

2021 INSTALLERS' SUMMIT

8 October 2021

Online

GCP EUROPE

Europe n

2021 Installers' Summit

Enabling the
deployment of
smart buildings
with new skills
and jobs

8 Oct. 2021
15h30-17h

Europe  On
GCP EUROPE

Welcome to our Annual Conference!

Session 2: Enabling the deployment of smart buildings with new skills and jobs (15h30-17h00)

- **Introduction by EuropeOn President**

- **Views from the EU Commission on Green skills: Key to ensure a successful and fair transition**

- Tim Schreiber, Policy Officer at EU Commission's Directorate-General for Employment, Social Affairs & Inclusion

- **The electrical and mechanical sectors' takes on the skills and jobs of tomorrow: going beyond installation**

- Daniel Gerber, electrical apprentice (Switzerland): a young worker's perspective
- Claudia Reiner, CEO at Caris & Reiner and VP at Techniek Nederland, and Jan Cromwijk, Project coordinator at ISSO (research institute): Developing green skills in the Dutch construction sector and our involvement in EU's project BUILD UP Skills
- Alexander Neuhäuser, Deputy Managing Director at ZVEH (Germany): Electro-technician for building system integration: a new career and a new apprenticeship
- Pär Lundström, Senior Policy Advisor at Installatörsföretagen (Sweden): Skills in a Circular Economy

- **Q&A and conclusion by GCP Europe Secretary General**

Second session (15:30 – 17:00 PM CET)

Session 2: Enabling the deployment of smart buildings with new skills and jobs

A few reminders before starting:



Once all of our distinguished panellists will have presented their views on this session, we will open the floor to all attendees for **questions**.



You can ask your questions whenever you want in the **QUESTIONS Box** (on the right side) and we will come back to them in the last 30 minutes of this Conference. Please provide your name and organisation

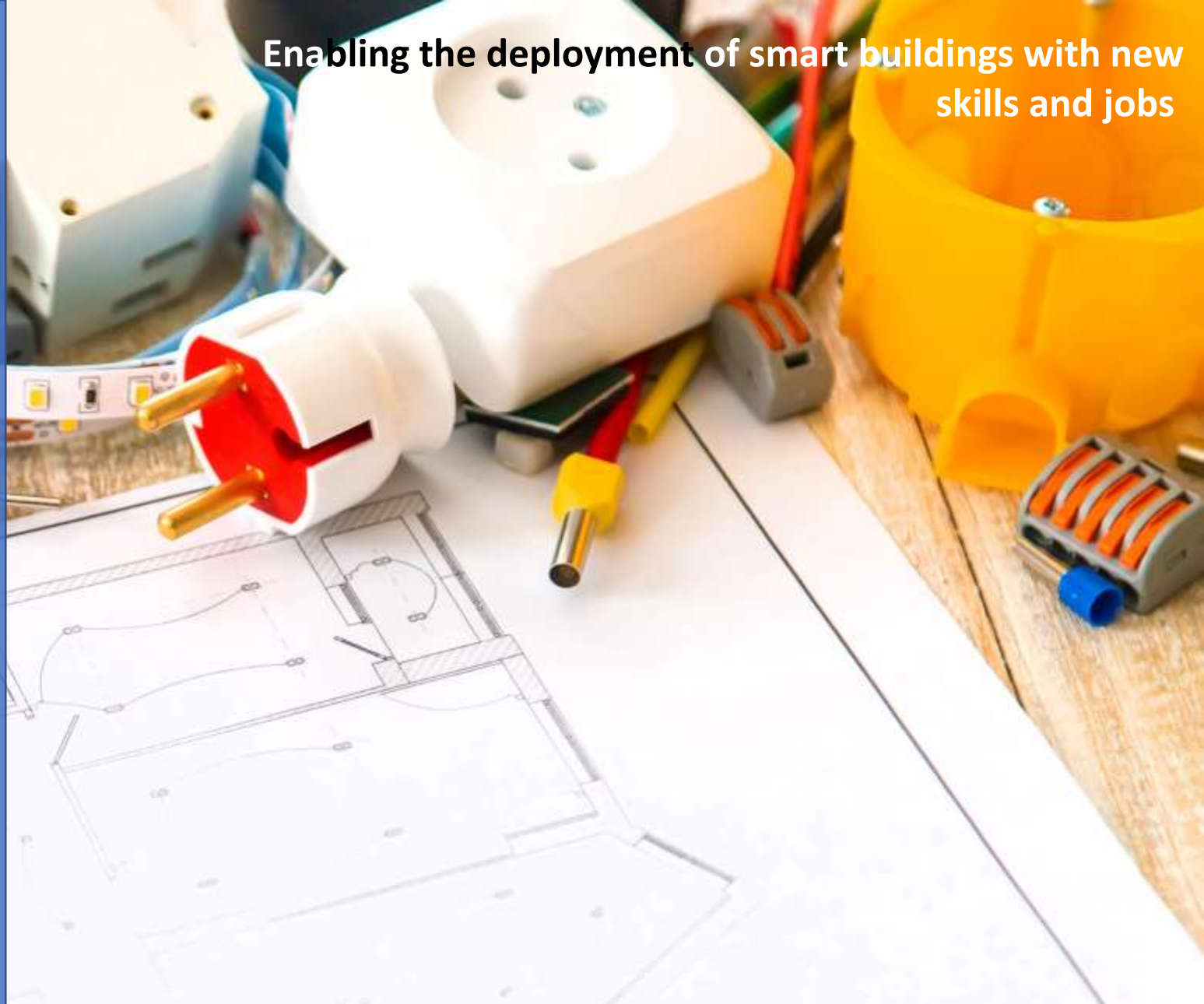


Thank you for being with us today!

Introduction

-
Martin Bailey,
EuropeOn President

Enabling the deployment of smart buildings with new skills and jobs



Introduction - Martin Bailey, EuropeOn President

300.000 **BUSINESSES**

1.8 MILLION **PROFESSIONALS**

...and over 15% of the construction sector workforce

€ 200 BILLION **ANNUAL TURNOVER**



[Austria - Elektrotechniker](#)



[Denmark - Tekniq](#)



[England, Wales & Northern Ireland - ECA](#)



[France - FFIE](#)



[France - SERCE](#)



[Finland - STUL](#)



[Germany - ZVEH](#)



[Luxemburg - FGT](#)



[Netherlands - Techniek Nederland](#)



[Norway - Nelfo](#)



[Scotland - SELECT](#)



[Sweden - Installatörsföretagen](#)



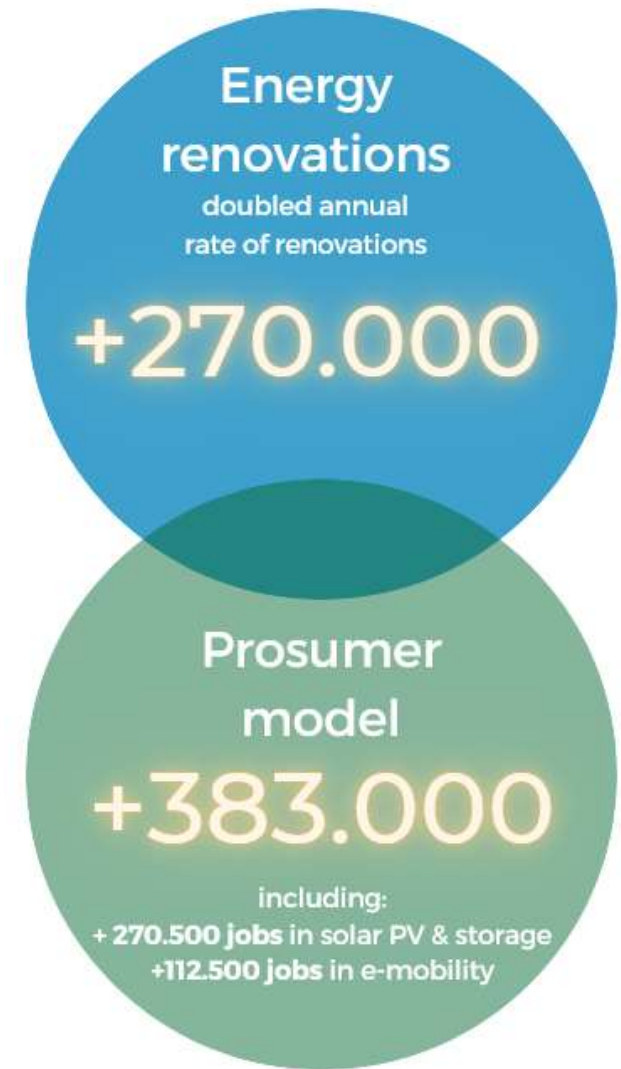
[Switzerland - EIT.swiss](#)

Introduction - Martin Bailey, EuropeOn President

- **#Skills4Climate** campaign launched in Autumn 2019
- Signing of the **EU Pact for Skills** in 2021
- Creation of a **new Skills working group**, open to GCP Europe members
- New study on the **job potential** behind the Renovation Wave and the prosumer model



Not good enough (poor reputation) Dead-end Mostly male (macho?)
Hands-on Team spirit Old-fashioned Getting rid of school
Hard job Innovation Low qualified Dangerous Working outdoors
Low-paid Purposeful (mitigate climate change, contribute to key infrastructures)
Green Dirty job Job security Repetitive tasks
Real career development Challenged life/work balance
Working outdoors Independence & Entrepreneurship



*Views from the EU
Commission on
Green skills: Key to
ensure a successful
and fair transition*

-
Tim Schreiber, Policy
Officer at DG EMPL

Enabling the deployment of smart buildings with new
skills and jobs



A young worker's perspective

-

Daniel Gerber,
electrical apprentice
(Switzerland)

Enabling the deployment of smart buildings with new skills and jobs



Licensed Project Manager for
Electrical Installation
and Safety,
Federal Diploma of Higher Education



Licensed Electrical
Installation and
Safety Expert,
Advanced Federal
Diploma of Higher
Education
(to lead / guide
a company)

Daniel Gerber

European
Championships
EuroSkills

National
Championships
SwissSkills



School

Junior Alpine
Ski Team

Apprenticeship

Final Apprenticeship
Examination

Cancer

Apprenticeship

Electro-technician for building system integration: a new career and a new apprenticeship

-
Alexander Neuhäuser,
Deputy Managing
Director at ZVEH (DE)

Enabling the deployment of smart buildings with new skills and jobs





Qualification in Germany

- 1. Apprenticeships in Germany (“Dual Apprentice System/Dual Training“)**
- 2. Electro-technician for Building System Integration**



1. Apprenticeships in Germany

Dual Training

- “Dual Training” means: Training part-time in the enterprise and part-time in special public schools “Profession Schools” (1 ½ to 2 days a week or school-learning on block). Coordinated but separate teaching plans.
- Duration of training: approximately 3 ½ year.
- Ends with examination and a public certificate.
- Doesn't include either the permission nor the abilities to run a firm self-employed (only after 6 years of practical experience incl. 4 years in leading position).
- Level of knowledge is required by law (labour security) and insurances (accident insurance) to perform activities.



