

## COCHALLENGE 2022

|   |   |
|---|---|
| <b>Organization – Challenger</b>                                      | <b>Fors A/S and Rockwool A/S</b>  |
| <b>The challenge</b>  | Circular and climate resilient water solutions  |
| <b>The Sustainable Development Goals</b>                              | <p>Goal 6: Clean water and sanitation</p> <p>Goal 11: Sustainable cities and communities</p> <p>Goal 13: Climate action</p> <p>Goal 14: Life below water</p> <p>Goal 15: Life on land</p>   |
| <b>The challenge explained</b>  | <p>In cities, space is typically in short supply in relation to climate adaptation solutions, which ensure handling of water and expansion of nature areas. At the same time, collection and reuse of water can reduce the pressure on clean drinking water - because if we get better at combining collection and quality improvement of rainwater locally, the water will be able to be reused for more purposes and thereby relieve the groundwater resource.</p> <p>In the countryside, the discharge of pollutants into the aquatic environment is often a challenge. If we can find new solutions for this, we can contribute to stopping the decline of biodiversity.</p> <p>Here, for example, there is potential to use Rockflow and plants for delay and cleaning, possibly in combination with other technologies that increase water quality with a purpose to recirculate the water.</p> |
| <b>What initiatives have Rockwool A/S and Fors A/S already tried?</b> | Rockwool A/S, in collaboration with external partners, has carried out several trials using Rockflow, and the stone wool material opens the possibility of retaining and filtering water and particles as well as greening as a growth medium for plants. In addition, there may be other advantages with, for example, noise reduction and temperature regulation.   |
| <b>Have others tried to solve the challenge?</b>                      | Collaborations are continuously initiated to identify new concepts and <a href="#">Det Grønne Nedløb</a> , which enables vertical gardens, arose from a challenge posed by Fors A/S and Roskilde Congress- and Sports Centre back in 2020.  |

|  |   |
|--|---|
| <b>If anything is possible?</b>  | Add value to the users of e.g., car parks or bathing lakes and contain both visible and invisible (underground) modules - whichever is most flexible and supports synergies in a sustainable solution.  |
| <b>Which solutions do Rockwool A/S and Fors A/S not wish to receive?</b>                       | If the focus is on handling water, they are responsive to most solutions. However, it is more the combined solutions and synergies for biodiversity and water recycling that are in demand than it is a specific technical solution – or with a technical solution there is an openness for idea development that can combine the individual solution with other parts of a multi-faceted solution. |
| <b>What kind of ideas, processes and technologies do they imagine as part of the solution?</b> | Rockflow and nature-based measures of different sort. Elements that can be combined with Rockflow or as a new module can add value to water quality and recycling as well as biodiversity.  |
| <b>What is the potential?</b>  | To make areas more live able for humans as well as flora and fauna and to develop the possibilities for water recycling.  |
| <b>Why do Rockwool A/S and Fors A/S wish to participate in COCONF?</b>                         | What if there is a nature-based solution which can improve the quality and the reuse of water? You might have ideas on how to combine different technologies or ideas for local value creation.   |
| <b>Anticipated outcome</b>   | A couple of solutions which can be converted into prototypes that can be tested and validated.  |
| <b>What will the winning ideas be offered?</b>   | A collaboration to develop a prototype at Rockwools Innovation Factory and testing it in a relevant use context.  |