People in the picture: Tatiana Filatova
We have to connect and create synergy to make societal impact

"Our DeSIRE program is quite ambitious. We want to build a flourishing community on Resilience Engineering that is capable of bridging the gap between science and practice", says Tatiana Filatova. She is Professor in Computational Resilience Economics at the University of Twente. "I want to contribute to dealing with global environmental issues, use scientific advances for making impact to society." Tatiana tells enthusiastically and dedicated about her research on Economics of Climate Change and her role as the DeSIRE Program Leader.

Seize opportunities
Originally from Russia, Tatiana came to the Netherlands to pursue her PhD in 2005. She visited the Netherlands before within a NWO-project with the Russian Academy of Sciences. And she got fascinated by the Dutch academia. During her PhD research, her work at Deltares and the NWO VENI project she focussed on how cities exposed to flood risks can become more resilient due to the behavioural changes of individuals. She did part of her PhD research in the US being trained in complexity science and multi-agent systems, but decided to go back to the Netherlands. After spending some time at the Centre on Persuasive Systems for Wise Adaptive Living (PERSWADE), part of the University of Technology Sydney (Australia), she is now working on her ERC-project on resilient coastal cities at the University of Twente. Happily living in the Netherlands with her husband and two sons.

Act proactively and prepare ourselves
Tatiana's research agenda is driven by the idea of social economic resilience. "In my own research group we use systems approach and connect economics with insights from psychology and social networks by means of computer simulations", she says. "By creating artificial societies we study how interacting individuals and institutions respond to natural hazard shocks, evolve and shape urban patterns." It is her interest in resilience that made her also choose for the role of DeSIRE Program Leader. Tatiana: "Continuing urbanization together with an increasing frequency and severity of climate-driven hazards are leading to a growing number of disasters. The presence of abrupt shocks and cascading events in coupled social-technical-environmental systems cannot be entirely eliminated. We must learn to live with them. We have to build a capacity to absorb and become stronger when facing a shock. Designing solutions for these complex systems requires linking different domains and disciplines. And that's what we aim at within DeSIRE."

"Our focus for DeSIRE is on the long term global impact. Yes of course, science will not change our lives tomorrow. We need time to analyse, prepare and build tools, methods and knowledge and see these being actually used in practice. Yet, it is essential that we anticipate and drive the shift in the agenda from risk to resilience. We have to make a connection between scientists, practitioners, engineers and policy-makers; between universities, companies and government. In the DeSIRE program our goal is to build a thriving community on Resilience Engineering. The fact that Engineering is pragmatic and creative in finding solutions to real problems, will add value to society. Concrete, impactful and visible efforts will help us to make the necessary steps forward in bridging the gap between science and practice", according to Tatiana.

Think big
With DeSIRE Tatiana aims at a scientific program with lasting societal impact. "Currently we are working on establishing several DeSIRE Solution Teams, focusing on specific practical real-world cases. These are either initiated by Dutch practitioners or motivated by global challenges", she says. "The DeSIRE

Resilience Academy will consolidate courses, webinars, summer schools and offer internships and research visits within 4TU. Our academic community will engage with 100 Resilience Fellows to serve as academic ambassadors on Resilience Engineering. Yes, we think big and our ambition is far-reaching! As DeSIRE Program Leader I see my role as a facilitator, who builds the network, supports interactions within the community and enables strategic connections for 4TU internationally. With 16 new tenure track positions at 13 faculties across the 4TU universities, the DeSIRE tenure trackers will be the linking pin in the team. Their role is essential in developing the agenda for tomorrow's resilient cities and regions."

Tatiana: "DeSIRE has the ambition to become a world leading research program on Resilience Engineering. The success of it relies on the value it can bring to its partners and members, the synergies among existing researchers leading to advancing science and most importantly societal benefits from collaborations between industry, policy-makers and academia. I really believe this is the right next step to make progress on Resilience Engineering. We will make it happen, as a team. And you will certainly hear from us!"

Tatiana Filatova:
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- Professor of Computational Resilience Economics, University of Twente
- Visiting Professor Computational Economic Modeling, University of Technology Sydney (Australia)
- Member-elect, Young Academy (DJA) and Social Research Council (SWR) of the Royal Netherlands Academy of Arts and Sciences (KNAW)
- Associate Editor, Environmental Modelling & Software

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