Dual
Apprenticeship



Company
Training



Cross Company
Training



Professional
Schools



Legally recognized
Certificate



Different Training Programs

- ▶ ZVEH represents 3 professions with “Meister” qualification.
- ▶ These cover 5 different training programs:
 1. Electro-technician Specialization in Energy and Building technologies
 2. Electro-technician Specialization in Automation and System technologies
 3. Electro-technician for Building Systems Integration
 4. Information Electro-technician
 5. Electro-technician for Machines and Drives

Legal bases and Structure

Training ordinance as legal basis

- Ministry of Economics
- In Germany, training regulations set the national standards for in-company training within the framework of dual vocational training.
- The training regulations regulate the factual and temporal structure of the training.
- Training regulations are published as statutory ordinances of the federal government in the Federal Law Gazette.
- The basis for the training regulations is the Vocational Training Act.

Training framework plan for the Companies

- Ministry of Economics
- Part of the Training Ordinance

Training framework Plan for the professional schools

- Kultusministerkonferenz (KMK)

Teaching Plan for the cross-company training

- ZVEH, HPI und BMWi

Coordination and Communication

Government

- Bundesministerium für Wirtschaft und Energie (**BMWi**)
- Bundesministerium für Bildung und Forschung (**BMBF**)
- Bundesministerium der Justiz und für Verbraucherschutz (**BMJV**)
- Bundesinstitut für Berufsbildung (**BIBB**)
- Kultusministerkonferenz (**KMK**)

Civil Society

- Zentralverband der Deutschen Elektro- und Informations-technischen Handwerke (**ZVEH**)
- **IG Metall**
- Zentralverband des Deutschen Handwerks (**ZDH**)
- Deutscher Gewerkschaftsbund (**DGB**)
- Kuratorium der Deutschen Wirtschaft für Berufsbildung (**KWB**)



**Consensus
required**

“Meister” in three professions

- Electro-technician
- Information technician
- Electro-machine builder

Each training requires specialization e.g. the Electro-technician on energy systems, information technology and safety systems or systems and automation.

General Details: Training, Examination and Certification

Training courses

- Not compulsory
- But 99% visit the training courses due to the demanding exams
- Schools are private and must be charged
- Public prescribed teaching plans (coordinated between: ministry, ZVEH, labour unions). Cover technical and business knowledge.
- Time requirement: approx. one year

Examination

- Public examination
- Public authorized examination committees

Certificate

- Examination ends with a public recognized certificate

Relevance of “Meister” Qualification

- Compulsory by law for running a self-employed firm and to provide trade activities to customers
- Education covers the “TREI-Qualification” (separate test as part of the whole exam.) which is compulsory by law to perform grid-relevant activities on the electrical installation (construction, extension, modifying but not simple maintenance). “TREI” is a key instrument to assure grid safety and the safety of the electrical installation.
- Therefore the “Meister” qualification level is a main pillar to ensure the high quality of services and safety for the customer/consumer.
- “Meister” qualification describes a certain level of knowledge and skills. Only some other training careers fulfil the requirements (like Engineers, some other public examined technicians).

A woman with brown hair in a bun is shown in profile, smiling. Overlaid on her head and the background are red circuit lines and icons, including a satellite dish and a power symbol, representing technology and system integration.

2. Electro-technician for Building System Integration

Neue Ausbildungsberufe im E-Handwerk



7
Before

5
After

Berufe bis 7/2021

Elektroniker/-in

FR Energie- und Gebäudetechnik

FR Automatisierungstechnik

FR Informations- und
Telekommunikationstechnik

Systemelektroniker/-in

Informationselektroniker/-in

SWP Bürosystemtechnik

SWP Geräte- und Systemtechnik

Elektroniker/-in für Maschinen
und Antriebstechnik

Neue Berufe ab 8/2021

Elektroniker/-in

FR Energie- und Gebäudetechnik

FR Automatisierungs-
und Systemtechnik

Elektroniker/-in **NEU**
für Gebäudesystemintegration

Informationselektroniker/-in

Elektroniker/-in für Maschinen
und Antriebstechnik*

Most important
Apprenticeship
>33.000

No Role-Model
Completely New



Motivation and Mission

- Growing demand for the merging of smart building applications in the area of heating, energy generation and energy management solutions from the trades involved in the building.
- Link to planners in the field of smart and cross-disciplinary building technologies.
- Anchoring offers around intelligent building technology more firmly in the electrical trade.
- Address higher education: The target group for the new training course include people with a (technical) high school diploma as well as study experience.

Training Fields

- Analyzing building technology systems,
- Measure and analyze physical parameters in building system technology, identify errors and initiate measures,
- Assembling and installing building services systems,
- Conception and planning of the integration of technical building systems and systems,
- Carrying out the cross-disciplinary technical planning and integration of technical building systems and systems,
- Integration of components and functions in building technology systems,
- Parameterization, commissioning and transfer of technical building systems and systems,
- Programming, setting up and testing software,
- Hand-over and document projects,
- Service, maintenance and optimization.

Content

- Analyze building technology systems
- Carrying out the interdisciplinary technical planning and integration of technical building systems
- Integration of components and functions in building technology systems

Fields of activity

- The entire technical systems occurring in the building and their integration
- In industrial companies and IT system houses as well as with technical building equipment providers.



Structure Training framework plan

Cross-disciplinary System Design

**Installation
Energy
Supply and
Distribution**

**Network
Technology
Data Security**

**Program
Parameterisation**

**Planning
Documentation
Optimize
Maintain**

Occupation of Skilled Electrotechnition

Qualification and Labour Protection and Assurance

Regulations and Standards

- DIN VDE 1000 Teil 10 und
- DGUV Vorschrift 3 und 4

Training needs to cover all knowledge and competence to cover the requirements of a Skilled Electro-technician (**Elektrofachkraft, EFK**)

- Required by Labour Assurance Organisation
- Selection-Responsibility by Employer

360° Video Clip



or
VR glasses



Watch on
<https://www.youtube.com/watch?v=clvk-xR08QQ>

Marketing Campaign

☰ Menü

E-ZUBIS 

**NEUE BERUFE
JETZT CHECKEN.**

**ELEKTRONIKER IM
E-HANDWERK**

Für jeden Typ die passende
Ausbildung!

[Mehr erfahren](#)

E-HACKS

Spannende DIY Elektro-
Projekte zum nachbauen.

**AUSBILDUNG
2021**

Finde Ausbildungsplätze in
deiner Nähe!

<https://www.e-zubis.de>

<https://www.facebook.com/ezubis/>

https://www.instagram.com/e_zubis/

<https://www.youtube.com/user/ezubis>

Thanks

for your Attention

Zentralverband der Deutschen Elektro- und Informationstechnischen Handwerke (ZVEH)

Alexander Neuhäuser

Lilienthalallee 4

60487 Frankfurt am Main

Telefon: +49 69 247747 - 30

E-Mail: » a.neuhaeuser@zveh.de

Developing green skills in the Dutch construction sector and our involvement in EU's project BUILD UP Skills

-
Claudia Reiner, CEO at
Caris & Reiner and VP at
Techniek Nederland, and
Jan Cromwijk, Project
coordinator at ISSO

Enabling the deployment of smart buildings with new
skills and jobs





Techniek
Nederland

Quality of craftmanship

Claudia Reiner

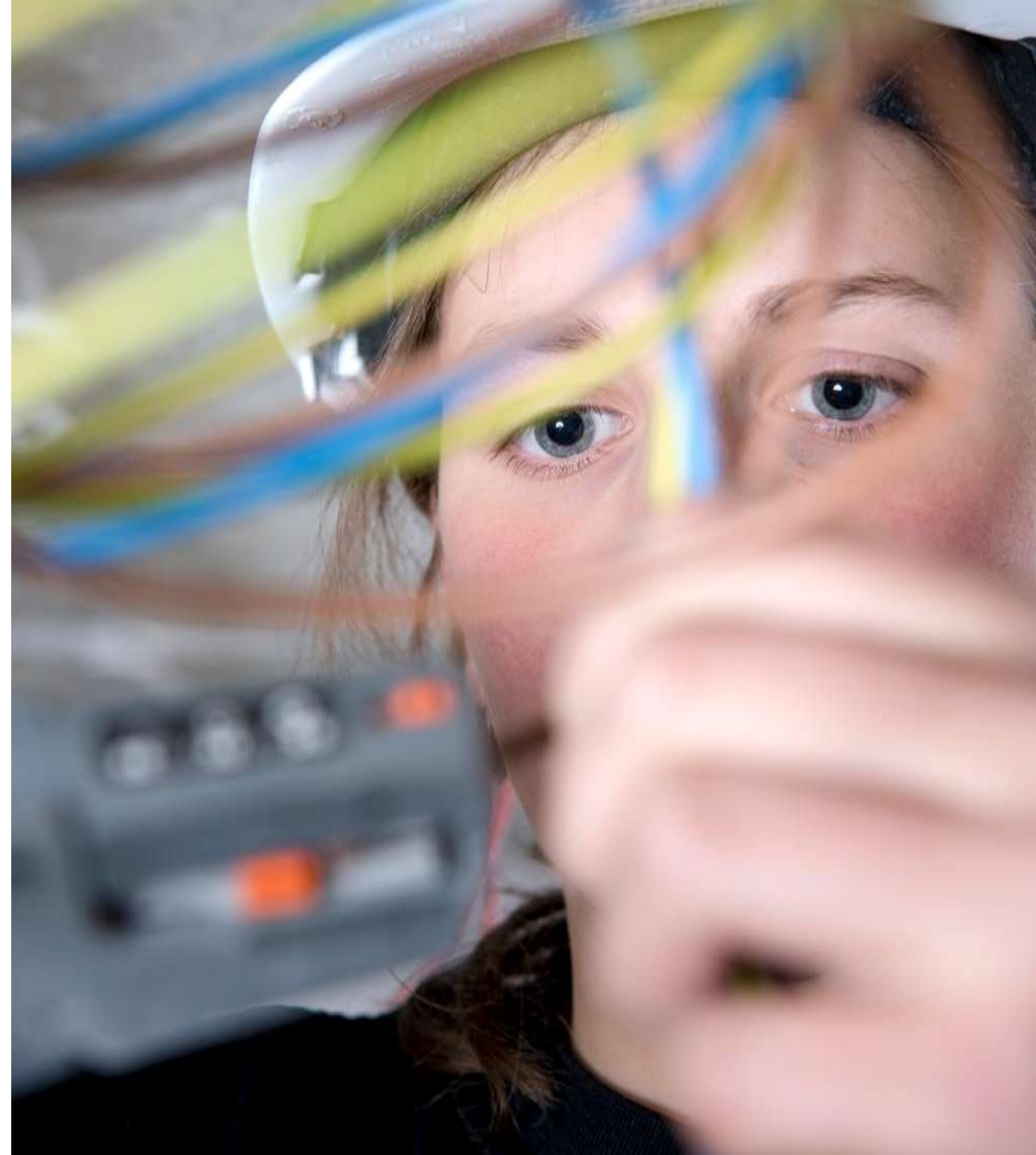
Vice-President Techniek Nederland





Context

- Method of qualification is diverse
- Profession changes, new technologies and regulations, changing non-technical skills – need regular training
- Continuous retraining is necessary
- Employee mobility is necessary
- Need to distinguish on quality & topicality
- New possibilities for e-learning, validation and examination
- Increasing number of certifications and competency requirements





Vision

THE INDUSTRY

- ... plays an important role in societal challenges
- ... is adaptive to new technologies and market developments
- ... its companies and professionals stand for quality and are therefore appreciated

PROFESSIONALS

- ... are and remain up-to-date trained and stand for quality
- ... learning and development are valued
- ... learning actions/transactions count and are validated
- ... learning and developing everywhere and in many forms and systems

Everyone knows

Where he/she stands

Where he/she is going

What options does he/she have for this?

