Workshop: Intersections Between Resilience and Risk

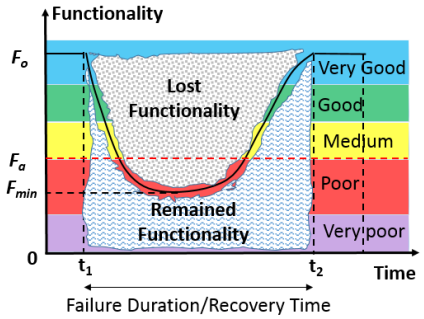
Loughborough University

Critical Infrastructures

By Dr. Maryam Imani (Anglia Ruskin University)

What does Resilience mean to you?:

Capacity of the system to maximize its functionality when subject to disruptive conditions.



Key Resilience Research Challenges:

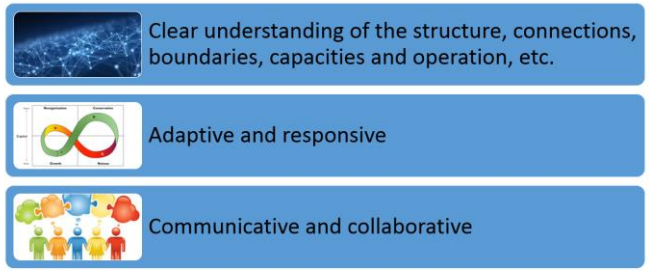
- Identifying key players
- Clarity of the objectives
- Resilience perception (a common narrative)
- Resilience evaluation/assessment/quantification
- Resilience metrics
- Level of resilience
- Resilience and risk intersections (e.g. LoR vs LoR)
- Identification and measurement of capacities
- Integration e.g. infrastructure, community, organization
- Incorporation of interdependencies

Your Current Research Focus:

- Resilience-informed infrastructure interdependencies management (RV-DSS)
- SuDS resilience (SUDS:RE)
- Resilience-based water quality evaluation (WQR_{GIS})
- Resilience quantification of CI (QR-Infranet)

What would good look like?

The three key ones could be:



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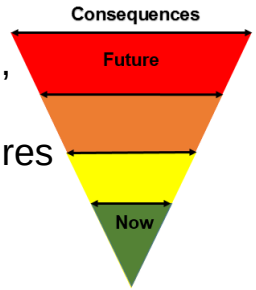
Perceived Barriers?:

- Different priorities and values in different sectors (conflict of interests)
- Lack of common understanding and narratives
- Lack of/ insufficient communication for collaboration
- Thresholds
- Management (willingness to do)
- Budgets/investment
- Regulations

What are the consequences - Risks?:

Failing to Plan = Planning to Fail



- Exacerbation of existing environmental, societal and economic challenges
- Increased frequency/magnitude of failures
- Prolonged failure conditions
- Difficult to cope with….

Envisaged Breakthroughs Required:

- Cross-sectorial collaboration
- Incorporation of holistic and integrated approaches in dealing with challenges
- Shared interests (e.g. for interventions)
- Resilience-informed decisions
- Technology
- Always **investment**

Who needs to do what?:

- Identifying and filling the gaps between research, practice and end users
- Government/funding bodies: More investment to fill these gaps
- Industry: further collaboration and engagement with academic research
- Academic: more challenge/end user/practice - focused research
  e.g. user/industry-friendly tools

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