
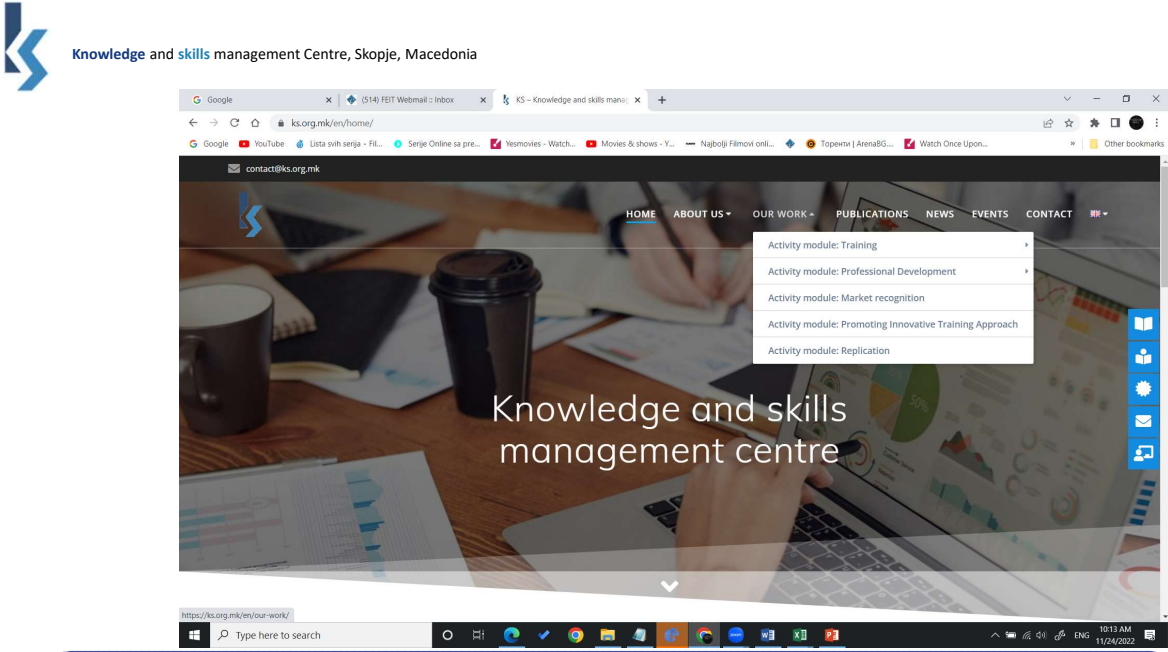


Knowledge and skills management Centre, Skopje, Macedonia

Knowledge and skills management Centre K&S Skopje



Knowledge and skills
management Centre



Knowledge and skills management Centre, Skopje, Macedonia

Google | (514) FBI Webmail - Inbox | KS - Knowledge and skills manag... | ks.org.mk/en/home/

contact@ks.org.mk

HOME ABOUT US OUR WORK PUBLICATIONS NEWS EVENTS CONTACT

- Activity module: Training
- Activity module: Professional Development
- Activity module: Market recognition
- Activity module: Promoting Innovative Training Approach
- Activity module: Replication

Knowledge and skills
management centre

https://ks.org.mk/en/our-work/

Type here to search

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Knowledge and skills management Centre, Skopje, Macedonia

K&S Centre is established on 4th February 2019 as a result of H2020 project TRAINEE to ensure sustainability

TowaRd market-based skills for sustAINable Energy Efficient construction - TRAINEE



Programme: H2020 - ENERGY EFFICIENCY CALL 2016-2017

Topic : Construction skills

Start date: 01 May 2018 / **End date:** 31 October 2020

PARTNERS:

- Economic Chamber of Macedonia - ECM (**Coordinator**)
- ZBK KREACIJA Association of business and consultancy
- Faculty of Electrical Engineering and Information Technologies, Ss Cyril and Methodius University, Skopje
- Association of Engineering Societies Engineering institution of Macedonia
- Adult Education Centre
- WITS Institute—BIM Academy



Knowledge and
skills management
Centre



Knowledge and skills management Centre, Skopje, Macedonia

KNOWLEDGE AND SKILLS MANAGEMENT CENTRE

The Knowledge and skills management Centre is:

