



**BUILDUP**Skills  
7<sup>th</sup> EU exchange meeting

**7<sup>th</sup> EU Exchange Meeting**  
**18 – 19 January 2016**  
**Brussels**

**Report to participants**



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## Preface

This report sets out to harvest the results of the 7<sup>th</sup> BUILD UP Skills EU Exchange Meeting which took place on 18 and 19 January 2016 at the Renaissance Hotel, Rue du Parnasse 19, 1050 Brussels, Belgium.

A total of 74 participants attended the two-day event. The group was composed of 58 BUILD UP Skills project coordinators / partners representing 27 EU Member States, 10 Commission representatives and 6 consultants. These participants came to represent 4 finalised Pillar I projects, all 22 Pillar II projects and all 5 H2020-2014 EE4 (Construction Skills) projects. For the full list of projects and participants, see Annex 5 (the list is also available on the BUILD UP Skills Website: <http://www.buildupskills.eu/eu-activities/eu-exchange-meetings>).

The event was prepared by four senior consultants from Trinomics (Koen Rademaekers, Rob Williams, Andrew McCoshan and Katarina Svatikova), a senior consultant from Visionary Analytics (Simonas Gausas) and an event manager from GOPAcom (Geraldine Bechaux) together with EASME staff (Alessandro Proia, Zoé Wildiers, Amandine Lacourt, Pierre-Antoine Vernon) under the service contract EASME/H2020/EE/2015/008 “Support for BUILD UP Skills EU exchanges and analysis on construction skills”. The day featured high-level stakeholders such as from EASME, DG Energy, DG Employment, and DG GROW.

The exchange meeting consisted of plenary sessions and parallel groups with in-between time for informal networking and experiences exchange. A great appreciation and thanks is also given to all the participants, in particularly to the chairs and vice-chairs who contributed to organising the sessions. The following section introduces the agenda of the two days.



# 1 Agenda of the EU Exchange Meeting

AGENDA	DAY 1 - 18 January				
09:00 – 09:30	<b>Registration</b>				
09:30 – 10:45	<p><b>Plenary session</b>  <i>Chair: Didier Gambier, Head of Department EASME</i>  <i>Vincent Berrutto, Head of Unit, EASME</i>  <i>Paula Rey Garcia, DG ENER</i>  <i>Felix Rohn, DG EMPL</i>  <i>Roman Horvath, DG GROW</i>  <i>Alessandro Proia, EASME</i></p> <p>Introduction to the Technical Working Groups</p>				
10:45 – 11:00	<b>Coffee break</b>				
11:00 – 13:00	<p><b>Parallel session 1: Technical Working Groups</b></p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 25%;">Group 1 <b>Finance</b> (sustainability)</td> <td style="width: 25%;">Group 2 <b>Mutual recognition of skills and qualifications</b></td> <td style="width: 25%;">Group 3 <b>Innovation and incentives for training</b></td> <td style="width: 25%;">Group 4 <b>Market acceptance</b> (incl. marketing and communication)</td> </tr> </table>	Group 1 <b>Finance</b> (sustainability)	Group 2 <b>Mutual recognition of skills and qualifications</b>	Group 3 <b>Innovation and incentives for training</b>	Group 4 <b>Market acceptance</b> (incl. marketing and communication)
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13:00 – 14:00	<b>Lunch</b>				
14:00 – 14:30	<p><b>Plenary session:</b>  <i>Zoé Wildiers, EASME</i>  <b>Horizon 2020 topic EE14 on construction skills</b>  <i>Koen Rademaekers (Trinomics)</i>  <b>Action plan of the BUILD UP Skills EU exchange activities</b>  <i>Amandine Lacourt, EASME</i></p> <p>Introduction to the parallel workshops</p>				
14:30 – 16:00	<p><b>Parallel session 2: workshops</b></p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 25%;">Outcomes of finalised projects (Horia Petran, RO, Jan Cromwijk, NL)</td> <td style="width: 25%;">H2020 construction skills projects (BUStoB, IngREeS, MEriS, PROF-TRAC, Train-to-NZEB)</td> <td style="width: 25%;">Cross-craft understanding</td> <td style="width: 25%;">Extra session based on demand</td> </tr> </table>	Outcomes of finalised projects (Horia Petran, RO, Jan Cromwijk, NL)	H2020 construction skills projects (BUStoB, IngREeS, MEriS, PROF-TRAC, Train-to-NZEB)	Cross-craft understanding	Extra session based on demand
Outcomes of finalised projects (Horia Petran, RO, Jan Cromwijk, NL)	H2020 construction skills projects (BUStoB, IngREeS, MEriS, PROF-TRAC, Train-to-NZEB)	Cross-craft understanding	Extra session based on demand		
16:00 – 16:30	<b>Coffee break</b>				
16:30 – 17:30	<b>Presentation of the results of the afternoon parallel session (workshops), Q&amp;A, closing</b>				



## AGENDA

DAY 2 - 19 January

09:00 – 09:15

*Amandine Lacourt, EASME*

Plenary gathering to give a brief overview of the day

09:15 – 11:00

### Parallel session 3: Technical Working Groups

Group 1  
Finance  
(sustainability)

Group 2  
Mutual recognition  
of skills and  
qualifications

Group 3  
Innovation  
and incentives  
for training

Group 4  
Market acceptance  
(incl. marketing and  
communication)

11:00 – 11:30

Coffee break

11:30 – 13:00

### Plenary session:

Reporting on the results achieved by the Technical Working Groups (day 1 and day 2)

13:00 – 14:00

Lunch

14:00 – 14:30

### Plenary session:

*Jean-Baptiste Laffitte, COWI*

Presentation on the study outcomes and introduction to the parallel session on BUS Evaluation

*Zoé Wildiers, EASME*

Introduction to the other parallel workshops

14:30 – 15:30

### Parallel session 4: group discussions

COWI – BUS  
Evaluation  
Recommendations  
for the future

H2020 EE14  
construction skills  
– Brokerage event  
Construction skills  
(Market place)

World café:  
Discussion and  
selection of topics  
for the next meeting

15:30 – 16:15

Presentation of the results of the afternoon parallel session (workshops), Q&A

16:15 – 16:30

Closing

*Agata Kotkowska, EASME*



## 2 Key Messages of the Meeting

### 2.1 Day 1 (18 January 2016)

#### 2.1.1 Key messages of the plenary sessions

**Morning session (09:30 - 10:45), Chair: Didier Gambier, Head of Department EASME**

The plenary session was chaired by **Didier Gambier (Head of Department at EASME)** who opened the programme for the day. Mr Gambier provided the audience with the bigger picture in terms of the circular economy ambitions and energy goals of the EU, the recent Energy Union EU initiative within the framework of climate change and the outcomes of the Paris COP21 meeting. The final message was that energy efficiency in buildings is of utmost importance in order to achieve EU targets, such as the target for all new buildings to be nearly-zero energy buildings (nZEB) by 2020. Mr Gambier concluded providing some facts and the estimation that 3 million people will need to be trained to answer the current demand for skilled workers.

**The first presentation of the morning featured Vincent Berrutto (Head of Unit at EASME).** Mr Berrutto started by explaining how the issue of (energy-related) skills has evolved. A few years ago, the question was “is the workforce ready?”. There seemed to be agreement on the fact something needed to be done with respect to skills of the workforce in the construction sector and Intelligent Energy Europe (IEE) supported this (IEE ended at the end of 2013 and from 2014 calls on constructions skills have been covered by Horizon 2020). Mr Berrutto also reminded the audience about the history of BUILD UP Skills. He explained that when the BUILD UP Skills scheme was designed, the creation of a roadmap was already a goal for the first call i.e. the Pillar I. He provided facts such as that 30 countries (all EU28 + FYROM and Norway) participated on Pillar I, that currently not all Member States are represented in Pillar II projects, but that there will be funding opportunities in 2016 and 2017 to address this. Mr Berrutto voiced the importance of monitoring results and referred to the agenda for Day 2 in which the results of the Pillar I evaluation would be presented by COWI, who would take the opportunity to obtain feedback before they finalise their evaluation.

