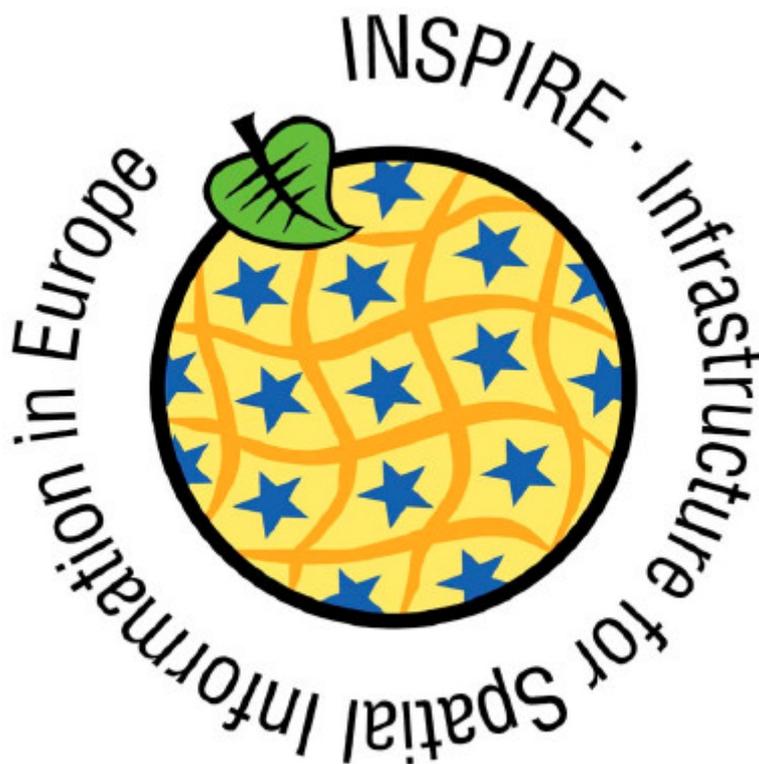


# Report on the feedback of the Internet consultation on a forthcoming EU initiative establishing a framework for the creation of an Infrastructure for Spatial Information in Europe

28 August 2003



*This document does not represent the position of the Commission or its services. No inferences should be drawn from these documents as to the content or form of the future proposals to be presented by the Commission.*

*For more information about the INSPIRE initiative please visit  
<http://www.ec-gis.org/inspire>*

# INDEX

<b>Executive Summary</b>	<b>3</b>
Introduction	3
General issues	5
Standardisation	6
Data Content	7
Services	8
Data Policy	9
<b>Overview of Respondents</b>	<b>10</b>
<b>KEY QUESTION 1</b>	<b>13</b>
The implementation of INSPIRE is based upon five underlying principles. Do you agree with the five INSPIRE principles? (Section 3.1)	13
<b>KEY QUESTION 2</b>	<b>14</b>
Are these the five main obstacles that prevent the widespread use of spatial data to support environmental governance? Do they exist at local, regional, national and international level? Should they be addressed by INSPIRE? (Section 3.3)	14
<b>KEY QUESTION 3</b>	<b>16</b>
Do we cover all the necessary themes? (Section 3.4)	16
<b>KEY QUESTION 4</b>	<b>17</b>
Is it appropriate that INSPIRE focuses on spatial data for which the public sector bodies are responsible without, however, excluding collaboration with the private sector where relevant by creating an open Spatial Data Infrastructure to which all stakeholders can contribute? (Section 3.4)	17
<b>KEY QUESTION 5</b>	<b>18</b>
The data components in bold and underlined have been identified as core spatial data components. Do you agree that the identified core data components have high priority? (Section 3.4, Annex1)	18
<b>KEY QUESTION 6</b>	<b>21</b>
Do you consider that in the future, legal initiatives need to be taken to ensure that certain spatial data fully covers the EU territory in accordance with agreed data collection methods and quality criteria such as those referred to in Annex 2 of the INSPIRE consultation document? Are the core datasets referred to above the most relevant ones in the context of INSPIRE? (Section 3.4 & Annex 2)	21
<b>KEY QUESTION 7</b>	<b>22</b>
Is the knowledge on the existing public sector spatial datasets that correspond to the themes in Annex 1 needed to unlock their potential to support the widest possible re-use? (Section 3.4 & Annex 1)	22
<b>KEY QUESTION 8</b>	<b>23</b>
Is the establishment of common specifications and the building of bridges between existing datasets and these common specifications useful to increase the potential of re-using public sector spatial data? (Section 3.4)	23
<b>KEY QUESTION 9</b>	<b>24</b>
Should certain information on standards and key components of data be made available free of charge and free of restriction on use in order to encourage their use by a wide range of data providers? (Section 3.4)	24
<b>KEY QUESTION 10</b>	<b>25</b>
Should Member States establish standard publish, discover, view, access and trade services to provide all users with the possibility to find, view and possibly re-use the spatial datasets? (Section 3.4)	25
<b>KEY QUESTION 11</b>	<b>26</b>
Should the Spatial Data Infrastructure be open to data and services not covered by INSPIRE, subject to minimum requirements ensuring the overall consistency of the spatial data infrastructures? (Section 3.4)	26
<b>KEY QUESTION 12</b>	<b>27</b>
Do you consider that there should be one point of access for data and services covered by INSPIRE? (Section 3.4)	27
<b>KEY QUESTION 13</b>	<b>28</b>
Do you consider that a data policy framework should be established for public bodies in the EU to share the spatial datasets that correspond to the themes listed in Annex 1 of the consultation document? (Section 3.4)	28
<b>KEY QUESTION 14</b>	<b>29</b>
Would it be useful to establish in the EU a harmonised licensing framework that extends to uses and users of spatial data beyond the realms of public sector bodies? If yes, do you think that it should cover either or both of 1) use by citizens and 2) commercial re-use, or do you have some other comment on what should be covered by the extended framework? (Section 3.4)	29
<b>KEY QUESTION 15</b>	<b>30</b>
Do you consider it important to be able to view the data available and that this can be done free of charge? (Section 3.4)	30
<b>KEY QUESTION 16</b>	<b>31</b>
Do you consider that the general interest in the creation of a spatial data infrastructure justifies that public authorities dedicate specific funding for the implementation of INSPIRE? (Section 4.3)	31
<b>KEY QUESTION 17</b>	<b>31</b>
Do you consider that these guidelines are generally applicable to standardisation of spatial datasets? (Appendix 3)	31
<b>KEY QUESTION 18</b>	<b>33</b>
Are important issues not addressed by the previous questions or in the consultation document?	33

# Executive Summary

## Introduction

The objective of the Internet consultation was to inform stakeholders about the INSPIRE initiative and to receive their opinions and comments about the different key points that need to be covered by the Commission proposal for a Framework Directive on INSPIRE. The Internet consultation took place between 29 March and 6 June 2003.

In addition to the INSPIRE expert group, the organisations and networks described below were actively informed about the Internet consultation.

- The INSPIRE Internet website<sup>1</sup> gives its visitors the opportunity to register themselves in order to be kept informed of activities related to INSPIRE. By the time the Internet consultation was launched in March, 184 organisations/individuals had registered and were informed about the consultation. In addition, 470 registered visitors to the EGIP website<sup>2</sup> and 522 registered users to the EC-GIS website,<sup>3</sup> as well as about 660 participants in EC-GIS workshops and the members of the INSPIRE expert group, were actively informed.
- Groups supporting the development of environmental policies:<sup>4</sup> CAFE – Clean Air for Europe;<sup>5</sup> IPPC – Integrated Prevention Pollution and Control;<sup>6</sup> EPER – European Pollutant Emissions Register;<sup>7</sup> Expert Group on Transport and Environment;<sup>8</sup> Research Group on Standardisation;<sup>9</sup> Marine Expert Group; Water;<sup>10</sup> Soil;<sup>11</sup> Committee of competent authorities (Seveso);<sup>12</sup> Habitat & Ornithology Committees;<sup>13</sup> EU Expert Group on the Urban Environment;<sup>14</sup> Reporting Expert Group; Steering Group on Environmental Noise;<sup>15</sup> Working Group “Assessment of Exposure to Noise”;
- Official contacts of DG ENV and EUROSTAT in each Member State in relation to Climate Change & Energy, from the National Mapping Agencies, Regional Statistical Officers, Directors General of the National Statistical Institutes (NSI);
- Non-governmental environmental organisations receiving or having received funding from the European Commission;<sup>16</sup>
- UNEP Centres/Programmes;<sup>17</sup>

---

1 <http://inspire.jrc.it/>

2 <http://www.ec-gis.org/egip/>

3 <http://www.ec-gis.org>

4 <http://europa.eu.int/comm/environment/>

5 <http://europa.eu.int/comm/environment/air/cape/index.htm>

6 <http://europa.eu.int/comm/environment/ippc/>

7 <http://europa.eu.int/comm/environment/ippc/eper/index.htm>

8 <http://europa.eu.int/comm/environment/air/transport.htm>

9 [http://europa.eu.int/comm/environment/standardisation/index\\_en.htm](http://europa.eu.int/comm/environment/standardisation/index_en.htm)

10 <http://europa.eu.int/comm/environment/water/index.html>

11 <http://europa.eu.int/comm/environment/soil/index.htm>

12 <http://europa.eu.int/comm/environment/seveso/index.htm>

13 <http://europa.eu.int/comm/environment/nature/home.htm>

14 [http://europa.eu.int/comm/environment/urban/home\\_en.htm](http://europa.eu.int/comm/environment/urban/home_en.htm)

15 <http://europa.eu.int/comm/environment/noise/home.htm#2>

16 <http://europa.eu.int/comm/environment/funding/finansup.htm>

17 <http://www.grida.no>, <http://www.grid.unep.ch>

- Selected consultative bodies that could be interested in INSPIRE (taken from CONECCS<sup>18</sup>): Ad hoc committee with representatives from local and regional authorities; Ad hoc NGO – waste management committee; Advisory Committee on Agricultural Product Health and Safety; Advisory Committee on Agriculture and the Environment; Advisory Committee on the Common Agriculture Policy; Advisory Committee on Forestry and Aquaculture; Advisory Committee on Forestry and Cork; Advisory Committee on Rural Development; Committee on Community policy regarding forestry and forestry-based industries; Consultation with Maritime Industries Forum; European Energy and Transport Forum; Groupe d'experts - Politique de capacité et de promotion des flottes communautaires; NGO Dialogue with candidate and Balkan countries; Standing Group on Renewable Energy.

Information about the Internet Consultation was placed on the INSPIRE website, on the EC-GIS website<sup>19</sup> and on the EUROPA website.<sup>20</sup>

A total of 185 organisations and individuals from the EU Member States and the accession countries responded to the Internet consultation. The respondents represent stakeholders distributed over the following categories: Governments and Administrations, Utility and Public Services, Research and Development, Commercial and Professional End Users, Non-Governmental Organisations, Federal Organisations and Citizens. The respondents are spatial data users, producers and added value resellers acting at international, national, regional and local level.

A number of replies are coordinated replies resulting from a broad consultation of stakeholders. Such coordination took place for instance in Denmark, the UK, Poland, Switzerland, Sweden, Italy, Hungary, Germany and France, and for a number of international organisations and federations of organisations in Europe. These coordinated responses represented over 1 000 additional organisations. Geographically, the 185 respondents operate in a broad range of countries. They indicated the following as the countries in which they operate: 34 indicated Europe, 133 indicated an EU Member State (23 Italy, 22 Germany, 14 United Kingdom, 12 France, 11 Austria, 11 Spain, 9 Belgium, 8 Denmark, 7 Sweden, 4 Finland, 4 Portugal, 3 Greece, 3 Netherlands, 2 Ireland), 16 indicated an applicant/accession country, 1 United States, 1 Switzerland.

The results of the Internet consultation are described below.

---

<sup>18</sup> [http://europa.eu.int/comm/civil\\_society/coneccs/index\\_en.htm](http://europa.eu.int/comm/civil_society/coneccs/index_en.htm)

<sup>19</sup> <http://www.ec-gis.org>

<sup>20</sup> <http://europa.eu.int/yourvoice/>

## General issues

As stated in the Internet consultation paper (<http://inspire.jrc.it/reports/INSPIRE-InternetConsultationPhaseII.pdf>), the implementation of INSPIRE is based upon **five underlying principles**<sup>21</sup>. Almost all respondents (97%) agree with these five principles. Some respondents consider that other principles, e.g. relating to the quality and updating of data, should also be included. Other respondents recognise the difficulty of implementing these principles and call for a more precise definition of measures and a step-by-step approach.

Almost all the participants (97%) agree that the **five obstacles**<sup>22</sup> stated in the Internet consultation paper are preventing the widespread use of spatial data to support environmental governance. These obstacles were considered by the majority of the respondents to be present at all levels (local to European), particularly the barriers to sharing and re-using spatial data and the lack of documentation. A considerable number of participants (40%) believe that other important obstacles have not been mentioned or that some of the obstacles mentioned have not been accorded due priority. The main obstacles missing are the lack of training and education needed to make use of geographic information, the quality of data, data update and the high cost of spatial data. However, 81% of the respondents agree that the five obstacles mentioned in the Internet consultation paper should be addressed by INSPIRE.

According to the majority of respondents (79%), the general interest in the creation of an Infrastructure for Spatial Information justifies the public authorities dedicating specific **funding** to the implementation of INSPIRE. Appropriate funding is needed to guarantee the maintenance, management and availability of spatial data in conditions that do not restrict their extensive use. However, there was no consensus on where the money should come from: some respondents consider INSPIRE should be mainly funded by the EU, while others advocated shared public/private funding and others thought that users should also contribute to the financial support of INSPIRE.

The respondents also made the following comments on general issues:

- The development of open infrastructures for spatial information will need sustainable funding by public authorities at the local, national and European levels, especially in the initial phases, but will save money in the future at many levels of administration thanks to the streamlining of tasks and sharing of information.
- The need not to treat an infrastructure for spatial information any differently from physical infrastructures that are built, maintained and operated by the public sector. If

---

<sup>21</sup> The five principles referred to in the Internet consultation paper are:

- Data should be collected once and maintained at the level where this can be done most effectively
- It must be possible to combine seamlessly spatial data from different sources across the EU and share it between many users and applications.
- It must be possible for spatial data collected at one level of government to be shared between all levels of government.
- Spatial data needed for good governance should be available on conditions that are not restricting its extensive use.
- It should be easy to discover which spatial data is available, to evaluate its fitness for purpose and to know which conditions apply for its use.

