INSPIRE

Infrastructure for Spatial Information in Europe

Data Policy & Legal Issues Position Paper

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PURPOSE OF THIS DOCUMENT

This is the Position Paper of the Data Policy and Legal Issues Working Group of the INSPIRE Expert Group. It outlines the policies and legal framework needed to create an Infrastructure for Spatial Data in Europe (INSPIRE).

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Executive Summary

This Position Paper presents proposals which provide the data policy and legal frameworks for the introduction of an Infrastructure for Spatial Information in Europe known as INSPIRE. This has the following aims:

- *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 information from different sources across Europe and share it between many users and applications.*
- *It must be possible for information collected at one level to be shared between all the different levels, e.g. detailed for detailed investigations, general for strategic purposes.*
- *Geographic information needed for good governance at all levels should be abundant and widely available under conditions that do not restrain its extensive use.*
- *It must be easy to discover which geographic information is available, fits the needs for a particular use and under what conditions it can be acquired and used.*
- *Geographic data must become easy to understand and interpret because it can be visualised within the appropriate context and selected in a user-friendly way.*

The paper proposes twelve key policy principles needed to set up a European spatial information infrastructure. These are:

1. *The Infrastructure for Spatial Data in Europe (INSPIRE) shall be built upon a network of National Spatial Data Infrastructures, the installation and operation of which shall be the responsibility of Member States.*
2. *INSPIRE's technical architecture shall be designed to meet the needs of all producers, users and other stakeholders, through a set of specific applications.*
3. *Datasets made available through the INSPIRE programme shall be provided to harmonised data specifications and to common standards.*
4. *Data Quality procedures shall be introduced in order to ensure fitness for purpose and use.*
5. *Discovery Metadata will be made available at no charge in order to help users identify and locate INSPIRE datasets.*
6. *Reference Data, the scope and composition of which shall be specified by INSPIRE, will provide the underpinning framework to which INSPIRE thematic data will be referenced.*
7. *Thematic Datasets shall be specified by INSPIRE according to the requirements of the INSPIRE programme, and made available to common standards.*
8. *INSPIRE data shall be made available for access and view free of charge by citizens and other users, with delivery, downloading and re-use on harmonised terms and conditions throughout the European Union.*
9. *Sustainable funding, investment and charging mechanisms shall be put in place by Member States and maintained in accordance with Policy Principle No. 8.*
10. *Harmonised licensing frameworks will be introduced to facilitate and optimise the sharing, trading and extensive use of INSPIRE thematic data and information.*
11. *The unimpeded flow of data and information between (a) the Commission and Member States, (b) Member States, (c) local authorities and (d) members of the public shall be assured.*
12. *Bodies responsible for the co-ordination and management of INSPIRE shall be established at European and national levels. Their powers, duties and responsibilities shall be based on the principles of subsidiarity and proportionality.*

For a number of historical, political, legal and economic reasons, there are a wide variety of inefficient practices within Member States used to manage geospatial data and information. This Paper sets out a strategy for establishing:

1. *A coherent European Spatial Data Infrastructure.*
2. *Consistent Europe-wide reference and thematic data.*
3. *Consistent Europe-wide data quality.*
4. *Users have direct and free access to discovery level metadata and therefore a route of access to all public sector data and information.*
5. *Uniform components of reference data, including: units of administration, property rights, addresses, topography, ortho-imagery, geodetic reference systems, & geographic names.*
6. *Access to and delivery of thematic data literally at a few clicks of a mouse button.*
7. *Efficient and effective data and information delivery of a range of user needs from citizens and academics to policy-makers and commercial users.*
8. *Harmonised use of INSPIRE data and information – across public and private sectors.*
9. *Efficient development and implementation of INSPIRE gives the initiative an appropriate level of legitimacy.*

It thereby creates a policy and legal framework for the establishment and operation of a spatial data infrastructure for Europe, for the purpose of formulation, implementation, monitoring and evaluation of Community policy making at local, regional, national and international level.

When implemented, the policies proposed in this report would achieve a paradigm shift in the way European geospatial data and information is disseminated, shared, traded and managed.

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1 Introduction

1.1 The Expert Group of the INSPIRE Project (Infrastructure for SPatial InfoRmation in Europe) established a working group to address the policy and legal issues relevant to the realisation of the INSPIRE initiative.

1.2 The task of the Data Policy and Legal Issues (DPLI) Working Group was to consider all relevant aspects related to data policy and to develop proposals on the issues to be addressed in the INSPIRE framework legislation. These included the following subjects:

- Data policy initiatives at European level
- Open access for citizens to public sector information
- Coherence with the Aarhus Convention and the forthcoming EU Directive on access to environmental information
- Consequences of applying environmental INSPIRE to other sectors, such as transport
- Dissemination modes (cf. Standards & Architecture WG)
- Cost models for access to and re-use of data and information
- Existing experiences, including those of the US
- Intellectual Property Rights and copyright
- Freedom of information versus privacy issues
- Liability for data and information

1.3 The working group commissioned a review of the state of the art on data and information policy, with particular emphasis on the situation in Europe, though with some reference to other systems, such as the in the United States. The review highlighted several of the issues and challenges, which have been signalled by other programmes and projects which have preceded the present initiative. The policy issues thus highlighted include:

- Sharing information between administrations
- Awareness and use of geographic information
- Public sector involvement in commercial exploitation of spatial data
- Charging policies
- Delivery systems
- Data quality
- User, producer and other stakeholder expectations
- Languages
- Standards and metadata
- High-level political support

1.4 The principal legal issues include:

- Copyright and licensing
- Data protection and privacy
- Freedom of Information and censorship
- Competition law
- Fitness for purpose
- Product and services liability

1.5 This position paper contains the outcome of the analysis of the data policy and legal issues, and proposes a way forward towards establishing a legal and policy framework for the European Commission to consider when drawing up the INSPIRE framework legislation.

2 What is the INSPIRE initiative and why is it needed?

(Chapters 2,3,4,5 are developed by the INSPIRE secretariat/ WG leaders)

2.1 Good policy relies on quality information. The increasing complexity and interconnectedness of issues that affect the quality of life today is recognized by the policy-makers and influences the way new policies are being prepared today. The Sixth Environmental Action Programme[1] for instance emphasises the need to base environmental policy-making on sound knowledge and participation, principles that will influence the Union environmental policy-making for the next decade.

2.2 INSPIRE is an initiative currently being prepared by the Commission to support the availability of spatial information for the formulation, implementation and evaluation of Union policies. It intends to set the legal framework for the gradual creation of a spatial information infrastructure. INSPIRE will initially focus on environmental policy needs but, being a cross-sectoral initiative, will gradually be extended to other sectors (e.g. agriculture, transport) as other interested Commission services participate.

What is a spatial information infrastructure?

The INSPIRE initiative intends to trigger the creation of a European spatial information infrastructure that delivers to the 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. The target users of INSPIRE include policy-makers, planners and managers at European, national and local level and the citizens and their organisations. Possible services are the visualisation of information layers, overlay of information from different sources, spatial and temporal analysis, etc.

The spatial information infrastructure addresses both technical and non-technical issues, ranging from technical standards and protocols, organisational issues, data policy issues including data access policy and the creation and maintenance of geographical information for a wide range of themes, starting with the environmental sector.

2.3 The INSPIRE initiative recognises the fact that most of the quality spatial information is available at local and regional level, but that this information is difficult to exploit in a broader context for a variety of reasons. The situation on spatial information in Europe is one of fragmentation, gaps in availability of geographical information[2], duplication of information collection and problems of identifying, accessing or using data that is available. As a result of these problems, effective Union policy actions suffer because of lack of monitoring and assessment capabilities that take into account the spatial dimension[3].

2.4 Fortunately, awareness is growing at national and at EU level about the need of quality geo-referenced information for understanding the complexity and consequently for containing the negative impacts of the ever-increasing human activity on the EU territory. Many regional and national initiatives are being taken[4] and numerous stakeholders both in the Member States and candidate countries collaborate with the Commission services for the preparation of the INSPIRE initiative.

[1] http://europa.eu.int/comm/environment/newprg/index.htm

[2] For example, only a few pan-European geographical information layers exist, often designed for specific purposes that limit the possibilities of their wider use e.g. CORINE Land Cover and the SABE dataset (Seamless Administrative Boundaries of Europe) from EuroGeographics.

[3] For example: insufficient monitoring capabilities are key obstacles to the further development of a range of priority themes of the 6th Environmental action programme, such as soil, bio-diversity, health and environment and marine policy.

[4] See Examples of regional and national initiatives to create a spatial information infrastructure in GE, UK, PT on the Internet http://www.ec-gis.org/inspire/

2.5 Successful implementation of the INSPIRE initiative would contribute to reach the objectives set out in the Commission's White Paper on European Governance[5]. It would help the Commission to establish more coherence in its policies by better integrating the common territorial dimension. This will also help to improve policy co-ordination, an issue that is identified by the Community Sustainable Development Strategy[6] as part of a new approach to policy-making. It will allow better participation by presenting information in a clear, understandable way at national and local level. Finally, it will help to make European governance more effective by supporting the evaluation of future impact and past experience for EU policies.

[5] COM(2001)428 – European Governance - a White Paper . The White Paper refers to five principles of good governance: openness, participation, accountability, effectiveness and coherence

[6] Presidency Conclusions – Göteborg European Council, 15 and 16 June 2001

3 INSPIRE: Context and Vision

3.1 Recent global advances in moving from paper to digital data and information has created hitherto undreamed of opportunities to revolutionise access to data, communication of information and for informed decision-making at all levels of society. This move from back room to open door access to information presents new challenges for those acquiring, handling, and providing access to electronic data and information.

