

**Public Sector Information
Economic Indicators
&
Economic case study on charging models**

Christopher Corbin
Facilitator

21st August 2010

**Public Sector Information
Economic Indicators & Economic case study on charging models**

Contents

Preface	3
DIAGRAM 1	6
Part 1: Public Sector Information - Economic Indicators	22 pages
Part 2: Public Sector Information - Economic Case study on Charging Models	6 pages

Vote of Thanks

Each of the experts that served on the working groups are thanked for their contributions and for their willingness to work in an open friendly but constructive way when debating and considering the topics under consideration during the numerous electronic interchanges that took place over the period March to May 2010. This has contributed to the successful outcomes reported on in this document regarding the preparatory support actions to assist the European Commission prepare the next steps with regards commissioning further economic research on the re-use of public sector information.

Thank you.

Chris Corbin
Working Group Facilitator
August 2010

Legal Disclaimer

This document and all material therein has been compiled with great care; however, the author, editor and/or publisher and/or any party associated with this work cannot be held liable in any way for the consequences of using the content of this document and/or any material referenced therein.

Public Sector Information
Economic Indicators & Economic case study on charging models

Preface

The European Commission (EC) reviewed the implementation of the Directive 2003/98/EC during 2008 and published a Communication¹ on the 7th May 2009.

The EC Communication included an action plan for both the EC and the European Union (EU) Member States to implement and strengthen the application of *the Directive* and reported that a further review would be undertaken by 2012.

The Communication on page 8 states:

“3) Charging

Public sector bodies should be transparent on the calculation basis they apply in terms of abiding by the upper limit for charges set by the Directive. Calculations should not be based on the total turnover of the public sector body, but on the individual databases or items concerned.

A recent study by Cambridge University is one of several to suggest that charging no or only marginal costs (costs of reproducing and disseminating documents) maximises PSI re-use and that the social and economic benefits far outweigh the immediate financial benefits of cost recovery. The PSI Directive recommends this approach in its Preamble. Marginal cost charging is also one of the key principles of the recently adopted OECD recommendation for Enhanced Access and More Effective Use of Public Information.

Further, continuous analysis of the economic case for marginal costs is a Commission priority for the future, to be carried out in cooperation with MS and stakeholders.”

The staff-working document that accompanied the Communication on page 5 states:

“2.1. Economic aspects

Recent studies indicate that the economic value of PSI is substantial, although measuring its value accurately is not a straightforward task.”

It is in this context that the European Commission has engaged itself to undertake research work towards:

1. The development of the appropriate economic indicators to monitor public sector information re-use over a period of time. These indicators will be used to undertake at least three measurements at six monthly intervals in the run up to the next review of the Directive 2003/98/EC that will take place in 2012.
2. Analysis of the costs and benefits of existing and alternative models for public sector information provision by Public Sector Bodies in the European Union. The different pricing policies to be covered would include:
 - a. Market price;
 - b. Cost recovery; and
 - c. Marginal cost.

The Commission commitment was then taken forward to the European Commission led PSI Group meeting held in Luxembourg on the 12th June 2009². The Commission proposal presented to the meeting in the session titled: *Economics of PSI/ Development of PSI Indicators/Charging Models* outlined the Commissions plans for taking forward the economic research commitment as stated in the Communication of May 2009. The Commission proposal in outline stated:

¹ http://ec.europa.eu/information_society/policy/psi/library/index_en.htm

² http://ec.europa.eu/information_society/policy/psi/facilitating_reuse/psigroup/index_en.htm

Public Sector Information
Economic Indicators & Economic case study on charging models

Establish Working Groups on:

- *Identification & development of relevant indicators to measure PSI re-use*
- *Economic case for marginal costs*

The approach proposed was:

- *To adopt a sectorial approach;*
- *Three to four Member States per Working Group;*
- *A Facilitator/expert per Working Group;*
- *At least 2 stakeholders representatives per Working Group;*
- *The European Commission to provide secretariat;*
- *There is a possibility of funding under the CIP Programme;*
- *Academic involvement in the working groups would be welcome.*

The meeting backed the proposal and a number of Member States volunteered to consider and take part in a further meeting to be arranged in the November 2009 timescale.

During October 2009 the Commission commissioned a facilitator as a preparatory action for the November 2009 meeting. The initial task of the facilitator (Christopher Corbin) was to provide two documents for the meeting titled:

- A review of indicators used in PSI studies
- A review of economic studies on PSI that consider marginal costs / cost recovery

The subgroup of the PSI Group meeting took place on the 12th November 2009 at the Commissions offices in Luxembourg. Mr. Javier Hernandez-Ros, Head of the Access to Information Unit, Information Society Directorate chaired the meeting. Nineteen participants attended the meeting:

- Seven came as representatives from the Member States' public sector administrations namely: The Czech Republic Finland, France, Greece, The Netherlands, Spain, and the UK.
- Five from pan European and Member State Representative bodies that included APPSI-UK, ASIEDIE-Spain, ECOMET, EuroGeographics, and the PSI Alliance.
- The remainder represented the private sector, experts, meeting facilitators, observers and Commission officials.

The meeting agreed subject to sufficient members volunteering to serve on each working group the following:

- Five working groups related to Economic Indicators:
 1. Address Information
 2. Cadastral Information
 3. Company Information
 4. Legal Information
 5. Meteorological Information
- A working group on the Economic case study on Public Sector Information charging models

During the months from November 2009 through to March 2010 the Commission together with the facilitator undertook further desk research, developed terms of reference for each working group and actively worked to recruit volunteers in sufficient numbers to make each working group viable. The recruitment process proved to be difficult and this resulted in two working groups not being taken forward namely the Legal Information and the Company Information working groups.

On the 23rd March 2010 the Commission initiated four working groups.