<sup>22</sup> The five obstacles referred to in the Internet consultation paper are: gaps in spatial data, lacking documentation, spatial data sets not compatible, incompatible geographic information systems, barriers to sharing and re-use.

public funds are used to build infrastructures for spatial information then they must be available for all of society to use and benefit from.

- The need to compensate for revenue lost by public spatial data producers.
- The need to build infrastructures for spatial information upon the existing elements available in the Member States.
- The importance of clarifying in the INSPIRE legislation how the infrastructure for spatial information, which will first focus on information needs for environmental policies, will expand to other sectors' needs at a later stage.
- The importance of the relationship between INSPIRE and governmental and IDA (Interchange of Data between Administrations) initiatives.
- The need for consistency with existing Community reporting requirements.
- The need to build capacity for delivering INSPIRE and to fix the implementation pace at a feasible level.
- The importance of properly addressing key implementation issues relating to the establishment of organisational structures, early involvement of the private sector and the need for rules for its participation, research and development, education and awareness raising, priorities for implementation, underlying technological infrastructures required to ensure inter alia performance of viewing services in a distributed architecture, open source software, certification and multilingual support and the related use of common codes for attribute information. Guidelines for implementation are needed.

## **Standardisation**

Almost all the respondents (95%) agree that common specifications and the building of bridges between existing data sets and these common specifications are useful for increasing the potential of re-using public sector spatial data. The data specifications and standards should be as generic and widely used as possible and should where possible be built on what already exists. ISO, CEN and OGC are mentioned as possible reference standards by many of the respondents. Many respondents consider that common data specifications are needed to make data compatible via transformations. Some respondents also call for standards on data collection and data quality, whereas others disagree. For some respondents, standardisation should focus on common spatial data (e.g. reference data), whereas for thematic data account needs to be taken of the wide variety of use.

In general, the respondents (96%) agree that certain information on standards and key components of data should be made available free of charge and free of restriction on use in order to encourage their use by a wide range of data providers. Some respondents consider that not all the key components of data should be made available free of charge and suggest clarifying the term "certain information" or defining the criteria for determining what "certain information" comprises. The interpretation of some respondents that "certain information on key components of data" would extend to a significant amount of spatial data sets led to a few comments on sustainable funding of public spatial data providers.

A large majority of participants (92%) agree that the guidelines indicated by the consultation document in relation to the standardisation of spatial data sets are generally applicable. They consider that the actions that have the highest priority are: making spatial data compatible with other topographic components, making spatial data consistent between

levels, and requiring the adoption of a common geodetic reference system covering both the horizontal and vertical components.

Additional comments relating to standardisation:

- The undisputed need for common standards and specifications as a fundamental aspect of INSPIRE.
- The importance of recognising that lack of interoperability is not only a technical problem but also a political issue. Standards and specifications must be made obligatory.
- The IT and geographical information industries should be involved in the development of standards.
- The suggestion that interoperable services would be a cost-effective alternative to the implementation of common data models and the semantic harmonisation of spatial data.
- Standards and specifications should be free of charge and in the public domain.
- Common semantic models and unique identifiers for spatial objects are a prerequisite for interoperability, facilitating compliance with European specifications at local level and helping to avoid high costs.
- The importance of limiting the degree of regulation by INSPIRE by keeping the technical specifications at a sufficiently generic level.

## **Data Content**

Around 77% of the respondents agree that all the necessary themes are listed in the INSPIRE Internet consultation document. 11% of the respondents think that a number of themes are missing. The remaining 12% consider that certain themes are not needed (mainly “Areas under anthropogenic stress”, “Biodata/biodiversity”, “Natural and technological risks” and “Natural Resources”). However, some of the themes considered by some as unnecessary are considered to be a high priority by many other respondents. Some respondents also ask for a better definition of the themes.

Three quarters of the participants consider it appropriate that INSPIRE focuses on spatial data for which the public authorities are responsible without, however, excluding collaboration with the private sector by creating an open Infrastructure for Spatial Information to which all stakeholders can contribute. An additional 14% agree in principle but suggest some changes to the approach, and 10% of the respondents think INSPIRE should not focus mainly on the public authorities. Some respondents call for the establishment of public/private partnerships, some suggest the private sector be involved through subcontracting and some ask for rules on private sector participation in INSPIRE.

A majority of respondents (60%) agree with the identification of core spatial data components that would have a higher priority, including for future data collection initiatives. The other 40% think that some of them are not core data components (mainly “Bedrock geology”, “Environment protection facilities”, “Production facilities, Industry”, “Agricultural facilities” and “Trade and service facilities”). Around 70% of participants think additional data components should be added to the list of core data components (particularly “Geographical reference systems”, “Geographical grids”, “Blocks, census and statistical districts”, “Postal codes and regions” and “Natural risk vulnerability zones”). For the sake of more efficient implementation, some respondents ask for the list of core data components to be shortened and others suggest defining priorities within the data components, while also taking budgetary considerations into account.

A large number (77%) of participants think that additional legal initiatives will be needed in future to ensure full European coverage of data sets in accordance with the agreed data collection methods and minimum quality criteria, while 12% disagree. Some participants think that legal initiatives should be undertaken primarily for reference data components, while others suggest defining precise priorities for data collection.

A large majority of respondents (91%) agree that knowledge of the existing public sector spatial data sets that correspond to the themes listed in the Internet consultation document is needed in order to unlock their potential to support the widest possible re-use.

Additional comments relating to data content:

- The need to consider that there will be different requirements from different bodies and that there is a dichotomy between the requirements of governments and the demand of the market.
- The need for guidelines on data content and data quality, which should include time/version management, rather than on how to collect and process the data, which should be left to the Member States in accordance with the subsidiarity principle.

## **Services**

Almost all the respondents (94%) agree that the Member States should set up services which make it possible to publish, discover, view, access and trade the spatial data sets that are covered by INSPIRE, in accordance with common standards. Some participants ask for private sector participation and others for guidance in the implementation of these services. In this context, several participants recommended the use of open standards.

A large majority of participants (82%) expressed a clear vote for the Infrastructure for Spatial Information being open to other data and services. They believe the INSPIRE services need to be scalable and open for the future. However, some respondents think INSPIRE should first be developed to a certain level of maturity before expanding to additional data sets and services. Most of the respondents (88%) agree that data and services not regulated by the INSPIRE legislative framework need to comply with the minimum set of conditions in order to be included in the Infrastructure for Spatial Information in Europe. According to some of them, these conditions need to be specified in guidelines and include conditions regarding data access. Some respondents consider that these guidelines should hamper neither the implementation of INSPIRE nor technological innovation.

Many respondents (71%) favour the development of a single access point (portal) for data and services covered by INSPIRE, implemented on top of national access points. It became apparent during the public hearing that some respondents might have wrongly interpreted the single access point as a unique access point. This could explain why a considerable number of respondents (22%) were not in favour of this measure, particularly amongst the group of commercial and professional users. The European portal should at least provide a data discovery service. Multilingual access is seen as a priority for regional and local users that need to access data in cross-border areas.

Additional comments relating to services:

- The importance of services as a key part of the infrastructures for spatial information and for the analysis of cross-border spatial data.

- The importance of not excluding other geo-portals at European level and of the adoption of a networked rather than centralised approach.
- The suggestion that each country participating in INSPIRE provide one national geo-portal as a node for the EU-portal.

## **Data Policy**

A large proportion of respondents (85%) agree with the need to establish a common data policy framework to share spatial data sets between public bodies, and some of them recognise the challenge of harmonising the data policies from different levels.

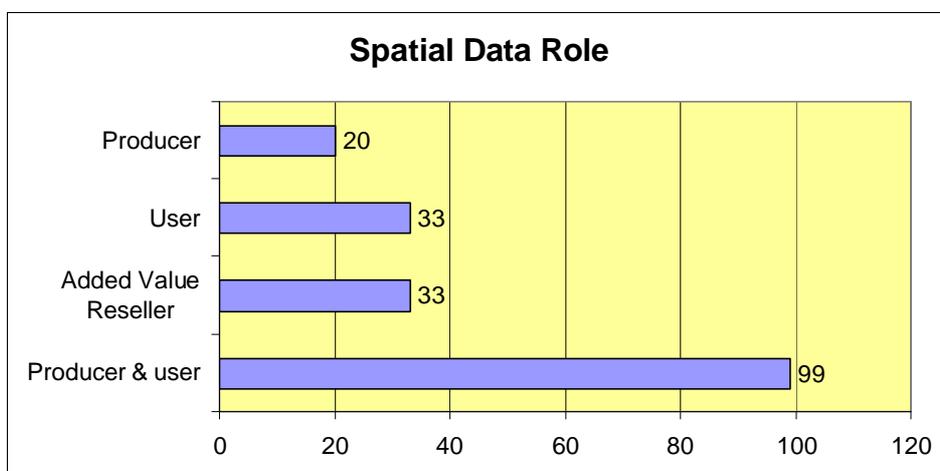
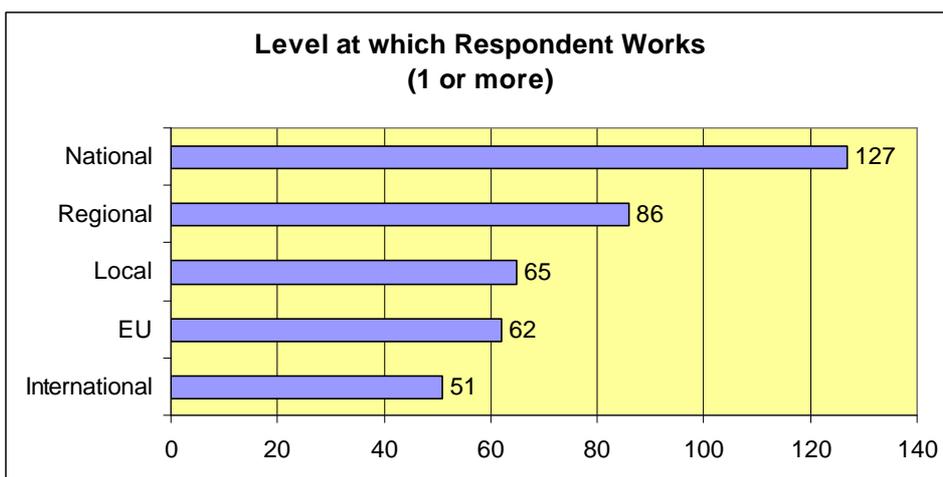
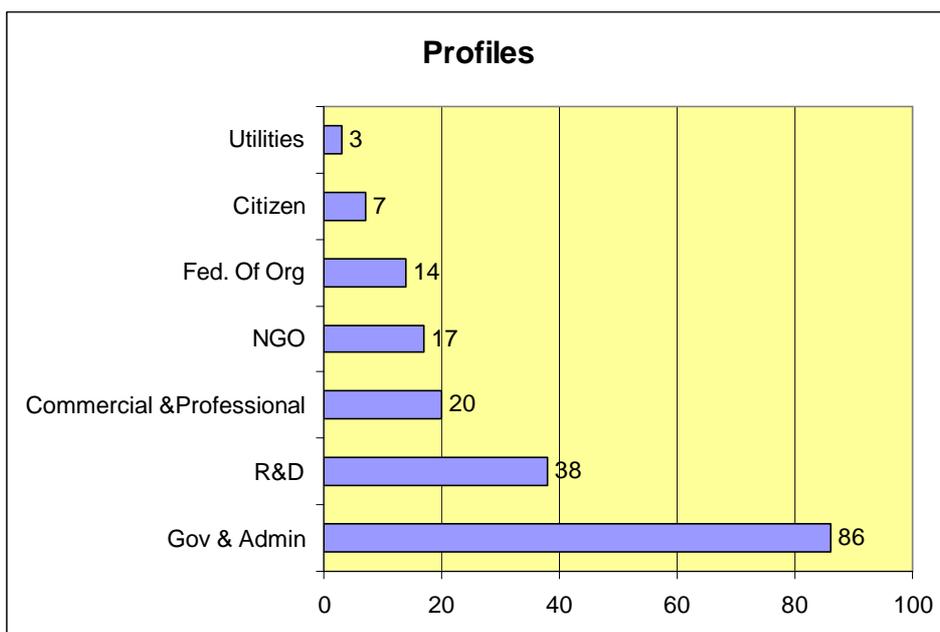
The majority of participants (82%) agree on the need to establish a general licensing framework for spatial data that goes beyond the public sector. Many respondents agree that such a framework should cover at least citizens' use and that the framework should not be restricted solely to viewing the data. Most of the respondents think the framework should cover both use by citizens and commercial re-use. However, some respondents question whether such a framework is in line with the subsidiarity principle. Some public data producers suggest differentiating between different categories of users, allowing for instance more open access to citizens than for commercial use, but others (R&D and commercial end users) argue against such differentiation. Some respondents suggest a step-by-step approach to adopting the framework.

