

DELIVERABLE: 2.3

Workshops for developing, reviewing and validating ULOs

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Setting up national qualification and training scheme for craftsmen in the Czech Republic and developing the further offer of training courses in Slovakia, Austria and Bulgaria.

Grant Agreement Number: 785036
CraftEdu

Date of delivery: 05/2019



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 785036

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1 Summary

In the Work Package 2 (WP2), the national working groups set up in the Task 2.1.1 and affiliating employers and VET providers have been developing qualification (QS) and assessment standards (AS).

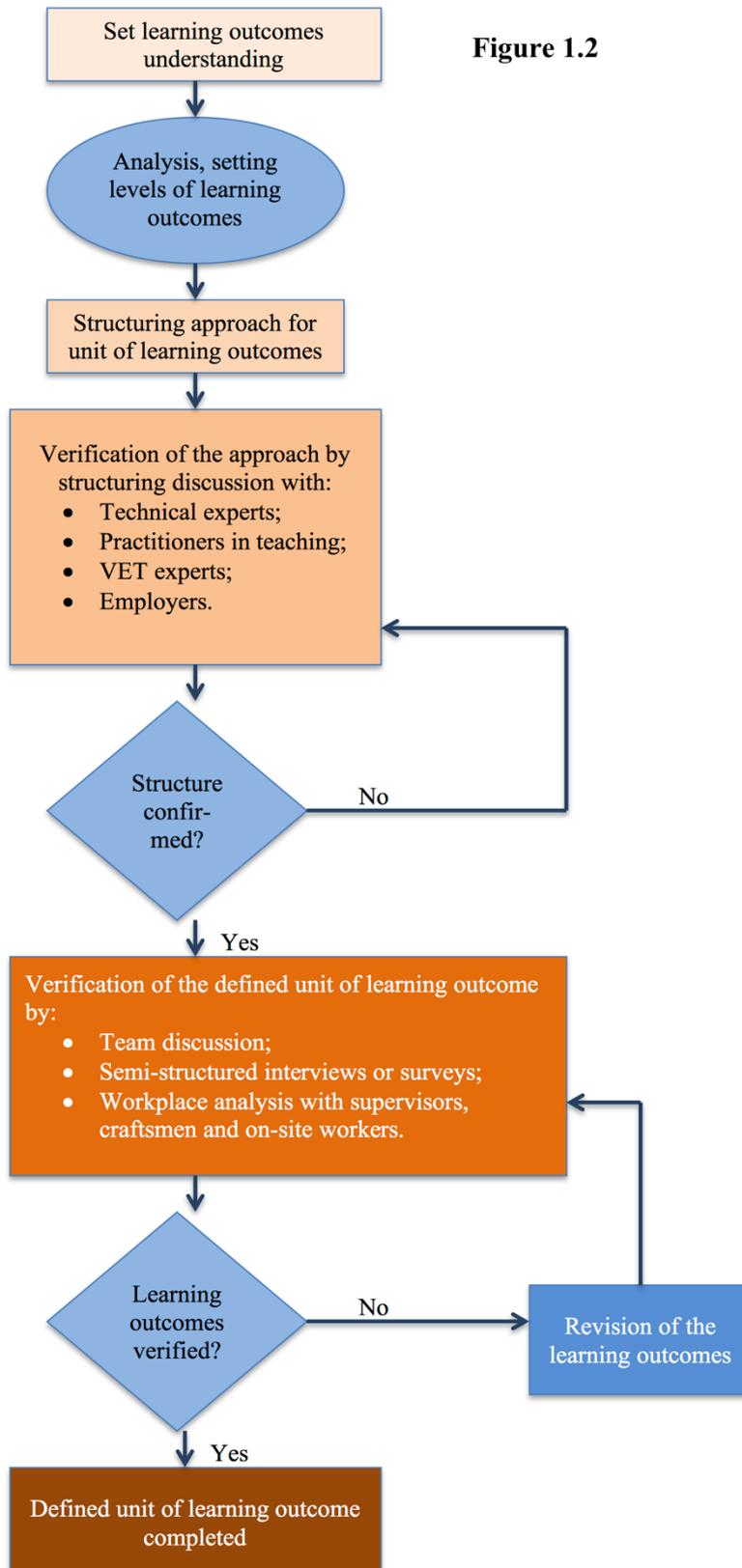
These qualification standards will include a list of skills and knowledge necessary for acquiring the partial qualification in energy efficiency and use of renewable energy sources in buildings. The assessment standards will include the list of criteria, organisational and methodological steps for assessment of acquired competencies. The qualification and assessment standards will be forwarded to the national sector skills councils chaired by ZSPS and SPS.

Basis for developing QS and AS are units of learning outcomes (ULO). In developing ULOs the process illustrated in Figure 1 has been followed.