- Address Information Economic Indicators
- Cadastral Information Economic Indicators

Public Sector Information
Economic Indicators & Economic case study on charging models

- Meteorological Information Economic Indicators
- On the terms of reference for commissioning an Economic case studies on Public Sector Information charging models

The leaders of the working groups were as follows:

1. **Address Information:** Mr. Jim Wretham, The Office of Public Sector Information part of the National Archives, UK
2. **Cadastral information:** Mr. Dirk van Barneveld, Ministry of Housing, Spatial Planning and the Environment (VROM), Netherlands
3. **Meteorological Information:** Jointly led by the Mr. Richard Pettifer, Association of Private Meteorological Services (PRIMET) and Mr. René Hoenson, The Economic Interest Grouping of the National Meteorological Services of the European Economic Area (ECOMET)
4. **Economic case studies on PSI charging models:** Mr. Antii Eskola, Ministry of Employment and the Economy, Finland

Each of the working groups were active over the following periods:

- Address Information: 29th March 2010 to 6th May 2010.
- Cadastral Information: 29th March 2010 to 17th May 2010.
- Meteorological Information: 29th March to 7th May 2010.
- Charging models: 29th March 2010 to 10th May 2010.

The working groups operated electronically by email and there were no face-to-face meetings of the working groups. The documentation³ related to each working group has been published on the European Public Sector Information Platform.

A number of the members of the working groups subsequently participated and sat on the roundtables of the open public meeting held in Madrid on the 9th June 2010. The meeting enabled the working group members to raise and discuss with the audience and those remotely participating in the meeting the issues related to assessing the economic potential arising from the re-use of public sector information. The meeting was jointly organised by the European Public Sector Information Platform together with the Spanish [Aporta Project](#). The theme of the meeting⁴ was: “*Realising the value of Public Sector Information*”. The meeting developed the theme through four round tables titled:

- **Roundtable 1:** Overview of Europe’s Information Society Strategies: Best practices in policies to release the economic potential of PSI re-use. Do European level Information Society policies and strategies enable the economic potential of PSI re-use and how can these policies be used by the public and private sectors in PSI re-use?
- **Roundtable 2:** Turning PSI re-use in new business models and innovative services. What are the examples of innovative business models based on PSI re-use and how can they enhance economic benefit from liberated public sector information?
- **Roundtable 3:** Measuring the economic potential of PSI re-use. Can society sense the economic growth of PSI re-use?
- **Roundtable 4:** Social Value of PSI. How can new techniques and technologies liberate public sector information in ways that provide value for citizens and society and is this value understood by citizens?

All the documentation, videos and other associated materials from the meeting had all been published by the 12th August 2010. The materials are available in the English and Spanish languages.

This report prepared by the commissioned facilitator summarises the outcomes of the working groups in two parts:

Part 1: Public Sector Information: Economic Indicators

Part 2: Public Sector Information: Economic case study on charging models

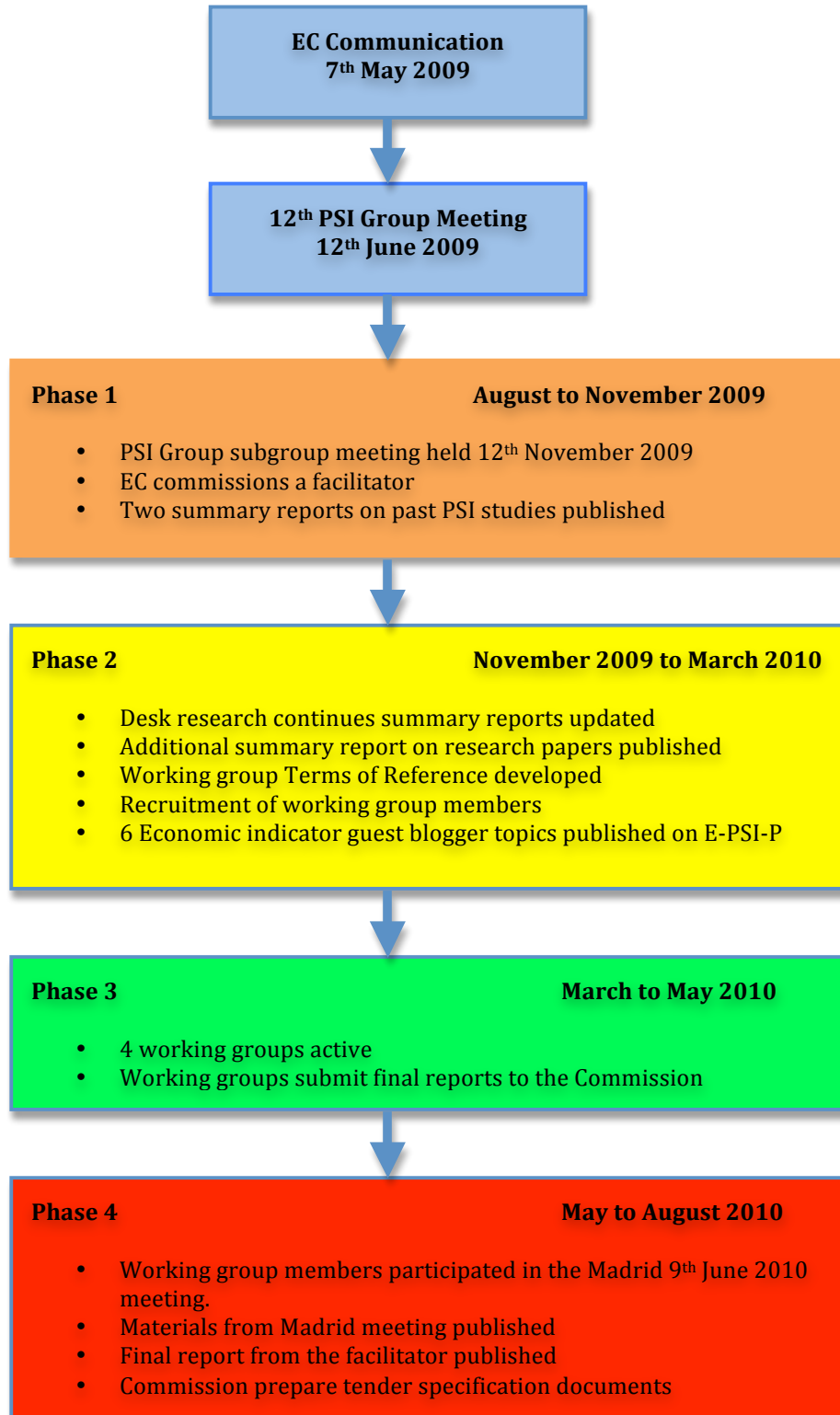
³ http://www.epsiplatform.eu/psi_library/reports/the_ec_public_sector_information_group_psi_group

⁴ http://www.epsiplatform.eu/news/events/epsiplatform_and_proyecto_aporta_meeting_2_psi_meeting_2010

