries (catch, effort, capacity, discards etc)	Landings data (catch landed for a given species) by rectangle for a given year. Acoustic fisheries surveys (population size for a given species)	Time scale: Current month (or latest available data), last 3 months and 6 months data from 2 years ago, 10 years ago. Location: In territorial waters, in the EU

<p>6) chemistry (pollution, nutrients, sewage etc)</p>	<p>Concentration of E coli bacteria for 2007 and for 1997 by month Concentration of suspended matter/water colour (using secchi disk method) for 2007 and for 1997 by month Nutrient concentration (ex: Nitrogen, Phosphorous or Iron)</p>	<p>CFP area and in areas not covered by the CFP (ex: Norway) Species: select 2 or 3 different types of species – for example ones from coastal fisheries and others from deeper water fisheries Time scale: Current month (or latest available data), last 3 months and 6 months data from 2 years ago, 10 years ago. Site: Choose 2 or 3 different coastal areas (beaches) Location: areas with different jurisdiction (for example: In territorial waters, EEZ or other European waters). Instrument: If recorded by different types of instruments then, just pick different ones.</p>
<p>7) human activity (oil rigs, gravel extraction, shipping)</p>	<p>Oil spill records over the last 5 years Radioactivity levels Heavy metal concentrations Shellfish or fish contamination Location of offshore or inshore structures (including wind farms, oil rigs, fish pens etc..). Records of effluent concentration and environmental impact assessment from listed structures. Number of permits granted for aquaculture farms. Number of permits granted for gravel extraction.</p>	<p>Time scale: Current month (or latest available data), last 3 months and 6 months data from 2 years ago, 10 years ago. Site: Choose 2 or 3 different coastal areas (beaches) Location: areas with different jurisdiction (for example: In territorial waters, EEZ or other European waters). Resolution: if different resolutions are available then ask for different ones.</p>

Table 3.4: Specific data requests

272. The purpose of this stage of the investigation was not to obtain a statistically significant sample of data sets to analyse, but rather to try and record the practical difficulties in accessing data in a way such that comparisons could be made across countries.
273. The extra information recorded in the database included: spatial and temporal details of the data; how the request was made; what information was required by the data centre by the person; how long it would take to get the data; the cost, and the reason for the cost; a narrative describing the process; and finally a score out of ten reflecting how easy it was to obtain the data.
274. As well as recording their experiences in the database, the data hunters were asked to provide a short narrative of their experience in carrying out the study.
275. Before turning to the findings, it is appropriate to describe the structure of the database that was created for this Study.

3.5 Database Structure

276. The data hunters were provided with a data base created in Microsoft Office Access¹⁸⁰ in order to directly enter the results of the study.

277. The database, which is one of the outputs specified in the ToR, was also developed in two stages, the initial stage to capture the information on the data centres and the data that they hold, and the second stage to capture the sampling part of the study. Figure 3.1 shows the relationships between the main data tables.

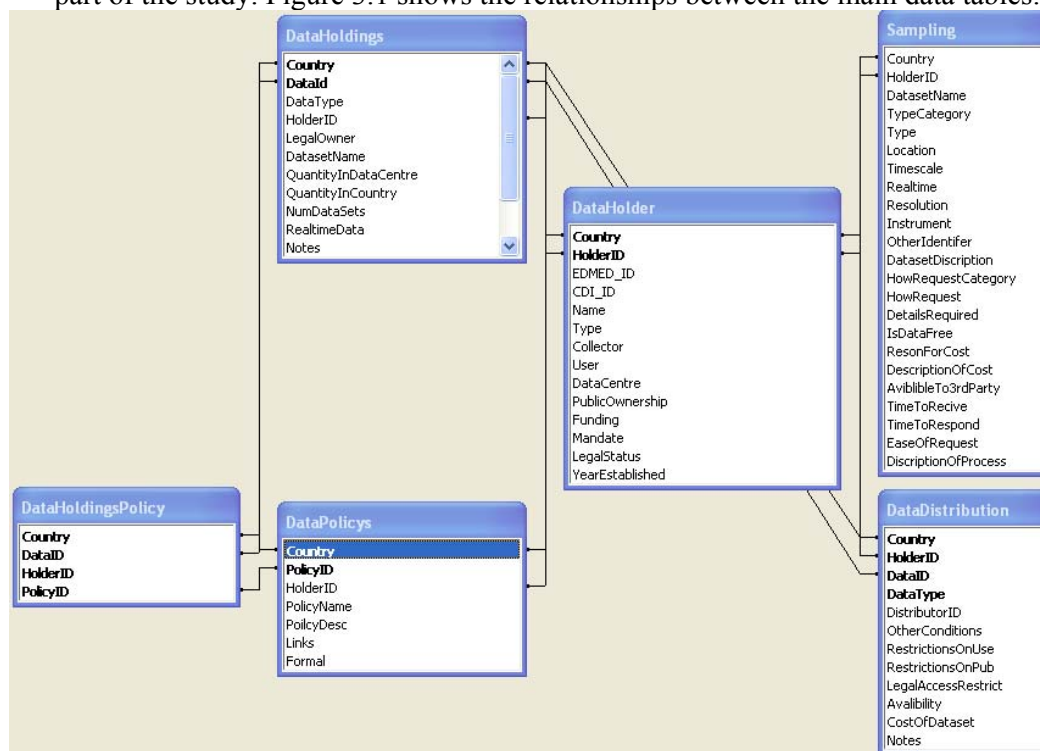


Figure 3.1: The relationship between the main data tables

278. The DataHolder Table is the central table to which all the other table relate, and holds the descriptions of the data centres. All of the relationships between this table and the other tables are ‘one to many’ meaning that one DataHolder record may have many related records in, for example, the DataPolicy or DataHoldings tables.

279. The DataPolicy table holds the descriptive details of the data policies, and indicates whether they are formal policies or not.

280. The DataHoldings table records the types of data held in the data centre and an indication of quantity. It is also possible to link a data holding to another data holder that may be the legal owner of the data.

281. The DataDistribution table is linked to both the DataHolder table and the DataHoldings table, and records how the data record in the DataHoldings table may be distributed.

¹⁸⁰ Microsoft is a Trademark. Microsoft Office Access is copyright.

282. The Sampling table is linked to the DataHolder table, and records the information collected in the second stage of the investigation. It uses the categories proposed by the European Commission of data rather than the EDMED categories.
283. The DataHoldingsPolicy table creates a number of ‘many to many’ relationships between the Datapolicy, and the Dataholdings tables, this allows one or more Dataholdings to be covered by one or more Datapolicy entries, or even the data policy of another data holder.
284. The database also contains several ‘lookup’ tables, but these are not described here as they are not relevant to how the main tables relate to each other.¹⁸¹
285. The database also included a data entry forms to speed up data entry and to allow data to be entered in a consistent manger: a screen capture of the data entry form is shown in Figure 3.2.

Figure 3.2: Data entry form

3.6 Database Analysis

286. The data in the database can be analysed using queries to match up data types with data policies. Some summary information from the database is presented in the following tables. The abbreviations used are as follows:

- BGR / Bulgaria
- ESP / Spain
- FRA / France
- GBR / United Kingdom
- GRC / Greece

¹⁸¹ See Annex D - Description of Database Tables.

- NOR / Norway
- POL / Poland

287. Table 3.5 shows the number of data centres that information was collect for in each country, broken down by the type of organisation. A total of 247 centres are represented in the database, with just over half of these being located in France and the UK. The distribution between types of data centre is more even than the distribution between countries, but public institutions, whether or not they are required to engage in commercial activities or not, are the predominant type of data centre.

Type of organisation	BGR	ESP	FRA	GBR	GRC	INT	NOR	POL	Total
Academic		8	12	5	1		6	4	36
Government Management Agency	1	9	4	3	4		6	5	32
commercial	3	2	3	7			2	1	18
local government	2	2	12	5			3		24
multinational organisation						8			8
non-government organisation	1	2	4	3			3		13
other		1	2	3	1		2		9
publicly institution (commercial activities)	2	1	23	8			2	6	42
publicly institution	11	6	19	12	13		4		65
	20	31	79	46	19	8	28	16	247

Table 3.5 Count of data centres by type

288. Table 3.6 shows the data sets that are held in each country by the type of data. The data types used are the EDMED classifications. Over half of the datasets from which information were collected are located in France and the UK. Spain also has a large number of data sets.

EDMED Data Type	BGR	ESP	FRA	GBR	GRC	INT	NOR	POL	Total
*Accidents/ Response	1	8	1	2	1		3	4	20
*Maritime Traffic	3	7	5	4			6	2	27
*Shipping/ port information	3	6		3				1	13
ATLASES & MAPS	1	11	5	36	3	1	7	10	74
CATALOGUES	1	5	3	2			7	4	22
COASTAL STUDIES	1	14	20	9	6		5	6	61
COMPUTER MODELS		9	2	2	3		7	1	24
ENVIRONMENTAL QUALITY	4	14	23	31	7		13	4	96
FISHERIES	5	11	16	15	2		30	7	86
GEOLOGY	3	12	29	13	4		3	5	69

HYDROGRAPHIC SURVEYS (navigation/engineering)		7	10	6	1		4	3	31
MARINE BIOLOGY	6	22	49	38	5		15	7	142
METEOROLOGY	3	16	20	16	1		4	7	67
OCEAN COMPOSITION	11	17	29	16	7		10	4	94
PHYSICAL OCEANOGRAPHY	3	26	58	42	3	1	7	14	154
REMOTE-SENSING		10	7	4	2		4	2	29
SEAFLOOR SAMPLES		11	4	9	2		3	5	34
UNDERWATER PHOTOGRAPHY		2	2	2			2		8
Total	45	208	283	250	47	2	130	86	1051

* indicates a Data category that is not used in EDMED

Table 3.6 Count of datasets by EDMED categories by country

289. Table 3.7 takes the totals from Table 3.5 and Table 3.6 and shows that data centres in Poland, Spain and the UK tend to have more datasets per centre.

	BGR	ESP	FRA	GBR	GRC	INT	NOR	POL	Mean
Average number of sets per data centre	2.25	6.71	3.58	5.43	2.47	0.3	4.64	5.38	4.2551

Table 3.7 Average number of datasets per data centre

290. Figure 3.3 shows a break-down of the types of organisation that hold data, as well as the percentage of such organisations that have formal data policies in place. Public and government organisations are generally more likely to have formal policies.

291. International organisations also more likely to have formal polices in place. This is likely to be due to the fact such organisations typically gather and collate data from a variety of sources and so need policies in place for procedural reasons.

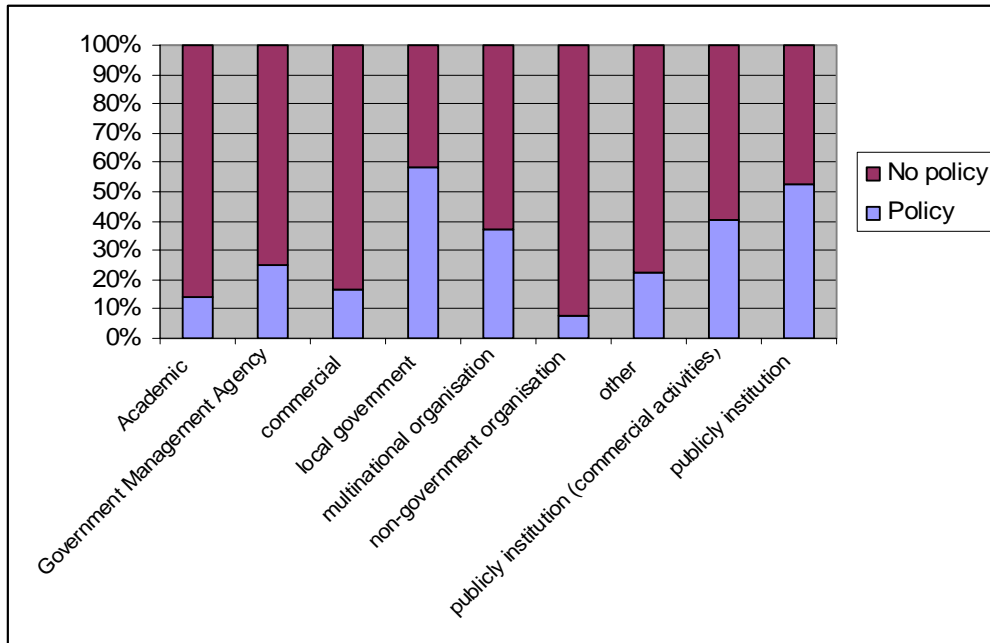


Figure 3.3 percentage split of organisations with and without data policy by type of organisation

292. Figure 3.4 and Figure 3.5 are based on information collected about the distribution of datasets held in the data centres. The restriction types are taken from the controlled vocabularies of SeaDataNet list [LO81](#) Data Access Restriction Policies.

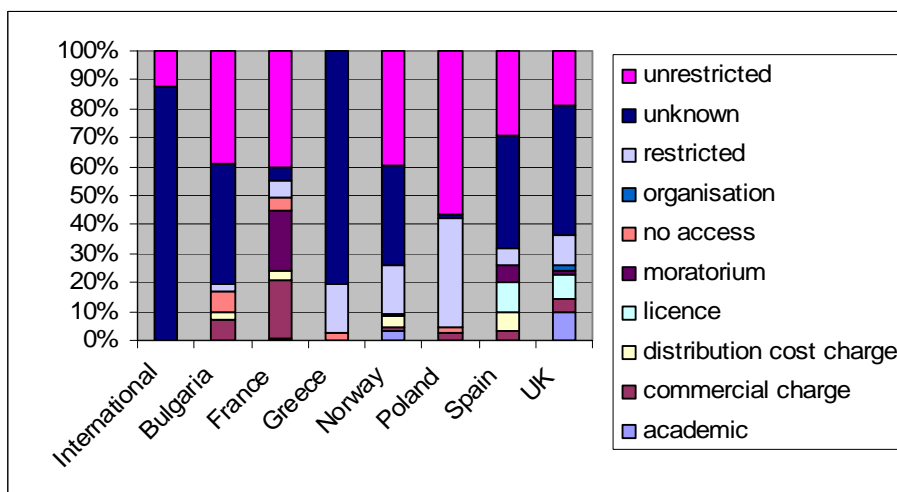


Figure 3.4 Types of restriction of data distribution by country

293. Figure 3.4 shows the types of restriction on the distribution of data from the data centres sampled by country. There are clear differences between countries, particularly with access to unrestricted data.

294. In Poland, for example, there is unrestricted access to roughly half of the data with access to the remainder restricted. In Greece access to the data is either unknown or restricted. In most other countries the situation is more complicated.

Unsurprisingly the countries with a larger number of data sets have a greater variation in how data is may be accessed, but it seems clear that overall France and Spain have freer access to data.

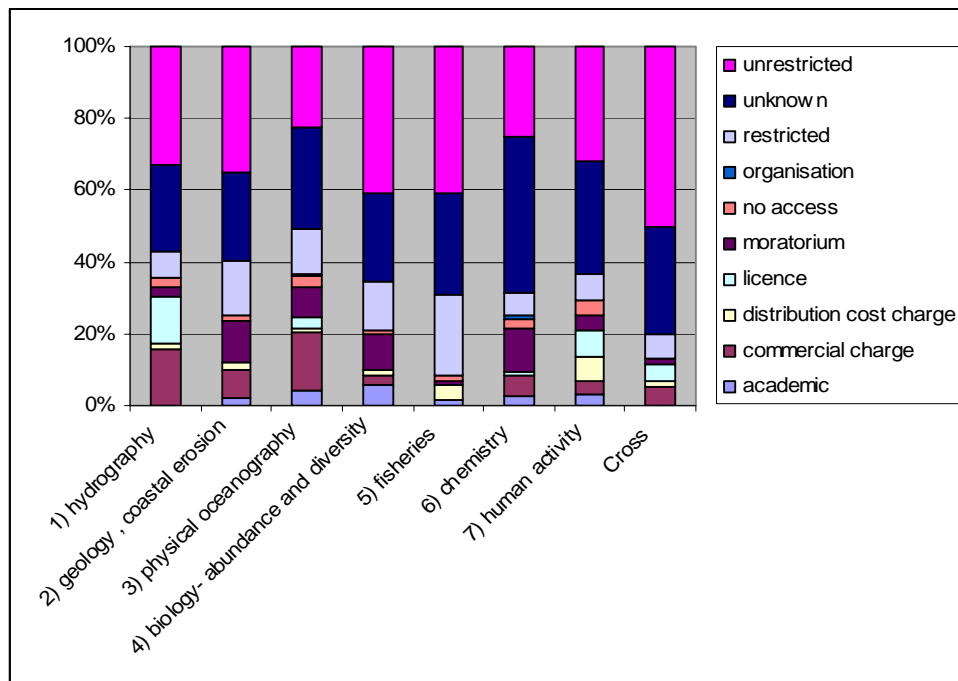


Figure 3.5 Types of restriction of data distribution by Data Type

295. Figure 3.5 is based on the same data as Figure 3.4 but breaks down the restriction by the type of data. The data classifications are the ones used by the Commission, rather than the EDMED types the mapping between the two classifications can be seen in Table 3.1.

296. At first glance some of the result may look surprising. For example that with over 40% unrestricted, the fisheries sector has one of the highest proportions of unrestricted data. However, this sector also has the largest proportion of restricted data. The ratio of unrestricted to restricted data is shown in Table 3.8 Table 3.8 and gives another indication as to the availability of data.

Data Type	Unrestricted /Restricted ratio
1) hydrography	4.5
2) geology, coastal erosion	2.3
3) physical oceanography	1.8
4) biology- abundance and diversity	3.1
5) fisheries	1.8
6) chemistry	4.2
7) human activity	4.3
Cross cutting	7.5

Table 3.8 Ratio of unrestricted to restricted data

297. The second stage of the data collection exercises was to try and determine how easy it was to actually retrieve the data from the data centres. This was a much more qualitative exercise, and the experiences of the data hunters are given in detail in section 3.8.

298. The data hunters were asked to give a score between 1 and 10 on the experience of trying to retrieve the actual data, with 1 being the easiest to get and 10 being the hardest. The scores given are summarised in tables 3.9 and 3.10

Type of organisation	Average Score	Number Sampled
Academic	6.0	17
Government management agency	3.6	29
commercial	5.6	14
local government	4.3	14
non-government organisation	4.1	7
other	4.0	2
publicly institution (commercial activities)	4.6	25
publicly institution	4.0	63

Table 3.9 Ease of sampling scores by type of organisation

299. While the subjective nature of the scoring should be taken into consideration, the higher (*i.e.* lower) score for academic and commercial organisations is not unsurprising. It can also be seen that it is harder to obtain data from public institutions that are required to generate an income from the commercial exploitation of their data holdings than from those which are not.

Data Type	Average Score	Number Sampled
1) hydrography	5.9	22
2) geology , coastal erosion	6.4	17
3) physical oceanography	3.7	46
4) biology- abundance and diversity	3.1	30
5) fisheries	5.4	17
6) chemistry	2.9	23
7) human activity	5.3	16

Table 3.10 Ease of sampling scores by data type

300. The differences between ease of sampling between data types is harder to show, but chemistry, biology and physical oceanography appear to be the easiest types of data to retrieve.

3.7 Analysis and review of the methodology

301. The first stage of the exercise was relatively straight forward. Existing sources of information could be used and much of the information is available electronically: data centres are increasingly placing information on the internet.
302. In the second stage of the exercise it was often necessary to directly contact personnel at the data centres, which indicates that while more and more data is available online, the retrieval of data is still very much a manual process in many places. This manual process caused problems with the sampling stage of the study as in some countries many personnel were on summer leave.
303. The sampling stage was based on the first stage, but did not attempt to be as comprehensive as to the amount of information collected, and concentrated on recording the experience of sampling the data, rather than actually retrieving the data.
304. A more fundamental problem with the sampling stage of the exercise was that access to data depends very much on who is requesting the data. To truly sample the actual access to the data, the data hunters would have had to impersonate a range of potential data users including academic researchers, staff from government institutions, students, non-governmental organisations and commercial companies.
305. The data hunters were instructed to try and explain that the request was for the purpose of an EU study, being carried out by a consultancy company. However a commercial consultancy is the type of organisation that in practice is most likely to face restrictions in accessing the data.
306. As a consequence the information collected during the sampling stage was less empirical than the first stage.

3.8 Summary of trends from each country

307. The following sections summarise the findings of the data collectors and the practical experiences of the data collection exercise.

3.8.1 Bulgaria

308. In Bulgaria, most marine environmental data is held by national institutions with very little data being held by NGOs and academic institutions. The Technical University of Varna is the only academic body involved in marine work, mainly linked to the development of new technologies for remote sensing and pollution control. Consequently the university does not actually collect the relevant data, but instead works in partnership with the Bulgarian Academy of Sciences (BAN - Oceanology Institute).
309. Funding for national research centres is not homogenous across the country. Some institutes rely on public funding while others have become increasingly dependent on external funding from donors and projects. The latter category includes mainly research institutions including those under the National Academy

of Sciences. The National Academy of Sciences currently has an operational budget which is now distributed roughly at a ratio of 30%:70% in favour of project funding, with public funding only covering staff salaries.

310. Other bodies, such as those operating directly under the Ministries of Environment and Waters, Health or Transport, are increasingly proceeding in a similar way. However they seem to be comparatively less commercially-oriented in their data management and use practices. This may be due to the fact that their monitoring mandate requires them to collect the specified data and to produce annual reports which inform government policies. These types of report are generally fully and freely accessible by the public.
311. At both national and regional/local levels of government, there is a lack of a clearly established and formally recognised policy for data use. While publicly funded bodies claim to be obliged to abide by the Law of Public Information, the majority of the scientific and research data which they gather is obtained through the use of externally funded projects or grants.
312. In practice, it seems to be these external sources of funding that allow for the continuation of activities, therefore most institutions have now adopted an *ad hoc*, informal practice of selling part of the information they generate in order to accrue additional revenues. This practice also explains the lack of continuity in some of the collected datasets. Certain types of marine environmental data, such as data on optical marine cables and pipes, could not be found. This may be because such data is collected by external contracted companies and linked to foreign investments.
313. In general, most institutions both public and private do not have their own formal data use policies and there rarely appears to be any written or formal institutional policy document setting out the exact payment scales or procedures used, in cases when fees are applied.
314. The result was that typically when data was requested from an organization, there were no clear procedures for dealing with external data requests and providing access to data. Consequently, charges for releasing data did not seem to be established. Very often data requests had to be addressed in writing to the Director and each request was would be considered individually.
315. The only exception identified in this Study among the state intuitions dealing with marine data, was the Maritime Authority, under the Ministry of Transport which abides by Ministerial Decree 5, setting out the payment structure applied to provision of information to interested parties. However the Decree mainly targets boat registration and inspection taxes, and additional information requests are only referred to in Article 78, which is very general.
316. In addition, rules regarding the nature of publicly available data also seemed to be absent. Most of the institutions interviewed pointed out the lack of external interest in the scientific or statistical data collected, claiming this to be one of the main reasons why there is no formal institutional policy in place.

317. For example, the Fishery Institute in Varna, had not had any recent experience of external data requests. In light of the financial difficulties faced by the Institute, the management team has decided to commercialize research data as a means of raising funds for further research. However, as this new informal policy decision has not yet been tested, the managing director could not respond to the data request before conducting an internal meeting to determine how much to charge for the request and estimate the length of time required to provide the data.
318. For similar reasons, the Institute of Meteorology - Varna, has began charging for data and arbitrarily sets the charge for data depending on the nature of the data requested and the type of body requesting it. Therefore unless a request for data could be put forward with the intention of paying for the service, our data request had to be withdrawn and thus no estimates could be provided. The Institute of Meteorology stated that the charge would vary depending on the data user. For example a wind-turbine company asking for weather patterns data would be charged more than an agricultural SME asking for the same data.
319. In contrast, other public institutions such as the Executive Fisheries and Aquaculture Agency - Sofia, could respond to data requests free of charge and within a 'reasonable' but undetermined time period. The description of the process and time frame stated by the Department of Statistics may however be somewhat optimistic, which from our sources appear to be rather ineffective and slower than suggested.
320. Other institutions, such as the Geology Institute in Sofia, could not provide the requested data sample due to staff changes and a resulting discontinued management of the dataset. The Institute appeared to be unsure of who to contact and how to access the data in question in order to deal with our data request. One of the commercial companies surveyed which is a gas explorer - Melrose Resources Plc., and has specific data of commercial value to their operations make a general overview of gathered geological information for their exploitation sites available online.

3.8.2 France

321. Overall, the situation with regard to availability of data in France was very good, with much of the data sampled being easily retrievable online or by email request, free of charge.
322. This was particularly true of oceanographic, geological and biogeochemical data, including tidal data, seismic data, sediment maps / samples, nutrient and chlorophyll data and bacteriological and radiological analyses. Much of this is attributable into the organisation of this data collection into large national networks, which in turn may be facilitated by the status of many scientific research institutes as part of the civil service – an arrangement more prevalent in France than in most other European countries (see Box 3.1, Case Study 1).

Box 3.1 Case study 1 : Réseau National d'Observation du Milieu Marin (RNO or RNOMV)

This case study was chosen as one of a number of large (countrywide), coordinated data-gathering networks on the marine environment which exist in France. RNO comes under the auspices of the Ministère d'Ecologie, Développement et Aménagement Durable (central government), but data is collected by a network of marine stations around the French coast (north, west and south) and stored by Ifremer. The other main network (SOMLIT) is run by INSU (Institut National des Sciences de l'Univers), with the data again collected by a network of marine stations and housed at a data centre in the University of Bordeaux. Several other such networks exist, including REPHY and RINBIO (which focus on shellfish sanitary issues) and REBENT (benthos) which are both run primarily by Ifremer, and IGA, which focuses on radiological contamination from nuclear power stations. There is significant overlap between these networks as regards the marine labs which collect the data, the sampling sites and (probably) the actual data themselves (in the sense that a given mussel sample from a given site can be analysed for age and growth (for REBENT), E. coli (for REPHY) and caesium-137 (for IGA).

This very 'joined up' approach to data gathering is efficient, and should lead to good availability of data relative to a more piecemeal approach, given that there are a small number of sources to which individuals can go to in the knowledge that the data they want will be available (as compared to approaching individual marine stations or even scientists). This, of course, depends on the data centres making the data easily available. Generally, however, this study has found that much of this data is available – particularly more recent data. For example, RNO data is available via Ifremer on a straightforward download (see <http://www.ifremer.fr/envlit/>), while SOMLIT data is generally available on request to the data centre (by filling in a form on the website).

323. Biological data, such as data on protected species or habitats, was less easily available, perhaps due to the less automated collection system for such data, as well as the lack of large, centrally-controlled networks. Fisheries data was also not easily available.

324. Hydrographic data (e.g. navigational charts) was widely available but more likely to have a charge associated with it. When data was not available, it was sometimes reserved for the use of the scientists or institute who collected it, or alternatively the individuals concerned did not have the time to collate the data in the form requested.

325. The reason was sometimes not clear – frequently (particularly with private companies) there was no response to attempts at contact, and it was impossible to reach anyone by phone who could provide any useful information. It was also found that high tech internet interfaces for searching out and downloading data frequently did not function as they should, although in this case there was often help available from support staff (see Box 3.2, Case Study 2).

Box 3.2 Case study 2: Bureau de Recherches Géologiques et Minières BRGM

This case study was chosen to exemplify a situation which was also found at several other large data centres (e.g. the Ifremer data centre SISMER): an automated public data interface which does not in practice appear to work properly, but which was redeemed by knowledgeable and helpful individuals in the organisation who provided support, usually by email.

In this case, the public interface is 'Infoterre' (<http://infoterre.brgm.fr/>). This provides a list of data available including numerical data (<http://www.brgm.fr/numerique.jsp>), which in theory can be downloaded; however attempts to do so always ended with an error message. Navigation around the site was also rather difficult.

This attempt having failed, a message was sent via the 'contact' button on the website requesting further information on how to retrieve data. After 2-3 days, a helpful message was received setting out various means of obtaining data, including an email address for requests for geological data – this address is not displayed anywhere on the website, as well as proposing a CD-Rom containing the relevant data (created as part of an Interreg project a few years previously) and a link to the catalogue of geological maps with a list of the map which would be appropriate to the request.

A request was then sent to this address, returning another helpful email confirming that the data were indeed available free of charge. It was also confirmed that the CD-Rom was available free of charge. The geological maps proposed were not in the catalogue and a further email confirmed that they were still waiting to be added and gave the price.

3.8.3 Greece

326. Most marine environmental data in Greece is held by publicly-funded institutions, most notably the various institutes under the Hellenic Centre for Marine Research and the National Centre for Scientific Research 'Demokritos'. A small amount is also held at academic institutions, central government Ministries, and the Hellenic Navy.
327. Data access in Greece is not normally subject to formal institutional policies. This does not mean, however, that data access is freely available.
328. The National Centre for Scientific Research 'Demokritos', Institute of Physical Chemistry, for example, holds environmental quality data that is available only to certain users and by special arrangement. It does not have a written data policy, however.
329. The Hellenic Centre for Marine Research, Hydrobiological Station of Rhodos also does not have a data policy, but data sets are available on request.
330. Two central government organisations, the Hellenic National Meteorological Service and Ministry of Mercantile Marine Aegean and Island Policy, Marine Environment Protection Directorate are the only organisations sampled with formal data access policies.
331. Since the last decade data policy situation in Greece related to marine environmental databases remains unchanged.
332. In order to create a database most data holders and collectors need to allocate personnel and money for this purpose which is not always possible as only very limited scientific projects excuse such type of expenses. This situation, however, affects the creation and the continuation of each database.
333. Nowadays there are three types of sector holding databases in Greece: (a) academia/universities; (b) public research centres; and (c) government (some ministries, and the military). Databases are not held by private/commercial sector actors or by NGOs.
334. Most of the databases that exist, however, have been created with data collected during scientific projects that in the majority of cases are financed by the EU as national programs are rare. Consequently, datasets are limited to specific types of data collected with sort time series (not more than three years) related always to the objectives of each project. When a project has finished, dataset collection may not be continued until the next (similar) project has been approved.
335. During our survey we have been informed that most of the data are stored as hard copy and limited as electronic files. Yet, all data centres that have been

approached, except the Hellenic National Meteorological Service (government/military) and the Ministry of Mercantile Marine Aegean and Island Policy, Marine Environment Protection Directorate (government/ministry), have an unwritten policy to distribute their datasets to third parties.

336. Nevertheless, to assess their data special arrangements and written request with information referring to who is asking and for what purposes the data are going to be used, are required by most of the centres. In a number of cases as regards government/military type and public research institutes the data is confidential/restricted (e.g. Hellenic Navy, Hydrographic Services, Institute of Marine Biological Resources at Hellenic Centre for Marine Research).
337. Concerning academic/university data-centres, the data bases are generally very limited with very short time-series as they are closely connected to specific scientific projects. Another difficulty with this sector is that the holder of the dataset each time is the responsible scientist of the project. That means it is necessary to contact that individual scientist which is not always easy or even feasible.
338. Two databases were found that can be accessed without any restrictions. Both have long time series of data but of a very limited type. These are: the Hellenic National Oceanography Data Centre (HNODC) at the Hellenic Centre of Marine Research (HCMR) and the Institute of Oceanography, Physics Department at HCMR with the Poseidon buoy network data with on line and real time accessibility.
339. Nonetheless, it should be mentioned that through the stages 1 (requested information about their policy) and 2 (requested access) of this study our team faced a series of problems related to the following:
340. At first we sent a questionnaire by e-mail/ fax at all sectors and data-centres we found in the EDMED database plus some governmental sectors. However data centres did not reply. A second attempt was made by telephone where some replied while others did not reply in any way. Generally, their willingness to fill out a questionnaire was negative because, as related to us, they had previously completed numerous other questionnaires and were not minded to do so again, while those who provided answers were either colleagues or partners in previous projects. We would say that the ‘to Whom May Concern’ letter worked only in a few cases.
341. In some data-centres such as academic/universities we could not find the responsible person or their telephone numbers had changed or the responsible persons were absent. In the sector of government/ministry we faced difficulty in contacting the responsible department. There were cases where we never found it. In the sector of NGOs either they had not databases as they informed us. For example WWF in Greece is going to start a database with a LIFE program they got this year as the responsible person told us.
342. With hindsight it would have been better to omit the second stage or to have included it in the first stage as people disliked the fact that we reverted them again for the second stage.

3.8.4 Norway

343. Marine environmental data in Norway is held in a variety of organisation types. There are not very many formal policies associated with data access at these organisations.
344. Those that do have a formal policy include the governmental organisation Norwegian Mapping Authority-Hydrographic Service (NHS) and the publicly-funded organisations Institute of Marine Research-Norwegian Marine Data Centre (NMD), Statistics Norway (SSB), Norwegian Meteorological Institute, and the Research Council of Norway.
345. Quite a lot of data is freely available in Norway, across these different organisations. The academic organisations Høgskolen i Bodø and University of Tromsø both have an open access type of informal policy. If data is not online, it is usually available on a request basis. The only stipulation in the case of the former organisation is if the research is carried out for a commercial company, where there might be a moratorium on the data for a certain period.
346. The Oslo Port Authority, a local government entity, also has an informal policy that makes most of its data freely available on request. A number of reports and atlases are also freely available online.
347. The Norwegian Mapping Authority-Hydrographic Service, a governmental organisation that does have a formal policy, has online availability for most maps/atlasses. Raw data at the micro level are usually only available among cooperation partners on certain projects, although there can be special agreements made with other institutes to use the data against a fee.
348. The three NGOs sampled, Greenpeace Norway, Bellona and Friends of the Earth Norway, also have informal free policies. Since goals of these NGOs include understanding the state of the Norwegian environment as well as promoting knowledge, the information is easily accessible, either online or through request.
349. A number of publicly-funded institutions also make their data freely available. For example, Statistics Norway (SSB) stipulates that all statistics published by Statistics Norway shall be available in detail in StatBank on ssb.no. The Norwegian Institute for Water Research (NIVA) are currently drafting a data policy. Most of their data is also freely available, with the exception of some data collected for commercial activities. These data are either available on request (in for example research collaboration), or can be provided against a commercial fee (depends on the client).
350. In contrast to the organisations that provide free access or have minimal restrictions, the commercial organisations sampled in Norway have more restrictions regarding data access. The Storm Weather Centre is a private company, and data access is usually provided for a charge on customized products. Another commercial organisation, SINTEF Marine, does not provide open data access since most of the data was collected for projects performed for clients in industry and other institutions against commercial fees.