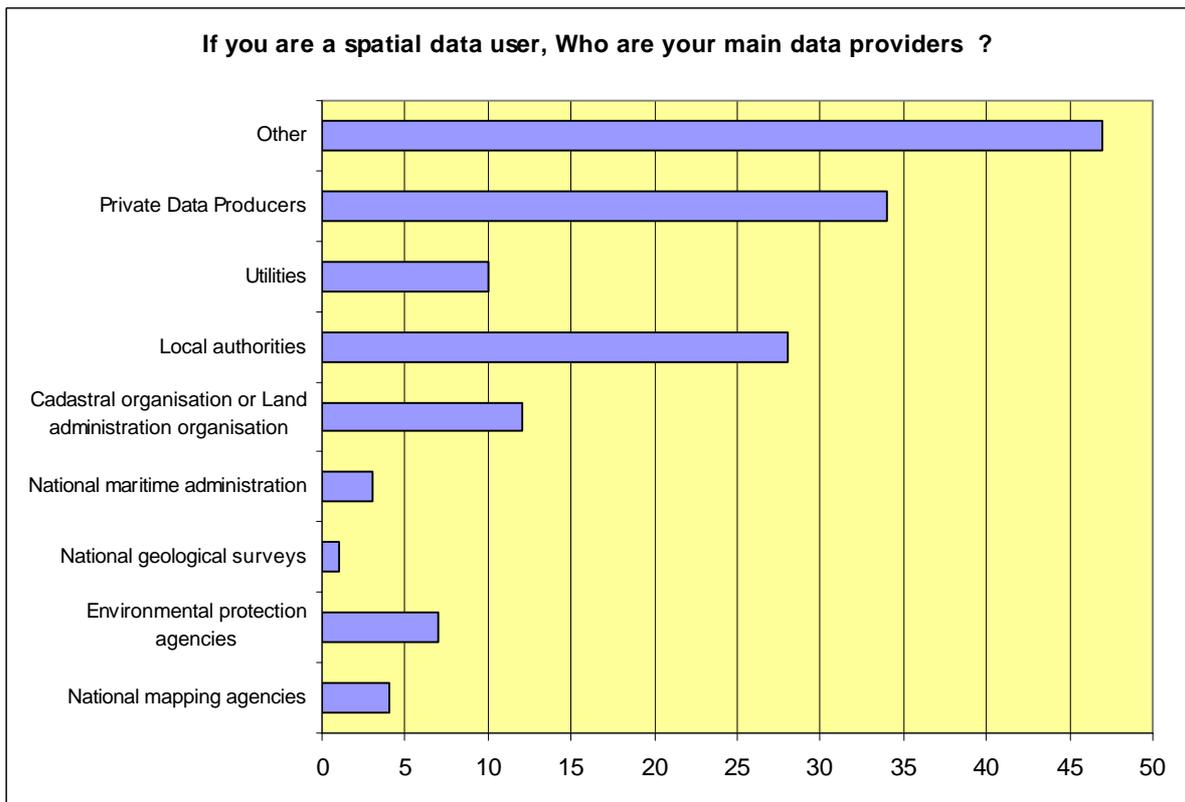
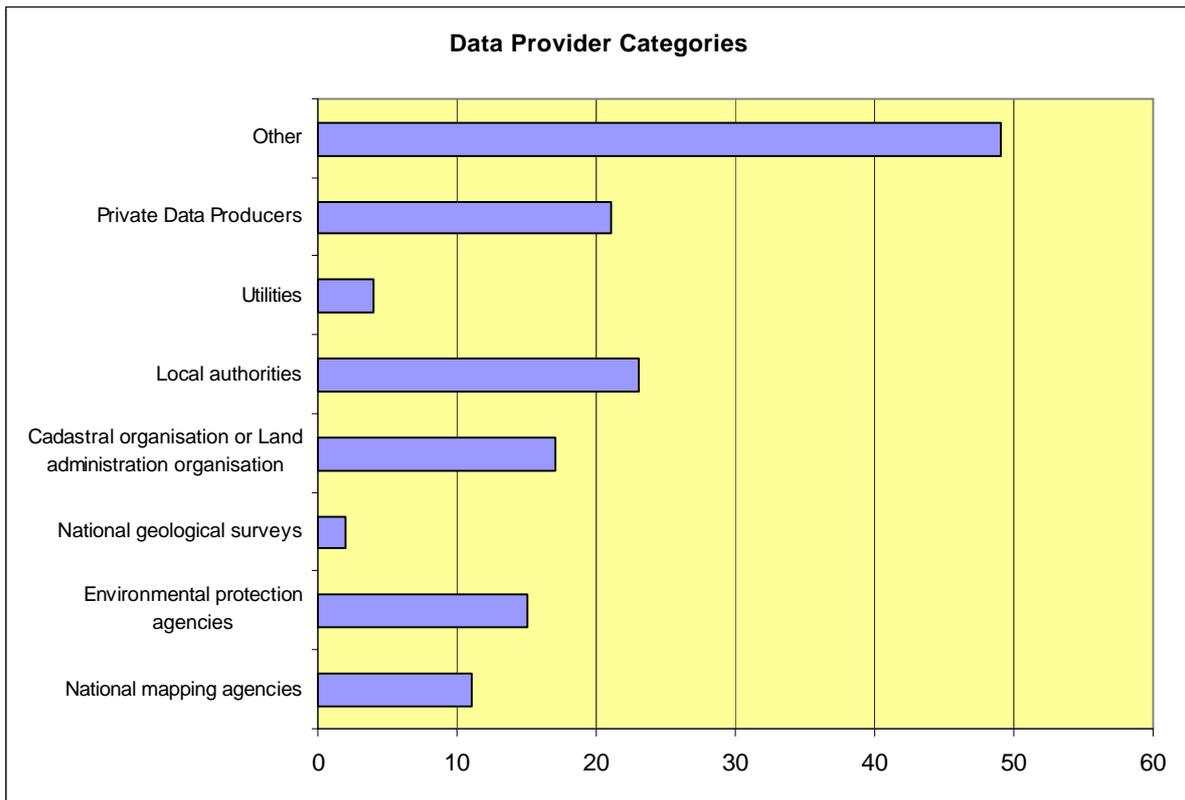
Almost all the respondents (95%) believe it is important to be able to view the available data. A large majority (81%) of those who agree also think it should be free of charge, particularly for citizens, NGOs and public authorities. However, some producers of spatial data suggest placing certain limitations on free viewing.

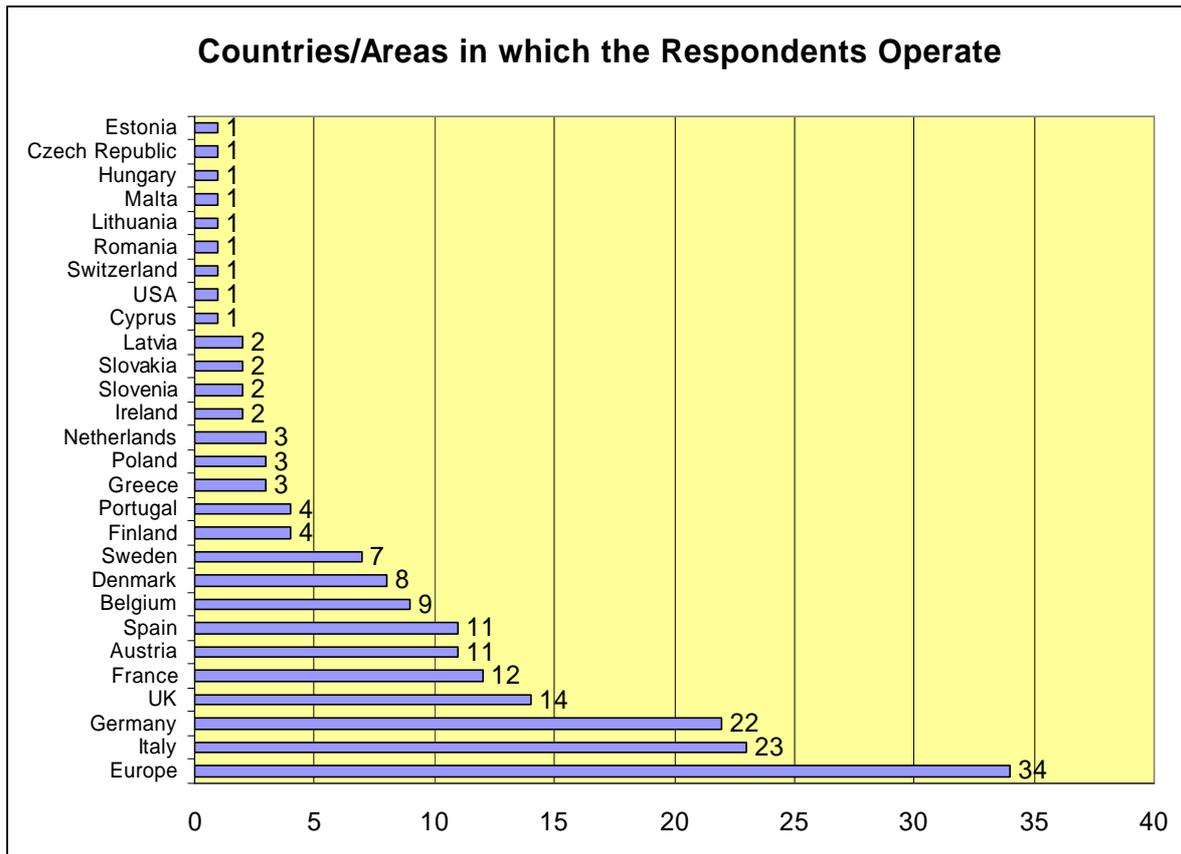
Additional comments relating to data policy:

- It needs to be ensured that INSPIRE is complementary to other EU legislative acts, particularly those relating to the implementation of the Aarhus Convention, and the proposal for a Directive on the re-use and commercial exploitation of public sector information.
- Consideration needs to be given to competition and fair trade legislation, international conventions on intellectual property, data protection and the different policies for sharing data among public and private sectors.
- Some spatial data producers point to the need to accommodate existing data policy practices.
- The importance of monitoring the different mechanisms for and barriers to the sharing of data.
- The need to recognise that spatial data are most useful to citizens if embedded in applications or services (e.g. in car navigation systems).
- The importance that all data sets that are required as a reference for other (thematic) spatial data sets be free for all.
- The need to ensure, through various copyright protection methods, that the appropriate (technical) levels of security can be put in place to ensure that data are only viewed and not used in any other way.

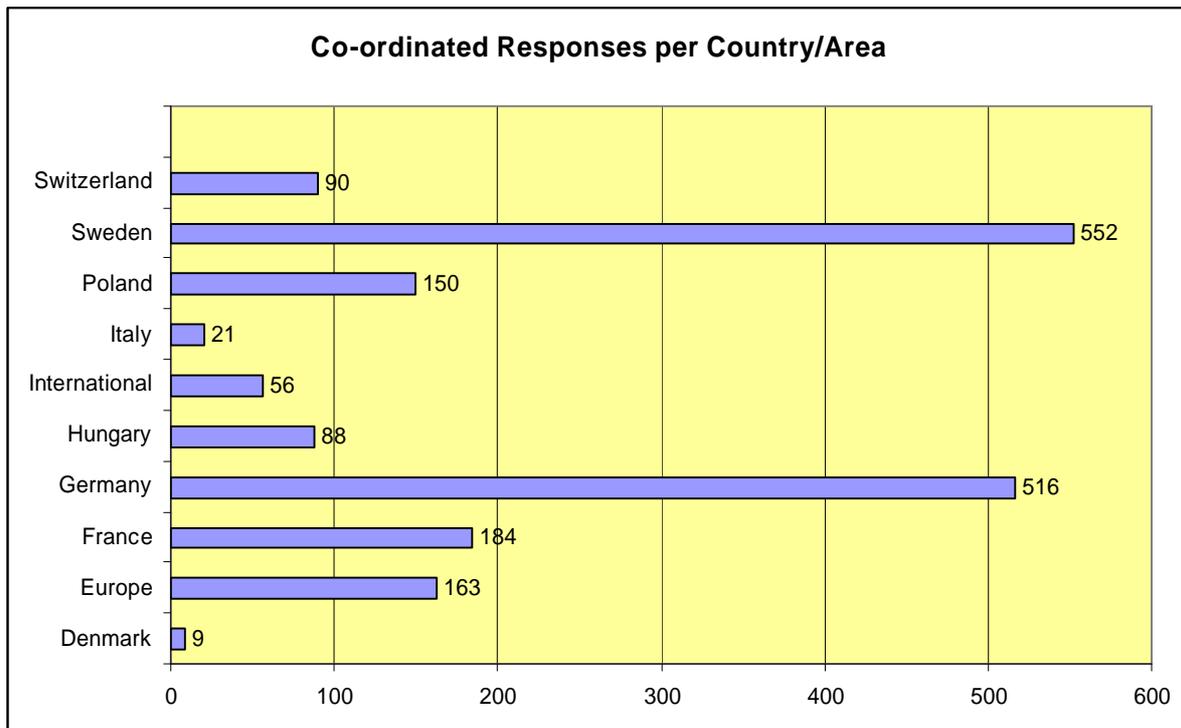
## Overview of Respondents





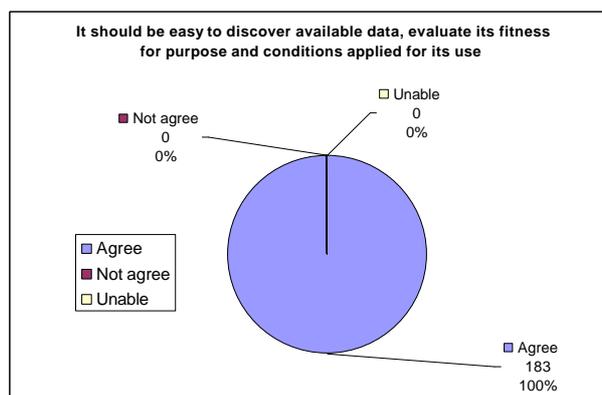
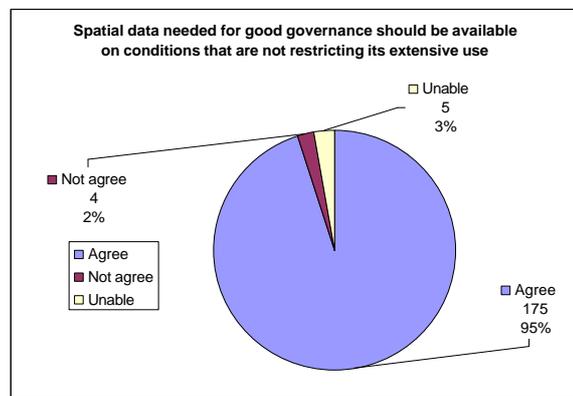
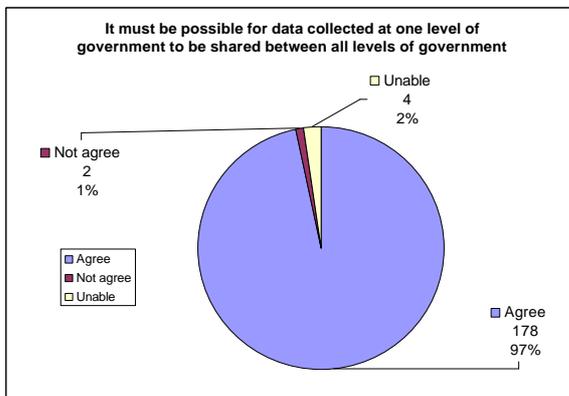
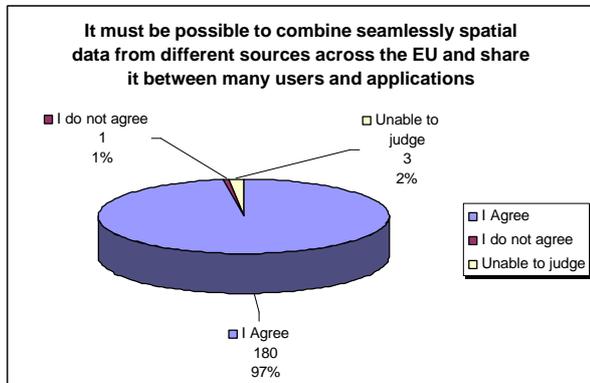
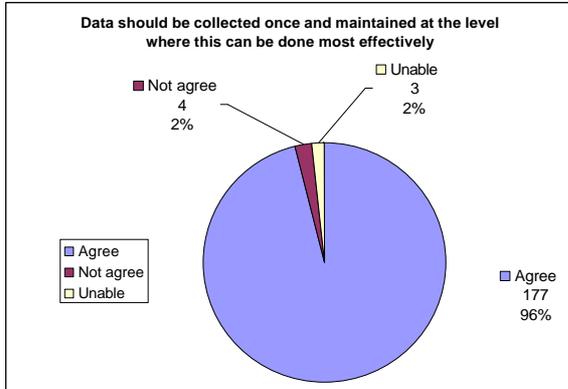


**NOTE:** The graph above includes also collective responses, which were co-ordinated by a single respondent on behalf of a number of organisations. The graph below provides the total number of organisations that took part in the collective responses of a particular country or area. A reply from the UK is also representing a number of organisations both within and outside government; however, no numbers have been given.