Public Sector Information
Economic Indicators & Economic case study on charging models

DIAGRAM 1

Summary of the support preparatory process on commissioning further Economic studies on PSI



Part 1

Public Sector Information Economic Indicators

Part 1
Public Sector Information - Economic Indicators

Contents

Introduction	3
Economic Indicators recommended by the working groups.....	4
Address Information Working Group recommended indicators	4
Cadastral Information Working Group recommended indicators.....	4
Meteorological Information Working Group.....	4
Summary of changes between the Base Line indicators and the working group recommended indicators	4
Collation of the working groups recommend indicators	5
Consolidated list of working group recommended economic indicators.....	5
Analysis of the recommended economic indicators.....	6
Key economic indicators – Public Sector Bodies (The Supply side)	6
Number of licences issued/delivered/sold	6
Number of online subscribers to information.....	7
Level of income generated from the supply of data.....	8
Growth rate – for example: in customers, in requests, in bandwidth.....	9
Total income.....	10
Volume of downloaded information	11
Resource allocation	12
Key economic indicators – Re-users (The Demand side)	13
Financial Turnover (trend) of specific companies operating in a given thematic sector	13
The growth of products based on re-use of PSI in a given thematic sector.....	14
User confidence.....	15
Summary	16
Key economic indicators – Public Sector Bodies (The Supply side)	16
Key economic indicators – Re-users (The Demand side)	16
Conclusions	17
Annex 1: Base Line Indicators.....	18
Baseline Indicators: Address Information.....	18
Baseline Indicators: Cadastral Information	18
Baseline Indicators: Meteorological Information.....	18
Annex 2: Economic Indicators used in other economic studies	19
TABLE A2-1	19
TABLE A2-2	19
TABLE A2-3	20
Annex 3: Online publication of documentation	21
European Public Sector Information Platform	21
European Commission PSI portal.....	21
Annex 4 Working Group Membership.....	22

Part 1 Public Sector Information - Economic Indicators

Introduction

During the spring of 2010 the European Commission PSI Group formed a number of working groups to support the European Commissions preparation for commissioning one or more economic studies on the re-use of public sector information¹. The Membership of each working group appears at Annex 4 of this report. To assist the working groups the European Commission contracted a facilitator. This report provided by the facilitator summarises the combined outcome of the economic indicator working group deliberations.

The European Commission provided each working group with terms of reference that outlined the task to be performed. The terms of reference included for each of the economic indicator working groups a set of base line economic indicators. Annex 1 of this report lists the base line economic indicators provided to each working group established namely the Address Information, Cadastral Information and Meteorological Information working groups.

Rather than provide a generic list of economic indicators the European Commission provided a tailored set of economic indicators for each public sector information re-use sector. The European Commission under the auspices of the PSI Group convened a meeting on the 12th November 2009. The objective of the meeting was to consider how public sector information holders and re-users could support the European Commission prepare for the commissioning of one or more economic studies in the second half of 2010. To assist the November 2009 meeting the European Commission requested the commissioned facilitator to undertake a short review of economic studies related to public sector information that had been undertaken in the past. The summary report² provided by the facilitator contained a common list of indicators used by past studies. These are listed at Table A2-1 in Annex 2 of this document.

During February 2010 the facilitator reviewed nine papers related to the *Value of geographic Information* that were under peer review for publication in Volume 5 (2010) of the International Journal of Spatial Data Infrastructures Research (IJS DIR)³. The summary report⁴ produced contained a common list of indicators used in the nine papers. These are listed at Table A2-2 in Annex 2 of this document. Annex 2 also contains table A2-3 that provides a collation of Tables A2-1 and A2-2. Table A2-3 provides the frequency an economic indicator is used in research papers and economic studies.

Annex 2 Table A2-3 indicates that no common, standardised and uniform set of validated indicators have yet been identified to measure the re-use of public sector information. It is in this context that the European Commission has engaged itself to undertake⁵ research work towards the development of the appropriate economic indicators to monitor public sector information re-use over a period of time. These indicators will be used to undertake at least three measurements at six monthly intervals in the run up to the next review of the Directive 2003/98/EC that will take place in 2012.

One of the challenges faced in identifying economic indicators that are both stable over time and easy to measure when measuring the economic impact arising from the re-use of public sector information is handling change. For example the implementation of the re-use of public sector information framework as set out in Directive 2003/98/EC is continually evolving across the European Union (EU) Member States. As at the spring of 2010 when the working groups were active; the implementation of the framework has a considerable way to go before it is both harmonised within a EU Member State and across EU Member States, or indeed across a specific thematic information sectors such as Address Information, Cadastral Information or Meteorological Information.

¹ The documentation from the 12th November 2009 meeting and each of the working groups is available online as set out in Annex 3 of this report.

² *A review of indicators used in PSI studies* – version 4 (14 pages)

³ <http://ijsdir.jrc.ec.europa.eu/>

⁴ *A review of economic indicators referenced in the IJS DIR Volume 5 Value of Geographic Information papers* – Version 1. (8 pages)

⁵ As reported in the Commission's Communication published in May 2009.

Part 1
Public Sector Information - Economic Indicators

Economic Indicators recommended by the working groups

Address Information Working Group recommended indicators

Key economic indicators – Public Sector Bodies (The Supply side)

1. Number of licences issued
2. Number of online subscribers to information
3. Level of income generated by the sale and licensing of data

Key economic indicators – Re-users (The Demand side)

4. Financial Turnover (trend) of specific companies operating in the Address Information sector
5. The growth of products based on addressing information

Cadastral Information Working Group recommended indicators

Key economic indicators – Public Sector Bodies (The Supply side)

1. Growth rate (in customers, requests and/or bandwidth) Number of online subscribers to information
2. Total income
3. Number of online subscribers/licences

Key economic indicators – Re-users (The Demand side)

4. User confidence
5. Financial turnover

Meteorological Information Working Group

Key economic indicators – Public Sector Bodies (The Supply side)

1. Number of licences delivered/sold
2. Income from data supply
3. Volume of downloaded information
4. Resource allocation

Key economic indicators – Re-users (The Demand side)

5. Financial turnover (trend) of specific companies of the sector

Summary of changes between the Base Line indicators and the working group recommended indicators