- Private non-profit legal entity constituted by the project consortium according to the Law on Associations and Foundations of the Republic of Macedonia
- Member of the Association of Engineering Societies
ENGINEERING INSTITUTION OF MACEDONIA





Knowledge and skills management Centre, Skopje, Macedonia

MISSION & VISION

Mission: to provide educational programs for adults that will enable upgrading of the professional qualifications of business and non-governmental sector users, educational and public institutions, through innovative linking of adult education with the needs of the labor market, prospects for employment and social cohesion, aimed at increasing the competitiveness of the national economy for sustainable growth and development.

Vision: to establish a platform in adult education system that promotes new or upgraded knowledge and skills of qualified workforce, enabling continuous professional development by applying modern and innovative learning tools



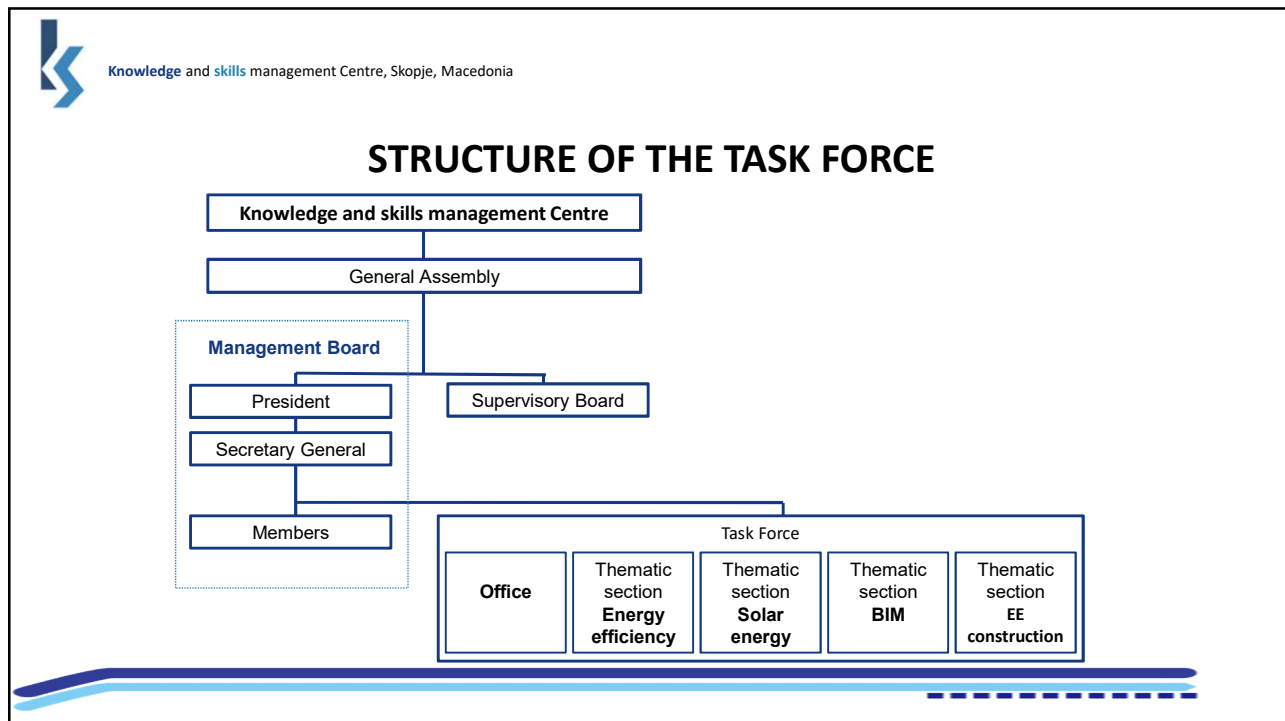
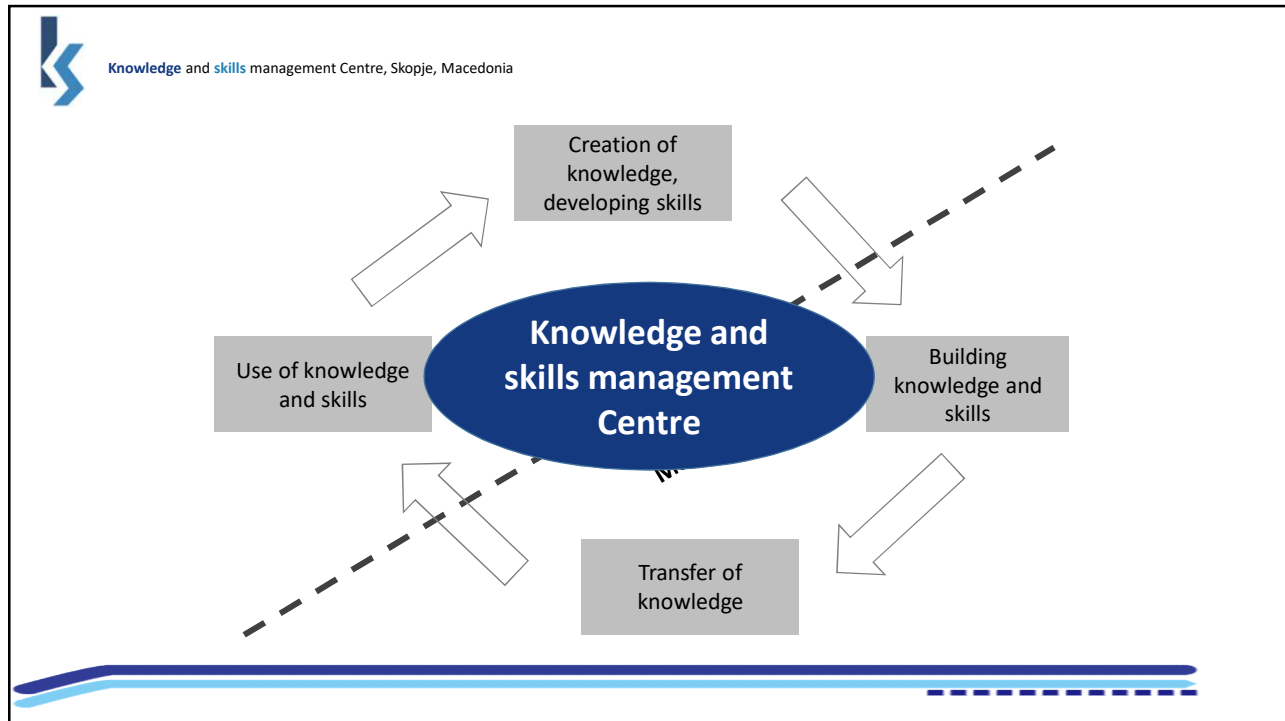
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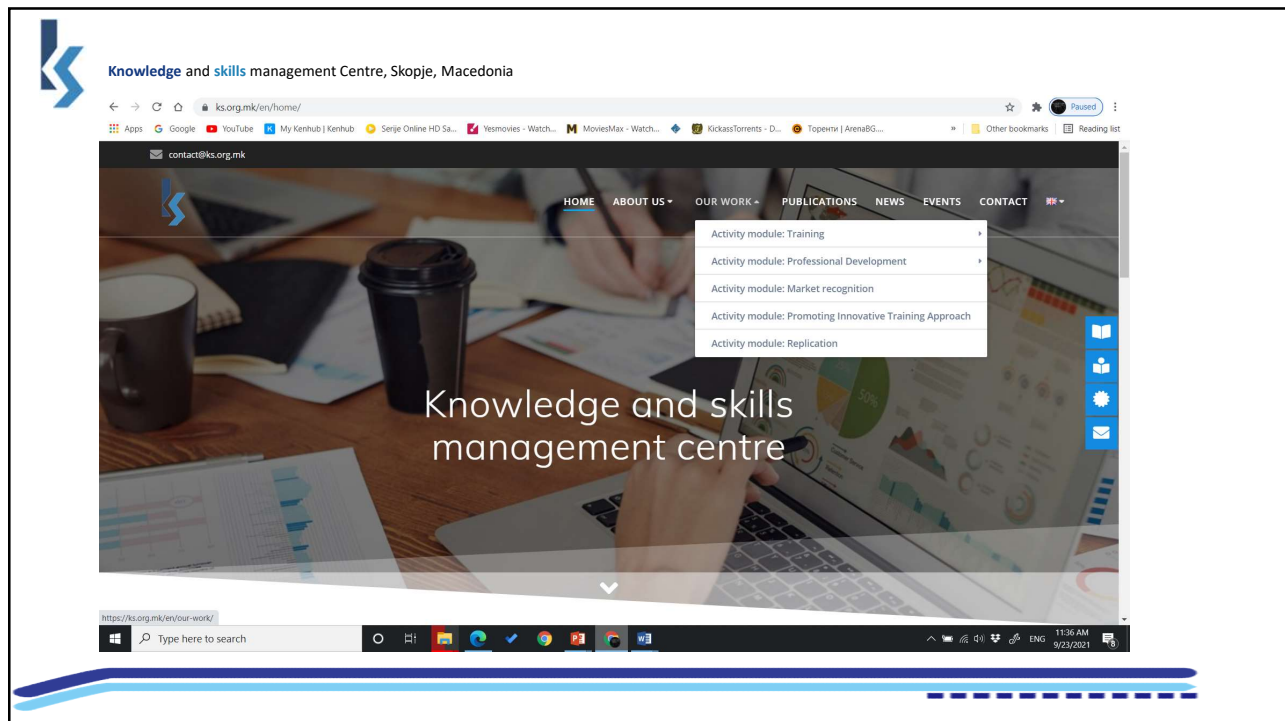
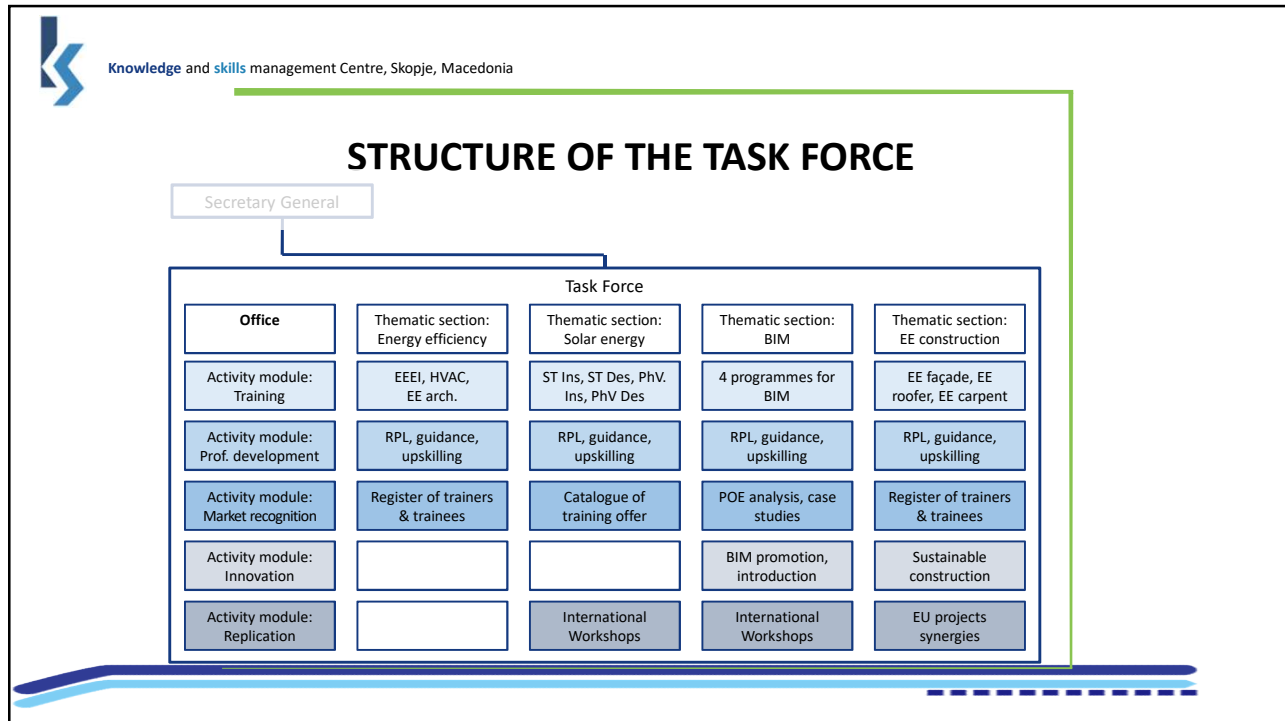
STRUCTURE OF THE TASK FORCE