3.2 The data are often of unsatisfactory or undefined quality, based on proprietary geographic information systems and not accessible to the public or other users at local, regional, national and international level. Therefore, projects that combine data coming from various sources to provide policy-relevant information and tools are often time consuming and costly. Policies need to be put in place to reduce the duplication in collection, harmonisation efforts and to facilitate and promote wide dissemination of the data. These policies should free funds to be invested in improving the availability and quality of spatial information. The increased availability of data will in turn stimulate innovation among data and information providers in the commercial sector.

INSPIRE Principles

The INSPIRE initiative intends to improve the current situation by triggering the creation of a European Spatial Data Infrastructure for the access and use of spatial information built on the basis of the following principles:

- 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 information from different sources across Europe and share it between many users and applications
- It must be possible for information collected at one level to be shared between all the different levels, e.g. detailed for detailed investigations, general for strategic purposes
- Geographic information needed for good governance at all levels should be abundant and widely available under conditions that do not restrain its extensive use
- It must be easy to discover which geographic information is available, fits the needs for a particular use and under what conditions it can be acquired and used
- Geographic data must become easy to understand and interpret because it can be visualised within the appropriate context and selected in a user-friendly way.

3.3 The INSPIRE policy vision is to make harmonised and high quality geographic information readily available for formulating, implementing, monitoring and evaluating Community policy and for the citizen to access spatial information, whether local, regional, national or international[7]. This vision is illustrated in the diagram at Figure 1.

[7] The INSPIRE initiative will link with relevant initiatives at the global level such as the work to develop the Global Spatial Data Infrastructure (GSDI).

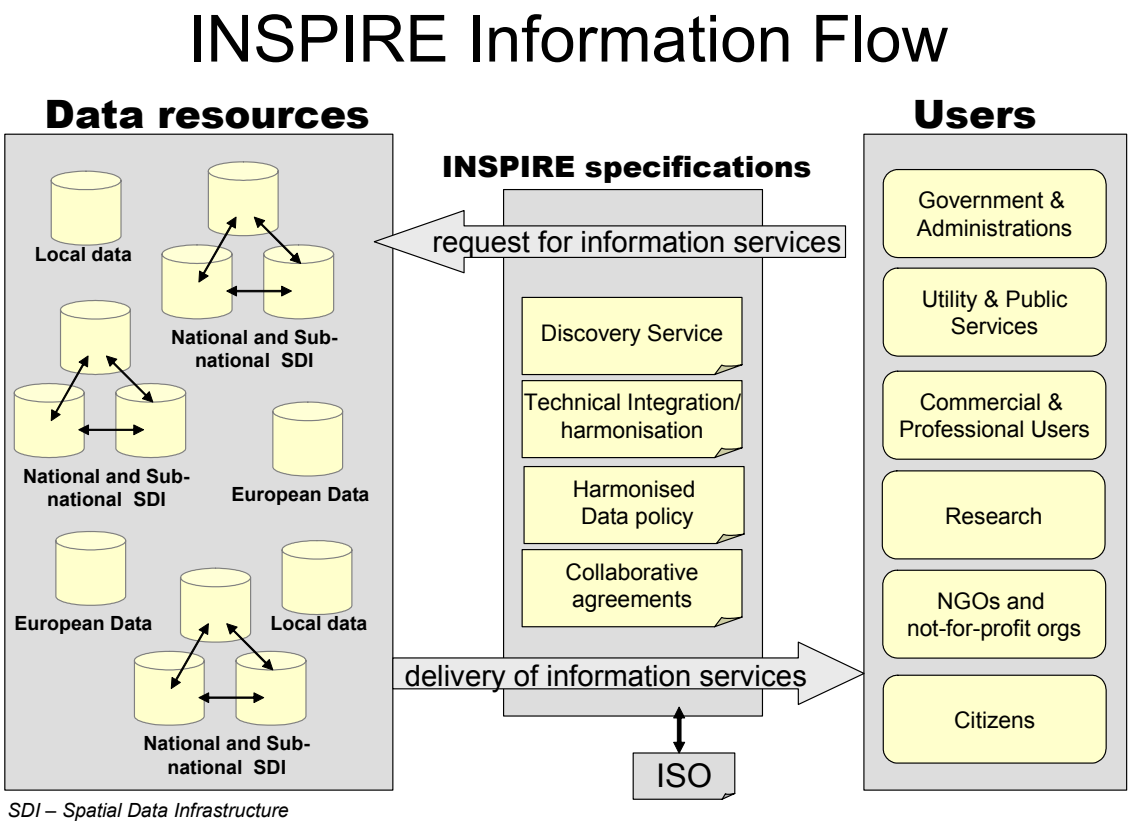


Figure 1: Diagrammatic View of the INSPIRE Vision

4 A Stepwise Approach to INSPIRE Development and Implementation

4.1 The INSPIRE implementation will follow a step-wise approach, starting with unlocking the potential of existing spatial data and spatial data infrastructures and then gradually harmonising data and information services allowing eventually the seamless integration of systems and datasets at different levels into a coherent European spatial data infrastructure. Achieving this objective will require the establishment of appropriate co-ordination mechanisms and common rules for data policies. Where relevant, synergies with the GMES initiative will be sought in order to ensure coherence between INSPIRE and GMES [8].

4.2 The first step will focus on harmonisation of documenting existing datasets (metadata) and on the necessary tools to make this documentation accessible.

4.3 The second step will primarily aim at providing common ways to access the spatial data sets themselves allowing uncomplicated analysis of data on different themes coming from different sources. An example of such analysis is visual inspection of spatial relations between phenomena by overlay of datasets.

4.4 The third step will target the establishment of common models of the objects in the environment for which spatial data is collected, such as transport networks, forests, etc. This will allow to map existing datasets to a common set of models, the start of the creation of a really harmonised spatial data infrastructure that will facilitate the combination of information of various sources and more advanced analysis work.

4.5 The fourth and last step will build upon the previous steps and concentrate on completing the common models and on providing the services to fully integrated data from various sources and various levels, from the local to the European level into coherent seamless datasets supporting the same standards and protocols. This step will allow real time access to up-to-date data across the whole of Europe.

4.6 These steps will partly be carried out in parallel, depending on user needs and degree of availability and harmonisation of existing information. All these steps involve actions of standardisation, of harmonisation and integration of data and services.

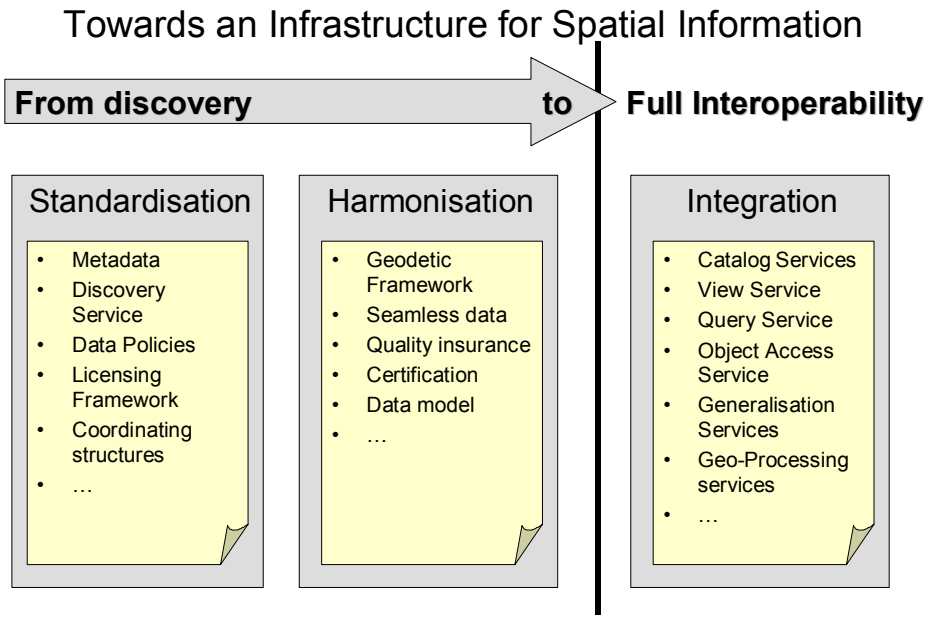


Figure 2: Towards an Infrastructure for Spatial Information

[8] Sec(2001) 993 of 16/06/2001 Commission Staff Working Paper – Joint document from Commission services and European Space Agency

4.7 INSPIRE is conceived as a cross-sectoral initiative covering the main Community sectors with a spatial impact such as transport, energy, agriculture, etc, but will target initially information needed to support environmental policy. Indeed the 6th Environmental Action Programme highlights the need for better knowledge and sound science in environmental policy-making and geographical information will therefore be increasingly required to achieve this. Therefore, a horizontal framework is needed in order to ensure a coherent approach to information collection and distribution. Moreover, the requirement by the Treaty for all policy sectors to integrate environment concerns will provide a first link from environmental policy to other policy sectors that can be further extended at later stages.

5 Users, Producers and other INSPIRE Stakeholders

5.1 Users

5.1.1 Environmental users are many and various, and include users who need spatial data for planning, management, assessment, monitoring and reporting. Hence the user community is very broad and diverse and includes:

- Governments & Administrations
  - EU
  - National
  - Regional
  - Local
- Utility and Public Services, including
  - Transport
  - Health
  - Emergency services
  - Utilities (e.g. water, telecommunications, gas, electricity).
- Research and development
  - Universities
  - Public and Private Institutes
  - Application Developers for IT Systems
- Commercial & Professional End Users
  - Tourism
  - Value Added Resellers
  - Surveyors
  - Property Developers
  - Insurance
- Non Governmental Organisations (NGOs) and not-for-profit organizations
- Citizens

5.1.2 Different user categories must be considered because their requirements in terms of data access can vary significantly.

5.2 Producers

5.2.1 The producers of spatial information within the public sector include national environmental protection agencies, mapping agencies, national geological surveys, national maritime administrations, cadastral, land registration and other land administration organisations, local authorities and utilities.

