



SUMMARY

OF THE
SECOND PROGRESS
REPORT

DECEMBER 2012

Summary of the Second Progress Report

The present document is a summary of the Second Progress Report (12 months deliverable) of Elios 2, Pilot Project launched by the European Commission and entitled: “Facilitating access to insurance by self-employed builders and small building firms so as to stimulate innovation and the promotion of eco-technologies in the European Union”.

The document provides a briefing of the work done so far, but we invite the reader to consult the full version on the Elios website www.elios-ec.eu in order to have a more complete presentation.

I. WORK PACKAGE 1

1. Work Programme

The objectives of WP1 as a whole are in line with one of the main issues addressed by the call for tenders:

“Development of an EU directory on quality/conformity marks (labels, certificates, technical assessment, etc.) for construction products, processes, works, technical equipment and professional qualifications”.

2. Work carried out so far

2.1 Quality signs delivery structure

We have managed to overcome the difficulties encountered over the first six months. A common structure for both a certification procedure and a technical approval procedure has been designed.

This result was obtained by a strong revision of the previously proposed classification of quality signs and a constant attention to stick to already widespread definitions, in particular through CPR-related documents.

This common structure of course allows the description of the CE marking elaboration process. This will allow to adequately addressing the question of the compatibility and complementary issues of quality signs with the CE marking for a given product.

A great number of information is attached to quality signs. The distinction between quality signs that look similar can only be explained and understood by describing in detail what is “behind” this information.

The design of this structure then results from a balance between the temptation for completeness and the necessity to be precise enough to be able to answer the questions raised by the Commission in the call for tenders.

The robustness of this structure has been tested against several examples of both certifications and technical approvals signs.

These examples do not pretend to cover all situations but they nevertheless correspond to current situations of signs produced by different bodies and used by different construction stakeholders. The use of these signs by insurers will be further addressed in close relation with WP3.

Deliverable 1.1 (December 2012) contains the following main chapters:

- What are quality signs?
- Why are quality signs needed?
- How are quality signs generated?
- Structure of the directory
- Data collection

This report is the base for the development of the IT tool to collect and store information on quality signs.

2.2 Related topics

Deliverable D1.1 also addresses the sources of information on quality signs.

The main sources will be found from the information of delivery D1.0¹ (January 2012) “review of literature/information sources on quality/conformity marks and building pathology”.

The glossary of terms was also revised. The initial version is now replaced by an annex of D1.1 containing terms used in this particular report. This glossary is likely to be supplemented during the course of the project, e.g. by other work packages.

3. Next steps

In the next six month period WP1 will mainly focus on the specifications, the development and the availability of a web-based questionnaire aiming to collect information on quality signs according to the proposed directory structure.

II. WORK PACKAGE 2

1. Work Programme

As a reminder, the overall objective of WP2 is to develop an EU-wide knowledge base on quality indicators and building pathology, which could support (re)insurers in their risk appraisal of new innovative technologies, especially eco-technologies.

2. Work carried out so far

2.1 Questionnaire and case studies on 10 eco-technologies

2.1.1 Response

The questionnaire, already described in the first Progress Report, was distributed by NHBC and the other WP2-partners across the EU.

¹ This report was referenced D1.1 when disseminated but its number is D1.0.

At the closing date of 1st October 2012, 70 filled in questionnaires were received, with additional information from 17 interviews/email exchanges. This means a response rate of 20%.

Not all the respondents completed the survey in full. On the other hand, some respondents filled in the questionnaire for more than one eco-technology. In total 204 responses for the 10 eco-technologies were received.

2.1.2 Case studies

On the basis of the filled-in questionnaires received, NHBC compiled ten case studies. The case studies are added as separate files to the Progress Report. Each case study describes:

1. Introduction to the technology
2. Available types of technologies
3. The market
4. Some figures on the diffusion in the European market
5. Application of the technologies
6. Characteristics of the industry
7. Construction/installation process, players in the market, actors involved in the design, the production, the delivery, the technical control, the certification, the installation in the building and the operation/maintenance of the technology
8. Organisational and quality aspects (skills, quality marks, professional qualifications)
9. Regulatory aspects, technical regulation
10. Strengths, weaknesses, opportunities, threats of the technology

2.1.3 Conclusions from the questionnaire survey

In order for the information provided by the database to be useful, several respondents mentioned that the rules, building practices, roles of the authorities, education of people in the construction sector, climatic conditions etc., differ from one country to another.