3.8.5 Spain

351. Marine environmental data in Spain is almost exclusively in the public sector, and it is in aquaculture where the private sector participates with some investigations.
352. Some universities collect marine environmental data including the Universities of Barcelona, Vigo, Cadiz, Las Palmas, and others, but the data is usually made available only for their own researchers. Some Universities and research institutes stipulate that data is property of their researchers, who are using it, and its disclosure is not possible unless they already have published it.
353. Data policies in Spain are about equally divided between formal and informal. Access to data varied across organisation types as well as types collected. For example, data was freely available from several publicly-funded institutions including Instituto de Ciencias del Mar, Centro de Recepción, Proceso, Archivo y Distribución de datos de Observación de la Tierra – CREPAD, and Instituto Canario de Ciencias Marinas (ICCM), whilst others had more restrictions on data access. Central government organisations also had a combination of freely available and restricted datasets.
354. The two local government institutions sampled both had freely available data, whilst the two commercial institutions had restrictions in place based on confidentiality or permissions being required from clients who funded the data collection. Most academic institutions, including Universidad de Oviedo, Universidad de Vigo, Universidad de Cádiz, and Universidad Politécnica de Cataluña, had some restrictions about data access in place. Only Instituto Andaluz de Ciencias de la Tierra had no restrictions.
355. Some organisations seemed to hold a greater majority of marine environmental information in their data centres and, therefore, often had more experience in collecting and processing it.
356. For example, IEO (Instituto Español de Oceanografía, Madrid) is an organisation with a nation-wide network and handles much of the marine environmental data. Another example is CSIC (Consejo Superior de Investigaciones Científicas) - a public research organisation in all scientific matters with a nation-wide network of service for the scientific and technology policy of the Spanish Government. The CSIC has several centres aimed at marine research (e.g. the ICM - Instituto de Ciencias del Mar, Barcelona; and the IIM (Instituto de Investigaciones Marinas, Vigo)).
357. Most of the information available in Spain belongs to governmental agencies and organisations. For example, several Ministries from Central Government collect marine environmental information (e.g. Ministerio de Medio Ambiente y Medio Rural y Marino). Due to the large number of local and national institutions that work with information in the marine environment, it was difficult to collect information from all of them during the short time-scale allowed. The difficulties of functional and administrative coordination of the activities of the various administrations were also difficult to untangle.

358. On the whole, data accessibility ranged from very easy access (e.g: online data) to very hard (restricted access).

3.8.6 Poland

359. Marine environmental data in Poland is held in a number of different academic, central government, and publicly funded institutions as well as a couple of commercial organisations. None of the institutions sampled had a formal data access policy, although the central government agencies such as the Maritime Offices in Gdynia, Slupsk, Szczecin and the Polish Fisheries Monitoring Centre (FMC) in Gdynia are subject to the law on free access to public information.

360. The central principle to this law is that all information gathered by public authorities should be available to the public. An additional government entity, the Hydrographic Office of the Policy Navy in Gdynia, charges for maps and atlases made at the Office.

361. The commercial organisation sampled 'Petrobaltic' S.A. gathers environmental data but these are not available to the public.

362. Most publicly-funded organisations do not have a policy for data access, and availability of marine environmental data depends on the database selected. One publicly-funded organisation, the Polish Geological Institute-Branch of Marine Geology, has data subject to the regulation of the Minister of the Environment of 22 June 2005 on the disposal of the right to geological information for a payment and the provision of geological information to be used free of charge.

3.8.7 United Kingdom

363. Marine environmental data is held by a number of different types of organisations in the UK and different approaches are apparent in the country between regions and mainly depending on the type of funding they receive.

364. In most cases, the data holder and data owner is the same however, in some cases this may be different.

365. For instance, data on the colony size of the Northern Fulmar (*Fulmarus glacialis*) is owned by the University of Aberdeen Lighthouse Field Station but has been incorporated into the annual data on colony size and reproductive success in the JNCC seabird colony database. The JNCC is the statutory adviser to Government on UK and international nature conservation and is fully funded by the government. The data was easy to request by downloading a form from: the JNCC website. The information required included personal details and information on what the data would be used for. Although the form warned that "in most cases a small charge will be made" for the data, it was provided free of charge. They indicated that in the future this data would be available to download on-line.

366. The British Oceanographic Data Centre (BODC) is a national facility for looking after and distributing data concerning the marine environment. It is funded by the Natural Environment Research Council (NERC) which requires that all marine environmental data generated from projects they support to be deposited at

the BODC. Data funded from other sources are also accepted with the aim of ensuring that maximum and long-term use of data is possible.

367. Some data holdings can have multiple-ownership and in some cases the ownership details of the data are unclear and unknown (at least to the data managers). For example, the Marine Biological Association of the UK (MBA) is responsible for the Data Archive for Seabed Species and Habitats (DASSH) holdings. This is a collection of data from many different sources. The biological data from DASSH (where permissions allow) is progressed to the UK National Biodiversity Network (www.searchnbn.net) which is freely available and from which data can be downloaded directly. Data is also passed on from the NBN Gateway to international portals such as GBIF and OBIS.

368. Examples of academic organisations that hold long term marine data include the University of Aberdeen Lighthouse Field Station, University Marine Biological Station (UMBS), Millport and University of St. Andrews Sea Mammal Research Unit (SMRU). For a detailed example of data requested from the SMRU information, see Box 3.3.

Box 3.3 University of St. Andrews Sea Mammal Research Unit

The University of St. Andrews Sea Mammal Research Unit (SMRU) is a publicly-funded institution that is required to raise part of its income from commercial activities but receives core funding from NERC, DEFRA and the Scottish Executive Agency. A request for "Positional data on seal populations in UK for 1-10 Sept 1997, 1-10 Sept 2007 using Argos tag, VHF or ultrasonics" was sent to the contact listed in the EDMED Database. A response was received from another member of staff and recommended contacting a Professor and Director of NERC Sea Mammal Research Unit about the data request. There is no formal data policy in place. However the process is usually to go through the principal investigator (PI). The datasets are not generally held on public access servers so the access by externals is normally arranged through an individual researcher within SMRU or the Gatty. The researcher takes responsibility for the visitor's access and supervising/assisting the visitor. An access or research agreement might also be appropriate. As there are costs associated with extracting and delivering the data in a format that others can use, and in most cases providing support with its use and interpretation, it is usual for the SMRU to charge the marginal costs associated with providing data. Most data has an embargo on it for a period of 2 years - except when collected for monitoring purposes - to allow the data collector to analyse it and write it up for their own purposes. There are issues with the time spent by staff on these requests which is trying to be resolved by developing a web-based front end called the SMRU "Data Gateway". However, it is adopting a user-pays approach and is being developed by the commercial arm of SAMS with an up-front investment of about £150k. There is quite a complex charging structure depending upon frequency of use etc. but academic access would be allowed for free or a very small notional charge." They are also trying to send more data to the BODC (the UK national marine data holding facility) for safekeeping and access.

369. There are also NGOs or not-for-profit organisations that collect and hold marine environmental data.

370. The Sir Alister Hardy Foundation for Ocean Science (SAHFOS) is a non-profit making charitable Foundation with data on plankton and also some abiotic parameters such as temperature and nutrient concentration going back to the 1940s. This contains data at a global level and is recorded from ships using the Continuous Plankton Recorder Survey running through all the main oceans of the world. There is a formal data policy in place and access to archived data must be made to the Director as a written request.

371. The terms and conditions must be signed and access is usually granted based on the academic reputation of the user and the intended use of the data. Data for

research and educational purposes is usually provided free of charge. However, charges may be made to commercial companies. The fee to process the original data is £320 per day and to provide the data = £800 per day depending on the client's requirements.

372. The Marine Conservation Society (MCS), a registered Charity, collects data through volunteer programmes. For example, the Seasearch database consists of habitat and species records made by volunteer scuba divers. The dataset goes back to 1977 and most data is available on-line through the NBN Gateway but users wishing to access the fuller data can email the MCS directly. They do not have a formal data policy but, usually do not charge for requests except if these are made by a commercial company.

373. When the data is downloaded through the NBN Gateway then it is covered by the NBN terms and conditions. Other data they hold is data on beach environmental quality, the Adopt-A-Beach programme (1993-present). There is no formal policy but each request is assessed individually and then a data agreement form is signed. Direct access to the database is limited to MCS staff and generally only done by members of the pollution team. In practice, MCS do not get many data requests apart from students.

3.8.7.1 Mixed statuses:

374. Some data centres have mixed statuses and sources of funding which are both public and private. An example is the Scottish Association for Marine Science (SAMS). It is a Scottish charity (est.1884) however SAMS also owns a subsidiary company: SAMS Research Services Limited (SRSL) that conducts most of the Association's commercial research activities, as well as hosting a biotechnology incubation facility (the European Centre for Marine Biotechnology). In order to request data on CTD Data (1990-1992) from the West of Scotland an email was sent to the Data Information Manager. A response was soon received indicating that the Ministry of Defence is the owner of this particular dataset (and the principal investigator is no longer at working at SAMS). The organisation does not have any formal data policy but deals with requests on a case by case basis. More time was required to find out about the availability and restrictions.

3.8.7.2 Public funded institutions required to raise money:

375. In the UK, there are also Public institutions set up as trading funds. For example, the Met Office and the UK Hydrographic Office both generate most of their own funding from commercial activities. See Box 3.4 for more details about data requests made to the UKHO and SeaZone Ltd.

Box 3.4: A state owned commercial provider

SeaZone Solutions Limited is an organisation that has evolved over time and since 2005 became wholly-owned by Admiralty Holdings Ltd (AHL). AHL is owned by the UK Secretary of State for Defence and operated on his behalf by the **UK Hydrographic Organisation (UKHO)**. It holds the authoritative geographic information data product, SeaZone Hydrosatial. SeaZone emerged from work by the technical director of the UKHO. The UKHO is a Government Trading Fund with the majority of funding from commercial activities and some government funding (<25%).

In order to request a quote for data from Seazone, an online questionnaire which took 15-20 min to complete was filled in. The questionnaire requested personal details and more technical information such as software capabilities, number of users internally and remotely, if webGIS and Static images would be an option, what topci layers and regions. A few days later a phone call was received for more details about how many users what type of info etc. and was followed by a conversation about what data was available and how it could be presented. The caller suggested which data may be the most useful and agreed to provide a quote for 2 degree and .5 degree grids. Data could be used by 3rd parties on condition that a licence was drawn up in advance. A quote was provided 5 working days after this phone conversation. The breakdown of the quote is as follows: Licence admin fee: £100; Data preparation fee: £200; quarterly update fee (optional): £300. Data usage fees are £29.26 per tile (0.5 degree tile) for coastal and offshore bathymetry and elevation data. As we listed UK waters up to 200 nm, there are 723 tiles, of which 467 are at a discounted price. The total data usage for this dataset would be £11,589.89. If offshore only bathymetry and elevation data was required, 2 degree tiles would be necessary with a price per unit of £11.75 and for a total of 64 tiles (9 discounted) this would cost £677.98. These figures are for one user but could be multiplied depending on the number of local users and license period (I did it for only 1 user). Shipping fee is £10. If the data was purchased, it would have been available in 3-5 days and the total amount of time from request would be a week or two.

Data was also requested directly from the UKHO UK Admiralty Wrecks Database within 12nm and 200nm of UK coast in December 1997 and 2007. Five days later information was received about data availability and its cost which was as follows: (if requested by a commercial company) 2 charted wrecks : £3.60 each, 3 uncharted wrecks : £1.00 each, 1 lifted wreck: £1.00, 1 hour's research time at commercial rate: £70.00 = £81.20 (+VAT). If the same was requested by a private individual the pricing would be the same except for 1 hour's research time at a rate of £44.00 = £55.20 (+VAT). If each area needed to be dealt with separately, this would result in a higher cost including a minimum search fee of £26.38 (+VAT), no research time would charged as each search would take less than 1 hour, but the sum of four searches would cost = £105.52 (+VAT).

3.8.7.3 Public institutions:

376. Examples of public research institutions include the Proudman Oceanographic Laboratory (POL), a fully-owned research laboratory of the Natural Environment Research Council, and the National Oceanography Centre, Southampton (a collaborative Centre owned by the Natural Environment Research Council (NERC) and the University of Southampton. Both of these are covered by the NERC data policy and most of the data is available either directly on-line or by email request to the principal investigator or project coordinators. The data request is then set to the database manager by email and serviced under Freedom of Information rules. Occasionally data cannot be released due to a variety of restrictions (e.g. copyright, commercialism, IPR etc) but this is apparently unusual.

377. All public data centres including the Met Office, Maritime and Coast Guard Agency, Environment Agency and Centre for the Environment Fisheries and Aquaculture Sciences (CEFAS) immediately acknowledges data requests and indicated that they are required to provide information under the Freedom of Information Act 2000 within 20 working days of receipt. In each case, an automated response would be received (see Figure 3.6). This was the case even for very general queries about their data policy. It was almost impossible to contact anyone on the phone as only general phone numbers could be found on their websites and no contact information could be accessed, not even by the general enquiries phone number.

Box 3.5: CEFAS

The Centre for Environment, Fisheries and Aquaculture Science (CEFAS) is an Executive Agency of the Department for Environment, Food and Rural Affairs (Defra) with core funding from the public sector. It holds many datasets including fisheries data and other datasets such as the Marine Environmental Real-time Observation System (MEROS) and WaveNet. One dataset it produced is a 1 km by 1 km gridded bathymetry data set for the Irish Sea, Celtic Sea and North Channel areas. The work was funded by the then Department for Transport and the Regions (DETR). When this data was requested, by filling in a request form on-line, a reply was received stating that the dataset is for academic use only as part of the condition for the project's funding by the then DETR. For academic organisations, the data could be provided within 1 hour.

From: National Requests [mailto:national.requests@environment-agency.gov.uk]

Sent: 25 July 2008 14:29

To: xxx

Subject: National Request NR/JUL/59

Dear xxx

Thank you for your second request for marine environmental data, reference number NR/JUL/59

This is a National Request and is being dealt with by our National Request Team. We are presently sourcing the availability of data. We will contact you if we require more information to assist with your request.

Due to the nature of your query there may be a cost involved for the data, which you have requested. Should there be a cost involved we will contact you to confirm this and to clarify that you still wish to proceed.

We will contact you for more information or with your data within 17 working days.

Should you have any queries regarding this request in the meantime please call and ask to speak to Stacey Bowskill/Alison Issitt or Belinda Peacegood on 08708 506506 quoting reference number NR/JUL/59.

Regards

Alison Issitt

National Request Team

Customer Service Advisor

National Customer Contact Centre

External Number: 08708 506 506

Information in this message may be confidential and may be legally privileged. If you have received this message by mistake, please notify the sender immediately, delete it and do not copy it to anyone else. We may have to make this message and any reply to it public if asked to under the Freedom of Information Act, Data Protection Act or for litigation. If we have sent you information and you wish to use it please read our terms and conditions which you can get by calling us on 08708 506 506. Find out more about the Environment Agency at www.environment-agency.gov.uk

Figure 3.6 to a data request from a public institution. Typical automated email response

3.8.7.4 Local government

378. In the UK, there are several regional environmental bodies including the Countryside Council for Wales, the Environment Agency and the Scottish Environment Protection Agency (SEPA). These operate under public body regulations and policies concerning public access to information. For example, data was requested for 'Concentration of e.coli bacteria in bathing waters around Grampian, east coast of Scotland, by month for years 1997 and 2007' and was provided free-of charge.

Box 3.6 Countryside Council for Wales

The Countryside Council for Wales is an Assembly Sponsored Public Body. It is the Welsh Assembly Government's wildlife conservation authority for Wales.

They hold most of the datasets for biological surveys in Wales. A data request was made for species recorded in marine biological surveys of seabed and shore habitats in southwest and northwest Wales, in 2002 and 2003. Most of this data is available through the NBN Gateway. The CCW is legally obliged to give public access to the data and information which it holds unless specific legal exceptions apply, for example, if the data is personal or if release of the data would result in environmental harm.

The data requested contained some sensitive species for which detailed location data is restricted. These included:-

Pecten maximus King Scallop
Aequipecten opercularis Queen Scallop
Ostrea edulis Native Oyster
Palinurus elephas Crayfish

Sensitive data may be made available under CCW licence to approved individuals and organisations on request. By registering as a user on the NBN Gateway website, it may be possible to access this information. Under the use Constraints Gateway Terms & Conditions, Copyright CCGC/CCW 2004, the dataset may be reproduced free of charge for non-commercial and internal business purposes in any format or medium, provided that it is done so accurately, acknowledging both the source and CCW copyright, and not used in a misleading context.

3.8.7.5 Commercial

379. A few commercial organisations hold data and include British Petrol (BP), EGS Ltd or ABP Mer Ltd.

380. For example, British Petroleum plc (BP) have wave and wind data from sites in the North Sea (1973-present). In order to gain access to this data, it is necessary to register as scientific/academic user on SIMORC (which is a database of metocean data sets from SIMORC participants including BP). Once the licence was received, and signed data requests etc. could be made.

381. The metadata database is public domain which distinguishes two distinct types of user groups: research and academic institutes sign a User License Agreement with the SIMORC service and log-in to submit request for downloading and using selected data sets for research and educational purposes. Non-scientific and non-academic users can also search the SIMORC meta-database but all data requests are forwarded to the data set owners for their consideration and possible negotiation. All transactions are logged in the SIMORC transaction register.

382. EGS Ltd. (a leading international group of companies that has offices in the United Kingdom) has bathymetric and seismic reflection data from 0m to 50m below the seabed. However, although they hold data this is done on behalf of a client so they are not authorised to provide datasets without contacting their client first.

383. They indicated that as the dataset which was requested was fairly old, it would take time to locate it in the archive. There would be a cost associated with accessing and providing any data. Any time spent on finding/delivering data would also be charged. This would be based on a commercial hourly rate for the staff

time involved. Time spent on any follow up queries would also be charged, as would any 3rd party costs, such as delivery of data.

384. ABPmer Environmental Research Limited is an environmental consultancy and a subsidiary of Associated British Ports Holdings Limited. As such, ABPmer conducts a range of work for different types of clients. The ownership of the data they collect for a project usually is with the client. An example may be an environmental impact assessment for a company. If anybody wanted to gain access to the data recorded in the assessment, ABPmer would have to contact the client for permission. The consultancy also owns some of its own data. For example, the Estuary Database (2003) can be requested by filling out a form and sending it to BODC who is responsible for its distribution on behalf of DEFRA who funded the work. However, ABPmer Ltd. remain the 'Licensor' and an agreement is established each time between ANPmer and the data user. The Estuary Database is however not available for commercial purposes.

3.9 International organisations

385. Data held by international organisations in international data centres was also included in the sample. Such data was often subject to a data policy or access agreement, either formal or informal, created by the institution.

386. However, in most cases these data policies/access agreements stated that it was the institution's objective to make access to data freely available.

387. For example, the Convention for the Protection of the Marine Environment of the North-East Atlantic's (OSPAR) Data Release Arrangements states, "OSPAR is committed to making as much information as possible publicly available, consistent with achieving other similarly important goals of public policy". The United Nations Environment Programme-World Conservation and Monitoring Centre (UNEP-WCMC) also has an open access policy, although it is informal in nature. That policies

388. A number of the international organisations had Memorandum of Understandings (MoU) made between them about providing and holding data. For instance, there is a MoU between ICES and the North East Atlantic Fisheries Commission (NEAFC) which allows ICES to hold NEAFC data. It states, "NEAFC and ICES will work together to arrange for any relevant data legally available for scientific analysis to be available to ICES. ICES is responsible for quality control of the aggregated data used in assessments and shall decide which data are considered a useful basis for advice."

389. The data sampling was very simple for international organisations. The data that was listed as freely available was most often a straightforward download. For example, the Permanent Service for Mean Sea Level (PSMSL) data was obtainable by going to their website and reviewing the data catalogue to find specific dataset required.

390. Once selected, it was a matter of simply browsing to the section of site for 'obtaining & supplying data', clicking on 'data for individual stations', and finding the dataset using the numbered reference for the catalogue. A click of the button

would then typically permit the data to be downloaded either in raw form or as a graph.

3.9.1 ICES

391. The International Council for the Exploration of the Seas (ICES) is funded by projects (20%) and its members (80%). Its 20 member countries: Belgium, Canada, Denmark, Estonia, Finland, France, Germany, Iceland, Ireland, Latvia, Lithuania, the Netherlands, Norway, Poland, Portugal, Russia, Spain, Sweden, the United Kingdom and the United States of America.

392. ICES is not a data centre as such. Nevertheless among its wider functions it does have a data centre function and consequently holds/distributes data from a variety of countries and sources.

393. Data can be requested via email/written request, online query/download, through a third party, as part of a consortia activity (data feed) or through the working groups directly.

3.9.1.1 Data policy

394. At ICES, most data is freely available as stated in the organisation's formal data policy. This policy does provide the caveat, however, that, "Data Users must respect any and all restrictions on the use or reproduction of data such as restrictions on use for commercial purposes". The DATRAS trawl survey data held at ICES is overseen by the trawl survey working groups that contribute the data from their national offices. Aggregated data and raw data are freely available to download from the data products page on DATRAS.

395. The only exception to this is data from all Dutch surveys (IMARES) where access is restricted to a certain extent. None of the restrictions apply for ICES working groups that have terms of reference that require the use of the trawl survey data. Restricted data can be requested from the data products page, whereupon a request is sent to the national contact for the data concerned, the result of the request is then delivered back to the requester.

396. When requesting any DATRAS data set, a click-through acceptance of the documents and associated restrictions appears (see Figure 3.7 below). Then the data is made available, if not subject to restriction, along with a file containing the data access policy. The data policy applies to data submitted after 1 May 2006. For data submitted prior to that date, data sources will be contacted individually and may specify access restrictions in agreement with ICES.

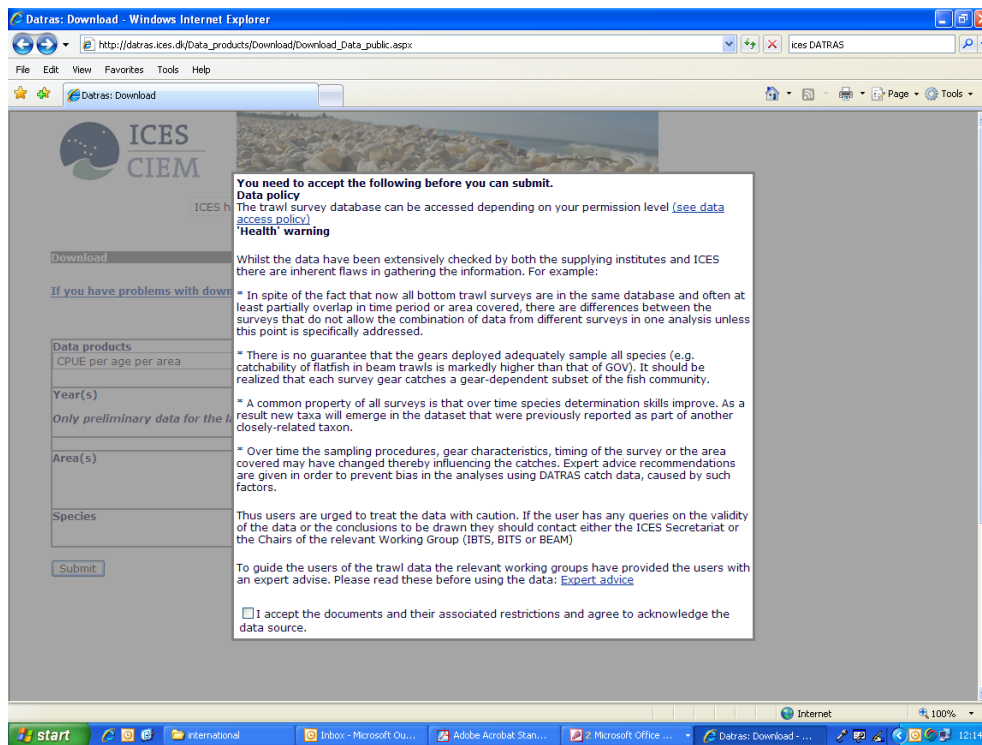


Figure 3.7 ICES DATRAS click through agreement

397. Up until recently, ICES's data policy was very much more restrictive than it is at present. Permission had to be requested from all parties in order to allow data to be distributed. Traditionally, oceanographic data has been more open while fisheries data has been more restrictive. On top of that each country had its own restrictions on who could use the data, how the data could be used or conditions on certain parts of the dataset (example: a geographic location) or even on particular time frames within the dataset. This led to a patchwork of data and due to the age of on-line data services and products, it was no longer feasible to restrict certain parts of datasets without restricting its availability completely, particularly for products such as maps which cover a wide geographical area which are trans-boundary.
398. In 2006, a new policy was drawn up and agreed by most parties although some have not confirmed their agreement (some of the Baltic States and Russia). The key aspect of the updated policy was that ICES could distribute the data without having to ask each country individually for permission. Secondly, specific restrictions on databases could no longer exist.
399. The new policy was intended to encourage (as far as possible) an open policy to data. The policy applies to all data submitted from 2006 onwards.
400. Other Policies exist – for example a special clause exists in the HELCOM-ICES contact for the management of HELCOM's monitoring data (COMBINE database). An additional policy also exists for trawl data which is subject to some particular restrictions.

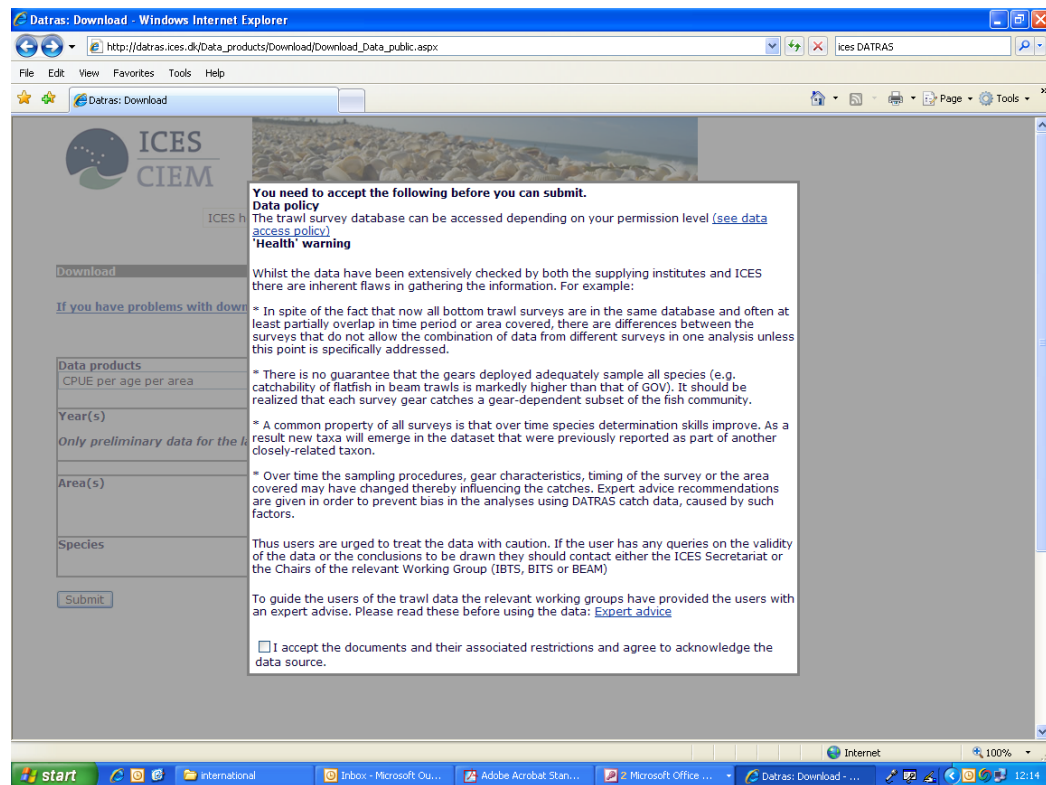


Figure 3.8 Screenshot of message before downloading data on the ICES website

401. ICES acts as a service to connect the data collectors/providers. This works through a number of working groups (about 100 in total) made up of scientific experts from over 20 different member countries. Some of these groups (overseen by the Scientific Committees) discuss data requests for more complicated cases (for example a request for a specific detailed data set which may be restricted for one reason or another), and will decide on whether to allow requests to be fulfilled.

- A reason must always be given if a request is denied. Data requests are not usually charged for by ICES unless the request is for a specific output (related to a project) for a client such as OSPAR, HELCOM. ICES holds three main types of data: (a) fisheries data; (b) oceanographic data; and (c) other environmental data.

3.9.1.2 Data sampling:

402. The data (for example the STATLANT database) were easy to download from the website. The data were free and no licence had to be acquired before gaining access to them. In order to access the data, it was first necessary to install the programme 'FishStat Plus' (also free).

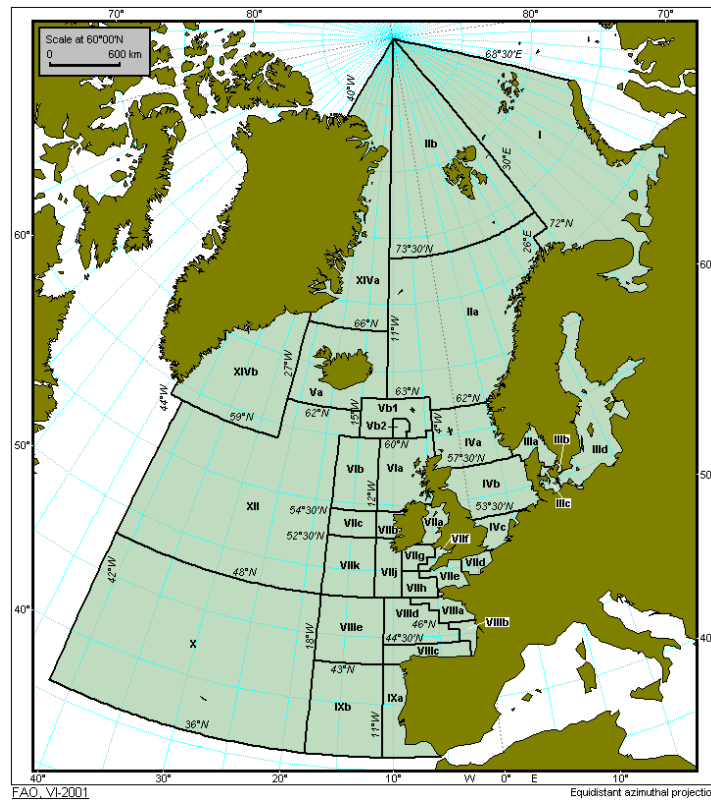


Figure 3.9 Representation of the ICES catch data for 1973-2000 for downloading

3.9.1.3 Issues with data

403. Nevertheless, there have been problems even with the new 2006 data policy. For example, the policy for trawl data (which may include environmental data) collected through surveys (funded by the EC), has not been agreed on by all national parties. Scientists at IMARES the Dutch institution have not agreed to allow this data to be freely available through the Database TRawl Survey (DATRAS), maintained by ICES. They would like to maintain control over their data, who uses it and why.

404. Therefore, this data can be presented by ICES (except for the Dutch data which needs to be requested specially). The working group will assess each request and decide what to do (except in the case of Dutch data which is assessed by the Dutch survey coordinators).



Data access

ICES operates an open access data policy adopted by the ICES Council in 2006. To read more [click here](#).

The trawl survey data held at ICES is overseen by the trawl survey working groups that contribute the data from their national offices. One of these co-ordinating working group ([the IBTSWG](#)), specified how data are accessed in the IBTSWG reports 2003-2007. Extracts of the data access discussion can be found [here](#) and a summary is given below:

Aggregated data and **raw data** are freely available to download from the data products page on DATRAS. The only exception to this is data from all Dutch surveys (IMARES) where access is restricted to a certain extent, to read their specific terms [click here](#). None of the restrictions apply for ICES working groups that have terms of reference that require the use of the trawl survey data.

Restricted data can be requested from the data products page, whereupon a request is sent to the national contact for the data concerned, the result of the request is then delivered back to the requester.

Each data download is accompanied by a data acknowledgement text file that describes any known issues in the data and further advice should the data user be in doubt about how to interpret and use the data they have downloaded.

Figure 3.10 Notice on data access for trawl survey data on the ICES website.

405. Of course as the policy applies only to data submitted after 2006, all the data submitted before could still be restricted.

3.9.2 HELCOM

406. The Helsinki Commission (HELCOM) acts as a focal point for providing information about the state of and trends in the environment in the Baltic Sea.
407. The contracting parties to the ‘Convention on the Protection of the Marine Environment of the Baltic Sea Area’ (commonly referred to as the ‘Helsinki Convention’) of which HELCOM is the governing body, submit data from their national authorities. Parties are required to submit data on forms which are provided by the Commission and agreed at meetings. Efforts are made to request the data in an agreed and standardised format (in line with EU requirements, INSPIRE Directive) and to avoid duplication as far as possible. Generally data is received by Parties although there may sometimes be delays (for example caused by the bureaucratic system) or gaps in data when the data for some years is never submitted.
408. The format data is in can also be a problem when this is submitted differently by countries. HELCOM has produced guidelines in order to standardise data submissions.
409. The budget of HELCOM is mostly made up of contributions from the contracting parties (which includes the European Community and Russia, Denmark, Germany, Finland, Estonia, Poland, Lithuania, Latvia, Sweden). The rest of their income comes from specific externally funded projects and some of the HELCOM staff is brought in on a temporary basis to work on these. However, the core funding is from their contracting parties.