5.2.2 It should also be noted that, under certain circumstances, private data producers may offer production capacity to public bodies, or possibly sell data directly onto the market themselves. In some Member States there is a thriving private sector geographic information industry supplying data and services directly to the commercial market.

5.2.3 Most spatially organised data and information are either used internally by public bodies, or are supplied to other public sector organisations under various types of agreement. A relatively small but growing number of government departments or agencies conduct commercial business with the private sector or with the general public. It is in the area of data use that it is important to recognise the difference between sharing data and trading data.

5.2.4 The simplified diagram at Figure 3 clearly shows this distinction in the context of three transaction streams which can be combined in varying proportions by any public sector body developing an overall information sharing and trading strategy, subject to common rules defined under INSPIRE.

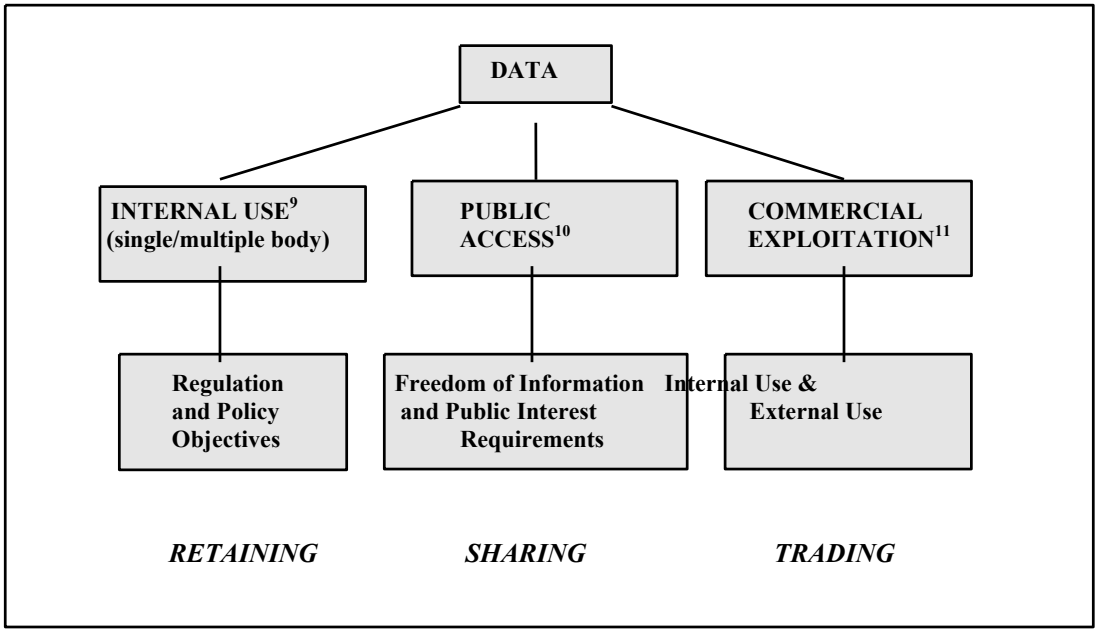


Figure 3: Simplified Diagram Illustrating Public Sector Data Uses

5.4 Other INSPIRE Stakeholders

5.4.1 The delivery of INSPIRE, like initiatives such as *e*Europe and *e*Government, is dependent on information technology. It will have a profound impact on a variety of disciplines and professions, affecting many individuals and organizations that cannot be categorised as users or producers. Conversely, this group of other stakeholders will also have an important role in the process of shaping the infrastructure. Examples of other stakeholders are:

- The Information and Communication Technology (ITC) sector, and in particular product providers who offer software, hardware, and related systems, and service providers who offer system development, database development operations support, and consulting services;
- Standardisation bodies like ISO, CEN, and national standardization organizations;
- Co-ordinators and regulators, including European and national associations.

[9] **Internal Use** means spatial information used exclusively within the originating public body, or shared among any public body at local, regional, national or international level.

[10] **Public access** means spatial information provided by public bodies free of charge or marginal cost of supply free of charge or marginal cost of supply for viewing or use by citizens of the European Union (including NGOs, academia, and research institutes).

[11] **Commercial exploitation** means the utilisation of public sector spatial information in commercial information products.

6 INSPIRE Policy Principles

6.1 Role of National Spatial Data Infrastructures

6.1.1 There are a number of fundamental data policies that can be identified as the basis for developing and implementing the INSPIRE vision, but at the centre is the concept of an information network. The Infrastructure for Spatial Data in Europe (INSPIRE) will represent the linking of data from many separately developed and maintained sources.

6.1.2 INSPIRE will therefore be built upon national spatial data infrastructures (NSDIs). It will be the responsibility of each Member State to develop, install, operate and maintain its own national spatial data infrastructure.

Policy Principle No. 1: The Infrastructure for Spatial Data in Europe (INSPIRE) shall be built upon a network of National Spatial Data Infrastructures, the installation and operation of which shall be the responsibility of Member States.

6.2 Architecture

6.2.1 The following summarises the main elements of the proposed INSPIRE architecture which are relevant to the legislative framework of INSPIRE.

6.2.2 The INSPIRE technical architecture comprises the models, standards, technologies, specifications, and procedures used to represent, transform and generally accommodate the integration, maintenance and use of thematic and reference data. All data models and architectural components shall be documented to common technical standards and language.

6.2.3 Priorities should be given to the following five user needs, broadly described as the sequence of: find, view and access geographic information, translation of queries and/or results of queries, and e-commerce. To meet these user needs, a number of applications will form part of the architecture:

- Publisher application
- Search application
- Viewer/interest/analyst applications
- Data access application
- E-commerce application

Policy Principle No. 2: INSPIRE's technical architecture shall be designed to meet the needs of all producers, users and other stakeholders, through a set of specific applications.

6.3 Data Standards

6.3.1 It will be necessary to harmonise some parts of detailed data specifications for appropriate pan-European data to maximise the potential and use of datasets. This will include:

- adoption of common data definitions, data formats, data models, data exchange formats, etc.
- change management procedures for datasets;
- quality assurance to ensure fitness for purpose; and
- the adoption of other national and international data standards.

Policy Principle No. 3: Datasets made available through the INSPIRE programme shall be provided to harmonised data specifications and to common standards.

6.4 Data Quality and Certification

6.4.1 To facilitate sharing and trading of spatial information at local, regional, national and international level, procedures shall be put in place by EU Member States to ensure that spatial data and information are fit for purpose. Public sector spatial data and information shall be of a minimum quality by adopting common quality standards and validation procedures, to ensure *inter alia*:

- accuracy
- spatial accuracy
- temporal accuracy
- thematic accuracy
- precision and resolution
- spatial resolution
- thematic resolution
- consistency
- completeness

6.4.2 Certification shall therefore be required for reference system transformation services at European and national levels as appropriate.

Policy Principle No. 4: Data Quality procedures shall be introduced in order to ensure fitness for purpose and use.

6.5 Metadata

6.5.1 Metadata is the information and documentation, which makes data understandable and shareable for users over time. It can be distinguished as follows:

- Metadata for discovery, which is necessary for data users to search, locate and access the related data

- Metadata for inventory, which is internal to an organisation for being able to manage its information assets

- Metadata for use (exploitation), which is a fuller description of the information resource that enable users to assess the relevance and fitness for use for a certain type of application

6.5.2 Metadata will therefore be specified and assembled on the Internet to existing, international standards. As a matter of routine, INSPIRE datasets will be documented to facilitate their identification, proper management and effective use across the Community, and to avoid collecting or purchasing the same data more than once.

6.5.3 To provide an accurate list of datasets held by local, regional, national and EU institutions, metadata catalogues will be compiled, access to which will be free of charge to users. They will include discovery level metadata about content geographic extent, currency, and accessibility of the data, together with contact details for further information about the data.

Policy Principle No. 5: Discovery Metadata will be made available at no charge in order to help users identify and locate INSPIRE datasets.

6.6 Reference Data

6.6.1 The term "reference data" is based on two main ideas: It is a series of datasets that everyone involved with geographic information uses to reference his/her own data as part of their work. It provides also a common link between applications and thereby provides a mechanism for the sharing of knowledge and information amongst people.

6.6.2 Reference data must fulfil three functional requirements:

- Provide an unambiguous location for a user's information
- Enable the merging of data from various sources
- Provide a context to allow others to better understand the information that is being presented

6.6.3 The issue of reference data should be addressed at all the territorial levels:

- European
- National
- Regional
- Local

6.6.4 Following on from work done by the ETeMII Programme, the reference data components agreed by the RDM Working Group for the initial phase of INSPIRE's development include:

Components of reference data
Geodetic reference system
Units of administration
Units of property rights
Addresses
Selected topgraphic themes
Orthoimagery
Geographical names

Figure 4: Reference Data

Policy Principle No. 6: Reference Data, the scope and composition of which shall be specified by INSPIRE, will provide the underpinning framework to which INSPIRE thematic data will be referenced.

6.7 Thematic Data

6.7.1 Thematic data covered by the INSPIRE system will eventually cover spatial data from major sectors of government, such as agriculture, transport and health. In this first phase of INSPIRE development and implementation, however, the focus will be on environmental data. Nine environmental thematic areas have been identified in the thematic orientation paper where data is needed (water, air/climate change, land/soil, nature/biodiversity, noise, waste, utilities, natural and technological hazards and basic features/reference data). For these thematic areas a large number of datasets, which should be developed under INSPIRE, have been identified and qualified at a very high level.

6.7.2 The Environmental Thematic Co-ordination (ETC) Working Group have recommended the following generic approach to defining the spatial data to be covered by INSPIRE, i.e.

