Rising to a new challenge

A protocol for case-study research on transboundary climate risk

Based on Harris et al. 2021. Presented by Frida Lager

SEI Stockholm Environment Institute

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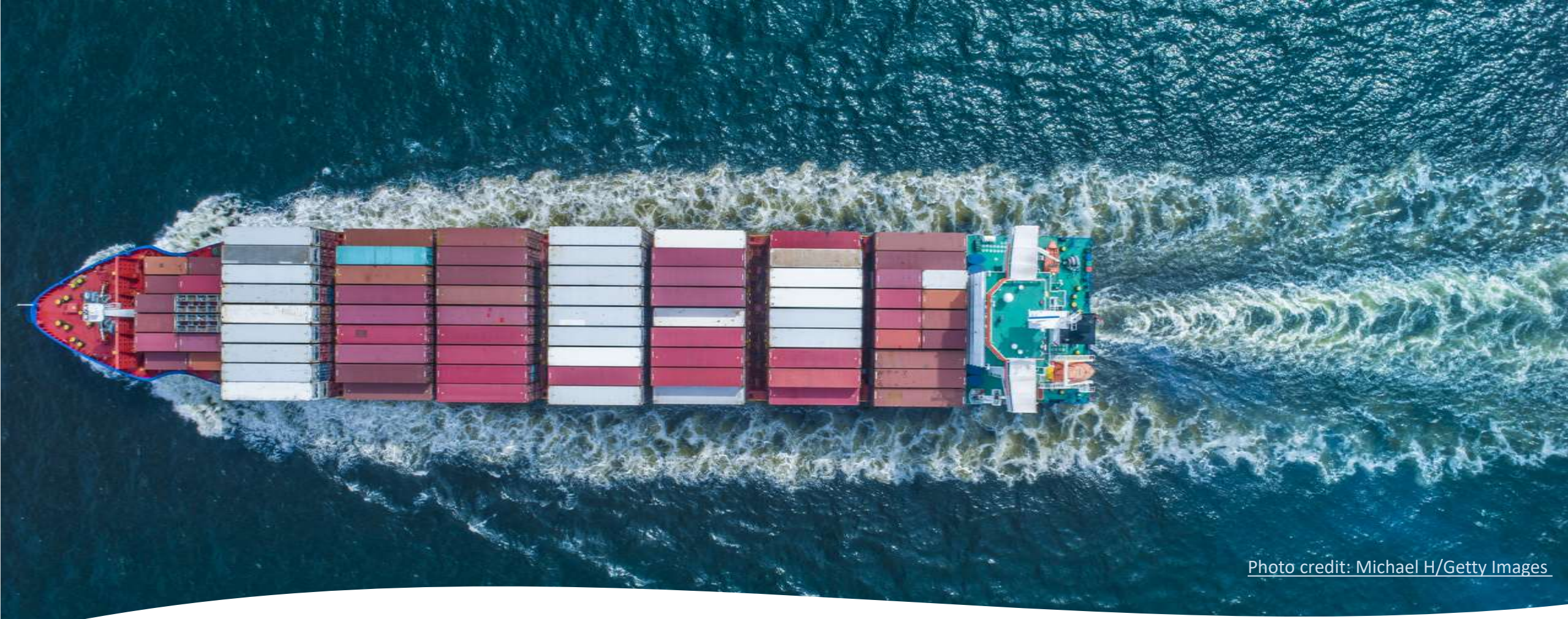
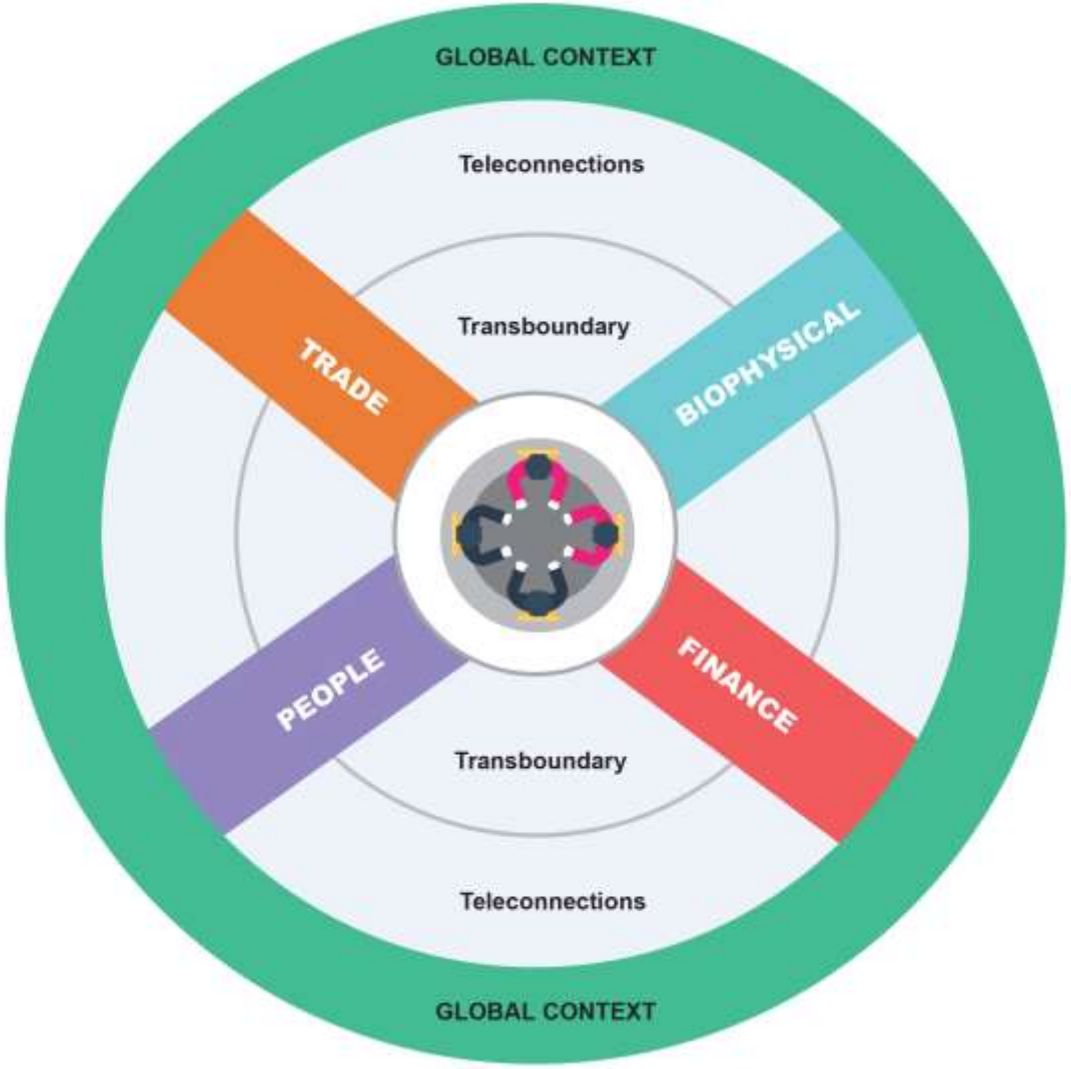


