LIAISE

Linking
Impact
Assessment
Instruments to
Sustainability
Expertise

Discussion Paper

Populated Toolbox front office with Inventories / models / tools / actors / good practice / data sources - update

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Preamble

The deliverable describes the updates in the LIAISE-KIT (formerly known as LIAISE Toolbox) in the third reporting period. After extensive testing of various functionalities, and after collecting a wide range of relevant knowledge to be included in the toolbox, WP4 focused in the final reporting period on the re-designing, marketing, recruitment of contributors, and on the use of semantic web technologies to add additional sources of data in the toolbox. The toolbox represents now (1) a comprehensive source of information on methods, models, experts, good practices throughout all steps and for all relevant impact areas, and (2) a platform for interaction of researchers and IA practitioners. It hence contributes to the development of a durable community of practice in the field of policy IA for Sustainable Development.

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1. Introduction

In the LIAISE toolbox, a comprehensive overview on knowledge for Impact Assessment has been compiled that includes general information as well as specific tools for IA. The result can be visited online at www.liaise-kit.eu.

This report focuses on a description of the main improvements and further developments of the toolbox to provide an overview on the main functionalities and the added value of this website.

During the development of the toolbox, it became clear from the work of other work packages, especially work packages 1 and 6, that IA knowledge is only relevant for users under certain circumstances. The relevancy of knowledge, therefore, depends on the specific situation in which the knowledge is applied, the actor and his or her role in this specific situation, etc. Hence, the context in which the knowledge is used is crucial for determining its relevancy.

Although the judgement whether a certain tool is relevant and suitable for a specific user has to be made by the user, the toolbox has the aim to facilitate this selection process. Hence, the need for contextualizing knowledge was also taken up in the further development of the LIAISE toolbox. The content of the toolbox is described with regard to the specific contexts relevant for policy IA so that users can easily pick out relevant information for their purposes. However, the findings from the other work packages required amendments to the structure of the first version of the toolbox.

Since the first launch on 20 June, 2012 during the event of the Edinburgh Workshop, the LIAISE Toolbox Beta-Version has undergone a series of structural, contextual, functional and web design-related (user interface) updates to support the users in their decision if a tool is relevant for their purposes. These changes occurred mainly in response to the results of the testing and user-feedback analysis at the European and national level (see D.4.4_M24-M36) which had been finalized just briefly before the launch of the beta version. The recommendations and measures to be implemented in the development of the beta version had been summarized as follows:

- Better representation of the IA Process;
- Stronger integration of data and indicators;
- Test of forum/group software to facilitate interaction;
- Testing of assignments as Lead editors;
- Critical review of all taxonomies to achieve more consistency and searching abilities;
- Achieving more transparency in meta descriptions (publications as rdf), further evaluation of semantic web approaches;
- Reconsideration of quality criteria: frequency of use, peer reviewed papers, multidimensional concept of usability, actuality and completeness of information.

Since June 2012, the above recommendations in combination with further feedback we received from Lead editors for methods and impact areas have been systematically taken up when developing a new web design for the user

interface. In addition, the LIAISE project website (www.liaise-noe.eu) was merged with the LIAISE Toolbox website.

As a result, the newly established platform serves two main functions. It is

- A **Library** of models, methods, impact areas, good practices, experts: Different sources of knowledge are described and can be queried using keywords from the domain of policy Impact assessment;

- A **Community Platform** to collaborate in the field of Impact Assessment: People are invited to share their knowledge in the field of Impact Assessment for Sustainable Development.

The LIAISE toolbox library consists of highly structured information in form of data sets stored in relational databases (see section 'Front office and back office' below). The LIAISE toolbox allows users – e.g. policy officers – to seek consultation in the selection of IA methods and models, in organising the process of an impact assessment as well in finding the adequate expertise. It also allows the user to better understand the potential impacts associated with an envisioned policy measure by queries using keywords that are part of taxonomies deriving from both science and policy sources. Experts can provide and upload information to the LIAISE KIT on their respective areas of expertise, models and examples of work, such as publications and projects, according to a detailed catalogue of parameters of high relevance for expert exchange.

The community platform serves for both, the presentation of the LIAISE community to a wider audience and the dissemination of knowledge and news from the LIAISE community.

This broadened functions of the LIAISE toolbox required some considerable changes in the structure of the website and its content. In the following these changes will be described. Also, this report outlines the provisions which have been made to prepare for maintaining the website in the future.

The LIAISE KIT is based on three different core elements:

- Content types: The LIAISE KIT holds different types of knowledge, such as publications, models, methods, impact areas, expert profiles, good practices of IA.

- Taxonomies: Keywords are organised in taxonomies which address different aspects of Impact Assessment and can be used to describe and to search relevant knowledge in the context of IA. The taxonomies represent a simple ontology of the domain of IA and serves as a tool for the contextualization of knowledge as well as for the structuring of the Science Policy Interface.

- Facetted search: different keywords can be combined and searched across the different types of knowledge. Thereby, user find relevant knowledge for their specific context. Search can be drilled down by adding additional terms and related knowledge can be found by relaxing the search requirements.

- User roles: Different types of users are implemented and have the necessary rights to upload and update their content. In protected work spaces, administrators are able to manage working groups.

- News blog: News items can be uploaded to the platform and summaries are occasionally distributed via email lists.

These elements are described in further detail in the following.

2. Renaming the Toolbox

Before going into the details of the structure of the website, it is necessary to explain that the toolbox has been renamed. This was the result of the new functionalities and purposes of the website.

In order to accommodate for the broader scope of the platform, plus the fact that the name 'toolbox' has been viewed critically due to various reasons, we have undertaken a systematic search for a more appropriate title which has led to renaming it under the title '*LIAISE KIT*' in March 2014. The new interface of the LIAISE KIT (www.liaise-kit.eu) now replaces the old LIAISE website and forms a one-stop site for the IA community of practice.

3. The new structure of LIAISE KIT

Although the LIAISE website was merged with the former LIAISE toolbox, the content and functionalities of the LIAISE KIT go far beyond a project website. To make the platform and its content as easily accessible as possible, the structure of the website was adapted.

