

Applying RRI in testing the TAIS

- RAISD Training
25-26 November 2020



SAPIRR

Systems Approach of Public Innovation and Responsible Research

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EU CHAPTER CoR-EU

RRI summarized as 'six keys' – the risk of 'box-ticking' approaches



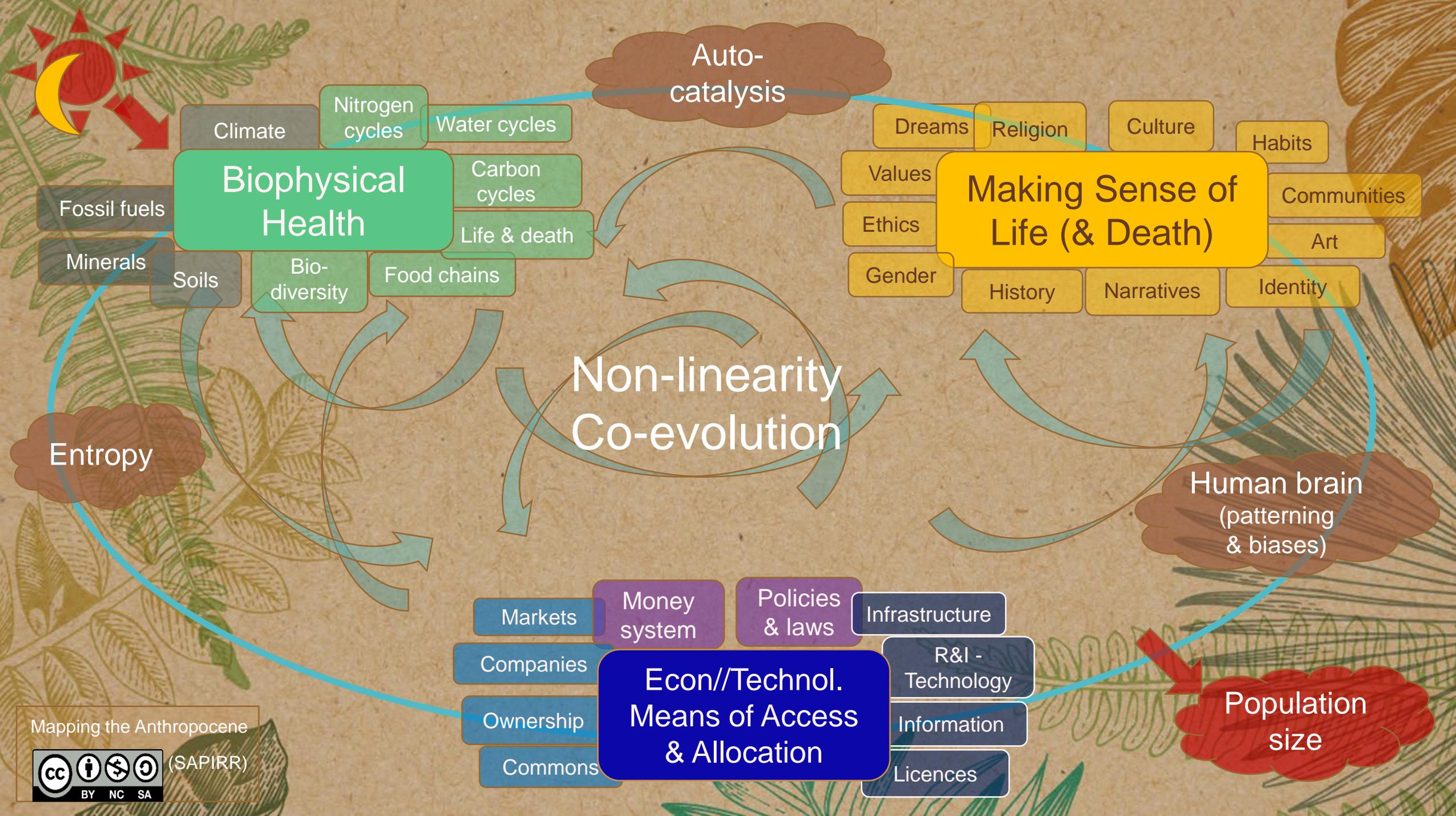
RRI KEY COMPONENTS

Different framings of RRI

Framing	Methodological framework	Select tools & policies
<p>Weak RRI: progress IN the canonised system</p>	<p>First knowledge (discipline-based, curiosity- driven) ↓ Then ethics (add-on criteria)</p>	<p>6 optional criteria</p> <ol style="list-style-type: none"> 1. Gender = count women 2. Educate = explain to citizens 3. Governance = policy briefs, prescribe solutions 4. Ethics = no cheating with data 5. Engagement = citizens collecting data 6. Open access = Gold standard publication
<p>Respond to anomalies OF the system (paradigm)</p> <p>(Responsiveness, Reflexivity)</p>	<p>First ethics: “what world do we want/dream?” (SDGs) ↓ Then knowledge: how do we get there together?</p>	<p>6 crucial conditions</p> <ol style="list-style-type: none"> 1. Gender = from competition to care 2. Education = a learning society 3. Governance = who sets the agenda? 4. Ethics = the justification for research 5. Engagement = contribute your piece of 6. Open Science = progress by sharing knowledge

