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Tackling the lack of skilled workers in the buildings sector – the Swiss way

The Swiss education campaign for the buildings sector

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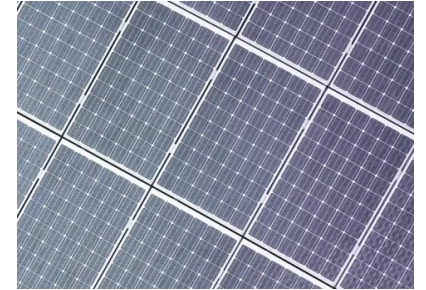
17.4.2024



Importance of the buildings sector

Buildings are responsible for around 33% of CO2 emissions in Switzerland

- **Implementation of renewable heating systems**
→ Replacement of 32'000 fossil-fuel-based heating systems annually until 2050.
- **1 million houses in urgent need of renovation**
→ A renovated building envelope requires up to 60% less heating energy.
- **Expansion of PV**
→ 700 MW of photovoltaic capacity to be added each year.



Challenges and outlook for buildings sector occupations

- Crisis-proof!
- Exciting work!
- Worthwhile, future-orientated work!

Shortage of skilled workers could be obstacle to meeting energy and climate goals!

The construction sector will soon be short of tens of thousands of skilled workers

The construction sector will soon be short of tens of thousands of skilled workers due to a wave of retirements. The number of new apprentices has also fallen for more than a third in recent years .

«Higher wages and part-time work»: construction companies are having to fight for skilled labour

The Swiss construction sector is short of young talent. Companies now have to attract skilled labour with higher wages and flexible part-time positions

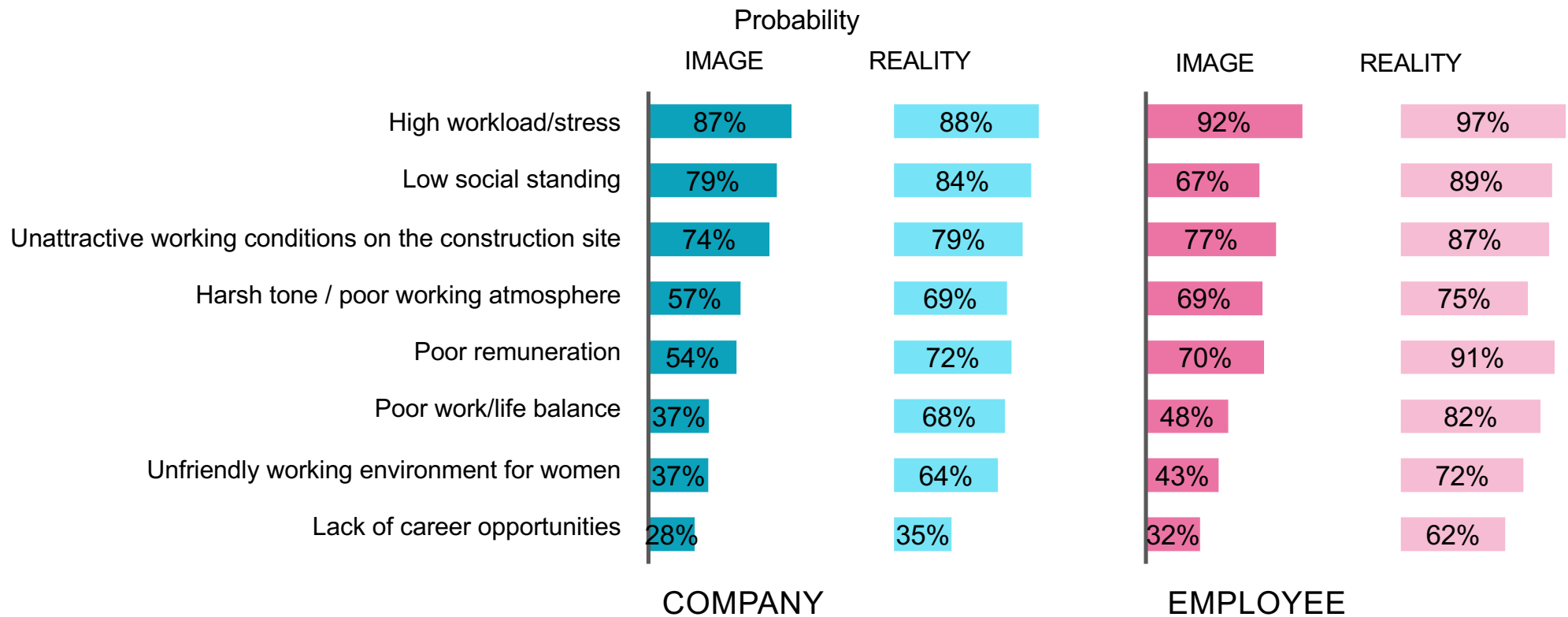
Source: blick.ch, 2020

Source: nau.ch, 2022



- Average
- 80% of the adverts are online for at least X days (20% quantile)
- 20% of the adverts are online for at least X days (80% quantile)

