8th EU Exchange Meeting BUILD UP Skills

BUILD UP Skills QualiShell

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Definition of performance indicators of the action

- an example -

BUILD UP Skills QualiShell

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Project duration: October 2013 – July 2015

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Specific indicators *(selection)*

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Performance Indicators	Target within the action duration:	Target by 2020:
Involvement of relevant stakeholders	Target groups activated: min. 25 % of the market (INS.&WIN)	Target groups actively involved - new QS
National QS for ETICS installers	Tested and validated QS	20 courses / year.
National QS for window system installers	Tested and validated QS	10 courses / year.
Mechanisms for large-scale & long lasting implementation of QS	Min. 3 KA / NW engaged 2 x centre of evaluation of competences approved Guide partnerships & QS implem.	Exist. networks enhanced & activated other 3 centres of evaluation of competences using QualiShell tools, partnerships implemented (EDU-IND)
Training suppliers engaged in the application of QS	3 → 5	10
Professional schools engaged in partnerships with producers/builders	3 → 4	5
Number of centres for evaluation of competences	2 → 1(F) + 1(p)	3
Companies participating in consultation workshops	20 → 84	-
Training providers particip. in local/reg. workshops	10 → 15	-
Individual workers and companies outreached by promotional activities	200 → 405	-
Individual workers indicating intention to go training	200 → 256	3,000
Companies to send their staff to training	25 → 50	25
Proposed financial mechanisms for training	1 → 1	1
Public authorities using the registry	1 → 1	1
Partnerships EDU - Construction sector	3 → 11	5

Common indicators

Performance Indicators	Target within the action duration:	Target by 2020:
Number of training courses triggered by the action	2 courses (pilot / trial)	150 courses
Number of people that will be trained	28 pers.	3,014 pers.
Number of hours taught in the frame of the courses triggered	900 h → 1110 h	108,000 h
Estimated specific cost to qualify each trainee	4,257 Euro/trainee → 969	600 Euro/trainee
Renewable Energy production triggered	0 Toe/year	Cumulative amount 0 Toe
Primary energy savings compared to projections	0 Toe/year	Cumulative amount 29.81 ktoe
Reduction of greenhouse gas emissions	0 Ton CO_2e/year	Cumulative amount 66.45 ktCO_2e

Costs ?

Training → E savings / CO_2 red. ?

Cost per trainee

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Table 1 – *Cost estimates for a qualification course in construction, Level 3 CEC / CNC for a group of 28 students (* Note: Estimated in 2015)*

No. Crt.	Resource Needed	Quantity	Unit Cost *	Total Cost *	Total Cost *
1.	Classroom Rental	240 h	5 eur / h	1,200 EUR	Resource provided by training provider
2.	Trainer Salary for theoretical training	1 x 240 h	15 eur / h	3,600 EUR	3,600 EUR
3.	Trainers Salary for practical training	2 x 480 h	8 eur / h	7,680 EUR	7,680 EUR
4.	Cost for Assessment Commission	1 x 2 members	100 EUR/ member	200 EUR	200 EUR
5.	Safety equipment for students (helmet, overalls, gloves, boots etc.)	28 sets	50 EUR/ set	1,400 EUR	Resource provided by builder
6.	Tools Kit for students	28 sets	100 EUR/ set	2,800 EUR	Resource provided by builder/producer
7.	Construction Materials	28 sets	120 EUR/ set	3,360 EUR	Resource provided by producer
8.	Learning Support Materials	28 sets	30 EUR/set	840 EUR	840 EUR
9.	Catering for students (2-3 times a week for 28 participants)	2,5 x 4 weeks x 6 months x 28 pcs	3 EUR/ pc	5,040 EUR	5,040 EUR
10.	Other costs for issuing diplomas and secretariat	1 pcs	1000 EUR	1,000 EUR	1,000 EUR
TOTAL Course Cost for 28 students				**27,120 EUR**	**14,520 EUR**
TOTAL Cost per student				**969 EUR**	**519 EUR**

E Savings & CO_2 reduction

BUS Roadmap → Evaluation of the need for workforce (relevant skills and qualification level) – based on the definition of **eight objectives** for the implementation of measures in NEEAP & NREAP