This process has been facilitated by several workshops that are summarised in this deliverable. Specifically, the workshops are referred to in the following tasks in WP2:

2.2.1 Inception workshop for defining ULOs (Lead: VIAEUROPA);

2.2.5 Workshop for reviewing ULOs (Lead: VIAEUROPA).



2 Inception workshop in Langenlois, Austria

Date:	4 December 2018
Place:	Langenlois, Austria
Address:	Bauakademie Niederoesterreich, Krumpoeckallee 21, A-3550 Langenlois
Time:	10:35 – 12:30
Partners:	All partners

Inception workshop was focused on:

- Setting up the national working groups;
- Report of the review of the existing qualification standards;
- Agreement for the time-plan for developing the ULOs;
- Agreement on methodology to be used;
- Detailed discussion on the role for the craftsmen/construction professionals in increasing energy efficiency and share of renewable energy sources in buildings.

Following the partners' proposals, the following working groups were set up:

- **Czech Republic:** Renáta Schneiderová-Heralová (ČVUT), Tomáš Majtner (SPS), Jiří Karásek (SEVEn);
- **Slovakia:** Zuzka Kyrinovičová (UVS), Marta Minarovičová (UVS), Stanislav Laktiš (SIEA), Frantisek Doktor (ViaEuropa), Ronald Setznagel (17&4);
- **Austria:** Ronald Setznagel (17&4), Frantisek Doktor (ViaEuropa), Jiří Karásek (SEVEn);
- **Bulgaria:** Dragomir Tzanev (EnEffect), Jiří Karásek (SEVEn), Ronald Setznagel (17&4).

In preparing for the workshop, the partners completed the desk research of existing ULOs/qualification standards. The results of the research were presented by Mr Tomas Majtner of SPS and are included in deliverable 2.1.

Mr Frantisek Doktor of ViaEuropa presented the methodology and guidelines to developing ULOs, using the backward design developed by Wiggins and McTighe [2005]. The partners agreed on approach to developing ULO taking into account the qualification standards identified:

- In the Czech Republic, the basis for developing ULOs will be existing ULOs for carpenter, hydro-insulator (flat roofs), HVAC installer, low- and high- voltage electrician, stove and chimney builder, inspecting technician. The ULOs on which these standards are based will be reviewed to include the learning outcomes relevant to the energy efficiency and use of renewable energy sources in buildings. Moreover, the NewCom ULO for flat roofs will be considered for implementing in the Czech Republic.
- In Slovakia, only qualification standards for carpenter, roofer (not focused on flat roofs) and insulator are available. Therefore, the Slovak partners agreed to take the ULOs from Czech Republic as the basis for the new Slovak ULOs for the targeted professions. NewCom ULO for flat roofs will be considered as to link the new ULO in

Slovakia with the ULO agreed with the European Association of Roofers within the NewCom project.

- In Austria, qualification standards for all target groups/professions except the “inspection technician (of flue ways)” are available, the tasks/responsibilities of inspecting flue ways are part of the chimney sweeper. Catalogues of ULOs, following the terminology /suggestion of the European Commission are yet not available in Austria.
- In Bulgaria, the relevant ULOs had been developed and the project will use the relevant qualification and assessment standards. More information is in Chapter 6.

The partners discussed the identified ULOs, specifically the skills and knowledge required by the national standards. It was evident that the learning outcomes relevant to the energy efficiency and use of renewable energy sources are missing in the existing ULOs and there is a need to make adequate changes to the ULOs and ensure that these ULOs will be forwarded to the Sector Skills Councils for consideration and approval. As the key partners, SPS and ZSPS are co-chairing the relevant Sector Skills Councils in the Czech Republic and Slovakia respectively, the advance consultations with the Sector Skills Councils can help in facilitating the process.

The relevant skills and knowledge to be included in this process were discussed and outlined for further discussion in the participating countries.

The following time schedule was agreed by the partners:

Until 31. 1. 2019	Partners will produce new draft of ULOs that will include learning outcomes relevant to energy efficiency and use of renewable energy sources in buildings
Until 30. 4. 2019	Partners in each country will organise iterative review of the draft ULOs with key stakeholders
Until 16. 5. 2019	Partners will provide resulting final version of ULOs to SEVEn for developing Deliverable D2.1
Until 31. 5. 2019	The finalised ULOs w validated by project-wide workshop (possibly to be integrated within the project meeting in Burgas, Bulgaria)
Until 14. 6. 2019	The validated ULOs will be handed over to experts working on curricula and content of the training programmes

3 National workshops in the Czech Republic

3.1 Inception ULO Workshop in Prague

Date:	23 January 2019
Place:	Prague, Czech Republic
Address:	ABF Foundation, Václavské nám. 833/31
Time:	10:00-12:00
Partners:	SEVEn, ABF, CVUT, SPS



Initially, introduction to the project, the approach to it and its progress to date took place.