Image of the buildings sector

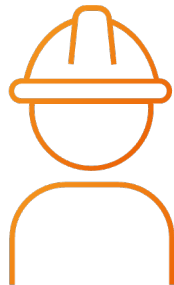
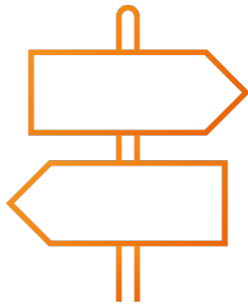


According to surveys PRECONCEPTIONS are often confirmed in REALITY

Education campaign for the buildings sector

Goals

- Ensuring the necessary skilled labour in the buildings sector for the timely construction and conversion of buildings to meet the net-zero target
- Strengthening technological and energy and climate skills to ensure the quality of work



Education campaign for the buildings sector

Together we can create the energy and climate future.

Industry

associations:

Bauenschweiz

DIE PLANER - SWKI

EIT.swiss

FWS

Gebäudehülle Schweiz

GebäudeKlima

Schweiz

Holzbau Schweiz

KGTV

Plavenir

Polybau

SIA

SMGV

SVK

suissetec

Swissolar

usic

VSR

Education institutions:

EN Bau

ETH

FHNW

HES-SO

HSLU

SUPSI

Verein Solarteurschulen

Institutional partners:

FOEN

EnFK

SERI

SEM



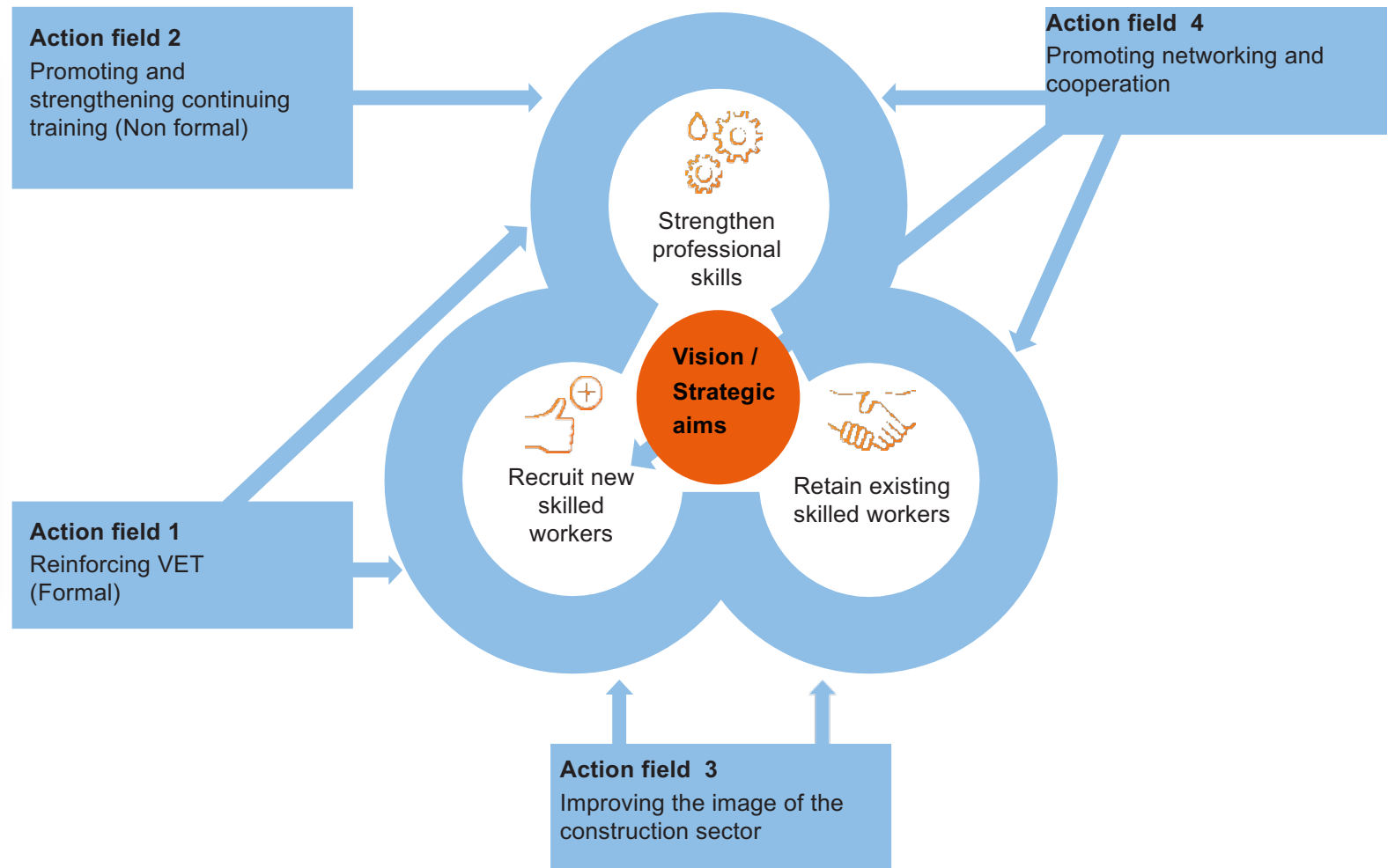
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Result - Roadmap for Buildings education campaign: 3 goals and 4 fields of action



