



Workshop Knowledge-Action Network on
Emergent Risks and Extreme Events
Paris, ICSU
June 28, 2018



Knowledge Action Network on Emergent Risks and Extreme Events

[aka RISK KAN]

Motivation – Goals – Structure

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on behalf of the drafting team

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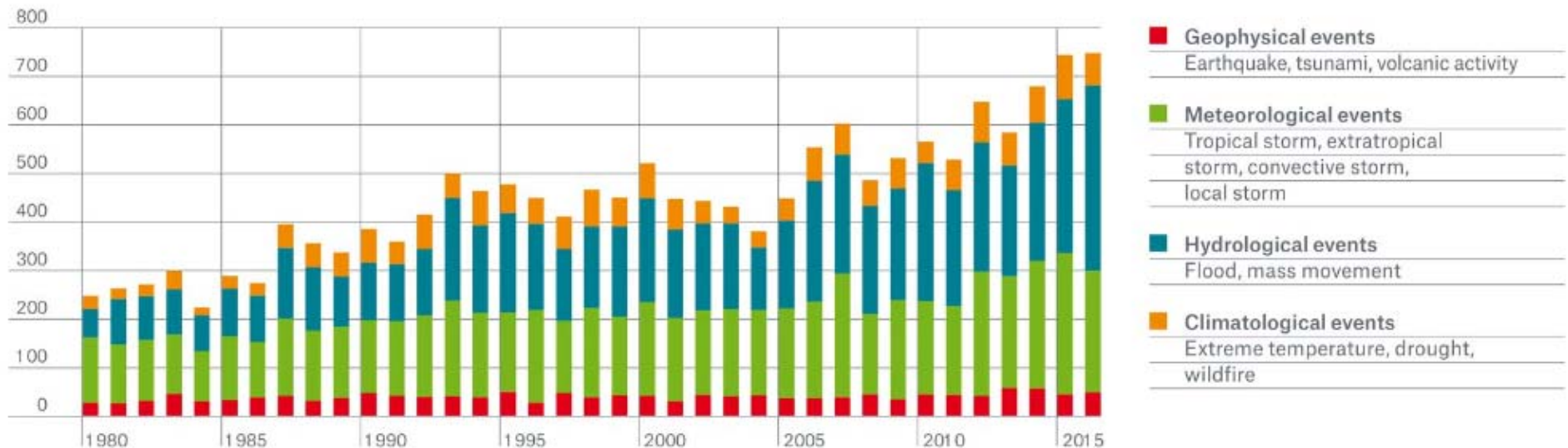


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Natural disasters and global environmental change