TABLE 1

Working Group	Number of Base line Indicators provided	Indicators adopted by working group	Indicators added by working group	Indicators Modified by working group	Not adopted by working group
Address	4	3	1	1	-
Cadastral	5	3	1	1	-
Meteorological	4	3	2	-	1

Part 1
Public Sector Information - Economic Indicators

Collation of the working groups recommend indicators

Key economic indicators – Public Sector Bodies (The Supply side)

1. Number of licences issued
2. Number of online subscribers to information
3. Level of income generated by the sale and licensing of data
4. Growth rate (in customers, requests and/or bandwidth) Number of online subscribers to information
5. Total income
6. Number of online subscribers/licences
7. Number of licences delivered/sold
8. Income from data supply
9. Volume of downloaded information
10. Resource allocation

Key economic indicators – Re-users (The Demand side)

1. Financial Turnover (trend) of specific companies operating in the Address Information sector
2. The growth of products based on addressing information
3. User confidence
4. Financial turnover
5. Financial turnover (trend) of specific companies of the sector

Consolidated list of working group recommended economic indicators

Key economic indicators – Public Sector Bodies (The Supply side)

1. Number of licences issued/delivered/sold
2. Number of online subscribers to information
3. Level of income generated from the supply of data
4. Growth rate – for example: in customers, in requests, in bandwidth.
5. Total income
6. Volume of downloaded information
7. Resource allocation

Key economic indicators – Re-users (The Demand side)

1. Financial Turnover (trend) of specific companies operating in a given thematic sector
2. The growth of products based on re-use of PSI in a given thematic sector
3. User confidence

Part 1

Public Sector Information - Economic Indicators

Analysis of the recommended economic indicators

The Cadastral Information working group utilised a template to assess each indicator that the group recommended. The template has been adapted and used in the analysis that follows.

For ease of reading and assimilation each indicator is considered on a separate page.

Key economic indicators – Public Sector Bodies (The Supply side)

Number of licences issued/delivered/sold

Definition

The number of licences taken out over the period measured. A type of licence may vary and range from a bespoke licence, a standard licence, a click-use-licence, a non-transactional licence for example.

Advantages

Easy to measure and obtain if a transactional licensing model is in place.

Disadvantages

Not all public sector bodies have a licensing model in place and as such this indicator could not be used.

A licensing model maybe in place:

- But if the licence is non-transactional then no statistical data will be available. If the non-transactional licence is an attribute licence then it maybe possible to search for attributions.
- Licensees come in different sizes. If the size is known then the indicator could be adjusted for size of licensee.
- Licences maybe for specific purposes such as non-commercial re-use or commercial re-use.

Other observations

Where a licensing model is in place these may vary and care needs to be taken when making comparisons to ensure any comparisons are made where a similar license is in use.

Ascertaining the number of licences does not provide a direct economic value. The measurement provides a level of re-use which then would need to be enhanced through the acquisition of supporting economic data through the means of surveys and questionnaires.

Breadth of value chain covered by indicator

Where a licensing model is in place the breadth of the value chain covered by the indicator will vary dependent upon the licence used and whether the licence requires the licensee to inform the licensor on subsequent down stream re-use.

In general the indicator will measure the first set of re-users downstream of the public sector body supplying the information.

Part 1
Public Sector Information - Economic Indicators

Number of online subscribers to information

Definition

The number of online subscribers over the period of measurement.

Advantages

Easy to measure and obtain if subscribers are required to register.

Disadvantages

Not all public sector information is available online. Offline media maybe utilised such as DVD for example.

Not all public sector bodies require a subscriber to register as such no statistical data will be available

Subscribers come in different sizes. If the size is known then the indicator could be adjusted for size of subscriber. A subscriber maybe incorporating the public sector information in value added online services that have many downstream users.

Other observations

Ascertaining the number of subscribers does not provide a direct economic value. The measurement provides a level of re-use which then would need to be enhanced through the acquisition of supporting economic data through the means of surveys and questionnaires.

Breadth of value chain covered by indicator

In general the indicator will measure the first set of re-users downstream of the public sector body supplying the information.

Part 1
Public Sector Information - Economic Indicators

Level of income generated from the supply of data

Definition

Level of income from licences over the period of measurement

Advantages

Easy to measure where licences and charging models are in place.

Disadvantages

Not all public sector bodies use licences and are/or charge for the information.

The indicator does not provide an economic value.

Other observations

Although there are limitations to the use of this indicator it does provide a method of monitoring the effect of changes in charges over time.

Breadth of value chain covered by indicator

In general the indicator will measure the first set of re-users downstream of the public sector body supplying the information.

Part 1

Public Sector Information - Economic Indicators

Growth rate – for example: in customers, in requests, in bandwidth.

Definition

The growth rate as a percentage over the period measured.

- Customers could be defined as number of licensees where licences are used;
- Requests such as the number of searches, views, downloads;
- Bandwidth in Mega Bytes.

Advantages

Easy to measure, easy to obtain and reasonably stable over time. Growth differences between countries are easier to compare than absolute numbers. By concentrating on growth rates differences in definitions of information, customers, requests and bandwidth between countries are less important.

Disadvantages

Customers come in different sizes. To address this issue the indicator could be adjusted for size of customer if known. Some countries (e.g. Spain) do not licence cadastral public sector information, but make it freely available. Growth rate in customers cannot be measured in these countries.

Types of request and the method for data transfer can change over time influencing the number of requests and/or bandwidth without representing a real change in use.

Other observations

A breakdown in customer types (commercial, not-for-profit, private) could be insightful. As an alternative or in addition to growth rates the number of customers, requests and bandwidth could also be indexed (2010 = 100) making changes over time easily identifiable.

Breadth of value chain covered by indicator

In general the indicator will measure the first set of re-users downstream of the public sector body supplying the information.

Part 1
Public Sector Information - Economic Indicators

Total income

Definition

Total income received for the information in Euros.

Advantages

Easy to measure, obtain and to a lesser extent stable over time if the public sector information is not free of charge.

Disadvantages

Some public sector bodies make their data available without a financial charge and as such the indicator could not be used.

Other observations

To make this indicator more comparable between Member States total income could be presented as total income per capita.

Breadth of value chain covered by indicator

In general the indicator will measure the first set of re-users downstream of the public sector body supplying the information.

Part 1
Public Sector Information - Economic Indicators

Volume of downloaded information

Definition

The quantity of information downloaded over the period of measurement

Advantages

Easy to measure and obtain where the public sector body compiles this data.