<https://pubdb.bfe.admin.ch/de/publication/download/10780>



Fields of action and 11 focal points

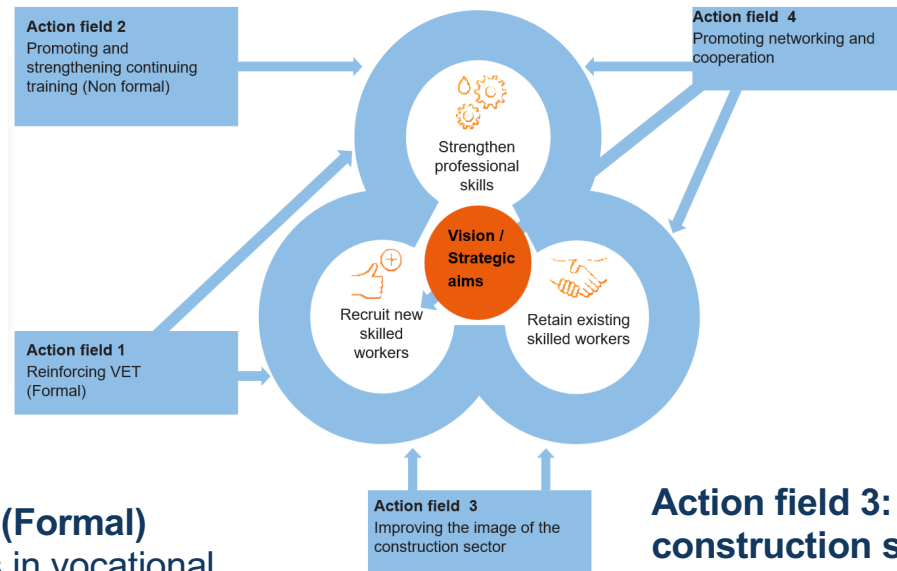
Action field 2 - Continuing training (Non-Formal)

- 2A. Strengthening professional skills through continuing training
- 2B. Encouraging participation in continuing education and training
- 2C. Strengthening the skills of trainers

Action field 4: Networking and cooperation

- 4A Strengthening cooperation within the sector

Many measures already supported by Swiss Energy



Joint efforts by the sector must be consolidated -> Concept for joint activities

Action field 1 – Reinforcing VET (Formal)

- 1A. Ensuring the professional skills in vocational education and training
- 1B. Encouraging apprentices
- 1C. Promoting vocational retraining and lateral entry

Action field 3: Improving image of the construction sector

- 3A Improving working conditions
- 3B Enhancing the image of the buildings sector
- 3C Promoting interest in careers in the field of construction
- 3D Promoting women