**The second presentation of the day was given by Paula Rey García (DG Energy) who presented the state of the art regarding energy efficiency policies in the European Commission.** Ms Rey García explained that the Energy Union provides the Commission with a clear mandate to review energy efficiency legislations and develops a so-called Smart financing for Smart Buildings initiative. Zooming into buildings in concrete, there is an obligation for the Commission to evaluate the EPBD before 2017 and that the Commission is working towards having such a legal proposal ready by September 2016. For this purpose the Commission is running a consultation with stakeholders and also with Member States. The results indicated among others that the Directive is successful for encouraging energy efficiency in new buildings but lacks effectiveness to address the performance of the existing building stock. Ms Rey García also elaborated on their work on the EU Building Stock Observatory aimed to tackle the current lack of single entry point for stakeholders to access data on buildings stocks. Further, she shared the results of the evaluation of the national renovation maps which is being finalised at the moment, which shows overall positive results and will potentially shed light on exemplary strategies. Lastly, she provided the audience with an update on the review of the Energy Efficiency Directive whose provisions on energy savings targets, as well as on Article 7, concerning energy efficiency obligation schemes, are to be revised.



***Felix Rohn (DG Employment) gave a presentation on Erasmus+ 2016 and the Sector Skills Alliances.***

Mr Rohn explained the key actions within Erasmus+ and spelled out in detail the two lots on the new Sector Skills Alliance: lot 1 on the identification of skills gaps and demand, and lot 2 on developing and delivering vocational education and training content. He explained that Sector Skills Alliances in lot 2 are in principle intended for VET but that DG Employment's understanding of the scope of VET goes beyond the upper-secondary level and covers the post-secondary, non-tertiary level but also the tertiary level provided the curriculum includes a strong work-based learning component (work-based learning not limited to an apprenticeship but also practical learning provided at schools that are well-equipped with simulators, mini-plants, labs, and other equipment suitable for hands-on learning). He provided the audience with an overview of the content and requirements of the two lots as well as the ins and outs of the annual calls, reminding the audience about the upcoming deadline for submission on 26 February 2016.

***Roman Horvath (DG GROW) spoke of the spoke of various construction-related initiatives of the EU toward 2020.*** Mr Horvath addressed the goal of the 2012 Commission Communication to support the construction sector adapt to challenges and to foster the sustainable competitiveness of the sector and its enterprises. He named the five specific goals to pursue, among which in relation to BUILD UP Skills, he highlighted "improving the human-capital basis of the construction sector". He also described recent developments in EU policies ranging from the 2014 Communication on a Green Action Plan for SMEs, to the Green Employment Initiative, the 2015 Communications on Upgrading the single Market and on the Circular Economy and to the recent REFIT (Regulatory Fitness) exercise, and the implications of these for the construction sector. After voicing the problem of a lack of interest of the present young to choose for a blue collar career, Mr Horvath ended up on an encouraging note for everyone to actively foster apprenticeships.

***Alessandro Proia (EASME) was the last speaker in the plenary session.*** Mr Proia presented the new working structure of the BUILD UP Skills network and introduced the agenda for the day. In particular, he introduced the new Technical Working Groups that will be the cornerstone of the EU Exchange Meetings and how these came into place. EASME's objective for these working groups is to ensure regular work and discussions on issues of interest for BUILD UP Skills stakeholders and the production of quality deliverables with the contractor's support (Trinomics).



The plenary session ended with a questions round from the audience. Mr Richard Bayliss (from the UK, representative of Pillar I) asked about ‘the key messages that need to go together with the targets if we are to encourage our local governments to act’. Mr Gambier responded that we are going towards a very different form of economy. He noted that there are already areas where changes are already noticeable and there is the feeling that something is growing (e.g. in terms of electric-vehicle deployment, eco-innovations). Mr Gambier stated that the new form of economy is much more cooperative and local. It should be stressed that in this economy the well-being of people would remain the same or even increase. Ms Rey García drew the attention to the growing pollution, particularly in cities, and the role buildings can play in the transition to a low-carbon economy. The message to local actors would be that they have an opportunity to rethink the way their cities are built.

Ms Anna Moreno (ENEA, Italy) asked the officers ‘whether there is anything that can be done to advance energy efficiency through public procurement’. Mr Berrutto answered that within the IEE programme public procurement has supported energy efficiency and that this will continue to be the case in the coming years through H2020. He added that for the first time within Horizon 2020 as far as energy efficiency is concerned, they are promoting public procurement of innovative solutions.

#### Afternoon session (14:00 - 14:30)

**Zoé Wildiers (EASME) opened the afternoon’s plenary session with the Horizon 2020 call on the topic EE14 on construction skills.** Ms Wildiers pointed at some important aspects thereof such as the fact that the challenge is to upgrade the skills of both white and blue collar workers, and the possibility to focus on one or various countries. She announced the budget ranges between 0.5 and 1 million euro per project (amount which needs to be well justified by the methodology and approach) and that the deadlines for submission for this topic will be opened twice: on 15 Sept 2016 and on 7 June 2017. Ms Wildiers encouraged in particular countries that are not part of the Pillar II of BUILD UP Skills to apply for funding and reminded the audience of the possibility for people to apply as experts in case they are not planning to submit any proposal.

**The second presentation in the afternoon featured Koen Rademaekers (managing director at Trinomics, and project leader of the contract EASME/H2020/EE/2015/008 “Support for BUILD UP Skills EU exchanges and analysis on construction skills”)** who presented the action plan of the BUILD UP Skills EU Exchange Activities. Mr Rademaekers introduced the objectives, scope and key actions to be carried out within the service contract to support BUILD UP Skills and displayed some of the latest developments regarding the deliverables to be expected, for instance the BUILD UP Skills Website.

#### Plenary Presentation of the results of the afternoon parallel session 16:30 - 17:30

This plenary session served to summarise the main outcomes of the afternoon parallel session (on the outcomes of more advanced projects, H2020 construction skills projects, and cross-craft understanding) for everyone present in the room.

#### Closing off the day

The closing for the day was done by Zoé Wildiers. Ms Wildiers encouraged everyone to engage in the teleconferences around the TWGs work that the contractor (Trinomics) will plan in between the exchange meetings. She also reminded Pillar I project coordinators that EASME invites one





representative per country to participate in the upcoming exchange meetings (more than one person would be welcome when at own expenses).

Ms Wildiers closed by informing the audience about the upcoming call in 2016 and 2017 on construction skills EE14. She highlighted the main findings of the ex-post audit controls. The main issues identified by the auditors are related to timesheets, hourly rates, in-house consultants (the 7 rules have to be respected) and subcontracting (needs to be properly documented). The consequence of non-compliance is that a beneficiary has to reimburse EASME.

## 2.1.2 Key messages of the workshops - Parallel session 2 (14:30 - 16:00)

### 1. Outcomes of finalised projects

Facilitated by Koen Rademaekers (Trinomics) this session elaborated outcomes of two finalised projects (in Romania and in the Netherlands) focusing on their achievements and success factors.

#### QualiShell, Romania

*Horia Petran* (Project Coordinator of QualiShell) shared the case of BUILD UP Skills in Romania. QualiShell stands for high quality building envelope. The main success of this project was the elaboration and implementation of two national qualification schemes and the development of a partnership for education in the form of a voluntary National Qualification Platform (NQP).

This NQP was set up as a voluntary agreement. It consisted of 730 people and 50 training suppliers encompassing professional / technology schools, qualification / training providers, contractors, and technology & systems producers / suppliers. Importantly the NQP included local authorities, which in the context of Romania was very interesting since they are the ones running education, including VET.

Before QualiShell, the national qualification schemes were not defined. With QualiShell they started with the occupational analysis (addressing questions such as ‘what are the skills?’, ‘what are the competence units?’). The primary success factor was the split of the curricula (in other words, each qualification) into smaller modules that would provide specific skills to workers. Such an approach avoided workers having to invest 170 hours on training and consequently facilitate that a worker could get a qualification on some smaller module and decide when to go ahead with an additional module / qualification.

Mr Petran also listed some other remarkable results and deliverables produced. The development of a competence definition; the definition of the curricula and the courses, training contents and the tools for implementation; and actual piloting of the courses. They achieved 11 signed partnership agreements between education and industry; produced 16 reports /guides /manuals, 18 event reports and other communication materials; launched a website, a BUILD UP Skills Group on LinkedIn and opened a Twitter account.

He then concluded with singling out the lessons learnt. Particularly important seems the need to convince employers to qualify their workers (and employees of the benefits of qualification). Also to set up quality levels and requirements for certified qualification, together with control enforcement (‘sticks’), dedicated financing sources and instruments for training and qualification on the construction



sector ('carrots'), while ensuring authorities' involvement in stimulating partnerships between education and partnership.