What did I learn?

Where do I go to?

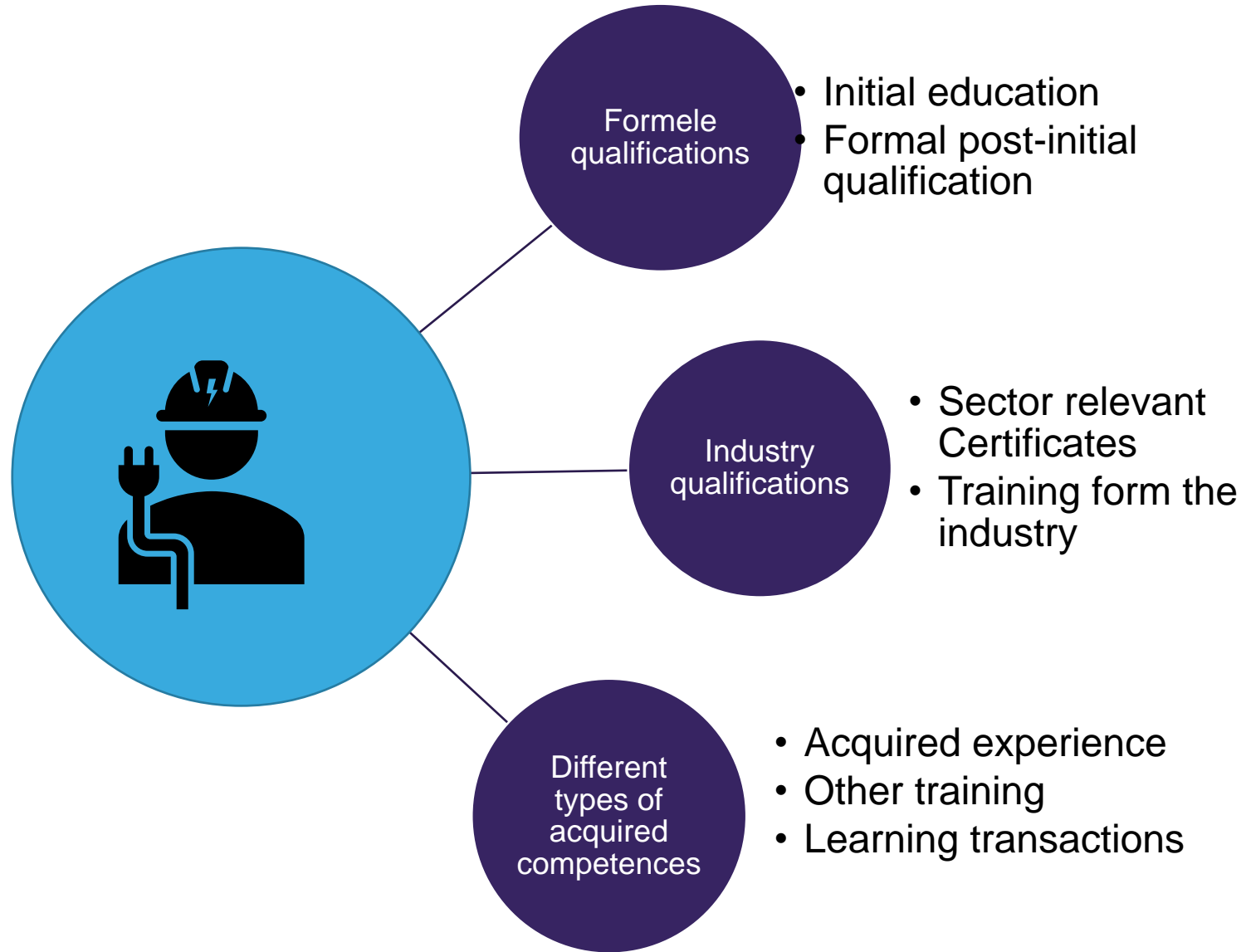
What can I show?

How can I make the next step?





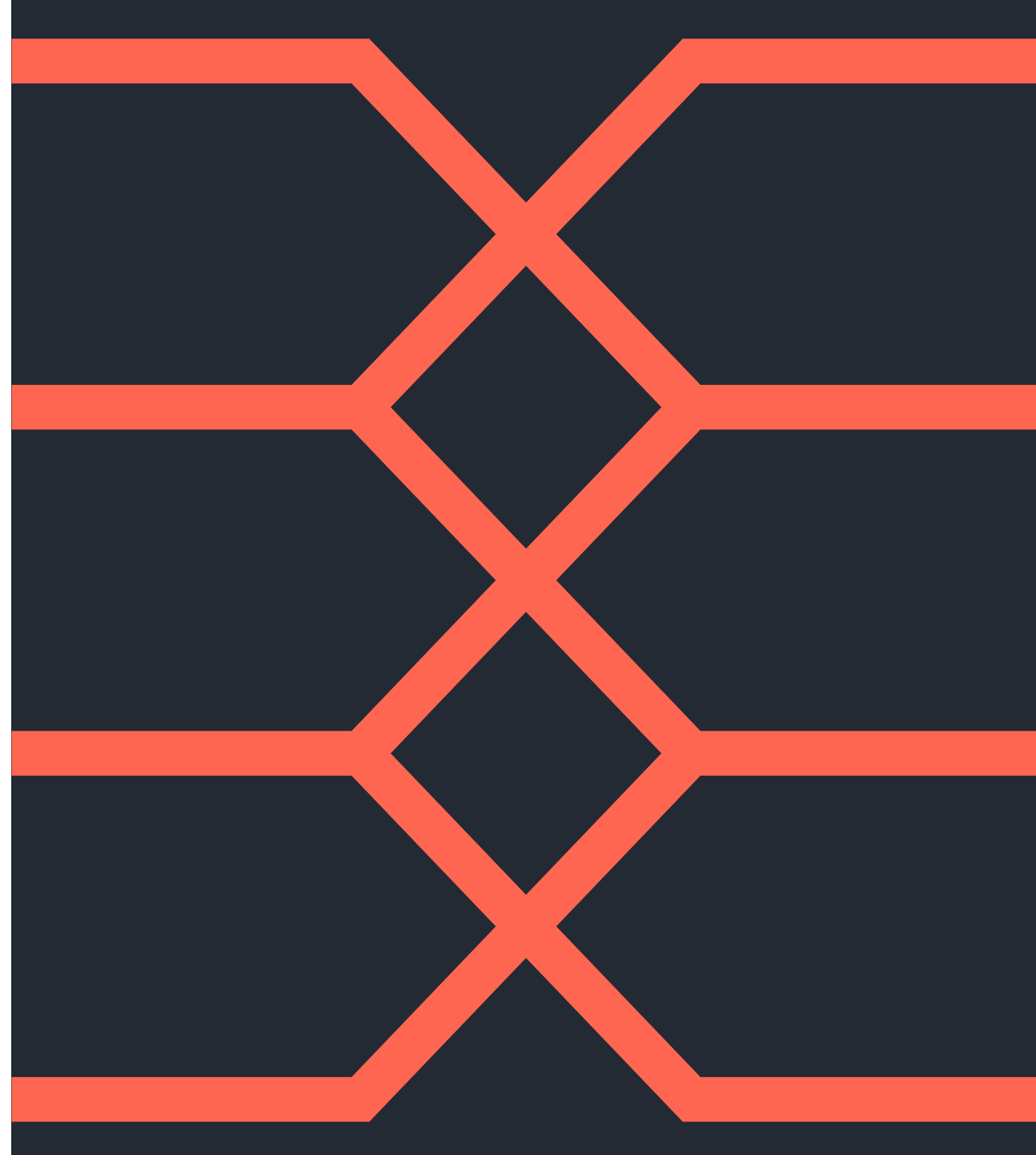
Qualifications and competences





Conditions

- Unambiguous definitions of Craftsmanship for the entire industry and its stakeholders
- Demonstrability of craftsmanship
- Accessibility of training
- Accessibility to demonstrating craftsmanship
- Learning doesn't stop: Permanent learning and development
- Open system for market providers





How?





Structure

Define

Industry
Craftmanschap
Definitions

Record

Commission
Craftmanschap

Examination

Vakmanschap
techniek.nl

Register

Centraal
Register
Techniek

Show

Vakpas
Techniek



Proces





Platform Vakmanschaptechniek.nl

Vakmanschapsroutes

www.vakmanschapco.nl

www.vakmanschapinregelen.nl

www.vakmanschapzonnestroom.nl

www.vakmanschaptechniek.nl

And following

Vakmanschap koolmonoxide preventie

Ik ben werknemer

Ik ben zelfstandige (zzp)

Ik ben werkgever

Vakmanschap erkennen... wachten hoeft niet meer!

Vanaf **1 oktober 2020** mogen installatiemonteurs, als onderdeel van de [wettelijke certificatieprocedure](#) voor bedrijven, uitsluitend werkzaamheden verrichten aan gasverbrandingsinstallaties wanneer zij ook daadwerkelijk beschikken over het Bewijs van Vakmanschap!

Op deze website vind je het speciaal ontwikkelde examenprogramma dat leidt tot erkenning van Vakmanschap voor werkzaamheden aan gasverbrandingsinstallaties, onder accreditatie van [InstalQ](#). Ben je een installatiemonteur of werkgever? Laat je kennis en vaardigheden af die van je medewerkers tijdig bij ons vaststellen en erkennen.

Voordat je begint...
Voorafgaand aan het traject adviseren wij je de beschikbare informatie over het proces en de diverse profielen goed door te nemen. Hiermee voorkom je verrassingen.

