WISE innovation in urban water systems of Copenhagen

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In August 2015 the WISE project was initiated with the goal to increase development in urban water systems in the Capital Region of Denmark through 24 innovation cooperations between researchers from the Technical University of Denmark (DTU) and Small Medium Sized Enterprises (SME) (the WISE project). The WISE project is a prime example of matchmaking of researchers and enterprises, introduction of the newest knowledge into SME innovation, and creation and improvement of new smart products to the market.

The WISE project is hosted by the Water DTU Center, CLEAN and DTU Scion.

The project is anchored in the Water DTU Center and is running for 3 years. Due to the success of the innovation cooperations a 2 year extension and another 16 innovation cooperations have recently been granted.

The WISE project is funded by the European Regional Development Fund and The Capital Region Denmark and has a total budget of € 3.3 million.

INTRODUCTION

METHODS

Figure 1. The WISE project consists of 3 main activities:

Main activity 1
Water DTU center, CLEAN and Scion DTU identify potentials and needs of SMEs.

Main activity 2
The Water DTU center matches SMEs with researchers. The Center is located on campus giving direct access to researchers.

Main activity 3
The specific innovation projects bring the insights and research into the SME and facilitated by the Water DTU center.

The Innovation projects are monitored and evaluated for their performance on output indicators, see example of the evaluation in Results.

RESULTS

The main results of the project are:
1. There is a great interest in cooperation between SMEs and researchers. However, it was experienced that main activity 1 and 2 (identification of SMEs and matchmaking) was more time consuming than expected when setting up the WISE project.
2. It is possible to go far into the desired research of the SME even though the average WISE project only consists of 11 months of research either full or part-time. Research is transferred to the SME efficiently, mainly because SMEs have strong learning cultures (Bambury et al., 2015) and the research targets a specific need.
3. When evaluating the performance of the innovations projects on the output indicators it appears that the individual project typically has strengths within one or few indicators (Fig. 1).

DISCUSSION

The time line of the 24 innovation projects shows a long upstart phase before it leads to initiation of projects and that half way through the project the main breakthrough occurred in terms of a strong increase in granted innovation projects (Table 1).

Informing networks about the project, identifying SMEs and contacting them, as well as creating the administrative set-up took longer than expected. It is important to allow time for this start up phase to emerge.

The overall WISE project covering 24 innovation projects scores on all defined outputs with a relatively large variation (Fig. 2) confirming that they have individual strengths within one or more output indicators as illustrated in Results (Fig. 1).

CONCLUSIONS

The key learnings from the WISE innovation projects are:
1. There is a great interest in cooperation between SMEs and researchers. However, it was experienced that the matchmaking process, matching the researchers with the SMEs, was more time consuming than expected when setting up the WISE project.
2. It is possible to go far into the desired research area of the SME even though the average WISE project is relatively short. In the innovation projects research is transferred to the SME efficiently, mainly because SMEs have strong learning cultures and the co-operation with the researcher is requested and appreciated.
3. When grouping the output indicators it is found that the individual project typically has strengths within one or few indicators. The overall WISE project covers 24 innovation projects together contributing to all the outputs.

Figure 2. – Average scores of the 24 innovation projects on output indicators defined by the EU Regional Development Fund and The Capital Region Denmark within 3 overall themes: a) Growth and job creation; b) Employee growth; c) Future cooperation and publications

The partners in the WISE project are:
Water DTU Center for Water Activities at DTU


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