Closely related to the  Centre **Mission and Vision**

Labor market
Professional development
Employment

Knowledge
Skills
Qualifications







Knowledge and skills management Centre, Skopje, Macedonia

ACTIVITIES OF THE TASK FORCE SECTIONS

Activity module: **TRAINING**

- Preparation of **innovative training schemes** and forms for obtaining voluntary qualification, as the number of qualified workforce will be increased
- Developing and providing **training programmes**
- Enabling **different forms of training**: classroom, practical classes, on-the job training, on-line training, e-learning, distance learning
- Support of **training providers** in transposing and accreditation of developed training schemes
- Preparation of **Catalogue of training offer**



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ACTIVITIES OF THE TASK FORCE SECTIONS

Activity module: **TRAINING**

➤ Catalogue of training offer

Office	Thematic section: Energy efficiency	Thematic section: Solar energy	Thematic section: BIM	Thematic section: EE construction
Activity module: Training	<ol style="list-style-type: none"> 1. Installer of EI with skills for EE measures 2. Installer of HVAC with skills for EE measures 3. Architect with knowledge of EE regulation in construction 	<ol style="list-style-type: none"> 1. Installer for Solar-thermal systems 2. Designer for Solar-thermal systems 3. Installer for PV systems 4. Designer for PV systems 	<ol style="list-style-type: none"> 1. BIM for practitioners: engineers, architects and technicians 2. BIM for decision makers, market, owners 3. BIM for builders and contractors 4. BIM for industry and manufacturers 	<ol style="list-style-type: none"> 1. Façade worker with skills for EE measures 2. Roofer with skills for EE measures 3. Carpenter with skills for EE measures

The screenshot displays the website of the Knowledge and Skills Management Centre in Skopje, Macedonia. The page is titled 'Инсталатер на електрични инсталации со вештини за имплементација на мерки за енергетска ефикасност' (Electrician for electrical installations with skills for implementation of energy efficiency measures). The page includes a navigation menu with options like 'ДОМА', 'ЗА НАС', 'АКТИВНОСТИ', 'ПУБЛИКАЦИИ', 'НОВОСТИ', 'НАСТАНИ', and 'КОНТАКТ'. A dropdown menu is open under 'АКТИВНОСТИ', showing various training modules. The main content area provides details for the selected module, including its code (EE1), duration (80 hours), prerequisites (secondary education), and a list of topics covered in the program, such as energy efficiency concepts, energy savings, and practical installation techniques.

Developing training materials

- Handbook for Integrated and systematic access in developing EE buildings for architects, http://trainee-mk.eu/images/TRAINEE/Publications/P_Handbook_for_integrated_and_systematic_access_in_developing_of_EEbuildings_for_architects.pdf;
- Handbook on Installation and design of solar-thermal systems on two levels - for blue collar workers and building professionals, http://trainee-mk.eu/images/trainee/publications/P_Handbook_on_design_and_installation_of_ST_systems.pdf;
- Handbook on Installation and design of photovoltaic systems on two levels - for blue collar workers and building professionals, http://trainee-mk.eu/images/trainee/publications/P_Handbook_on_design_and_installation_of_PV_systems.pdf;


 Knowledge and skills management Centre, Skopje, Macedonia

Printed training material



Three covers of printed training materials are displayed:

- Handbook for installation and design of solar-thermal systems on two levels - for blue collar workers and building professionals** (with Macedonian text: "Прирачник za instaliranje i projektiranje na sistemi za soncevi kolektori, za robotnici i za inženjери")
- Building Information modeling-BIM for practitioners: engineers, architects and technicians**
- Manual in Macedonian language** (with Macedonian text: "RASPRAVA O PROJEKCIJI NA PROJEKTI ZA PROJEKTIŠANJE I NEKOLIKO OBLASTI I NEKOLIKO OBLASTI I NEKOLIKO OBLASTI")