- Specify and develop a process defining how a theme should be divided into sub-topics
- Agree upon selected data sets within each sub-topic that are to be treated further (priority environmental data sets)
- Establish and maintain specifications for selected environmental data sets using the general INSPIRE standards, templates and other tools for specifications and modelling. The specifications should work on data set accuracy suitable for use at European, national, regional and local levels
- Make the defined data set available as a heading in a catalogue service
- Intake different data sets (possibly at different scales and different levels of accuracy) as they are made available from various countries or separate EU institutions.

6.7.3 For this to happen in a co-ordinated way, it will be necessary to set up a time schedule for when the EC member countries or partners of INSPIRE are to have transformed their data (high level data, medium, local data) to comply with the data set specifications. The timetable envisaged by the ETC Working Group is attached to this Paper as Annex D.

6.7.4 As new statutes and regulations appear, data specifications will be developed and refined to common standards accordingly, in consultation with the INSPIRE co-ordinating organisations.

Policy Principle No. 7: Thematic Datasets shall be specified by INSPIRE according to the requirements of the INSPIRE programme, and made available to common standards.

6.8 Charging

6.8.1 Taking into account issues such as sustainability, the provisions of the proposed Directive on the Re-use and Exploitation of Public Sector Information and the expected new Directive on Public Access to Environmental Information, as well as user and other stakeholder needs and supply mechanisms, it is suggested that the processes of acquiring and using metadata, reference data, and thematic data are based on the following steps:

- **Access, View and Query** metadata information *free of charge*, using catalogue services via the Internet and other channels
- **Access and View** all INSPIRE thematic data, suitably georeferenced, *free of charge*, using INSPIRE services via the Internet
- **Delivery/Download** of georeferenced thematic data (in full compliance with EU Privacy, PSI, EIA and other relevant Directives) to users under licences which clearly state the conditions, including charges, under which the data is supplied, and any restrictions on its subsequent use

- **Third-party Re-use** of georeferenced thematic data for commercial or non-commercial purposes under licence conditions and at charging rates consistent with the requirements of the relevant Directives. The question of the accrual of royalty income to data owners and providers, based possibly on a negotiated percentage of revenues, also comes under this heading

Policy Principle No. 8: INSPIRE data shall be made available for access and view free of charge by citizens and other users, with delivery, downloading and re-use on harmonised terms and conditions throughout the European Union.

6.9 Funding and Investment

6.9.1 Reference data will be made available by the appropriate producers in each Member State in order to display thematic data via INSPIRE. The subsidiarity principle allows for different business models to be adopted by Member States to comply with EU legislation. It is proposed that INSPIRE be implemented using this approach

6.9.2 Within Member States the financial mechanisms which will allow this to happen may vary. In some, for example, public bodies may be allowed to develop cost recovery solutions, whilst in others the collection, management and dissemination of data may be fully funded by national governments. This degree of flexibility at Member State level will be essential to the success of INSPIRE, while at an EU level the access to all data will be harmonised for all users.

6.9.3 The fact that the vision and policy principles of INSPIRE are possible to implement only if the funding is guaranteed is fundamental. It is recognised that the work that has to be done to convert and complement the existing datasets will be time consuming and costly, and it is expected that costs will vary significantly between Member States. Political support at the highest level will be crucial.

6.9.4 National Spatial Data Infrastructures (NSDIs) will be used to make thematic data accessible through INSPIRE free of charge. It follows that reference data which is needed to display the thematic data in a spatially organised way must also be free of charge to users, subject to conditions concerning commercial re-use. It will be important that Member States maintain a level of investment to sustain INSPIRE data.

Policy Principle No. 9: Sustainable funding, investment and charging mechanisms shall be put in place by Member States and maintained in accordance with Policy Principle No. 8.

6.10 Licensing

6.10.1 The construction of a harmonised framework for sharing and trading spatial information must address issues of licensing and charging on the basis of the ownership and intellectual property rights held in spatial and other data and information.

6.10.2 The interests of both sides of the supplier-user equation will be served by harmonising the broad principles of licensing the use of data throughout the EU, although details should be left to reflect individual Member State circumstances.

6.10.3 It is important to recognise that licensing, as a method by which the rights and responsibilities of the parties are stated and understood, however, complicated or simple they might be, is a basic requirement of good order and proper management.

6.10.4 Matters which may be covered by a licence or service level agreement include:

- Period of licence
- Notice of termination required and conditions under which it may be given
- Definition of the material which is the subject of the licence
- Copyright position
- Frequency of update or upgrade
- Method of delivery
- Technical issues such as format and system requirements
- Restrictions on use
- Statutory and regulatory obligations
- Security and Data Protection
- Fees, royalties and other charges, together with payment terms, where appropriate
- Performance criteria and standards
- Marketing responsibilities
- Use of trade marks and logos
- Rights and obligations of third parties (e.g. agents and sub-contractors)
- Assignment
- Dispute and arbitration procedures
- Penalties for non-compliance with contract terms
- Audit procedures
- Product Liability

6.10.5 Although it is proposed that the INSPIRE programme creates conditions under which any citizen anywhere in the EU has the same rights of access and view in respect of georeferenced thematic data and information, the general licence through which this right is granted will also specify conditions regarding downloading, copying, re-use and commercial exploitation. In the short term these conditions may vary between Member States because of differing legal, economic and political considerations, but in the longer term it is proposed that these, too, will be harmonised.

Policy Principle No. 10: Harmonised licensing frameworks will be introduced to facilitate and optimise the sharing, trading and extensive use of INSPIRE thematic data and information.

6.11 Continuity

6.11.1 Within the terms of the legal instrument which governs the implementation and operation of INSPIRE, it will be necessary to put in place certain guarantees or assurances concerning the reference and thematic data, and the means by which their interconnection is arranged.

6.11.2 Amongst the most important of these assurances will be those which determine the continuity of movement of data and information between the various producers and user groupings.

Policy Principle No. 11 The unimpeded flow of data and information between (a) the Commission and Member States, (b) Member States, (c) local authorities and (d) members of the public shall be assured.

6.12 Implementation and Management Structures

6.12.1 The interchange of data at between governments and other organisations within the European Union must be managed and controlled in the best interests of all the stakeholders. This raises the question of which type of official bodies are best suited to such a task at both EU and Member State level.

6.12.2 It has been concluded that a dedicated specialist INSPIRE management body must be established within the European Commission to oversee the operation of INSPIRE. Member States must also establish appropriate bodies at national government level to operate the national spatial data infrastructures to support INSPIRE. This means that:

- The Commission will define a Body (the platform) for European Spatial Data
- A European Spatial Data Committee (built according to comitology procedures) will be established by the Council and Parliament framework legal act
- The Member States must mandate one national authority with responsibility for relations with the Commission (included in the legislation).

6.12.3 The powers, duties and responsibilities of these bodies must be proportionate to the effective operation of INSPIRE. Reflecting the wide range of national circumstances that will be inherited by INSPIRE, the management arrangements must also be based on the principle of subsidiarity.

Policy Principle No. 12: Bodies responsible for the co-ordination and management of INSPIRE shall be established at European and national levels. Their powers, duties and responsibilities shall be based on the principles of subsidiarity and proportionality.

7 What are the Implications For European Law?

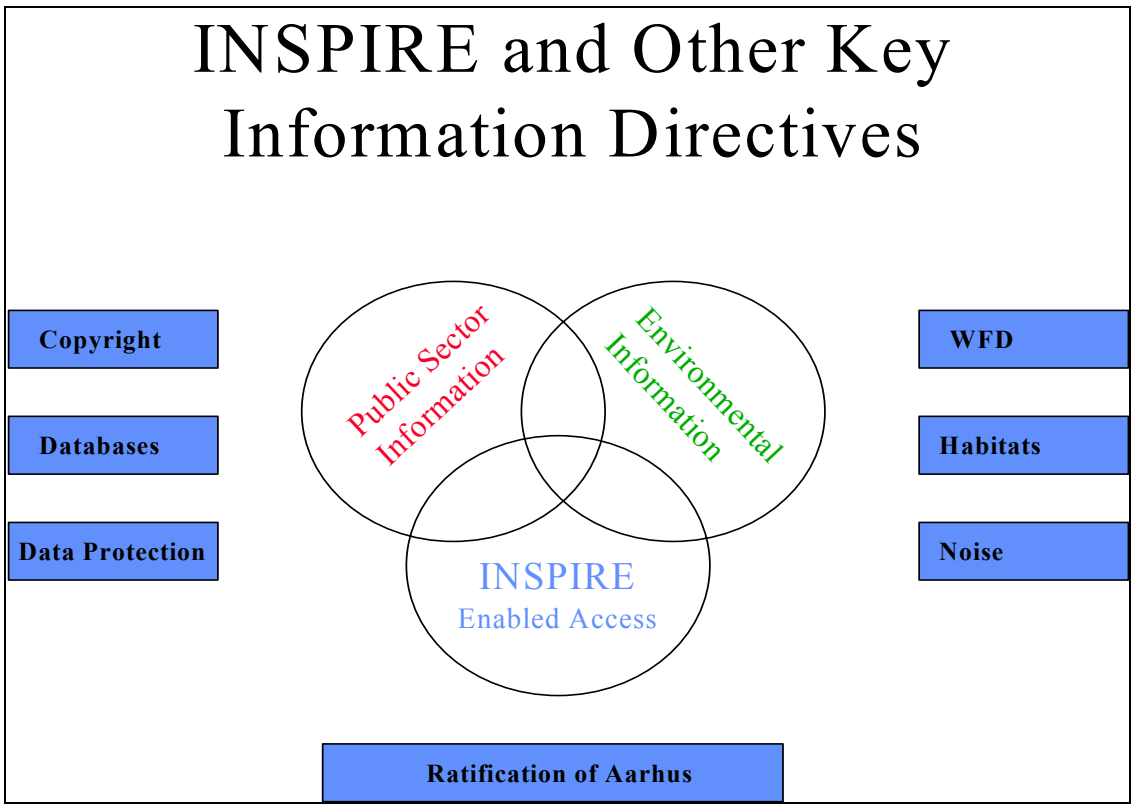


Figure 5: Complementary Directives

7.1 The Re-use and Exploitation of Public Sector Information (PSI)

7.1.1 The scope and content of the recently adopted (5th June 2002) draft Directive on the re-use and exploitation of Public Sector Information is of considerable importance to the development and positioning of the INSPIRE proposals. The development of this Directive may be traced directly back to the *Green Paper on Public Sector Information in the Information Society* (DG XIII 1999)

7.1.2 Two key principles in these proposals are that all documents held by public sector bodies that are *generally accessible* should, with certain exceptions, be re-usable for commercial or non-commercial purposes, and that charges for the re-use of documents shall be the same for all.