Then the Czech national qualifications framework was discussed and an exchange of experience with representatives of Slovakia took place.

It was stressed that existing registries and projects must be tapped for competences, deciding which sources to use. Three to four new modules were proposed with 1 module basics, 2 modules crafts and techniques and 1 module positioning RES on existing building. SPS distributed an overview table of WP2 structure.

Some WP2 properties were confirmed. Thee WP will target on nZEB competences of the selected professions. Within the WP2 also entrance competences for each professions will be defined. Within the project, the assessment criteria shall also be defined (oral, written, practical exercise, recognition of a prior learning). WP2 should include firstly the selection of needs for each profession. Topic oriented approach was selected. It will be supported by analysis of profession and analysis of object.

Based on the Czech qualification standards, Slovak partners will develop their own standards. It will be followed by Bulgarian and Austrian standards with selection of suitable professions. The international teams for each country have been proposed and agreed (see above).

We were introduced to leaders of sectorial councils and leaders of their respective working groups on particular professions by Roman Pommer, vice-president of Czech Chamber of Commerce and president of its Prague branch. Long-term cooperation was initiated, especially during the third year of the project, i.e. implementation phase when trainings take place. He recommended to organize the courses in cooperation with the guilds to assure success and replicability and sustainability of the results.



Jan Bedřich, on behalf Chamber of light building envelopes, showed interest in the project, especially the profession of installer of windows and doors. He also offered reviewing and contribution to ULOs and then the training programmes. We pledged to send him materials till 15 May.

3.2 Workshop for reviewing ULOs in Prague

Date:	29 April 2019
Place:	Prague, Czech Republic
Address:	Czech Technical University, Thákurova 7
Time:	13:30-16:00
Partners:	SEVEn, ABF, CVUT, SPS

Initially, the team reviewed materials sent previously by Ronald Setznagel, a colleague from Austrian partner 17&4 that set exemplar structure for individual crafts' ULOs, i.e. topics that are included and their required depth.

The selection of general topics, to be offered to all crafts in the project, was also discussed and approved. The topics are:

- Airtightness, vapour and moisture movement, wind-tightness;
- Mechanical Ventilation with Heat Recovery;
- Heating and Cooling;
- Domestic Hot Water (DHW);
- Cross-craft.

The structure of ULOs has been agreed and timeframe set for first drafts (17/5/2019). Each partner reviewed existing qualification standards, adjusted them to desired structure (i.e. knowledge/skills/competence-autonomy) and determined which nZEB-related topics on top of common bundle (see above) were to be attached to each profession.

Partners decided to assign crafts as follows:

- ABF
 - Chimney sweeper - Installation of chimneys and chimney liners;
 - Chimney sweeper - Inspection technician;
- CVUT
 - Carpenter;
 - Installer of windows and doors;
- SEVEn
 - Hydro-insulator;
- SPS
 - Electrician (both high and low voltage);
 - HVAC installer.



4 National workshops in Slovakia

In Slovakia, the expert groups set up by previous project StavEdu were invited to cooperate in developing the draft ULOs for the targeted craftsmen:

- Carpenter – leader UVS;
- Hydro-insulator (flat roofs) – leader UVS;
- Low- voltage electrician – leader SIEA;
- High-voltage electrician – leader SIEA;
- Installer of windows and doors – leader UVS.

UVS drafted inception drafts for the ULOs, using the Czech ULOs (as explained above) and ULOs prepared by the StavEdu project. This draft has been iteratively reviewed. After each iteration the received comments and adaptations were considered and implemented in the draft. Following the third iteration, a review workshop has been organised. SIEA was at that moment still in the process of identifying relevant experts for drafting ULOs in their responsibility.

4.1 ULO review workshop in Bratislava, Slovakia

Date:	13 March 2019
Place:	Bratislava, Slovakia
Address:	ZSPS, Viedenska cesta 5, Bratislava, Slovakia
Time:	10:00 – 15:00

During the review workshop, the following draft of ULOs were reviewed and disc used in detail:

- ULO for carpenter – leader UVS;
- ULO for installer of windows and doors – leader UVS;
- ULO for hydro-insulator (flat roofs) – leader UVS;
- Progress by SIEA in preparing drafts ULOs for high- and low- voltage electricians.

ULO in the responsibility of UVS were well progressed and the targeted skills and knowledge was reviewed with the lead experts in the fields (for example the author of the Slovak Standard for installation of windows is leading one of the expert teams) and with representatives of the vocational schools, as the project also aims at adapting their curricula to include the skills and knowledge relevant to the energy efficiency and use of renewable energy sources in buildings (as envisaged by the project). These drafts will be further reviewed by the key members of the National Qualification Platform (BUS Pillar I).