 Knowledge and skills management Centre, Skopje, Macedonia

Organized trainings within K&S Centre

Organized >20 trainings that resulted with ~300 certified professionals in:

- 2 trainings for 49 Architects for Integrated and systematic approach in developing EE buildings (TRAINEE)
- 4 trainings in BIM with 61 trainees (23 engineers, 13 investors and companies, 11 for decision makers and 14 for industry and manufacturers) (TRAINEE)
- 3 trainings for Installation of RES systems resulting with 23 certified installers (TRAINEE)
- 3 trainings for Design of RES systems resulting with 49 certified engineers (TRAINEE)
- 3 trainings in digital skills financed by the government 2021 (25 trainees)
- 4 trainings for designers and installers in RES in the frame of UNDP project 2022 (50 trainees)
- 2 training accredited by Adult Education center, nationally recognized 2022 (20 trainees)



Knowledge and skills management Centre, Skopje, Macedonia

Organized trainings within K&S Centre



Knowledge and skills management Centre, Skopje, Macedonia

Organized trainings within K&S Centre





Knowledge and skills management Centre, Skopje, Macedonia

Organized trainings within K&S Centre



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Organized trainings within K&S Centre





Knowledge and skills management Centre, Skopje, Macedonia

Organized trainings within K&S Centre



Knowledge and skills management Centre, Skopje, Macedonia

Laboratory for practical training for RES - K&S Centre





Knowledge and skills management Centre, Skopje, Macedonia

Trainings in digital skills



Асоцијација на здруженија на инженери
ИНЖЕНЕРСКА ИНСТИТУЦИЈА НА МАКЕДОНИЈА

Почетна За нас ▾ Списание Проекти Настани ▾ Инженерски прстен Обуки



Digital tools in design and installation of PV systems



Intro in BIM - Digital tools in construction



Digital tools in design and installation of ST systems



Knowledge and skills management Centre, Skopje, Macedonia

ACTIVITIES OF THE TASK FORCE SECTIONS

Activity module: **TRAINING**

- **Development of extended RPL methodology for building professionals (V&VI level of NQF) with special aspects of quality assurance**

The designed process for Recognition of previous learning in the project BUILD UP Skills BEET is six phase process will be **extended** with the **Methodology for recognition and validation of certain skills of higher levels of qualifications** – building professionals including technicians, civil engineers, architects and designers.

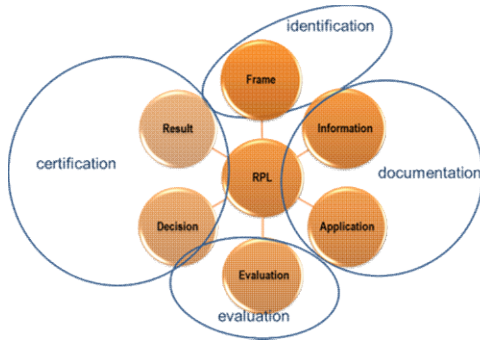
The special topic will be ensuring the quality of the process of design of qualifications and **developing the mechanism for quality assurance of RPL**

- Considering **accreditation** of training programmes and **certification** process according to NQF.

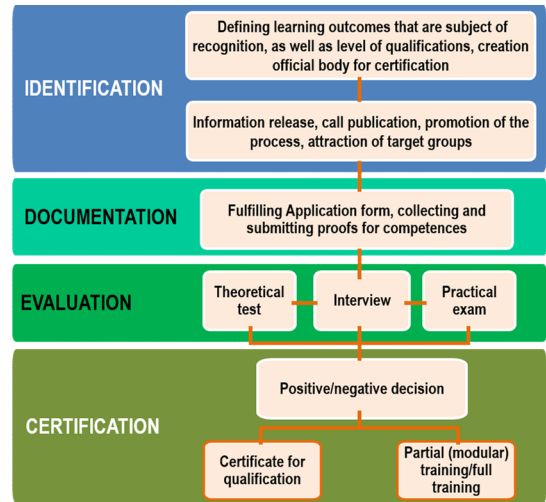


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Phases of the developed process of RPL



Six-phase process, and is fully compatible with the recommendations for necessary phases of RPL issued by the European Training Foundation –ETF