The structure of the LIAISE KIT databases focuses entirely on the requirement to serve users' orientation and to facilitate their information needs. It is therefore mirroring as much as possible the IA process as described in the guidelines for IA of the European Commission. The LIAISE KIT aims at making available the relevant knowledge throughout the different steps of impact assessment.

Being primarily designed as an interactive medium for facilitating the Science-Policy Interface (SPI) in IA, integrating the LIAISE Toolbox webpage with the LIAISE project homepage (www.liaise-noe.eu) in the newly set-up LIAISE KIT has resulted of two distinct but inter-related domains:

- **IA library**

  - **Knowledge** with its databases and dedicated IA knowledge items such as models, methods or experts,

  - **Process** providing information on how IA is being done, and

- **Community** to serve as platform for exchange and networking.

Figure 1 illustrates the structure of the LIAISE KIT, including the two domains IA Knowledge, Process, and the Community section. All content is described in a systematic way through taxonomies. This allows linking different knowledge items within and across the different domains.
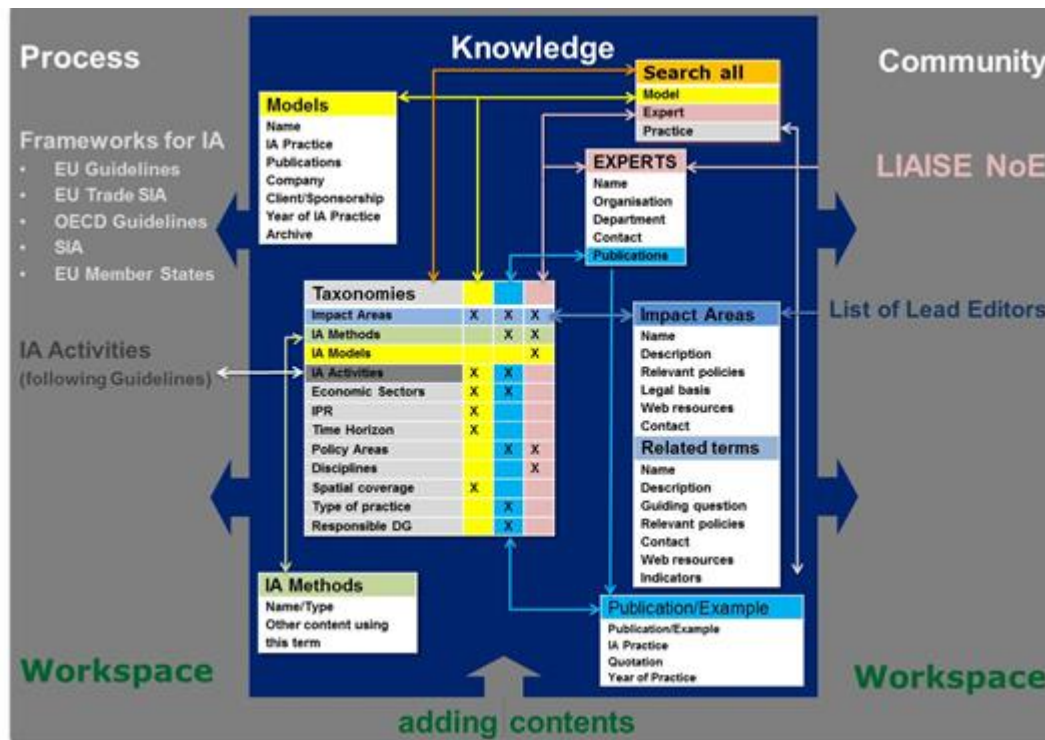
Figure 1: LIAISE KIT functional diagram showing how the taxonomies link different knowledge base items across the main IA domains Process, Knowledge and Community

IA Library

The value of the LIAISE KIT consists mainly of the way information can be accessed, uploaded, combined, analysed and translated into a wider, meaningful context – before and during the IA is actually performed. This knowledge repository for IA forms the IA library of LIAISE consisting of knowledge items like methods or models for IA, but also information on IA processes.

The different sources of knowledge can be queried using keywords from the domain of policy impact assessment that are structured in 12 taxonomies (see below). Querying the LIAISE KIT is facilitated by a facetted search function which allows widening and narrowing the scope of the process according to individual user needs. The LIAISE KIT allows selecting between and combining different sets of search criteria (e.g. 'time horizon' and 'economic impacts' when searching for models) while allowing to further screen the availability of information on issues not being actively selected. This prevents users from excluding relevant information on other possible

search options and enhances the flexibility and openness of the search process considerably.

In the following, the main content and features of the IA library will be explained following the navigation menu (Figure 2).

Figure 2: LIAISE KIT navigation menu

Knowledge for IA

This section contains different types of IA knowledge, namely on

- Experts
- Models
- IA methods
- Impact areas
- IA practices (publications or examples of IA, including model applications and projects)

The knowledge on experts, models and IA practices is described through keywords (taxonomies) derived from the domain of policy impact assessment. Users can query among different types of knowledge for IA by using a facetted search function. With this, users can drill down the search until they find knowledge that is relevant or related to their IA-related topic or problem.

Besides, the LIAISE KIT users find text-based descriptions of methods and impact areas. The section IA methods describes scientific methods e.g. for scoping, quantitative and qualitative methods, participatory methods etc. which can be utilized in IA. The section on impact areas describes social, environmental and economic issues which may be affected by a planned policy and therefore should be considered in an impact assessment. Both knowledge types also form own taxonomies which are used to describe other content of the LIAISE KIT.

Figure 1 includes an illustration of the Knowledge for IA section of the LIAISE KIT consisting of experts, models, and IA practices (i.e. publications, projects) as well as the methods and impact areas. Whereas the former

knowledge types are described and linked via a set of taxonomies, the latter themselves form taxonomies to describe knowledge.

Experts

In the section 'experts' all those individuals are listed who have registered to the LIAISE KIT and have uploaded information on their areas of expertise. Each expert profile contains a short description, including the name, organisational affiliation and contact details. Furthermore, the profiles contain information on the expert's discipline, and on knowledge and competences regarding IA methods, policy areas, impact areas and models.