3.9.2.1 Data policy:

410. HELCOM’s data policy, which is entitled ‘Data and Information Strategy of the Helsinki Commission’ was adopted in 2004 and last amended in 2006. The policy of HELCOM is to provide data free of charge and to allow free access to information for the Parties as well as to regional and international organisations and to the public.
411. There are some exceptions when a Party or data provider has specified restrictions. For example ICES sometimes adds restrictions and some data related to sensitive commercial or military data is also restricted. HELCOM and ICES have a specific agreement concerning data. ICES holds some of HELCOM data (in accordance with HELCOM’s data policy) as does the European Environment Agency (EEA).
412. Charges are never made even if extra time is necessary to process the data even if this is requested by a private body. HELCOM has been dealing with data requests for about two years now. However, although HELCOM’s policy is very open, the data concerned is at the general level and does not include detailed data sets. HELCOM does not have to get permission from its members in order to distribute the data: it has the right to do so as the data holder/data centre.

3.9.2.2 Data holdings:

413. HELCOM's work is organised through five groups as follows:

- The Monitoring and Assessment Group ([HELCOM MONAS](#))
- The Land-based Pollution Group ([HELCOM LAND](#))
- The Nature Protection and Biodiversity Group ([HELCOM HABITAT](#))
- The Maritime Group ([HELCOM MARITIME](#))
- The Response Group ([HELCOM RESPONSE](#))

414. HELCOM also provides a number of other types of data including:

- fact sheets (indicators;
- shipping: response and pollution, ballast water, navigational safety;
- GIS products which include MARIS (oil accidents system), nutrient data, monitoring GIS, coastal fisheries monitoring, water forecast, atlas on protected areas, bibliography and indicators.

415. Many of these GIS data products were funded through the EU BALANCE project. A condition in the project is that all data should be freely available for 5 years (or more) through HELCOM. Other data has come from the HELCOM-COMBINE project and most of this data is hosted by ICES.

416. ICES currently holds a contract with HELCOM for managing all "at sea" observations collected as part of the HELCOM's COMBINE programme.

417. Monitoring is a well-established function of the Helsinki Convention. Monitoring of physical, chemical and biological variables of the open sea started in 1979, monitoring of radioactive substances in the Baltic Sea started in 1984. Until 1992 monitoring of coastal waters was considered as a national obligation and only assessment of such data had to be reported to the Commission. However, under the revised Helsinki Convention, 1992, it is also an obligation to conduct monitoring of the coastal waters and to report the data to the Commission.

418. This programme will also cater for the needs of monitoring in the Baltic Sea Protected Areas (BSPA). The Environment Committee of HELCOM decided that, for management reasons, the different programmes should be integrated into a common structure and thus the Cooperative Monitoring in the Baltic Marine Environment - COMBINE - was instituted in 1992. Prior to this date, the programme was referred to as the Baltic Monitoring Programme (BMP). The prefix BMP is still widely used as an identifier of BMP station names. This particular web site concerns itself only with the purely oceanographic (everything collected from a bottle or instrument) element of the COMBINE programme. See related [biological and contaminant observations](#) and also consult the [HELCOM COMBINE web page](#).

3.9.2.3 Data sampling:

419. It was relatively easy to gain access to data on-line however, the data results are only shown in map form-the data behind this was not available to download. It seems that this data could be gained access to after contacting HELCOM directly.

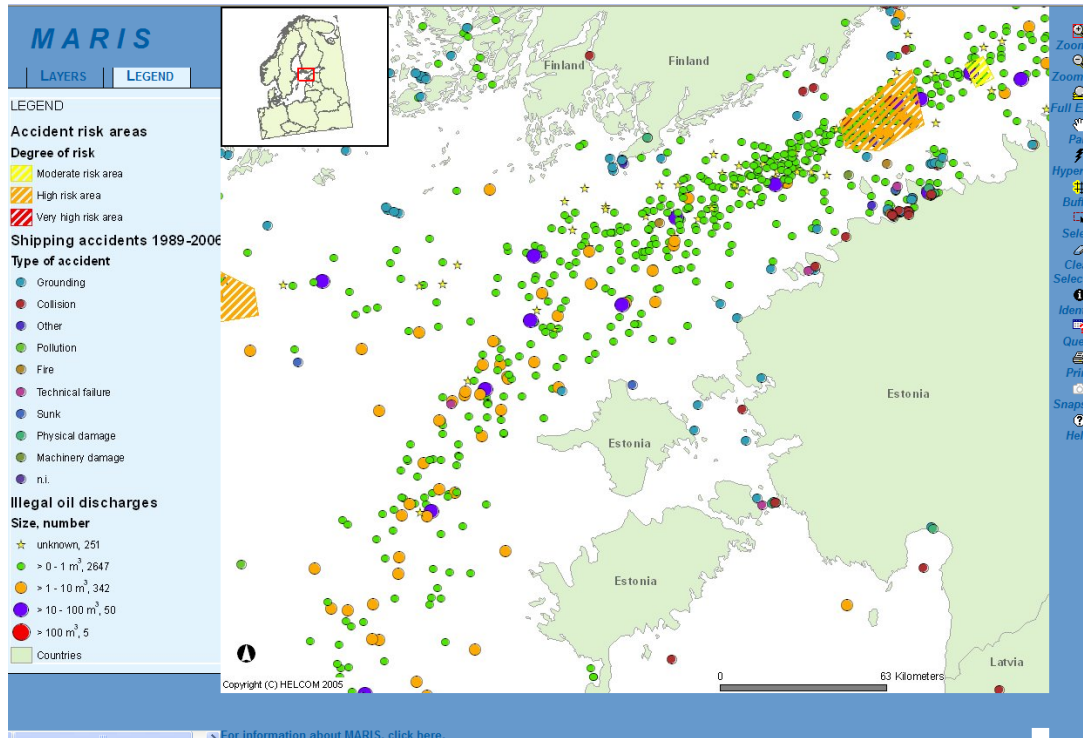


Figure 3.11 MARIS data download showing oil spill data for the Baltic Sea area.

3.9.2.4 Issues with data:

420. According to HELCOM, the types of data for which detailed information is difficult to obtain include bathymetry. The availability of bathymetry data (at a detailed level) is variable between countries.
421. In Finland, this data is restricted and in Denmark this (and other types of data) are charged for. Data on sea cables is charged for in Finland. This seems to be more and more the case, particularly as national research bodies are required to generate their own core funding.
422. Finland is also very protective of some of its data: Finnish scientists may be granted access to hydrographic data but only in the Ministry of Defence building and subject to a constant security escort.
423. Data on extractive activities such as dredging is not freely available even if it is submitted to HELCOM as this is commercially sensitive. In particular data which is collected in the context of an EIA in order to acquire a permit is often to available for scientific use as it is kept by the company or fragmented in national institutions. The problem is often that national environmental legislation has not been updated in order to allow for this type of information to be stored and used. In the case of hazardous substances, there also seems to be more information which is not available.

424. Other types of data which can be restricted are species distribution data of threatened species. In these cases, there is sometimes concern that making this information available will led to their targeted exploitation.
425. An interesting question is how can purchased data be used and can ownership change once the data is transformed into, for example, a product. HELCOM has used data from EU projects which it got permission to use – but, now that this data has been incorporated into a map/product, a question has arisen as to whether or not it can be further distributed.
426. HELCOM does not have its own ‘shoreline data’ and therefore used data from the Land Survey of Finland for data products (maps) which showed Baltic catchment areas on which other data (such as nutrient concentration) was overlaid. However due to copyright issues, HELCOM could not distribute the maps which had been produced using Land Survey data and therefore had to create a lower definition map in order to be able to distribute it.
427. In the context of the BALANCE project, some countries were worried about the end use of the data and its accuracy particularly if it would be used for decision making. It was also difficult to obtain data on anthropogenic information such as recreation areas, population size.
428. HELCOM has also observed a trend towards Parties submitting more and more ‘aggregated data’. For instance, data from municipal pollution treatment plants can contain a great detail of information but this may remain with them as the data becomes passed on to the national level and then to HELCOM – the detailed information is lost through the process.
429. The number of monitoring stations is decreasing in the Baltic. Perhaps this is due to a reduction in funding by the EU and a shift of focus on to the coastal areas rather than the marine area.
430. In conclusion while HELCOM has a very open data policy, restrictions do apply sometimes – these are requested by the countries / national institutions – these could be for a range of reasons including scientific research related or military/security related. There is also an issue with trust between data providers and data centres (such as HELCOM).

3.10 Summary good practice in terms of data policies and their implementation

431. Leaving aside the substantive content of data policies (particularly in terms of the issue of charging), in broad terms, based on the data collection exercise the following examples of good practice in terms of data policies and access to marine environmental data, can be identified (in no particular order of priority):

- a) Common data policy The use of a common data policy applicable to a number of institutions means that it is relatively easy to understand in general terms the conditions under which data may be accessed;
- b) Publication/availability of data policy In any event whether or not a common or specific data policy is used by an individual data centre, it is important to

ensure easy access to the relevant data policy through, for example, publication on the internet;

- c) Information about standard licence agreements The use of standard-form licence agreements (which are in any event encouraged by PSI Directive) written in everyday (*i.e.* not excessively legal) language, together with relevant supporting information, has a number of benefits particularly if sample copies are readily available. First of all potential data users to understand their rights and obligations and the use of standard documents should also speed up the conclusion of individual agreements;
- d) The use of click-through licences Where appropriate the use of click through licences, and where appropriate easy payment procedures (such as on-line payment) have the potential to speed up access to relevant data;
- e) Discovery method for the data published and easily available In order to provide information about the data available;
- f) Points of contact updated as necessary and standard application procedures Ensuring that points of contact are up to date and the use of standard form application procedures also facilitate data access.
- g) Quick response time Quick response times evidently facilitate the process of data acquisition, even if an initial response simply acknowledges receipt of the request ; and
- h) Cost transparency Finally cost transparency through the use of published tables and rationale as to why specific charges are being levied tend to promote transparency.

432. In terms of less good practice the lack of a formal data policy (or the lack of awareness of a relevant formal policy within a given data centre) or an unclear data policy inevitably prolonged the process of data acquisition. A common consequence in such situations was that decisions over access to/the use of data can only be taken at the very highest level within an individual data centre, usually resulting in delay. A related issue concerns situations where the ownership of (IPR in) particular data was unclear: in such circumstances who can authorise access/use?

433. Other sub-optimal scenarios include those where resources are not available to deal with data requests and where it is not clear who within a given data centre (department or officer) should be contacted in the first place.

4 The implementation of the relevant legal framework in the study countries

4.1 Introduction

434. In this Part, the implementation of the aforementioned EC legal framework in the countries that subject to the data collection exercise is examined. The objective is to provide an answer, for these countries, to the specific questions raised in the Study ToR, as well as to focus on any particular issues that seem to arise out of the local implementation.

435. The following issues were specifically examined in detail:

- the scope of the local implementation laws in terms of categories of data and actors involved, as well as in terms of potential grounds for refusal of access to and/or re-use of the data;
- the rules on charging for access to and/or re-use of the data;
- the interaction between the specific access regime for environmental data and the legal regime for the re-use of PSI;
- the use of standard licences for the re-use of PSI;

436. All of the countries examined also have laws regulating the protection intellectual property rights, such as copyright laws. To a great extent these laws also have been harmonised under EC law (e.g. Copyright Harmonisation Directive, Database Directive). It is beyond the scope of this Study to analyse how and to what extent these EC instruments on IPR were specifically implemented in the relevant countries

437. However, and of most relevance to this Study, the extent to which IPR (and primarily copyright) affect the regulations on access and re-use of environmental data (i.e. to what extent IPR may be a potential barrier to access and re-use) have been considered.

438. Finally the findings of this Part are compared with the experience of the data collection exercise in order to address the question of how flows of marine environmental data could be improved.

4.2 Access to environmental information

4.2.1 Scope of national access to environmental information regimes

4.2.1.1 Bulgaria

439. In Bulgaria, the relevant law is the Environmental Protection Act¹⁸² (“EPA”) which fully transposes the definition of “environmental information”. As a consequence, this definition may include marine environmental data.

440. It is interesting to note that three types of environmental data are distinguished: available information from primary sources, available information that has been processed in advance and information that has been processed for a specific purpose.

441. Under the EPA, any person may request access to the available environmental information without having to prove an interest. This is compatible with the Environmental Information Directive.

442. According to the EPA, the following public authorities need to comply with the legislation:

- a) Central and local executive authorities that collect and keep information relating to the environment;
- b) Other authorities and organizations that dispose of resources of the consolidated national budget and that collect and possess information relating to the environment, with the exception of the legislative and judicial authorities; and
- c) Any natural or legal person providing public services, relating to the environment under the control of a body or person falling under the categories listed in items (a) and (b) above.

443. Under Bulgarian law, military authorities are part of the executive authorities. Therefore, they are also bound by the access to environmental information legislation.

4.2.1.2 UK

444. The relevant legislation is the Environmental Information Regulations 2004 (“EIR”). The definition in the EIR of “environmental information” is the same as that in the Environmental Information Directive. Marine environmental data may thus be included within the scope of the EIR.

445. Whether marine environmental data is actually within the scope, will depend on the actual marine environmental data in question.

¹⁸² Promulgated in the Bulgarian State Gazette, issue 91 of 25 September 2002, as subsequently amended and supplemented.

446. According to the EIR, the following public authorities need to comply with the legislation:

- a) government departments;
- b) any other public authority as defined in section 3(1) of [the Freedom of Information Act 2000];
- c) any other body or other person, that carries out functions of public administration; or
- d) any other body or other person, that is under the control of a person falling within sub-paragraphs (a), (b) or (c) and
 - (i) has public responsibilities relating to the environment;
 - (ii) exercises functions of a public nature relating to the environment; or
 - (iii) provides public services relating to the environment.

447. Paragraph (b) in this definition refers to the Freedom of Information Act 2000 (FOIA 2000). Under this Act, central and local government bodies are required to provide access to recorded information held by those bodies.

448. Therefore, the EIR includes most of the public bodies which are subject to FOIA 2000, and this would include military public authorities (such as the armed forces, but not the special forces or units assisting the government's communication surveillance organisation).

449. It is to be noted that these regulations have effect within England, Wales & Northern Ireland. Scotland has its own environmental information regulations, which are broadly based on the same rules.

450. Under the EIR, a public authority is required to make available on request the environmental information it holds. The EIR do not define an applicant for information under the EIR. Consequently, there is no requirement for an applicant to be a living individual, a legal person or to hold UK citizenship.

451. It should also be noted that recent UK case law has considered the organisations which are subject to the EIR; in particular whether non-governmental organisations carrying out public functions are covered. Case law indicates that carrying out a public function is not sufficient, the function must be an administrative one for the EIR to apply¹⁸³.

452. Recent UK case law also considered the notion of 'holding environmental information': a public authority may be classed as holding environmental information and therefore liable to disclose it even where it does not physically hold the information. For example, if an authority has a contractual right to have

¹⁸³ See decisions of the ICO and the Information Tribunal, available on: http://www.ico.gov.uk/upload/documents/decisionnotices/2006/decision_notice_fs50090259.pdf; http://www.informationtribunal.gov.uk/Documents/decisions/networkrailtdvInfoComm_netRailinfrastructureltd17jul07.pdf; and <http://www.informationtribunal.gov.uk/Documents/decisions/portofLonAuthvInfoCommandjohnhibbert31may07.pdf>.

access to the information then it may be classed as holding the information under the EIR¹⁸⁴.

4.2.1.3 France

453. The definition of “environmental information” in the French Environment Code (Article L124-2) is comparable with the Environmental Information Directive (despite some wording differences). Moreover, an administrative circular of 18 October 2007 expressly mentions that Article L124-2 must be interpreted in the light of Article 2 of the Environmental Information Directive¹⁸⁵. Marine data is thus be included in the scope of the L124-2.

454. According to Article L124-3 of the Environment Code, the following public authorities need to comply with the legislation:

- a) French State, local and/or regional authorities, and other public bodies (so-called: “établissements publics”);
- b) Any entity (including private entities) providing public services relating to environment, provided that the information requested actually is in relation with such services.

455. Military authorities are not expressly referred to in Article L124-3, but are however be included within the definition of “French State” and therefore need to comply with the legislation.

456. It should be noted that only bodies acting in a judicial or legislative capacity are expressly excluded from the scope of the legislation by Article L124-3.

457. According to Articles L124-1 and L124-3 of the French Environment Code, “any person” can request access to the data. The aforementioned administrative circular of 18 October 2007 specifies that such person shall not have to justify its information request

458. Compared to the Environmental Information Directive, French law contains certain divergences in wording. The main reason for this is probably that the French legislation regarding access to environmental information (as stated by the French Environment Code) partly refers to French Law n°78-753, which covers access to any kind of public information (not only environmental information) and which was adopted prior to the Environmental Information Directive.

4.2.1.4 Spain

459. The relevant law is Act 27/2006 of 18 July 2006 on the rights of access to information, of public participation and of access to justice in the field of

¹⁸⁴ See decisions of the ICO and the Information Tribunal, available on: http://www.informationtribunal.gov.uk/Documents/decisions/g_Marlow_v_infocomm%20_subdecision_31aug07.pdf; <http://www.informationtribunal.gov.uk/Documents/decisions/MrGMarlowvInfoCommissioner31Aug06v7307.pdf>; and http://www.ico.gov.uk/upload/documents/decisionnotices/2006/fs50102786_dn1.pdf.

¹⁸⁵ Circulaire du 18 octobre 2007 relative à la mise en oeuvre des dispositions régissant le droit d'accès à l'information relative à l'environnement (unrecorded). This document is not binding.

environment (“*Ley de acceso a la información, de participación pública y de acceso a la justicia en material de medio ambiente*”).

460. The scope of this Act is substantially similar to the one contained in Environmental Information Directive, in particular in relation to (i) data covered (meaning that marine environmental data may be included in the scope), and (ii) public authorities concerned (excluding bodies and institutions when acting in a judicial or legislative capacity as allowed by the Directive, but including, in principle, the military authorities).

4.2.1.5 Norway

461. The relevant law is the Environmental Information Act¹⁸⁶, the scope of which is largely compatible with the scope defined by Article 2 of the Environmental Information Directive.

462. Marine environmental data is not explicitly mentioned. However, such data is included in general by the broad description of the scope of the Environmental Information Act (i.e. factual information about and assessment of the environment, factors that affect or may affect the environment, and human health, safety and living conditions to the extent that they are or may be affected by the state of the environment or factors that affect or may affect the environment).

463. Public bodies that are obliged to comply with the provisions in the Environmental Information Act are:

- a) any administrative agency that falls within the public bodies that needs to comply with the Freedom of Information Act (see below, section on Norway under 4.3.1),
- b) legal persons that perform public functions or offer services to the public, and that are subject to the control of an administrative agency that comes within the scope of litra a). Nevertheless, this does not apply to any of their services that are operated in competition with the private sector. A legal person is subject to the control of an administrative agency if an agency that comes within the scope of litra a) appoints more than half of the members of the governing bodies of the legal person, or otherwise has a decisive influence on the legal person,
- c) legal persons that are either responsible pursuant to acts or regulations for performing public functions or offering services to the public relating to the environment, or commissioned to do so by an authority to which litra a) or b) applies. This only applies to environmental information related to these functions or services.

464. Military authorities are included in litra a) above. However, it should be noted that the legislation gives the military authorities a more extensive right to exempt information from public disclosure due to the nature of the military’s operations.

465. In addition the Environmental Information Act applies to all other public and private undertakings, including commercial enterprises and other organised activities.

¹⁸⁶ Act No. 31 of 9 May 2003.

4.2.1.6 Greece

466. The Environmental Information Directive has been implemented in Greece by virtue of the joint ministerial decision H.Π.11764/653¹⁸⁷. The scope of this joint ministerial decision is basically identical to the scope defined by Article 2 of the Environmental Information Directive. Therefore, it can be concluded that marine environmental data are included in the scope.
467. The definition of the term “public authority” included in the joint ministerial decision is also almost identical to the definition provided by Article 2 (2) of the Environmental Information Directive (including military authorities, but excluding bodies acting in a judicial or legislative capacity).

4.2.1.7 Poland

468. Access to environmental information is currently regulated in Section IV of the Polish Protection of Environment Act of 27 April 2001 (“PEA”) implementing, inter alia, the Environmental Information Directive.
469. However, the currently proposed Public Participation in Environmental Protection and Environmental Impact Assessment Act (“Proposed Act”) will exclude the access to environmental information from the PEA and will provide for a new regulation regarding this subject¹⁸⁸. The Proposed Act was approved by the Council of Ministers and sent to the Polish Parliament on 18 July 2008. It is anticipated that the Proposed Act may enter into force in the autumn of 2008.
470. Article 19 (2) and (3) of the PEA currently includes a comprehensive list of environmental information that may be accessed through the access to environmental information procedure. This list is exhaustive and provides in fact a narrower access to environmental data than that stipulated in Article 2 of the Environmental Information Directive. The Proposed Act, however, seems more adapted to meet the requirements of the Environmental Information Directive in terms of data that may be accessed (and may, therefore, also include marine environmental data).
471. Article 19 (1) of the PEA provides that the following “administrative bodies” have to comply with the access to environmental information provisions:
- a) ministers, central government administration bodies, provincial governors (*województwie*), local government representatives (*terenowe organy administracji rządowej*) acting in their own name or for the governors, self-governmental bodies (*organy jednostek samorządu terytorialnego*); and
 - b) other entities, if by virtue of the law or by contract they are authorized to act publicly on matters involving protecting the environment.
472. Certain military authorities could be categorised as being “administrative bodies” under the PEA.

¹⁸⁷ Published in the Greek Government Gazette, Bulletin B, 327/17-3-2006.

¹⁸⁸ The Proposed Act is a result of the European Commission’s position of non-compliance of the Polish law with the Community regulations.

473. Article 19 (1) of PEA provides that “anybody” can request access to environmental data. There is no explicit provision that applicants do not need to have an interest in obtaining the information. This could cause confusion in practice as other Polish regulations generally require that anybody who wants to join a proceeding or who applies for certain data has to indicate his legal interest in doing so. The Proposed Act, however, clarifies this and confirms that no legal interest has to be indicated to obtain the environmental data.

4.2.2 Grounds for access refusal

4.2.2.1 Bulgaria

474. In terms of potential grounds for access refusal, the EPA also seems largely compatible with the provisions of the Environmental Information Directive. It does not contain any grounds for refusal other than those referred to in Article 4 (2) of Environmental Information Directive.

475. The competent authorities need to take into account the public interest served by disclosure when considering to invoke a refusal ground (“public interest test”). In addition, the restrictions to access to environmental information should not apply to environmental information relating to the emissions of noxious substances into the environment.

476. Guidelines on access to environmental data are published on the website of the Ministry of Water and Environment. Such guidelines contain an outline of the procedure, available types of data, hyperlinks to the relevant statutory provisions, as well as information regarding the officials in charge, their names, telephone numbers and working time.

4.2.2.2 UK

477. Although the terminology in the EIR is not identical to that in the Environmental Information Directive, the exceptions are comparable with the grounds for refusal set out in the Environmental Information Directive. The UK has not omitted any of the potential refusal grounds and it has not included any additional refusal grounds. With the exception of some parts of the personal data exception, the “public interest test” applies, therefore a public authority may only refuse to disclose environmental information if public interest in maintaining the exception outweighs the public interest in disclosing the information.

478. To the extent that environmental information to be disclosed relates to emissions, a public authority may not refuse to disclose that information due to certain exceptions (that is those exceptions relating to the confidentiality of proceedings or the confidentiality of commercial or industrial information, the interests of the person who provided that information or the protection of the environment).

479. Guidance on access to environmental data has been produced by both the Information Commissioner’s Office (ICO) and the Department for the

Environment and for Rural Affairs (DEFRA)¹⁸⁹. This guidance takes the form of FAQs, specific items of guidance on the interpretation of exceptions and the definition of environmental information together with codes of practice.

480. Enforcement of EIR is carried out by the ICO, however the ICO rely on guidance from DEFRA. In addition, although not strictly applicable, both ICO and DEFRA refer to guidance on the Freedom of Information Act 2000 (FOIA) issued by the Ministry of Justice (formerly the Department for Constitutional Affairs).

4.2.2.3 France

481. Grounds for access refusal are listed in Article L124 of the French Environment Code, and by cross reference to Article 6 of the Law n°78-753 of 17 July 1978 (as amended).

482. These grounds are compatible with the grounds for refusal defined by Article 4 of the Environmental Information Directive. It should be noted that in any case, access to information will be granted with the provision that it does not affect existing IPR¹⁹⁰.

483. However, it appears that two of the refusal grounds listed in the Environmental Information Directive have been omitted in the French Environment Code. It is, for instance, not expressly provided that unreasonable requests or requests concerning internal communications shall be rejected.

484. However, the so-called “*Commission d'accès aux documents administratifs*” (CADA), which is the appeal body for access refusals, may validate such refusal on a general ground. Moreover, refusal of unreasonable requests is foreseen in the aforementioned administrative circular of 18 October 2007. Requests concerning internal communications are not listed in Articles L124-4 of the Environment Code or in Article 6 of the Law n°78-753 nor in the administrative circular of 18 October 2007. Also, there seems to be no specific case law validating access refusals on this ground.

485. Furthermore, French legislation is more restrictive regarding refusal grounds than the Environmental Information Directive in the specific field of information on *emissions* of substances in the environment. By derogation from Article L124-4 of the Environment Code, Article L125-5 § II states that information requests relating to the emission of substances in the environment may only be refused for the following reasons:

- disclosure of the information would adversely affect French international relations, public security or national defence,
- disclosure of the information would adversely affect the course of justice,
- disclosure of the information would adversely affect intellectual property rights.

486. Any other ground for access refusal will therefore be rejected by the CADA.

¹⁸⁹ The guidance is available at <http://www.defra.gov.uk/corporate/opengov/eir/index.htm> and http://www.ico.gov.uk/tools_and_resources/document_library/environmental_information_regulation.aspx.

¹⁹⁰ Article 9 of the Law n°78-753.

487. Article 2 of Law n°78-753 also states that access to environmental information shall be refused when requests concern information which is already publicly available.
488. The CADA (which is not properly speaking a Court, but rather the appeal body for access refusals, whose opinions are subject to French courts case law) has advised that preparatory acts shall be differentiated from materials in course of completion or unfinished materials for the purpose of accepting or refusing information requests.
489. As a result, requests for environmental information contained within preparatory documents shall be accepted as soon as such documents are completed, whereas such requests may be rejected when the information is contained in materials in course of completion or unfinished materials¹⁹¹. This has been confirmed by the French Administrative Supreme Court on 7 August 2007¹⁹².
490. Also, it is CADA's constant position that existing IPR (by application of Article 9 of the Law n°78-753) shall not impede public access to environmental information, but shall rather tend to limit subsequent *collective* use (as opposed to individual use) of the information concerned¹⁹³.
491. It is interesting to note that in the implementation report on the Aarhus Convention, submitted by France to the Economic and Social Council of the United Nations on 4 April 2008, reference is made to "cultural resistance" to transparency in the French administration. According to the CADA, access refusals would in many cases result from the administration's "inertia"¹⁹⁴.

4.2.2.4 Spain

492. Article 13 of Act 27/2006 sets forth a list of grounds for access refusal which are substantially the same as those contained in Article 4 of Environmental Information Directive (none of such grounds has been omitted, neither any additional refusal ground has been added).
493. There seems to be no general official policy approved by the Spanish General Administration at a national level in relation to access to environmental data generally applicable to all Spanish administrative bodies. However, there seem to be certain policies approved by particular local bodies, for instance by the Environment Council of the Castilla y León regional Autonomous Community (policy applicable in relation to requests of information addressed to this body)¹⁹⁵.

4.2.2.5 Norway

494. The grounds for access refusal of the Environmental Information Act are largely compatible with the scope defined by Article 4 of the Environmental

¹⁹¹ CADA Decision #20063094 of 27 July 2006.

¹⁹² Conseil d'Etat, 7 August 2007, Decision #266668.

¹⁹³ See for instance CADA's decision #20065534 of 21 December 2006.

¹⁹⁴ Implementation report on the Aarhus Convention, submitted by France to the Economic and Social Council of the United Nations, 4 April 2008, p. 7.

¹⁹⁵ Policy approved by Order of 20 April 1998.

Information Directive. The Environmental Information Act distinguishes between public authorities and undertakings (either private or public). As a result, the main provisions permitting access refusal differ for information requested from public authorities and undertakings established in Norway, respectively.

495. The main provision permitting refusal of disclosure of information by *public authorities* is worded in a quite general manner in the Environmental Information Act, as distinct from the Environmental Information Directive which lists the instances in which access to the information may be refused.

496. A request for environmental information may be refused by the public authority if there is a genuine and objective need for refusal in the specific case. In every case the assessment whether there is a genuine and objective need for refusal shall be based on the public interest served by disclosure weighed against the interest served by the refusal. Given the purpose of the Environmental Information Act, the access refusal is to be interpreted restrictively. Further, if the result of such a consideration is that the request for information should be refused, the exemption from public disclosure must be sought under the provisions of the (general) Freedom of Information Act.

497. *Undertakings* may refuse a request for information if

- it needs to be exempted because public disclosure would imply a weakened protection of parts of the environment that are particularly vulnerable or threatened with extinction,
- the request is clearly unreasonable, or
- the information requested concerns technical devices and procedures or operational or business matters which for competition reasons it is important to keep secret in the interests of the person whom the information concerns.

498. Notwithstanding the grounds for exemptions from public disclosure by public authorities or undertakings, it is provided that the public shall always have access to:

- information regarding pollution that is harmful to health or that may cause serious environmental damage,
- measures to prevent or reduce damage such as is mentioned in the bullet point above, and
- unlawful intervention in or damage to the environment.

499. There is no knowledge of any published official policy or guidance with respect to the access to environmental information. In general, it should be mentioned that Norway has a long and liberal tradition for openness and that environmental information and other public information are to a great extent freely available without restrictions

4.2.2.6 Greece

500. The grounds for access refusal included in the joint ministerial decision that implements the Environmental Information Directive are basically identical to the grounds for refusal defined by Article 4 of the Environmental Information Directive.

501. It has not been possible to identify any published official policy or guidance on access to environmental data.

4.2.2.7 Poland

502. Article 20 of the PEA provides two sets of refusal grounds for access to environmental data.

503. The first set of grounds allows administrative bodies to refuse access where:

- a) access could breach regulations on the protection of personal data obtained through statistical research;
- b) the information refers to:
 - (i) matters in a court, disciplinary, or criminal proceedings, if revealing the information could interrupt the proceedings,
 - (ii) matters of copyright or patent protection, if revealing the information could infringe those rights,
 - (iii) documents or data provided by third parties, if they were not obliged to provide such documents or data, and if they filed non-disclosure declarations,
 - (iv) ventures undertaken on the restricted areas, that are not subject to public proceedings, and
 - (v) documents or data the revealing of which might cause environmental harm.

504. In addition, administrative bodies can refuse access where:

- a) access involves documents or data that are being prepared, or are for internal use;
- b) an application for access is impossible to comply with, or too general.

505. The grounds for refusal are thus differently formulated in the PEA than in the Environmental Information Directive.

506. Suppliers of information can apply to the relevant administrative body for exclusion of business information, or technological data, if revealing such data would adversely affect the competitive advantage of the supplier.

507. It has not been possible to identify any official policy on access to environmental information.

508. Although there seems to be no significant case law on access to environmental data, it is to be noted that the Polish Supreme Chamber of Control (*Najwyższa Izba Kontroli*) has reported, in October 2006, on the practical aspects of the use of regulations on access to public information (including access to environmental information) (*Informacja o wynikach kontroli wywiązywania się wojewodów i jednostek samorządu terytorialnego z obowiązku udostępniania informacji publicznej*). The report indicates that 97.7% of applications with self-governmental

bodies were assessed positively. In most matters where a negative answer was given, access was refused because of confidentiality of the data.

509. The Self-Governing Board of Appeal in Wrocław (*Samorządowe Kolegium Odwoławcze we Wrocławiu*) also confirmed that access should be the rule, while exceptions are to be narrowly construed.

4.2.3 Rules on charging for access to environmental data

4.2.3.1 Bulgaria

510. With respect to the charging for access, the EPA distinguishes between two types of information: (i) available primary information and available, pre-processed information; and (ii) information processed for a pertinent request.

511. Available primary information denotes the results of measurements, tests, observations and other activities, which is not accompanied by analyses, forecasts and explanations. The available primary information is collected within the scope of the obligations of the competent administration, without having been expressly requested by a person concerned. Pre-processed information denotes information processed, summarised and analysed pursuant to the obligations of the competent administration, without being expressly requested by a person concerned.

512. In case of available primary information and available pre-processed information, the access is free of charge and only the costs for provision of such information should be covered. These costs are determined according to an Order¹⁹⁶ issued by the Minister of Finance and should not exceed the amount of all tangible costs incurred in providing access to environmental information. The authorities granting access should announce, on the premises where requests for access are submitted, the possible forms of obtaining access to public information, the costs due, and the modes of payment of the said costs.

513. Information processed for a pertinent request denotes information collected or processed, summarised and analysed at the request of a person concerned. In case of such information, the charges would be subject to negotiation for each specific case¹⁹⁷.