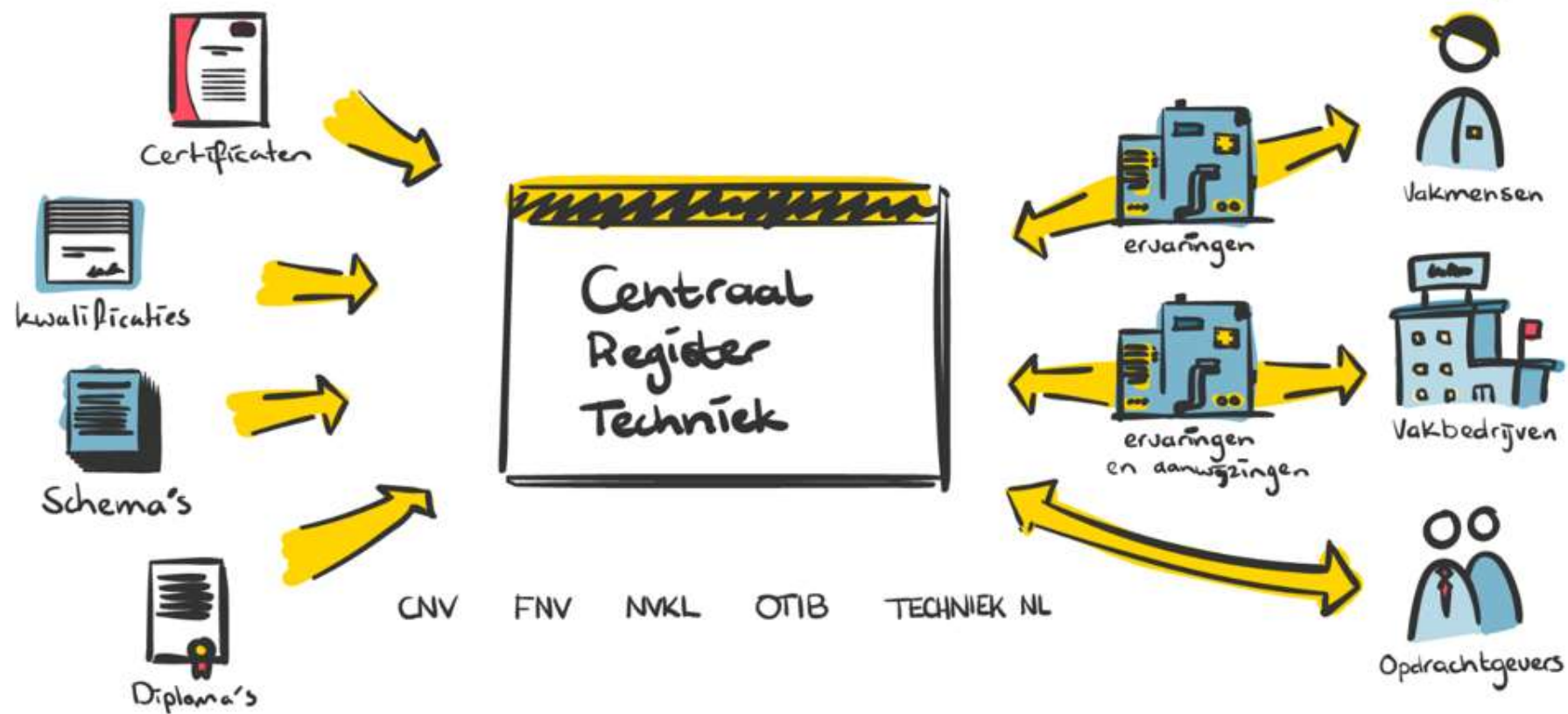
[Meer informatie over het proces vind je hier!](#)

Een initiatief van

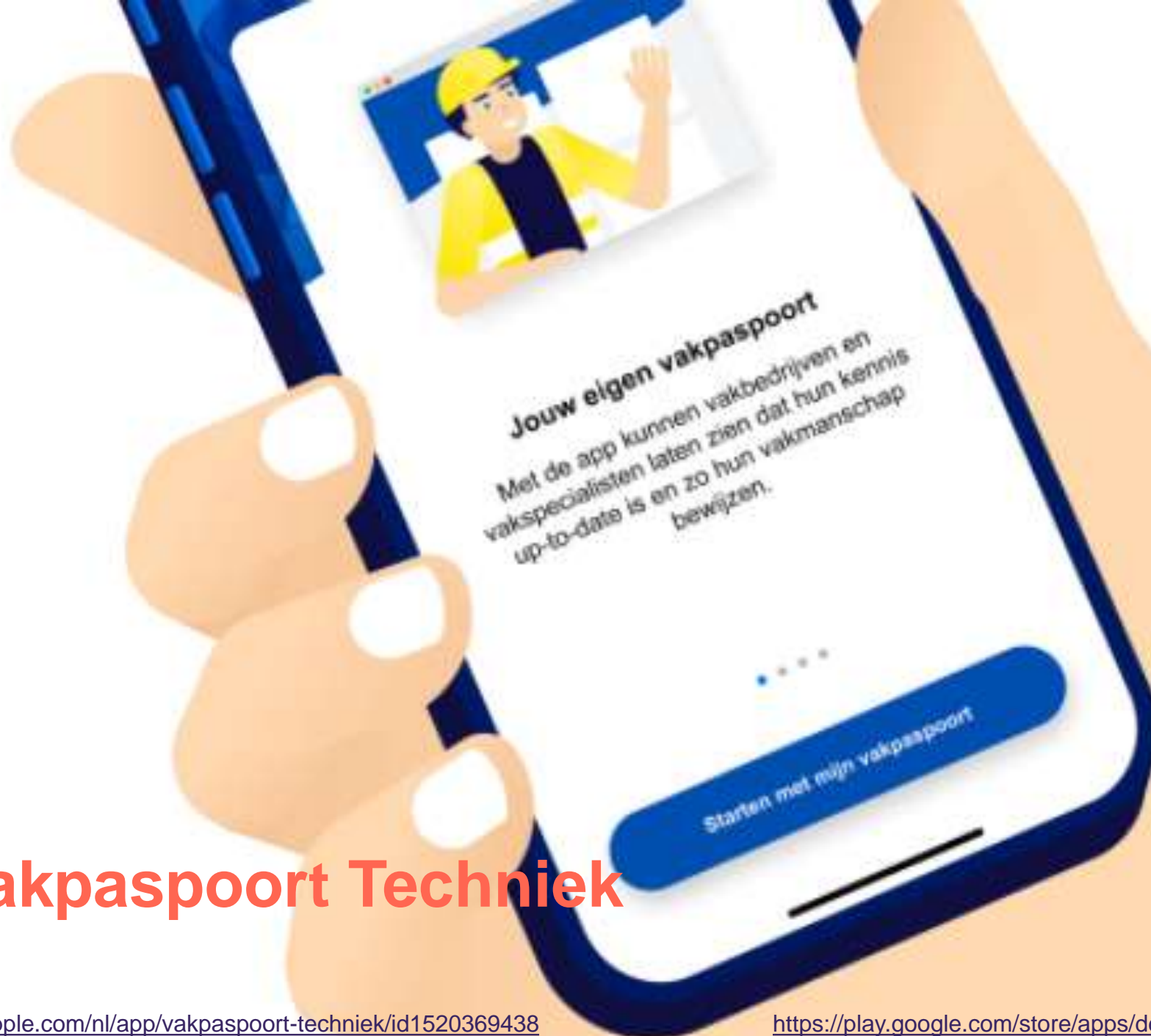
Wij Techniek | installQ | CNV | Techniek Nederland | De Unie | FNV Metaal



Centraal Register Techniek







Vakpaspoort Techniek



Techniek

Nederland



Developing green skills in the Dutch construction sector and our involvement in EU's BUILD UP Skills initiative

2021 INSTALLERS' SUMMIT, ONLINE
8 October 2021, ISSO, Jan Cromwijk

Europe's Climate and Skills Agendas Must Go Hand in Hand

Julie Beaufigli, Secretary General, EuropeOn



The BUILD UP Skills initiative



- National Qualification Platforms
- Status Quo Analysis
- National Roadmaps

30 finalised projects

10m EUR 2011-12



- National Qualification & Training programmes

22 finalised projects

11.5m EUR 2012-14



- Qualification & training programmes

12 finalised projects

9 on-going projects

23.6 m EUR 2014-19



1st Call published on

- BUILD UP Skills – rebooting the National Platforms and Roadmaps

2021-

"Blue collar" workers

Workers and professionals

Workers and professionals

Exchange activities, monitoring and evaluation (EASME)

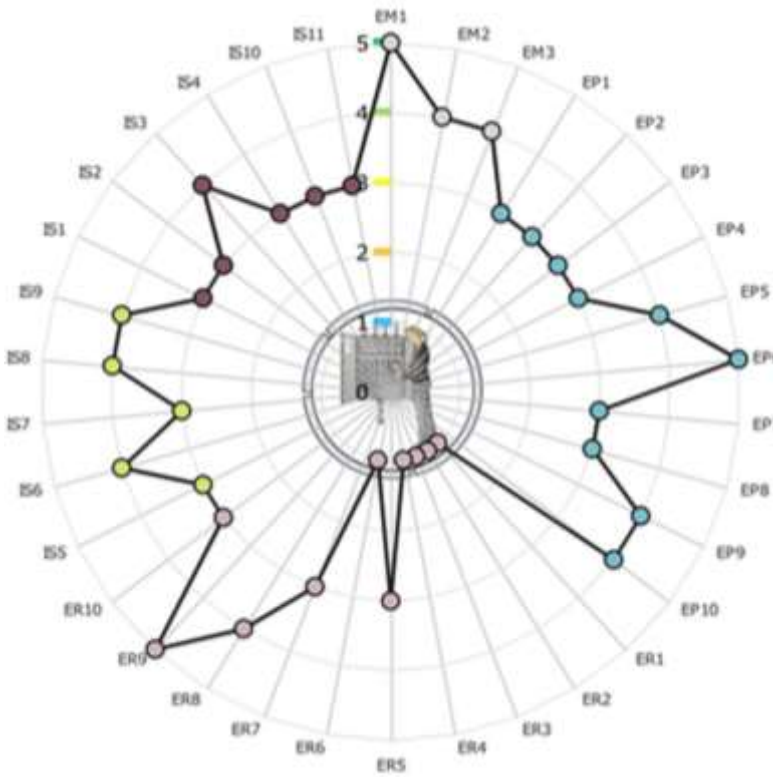
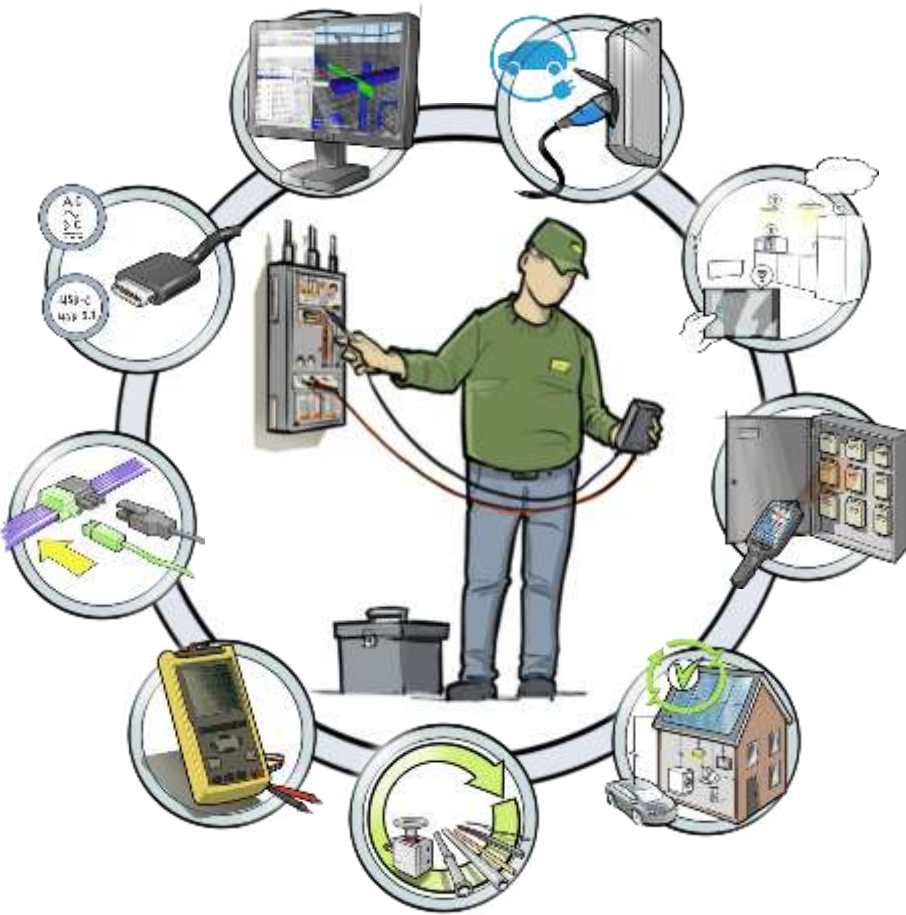
(CINEA)