Figure 1 illustrates how the expert profiles can be searched for with the help of the taxonomy fields: Impact areas, IA methods, IA models, Policy areas and Disciplines.

Models

Models are simplified representations of of natural, economic or social systems which calculate possible future scenarios. They are developed as software applications for computerised assessments. The 99 IA models taken up in the LIAISE KIT are mostly "applied" models, simulating real-world processes.

Figure 1 illustrates how each model is represented in the LIAISE KIT short description, namely by name, IA practice, publications, company, client-sponsorship, year of practice and archive. It also shows how models can be searched for with the help of the taxonomy fields: Impact areas, IA activities, Economic sectors, IPR, Time horizon and Spatial coverage.

IA Methods

In this section of the LIAISE KIT users find descriptions of methods (i.e. a set of systematic and established steps to acquire knowledge) that can be applied in IA. These include methods for scoping, quantitative and qualitative data collection, methods to aggregate and compare options and to assess the coherence of policies, to visualise and communicate assessment results, to facilitate stakeholder participation, and to monitor and review policy implementation.

For each method the user finds

- descriptions on how to apply the method,
- web resources for further guidance,
- examples of the method's application,
- software implementations, and
- experts who can support the application.

The user can select from a menu families of methods of interest. The descriptions of the methods are maintained and constantly updated by the LIAISE Lead editors (see below). Some of the descriptions are based on previous work undertaken in the FP6 project Sustainability A-Test, which we

gratefully acknowledge. In the LIAISE KIT, the classification of IA methods also forms a taxonomy to describe other content of the KIT.

Impact Areas

This section of the LIAISE KIT provides a comprehensive overview on possible types of economic, environmental and social impacts. These impact Areas allow the user to frame the likely effects deriving from the policy measures under consideration. The description of the impact areas includes the current state of affairs, drivers of change, policies, indicators, and other sources for information. This should facilitate the scoping and problem framing in an IA. Impact Areas are further specified by a series of 'related terms', which build upon the original 'guiding questions' attributed to each Impact Area in the EU IA Guidelines (European Commission 2009). On this basis, other types of knowledge, models, publications, previous IA, and experts can be identified.

Figure 1 illustrates how each Impact area and its corresponding 'related terms' are represented in the LIAISE KIT short description, namely by name, description, relevant policies, legal basis, web resources, contact as well as information on indicators. In the LIAISE KIT, the classification of impact areas also forms a taxonomy to describe other content of the KIT.

IA Practices: Publications and Examples

The LIAISE KIT also contains so-called practices of IA which include publications, model applications, projects related to impact assessment or examples of good practices for the various steps of an IA. Currently, 718 IA practices are available.

Figure 1 illustrates how each publication of example is represented in the LIAISE KIT short description, namely by economic sector, policy area and year of practice. It also shows how IA practices can be searched for with the help of the taxonomy fields: type of practice, IA activities, Impact areas, Economic sectors, IA Methods, Policy area and Responsible DG.

Process of IA

The second main domain of the LIAISE KIT provides knowledge to support the planning of Impact Assessment. Three kinds of process knowledge can be distinguished:

- Frameworks for IA describe the steps of an impact assessment for many different jurisdictions;

- IA activities describe the steps throughout an IA process. Besides the description the user finds examples of good practices and methods to support the activities;

- IA workspaces is a groupware functionality of the LIAISE KIT which facilitates non-public collaborative writing of IA, while using the resources of the LIAISE KIT.

Figure 1 illustrates the domain IA process on the left side. Structurally, the domain is linked via IA activities with the taxonomic structure of the LIAISE KIT, offering access to the identification of IA practices.

Frameworks for IA

This section introduces different procedural approaches to doing IA. These IA frameworks represent broad approaches that help structure the IA process. They may be bound to a specific jurisdiction (e.g. the IA approach of the EU), institution (such as the IA approach of the OECD), or policy field.

IA Frameworks define the priorities and the scope of an IA, and they typically break down the assessment into a set of procedural steps. In some cases, they may provide guidance or examples for identifying relevant impact areas and for selecting appropriate analytical methods or indicators.

IA Activities

An Impact Assessment is a process that can be divided into several interrelated steps. There are many different guidelines offering support for planning and organising these steps. The LIAISE KIT uses the Impact Assessment Guidelines of the European Commission to describe the IA process and the related activities. It forms one of the taxonomies to describe content in the LIAISE KIT.

IA Workspaces

IA Workspaces is a section of the LIAISE KIT where users can collaboratively write Impact Assessments while using the resources of the LIAISE KIT. This is implemented in a Groupware which allows invited members to jointly work on IA. The owners of an IA can invite new members. The members of an IA workspace have the right to add new text in a wiki style. Revisions are maintained in a transparent way.

IA workspaces are pre-structured along the main chapters of an IA. Each of the chapter has links to the LIAISE KIT content, i.e. relevant methods for the respective step of an IA, examples of good practices, publications, etc. Thereby, the user of an IA can make immediate use of the resources of the LIAISE-KIT.

Community for IA

The main objective of the LIAISE Network is to build up a broad Community of Practice on IA research for Sustainable Development for IA knowledge workers in research and other sectors of society. The Community provides the platform, as well as the networks, procedures and services that are needed to upgrade their scientific contributions to the process of IA for Sustainable Development by:

- Fostering individuals and organisations to learn and to be challenged;

- Transcending traditional disciplinary and science-policy boundaries;

- Practising a new type of science, based on inter-disciplinarity, transparency and active stakeholder involvement (transdisciplinarity);

- Collecting, assembling and disseminating critical insights for society on the complexity and relevance of long term perspectives on Sustainable Development;

- Providing an arena and a conducive environment for discussion on IA for Sustainable Development.

In this section of the LIAISE KIT the user finds information on the LIAISE community, namely on

- People: Who is who in the LIAISE community? How can I get involved in the community?

- Organisations: Which organisations are part of the LIAISE community? The starting point of the LIAISE community was the LIAISE Network of Excellence. The community is however growing as other institutions and organisations are joining the network.

- Projects: Which research is conducted in the LIAISE community?

