DENMARK

ENERGY TRAINING FOR BUILDERS

BUILD UP SKILLS

STATUS QUO OVERALL CONCLUSIONS

STATUS EDUCATIONAL LEVEL
25 % unskilled labour 75 % skilled
4-year vocational education
Well-established system for continuing education

TARGET FULFILMENT REQUIRES...
• Massive effort in buildings erected before 1979
• Between 6,000-13,000 extra on-site workers
• Stronger abilities to look at the building as a whole
• Better cross-functional cooperation and insight
• Enhanced communication between architects/engineers and on-site workers

CHALLENGES
• Lack of skilled and unskilled workers in coming years
• Many structural, economic and image barriers in existing education system
• Lack of incentive structure to stimulate interest for continuing education

ANALYSSES FOR DEVELOPMENT OF ROADMAP

Goal: To identify barriers and needs

EXTENSIVE DESK RESEARCH
Existing reports, studies and notes, etc. concerning energy competences in education and continuing education

IN-DEPTH INTERVIEWS AMONG
• Specialist teachers
• Education managers
• Heads of schools
• Heads of training
• Engineers and architects
• Alternative education providers
• Industry associations and suppliers
• Knowledge and competence centres
• Employer and employee organisations

RESEARCH AMONG CRAFTSMEN
• Telephone interviews
• Focus groups
• Web survey

RESULTS
28 identified needs, giving input and a qualified platform to the discussions in the stakeholder group and steering group to the development of the final roadmap. Covered the following areas:
• Energy competences in upper secondary vocational education
• Intake and recruitment to vocational education and the construction sector
• Materials and praxis in upper secondary vocational education and adult vocational training
• Specialist teacher competences in upper secondary vocational education and adult vocational training
• Adult vocational training and alternative continuing education provision

ENDORSEMENT PROCESS

Stakeholder workshops
Analyses

Recommendations
policy benchmark for each recommendation

Endorsement

Stakeholder group
Steering group

Revised recommendations

Endorsement

Final roadmap

BUS-DK steering group recommended holistic approach by looking at all three roads.

HOLISTIC APPROACH

Three main roads to solving lack of qualified workers:
1. The influx of labor could be increased
2. The existing workforce could be trained further in order to increase the level of competence
3. The loss of qualified labour to other sectors could be addressed

STEERING GROUP

• BAT-Kartellet (umbrella organisation for building workers unions)
• The Danish Mechanical and Electrical Contractors’ Association (employers association)
• The Danish Construction Association (employers’ association)
• The Confederation of Danish Industry (employers’ association)
• The Danish Education and Training Board of Building and Construction (common secretariat for employers and employee organisations regarding the education programmes for the building sector)
• DS Trade and Industry (employers’ association)
• Danish Energy Authority and other consortium partners for Build Up Skills DK

STAKEHOLDER GROUP

• Broad group of players within education related to the building sector including heads of public schools, education consultants, private education providers, industry, etc.
DENMARK

ENDORSED ROADMAP RECOMMENDATIONS

Final roadmap: Nine overall endorsed recommendations and 26 recommended initiatives

### RECOMMENDATION 1: Upper secondary vocational education (EUD)

Enhance vocational education and training opportunities for energy topics in upper secondary vocational education

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<th>Initiative</th>
<th>Description</th>
<th>Possible participants</th>
<th>Expected time</th>
<th>Estimated costs (million DKK)</th>
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