



# **Crisis and Risks Engineering for Transport Services under 2022** conditions



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Warsaw University of Technology



# The new crisis, also in transport

#### from CRENG in 2018...

- 10 years after the financial crisis of 2008
- Efficient supply chains driven to the limits
- Stable economic growth
- Global transport projects
- Decarbonization as the primary political problem
- Weather phenomena: hurricanes, droughts

### ...to CRENG in 2022

- After-pandemics global supply chain issues
- War acts and terrorism in UA
- Broken food supply chains
- Energetic crisis
- Global shortage of raw materials
- China vs USA
- Technological shifts: Industry 4.0 and powering
- Weather phenomena: hurricanes, droughts
- Inflation and new financial crisis





## The new crisis, also in transport

- Sanctions
- EC Contingency Plan for Transport (May 2022)

- Making EU transport laws fit for crisis situations
- Ensuring adequate support for the transport sector
- Ensuring free movement of goods, services and people
- Managing refugee flows and repatriating stranded passengers and transport workers
- Ensuring minimum connectivity and passenger protection
- Sharing transport information
- Strengthening transport policy coordination
- Strengthening cybersecurity
- Testing transport contingency
- Cooperation with international partners





## CRENG

- <u>Risk and crisis engineering for transport service</u> is critical for societies and global economy.
- CRENG MA programs in universities of France, Germany, England, Norway, etc.
- Ukraine, Azerbaijan, Turkmenistan located on **strategic transport routes**.
- EU supports integration of UA, AZ (Eastern Partnership) and TM (Central Asia) transport systems.



Source: EU/EEAS

- 11 UA, 5 AZ and 3 TK HEIs annually train 250, 80 and 50 specialists in Transport Technologies (none on CRENG).
- The project meets strategies of PCs in transport services and higher education. This fact is proved by legislative acts.





## **CRENG** milestones

#### Development of new MA program "CRENG " and innovative teaching environment:

- New core and transferable curricula on CRENG
- E-learning courses on MOODLE platform in PCs HEIs
- Retraining program on new curriculum on CRENG by EU HEIs
- Teachers retrained on new MA programs and teaching/learning environment at EU HEIs
- Teaching materials for each new curricula (Join Web Platform);
- Laboratories at PCs HEIs
- Master classes on new MA program conducted by retrained PCs teachers an EU HEIs;
- Pilot teaching
- Staff from PCs HEIs retrained to operate CRENG Service Offices
- MA program "CRENG" accredited on institutional and national levels
- CRENG Service Offices
- CRENG + Agreement
- Skills Wallet and IPBL implemented at PCs HEIs







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#### **Thank you for attention!**

#### www.creng.eu



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