People

The LIAISE community brings together researchers and practitioners from different disciplines and policy domains in the spirit of problem-oriented, inter- and trans-disciplinary, excellent research for Impact Assessment. The LIAISE community was initiated by a group of researchers with backgrounds in environmental sciences, economics, modelling and policy analysis.

The community meets and exchanges in different forums: The LIAISE KIT is a platform of experts and Lead editors to collaborate on issues related to Impact Assessment, and designed for policy makers and practitioners involved in Impact Assessment. The LIAISE KIT is also a forum for the LIAISE community: Ca. 100 users have registered as modellers, experts or Lead editors. In addition, about 800 people have subscribed to the LIAISE newsletter. LIAISE researchers and practitioners meet frequently in conferences, workshops and policy forums.

A special community section exists for early career researchers. They meet in the LIAISEoffspring network which offers a forum for exchange. LIAISEoffspring frequently organises workshops and supports collaboration of early career researchers.

Organisations

LIAISE unites the leading European research organisations in the field of environmental sciences, environmental economics, policy analysis and modelling. LIAISE started in 2009 as a Network of Excellence of 15 research institutes in the field of Impact Assessment for sustainable development, funded under the EU-FP7 work programme. Since then, more institutions have joined the network.

Projects

The LIAISE community is conducting research on impact assessment for sustainable development. Research is undertaken in many different projects, commissioned by a wide variety of funders and contracting agencies. The projects include research on the various dimensions of sustainable development, on the process of impact assessment and the use of scientific evidence in decision making. LIAISE researchers are developing models and collecting and generating data that are relevant for societal decision making. This is why LIAISE researchers are collaborating in interdisciplinary and problem oriented research and are actively seeking interaction with practitioners from early on in research projects.

Interactive platform

The community functionalities described above are first and foremost a presentation of the LIAISE Community of Practice and its activities. However, the LIAISE KIT is not only a static website displaying this information. It also allows the users to actively use the platform for disseminating news relevant to the community and to exchange on relevant issues regarding IA. Two functionalities are central in this regard.

News and IA Bulletin

The LIAISE Kit quite prominently features news of the LIAISE community and on the content of the LIAISE KIT on its front page. All users of the toolbox are able and encouraged to upload news which are relevant to the community. In this way, the community is informed about on-going activities which may foster the exchange between the partners of the community.

Moreover, the news are used for disseminating LIAISE community news to a wider audience. The LIAISE IA Bulleting which was send regularly to a list of about 600 subscribers. Also in the future this newsletter will be comiled from the news from the LIAISE KIT and send to the subscribers.

Work spaces

As mentioned above the IA Workspaces were introduced as a section of the LIAISE KIT where users can collaboratively write Impact Assessments. This functionality is also a key feature for the LIAISE community as it does not only allow for working collaboratively on an IA, it can also be extended to collaboratively work on other texts as well. Hence, the LIAISE resources may also be used for jointly writing articles or research proposals.

However, so far the IA workspaces are pre-structured along the main chapters of an IA. Each of the chapter has links to the LIAISE KIT content, i.e. relevant methods for the respective step of an IA, examples of good practices, publications, etc. Thereby, the user of an IA can make immediate use of the resources of the LIAISE-KIT.

In this way, the LIAISE KIT provides a dynamic website for the LIAISE community.

Taxonomies

The LIAISE KIT uses 12 taxonomies in total to describe content. These are

- Countries
- Disciplines
- Economic sectors
- EU Directorates General
- EU impact areas
- IA activities
- IA methods
- IPR model
- Model spatial coverage
- Policy areas
- Policy instruments
- Time horizon

The taxonomies are derived from both scientific categories as well as from the policy context, describing the specific context in which the knowledge in case can be used. They were set up on the basis of existing classifications, such as the EU impact Areas, laid down in the Impact Assessment Guidelines of the European Commission (2009), and the IA methods, defined in the EU-FP 6 project Sustainablity-A-Test; a few taxonomies were newly set up in the context of the LIAISE KIT. The LIAISE KIT taxonomies are included in the Annex to this report.

Each of the taxonomies is used to describe different content included in the different databases[1]. Table 1 shows which taxonomies are used in which database to describe content.

Taxonomy	Used in database
Countries	Models, Experts, IA practices
Disciplines	Experts
Economic sectors	Models
EU Directorates General	IA practices
EU impact areas	Models, Experts, IA Practices
IA activities	IA practices
IA methods	Experts, IA practices
IPR model	Models

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[1] Detailed information on the databases can be found in the section ‚Knowledge for IA‘ below.

Model spatial coverage	Models
Policy areas	Experts, Models, IA practices
Policy instruments	Models, IA practices
Time horizon	Models

Table 1: Use of taxonomies to describe the database content

4. Design of the LIAISE KIT

After restructuring the content of the LIAISE KIT and renaming the website, ti became also clear that improving the design of the website will also significantly increase the user-friendliness of the website. Hence, a process was initiated to adapt the design.

The re-design of the LIAISE KIT user interface aimed at providing a clearly structured appearance with high recall value. The new design has been implemented by an external design agency which has been identified following a regular market competition. The approach that has been rewarded was based in the following design principles:

- Clear optical separation between the different menu blocks to facilitate orientation;

- Complex contents should be made accessible by info-graphic displays;

- Content families should be grouped by means of a colour coding that reflects the LIAISE homepage;

- Text-heavy contents should be broken by icons;

- All items should be part of a design 'LIAISE KIT'.

The new design of the LIAISE KIT is shown in figure 3. It has a modern and light appearance. The LIAISE KIT logo was newly designed. Also, a guidance system for the different domains of the LIAISE KIT working with different colours was implemented. All style features of the LIAISE KIT are written down in a style guide.

Figure 3: Design of the LIAISE KIT

5. Extending content

Next to improving the structure and general user-friendliness of the LIAISE KIT, the content of the website was constantly increased.

In its current version (May 2014), the LIAISE KIT features 99 IA Models of which roughly half are accessible through LIAISE project partners and of which others derives from literature review (in particular the compilation of Cambridge Econometrics (2009) and additions from users which are not part of the LIAISE NoE. Furthermore, it contains the profiles of 67 experts including examples of work (e.g. previous projects, models, etc.) of which 21 are registered as Lead editors providing active guidance and input for developing the knowledge base items on impact areas and methods.