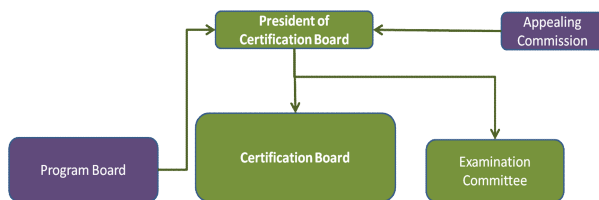
Detailed description of the stages of the developed process of RPL



Knowledge and skills management Centre, Skopje, Macedonia

Certification body for the process of RPL

The structure of the Certification body was developed according to the internationally accepted standard for organizing certification processes is EN ISO / IEC 17024: 2012, which is the standard for "Conformity Assessment - General Requirements for Persons Certifying".



Organizational structure of the certification body

Quality assurance of the process

Quality assurance is 'focused on providing confidence that quality requirements will be fulfilled'.

- Key Aspects of Quality Assurance:
 - ✓ Evaluation based on learning outcomes
 - ✓ Recognized certificates
 - ✓ Competent training providers
 - ✓ Trust of the process
- Principles of quality assurance
- Elements of quality assurance



Knowledge and skills management Centre, Skopje, Macedonia

Methodology for process of validation of prior learning—RPL

Good practice experience

Developed Methodology for RPL as comprehensive document with steps and procedures and piloted on 1500+ participants in two H2020 projects



BUILD UP Skills BEET

Builders' Energy Efficiency Training

Targeting level III and IV
from NQF



TRAINEE

TRAINEE

Toward market-based skills for
sustainable Energy Efficient construction

For level III, IV and also level VI
from NQF, with added elements
for Quality assurance

Piloting of the developed
process of RPL

1555

Applications

1336

Certified

86%

Success rate



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ACTIVITIES OF THE TASK FORCE SECTIONS

Activity module: **MARKET RECOGNITION**

- Creation of **Database/Register of certified trainers and certified workers** and their involvement in the activities of the Centre, through their presentation to the training providers as qualified workforce for EE construction skills and RPL
- Publication of **Catalogue of training offer**: 14 training programmes
- Organization of **working meetings with NQF** for definition of best approaches for successful market recognition of EE construction skills
- **Promotional events** for present the findings from POE and case studies from implementing innovative approaches
- **Memorandums for recognition** and collaboration with relevant market actors

Knowledge and skills management Centre, Skopje, Macedonia

Register of certified professionals

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Register of certified people

Name: Zoran Mirchevski
 Country: Macedonia
 City: Skopje
 Certification Type: T.E.E.C.1 Trainer

31 different categories

1. T.E.E.C.1 Trainer for upgrading the skills of Façade workers, for implementation of energy efficiency measures
 2. T.E.E.C.2 Trainer for upgrading the skills of Roof construction workers, for implementation of energy efficiency measures
 3. T.E.E.C.3 Trainer for upgrading the skills of Carpenter Installers, for implementation of energy efficiency measures

Knowledge and skills management Centre, Skopje, Macedonia

Register of certified professionals

ДОМА ЗА НАС АКТИВНОСТИ ПУБЛИКАЦИИ НОВОСТИ НАСТАНИ КОНТАКТ

Регистар на сертификирани лица

Име: Ljiljana Stojanovska - Георгиевска
 Држава: Македонија
 Тип на сертификат: T.E.E.S. Професионална квалификација

Детали за сертификано лице

Име: Ljiljana Stojanovska - Георгиевска
 Училишна бр.: 780000 - ТИМЛЕК - ИМСИИС - 0106 - 2017-14000000-EE-2017-04-PPH
 Издадено на: 05.07.2019
 Валиден на: 500

Сертификати

1. T.E.E.S. Професионална квалификација Обување за проектирање и инсталација на системи за обновлива енергија на енергија
 2. T.E.E. Инструктор на Обување за наградба на вештини на градежни р имплементација на мерки за енергетска ефикасност
 3. BIM1 BIM за практичари, инженери, архитекти и техничари

T.E.E.S. Професионална квалификација Обување за проектирање и инсталација на системи за обновлива енергија на енергија



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Register of certified professionals

Total Blue collar workers certified through training	99
Total Blue collar workers certified through RPL	1116
Total White collar workers certified by training	98
Total White collar workers certified by RPL	27
Total trainers certified by train-of-trainers	207
Total ToT (Instructors)	19
TOTAL	1566



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Catalogue of training offer

"An investing in knowledge pays the best interest"

Benjamin Franklin



The catalogue includes trainings for acquiring specific knowledge and skills for different professions and occupations, intended for workers, professionals and interested individuals.