Manufacturers produce construction products in/for each member state taking into account those diverse conditions, so that for example a typical ground source heat pump installation can be different from country to country.

It means that it will be difficult to transfer knowledge on pathology from one country to another, or even to make the information on pathology comparable.

In order to overcome this problem it would be necessary for each technology to describe the specific constructive and climatic issues (for example: how to seal a canvas roof? what are the national standards for green roofs?).

Some respondents also noted that the reasons behind failures of technologies should accurately be reported to enable evidence based decisions to be made.

An overall conclusion is that with appropriate care and due diligence a database could be constructed thereby enabling the EU construction industry to identify (qualitatively, and possible also quantitatively) the potential risk of damage/defects due to or affecting eco-technologies.

The survey found that respondents perceive a significant value in training by eco-technology. This is a fact where we might lay a link with the European Build Up Skills initiative (<http://www.buildupskills.eu/>).

The survey has identified details of who holds databases and the type of information collected. But this is only the start. Further work is now required to describe the detail of these databases in detail and perhaps call on this information to help design the Elios 2 database.

2.2. Needs and criteria to develop an EU database on quality and pathology indicators.

In this section we present the results of the two meetings with Hannover Re and Allianz on the information needs of (re)insurers for the pathology database.

2.2.1 The underwriting process for new/innovative products

The general procedure for an underwriting process of new innovative products (like eco-technologies) is sketched in the scheme on page 15 of the Progress report (see figure 2.2.)

2.2.2 Role of pathology in the underwriting process

Information on pathology is mainly used qualitatively during the phases 3 and 7 (risk assessment by the insurer and reinsurer), but could also be used in phase 4 (formulating conditions).

For innovative products like eco-technologies, statistical data on claims of defects/loss are in most cases not available, so information on pathology cannot be used quantitatively for Pricing (phases 4 and 8). For pricing, the (re)insurer uses other methods/sources, or a case-by-case approach.

Besides, the administrative processing of claims in the database of the insurer is usually being performed by legal people of the insurer and not by technical people. The result is that it is often difficult to make an analysis of the causes of defects, and the defective parts. For technical risk assessment the information from claims is therefore usually not very useful.

2.2.3 Examples of existing databases

An inspiring example of a database on building defects is the REX BBC database, that was developed for Agence Qualité de Construction (AQC).

For a description of this database (and other databases of AQC), see the paper prepared by CSTB 'Existing services and databases for pathology information managed by AQC', as Appendix 2 of the Progress Report.

But also other databases can be an inspiration for WP2. For example: NHBC. They collect information on defects. At this moment NHBC can give the following information regarding their database:

"Inspection and Claims use defect coding systems that are based upon the Chapter and Clause numbers contained within our Standards, thus enabling easy reference to the area of work affected, which could relate to design, materials or workmanship. The codes are input to a comprehensive computer based systems which enable a wide range of detailed interrogation and reporting."

And there are of course the databases of the Building Defects Fund, the Benchmark Centre for the Danish Construction Sector, or the Technical ABC-list of Woningborg (Netherlands).

2.2.4 Information needs for the database

According to Hannover Re and Allianz, the database should in any case contain information on the type of eco-technology involved, the loss/failure and defective part and the cause of the loss/failure.

Figure 3.3 of the Progress Report gives a first draft for the possible structure of the database.

If possible, the database should also give information on:

- How to avoid the loss/failure/damage (lessons learned)
- Is the installer specialized in that technology (is it his normal and main activity)?
- Level of innovation involved
- New product on the market?
- Geographical use of the product
- Adaptation to the climate
- Is the failure due to local construction practices, national technical rules, or non-compliance with standards?

As this structure is also part of the Deliverable '3.3 Information needs about construction Insurance', of WP3, for which the final report has to be issued in December 2013, this can only be finalised at the end of 2013. So the WP2 project team has to work with this draft structure in 2013 to set up a prototype for the database which can be made final in 2014.

