

# **Summer greetings from WIDER UPTAKE**

Dear members of the WIDER UPTAKE project,

The summer break is around the corner and it is time to share with you the latest updates from our project. As you will read, there is good progress made in the demonstration cases and in the research work. I would like to thank you for your continuous effort to reach our goals, despite the still challenging corona times we are dealing with. Enjoy the reading and have a nice summer!



#### **WIDER UPTAKE on social media**

Since the last time, we have created a WIDER UPTAKE page on LinkedIn where we share results and news from the project: <a href="https://www.linkedin.com/company/76713624/">https://www.linkedin.com/company/76713624/</a>

We also created a Facebook group we hope you all will join and use to share updates from your local projects, as well as news and inspiration from other sources: <a href="https://www.facebook.com/groups/489234269105783">https://www.facebook.com/groups/489234269105783</a>

#### Kick Off: Young Professionals (March 18th)

We have established a forum with all the future water professionals involved in the project: PhD students and young professionals. They are our most important participants since they represent the future of the water sector! Placed in different countries but working with similar challenges. We had the first informal meeting in March, and I hope this forum will provide opportunities to learn from each other and to find an extra motivation in everyday work.

Have we left any young professional behind? Please contact Maria Barrio so we include all.



Some of our Young professionals during the forum kick-off in March. From left to right: Adela Puskacova (VSCHT), Rizza Ardiyanti (NTNU), Arianna Nativio (TU Delft) (top), Henrik Brynthe Lund (SINTEF), Solomon Ofori (VSCHT), Anurag Bhambhani (TU Delft) (mid), Dario Presti (UNIPA), Sofia Maria Muscarella (UNIPA) and Lorenzo Barbara (UNIPA)(down).





## National validation workshop of the baseline studies in Accra (April 12<sup>th</sup>)

The validation workshop brought together project collaborators and partners in Ghana, relevant national ministries and agencies, and researchers. The purpose was to discuss baseline studies that were conducted to ascertain the present state of wastewater usage for urban agriculture in Accra; assess the socio-economic status of urban farmers using wastewater for irrigation in Accra; ascertain usage of wood-based fuel among selected SMEs in Accra; and the characteristics of feedstock for biochar making and laboratory-produced biochar. The most important output of the workshop was the rich comments and suggestions discussed by participants that could break technological and socioeconomic barriers to the wider uptake of the water-smart solutions to be demonstrated in Ghana.



Participants at the National validation workshop in Ghana

#### Deputy mayor of Prague visited WIDER UPTAKE test site (May 19th)

The deputy mayor, Mr. Petr Hlubucek, who is responsible for environmental issues in the Council of the City of Prague, visited the installation of irrigation boxes on the premises of Central Prague WWTP, located on Cisarsky island on the Vltava River. Read more about the deputy mayor visiting WIDER UPTAKE test site in Prague.

If you want to see Prague case online, here is the link to the <u>online cameras</u> (Login: Truhlik, Password: RecyklaceVody). In addition, the <u>database created in WP2</u> has now new releases with timelapse. Feel free to contact Jaroslav Pollert at CVUT for more information!





Test site for irrigation with wastewater in Prague

#### Workshop on struvite (June 9th)

Since struvite recovery is a focus in some of the demo cases, we organized a workshop on this topic. Waternet, as an international frontrunner, shared from their experience. HIAS and IVAR in Norway presented their ongoing activities. About 30 people participated in the workshop that was part of WP1 and the Communities of Practice activity. We plan to organize similar events on other key topics in WIDER UPTAKE.







### WIDER UPTAKE WP 1 Demo case Hamar



- Optimize the Hias Process and eliminate precipitation chemicals
- Optimize Ostara Pearl operation
- Maximise struvite yield
- Cambi THP treated biomass from Hias WRRF
- Various organic waste fractions from Sirkula
- Formulate products based on upcycled resources
- Product performance/ documentation
- Establish marketing channels

The Hias\* - Process © Hias How2O AS 2021





# Presentation of results from governance assessment in the Italian cases (June 15<sup>th</sup>)

UNIPA organized a digital event to discuss "The role of governance in wastewater treatment". During the meeting, which was attended by key stakeholders, the new law on water reuse at Sicilian level was discussed. Researchers in WP 4 have developed the governance tool GOCIWA (Governance assessment for circular economy based on Water resources). This tool was also presented during the event. Similar discussions around governance assessment will take place in connection to each of the cases during 2021. Read more about the seminar



Webinar at UNIPA

#### Status: WP2 Monitoring and control of health and quality risks

WP2 has worked hard to establish technology for measuring, data processing and validation. The aim is to develop technology of monitoring recycled water or materials based on commonly used measurement equipment to evaluate risk of usage and compare them with standards and laws. The comparison of data from the different case studies will help to improve technology and avoid the risks.