Education campaign for the buildings sector

Continuing education
and training

Vocational education
and training

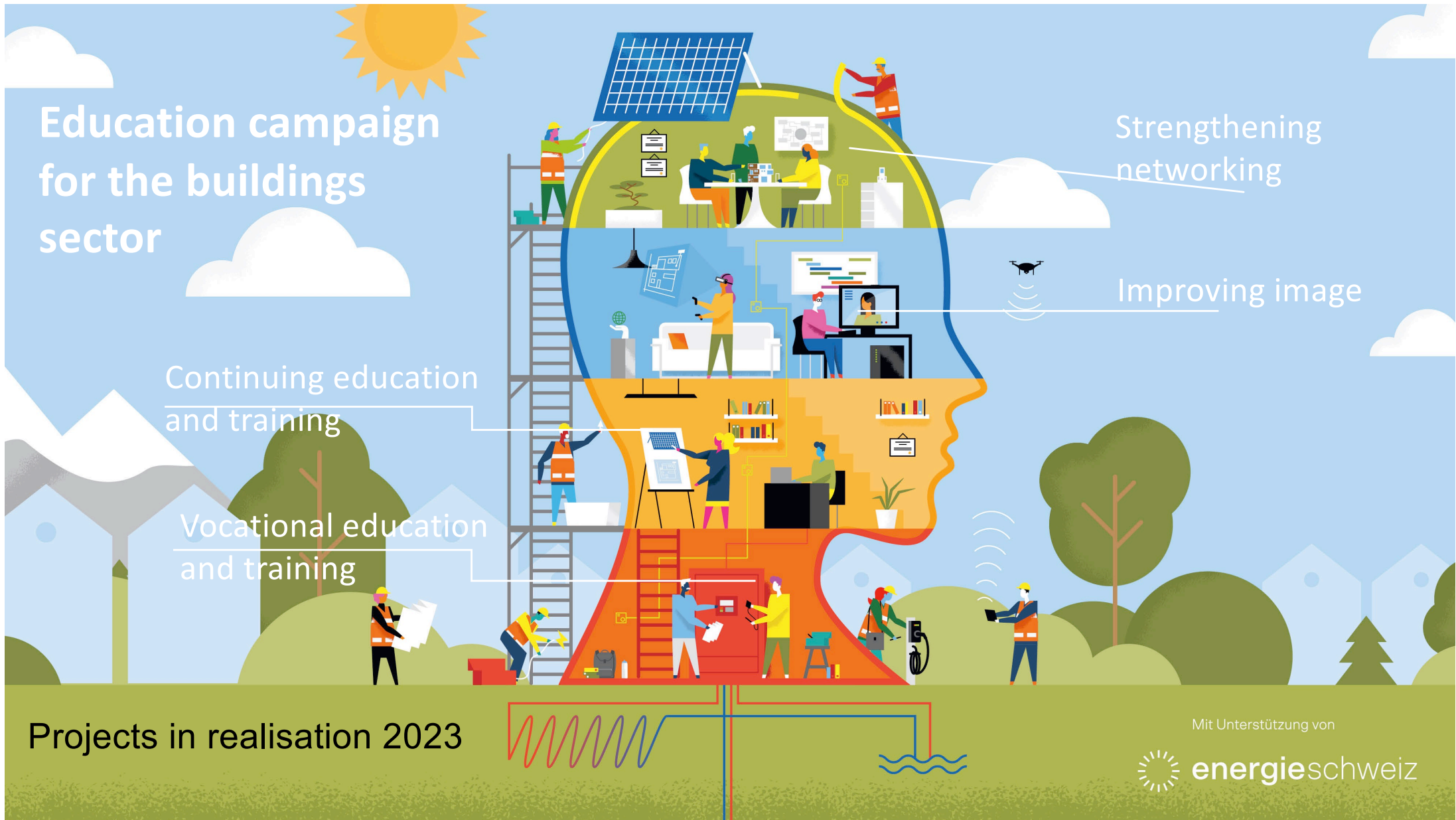
Strengthening
networking

Improving image

Projects in realisation 2023

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Proactive Projects by Swiss Energy

- Study on need for skilled labour for replacement heating systems, PV and renovation measures
- Development of an impact model, monitoring tool with baseline data, sector survey
- Series of articles
- Support point for stakeholders for project submissions.
- National networking conference and several workshops on various specialist topics
- Needs analysis of career-orientated continuing education and training courses for associations in the buildings sector to acquire environmental and energy-related skills: Identifying gaps, synergies, opportunities for cooperation



VET

AF 1 – Strengthening formal education and training

- Swissolar: Development of two new apprenticeships/new basic training programmes «Solar Installer» and its marketing
- Suissetec: 1:1 Realisation of training facilities for sectoral training programme on solar panel installation
- Various associations: Learning media platform for the new training programme «Building Envelope Planner»
- University of applied sciences Berne: Implementation of sustainability in the degree programme for architecture
- Architectural Council of Switzerland: Round tables for universities to foster exchange on sustainable construction and strengthen sustainability in all Swiss architecture degree programmes



