

## SHORT TERM SCIENTIFIC MISSION (STSM) SCIENTIFIC REPORT

This report is submitted for approval by the STSM applicant to the STSM coordinator (SMTS Committee)

**Action number: CA18236**

**STSM title: Identifying the quadruple helix challenges and the suitable forms of knowledge alliances between HEIs and enterprises**

**STSM start and end date: 02/02/2019 to 09/02/2019**

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### PURPOSE OF THE STSM:

(max.200 words)

The purpose of the STSM was to identify the forms of knowledge alliances between the higher education institutions and enterprises which aim to foster innovation, entrepreneurship, creativity, employability, knowledge exchange and/or multi-disciplinary teaching and learning are therefore becoming increasingly necessary and relevant.

### DESCRIPTION OF WORK CARRIED OUT DURING THE STSMS

(max.500 words)

A substantial part of the STMS was a literature review and meetings for discussing the achievements in it. The review was on multi-disciplinary innovation principles, practices and resources and meeting with stakeholders in the field. A major research was performed by the team of Balzhan Orazbayeva. They prepared a report on "The Future of University-Business Cooperation: Research and Practice Priorities". On their side, the team of Alberto Ferraris, further investigated on "The role of universities in the Smart City innovation: Multistakeholder integration and engagement perspectives". I had the good chance to address authors in Belgium like Anthony Simonofski and Estefanía Serral from KU Leuven over their material "Investigating context factors in citizen participation strategies: A comparative analysis of Swedish and Belgian smart cities".

In most of their work, and also with the inputs of a team from Fraunhofer IAO, came that the civil society is a major actor in national innovation systems collaborative innovation following the quadruple helix model. In support is also the work of Harold Paredes-Frigolett "Modeling the effect of responsible research and innovation in quadruple helix innovation systems".

Considering those open issues I had a chance to join a round table on improving the knowledge of our oceans and seas and bringing them closer to citizens. It was jointly organised in Brussels by Blue-Cloud. How citizens can contribute to data collection and usage and in this way to the innovation – for me as a researcher from a city overwhelmed by the blue economy the discussion and ideas for research were substantial. Citizen Science is the collaboration between scientists and volunteers from the general public, to gather and/or analyse data relating to the natural world.

With a similar focus that may lead to further investigating the problems were the discussed with the host papers from Eelman Richard, L. Feldman David on “The future of citizen engagement in cities—The council of citizen engagement in sustainable urban strategies (ConCensus)”, and the “Living labs: Implementing open innovation in the public sector” from Mila Gascó.

The Living Labs issues were in the focus of my choice when approaching the host, and exactly Artevelde and Ghent. Namely the At 3ID LABS at which the students work on a real-life case during a full semester. The cases are submitted by real organisations and cover important social challenges in the fields of sustainability and social inclusion, etc. After having meetings I identified that each team is truly international, intergenerational and interdisciplinary and all members are inspired by the same motive: the ambition to learn about teamwork and have a positive impact on society.

Another phenomenon I had a chance to observe and discuss its logic of operation was the “Gentlestudent” role introduced by Artevelde University College. Gentlestudent focuses on meaningful and profound learning and does so in constant dialogue with the students and the initiatives in the city of Ghent, building a City for learning. Artevelde University College provides an online platform where citizens, organizations and students can find each other.

## DESCRIPTION OF THE MAIN RESULTS OBTAINED

An active and in a certain way unique Public Sector Innovation (ePSI) labs was reviewed, with elements to consider in some theoretical frameworks. Some issues for comparative analysis were identified – such as the “blue” economy and its societal implications – for Belgium as a maritime country in North Sea and Burgas as a major coastal city on the Black Sea.

the nature of higher education led multi-disciplinary innovation in promoting social entrepreneurship and social innovation was scoped. The case study about the 3ID LABS at Ghent might be extended with the experience of how the foreign students and migrants might both be a target group and some of them to provide valuable inputs.

Some best practices for multi-stakeholder engagement and co-creation processes linking local, national and international levels with the use of relevant methods and tools (e.g. a collective awareness and action platform). Together with super diverse team, the 3ID LABS design their own answer to challenges. Within their teams consist of students from Artevelde University of Applied Sciences (all different programs), incoming Erasmus students and professionals looking for a new challenge.

An overview on the trends and achievements in the quadruple-helix ecosystems, their impact and dissemination was made. A further research on the phenomenon “Gentle” student were

envisaged.

**FUTURE COLLABORATIONS (if applicable)**

A literature review about practice that was scrutinised led to research questions outlines and they might be a joint study in the current Action to imply them.

It was envisaged forming research teams from the Artevelde and Burgas Free University on the social innovation and social entrepreneurship.

Considering forms of research practice of last year bachelor students and PhD student from Artevelde University College and the Burgas Free University on topics of identifying the bridges between academia and the society in solving substantial issues through innovation practices.

Among the organisations partners to the Social Innovation Lab at the Artevelde university are banks, municipalities and businesses, but also the focused on the marine societal and health issues Blue Health Innovation Centre. The connection with them will help for further research on the issues of societal involvement when concerning the innovations in the blue economy.

A project proposal related with youth dialogue was discussed in Gent. It will include eventually participants from Bulgaria and North Macedonia to experience from the good practices in Belgium over the fourth element of the quadruple helix – the society and its active role in the decision making.

Such a proposal was further upgraded and will be incorporating a collaborator within the Action from the Republic of Ireland too.