Photo credit: Michael H/Getty Images

Transboundary climate risks:

"The impacts of climate change *and* the effects of adaptation actions that cascade across national borders"

The pathways through which transboundary climate risks can flow…



Trade: flows of commodities and products via supply chains and markets

Biophysical: rivers, oceans, cross-border movement of species

Finance: public and private investment, insurance, remittances

People: human migration, tourism, health risks

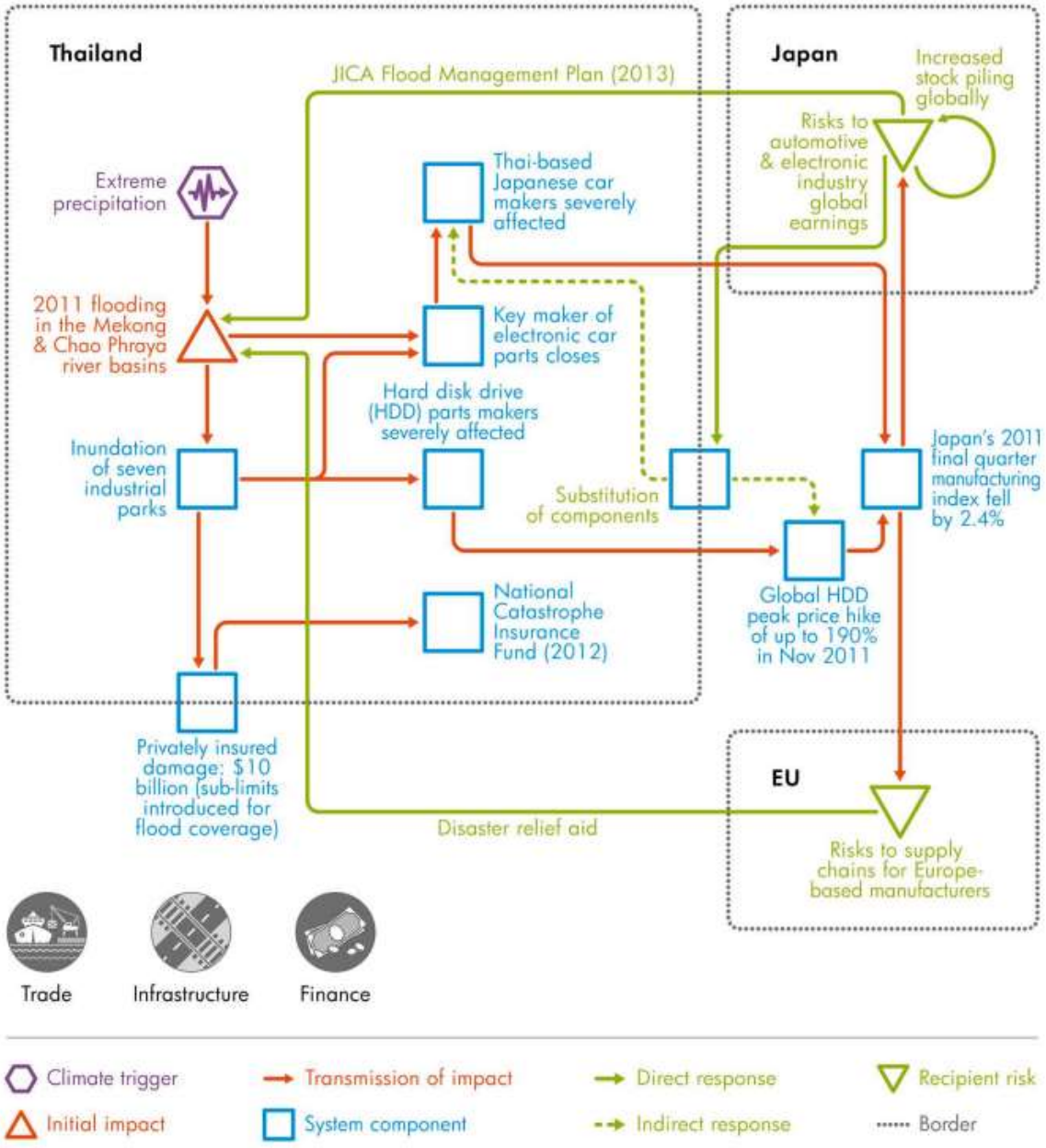


Fig. 4. Observed cross-border impacts of, and responses to, the Thailand floods of 2011 (for further explanation, see text).