CET

AF 2 – Strengthening skills through non-formal education and training

- Solafrica: Refugees go solar - CET conversion programme for **refugees**
- Modell F/Swissolar: Basic conversion programme for **unemployed lateral entrants** to solar installation. Mixed courses for people already working in the sector and unemployed.
- GebäudeklimaSchweiz: Conversion course to heat pump specialist
- FWS: CET courses and experience exchanges on heat pumps, PV and electromobility
- Swissolar and Suissetec: CET courses on PV
- Eit.Swiss: CET various courses in the field of energy (e.g. Electromobility, PV, etc.)
- SIA InForm: CET programme on climate-friendly construction
- SUPSI: Analysis of the need for short CET courses on energy-related issues in the real estate sector



Improving image

AF 3 – Improving attractiveness and image and encouraging interest in construction occupations

- BauenSchweiz/KGTV: Preparing realisation of a concept for a joint “image campaign” for the entire building sector
- Oekozentrum/Suissetec: Climate-Energy challenge day for secondary level II - schools to raise awareness of careers in the construction sector among young people
- SVK: Material for careers advice and careers fairs in the field of refrigeration technology



Strengthening networking

AF 4 – Strengthening cooperation within the sector

- 1st National Networking Conference in 2023
- Targeted promotion of cooperation projects through financial support
- Organisation of round tables to harness synergies in CET of various occupational fields into the construction sector
- Ensuring continual dialogue between solar education stakeholders

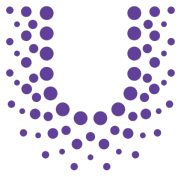
Takeaways

- The buildings sector is key to achieving energy and climate policy goals
- The buildings sector has an excellent outlook for the future
- Joint efforts and measures are more effective and increase the visibility of the sector
- The necessary measures have been identified
- The sector must be perceived to be attractive by young people and those who influence them
- Image campaigns can only be sustainable if the promises they make are kept
- Companies, especially small ones, must be picked up along the way
- The federal government can only initiate steps and offer support, but the measures must be taken by the sector itself

Further information

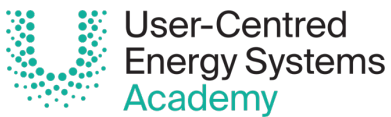
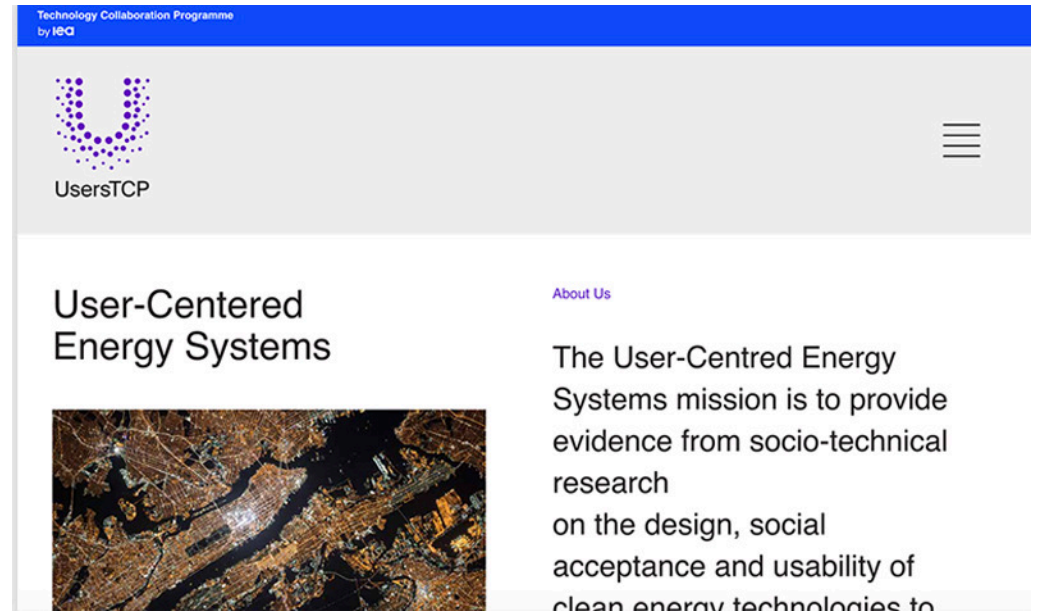
Information in German, French and Italian
www.energieschweiz.ch/bildung/

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User-Centred
Energy Systems
Academy



Social
License to
Automate



Public Engagement
for Energy
Infrastructure



Peer-to-
Peer Energy
Trading



CampaignXchange



Hard-to-
Reach Energy
Users



Behavioural
Insights
Platform



Gender
and
Energy