7.1.3 Member States are also given more freedom than was originally envisaged to decide what kind of information they are prepared to make available for re-use by the private sector.

7.1.4 The definition of the word "document", the term used to describe public sector information for the purposes of the Directive, is of particular interest:

THE DEFINITION OF A DOCUMENT

"**Document**" shall mean:

a) any content whatever its medium (written on paper or stored in electronic form or as a sound, visual or audio-visual recording);

b) any part of a document

European Commission Directorate-General Information Society

7.1.5 Other details within the proposals, however, have been substantially revised in recent weeks. For example, whilst noting that the US experience suggests that the lower the price for re-using public sector information the higher the economic impact, the latest draft also recognises that income from the sale of information is extremely important for some public bodies, which are now allowed a reasonable profit margin (the original proposal stated that tariffs should be based on costs alone).

7.1.6 Within Europe, the cost-recovery versus free-access debate has tended to polarise in recent years. A strong body of opinion, backed by academic research, favours cost-free access and unrestricted use of all data gathered by public bodies which is not subject to privacy and security restrictions. There are others, however, who argue that users normally exert more pressure when they are paying for data, and as a consequence quality increases.

7.1.7 It is important to note, of course, that it is difficult to compare the fairly homogeneous US society with the different cultural and language diversity of Europe (see box below).

THE US EXPERIENCE

In the US, the policy [of freedom of access to federal data] has demonstrated many advantages and some great disadvantages; the most important being that the dependency on public budgets means that the establishing of new information and map maintenance will suffer from fluctuating budgets. An example of the result is that in the state of New York, planning depends on information that is up to 50 years old.

Another weakness in the American system is that there is no consolidated government effort to ensure national coverage and efficient use of resources. All citizens have access to the information, on the same conditions, regardless of whether they want to make commercial use or want to use it for the public good. Those who want to use the information commercially have the added benefit of not having to share any of the profits. When it is time to update the information it is often difficult to find appropriate resources because of the reliance on public funds. As a result, such a system will benefit larger companies, who (possibly) are willing and able to perform/fund the necessary updates themselves - at the expense of public bodies and SMEs,

The European NMAs charge royalties to businesses that make profitable use of their products. This cost overhead to European industry, which may be considered a disadvantage compared to the US model, can be offset against the advantage of having access to accurate, consistent, standardised databases that provide national coverage. However, to ensure that this advantage will continue, the governments must carefully consider the funds required for these activities or, at least, make better use of the resources already available to ensure that the infrastructure is being maintained and updated.

Laila Aslesen

7.2 Access to Environmental Information

7.2.1 A new Directive, which updates the position regarding public access to environmental information as specified in Directive 90/313/EEC, is expected to become law shortly.

7.2.2 In addition to taking into account experience in applying the old Directive, it is also intended to reflect the terms of the 1998 Aarhus *Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters*.

7.2.3 For the purposes of this Paper, possibly the most significant aspect of the process lies in the definition of Environmental Information which the Directive draws down from Aarhus (see box below).

7.2.4 There are a number of other issues with which both the existing and the new Access to Environmental Information Directives are concerned, and which do not require reiteration within the INSPIRE proposals except where it is necessary for clarification or differentiation. They include not only the right of access to environmental information held by or for public authorities, but also the public authorities' right to make a "reasonable" charge for supplying environmental information except in the case of access to any public registers, which shall be free of charge.

THE DEFINITION OF ENVIRONMENTAL INFORMATION

***Article 2**: For the purposes of this Directive, "environmental information" shall mean 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) cost-benefit and other economic analyses and assumptions used within the framework of the measures and activities referred to in c); and
e) the state of human health and safety, 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 f) or, through those elements, by any of the matters referred to in b) and c).

The Council of the European Union, Brussels, 14 January 2002

7.3 Water Framework and Other Environment-related Directives

7.3.1 It is noted that the Water Framework Directive (2000/60/EC) requires Member States to provide spatial information in an acceptable GIS format.

7.3.2 Proposals for a Directive on environmental noise, agreed by the Council and the European Parliament earlier this year, also specifies the use of "strategic noise maps", to be completed within five years of adoption and to cover towns with more than 250,000 inhabitants, major roads, railways and airports. The proposals also state that the noise maps should be made public to ensure thorough consultation.

7.3.3 A Proposal for Regulation concerning the monitoring of forests and environmental interactions in the Community (subtitled Forest Focus) was presented by the Commission on 15th July 2002. The proposal provides 90m Euros of funding over 6 years for forest monitoring, but more importantly from the INSPIRE point of view, it includes a requirement for Member States to "geo-reference the information collected and make this information available through harmonised electronic geo-referenced databases easily accessible to the public". This requirement, once adopted, will implicitly provide for the establishment of a spatial data infrastructure (SDI) in the field of forest.

7.3.4 The INSPIRE Environmental Thematic Co-ordination (ETC) Working Group has identified the following other Directives and policy statements which have an essential geospatial element relevant to INSPIRE:

- Habitats Directive
- Nitrate Directive
- Landfill Directive
- Sewage Sludge Directive
- Waste Framework Directive
- Incineration Directive
- Air Quality Directive
- Bathing Water Directive
- SEA Directive
- IPPC
- Strategy ICZM
- Sustainable Development Strategy
- Soil Protection Strategy (draft)
- Communication on Planning and the Environment
- UN Climate Change Convention
- UNEP Regional Seas Convention
- UN Desertification Convention
- UN Biological Diversity Convention
- UN Basel Convention
- European Landscapes Convention

7.4 Trading in Information and Competition Law

7.4.1 Government information is for the most part a data monopoly, and there have been several policy statements concerning transparency and fairness in dealing with the private sector information provision and publishing industries.

4.4.2 However, EC competition law makes it clear that exclusive arrangements for the exploitation of public sector information should be limited or prohibited in order to stimulate the openness of the European market. A further objective is the avoidance of situations in which a government agency or organisation might be perceived as abusing its monopoly supply position with regard to distribution, pricing, licensing and competition. In the interests of clarity it is recommended that:

- As much transparency as possible should be required of each Member State in facilitating trading in data and information.

- All data provided to commercial users should be provided on a non-exclusive basis with reasonable equality within different types of users.

- If a public authority supplies value-added data or commercial data it must ensure that competition with the private sector is fair.

7.5 Privacy & Data Protection

7.5.1 Within the European Community there are different interpretations of “personal data” and different approaches to managing certain information which, although possibly not “personal” as such, may be closely related. Examples are present in tax returns, cadastral databases, property registers and even in postcode systems which can be cross-matched with, say, electoral rolls. Differences in applied definitions and differences in interpretation will inevitably lead to identical information being available in some states and not in others.

7.5.2 In addition, some anomalous situations may occur whereby similar (but not identical) types of data are treated differently. The key areas that will create these problems are in relation to both business information and environmental information and the point at which they overlap with personal

information. For the purposes of INSPIRE, this reinforces the importance of the convergence of a common definition of personal data amongst Member States.

7.5.3 To address this issue, it is recommended that spatially organised information about the state of land or the nature of activities on that land, except to the extent that they give information about how individuals contribute to such activities, should be disclosed and that in any event emissions data must be disclosed.

7.5.4 In practical terms this might restrict the applicability of the personal information exemption in national environmental information regulations. This proposal might also complicate the question of commercial confidentiality or personal confidentiality being used to justify exemption, but there would in any case remain a need to keep national security exemption from this specific type of environmental information. Such a provision would minimise conflict with human rights obligations to provide information necessary to protect health and property. One can argue that this is very much what the ordinary person in the street would expect.

8 Points of Law to be Addressed At Member State Level

8.1 Subsidiarity

8.1.1 It is assumed that the implementation of INSPIRE legal arrangements will be based on the subsidiarity principle. The application of this principle is particularly important for INSPIRE because, for example, of the variety of systems already in place in Member States for funding the acquisition of reference data.

8.1.2 The subsidiarity principle is intended to ensure that decisions are taken as closely as possible to the citizen and that constant checks are made as to whether action at European level is justified in the light of the possibilities available at national, regional or local level. *(source: EU website glossary).*

8.2 Liability & Fitness for Purpose

8.2.1 There are currently no rules set out in European legislation prescribing the extent to which a public authority should be liable in connection with the supply of environmental information. There is a variety of general consumer legislation, some common across Europe, but no clear indication of the extent to which consumer protection applies to the provision of information by public authorities.

8.2.2 In most countries, Fitness for Purpose or Fitness for Use is a legal concept, which recognises that claims concerning the performance of a product or service made by a supplier must be adequately met. In the context of this report, it refers to the measure of quality suitable and sufficient for the general purposes for which data and information are produced.

8.2.3 To provide a common framework it is recommended that:

- Public authorities supplying their information to the public should be exempt from any liability in connection with information supplied by them, provided that they take reasonable care in supplying correct copies of the original data to any third party, and any potential problems with accuracy are indicated when the data is supplied.

- Where information supplied in connection with a statutory obligation is in fact supplied as value added data it should not be possible to exclude fitness for purpose where such a purpose is the expressed purpose for the value added data.

- Spatial information supplied in a commercial service should be subject to normal commercial rules.