6. Front office and back office

The LIAISE KIT front office is a Drupal-based content management system. Its key features are:

- Specified content types for the various types of knowledge;
- Taxonomies as described above;
- Facetted search which allows a drill down of search results against a range of different criteria;
- User management with defined roles and rights;
- Restricted areas for the collaborative writing of IA reports;

The data is exported in html as well as in rdf in order to facilitate semantic enrichments.

The LIAISE KIT back office is a software which contains the LIAISE KIT content as rdf data. The data is enriched by other data sources. As a first prototype, the data for impact areas is enriched by data sets which are published by the EEA using semantic web technologies. EEA – as other providers of data do – uses SPARQL endpoints to publish linked data. Using a matching table that defines links between impact areas and the concepts used to described the EEA datasets. The enriched data is published as rdf and displayed in the front office. Other data sources can be added using the same technologies. Furthermore, the matching tables (which are provided by the Lead editors) can potentially be replaced by software which is able to explore data sources and enrich them with semantic information. The back office is prepared to take up such semantic web algorithms.

The functionalities are described in the LIAISE KIT manual. Furthermore, a help desk manual has been developed which is accessible for the administrative team.

This Manual represents the fourth main section of the LIAISE KIT (see figure 2). It contains information on the LIAISE KIT, its content, the potential users as well as hands-on guidance on how to use the resources of the LIAISE KIT and how to add new content.

The manual of the LIAISE KIT is also available for download (pdf file).

7. Maintaining the LIAISE KIT

In order to maintain the LIAISE KIT it is crucial to have a sufficient number of contributors who regularly add new knowledge and information, and update the existing knowledge stock. To this end, routines for adding new content and for quality control were set up. Also a system of user roles was established that assigns different competences to different user groups. In the following, the different roles in the LIAISE KIT are explained. Then, it is described how new content can be uploaded and how quality control through a system of Lead editors is working.

Roles in the LIAISE KIT

In the LIAISE KIT a system of different roles and related rights for users was established which is vital for managing the content of the LIAISE KIT. Table 2 gives on overview of the different roles of KIT users and their assigned rights.

Roles	Viewing rights	Editing rights
Anonymous users	Not registered visitors can view most sections of the LIAISE KIT, except personal data and restricted groups	Editing not possible
Editors	All registered users become editors and hence can upload and edit content. They can view all sections including groups (IA workspaces) for which they are invited.	Can add model descriptions, practices, publications and expert profiles; Can edit own content
Lead editors	Same as editors	Same as editors + can edit descriptions of methods and impact areas
News agents	Same as editors	Same as editors + adding news items and edit own news items

Table 2: User roles in the LIAISE KIT and their rights to view and to edit content

Uploading of content

The LIAISE KIT provides the opportunity for users ('editors', see above) to upload their own content to the LIAISE KIT. First, they have to register to the LIAISE KIT and create a user account. Under the menu item "My content /Add your content" these users can then add

- Their profile as an expert in Impact Assessment;
- A description of a model;
- An IA practice, i.e. a model application, a project or an impact assessment in which the user has been involved;
- A publication relevant in the context of IA.

For each content type users can choose keywords that describe the respective item best. Thereby, the items will be searchable through the facetted search interface from many different perspectives.

Lead editors

The LIAISE KIT is designed in a way that updating and integrating new information can be easily done by registered users who act as editors. In order to coordinate and integrate multiple experts' inputs the role of Lead editors was introduced.

Lead editors take over responsibility for the content of a specifically assigned section of the LIAISE KIT. This can be an impact area or a (family of) method(s). Lead editors review the content of their section and add new content (e.g. new findings, indicators, models, publications, policies, applications, etc.). They are also encouraged to approach other experts in their field and invite them to contribute and to become experts in the LIAISE KIT. Lead editors are contributing on a voluntary basis.

Lead editors thus have a lot of responsibilities, but the position comes with rewards as well:

- By contributing to the LIAISE community of practice, Lead editors shape scientific and practical IA expertise in an internationally visible and interdisciplinary IA community;

- Lead editors have the opportunity to increase awareness of their expertise among the diverse IA community and EU and national policy makers and thereby enhance dissemination of their research results;

- By sharing, discussing and collaborating with the IA online community, Lead editors easily make new contacts with academic and policy partners, access up-to-date IA information, link their research with other expertise and increase the potential for new research ideas.

Currently, the LIAISE KIT is supported through the work of 21 Lead editors.

8. LIAISE KIT in action

The LIAISE KIT may serve different purposes for different users. In the following, it is described how various user groups, namely practitioners, IA experts and modellers, Lead editors and news providers can use the KIT or contribute to it.

Practitioners

Practitioners, e.g. policy makers and desk officers, who want to conduct (or to let conduct) an Impact Assessment or are looking for IA related information find plenty of relevant information in the LIAISE KIT. In particular, they might be interested in the following:

- Guidance for the planning of an IA;
- Guidance on how to analyse impact areas;
- Models to assess impact on certain impact areas, sectors, countries, etc.;
- Experts which may give assistance with an IA or related issues;
- Methods that support the different steps of an IA;
- Practice examples of IA which may serve as an example for an IA;
- Utilising the IA workspaces to conduct an IA.

Practitioners also hold IA-relevant knowledge and thus might also contribute to the LIAISE KIT by adding own examples of IAs.

IA experts and modellers

Researchers in the field of Impact Assessment, in particular modellers, hold expertise in various areas which is of interest for LIAISE KIT users. IA experts and modellers may contribute to the LIAISE KIT by

- Adding or updating their expert profile;
- Adding or updating descriptions of IA methods or of impact areas;
- Adding new IA models or IA practices (examples, publications or projects);
- Contributing to specific IAs in IA Workspaces;
- Becoming a Lead Editor and take over responsibility for certain sections of the LIAISE KIT.

IA experts and modellers might however also find specific knowledge and information of the LIAISE KIT useful, such as

- Models that are complementary to their own ones;
- Experts for joint activities;
- Methods which they want to apply in research;
- Examples of IA cases, publications or projects undertaken by other researchers.