4.2.3.2 UK

514. The provisions in the EIR on charges are compatible with the Environmental Information Directive. Under the EIR, an authority may charge for making available information. An authority is required to publish a schedule of its charges. Such charges must not exceed an amount which the public authority is satisfied is a reasonable amount. An authority cannot charge for access to public registers or lists of environmental information held by the authority or to inspect information.

¹⁹⁶ Order No. 10 of the Minister of Finance of 10 January 2001 Specifying Rates Regarding the Costs Incurred in Providing of Public Information Pursuant to the Law on Access to Public Information and According to the type of the Data Medium.

¹⁹⁷ Article 29 of the EPA.

515. Some limited guidance has been issued on the topic of charging. This guidance comes from DEFRA and states the following:

- (i) that requests should be free up to same limit as FOIA 2000 requests (i.e. where the costs of locating the information do not exceed £600 for central government and £450 for local government). Above those limits the costs should be reasonable (as required under the EIR).
- (ii) DEFRA also gives examples of free requests which should include:
 - i. information made available for inspection;
 - ii. explaining where information is made publicly available;
 - iii. oral queries answered on the spot, e.g. when waste is collected;
 - iv. many requests dealt with by local authorities, such as planning queries.
- (iii) authorities may charge for disbursements such as photocopying and postage.

516. Guidance from the Ministry of Justice on the application of FOIA 2000 states that authorities can charge for the actual costs incurred in the provision of information, but that charges are expected to be reasonable. For example, in most cases, photocopying and printing would be expected to cost no more than 10p per sheet of paper. This guidance was specifically referred to in one of the most significant cases on charging under the EIR. Although the guidance relates to a different regime it was seen as useful and contributed to the Tribunal's decision that charges of £6 and 50 pence per copy were unreasonable¹⁹⁸.

517. Recent UK case law has considered that charges under the EIR must be reasonable. UK case law indicates that this must be a subjective view of the public authority, which is then subject to review by the ICO (the regulator in the UK). This review is similar to UK judicial review law. UK case law indicates that authorities must not take account of irrelevant factors, such as their level of revenue and staffing costs, but instead must consider solely the cost of producing copies¹⁹⁹.

4.2.3.3 France

518. French Decree n° 2006-1639 of 19 December 2006 states which services provided by the French Ministry of Ecology may be subject to a charge, including in particular: (i) the cession of documents elaborated by the Ministry and/or of copyrights attached to such documents, and (ii) the reproduction of administrative documents and/or information documents.

519. As far as other public bodies are concerned, Article 35 of the Decree n°2005-1755 of 30 December 2005 (implementing Law n°78-753) will be applicable. According to this text, reproduction costs and onward freighting may be charged to applicants.

4.2.3.4 Spain

¹⁹⁸ To date the guidance and cases have considered the cost of photocopying as most of the cases relate to planning law information requests.

¹⁹⁹ See decision of the Information Tribunal, available on:

http://www.informationtribunal.gov.uk/Documents/decisions/david_markinson_v_info.pdf.

520. Article 15 of Act 37/2006 provides for the general rules and principles on charging for access to environmental data in line with Article 5 of the Environmental Information Directive. It states that (i) access to public registers or lists and examination *in situ* of the information requested shall be free of charge, and that (ii) public authorities shall prepare, publish and make available to applicants a schedule of the charges (“tasas” and “precios públicos y privados”) applicable to requests of environmental information, as well as the cases in which no charges shall apply.
521. On the basis of these general rules and principles, the different national, regional and local authorities establish and publish their own charges.
522. In this regard, in relation to the national General Administration of the State, First Additional Provision of Act 37/2006 formally creates the charge generally applicable to public bodies at a national level and provides for certain criteria for this charge being established, among which the following may be highlighted:
- (i) Exemptions: (a) requests of information by public administrations; (b) delivery of copies of documentation of less than 20 pages; (c) delivery by electronic means.
 - (ii) Elements to be considered for quantification: (a) cost of the materials used for storing the information; (b) cost of delivery of the information.
523. In any case, under mentioned First Additional Provision the concrete charges applicable in the scope of the national General Administration of the State shall be established (and amended) through a Ministry Order following the above criteria.
524. In relation to charges to be established at a regional level, the competence belongs to each of the governmental bodies of the 17 Autonomous Communities in which the territory of Spain is divided.
525. As regards charges to be established at local level, Second Additional Provision of Act 37/2006 authorises local administrative bodies to establish charges for environmental information, which in any case shall state the same exemptions as described above for the national level.

4.2.3.5 Norway

526. In principle, the Environmental Information Act does not allow to make charges for environmental information that the public is entitled to, unless otherwise provided by regulations pursuant to the Environmental Information Act or the Freedom of Information Act.
527. It is a principle under the Environmental Information Act that environmental information in general shall be free of charge to the public and at present no such regulation allowing to make charges for environmental information is laid down.

4.2.3.6 Greece

528. The respective provisions of the joint ministerial decision that implements the Environmental Information Directive are basically identical to the provisions included in Article 5 of the Environmental Information Directive 2003/4/EC.

529. Moreover, it is provided that charges may be imposed according to a ministerial decision to be issued by the Environment, Physical Planning and Public Works Ministry or the Economy and Finance Ministry. Such charge may not exceed a reasonable amount.

530. However, at present, there is no knowledge of any general policy or guidance in relation to charging/cost recovery for (environmental) data held by public institutions.

4.2.3.7 Poland

531. Article 24 of the PEA, provides that access to environmental data:

- is free of charge, if (i) the information is provided verbally, or (ii) the information is part of a publicly available database, or (iii) the information is searched for and reviewed *in situ* at the administrative body.
- may be charged for, if (i) the information has to be searched for, (ii) copies of documents or data have to be prepared, or (iii) administrative body provides the applicant with copies of documents or data.

532. The PEA sets the maximum rate of access charges, which are further defined in the regulations issued by the Minister of Environment on 5 June 2007. Information on access charges is, therefore, publicly accessible in official journals.

4.3 Re-use of public sector information

4.3.1 Scope of national PSI regimes

4.3.1.1 Bulgaria

533. The relevant law is the Law on Access to Public Information²⁰⁰ (“LAPI”). Public Sector Information as set forth in LAPI denotes information materialised on paper, electronic or other medium, including any information stored as a sound or visual recording, and collected or created by a public sector body. The definition of “public sector body” seems in line with the definition provided in the PSI Directive.

534. Under LAPI, the following categories of documents are excluded from the scope of the re-use of PSI regime:

- a) Information related to activity falling outside the scope of powers and functions of the public sector bodies;
- b) Information for which third parties hold intellectual property rights;

²⁰⁰ Promulgated in the State Gazette, issue 5 of 7 July 2000, as subsequently amended and supplemented.

- c) Information collected or created by public service broadcasters or their regional centres;
- d) Information collected or created by schools, universities, research organisations, State Archive Fund, libraries, museums, orchestras, ballets, theatres and other scientific or cultural organizations;
- e) Personal Data;
- f) Classified information or other protected secret under the law.

4.3.1.2 UK

535. The relevant legislation is the Reuse of Public Sector Information Regulations 2005 (PSI Regulations)²⁰¹. The definition of “documents” is comparable with the PSI Directive.

536. Under the PSI Regulations, the following are public sector bodies which need to comply with the Regulations:

- (a) a Minister of the Crown;
- (b) a government department;
- (c) the House of Commons;
- (d) the House of Lords;
- (e) the Northern Ireland Assembly Commission;
- (f) Scottish Ministers;
- (g) the Scottish Parliament;
- (h) the Scottish Parliamentary Corporate Body;
- (i) the National Assembly for Wales;
- (j) a local authority;
- (k) a fire and rescue authorities;
- (l) a police authorities;
- (m) a corporation established or a group of individuals appointed to act together for the specific purposes of meeting needs in the general interest, not having an industrial or commercial character, and
 - (i) financed wholly or mainly by another public sector body, or
 - (ii) subject to management supervision by another public sector body, or
 - (iii) more than half of the board of directors or members of which, or, in the case of a group of individuals, more than half of those individuals, are appointed by another public sector body;
- (n) an association of or formed by one or more public sector bodies.

537. The list of documents excluded from the scope of the PSI Regulations is also comparable with the PSI Directive, including, inter alia, cases where the document has not been identified by the public authority as being available for re-use or has not been provided to the applicant or has not been made otherwise accessible (other than under the FOIA 2000 or the EIR).

²⁰¹ It should be noted that the UK government has commissioned an independent review of the reuse of public sector information (called the "Power of Information Review"). It is not clear what changes will follow from this review. See the following link: <http://www.opsi.gov.uk/advice/poi/index.htm>.

4.3.1.3 France

538. According to Article 10 of the Law n°78-753, the following public sector information is covered by the re-use of PSI regime: any information provided in documents elaborated by public sector bodies mentioned below, with the provision that such information:

- a) does not enter into the scope of information for which access to the information may be refused on the ground of French Law n°78-753, including (but not limited to) Article 6 (as described above)²⁰², except if such information is publicly available;
- b) is not in the course of completion or unfinished (still excepting the case when such information is publicly available);
- c) is not elaborated or held by one of the public sector bodies mentioned below when such bodies provide industrial and commercial public services;
- d) is not protected by IPR held by third parties.

539. Public sector bodies that need to comply with the legislation are the French State, regional and local authorities, as well as any other public or private entity in charge of providing public services. Documents issued by bodies acting in a judicial or legislative capacity are expressly excluded from the scope of the legislation. Regarding documents held by educational, research, and cultural establishments, Article 11 of the Law n°78-753 states that such establishments shall not be subject to the French legislation regarding re-use of PSI, but may however set up their own rules regarding the re-use of their own information.

540. In addition, the re-use of PSI containing personal data is subject to the agreement of the data subject or to prior anonymisation, unless if it is otherwise permitted by French laws.

541. Moreover, re-use of any PSI is subject to the fact that the concerned information is not altered and that the date and source of the information are duly quoted.

542. It should be noted that as a consequence of the aforementioned Article 10 of Law n°78-753, only publicly available information or information to which access has been granted on the ground of general access regime may be re-used.

4.3.1.4 Spain

543. The PSI Directive has been implemented into Spanish law by Law 37/2007 of 16 November 2007 on the re-use of public sector information (“Ley sobre reutilización de la información del sector público”). The scope of Law 37/2007 is substantially in line with the PSI Directive, in particular in relation to the following elements: (i) PSI covered and categories of documents excluded, and (ii) public bodies that need to comply with Law (subject to the particularities of Spanish administrative law).

²⁰² Plus information whose disclosure would adversely affect secrets protected by French law, which fall within the scope of French legislation regarding re-use of PSI, but not into the scope of public access to environmental information.

544. The PSI covered by Law 37/2007 is substantially the same as provided in the PSI Directive. Article 3 of Law 37/2007 provides for the following categories of documents to be excluded:

a) Documents in relation to which there are legal limitations or restrictions for access under general administrative law (particularly those provided for in Article 37 of Law 30/1992, which mainly include documents containing information affecting privacy of persons, documents on acts of the Government of the State or of the Autonomous Communities related to their constitutional competences which are not subject to administrative law, documents containing information on national defence or State security, documents related to prosecution of crimes when the disclosure may affect rights and liberties of third parties or the success of the investigations, documents containing business secrets, documents on issues related to currency policy).

b) Documents affecting national defence, State security, protection of public health, as well as those subject to statistical secret and commercial confidentiality, and, in general, those related to acts subject to rules on reserve, secret or confidentiality.

c) Documents in relation to which it is required to have a specific right or a legitimate interest in order to have access to them.

d) Documents held by public administrations and public bodies for purposes falling outside the scope of the public task of such administrations or bodies as defined by law.

e) Documents for which third parties hold intellectual property rights. It is specified that Law 37/2007 does not affect the existence and possession of intellectual property rights by the public administrations and bodies or the exercise of such rights outside the limits set forth by this Law; the exercise of such rights by the administrations and public bodies shall be carried out in a manner that facilitates the re-use.

f) Documents held by entities providing essential broadcasting services and its subsidiaries.

g) Documents held by educational and research establishments, such as schools, universities, archives, libraries and research facilities including organisations established for the transfer of research results.

h) Documents held by cultural establishments, such as museums, libraries, historical archives, orchestras, operas, ballets and theatres.

4.3.1.5 Norway

545. The PSI Directive 2003/98 has not yet been implemented into Norwegian law, but is due to be implemented in a new Law relating to public access to documents in the public administration (i.e. new Freedom of Information Law.)

546. The new Law is adopted by Parliament, but will probably not enter into force before late autumn 2008. Parts of the PSI Directive will also be implemented into regulations pursuant to the new Law. These regulations have not yet been completed by the Government; hence it is not possible to provide fully accurate information on the implementation status of the PSI Directive. Updates may be required to the information provided in this Study when the Law and the regulations will have entered into force.

547. Public bodies that are obliged to comply with the provisions in the Freedom of Information Act are:

- the State,

- the county authorities (Norway is shared into 19 administrative entities),
- the municipalities,
- other legal entities, provided that the entity is preparing individual decisions in a case or governmental regulations,
- separate legal entities directly or indirectly owned by public entities, where the public entity is entitled to vote for at least 50 % of the shares in the supreme agency of the entity,
- separate legal entities where a public entity is directly or indirectly entitled to elect more than 50% of the persons with voting rights in the supreme agency of the entity.

548. The Act does not apply to the Storting (Parliament), the Office of the Auditor General, the Storting's Ombudsman for Public Administration or other institutions of the Storting.

549. As a general rule, all information that is accessible pursuant to the Act may legally be re-used for any purpose, provided that the use of the information is in conformity with other legislation and does not infringe the rights of third persons. The re-use of public sector information is consequently depending on public access to the documents (and public sector bodies will be able to refuse applications for re-use if these concern data to which access may be refused under the general access to information regime).

4.3.1.6 Greece

550. The PSI Directive has been implemented in Greece by virtue of the Law 3448/2006 (Articles §1 - §13)²⁰³. The scope of this Law is basically identical to the scope defined by Article 1 (1) – (2) and Article 2 of the PSI Directive 2003/98/EC.

4.3.1.7 Poland

551. The PSI Directive is purportedly implemented mainly in the Access to Public Information Act of 6 September 2001 (“Access Act”) in conjunction with other legislation, including the National Court Register Act (“NCR Act”) and the Freedom of Economic Activity Act of 7 July 2007. The question is, however, whether the PSI Directive was adequately implemented as none of the aforementioned regulations expressly deals with the re-use of public information. For instance, the Access Act does not have any direct reference to the possible (re-)use of data. There is no definition of “re-use”²⁰⁴.

552. Therefore, it seems that re-use is merely regulated through the access to public information legislation, which would imply that the right of access to public information is accompanied by the right of re-use of such information. As a result, all data that is made publicly available would be open for re-use.

²⁰³ Published in the Greek Government Gazette, Bulletin A, 57/15-3-2006.

²⁰⁴ The Polish government may be aware that the PSI Directive is not adequately implemented in current Polish legislation. For instance, it should be noted that the Polish Ministry of Economy has prepared an Action Plan for support of e-commerce for 2008-2010, which includes an action for implementation of the PSI Directive to facilitate online use of information. According to the plan, the project is to be prepared by the autumn of 2008 but no further details of any future regulations are known. It is planned that a new law proposal may be presented in 2009.

553. In the same way, the Access Act does not contain any references to categories of data to which the re-use of PSI regime would *not* apply. As a consequence, this is probably also to be linked to the categories of data to which access may be refused under the Access Act.

554. The Access Act provides for an access right to “public information”, which is broadly defined as “information on public matters”. The Administrative Supreme Court has ruled that not only information produced by public bodies can constitute public information, but also information which is as such not produced by public bodies but which is related to public bodies.

555. The obligation to make public information available applies to public authorities and other entities performing public functions. It specifically applies to:

- a) public authorities,
- b) commercial and professional self-governments,
- c) entities representing the State Treasury under separate provisions,
- d) entities representing State of local authorities and entities representing other State organisational units or organisation units of local authority,
- e) entities representing other persons or organisational units, which perform public functions or dispose of public property and legal persons, in which the State Treasury, units of local authority or commercial or professional self-government hold a dominant position in the understanding of the provisions of competition and consumer protection.
- f) representative trade unions and employees organisations within the understanding of the Act of 6 July 2001 on the Tripartite Committee for Social-Economic Matters and voivodship committees of social dialogue and political parties.

556. Furthermore, the Access Act provides that it does not interfere with the provisions of other legislation defining different access principles and modes of access. For instance, certain laws may contain specific access limitations (e.g. parts of the National Court Registry, the Registry of Insolvent Debtors, or certain sensitive data in the Business Registry of the National Court Registry are available only to parties that can prove a legitimate interest in obtaining such information).

4.3.2 Rules on charging for re-use of environmental data

4.3.2.1 Bulgaria

557. PSI is to be provided upon payment of the tangible costs incurred for its provision. The amount of the payment should not exceed the amount of the costs incurred in the provision of public sector information for re-use. In other words, while the PSI Directive permits a reasonable return on investment to be included in the amount of the payments for providing and allowing re-use of documents, the LAPI does not.

558. The amount of the tangible cost incurred should be provided for in a tariff list to be issued by the Minister of Finance (the costs are actually fixed in the Order of the Minister of Finance referred to above, see the section on Bulgaria under 4.2.3).
559. According to Article 41b of the LAPI, if the information is re-used by a public sector body as input for activities which fall outside the scope of its public tasks, the same conditions and charges should apply to those activities as apply to all other users of information.

4.3.2.2 UK

560. The PSI Regulations confirm that a public sector body may charge for allowing reuse. The Regulations state that the total income from any charge must not exceed the sum of: (i) the cost of collection, production, reproduction and dissemination of documents; and (ii) a reasonable return on investment.
561. Charges for re-use are to be calculated in accordance with accounting principles applicable to the public sector body and on the basis of a reasonable estimate for demand for documents over the appropriate accounting period. So far as reasonably practicable a public sector body must establish standard charges. A public sector body must specify in writing the basis on which a standard charge has been calculated or if a standard charge does not exist the factor that will be taken into account when calculating the charge.
562. The PSI Regulations have no more detailed provisions on how to calculate such charges and what a reasonable return on investment should be. The PSI Directive emphasises that charges should cover the marginal costs incurred, but this position is not made clear in the PSI Regulations.
563. There is some guidance from the regulator, the Office for Public Sector Information (OPSI)²⁰⁵ and from HM Treasury (on government accounting covering in general the issue of charging for government assets including information). The guidance is not clear. The OPSI guidance is very vague. The HM Treasury guidance is very out of date (and in some cases pre-dates the FOIA 2000). It states:
- i. That the cost varies depending on the status of the public authority concerned, so some public authorities are intended to be self-sufficient (and survive without payment from HM Treasury). In these cases, the authority may be able to charge more, as it is acting commercially.
 - ii. There is also a differentiation between "raw" data and "value-added" data. Raw data should be made available at a marginal price (i.e. the cost of collating, copying and transmitting the information), whereas value added data should recover some if not all of the costs of the effort put in to converting the raw data into value added data.
 - iii. Depending on the competitors in the market for the information being made available by the public sector body and the risks, the guidance suggests that a return on investment of 6%, 8% or over 8% might be appropriate. For example, where there is a statutory requirement to make available information (other than under FOIA 2000, which we assume should also refer to EIR) a return on investment of 6% is required.

²⁰⁵ The OPSI guidance is available on <http://www.opsi.gov.uk/advice/psi-regulations/advice-and-guidance/psi-guidance-notes/index.htm>. This guidance links to the most significant HM Treasury guidance.

564. There is a significant press comment on charges made by UK government for its information and one newspaper has led a campaign (called “free our data”) calling for the government to make available its information at no charge²⁰⁶.

565. Regulation 13 of the PSI Regulations further states that (i) any conditions on reuse must not discriminate between applicants for comparable reuse; and (ii) if a public sector body wishes to reuse its own document then the same conditions must apply to its reuse as would apply to reuse by another person for comparable purposes.

4.3.2.3 France

566. Article 15 of the Law n°78-753 states that re-use of PSI may be subject to charges to be paid by the re-user, and describes the principles applicable to the estimation of such charges by public bodies.

567. Article 38 of the Decree n°2005-1755 (implementing the Law n°78-753) specifies that the amount of charges must be equitable, non-discriminatory, proportionate and fixed by advance and published.

568. It is to be noted that Article 15 of the Law n°78-753 expressly refers to IPR as part of the reasonable return on investment that public bodies are entitled to take into account when estimating the charges (whereas this is not expressly referred to in the PSI Directive).

569. There is no specific provision in the legislation that makes a distinction between various categories of re-use (commercial, non-commercial, ...) but such distinction may in practice be operated by public sector bodies and may be validated by the CADA as long as the differing conditions under which the re-use is allowed (including financial conditions) are clearly exposed to the re-users²⁰⁷.

4.3.2.4 Spain

570. Article 7 of Law 37/2007 sets forth the rules on the economic consideration of the re-use of information, stating the following main principles:

(i) The public sector bodies shall apply a charge for the supply of documents for re-use under the national and regional general rules on charges and public prices, taking into account, among other elements, the existence of charges for access.

(ii) The amounts of the charges shall be quantified in accordance with mentioned general rules on charges and public prices in order to cover at least the costs of the service or activity, including costs of collection, production, reproduction and dissemination.

(iii) In case that a public administration or body re-uses the documents as basis for commercial activities other than the functions attributed to them, the same charges or public prices and conditions applied for the rest of users shall be applied.

(iv) It is permitted to apply charges or public prices different depending on the commercial or non-commercial purposes of the re-use.

²⁰⁶ See the following link: <http://www.freeourdata.org.uk/>.

²⁰⁷ CADA Decision #20070034 of 5 April 2007.

(v) The public administrations and public bodies shall make available to the public the list of charges and public prices applicable to re-use requests and the circumstances in which no payment shall be made. Likewise, the relevant body shall inform, at request, of the calculation basis for the quantification of the charge and the elements taken into account for the calculation of charges applicable to specific cases different to the general ones.

4.3.2.5 Norway

571. Article 8 of the Freedom of Information Law addresses the issue of charging for the supply of public sector information. In line with the PSI Directive, it is provided that charges must not exceed the costs related to collection, production, reproduction and dissemination, together with a reasonable return on investment. The Government is entitled to adopt further provisions in relation to charging or cost recovery for the supply of public sector information.

4.3.2.6 Greece

572. With regard to charges, Article 7 of the Law 3448/2006 is in principle compatible with Article 6 of the PSI Directive. There is no knowledge that Greece has issued any general policy or guidance in relation to charging / cost recovery for the supply of public sector information.

573. Moreover, the Law 3448/2006 does not contain any distinction between various categories of potential re-use (commercial, non-commercial, ...).

4.3.2.7 Poland

574. In general, access to public information is free of charge but exceptions may apply, for instance if additional costs are involved in the provision of the data or if the data need to be transformed in order to meet a request. Providing extracts from public registries is usually charged for.

575. The Polish Constitution and the Access Law guarantee access to public information which cannot be restricted other than by virtue of the law. This implies that any charges for access have to be reasonable and cannot result in restricting access. Charges should therefore be cost-related.

576. There is no distinction in the Access Law between various categories of potential re-use of data (commercial, non-commercial, ...).

4.3.3 Use of standard licences for the re-use of PSI

4.3.3.1 Bulgaria

577. The LAPI does not contain any specific provisions on licences. No specific provisions or guidelines have been adopted regarding the issues to be addressed by any such licence, and no standard license has been established.

4.3.3.2 UK

578. The OPSI has produced standard licences for the reuse of public sector information and recommends that public sector bodies use these²⁰⁸. The licences cover chargeable and non-chargeable reuse. OPSI also operates a "click-use" licence scheme, whereby public sector information can be managed by OPSI and reused by online licences.

579. OPSI has heard at least one case concerning licensing of geographical data, which looked at charging and discrimination in licensing terms.

4.3.3.3 France

580. Article 16 of the Law n°78-753 states that licences shall be required when the re-use of PSI is charged for in accordance with Article 15 of the same Law.

581. Article 16 further specifies that licences shall stipulate the conditions under which PSI may be re-used, being specified that such re-use shall be restricted only for general interest purposes and in a proportionate way, and shall not lead to competition distortions.

582. There is no knowledge of a standard licence. Each public sector body concerned is in charge of issuing its own standard licence, by application of Article 16 of the Law n°78-753.

4.3.3.4 Spain

583. Under Article 4.2 of Law 37/2007, the public sector bodies may decide whether the documents held by them shall be re-usable in any of the following manners: (i) re-use not subject to conditions; (ii) re-use of documents available to the public subject to standard licenses; or (iii) re-use of documents at request, which may be subject to the particular conditions established by a licence.

584. Article 4.3 of Law 37/2007 expressly states that licences shall meet the following general criteria: (i) they shall be clear, fair and transparent; (ii) they shall not restrict the possibilities of re-use or limit competition; (iii) they shall not be discriminatory.

585. Article 4.4 of Law 37/2007 confirms that the administrations and public bodies are entitled to provide standard licences, which shall be available in digital format able to be processed electronically.

586. Article 9 of Law 37/2007 sets forth that licences shall state, at least, the information related to the specific purpose, commercial or non-commercial, for which the re-use is authorised, the duration, the obligations of the beneficiary and of the body granting the licence, the responsibility of use and the forms of financing, as well as if the licence is free of charge or, if applicable, the relevant charge or public price.

²⁰⁸ See the following link: <http://www.opsi.gov.uk/advice/psi-regulations/advice-and-guidance/standard-licences.htm>.

4.3.3.5 Norway

587. Article 8 of the PSI Directive (including the possibility of establishing licences) is implemented in Article 7 of the new Freedom of Information Act. There seem to be no specific provisions or guidelines regarding the issues to be addressed by such licence or any standard licence for the re-use of public sector information.

4.3.3.6 Greece

588. With regard to licences, Article 7 of the Law 3448/2006 seems in line with Article 8 of the PSI Directive. More specifically, it provides that public sector bodies may allow for re-use of documents without conditions or may impose conditions through a licence or even under other conditions (i.e. by imposing levies). There is no knowledge of Greece having adopted any specific provisions or guidelines regarding the issues to be addressed by re-use licences, nor has it established a standard licence for the re-use of public sector information.

4.3.3.7 Poland

589. The Access Act implementing the PSI Directive is silent on licensing. There is no knowledge of any official guidelines or standard licence forms for re-use of PSI.

4.3.4 Interaction between access to environmental data and re-use of PSI

4.3.4.1 Bulgaria

590. Access to environmental information and re-use of PSI are implemented into Bulgarian law through separate legal instruments (the EPA and the LAPI). EPA is considered to be governing specific matters (*lex specialis*) and may not be overridden by LAPI which governs general matters (*lex generalis*).

591. The EPA does not contain any specific provision that prohibits the re-use of environmental data for other purposes. Therefore, as EPA does not provide for any special rules which derogate from the general rules of LAPI, the provisions of LAPI regarding the re-use of public sector information would find application to environmental information.

592. Refusal of an application to re-use data may be based on other laws which generally restrict access to the data requested (e.g. the refusal grounds set forth under the access regime).

4.3.4.2 UK

593. The PSI Regulations operate in parallel with the EIR and FOIA 2000. Therefore, the PSI Directive has been implemented in a separate set of regulations to the regulations implementing the Environmental Information Directive.
594. The UK EIR does not contain a specific provision that expressly prohibits the reuse of environmental data for other commercial or non-commercial purposes. Reuse is covered under the PSI Regulations. These do not prohibit the reuse of environmental data, however there is nothing in the PSI Regulations which require a public authority to permit reuse (although a refusal could be challenged under other grounds e.g. judicial review or competition law).
595. Recent UK case law has also considered the interaction of the EIR and FOIA: a decision in 2007 confirmed that EIR and FOIA 2000 are not mutually exclusive regimes but run in parallel. Therefore, the FOIA 2000 regime is potentially a supplemental right of access to environmental information, beyond the rights in the EIR²⁰⁹.

4.3.4.3 France

596. The PSI Directive was implemented into French Law by the Ordonnance n°2005-650 of 6 June 2005 amending and completing the Law n°78-753 (which governs the general access regime to public sector documents in France). A specific section on re-use of PSI was inserted into this Law °78-753.
597. The Environmental Information Directive, however, was not incorporated into the Law n°78-753, but rather within the French Environment Code. It shall derogate to the general access regime stated by Law n°78-753 when its content is deriving from the content of this Law n°78-753 (including its provisions on re-use of PSI).
598. Article 10 of the Law n°78-753 states that data may be re-used “for other purposes than the public service purpose for which they have been elaborated”, which should be interpreted as a general “authorisation” to re-use data obtained under the access regime (without prejudice, of course, to the exceptions, exclusions and limits described in the Law n°78-753).
599. The Conseil d’Etat (French Supreme Administrative Court) has very recently applied provisions of Article 10 of the Law n°78-753 in order to confirm that information to which access may be refused by virtue of the French general access regime are out of the scope of the French re-use of PSI legislation²¹⁰.
600. At CADA level, Decision #20063444 of 14 September 2006 should also benoted: documents to which access shall be denied on the ground of the French general access regime may however be re-used when they are publicly available, unless third parties have IPR in such documents.

²⁰⁹ See decision of the Information Tribunal, available on:
http://www.informationtribunal.gov.uk/Documents/decisions/decision_RhonddaCynon_website.pdf.

²¹⁰ Decision #304752 of the Conseil d’Etat, 11 July 2008.

4.3.4.4 Spain

601. The PSI Directive and the Environmental Information Directive have been implemented through two separate and independent items of legislation: Law 27/2006 and Law 37/2007, respectively.
602. In this regard, Article 1 of Law 37/2007 sets forth that the application of this Law shall take place without prejudice to the legal regime and the specific rules on the rights of access to documents, and Article 3.4 of Law 37/2007 expressly clarifies that this Law shall not restrict the more favourable provisions on access or re-use that may be contained in specific sectoral legislation.
603. On the other hand, Article 10.5 of Law 37/2007 provides that in the event of a negative decision in relation to a re-use request such decision shall be notified to the applicant stating the grounds for refusal on the basis of any of the provisions of this Law or of any other piece of legislation in force (thus including the refusal grounds of the general access to environmental data legislation).
604. Law 26/2007 (on access to environmental information) does not contain a specific provision that explicitly prohibits the re-use of the environmental data for other (commercial or non-commercial) purposes.

4.3.4.5 Norway

605. The Environmental Information Directive and the PSI Directive are implemented in separate legal instruments. The provisions of the PSI Directive will be made part of the existing legislation on access to public information when the new Freedom of Information Act will enter into force late Autumn 2008.
606. Under the existing legislation on access to public information, public sector bodies are required to communicate the grounds for refusal of access to information, as well as the provision relied upon as a legal basis for the refusal.
607. The legislation on access to environmental information does not contain any specific provision that explicitly prohibits the re-use of the environmental data.

4.3.4.6 Greece

608. The Environmental Information Directive and the PSI Directive are implemented in separate legal instruments.
609. Article 1 of the Law implementing the PSI Directive provides that access regimes already in force will be kept in force, without prejudice to the provisions of that Law. Documents that are excluded from access by virtue of an access regime under Greek law are also excluded from the scope of the Greek Law implementing the PSI Directive.

610. Greek access to environmental information legislation does not contain any specific provision that explicitly prohibits the re-use of the environmental data for other (either commercial or non-commercial) purposes.

4.3.4.7 Poland

611. As mentioned, the PSI Directive seems to be (inadequately) implemented through the Access Act, while the Environmental Information Directive is implemented through the PEA but will be further implemented through the Proposed Act.

612. The access regime stipulated in the Access Act is the general law on the matter. The Polish legislation on access to environmental information constitutes an independent legal basis to gain access to this type of information.

613. The PEA does currently not directly limit the re-use of environmental information. Such limitations may, however, originate from the Access Act or from other Acts (e.g. the Intellectual Property Act with regard to the re-use of certain published copyrighted or otherwise protected data).

4.4 Intellectual property rights

4.4.1 Bulgaria

614. Information for which third parties hold IPR are explicitly excluded from the PSI regime, while IPR is also listed as a potential ground for refusal of access to environmental data. If the re-use of data is refused on the basis of third party IPR, the public sector body should include reference to the natural or legal person who is the rights holder or to the licensor from which the public sector body has obtained the relevant rights.

615. In Bulgaria, there are no specific provisions on ownership and management of IPR by public authorities. General IPR law applies.

616. With respect to copyright and related right, the single possibility that rights initially directly vest with a public body, is when a work is created upon commissioning by the body. A full transfer of copyright and related rights is not permitted under Bulgarian law; only licensing of the rights is possible for a limited term (up to 10 years). Regarding industrial property rights, title thereto may arise for the respective applicant subject to registration.

4.4.2 UK

617. Information for which third parties hold IPR are explicitly excluded from the PSI regime, while access to environmental data may be refused where the disclosure of the data would adversely affect IPR.

618. Under the PSI Regulations a public sector body must notify in writing the reasons for any refusal and provide the details (where known) of any third party holding IPR in the information requested (see Regulation 9).
619. The standard licences produced by OPSI cover the protection of IPR. OPSI also suggests copyright notice wording for use by public sector bodies²¹¹.

4.4.3 France

620. In line with the EC Directives, information for which third parties hold IPR are excluded from the PSI regime, while access to environmental data may be refused where the disclosure of the data would adversely affect IPR.
621. As mentioned, it is CADA's constant position that existing IPR (by application of Article 9 of the Law n°78-753) shall not impede public access to environmental information, but shall rather tend to limit subsequent *collective* use (as opposed to individual use) of the information concerned²¹².
622. It is also provided by Article 25 of the Law n°78-753 that when a third party has IPR in the document containing the PSI to be re-used, the public body shall inform the re-user of it and provide the re-user with the details regarding this third party.
623. There are no specific provisions regarding IPR held by public authorities (other than those on IPR created by public agents when exercising their function).