## KEY QUESTION 1

The implementation of INSPIRE is based upon five underlying principles. Do you agree with the five INSPIRE principles? (Section 3.1)

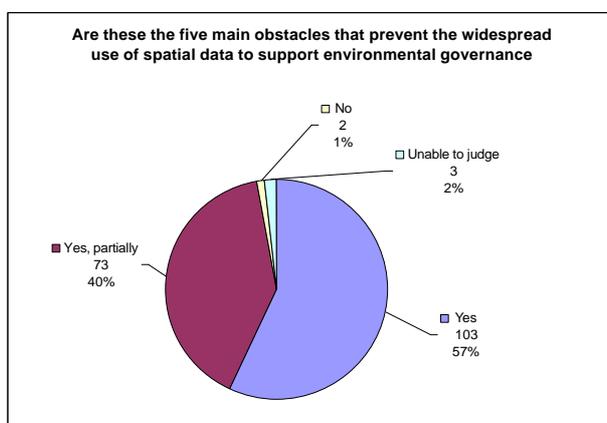


## KEY QUESTION 2

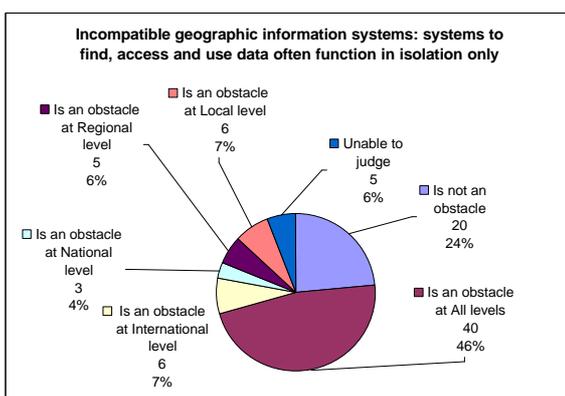
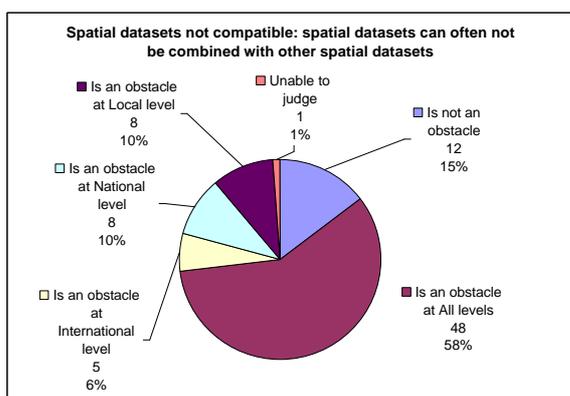
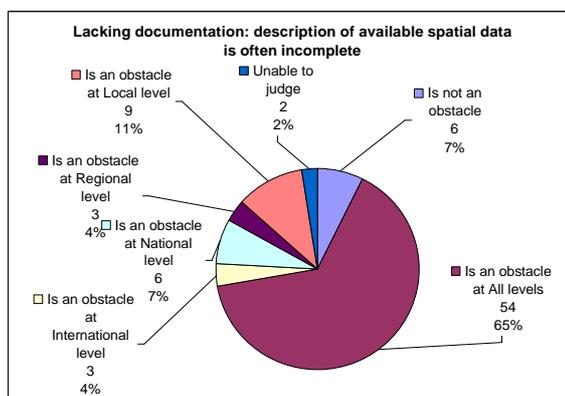
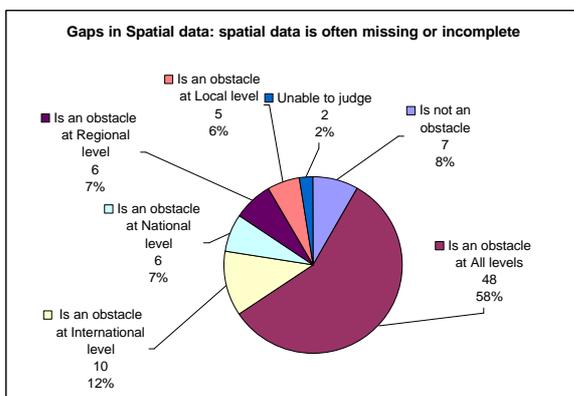
Are these the five main obstacles that prevent the widespread use of spatial data to support environmental governance? Do they exist at local, regional, national and international level? Should they be addressed by INSPIRE? (Section 3.3)

### OBSTACLES

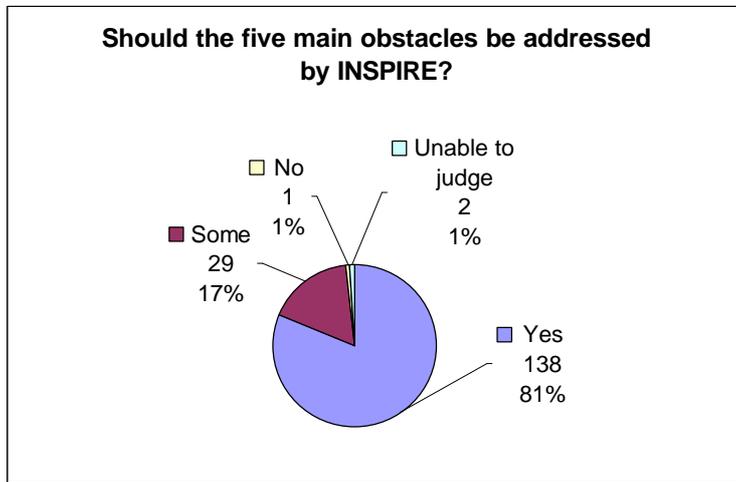
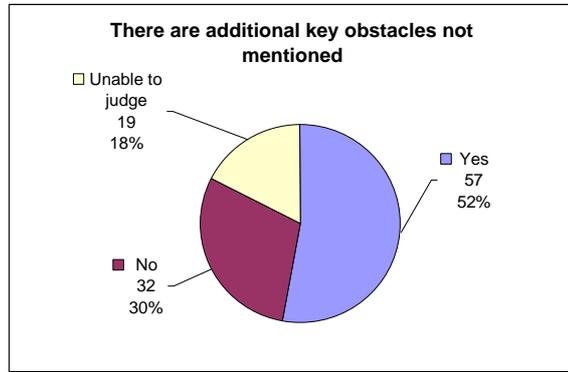
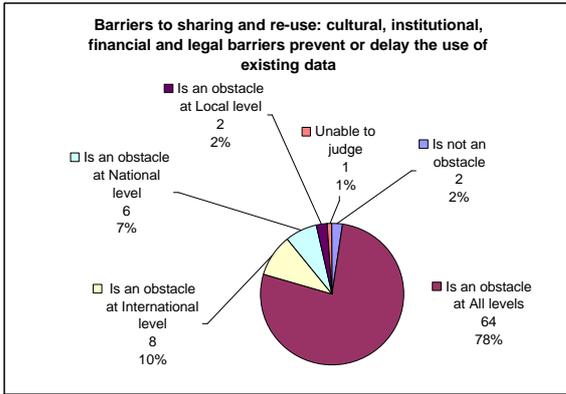
- Gaps in Spatial data:** spatial data is often missing or incomplete,
- Lacking documentation:** description of available spatial data is often incomplete,
- Spatial datasets not compatible:** spatial datasets can often not be combined with other spatial datasets,
- Incompatible geographic information systems:** the systems to find, access and use spatial data often function in isolation only,
- Barriers to sharing and re-use:** cultural, institutional, financial and legal barriers prevent or delay the use of existing spatial data.



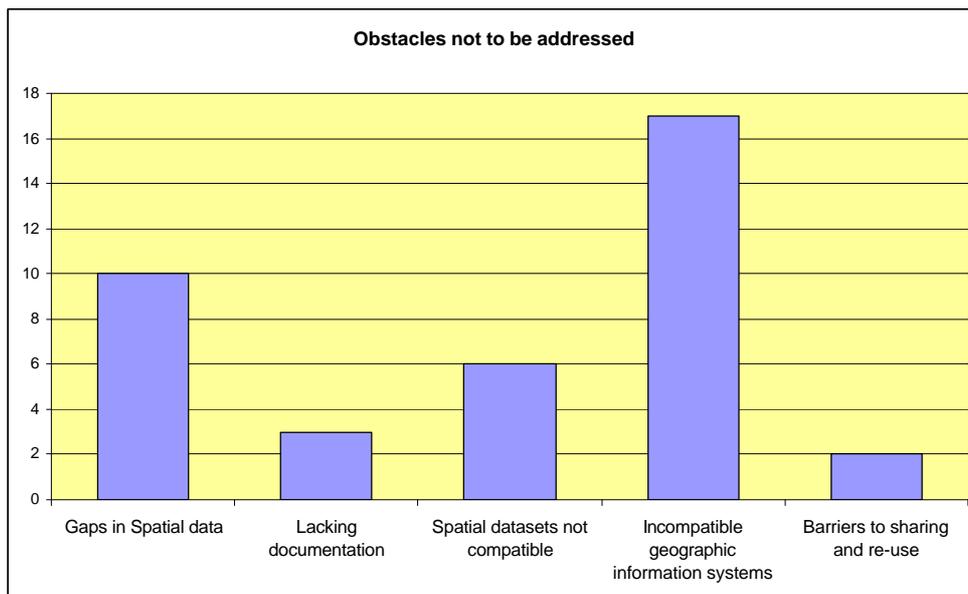
### If "NO" or "Partially"



## KEY QUESTION 2 – continued



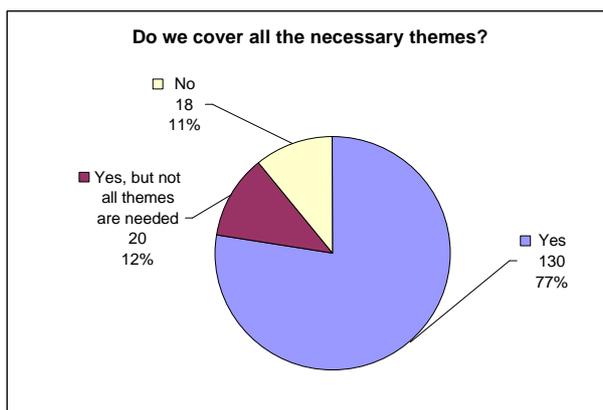
If "Some" please tick those obstacles that should NOT be addressed by INSPIRE



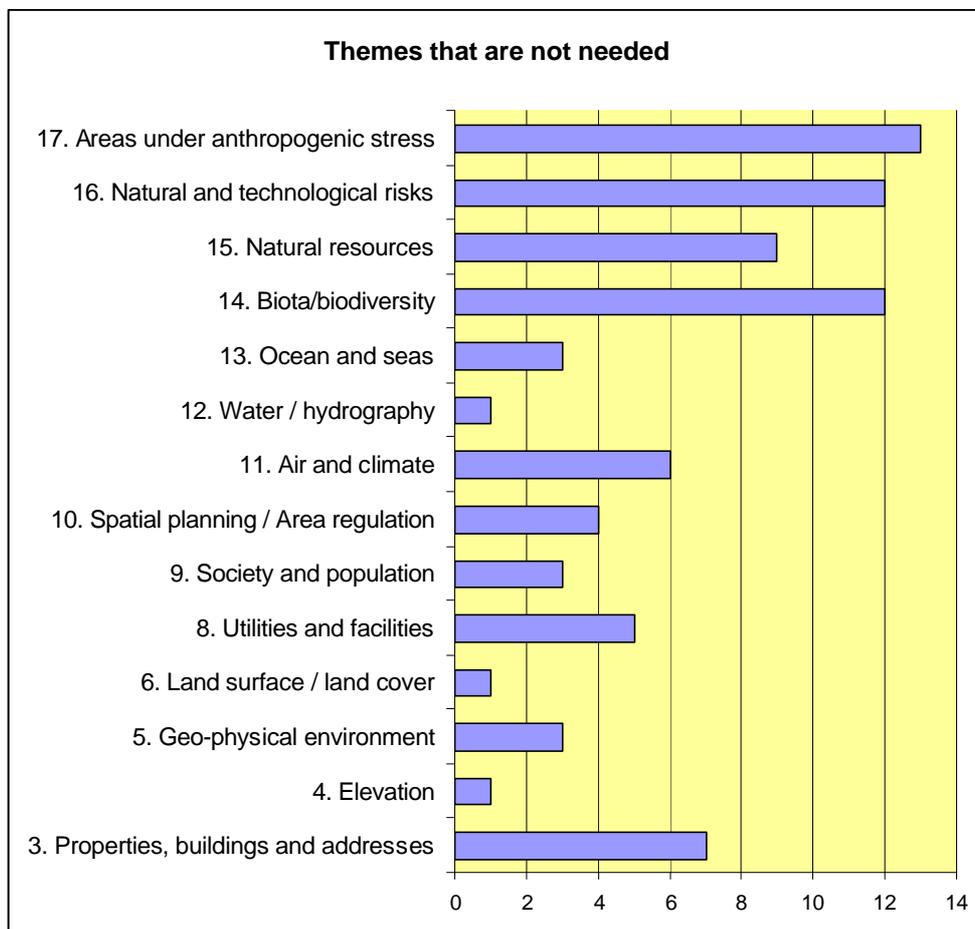
### KEY QUESTION 3

*Do we cover all the necessary themes? (Section 3.4)*

THEMES	
1. Geographical location	9. Society and population
2. Administrative units	10. Spatial planning / Area regulation
3. Properties, buildings and addresses	11. Air and climate
4. Elevation	12. Water / hydrography
5. Geo-physical environment	13. Ocean and seas
6. Land surface / land cover	14. Biota/biodiversity
7. Transport	15. Natural resources
8. Utilities and facilities	16. Natural and technological risks
	17. Areas under anthropogenic stress