Lead editors

Lead editors are in charge of the content of a specifically assigned section of the LIAISE KIT, namely an impact area or a (family of) method(s). Their task is to review the content of their section and add new content (e.g. new findings, indicators, models, publications, policies, applications, etc.). In addition, Lead editors have a role in community management in that they may approach other experts in their field and invite them to contribute to the LIAISE KIT.

Lead editors are contributing on a voluntary basis. Their role is rewarding in that they are in the position to shape IA expertise in an internationally visible and interdisciplinary IA community. They also have the opportunity to increase awareness of their expertise among the broader IA community. More details on the role of Lead editors is given above.

News providers

One of the central functions of the LIAISE KIT for the community is the one of a news agent. In principle, all members of the LIAISE community might hold interesting news which should be shared in the community; hence, all KIT users could potentially take over the role of news agents. News of interest for the community can be posted in the blog on the start page and the bottom pages of the LIAISE KIT. Relevant news may for example be:

- A new expert has uploaded his/her profile;
- A new model has been added;
- A new publications or projects was added;
- A new method or impact area is added;
- Upcoming events or reports from past events, etc.

9. Dissemination activities

The LIAISE KIT has been promoted by several means:

- presentations during scientific conferences, in workshops with researchers and IA practioners
- personal communications with potential lead editors and with projects that indicated a willingness to take over responsibility for specific sections of the toolbox
- By means of Powerpoint presentations and leaflets developed for different target groups
- By mass mailings to researcher within and beyond the LIAISE network

As a result of this marketing efforts, the web statistics show a steady increase of visitors and visits of the site:

In total ca. 2500 different visitors have been counted in ca. 5500 sessions which had an average duration of ca. 10 minutes.

10. Outlook

The LIAISE KIT has been designed as an easy-to-use platform which requires a low level of technical and central maintenance. We expect the added value of the LIAISE KIT to increase with the number of active users which are adding content to the LIAISE KIT. The efforts that have been undertaken in this regard showed that advertising, and encouraging users – especially Lead Editors to take over the responsibility to manage specified sections in the LIAISE KIT – significantly increases the added value and relevancy of the LIAISE KIT. The LIAISE community made considerable progress to attract Lead Editors also outside the LIAISE consortium, these efforts will be continued in the future..

Furthermore, it became evident, that the visibility of the Lead Editors is a crucial incentive for becoming active. LIAISE already explored options how to increase their visibility and implemented indications how to reference articles written by the Lead Editors in the Toolbox. One option for further developing this in new projects isthe awarding of an impact factor, based on a process of quality review and the publication in a quotable form can provide academic merits and thus additional incentives to use the platform for publishing.

We further assume that the added value of the platform derives from the amount and the quality of content which can queried. It is therefore important to explore additional sources which add relevant knowledge to the LIAISE KIT. For example, other inventories of researchers, publications, inventories of models or data sets can be added. WP 3 and 4 jointly explored and tested options for extending the content of the LIAISE KIT by importing other data sources. This showed that the added value of the LIAISE KIT is the contextualisation of these data sources in the context of Policy Impact Assessment.

Another strategic perspective is the uptake of other contexts. The LIAISE KIT is modelling a specific EU/OECD type approach of integrated ex ante policy impact assessment. However, other approaches, i.e. risk assessments, focused impact assessments or ex post evaluations require a different modelling of the process and different taxonomies. Adapting the LIAISE KIT content to other purposes of evidence based policy making may also increase the added value. This is another option for further developing the LIAISE KIT in new projects.

This shows that there are at least three promising directions in which the LIAISE KIT could be developed in the future:

- Extending content by increasing incentives for Lead Editors
- Extending content by including external data sources
- Extending content by adding new contexts

For all options LIAISE explored and tested options. However, a full implementation of these new functionalities requires the attraction of new funding opportunities. It is certainly the aim of the LIAISE Community of practice to invest in applying for new research projects in this regard.

Annex: Taxonomies used in the LIAISE KIT

Taxonomy Countries

Source: United Nations Geoscheme (http://unstats.un.org/unsd/methods/m49/m49regin.htm) and own

First level	Second level	Third level
GLOBE		
EUROPE		
	EUROPEAN UNION	
	EUROPE (EU)	
		Austria
		Belgium
		Bulgaria
		Cyprus
		Czech Republic
		Denmark
		Estonia
		Finland
		France
		Germany
		Greece
		Hungary
		Ireland
		Italy
		Latvia
		Lithuania
		Luxembourg
		Malta
		Netherlands
		Poland
		Portugal
		Romania
		Slovakia
		Slovenia
		Spain
		Sweden
		United Kingdom
	EUROPE (NON-EU)	
		Albania
		Andorra

		Belarus
		Bosnia
		Croatia
		Faroe Islands
		Gibraltar
		Guerney and Alderney
		Iceland
		Island of Man
		Jersey
		Kosovo
		Liechtenstein
		Macedonia
		Moldova
		Monaco
		Montenegro
		Norway
		Russia
		San Marino
		Serbia
		Svalbard and Jan Mayen Islands
		Switzerland
		Turkey
		Ukraine
		Vatican City
AFRICA		
	EASTERN AFRICA	
		Burundi
		Comoros
		Djibouti
		Eritrea
		Ethiopia
		Kenya
		Madagascar
		Malawi
		Mauritius
		Mayotte
		Mozambique
		Reunion
		Rwanda
		Seychelles
		Somalia
		Tanzania, United Republic of
		Uganda

		Zambia
		Zimbabwe
	MIDDLE AFRICA	
		Angola
		Cameroon
		Central African Republic
		Chad
		Congo (Brazzaville)
		Congo, Democratic Republic of the
		Equatorial Guinea
		Gabon
		Sao Tome and Principe
	NORTHERN AFRICA	
		Algeria
		Egypt
		Libyan Arab Jamahiriya
		Morroco
		Sudan
		Tunisia
		Western Sahara
	SOUTHERN AFRICA	
		Botswana
		Lesotho
		Namibia
		South Africa
		Swaziland
	WESTERN AFRICA	
		Benin
		Burkina Faso
		Cape Verde
		Gambia
		Ghana
		Guinea
		Guinea-Bissau
		Ivory Coast
		Liberia
		Mali
		Mauritania
		Niger
		Nigeria
		Saint Helena
		Senegal