SIEA informed other partners about the ongoing selection of the experts for developing draft ULOs in their responsibility. SIEA ensured the partners that the applicable deadlines would be met.

Slovak partners were interested to review the NEWCOM ULO for flat roofs, but Mr Setznagel of 17&4 suggested to use the ULOs from NEWCOM in connection with the methods of assessment, specifically the ways of assessing the learning outcomes, which are not yet developed. He suggested to continue developing the ULOs taking into account the work that was done by the Slovak and Czech partners, while the NEWCOM set of ULOs (including assessment methods) will be discussed as soon as it is finalised.

4.2 ULO validation workshop in Bratislava, Slovakia

Date:	2 May 2019
Place:	Bratislava, Slovakia
Address:	ZSPS, Viedenska cesta 5, Bratislava, Slovakia
Time:	12:00 – 16:00

The Slovak, Czech and Austrian partners decided to hold additional workshop, a validation workshop, to discuss the outcome of the drafting process and links between the Slovak and Czech ULOs to exploit synergies between work of their respective national teams and cooperation on developing curricula.



All ULOs were prepared for the deliverable D2.1 to be prepared by SEVEn and uploaded by 31 May 2019 to SyGMA.

The SIEA experts already drafted proposal for the content of the training programme that was shared with the Austrian and Czech partners. This could help in identifying area of joint interest that are suitable for cooperation that will enrich mutually the content and increase quality of the developed training. The SIEA

proposals for ULO divided electricians into 2 groups:

- High-voltage electricians – Independent Electrician (all voltages except voltages used by intelligent elements of buildings);
- Low-voltage electricians – Electrical Engineer for Intelligent Installations.



This new division of electricians reflects the recent development of the profession that adapted to the current needs of the market that is increasingly oriented on intelligent buildings. The project will thus respond to recent developments and will facilitate implementation of this profession in Slovakia.

5 Austria

According to the proposal, in Austria no specific workshops were held. The ULOs have been discussed in several meetings with stakeholder and experts, e.g. the CEO of the IFB (institute for flat roofing and waterproofing), Wolfgang Hubner, the speaker of the Quality group of ETICS, Clemens Hecht, the chairman and the board of the quality group of carpenters of Lower Austria, Bernd Strahammer. There has also been an intensive and fruitful discussion at several meetings with the partners of the NEWCOM project.

6 Bulgaria

The Bulgarian partner EnEffect has been involved in a number of EU-supported initiatives leading to the introduction of nZEB-related learning outcomes in the state educational standards, educational plans and programmes. The latest example is the actual start of the new discipline “Energy Efficient and Ecologically Responsible Construction” for the professional high schools for architecture and construction from the next academic year, with the significant input by BUS EnerPro, Train-to-NZEB and Fit-to-NZEB. Under Fit-to-NZEB, a set of learning outcomes on 17 topics related to nZEB-level building retrofit were developed, which will serve as input to new CraftEdu ULOs on selected professions and, reversely, will be improved by CraftEdu’s contributions in terms of focusing them to the requirements of specific professions with regard to both new building design and construction and deep energy retrofit of the existing building stock.

The ULOs have been discussed with a variety of stakeholders at numerous national and international events, the most prominent of which are the series of Train-to-NZEB and Fit-to-NZEB national conferences, workshops and train-the-trainer courses (CraftEdu ambition and inputs presented at 5 of them), the annual conferences of the Association of the Bulgarian



Energy Agencies (2018), Municipal Energy Efficiency Network EcoEnergy (2018, 2019), the Bulgarian national NZEB conferences (2018, 2019), the Greek and Italian Passive House conferences, CLIMA 2019 conference and many others. The national events have been attended by a wide variety of stakeholders active in the National Platform for Dialogue established under the BUILD UP Skills initiative – ranging from the Ministry of Education and Science and the National Agency for Vocational Education and Training, Bulgarian Construction Chamber, Chamber of Architects in Bulgaria, the National University for Architecture, Construction and Geodesy, professional high schools acting in these field, energy agencies and experts, product manufacturers and distributors, construction companies, environmental NGOs.

7 validation workshop in Burgas, Bulgaria

Date:	30 May 2019
Place:	Burgas, Bulgaria
Address:	Expo Center Flora, Hall 1, Burgas
Time:	11:00 – 13:00

A final validation workshops for ULOs was held as part of the project meeting and conference on nZEB in Burgas, Bulgaria. The project partners agreed on final version of the ULOs. The coordinators presented the current version of the Report. Later Mrs. Klara Zubikova (ABF) presented professions of chimney sweeper.



Mr Ronald Setznagel (17&4) presented potential points for improvement, specifically in relationship between ventilating and HVAC insulation, vapour transfer for carpenter, Photovoltaic and E-cars, title of profession Installer of windows and door to be consistent in the paper. Moreover, added relevancy of green roofs from hydro insulator profession.