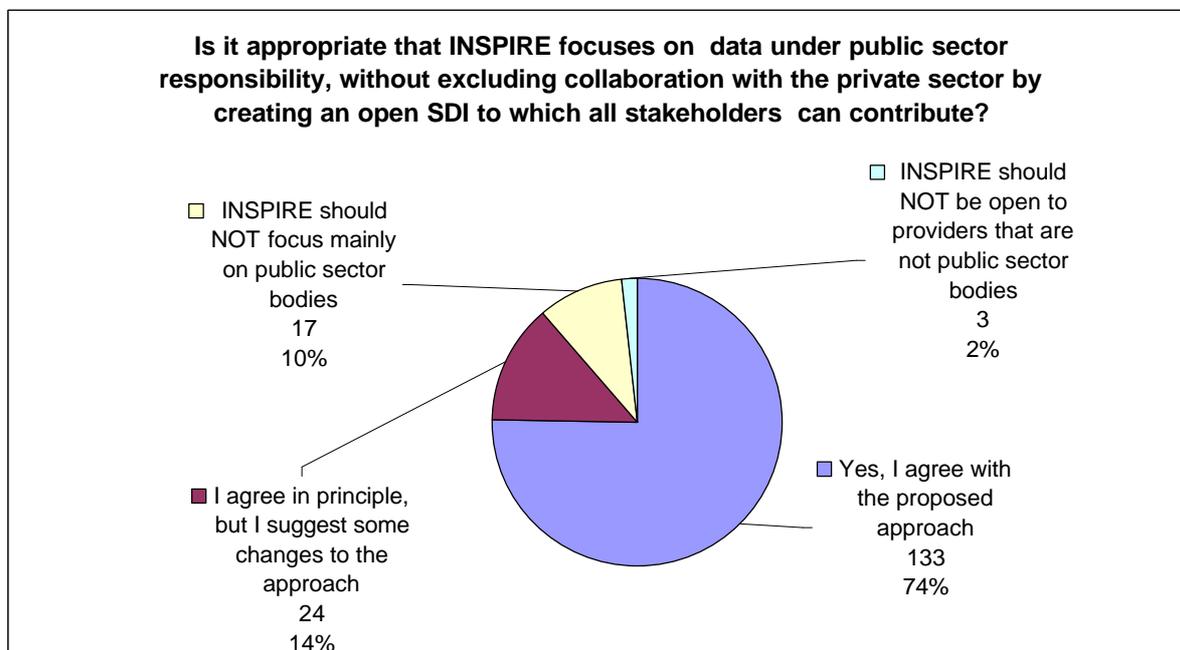


**If “YES, but not all themes are needed” (please tick those themes that are not needed)**



#### KEY QUESTION 4

*Is it appropriate that INSPIRE focuses on spatial data for which the public sector bodies are responsible without, however, excluding collaboration with the private sector where relevant by creating an open Spatial Data Infrastructure to which all stakeholders can contribute? (Section 3.4)*

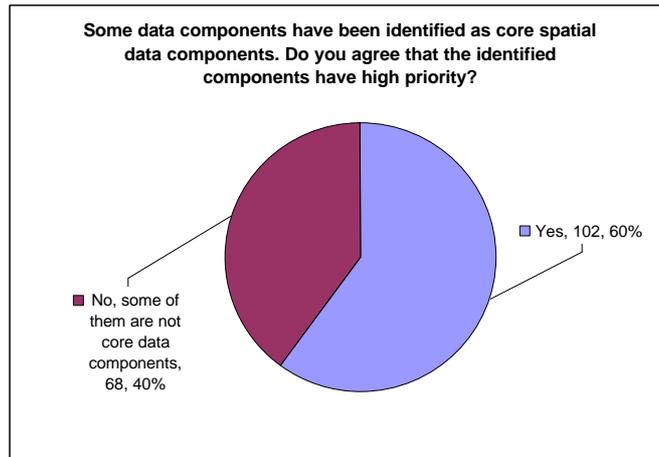


## KEY QUESTION 5

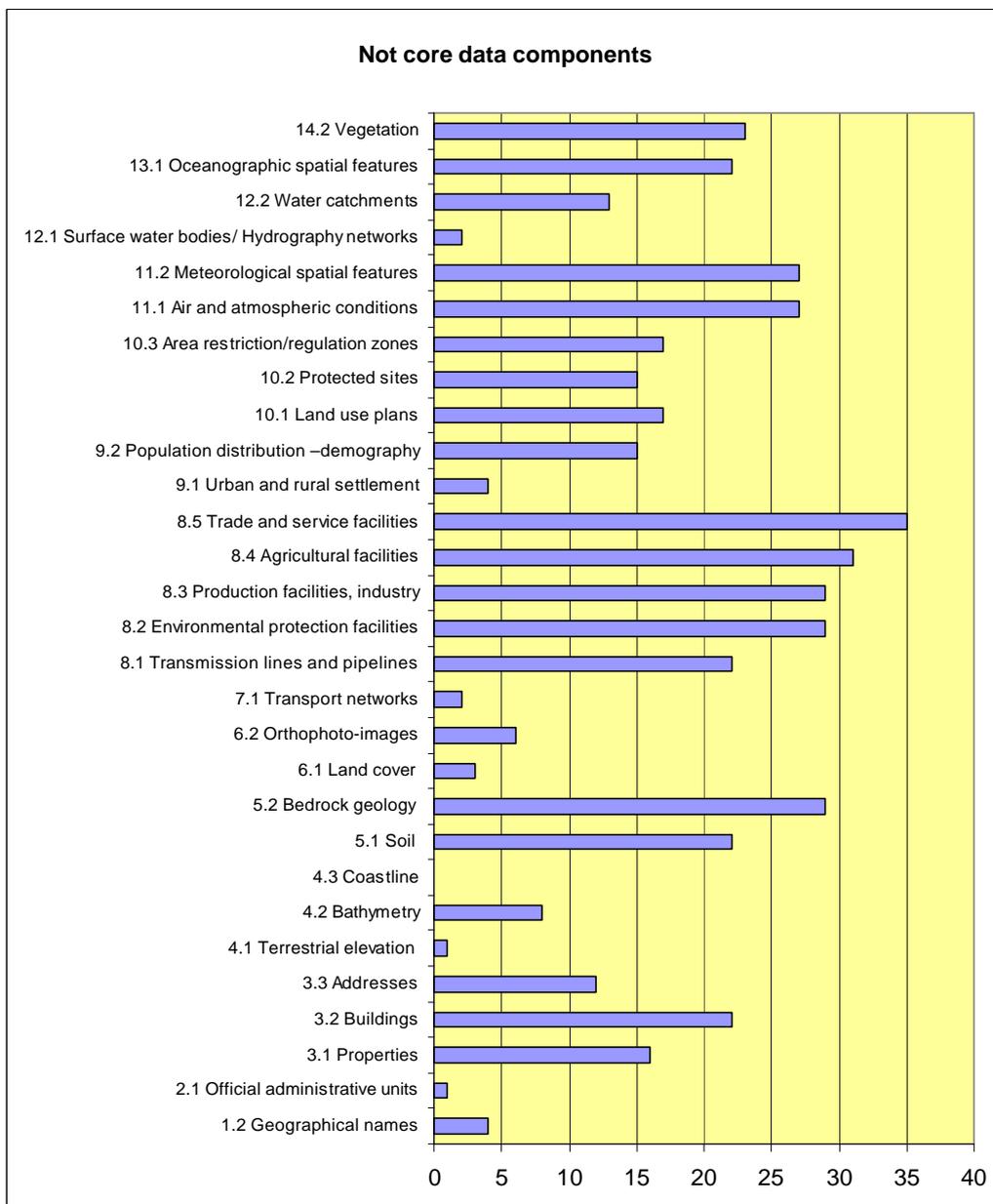
*The data components in bold and underlined have been identified as core spatial data components. Do you agree that the identified core data components have high priority? (Section 3.4, Annex1)*

<ul style="list-style-type: none"><li>1. Geographical location<ul style="list-style-type: none"><li>1.1 Geographical reference systems</li><li>1.2 <b><u>Geographical names</u></b></li><li>1.3 Geographical grids</li></ul></li><li>2. Administrative units<ul style="list-style-type: none"><li>2.1 <b><u>Official administrative units</u></b></li><li>2.2 Government management zones</li></ul></li><li>2.3 Blocks, census and statistical districts<ul style="list-style-type: none"><li>2.4 Civil security units</li><li>2.5 Environment management &amp; reporting units</li></ul></li><li>2.6 Postal codes/regions</li><li>3. Properties, buildings and addresses<ul style="list-style-type: none"><li>3.1 <b><u>Properties</u></b></li><li>3.2 <b><u>Buildings</u></b></li><li>3.3 <b><u>Addresses</u></b></li></ul></li><li>4. Elevation<ul style="list-style-type: none"><li>4.1 <b><u>Terrestrial elevation</u></b></li><li>4.2 <b><u>Bathymetry</u></b></li><li>4.3 <b><u>Coastline</u></b></li></ul></li><li>5. Geo-physical environment<ul style="list-style-type: none"><li>5.1 <b><u>Soil</u></b></li><li>5.2 <b><u>Bedrock geology</u></b></li><li>5.3 Geo-morphology</li></ul></li><li>6. Land surface<ul style="list-style-type: none"><li>6.1 <b><u>Land cover</u></b></li><li>6.2 <b><u>Orthophoto-images</u></b></li></ul></li><li>7. Transport<ul style="list-style-type: none"><li>7.1 <b><u>Transport networks</u></b></li><li>7.2 Transport services</li></ul></li><li>8. Utilities and facilities<ul style="list-style-type: none"><li>8.1 <b><u>Transmission lines and pipelines</u></b></li></ul></li><li>8.2 <b><u>Environmental protection facilities</u></b><ul style="list-style-type: none"><li>8.3 <b><u>Production facilities, industry</u></b></li><li>8.4 <b><u>Agricultural facilities</u></b></li><li>8.5 <b><u>Trade and service facilities</u></b></li></ul></li><li>9. Society and population<ul style="list-style-type: none"><li>9.1 <b><u>Urban and rural settlement</u></b></li><li>9.2 <b><u>Population distribution – demography</u></b></li><li>9.3 Human health and safety</li><li>9.4 Cultural heritage</li><li>9.5 Natural amenities</li></ul></li></ul>	<ul style="list-style-type: none"><li>10. Area regulation<ul style="list-style-type: none"><li>10.1 <b><u>Land use plans</u></b></li><li>10.2 <b><u>Protected sites</u></b></li><li>10.3 <b><u>Area restriction/regulation zones</u></b></li></ul></li><li>11. Air and climate<ul style="list-style-type: none"><li>11.1 <b><u>Air and atmospheric conditions</u></b></li><li>11.2 <b><u>Meteorological spatial features</u></b></li></ul></li><li>11.3 Climate zones</li><li>12. Water bodies/Hydrography<ul style="list-style-type: none"><li>12.1 <b><u>Surface water bodies/ Hydrography networks</u></b></li><li>12.2 <b><u>Water catchments</u></b></li><li>12.3 Groundwater bodies/aquifers</li></ul></li><li>13. Ocean and seas<ul style="list-style-type: none"><li>13.1 <b><u>Oceanographic spatial features</u></b></li><li>13.2 Sea regions</li></ul></li><li>14. Biota/biodiversity<ul style="list-style-type: none"><li>14.1 Bio-geographical regions</li><li>14.2 <b><u>Vegetation</u></b></li><li>14.3 Habitats and biotopes</li><li>14.4 Species distribution</li><li>14.5 Landscape diversity</li></ul></li><li>15. Natural resource<ul style="list-style-type: none"><li>15.1 Ecosystem resources</li><li>15.2 Water resources</li><li>15.3 Agricultural land and soil resources</li><li>15.4 Forest resources</li><li>15.5 Fishery resources</li><li>15.6 Geological resources</li><li>15.7 Renewable energy resources</li></ul></li><li>16. Natural and technological risks<ul style="list-style-type: none"><li>16.1 Natural risk vulnerability zones</li><li>16.2 Technological risk vulnerability zones</li><li>16.3 Technological accidents and natural disasters</li></ul></li><li>17. Areas under anthropogenic stress<ul style="list-style-type: none"><li>17.1 Polluted areas</li><li>17.2 Noise and radiation zones</li><li>17.3 Area</li></ul></li></ul>
--	---