- Trainings for acquiring knowledge and skills (14 training programs in 4 thematic sections)
- Trainings for trainers (7 training programs)
- Services for Training providers



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Memorandums for recognition and collaboration

The process of signing of memorandums for cooperation during was focused on construction companies, professional association and training providers. Out of 18 signed memorandums, the distribution is following:

- 12 with construction Companies
- 4 with Training providers
- 2 with Professional Associations



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National Accreditation as training provider

ПОЧЕТАК ПОКРОВИВАЧИ НА УСЛУГИ ВЕСТИ ПРОГРАМИ СЕРТИФИЦИРАНИ ОБРАЗОВАНИ ДОКУМЕНТИ ЗА НАС КОНТАКТ

ПРОФИЛ ЦЕНТРА ЗА МЕНАЏИРАЊЕ НА ЗНАЊЕ И ВЕШТИНИ - К&С СКОПЈЕ

0 АКРЕДИТИРЕНИ КУРСОВИ

Аналитичар за проектирање на системи за користење на енергија од обновливи извори на енергија

Електронска страна

- Developed occupational standard for Installer of RES systems, code 0510.30.09 / 17.05.2021, MTSP
- Verified training program for skills on VI level – Analytic for design of RES systems, 16.04.2021, AEC
- Accredited training provider 15.07.2021, MSE



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ACTIVITIES OF THE TASK FORCE SECTIONS

Activity module: **PROMOTING INNOVATIVE APPROACH**

- Formulating comprehensive **List of innovative approaches both in training and in construction process (BIM)**
- Developing **strategy** for promotion of innovations within **K&S Business plan**, in-line with national legislation and EU directives
- Organization of the six promotional events for BIM
- Carrying out **Pilot trial** to confirm the applicability of BIM as innovative approach
- Developing **“Knowledge Hub”** as on-line tool for improving collaboration and understanding

Relation with business / National Qualification Platform is main enabler for offer of innovative approaches



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ACTIVITIES OF THE TASK FORCE SECTIONS

Activity module: **REPLICATION**

- Organisation of 1 international workshop for EU replication of project results in Macedonia
- Participation at Regional dissemination meetings: establishing procedures for mutual recognition of EE construction skills
- Participation at International dissemination events: Exchange meetings with other launched projects under EE-14 call of Construction skills
- Participation at Dissemination activities towards synergies and visibility of H2020 actions (organised by EASME)



Knowledge and skills management Centre, Skopje, Macedonia

PROJECTS

1. Toward market-based skills for sustainable energy efficient construction (Trainee), Horizon 2020, 2018-2020, <http://trainee-mk.eu>
2. BRIDGING THE SKILLS GAP TO CREATE NEW AND BETTER JOBS (Skills4Future), UNDP, 2020-2022, <https://skills4future.mk>
3. Sustainable EnErgy Skills in construction: Visible, Validated, Valuable – SEetheSkills, H2020-LC-SC3-EE-2020-2, Grant agreement ID: 101033743 — SEetheSkills, 2021-2024, <http://seetheskills.eu>
4. Building matters - Mitigating climate change transition risks of the construction sector through building capacity in sustainable building materials, Erasmus +, 2022-2024, No. 2022-1-RO01-KA220-VET-000087398
5. Off-site industry towards innovation in construction sector, Erasmus +, 2022-2024, KA220-VET-6C5719F8



Knowledge and skills management Centre, Skopje, Macedonia

ENSURING VISIBILITY of the Knowledge and skills management Centre

➤ Web page

www.ks.org.mk

➤ Contact

contact@ks.org.mk, lihnida@ks.org.mk

➤ Public advertisement

Brochure, leaflet, newsletter, journal Engineering