© Source: Munich Re NatCatSERVICE

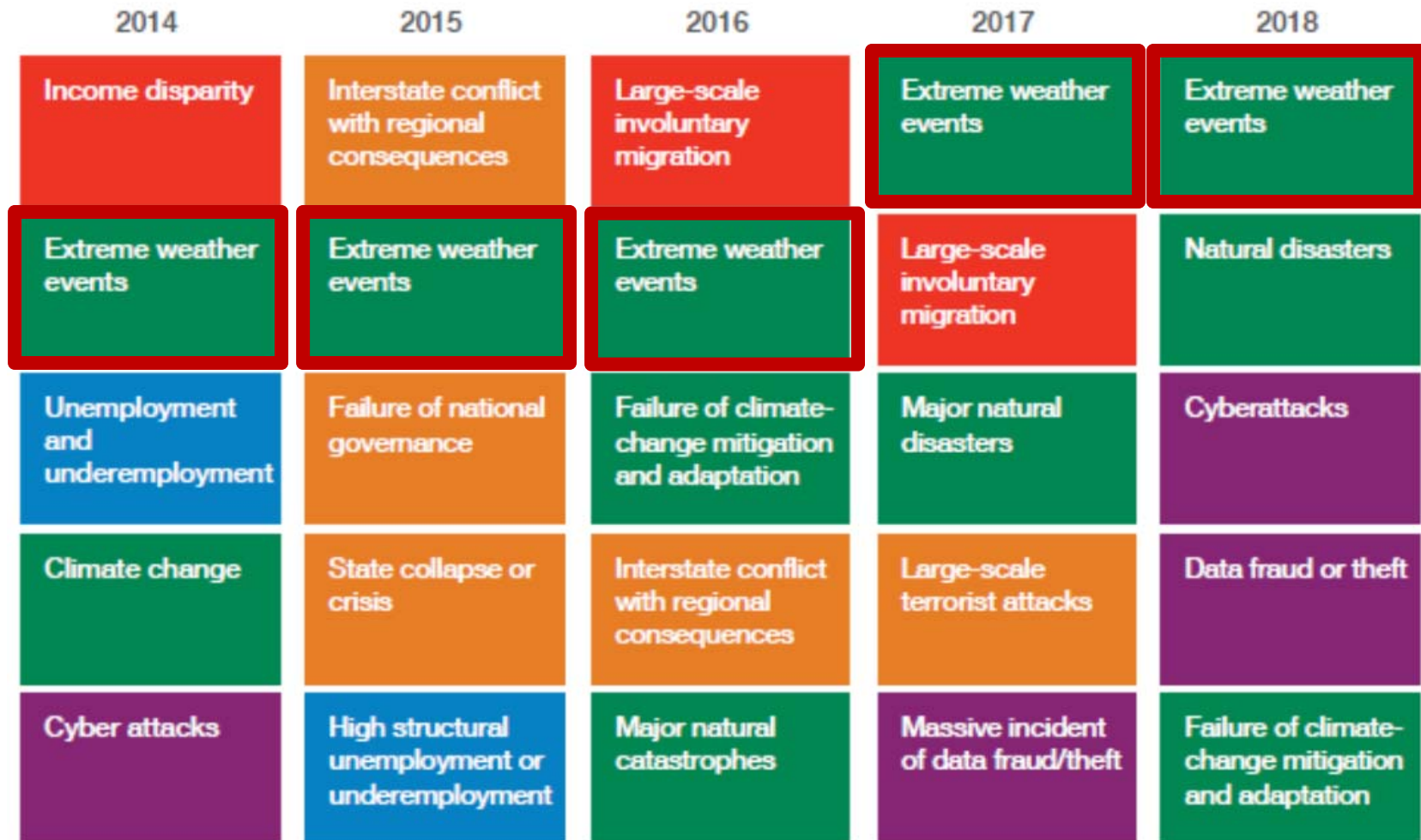
Number of loss events 1980-2016



MunichRe (2017)