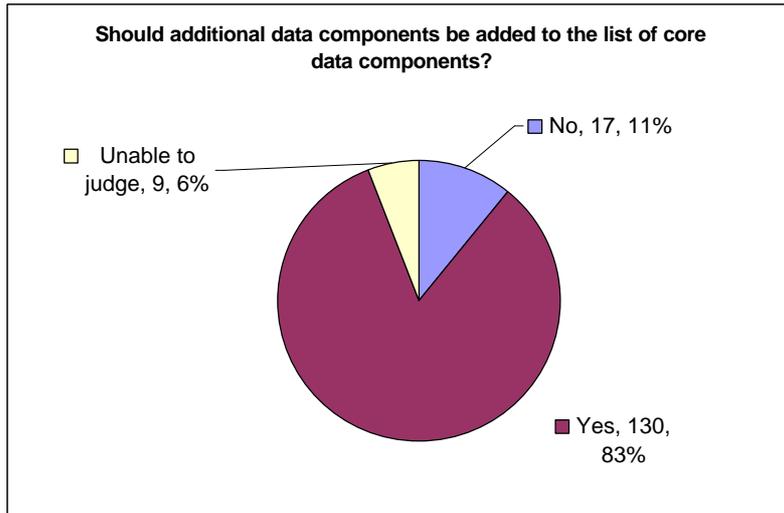
## KEY QUESTION 5 - continued



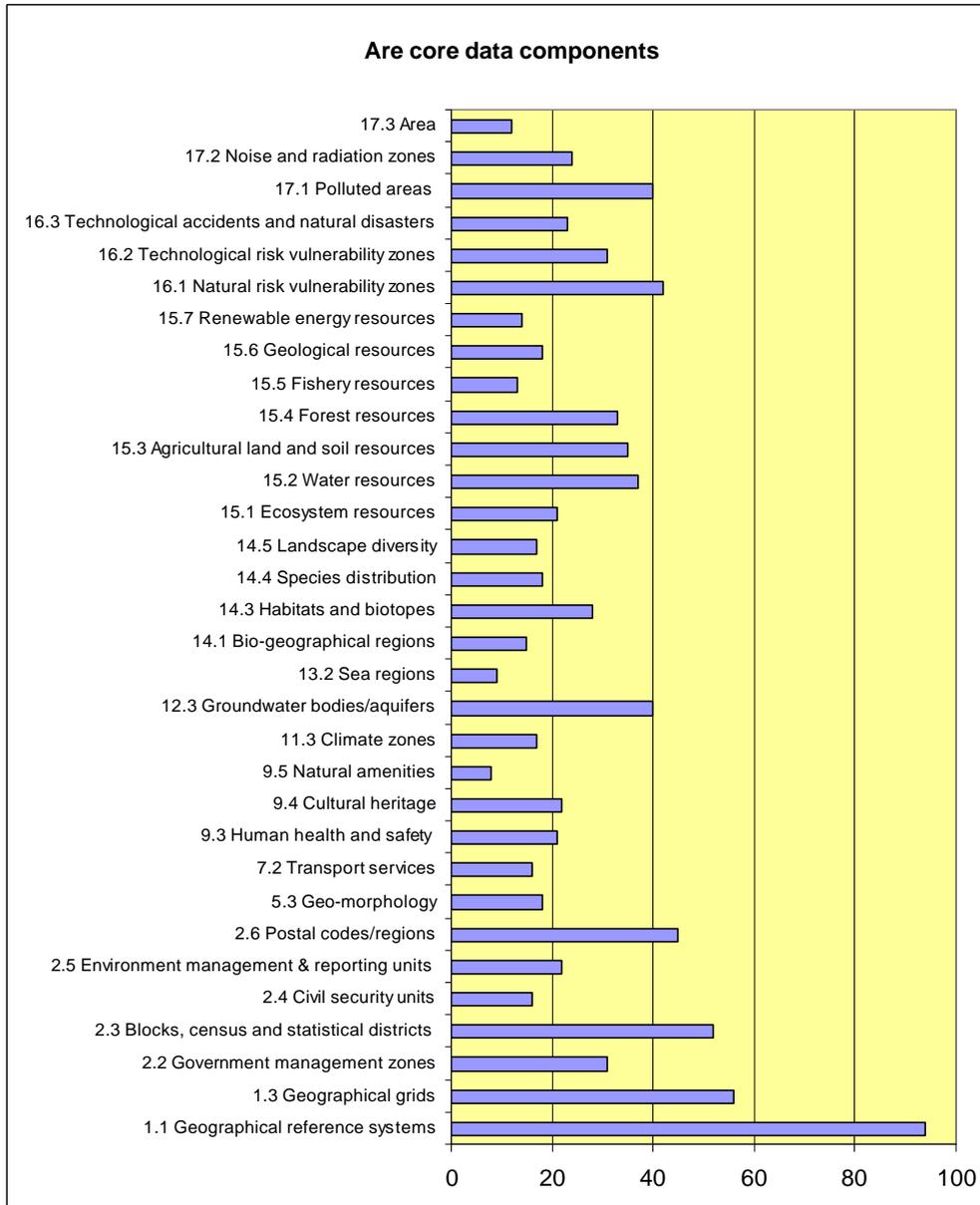
**If NO (please tick those that are not core data components)**



## KEY QUESTION 5 – continued



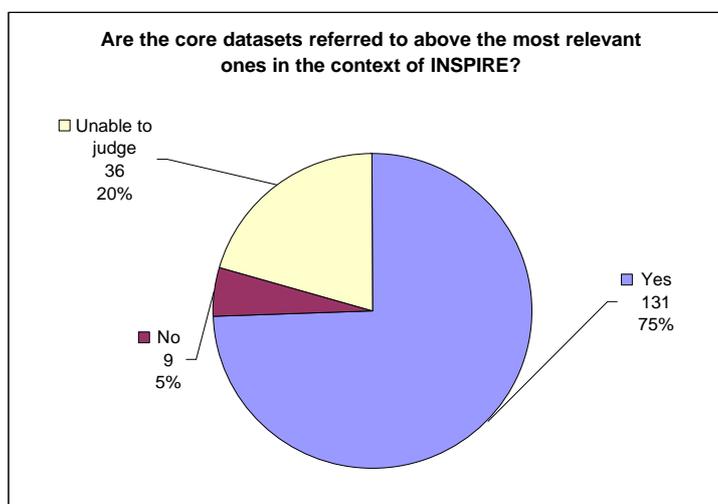
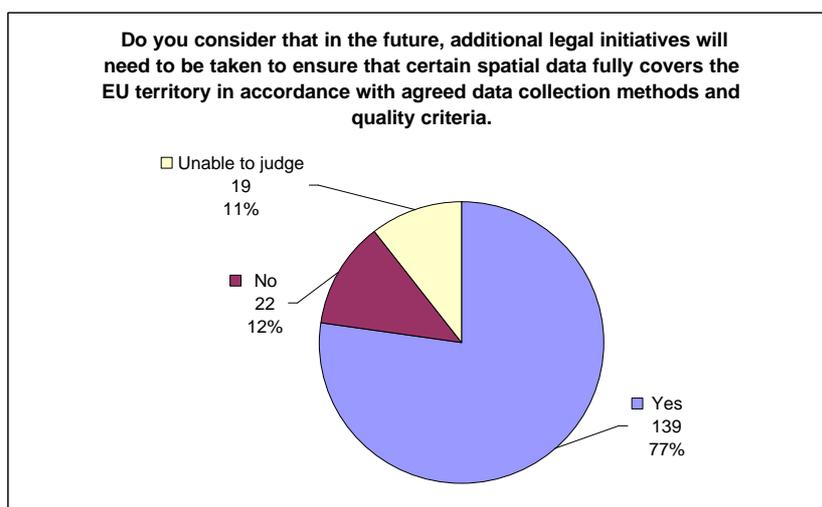
If YES, (please tick those that are core data components)



## KEY QUESTION 6

*Do you consider that in the future, legal initiatives need to be taken to ensure that certain spatial data fully covers the EU territory in accordance with agreed data collection methods and quality criteria such as those referred to in Annex 2 of the INSPIRE consultation document? Are the core datasets referred to above the most relevant ones in the context of INSPIRE? (Section 3.4 & Annex 2)*

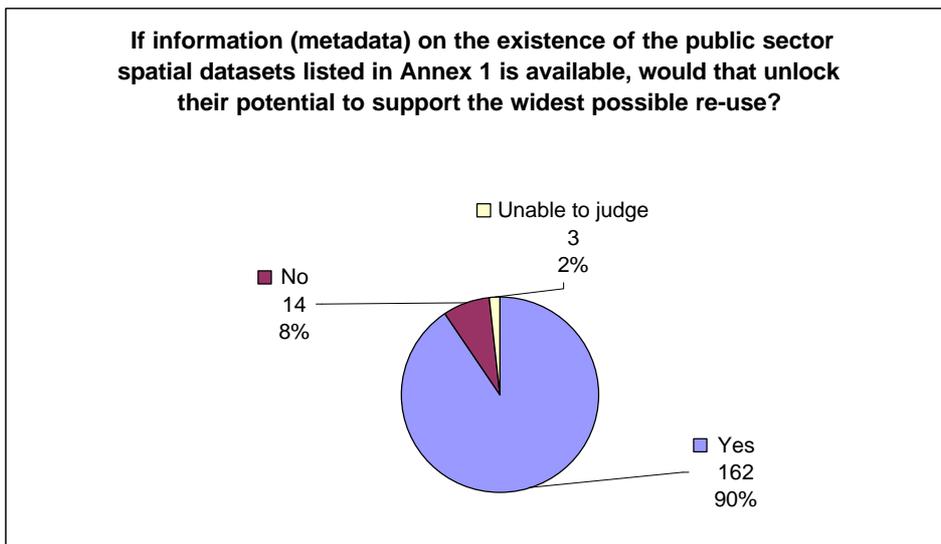
OBSTACLE	PROPOSED POLICY MEASURES
<p><b>Spatial Data Gaps</b></p> <p>1. Full European coverage for certain datasets in accordance with minimum quality criteria is essential for efficient use of data from a variety of sources. However, there remain important gaps in Europe even for the most essential spatial datasets.</p>	<ol style="list-style-type: none"> <li>INSPIRE should set the framework for requiring for core spatial datasets full EU coverage in accordance with agreed data collection methods and quality criteria. These requirements would not be part of the INSPIRE framework legislation, but be adopted at later stages through separate legislative processes as part of the implementation of the framework legislation. The INSPIRE Framework legislation would then only refer to future legislative initiatives to deal with data gaps. <b>Annex 2</b> provides some indicative information on the issues that could be addressed in the future.</li> <li>As such, INSPIRE would provide the legal framework for the future establishment of requirements for cross-sector data.</li> </ol>



## KEY QUESTION 7

*Is the knowledge on the existing public sector spatial datasets that correspond to the themes in Annex 1 needed to unlock their potential to support the widest possible re-use? (Section 3.4 & Annex 1)*

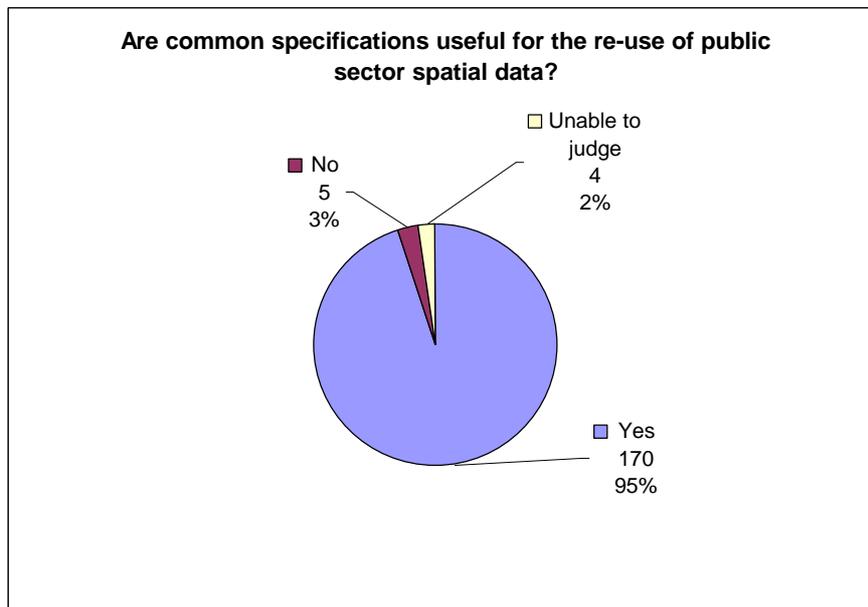
OBSTACLE	PROPOSED POLICY MEASURES
<p><b>Data documentation is often lacking</b></p> <p>In many cases, data documentation does not exist, making it impossible to find back possibly valuable information; existing data documentation is available in a variety of formats.</p>	<p>3. Metadata needs to be made available in order to help users identify and locate relevant datasets. Building on this, INSPIRE would require that in the short term, the core spatial datasets and in the medium term the other spatial datasets corresponding to the themes listed in Annex 1 are documented according to common standards and that the metadata is kept up to date. Metadata should allow discovering relevant datasets and provide information on access and use.</p> <p>4. Metadata should be made available free of charge for all users</p>



## KEY QUESTION 8

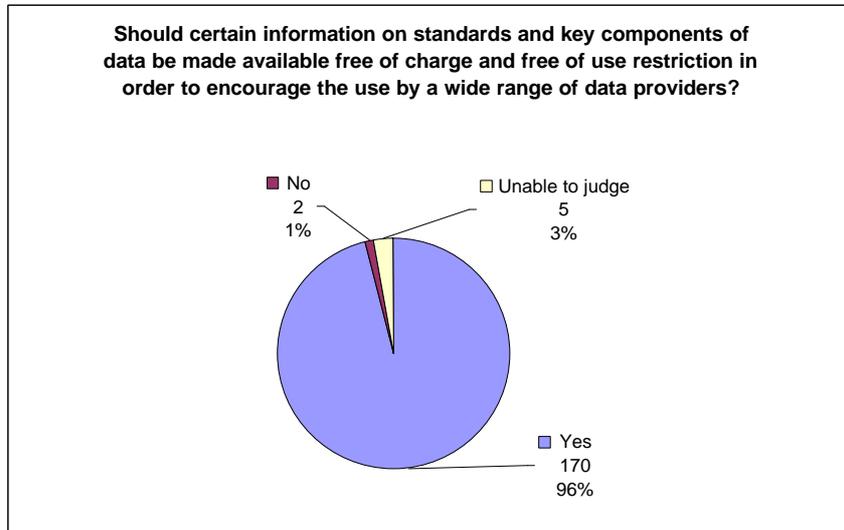
*Is the establishment of common specifications and the building of bridges between existing datasets and these common specifications useful to increase the potential of re-using public sector spatial data? (Section 3.4)*

OBSTACLE	PROPOSED POLICY MEASURES
<p><b>Spatial datasets are not compatible/interoperable</b></p> <p>Most uses of spatial data require data from various sources (e.g. combine environmental information with basic topographic data, combine information on environment and health), but data from various sources is often not compatible. This requires repeated adaptation of data sources or discourages the use of the spatial data.</p>	<ol style="list-style-type: none"> <li>5. Member States would be required to contribute to the definition of standard ways of organising and presenting spatial datasets. (These standards would take the form of common dataset specifications, based on common data models.)</li> <li>6. Member States would be required to make their spatial datasets compatible with these common dataset specifications, in the medium term for core datasets and in the long term for the other spatial datasets corresponding to the themes listed in Annex 1. Member States could do this either by changing the organisation of their datasets or by providing “translators” between their datasets and the standards. These common dataset specifications would need to follow guidelines, such as those referred to in Annex 3.</li> <li>7. The data and information needed to make spatial datasets inter-operable should be made available free of charge and be free of use restrictions.</li> <li>8. The datasets on administrative boundaries that can be used as a reference for seamless integration of other spatial datasets should be made available free of charge and free of use restrictions.</li> </ol>



