

BUILD UP Skills SWEBUILD

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How to build up skills in Sweden?

Four national educational programs to increase competence for low energy buildings – start 2016

ENERGIBYGGARE

SWEBUILD - EU

- Craftsmen
- Installers
- Site managers
- Supervisors

CLIENT COMPETENCE

BYGGHERRARNA
VERKTYG SVEBY, GRÖNA HYRESAVTAL,
BELOK, BEBO

- Developers, constructors
- Property owners
- Property managers

ENERGILYFTET

ENERGIMYNDIGHETEN
KUNSKAPSSATSNINGEN NNE

- Clients, customers
- Consultants, engineers
- Architects
- Construction managers
- Technical managers

NEW GLASES

BYGGNADSINDUSTRINS YRKESNÄMND
Teachers upper secondary school

- Construction and facilities
- Electricity and energy
- HVAC and properties



ENERGIBYGGARE

SWEBUILD - EU

- **Craftsmen**
- **Installers**
- **Site managers**
- **Supervisors**

To who?

Facts about the target group

Swedish Construction Federation – Trade and - and employers organization:

- 3 454 construction-, ground and specialty companies are members
- 99 000 employees
- 25 local offices in Sweden

Employers' Association representing the Swedish plumbing and electrical industry:

- 3 600 member companies, 49 000 employees
- Represented by 100 staff working in 12 cities



WHY?



Take-off point from national mapping in Build Up Skills 1.

To meet energy efficiency objectives to 2020, 2030 and 2050, increased competence for the building sector are needed for:

- energy efficiency in general
- nearly zero energy buildings
- energy efficient retro fittings
- renewable energy

What do they want?



Energibyggar – an education constructed from take-off points in Build Up Skills 1.

- A free-of-charge increase of competence
- An interactive 4 hour education for the co-workers, divided in 6 modules
- Whereever – whenever – always updated
- Get access to the education from your computer, tablet or smart phone
- Get registered as approved Energibyggar in a national competence database ID06 after succesfully undergone the education



WHAT do they need to learn?

Digital training modules



Introduction



The building as a system



Thermal insulation



Air tightness



Moisture



Installations



HOW do we get their interest to learn?

EU goal – Life Long Learning

Andragogy – The need to learn

PEDAGOGY

The student learn
what the teacher
says to recive a
good mark

ANDRAGOGY

For adults there
are important to
know why and
how they will have
use of what they
learn

Andragogy – The selfhood

PEDAGOGIK

The student find him/herself in a position of dependency

ANDRAGOGIK

The adult find him/herself as responsible for own life and make own decisions

Andragogy – Role of experience

PEDAGOGY

The student's experience is not important. The teacher's experience is important. This leads to more of a one way learning communication.

ANDRAGOGY

Adults have rich and individual experiences which means individual differences and need for individual learning and also the possibility to use their experience in the education.

Andragogy – Prepared to learn

PEDAGOGY

The student is
prepared to learn
what the school
demands

ANDRAGOGY

The adult is
prepared to learn
what it need to
deal with in a
situation

Andragogy – Purpose of learning

PEDAGOGY

The student is
willing to learn

ANDRAGOGY

The adult assesses
its learning in
comparison to
experienced
problems and
challenges

Andragogy - Motivation

PEDAGOGY

The student is motivated by rewards as marks and praise

ANDRAGOGY

The adult is motivated by rewards as increased confidence, life quality and increased work competence

Short movie from module about moisture



Production during 2015: website, the 6 education modules, trainers handbook, LMS/logistic, copyright, fact control...



INSTALLATÖRSFÖRETAGEN



Passivhuscentrum
Västra Götaland



Energimyndigheten

Co-funded by the Intelligent Energy Europe
Programme of the European Union

How do we reach them?

Action plan!



Awareness raising –internal and external meetings, exhibitions, our websites, branch newsletters, mail lists to all members, personal meetings with experts...



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Infrastructure & methods



1. Instructors from the consortium train the Trainers.
2. Trainers train their co-workers on-site.



8 mars 2016

Education Day
for the 22 Instructors
from the consortium
that are going to
train the Trainers.

Task of the Trainer

- Plan and offer training on sight
- Be a facilitator and guide through the web based training material
- Register the craftsmen (and woman 😊) after passing the training



The Trainer act as an ambassador for Energibyggarer

1. Instructors from the consortium train the Trainers spring 2016 – spring 2017.





OBJECTIVE - Trainers

OBJECTIVE

500 trainers
national

Today (spring 2017)

735 trainers educated at 46 occasions
in 22 places around Sweden

The role of the trainers: to inspire, administrate and be ambassadors for the Energibyggar-education

2. Trainers train their co-workers on-site late spring 2016 – 2017 and after.





OBJECTIVES – blue color workers on-site

Educated Energibyggare

OBJECTIVE

18 000 persons

21 APRIL 2017

1 179 persons

11 MAJ 2017

1 321 persons

Best practice...