The presentation was followed up by one question of the audience and one by the facilitator from Trinomics (Koen Rademaekers) which were responded by Mr Petran:

Q1: *"Lithuania has a similar case there. What is Romania's experience with entering the scheme? And also what is the formal vs. the informal training?"*

R: "Qualification programmes are given by authorised organisations. In order to increase the number of qualified people and acknowledge informal training, it can be done through evaluation not qualification. Romania's approach from the start was to choose for qualification though. Workers need to follow the number of hours mandated by law thus. If the problem with formal training is the cost of it, one can reduce costs by sharing resources. A full-length programme for 28 people is 1,000 euro per trainee, which is quite some money. By sharing resources you can make that considerably more affordable."

Q2: *"In which way are your results replicable to other Member States?"*

R: "We found the Romanian context had similarities with Spain. Other than that, the first success story, the partnership for education, in other words sharing resources, would be replicable."

### **BUS N@W, the Netherlands**

Jan Cromwijk (project coordinator of BUS\_N@W) shared the experience of BUILD UP Skills in the Netherlands. The success of the Dutch case lies in the fact that BUILD UP Skills in the Netherlands consisted of a "comprehensive" approach to upskilling. The goal of BUS NL is to help the craftsman do their work right. He explained that the number of houses retrofitted with single measures is huge in the Netherlands. This leads to a poor energy performance and hence the need for tackling energy efficiency in housing more holistically. Initiatives from the Dutch Ministry such as 'Stroomversnelling' (meaning 'energy accelerator') facilitates such a process efficiently, by developing a new house skeleton and components of a house in the factory through which a house can be retrofitted in one single day. Mr Cromwijk argued that currently the early adopters have adopted such integral renovations and that approximately 1 out of 100 house occupants is asking for it. The forecast is that in 5 years-time 1 out of 10 would ask about it. In connection to 'skills', he presented the craftsmen as a surfer, a skilled person, who has trained hard and for many years. What they have done at BUILD UP Skills in the Netherlands is to part from the status quo with a roadmap consisting of action points at the short, medium and long term. Such a roadmap also illustrated who the responsible for each action was and which actors had to be involved in carrying an action out. Unlike in Romania (where BUILD UP Skills focused on the education system), BUILD UP Skills in the Netherlands focused on VET and only after on regular education. The presentation ended with a list of success factors that made this BUILD UP Skills case exemplary:

- Success factors I: Working together with the National Qualification Platform was essential in realizing the upskilling.
- Success factor II: Integrating results in national programmes.
- Success factor III: Working towards the next generation curriculum in 2020 by writing up the needed changes in craftsmanship and integrating them in education incrementally as experiments and modules that can be chosen.
- Success factor IV: Providing workers with training centres in the region as craftsmen are unwilling to commute long for training.



- Success factor V: Integrating results in tools is key. Reports are not effective in tackling the skills problems and that what is needed at present are tools, such as the 'BUILD UP Skills advisory app' they created, through which the HR workers at a construction company can identify suitable trainings for their workers.
- Success VI: To target trainings at frontrunners enables creating a movement by making them ambassadors for other to join.
- Success VII: Providing regional operating consortia with advice on how to acquire the needed funding by helping them to write good proposals.

This presentation was followed up by a discussion in which the audience and the facilitator from Trinomics (Koen Rademaekers) engaged.

One participant enquired about the usefulness of the app. Mr Cromwijk stated that currently they are working on integrating in the app the option for conducting self-assessments, so that craftsmen can login, select their occupation, and instantly perform an assessment in order to find out where their skills gap lies. They work in modules, and within each module, they have created components that can be assessed.

Another participant enquired about the BUILD UP Skills platform created in the Netherlands. The answer of Mr Cromwijk was that it is key "to keep it as informal as possible", making "everybody feel equal" as well as to connect it with national initiatives so that government representatives take part.

Mr Rademaekers then enquired Jan about the ambitious forecast Mr Cromwijk had mentioned of increasing from 1% to 40% the number of people asking for an integral renovation, and further asked how they expect to manage the skills need in that regard. Mr Cromwijk expressed that in the Netherlands they are formally doing a good job, but not so much technology-wise. Instead of regulating, he suggested the focus should be directed to real performance and quality with a flexible workforce. The application they have developed ought to be able to tackle that challenge.

Mr Rademaekers also enquired about the (financial) sustainability of the project after finalisation, interesting for the rest of the ongoing projects. Mr Cromwijk responded they have applied for Horizon 2020 funds (for instance, BUStoB). That is how they gave continuity to the platform. Further, they reserved some hours and budget in BUS N@W to train other people to develop proposals for new projects. He added that the good thing about being an EU (funded) project is that you can be the umbrella provider, while others at the national level do the actual job (whereas if you are a national project, you are in competition).



The discussion was also directed to trainings and how this should be framed. Mr Cromwijk's take on this was that life-learning is unavoidable and that the workforce needs to be provided with flexibility to



realise that. Next to that, trainings must be very task and goal related, teaching how one should perform the task and how to perform such in the best way possible.

In a final round of questions for both speakers, a question from Ms Margot Pinault of DG ENER concerned *the link between the energy / building targets and the BUS initiatives*.

Mr Cromwijk responded that “in the Netherlands, there are some hypotheses but nothing is proven yet, but the main incentive would be that craftsmen want to do their job well. Next to that, it is all about integration. When Europe is going toward nZEB, circular economy and so on, countries will have to integrate and change several things. There is therefore an incentive to go on in that direction already.”

Mr Petran claimed that “in Romania there are no energy efficiency requirements yet and therefore in this context the European Commission could help.”

To close the session the facilitator, Mr Rademaekers, brought up the issue that the market demand is changing and asked the speakers about their view on whether a minimum level of skills needs to be agreed across Europe.

Mr Cromwijk responded that “that should not be necessary, and that what does need to happen is to make quality transparent. That would be more effective than regulation.”

From the Romanian perspective, Mr Petran responded that “The way to increase the demand is the hard way. In Romania, if something is compulsory, it is ok; if something is not compulsory (yet), they are waiting for it to be compulsory. On top of that, there is a need to change awareness in order to change attitude. A change in attitude would be an important driver for the qualification market.





Photos from morning coffee break 10:45 - 11:00



## 2. Horizon 2020 construction skills EE4 projects

This session was especially crafted for the coordinators and partners of the Horizon 2020 EE4 projects on construction skills BUSToB, ingREeS, MEnS, PROF-TRAC and Train-to-NZEB to exchange experiences, become inspired and explore possibilities for collaboration. The session consisted of presentations of the five EE4 projects followed by a discussion on potential cross-project collaboration. The session was facilitated by Alessandro Proia (EASME), Katarina Svatikova and Rob Williams (Trinomics).



## **BUStoB**

BUStoB was presented by Mr Ruud Geerligs of SBRCURnet. BUStoB is a Dutch project that will produce short trainings aimed at establishing and upgrading large-scale qualification and training schemes in the Netherlands for EQF4 level workers (workers doing calculations, work planning, drawings), craftsmen and other on-site workers. Concretely the project will develop 76 e-learning modules in the form of e-assessments: 50 modules for technical specialists, 20 modules for basic craftsmanship and 6 modules for EQF4. In so doing, BUStoB builds upon the results of two finalised projects namely DuBUS and BUS\_N@W. In numbers, the project aims to have 3,000 employees with increased skills/capability/competencies on energy issues. At least 30.000 consultations of the BuildUpSkills-app.

## **ingREeS**

ingREeS is a qualification and education scheme for middle and senior level professionals on energy efficiency and use of renewable energy sources in buildings. The project was presented by Mr Jiri Karasek from SEVEn. It extends the implementation of the Roadmap agreed on Build UP Skills Pillar I to middle and senior level construction professionals in Czech Republic and Slovakia. The project also aims to promote a financial and legal framework supportive of further education and training as well as to accelerate energy- renovations of buildings. The presentation showed ingREeS has defined milestones to be achieved throughout the timeframe. The project's expected impact include a better trained workforce, increased motivation to invest in skills and a legal and financial framework favorable to continuous education and training.

## **MEnS**

Ms Daniela Melandri presented the MEnS project, which stands for Meeting of Energy professional Skills. MEnS is a project aiming to provide and enhance skills of engineers and architects to build according to nZEB by providing them with training activities developed by 8 universities, 1 research centre and 3 market players. The project is also supported by an advisory board and a media broadcaster. MEnS



encompasses three sets of activities revolving around professional development and training courses, e-learning and the MEnS platform, and the front meeting of skills. Among others, the impact the project sets out to achieve includes increasing the knowledge and skills to build nZEB base of at least 1800 building professionals, of which 50% should be women; to implement such training programs in 10 countries; to achieve energy savings and/or increased use of renewables of at least 28,96 GWh/year.

