

BUILD UP Skills SWEDEN Factsheet	
BUILD UP skills activities of the country	
BUS Pillar I project title (contract number)	BUILD UP Skills Sweden (IEE/11/BWI/443 - SI2.604348)
BUS Pillar II project title (contract number)	Educating energy efficient craftsmen in Sweden to 2020 (BUILD UP Skills SWEBUILD) (IEE/13/BWI/708/SI2.680176)
Horizon 2020 Construction skills project title (contract number)	N/A
BUILD UP Skills SWEBUILD	
Project coordinator's full name	Energy Agencies of Sweden - Energikontoren Sverige
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Project Partners	<ul style="list-style-type: none"> . Sveriges Byggindustrier Service AB . Installatörsföretagen Service i Sverige AB . Elbranschens Utvecklings- och Utbildningscenter i Nyköping AB . Teknologisk Institut AB Sverige . RISE Research Institute of Sweden AB (formerly SP Sveriges Tekniska Forsningsinstitut) . WSP Sverige AB . Alingsås kommun (Passivhuscentrum) . NCC Sverige AB
Project website	http://energibbyggare.se/
Keywords	Building, energy efficiency, renewable energy
Duration	Start date: 01/09/2014 End date: 31/08/2017
Budget	1,961,304 € (EU contribution: 75%)
Context	
Summary description	The BUILD UP Skills SWEBUILD project is the first step in strengthening qualifications for an adequately educated building workforce in Sweden regarding energy efficiency and renewable energy. Targeting craftsmen, construction workers and installers, the project will: 1) create conditions for the efficient rollout of large-scale trainings in energy efficient building techniques and techniques for use of renewable energy in buildings, 2) identify and prepare quality assured curriculums and training materials of high international standards, and 3) train trainers which will deliver fit for purpose on-site training for craftsmen.

Objectives	<ul style="list-style-type: none"> . Establish an Action-plan for life-long learning in the building sector based on the Swedish roadmap. . Establish a joint basic further training course on sustainable building based on an on-site training concept. . Establish a training-the-trainers education concept with freely available course material. . Develop a quality control system of the Swedish training curriculum based on international standards.
Target skills/ professions	<ul style="list-style-type: none"> . roofers . outdoor/ indoor carpenters . HVAC installers . electrical installers (energy infrastructure i.e. Light, power...) . craftsmen (across the crafts) . bricklayers . insulation installer . concrete worker, concrete and steel constructions . heating, plumbing, ventilation, installers of RES systems . electricity engineering and energy sector . duct fitters . glazier/window installer
Project's results and impact	
Results	<ul style="list-style-type: none"> . New training concept for the Swedish building industry with (i) training on-site and (ii) training of trainers that will supervise the onsite training. . Freely accessible course curricula and training material for training of trainers and for on-site training of craftsmen/skilled workers.
Lessons learnt ¹	<ul style="list-style-type: none"> . Massive marketing activities does not necessarily seem to have a direct impact on the construction industry. . The decision process of large construction companies is a complex and time consuming process. . An interactive web based educational tool seems to be an effective and inspiring learning method but very time consuming and complex to develop.
Success factors ²	<ul style="list-style-type: none"> . Easy accessible training material, always available free online. . A strong consortium reaching out on broad scale to the construction industry. . Continuous marketing activities on different levels. . Well established education for targets groups. . Cross-craft understanding, every craftsman undergo the whole education.

¹ <https://ec.europa.eu/energy/intelligent/projects/en/projects/build-skills-swebuild>

² Input from Per-Johan Wik, April 2017

Barriers ³	<ul style="list-style-type: none"> . Finding working hours for the target group trainers to teach their colleagues. . Finding the right learning level in the education material. . Swedish delay of the nearly zero energy buildings definition. . Several issues call for attention in the building sector, energy efficiency is only one of many. . The construction industry is expected to be very busy due to predicted strongly increased investments in the construction and renovation of buildings during 2016 and 2017.
Key needs ⁴	<ul style="list-style-type: none"> . Continue the dedicated marketing work on getting the Energibyggnare education recognised as a branch standard. . The nearly zero energy buildings definition as a driver. . A stable continuous financing of the education scheme. . Success stories. . Secured future management and updating of the training material.
Recommendations ⁵	<ul style="list-style-type: none"> . Compare the advantage of cross craft understanding of having to go the whole education versus the flexibility of choosing from different single modules when doing the structure of the education. . Some kind of contract with the trainers you train that they should train a certain number of colleagues in a certain period of time. . Strong market connections with branch and market actors are necessary to be successful. . Develop an interactive flexible training material. . The further training should not take more than a working day. . The training should encourage a dialogue between the different professional categories at a construction site. . The training should create an understanding the roles of different professional categories and how the work of different categories interact at a construction site.
Replicability ⁶	<ul style="list-style-type: none"> . We are sure the concept of interactive learning is the right way to work with for future further vocational training of craftsmen and the working method of SWEBUILD is easy to repeat. . Though, you need to think through what are the prerequisites for your country/region/market and adapt the interactive learning strategies to your findings. . Especially think of what parts should be compulsory for everyone and what modules could be flexible to choose from.
Project indicators	

³ Input from Per-Johan Wik, April 2017

⁴ Input from Per-Johan Wik, April 2017

⁵ Input from Per-Johan Wik, April 2017

⁶ Input from Per-Johan Wik, April 2017

Common Performance Indicators	Ex ante target	Final result ⁷	Target 2020
Number of training courses triggered by the action	550	179 (60+119)	1,400
Number of people that will be trained	18000	2350	100,000
Number of hours taught in the frame of the courses triggered	8500	6892	61,500
Estimated specific cost to qualify each trainee	€47	751 €	€18
Renewable Energy production triggered (toe/year)	4000 toe/year	522 toe	22 000 toe
Primary energy savings compared to projections (toe/year)	30000 toe/year	3917 toe	400 000toe
Reduction of greenhouse gas emissions (tCO ₂ e/year)	350 tCO ₂ e/year	46 tCO ₂	2000 tCO ₂ e

⁷ Input from Per-Johan Wik, November 2017