

1. Transdisciplinary Approaches for Resilient STE Systems

Time's Up: Accelerating towards resilient STE systems

Claudiu Forgaci (TU Delft), Carissa Champlin (TU Delft), João Cortesão (WUR)

Summary

Designing resilient urban socio-technical-environmental (STE) systems requires a holistic understanding of complex system behavior under high levels of uncertainty. With time running out to adapt our living environments, transdisciplinary approaches are needed to prompt action and impact. During the session, transdisciplinary practices that can prompt action on resilience were visually mapped during the talks of three experts- Dr. Joanne Vinke-de Kruijf (education), Prof. Tatiana Filatova (researcher) and Chief Resilience Officer Rotterdam Arnaud Molenaar (practice), Professor. And, an interactive workshop/discussion with the audience took place around the divergence and convergence points of resilience in the context of societal challenges.

Main Conclusions

- While education and practice are easier to bridge, bridging research and practice is more difficult.
- Boundary-crossing solutions involve smartly using different disciplines, scales, sectors, international networks and the bilateral adoption of methods.
- The real-world impact of these solutions deals with empowering citizens, delivering practice with figures supporting argumentation for resilience, and the optimization of joint efforts towards STE systems.
- Key missing pieces of resilience are awareness and evidence of its long-term importance. Many missing pieces of the transdisciplinary approach can be found at the interface of the education, research and practice domains.