8.3 Implementation of Current & Forthcoming Directives

8.3.1 In the context of EC Directives, there are two separate issues to be considered:

- the question of full implementation by all Member States of Directives (such as Data Protection, for example) which have already been issued; and

- the meshing of Directives presently in the pipeline which are likely to be adopted and issued before those proposed as a part of the INSPIRE Initiative.

9 What will the INSPIRE Policy Framework Deliver?

9.1 When aligned with related directives, the INSPIRE statute will make a number of key differences to sharing and trading spatial information, including:

- It will deliver a charging framework for sharing and trading spatial information, which significantly increases the amount of spatial information available to the citizens of Europe.
- It defines key categories of data to which different policy strands apply.
- It creates an open mechanism for accessing and utilising without complexity local, regional, national and European geographic reference data as a basic foundation for displaying information
- It creates a right for the public to obtain copies of any primary (operational) data produced or acquired by a public authority.
- It facilitates improved delivery mechanisms and services in respect of the supply of spatial information held by public bodies, by allowing these services to be financed by customer charges in certain circumstances.
- It promotes the non-commercial re-supply of data in the interests of the wider dissemination of environmental and spatial information.
- It provides an institutional framework for public funds to be used in respect of those organisations that wish to re-supply the data in commercial products.

9.2 It therefore achieves the specific aim of creating a policy and legal framework for the establishment and operation of a spatial data infrastructure for Europe, for the purpose of formulation, implementation, monitoring and evaluation of Community policy making at local, regional, national and international level.

9.3 When implemented, the policies proposed in this report, when combined with EU proposals for regulating the exploitation of public sector information and the new Environmental Information Regulations, would achieve a paradigm shift in the way European geospatial data and information is disseminated, shared, traded and managed.

ANNEX A: MEMBERSHIP OF THE DATA POLICY AND LEGAL ISSUES WORKING GROUP

Working Group Members:

Stefan Carlyle (Chairman)	(UK)
Konrad Zirm	(Austria)
Gerda Schennach	(Austria)
Bernhard Weichel	(Germany)
Stefan Bjorkhammar	(Sweden)
Antonio Lucio Gil	(Spain)
Mario Caetano	(Portugal)
Nick Land	(Eurogeographics)

Technical Support & Secretariat

Heinz Bennat	(Germany)
Angelica Zapatero Lourinho	(Spain)
Derek Earnshaw	(UK Ordnance Survey)
Adrian Nuttall	(UK Environment Agency)
Mike Clark	(UK IGGI)

Shadow Members:

Patrice Geiger	(France)
Jitske de Jong	(Netherlands)
Antti Kosonen	(Finland)
Laila Aslesen	(Norway)
Juraj Valis	(Slovakia)
Adriana Gheorge	(EEA)
Bas Kok	(EUROGI)

Annex B: Outline Draft of a Possible Inspire Legal Instrument

Section A: DEFINITIONS

1. For the Purposes of this proposal:

Confidential in relation to Geographical Information means information which must be treated as confidential under national laws or legislation.

Data means a collection of facts, concepts or instructions in a formalised manner suitable for communication or processing by human beings or by a computer.

Environmental in relation to Data shall have the same meaning as "Environmental information" as defined in Directive 2001/...../EC of the European Parliament and of the Council on public access to Environmental information.

Geographical Information means Reference Data layered together with Environmental Thematic Data in such a way that Environmental information can be viewed in a geographical context but this expression does not include Reference Data in isolation from Thematic Data.

Full Costs Recovery means charges that comply with the maximum permitted charges in Article 7 of Directive 2002/ EC on the reuse and commercial exploitation of public sector documents**.**

Marginal Costs mean the additional costs over and above those of collecting the information for the original government policy purpose including costs of staff time, reasonably incurred in locating and retrieving the information, in investigating and assessing the applicability of any third party right to confidentiality and in giving effect to a requester's preferred medium for the reply and also the disbursements directly incurred in communicating the information.

Metadata mean structured Data about Geographical information held by Public Authorities that can be used to help support a wide range of operations including identification of the location, classes and types of such information of all kinds which generally falls into the following three categories a) Metadata necessary for data users to search locate and access data (Discovery Metadata) Metadata which is internal to an organisation to assist it to manage its data (Inventory Metadata) and c) Metadata which is a fuller description of the information resource that enables the users to assess the relevance and fitness for use of the data for any particular application (Use Metadata).

Personal Data shall have the same meaning as in the Data Protection Directive

Public Authority shall have the same meaning as in Directive 2001/...../EC of the European Parliament and of the Council on public access to environmental information.

Reference Data is Data necessary to identify the position of physical features (natural or man-made) as a source of Reference for displaying further information in a spatial context. In general terms, Reference Data is data which is basically application independent and which gives an objective view of the real world

Thematic Data comprise statistics or other information attached to Reference Data in order to display such information in a spatial context.

Value Added Data means primary Data which has been processed in some way to enhance its usefulness for a purpose external to the Public authority. This may involve restructuring of the original primary Dataset for some external purpose, or it may involve juxtaposing or merging the Data with other Datasets (others to be incorporated as required).

Section 2 DATA INFRASTRUCTURE

2) National Data Infrastructures

Member States shall ensure that appropriate legal, policy and organisational and administrative steps are taken to develop and establish a national data infrastructure in respect of Geographical Information by [2005?] suitable to implement the requirements of this Directive with reference in particular (but not exhaustively) to:

a) models,
b) standards,
c) technologies
d) specifications and
e) procedures

used to represent and accommodate the integration maintenance and use of Thematic Data and Reference Data.

Section C: STANDARDS

3) Metadata

Member States will ensure that Metadata:

a) are specified and assembled to existing ISO 19115 standard by [date]

b) includes by [date] all details of available documentation reasonably necessary to facilitate their identification, management and use across the Community which will include (where appropriate and without this list being exhaustive) information about:

- content,
- geographical extent
- currency
- location and accessibility
- contact details for further information about the data

4) Thematic Data

Member States will ensure that for all Geographical Information held by Public Authorities:

a) common data specifications, definitions and formats are introduced by [date] for the following eight thematic areas:

- water
- air and climate change
- land/soil
- nature/biodiversity
- noise
- waste
- utililities
- natural and technical hazards

b) adequate procedures for management of changes to data and datasets are introduced and maintained by [date]

c) adequate quality assurance procedures are introduced by [date] to ensure that data is suitable for the purpose for which it was created and for any other purposes to which the Public Authority in possession of the data positively promote.

d) Common quality standards and procedures for their use are introduced by [date] in respect of (inter alia):

- accuracy
- spatial accuracy
- temporal accuracy
- Thematic accuracy
- precision and resolution
- spatial resolution
- Thematic resolution
- consistency
- completeness

e) The standards and procedures outlined in paragraph d) shall be applied to all such data by [date]

5. Reference Data

Member states must ensure by [date] the availability of suitable reference data for use by public authorities and other users of data that:

a) is consistent and homogeneous at pan-European, cross-border, national regional and local levels,

b) includes the following elements to the extent necessary for the data to fulfil its purpose as Reference Data:

- units of administration
- units of property rights
- addresses
- selected topographic themes
- ortho-imagery
- geodetic reference system
- geographical names

Section D: RIGHTS OF ACCESS

6. Sharing Data Between Public Authorities

a) Member States will ensure that necessary measures are to ensure that all Public Authorities at local, regional, national and European level have access to Reference Data which may be conditional on licensing arrangements and or charging arrangements.

b) Member States will ensure that necessary measures are taken to ensure that that all Public Authorities at local, regional, national and European level have full access (including download and copying) by [date] to Geographical Information that is not confidential held by other such Public Authorities without charge where such access is requested for the purposes of assisting a Public Authority in carrying out its functions.
c) Member States will ensure that a harmonised licensing framework is introduced to facilitate and optimise the sharing of data between Public Authorities.

7 Basic Rights Of Access

Member States will ensure that:

a) Metadata are available to any person for access, viewing and copying without charge but this obligation need not require a Public Authority to make such Data available in more than one format if the format used is the Internet or otherwise reasonably accessible to the public.

b) Metadata are made available on the Internet by [date].

c) Any other Geographical Information held by Public Authorities that is not Confidential is available for any person to access or without charge view (but this does not include a right to download or copy free of charge). This obligation need not require a Public Authority to make such information available in more than one format if the format used is the Internet or otherwise reasonably accessible to the public.

d) Steps are taken to make Geographical Information held by Public Authorities that is not Confidential progressively available on the Internet.

8 Charging

None of these proposals shall authorise or require charges for Reference Data or Geographical information held by Public authorities to exceed Full Costs Recovery or, in respect of Geographical Information, to exceed the level of costs recovery permitted by Directive 2001/...../EC of the European Parliament and of the Council on public access to environmental information.

Member States will ensure that where the sharing of Reference Data or Geographical information between Public authorities is subject to a charge the pricing mechanism shall be limited to that required to ensure sustainable funding for the Public Authority creating the data or information.

Section E: REGULATORY CONTROL

9 Member States shall ensure that suitable arrangements are implemented to provide a means of regulatory control of the implementation of these proposals which must include the establishment of a single authority in each Member State independent of the public authorities to whom these proposals apply with appropriate regulatory responsibilities and the responsibility to co-ordinate relations with the European Commission.

Annex C: Institutional Arrangements and Decision-Making

C1 Decision-Making Procedures - Legal Instruments

C1.1 The Treaty of Rome names five different legal instruments which may be used in EU decision-making:

- Regulations
- Directives
- Decisions
- Recommendations and Opinions
- Resolutions

C1.2 **Regulations:** In EC terms, a Regulation is of "general application" and is therefore used very frequently. It is binding in its entirety and is directly applicable in all Member States. Regulations, therefore, do not have to be transposed into the laws of Member States and may be issued by either the Council of Ministers or by the Commission.