Source: Carter, T.R., M. Benzie, E. Campiglio, H. Carlsen, S. Fronzek, M. Hildén, C.P.O. Reyer and C. West (2020) A conceptual framework for cross-border impacts of climate change

The impact chain framework – though a transboundary lens

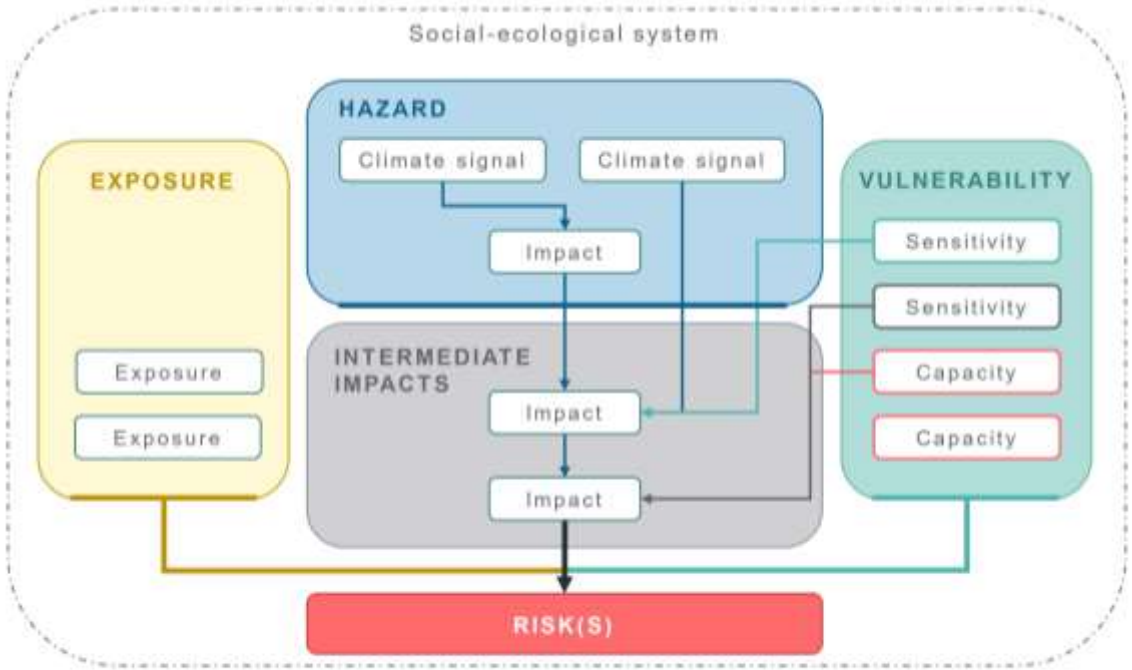


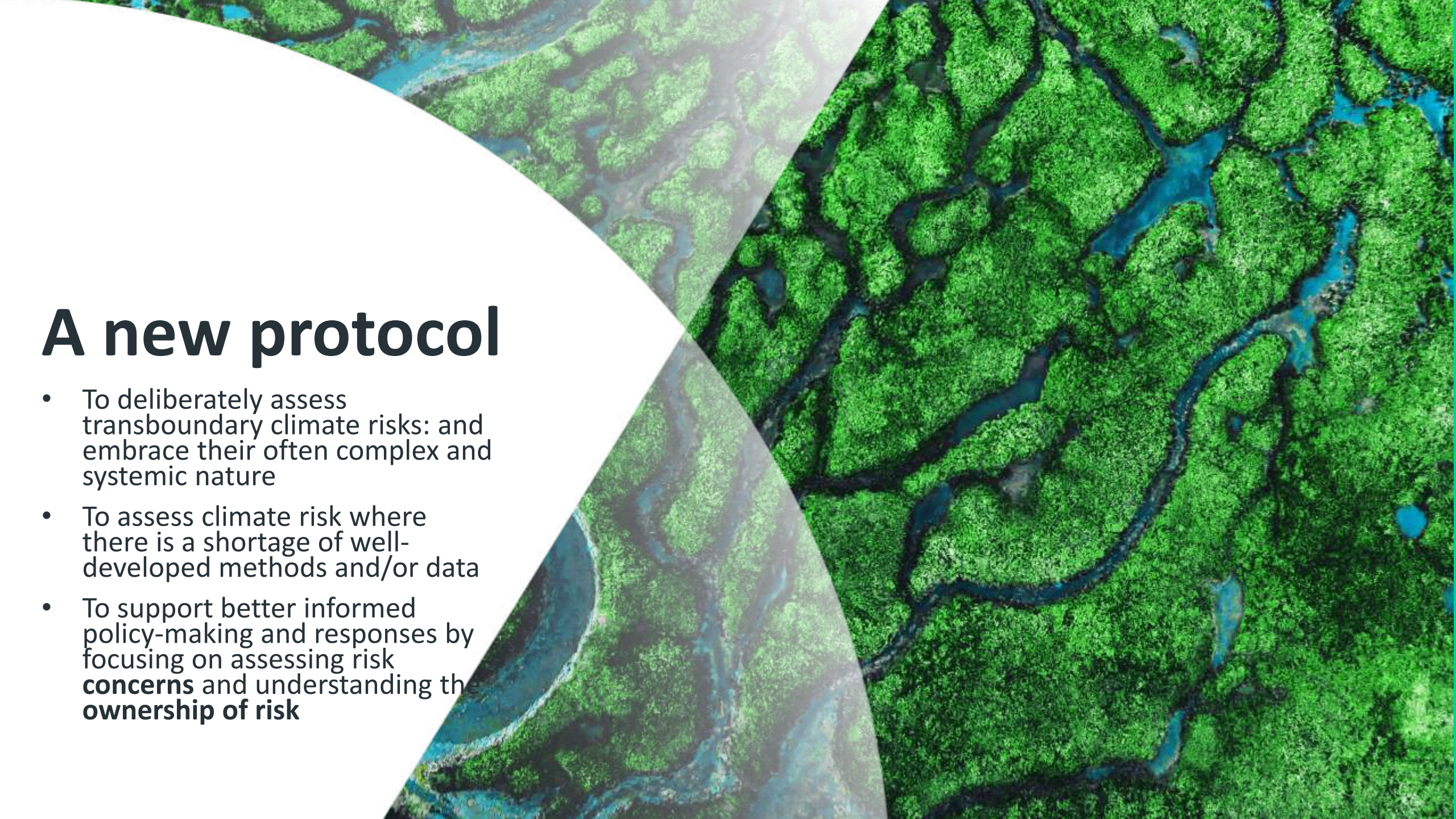
Figure 1: The impact chain framework, structure, components and elements (Source: GIZ and EURAC 2017)

Pro's:

- The innovative focus on risk drivers and the "cause-effect relationships" that define them
- The emphasis on a 'systems-first' approach
- The opportunities to distil "entry points" for adaptation responses that strengthen resilience at multiple points in a system
- The creation of a participatory and flexible process

Still wanting:

- Risk drivers as linear chains of impact
- Strong focus on standardised and indicator-based assessment
- Implied local and narrow definitions of system boundaries
- Limited applicability to fragmented governance landscapes



A new protocol

- To deliberately assess transboundary climate risks: and embrace their often complex and systemic nature
- To assess climate risk where there is a shortage of well-developed methods and/or data
- To support better informed policy-making and responses by focusing on assessing risk **concerns** and understanding the **ownership of risk**