Understanding anomalies (cf. mapping aid next slide)

- Specialist science controls variables (laboratory conditions) in an isolated domain, ignoring interdependency with other domains
- Innovations implemented in the real world affect other domains & creates feed-back (e.g. antibiotics resistance & superbugs)
- Domains are:
 - Biophysical processes (human life = air, water, food cycles, minerals...)
 - Narratives & values (how cultures give meaning to life & value nature)
 - Economic & technical processes (access nature to pursue a “good” life)
- If those 3 domains are in balance, humans keep co-evolving with the rest of nature (= sustainable life conditions)



Mapping the Anthropocene

(SAPIRR)



Strong RRI = learning from anomalies

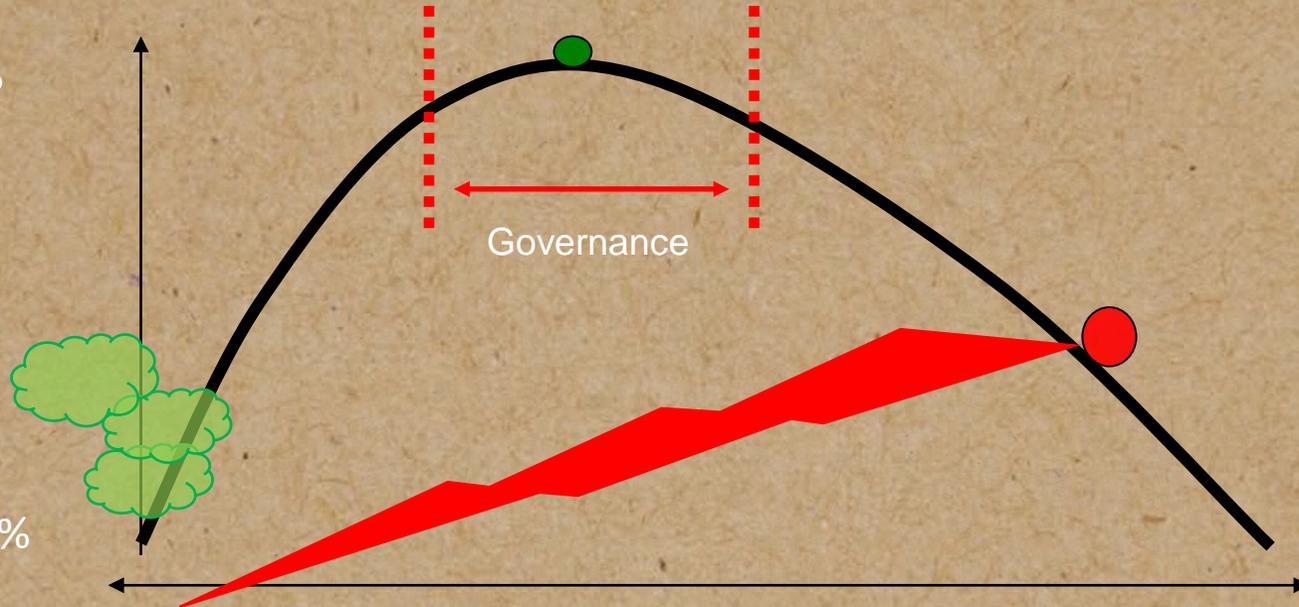
1. 21st century problems are *non-linear, multifaceted, complex* (yet canonised science is one-dimensional & linear)
2. *Anomalies* reveal errors in R&I framing
 - a) Antibiotics for more health → antibiotics as health risk
 - b) Women's rights for emancipation → women's abuse
3. *Zoom out*: what & whom did we overlook/exclude?
 - a) Antibiotics: economy, politics, psychology, mutations, water...
 - b) Women's rights: ↔ men's competitive framing (rebound effect)
4. *Reframe* the research
 - a. Redefine the goal so it can be shared by all
 - b. Map all the actors that can contribute to the goal (incl. money)

Sustainable/Responsible systems in evolving contexts

Sustainability

100%

0%



Resilience Niches
Diversity & connectivity
60%

Ascendence - Regime
Streamlining, monoculture
40%

(Source: Ulanowicz et al, 2009)

SDGs as an integrated, non-linear agenda (requiring RRI)