## PROF-TRAC

This presentation was given by Mr Peter Op't Veld. PROF-TRAC stands for Professional multi-disciplinary Training and Continuing development in skills for nZEB principles. PROF-TRAC has developed a skills mapping methodology (creating inventories of professionals, existing qualifications, available education programmes, accreditation and certification structures and so on) through which estimates of the number of professionals required can be made. One of the results is a mobile application that facilitates actors in the construction sector find a suitable training. PROF-TRAC has also resulted in a database that lists training projects and categorises these according to for instance target / involved groups or building phase. This database is online now <http://proftrac.eu/training-materials.html>.

## Train-to-NZEB

The project has been presented by Dragomir Tzanev. The project aims to transfer the knowledge and experience from the Germany and Irish Passive Housing institutes to other partners and countries by setting up so-called Building Knowledge Hubs (BKHS). The project is also meant to provide sustainability to BUS projects. The aforementioned is done by working on innovative training programmes, business plans and on improving the equipment for practical trainings and demonstrations in existing building training centres. So far visible results are the detailed template for setting up of Building Knowledge Hubs, the Business Plans template and one general and 5 national communication strategies, according to which the project has developed its own website ([www.train-to-nzeb.com](http://www.train-to-nzeb.com)) and visual identity. The project has been already presented on many occasions, gaining support and attracting potential followers to replicate its concept.

Discussion on potential areas for cooperation between projects:

General aspects all projects should consider (to enhance collaboration) are:

- Linking all 5 projects through the projects' websites;
- Linking projects on the BUS website (e.g. via an Intranet) and BUS portal;
- Keeping an eye on each other and work in parallel;
- Preparing common workshops / meetings; and
- Cross-participation in these projects by attending each-others meetings
- Organising a dedicated Horizon 2020 construction skills parallel session for the next EU exchange meetings.

Concrete actions for projects emerged from the similarities perceived in various projects. For instance PROF-TRAC and ingREeS are both working on Czech Republic and Slovakia. This was seen as an opportunity to cooperate by sharing contents and deliverables, and producing common deliverables. The project coordinators of these two projects offered to cover a slot on the next exchange meeting to present their experience. The discussion suggested there could be also an opportunity to include other Horizon 2020 projects on construction skills projects in the MEnS advisory board.



### 3. Cross-craft understanding

The session was chaired by Anna Moreno (IT) and reported at the plenary by Charalampos Malamatenios (EL). Session was supported by contractor's representative Simonas Gausas (Visionary Analytics) and EASME representative Amandine Lacourt.

The aim of this session was to engage the project coordinators and partners in an interactive exchange of information by discussing the issues around the topic, identifying most important difficulties and achievements and sharing good practices to address them.



The session started with short presentation by Simonas Gausas (Visionary Analytics) on the context, definition and approaches concerning cross-craft understanding. The presentation covered the following aspects:

- The context and the need for CCU emphasizing three issues:
  - Conflicts inherent to the organisation of the work in the modern economy (work is becoming more and more flexible, but at the same time increasingly specialised and efficiency-driven);
  - Technological changes (incl. new raw materials, modern equipment, new technologies for energy production);
  - Requirements for NZEB is expressed not only in terms of design, but also in terms of implementation leading to many CCU related problems.
- Definition of cross-craft knowledge and skills as ability to grasp own work as part of the overall project or ability to know needs of other areas, other professionals;





- Examples which allow differentiating between cross-craft knowledge and skills (e.g. thermal bridges, air-tightness, moisture proofing, installation of windows, thermal break) and soft/ basic/ transferable knowledge and skills (e.g. learning to learn, leadership, language skills, computer skills, problem-solving skills);
- Examples of approaches for developing cross-craft knowledge and skills;
- Questions for participants to be discussed in small groups (see below):

Questions/ observations from participants included the following:

- Need to distinguish between cross-craft understanding and multi-skilling (also known as cross-skilling or policompetency). The former is not focussed on learning skills of other (intersecting) occupations, but on soft skills and understanding the role and needs of other occupations in the construction process, work flows and interfaces between trades. Multi-skilling is when an employee trains in multiple skill-sets, i.e. develops competencies from more than one recognised trade. Both of these are important but in different ways;
- CCU should be understood as part of overall quality management process (e.g. part of building information modelling).

Discussions in three small groups focused on the following four questions:

- Is CCU more needed/ different for:
  - Employees in large companies than for SMEs?
  - Older employees than for younger ones (recent shift)?
  - Foreign workers than for national workers (due to language problems, also different construction requirements)?
  - Large construction sites than for small ones?
- What are incentives to ensure CCU for workers, site/ quality managers, employers, training institutions, trainers, etc.?
- What are the best ways to teach CCU?
- What are the sources of information on CCU and where to find them?

**Summary of discussions (for each question):**

- Is CCU more needed/ different for different groups of workers/ companies?
  - CCU is needed for each occupation and at all levels including also professionals and planners;
  - It is needed both for large companies (between planners and those who implement) and for SMEs. The need for CCU for SMEs is probably higher than for large companies though.
- What are incentives to ensure CCU for workers, site/ quality managers, employers, training institutions, trainers, etc.?
  - There should be market demand for well-coordinated works;
  - CCU should be linked to quality requirements (for quality of the final product or service) and the latter - to financial responsibility. For example, if the final product does not meet high quality standards - and this is linked to the lacking cooperation



when installing systems i by different groups of workers - then there should be to be a penalty imposed on all involved professionals;

- In France CCU is partly ensured by an engineer who is responsible for organising different crafts in the construction site. In the UK, there is similar position called Retrofit Coordinator - a single individual who is responsible for coordinating different trades during the retrofitting process (more information is provided in the [report](#) of the Green Construction Board). It is easier to train one person that trains everyone, but the Retrofit Coordinator could become 'isolated' and this will increase the project resources. Another similar position encouraging CCU is the Building Information Modelling (BIM) Manager;
  - There could be specific criterion in public procurement to encourage CCU;
  - CCU could be encouraged first through discussion among white collar employees about the issue and respective measures (as it is carried out in Finland).
- What are the best ways to teach CCU?
    - Training should be built on the understanding of the building as a system. Training should develop this understanding which is more important than developing specific skills;
    - Training needs to be based on common language between workers, professionals and clients;
    - Participants should be deliberately selected to represent a mix of crafts. This should maximise the opportunity for collaborative learning and reinforcing the 'systems thinking' message of the courses;
    - Training should start with persuasive message(s) instead of formal learning outcomes. (e.g. video of a poor family living in a very energy inefficient house to create awareness among the learners; learners are then encouraged to identify the problems with this particular building and their reasons, to associate trades causing these problems and take action) Persuasive message should emphasise the reasons and societal needs 'Why' we should have low energy buildings. The message should not be judgemental (e.g. it should not point a finger of blame at construction workers or their lack of skills). It should simply illustrate that approaches are changing and that this can be positive for everyone, i.e. new work opportunities, recognition of qualifications, benefits to building owners, etc.;
    - When training for CCU, we train for attitudinal/ behaviour change (the most difficult type of training). Thus it is important that the trainer here acts as a facilitator (learner at the centre) and not at the centre telling what learners should do or not do;
    - In-class activities should also emphasise active learning and problem-solving. This requires trainers that are skilled in facilitating group work. Therefore in-class activities and course materials of train-the-trainer courses in CCU area should include these methods;
    - In-class activities should be focused on a group work and not on individual work. This helps to leverage the mixed expertise within the sub-groups on the training. It also encourages crowd-mentality which is a powerful stimulus for change;
    - Separate workers performing the same tasks (e.g. cases of working in consortia, networks or using mobile platforms). Advantages of this approach include better



transfer of CCU and more efficient work. Support for contractors to build networks could help them to get to know each other and the roles of different trades;

- Organisation of onsite workshops when workers develop solutions together.
  
- What are the sources of information on CCU and where to find them? Some useful examples were mentioned but it also turned out that a more systematic data collection would be valuable:
  - [Energy efficient building - A guide for construction site](#) (Finland) and related instruction cards;
  - [Builder's book](#) (UK) which is built on simple approach - it might only require only a couple of hours training or an online resource or toolbox talk (UK);
  - Report on the implementation of the Train the Trainer programme (QUALIBUILD, Ireland);
  - CCU module (UPSWING, Greece);
  - Scheme on CCU at the level of the initial vocational education and training (Germany);
  - Relevant schemes in France and Luxembourg;
  - All participants agreed with an idea to set up a database (possibly online) on CCU between participants. EASME and Consultant representatives promised to help to collect material from participants on CCU and make it available on BUS website. However, whether this database will materialise, mostly depends on willingness of participants to share material.