3. Next steps

The following months, the following activities are planned:

- Continuation of the data collection.
- Working out a strategy regarding the development of a pilot database on building pathology for eco-technologies and its links with a potential agreement between different national actors feeding, exploiting or managing the database.
- Describe the detail of available information on pathology of eco-technologies of existing databases.
- Investigating the characteristics and functionalities of existing pathology data bases (section 2.3.3)
- Further exploring the information needs by insurers for the database.
- Defining the provisional format and informatics requirements.

III. WORK PACKAGE 3

1. Work Programme

As a reminder, the overall aim of work package 3 (WP3) is to analyse the conditions for a greater mutual recognition of the construction insurance regimes and to identify the criteria and modalities for the development of insurance schemes that could support cross border services and the cover of building sustainability performances.

2. Work carried out so far

As WP3's different objectives and subdivision into deliverables are closely inter-related, we decided to present each deliverable development as the work progresses, even for the last deliverable on recommendations, rather than wait for each study to be completely finished.

This is especially true for the first deliverable, the update of the mapping, which should give the state of the art in insurance at the end of the project.

2.1 Introduction

Information is gathered through three different channels:

a) Insurance Europe

A first presentation of the Elios 2 project was made to the federations during a meeting organized by Insurance Europe with some construction insurance representatives, the 19th of September 2012.

A short presentation document will be sent to Insurance Europe in order to communicate on the project with the federations.

b) Allianz

As a subcontractor, Allianz's main task is to update the mapping gathering information from its own internal network of branches on local markets.

The information to collect includes the update of Elios 1 information but also to extend it to more insurance market realities.

In order to do so, we are in the process of drawing up a questionnaire. A first version of the questionnaire (see in Appendix) is currently under validation through Allianz and Hannover Re's internal networks before becoming widespread to all Allianz branches (/before being diffused across all Allianz branches)

c) Hannover Re

As leader of WP3 Hannover Re is in charge of retrieving information from the insurance companies through two channels:

- In order to retrieve information across the EU, we use our internal network of construction reinsurance underwriters. Using this channel, we have updated the existing Elios 1 mapping (presented in the appendix).
- For western countries with important construction insurance markets, meetings will be held directly with major national companies.

The objective of these meetings with the insurers is to deal with the insurance mapping made within WP3. However they must also address the questions of quality signs and pathology.

2.2 Preliminary Observations

The following text is intended to draw up a sketch of the different deliverables that can be found in the appendix.

2.2.1 Update of the mapping of insurance regimes

Based on the information gathered during the Elios 1 pilot project mapping, this study will first update the information about the current different regimes in force in the EU-27.

In the second phase, we will extend this pure update of the legal framework made in Elios 1 to market considerations with the help of a questionnaire (preliminary version presented in appendix).

Topics covered by this deliverable are:

- Selected construction insurance schemes
- Mapping of insurance regime results
- Links with single points of contact
- Energy performance guarantees
- Construction Insurance Market

2.2.2 Financial mechanisms for protection of investors' interest

Based on the first results of our exchanges with insurers, this task involves the following processes to be carried out in parallel with the mapping update:

- a) Identification of the different existing financial instruments aimed in the protection of construction works, notably other than insurance. This covers a wide range of public and private steering instruments such as insurance schemes, regulation, subsidy schemes, etc.
- b) We will outline the specific hurdles existing in the insurance of construction innovation and how the industry has handled innovation in the past by means of a case study. This technology could be "structural sealant glazing" (SSG) now widely used in curtain walls.

Covered topics are:

- Energy performance guarantees
- Measuring the energy performance
- Specific hurdles to insure innovation
- Concept of conventional vs. real performance
- Existing Financial Energy Performance Guarantees
- An example of historical assessment of innovation by insurance

2.2.3 Information needs about construction insurance

This third study will present the construction insurance underwriting process in general, highlighting its specific information needs. Notably, it will try to clarify the risk assessment principles and the role of the Technical Inspection Service in this process.

Developed topics are:

- "Sustainable development" works
- Construction Insurance Underwriting Process
- Risk assessment principles

2.2.4 State of the art insurances schemes and transition paths

Applying a socio-technical approach, this study tries to describe and compare on different levels the different existing national organizational schemes in the construction industry. It should notably overview the different roles of insurance inside the global quality chain in the construction industry.