LIFE-2021-CET-BUILDSKILLS

- **Objectives (extracts)**
 - support the **revitalisation of the National Platforms** created in the first phase of the BUILD UP Skills initiative (2011-2012), gathering all key national stakeholders [...] expanding their scope by involving new stakeholders.
 - **update the Status Quo Analyses and National Roadmaps** to reflect the new realities of the building sector [...]

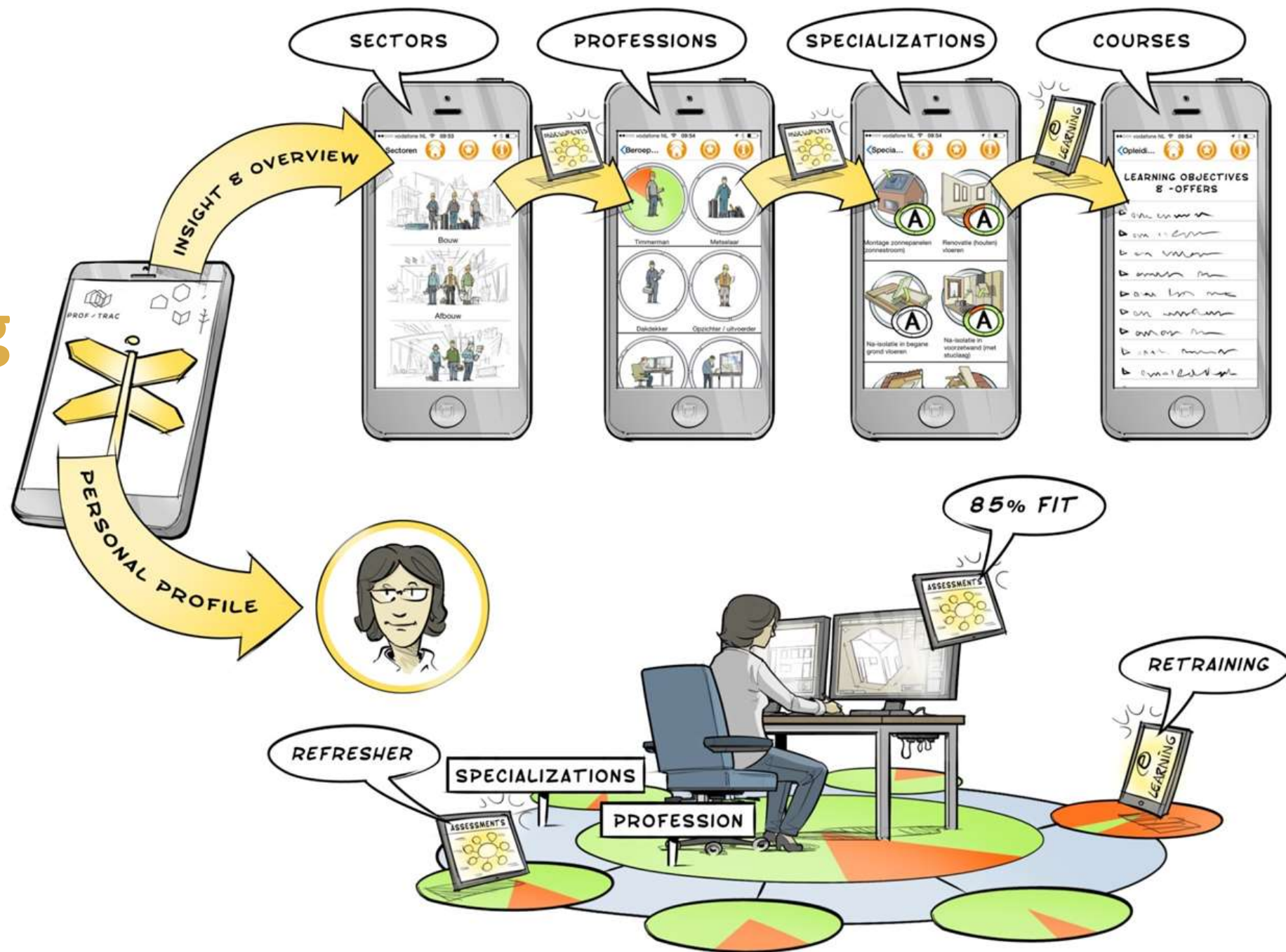
More information on the Funding & Tenders Portal: [link](#)

Identification of skillgaps



WORK FIELD	ARCHITECTURE	CIVIL ENGINEERING	ELECTRICAL ENGINEERING
Reference professions	Architect	Civil Engineer	Electrical Engineer
		Construction Engineer	ICT Engineer
		Structural Engineer	
ENERGY MANAGEMENT			
Smart grid systems	2	1	5
Domotic systems	2	1	4
Building management systems	2	1	4
ENERGY PRODUCTION (on-site and nearby renewable energy)			
Geothermal energy	2	2	3