Disadvantages

Not all public sector information is available online. Offline media maybe utilised such as DVD for example to pass the data to the re-user.

The downloaded information may not be re-used.

Other observations

The measurement does not directly provide an economic value. The measurement provides a level of re-use which then would need to be enhanced through the acquisition of supporting economic data through the means of surveys and questionnaires.

Breadth of value chain covered by indicator

In general the indicator will measure the first set of re-users downstream of the public sector body supplying the information.

Part 1
Public Sector Information - Economic Indicators

Resource allocation

Definition

The number of staff employed in the creation/maintenance/managing public sector information.

The financial resources allocated to the creation/maintenance/managing public sector information

Advantages

Easy to measure and obtain where the public sector bodies account for the resource allocation and/or resource usage.

Disadvantages

Not all public sector bodies publish annual reports containing allocation of resources deployed.

Where public sector bodies do provide annual reports they may not differentiate between the resources allocated to the public task and those where value is added.

Other observations

Resources may change over time and these changes may impact the re-use of public sector information held. For example reduction due to other changes for example the use of new technology, placing the public sector information online for direct download.

Breadth of value chain covered by indicator

The indicator is measuring the public sector information holder and as such does not cover the downstream value chain of the public sector body that is the subject of the measurement.

Part 1
Public Sector Information - Economic Indicators

Key economic indicators – Re-users (The Demand side)

Financial Turnover (trend) of specific companies operating in a given thematic sector

Definition

Financial turnover in Euros of specific companies of the sector

Advantages

If the data can be collected, it does provide very valuable information. Stable over time.

Disadvantages

The indicator is very difficult to measure and to obtain. Public Sector information is often re-used in combination with other data. It is difficult to separate the added value of the PSI. Nevertheless, a change in turnover of products partially based on PSI probably does bear some significance.

It is questionable whether companies are willing to share their turnover data due to commercial sensitivity.

Other observations

This indicator might be useful on an overall PSI level. The total turnover of companies classified as Eurostat NACE 63.99 is easily obtained.

Breadth of value chain covered by indicator

Dependent upon the number of companies involved in the measurement the indicator could cover a broad section of the downstream value added chain of the public sector bodies supplying the information.

Part 1
Public Sector Information - Economic Indicators

The growth of products based on re-use of PSI in a given thematic sector

Definition

The number of products offered by companies that incorporate public sector information.

Advantages

Easy to measure and obtain.

Disadvantages

The change is likely to be slow moving as it takes time to bring new products and services to the market.

Other observations

Products maybe replaced or no longer provided as such care would need to be exercised in how the measurement is used.

The measurement does not directly provide an economic value. The measurement provides a level of re-use which then would need to be enhanced through the acquisition of supporting economic data through the means of surveys and questionnaires.

Breadth of value chain covered by indicator

Dependent upon the number of companies involved in the measurement and the range of products and services identified the indicator could cover a broad section of the downstream value added chain of the public sector bodies supplying the information.

Part 1
Public Sector Information - Economic Indicators

User confidence

Definition

User confidence in the market for re-use of public sector information

Advantages

Easy to measure and obtain if a simple operationalisation could be found. The indicator should also be stable over time.

Disadvantages

User confidence tends to overestimate factual trends.

Other observations

Although this indicator does show promise, it needs operationalisation. A very basic solution could be to ask companies for their market expectations? For example: Very bad, Bad, Neutral, Good, Very good.

Breadth of value chain covered by indicator

In general the indicator will measure the first set of re-users downstream of the public sector body supplying the information.

Part 1
Public Sector Information - Economic Indicators

Summary

The following table summarises the indicators recommended by the working groups.

Key economic indicators – Public Sector Bodies (The Supply side)

TABLE 2

Indicator	Provides a direct economic value	Breadth of value chain covered	Easy to Measure?	Sensitivity to change
Number of licences issued/delivered/sold	No	Immediate down stream	Yes	Moderate
Number of online subscribers to information	No	Immediate down stream	Yes	Moderate
Level of income generated from the supply of data	Yes	Immediate down stream	Yes	Moderate
Growth rate – for example: in customers, in requests, in bandwidth.	No	Immediate down stream	Yes	Moderate
Total income	Yes	Immediate down stream	Yes	Moderate
Volume of downloaded information	No	Immediate down stream	Yes	Moderate
Resource allocation	Partially	Not covered	Yes	Moderate

Key economic indicators – Re-users (The Demand side)

TABLE 3

Indicator	Provides a direct economic value	Breadth of value chain covered	Easy to Measure	Sensitivity to change
Financial Turnover (trend) of specific companies operating in a given thematic sector	Yes	Potentially broad	No due to commercial sensitivity	Good
The growth of products based on re-use of PSI in a given thematic sector	No	Potentially broad	Yes	Good
User confidence	No	Immediate down stream	No as requires a survey to be undertaken	Good

Part 1 Public Sector Information - Economic Indicators

Summary and Conclusions

Twenty organisations participated voluntarily in the working groups that were distributed across the following sectors:

Association: Pan European	2
Association: National	2
Public Sector organisations	9
Private Sector organisations	4
Academic/Research organisations	2
Civil Society organisations	1
Total	20

Four of the organisations involved represented Associations and as such the views expressed may well have covered the broad spectrum of each Associations membership. The three private sector Associations involved are Members of the PSI Alliance.

The public sector bodies involved were based in 5 EU Member States: Denmark, France, Netherlands, Spain, and the UK. The private sector bodies involved were all Members of the PSI Alliance. The private companies involved were operational in a range of Member States from one through to all 27. As such this provided a broad range of operational experience across the European Union.

Although the numbers of organisations overall was small the range of differences within the public sector organisations highlighted the issues to be considered when identifying economic indicators related to measuring the economic impact from re-using public sector information. It was also apparent that some of the organisations involved in the working groups on the public sector side provided some information the information that they held at no financial charge, other information incurred a charge, some information required a licence other information did not. This highlights the need to be careful when using the recommended economic indicators on the supply side especially at an organisational level. As a result the measurements may need to be related to specific data and information and this may give rise to variability across public sector bodies providing similar data and information.

