

Prof. Dr.-Ing. Esad Osancevic, could you please briefly introduce yourself, your functions and roles at RBS wave, and what RBS wave is doing?

From 2000 until April 2022, I led the Network Management team. Since April 2022, I have been responsible for consulting, research, and product development. RBS wave GmbH is an engineering and planning office that offers services in infrastructure, energy, and water with approximately 180 employees. RBS wave GmbH is a wholly-owned subsidiary of EnBW, operating in the field of critical infrastructure.

Can you give us examples of successful collaborations or projects in which your company and SimTech have been involved? Please briefly outline the context/topic in which you have worked with SimTech.

RBS wave GmbH offers a wide range of solutions in network management for drinking water supply. Over the past years, project experiences and consultations have shown that high drinking water temperatures (> 25°C) can already occur in drinking water pipe networks, posing a problem for proper drinking water supply. In an internal company research project, we have already developed several foundations to better describe this issue.

It is noted that changes in water quality can occur in the drinking water pipe network. Elevated air and soil temperatures can amplify existing tendencies towards contamination and physical-chemical processes depending on the condition and operation of the drinking water pipe network. There is a need for research and development, particularly in the further development of models and tools for better projection of extreme events (heat transfer from the surface to the pipe). Especially important are impact models to better assess the consequences of climate change. With the help of SimTech, we are now able to conduct further research in this area.

How did the collaboration come about?

Previously, we collaborated with the Institute for Water and Environmental System Modeling and the Experimental Facility for Groundwater and Soil Remediation at the University of Stuttgart. Based on our previous research and the built experimental facility, we sought financial assistance from SimTech for this topic.

How would you describe/rate the collaboration and what benefits has it brought?

The collaboration with SimTech so far has been exceptional. What stands out is the connection between industry and science with the goal of achieving results that are also important for solving practical problems.

Which specific aspects of SimTech have the greatest added value or potential for your company? What advantages do you see for your company and your projects in a partnership with our cluster?

The successful collaboration with SimTech is characterized, as mentioned, by the close connection between industry and science, allowing us to further research the influence of climate on water supply, particularly the heat transfer from the field surface to pipes. This research is of particular importance for the safe and reliable supply of drinking water to the population and the economy.

How would you like to shape or improve future cooperation with our cluster?

Through the collaboration with SimTech, we experienced a cooperative atmosphere that enabled us to implement previous research results into practice and embark on further research to address many questions regarding network operation and the future design of distribution networks. Currently, I do

not see any need for improvement as our experiences with SimTech are based on an ongoing research project.

Are there specific areas or topics in which you can imagine closer cooperation with our cluster?

Further collaboration with SimTech would enable us to jointly develop innovative solutions for the secure and reliable future water supply, especially considering the impacts of climate in this area. In future research, it is very important to focus on developing early warning systems related to the correlation between water demand and available water resources.

Written interview with Prof. Dr.-Ing. Esad Osmanovic, Senior Consultant for Research and Product Development at RBS wave GmbH