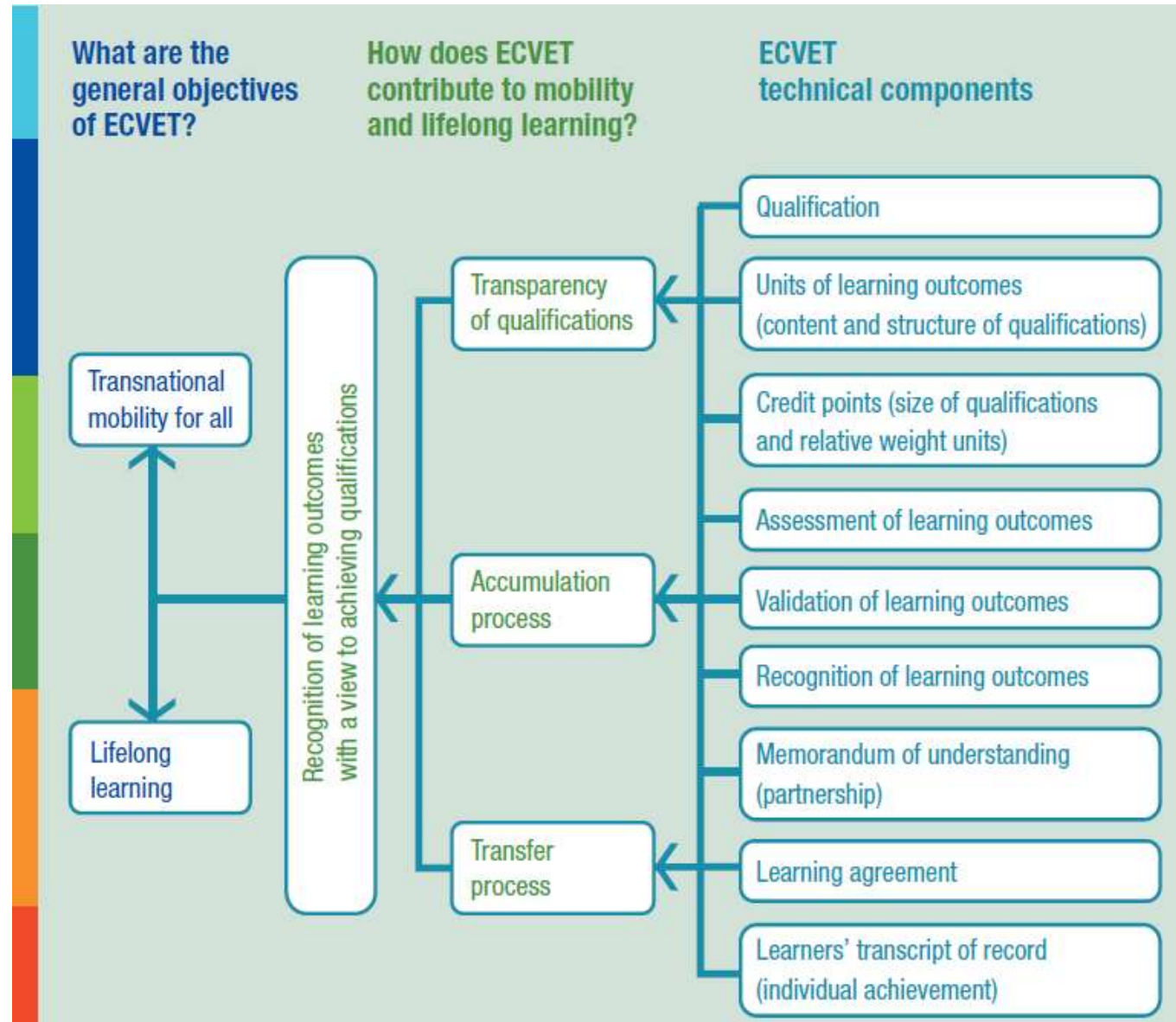
Addressing skillgaps



Addressing skillgaps with micro-learning

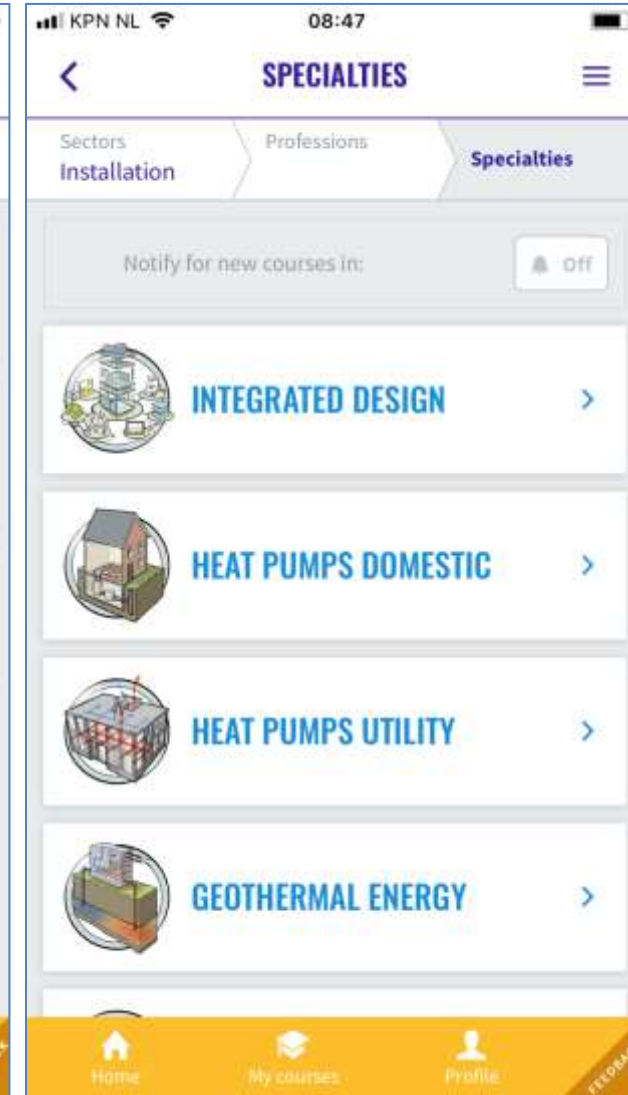
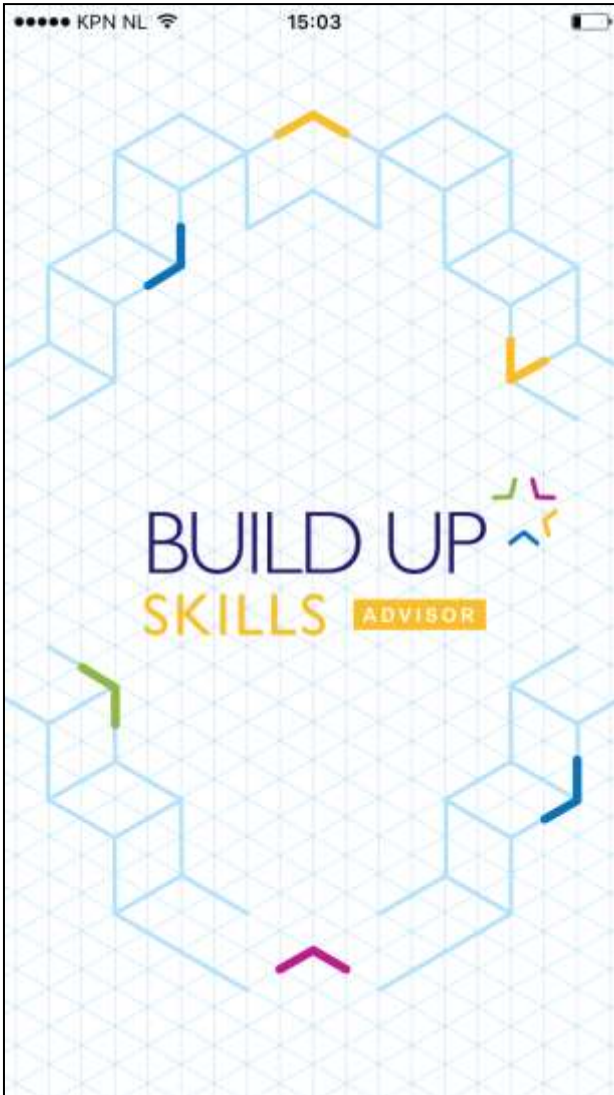


ecvet
European Credit system for
Vocational Education & Training



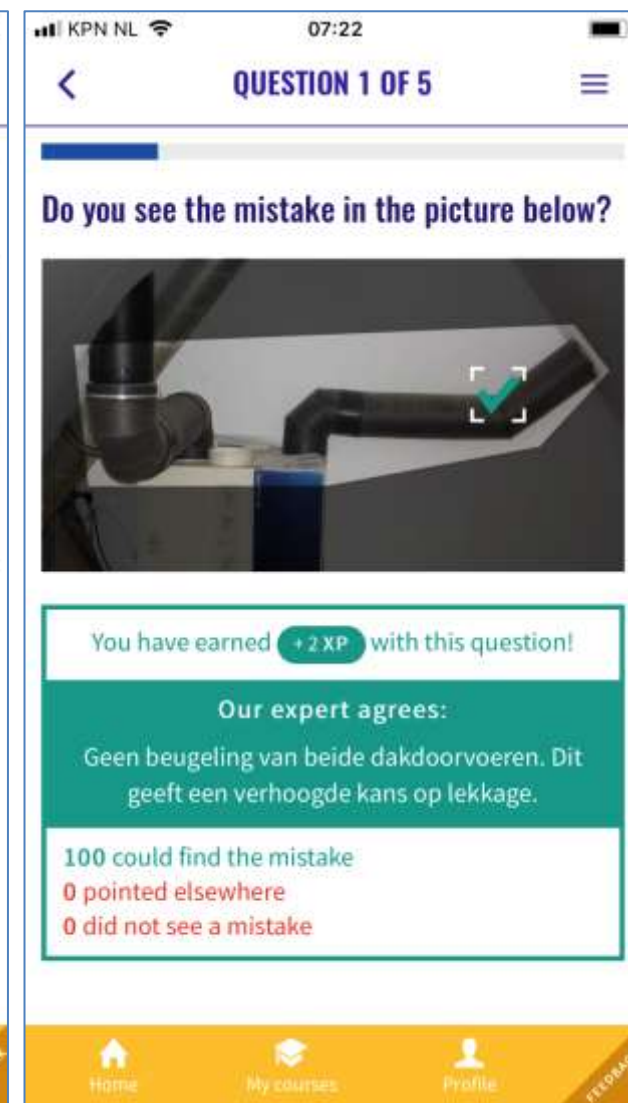
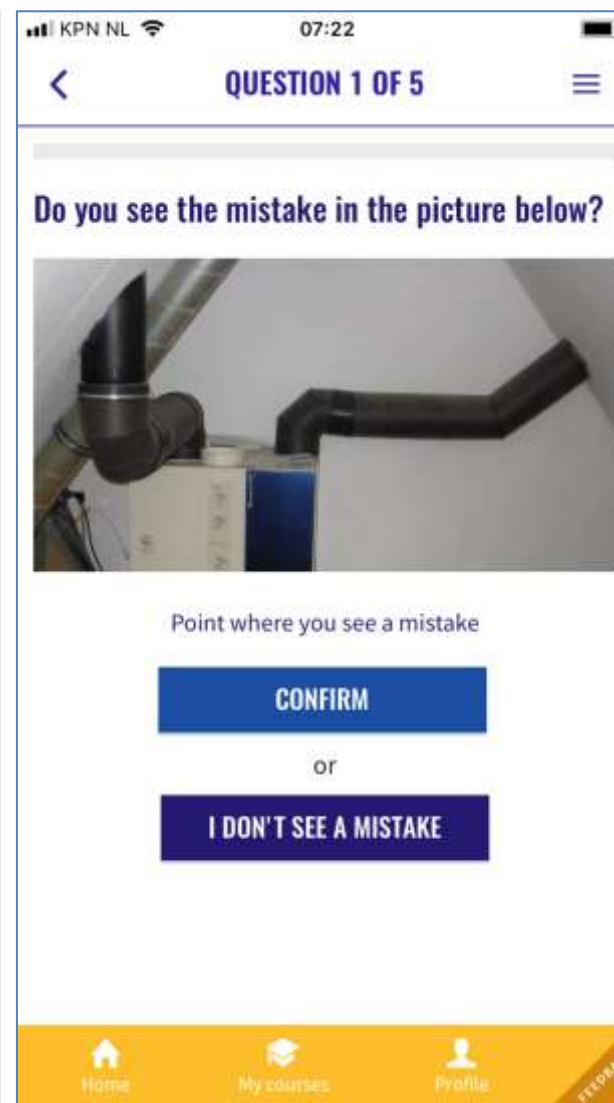
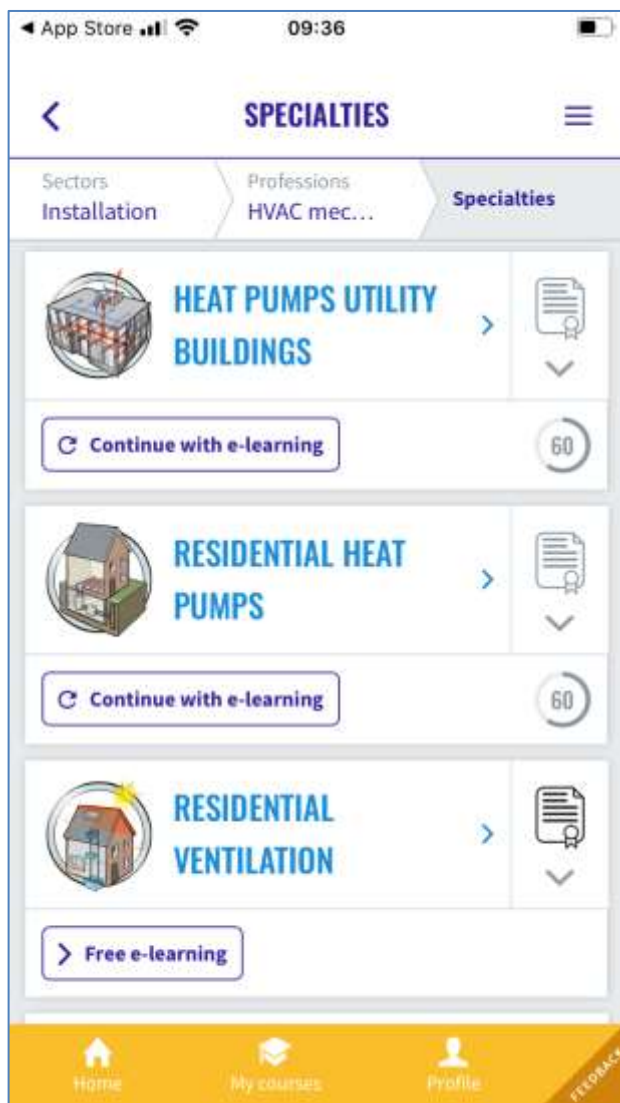
BUILD UP Skills advisor-app