		Sierra Leone
		Togo
THE AMERICAS		
	THE CARIBBEAN	
		Anguilla
		Antigua and Barbuda
		Aruba
		Bahamas
		Barbados
		British Virgin Islands
		Cayman Islands
		Cuba
		Dominica
		Dominican Republic
		Grenada
		Guadeloupe
		Haiti
		Jamaica
		Martinique
		Monserrat
		Netherlands Antilles
		Puerto Rico
		St. Kitts and Nevis
		Saint Lucia
		Saint Vincent and the Grenadines
		Trinidad and Tobago
		Turks and Caicos Islands
		Virgin Islands (US)
	CENTRAL AMERICA	
		Belize
		Costa Rica
		El Salvador
		Guatemala
		Honduras
		Mexico
		Nicaragua
		Panama
	NORTHERN AMERICA	
		Bermuda
		Canada
		Greenland

			Saint Pierre and Miquelon
			United States
		SOUTH AMERICA	
			Argentina
			Bolivia
			Brazil
			Chile
			Colombia
			Ecuador
			Falkland Islands
			French Guiana
			Guyana
			Paraguay
			Peru
			Suriname
			Uruguay
			Venezuela
ASIA			
		CENTRAL ASIA	
			Kyrgyzstan
			Kasakhstan
			Tajikistan
			Turkmenistan
			Uzbekistan
		EAST ASIA	
			China
			Hong Kong
			Japan
			Macao
			North Korea
			South Korea
			Taiwan
		MIDDLE EAST	
			Armenia
			Azerbaijan
			Bahrain
			Georgia
			Iraq
			Iran
			Israel
			Jordan
			Kuwait
			Lebanon

		Oman
		Palestine
		Qatar
		Saudi Arabia
		Syrian Arab Republic
		United Arab Emirates
		Yemen
	SOUTH ASIA	
		Afganistan
		Bangladesh
		Bhutan
		India
		Maldives
		Nepal
		Pakistan
		Sri Lanka
	SOUTHEAST ASIA	
		Brunei Darussalam
		Cambodia
		Indonesia
		Laos
		Malaysia
		Myanmar
		Phillipines
		Singapore
		Thailand
		Timor Leste
		Vietnam
OCEANIA		
	AUSTRALIA AND NEW ZEALAND	
		Australia
		New Zealand
		Norfolk Island
	MELANESIA	
		Fiji
		New Caledonia
		Papua New Guinea
		Solomon Islands
		Vanuatu
	MICRONESIA	
		Guam
		Kiribati

		Marshall Islands
		Micronesia, Federal States of
		Nauru
		Northern Mariana Islands
		Palau
	POLYNESIA	
		American Samoas
		Cook Islands
		French Polynesia
		Niue
		Pitcairn
		Samoa
		Tokelau
		Tonga
		Tuvalu
		Wallis and Futuna Islands

Taxonomy Disciplines of Experts

Source: Eurostat Ramon site, classification No 55 "Field of Science and Technology Classifiation 2007 (http://ec.europa.eu/eurostat/ramon/nomenclatures and own

First level	Second level
NATURAL SCIENCES	
	Biological sciences
	Chemical sciences
	Computer and information sciences
	Earth and related Environmental sciences
	Land use science
	Mathematics
	Physical sciences
	Other natural sciences
ENGINEERING AND TECHNOLOGY	
	Chemical engineering
	Civil engineering
	Electrical engineering, Electronic engineering, Information engineering
	Environmental biotechnology
	Environmental engineering
	Industrial biotechnology
	Materials engineering
	Mechanical engineering

	Medical engineering
	Nano-technology
	Other engineering and technologies
MEDICAL AND HEALTH SCIENCES	
	Basic medicine
	Clinical medicine
	Health biotechnology
	Health sciences
	Other medical and health sciences
AGRICULTURAL SCIENCES	
	Agricultural biotechnology
	Agricultural economics
	Agriculture, Forestry, and Fisheries
	Animal and Dairy science
	Veterinary science
	Other agricultural sciences
SOCIAL SCIENCES	
	Economics
	Educational sciences
	Law
	Media and communications
	Planning science
	Political science
	Psychology
	Social and economic geography
	Sociology
	Other social sciences
HUMANITIES	
	Arts
	History and archaeology
	Languages and literature
	Philosophy, ethics and religion
	Other humanities

Taxonomy Economic Sectors

Source: NACE sectors, http://ec.europa.eu/competition/mergers/cases/index/nace_all.html

Agriculture, forestry and fishing
Mining and quarrying

Manufacturing
Electricity, gas, steam and air conditioning supply
Water supply, sewerage, waste management and remediation activities
Construction
Wholesale and retail trade, repair of motor vehicles and motorcycles
Transporting and storage
Accommodation and food service activities
Information and communication
Financial and insurance activities
Real estate activities
Professional, scientific and technical activities
Administrative and support service activities
Public administration and defence, compulsory social security
Education
Human health and social work activities
Arts, entertainment and recreation
Other services activities
Activities of households as employers, undifferentiated goods - and services - producing activities of households for own use
Activities of extraterritorial organisations and bodies

Taxonomy EU Directorates General

Source: European Commission, http://ec.europa.eu/about/ds_en.htm

Agriculture and Rural Development (AGRI)
Budget (BUDG)
Climate Action (CLIMA)
Competition (COMP)
Economic and Financial Affairs (ECFIN)
Education and Culture (EAC)
Employment, Social Affairs and Inclusion (EMPL)
Energy (ENER)
Enlargement (ELARG)
Enterprise and Industry (ENTR)
Environment (ENV)
EuropeAid Development & Cooperation (DEVCO)
Executive agencies
Foreign Policy Instruments Service (EEAS)
Health and Consumers (SANCO)
Home Affairs (HOME)