#### Photos from afternoon coffee break & poster session 16:00 - 16:30







## 2.2 Day 2 (19 January 2016)

### 2.2.1 Key messages of the plenary sessions

#### Morning session (09:00 - 09:15) and (11:30 - 13:00)

The day started briefly in the plenary room, where Amandine Lacourt (EASME) introduced the programme for the day and asked the participants to join their Technical Working Groups' sessions.

Once the Technical Working Groups' session was finished, the participants gathered themselves again in the plenary. The aim of the plenary session from 11:30 till 13:00 was to report on the results achieved by the TWGs during day 1 and day 2.

**The Vice-Chair Jan Cromwijk (NL, BUS N@W and BUS2B)** reported briefly on the discussions and results achieved in **TWG 4 - Market Acceptance**. **Rob Williams (Trinomics)** leading this working group from the contractor's side finalised the presentation by explaining how they will move forward in this group and what actions they will take.

**Helder Gonçalves (PT, BUS Foresee)** gave a short presentation outlining the goals of the three sub-groups within the **Technical Working Group 3 - Innovative training methods and incentives**. He explained the actions to be taken and the deliverables, such as a database, with pros and cons of identified solutions.

**Frantisek Doktor (SK, STAVEDU and ingREes)** explained the main objectives of the **TWG 2 on mutual recognition**, the actions that will be taken and the main agreements and conclusions. The main aim of the group will be develop a draft of a tool for mutual recognition for a selection of key professions.

Lastly, **Karoly Matolcsy (HU, TRAINBUD)** presented the topics that were discussed in the **TWG 1 on finance**. The discussion was around the main cost elements, who could finance, financial barriers as well as discussion on the cost of courses. **Koen Rademaekers (Trinomics)** added further details on the discussions in this group.

For each group, the respective EASME staff following the group also provided their positive feedback and expressed confidence in the group's deliverables and actions. The details regarding the key goals, actions and deliverables are summarised in section 3 of this report.

Since there was some time remaining, EASME staff asked for some feedback on the event so far. The main feedback was that there was not enough time during Day 1 for the Technical Working Groups and that too much time was spent for plenary presentations. Next it was mentioned by EASME that the BUS website, currently being redesigned, will serve as a platform to distribute the results of the TWGs. The website will have a public section and a private, intranet section for project members to interact. Another comment from the participants praised the Horizon 2020 EE4 session on construction skills as it provided a good opener for future cooperation among these five H2020 EE4 projects.



### Afternoon session (14:00 - 14:30) - Presentation on the study outcomes by COWI

The afternoon plenary session was dedicated mainly to the presentation by **Jean-Baptiste Laffitte (COWI)** on the study outcomes of their BUS Pillar I evaluation. The subsequent parallel session led by COWI was also introduced.

COWI started with the scope and objectives of the evaluation they were carrying out together with Viegand Maagoe. The evaluation started in January 2015 and has been finished in January 2016. The aim was to:

- Identify and apply a methodology to evaluate the impacts of the IEE BUILD UP Skills Pillar I projects;
- Identify and propose a methodology for assessing the medium to long-term impacts that IEE BUILD UP Skills Pillar II; and
- Provide recommendations for the future market uptake activities within the Horizon 2020 research and innovation programme (2016-2020).

Most project representatives have been contacted with respect to this evaluation. In particular the evaluation assessed the calls for proposals process and the proposals under Pillar I. There have been thirty BUILD UP Skills Pillar I projects with a duration of 18 months each and all have come to an end. COWI further explained the methodology used, such as desk review of background documentation, project materials, coordinators interviews, e-survey and EU exchange workshops. The evaluation criteria used were: relevance, effectiveness, sustainability and coherence & synergies.

The results of the Pillar I evaluation are the following:

- There has been a short time from call for proposals to submission of proposals, however, the call addressed the needs in all the EU countries.
- Regarding the National Qualification Platforms, it was difficult for some countries to identify relevant stakeholders, others had already a good network. In the end, all countries have managed to establish solid and representative platforms
- The Status Quo Analysis brought new and valuable information.
- All the countries made good roadmaps. Some of the suggestions are now included into national curricula. Most common shortcomings are a lack of detailed implementation plans and financing plan / budget.



- Not all the roadmaps have clear financial commitment. The endorsement process was however very important.
- Most of the countries perceived the added value of the fact sheets. However, these were not comparable across countries due to calculations carried out in different ways.
- The EU exchange meetings have been seen as very valuable and efficient. However, some of the more advanced countries felt that they were giving more than they received.
- Some impacts of Pillar I projects were: raised awareness, establishment of national platforms, increased dialogue, creation of Pillar II projects, or changes to national curricula. The reports of Pillar II projects should focus more on the impacts.
- Sustainability has been secured through Pillar II projects, which was expected by all Pillar I projects. For countries not continuing with Pillar II projects it is difficult to document sustainability. There have been no direct energy savings from Pillar I.

Next, COWI introduced their Pillar II projects monitoring methodology. A template with 11 success criteria has been given to the participants and they were asked to fill it out before the end of the meeting. These success criteria included preparatory and implementation criteria as well as outcomes/ impacts.

The suggestions for monitoring methodology included nine points, such as “agree on the level of impacts to be monitored and the purpose of the reporting”, or to “identify a common set of indicators and their definition both at short and long term”.

The key recommendations were:

- Include need for craftsmen training in next directive recast;
- Continue the support of implementation of projects/actions from the roadmaps;
- Keep focus on craftsmen (blue collar) to avoid diluting efforts;
- Support synergies with other sources of funding (national and EU) to improve sustainability;
- Strengthen Sustainability activities of Pillar I and II projects outcomes;
- Market the BUS approach to be used to other initiatives requiring and strong national dimension;
- Adopt an online monitoring system for streamlined and coherent reporting from projects;
- Improve reporting (both in terms of its processes and its purpose); and
- Involve the monitoring and evaluation team at an early time in the projects.



### Presentation of the results of the afternoon parallel sessions (15:30 - 16:15)

Similar as in Day 1, short presentations have been held on each of the three workshops held in the afternoon.

### Closing (16:15 - 16:30) by Agata Kotkowska (EASME)

The event has been closed by closing remarks of Agata Kotkowska from EASME. She summarised the key messages of all the sessions and thanked all the participants for their contributions and organisers for the contribution to the successful event.

### 2.2.2 Key messages of the workshops - Parallel session 4 (14:30 - 15:30)

#### COWI BUS Evaluation - lessons for the future

A small group discussed the presentation given by COWI on their evaluation work. There was some discussion on the conclusion to retain the focus on blue collar workers. This conclusion was clarified - with the extra detail that the conclusion was not that the programme should not attempt to address white collar skills issues, but these efforts should not be at the expense of efforts to address blue collar skills issues. Further discussion on this point covered the question of where the blue / white collar 'border' is. For example does it include workers whose responsibility includes checking the quality of completed buildings? COWI confirmed that they were using the definition from Pillar one, i.e. based on the highest educational level of the worker, so any worker with no higher education is classified as blue collar. The blue / white collar definition of site supervision staff was agreed to be a grey area. It was confirmed that the open call for proposals is open to blue and white collar.

The conclusion that Pillar one has yet to show substantial impact was discussed. The discussion suggested that much of what was achieved has happened somewhat 'behind closed doors' - i.e. it has produced useful work, but much of this is not publically visible. For example the skills roadmaps were needed and are very useful. The roadmap has helped to stimulate demand, for example in Ireland, demand is increasing to the point where there is now a waiting list for private trainers (in training the trainer. In Ireland the longer term view is that the training should become self-sustaining. This may be done by creating a register to create value for the training.





The use of indicators to collect output information was discussed. There was some concern about the risk of double reporting (if indicators were not clearly defined). The suggestion was made that more use could be made of blogs to capture outputs / results. This could be done with twitter, all the projects have communication officers who are likely to use twitter to promote their project. There could also be more use of forums to discuss problems. Indicators based on energy savings were discussed and some felt that they are very hard to produce / calculate. An interesting indicator for training success that was suggested was increases in salary (for the trainees) after training.

There was discussion on marketing the courses. An Irish study into what construction workers want from their training - e.g. what timing and length suits them best was discussed. This led to courses (for example) based on blended learning, with a significant hands-on aspect and learning materials produced with basic language, use of pictures etc. to reflect some literacy issues in the target audience.

#### Horizon 2020 construction skills EE14 topic - brokerage event

In view of the open call for proposals on construction skills in 2016 and 2017 (EE14 under the Horizon 2020), this open session gave the participants the opportunity to network and exchange ideas about potential proposals. The session did not have any structure and no staff from EASME was present. From the feedback of the participants it was clear that some liked the free structure, while others would have liked the session to be a bit more structured.