4.4.4 Spain

624. In line with the PSI Directive, information for which third parties hold IPR are excluded from the PSI regime. It is specified that Law 37/2007 does not affect the existence and possession of IPR by the public administrations and bodies or the exercise of such rights outside the limits set forth by this Law; the exercise of such rights by the administrations and public bodies shall be carried out in a manner that facilitates the re-use.
625. Moreover, Article 10.6 of the Law 37/2007 sets forth that in the event that the negative decision is based on the existence of third parties' IPR the relevant public body shall include (in the communication of the decision) a reference to the natural or legal person which is the owner of such rights, if the identity of such person is known, or alternatively to the assignor of such rights.
626. Under the access to environmental data legislation (Law 27/2007), it is provided that access to environmental data may be refused where the disclosure of the data would adversely affect IPR.

²¹¹ See the following link: <http://www.opsi.gov.uk/advice/psi-regulations/advice-and-guidance/standard-licences.htm>.

²¹² See for instance CADA's decision #20065534 of 21 December 2006.

627. In relation to IPR held by public authorities, only the Spanish Patent Law (11/1986 of 20 March 1986) seems to include some specific provisions (which are, however, less relevant for the purpose of this Study). There seem to be no general rules or guidelines with regard to IPR generated by private organisations on the basis of public funding.

4.4.5 Norway

628. The Environmental Information Act specifies that the Act applies with the limitations set forth by the Norwegian Copyright Act. In the preparatory works of the Environmental Information Act it is specified that this both applies to work protected as copyrighted material, as well as for compilations of works that benefit from protection as a database or catalogue.

629. However, it is specified in Article 27 of the Copyright Act that the Act shall not preclude access to documents pursuant to the Public Administration Act and the Freedom of Information Act or other legislation. This may lead to a situation where access to information is granted but subject to limitations as regards how this information may be used, e.g. need for consent prior to reproduction of the material, etc.

630. The Norwegian copyright legislation does not include any specific legal provisions with regard to the ownership and management of IPR by public authorities.

4.4.6 Greece

631. In line with the EC Directives, information for which third parties hold IPR are excluded from the PSI regime, while access to environmental data may be refused where the disclosure of the data would adversely affect IPR.

632. Similar to most countries, Greek law provides that the economic rights in “intellectual products” created by civil servants during their employment are transferred ipso jure to the respective public authority, unless an agreement to the opposite would exist²¹³.

633. Although there are no specific legal provisions or policies or guidelines, under Government practice the ownership and/or management of IPR generated by private organisations on the basis of a government funding, is subject to the provisions of the project funding agreement. Usually, such agreement will contain clauses which either allow the retention of the ownership and/or the management of any IPR generated within the frame of the respective agreement by the private organisation concerned, or alternately the retention of such rights by the funding authority, or even jointly by both of them (joint exploitation of IPR).

²¹³ Article 8 of the Law 2121/1993 on Intellectual Property Rights.

4.4.7 Poland

634. Access to environmental information may be refused if revealing the information could infringe copyright or patent protection. In this respect, it is interesting to note that in the implementation report on the Aarhus Convention, submitted by Poland to the Economic and Social Council of the United Nations on 7 May 2008, reference is made to cases of authorities refusing requests on the basis of “misinterpretation of copyright laws”²¹⁴.
635. On the protection of IPR, the Self-Governing Board of Appeal in Wrocław (*Samorządowe Kolegium Odwoławcze we Wrocławiu*) has ruled that it is possible to use an already published work (*in casu* an environmental study report) for private purposes and that, therefore, those who request environmental information are entitled to receive it but only to use it for the private purposes²¹⁵.
636. With regard to the re-use of PSI, re-use limitations may, *inter alia*, originate from the Intellectual Property Act (restricting the re-use of copyrighted or otherwise protected data). In that respect, the Access Act (which is deemed to also regulate the re-use of PSI) only provides that the right to public information may be subject to limitation in case business secrets are involved (which may also include know how and other IPR).
637. Polish copyright law excludes copyright protection for “official documents, documentary material, devices and symbols”. The definitions in the provisions of the Polish Civil Procedure and Polish Administrative Procedure imply that an official document is a document drawn in a proper form by an authorised entity, within the framework of its activity.
638. Official documents are e.g. public announcements, instructions or communications issued by public authorities and official explanations, circulars, internal regulations, patterns of writings and also court’s and other authority’s decisions. Official explanations of legislation can also be categorised as being official documents. Official documents may be issued not only by public authorities but also by local governments, trade and cooperative organisations, within the framework of State administrative duties. These official documents are thus not protected by copyright, even if they are not published.
639. Contrary to the category of “official documents”, which is strictly defined, the term “official documentary material” is very wide and basically means everything that is not a document, but which is official.

4.5 Analysis

640. In general terms, as described in this Part, all of the surveyed countries have implemented legislation to give effect to the Environmental Information Directive (sometimes in conjunction with general freedom of information legislation). Poland is currently in a state of transition with new legislation in the process of being adopted.

²¹⁴ Implementation report on the Aarhus Convention, submitted by Poland to the Economic and Social Council of the United Nations, 7 May 2008, p. 8.

²¹⁵ SKO 4542/2/05 of 19 May 2005.

641. Marine environmental data is not specifically referred to in national legislation but there are no real doubts but that it is included within the notion of environmental data.
642. There are no obvious deficiencies with regard to the manner in which the scope of application of the Environmental Information Directive has been transposed into national law. The military is generally subject to the environmental information regime but with the kinds of potential for exemptions foreseen in the directive. In Norway the private sector is also included.
643. There are no particular surprises as to the scope of data centres that are deemed under national law to be subject to the directive. UK case law suggests that simply carrying out a public function is not sufficient for the relevant legislation to apply – the function must be administrative. It also suggests a broad notion of the concept of holding environmental data.
644. As regards possible refusal grounds in most countries those specified in the directive have generally been followed. In France two of the possible refusal grounds seem to have been omitted while in Poland the refusal grounds are slightly different.
645. There is greater variation as regards the issue of charges, with more or less guidance being provided. That the mechanisms for charging in Bulgaria and Greece are less well known is a finding that is substantiated by the data collection exercise.
646. In general terms, difficulties encountered during the data collection exercise seem to have resulted as much from unfamiliarity with the process due largely in some countries (Greece and Bulgaria for example) with a lack of practical experience of the process: few requests for marine environmental data having previously, it appears, been made.
647. Interestingly while the report to the Aarhus Convention on France's implementation of the directive had suffered from a 'cultural resistance to transparency' acquiring marine environmental data in France was particularly easy.
648. With regard to the issue of the re-use of public sector information the picture is broadly similar. The scope of the public bodies that are required to comply with the PSI regime and the types of information that may be excluded seem to comply with the EC framework. Only with regard to Poland there seems to be a question mark regarding transposition.²¹⁶
649. As regards the rules on charging, in some countries, such as Bulgaria these do not permit a reasonable return to be made on investment. The UK rules do but the

²¹⁶ Indeed the Commission has recently taken the first step in launching infringement proceedings against Poland:
<http://europa.eu/rapid/pressReleasesAction.do?reference=IP/08/1524&format=HTML&aged=0&language=EN&guiLanguage=en>

guidance on charging is outdated. In France IPR are expressly referred to as a factor that may be taken into account in setting the level of charges.

650. As regards re-use licences, standard licences have been prepared for the UK, while they are currently missing for Bulgaria and France. The relevant Spanish legislation contains quite detailed rules on the content of re-use licences, while guidelines have yet to be adopted in Norway and Greece and Polish legislation is silent on this.
651. In summary on the basis of the data collection exercise and the analysis of applicable legislation there do not seem to be particular problems with regard to gaining access to marine environmental data. More difficult, though, is the question of re-use.
652. This is because the regimes that promote access to environmental information and the re-use of public sector information operate in parallel to IPR, at EC level and in the legislation of the selected countries. More specifically the innovations contained in, for example, the Environmental Information Directive and the PSI Directive cross refer to IPR and take account of the IPR regime but without fundamentally altering it.
653. Most obviously it is important to recall that the PSI Directive does not require the Member States to allow the re-use of public sector information. The decision whether to allow the re-use of public sector data may for instance be dependent on the public body in question (in the exercise of its IPRs). Rather the Directive seeks to provide a 'level playing field' in the event that re-use is permitted. It follows that in the context of European marine environmental data the PSI Directive does not expressly require data to be made available for re-use or to specify any favourable basis for this. And of course it applies only to data held by public sector bodies thus removing a large number of data centres from the equation (educational and research establishments are expressly excluded from its scope).
654. The Environmental Information Directive poses more of a challenge to the notion of IPR but only by a matter of degree. The directive, which again does not all apply to all categories of marine environmental data holder, only requires an applicant to be granted access to data. It does not *per se* authorise re-use. The implementation of the INSPIRE Directive will not alter the basic position regarding and re-use.
655. By analogy if I invite you to my house to pick up a parcel I confer on you an access right in the form of a licence to cross my front garden and walk up to the front door. You have a right to access only. I could, if I felt like it, give you a licence to use the space in my garden to pitch your tent, even to live there for a while. But that is up to me. In other words access and use are not the same.
656. In summary for some classes of data centre (*i.e.* public data centres) the environmental data and re-use regimes modify the grant of access and if re-use is permitted how that takes place.
657. Otherwise, though, it is up to each data centre to determine the issue of access (it if is not subject to the directive) and re-use in any event.

658. This is a matter to be determined in accordance with the individual data policy of each data centre.
659. A data policy may address a range of issues beyond data use (such as data recording, archiving, formatting and back-up procedures as well as charging) but it is the data use conditions that are the key here.
660. One of the findings of the data collection exercise is that many European data centres holding marine environmental data appear to have no formal data policy. Or, and in practical terms the effect may be similar, persons working in such centres are not aware that any such policy exists.
661. The lack of a formal data policy typically means that the entire process of data acquisition (for the purposes of access as well as re-use) is more complex, time consuming and likely less transparent, particularly as far as the issue of charging is concerned. The lack of a formal data policy can also be harmful for data centres if they release data or even give it away without safeguarding their interests. Furthermore in a number of cases the lack of a formal policy can mean it is hard to identify who precisely is the owner of IPR in the data.
662. Nevertheless even those data centres without a formal data policy were generally aware of the need for such a policy and in a number of cases policies were in the process of development.
663. In broad terms the data collection exercise demonstrates that data is generally relatively available for re-use for non-commercial purposes without cost or at very low cost.
664. However in cases where marine environmental data is required for commercial use or re-use the picture is quite different. Very few of the data centres contacted have a completely free re-use policy. Norway's meteorological service is one rare exception.
665. Elsewhere the commercial value of data, and the possibility of exploiting this value, was clearly recognised whether informally, as in the case of Bulgaria's data centres, or formally.
666. In the UK, in particular, the notion that such data is a potentially valuable resource is clearly recognised. The data policy of the UK Met Office expressly refers to the 'principles by which the Met Office trades in data'.
667. This is no accident. Although the Met Office and the UK Hydrographic Office (UKHO) are both public (state) entities, they have the status of 'trading funds' and as such are set up expressly to trade. Indeed both obtain much of their income from the sale and licensing of information through the exploitation of IPR including IPR in data.
668. Apart from generating an income that would otherwise have to be provided through a budget allocation (thus reducing overall public expenditure), a number of benefits are claimed for this approach. In particular state bodies are freed from

bureaucratic procedures to innovate and to provide flexible approach to data management and data use in response to market demands.

669. On the other hand, leaving aside the basic question of whether public bodies should in fact charge for the re-use of such data, a number of concerns have emerged around this kind of business model. These include the overall cost to the economy,²¹⁷ the basis on which charges are in fact calculated as well as the fact that the trading funds may themselves be in competition with potential data (re-) users. Indeed a recent report noted that trading funds may also seek to obtain commercially sensitive information, including details of business models, from those who seek to obtain data that they hold in order to appropriately tailor licence conditions and calculate royalties.²¹⁸
670. In this connection it is pertinent to note that the UK Government recently announced a review of trading funds including the UKHO.²¹⁹
671. As noted in the Introduction, this kind of approach under which IPR are asserted in connection with the re-use of public sector environmental data in order to generate an income flow is contrasted with the situation in the United States where a policy of open and unrestricted access to taxpayer-funded government-generated public information applies.²²⁰
672. It does not necessarily follow, of course, that an open re-use policy offers no challenges of its own. Issues may arise relating to the degradation of data as well as well as negative impacts on the both the funding of public data centres and the degree to which they may take an innovative approach.
673. These questions are, however, ultimately one of policy rather than law. Of course the law will most likely have an important role to play if a new policy is adopted but the development of new policy will be guided by a range of social, economic and ecological issues that will first need to be addressed before legal solutions are proposed.

²¹⁷ See for example: <http://www.offt.gov.uk/news/press/2006/171-06>

²¹⁸ Office of Fair Trading *The commercial use of public information (CUPI)* December 2006 at page 93. www.opsi.gov.uk/advice/poi/oft-cupi.pdf

²¹⁹ See: www.shareholderexecutive.gov.uk/publications/pdf/tradingfunds250608.pdf

²²⁰ See: *Borders in Cyberspace: Conflicting Public Sector Information Policies and their Economic Impacts*, Peter Weiss (US National Oceanic and Atmospheric Administration) 1996

5 ISO 19115 and the description of legal access conditions to marine environmental data

5.1 ISO 19115

674. ISO Standard, ISO 19115, which was developed by the International Standards Organisation (ISO) and adopted in 2003, is concerned with ‘meta-data’, in other words data that describes data (or ‘data about data’).

675. While it was originally designed to provide a structure for describing digital geographic data (GIS data) through the definition of general-purpose metadata, it is in practice the only meta-data standard that is commonly used to describe environmental data with a spatial element.²²¹

676. As such ISO 19115 defines a range of ‘metadata elements, provides a schema and establishes a common set of metadata terminology, definitions, and extension procedures’. To this end, the standard defines:

- mandatory and conditional metadata sections, metadata entities, and metadata elements;
- the minimum set of metadata required to serve the full range of metadata applications (data discovery, determining data fitness for use, data access, data transfer, and use of digital data);
- optional metadata elements – to allow for a more extensive standard description of geographic data, if required;
- a method for extending metadata to fit specialized needs.

677. Among the optional meta-data are a set of elements specified as ‘MD_LegalConstraints’. These are set out in a Code List, called ‘MD_RestrictionCode’, which states:

- + copyright
- + patent
- + patentPending
- + trademark
- + license
- + intellectualPropertyRights
- + restricted
- + otherRestrictions

678. In practical terms, however, what real information can these elements provide as to the availability of marine environmental data? Are they adequate to describe access conditions to marine environmental data in a European context including any legal restrictions?

679. For the purpose of discussion it is useful to analyse each element separately.

²²¹ The Global Change Master Directory DIF format, developed by NASA, was designed for descriptions of large data holdings and is generally considered not to provide sufficient detail for to satisfactorily describe individual data sets. For that reason the focus of this discussion is on ISO 19115.

5.1.1 + copyright

680. Although copyright is listed as a restriction, in practice, marine environmental data gathered in a European context is invariably subject to copyright, or put another way, to a claim for copyright.

681. As outlined above, copyright *per se* is not a restriction. Rather copyright is, if not the principal, the broadest basis on which restrictions on access and use can be imposed. So to state that there is a copyright restriction sheds little light on the nature of that restriction. For, as will be seen below, a range of different restrictions may be imposed on the basis of copyright.

682. Evidently one objective of a meta-data description is to be concise. It may be fair to infer that what is meant here is that metadata with the tag '+ copyright' refers to data in respect of which copyright is claimed. But then what? Even though copyright is claimed the data may still be available pursuant to a licence. But if that is the case why not use the tag '+licence'?

5.1.2 + patent

683. Apart from the fact that a patent, like any other IPR is only a potential restriction on the use of data as outlined above, it is hard to see how patents and patent pending restrictions could be relevant to marine environmental data. Patents can only be issued in respect of products and processes and not in respect of data.

684. Indeed it is not easy to see how a patent could in practice be a restriction for any kind of GIS data.

5.1.3 + patentPending

685. 'Patent pending' refers to the situation where a patent has been applied for but not yet granted. Similar comments apply as to +patent

5.1.4 + trademark

686. As with patents it is hard to see how trademarks can pose much of a restriction to marine environmental data. Furthermore, as with copyright, the fact that IPR are subject to a trademark does not necessarily preclude their use pursuant to a licence.

5.1.5 + license

687. As described above a licence is the usual means whereby the owner of an IPR in data, typically copyright or a database right grants another person the right to use that data. As such a licence, or the fact that a licence is necessary, may amount to a restriction.

688. On the other hand, though, this simple observation is not particularly useful in providing an indication as to the degree to which the use of data is restricted.

689. For example, the fact that a licence is necessary to access or use data says nothing about the permitted use or uses to which the data may be put let alone other conditions including payment.

690. A simple ‘click-use licence’ that gives unrestricted access to a dataset subject to, say, a requirement that the source be acknowledged, is vastly different to a single user licence for the long term supply of data for commercial re-use that contains onerous confidentiality conditions and the payment of substantial royalty fees.

5.1.6 + intellectualPropertyRights

691. Given that copyright, patents and trademarks are themselves IPRs, this heading makes little sense unless the intention is to include some other form of unspecified IPR such as the *sui generis* database right.

692. Given that this right exists only under EC law, while ISO standards are, as their name implies, intended to be of global application this argument seems unlikely.

5.1.7 + restricted and + otherRestrictions

693. The scope of these headings is not clear. As outlined above, access to marine environmental data may be restricted for a wide of range of reasons including reliance on IPR as well as statutory limitations, such as the grounds for refusing a request for environmental data specified in the Environmental Information Directive.

694. In summary, the heading + otherRestrictions appears to add little if anything to the heading +restricted which itself offers little information as to the nature and/or scope of the restriction.

5.1.8 Concluding analysis

695. In conclusion, these meta-data elements provide little useful information as to the availability or otherwise of marine environmental data or on the legal restrictions that may apply to such data.

696. A key point to note is that they are neither systematic nor entirely logical. More specifically they do not compare like with like. The first four are IPRs, the fifth is the typical mechanism whereby use rights over IPRs are granted, while the sixth heading is IPRs.

697. Taking account of the fact that analogies can be dangerous, if these elements were in fact used to describe ‘colours’ they might look this:

- Light blue (copyright);
- Dark blue (patents and patent pending);
- Medium light blue (trademark) ;
- Paintbrush (licence – as means of applying a colour);
- Blue (encompassing the other shades of blue);
- Colours (repeating the title of elements);
- Other colours (largely repeating the previous heading).

698. In other words, rather than describing a range of colours the elements simply describe shades of blue (representing IPR) and the fact that other colours exist (representing the fact that there are restrictions).

5.2 Description of access conditions to marine data

699. Given that the ISO 19115 access conditions provide a very limited description of access conditions to marine environmental data what could a more accurate description contain?

700. Based on the findings of this Study the following description is proposed. Before looking at this description two points should be emphasised.

701. First of all, the ToR do not require the development of proposals to revise ISO 19115 (and in any event the idea behind the meta-data standard is that different user communities can develop their own meta-data descriptions or ‘tags). Instead, the proposals made here are intended simply to describe the legal variations that have been identified in connection with access to, and use of, European marine environmental data.

702. The second point to emphasize is that the description of access conditions that follows is illustrative of the empirical findings of the study, including an analysis of relevant data policies, rather than prescriptive. In other words it does not seek to evaluate the access conditions identified, let alone to describe model conditions.

5.2.1 The basic questions

703. From a conceptual, as well as a practical, perspective there are three possible answers to the question as to whether a particular set of marine environmental data are available. These are:

- (a) the data are not available;
- (b) the data are freely available and there are no restrictions as to their use or re-use; and
- (c) the data are subject to IPR and are available on the basis of a licence.

704. As regards answer (b) there is really not much more to be said. IPR over the data have been waived, no other legal restrictions apply thus the data are publicly available for use and re-use.

705. Answer (a) in itself is rather clear. What could be useful would be to specify why the data are not available.

706. Answer (c), however, raises a number of questions as to the basis on which the data is available and thus the contents of the licence.

707. These issues are examined in more detail in the following paragraphs.

5.2.2 The data are not available

708. The grounds on which a data holder may refuse to grant access to marine environmental data will depend on the legal status of the data holder.

709. In the case of a holder that is subject to the Environmental Information Directive, the grounds on which a request for marine environmental data may be refused are limited to those specified in Article 4 (2) of the directive, as provided for in national legislation.

710. Some of these grounds are not likely to be relevant to marine environmental data. These include the ground that the disclosure of the of the information would adversely affect: (a) the confidentiality of the proceedings of public authorities, where such confidentiality is provided for by law (Article 4 (2) (a)); and (b) the course of justice, the ability of a person to receive a fair trial or the ability of a public authority to conduct an enquiry of a criminal or disciplinary nature (Article 4 (2) (a)).

711. As regards the grounds on which data may be with held by a holder not subject to the Environmental Information Directive the possible scope is theoretically limitless. Just as the owner of any other property has (in legal theory) a full discretion regarding the use and/or disposal of that property so does the owner of an IPR. On the other hand, a number of grounds are more commonly cited than others and it is useful to identify these.

5.2.2.1 Military secret

712. In a number of cases this heading was claimed as reason why marine environmental data could not be provided. Article 4 (2) (b) of the Environmental Information Directive provides that national legislation may provide a request for environmental information may be refused if the disclosure of such information would adversely affect: ‘international relations, public security or national defence’ are grounds for refusing a request

5.2.2.2 Scientific moratorium

713. A scientific moratorium, to enable those involved in the initial acquisition of the data to undertake research and, as just importantly, to publish their findings was another ground for refusing to provide data.

714. Such a ground can only be based on IPR and cannot be claimed by a data holder that is subject to the Environmental Information Directive.

5.2.2.3 Commercial confidentiality

715. This ground was most commonly claimed by private sector data holders. While Article 4 (2) (d) of the Environmental Information Directive includes commercially confidentiality as a heading this is to be strictly applied against data holder subject to the Directive.

5.2.2.4 Conservation confidentiality

716. The need to refuse access to data where this is necessary to protect the environment to which such information relates, such as the location of rare species is expressly recognised in the Environmental Information Directive.

5.2.2.5 IPR

717. As already mentioned the scope for refusal is on this ground is theoretically unlimited in so far as data holders not subject to the Environmental Information Directive are concerned. IPR can, as outlined above, be provide a lawful ground for a data holder subject to the directive to refuse to disclose information subject to the caveat that this exception will be interpreted restrictively.

5.2.2.6 Unfinished document

718. The fact that data are contained in an unfinished document may be a legitimate ground for refusal pursuant to the Environmental Information Directive. Article 4 (1) (d).

5.2.2.7 Personal data

719. Finally the confidentiality of personal data or files relating to a natural person who has not consented to the disclosure of the information will be a lawful ground to refuse the provision of data pursuant to Article 4 (2) (f) of the Environmental Information Directive.

5.2.3 The data are subject to IPR and are available on the basis of a licence

720. Simply to state that marine environmental data are subject to IPR and available on the basis of licence sheds little light on what can in fact be a very broad range of different access options. Four different principal headings are proposed under this category: (1) the type of licence; (2) the use restrictions that apply to the data; (3) the issue of payment; and (4) other conditions relevant to marine environmental data that were identified during the preparation of this Study.

721. In terms of the level of detail provided, it may be argued that these headings and sub-headings provide too much detail to be used in practice.

5.2.3.1 Licence type

722. Three principal licence types are identified, a simple disclaimer, a standard licence, and an individually negotiated contract.

5.2.3.1.1 Simple disclaimer

723. Under this heading are included simple contracts by notice such as a ‘disclaimer’ or a statement on a website that provides that continued use of the website and/or the downloading of data is deemed to imply consent to specified licence conditions.

724. In other words the licence is concluded without any active part being played by the licensor who may not even be aware that the licence has been created.

5.2.3.1.2 Standard licence

725. Under this heading are included standard-form licences which are not open to negotiation and where certain information is conveyed to the licensor before the licence is concluded.

726. In addition one centre could have more than one licence depending on the data holding.

727. Under this heading can be included click use licences, as well as forms that must be completed either in the web or returned to the licensor by email, fax or post.

728. This heading could be further broken down into two further sub-headings as follows: (a) standard licence used by an individual data centre; and (b) a common licence used by a class or category of data centre because, for example, they have the same legal status or funding source or are part of an academic or research consortium.

729. It will be recalled the PSI Directive encourages the use of standard licences.

5.2.3.1.3 Individually negotiated contract

730. This type of licence will be more commonly found in those cases where formal procedures for the supply of marine environmental data have yet to be established or where the data is being supplied for commercial re-use.

731. In the latter case specific clauses will typically need to be drafted and agreed in connection with such issues as the fees payable and the precise nature of the business activity to which the data will be put.

5.2.3.2 *Restrictions on use*

732. Licence conditions typically specify that marine environmental data may be used only for specific purposes.

733. Under this heading are four main categories: (1) Research; (2) Education; (3) Individual use; (4) Commercial use; and (5) Government/official use.

734. Under the heading commercial use a distinction is sometimes made between internal business use and re-sale or re-use.

5.2.3.3 *Payment*

735. Approaches to payment typically depend on the purpose for which the data is used.

5.2.3.3.1 Data provided for free

(a) For non-commercial purposes

736. Data is typically provided for free for non-commercial purposes such as personal use and scientific research.

(b) For all purposes

737. Less frequently is it provided without charge for commercial use and/or reuse.

5.2.3.3.2 Data is provided against payment

738. If payment is required this can be calculated on the basis of a number of different factors. Indeed several factors may typically be combined in coming up with a total price. These can include:

(a) Staff time spent dealing with the request;

(b) Published scale of fees;

(c) Collection cost charge (cost of collecting the data);

(d) Cost of storing the data;

(e) Distribution cost;

(f) Case by case decision.

739. A further variation concerning payment is whether payment is:

(a) a one-off event; or

(b) periodical by way of subscription. Other conditions

740. It should be recalled that both the PSI Directive and Environmental Information contains strict rules on charges together with an obligation to make the charges transparent.

5.2.3.4 *Other conditions*

741. Finally, on the basis of our research, a number of further licence conditions typically act as restrictions on how marine environmental data may be used. Recognising that there is a degree of overlap the following principal headings are proposed: (a) use of the data; (b) publication; (c) third party use; (d) data quality/integrity; and (e) 'other'.

5.2.3.4.1 Use of the data

742. Restrictions on the use of data included the following:

- (a) that the data will be used only for a specified purpose;
- (b) that the data will be treated as confidential;
- (c) that the data will be used for a time limited period;
- (d) that the data will be destroyed after a specified period (in order to prevent the existence of outdated copies of the dataset);and
- (e) that the data will be used only by specific persons (eg such as the staff of an institution or an individual project);
- (f) that the data will be used only by members of organisations associated with the licensee;
- (g) that the data will be deleted once the project work for which it was supplied has been completed;
- (h) that the data will not be used deliberately to damage the natural environment;
- (i) that the data will not be used to make a financial profit without the written permission of the licensor.

5.2.3.4.2 Publication

743. With regard to the publication of any data supplied the following restrictions were identified:

- (a) that the source of the data be acknowledged;
- (b) that the data not be published without the permission of the licensor;
- (c) that the use of the data will result in published literature (as evidence that the data was used for bona fide academic research);
- (d) that the licensor (data holder/co-workers) be included as co-authors on any papers resulting from the use of the data ;
- (e) that publications citing the core data be provided to the licensor;
- (f) that the data will not be republished wholesale or made available, or exploited commercial or academic research purposes without first obtaining written permission from the licensor;
- (g) that the contribution of relevant source be acknowledged in any derived information product or publication, whether printed, electronic or broadcast, that is based wholly or in part on the data and;
- (h) that the recorder of the data (where identified) will be acknowledged; and
- (i) that the data will not be published on the internet without the prior written approval of the licensor.

5.2.3.4.3 Third party use

744. Restrictions relating to use by third parties included the following:

- (a) that the data will not be distributed to third parties;
- (b) that a secondary licence (or sub-licence) will be obtained in respect of any third party (such as a contractor/sub-contractor) who will work on the data on behalf of the primary licensee (a further variation here is whether or not an additional fee is payable in respect of such a secondary licence);
- (c) that the rights created pursuant to the licence will not be transferred to any other person other than pursuant to the express written agreement of the licensor;

- (d) that any sub-contractor of the licensee will be bound by the same conditions as the licensee.

5.2.3.4.4 The quality/integrity of the data

745. A number of licence conditions seek to protect the quality or integrity of the data. These included requirements that:

- (a) that feedback on obvious mistakes in the data must be provided;
- (b) that the licensor must be informed of other possible sources of relevant data;
- (c) that the licensor must be informed of any suspicion that any element of the data is an infringement of intellectual property rights.

5.2.3.4.5 Other restrictions

746. Finally a number of other restrictions are typically contained in licences (such as choice of jurisdiction clause). These are somewhat standard for commercial agreements but may nevertheless have an impact on how the data subject to the licence is used. As such they can be classed as restrictions.

747. These include the following:

- (a) that the licence will terminate on a specified event (eg bankruptcy, insolvency, cease undertaking business) and that if this happens the dataset will be returned and/or destroyed and that confirmation that this action has been taken will be supplied in writing;
- (b) that the licensor's substantiation of the work, results, conclusions and/or recommendations based on the data (return/destroy dataset and confirm action taken in writing) will not be expressly or otherwise implied;
- (c) that any information product or publication made which contains any part of the material, data and/or information made available must contain a statement that the licensor bears no liability for the use of the data any further analysis or interpretation of that material, data and/or information;
- (d) that the licensor bears no liability for the use of the data;
- (e) that no attempt will be made to circumvent security features on any website through which the data is supplied or to otherwise tamper with, hack into, or in some other way disrupt or disable any computer system, server, website, router or other device used to host such a site or make it available;
- (f) that the data will not be used in a misleading way;
- (g) that the data will not be used to discredit a manufacturer or a product; and
- (h) that no name or trademark will be used, applied for or registered that might be confused with any trademark held by the licensor.

6 OBONT database analysis

748. So far this Study has addressed the issue of access to marine environmental data largely from the perspective of potential users of such data. This Part considers the obligations of the holder of a significant quantity of marine environmental data, including the specific legal conditions under which this data can be disseminated and published to third parties, namely the European Commission.

749. In addition to fisheries data collected pursuant to Commission Regulation (EC) No. 1639/2001 of 25 July 2001²²² establishing the minimum and extended Community programmes for the collection of data in the fisheries sector and laying down detailed rules for the application of Council Regulation (EC) No 1543/2000 (the Data Collection Regulation), there are nearly 800 reporting obligations for Member States for parameters such as catch, effort and capacity.

750. The Commission has developed a database, the OBONT database (OBONT stands for 'obligations on the net') which indicates *inter alia* the legal basis for each obligation, the frequency of reports and the transmission media (fax, e-mail, FIDES etc).

751. Based on a sample of reporting requirements contained in the OBONT database, the legal conditions under which this data can be disseminated and published to third parties are considered.

6.1 Devising the sample

752. The first step was to devise a representative sample. In order to ensure that a range of different types of instrument (and thus reporting requirement) were taken in account, an early decision was to use the headings contained in the Eurlex database to sort the instruments contained in the OBONT database.

753. Apart from the fact that the Eurlex database has a certain authority, this decision was taken because; (a) the identification criteria of column S of the OBONT database proved to be of a too general nature for analytical purposes; and (b) the OBONT database in general proved difficult to manage as many of the reporting requirements enshrined in a specific instrument are scattered.

754. The Eurlex database lists 1061 fisheries acts in force.²²³ Its fisheries classification headings were relied upon for identifying and structuring the legal instruments enunciating reporting requirements.

²²² Proposal for a Council Regulation amending Regulation No 1543/2000 establishing a Community framework for the collection and management of the data needed to conduct the Common Fisheries Policy/* COM/2007/0369 final - CNS 2007/0127 */

²²³ Eurlex search based on classification headings. A query starting from the Eurlex index page refined on the basis of the Directory of Community legislation in force provides only 705 fisheries acts in force.

755. First of all the two databases were compared. More specifically each legal instrument (Regulation, Directive, Decision or Agreement) in the Eurlex Database was compared with the OBONT database and selected if listed in it. The list of instruments is attached as Annex C.
756. This revealed that not all of the fisheries related instruments containing reporting requirements are listed in the OBONT database, and further that a number of are obsolete.
757. Next the number of reporting requirements in each instrument was counted and added to the new list.
758. The number of reporting requirements and their legal basis are identifiable in the accompanying excel sheets whose titles reflect the main fisheries (sub-) classification headings. As shown in the Table 6.1 below, most legislative instruments having reporting requirements result from the market organisation in fisheries products, followed by structural measures and conservation of resources.

General, supply and research		0 %
Statistics		2 %
Common Fisheries Policy	Structural Measures	14.4 %
	Market Organisation	21.6 %
	Conservation of resources	7.8 %
	State aid	0 %
External relations		3.4 %

Table 6.1 legal basis of reporting requirements

759. There is an overlap or duplication of instruments within the Eurlex database's classification headings as these are no tight compartments: an instrument may contain provisions of relevance for the other (sub) headings. This means that 1343 instruments are listed in the Eurlex database, of which 208 are listed in the OBONT Database. The approximately 2470 reporting requirements are thus to be found in 15.5 % of the legislation.
760. Given the number of legislative instruments, reporting obligations and the observations below (see 2.), the analysis was carried out on a sampling basis. 445 out of 1179 reporting requirements listed in the OBONT Database have been analysed, *i.e.* 37.7 %. However, all legislative instruments which make explicit provision that the reported data are confidential are included.
761. Next, a sample of instruments was selected, based on our a number of factors including: (a) the relative number of reporting requirements in each instrument; (b) the selection of at least one instrument from among each Eurlex heading; (c) an appropriate geographical 'spread; and (d) judgment as to which instruments are relatively more important within the framework of the CFP (an admittedly

somewhat subjective task). Each selected instrument is marked with an asterisk (see Annex C).