Based on the discussion the consortium agreed on submission of the due deliverables after return from the project meeting.

8 Annexes

Annex 1	Agenda from the Inception Workshop in Langenlois, Austria
Annex 2	Signed list of participants in the workshop in Langenlois, Austria
Annex 3	Agenda of the Inception ULO Workshop in Prague, Czech Republic
Annex 4	Signed list of participants in the Inception ULO Workshop in the Czech Republic
Annex 5	Agenda of the ULO review workshop in the Czech Republic
Annex 6	Signed list of participants in the ULO review workshop in the Czech Republic
Annex 7	Agenda of the ULO review workshop in Slovakia
Annex 8	Signed list of participants in the ULO review workshop in Slovakia
Annex 9	Agenda of the ULO validation workshop in Slovakia
Annex 10	Signed list of participants in the ULO validation workshop in Slovakia
Annex 11	Agenda of the ULO validation workshop in Burgas, Bulgaria
Annex 12	Signed list of participants in the ULO validation workshop in Burgas, Bulgaria



A. Deliverable details	
Document Reference #:	D2.3
Title:	Workshops for developing, reviewing and validating ULOs
Version Number:	1.2
Preparation Date:	31/05/19
Delivery Date:	21/06/19
Author(s):	Frantisek Doktor (ViaEuropa), Václav Šebek (SEVEn), Ronald Setznagel (17&4), Dragomir Tzanev (EnEffect), Peter Doktor (ViaEuropa)
Contributors:	
Work Package:	WP2
Type of deliverable:	Other
Format:	PDF
Dissemination Level:	Confidential, only for members of the consortium (including the Commission Services)

CraftEdu project partners:





CraftEdu Meeting

Set up the national qualification and training scheme for craftsmen and on-site workers

2nd Partner Meeting

Date: 04 – 05 December 2018
 Location: Langenlois, Austria
 Address: **Bauakademie Niederösterreich**
Krumpöckallee 21
3550 Langenlois
 Timing: 8:30-21:00

1st Day: 04 December 2018

8:30 – 09:00 Arrival and registration

SESSION 1: Project Meeting CraftEdu part I

9:00 – 9:20 Official opening - Welcome address by the hosts and Project Coordinator
Jiří Karásek, SEVEn (Czech Republic)
Roland Setznagel, 17&4 (Austria)

09:20 – 10:20 Management of the project (WP1) 1h WP leader facilitation
 - Project overall progress (SEVEn)
 - Intranet tools for internal communication (ViaEuropa)

10:20 – 10:35 Coffee break 15 min

10:35 – 11:30 WP2 – Targeted learning outcomes and training programmes including e-learning
Facilitating 17&4 (Austria)

- Setting expert teams (SEVEn)
- Report about inventory of existing qualification standards (SPS)
- Agreement on the crafts/professions (17&4)
- Description of the needed knowledge, skills and general capabilities (NUCZV)
- Setting up CTP WG and reaching to the relevant experts (SEVEn)

11:30 – 11:45 Coffee break 15 min

11:45 – 12:30 Inception workshop for defining ULOs part I
Facilitating ViaEuropa (Slovakia)

- Methodology;
- Role for the craftsmen/professional in increasing energy efficiency and use of renewable energy sources in buildings.



12:30 – 13:30	Lunch at Bauakademie
SESSION 2: Exchange Meeting CraftEdu - NEWCOM	
13:30 – 14:15	<p>Inception workshop for defining ULOs part I <i>Facilitating ViaEuropa (Slovakia)</i></p> <ul style="list-style-type: none"> • Competence profile in energy efficiency and use of renewable energy sources in buildings, as define by the Build Up Skills Pillar I Roadmap; • Goals of the education and training programmes.
14:15 – 14:30	Coffee break
14:30 – 16:30	<p>Exchange Meeting CraftEdu - NEWCOM</p> <p>Short presentation NEWCOM- Austrian Energy Agency</p> <p>Short presentation CraftEdu – SEVEn</p> <p>Fields of possible cooperation – database, exchange of ULOs/trainings</p>
16:30 – 17:00	Coffee break
Public Event	More quality for low-energy buildings - what does it need?
Location:	Topic Focus "Constructive Efficiency" and Qualifications in the Projects
Bauakademie	CraftEdu and NEWCOM
17:00 – 19:00	<p>Low-energy buildings (NZEBS) make high demands on the quality of the building envelope and the building services, this applies to the planning, the manufacture of constructions and the execution. The optimization and systematization of designs is decisive for competition, increased planning accuracy leads to more efficient use of materials, fault-tolerant system solutions reduce structural damage and warranty claims.</p> <p>Just like optimisation in the planning and manufacture of components, the quality of implementation on site is required, which can only be achieved by competent and qualified executors. The inspection and continuous control of components that are particularly susceptible to damage contributes to maintaining quality and optimum function throughout their entire service life. Both the BEUC - Cluster and the H2020 projects CraftEdu and NEWCOM deal with these questions.</p> <p>Lectures (ca 15 min)</p> <p>Welcome, introduction and moderation Michaela Smertnig and Ronald Setznagel</p> <p>Constructive efficiency using windows and building connections as examples BuildingEnergyEnvironmentCluster Lower Austria, N.N.</p> <p>General renovation and extension of the private house S - What makes a house SMART? Heinrich Schuler, ATOS Architects</p> <p>Flat roofs and building waterproofing - More quality through further training and certification</p>