Humanitarian Aid (ECHO)
Information Society and Media (INFSO)
Internal Market and Services (MARKT)
Justice (JUST)
Maritime Affairs and Fisheries (MARE)
Mobility and Transport (MOVE)
Regional Policy (REGIO)
Research and Innovation (RTD)
Taxation and Customs Union (TAXUD)
Trade (TRADE)

Taxonomies EU Impact Areas (Economic, Environmental, Social)

Source: Impact Assessment Guidelines of the European Commission (2009) and own (in the taxonomy Environmental Impact Areas)

Economic Impact Areas
Functioning of the internal market and competition
Competitiveness, trade and investment flows
Operating costs and conduct of business/small and Medium Enterprises
Administrative burdens on businesses
Public authorities
Property rights
Innovation and research
Consumers and households
Specific regions or sectors
Third countries and international relations
Macroeconomic environment

Environmental Impact Areas
The climate
Transport and the use of energy
Air quality
Biodiversity, flora and fauna
Landscapes
Water quality and resources
Soil quality or resources
Land use
Renewable or non-renewable resources
The environmental consequences of firms and consumers
Waste production/ generation/ recycling
The likelihood or scale of environmental risks

Animal welfare
International environmental impacts

Social Impact Areas
Employment and labour markets
Standards and rights related to job quality
Gender equality, equality treatment and opportunities, non.discrimination
Individuals, private and family life, personal data
Governance, participation, good administration, access to justice, media and ethics
Public health and safety
Crime, Terrorism and Security
Access to and effects on social protection, health and educational systems
Culture
Social impacts in third countries

Taxonomy IA Activities

Source: Impact Assessment Guidelines of the European Commission (2009)

First level	Second level
PROBLEM IDENTIFICATION	
	Defining the problem, its extent and causes
	Verifying conformity with the conferral and subsidiarity principles
	Developing a baseline scenario
OBJECTIVE DEFINITION	
	Setting clear objectives that are directly related to the problem
	Establishing a hierarchy of objectives (general, specific and operational)
	Assessing whether the objectives are consistent with other EU policies and horizontal objectives
DEVELOPMENT OF POLICY OPTIONS	
	Identifying relevant, credible and proportionate policy options
	Distinguishing between options in terms of the type and substance of the intervention
	Developing a shortlist of the most promising options
IMPACT ANALYSIS	
	Identifying impacts and assessing their relative importance
	Assessment of impacts: Qualitative analysis
	Assessment of impacts: Quantitative analysis

	Assessing administrative burdens and simplification potential
	Assessing transposition and compliance aspects
COMARISON OF OPTIONS	
	Summarising and presenting the impacts
	Comparing and ranking the options
MONITORING OF OPTIONS	
	Identifying core indicators
	Outlining monitoring and evaluation arrangements
STAKEHOLDER PARTICIPATION	
	Consulting stakeholders
	Reporting on the stakeholder consultation and how the results were used

Taxonomy IA Methods

Source: The FP6 project Sustainability A-Test, coordinated by IVM of the Vrieje University of Amsterdam, reviewed and described between 2003 and 2006 ca. 40 different methods to support Impact Assessment. The descriptions are complemented with examples of applications and references. Based on this, the following guide on methods for impact assessment has been developed.

First level	Second level
SCOPING	
	Checklists
	Indicators
PARTICIPATORY METHODS	
	Focus group
	Electronic focus group
	Consensus conference
	Citizens' jury
	Interactive backcasting
	Repertory grid technique
	Internet consultation
	Delphi survey
	Cross-impact analysis
	Interactive brainstorming
	Scenario workshops
DATA COLLECTION	
	Case studies
	Expert surveys
	Mass surveys

	Experiments
	Environmental monitoring / remote sensing
	Collection of economic data
	Valuation methods
DATA ANALYSIS	
	Methods for statistical analysis
	Accounting
	Methods to aggregate different impacts
	Methods to compare different options
	Analysis of physical impacts
MONITORING AND EVALUATION	
	Evaluation
	Peer review
	Indicators
DATA PRESENTATION	
	Visualization
	Geographic information system (GIS)

Taxonomy IPR model

Source: Guide to Intellectual Property Rights provisions for FP6 projects (ftp://ftp.cordis.europa.eu/pub/fp7/docs/ipr_en.pdf) and own

Commercial
Copyleft
Data source open source
Model source code open source
Demo-version only
Free download
Private software (developed for one user only)
Public Domain
Shareware

Taxonomy Model Spatial Coverage

Source: Eurostats and own

Global
NUTS 0
NUTS 1
NUTS 2
NUTS 3
Gridded

Other (eg. OECD, Annex countries)

Taxonomy Policy Areas

Source: Cambridge Econometrics 2009; European Commission, own

First level	Second level
SECTORAL POLICIES	
	Agriculture
	Economy
	Finance and Banking
	Fisheries
	Food
	Forestry
	Industry
	Internal Markets
	Telecommunication
	Tourism
	Trade
	Transport
ENVIRONMENTAL POLICIES	
	Air Pollution
	Biodiversity
	Climate change
	Energy
	Natural resources
	Water
	Waste
SOCIAL POLICIES	
	Consumers
	Demography
	Employment
	Gender equality
	Families
	Health
	Pensions
	Social cohesion and integration
	Social rights
	Social security
EDUCATION POLICIES	
	Culture
	Education
	Science and Research

	Sport
	Youth
STATE POLICIES	
	Administration
	Citizens' rights
	Finance and tax
	Justice
	Monetary
	Regions and local development
	Regulatory Policies
	Security
	Sustainable Development
	Urban and regional planning
EXTERNAL RELATIONS	
	Defense
	Development Cooperation
	Foreign affairs
	Migration

Taxonomy Policy Instruments

Source: European Commission 2009, IA Guidelines, Annex III, and own

Prescriptive regulatory actions
Framework regulation
Co-regulation and standards
Strategies
Public sector direct financial interventions
Loans and credit guarantees
Market-based instruments
Information and guidelines
Self-regulation
Agreements with other countries

Taxonomy Time Horizon

Source: own

Current
Short-term (<two years)
Mid-term (between 2-10 years)
Long-term (>10 years)

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