762. In this way the sample was formed.

763. Next the selected instruments were identified in a copy of the OBONT database: those not selected were deleted. In addition, for ease of working, a number of columns in the copy of the OBONT database that were not considered relevant to this analysis were deleted. Thus a revised database was created.

764. On the basis of column W of the OBONT Database, the reporting provisions have been identified and quantified. This column does not always provide the exact legal basis. Therefore, column G has been in certain cases relied upon for clarification.

765. Next the process of legal analysis could begin.

6.2 Legal analysis

766. With regard to documents held by European institutions, including the Commission, the basic presumption is one of access in accordance with the Environmental Information Regulation and the Transparency Regulation described in Section 2.2.3 above. This basic access regime is subject to a number of exceptions also described in Section 2.2.3.

767. The fact that the this framework creates a presumption in favour of disclosure, however, does not automatically mean that the Commission has the right (let alone the obligation) to publish all of the data it receives such as the reports filed in accordance with the obligations listed in the OBONT database.

768. In particular two main issues may restrict the right of the Commission to publish such data or make it available to third parties, in addition to a specific request from the Member State that has submitted. These two issues are: (1) confidentiality; and (2) personal data.

6.2.1 Confidentiality of data and commercial secrecy

769. The confidential nature of certain data can be a potential barrier to the publishing of such data. The confidentiality can originate from either legal provisions expressly stipulating that the data are confidential (or otherwise classified or protected by secrecy) or are to be treated in a confidential manner, or from contractual provisions to which the disclosing party needs to abide.

770. Regulation (EEC) No 2847/93 establishing a control system applicable to the common fisheries policy (the ‘Control Regulation’) contains express references to the issue of confidentiality.

771. Article 1 (1) of the Control Regulation states:

In order to ensure compliance with the rules of the common fisheries policy, a Community system is hereby established including in particular provisions for the technical monitoring of:
— conservation and resource management measures,

- structural measures,
 - measure concerning the common organization of the market,
- as well as certain provisions relating to the effectiveness of sanctions to be applied in cases where the above-mentioned measures are not observed.

772. In other words the substantive scope of the Control Regulation is somewhat broad. It is a system designed to ensure compliance with (all of) the rules of the common fisheries policy (CFP). Article 1 (3) goes to state that:

The system shall apply to all fishing activities and to all associated activities carried out within the territory and within the maritime waters subject to the sovereignty or jurisdiction of the Member States including those exercised by vessels flying the flag of, or registered in, a third country, without prejudice of the right of innocent passage in the territorial sea and the freedom of navigation in the 200-mile fishing zone; it shall also apply to the activities of Community fishing vessels which operate in the waters of non-member countries and on the high seas, without prejudice to the special provisions contained in fisheries agreements concluded between the Community and third countries or in International Conventions to which the Community is a party.

773. The issue of confidentiality is addressed in Article 37. Article 37(1) provides that ‘Member States and the Commission shall take all necessary steps to ensure that the data received in the framework of the Control Regulation shall be treated in a confidential manner’ (emphasis added).

774. According to Article 37(3), ‘the data exchanged between Member States and the Commission shall not be transmitted to persons other than those in Member States or Community institutions whose functions require them to have such access unless the Member States transmitting the data give their express consent’.

775. In addition, Article 37(4) stipulates that ‘the data communicated or acquired in whatever form by virtue of this Regulation is covered by professional secrecy and shall benefit from the same protection accorded to similar data by the national legislation of a Member State receiving them and by the corresponding provisions applicable to Community institutions’ (emphasis added). In other words the Commission and the Member State are thus compelled to treat data acquired by virtue of the Control Regulation in a confidential manner and can only disclose the data to persons in Member States or Community institutions on a “need-to-know” basis (unless the transmitting Member State consents otherwise).

776. In relation to professional secrecy, Article 287 of the EC Treaty provides that ‘the members of the institutions of the Community, the members of committees, and the officials and other servants of the Community shall be required, even after their duties have ceased, not to disclose information of the kind covered by the obligation of professional secrecy, in particular information about undertakings, their business relations or their cost components’.

777. Reference can further be made to Article 37(5) of the Control Regulation which prohibits the use of ‘the data referred to in paragraph 1 for any purpose other than that provided for in this Regulation unless the authorities providing the data give their express consent and on condition that the provisions in force in the Member State of the authority receiving the data do not prohibit such use or communication’.

778. Article 37 (8) of the Control Regulation directly addresses the issue of publication. It provides:

The provisions of paragraphs 1 to 5 shall not be construed as prohibiting the publication of any general data or any studies which do not contain individual references to natural or legal persons.

779. The first question that arises is as to the scope of Article 37 of the Control Regulation. The regulation is itself expressed to be establish a ‘Community system’. The implication, is therefore, that it applies to the entire CFP and thus every instrument adopted in connection with the CFP.

780. This then leads on to the question of the precise scope of Article 37 (1).

781. It is for example, possible to state with some confidence that VMS data, a topic addressed in Article 3 of the Control Regulation²²⁴ which are also communicated or acquired by the Member States’ FMCs and/or the Commission is subject to the provisions of Article 37 and thus subject to the confidentiality provisions that it contains.

782. But what of reporting requirements that are not expressly described in the Control Regulation? In particular what is the meaning of the words ‘in the framework of’ in Article 37 (1)?

783. If the intention was that Article 37 applied only to data reported pursuant to the provisions of the Control Regulation, would it not simply have said ‘pursuant to this Regulation’. The notion of ‘the framework’ of a Regulation that seeks (in Article 1) to establish a control system suggests a broader scope of application.

784. On balance, the authors of this Study take the view that the broader interpretation of the scope of Article 37 is correct. Nevertheless, in case we are wrong, the instruments are listed under three separate headings in the .

785. More specifically three separate columns were created in the revised databases. The first contains instruments that expressly refer to the Control Regulation or which were adopted pursuant to or in connection with the Control Regulation. The second column contains instruments that contain their own references to the issue of confidentiality and which it seems reasonable to assume will follow the provisions of Article 37 the Control Regulation. Finally in a third column are those instruments that do not refer either to the Control Regulation and do not contain any references to the topic of confidentiality.

6.2.2 Processing of personal data

786. If the data reported pursuant to the reporting requirements in the OBONT database contains *personal data*, that data may not be published.

²²⁴ Detailed rules on VMS are contained in Commission Regulation (EC) No 2244/2003 of 18 December 2003 laying down detailed provisions regarding satellite-based Vessel Monitoring Systems (the ‘VMS Regulation’).

787. The two main instruments of European Community data protection law are:
- (i) Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data ('the Data Protection Directive')²²⁵; this Directive applies to the processing of personal data by natural persons, legal persons and public authorities in the Member States; and
 - (ii) Regulation 45/2001/EC of the European Parliament and of the Council of 18 December 2000 on the protection of individuals with regard to the processing of personal data by the Community institutions and bodies and on the free movement of such data ('the Data Protection Regulation')²²⁶; this Regulation applies to the processing of personal data by Community institutions and bodies (in so far as such processing is carried out in the exercise of activities all or part of which fall in the scope of Community law)²²⁷.

788. The concept of "personal data" (but also of "processing") is very broadly defined in the Data Protection Directive (with definitions being identical in the Data Protection Regulation).

789. Article 2(a) of the Data Protection Directive defines "personal data" as "any information relating to an identified or identifiable natural person ('data subject')" (emphasis added). The definition further specifies that "an identifiable person is one who can be identified, directly or indirectly, in particular by reference to an identification number or to one or more factors specific to his physical, physiological, mental, economic, cultural or social identity" (emphasis added).

790. A full discussion of the notion of personal data is beyond the scope of this Study.²²⁸ Suffice to say that while the names and other personal details of individuals are clearly personal data the scope of this notion is sufficiently broad such that fishing vessel names and registration numbers may be included under the heading personal data.²²⁹ This is because if a vessel owner or agent is a natural person, such data that could lead to his identification (directly or indirectly).

791. In addition to the issue of confidentiality, Article 37 of the Control Regulation also addresses the issue of the protection of personal data in a very broad way.

792. Article 37 (2) states:

²²⁵ OJ L 281/31 of 23 November 1995.

²²⁶ OJ L 8/1 of 12 January 2001.

²²⁷ The Regulation thus applies to the European Commission, but also to subordinated agencies such as the European Maritime Safety Agency (EMSA).

²²⁸ The reader is referred to the sister Study on Legal Aspects of Maritime Surveillance Data prepared under the same ToR as the present Study.

²²⁹ Recently adopted Community guidance confirm that particular pieces of information such as "a telephone number, a car registration number, a social security number, a passport number" can be sufficient to render someone directly or indirectly identifiable.

The names of natural or legal persons shall not be communicated to the Commission or to another Member State except in the case where such communication is expressly provided for in this Regulation or if it is necessary for the purposes of preventing or pursuing infringements or the verification of apparent infringements.

The data referred to in paragraph 1 shall not be transmitted unless they are aggregated with other data in a form, which does not permit the direct or indirect identification of natural or legal persons.

793. In other words potentially personal data should only be transmitted to the Commission pursuant to the Control Regulation in an aggregated form. Article 37 (2) (and Article 37 (8)) even seems to extend personal data protection to legal persons.

794. Article 37 (9) of the Control Regulation provides that data shall only be stored in a form “allowing the identification of the persons concerned” only as long as long necessary for the fulfilment of the purposes in question²³⁰.

795. One of the cornerstones of data protection law is the purpose-limitation: personal data can only be processed for specified, explicit and legitimate purposes and not further processed in a way incompatible with those purposes²³¹. It follows that if reporting data that contain personal data have been transmitted to the Commission for a specific purpose, they may not be used for another purpose, such as publication.

796. Consequently a further column in the revised OBONT database identifies instruments that contain express references to the protection of personal data or which appear to contain personal data in the broad sense discussed above.

797. Again reference should be made to Article 37 (8) which, as outlined above, explicitly permits the publication of any general data or any studies which do not contain individual references to natural or legal persons. In short publication of any data received under the Control Regulation provided it is published in an aggregated manner.

6.3 Publication

798. In conclusion the data base analysis shows that many of the instruments that contain reporting requirements described in the OBONT database include data that may be personal and/or confidential.

799. On the basis of this exercise it is not possible to come up with a global conclusion as the extent to which reporting can be published. Each reporting requirement will have to dealt with separately on its merits. In other words if a requirement contains data that is potentially personal data or which is subject to a confidentiality restriction it may not be published.

800. If the view that the Control Regulation applies to all instruments adopted in the framework of the CFP is correct, then Article 37 (8) applies and all information published must be aggregated.

²³⁰ See further also Article 37 (7) “(...) the data stored in a form allowing identification of the person concerned shall be deleted without delay.

²³¹ Article 6 (1) (b) of the Data Protection Directive; Article 4 (1) (b) of the Data Protection Regulation.

801. Furthermore Article 37 (8) implies that such data may be published by the Commission irrespective of any IPR in the reports held by the Member States. In other words in respect of data that is required to be shared with the Commission on the basis of a reporting obligation the issue of IPR does not arise.

7 Conclusions

802. On the basis of this Study the following conclusions and observations can be made.
803. First of all, as seen in Part Two, the legal regime that regulates access to marine environmental data in Europe as well as the use and re-use of such data is somewhat complex. Deriving from both international law and EC law this regime comprises two separate bodies of law with distinct and indeed sometimes opposing objectives.
804. One body of law seeks to promote access to environmental data and the re-use of data held by public sector bodies including environmental data. The other body of law seeks to encourage innovation by recognising the rights of creators of intellectual property through the grant of IPR. Put another way the first body of law seeks to promote flows of environmental data, while the second body of law may have the effect of constraining such flows.
805. Furthermore, in terms of marine environmental data, the first body of law does not guarantee access to all marine environmental data let alone its re-use. The right to access marine environmental information conferred by the Environmental Information Directive is restricted to data held by ‘public authorities’, which broadly speaking includes government and public administrations and other entities performing administrative functions. In other words many European data centres that hold marine environmental data (such as universities, research centres and private companies) are not subject to the directive.
806. Apart from the fact that the right to access environmental data is subject to a number of possible restrictions (including IPR) it is important to note that the Environmental Information Directive does not *per se* authorise the re-use of such data: it only requires that access be given.
807. And while certain types of marine environmental data may be subject to the PSI Directive, it is important to recall that that instrument does not in itself require the Member States to allow the re-use of public sector information. Instead, the directive (which in any event only applies to ‘public sector bodies’ which term does not include educational and research establishments) specifies that if re-use is permitted then it must take place on a non-discriminatory basis. The INSPIRE Directive will not alter this basic position.
808. The overall effect is that issues of data access and re-use are largely determined by the data policies of individual data centres, policies that determine how IPR (specifically copyright and data base rights) relating to such data are to be exercised. More specifically: (a) as regards data centres that are not subject to the Environmental Data Directive, data policies will determine the circumstances in which access to the data may be granted; and (b) for all data centres such policies will specify the circumstances in which marine environmental data may (or may not) be used or re-used.

809. Therefore while the analysis described in Part Four, shows that broadly speaking the study countries have correctly implemented the legislation at national level, while there are no particular legal problems as far as access to marine environmental data is concerned (in respect of data centres subject to the Environmental Information Directive), the question of use/re-use is governed in practice by the exercise of IPR and the implementation of individual data policies.
810. In other words there is not a problem of non-implementation of existing international and European rules in terms of access to, and the use/re-use of, marine environmental data, rather that those rules have a limited impact on IPR (and the data policies that determine how those IPR are exercised) and thus have a limited ability to facilitate flows of marine environmental data.
811. As demonstrated by the data collection exercise, described in Part Three, there are wide variations among European data centres with regard to data policies and access to marine environmental data. For a start, not all data centres have formal data policies. Furthermore, there are variations with regard to the substantive content of data policies with those of some data centres, particularly in the UK, being premised around income generation through the exploitation of IPR.
812. This kind of approach is contrasted with the situation in the United States where a policy of open and unrestricted access to taxpayer-funded government-generated public information applies. As noted in the conclusion to Part Four of this Study such type of open re-use policy may well present a number of separate challenges and the question whether it would be appropriate in terms of Europe's marine environmental data raises a range of social, economic and ecological issues that are beyond the scope of this Study.
813. Clearly if a decision is taken at the policy level to move towards an open re-use policy, the law will have an important role to play. Having said that, a 'head-on' or direct challenge to IPR in terms of environmental data in general, or marine environmental data in particular, can be ruled out. IPR play too important a role within Europe's market economy (within the global economy for that matter) to countenance substantive modification *per se* to the legal rules that regulate copyright and data base rights. Instead a more circuitous route will likely be appropriate, one cast in terms, for example, of linking research funding that leads to the generation of marine environmental data to the resulting IPR in respect of such data, by, for example, assigning copyright to the funder or requiring, as a condition of funding, the waiver of copyright in specified circumstances.
814. Another finding of this study in terms of possible legal restrictions is that the restriction code contained in ISO 19115 provides little useful guidance as to the conditions under which European marine environmental data are available. Instead, based on the findings of the data collection exercise, a broader description of access to marine data is proposed, based around three initial questions: (a) the data are not available; (b) the data are freely available; and (c) the data are subject to IPR and available on the basis of a licence. In terms of (a) it is suggested that it may be useful to specify why data are not available (eg military secret, scientific moratorium *etc.*). With regard to (c) the situation is more complex: four basic headings are proposed, relating to: (i) licence type; (ii) restrictions on the type of

purposes for which the data may be used; (iii) payment; and more generally (iv) other conditions/restrictions.

815. Finally Part Six of the Study contains a description of the analysis of the reporting requirements contained in the OBONT database that was undertaken to investigate the ability of the Commission to publish the reported data to third parties. A key finding is that based on the reporting requirements that were sampled many of the instruments that contain reporting requirements include data that may be personal and/or confidential and which may only, therefore, be published in an aggregated form.

**TECHNICAL SPECIFICATIONS TO
SPECIFIC TASKS TO BE UNDERTAKEN
IN THE FRAMEWORK OF LOT 2 OF
FISH/2006/09 STUDIES IN THE FIELDS
OF THE COMMON FISHERIES POLICY
AND MARITIME AFFAIRS**

WORK PACKAGE 1

LEGAL ASPECTS OF MARITIME DATA

**A) MARINE ENVIRONMENTAL DATA
B) VESSEL SURVEILLANCE DATA**

version
15 November 2007

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GENERAL CONTEXT

In its recently adopted "Blue Paper" on an integrated EU maritime policy¹ the Commission undertook to:

take steps towards a more interoperable surveillance system to bring together existing monitoring and tracking systems used for maritime safety and security, protection of the marine environment, fisheries control, control of external borders and other law enforcement activities

and

take steps in 2008 towards a European Marine Observation and Data Network

The sharing of data between countries and the use of data for purposes other than that for

which it was first collected are central to both objectives.

SPECIFIC BACKGROUND TO THIS STUDY Monitoring vessel

movements and activities

There are many different systems for monitoring the movements of maritime traffic for particular purposes – such as Vessel Traffic Services (for safety of navigation), Automatic Identification Systems (for safety of navigation), Long Range Identification and Tracking (for security, search and rescue and other purposes), Vessel Monitoring System (for fisheries control), and other private (e.g. harbour approach) and military systems. The stakeholders consulted in the development of maritime policy were broadly in favour of integration methods. However there are a number of obstacles that need to be considered before proceeding further. These relate particularly to the confidentiality of the data and limits to its potential uses. The main Commission legislation is:

1. Commission Regulation (EC) No 2244/2003 which indicates that all EU fishing vessels over 15 metres must automatically report their positions to the flag state and the coastal state using the Vessel Monitoring System (VMS).
2. Directive 2002/59/EC established the obligation of an Community Vessel Traffic Monitoring system including a network of AIS base stations and Automatic Identification System (AIS) for almost all categories of ships
3. Regulation (EC) No 725/2004 on Maritime Security with regulations on pre notification of arrivals.

Furthermore in May 2006, the International Maritime Organisation (IMO) adopted amendments to the International Convention of Safety of Life at Seas (SOLAS) introducing requirements for long range identification and tracking of ships (LRIT), which will be operational by 31 December 2008.

Marine environment

Similarly there are many observation systems in place that cover various properties of the marine environment. Some of these system make observations through remote sensing (platforms: satellites, aircraft,), some from land (coastal monitoring stations), or at sea (measurements from platforms at the surface of the sea or submerged). The chain from instruction – setting up and operation of observation system – observation – data management of data obtained - can involve a mix of public and private entities that establish between them specific internal rules governing the access and use rights for the data generated. The reasons for the choice of a particular data policy may vary widely, and there may be tradeoffs involved: for instance, in some countries, agencies creating data may have been encouraged to generate extra income through recovering the cost of its collection from users. This helps to meet the collection costs but inevitably reduces the usage.

Communication From The Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions "An Integrated Maritime Policy for the European Union" Brussels, 10.10.2007, COM(2007) 575 final

Common generic difficulties in networking data systems involve (legal) questions of ownership, data policy, copy- or distribution rights, associated with the data derived from specific observation systems. As indicated above, there is a range of situations between the "fully public" to the "fully private" ends of the spectrum, with mixes not uncommon. Improving the access to data will require first an assessment of the existing situation, partly to assess the different practices used for particular types of data and partly to assess how far current practices for marine data have adopted recent legislation on environmental data. Some recent legislation that may further impact the situation includes:

1. Directive 2003/4/EC on public access to environmental information
2. Directive 2003/98/EC on the re-use of public sector information
3. Directive 2007/2/EC (INSPIRE)

The European Commission has also recently published, in the same spirit, a communication on "scientific information in the digital age: access, dissemination and preservation" (COM(2007)56 of 14 February 2007).

RELEVANCE OF STUDY TO WORK SPECIFIED IN FISH/2006/09 STUDIES IN THE FIELDS OF THE COMMON FISHERIES POLICY AND MARITIME AFFAIRS

The study is relevant to Lot 2 "Legal Studies" activity 1 "Analysis of the existing law and proposals for future law"

"Analysis of the existing law and proposals for future law. Studies could be asked to examine existing law affecting maritime affairs, and notably law that is indicated by respondents to the questions in the Green Paper as particularly problematic or that contradicts with maritime policy goals as set out in the Green Paper or that will be developed in the context of a future maritime policy. This could also include aspects of implementation, control, enforcement, administrative or commercial practices, decisions by judicial and quasi-judicial bodies or dispute settlement."

EXPECTED OUTCOME

The expected outcome is an understanding of the legal issues relating to:

1. sharing surveillance data that will feed into a Commission Communication on the subject.
2. access to marine environmental data that will help define how an operational system could be set up.

TASKS

The project has two main tasks which are largely independent of each other. Each task focuses on a different set of data. The purpose of the first is to support safe navigation and deter or detect illegal behaviour. It mainly consists of time-critical monitoring or surveillance of individual marine vessels. The main application of the second set of data is to understand the marine environment and human impact on it. It may be time-critical – for instance to provide early warnings of potentially hazardous data but the main focus should be on long-term data sets.

Task 1 Analysis of legal basis for collection of data, access to

data and sharing of data and information in the context of maritime surveillance systems

Objective

The objective of this study is to understand the legal rights and restrictions on the sharing of real-time information collected within the framework of maritime surveillance systems, in particular consisting of

- reporting data from AIS, LRIT, VMS, etc.) and
-

- surveillance data (satellite, radar, stationary and mobile detection systems, cameras, intelligence etc., collected from the operational centres, mobile units, ports, border crossing points and other sources).

In particular it should be examined how the following data collected from different sources could be analysed, merged and used by one single *Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR)* respectively within a *common information sharing environment* for the maritime domain:

- vessels (including size, type, purpose, registry, position, destination, cargo, as well as static data on history, ownership, characteristics etc.),
- people (including citizenship, criminal history, qualifications etc. of operators, passengers, crew, dock workers, agents, etc.),
- activities (including type, location, time of year,

cargo, etc.). ***Systems to be considered***

The project would consider both civilian systems such as:

- Vessel Monitoring System for fisheries (VMS)
- SafeSeaNet, SSN in support of the EU directive 2002/59/EC including, pre notifications of arrival and dangerous cargo (Hazmat)
- Automatic Identification System (AIS)
- Long Range Information and Tracking (LRIT)
- Vessel Traffic Services (VTS)
- National border surveillance systems (e.g. SIVE system in Spain)

As well as military data from

- Finland/Sweden-led maritime picture arrangement that is expanding to cover the Baltic region and involves navies, coastguards and other agencies, such as Finland's Maritime Authority.
- the Italian Navy-led 17 nation V-RMTC picture compilation arrangement
- NATO Maritime Command system to support its maritime-focussed counter-terrorism operations
- NATO's Maritime Situational Awareness concept
- Baltic sea submarine coordination centre

Work to be Done

The contractor should consider what data (position, course, cargo, etc) is transmitted and examine the relevant EU and international rules as to who has a right to the data and whether they can pass it on to third parties. Relevant legislation on personal data (such as the Data Protection Directives) or commercial secrecy should also be considered.

Relevant Existing Studies

The Commission services have prepared a set of documents describe the organisation of offshore activities in each littoral Member State and the existing cooperation and coordination in each of the maritime areas as well as the surveillance, monitoring and reporting systems currently in place in the EU. These will be provided to the consortium.

Task 2 Analysis of legal basis for access to marine data for understanding the behaviour of seas and oceans.

Task 2.1 Collection of information on access rights and restrictions on marine data.

1. Assess the adequacy of existing classification schemes such as ISO 19115
2. develop a description of access conditions to marine data.
3. investigate the rules applied and the legal background to a representative sample of marine data collected and distributed by public or semi-public national or regional organisations, universities (public and private), military bodies, trusts and enterprises. This analysis should also include situations where private bodies collect data on the basis of public licences or subsidies;
4. provide the resulting analysis in the form of a database.

Information to be Collected

Distribution Rights

1. Distributors (national focal point, regional authorities, different institutions, other arrangement)
2. Further distribution (open, cannot be passed to third parties etc)
3. Restrictions on use (defined purposes only)
4. Restrictions on publication of results from data
5. Legal ownership of data
6. Legal basis for access restriction
7. Cost for complete dataset

Characteristics of Data (where appropriate or feasible use existing classifications eg ISO 19115)

8. Temporal precision of distributed data (minutes, hours, days, monthly, annual, sporadic)
9. Spatial precision of distributed data (grid size, zone area, map scale or number of point values)
10. Location (percentage of data covering own territorial waters, own jurisdictional waters (EEZ), high seas, jurisdictional waters and territorial seas of other countries.

The sampling should aim to cover a spread of organisation types, data types and countries that enable a broad overview on a European scale.

Parameters to be analysed

The parameters listed here are not intended to be a complete set of data that should be made available through the European Marine Observation and Data Network but rather a sample. The contractor should aim to determine access to a meaningful set of data that represents the different scientific disciplines – geology, oceanography, fisheries etc.

1. bathymetry
2. geological strata
3. tide levels
4. salinity
5. wave height
6. gravel extraction sites
7. vessel Monitoring System (VMS) reports
8. commercial fish landings
9. location of fishing activities
10. ice conditions
11. nutrients
12. phytoplankton
13. oil-spills
14. off shore structures and activities
15. underwater structures, pipe lines, cables

Organisational Coverage

1. Organisations in coastal states of the EU as well as Norway and Iceland
2. Helsinki Commission (HELCOM)

3. FAO (Food and Agriculture Organisation)
4. GOOS (Global Ocean Observation System (GOOS))
5. Eurogeosurvey
6. ICES (International Council for Exploration of the Sea)
7. EMSA (European Maritime Safety Agency)
8. IHO (International Hydrographic Organisation)
9. Other organisations if the contractor feels that they are of interest

Task 2.2 Analysis of general legal issues regarding access to data

Objective

The objective is to analyse the results of task 2.1, identify and classify legislation that is relevant to access to information and data and determine country by country, through examination of statutory and case law which laws have been applied and whether they have been enforced. Points that might be included are:

1. whether or not marine data is specifically included or excluded;
2. whether data held by military bodies is explicitly mentioned;
3. whether limitations are placed on the use to which the data is put and what these limitations are;
4. to what extent the limitations are compatible with relevant (especially European) legislation;
5. whether there is a charge for the data and if there are restrictions as to what may be charged for ("distribution only" or "collection and distribution")
6. what are the main obstacles to creating freer access to data.
7. what future institutional or legislative changes are in the pipeline that might change the current position.

The study should cover national laws (eg on Freedom of Information) as well as European Directives. (eg Directive 2003/4/EC on public access to environmental information or 2003/98/EC on the re-use of public sector information), Directive 2007/2/EC (INSPIRE)

Task 2.3 Analysis of regulatory data provided to Commission under Common Fisheries Policy

Objective

In addition to fisheries data collected under the Data Collection Regulation there are nearly 800 reporting obligations for Member States for parameters such as catch, effort and capacity. The Commission has developed a database indicating inter alia the legal basis for each obligation, the frequency of reports and the transmission media (fax, e-mail, FIDES etc). The database is currently being validated by the services within DG-FISH who are responsible for monitoring the obligation. Approximately 90 obligations have been validated. The objective of this task is to clarify the legal conditions under which this data can be disseminated and published to third parties.

Sampling

The Commission will make available the necessary information from OBONT. It would seem unreasonable to ask for a complete analysis of all the reports. Firstly because there are so many and secondly because the legal conditions for dissemination may be homogeneous. The contractor should then sample a reasonable number in order to arrive at a confident conclusion concerning the whole sample.

DELIVERABLES

Number	Related task	Deliverable
1	Task 1	A report on legal rights and restrictions on the sharing of real-time <u>information collected within the framework of maritime surveillance systems</u>
2	Task 1	A self-standing 15-page summary of the conclusions that is self-standing and <u>easily understood by non-experts</u> .

Page 6 Specific Tasks to be performed in the framework of Lot 2 of FISH/2006/09

Number	Related task	Deliverable
3	Task 2.1	a database that indicates the legal status of marine data according to common criteria
7	Task 2.3	A spreadsheet that can be linked to the OBONT database indicating the <u>access conditions for the reported data</u> .
4	Task 2	<p>A report including</p> <ol style="list-style-type: none"> 1. A summary of the work done in task 2.1 in collecting information on current access to data. <ol style="list-style-type: none"> a. Description of the data and definitions used b. Justification of the sampling strategy that should cover different data types and different authorities c. Summary of the data that has been collected (parameters and countries) and indication where the information was obtained from. 2. (from conclusions of task 2.2) identification and classification of legislation that is relevant to access to information and data and country by country summary through examination of statutory and case law of which laws have been applied and whether they have been enforced

3. A summary of the work done in task 2.3, including a justification for the sampling strategy and overall conclusions about access to data collected under reporting obligations to the EU

8

Task 2

A self-standing 15-page summary of the conclusions that is self-standing and easily understood by non-experts.

Terms of reference and instructions to the data hunters re stage one of the data collection exercise

Terms of reference for National Data Analysis Consultants

1 Introduction

MRAG, in consortium with the Oeko Institute, the Netherlands Institute for the Law of the Sea at the University of Utrecht, the Institute of Maritime Law at the University of Southampton, LAMANS Management Services and PoEM is undertaking a study (the 'Study') on Marine Environmental Data.

The Study is being undertaken on behalf of the European Commission's Maritime Task Force in connection with the development of the proposed Integrated Maritime Policy for the European Union. Following a year long public consultation exercise, the European Commission adopted a Communication setting out its vision for an Integrated Maritime Policy for the EU, together with a detailed action plan setting out a work programme for the years ahead on 10 October 2007.

1. The public consultation exercise revealed strong support for the better collection and use of (real-time and other) data on oceans and seas, and the activities in and on them, as well as for socio-economic data and statistics, on coastal regions and the maritime economy.
2. Vast quantities of data relating to the marine environment are currently collected and stored all over Europe for a wide variety of purposes and by a range of public and private entities. In order to improve access to such data the European Commission has proposed the establishment of a European Marine Observation and Data Network (EMODNet).
3. In support of this proposal the aim of the Study is to examine existing legal rights and restrictions relating to access to marine environmental data by analysing a representative sample of the data types that will be available through EMODNet.
4. The Study will consider rights and restrictions under European Community law as well as those imposed by national legal systems. A key objective will be to determine how the relevant legal rules are applied in practice.
5. The Study Terms of Reference require analysis of such legal rules relating to a representative sample of marine data collected and distributed by public or semi-public national organisations, universities (public and private), military bodies, trusts, enterprises including private bodies that collect data on the basis of public

licences or subsidies (hereafter referred to as ‘data centres’). In other words companies and trade associations could be data centres.

6. A key point to note is the potential link between the legal status of a data centre and in particular the nature of its funding arrangements specifically as to the extent to which a given centre is required or encouraged to generate revenue through the recovery of collection costs from users. In other words the study is concerned with a specific aspect of the data policy of each data centre.
7. In many cases the data centre may have a formal published data policy that addresses these issues. Elsewhere the aspects of the data policy that concern the use and distribution of data held by that centre may have to be inferred from practice.

2 Objective

8. The objective of the work to be undertaken by the National Data Analysis Consultant (the Consultant) is to gather the necessary information from a sample of data centres within a specified country (the study country) in order to create an appropriate sample such that the legal analysis can subsequently be undertaken.

3 Detailed tasks – Stage One

3.1 Identification of National data centres

9. The first task of the Consultant is to prepare a comprehensive list of the data centres within the study country that hold the following generic types of data:
 - a. hydrography (bathymetry, coastline);
 - b. geology (sediments, geological substrate, geological hazards (earthquake zones etc), coastal erosion);
 - c. physical oceanography (temperatures, salinity, tides, currents);
 - d. biology (anything living from plankton to whales - except fisheries);
 - e. fisheries (catch, effort, capacity, discards etc);
 - f. chemistry (pollution, nutrients, sewage etc);
 - g. human activity (oil rigs, gravel extraction, shipping).
10. Where available information regarding national data centres will be provide by MRAG. In addition relevant information should be readily available at [European Directory of Marine Organisations – EDMO](#) and the Consultant should first consult EDMO. Another potentially useful source of information will likely be the national point of contact for Sea Data Net. This information and a guidelines document will be provided to the consultant at the start of the work.

3.2 Description of National data centres

11. Having prepared the comprehensive list of data centres the Consultant, using publicly available information and, as necessary, specific enquiries including interviews, will identify in respect of each data centre:
- a. how long has that data centre been in existence. *Rationale:* this helps describe the data centre: a well established data centre with not many data sets publically available, would suggest that they are very conservative with there data);
 - b. a description of the legal status of that data centre. *Rationale:* this is a key issue and as much information should be gathered as possible with any relevant legislation governing that legal status being described. For example if a data centre is established pursuant to a specific legal instrument this should be described. If it is a generic type of organisation, such as a company, then the law or laws that regulate company formation need to be cited;
 - c. categorisation of the data centre pursuant to the following categories: (a) academic; (b) commercial; (c) publicly-funded institution (eg a research institution); (d) publicly funded institution that is required to raise part of its income from commercial activities; (d) central government (national) executive (management) agency responsible for the management or a given resource (eg fisheries, environment etc); (e) international organisation; (f) non-government organisation; (g) local/regional government; (h) other (please describe). If you have any doubts about a given data centre please email your query to the manager of the project Stephen Hodgson (shodgson@gn.apc.org) for guidance. *Rationale:* A key objective of the study is to identify the relationship between the legal status of a data centre and its data policy;
 - d. The mandate or basic purpose of the data centre, for example research, teaching and research, resource management etc. *Rationale:* The issue of the mandate ties with the question of funding;
 - e. The principle source or sources of funding of the data centre. For example is the data centre funded from state budget allocations, from commercial activities (including activities relating to marine environmental data), a combination thereof etc? *Rationale:* The issue of funding will typically have a direct impact on the relevant data policy and the issue of access to data.