2.2.5 Conditions for greater mutual recognition of construction insurances regimes

This task will constitute an analysis of the conditions for a greater mutual recognition of construction insurance regimes, and the development of a set of guidelines for a policy formulation.

More specifically, the deliverable should cover:

- Impacts of national strategies on construction insurance
- General financial protection requirements and regulatory framework influence
- Conditions for handling incompatibility of national insurance regimes

2.2.6 Recommendations for policy formulation

This analysis will provide recommendations for policy formulation stimulating good practices and insurance solutions.

Developed recommendations concern:

- | | |
|---|------------------------------------|
| - Failure forecast | - Quality signs |
| - Construction techniques and normative framework | - Legal and insurance requirements |
| - Insurance covers | - Technical Inspection services |
| - Energy performance guarantees | - Promotion of other guarantees |

3. Next steps

The shortcoming foreseen actions for the different members of WP3's team are:

a) *Insurance Europe*

The federations will be contacted in a second time through a questionnaire which is currently under validation by Allianz and Hannover Re internal network for different local situations.

b) *Allianz*

End of test phase of the update of the mapping questionnaire (see refer to the Appendix) by internal staff of Allianz and Hannover Re, before a widespread distribution of the questionnaire to local insurers through all Allianz branches the very beginning of 2013.

c) *Hannover Re*

- In order to retrieve information all over EU, the validated questionnaire will be sent to the local insurers in order to extend the description made for each country.
- At the moment the following meetings are foreseen with different construction insurance specialists in France, Germany, UK and Scandinavia.

- Regarding the update of the mapping, we should meet NHBC at the beginning of next year in order to get extensive information on construction insurance mechanisms on this very specific market.
- Regarding the financial protection mechanisms other than insurance, we identified Energy Performance as being the only guarantee that can really benefit from such a system.

As Germany is a country with less post completion guarantees than other Western Europe countries, it is also the biggest user of financial protection. Therefore we should get in contact with the German insurance leader in the beginning of 2013 in order to retrieve information on that matter.

d) APAVE

In the first place, APAVE will deepen their understanding of the way the Technical Inspection Control operates throughout the European countries, in order to plot the similarities and differences between them.

e) SBI

To further pinpoint the characteristics of national regimes of construction and insurance and develop the analysis in terms of providing a sound foundation for the policy recommendations the following work will be undertaken:

- Overview of construction regimes and business systems and theories on transition paths.
- Three to four qualitative case studies.
- A work plan and proposal for the execution of the vertical analysis. This will highlight the methodological approach as well as data sources applied.
- Drafting of preliminary conclusions form the study for discussion and verification in the project group.

f) NHBC

In order to extend the WP3.2.6's "example of historical assessment of innovation by insurance", which deals with Structural Sealant Glazing (SSG) technology, NHBC will recover information on Great Britain's experience.

IV. WORK PACKAGE 4

1. Work Programme

The overall aim of WP4 is to provide policy consultation for the European Commission on the goal of the project and to disseminate the results of the project.

2. Work carried out so far

2.1 Forum meetings (Deliverables D4.3)

A bit ahead of schedule, the Forum has already had its second meeting during the first six months of the project period (deliverable D4.3). The third Forum meeting (deliverable D4.4.) is in preparation and will be held as scheduled on the 24th of January 2013 (month 13).

The work in this six month period has included the draft of minutes from the second Forum meeting and the preparation of invitations and working documents for the third Forum meeting.

The meeting themes for all seven Forum meetings are shown in the table below. The dates of meetings 2, 4 and 6 have been slightly rescheduled from July to June to accommodate for summer vacations in July.

N°	Date	Themes for debate
1	March 2012	Strategy and detailed work plan
2	June 2012	Directory on the directory on quality/conformity marks (draft version)
3	January 2013	Database for indicators on quality and pathology (draft version)
4	June 2013	Analysis of insurance schemes (draft version)
5	January 2014	Cross-cutting debate on directory on marks, indicators and schemes
6	June 2014	Preliminary conclusions
7	November 2014	Final report and recommendations

2.2 Newsletter (Deliverable D4.10)

The third task of WP4 is to prepare seven newsletters – one following each of the forum meetings. The second newsletter (deliverable D4.10) was prepared during the autumn 2012 and issued in November 2012.