#### World café session on the discussion of topics for the next meeting

The World café session was a very small group of participants, including Alessandro Proia and Amandine Lacourt from EASME. The format of the session was not world café as originally planned, but discussions on topics for the next meeting took place around one table.

The group started with the discussion on what the participants liked and what they did not. It was clear from the feedback that the Technical Working Groups were an added value to the EU exchange meetings. The first plenary session with several presentations was perceived as too long and the presentations should have been more targeted to the needs of the BUS projects. It was also suggested that the finalised projects could have a presentation in the plenary session, with a follow up discussions in a dedicated workshop (parallel session). This would ensure that all participants get to know about the results of the finalised projects, and those more interested can benefit from a follow up workshop.

During the discussion it also became clear that projects have some issues with the evaluation and assessment of their impacts and indicators. Hence, a suggestion for the following topics has been made that could be discussed at the next meeting:

- A session on the evaluation of the projects;
- A session on the assessment of the training provided by the BUS projects;
- A session on how to deal with reporting on indicators, in particular on how they work, how to develop them (e.g. for energy savings indicator). A plenary session could be organised to present the guidance, and a follow-up workshop with interested participants could go deeper into the topic of developing indicators.
- A session on relevant EIB financing schemes (e.g. InnovFin).
- A presentation of the SME instrument under Horizon 2020.



- A presentation on the Erasmus for all.

Another suggestion has been to introduce a game/ competition among the participants as has been the case before. For example, a prize for the best poster, for the best presentations, etc. where the participants could vote on this. It was mentioned that the ‘fun’ element of the meetings is important.

## 3 Technical Working Groups

This section presents briefly the main objectives, key actions and conclusions of the four Technical Working Groups during the two sessions at the 7<sup>th</sup> EU exchange meeting. Full programmes and work plans are available in the reports drafted and shared with the respective TWG members.

### 3.1 Technical Working Group 1 - Finance (sustainability)

#### 3.1.1 Summary of the proceedings

##### Parallel Session 1 11:00-13:00

**Chair:** Karoly Matolcsy (HU)

**Vice-Chair:** Giovanni Carapella (IT)

**Consultant:** Koen Rademaekers (Trinomics)

**EASME:** Pierre-Antoine Vernon

**Participants:** Theocharis Tsoutsos (EL) (present on Day 1), Lucie Kochova (CZ), Silviya Bruna (LV), Giovanni Carapella (IT), Elisabeth O'Brien (IE), Triin Väljataga (EE), Liina Henning (EE) (present on Day 2).

##### Go around the Table - Checking in

The session on day 1 began with a tour de table’ which revealed that the finance TWG consists of white collar workers namely architects and engineers, and a professor in sustainable building.

##### Presentation by the chair

Karoly Matolcsy gave a Power Point presentation focusing on three issues: the importance of financial sustainability, the cost of training for training providers and sources to finance these, and the motivations and access-to-finance of blue collar workers to attend trainings.



### Discussion on barriers and solutions

Following the presentation, the chair and the consultant led a discussion on financial barriers. Participants of the TWG shared country-specific experiences and best practices which served to illustrate these issues. The following **barriers to finance** were spelled out:

- **Price of certification of trainings** e.g. *Cost and affordability of certification* from the consumer side (the person or company who is going to pay for the training).
- **The demand for trainings** e.g. Training is not required and sometimes trained workers do not get the benefit expected from being trained
- **Cost of trainings** e.g. from the consumers' perspective, the *cost of trainings* (including travelling). From the suppliers' side, the costs of setting the *right infrastructure*.
- **Opportunity cost** e.g. Time spent on training is time not spent at work, which results in a loss of income that the worker and/or the SME cannot afford
- **Increased worker employability** e.g. Companies might be not willing to invest in trainings that eventually increases their workers' bargaining power with their employer and/or their capacity to look for other employers.
- **Downward pressure on costs** e.g. Competition with the black market drives renovation costs down and many home owners go for the cheapest offer when selecting a company for their renovation, without sufficient consideration to the quality of renovation

### Closing of the session - Solutions to be explored

Ms Matolcsy and Mr Rademaekers closed the session with a wrap up of the aspects where solutions to the problems identified during the session could lie, namely:

- Legislation (towards mandatory qualification)
- Integration of workers needs into trainings; and training into technical education



- Creating a real market need e.g. through consumer campaigns
- Replacing EU funding
- Coming up with innovative funding schemes:
  - Attract public money e.g. Government funding
  - Involving the competitive industry to support qualification
  - Involve training schools and institutions
  - Find a role for the construction federations, trade unions

### Exchange on best practices in Member States

The aim of the second day was to dive deeper into how financing of skills and education takes place in practice in the different Member States. Each of the participants explained the situation from the perspective of their countries, along the lines of:

- Type(s) of trainings available, popularity of different types of trainings
- Costs of trainings
- How trainings are financed
- How the work done as BUILD UP Skills is being implemented

This conversation shed light on the state of affairs of financing for trainings in countries as disparate as Ireland, Italy, Czech Republic, Estonia and Latvia, providing a rich knowledge base for further discussion and action as explained on the section below.

#### 3.1.2 Key conclusions and action points

The following was concluded from discussing the different approaches in the Member States:

- There are both **market-based** and **grant-based** opportunities for funding; An **integrated approach** is necessary most of the times;
- Enhancing the **attractiveness** of the courses and the **good dissemination** thereof is crucial.

There was also ‘homework’ agreed for the next EU exchange meeting:

- A **questionnaire** will be created by the participants to collect more information about the **financial tools** in place in different Member States;
- **Best practice cases** of financing training will be asked from the participants at the next meeting;
- Successful initiatives achieving **compulsory trainings** will be asked from the participants at the next meeting.

## 3.2 Technical Working Group 2 - Mutual recognition

### 3.2.1 Summary of the proceedings

**Chair:** Frantisek Doktor

**Vice-Chair:** Irmeli Mikkonen

**Senior experts (contractor):** Katarina Svatikova + Andrew McCoshan (Trinomics)

**EASME:** Alessandro Proia

**Participants:** Stiliyan Ivanov (BG), Risto Ivanov (MK), Anna Moreno (IT), Bojan Milovanovic (HR), Rossella Martino (IT), Susana Camelo (PT), Daniela Melandri (IT), Patrick Hendrick (BE), Liina Henning (EE)



## Objectives of the TWG

The purpose of this Technical Working Group is to discuss the issue of mutual recognition of skills and qualifications across the EU Member States. The main objective is to explore and analyse how to ensure that skills and qualifications recognised in one Member State are recognised in another Member State. This is important in particular for cross-border and migrant workers in construction.

The main questions to be discussed in this TWG were the following:

1. Definition of the objectives of the mutual recognition system in practice - What does the employer need, in particular, what does the employer need to know about the employees?
2. Definition of the scope of mutual recognition - Which occupations should be included? Which education and training types (formal, non-formal, informal)? Should a pilot approach be used, starting with a few occupations with the possibility to add more? Should there be a focus on energy efficiency only or on wider scope?
3. Definition of the focus of the mutual recognition - should the focus be on private sector mutual recognition and/ or on public sector mutual recognition? (Is recognition by employer sufficient or do we also need recognition by competent authorities?)
4. What mechanisms/ proposal for tools can be used to achieve mutual recognition? There are a variety of ways how to achieve mutual recognition with their pros and cons that can be explored and decisions need to be made upon.

## What has been discussed?

The meeting of TWG was introduced by Alessandro Proia (EASME). He explained the expectations from the work of TWG and reasons for creating a TWG on the subject of mutual recognition of skills and qualifications. Frantisek Doktor presented the programme, process and what the group plans to achieve during this EU exchange meeting, specifically in defining objectives, schedule and agreeing on deliverables of TWG for the period of work of the group. Afterwards, Andrew McCoshan (contractor) gave a short presentation on the basic concepts and definitions of mutual recognition, including the objectives, scope and types of recognition. On Day 2, Andrew gave a presentation on the existing tools for mutual recognition at the EU level.

This has been followed by a presentation by Frantisek Doktor (Chair) on the results of the survey that was circulated and carried out before the meeting to tailor the draft TWG programme and agenda for the first meeting of TWG. 26 representatives of the BUS project partners from 13 EU Member States and FYROM of Macedonia responded to the survey. 11 experts would like to be part of TWG and additional 14 were interested to contribute to the work via e-mail. There was balanced response from the key stakeholders (although the largest group were employers and employers' organisations).

