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## PROFESSIONAL KNOWLEDGE UPDATE AND UPGRADE

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### Abstract

The aim of the paper is to present the purpose, the process of realization and the contribution of the project “Professional comeback of women with university degree (specifically degree from faculty of civil engineering)” (Czech official project title: “Profesní návrat vysokoškolsky vzdělaných žen - absolventek stavební fakulty“), the project no: CZ.17.2/2.1.00 /35015, which is focused on knowledge update and upgrade. Intention of the project is to support the woman with civil engineering degree by refreshing and updating their professional knowledge to increase their chance to be employed (self-employment inclusive) after interruption caused by maternity or parent leave. Project has positive impact on sustainable development in all 3 pillars: environment, economy, social area.

### Keywords

Construction industry, Professional knowledge, Sustainable development.



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## Introduction details

*The aim of this paper is to introduce the purpose and the successful realization of the project "Professional comeback of women with university degree (specifically degree from faculty of civil engineering)" (Czech official project title: "Profesní návrat vysokoškolsky vzdělaných žen - absolventek stavební fakulty"), the project no: CZ.17.2/2.1.00 /35015. This is the OPPA project financially supported by ESF and the capital Prague.*

The construction industry in the Czech Republic is suffering by crisis since 2008. Within the last 6 years many companies from construction industry had to close or to realize significant reduction programs. Significant decrease in working places among all construction industry is one of the consequences. Women after maternity leave have low change to find job and it is very complicated to find the job adequate to their qualification (it causes frustration and increase of unemployment rate).

Intention of the project presented in this paper was (and is) to support the woman with civil engineering degree *by refreshing and updating their professional knowledge to increase their chance to be employed* (self-employment inclusive) after interruption caused by maternity or parent leave.

Hypotheses: *Professional upgrade, soft skills training and preparation for self-employment significantly increase change that women with university degree are able to continue in their professional carrier after comeback from maternity leave.*

## Methodology details

The persons with university degree in construction industry are the *target group of the project*. Specifically the persons that are on maternity or parental leave or the persons that are coming back after leave till 2 years (from end of maternity or parental leave) and single parent with children no older than 15. The project is targeted on persons with permanent address in the capital Prague or the persons that spends in the capital Prague more than half of the year.

The *target group (of the project) needs* were specified based on debate with potential target group, with employers across construction industry (construction companies, architecture studios, developers, professional associations) and with work offices.

*Key parameters of the Project products* were defined based on debate:

- Format of *intensive training* is needed (ideally 10 days but not together because of the mother role)
- *Small groups are preferable* (ideally 16, to guarantee the individual approach to each attendee)
- Content – combination of professional upgrade (refreshment but in the same time new technologies and materials), usage of software (budgeting, price calculation, designing), mixture of lectures with academic and practical background, self presentation training, basic introduction for individual entrepreneur

Two Taylor-made products were created based on research. Format of each product is 10 days training realized every Monday. Product no 1 is focused more on budgeting and the Product no 2 also on designing (available software for designing and their usage). Course description is next (similar format of course presentation was used for target group contacting.).

### *Product no 1: Construction economy*

Content of the training: Primarily evaluation and calculation of construction project within each phase of living cycle, measurement statement, proposal calculation, realization calculation, etc. Time management and legislation are also involved. Green materials and technologies and sustainable constructions are accented.

Terms of realization: 2Q 13, 2Q 14

### *Product no 2: Construction project*

Content of the training: Primarily each phase of project documentation, actual legislation (construction code, Czech and EU regulations inclusive), software for construction designing. Green materials and technologies and sustainable constructions are accented.

Terms of realization: 4Q 13, 4Q 14

The Czech Technical University, Faculty of civil engineering is project provider. Successful participants receive CTU certificate.

### *What each attendee receives free of charge:*

- New knowledge and skills, new qualification
- CTU certificate
- Notebook available for usage within course duration (from 1<sup>st</sup> day till the last day)
- Reimbursement of babysitting costs
- Attendance of construction fair in Brno (24/4-24/5/14), last course is excluded

## **Results details**

### *Target group contacting*

The target group was contacted via several marketing channels:

- Directly via employers of the target group (construction companies, architect studios, professional associations)
- Via leaflets spread in places which target group (doctors, nursery schools, work offices, sport studios, etc.) frequently visits
- Via internet banners (web pages of CTU)
- Via newspaper advertisement (Stavební obzor)

All capacity (64) was filled. Mainly in spring courses demand exceeded capacity. Quick response (of target group) clearly showed that the target group feels significant need for these kind products.

### *Realization of the courses*

All 4 courses were realized in line with Grant contract, all conditions were respected. Attendants of all 4 courses actively participate in trainings (regular attendance, home assignments were properly and in time delivered). All for courses were realized in line with advertised time schedule.

### *Successful attendants, feedback from the attendant*

Each attendee fulfilled criteria for certificate (90%attendance, home assignment delivered in time). Lectures (both internal from CTU and external across construction industry) gave extremely positive feedback, namely: active auditorium, very good questions, quick orientation in topic, quick understanding. Attendees of all 4 courses gave positive feedback and indicate that:

- This format of courses is very helpful (optimal duration, good structure, interesting topics, good quality of lectures)
- Most of them would like to attend another course (ideally continuation in this format)
- Most of them positively evaluate chance to be in touch with lecturers from commercial area (their potential employers) and increase their own self presentation on work market

Monitoring criteria of the project were fulfilled, 2 new products were created and 64 persons were successfully trained (see Table no 1 below).

**Tale 1: Attendants of the courses**

course	No of attendants	No of success. attendants
Construction economy no 1	17	17
Construction project no 1	16	16
Construction economy no 2	16	16
Construction project no 2	15	15

## **Conclusion**

Project has positive impact on sustainable development in all 3 pillars: environment, economy, social area.

- Within the economy pillar, this project contributed to decrease in costs (unemployment allowance), another potential impact is expected in decrease in construction costs due to knowledge of low-energy, green and sustainable constructions (budgeting and designing as well). Attendances of these courses learned how to prove economic benefits of green solutions and they are prepared to reconsider proposal in respect of all living cycle of the construction.
- Within the social area pillar, the project contributes in integration of course attendants in working teams and increases their professional self-confidence.
- Within the environmental pillar, the project has positive impact thanks to topics frequently involved in every course, mainly: designing and evaluation of green, low-energy and sustainable solutions across construction industry and usage of renewable and recyclable materials.

*The project is successfully realized and potential continuation is in the process of preparation.*

## **References**

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