The protocol

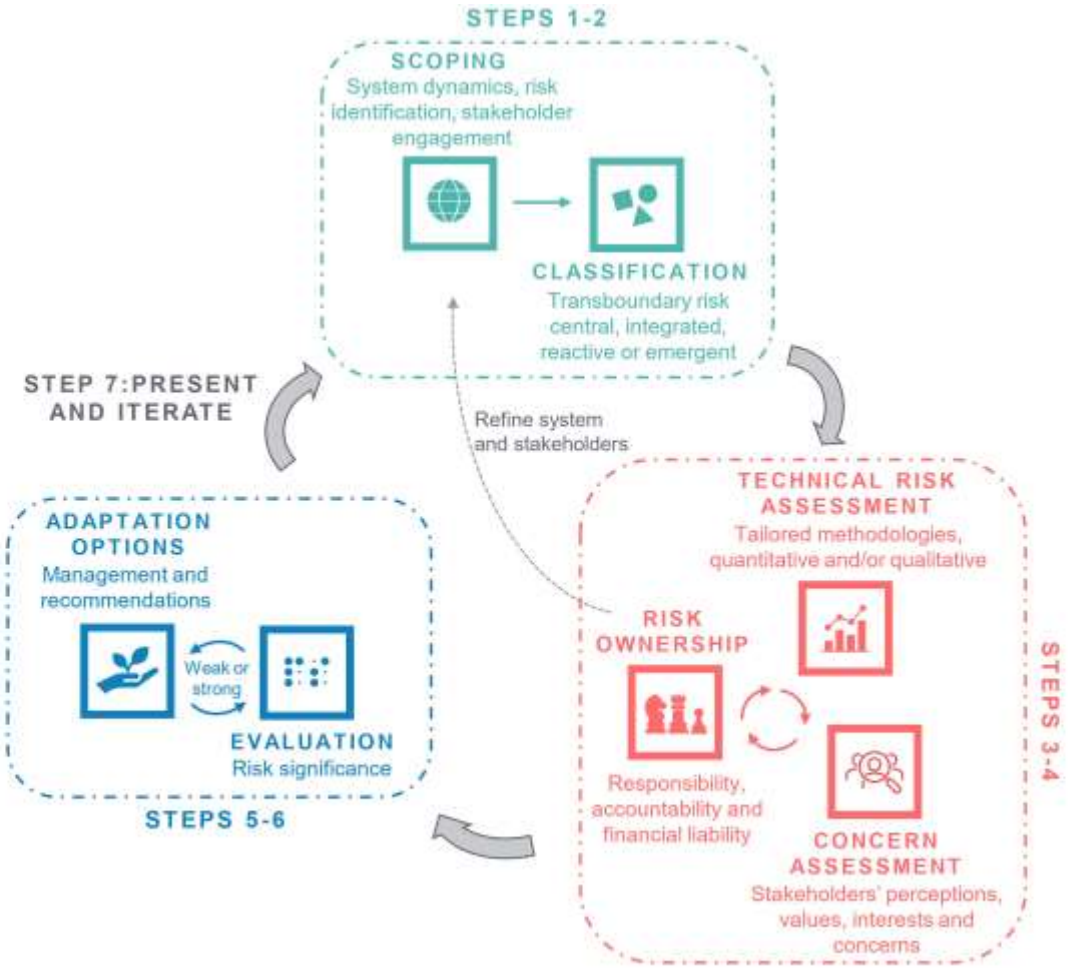
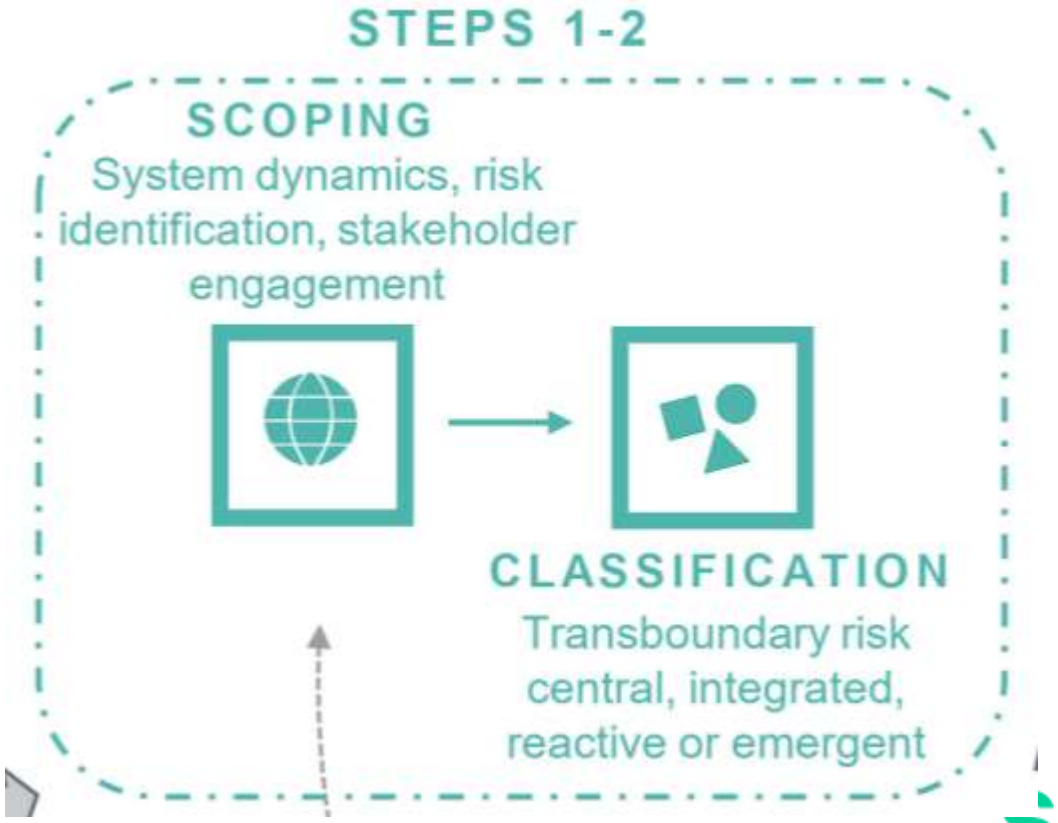