## Summary group discussion on the objectives and scope of this TWG:

The discussion took place in three groups. The conclusions of all groups were very close to each other, only terminology used was differed from group to group. On the basis of the discussion, list of pilot professions will be prepared using standardised terminology and will be validated through a short survey among participating experts.

- It was agreed in the group that the focus should be on skills mainly (the most important), and to some extent qualifications (less important).



- It was noted that a lack of (training/occupational) standards is quite a common problem in some (blue-collar) occupations across countries, whilst in other cases EU standards might already exist, e.g. energy auditors.
- It would also be important to focus on learning outcomes which could provide solutions whether we are dealing with qualifications, skills or training.
- With regard to training, the diversity is too big, hence it would be necessary to harmonise the training first.

On day 2, a clear work plan and timeframe have been agreed to continue the work.



### 3.2.2 Key conclusions and action points

As regards TWG mandate the following conclusions were reached:

- Focus will be given to skills and knowledge critical for Energy Efficiency (EE) and use of renewable Energy Sources (RES) in buildings;
- TWG will define objectives of the mutual recognition system in practice;

The group agreed that:

- Mutual recognition is needed for blue collar, as well as white collar professions;
- Focus should be on recognition of skills and qualifications;
- Although the practical focus is on factual (private level) recognition, formal (public) recognition should accompany the factual recognition by employers;
- Interaction with Concerted Actions on EPBD and RES Directive would benefit both sides.



The following deliverables TWG agreed to deliver:

- Identification of priority occupation to focus initial efforts on - both blue collar and white collar;
- Desk research of available competence profiles for the selected occupations;
- Desk research of available tools for mutual recognition;
- Exploring synergies with CAs;
- Definition of the supporting tools to be developed and added value of the European approach;
- Communication through BUS websites.



### 3.3 Technical Working Group 3 - Innovative training methods and incentives

#### 3.3.1 Summary of the proceedings

**Chair:** Helder Goncalves

**Vice-Chair:** Jadranka Arizankovska

**Consultant:** Simonas Gausas (Visionary Analytics)

**EASME:** Amandine Lacourt

**Participants:**

- Sub-group on training infrastructure and materials: Peter Op 't Veld (NL), Elisa Sirombo (IT), Minna Kuusela (FI), Marjana Šijanec Zavrl (SI), Alexander Stankov (BG), Loëva Labye (FR);
- Sub-group on training methods: Sara Karlsson (SE), Peter Bergermark (SE), Andrius Šipkinas (LT), Alexander Ebner (AT), Mark Keyes (IE), Ursel Weissleder (DE), Javier González (ES), Agris Kamenders (LV), Andreas Polydorou (CY), Panayiotis Kastanias (CY), Ruud Geerligs (NL), Henri Le Marois (FR);
- Sub-group on training incentives: Richard Bayliss (GB), Horia Petran (RO), Charalampos Malamatenios (GR), Christiane Hoffmann (LU), Marie-Pierre Establie d'Argencé (FR), Aline Goldberg (DE), Matteo Clemente (IT), Theochari Tsoutsos (EL), Attila Zoltán (HU).

#### Introduction

The session began with a short introduction by Helder (Chair) of the programme, process and objectives during this EU exchange meeting. Helder also shortly introduced the Vice-chair, consultant and EASME representative.

As this TWG is exceptionally large, participants were informed that it will be further broken into three sub-groups by topics (i.e. infrastructure and materials, methods and incentives).

#### Presentations in each of the three subgroup

The session continued with three presentations. The first one by Helder (Chair) shortly overviewed objectives of this TWG, outlined critical factors influencing the training infrastructure and materials and presented different types of training infrastructure and materials. The second one by Simonas (Consultant) introduced his role in this TWG and the project, overviewed the place of each sub-group in



the cycle of the effective training, discussed the need for innovations in training delivery, presented some examples of training methods with relevant specifics and outlined possible information sources. The third and final presentation by Jadranka (Vice-Chair) introduced her role in this TWG, identified and shortly discussed types of incentives to boost demand for training among workers. All presentations raised a number of key questions for participants (to be discussed in the relevant sub-group).



### Discussion in sub-groups: exchange of experiences (incl. difficulties, achievements and lessons learned) regarding training activities

Three sub-groups (infrastructure and materials, methods and incentives for training) discussed different projects including:

- Sub-group on training infrastructure and materials: PROF/TRAC (NL), I-TOWN (IT), FORESEE (PT), BEEP (FI) and additional projects including BUILD UP Skills Netherlands At Work (NL), FP7 EE-HIGHRISE (SI) and BUS France;
- Sub-group on training methods: WE-QUALIFY (CY), QUALITRAIN (DE), SWEBUILD (SE), CONSTRUYE (ES) and additional project (BUS France).
- Sub-group on training incentives: QUALISHELL (RO), UPSWING (EL), BEET (MK) and additional projects including: direct contact with companies in Germany/ Bulgaria and paritarian fund to finance trainings in France/ FYROM.

### Summary of discussion in sub-groups

Most of discussions in sub-groups focused on issues related to scope of the topic and challenges related to projects:





**Relevant elements in sub-group on training infrastructure and materials included:**

- Training material usually follows the mapping of training needs, has to be focused;
- Feedback from users on quality of training material needs to be considered;
- Type of training: e.g. pure e-learning based trainings may disregard some relevant basic elements of knowledge and skills; material for on-site trainings depends on equipment, type of building constructed, rules to be followed by contractors, etc.;
- Additional outputs of projects: e.g. skills mapping application (mobile phone application) can be shared by Dutch PROF-TRAC project;
- Pros and cons: strengths and weaknesses have to be added for each type of infrastructure/ material to enable more adequate evaluation;
- Accessibility/ availability: e.g. some materials may be hard to replicate or adapt;
- Target group-specific: e.g. for blue-collar workers Power Point presentations and theoretical background does not work well.

**Relevant elements in sub-group on training methods included:**

- Main challenges emphasized by participants included: search for participants, infrastructure for training (esp. in case of hands-on training), mixing of groups of learners, reducing information for training (esp. in case of e-courses demanding less textual and more visual information), evaluation of training;
- Identified relevant pedagogical methods (e.g. classical classroom training; demonstrative training/ simulations; hands-on or practical training; group learning; blended learning;
- Outlined relevant training modalities (e.g. theoretical training; workshop; e-learning);
- Discussed training tools (e.g. story boards; situation analysis; smoke or pressure tests);
- Training methods can be also grouped into learner- or trainer-centred ones;
- Projects use very different approaches. Obviously, choice of training method depends on many factors including the following: learner's profile; target (number of people); goal of training and type of learning outcome; time that learner should devote for training; time of the day of training; status of the BUS project; level of training; Evaluation/ feedback.

**Sub-group on incentives for training included:**

- The basic problems relevant for this sub-group are related to lack of: qualified workers; willingness of companies to train their workers; criteria of quality assurance; detailed definition of good practices; certified contractors; certification schemes;
- Incentives should be targeted at: NGOs, governmental organisations, contractors, personnel, operators and owners;
- The sub-group decided to focus on incentives related to: regulation (incl. also includes regulation-related requirements in public tenders); finance; and awareness-raising (e.g. non-legal voluntary incentives such as voluntary certification schemes). It was agreed that incentives related to awareness-raising for uptake of low-energy solutions will not be part of discussions in this sub-group as it is already covered by other TWG on market acceptance.



### Finalising the objectives, deliverables and work plan of the group

The main proposed deliverable of this TWG is a database including information on topics of training infrastructure and materials, methods and incentives from all 27 BUS Pillar II/ H2020 EE4 projects.

Reasons and motivation for this deliverable include the following:

- There is a general need to have more information on what is going on. There is a lot of useful information and experiences from 27 BUS Pillar II/ H2020 EE4 projects which needs to be exploited. Projects have different background, different target groups, are at different stage of development. Projects (esp. less advanced ones) that have not yet started training can benefit from information collected from more advanced BUS projects;
- In the future other BUS-related projects may be involved by referring them to exploit this database. Also, database could be exploited even maybe at proposal stage so as to better plan training activities in applications;
- Wider dissemination of relevant good and bad practice of BUS projects.

### 3.3.2 Key conclusions and action points

#### Agreed deliverables

- Database on innovative training infrastructure and materials (content of training) including the following:
  - Mapping (in the form of the matrix) of infrastructure, materials and relevant context information across all 27 BUS projects (22 BUS Pillar II and 5 H2020 EE4 projects);
  - Summary of strengths/ achievements and weaknesses/ difficulties for each type of infrastructure and materials;
  - Presentation material on good/ bad practices for each type of infrastructure and materials;
  - Links for further information including more in-depth information on specifics of each type of infrastructure and materials, technology developments (good practices), failures (bad practices), illustrations of application, etc.
- Database on innovative ways to train construction sector workers (training methods) including the same elements as for training infrastructure and materials;
- Database on the incentives to stimulate the demand for training among the workers including the same elements as for training infrastructure and materials.