C1.3 **Directives and Daughter Directives:** A Directive is a legal instrument unique to the EU which requires Member States to enact laws or institute regulations which are binding "as to the result to be achieved", as set out in the Directive. It is sometimes called a Framework Directive. A Daughter Directive is a related extension, annex or amendment to the main Directive, often used to prescribe or specify details which the parent Framework Directive does not iterate. Each Member State is able to choose the form and method for enforcing a Directive. Usually, the Directive legislation will set a deadline by which time Member States should have taken the necessary steps at national level for its implementation.

C1.4 **Decisions:** EU Decisions are similar to Regulations in that they are binding in their entirety "upon those to whom they are addressed". They do not need any national implementing legislation and may be addressed to a Member State, a corporation or an individual. Decisions are often adopted in cases of business mergers.

C1.5 **Recommendations & Opinions:** Every EU institution has the power to publish its opinions on draft legislation or other issues, but they are not binding.

C1.6 **Resolutions**: The Council of Ministers and the European Council occasionally issue Resolutions, but these are a type of instrument not yet fully recognised. They are used to define a firm political will but they do not have actual legal force. The European Parliament also uses Resolutions as part of its process of issuing Opinions.

[source: Eubusiness]

C2 Decision-Making Procedures - Comitology

C2.1 Under the Treaty establishing the European Community, it is for the Commission to implement legislation at Community level (Article 202). In practice, each legislative instrument specifies the scope of the implementing powers granted to the Commission and how the Commission is to use them. Frequently, the instrument will also make provision for the Commission to be assisted by a committee.

C2.2 The proposed legislative act will follow a procedure which is known in terms of "comitology" as the regulatory procedure. The process is shown in Table 5. The regulatory procedure is used for measures of a general scope designed to apply, update or adapt essential provisions of basic legislative instruments, including measures concerning the protection of the health or safety of humans, animals or plants.

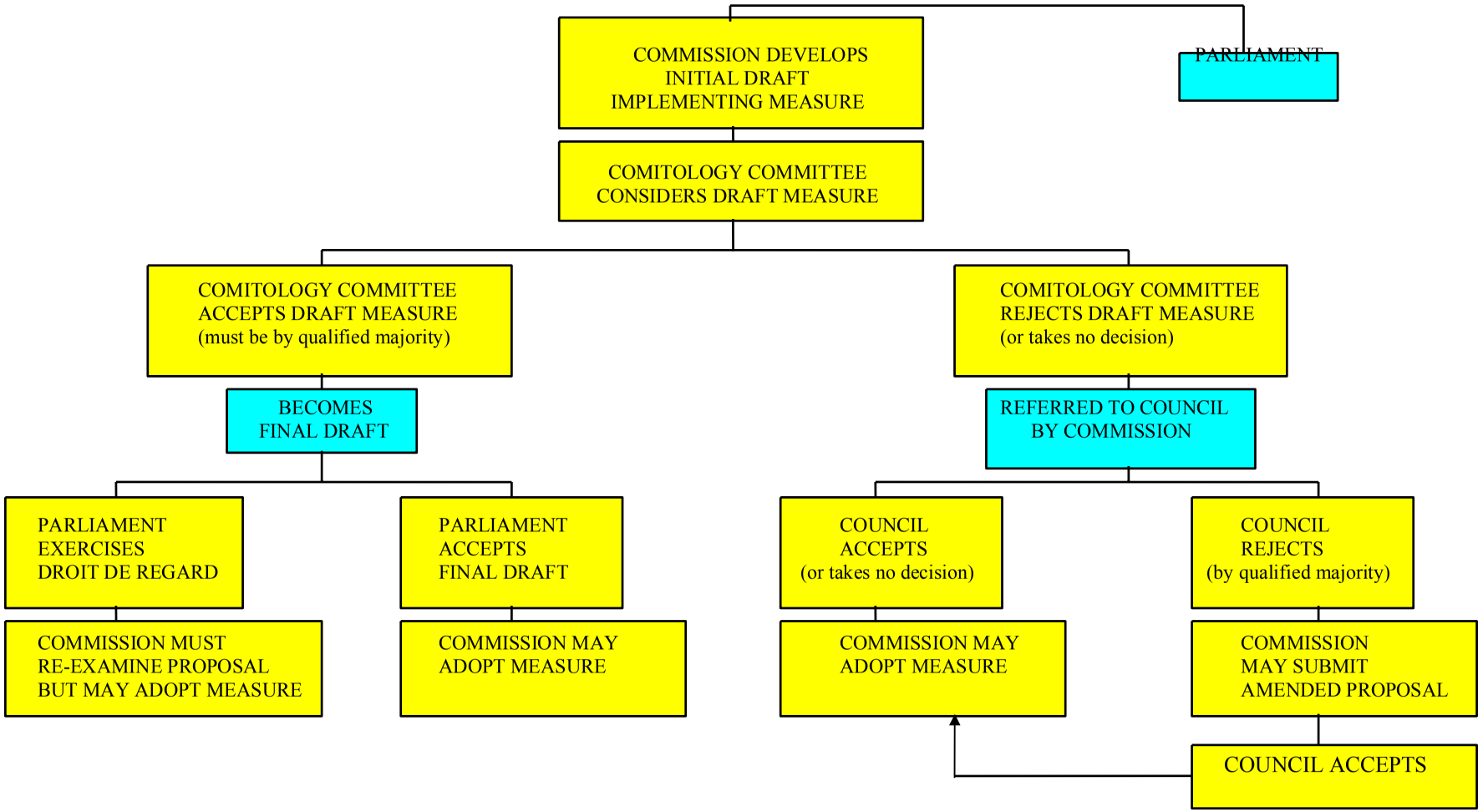
C2.3 Decisions are taken in the following way: The Commission submits to the Committee a draft of the measures to be taken. The Committee delivers its opinion within a certain time limit voting according to the Qualified Majority system. The Commission shall adopt the measures if they are in accordance with the committee's opinion.

C2.4 If the measures are not in accordance with the opinion of the committee, or if there is no opinion the Commission shall immediately make a proposal to the Council according to the terms of the Treaty, informing the European Parliament. If a Qualified Majority within the Council votes against the text proposed by the Commission, the Commission will have to re-examine it. The Commission may: resubmit its proposal, submit an amended proposal or present a legislative proposal.

C2.5 If, within a period of time to be determined in each basic act, the Council does not either adopt the measures proposed by the Commission or vote against them, the Commission can adopt them.

C2.6 If the European Parliament believes that the implementing measures the Commission wish to take exceeds the implementing powers provided for in the basic act, the Commission is then forced to re-examine its proposal but may adopt the measure in any event. Where the Commission lacks the agreement of the Committee and refers a proposal on implementing measures to the Council, the European Parliament will have a scrutiny right by receiving extensive information on Committee's procedures.

COMITOLOGY: THE REGULATORY PROCEDURE UNDER CO-DECISION



ANNEX D: Stepwise Actions And Population Of The Infrastructure

Action/target	short term		medium term		long term	
Define a hierarchy of topics and sub-topics	■					
Agree upon a set of common data sets	■					
Agree upon an over-aching data model	■					
Establish a data dictionary for commonly used legal objects, attributes, explanation texts, values etc for priority data sets (reference data, core thematic & environmental data)		■				
Countries/ agencies to load available data in catalogue		■	■			
Countries/ agencies to load preliminary data not necessarily complying with standard			■	■		
Make data set specifications for each dataset		■	■			
Countries/agencies to load simple data following standard & data set specifications				■	■	■
Countries/agencies to load complex data following standard & data set specifications						■

This figure shows the stepwise actions to populate the infrastructure, an outline for each data component or data set. Firstly, data models have to be developed and specific data sets to have be defined concerning content and quality. Metadata on existing data can be loaded early. Steadily better harmonisation and data quality is achieved, following defined targets for each thematic data component. Proposals for the two first actions/deliverables are contained in this document.

[source: ETC Working Group Position Paper]

ANNEX E: Licensing Intellectual Property Rights

Whilst the concept of licensing implies ownership and questions of copyright, which, in the context of INSPIRE, will involve the need for a harmonising process, it should also provide explicit statements of the rights and obligations of owners, providers, value-adders and users alike.

Figure E.1 below illustrates graphically the theory that it is with the copyright or IPR owner that a far-reaching decision-making process starts. Ownership, of course, may involve more than one set of rights - moral, authorship, commercial. etc. - but the decision as to how those rights should be deployed, used or disposed of rests in the first instance with the owner.

This hypothesis leads on to the concept of a framework in which access, permitted usage, charging rates, royalties and the obligations and responsibilities of the parties are defined.

It is essential, therefore, that policy and legislation takes this into account, ensuring that owners and rights holders of data and information are given the opportunity to decide (or at the very least, influence) the terms and conditions of such information sharing and trading which they carry out within a robust but transparent system of regulatory principles.

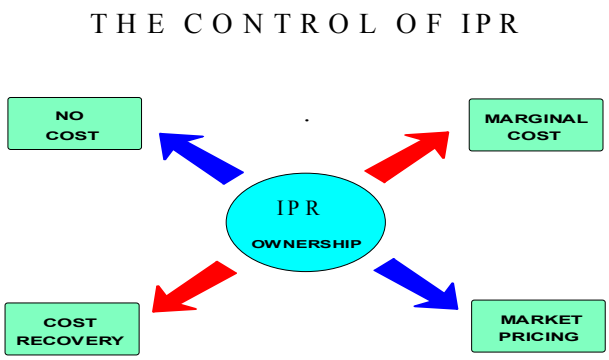


Figure E.1 The Financial Implications of Intellectual Property Rights Ownership

Intellectual Property Rights can be exercised by a public authority. There are variations in approach to this in the member states. If licences are to be granted by public authorities for use of spatial data or information, then some degree of consistency of terms is desirable: licensing need not be identical in each state, but it should involve common principles and guidelines.

