

LORCENIS PROJECT CHALLENGES

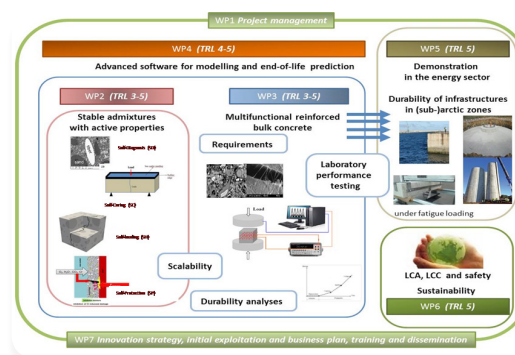
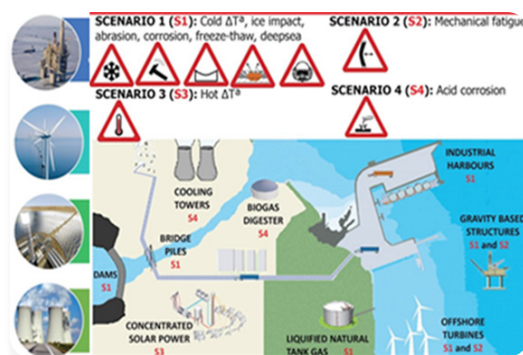
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Details of the project specific needs for an increase in the demand of concrete material for transport energy infrastructures, as a consequence of the increase in population was highlighted. These infrastructures must fulfil specific requirements of durability in the face of aggressive conditions of the location of the infrastructure. The scenarios addressed in the project were identified with different environmental extreme conditions that will affect the operation of these infrastructures:

- 1) Cold temperature, Ice impact, water abrasion, rebar corrosion, freeze and thaw and deep sea,
- 2) Mechanical fatigue
- 3) Hot temperature, thermal fatigue and
- 4) Acid corrosion.

The scale up of the Technical read lines level (TRLs) of demonstration of developing were commented, from a Proof of concept (TRL3) of functional additives developing and concrete implementation to a technology validation (TRL 5-6) through a multifunctional strategy of response to different representative environments. The self-response strategies addressed are based on self-diagnosis, self-healing, self-curing and self-protection with the incorporation of different types of additives to implement the functionalities in concrete. The project is being developed with the collaboration of 9 universities/research institutions and 7 industries from 8 European countries.

<https://www.sintef.no/projectweb/lorcenis>



VIEW THE FULL VIDEO PRESENTATION



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