2.3 Website (Deliverable D4.22)

Deliverable D4.22 is to update and revise the Elios 2 website. This task has been initiated and a new version of the website was launched in June 2012. During the autumn, updates of relevant news have been added to the website.

3. Next steps

In the next six month period WP4 will focus on the fifth milestone of WP4, namely the execution of the Forum Meeting 4 (month 19) in June 2013. At the fourth Forum Meeting, insurance schemes across EU-27 will be debated with the Forum members.

V. WORK PACKAGE 5

1. Work Programme

The objective of WP 5 is to ensure coherence between the activities of the different Work Package teams and the associated bodies in order to achieve a timely delivery of defined tasks within the Work Packages.

2. Work carried out so far

2.1 Introduction - A remark about the financial protection requirements and the regulatory framework

Considering the great diversity of the national systems in the EU-27 (see Elios 1, special report on liability and insurance regimes), the financial protection of investor's interests is organised following different rules and largely depends on the national legal frameworks.

On the other hand, the Freedom to Provide Services (FPS) guaranteed by the Treaty establishing a Constitution for Europe (article III-144) is one of the main tools available in order to achieve the functioning of the internal Market. It is also, for the insurers, a natural way to offer guarantees to their home clients across Europe.

During our meetings with several stakeholders, it has become apparent that the question of the regulations applicable when an insurer acts in the framework of the Freedom to Provide Services, has to be raised.

The lack of knowledge and valuable information exchanged about the different covers delivered may conduct to some difficulties and impair the financial protection of investor's interests' mechanisms.

This risk could affect all the actors of the market:

- The insurer regarding its own « financial exposure ». This is notably the case for an insurer which is used to work on an unfunded / pay as you go basis and wants to deliver guarantees on a funded / capitalized basis like decennial covers.
- The insured regarding the risk of bankruptcy of his insurer, notably the owner, who must ask for information on his insurer.
- The reinsurer, also regarding its own exposure. This is the case for example if it participates to the cover on a quota-share basis. The asymmetry of information between the parties may also lead to an inadequate use of the treaties (for example use of a general liability treaty instead of specific decennial treaty).
- The financial public authorities who deliver the FPS authorizations. They may not have the knowledge on the financial exposure of foreign guarantees (such as decennial covers). In order to verify and validate the financial security of an insurance activity, the authority must have a thorough knowledge on the insurance product structure.

The access to information is a key element in the global process of insurance underwriting and the Elios team (especially WP 3) intends to examine the risk of difficulties resulting from a failure of information about the national legal frameworks and to search solutions in order to improve the situation.

2.2 Overview of work carried out

In the Elios 1 study, the advisory and steering work was limited given the limited number of partners, whereas the Elios 2 study has needed a bigger input in terms of organization to ensure coherence between the different work packages.

To reach this objective and in order to encourage the exchange of information between the numerous partners, different meetings between the work packages have taken place.

It can now be reported that the project is on track. Each WP is to adhere to the deliverables and adjustments are made where needed. For an overview of the work carried out so far by the different WPs, we refer to their contributions above.

In general it can be said that over the past six months, the general administration of the project has been handled and the necessary initiatives taken in such a way that the work programme and the project agenda were respected. The feedback collected from the Commission has been taken into account and WP5 now follows up the coordination between the different WPs.

In addition, the Commission receives regular updates on the progress of the project. The general public is informed of the progress made through the newsletter distributed December 2012, and the website which is being updated in collaboration with WP4.

The Scientific Committee is also receiving updates on the project as well as all the documents (progress reports, deliverables, etc) thereby enabling them to establish recommendations in terms of the work accomplished and in order to formulate their observations on the future orientation that the Elios 2 project should take.

A first meeting between the WP leaders and the scientific committee is scheduled to take place in September 2013 at CEA's office. The Commission will obviously be invited to take participate at this meeting.

Finally, as pilot of the Elios project, WP5 is studying the possibility of recruiting new partners in order to reinforce the team, most particularly for the Pathology and quality signs database.

3. Next steps

Over the next six-month period, WP5 will continue to monitor the smooth running of the project. In particular, the focus will be on executing Forum Meeting 4 (month 19) in June 2013, organizing a meeting for the Scientific Committee and drafting Progress Report 3.