The Swedish Construction Federation have now completed the work with developing and testing =

April 2017/A competence database for employers in the building sector is now up and running 😊

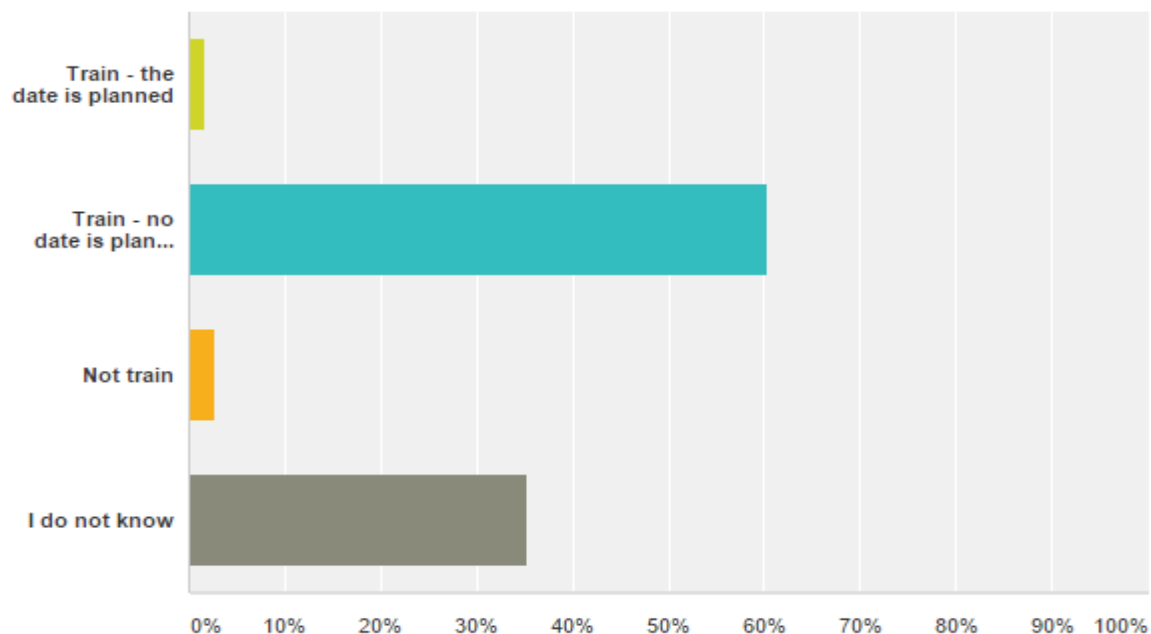
This means that every SWEBUILD Energibyggar-educated person on the building site can get his/her exam registered in the competence database – and all the building companies can scan the compulsory ID06 card and see the proof of that exam, together with other skills.

Read more in english www.id06.se

Energibyggar – evaluation – trainers

After completed training I will...

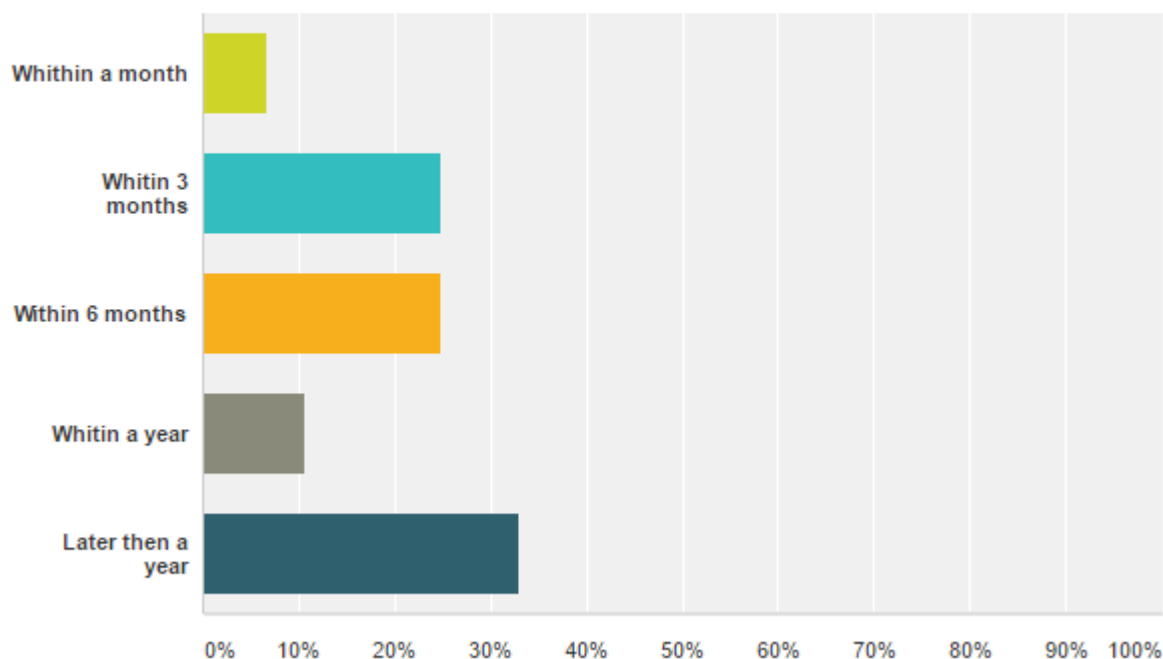
Svarade: 300 Hoppade över: 49



Energibyggar – evaluation – trainers

When will you start training others?

Svarade: 121 Hoppade över: 228



Energibyggar – what do they think of the education?

Very good holistic perspective

Easy to read and very educational

Good holistic view of the work for construction

Very good interactive build up

Interesting, fun and useful

Important education

Takes longer time than 4 hours

Should be available in english

Very good discussions between trades

Very proud educated Energibyggare!



What have we learned?

We have learned that...

- 3 years are a short period of time to develop and implement a new modern education and reach out to a quarter of a million craftsmen in Sweden
- The definition of NZEB is still not defined in Sweden and that has not supported our work to motivate building site trainers to educate their colleagues
- It's planned for 700 000 new residences to be built to 2025 which leave little time for education at construction companies
- Interactive education is much appreciated by the target group

Thank you for listening!

Any questions?