## KEY QUESTION 9

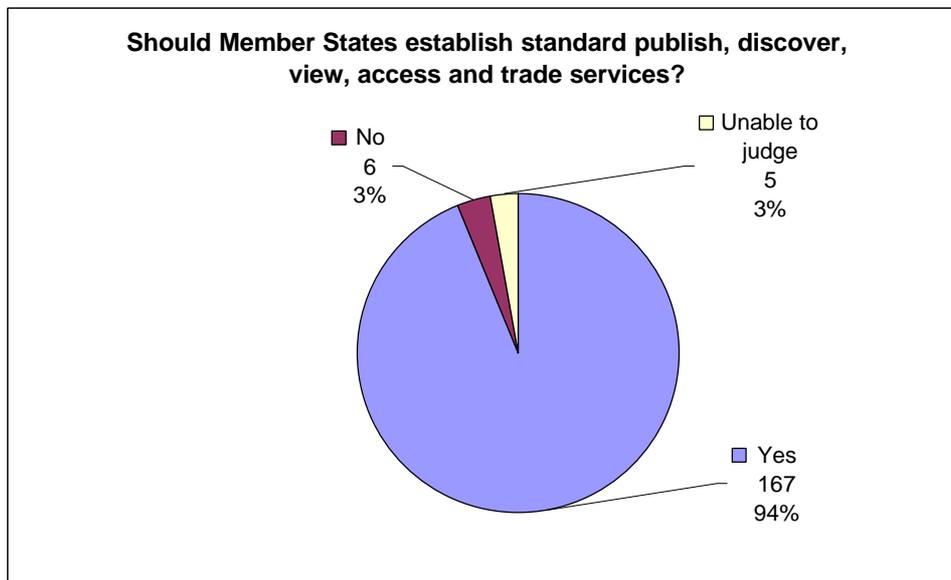
*Should certain information on standards and key components of data be made available free of charge and free of restriction on use in order to encourage their use by a wide range of data providers? (Section 3.4)*



## KEY QUESTION 10

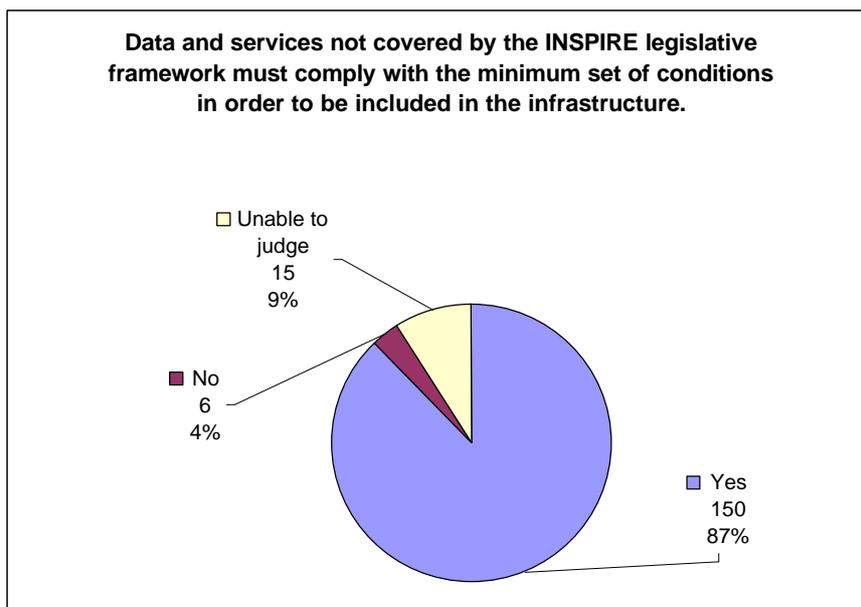
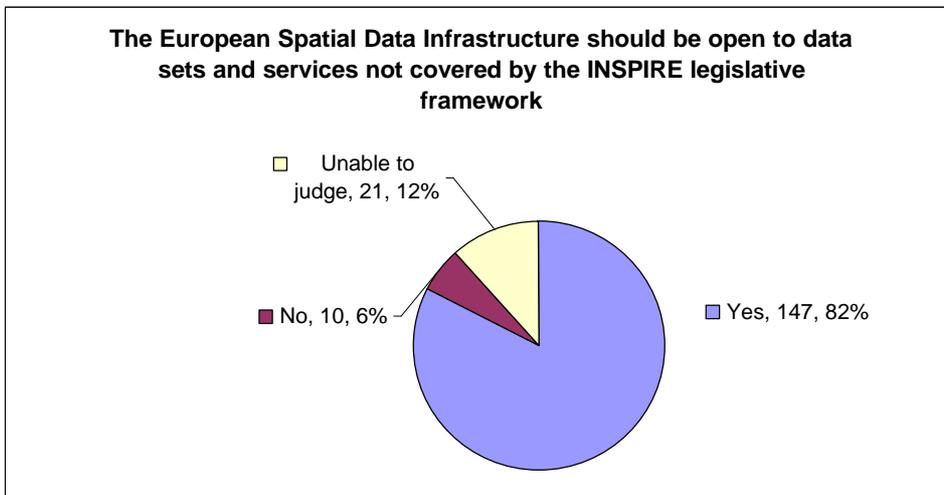
*Should Member States establish standard publish, discover, view, access and trade services to provide all users with the possibility to find, view and possibly re-use the spatial datasets? (Section 3.4)*

OBSTACLE	PROPOSED POLICY MEASURES
<p><b>GIS initiatives in Europe are often incompatible</b></p> <p>Technology progress allows us today an integrated discovery, access and use of spatial data from different sources, located at different sites. Several communities have set up their own mechanisms for exchanging spatial data (e.g. regional Spatial data infrastructures or thematic spatial data infrastructure like the bio-diversity clearinghouse mechanism), but often these initiatives are not co-ordinated across the boundaries of the communities involved, leading to duplication and forgone potential economies of scale. In Europe, an overarching initiative is needed that will bring together the existing and emerging initiatives into one consistent framework.</p>	<ol style="list-style-type: none"> <li>9. Member States would be required to establish a distributed network of services that publish, discover, view, access and trade the spatial datasets that are covered by INSPIRE, in accordance with common standards.</li> <li>10. This network should be open to non-public sector providers of spatial datasets and to spatial data that falls outside the themes listed in Annex 1 that are consistent with a minimum set of conditions needed to ensure the overall consistency of and ease of access to the Spatial Data Infrastructure. Such conditions could include compliance with metadata standards, conditions for access to metadata and view of data (see below) and implementation of INSPIRE network services.</li> <li>11. The Commission would need to establish and operate an "EU-Portal" that would provide a multilingual point of access to the spatial data and services accessible through the network.</li> </ol>



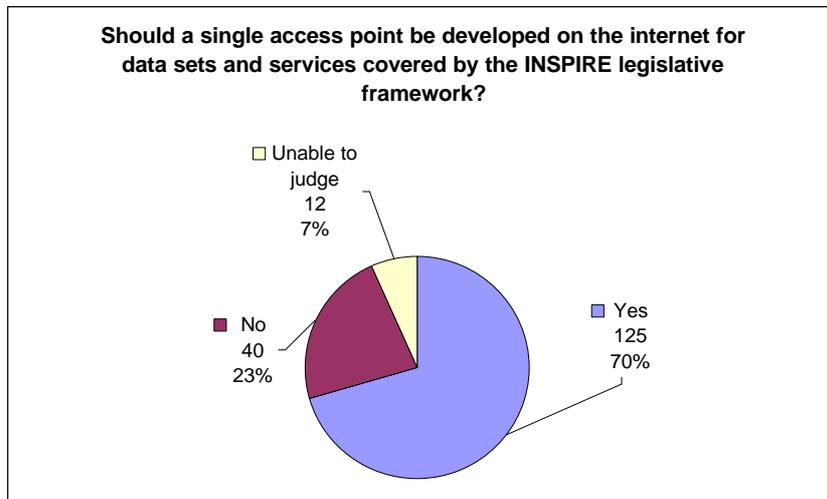
## KEY QUESTION 11

*Should the Spatial Data Infrastructure be open to data and services not covered by INSPIRE, subject to minimum requirements ensuring the overall consistency of the spatial data infrastructures? (Section 3.4)*

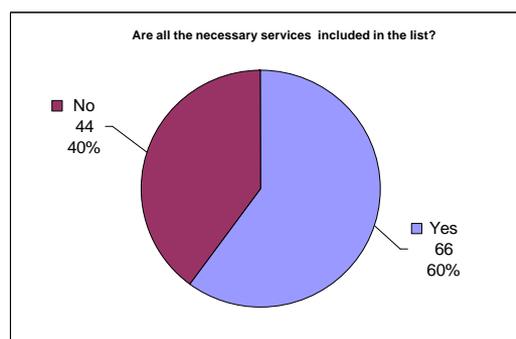
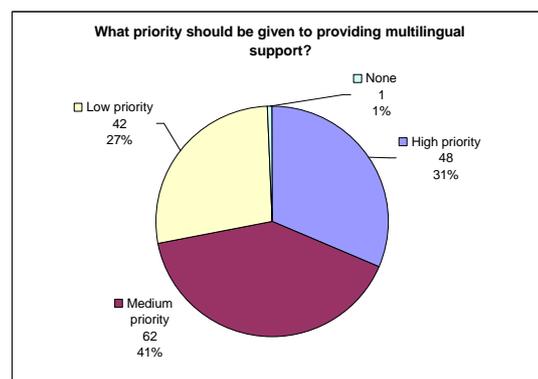
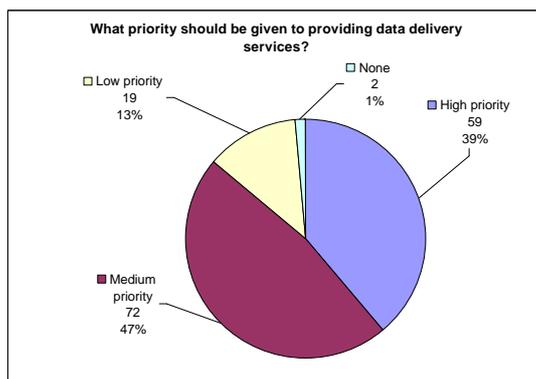
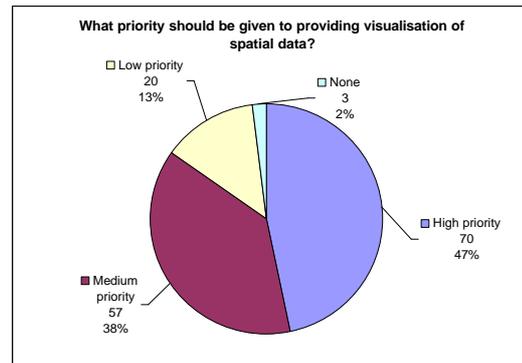
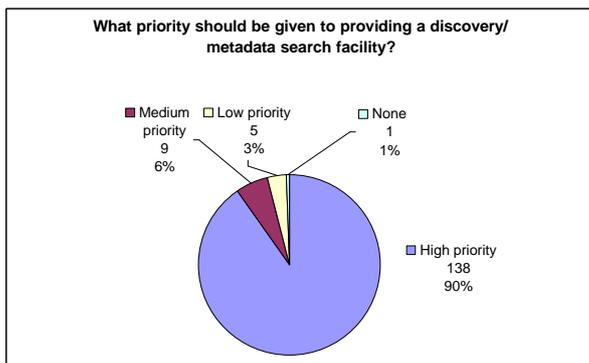


## KEY QUESTION 12

*Do you consider that there should be one point of access for data and services covered by INSPIRE? (Section 3.4)*



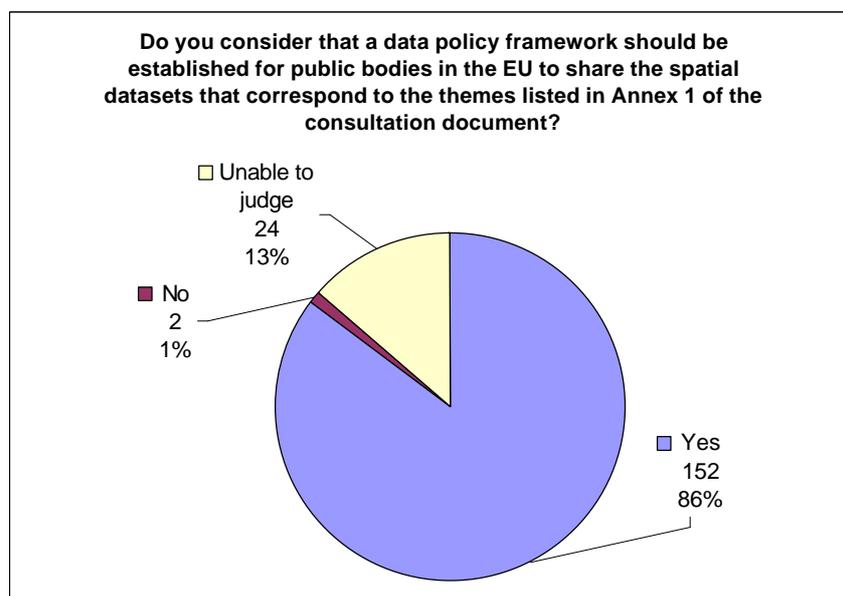
**IF YES :**



## KEY QUESTION 13

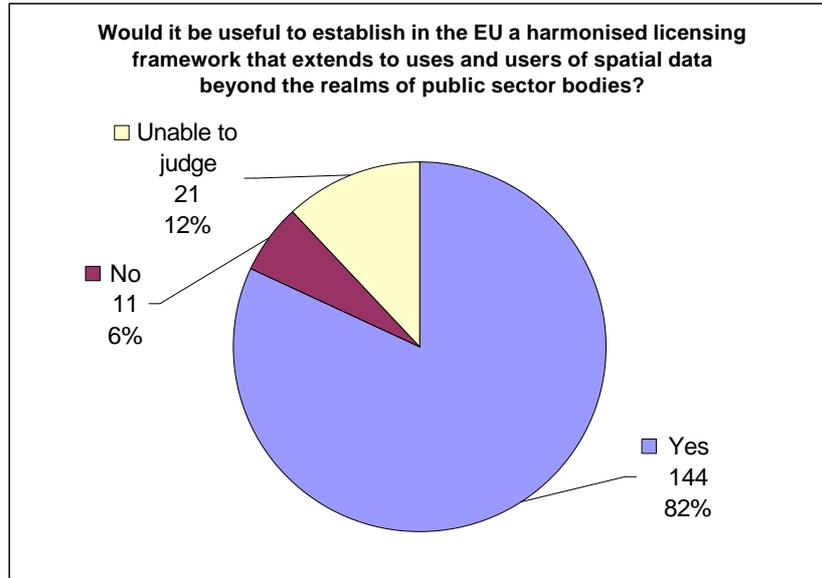
*Do you consider that a data policy framework should be established for public bodies in the EU to share the spatial datasets that correspond to the themes listed in Annex 1 of the consultation document? (Section 3.4)*