3.3 Data policies

12. The Consultant will investigate and report on the data management policy of each data centre as regards issues of data access. The Consultant will seek to obtain as much information about the data policy and will in particular seek to obtain answers to the following questions:
1. Does the data centre have a formal data policy?
 2. What does the policy cover, and what does it not cover?
 3. Is it publically available, if so provide links where possible.
 4. Is there an informal data policy, if so please describe it by reference to the issue of access to environmental data.
 5. If there is no informal data policy.

13. Many data centres will typically have a formal data policy that they have either adopted specifically for their own ends or which is applicable generally to centres of that type or legal status in the country in question. It is possible, though, that individual data centres will have no formal data policy.

4 Information to be collected

4.1 Data held

14. For each data centre the Consultant will next identify which of the following categories²³² of data are held (distinguishing between ‘real-time’ and archive data), and then quantify approximately what proportion of data is held in terms of the total amount of data held by that centre, and the representation of the data type for that country. These can be classified as the following: ‘All’ = 100%, ‘Most’ = >50-99%, ‘moderate’ = 10-<50%, ‘small’ = 1-10%.

- ATLASES & MAPS
 - Proportion in data centre
 - Representative proportion in country
 - Number of data sets
- MARINE BIOLOGY
- CATALOGUES - DIRECTORIES ETC.
- OCEAN COMPOSITION
- COMPUTER MODELS
- COASTAL STUDIES (e.g. shores, estuaries)
- ENVIRONMENTAL QUALITY/POLLUTION
- FISHERIES
- GEOLOGY - GEOPHYSICS - SEDIMENTATION
- HYDROGRAPHIC SURVEYS (navigation/engineering)
- METEOROLOGY
- PHYSICAL OCEANOGRAPHY
- REMOTE-SENSING (e.g. satellites, aircraft)
- SEAFLOOR SAMPLES (e.g. core, dredge, grab)
- ACCIDENTS/ RESPONSE
- SHIPPING/ PORT INFORMATION
- MARITIME TRAFFIC

EG .A government marine biology research institute may look like this:

- MARINE BIOLOGY
 - Proportion in data centre: majority
 - Representative proportion in country: all
 - Number of data sets 186
- FISHERIES
 - Proportion in data centre: small

²³² Taken from EDMED

- Representative proportion in country: moderate
- Number of data sets 22
- METEOROLOGY
 - Proportion in data centre: small
 - Representative proportion in country: small
 - Number of data sets 2
- PHYSICAL OCEANOGRAPHY
 - Proportion in data centre: small
 - Representative proportion in country: moderate
 - Number of data sets 5

4.2 Distribution/Availability

15. Using the same categorises, the Consultant will next identify what distribution rights apply to the data and if a fee is payable what the fee is. If the data is available under licence, the Consultant will include details of the licence. The distribution rights to data may vary depending on the level of processing of the data and/or the type of use it is intended for (research, commercial). This and any other conditions should be noted.

16. Possible distribution categories might include:

collection cost charge	A charge is made related to the cost of collecting the data.
commercial charge	A charge significantly exceeding the cost of data collection and delivery is made for usage of the data.
Licence	Conditions of supply and usage of the data are specified in a formal agreement.
moratorium	Data are initially restricted, but the access condition relaxes to academic or unrestricted once a specified period of time after an event (such as collection, publication, completion of QC procedures or project cessation) has elapsed.
no access	Access to the data cannot be negotiated.
distribution cost charge	A charge is made to cover the costs of delivering data to the user.
organisation	The data are unrestricted to members of an organisation or a virtual organisation (such as project or cruise participants) but restricted to anybody else.
restricted	The data are withheld from general circulation and disclosure but access may be obtained on a case-by-case basis through negotiation.
academic	The data are freely available for research and education purposes. Usage acknowledgement is usually expected.
unknown	The correct value is not known to and not computable by the creator of this information. However a correct value probably exists.
unrestricted	The data are freely available to anybody and may be used for any purpose. Usage acknowledgement may be required.

18. In addition, the consultant will also record the physical 'availability' of the data. Examples would include: 'on-line', 'electronic file', 'paper copy'.

5 Detailed Task, Stage Two

5.1 Sampling

16. After the national data centres have been described, the data collected will be analysed and a sampling strategy will be devised by MRAG. The purpose of the sampling will be for the data hunters to collect information on the access is to actual data.

17. Each Consultant will then receive a separate terms of reference and time allocation that will specify the data and other information to be gathered.

6 Reporting

18. Each Consultant will keep notes of all meetings held with data centres including contact details of people met. Otherwise the findings are to be entered directly into the data base that has been designed for this Project.

**Guidelines Manual for
Marine Environmental Data collection on
National Data Centres in Europe.**

May 2008.

MRAG Ltd.

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1 Introduction

The objective of this part of the study is to collect an overall representation of different types of data that exist in a particular country and which is held by a range of different data centres. It is important to have an example of each thematic data type (marine environmental data categories) and each type of data centre (legal status/structure) and if possible a combination of both. The second step of the study will aim to sample some of the data identified through this part of the study. An analysis will then be undertaken by MRAG to compare how data access rights and sharing varies across different countries in Europe and also within the countries depending on the legal statuses of data centres and/or the type of marine environmental data collected. We will try to identify the common characteristics related to problems in these countries. More background can be found in the Terms of Reference document which you should have received from MRAG and on the project website: <<http://www.mrag.co.uk/legal/>>

As guidance, you should aim to collect the information for 70 data organizations. You should have at least one from each type of organization and one from each data category. You may check this by selecting 'Queries' in Access (see section B).

The following guidelines are intended to help you fill in an Access database which you should have received with this document. (If you do not have this database file then, contact Carole White at MRAG). Once it is completed, we will use this Access database file to analyse the information across different countries and draw conclusions on data policies across Europe.

In order to collect information from the data centres in your country, you may search on the internet, organise meetings, arrange phone calls or enquire by email (which ever is the most effective method). A questionnaire which was used for the UK data collection can be provided by MRAG and you can use this as a structure to find out some of this information. Using the EdMed database you can find the contact name of the person in charge of data.

At the start, you should contact your SeaDataNet national coordinator. This can be found at this website: <http://www.seadatanet.org/partners>

Some useful information may be found in the EdMed database: http://www.bodc.ac.uk/data/information_and_inventories/edmed/search/ Although in some cases, this may be incomplete or out of date. This can at least be used as a starting point. A copy of their database (in Access format) can be provided by MRAG.

As a priority, the databases listed on the Eurocean website should be dealt with. http://www.eurocean.org/categories.php?category_no=13. Click on the country case study in question. This lists some of the main databases in these countries. This can also be considered as a good starting point.

The link on the DG Maritime Affairs website gives some good links to a broad range of data centres. http://ec.europa.eu/maritimeaffairs/external_links_fr.html#4

If you have any more questions or would like to receive some of the files mentioned here, please contact: Carole White (c.white@mrag.co.uk) or telephone: 00442072557787

A. Guidelines to entering data into Access

The Access spreadsheet is split into five 'data tables': 1) 'Data holder' 2) 'Data holdings', 3) 'Policies' 4) 'Distribution' and 5) 'Legal status/mandate'. The guidelines in the next section are intended to guide you as fill in the Access data base for your country case study.

You should first of all make sure that you have selected the 'Form view'. Figure 1 shows the 'Database view' and shows how you must select 'view' on the menu bar and then 'Form view'. You will then see all the Tables in the format as shown in Figure 2. Tables 2-5 appear as a tab in the form view (currently showing 'data holdings' as selected which is in orange). Table 1 appear as the boxes you see above this (E.g. 'type:', 'public ownership' etc...). You may find it useful to sometime use the 'Database view' to search or 'filter' through your data. But for filling in new information the 'form view' is the only one that gives you a view of these 5 tables you need to fill in.

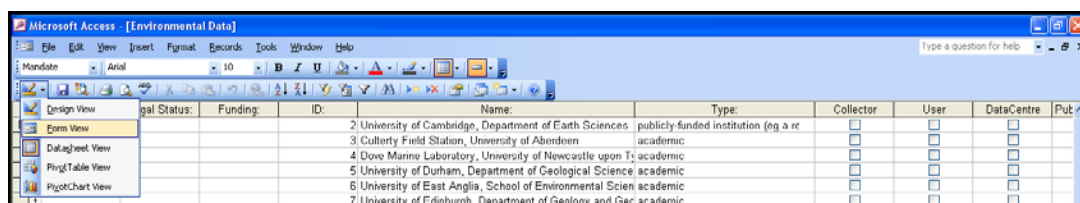


Figure 12 Database view and how to select the 'form view'

1. Data Table: Data holder

NB: When entering in a new data row (i.e. a new data organisation), it may be easier to use the 'database view'. Once you have entered the 'name', you can then continue in the 'form view'.

Name:

This is where you enter the name of the organisation. This is associated to the 'ID'.

ID:

This is simply the Identification number which is automatically assigned to the organisation that you enter in a new data source in to the database under 'Name'.

Type:

Enter the type of organisation. The following categories may be used:

(a) academic; (mainly universities and independent (non-government) research institutes)

(b) commercial; (companies and businesses)

(c) Publicly-funded institution (e.g. a research institution funded directly by the government);

(d) Publicly funded institution that is required to raise part of its income from commercial activities;

(d) central government (national) executive or management agency responsible for a resource (e.g. fisheries, environment etc);

(e) international organisation; (this relates to an international data centre that has 'international' status rather than national status. This could be international research centre or a United Nations type agency. It should not be a commercial multi-national company or an international NGO. These should be recorded as 'commercial' or 'NGO'.

(f) non-government organisation; (including not-for profit NGOs such as charities, associations)

(g) local/regional government (the council or municipal level government organization);

(h) other (please describe).

If you have more information about the type of organization it is or if this does not clearly fit into one category, then select the most appropriate one and then add more detailed information under 'legal status' in Table 5. When you are choosing which type of organization this fits under, always choose the category which you think will have the most influence on the way the organization works. For example, a research centre may be an NGO/charity rather than an academic organization. You can also use the 'mandate' to decide what type of organization this is.

Public ownership:

This refers to the % of the organisation is under public ownership. For example a government funded research institute or some universities may be 100% publically owned, or in some cases 50% or 75%. A commercial organisation is usually not under public ownership so then 0% can be entered here. But in some cases even a commercial organisation can be publically owned (for example some national banks are publically owned).

Year established:

Enter in the oldest date when the centre was created. If the organisation has changed significantly since it was first established and has perhaps changed its name or legal status then please provide more information under ‘legal status’ in Table 5.

Collector/user/data centre:

Select with a tick the role of the organisation. Many organisations have several roles or in some cases the organisation may only have one role. For example they may only collect data which is then distributed by another organisation.

The screenshot shows a web-based form titled "Environmental Data". The form includes fields for "ID:" (value: 2), "Name:" (University of Cambridge, Department of Earth Sciences), "Year Established:" (empty), "Type:" (publicly-funded institution (eg a research instit...)), "Public Ownership:" (100), and checkboxes for "Collector", "User", and "DataCentre". Below these fields are tabs for "Data Holdings", "Policies", "Distribution", and "Legal Status/Mandate". The "Data Holdings" tab is active, displaying a table with the following columns: "Data Type", "Data Holder ID", "Data Name", "Legal Owner", and "Quantity In Data Centre". The table contains one row with a dropdown menu for "Data Type" and "University of Cambridge, Dep" for "Data Holder ID". The "Quantity In Data Centre" column shows the value "0". Below the table is a record navigation bar showing "Record: 1 of 1".

Data Type	Data Holder ID	Data Name	Legal Owner	Quantity In Data Centre
▼	University of Cambridge, Dep			0

Figure 13 Form view of Table 1. Data holder

2. Data Table: Data holdings

NB: Data holdings should refer to data that cover the European seas as a region. These may have a wider coverage (perhaps even global) but must be collected by a national data centre in the case study country. International data centres will be covered separately. However, if you do come across an international data centre in your case study country then, enter this in as such. See the section on 'legal status' in Data Table 4 for more information on data centres.

The screenshot shows a web form for 'Data Holdings'. At the top, there are input fields for 'ID' (28), 'Name' (Centre for Environment, Fisheries and Aquaculture Science), 'Year Established' (1902), and 'Public Ownership' (100). There are also checkboxes for 'Collector', 'User', and 'DataCentre', all of which are checked. Below this is a tabbed interface with 'Data Holdings' selected. The table below contains the following data:

Data Type	Data Holder ID	Data Name	Legal Owner	Quantity In Data Centre	Quantity In Country	Number of Data Sets	Realtime Data	Notes
PH	Centre for Environment, Fisheries and	Sea temperature and salinity	Centre for Environment	Moderate (>20-<50%)	Most (>50-99%)	2	<input type="checkbox"/>	
PH	Centre for Environment, Fisheries and	WaveNet	Department of Agriculture	Moderate (>20-<50%)	Most (>50-99%)	62	<input checked="" type="checkbox"/>	
EN	Centre for Environment, Fisheries and	Marine Environmental Real-time	Environment Agency	Moderate (>20-<50%)	Moderate (>20-<50%)	5	<input checked="" type="checkbox"/>	
AM	Centre for Environment, Fisheries and	iSEA - interactive Spatial	Centre for Environment	Moderate (>20-<50%)	Most (>50-99%)	3	<input type="checkbox"/>	
BL	Centre for Environment, Fisheries and	OIE centre on aquatic animal	Centre for Environment	Small (1-20%)	All (100%)	56	<input type="checkbox"/>	
FS	Centre for Environment, Fisheries and	Fisheries information	Department of Agriculture	Most (>50-99%)	All (100%)	255	<input type="checkbox"/>	
*	Centre for Environment, Fisheries and					0	<input type="checkbox"/>	

At the bottom of the table, there is a pagination control showing 'Record: 1 of 6'.

Figure 14 Form view of Table 1 'Data holdings'

Data type:

The type of data held by a data centre should be categorised using the SeaDataNet classifications listed below.

- ATLASES & MAPS
 - Proportion in data centre
 - Representative proportion in country
 - Number of data sets
- MARINE BIOLOGY
- CATALOGUES - DIRECTORIES ETC.
- OCEAN COMPOSITION
- COMPUTER MODELS
- COASTAL STUDIES (e.g. shores, estuaries)
- ENVIRONMENTAL QUALITY/POLLUTION
- FISHERIES
- GEOLOGY - GEOPHYSICS - SEDIMENTATION
- HYDROGRAPHIC SURVEYS (navigation/engineering)
- METEOROLOGY

- PHYSICAL OCEANOGRAPHY
- REMOTE-SENSING (e.g. satellites, aircraft)
- SEAFLOOR SAMPLES (e.g. core, dredge, grab)
- ACCIDENTS/ RESPONSE
- SHIPPING/ PORT INFORMATION
- MARITIME TRAFFIC
- UNDER WATER PHOTOGRAPHY

Some notes on each category are included below. In some cases, where there is a potential overlap between categories, an element of personal judgment should be exercised in deciding which category is the most suitable. In other cases, you may find that one database has several types of data. For example, some databases contain information on meteorology but at the same time also contain data on ocean currents. Data on salinity ('Ocean composition') and temperature ('Meteorology or physical oceanography') often occur together. If this occurs and it is really not possible to classify under one category, then you can enter the database name in several times and link it to the different data category types.

- **CATALOGUES - DIRECTORIES ETC.** This may include: any database with 'listings' such as a directory/repository/catalogue/inventory. Examples of this could be research vessel or cruise directory or a Directory of marine environmental data and sample collections. The key aspect to look out for datasets under this category is whether the information is stored as a directory rather than the actual data itself.

-**ATLASES & MAPS :** This may include any kind of database with spatial data presented in the form of a map or GPS points. This could simply be a geographical map or atlas or a map containing a specific type of information.

Examples would include: Bottom topography and sediment maps of the Central Baltic Sea or Black Sea digital bathymetry maps, Marine Navigation maps for Black Sea ports (scale 1 : 5000).

The key aspect to look out for datasets under this category is whether the information is stored as a map or a collection of maps. The collected data has been processed and transferred on to a map. Imagery data such as an aerial photograph (which has not been transformed into a map) would fall under the next category of remote-sensing.

REMOTE-SENSING (e.g. satellites, aircraft) This may include any type of data containing images or photography (which may later be used for mapping) and have been collected through remote sensing.

Examples include : Aerial survey of seals in Danish waters, Antarctic Aerial Photography of Sea Ice (1986-1989) or AVHRR images of the South Baltic (1987-92).

The key aspect to look out for datasets under this category is whether the data is stored as images or photographs derived from remote-sensing (either from a satellite or from an aircraft).

COMPUTER MODELS This may include any kind of database which includes data of one or several types for use in a computer model or simulation.

Examples would include: 3D models of tides, water quality and sediment transport, Computer Model of Suspended Matter in the North Sea (1985-94) or the CERA Diverse Climate Modelling Data.

The key aspect is to look out for datasets under this category is whether the data is stored in the database specifically for a computer model.

MARINE BIOLOGY: This category includes all kinds of biological information (with the exception of fisheries data) and includes Pigments (e.g. chlorophyll), Organic (& bio-) chemistry, Productivity – biomass, Plankton, Benthos Birds – mammals – reptiles, Fish, Invertebrates, Ecology – biodiversity, Flora (e.g. algae, bacteria). It could also include aquatic diseases such as fish diseases.

Examples would include: Abundance and behavior of the different marine sea birds and sea mammals species in the French waters at the different spells of the year, Abundance, age, growth, and reproduction of ichthyofauna of Ria de Aveiro lagoon, Portugal (1985 onwards), Annotated check-list of marine fish of the Azores, Baltic cod stomach database, Biogeochemical carbon cycle data for Ria de Aveiro, Portugal (1990-1993), CTDO, nutrient and chlorophyll data in Gulf of La Spezia (NW Italy), 1989-91, Collection of parasitic helminths (1890-).

The key aspect to look out for datasets under this category is whether the data is from a biological source. All biological data which relates specifically to the fisheries sector should fall under the ‘Fisheries’ category. All biological data which is specifically stored for the purpose of environmental assessment or monitoring relating to environmental quality or pollution should be recorded under the ‘Environmental quality/pollution’ category. Data which may include some biological information but which relates more to a coastal area or ecosystem as a whole should be recorded under the ‘coastal studies’ category. There will be an element of personal judgment to be exercised here in deciding on a category.

FISHERIES This category includes Aquaculture Fish stocks/catches/taggings Exploratory fishing – gear research.

Examples would include: Anchovy stock data of Aegean Sea (1991-), An acoustic database of the pelagic fish resources in the Baltic Sea, Aquaculture of marine fish: seabream, seabass, sole, Bass and mullet logbook scheme from selected UK ports (1983-), Catches of anchovy in Georgian waters by national and foreign fleets.

The key aspect to look out for data under this category is whether it is used specifically for the fisheries sector. If the dataset could be used for fisheries purposes but the database is not specially designed for this, then the data could be categorized differently. If it includes information such as a fish abundance and diversity survey which are not necessarily commercial species, this would fall under the ‘marine biology’ category. There will be an element of personal judgment to be exercised here in deciding on a category.

COASTAL STUDIES including data on shores and estuaries. This may include data relating to coastal surveys perhaps monitoring erosion or other natural processes across an area such as the shoreline, estuary etc.. This category could also be used in cases where a coastal survey covers several types of data (physical, biological, chemical..).

Examples would include:, West Wales, UK (1990-), BARCA Database on the physics, chemistry and biology of Tagus estuary, Portugal, Annual Beach Surveys along the coast of Aberdeenshire and Hydrographic Surveys (Macduff and Stonehaven), BOSCO national data base for monitoring the shore line erosion, Observational data on lagoons in coastal areas of NE Italy.

The key aspect to look out for data under this category is whether the data related to a coastal area/ecosystem. The data collected may be of several types. If the data relates to

environmental quality in a coastal area such as bathing water quality then it should be classed under the 'environmental quality/pollution' category.

ENVIRONMENTAL QUALITY/POLLUTION This category includes Site assessments/surveys, Pollution levels & monitoring.

Examples include: BEACHQUALITY - Bathing waters bacteriological survey around Pembrokeshire, Assessment of Antifouling Agents in Coastal Environments (1998-2002), BELMEC - Aerial surveillance of the Southern Bight of the North Sea for environmental monitoring, Algal toxins in the Gulf of Finland, the Bothnian Sea and the Baltic Proper, Environmental impact assessment of discharges from pulp industry on Lavos coast - Figueira da Foz, Portugal (1986-87), Monitoring of environment; long time changes of the Posidonia Oceanica beds; use as bioindicator.

The key aspect to look out for datasets under this category is whether they are used specifically for monitoring and assessment. If the dataset is used for this purpose but it is not specially designed for assessment and monitoring, then the data could be categorized differently. If it is in the raw form, for example describing algal abundance (not necessarily for water quality assessment), then it should be recorded as 'marine biology'.

OCEAN COMPOSITION This includes Suspended matter – turbidity, Bulk chemistry (e.g. pH, TCO₂, salinity), Dissolved gases, Nutrients, Other inorganic chemistry.

Examples would include: Currents and Suspended Particulate Material (SPM) Measurements at Holderness, 1993-1996. CTDO and nutrient data in Tyrrhenian Sea during project TEMPO (1989-92). Distribution and chemical speciation of trace metals in the North Atlantic (1991).

The key aspect to look out for datasets under this category is whether the data includes chemical information of an inorganic nature and not derived from biological sources. Data relating to sedimentation should be recorded under the 'geology-geophysics-sedimentation' category when it relates more to geological data – for example land-based sediments rather than dissolved particles or suspended inorganic matter. Physical parameters are recorded under other categories.

GEOLOGY - GEOPHYSICS - SEDIMENTATION This includes data relating to Bathymetry – sonar images, Magnetics – gravity, Seismic profiles, Sediments – rocks – pore waters, In-situ (near) seafloor data and Tectonics – seismology – thermal vents.

Examples would include: BIRPS deep seismic packages from the UK and north-west European continental shelf (1981-1992), Bathymetric survey for the project MEDRIF (MEDiterranean RIDge Fluid Flow), Crustal seismic reflection and marine gravity data in Sardinia Sea (CROP project: 1988), Digital gravity and magnetic data from the UK continental shelf (1950-), ECOTHERM, bibliographical data bank of the ECOPROPHYLE Unit Research on deep-sea hydrothermal activity, Fine scale acoustic imagery of the seafloor in areas of potential fluid expulsion on the Mediterranean Ridge.

The key aspect to look out for datasets under this category is that it relates to geological information (i.e. the solid matter that constitutes the [Earth](#) encompassing such rocks, seabed, physical and earth-based processes).

METEOROLOGY This includes all types of information relating to meteorology including (Near) surface based meteorology, Upper air observations, Atmospheric composition and Sea ice. This could also include shipping forecast information.

Examples would include: Air temperature measurements in the Black Sea Georgian coastal zone, BASIS - A Data Bank for the Baltic Sea Ice and Sea Surface Temperatures (1963-1980).

The key focus is meteorological information. Data on waves, currents and sea level are included under the category 'Physical Oceanography'.

PHYSICAL OCEANOGRAPHY. This category includes Hydrography (e.g. T,S) – near surface only, Currents – drift – dispersion – tracers, Waves – swell, Sea level (& bottom pressure, IES), Underwater acoustics (although not when this relates to fish stocks), Optical measurements.

Examples would include: Current, wave and wind data from Porcupine Bank (August 1976-October 1977). Acoustic Current Doppler Profiler Data collected in the Atlantic Ocean by the Lab. of Physical Oceanography IFREMER/UBO/CNRS. Data from the buoys network of Puertos del Estado.

The key aspect to look out for datasets under this category is that it relates to oceanographic information. All meteorological data should be recorded under the meteorology category and all chemical information under 'ocean composition'. There will be an element of personal judgment to be exercised here in deciding on a category if the data falls under several categories. If necessary the data base name can be entered several times under different data types.

HYDROGRAPHIC SURVEYS. This includes data relating to navigation and maritime engineering.

Examples for this category include: Submarine Cables of the French Nautical Charts, UK Admiralty Wrecks Database, Processed navigation data from the IFREMER Research Vessel cruises.

The key aspect to look out for datasets under this category is that it relates to maritime engineering or navigation information which will often be produced directly by dedicated official hydrographic centres. If the data relates more to ports then this should be entered in under the shipping/port information category.

SEAFLOOR SAMPLES. This category includes data derived from core, dredge or grab samples.

Examples include : Core samples from submarine canyons, Rv. Bzibi, Georgia, DREDGE - Dumpings of dredged material at sea (Belgian continental shelf), Foraminifera in sedimentary sequences from cores in Zarauz (N Spain), Seafloor samples and bottom photographs from continental margin of NE Spain (Barcelona).

The key aspect to look out for datasets under this category is that it includes data which has been collected from the sea floor using methods such as core, dredge or grab sampling. The data could be biological or geological.

ACCIDENTS/ RESPONSE. This may include any type of information relating to maritime or shipping accidents such as oil spills or even natural disasters such as tsunamis, hurricanes or flooding. In particular, this data should be focused on the response/action aspect of any such accident or natural disaster.

SHIPPING/ PORT INFORMATION. This may include any kind of information which is very specific to ports and trade/cargo which is related to the environment. Example: port reception facilities for ship generated waste to be discharged, Cargo, Oil and Garbage Record Books, ballast water + invasive species (usually released when in a port).

MARITIME TRAFFIC This may include any kind of information which relates directly to shipping lanes or routes which is related to the environment. It can be data related to maritime traffic such as emissions from ships or dumping of dredged material. This could be data on measures taken for pollution prevention like traffic separation schemes, ship routing, ship reporting, pilotage, safety of winter navigation. It could also be data generated through Automatic Identification System (AIS).

UNDER WATER PHOTOGRAPHY: This could be any kind of data which includes underwater photos (with an environmental purpose).

Data holder ID:

Enter the name of the National data centre that ‘holds’ the data. This means the centre where the data is collected and/or stored. This may be not be the same as the data centre that distributes/manages or owns the data. This is filled in later in Table 4.

Data name:

Enter the name of the database or dataset. There may be several databases/datasets of a certain data category type.

Legal owner:

Enter the name of the legal owner of the data. This may be the same as the funding body or the data holder/collector or it may be different. This is likely to be different for each database/dataset and may also differ for the data type. This kind of information may be the most difficult to find on-line and is therefore likely to require a phone call/meeting with the organisation. If you find that there are multiple owners then you may enter ‘multiple owners’. As this field is linked to the ‘Name’ of the centre in Table 1, you need to add a new ‘name’. This is easiest to do using the ‘database view’ (see Figure 1).

Quantity in data centre:

For each ‘data type’, quantify approximately what proportion of data is held in terms of the total amount of data held by that centre. These can be classified as the following: ‘All’ = 100%, ‘Most’ = >50-99%, ‘moderate’ = 10-<50%, ‘small’ = 1-10%. For example, a data centre may mostly hold data on ‘marine biology’ and also a ‘small’ amount on ‘fisheries’.

Quantity in country:

For each ‘data type’, quantify approximately what proportion of that data type is represented in that data centre at the national level for the country in question. These can be classified as the following: ‘All’ = 100%, ‘Most’ = >50-99%, ‘moderate’ = 10-<50%, ‘small’ = 1-10%. For example, a data centre may be the national centre for meteorological data and therefore may hold ‘All’ of the data of that type for the country. This information may be difficult to assess without speaking to the organisation. This information does not have to be exactly accurate but will be useful for us as an indication of representation.

Number of datasets:

If possible, enter in the number of datasets within the database. The number of datasets might be the number of maps, or the number of days for which data was recorded. It is how the data is split and organized. For example, data may be split by the vessel or instrument which recorded it. It may be split by time series or another way. If you cannot find this information, leave this blank as 0. It is not the most important for our purposes.

Real-time:

When entering in the name of a specific data set, distinguish between ‘real-time’ and archive data by ticking the box only if it is ‘real-time’. “Real-time” denotes information that is delivered immediately after collection. There is no delay in the timeliness of the information provided.

Notes:

Under the notes, you may add any other information which you think is useful.

3. Data Table: Policies

This table should be filled in with information on the data policy of the centre. This may be a 'formal' data policy which is published and has a name. Otherwise, it may be the centre does have a policy but it is an informal one. This means that it is probably unpublished but understood by those working in the data centre as being the operating policy on data. This may be more difficult to find out and will probably require a phone call or a meeting with an employee at the centre. Each policy is likely to be different and may vary significantly between countries. It is therefore important to include information on what the policy covers. If it is publically available, provide links. Some data centres may have a formal data policy that has either been adopted specifically for their own ends or which is applicable generally to centres of that type or legal status in the country in question. A policy may also exist specifically for a specific data base or dataset and may be additional to a general policy which applies to the organization as a whole.

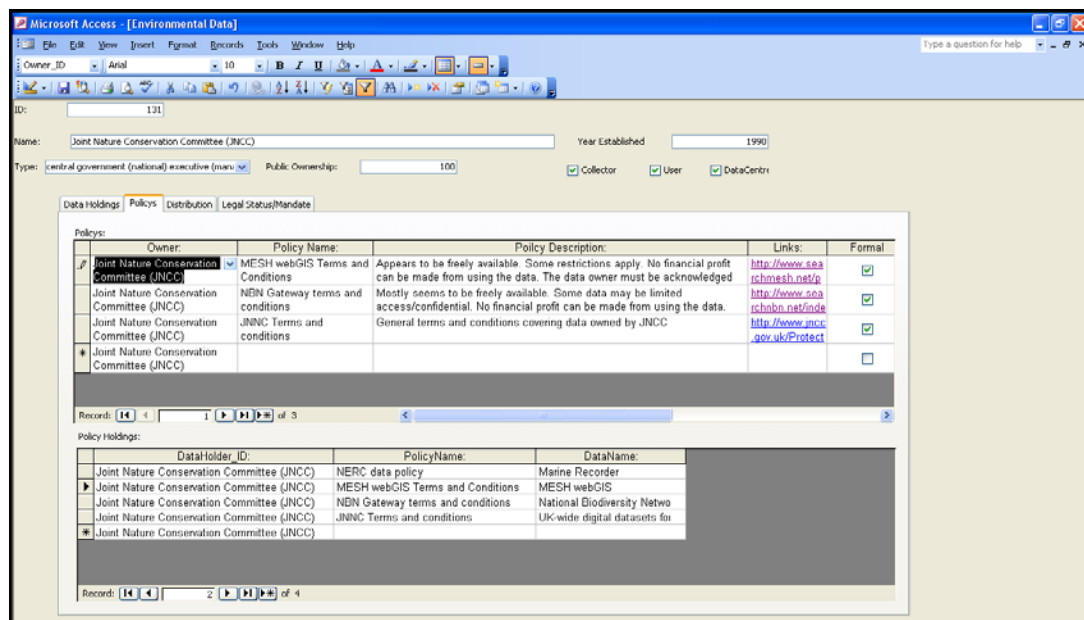


Figure 15 Form view of data Table 3 'Data Policies'

Owner:

Enter the name of the centre who the data policy belongs to. This may be different to the data holder and/or data distributor or the data collector and/or the funding body for the data. This information may be the difficult to find so you may have to contact the organisation directly.

Policy name:

If the national data centre has a policy for data access and sharing, does this policy have a name? If so, enter the name here. A policy may also exist specifically for a specific data base or dataset. If this is a case, the specific data policy make be linked to the bottom half of the table. If there is not formal data policy then please enter 'No formal data policy' here. Include more details under 'policy description'.

Policy description:

If the national data centre has a policy on data access and sharing, describe this here and include whether or not it is a 'named' formal policy or an unwritten policy. If you have found the text (for example on a website or as a pdf) please copy and paste the whole text in to this field. (This will allow us to search for key words during the analysis stage). If it is an informal policy, please describe this here also.

Links:

If the national data centre has a policy for data access and sharing and this is publically available, add the web-link here. Please copy and paste the text into 'policy description'.

Formal:

If the national data centre has 'named' policy on data, this can be considered to be a 'formal' data policy. In this case, tick the box. If the centre simply has an implied policy which is unwritten but understood as being the policy on data access rights and sharing, then do not tick this box.

4. Data Table: Distribution

ID:

Name: Year Established:

Type: Public Ownership: Collector User DataCentre

Data Holdings | Policies | **Distribution** | Legal Status/Mandate

Data Type	Data set	Distributor ID	Data Holder	Restrictions On Use	Restrictions On Publication	Legal Access Restrict.	Cost Of Dataset	Availability	Other Conditions	Notes
▶ METEOI	Met O	British Atmrc	British At	available for bona fide acknowledgement		restricted	€0.00	Online		
METEOI	ACSC	British Atmrc	British At	http://badc.nerc.ac.uk/	http://badc.nerc.ac.uk/data/s	academic	€0.00	Online		
METEOI	Coupl	British Atmrc	British At	http://badc.nerc.ac.uk/		restricted	€0.00	Online		
METEOI	Globa	British Atmrc	British At	http://badc.nerc.ac.uk/	http://badc.nerc.ac.uk/data/c	restricted	€0.00	CD-ROM		
PHYSIC	GLOS	British Ocea	British At			unrestricted	€0.00	CD-ROM		
PHYSIC	Met O	British Atmrc	British At	available for bona fide acknowledgement		restricted	€0.00			
METEOI	UK SC	British Atmrc	British At	data embargoed for 1	anyone making use of data v	moratorium	€0.00		Falls under UK S	
*			British At				€0.00			

Record: 14 of 7

Figure 16 Form view of data table 4 ‘Distribution’

Data type:

Enter the data category type. This should be automatically filled in if you have already entered in the data category in Data Table 2 (data holdings).

Data set:

Enter the name of the data base or data set. This can be automatically filled in using the drop down menu if you have already entered in the data set name in Data table 2 (data holdings). If this does not work, you may find that if you click on a new row below (thereby adding a new row), it will then allow you to find the data set from the drop-down menu.