Wolfgang Hubner, IFB

Permanent area-wide humidity monitoring with printed humidity sensors
EPI - N.N.

Quality assurance measures during the construction of the TESCO flat roof in Budapest

Karoly Matolcy, EMI and NEWCOM

Quality assurance of the building envelope - examples and results from European projects as a basis for the objectives of CraftEdu

Jiri Karasek, SEVEN and CraftEdu

Panel discussion: More quality in NZEB - construction - what does it need?

19:00... **Dinner (together with participants of the public event) at Bauakademie**

2nd Day: 05 December 2018

SESSION 3: Project Meeting CraftEdu part II

9:00 – 10:30 Steering committee

10:30 – 11:00 Coffee break

11:00 – 12:30 WP7 – Dissemination of the project results

Facilitating ViaEuropa

- Dissemination and exploitation strategy and planning and defining roles of partners (ViaEuropa)
- Developing Marketing Strategy for dissemination and exploitation (SEVEn)
- Delivering the Dissemination and Exploitation Plan (ViaEuropa)

12:30 – 13:30 **Lunch at Bauakademie**

13:30 – 14:15 WP8 – Communication

Facilitating by EnEffect

- Developing communication plan and narrative
- Communication measures and tools to be developed
- Training of the key project personnel
- Delivering communication plan

14:15 – 15:00 visiting the construction halls of the Bauakademie

15:00 End of the meeting and farewell greetings

15:15 Transfer to Vienna main station (17&4)





Set up the national qualification and training scheme for craftsmen and on-site workers

2nd Partner Meeting

Date: 04 – 05 December 2018
 Location: Langenlois, Austria
 Address: Bauakademie Niederösterreich
 Krumpöckallee 21 , 3550 Langenlois

		Teilnehmer, Unterschrift	
Frantisek	Doktor		
Peter	Doktor		
Johannes	Fechner		
Jan	Fibiger		
Pavol	Kováčik		
Zuzana	Kyrinovicova		
Jan	Magyar		
Tomas	Majtner		
Katarina	Recká		
Renáta	Schneiderová Heralová		
Ronald	Setznagel		
Dragomir	Tsanev		
Jiří	Karásek		



Károly	MATOLCSY		New com
Naphtal	ALTMANN		New com



Inception Workshop

Units of Learning Outcomes, WP2

Date: 23 January 2019
Place: Prague
ABF Foundation, Václavské nám. 833/31
Time: 10:00 – 12:00

Agenda

- | | |
|---------------|--|
| 10:00 – 11:30 | Introduction of WP2
<i>Ronald Setznagel (17&4, Austria)</i>
ULOs Template (D2.1) – approach and progress
<i>Jiří Karásek (SEEn)</i>
Czech National Qualification Framework
<i>Tomáš Majtner (SPS)</i>
ULOs' progress and experience in Slovakia
<i>František Doktor (ViaEuropa)</i> |
| 11:30 – 12:00 | Discussion |

CraftEdu consortium partners:



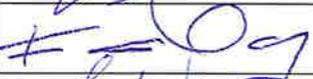
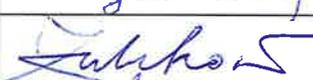
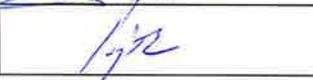
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 785036

Inception Workshop

Units of Learning Outcomes, WP2, Task 2.1.1

Date:	23 January 2019
Place:	ABF Foundation
Address:	Václavské nám. 833/31, Prague, Czech Republic
Time:	10:00 – 12:00

The meeting participants agree to process the personal data (pictures and emails) in accordance with the GDPR for the evidence and publishing purposes of the CraftEdu project.

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Workshop for reviewing ULOs in Prague

Date: 29 April 2019
Place: Prague, Czech Republic
Czech Technical University, Thákurova 7
Time: 13:30 – 16:00

Agenda

PART 1: Introduction	
13:30 – 15:30	Introduction and review of WP2 <i>Jan Fibiger (ABF)</i> Review of sent materials Selection of general topics Time frame and structure creation and setting Assigning of crafts to partners
15:30 – 16:00	Discussion

CraftEdu consortium partners:



List of Participants

Meeting	CraftEdu – National meeting
Date	29 th April 2019
Venue	Fakulta stavební ČVUT v Praze, katedra Ekonomiky a řízení ve stavebnictví, místnost B-473
Address	Thákurova 7/2077, 166 29 Prague 6, Czech Republic
Timing	13:30 – 15:30

The meeting participants agree to process the personal data (pictures and emails) in accordance with the GDPR for the evidence and publishing purposes of the CraftEdu project.