It is proposed that such a framework should:

- Impose an obligation to supply information for any purpose * subject to basic licensing arrangements. Type of use would only be relevant to which type of licensing arrangement was needed.

- Make a distinction between a) personal use, b) commercial re-use for the internal purposes of a business (which would include usage to assist in marketing or in the development of products), and c) commercial re-use by means of supply to value added resellers, who pass on data or derived data as part of or in connection with a commercial product or service

- Simplify as far as possible licensing arrangements for personal use, and, for example, involve a software-style notice of terms and conditions that is deemed to be accepted ("shrink-wrap") or an arrangement like the UK "Click-Use" on-line licence for the use of Crown Copyright material. In this context licensing means IP licensing.

- Ensure that the scope of copyright applies uniformly throughout the EU. This is especially important in the context of maps and map products.

* subject in addition to confidentiality provisions and in compliance with the requirements of other EC Directives

There needs to be a common framework for the terms of such a licence. This should address such issues as:

- period and termination of licence (if appropriate)
- charging
- liability
- accuracy of data
- frequency of updates
- the position as regards data found subsequently to be inaccurate
- limitations of re-use (to keep with the scope of the licence)
- whether commercial products can be vetted and if so how
- how far products should identify the source of public data and any limitations in its quality
- whether the commercial user can claim to be endorsed by or be a partner of the public authority

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Annex F: References

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Annex G: Glossary And Notes

Aarhus: The UN/ECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters was adopted at Aarhus on 25th June 1998 and subsequently signed by all EU Member States and by the Community. It entered into force on 30th October 2001. Thirty-nine countries have since signed it.

Administration: Any organised body of government, whether local, regional, national or supra-national.

Architecture: The models, standards, technologies, specifications and procedures used to represent, transform and generally accommodate the integration, maintenance and use of information in digital format (*source: AST Working Group Position Paper*)

Bern Convention: An internationally-recognised and long-standing agreement on copyright.

Cadastre: A register of land holdings, constructed usually for taxation purposes.

Charging and Pricing: The term "charging" is used to indicate whether or not a charge is made. "Pricing" indicates the *level* at which it is made.

Click-Use Licence: A new form of online licence enabling access to a wide range of official information launched by the UK's HMSO (the custodian of Crown Copyright, which covers most central government information) in 2001.

Comitology: Comitology pertains to procedures for the exercise of the implementing powers conferred on the European Commission by Council Decision 87/373/EEC. In practice it covers the entire universe of EU committees. The committees are of many kinds, but in functional terms there are scientific, professional, thematic, and policy-making / implementing committees, which are composed of independent experts and representatives of interest groups, administrative and governmental organisations at EU and member State level. The committees thus operate both in the preparatory and in the implementing phases.

Commercial Data: Means data obtained in pursuance of commercial objectives or in connection with commercial services.

Commercial exploitation: Means the utilisation of public sector spatial information in commercial information products

Core Data: Sometimes used loosely to describe data which is central to a particular core purpose, but within the GI community it is usually held to be synonymous with Reference Data (see the ETeMII White Paper).

Cost Recovery: A variable financial concept which covers a range of contributions by the user / recipient to the supplier in respect of the cost of supplying a product. In a public sector information context, the term can be used to account for the data owner or supplier making up the difference between the full cost of producing and disseminating data, and any relevant grant or subsidy made available from central government funds. The ISF Working Group defines the cost recovery system as referring "to the user contributing to the costs of collection, updating, quality control, etc. not fully funded from elsewhere".

Data: A collection of facts, concepts or instructions in a formalised manner suitable for communication or processing by human beings or by a computer.

Data Owner: The individual, group or body which is responsible for a data set and who has legal ownership rights over it, even though that data set may have been collected, collated or disseminated by another party. In Data Protection terms, the expression equates to Data Controller.

Document: See box at section 4.2 above.

Emissions are defined in the Aarhus Convention and the Directive on Pollution Prevention. Emissions Data means information held by public authorities about the location, quantity or quality of emissions presented in aggregate form for specific periods of time or as statistics together with a brief description of the process from which the emissions come.

Environmental Information: The definition should be as used in the proposed Directive on access to environmental information (see box at 4.1 above) as and when it is finalised, assuming that the definitions therein remain unchanged. For the sake of clarity, environmental information held by a public authority should exclude commercial data as defined in this paper.

Free: May have one of two meaning, dependent on context. "Free flow", for example, usually means unimpeded or uninterrupted flow. "Free access", on the other hand, usually means free of charge. The expression "freely available" is generally considered somewhat ambiguous, as it could mean readily available or it could mean available without charge. Most non-lawyers, however, would normally understand it as having the former meaning.

Free public access: Refers to spatial information to which access is provided by public bodies free of charge or at marginal cost of supply for viewing or use by citizens of the European Union (and usually including NGOs, academia, and research institutes).

Full Cost: Full cost is the total cost of all the resources used in supplying a service, including the direct costs of producing the output, a full proportional share of overhead costs and any selling or distribution expenses. Cash costs, notional non-cash costs such as depreciation, inflation and the cost of capital are also included.

Geographic / Geospatial Information (GI): Information that is referenced in some way to the earth's surface, whether by co-ordinates or by geographic identifiers such as addresses or postcodes.

Intellectual Property: Intellectual Property Rights (IPR) cover four main areas: copyright, patent, design and trademarks. Rights normally accrue to the author of any original work of literature. music, art, design, photographs, computer programs, etc. or to the creator of any new invention, and provide a means by which the creator can control the copying and distribution of his work and gain income from it by licensing its use by others. The situation in respect of creative work carried out as an employee of an organisation or firm, however, may vary.

Internal Use: The use of spatial information exclusively within the originating public body, or shared among any public body at local, regional, national or international level.

Licence: A formal agreement setting out the terms and conditions under which a licensee may receive and use data, information and other material supplied to him/her by a licensor, who may not necessarily be the owner.

Marginal Costing: In economics, marginal cost is the amount by which total costs are changed if the volume of output is increased or decreased by one unit. For government information, marginal cost pricing relates to additional costs over and above those of collecting the information for the original government policy purpose. Marginal costs in the INSPIRE context are therefore defined as costs, including costs of staff time, reasonably incurred in locating and retrieving the information, and giving effect to a requester's preferred medium for the reply, which could be different from that in which the department or agency held it, and also the disbursements directly incurred in communicating the information (e.g. printing, postage, etc.)

Market Pricing: The broadest of all the pricing options, since it may be based on a judgmental decision by the data owner/controller involving business factors such as long-term strategy, resource deployment, profitability requirements and competitive demand, but also external political, economic, social and technological issues.

Memorandum of Understanding / Agreement: A document, usually consisting of signed heads of agreement on principles rather than details, which is recognised in law but is not binding upon the parties. It is a frequently used device in the UK public sector where two or more Crown bodies (certain government departments or agencies) wish to record the basis of a business relationship but cannot do so by means of a formal contract because the Crown is indivisible (*source: IGGI: Principles & Practice of Sharing and Trading Government Information*)

Metadata: Means "data about data" - structured data about data sets held by public authorities that can be used to help support a wide range of operations including identification of the location, classes and types of such information. It is the information and documentation which makes data understandable and sharable for users over time. Metadata exists both for data and for services, and is usually stored in catalogues which are accessible to applications and services via catalogue interfaces *(source: ISO11179 Annex B from AST Working Group Orientation Paper)*. A metadata profile compatible with ISO19115 must be developed: it will become mandatory inside the INSPIRE infrastructure (*source: RDM Working Group Position Paper).*

Personal Information: Should have the same meaning as Personal Data in the Data Protection Directive, but access to spatial and environmental information should not be excluded from the duty to disclose if it falls within certain parts of the definition of environmental information.

Pricing: see Charging and Pricing

Public Authority: The 2002 draft Directive on Access to Environmental Information defines public authority as: a) any government or other public administration 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, in relation to the environment under the control of a body or person falling within a) or b).

Reference Data: Reference data is data necessary to identify the position of physical features (natural or man-made) as a source of reference for the display of other information in a geospatial context. In general terms, Reference Data is data which is basically application independent and which gives an objective view of the real world. (*source: ETeMII and RDM Working Group*)

Royalties: Payments, usually based on volumes sold, by a third party re-user of data to the owner of the intellectual property rights to a data set. The precise terms are set out in a form of contract and/or licence agreement between the parties.

Schemas: Common data definitions which underpin transactions and processes that involve the interchange of data.

Spatial Data and Information: This is, of course, different from environmental information in that some spatial data may not be environmental and not all environmental data is spatial. The Water Framework Directive includes obligations regarding the format of spatial data but does not define the term. Depending on how the proposals for a Directive based on the INSPIRE programme develop, a specially framed definition may be needed.

Spatial Data Infrastructure: The SDI Cookbook defininition is "the relevant base collection of technologies, policies and institutional arrangements that facilitate the availability of and access to spatial data. An SDI includes geographic data and attributes, sufficient documentation (metadata), a means to discover, visualize, and evaluate the data (catalogues and web mapping) and some method to provide access to the geographic data. To make an SDI functional, it must also include trhe organizational agreements needed to co-ordinate and administer it on a local, regional, national or trans-national scale".

Standards: The ISO 19100 series of standards focuses mainly on the abstract models of services and information transfer. The OGC specifications go one step further and can be used for the implementation of services and information transfer (*source: AST Working Group Orientation Paper*).

Subsidiarity: The subsidiarity principle is intended to ensure that decisions are taken as closely as possible to the citizen and that constant checks are made as to whether action at Community level is justified in the light of the possibilities available at national, regional or local level. *(source: EU website glossary)*

Thematic Data: Application data such as environmental data.

Value Added Data: *Value-Added Data* is data which has been processed in some way to enhance its usefulness in areas of usage other than the original. This may involve a restructuring of the original dataset for some external purpose, or it may involve juxtaposing or merging the data with other datasets.