<p><b>Barriers for use</b></p> <p>Important barriers exist of a procedural, legal or financial nature for access and use of spatial data, even between public sector bodies. There is often no culture of sharing of information between public sector bodies. Therefore possibilities for reuse of information between different levels of government are limited, leading to duplication of data collection and maintenance. In addition, many public bodies apply prohibitive charges or licensing conditions for the reuse of spatial data (including to other public bodies).</p>	<p>12. In view of the objectives of INSPIRE to support governance in Europe, Member States would be required to establish a licensing framework for sharing spatial data between public sector bodies that provides:</p> <ul style="list-style-type: none"> <li>• for all public sector bodies, exchange of spatial data that is free of barriers of a transactional, procedural, legal, institutional or financial nature</li> <li>• for unrestricted use rights for public sector bodies related to the performance of their public tasks.</li> </ul> <p>13. Complementary to a licensing framework between public bodies, a more general licensing framework governing all spatial data of the infrastructure could be requested by INSPIRE. This could cover 1) use by citizens (whether as a private person or a business) 2) a separate framework for commercial re-use (where a business is utilising public body spatial data in a product that they supply to others)</p> <p>14. In order to make the spatial data infrastructures efficient and appealing from a user point of view, viewing of all datasets corresponding to the themes listed in Annex 1 should be free of charge to all users. Viewing means the display on a screen of the visual aspects of the data, with appropriate legends needed for its interpretation. It does not mean download of a copy of the data in its native format or visualisation of all the textual and numerical attributes (e.g. measurements).</p>
--	---

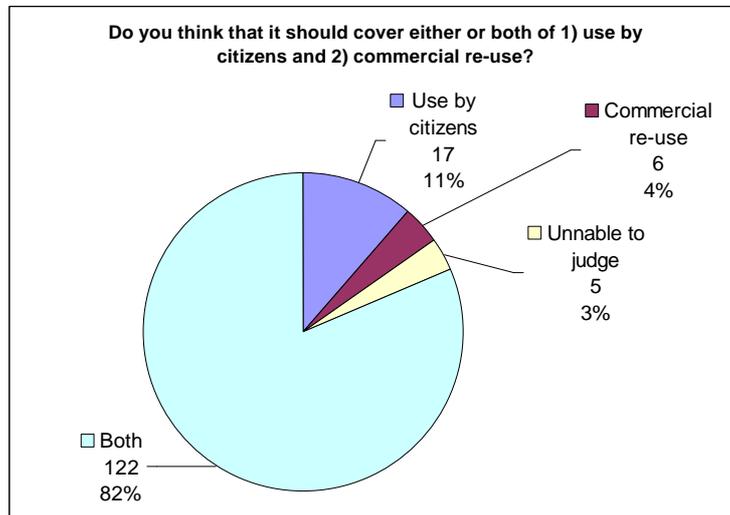


## KEY QUESTION 14

Would it be useful to establish in the EU a harmonised licensing framework that extends to uses and users of spatial data beyond the realms of public sector bodies? If yes, do you think that it should cover either or both of 1) use by citizens and 2) commercial re-use, or do you have some other comment on what should be covered by the extended framework? (Section 3.4)

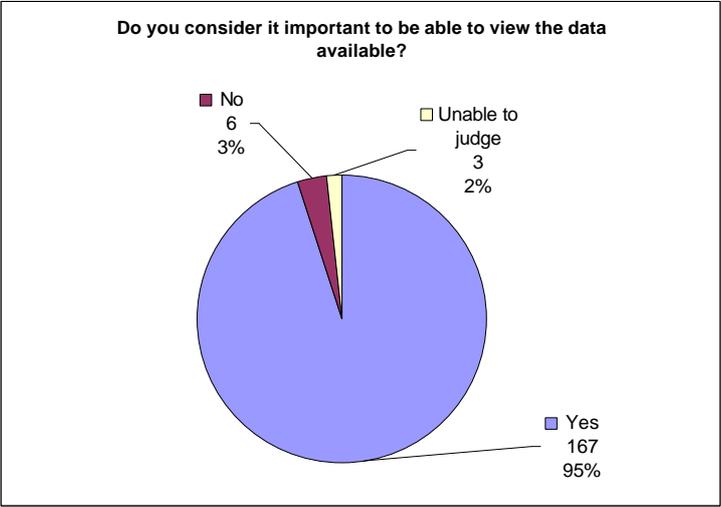


### IF YES :

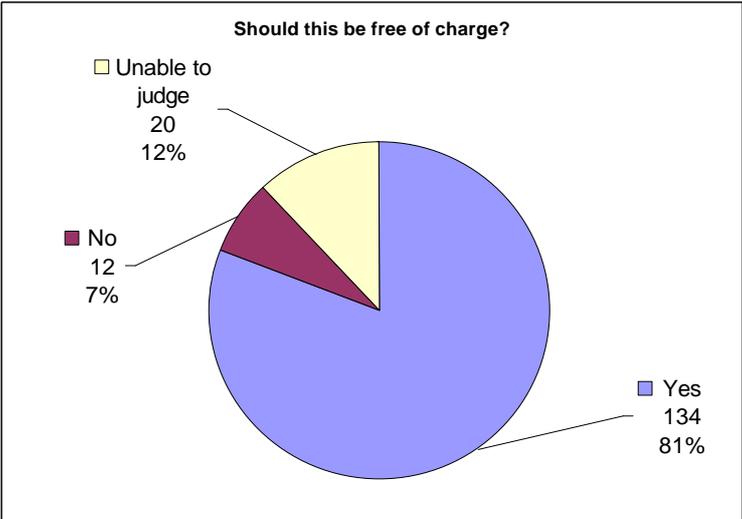


**KEY QUESTION 15**

*Do you consider it important to be able to view the data available and that this can be done free of charge? (Section 3.4)*

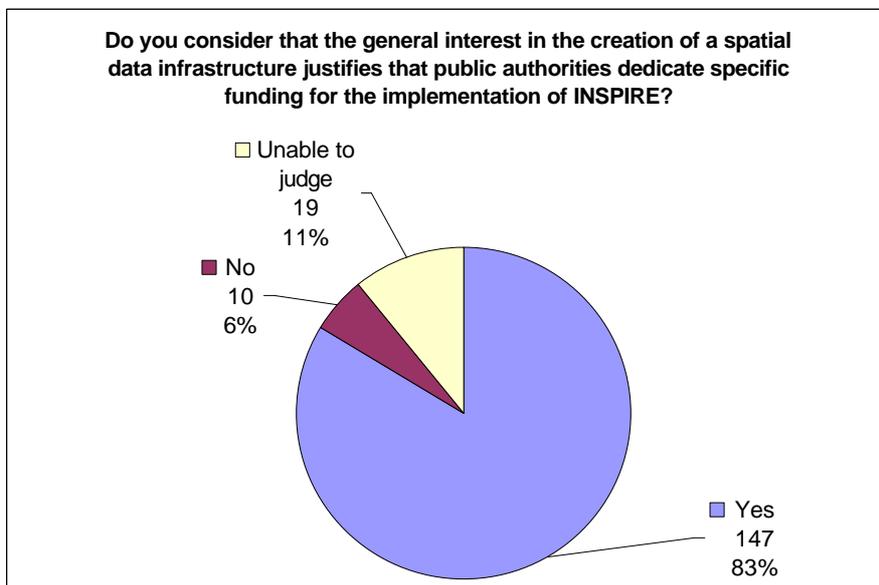


**IF YES :**



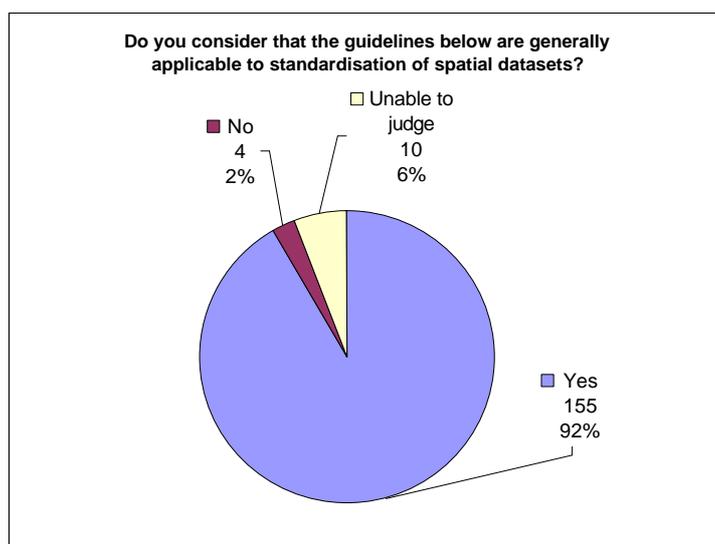
## KEY QUESTION 16

*Do you consider that the general interest in the creation of a spatial data infrastructure justifies that public authorities dedicate specific funding for the implementation of INSPIRE? (Section 4.3)*



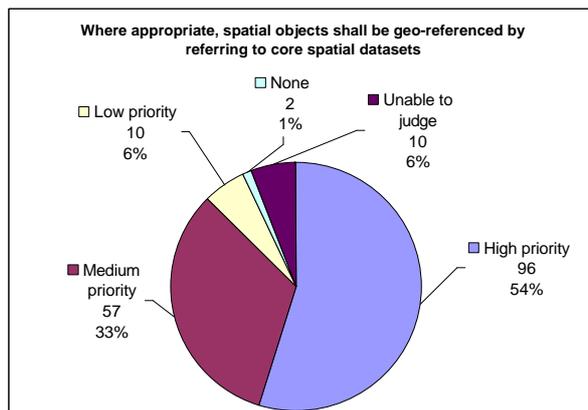
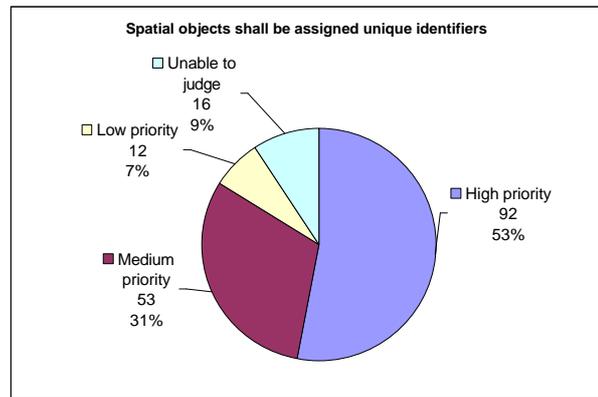
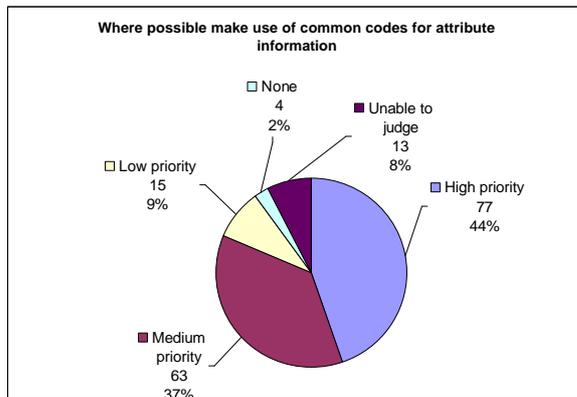
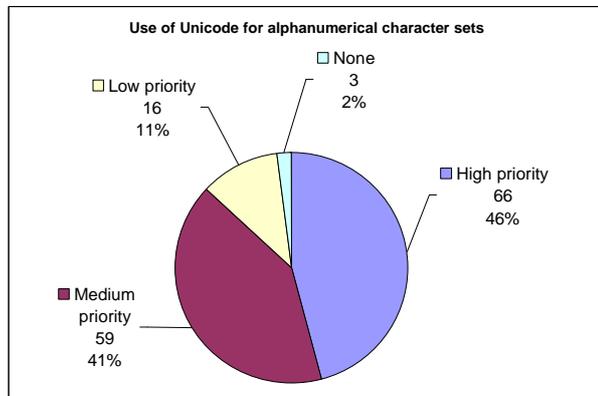
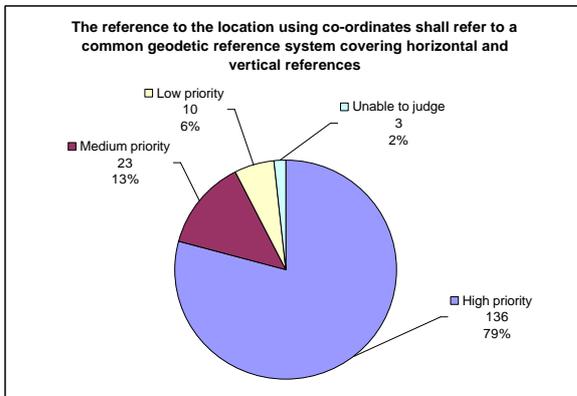
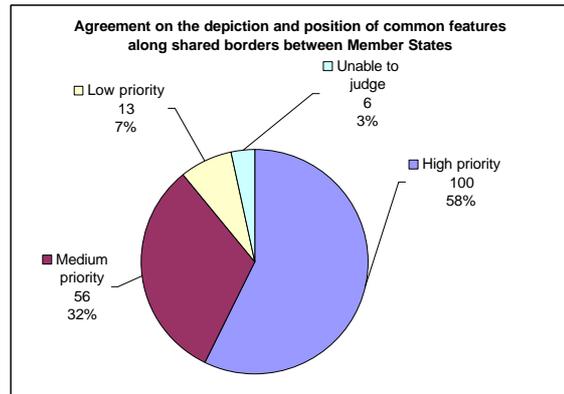
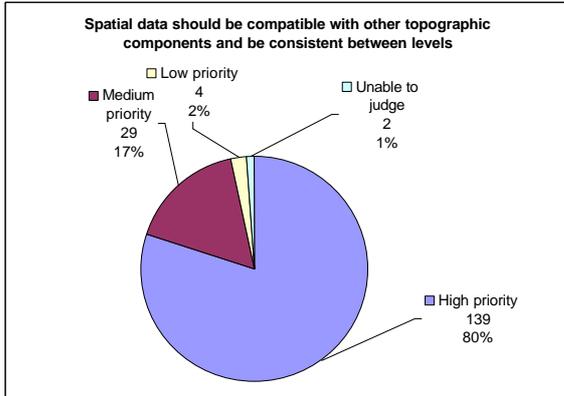
## KEY QUESTION 17

*Do you consider that these guidelines are generally applicable to standardisation of spatial datasets? (Appendix 3)*



# KEY QUESTION 17 - continued

## Content



**KEY QUESTION 18**

*Are important issues not addressed by the previous questions or in the consultation document?*