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7	EDUARD	HRONADA	ČVUT	EDUARD.HRONADA@FV.CVUT.CZ	
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ULO REVIEW WORKSHOP

Venue: ZSPS, Viedenska cesta 5 Bratislava, Slovakia

Time: 13 March 2019 from 13h00 to 16h00

Programme

Time	Item	Method
	Introduction	
13:00	Introduction to the workshop and its objectives <i>Marta Minarovičová, ÚVS</i>	Presentation
	Section 1: ULO for flat roofs installation	
13:10	NewCom ULOs for flat roofers <i>Ronald Setznagel, 17&4</i>	Ppt presentation
13:40	Development of the draft ULOs for CraftEdu project	Designer studio
	Section 2: ULOS for windows installers and carpenters	
14:10	CraftEdu ULOs for windows installers and carpenters <i>Zuzka Kyrinovičová, ÚVS</i>	Ppt presentation
14:30	Development of the draft ULOs	Guided discussion
	Section 3: ULOs for low- and high-voltage electricians	
15:00	CraftEdu ULOs for low- and high-voltage electricians <i>Ján Magyar, SIEA</i>	Ppt presentation
15:30	Development of the draft ULOs	Guided discussion
16:00	Closing remarks <i>Frantisek Doktor, ViaEuropa</i>	



PREZENČNÁ LISTINA

Stretnutie: ULOUPELIE V ENVIROKORP
 OLD DEVELOPMENT WORKSHOP

Dátum: 13. 3. 2019

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ULO VALIDATION WORKSHOP

Venue: ZSPS, Viedenska cesta 5 Bratislava, Slovakia

Time: 2 May 2019 from 12h00 to 16h00

Programme

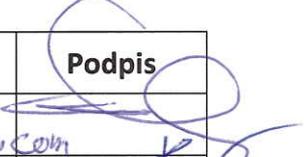
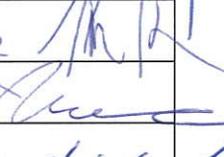
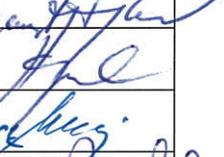
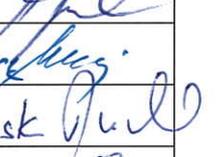
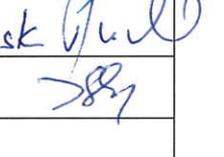
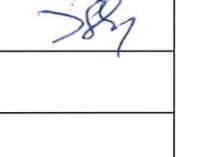
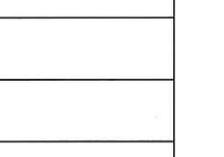
Time	Item	Method
	Introduction	
12:00	Introduction to the workshop and its objectives <i>Marta Minarovičová, ÚVS</i>	Presentation
	Section 1: ULO for flat roofs installation	
12:10	NewCom ULOs for flat roofers <i>Zuzka Kyrinovičová and collaborators, ÚVS</i>	Ppt presentation
12:40	Development of the draft ULOs for CraftEdu project	Designer studio
	Section 2: ULOS for windows installers and carpenters	
13:10	CraftEdu ULOs for windows installers and carpenters <i>Zuzka Kyrinovičová and collaborators, ÚVS</i>	Ppt presentation
13:30	Development of the draft ULOs	Guided discussion
	Section 3: ULOs for low- and high-voltage electricians	
14:00	Progress in developing ULOs for electricians and possible solutions <i>Stanislav Laktiš, SIEA</i>	Oral presentation
14:30	Development of the draft ULOs	Guided discussion
15:00	Closing remarks <i>Frantisek Doktor, ViaEuropa</i>	



PREZENČNÁ LISTINA

Stretnutie: ULO VALIDATION WORKSHOP

Dátum: 2. 5. 2019

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CraftEdu project Meeting

Set up the national qualification and training scheme for craftsmen and on-site workers

Partner Meeting

Date: 29 May – 01 June 2019
Venue: Expo Center Flora, Hall 1, Burgas
Address: Expo Center Flora, Hall 1, Burgas, Bulgaria

1st Day: 29 May 2019

18:00 – 19:00 Arrival and accommodation

19:00 Informal meeting, preparation for the conference @ 8mamas
<https://goo.gl/maps/6yBXa6xajzUhB1bA>

2nd Day: 30 May 2019 (Hall 1)

