The pilot study within the AGILE project focuses on scenario modeling of risks for digital systems in the context of high-impact, low-probability events (HILP events)

G.E. Pukhov Institute for Modelling in Energy Engineering of the National Academy of Sciences of Ukraine (PIMEE NAS of Ukraine) cooperates with the international team of the AGILE project, which was launched in 2024 within the framework of the Horizon Europe Cluster 3 "Civil Security for Society" program.

The AGILE project (full name "AGnostic risk management for high Impact Low probability Events") brings together partners from 10 countries, including Ukraine, Germany, the Netherlands, Italy, Iceland, Portugal, Romania, the United Kingdom and others. The project participants work together to manage agnostic risks to make critical infrastructure (including energy, digital and telecommunications) more resilient to emergencies, especially to complex and unlikely events (HILP – high-impact low-probability events).

The Institute represents Ukraine in this project and is responsible for one of the 9 pilot studies (case study) of AGILE. The mission of the Institute's team is to study how digital systems behave during emergency events and, together with Ukrainian stakeholders, develop scenarios and conduct stress tests that will help better prepare for HILP events.

In particular, the Ukrainian team of the AGILE project is preparing workshops with stakeholders on stress testing of Ukraine's digital infrastructure, the purpose of which is to adapt European approaches to hybrid threats with possible cascading effects and create tools that will support the continuity of digital services and business processes even in the most difficult conditions.

Members of the Ukrainian team in the AGILE project note: "AGILE is not just international cooperation, but a specific tool for rethinking critical infrastructure vulnerabilities. For Ukraine, this project is an opportunity to integrate its experience in dealing with large-scale risks into the common European system. We are working to ensure that scenario modeling and stress tests take into account the realities of wartime, and that digital and energy resilience are not a theory, but a practical result."

The AGILE project will last until 2027. During this time, the Institute's scientists will cooperate with partners from many countries, exchange knowledge, test approaches in real cases, and together, build a future where critical infrastructure can withstand even the most unexpected threats.

Media Contact:

Email: volodymyr.artemchuk@pimee.ua

Website: https://ipme.kiev.ua/

Agile project website https://www.project-agile.eu/

Based on the materials of the PIMEE of the National Academy of Sciences of Ukraine



HILP Scenario Modeling of Risks in Digital Systems. Ukrainian case-study in the AGILE project





AGILE aims to co-develop tools and methodologies with representatives of critical infrastructure operators, government agencies, security and response agencies to ensure their further implementation in risk assessment and resilience building processes.









What is a HILP events?

"High Impact Low Probability (HILP) events are rare events that have the potential to cause catastrophic consequences for people, infrastructure, utilities, critical services and wider societal functions. These events are characterized by a lack of precedent, a high level of uncertainty in their predictability and a combination of consequences, often emerging as a surprise. They may not fit the definition of action and will require innovative, creative approaches to raise awareness, exploit established capabilities and improve both shortand long-term preparedness."