Distributor ID:

Enter the name of the centre that ‘distributes’ the data. This means the place where the data can be accessed from or the place which needs to be contacted to request the data. It may be the same or may be different to the Data Holder.

Data Holder:

Enter the name of the centre that ‘holds’ the data. This means the centre where the data is collected and stored. It may be the same or may be different to the ‘Distributor’.

Legal access restrictions:

The legal access restrictions may vary on the data type or even the data set. If this is the case then make the distinction as you enter in the ‘legal access restriction’. The different categories of restrictions are in Table 1 below. If a combination of these apply then, please select the most appropriate one (most significant) and then add more details under ‘other conditions’.

Table 2 Distribution categories (taken from the NERC data grid)

collection cost charge	A charge is made related to the cost of collecting the data.
commercial charge	A charge significantly exceeding the cost of data collection and delivery is made for usage of the data.
licence	Conditions of supply and usage of the data are specified in a formal agreement.
moratorium	Data are initially restricted, but the access condition relaxes to academic or unrestricted once a specified period of time after an event (such as collection, publication, completion of QC procedures or project cessation) has elapsed.
no access	Access to the data cannot be negotiated.
distribution cost charge	A charge is made to cover the costs of delivering data to the user.
organisation	The data are unrestricted to members of an organisation or a virtual organisation (such as project or cruise participants) but restricted to anybody else.
restricted	The data are withheld from general circulation and disclosure but access may be obtained on a case-by-case basis through negotiation.
academic	The data are freely available for research and education purposes. Usage acknowledgement is usually expected.
unknown	The correct value is not known to and not computable by the creator of this information. However a correct value probably exists.
unrestricted	The data are freely available to anybody and may be used for any purpose. Usage acknowledgement may be required.

Restrictions on use:

Enter in any detailed information relating to any restrictions which refer specifically to the use of data. For example different restrictions may apply depending on whether the data is used for commercial activities or by a member of the general public. Other restrictions may apply depending on the type of data or its level of processing. If it is freely available then enter 'no restrictions' here.

Restrictions on publication:

Enter in any detailed information relating to any restrictions which refer specifically to the use of data in publications. For example, restrictions may apply to certain types of publications or perhaps the data can be represented in a publication but only if the source is acknowledged etc... or perhaps there is a 2 year or more restriction on how the data can be used for publications. If there are no such restrictions then enter 'no restrictions' here.

Cost of dataset:

This will be entered during the second phase of the work. You do not need to fill it in for the first stage of the work. If a fee is payable the fee should be entered here. This should be converted into euros if it is in another currency. In this case the following website should be used: <http://www.xe.com/>. If the data is available under license, the Consultant will include details of the license in the 'other conditions' field.

Availability:

This refers to the physical availability of the data. This can be recorded as follows 'on-line', 'electronic file', 'paper copy'. Otherwise, you can use other terms such as 'CD-rom', disk etc...

Other conditions:

Enter in any other detailed information which is not captured in any other field. The distribution rights to data may vary depending on the level of processing of the data and/or the type of use it is intended for (research, commercial). This and any other conditions should be noted here if they have not been elsewhere. Include information about licenses here.

Notes:

Under the notes, you may add any other information which you think is useful and the contact details or method of how to get the data. This will save a lot of time in the next phase of the work when you will 'sample' the data.

5. Data Table: Legal status/mandate

The screenshot shows a web-based form titled 'Environmental Data'. At the top, there are fields for 'ID:' (49), 'Name:' (Sir Allister Hardy Foundation for Ocean Science (SAHFOS)), and 'Year Established' (1931). Below these are dropdown menus for 'Type:' (non-government organisation) and 'Public Ownership:' (0). There are also checkboxes for 'Collector' (checked), 'User' (unchecked), and 'DataCentre' (checked). The main content area is divided into three sections: 'Legal Status:', 'Mandate', and 'Funding:'. The 'Legal Status:' section contains a text box with the following text: 'Although the survey was set up in 1931, SAHFOS has undergone a number of changes. From 1990 the survey has operated as an independent organisation and was formally established as a registered foundation named after Sir Allister Hardy. SAHFOS moved to the Marine Biological Laboratory site at Citadel Hill in 2002. It considers itself a non-profit making charitable Foundation.' The 'Mandate' section contains a text box with the text: 'The SAHFOS mission is to extend the work of the Continuous Plankton Recorder Survey and to use it to promote research, education and knowledge about the marine environment.' The 'Funding:' section contains a text box with the text: 'Since SAHFOS was established in 1990 the Foundation has been funded by an international consortium and has received support from UNESCO (IOC), UNIDO and agencies in Canada, Denmark, France, Iceland, Ireland, Netherlands, and the USA as well as the UK Ministries: DEFRA and DANI and from 1999 again, the UK NERC.' At the bottom of the form, there is a record navigation bar showing 'Record: 1 of 1 (Filtered)'.

Figure 17 Form view of data Table 5 ‘Legal status/mandate

Legal status

Enter in the legal status of the data centre. You may repeat the information which was entered in to Table 1 Data holder, ‘Type’ and you can add some more information which you may find on their website which explains the legal status of the organisation for example how they are registered (not-for profit organisation, private company etc..).

This is a key issue and as much information should be gathered as possible with any relevant legislation governing that legal status being described. For example if a data centre is established pursuant to a specific legal instrument this should be described. If it is a generic type of organisation, such as a company, then the law or laws that regulate company formation need to be cited.

Mandate

Enter the ‘mandate’ or basic purpose of the data centre, for example research, teaching and research, resource management, commercial activities etc. The issue of the mandate may be linked to the source of funding.

Funding

Enter the principle source or sources of funding of the data centre. For example is the data centre funded from state budget allocations, from commercial activities (including activities relating to marine environmental data), a combination thereof etc.? The issue of funding may have a direct impact on the relevant data policy and the issue of access to data.

B. Ensuring a representative sample of National data centres

As explained in the Introduction, it is important to have a good representation of data in each country. Of course, it would be very difficult to collect information on all the data centres in each country but this should be as representative as possible. This means that you should aim to collect information about at least 1 of each 'type' of centre (academic, NGO, commercial etc...) and at least 1 of each data category (meteorological, biological...) and that this should represent 'most' of the data in the country. For example, there may be one data centre that holds all the data of a certain type (the National Meteorological Office for instance) so perhaps in this case, there would just be a few data centres under this category. But, for more dispersed information, it is important to collect information on the range of centres.

You may use the 'queries' set up in Access to keep track and make sure that you have collected representative information for your country (see Figure 7).

Using queries

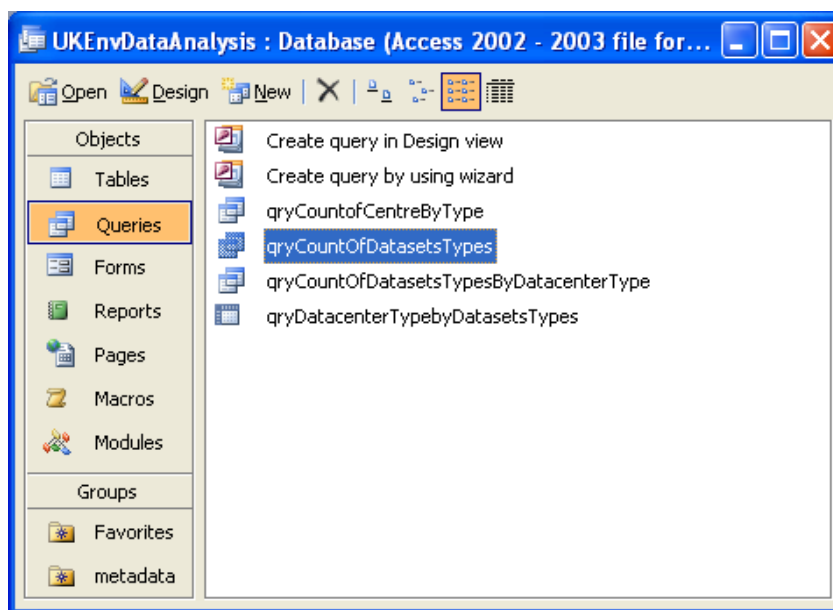


Figure 18 Queries function in Access database

Select 'Queries' in the box (see figure 7). This box should automatically appear when you open Access. There are 4 queries which have been set up already.

There are a number of queries that have been set up and which can help you to see how much information you have collected. For example, using the last one in the list, you will get the output in Figure 8. We will also be using this later to compare between countries.

Desc	HolderDesc	GBR
GEOLOGY - GEOPHYSICS - SEDIMENTA	academic	1
MARINE BIOLOGY	academic	3
ATLASES & MAPS	central government (nat	1
COASTAL STUDIES (e.g. shores, estuaries	central government (nat	1
GEOLOGY - GEOPHYSICS - SEDIMENTA	central government (nat	1
MARINE BIOLOGY	central government (nat	2
REMOTE-SENSING (e.g. satellites, aircraft	central government (nat	1
SEAFLOOR SAMPLES (e.g. core, dredge,	central government (nat	1
PHYSICAL OCEANOGRAPHY	multinational organisati	1
CATALOGUES - DIRECTORIES ETC.	non-government organis	1
MARINE BIOLOGY	non-government organis	3
METEOROLOGY	non-government organis	3
OCEAN COMPOSITION	non-government organis	4
PHYSICAL OCEANOGRAPHY	non-government organis	2
MARINE BIOLOGY	other	1
ATLASES & MAPS	publicly funded instituti	1
COMPUTER MODELS	publicly funded instituti	1
ENVIRONMENTAL QUALITY/POLLUTION	publicly funded instituti	1
FISHERIES	publicly funded instituti	1
GEOLOGY - GEOPHYSICS - SEDIMENTA	publicly funded instituti	1
MARINE BIOLOGY	publicly funded instituti	4
METEOROLOGY	publicly funded instituti	2
OCEAN COMPOSITION	publicly funded instituti	2
PHYSICAL OCEANOGRAPHY	publicly funded instituti	6
COMPUTER MODELS	publicly-funded instituti	2
GEOLOGY - GEOPHYSICS - SEDIMENTA	publicly-funded instituti	1
METEOROLOGY	publicly-funded instituti	5
OCEAN COMPOSITION	publicly-funded instituti	1
PHYSICAL OCEANOGRAPHY	publicly-funded instituti	5

Figure 19 Query Data centre by type by datasets types

Instructions to the data hunters re stage two of the data collection exercise

1. Instructions:

Use the information that you have collected on data centres to guide you through the request stage. Under the 'distribution' tab you may have already included the information about where and how to get the data. Under the 'policy' tab, you may already have detailed of what restrictions will apply. You can use this information to formulate your request.

Firstly, identify which data centres you will approach.

You should get the data is the table below from the different types of organisations it is available from (academic institutes and universities, NGO/charity/society, central government agency/department, local or regional level government, other publically funded organisations, private commercial company or business).

Record the experience you have acquiring the data following some of the questions below.

Table 1. data requests

Type of data	Data to request	Examples of variations to ask for:
<p>1) hydrography (bathymetry, coastline)</p>	<p>Bathymetric profile Navigational charts (with information about wrecks or some other kind of spatial data useful for navigation)</p>	<p>Location: areas with different jurisdiction (for example: In territorial waters, EEZ or other European waters). Timescale: Latest available data and the oldest available data. (pick data at intervals: e.g. 2, 5 and 15 years ago) Instrument: If recorded by different satellites then, just pick different ones. Resolution: Select different resolutions or scales of detail of the data. For example ask for a detailed navigational chart at a local, regional and national level.</p>
<p>2) geology (sediments, geological substrate, geological hazards (earthquake zones etc), coastal erosion)</p>	<p>Seismic profiles for a particular year Sediment cores</p>	<p>Location: areas with different jurisdiction (for example: In territorial waters, EEZ or other European waters). Timescale: Latest available data and the oldest available data. (pick data at intervals: e.g. 2, 5 and 15 years ago) Instrument: If recorded by different satellites or other types of instruments then, just pick different ones.</p>
<p>3) physical oceanography (temperatures, salinity, tides, currents)</p>	<p>CTD profiles (buoy...) recording depth, temperature and Conductivity. Tidal tables Salinity Wind speed and direction Current or drift levels</p>	<p>Time series: Real-time (up to the hour) or archived data. Time scale: Last hour, current month, last 3 months and 6 months data from 2 years ago, from 10 years ago. Instrument: If recorded by different satellites or other types of instruments then, just pick different ones. Location: areas with different jurisdiction (for example: In territorial waters, EEZ or other European waters).</p>

<p>4) biology (anything living from plankton to whales - except fish) - abundance and diversity</p>	<p>Marine mammal. Number of sightings in the past year for a number of species. Zooplankton and/or phytoplankton (abundance and species diversity) recorded Benthic organisms (abundance and species diversity) recorded) Location of seagrass beds, mussel beds or other high biodiversity (protected habitats)</p>	<p>Time scale: latest data (for example current month) and older data, (last 3 months and 6 months data from 2 years ago, from 10 years ago). Species: Species with EU or national protection status and other species with no particular 'protection' species. Location: areas with different jurisdiction (for example: In territorial waters, EEZ or other European waters).</p>
<p>5) fisheries (catch, effort, capacity, discards etc)</p>	<p>Landings data (catch landed for a given species) by rectangle for a given year. Acoustic fisheries surveys (population size for a given species)</p>	<p>Time scale: Current month (or latest available data), last 3 months and 6 months data from 2 years ago, 10 years ago. Location: In territorial waters, in the EU CFP area and in areas not covered by the CFP (ex: Norway) Species: select 2 or 3 different types of species – for example ones from coastal fisheries and others from deeper water fisheries</p>
<p>6) chemistry (pollution, nutrients, sewage etc)</p>	<p>Concentration of E coli bacteria for 2007 and for 1997 by month Concentration of suspended matter/water colour (using secchi disk method) for 2007 and for 1997 by month Nutrient concentration (ex: Nitrogen, Phosphorous or Iron)</p>	<p>Time scale: Current month (or latest available data), last 3 months and 6 months data from 2 years ago, 10 years ago. Site: Choose 2 or 3 different coastal areas (beaches) Location: areas with different jurisdiction (for example: In territorial waters, EEZ or other European waters). Instrument: If recorded by different types of instruments then, just pick different ones.</p>
<p>7) human activity (oil rigs, gravel extraction, shipping)</p>	<p>Oil spill records over the last 5 years Radioactivity levels Heavy metal concentrations Shellfish or fish contamination Location of offshore or inshore structures (including wind farms, oil rigs, fish pens etc..). Records of effluent concentration and environmental impact assessment from listed structures. Number of permits granted for aquaculture farms. Number of permits granted for gravel extraction.</p>	<p>Time scale: Current month (or latest available data), last 3 months and 6 months data from 2 years ago, 10 years ago. Site: Choose 2 or 3 different coastal areas (beaches) Location: areas with different jurisdiction (for example: In territorial waters, EEZ or other European waters). Resolution: if different resolutions are available then ask for different ones.</p>

2. Notes:

Always ask to try and get (request) this data as closely as possible. If the data is only recorded every 5 years then of course we cannot ask for the data from the 'current' year or month – in this case adapt your request in order to test what restrictions apply to different temporal scales (for example 5, 10 and 15 years).

Try to find out what the different restrictions are. So, for example if there is a moratorium on the data for 10 years – then try to request data from earlier and later than 10 years.

If you need to choose a specific location (by number of degrees latitude, longitude) then use your judgement to ask for different spatial scales of data – both in terms of the location and different jurisdictions as well as the spatial resolution (detailed raw data and aggregated).

3. What to record:

1) How do you request the data?

- on-line licence where you agree to the terms and conditions
- register as a user with a login and password
- by email
- by written request
- by phone call
- straight-forward download from the website
- make an appointment and visit the data centre

2) What information do you have to give?

Personal information
Details of the intended use
...

3) Do you have to pay any fees or is the data completely free? Y/N

If so, is this:

- a fixed amount or a voluntary contribution?
- a membership fee (for a fixed duration of time)
- as a contribution to the collection of the data, the work of the centre
- does it depend on what kind of user you are
- licence fee (for a fixed duration of time)
- for the data itself
- for the staff time needed to deal with your request

4) could you pass this on to a third party? Y/N Or is this only for your use and no-one else's?

5) how long does it take to get the data?

Instant
A few days
A week or two

Two to three weeks
A month or several months

Is the data centre obligated to respond to your request within a certain timeframe?
Y/N

6) how easy/difficult is it to acquire the data?

(rank on a scale of 1-10)

Is this due to administrative/bureaucratic issues or because you have to pay for the data or just because you cannot find out how to get the data!

Data Tables

Table: DataDistribution

Field Name	Data Type
Country	Text
Distributor_ID	Long Integer
DataID	Long Integer
DataType	Text
DataHolderID	Long Integer
OtherConditions	Text
RestrictionsOnUse	Text
RestrictionsOnPub	Text
LegalAccessRestrict	Text
Avalibility	Text
CostOfDataset	Double
Notes	Memo

Table: DataHolder

Field Name	Data Type
Country	Text
Holder_ID	Long Integer
EDMED_ID	Long Integer
CDI_ID	Long Integer
Name	Text
Type	Long Integer
Collector	Yes/No
User	Yes/No
DataCentre	Yes/No
PublicOwnership	Long Integer
Funding	Memo
Mandate	Memo
LegalStatus	Memo
YearEstablished	Long Integer

Table: DataHoldings

Field Name	Data Type
country	Text
DataId	Long Integer
DataType	Text
DataHolder_ID	Long Integer
LegalOwner	Long Integer
DataName	Text
QuantityInDataCentre	Text
QuantityInCountry	Text
NumDataSets	Long Integer

RealtimeData
Notes

Yes/No
Memo

Table: DataHoldingsPolicy

Field Name	Data Type
Country	Text
DataID	Long Integer
DataHolder_ID	Long Integer
Policy_ID	Long Integer

Table: DataPolicys

Field Name	Data Type
Country	Text
DataPolicy_ID	Long Integer
Owner_ID	Long Integer
PolicyName	Text
PoilyDesc	Memo
Links	Anchor
Formal	Yes/No

Table: Sampling

Field Name	Data Type
Country	Text
Distributor_ID	Long Integer
Dataset_name	Text
TypeCategory	Text
Type	Text
Location	Text
Timescale	Text
Realtime	Yes/No
Resolution	Text
Instrument	Text
OtherIdentifer	Text
DatasetDiscription	Memo
HowRequestCategory	Text
HowRequest	Text
DetailsRequired	Text
IsDataFree	Yes/No
ResonForCost	Text
DescriptionOfCost	Text
AvibleTo3rdParty	Yes/No
TimeToRecive	Text
TimeToRespond	Long Integer
EaseOfRequest	Long Integer
DiscriptionOfProcess	Memo

Lookup Tables

Table: LK_AccessRestriction

Field Name	Data Type
RestrictionCode	Text
RestrictionDesc	Text

Table: LK_Countrys

Field Name	Data Type
Name	Text
3letter	Text
2letter	Text
English	Text

Table: LK_DataType

Field Name	Data Type
Code	Text
Desc	Text
Commision_type	Text

Table: LK_HolderType

Field Name	Data Type
HolderTypeID	Long Integer
HolderDesc	Text
IsAType	Long Integer

Table: LK_Quantity

Field Name	Data Type
Quantity	Text

DATA CONFIDENTIALITY ANALYSIS – EURLEX HEADINGS

GENERAL, SUPPLY AND RESEARCH

No requirements.

STATISTICS

Submission of catch and activity statistics

North-West Atlantic

*Regulation 2018/93 on the submission of catch and activity statistics by Member States fishing in the Northwest Atlantic (7)

North-East Atlantic

Regulation 3880/1991 submission of nominal catch statistics by Member States fishing in the north-east Atlantic (3)

STRUCTURAL MEASURES

Monitoring

Regulation 500/2001 (2) application of Council Regulation (EEC) No 2847/93 on the monitoring of catches taken by Community fishing vessels in third country waters and on the high seas

*Regulation 2244/2003 (15) detailed provisions regarding satellite-based Vessel Monitoring Systems *we know this one*

Regulation 897/1994 (10) detailed rules for the application of Council Regulation (EEC) No 2847/93 as regards pilot projects relating to continuous position monitoring of Community fishing vessels

Outermost regions

*Regulation 639/2004 (1) management of fishing fleets registered in the Community outermost regions

Mediterranean

*Regulation 1967/2006 (24) management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea, amending Regulation (EEC) No 2847/93

and repealing Regulation (EC) No 1626/94 *amends control reg and seems to be part of it.*

Data, catch and activity statistics

Regulation 3880/1991 (3) submission of nominal catch statistics by Member States fishing in the north-east Atlantic

Regulation 2018/1993 (7) submission of catch and activity statistics by Member States fishing in the Northwest Atlantic

*Regulation 2103/2004 (5) of data on certain fisheries in the western waters and the Baltic Sea

Control

*Regulation 768/2005 (26) establishing a Community Fisheries Control Agency and amending Regulation (EEC) No 2847/93 establishing a control system applicable to the common fisheries policy *direct reference to control confidentially*

Regulation 1447/1999 (2) of types of behaviour which seriously infringe the rules of the common fisheries policy

Regulation 2740/1999 (2) application of Council Regulation (EC) No 1447/1999 establishing a list of types of behaviour which seriously infringe the rules of the common fisheries policy

Fishing capacity/effort regime

*Regulation 1449/1998 (3) rules for the application of Council Regulation (EEC) No 2847/93 as regards effort reports ?

Regulation 2091/1998 (6) of the Community fishing fleet and fishing effort in relation to the multi-annual guidance programmes

Regulation 26/2004 (1) on the Community fishing fleet register

MARKET ORGANISATION

Common Market Standards for Fisheries Products

Regulation 2406/1996 (2) common marketing standards for certain fishery products

Commission Regulation (EC) No 2003/2006 (2) of 21 December 2006 laying down detailed rules for the financing by the European Agricultural Guarantee Fund (EAGF) of expenditure relating to the common organisation of the markets in fishery and aquaculture products

*Regulation 104/2000 (33) common organisation of the markets in fishery and aquaculture products

Regulation 2065/2001 (4) detailed rules for the application of Council Regulation (EC) No 104/2000 as regards informing consumers about fishery and aquaculture products

Producer Organisations

general

Regulation 80/2001 **(10)** detailed rules for the application of Council Regulation (EC) No 104/2000 as regards notifications concerning recognition of producer organisations, the fixing of prices and intervention within the scope of the common organisation of the market in fishery and aquaculture products

*Regulation 1813/2001 **(2)** detailed rules for the application of Council Regulation (EC) No 104/2000 as regards the conditions for, the grant of and the withdrawal of recognition of interbranch organisations

*Regulation 2318/2001 **(6)** detailed rules for the application of Council Regulation (EC) No 104/2000 as regards the recognition of producer organisations in the fishery and aquaculture sector

Regulation 1924/2000 **(5)** grant of specific recognition to producers' organisations in the fisheries sector in order to improve the quality of their products

Regulation 1886/2000 **(1)** detailed rules for the application of Council Regulation (EC) No 104/2000 as regards the extension to non-members of certain rules adopted by producers' organisations in the fisheries sector

price support system

- Guide prices and Community producer prices

Regulation 1447/2007 **(2)** fixing for the 2008 fishing year the guide prices and Community producer prices for certain fishery products pursuant to Regulation (EC) No 104/2000

- Product withdrawals

Regulation 2493/2001 **(3)** of certain fishery products which have been withdrawn from the market

*Regulation 2509/2000 **(7)** detailed rules for the application of Council Regulation (EC) No 104/2000 as regards granting financial compensation for withdrawals of certain fishery products

- carry-over operations

Regulation 2814/2000 **(3)** detailed rules for the application of Council Regulation (EC) No 104/2000 as regards the grant of carry-over aid for certain fishery products

- Private storage

Regulation 2813/2000 **(2)** detailed rules for the application of Council Regulation (EC) No 104/2000 as regards the grant of private storage aid for certain fishery products

- Compensatory allowance for producers of tuna delivered to the processing industry

*Regulation 2183/2001 (7) detailed rules for the application of Council Regulation (EC) No 104/2000 as regards granting the compensatory allowance for tuna intended for the processing industry

- Flat-rate aid

Regulation 939/2001 (5) detailed rules for the application of Council Regulation (EC) No 104/2000 as regards the grant of flat-rate aid for certain fishery products

Operational programmes

*Regulation 2508/2000 (4) detailed rules for the application of Council Regulation (EC) No 104/2000 as regards operational programmes in the fisheries sector

Horizontal State Aid

Regulation 1976/2006 (25) amending Regulations (EC) No 2204/2002, (EC) No 70/2001 and (EC) No 68/2001 as regards the extension of the periods of application

trade regime with non-member countries

*Regulation 1093/1994 (3) setting the terms under which fishing vessels of a third country may land directly and market their catches at Community ports

Regulation 2306/2002 (2) detailed rules for the application of Council Regulation (EC) No 104/2000 as regards the notification of the prices of imported fishery products

Fishing fleet

*Regulation 1449/1998 (3) rules for the application of Council Regulation (EEC) No 2847/93 as regards effort reports

Regulation 26/2004 (1) on the Community fishing fleet register

Regulation 1799/2006 (1) amending Regulation (EC) No 26/2004 on the Community fishing fleet register

Control

*Regulation 2847/1993 (69) establishing a control system applicable to the common fisheries policy

Regulation 768/2005 (26) establishing a Community Fisheries Control Agency and amending Regulation (EEC) No 2847/93 establishing a control system applicable to the common fisheries policy

Regulation 150/2001 (1) detailed rules for the application of Council Regulation (EC) No 104/2000 as regards the penalties to be applied to producer organisations in the fisheries sector for irregularity of the intervention mechanism and amending Regulation (EC) No 142/98

Monitoring

Regulation 897/1994 **(10)** detailed rules for the application of Council Regulation (EEC) No 2847/93 as regards pilot projects relating to continuous position monitoring of Community fishing vessels

*Regulation 500/2001 **(2)** application of Council Regulation (EEC) No 2847/93 on the monitoring of catches taken by Community fishing vessels in third country waters and on the high seas

Regulation 2244/2003 **(15)** detailed provisions regarding satellite-based Vessel Monitoring Systems

CONSERVATION OF RESOURCES

Total allowable catches

Regulation 52/2006: **(5)** fishing opportunities and associated conditions for certain fish stocks and groups of fish stocks applicable in the Baltic Sea for 2006

*Regulation 51/2006 **(37)** fishing opportunities and associated conditions for certain fish stocks and groups of fish stocks, applicable in Community waters and, for Community vessels, in waters where catch limitations are required

Regulation 2015/2006: **(1)** fixing for 2007 and 2008 the fishing opportunities for Community fishing vessels for certain deep-sea fish stocks

*Regulation 754/2007: **(3)** regards fishing opportunities and associated conditions for certain fish stocks (quota and recovery)

Fishing effort system

Regulation 2166/1983 **(8)** establishing a licensing system for certain fisheries in an area north of Scotland (Shetland area)

*Regulation 1627/1994 **(21)** general provisions concerning special fishing permits.

Regulation 2943/1995 **(7)** detailed rules for applying Council Regulation (EC) No 1627/94 laying down general provisions concerning special fishing permits

Regulation 1438/2003 **(1)** implementing rules on the Community Fleet Policy as defined in Chapter III of Council Regulation (EC) No 2371/2002

*Regulation 1954/2003 **(6)** Management of the fishing effort relating to certain Community fishing areas and resources

Regulation 639/2004 **(1)** management of fishing fleets registered in the Community outermost regions

Management plans

*Regulation 1098/2007: **(14)** multi-annual plan for the cod stocks in the Baltic Sea

Recovery plans

Regulation 1162/2001 **(9)** measures for the recovery of the stock of hake in ICES sub-areas III, IV, V, VI and VII and ICES divisions VIII a, b, d, e and associated conditions for the control of activities of fishing vessels

Regulation 423/2004 **(5)** establishing measures for the recovery of cod stocks

*Regulation 811/2004 **(7)** measures for the recovery of the Northern hake stock

Regulation 2115/2005 **(19)** recovery plan for Greenland halibut in the framework of the Northwest Atlantic Fisheries Organisation

*Regulation 2166/2005 **(12)** measures for the recovery of the Southern hake and Norway lobster stocks in the Cantabrian Sea and Western Iberian peninsula

Regulation 643/2007: **(54)** recovery plan for bluefin tuna recommended by the International Commission for the Conservation of Atlantic Tunas

Technical measures

Regulation 3531/85 **(10)** technical and control measures relating to the fishing activities of vessels flying the flag of Spain in the waters of the other Member States, except Portugal

*Regulation 3715/1985 **(4)** technical and control measures relating to the fishing activities of vessels flying the flag of Portugal in the waters of the other Member States except Spain

Regulation 3716/1985 **(9)** technical and control measures relating to the fishing activities in Spanish waters of vessels flying the flag of another Member State except Portugal

Regulation 3717/1985 **(10)** technical and control measures relating to the fishing activities in Spanish waters of vessels flying the flag of Portugal

Regulation 3718/1985 **(17)** technical and control measures relating to the fishing activities in Portuguese waters of vessels flying the flag of Spain

Regulation 3719/1985 **(8)** technical measures and control measures relating to the fishing activities in Portuguese waters of vessels flying the flag of another Member State except Spain

*Regulation 1922/1999 **(8)** rules for the application of Council Regulation (EC) No 850/98 as regards conditions under which vessels exceeding eight metres length overall shall be permitted to use beam trawls within certain waters of the Community

Regulation 600/2004 **(3)** technical measures applicable to fishing activities in the area covered by the Convention on the conservation of Antarctic marine living resources

Regulation 831/2004 **(5)** down certain technical measures for the conservation of certain stocks of highly migratory species

Regulation 2187/2005 (5): conservation of fishery resources through technical measures in the Baltic Sea, the Belts and the Sound

Inspection and control

Regulation 3561/1985 (2) about inspections of fishing activities carried out by national control authorities

Regulation 3781/1985 (1) measures to be taken in respect of operators who do not comply with certain provisions relating to fishing contained in the Act of Accession of Spain and Portugal

DÉCISION (D) N° 631/1989 (9) Community financial contribution towards expenditure incurred by Member States for the purpose of ensuring compliance with the Community system for the conservation and management of fishery resources

Regulation 2791/1999 (7) control measures applicable in the area covered by the Convention on future multilateral cooperation in the north-east Atlantic fisheries

Regulation 1085/2000 (7) rules for the application of control measures applicable in the area covered by the Convention on Future Multilateral Cooperation in the North-East Atlantic Fisheries

Regulation 1936/2001 (60) control measures applicable to fishing for certain stocks of highly migratory fish

Regulation 601/2004 (60) control measures applicable to fishing activities in the area covered by the Convention on the conservation of Antarctic marine living resources

DÉCISION 2004/465/CE (7) Community financial contribution towards Member States fisheries control programmes

Regulation 855/2004 (1) establishing a European Community observer scheme applicable to Community fishing vessels operating in the Regulatory Area of the Northwest Atlantic Fisheries Organisation

*Regulation 1042/2006: (21) detailed rules for the implementation of Article 28(3) and (4) of Council Regulation (EC) No 2371/2002 (inspection of vessels)

Collection of data

Regulation 1543/2000 (5) a Community framework for the collection and management of the data needed to conduct the common fisheries policy

*Regulation 1639/2001 (14) minimum and extended Community programmes for the collection of data in the fisheries sector and laying down detailed rules for the application of Council Regulation (EC) No 1543/2000

Regulation 1966/2006 (3) electronic recording and reporting of fishing activities and on means of remote sensing

NAFO

Regulation 1386/2007: **(82)** Conservation and enforcement measures applicable in the Regulatory Area of the Northwest Atlantic Fisheries Organisation

Sharks

*Regulation 1185/2003 **(3)** removal of fins of sharks on board vessels

Deep-sea stocks

Regulation 2347/2002 (8) access requirements and associated conditions applicable to fishing for deep-sea stocks

FPA Conditions

*Regulation 3317/1994 **(9)** general provisions concerning the authorization of fishing in the waters of a third country under a fisheries agreement

STATE AIDS

No reporting requirements.

EXTERNAL RELATIONS

Multilateral relations

Participation in Regional fisheries organisations

Council Regulation (EC) No 2115/2005 **(20)** of 20 December 2005 establishing a recovery plan for Greenland halibut in the framework of the Northwest Atlantic Fisheries Organisation.

International agreements

*Council Regulation (EC) No 2791/1999 **(11)** of 16 December 1999 laying down certain control measures applicable in the area covered by the Convention on future multilateral cooperation in the north-east Atlantic fisheries

Commission Regulation (EC) No 1085/2000 **(7)** of 15 May 2000 laying down detailed rules for the application of control measures applicable in the area covered by the Convention on Future Multilateral Cooperation in the North-East Atlantic Fisheries

Agreements with non-member countries

Fisheries Partnership Agreements

- Tuna FPA (11)

Council Regulation (EC) No 882/2003 **(11)** of 19 May 2003 establishing a tuna tracking and verification system

Council Regulation (EC) No 115/2006 **(39)** of 23 January 2006 on the conclusion of the Protocol setting out, for the period from 18 January 2005 to 17 January 2011, the fishing opportunities and the financial contribution provided for by the Agreement between the European

Economic Community and the Republic of Seychelles on fishing off Seychelles

*Council Regulation (EC) No 2027/2006 **(25)** of 19 December 2006 on the conclusion of the Fisheries partnership agreement between the European Community and the Republic of Cape Verde

o Mixed fisheries FPA

Council Regulation (EC) No 1801/2006 **(80)** the conclusion of the Fisheries Partnership Agreement between the European Community and the Islamic Republic of Mauritania

Other

Council Regulation (EC) No 1185/2003 **(3)** of 26 June 2003 on the removal of fins of sharks on board vessels