BUILD UP Skills
The Netherlands



BUILD UP Skills advisor-app

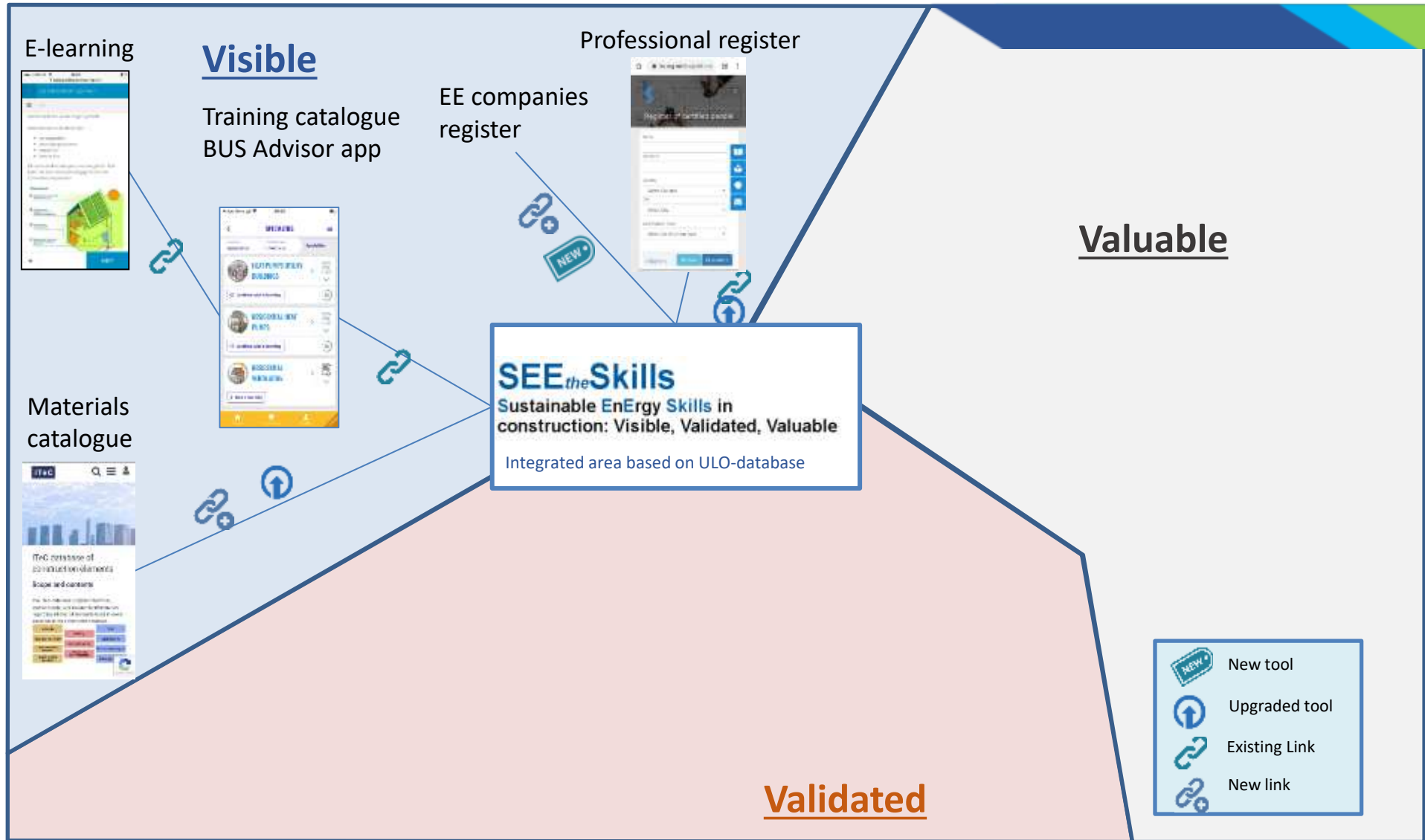
BUILD UP Skills
The Netherlands







MOBILE TRAINING UNIT



E-learning



Visible

Training catalogue
 BUS Advisor app



Professional register



EE companies register

Materials catalogue

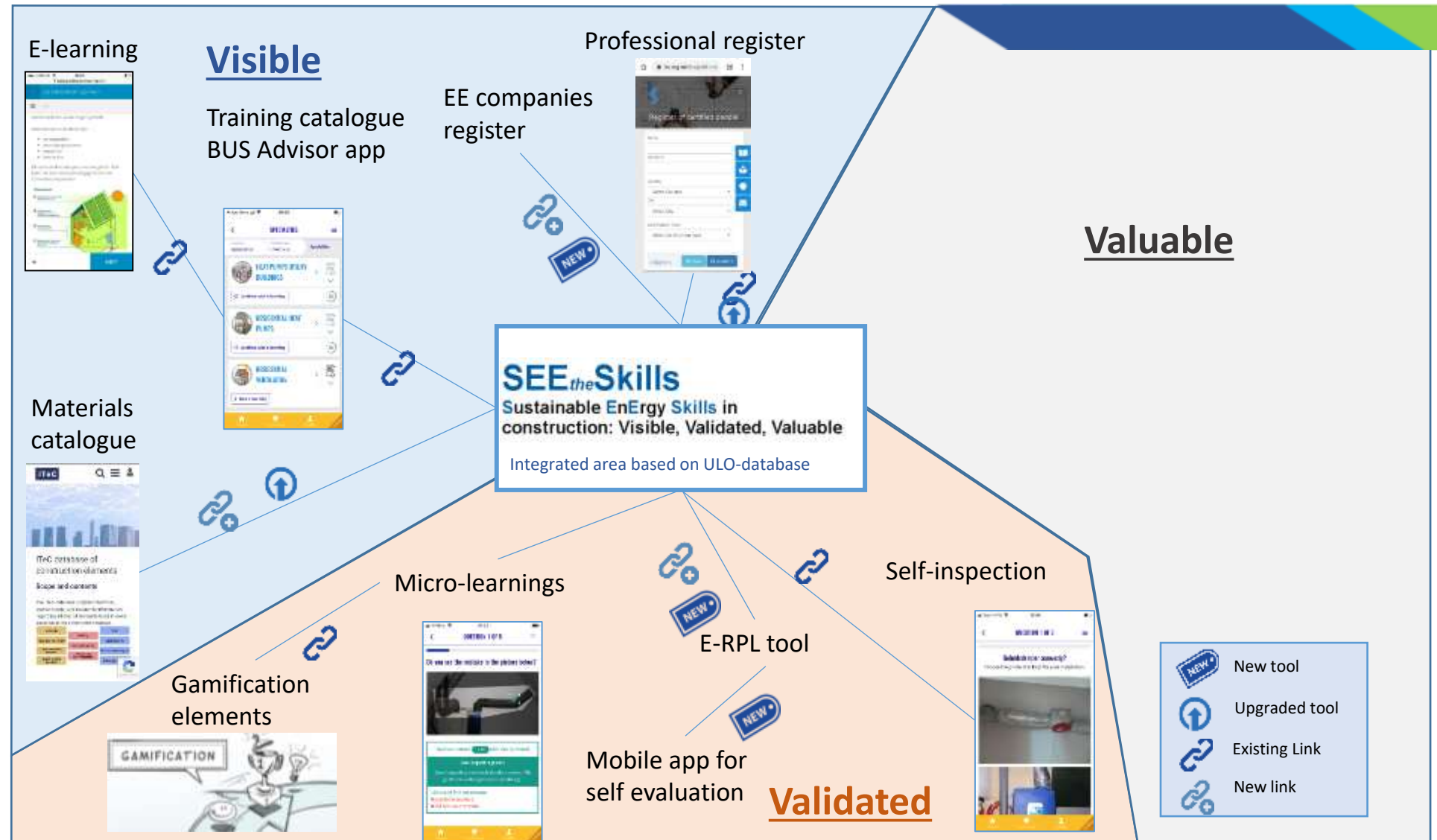


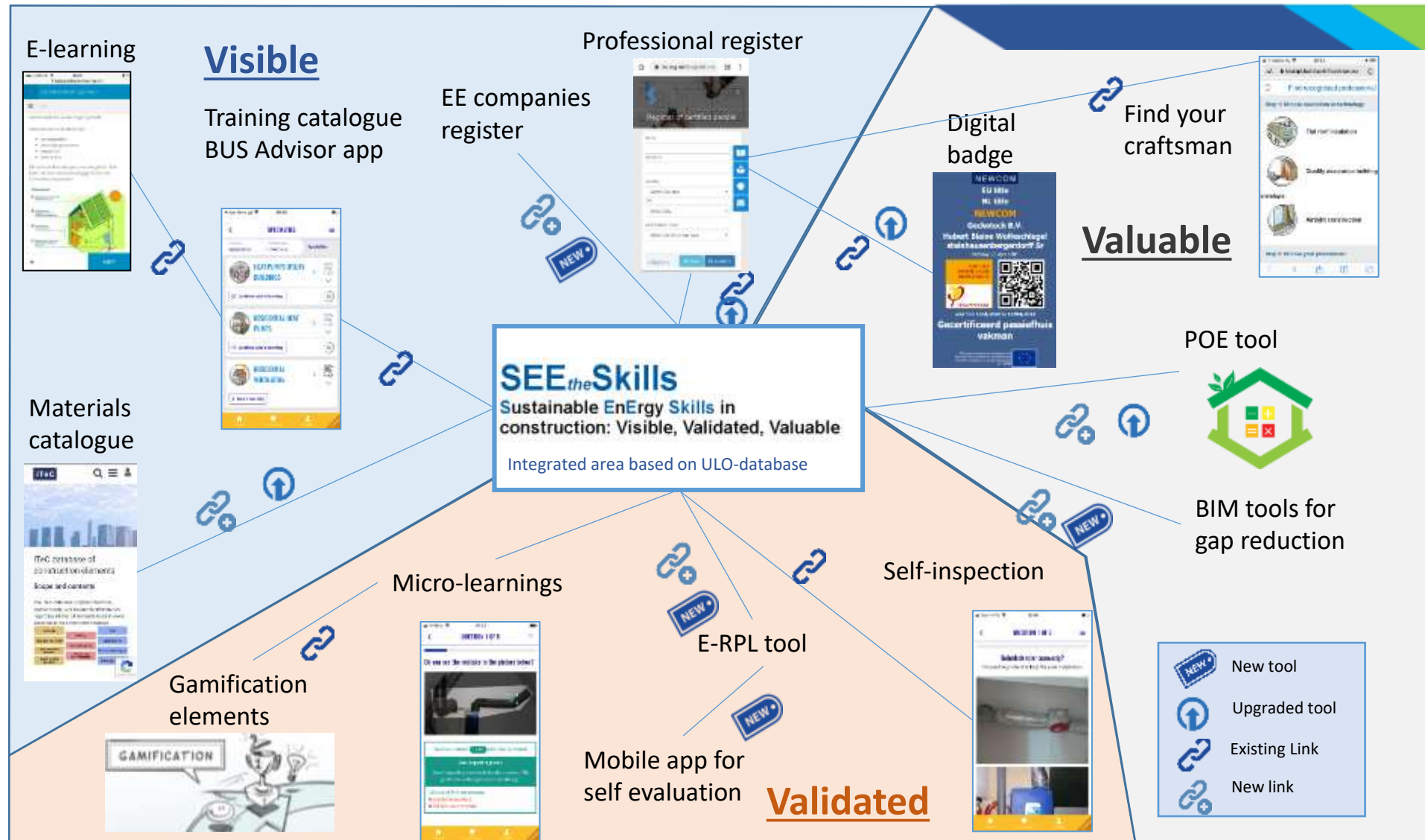
SEEtheSkills
 Sustainable EnERgy Skills in construction: Visible, Validated, Valuable
 Integrated area based on ULO-database