Also, as part of the work in WP2, the research team at the Delft University of Technology has identified key risks associated with the production of existing bio-composite material in the Amsterdam case study. This involves health, quality and other risks. This work was done in collaboration with our partners, NPSP and Waternet. As part of this process, key hazards were mapped onto these risks by means of qualitative risk analysis involving the generation of suitable risk event trees. These trees will be used in future work for the quantification of key risks.



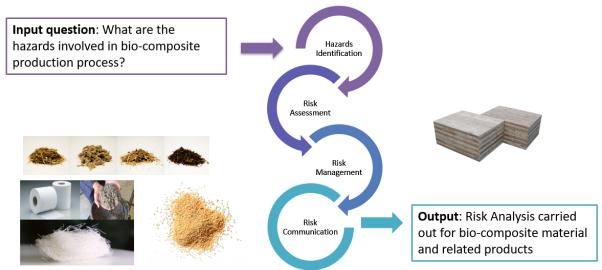


Illustration of the risk assessment work performed by TU Delft in WP2 (Figure made by Arianna Nativio)

#### Status: WP3 Circular economy and efficiency potential

The research team at the Delft University of Technology has continued the development of a general methodology and framework for the assessment of sustainability and circularity of symbiotic solutions. Extensive literature review was completed resulting in identification of several key deficiencies in existing LCA-based sustainability assessment frameworks and the prevalent circularity assessment methods which will be addressed in the development of the new framework. A position paper identifying the corresponding future research directions was submitted for publication recently. The team continued the development of the new framework by creating a repository of sustainability assessment indicators and planning the development of new ones.

#### Status: WP4 Governance and business models

WP4 has developed a governance assessment tool, addressing drivers and barriers to circular economy based on water resources in a multi-level system perspective. The tool, called GOCIWA for short, is based on previous governance assessment tools for the water sector, but further developed to include sociotechnical and socioecological interactions across multiple sectors. The work was done involving interviews with 40 stakeholders, from all the WIDER UPTAKE demo cases. The results of the initial governance assessments will be discussed in virtual or physical workshops in each country and used as background for further work on network development and business models.

The tool is in form of a detailed Word- and Excel-based manual. It was submitted in April 2021 and will become available on the WIDER UPTAKE website as soon as it is approved.

#### Status: WP5 Water smartness and sustainability

The WP5 team at SINTEF is developing a method for assessing the water smartness of the symbiotic circular economy solutions in the case studies and their contribution to progress towards the United Nation Sustainable Development Goals. Discussions with WP2, WP3 and WP4 are in progress for their contribution to this assessment framework for water smartness and sustainability. The assessment criteria and indicators in the framework will be discussed with the case study partners and other stakeholders in workshops that will be organised after the summer holidays.





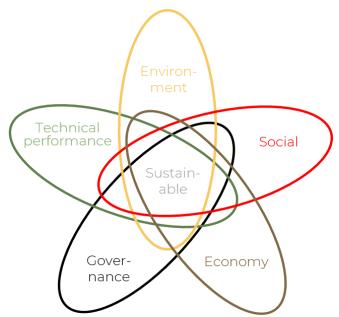


Illustration of the dimensions we are including in the assessment framework

#### Dissemination

The first paper for the project is available:

Enhancing a Transition to a Circular Economy in the Water Sector: The EU Project WIDER UPTAKE

We hope that many other will come in the following months of the project. Remember to log your dissemination actions <u>here</u>.

#### Coming events: Consortium meeting and Project Steering Board meeting

In connection with the first 18 months reporting period, the next Consortium meeting and Project Steering Board meeting will take place on 3-4th Nov. 2021. We will come back with more information regarding agenda and format for these meetings.

#### This is WIDER UPTAKE

- WIDER UPTAKE aims to facilitate industrial symbioses to increase resource efficiency, limit emissions and develop sustainable business based on water-smart solutions.
- Our hypothesis is that the barriers to wider uptake of water-smart solutions are not only technological but also organizational, regulatory, social and economic. We have a special focus on the interaction between these barriers.
- The project involves demonstration cases in Norway, the Netherlands, Czech Republic, Italy and Ghana.
- WIDER UPTAKE has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 869283.

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