O1 – Increasing EE of multi-family buildings (national plans),

O2 – Increasing EE of single-family buildings,

O3 – Construction of new, high EE residential buildings,

O4 – Construction of new, high EE non-residential buildings,

- **Optimistic (ambitious) scenario:**

e.g. renovation of **50,000 ap./yr** (25% bldg. stock in 2020), **65,000 new ap./yr**

- **Pessimistic (passive) scenario:**

e.g. renovation of **25,000 ap./yr** (10% bldg. stock in 2020), **50,000 new ap./yr**

E Savings & CO_2 reduction

Nr crt	Job title	Estimated workers needed		Available	Workforce gap	
		Pessimistic scenario	Optimistic scenario	Actual 2011	Pessimistic scenario	Optimistic scenario
1	Window system assembler and installer	4,373	8,706	3,984	389	4,722
2	Insulator (thermal & hydro- ins.)	22,566	50,548	751	21,815	49,797

Objectives / scenarios	Reduction of energy use [ktoe/year]		CO_2 emission reduction [$ktCO_2$]	
	Optimistic (ambitious) scenario	Pessimistic (passive) scenario	Optimistic (ambitious) scenario	Pessimistic (passive) scenario
Increasing energy efficiency of multi-family buildings	38.69	12.90	108.00	36.00
Increasing energy efficiency of single-family buildings	146.62	51.43	298.41	104.66
New, high EE residential buildings	31.47	24.21	73.21	56.31
New, high EE non-resid. buildings	20.89	11.98	48.60	27.86
Total energy efficiency	**237.68**	**100.51**	**528.21**	**224.83**

E Savings & CO_2 reduction

Evaluations for each scenario for energy savings, CO_2 emissions reduction and necessary number of qualified workers (to perform the works intended to lead to the estimated savings/reductions) → calculation of **specific indicators** for a **trained / qualified worker**

Assumptions:

- increasing the windows performances = 16% of total reduction,
- increase of opaque building envelope performance = 64% of the total reduction,
- increase of systems efficiency = 20% of the total reduction.

Percentages apply both to retrofitting actions and to the construction of more energy performant buildings (compared to current practice).

E Savings & CO_2 reduction

Objectives / scenarios	Energy savings/TP		CO_2 emission reduction/TP	
	[toe/year.pers]		[tCO_2/year.pers]	
	Pessimistic (passive) scenario	Optimistic (ambitious) scenario	Pessimistic (passive) scenario	Optimistic (ambitious) scenario
Insulating window system installer	3.7	4.4	8.2	9.7
Thermal insulation system installer	2.9	3.0	6.4	6.7

4.0 toe/year for each qualified windows system installer,
2.9 toe/year for each qualified opaque insulation system installer,

9.0 tCO_2/year for each qualified windows system installer
6.5 tCO_2/year for each qualified opaque insulation system installer

No qualification → no savings/reductions

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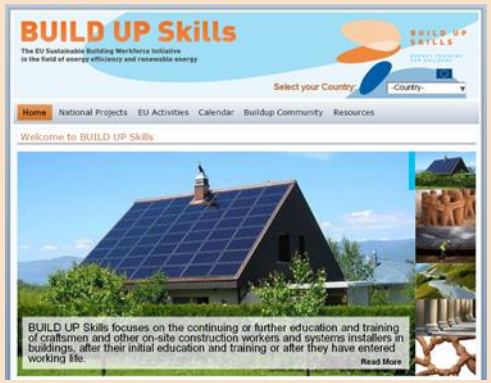

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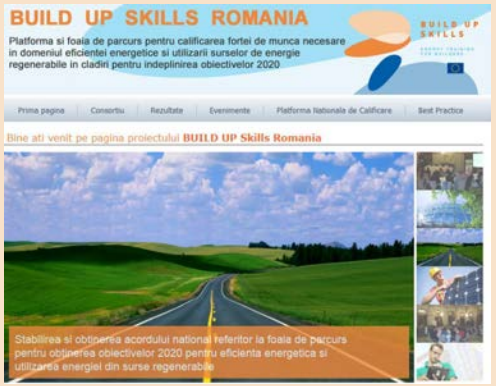

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