Of the 10 indicators recommended (7 on the supply side and 3 on the demand side) only three provided a direct economic measure. All the other indicators required additional information in order to arrive at an economic value. If the intention is to undertake regular measurements at specific intervals in time then only three indicators providing an economic value and as such were usable. The other 7 indicators could be used but there would be a need to establish a model that converted easily and responsively the values obtained into an economic value. The robustness of the conversion model will determine how realistic the economic value arrived at is and whether that value is acceptable to the various parties involved in the re-use of public sector information. The model itself would be sensitive to change and would need to be continually maintained. Indirect economic indicators have not been considered. For example a private company will require other services and products in order to operate and this consumption stimulates the economic activity.

The indicators recommended on the demand side were considered to be far more stable (albeit that the value of each measurement maybe changing) than the indicators on the supply side. As the supply side moves towards a cost effective implementation of the public sector information re-use framework changes over the medium to long time frame (3 to 5 years) are likely to be evident. For example where licences are used – the move to attribute licences. As such the indicators used will need to change in the medium to long term.

A further issue arising from the recommended indicators on the supply side is that they maybe measuring value added products rather than the raw data.

The ease of obtaining the data required for the measurements ranged from the very easy through to very difficult. The Spanish Cadastre is an example of the former where the statistics are published online regularly and as such are very easy to monitor.

Part 1
Public Sector Information - Economic Indicators

Annex 1: Base Line Indicators

The base line indicators provided to each working group to consider as at 29th March 2010 were as follows.

Baseline Indicators: Address Information

The following indicators have been provided as a baseline for initial discussion and debate. The group may (should) refine these indicators or replace them with others.

1. Indicators Public Sector Bodies (Supply side)

- Number of licences delivered/sold
- Number of online subscribers to information
- Financial data supply income

2. Indicators Re-users (Demand side)

- Financial turnover (trend) of specific companies of the sector

Baseline Indicators: Cadastral Information

The following indicators have been provided as a baseline for initial discussion and debate. The group may (should) refine these indicators or replace them with others.

1. Indicators Public Sector Bodies (Supply side)

- Number of licences delivered/sold
- Number of online subscribers to information
- Financial data supply income
- Total income (not at product level which might be commercially sensitive).

2. Indicators Re-users (Demand side)

- Financial turnover (trend) of specific companies of the sector

Baseline Indicators: Meteorological Information

The following indicators have been provided as a baseline for initial discussion and debate. The group may (should) refine these indicators or replace them with others.

1. Indicators Public Sector Bodies (Supply side)

- Number of licences delivered/sold
- Number of online subscribers to information
- Financial data supply income

2. Indicators Re-users (Demand side)

- Financial turnover (trend) of specific companies of the sector

Part 1
Public Sector Information - Economic Indicators

Annex 2: Economic Indicators used in other economic studies

TABLE A2-1 is the summary of indicators that appears on page 14 of the report titled: *A review of indicators used in PSI studies* – version 4 that was tabled at the PSI Group working group meeting on economic indicators held on the 12th November 2009 in Luxembourg.

TABLE A2-1

Indicator	Study	Occurrences
Data: supply income	MICUS, OFT, MEPSIR, PIRA	4
Staff: Number employed	MICUS, AKSEDO, MEPSIR	3
Procurement: Annual PSI cost	MICUS, MEPSIR, PIRA	3
Organisations financial turnover	BGS, PIRA, MEPSIR	3
Licences: Number of	OFT, MEPSIR, PIRA	3
Web server statistics (traffic) (Portal)	MICUS, PIRA	2
Producer: Surplus	CAMBRIDGE, OFT	2
Customer numbers	CAMBRIDGE, MEPSIR	2
Unrefined revenue	OFT	1
Staff: Number employed in information production and dissemination	MEPSIR	1
Size of market	MEPSIR	1
Revenue by activity	CAMBRIDGE	1
Revenue (current)	OFT	1
Refined revenue	OFT	1
Proportion of revenue from sales to government	CAMBRIDGE	1
Number of requests received	MICUS	1
Number of registered Users on portal	MICUS	1
Licences: Income from	OFT	1
Data: PSI acquisition volume	MICUS	1
Data: Download volume	MICUS	1
Cost: Sales and Marketing	CAMBRIDGE	1
Cost: Data production	CAMBRIDGE	1
Cost: Data distribution	CAMBRIDGE	1

Summary of economic indicators referenced in all IJSDIR papers

TABLE A2-2 is the summary of indicators that appears on page 7 of the report titled: *A review of economic indicators referenced in the IJSDIR Volume 5 Value of Geographic Information papers* – Version 1.

TABLE A2-2

Indicator	Referenced in papers	Number of occurrences
Financial Income	3, 6, 7	3
Number of people employed	1, 2, 7	3
Financial turnover	1, 2	2
Transaction costs	9	1
Licences	6	1
Financial expenditure	3	1
Time saved	2	1
Hourly rate of pay for staff	2	1

The Collation of the economic indicators listed in Table's A2-1 & A2-2 is shown at Table A2-3.

Part 1
Public Sector Information - Economic Indicators

TABLE A2-3

Indicator	TABLE 1 Occurrences	TABLE 2 Occurrences	Total Occurrences
Staff: Number employed	3	3	6
Organisations financial turnover	2	3	5
Data: supply income	-	4	4
Licences: Number of	1	3	4
Total income	3	-	3
Procurement: Annual PSI cost	-	3	3
Producer: Surplus	-	2	2
Customer numbers	-	2	2
Financial expenditure	1	-	1
Web server statistics (traffic) (Portal)	-	2	1
Unrefined revenue	-	1	1
Staff: Number employed in information production and dissemination	-	1	1
Size of market	-	1	1
Revenue by activity	-	1	1
Revenue (current)	-	1	1
Refined revenue	-	1	1
Proportion of revenue from sales to government	-	1	1
Number of requests received	-	1	1
Number of registered Users on portal	-	1	1
Licences: Income from	-	1	1
Data: PSI acquisition volume	-	1	1
Data: Download volume	-	1	1
Cost: Sales and Marketing	-	1	1
Cost: Data production	-	1	1
Cost: Data distribution	-	1	1
Transaction costs	1	-	1
Time saved	1	-	1
Hourly rate of pay for staff	1	-	1

Part 1
Public Sector Information - Economic Indicators

Annex 3: Online publication of documentation

European Public Sector Information Platform

The materials from the 12th November 2009 meeting and each of the working groups have been published on the European Public Sector Information Platform (E-PSI-P) at the following URL's:

PSI Group Meetings 2009

http://www.epsiplatform.eu/psi_library/reports/the_ec_public_sector_information_group_psi_group/psi_group_meetings_2009

PSI Working Group on PSI Measurement Indicators – Address Information

http://www.epsiplatform.eu/psi_library/reports/the_ec_public_sector_information_group_psi_group/psi_working_group_on_psi_measurement_indicators_address_information

PSI Working Group on PSI Measurement Indicators – Cadastral Information

http://www.epsiplatform.eu/psi_library/reports/the_ec_public_sector_information_group_psi_group/psi_working_group_on_psi_measurement_indicators_cadastral_information

PSI Working Group on PSI Measurement Indicators – Meteorological Information

http://www.epsiplatform.eu/psi_library/reports/the_ec_public_sector_information_group_psi_group/psi_working_group_on_psi_measurement_indicators_meteorological_information

PSI Working Group on PSI Measurement Indicators – Company Information

http://www.epsiplatform.eu/psi_library/reports/the_ec_public_sector_information_group_psi_group/psi_working_group_on_psi_measurement_indicators_company_information

PSI Working Group on PSI Measurement Indicators – Legal Information

http://www.epsiplatform.eu/psi_library/reports/the_ec_public_sector_information_group_psi_group/psi_working_group_on_psi_measurement_indicators_legal_information

PSI Working Group on the Economic Case for Marginal Cost/Cost Recovery

http://www.epsiplatform.eu/psi_library/reports/the_ec_public_sector_information_group_psi_group/psi_working_group_on_the_economic_case_for_marginal_cost_cost_recovery

European Commission PSI portal

The European Commission has published the following documents:

Results of the Working groups

http://ec.europa.eu/information_society/policy/psi/facilitating_reuse/economic_analysis/index_en.htm

Part 1
Public Sector Information - Economic Indicators

Annex 4: Working Group Membership

Address Information

1. Asociación Multisectorial de la Información, Spain
2. Directorate General for Cadastre, Spain
3. Erhvervs- og Byggestyrelsen (EBST), Denmark
4. Intelligent Addressing, UK
5. NAVTEQ
6. OpenAddresses Organisation
7. The Office of Public Sector Information part of The National Archives, UK
8. Tracasa, Spain

Cadastral Information

1. Agence du patrimoine immatériel de l'État, France
2. Bisnode, Sweden
3. Cadaster, France
4. Directorate General for Cadastre, Spain
5. Fondazione Rosselli, Italy
6. Geokomm - Verband der GeoInformationswirtschaft Berlin/Brandenburg, Germany
7. Institut géographique national, France
8. Kadaster, Netherlands
9. Landmark Information Group, UK
10. Ministry of Housing, Spatial Planning and the Environment, Netherlands
11. Technical University Delft, Netherlands

Meteorological Information

1. Association of Private Meteorological Services (PRIMET)
2. The Economic Interest Grouping of the National Meteorological Services of the European Economic Area (ECOMET)

Consolidated List of Organisations

1. Agence du patrimoine immatériel de l'État, France
2. Asociación Multisectorial de la Información (ASEDIE), Spain
3. Association of Private Meteorological Services (PRIMET)
4. Bisnode, Sweden
5. Cadaster, France
6. Directorate General for Cadastre, Spain
7. Erhvervs- og Byggestyrelsen (EBST), Denmark
8. Fondazione Rosselli, Italy
9. Geokomm - Verband der GeoInformationswirtschaft Berlin/Brandenburg, Germany
10. Institut géographique national, France
11. Intelligent Addressing, UK
12. Kadaster, Netherlands
13. Landmark Information Group, UK
14. Ministry of Housing, Spatial Planning and the Environment, Netherlands
15. NAVTEQ
16. OpenAddresses Organisation
17. Technical University Delft, Netherlands
18. The Economic Interest Grouping of the National Meteorological Services of the European Economic Area (ECOMET)
19. The Office of Public Sector Information part of The National Archives, UK
20. Tracasa, Spain

Part 2

Public Sector Information Economic Case study on Charging Models

Part 2
Public Sector Information – Economic Case Study on charging models

Contents

Introduction	3
Recommendation of the working group	3
Summary and Conclusions	4
Annex 1: Base Line Terms of Reference for study	5
Annex 2: Online publication of documentation	6
European Public Sector Information Platform	6
European Commission PSI portal.....	6
Annex 3: Working Group Membership	6

Part 2

Public Sector Information – Economic Case Study on charging models

Introduction

During the spring of 2010 the European Commission PSI Group formed a working group to support the European Commissions preparation for commissioning one or more economic studies on the re-use of public sector information¹. The Membership of the working group appears at Annex 3 of this report. To assist the working group the European Commission contracted a facilitator. This report provided by the facilitator summarises the outcome of the economic case study on public sector information charging models working group deliberations.

The European Commission provided the working group with terms of reference that outlined the task to be performed. The terms of reference included for the economic case study on public sector information charging models working group a draft terms of reference for commissioning a study. Annex 1 of this report presents the draft terms of reference provided to the working group.

The European Commission under the auspices of the PSI Group convened a meeting on the 12th November 2009. The objective of the meeting was to consider how public sector information holders and re-users could support the European Commission prepare for the commissioning of one or more economic studies in the second half of 2010. To assist the November 2009 meeting the European Commission requested the commissioned facilitator to undertake a short review of economic studies related to public sector information that had been undertaken in the past. The summary report² provided by the facilitator concluded that:

“At the current time there are a limited number of studies and papers that deal specifically with the economics of public sector information and a marginal cost regime and those that do exist recommend further research is undertaken on specific examples where a public body has moved towards marginal cost pricing. It is suggested by some economists that by examining specific examples of public sector bodies that the evidence base would be built up that would assist in applying the economic theory that for public sector information a marginal cost regime (or no cost) would maximise the wealth from the investment in the PSI.”

Recommendation of the working group

The working group considered the three broad pricing models of *Market Value*, *Cost Recovery* and *Marginal Cost* proposed by the Commission within the terms of reference for the economic case study of PSI charging models. The working group debate highlighted the wide variance that currently exists across Member States and across public sector bodies ranging from - no charge (Free) through to full cost recovery plus a return on investment. Evidence also was available that even within one public sector body different charging models were utilised for different data sets and this raised the question as to whether the study would best be carried out at an organisational level or a data set category level. This point then led to a debate on whether one was comparing like with like whether at an organisational level or a data set level. The term *Market Value* was questioned in the context of a public sector body that was in effect a pseudo monopoly that faced no competition. These topics of debate then raised the question as to how would the envisaged economic study handle this variance even within a small set of PSI domains.