Valuable

Validated

- New tool
- Upgraded tool
- Existing Link
- New link







BUILD UP SKILLS ON THE MOVE

POWERED BY



INSTALLATION
TECHNIQUE

NZEB

NEARLY ZERO ENERGY BUILDING

2050

BUILD

A story with examples from H2020 projects

FINALISED



PROF / TRAC

Open Training and Qualification Platform
on NZEB construction and renovation

BUILD UP Skills
The Netherlands

Triple A-reno



BIMplement

NEWCOM

New qualification schemes
to build high quality

Ongoing till 2023/2024

BUS LEAGUE

EEtheSkills
VISIBLE | VALIDATED | VALUABLE

arise
awakening | relevant | innovative | scalable | equitable

BUS GoCircular / **BUS GoCircular**



TRIPLEA-RENO

A USER-CENTRED APPROACH TO DEEP RENOVATION HELPS BUILDING RESIDENTS AND OWNERS ACROSS EUROPE SAVE ENERGY

TripleA-reno is an EU-funded project aimed at understanding what makes deep renovations of buildings attractive, acceptable, and affordable. Together with members of the community at various pilot sites, TripleA-reno developed tools that support similar community initiatives, as well as individual homeowners in their efforts to renovate buildings and achieve their goal faster and better.



ADDITIONAL INFORMATION

- Huygen Engineer and Consultants
 - Citizens' Award
- Sittard-Geleen, Netherlands
- <https://triplea-reno.eu/>

GO TO VOTING PAGE

<https://eusew.eu/awards-public-vote/citizens-award>



25-29 OCTOBER 2021
EU SUSTAINABLE ENERGY WEEK
TOWARDS 2030: RESHAPING
THE EUROPEAN ENERGY SYSTEM



#EUSEW2021

FOLLOW US



busleague.eu



[@Busleague1](https://twitter.com/Busleague1)



[busleague](https://www.linkedin.com/company/busleague)



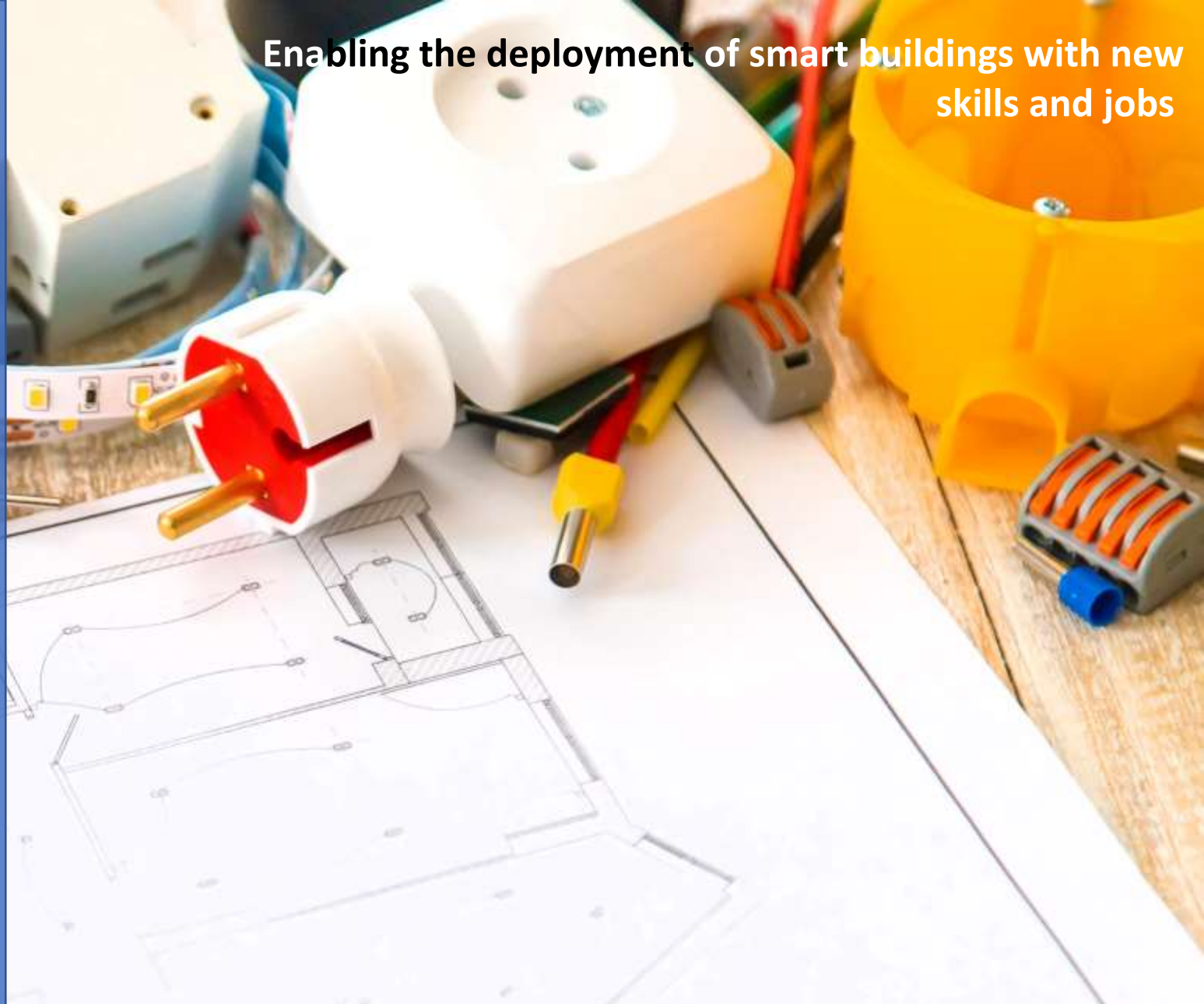
This project has received funding from the European Union's h2020 framework programme for research and innovation under grant agreement **no 892894**.

The information in this publication does not necessarily represent the view of the European Commission. © BUSLeague. All rights reserved. Any duplication or use of objects such as diagrams in other electronic or printed publications is not permitted without the author's agreement.

Skills in a Circular Economy

-
Pär Lundström,
Senior Policy Advisor
at
Installatörsföretagen
(Sweden)

Enabling the deployment of smart buildings with new skills and jobs



Trends shaping the future

Driving trends

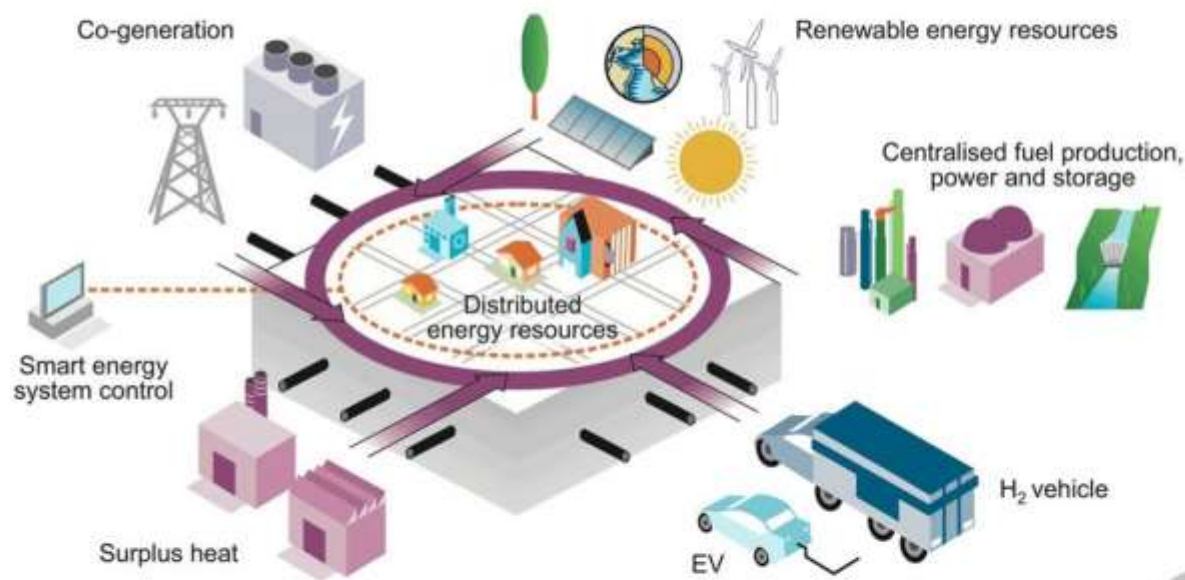
- From static to flexibel energisystem
- From linear to cirkular solutions
- From traditionell to new businessmodels
- From "no clue" to security awareness
- From fragmentarization to standardisation
- From products to accessible services



Trends shaping the future

Driving trends

- From static to flexibel energisystem
- From linear to cirkular solutions
- From traditionell to new businessmodels
- From "no clue" to security awareness
- From fragmentarization to standardisation
- From products to accessible services



Enabling the deployment of smart buildings with new skills and jobs

Questions & Answers



Conclusion

-
Claire Grossmann,
GCP Europe
Secretary General

Enabling the deployment of smart buildings with new skills and jobs



Thank you!



 <https://europe-on.org/>

 [EuropeOn EU](#)

 [Job Potential Report](#)

 info@europe-on.org



 <https://gcpeurope.eu/>

 info@gcpeurope.eu