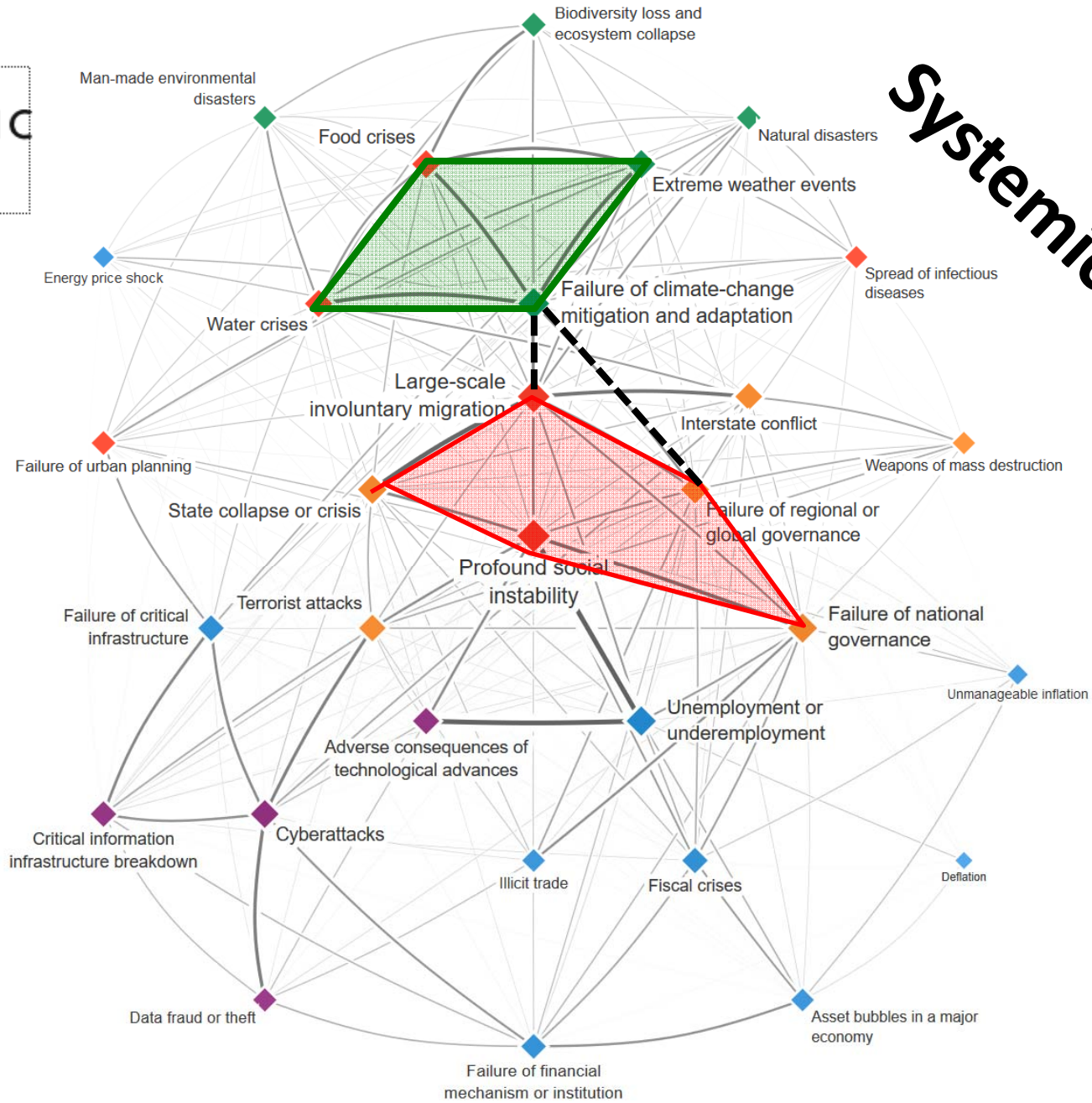


Perception of global risks





Systemic risks



<http://reports.weforum.org/>



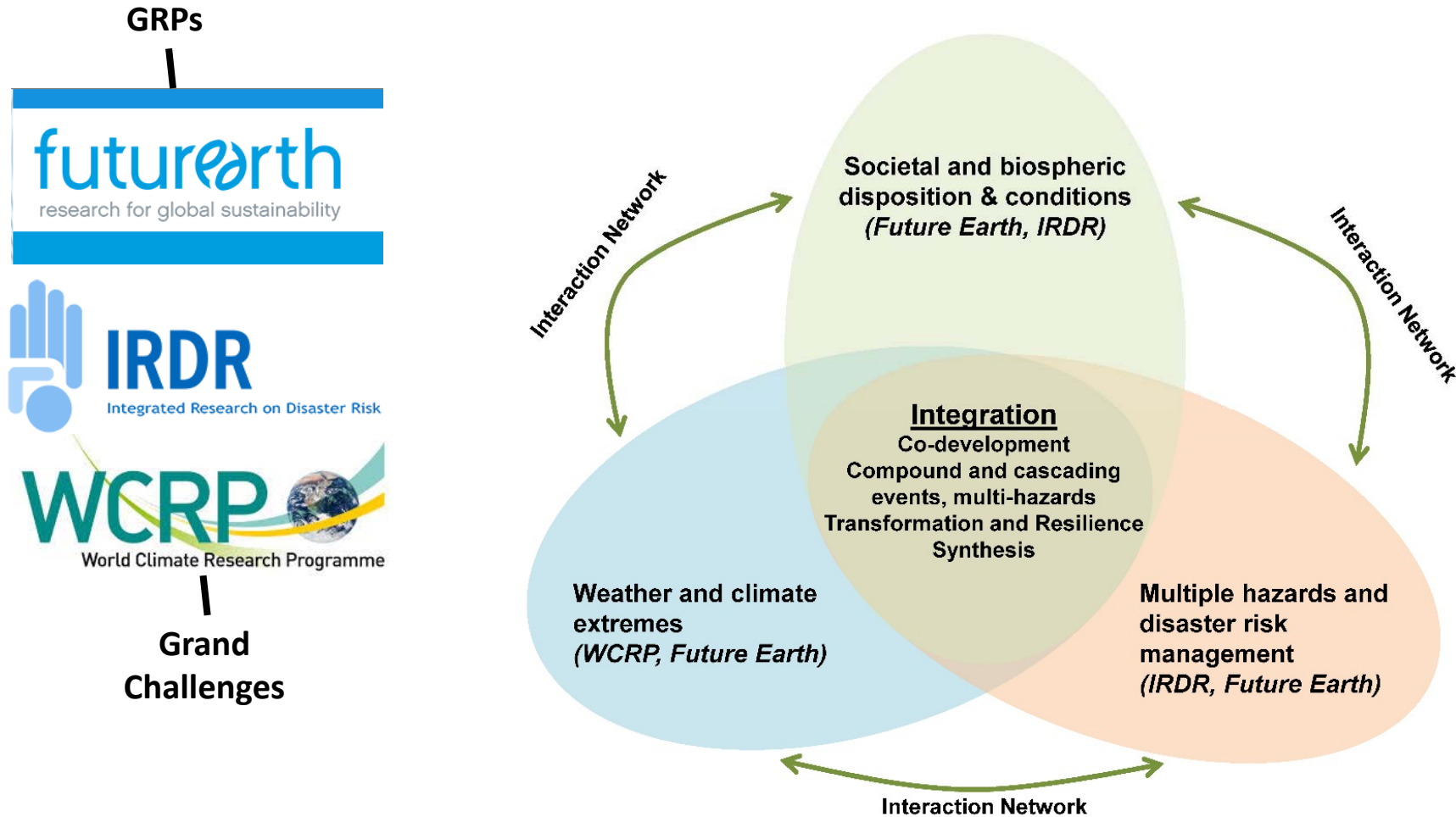
Emergent Risk definitions...