With the above points in mind the working group then considered whether the breadth of charging models that the economic study would embrace should be narrowed. There was no clear consensus within the group on this particular point and the approach of first commissioning a number of case studies on the charging models currently used by the public

¹ The documentation from the 12th November 2009 meeting and each of the working groups is available online as set out in Annex 2 of this report.

² A review of economic studies on PSI that consider marginal costs / cost recovery – version 1 (9 pages)

Part 2

Public Sector Information – Economic Case Study on charging models

sector bodies was agreed to be beneficial and would help in defining the various charging models.

The working group decided to leave the three pricing models as in the original draft for the economic study even though the working group had doubts on these models, as it was understood that the study would provide general indications on benefits and costs of the three pricing models. It was also pointed out that valuable information could be gained by observing economic impacts in cases where charging policy had recently been changed.

Summary and Conclusions

Six organisations participated voluntarily in the working groups that were distributed across the following sectors:

Association: Pan European	-
Association: National	1
Public Sector organisations	4
Private Sector organisations	1
Academic/Research organisations	-
Civil Society organisations	-
Total	6

One of the organisations involved represented Associations and as such the views expressed may well have covered the broad spectrum of each Association's membership.

The public sector bodies involved were based in 4 EU Member States: Finland, France, Spain, and the UK. The private company involved was operational in one Member State.

The working group members found it difficult to encourage public sector bodies to agree to participate in the economic study for a range of reasons. Even though this was the case the group has obtained the agreement in principle of a small number of public sector bodies within Denmark, France, the Netherlands, Spain and the UK and these are listed in Annex 1 of this report.

In spite of considerable challenges related to unambiguously defining the pricing models to be studied and great differences in PSI market conditions in different Member States, the group wishes the study the best of success in providing general indications on the benefits and costs of the pricing models. The working group will assist in further preparation of the study wherever it can.

Part 2
Public Sector Information – Economic Case Study on charging models

Annex 1: Base Line Terms of Reference for study

The base line terms of reference for commissioning the study provided to the working group to consider as at 29th March 2010 was as follows.

- Tender Title;

Assessment of different models of supply and charging for public sector information in the EU

- Purpose of study:

The assessment study is to provide input to the European Commission, Member States and Stakeholders on the charging policies and provision of public sector information by public sector bodies. It aims to provide a cost benefit analysis on the different models of supply and charging for public sector information by Governments.

The study should analyse the costs and benefits of existing and alternative models for public sector information provision by Public Sector Bodies in the EU. The different pricing policies to cover should include i) market price; ii) cost recovery and iii) marginal cost.

- The assessment should assess for each model:

Undertake up to 6 short case studies (two per pricing model) of public sector bodies facilitated via face-to-face meetings with the contracted Economist.

- The economic costs and benefits to both the producer and consumers

This will probably include: an analysis of the impact on Public Sector Bodies' income, costs and return if any to Governments; taking account of the impact on their business model, investment requirements, any direct government spending required to support current levels of data collection, availability and quality, maintenance and production and to fund future investment and product development and/or tax revenues generated by the re-use of public sector information.

Information on the following should also be provided where possible:

- Estimate the impact, in costs and benefits, for the information market
- Any changes to data quality and availability in those Public Sector Bodies that have changed policy.
- Future information collection / production costs
- Levels of competition in the market
- Expected level of innovation following a change of charging model.
- Some consideration should be given to the experience of other countries (e.g. US, Australia, and New Zealand) and a wider perspective of the challenges in markets trading digital information goods.

- Scope

- At least 12 Public Sector Bodies from different Member States in 4 information markets in the EU should be consulted in developing the estimates of the costs and benefits of models.

Part 2
Public Sector Information – Economic Case Study on charging models

Annex 2: Online publication of documentation

European Public Sector Information Platform

The materials from the 12th November 2009 meeting and each of the working groups have been published on the European Public Sector Information Platform (E-PSI-P) at the following URL's:

PSI Group Meetings 2009

http://www.epsiplatform.eu/psi_library/reports/the_ec_public_sector_information_group_psi_group/psi_group_meetings_2009

PSI Working Group on PSI Measurement Indicators – Address Information

http://www.epsiplatform.eu/psi_library/reports/the_ec_public_sector_information_group_psi_group/psi_working_group_on_psi_measurement_indicators_address_information

PSI Working Group on PSI Measurement Indicators – Cadastral Information

http://www.epsiplatform.eu/psi_library/reports/the_ec_public_sector_information_group_psi_group/psi_working_group_on_psi_measurement_indicators_cadastral_information

PSI Working Group on PSI Measurement Indicators – Meteorological Information

http://www.epsiplatform.eu/psi_library/reports/the_ec_public_sector_information_group_psi_group/psi_working_group_on_psi_measurement_indicators_meteorological_information

PSI Working Group on PSI Measurement Indicators – Company Information

http://www.epsiplatform.eu/psi_library/reports/the_ec_public_sector_information_group_psi_group/psi_working_group_on_psi_measurement_indicators_company_information

PSI Working Group on PSI Measurement Indicators – Legal Information

http://www.epsiplatform.eu/psi_library/reports/the_ec_public_sector_information_group_psi_group/psi_working_group_on_psi_measurement_indicators_legal_information

PSI Working Group on the Economic Case for Marginal Cost/Cost Recovery

http://www.epsiplatform.eu/psi_library/reports/the_ec_public_sector_information_group_psi_group/psi_working_group_on_the_economic_case_for_marginal_cost_cost_recovery

European Commission PSI portal

The European Commission has published the following documents:

Results of the Working groups

http://ec.europa.eu/information_society/policy/psi/facilitating_reuse/economic_analysis/index_en.htm

Annex 3: Working Group Membership

Charging Models

1. Agence du patrimoine immatériel de l'Etat, France
2. Asociación Multisectorial de la Información, Spain
3. Institut géographique national, France
4. Intelligent Addressing Limited, UK
5. Ministry of Employment and the Economy, Finland
6. The National Archives, UK