9:00 – 9:30 Registration and coffee

SESSION 1: Project Meeting CraftEdu Part I

9:30 – 9:50 **Official opening**

Welcome address by the host and project coordinator

Dragomir Tzanev, EnEffect (Bulgaria)

Jiří Karásek, SEVEn (Czech Republic)

9:50 – 10:50 **Learning outcomes, training programmes and e-learning (WP 2)**

Overall progress - Ronald Setznagel, 17&4 (Austria)

Deliverables - responsible participants

10:50 – 11:00 Coffee break

11:00 – 13:00 **Validation workshop of Learning Outcomes**

Facilitator: Jiří Karásek, SEVEn

13:00 – 14:00 Lunch

SESSION 2: Project Meeting CraftEdu Part II

14:00 – 15:00 **Training of trainers (WP 3)**

Opening - Renáta Heralová-Schneiderová, CVUT (Czech Republic)

Deliverable D3.1 – Tomáš Majtner, SPS (Czech Republic)

15:00 – 16:00 **Database of trainers and certified trainees (WP 5)**

Jiří Karásek, SEVEn (Czech Republic)

16:00 – 16:10 Coffee break, discussion

16:10 – 16:30 **Questions on administrative and financial issues**



This project has received funding from the European Union's Horizon 2020 programme under Grand Agreement No 785036 – CraftEdu.

16:30 – 17:00 **Administrative issues, technical and financial reporting**

Jiří Karásek, SEVEN

18:00 – 20:00 **Conference cocktail**

3rd Day: 31 May 2019

SESSION 3: EU AND NATIONAL POLICY CONFERENCE (Hall 2)

9:00 – 9:30 Registration and coffee

9:30 – 10:30 **The integrated national plan on energy and climate: the role of energy efficiency in the building sector**

Zhecho Stankov

Deputy Minister of Energy

Discussion

10:30 – 11:30 **International practices in support of nZEB (10 minutes each)**

Delegation from China (tbc)

Jiří Karásek, SEVEN, The Energy Efficiency Center (Czech Republic)

Stanislav Laktiš, SIEA (Slovakia)

Ronald Setznagel, 17&8 (Austria)

Questions and answers

11:30 – 12:30 **Do we need immediate changes in the Bulgarian normative framework related to energy efficiency in building?**

Panel discussion: EnEffect, Chamber of Architects in Bulgaria, Chamber of Engineers in Investment Design, Bulgarian Association for Insulation in Construction, Technical University Sofia, Ministry of Regional Development and Public Works, arch. Georgi Nikolov, prof. Dimitar Nazarski (preliminary options)

12:30 – 13:30 **Lunch**

SESSION 4: Project Steering Committee CraftEdu (Hall 1)

14:30 – 15:30 **Project Steering Committee CraftEdu**

Facilitates: Jiří Karásek, SEVEN

Outlook for the second year of the project (07/2019-06/2020)

WP2 – delivering ready-to-use qualifications, esp. tasks:

- *2.5 Setting up CTP WG and reaching to the relevant experts*
- *2.6 Developing curricula based on developed ULOs*
- *2.7 Developing content of the training programmes*
- *2.8 Finalisation of the training documentation*
- *2.9 Incorporating assessment standards*
- *2.10 Presentation of the training programmes to industry and VET experts*
- *And remaining deliverables D2.2, 2.5, 2.6 and 2.8*

WP3 – establishing trainers network and initiate their training, i.e. tasks:



- 3.1 Setting up network of trainers
- 3.2 Development of training agenda for training of trainers
- 3.3 Organising training of trainers in the targeted countries
- 3.4 Interim evaluation of the work accomplished
- And all deliverables of WP3

15:30 – 16:00 Coffee break, discussion

SESSION 5: OPEN EVENT

16:00 – 17:30 CraftEdu project and its Units of learning outcomes

Jiří Karásek (SEVEN)

nZEB educational programmes

University of Architecture, Civil Engineering and Geodesy – Sofia, Bulgaria

Discussion

19:00 Common dinner @ Restaurant NEPTUNE

<https://goo.gl/maps/Qss1i5YBAp8KBFbu9>

4th Day: 01 June 2019

SESSION 6: THE CONTRUCTION PRACTICE (Hall 2)

10:00 – 11:00 NZEB the best practice from Bulgaria

Alexander Genchev, SolAir Architects

11:00 – 11:30 Airtightness and thermography

Dipl. Eng. Bogomil Stefanov

11:30 – 14:00 Product presentation

(various halls)

14:00 Closing of the conference





List of Participants

Meeting	CraftEdu – National meeting
Date	29 th May to 1 st June 2019
Venue	Expo Center Flora, Hall 1
Address	Burgas, Bulgaria
Timing	

The meeting participants agree to process the personal data (pictures and emails) in accordance with the GDPR for the evidence and publishing purposes of the CraftEdu project.

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