Emergent Risk I: A risk that arises from the interaction of phenomena in a complex system (~ “Systemic risk”)

Emergent Risk II: Risks that are poorly understood, but are expected to grow greatly in significance; do not have a track record which can be used to estimate likely probabilities and expected losses

Emergent Risk III: Stages of emergence (Hidden risk, Unclear risk, Societally assumed risk, fully emerged risk)

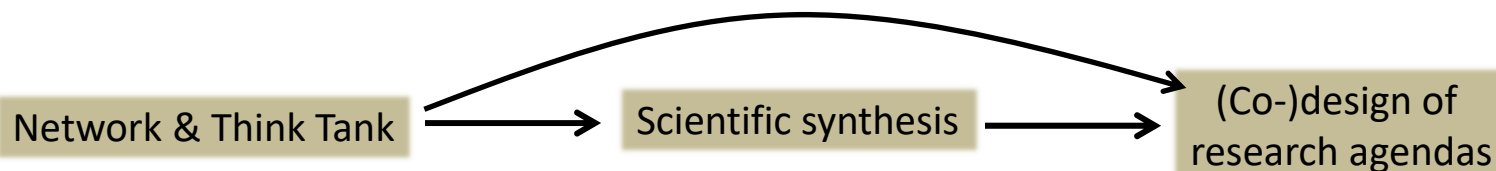
Knowledge-Action-Network on *Emergent Risks and Extreme Events*



Initial setting – open for new partners!



Goals of RISK KAN and first actions



E³S workshop Berlin 2016

Tokyo DRR meeting 2017

WCRP SC side event 2018

National working groups

Herrenhäuser conference 2019

Extreme climate events: enhancing societal resilience for reaching SDG goals



VolkswagenStiftung

100 k€, ~150 people

Sillmann et al. Book
Climate Extremes and
their Implications
across Sectors

...

e.g.

Belmont forum scoping
process on
Extreme events and
disaster risk reduction

Global Challenges
Research Fund (GCRF)

Sustainability Research
Germany (DKN, FONa)

...



Key questions

Which impacts are expected to be caused by extreme climate events including risks emerging from compound events and cascades of impacts and feedbacks across ecosystems, infrastructures and society?

What are key obstacles towards societal resilience across different sectors and SDGs, while facing climate extremes? (Data?, Knowledge?, Perception?, Governance?, Compliance?)

What local to global governance arrangements best support equitable and sustainable risk reduction?



Climate extremes (and other hazards)

Endanger

Strengthen
resilience



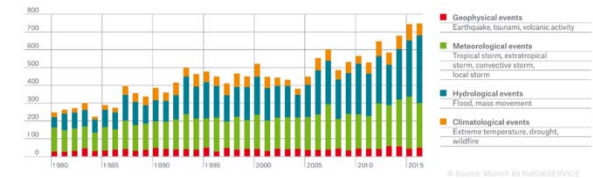
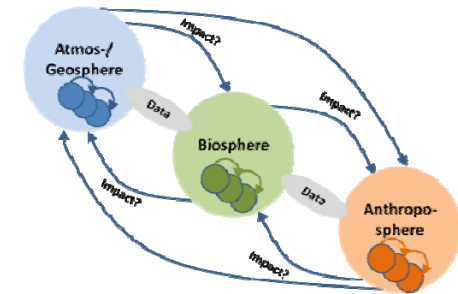
Sustainable development goals

Linking international agreements



Conclusion

- Emergent risks from climate extremes key threat to sustainable development
- KAN Emergent Risks and EE
 - Env change context
 - Climate related multi-hazard
 - Systems view linking physical, biological and societal sub-sys
 - Data- and concept-driven, evidence based
- Great synergy expected, uniqueness though joint effort



Number of loss events 1980-2016