Figure 2: A protocol for case-study research on transboundary climate risk

Steps 1-2 Scoping and classification

- Define and characterise the system of concern and the boundaries
- Identify and engage stakeholders and considering risk ownership at an early stage
- Classify the nature of the transboundary component >>>



Classification

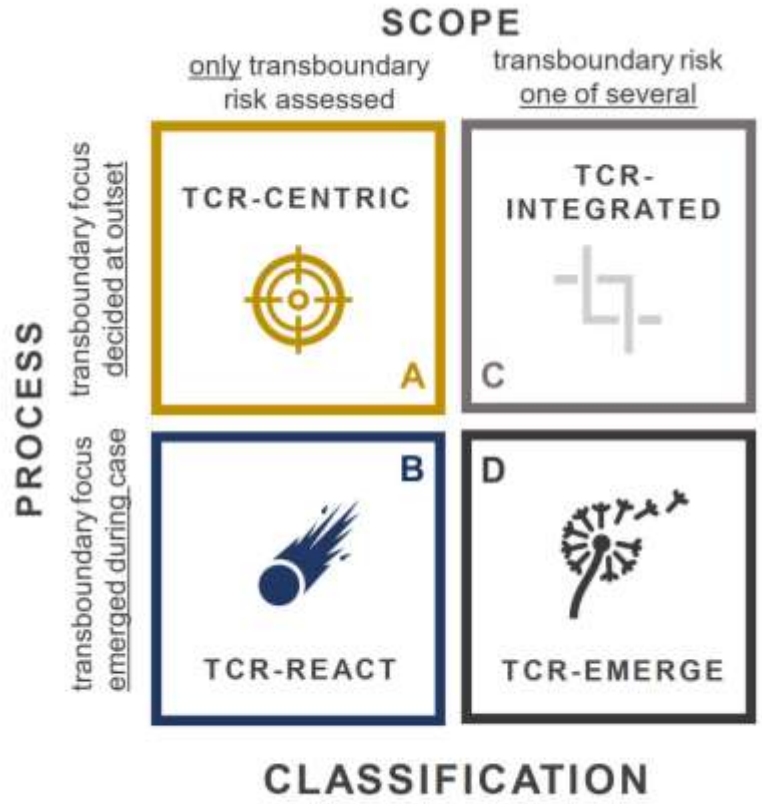


Figure 3: Case-study classification matrix

A: Transboundary centric

B: Transboundary reactive

C: Integrated

D: Emergent

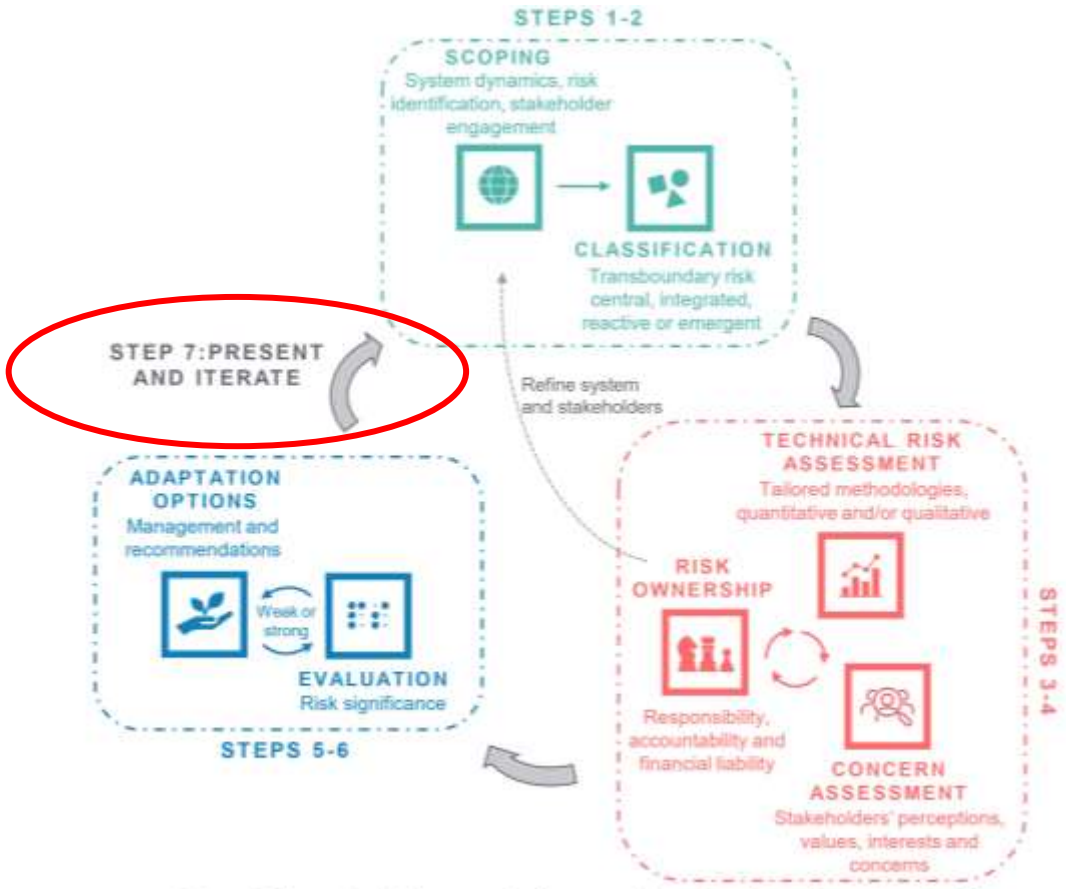
Steps 3-4: Risk assessment +

- Technical risk assessment
  - how exposed or vulnerable the system components are to the effects of climate impacts, and how likely they are to occur
  - Quantitative or qualitative
- Concern assessment
  - support the identification of second- or third-order drivers and effects through a system, as well as a vulnerability analysis of the risks revealed – for particular stakeholders or the system itself
- Risk ownership
  - Who **pays** for the risk, who **manages** (is responsible for) the risk and who is **accountable** for the risk?”

Steps 5-6: Evaluation and adaptation options

- Evaluation
  - Simple to advanced
  - Investigate “double exposure”?
- Adaptation options
  - How is the risk is managed (if at all)?
  - Are the owners of the risk in a position to implement measures to manage its effects?
  - generate adaptation options and recommendations

Step 7: Present and iterate



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Assessing transboundary climate risk:

- Requires a willingness to innovate and find alternative approaches where availability of data is scarce
- Assess Concerns as well as technical risk – key component
- Understand and address how these risks are managed, governed and owned

Thank you

frida.lager@sei.org; katy.harris@sei.org