A general questionnaire to be circulated in March all BUS/EE-4 projects will be used to map the main training infrastructure and materials, training methods and incentives across BUS projects.

## 3.4 Technical Working Group 4 - Market acceptance

### 3.4.1 Summary of the proceedings

**Chair:** Dragomir Tzanev (BG). **Vice-Chair:** J. Cromwijk, (NL).

**Consultant:** Rob Williams (Trinomics)

**EASME:** Zoé Wildiers

**Members:** Christiane Conrady (LU), Mantas Jonauskis (LT), Per-Johan Wik (SE), Georg Trnka (AT), Irena Brnada (HR), Jan Magyar (SK), Jiri Karasek (CZ), Tomas Funtik (SK).



The Technical Working Group (TWG) meeting began with an introductory round, including an introduction from Trinomics on the purpose of the TWG and from EASME on what they want to see achieved. Each of the participants was asked to write their personal objectives for taking part in the TWG (and in this meeting). This was followed by an exercise where each of the meeting participants was asked to come up with some text and / or pictures to illustrate the key accelerators for the uptake of green construction skills in their Member State (i.e. factors which are increasing demand) and the key barriers (i.e. factors which are reducing / restricting demand). The post it notes were prepared in silence but then discussed in order that they could all be understood and grouped. The text below shows the grouping that emerged from these discussions (pictures of the post it notes are also shown)

## Accelerators

- *Acceptance*: e.g. Acceptance for sustainable construction / development by craftsmen;
- *Companies*: e.g. High involvement of companies; Self-employed - need quality (to differentiate);
- *Examples*: e.g. A few innovative companies; Impactful examples
- *Innovations*: e.g. Web based ion; BUS app; New method - on site short / new / easy to attend;
- *Procurement*: e.g. ESCOs; Demand from the side of developers;
- *Other*: e.g. Reducing bureaucracy; EU support works / is popular (subsidises other budgets);

## Barriers

- *Awareness*: e.g. Lack of awareness; Incentives - why should an employer educate its workforce?
- *Lack of time and money*: e.g. Lack of time to learn - too busy; Lack of time;
- *Procurement*: e.g. Lack of knowledgeable designers / influencers of end users' decisions;
- *Lack of examples*: e.g. Lack of good examples; No end market for NZEBs;
- *Other*: e.g. Capacity - lack of trainers; Macho - 'learn by doing, not training'

After this discussion the meeting moved on to consider what outputs the TWG could usefully generate to help overcome the barriers and promote the accelerators. Through discussion it was agreed that the potential market (of construction workers who could be trained), splits into 3 main groups:

- **Willing** - to take part in training (includes those who train themselves (about 10% of installers / potential users of training)
- **Not convinced** - includes those who have some bad experiences of training or technologies (or both). Around 20% of market.
- **Not aware** - don't know about the courses. Includes the vast majority. If asked, many would say they do not need training. Reflects over-confidence in construction sector of their ability to respond to future increases in demand, about 70% of the market.

The potential solutions which emerged from the discussion were as follows:-

- Focus on the 'willing'
- Listening to the learners / companies and making the courses short / free, e.g. in line with the Dutch BUStoB project: short & free initial training, then more specialised training which requires more time; then detailed & in-depth training (at cost).
  - Find ambassadors / trainers
  - Engage in a marketing campaign (should be based on research e.g. what people want, where they look for information etc. Some good examples of approaches include:



- promotion at trade fairs (where the fair may well have budget e.g. for prizes, to attract interest),
- Involve producers (building products)
- Use of skills-card - accrediting workers.

In terms of the scope of work for this TWG, and in consultation with a representative of TWG 3 who joined the meeting for 10 minutes to discuss the work they were doing (because they thought there may be some overlap - they will focus on incentives to promote training), the decision was taken to retain a focus on workers and companies. This implies that we should avoid consideration of looking at ways of increasing demand via “pull” from end users, e.g. building owners asking for ‘high quality’ workers for high quality installations. This issue is being covered by TWG 3.

### 3.4.2 Key conclusions and action points

Collation of knowledge, examples of successes, barriers, accelerators, success factors, lessons learnt (good and bad) - split by the 3 groups (not aware/not convinced/ willing) asking them:

- What are their problems (including market research to justify / quantify these)
- Communication routes - how they get their information, (internally - i.e. within companies, and externally)
- Methods to convince / engage them of the benefits of / need for training (this is a key issue)
- What options are open to the group and what can skills providers do to help - e.g. design of training programmes (short, web based etc.)



## 4 Feedback from participants

This section presents the results of the feedback forms collected personally on Day 2 after the EU Exchange Meeting ended. We collected a total of 44 filled out forms which provide invaluable feedback for future EU Exchange Meetings. The respondents include the BUILD UP Skills project representatives present during the exchange meeting as well as EASME and European Commission representatives.



## Meeting organisation

Judging from the responses provided by participants on the feedback forms, the overall meeting organisation could be rated between 'good' and 'very good' (maximum score).<sup>1</sup> Participants said to be satisfied with the overall EU exchange meeting (rated as 'good' by 60% and 'very good' by 26%). Participants were overall similarly positive regarding the general organisation of the event (rated as 'good' by 50% and as 'very good' by 34%). The access to the Hotel Renaissance by public transport and the facilities offered at the venue were criticised by a couple of participants who wrote comments on this regard. Next to that the feedback forms have shed light on some negative experiences regarding the website registration. This may have lacked clarity and provided inaccurate information in some cases.

## Plenary sessions

More than 60% of the participants rated the plenary sessions as 'good' or 'very good'. Three respondents explicitly stated that the introductory plenary session by EASME and the different Directorate-Generals was way too lengthy. The feedback indicates that the reporting on the break-out sessions at the plenaries can be improved. Some suggestions read: being concise, structured, using visuals, using this time slot for setting objectives and a call for action.

## Technical Working Groups

In a scale of 1- *not useful at all*; 2 - *mediocre*; 3 - *neutral*; 4 - *good*; 5 - *very good* the all TWGs except TWG3 on '*Innovation & incentives for training*' were rated above 4. The size and usefulness of the groups were also positively rated overall. Only in the case of TWG3 the size of the group was seen as too large. It is clear from the feedback obtained that key for these TWGs to be successful is structure (e.g. by information is sent upfront to all participants) and producing clear conclusions and action plans for future work.

Although the majority seems to agree that creating new TWGs on different topics would not be of use at this stage, various suggestions were made for the future: the implications of immigration for upskilling the construction sector; Validation of formal and informal education; quality of the project (mechanisms used and methods); Sustainability of the projects, especially the training courses; Identification of specific target groups for further trainings on upskilling according to Directives; Identified needs in Roadmaps; Where the white spots are left; Local mobilisation of stakeholders; Accessibility to project results and elements create "open source" approach; Awareness raising of end-users of buildings.

## Workshops

Based on the feedback obtained, it can be said the result of the workshops was overall 'good'. The sessions 'Outcomes of finalised projects', 'Horizon 2020 EE4 projects', 'BUS Evaluation (COWI)', and the 'World café' were all rated beyond 'good'. The feedback obtained shows that the focus of these sessions should be on lessons learnt, quantified results, replicability in other countries, and that structure and organisation (e.g. distributing slides upfront) matter.

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<sup>1</sup> In a scale of 1- *not useful at all*; 2 - *mediocre*; 3 - *neutral*; 4 - *good*; 5 - *very good*



## Additional comments and suggestions for further improvement

The form failed to encourage ‘additional comments’ beyond the questions asked. From five respondents who left comments we understand that:

- In order to motivate participants more, we should use EU Exchange Meetings to further refer to exercises from Pillar I EU Exchange Meetings such as award for posters, the best presentations;
- More time should be granted for exchange of information and more time for getting to know the other participants (e.g. speed-dating);
- Although discussions are nice, it is still necessary to collect the information in a much more structured way (i.e. meta-plan) so that plenary sessions do not end up being speeches without useful conclusions;
- More detailed information should be sent regarding the content and goals of the TWGs before the registration, so that an informed choice can be made. In a similar vein, the titles of the TWGs should be clear and not overlapping (e.g. TWG3 and TWG4)
- The work on the TWGs between two EU Exchange Meetings needs to be made more attractive.





## 5 Annex - List of participants

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