

COCHALLENGE 2022

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| Organization – Challenger | Roskilde Fire Brigade |
| The challenge | Increased climate resilience |
| The Sustainable Development Goals | Goal 3: Good health and well-being Goal: 13 Climate action |
| The challenge explained | <p>The new risk picture shows that four out of 14 areas are climate-related, but how can we create a greater awareness of it - and not least a readiness among several actors in the form of citizens, associations and companies who can contribute to deal with incidents with, for example, cloudbursts and storm surges. Roskilde Fire Brigade offers a new test and training center as a physical framework - please suggest content that ensures increased climate resilience.</p> <p>Floods have major consequences for those who live in exposed areas - both personally and materially. Several cities around Roskilde Fjord have been exposed to six violent storm surge events in recent years alone, just as in February 2020 many places in Jutland were affected by floods because of the winter's extreme amounts of rain. This is a reality in the rest of the world as well. This is due to climate change with rising sea levels and more extreme weather as a result. This leaves people in fear and powerlessness, but it doesn't have to be that way.</p> <p>As part of a public-private collaboration, a test and training center for flood protection is being established at Roskilde Fire Brigade. Specifically, a basin will be built in which various weather phenomena can be simulated; the area can be flooded under controlled conditions – where the amount and load of the water can be controlled. Here, public emergency services, private solution providers, knowledge institutions and citizens can jointly develop and test new mobile and temporary measures - for example water tubes or sand walls - which can be used until more permanent climate adaptation solutions are in place.</p> <p>Meanwhile, the costs of repairing water damage after floods are increasing and are expected to reach DKK 16 billion in Denmark alone over the next 25 years (COWI: "BYERNES UDFORDRINGER MED HAVVANDSSTIGNING OG STORMFLOD" AUGUST 2017).</p> <p>In many places around the world, people are well on their way to adapting buildings, looking at coastlines and protecting property. This of course also applies in Denmark, where</p> |

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| | <p>especially the municipalities and citizens continuously take initiative to establish future solutions, but the problem is the time – from a problem is recognized until a lasting solution is found, including financing – which often takes 10-12 years. The purpose of the test and training center is to contribute to solutions during that period. This can be, for example, with new products that are temporary, semi-permanent or have a permanent character and functions when the need arises.</p> |
| <p>What initiatives have Roskilde Fire Brigade already tried?</p> | <p>Roskilde Fire Brigade has plenty of experience to share and facilitates the preparation of emergency plans and the organization of volunteers, landowner associations, housing associations and others. Roskilde Fire Brigade has so far developed three courses on operational, tactical and strategic levels, just as they are in the process of organizing some training courses targeted at the civil society.</p> |
| <p>Have others tried to solve the challenge?</p> | <p>The work with social resilience in relation to climate adaptation has been a focus area from the EU's side, which is why there are various projects that seek to address it.</p> |
| <p>If anything is possible?</p> | <p>The solution should preferably contain specific activities that reduce risk of flooding, so citizens and businesses after participation experience living in a safer environment. The concept should preferably create knowledge and understanding about possible flooding scenarios and ways to deal with them, but also contain a practical dimension.</p> |
| <p>Which solutions do Roskilde Fire Brigade not wish to receive?</p> | <p>Solutions that are unclear in relation to the needs of a target group or customers and solutions where it is unclear who will be willing to pay for the use of the test and training facility. The test and training center is a physical facility with a clear purpose, and it will never be an amusement park.</p> |
| <p>What kind of ideas, processes and technologies do they imagine as part of the solution?</p> | <p>Everything is as far as possible, but Roskilde Fire Brigade envision an interaction between academics and practitioners with physical and digital tools as well as the involvement of other actors, such as insurance companies, mortgage credit institutions and public organizations.</p> |
| <p>What is the potential?</p> | <p>To reduce costs associated with flooding by developing and disseminating best practice to groups at risk of flood events.</p> |
| <p>Why do Roskilde Fire Brigade wish to participate in COCONF?</p> | <p>Roskilde Fire Brigade regards it as a form of market research, where they leave it to others to point out relevant content that will make a difference for residents and businesses in flood-prone areas. If we can get climate awareness into several processes and identify the needs locally, it is a big plus for the emergency response.</p> |

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| <p>Anticipated outcome</p> | <p>Several proposed solutions for using the test and training facility which can be offered as new services.</p> |
| <p>What will the winning ideas be offered?</p> | <p>Collaboration on implementation and marketing of activities to the extent that legislation and municipal authority makes this possible. Roskilde Fire Brigade can provide professional discussion on the content, provide a physical framework to try it out and possibly hold a joint event.</p> |