



CENTRE FOR THE STUDY OF
EXISTENTIAL RISK

How does ParEvo compare to other futures exploration tools?

Dr Lara Mani

CEDIL Webinar 6th April 2022

Research aims

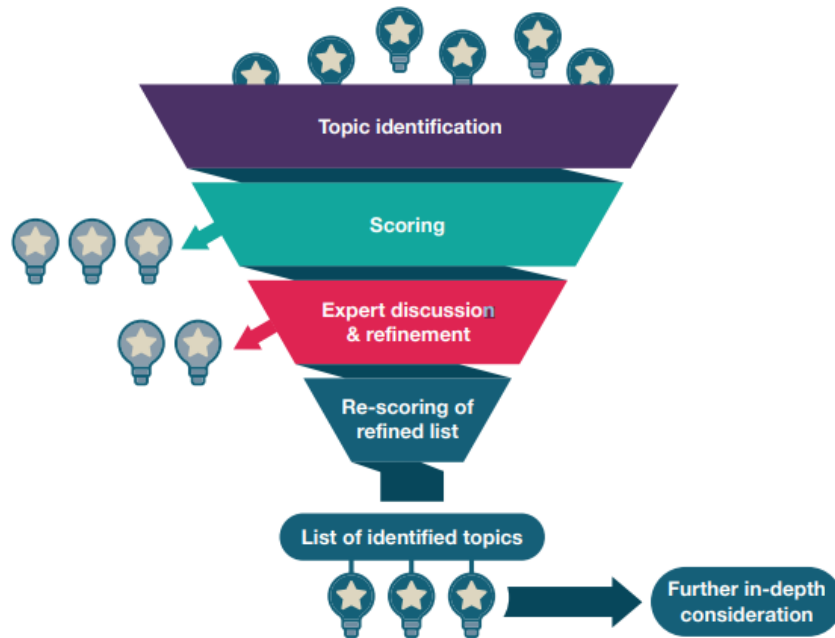
Evaluate the effectiveness of ParEvo as a tool for futures exploration

- What kinds of futures can ParEvo produce and how do they compare to other futures exploration tools?
- How realistic and likely are they?
- What is the impact on the participants for engaging in ParEvo?
- How might ParEvo be used to explore possible futures for other HILP risks?

CSER's futures work

Horizon Scanning

- Using the Investigate Discuss Estimate Aggregate (IDEA) protocol
- Mainly applied to biosecurity (Luke Kemp)



FEATURE ARTICLE



POINT OF VIEW

Bioengineering horizon scan 2020

Abstract Horizon scanning is intended to identify the opportunities and threats associated with technological, regulatory and social change. In 2017 some of the present authors conducted a horizon scan for bioengineering (Wintle et al., 2017). Here we report the results of a new horizon scan that is based on inputs from a larger and more international group of 38 participants. The final list of 20 issues includes topics spanning from the political (the regulation of genomic data, increased philanthropic funding and malicious uses of neurochemicals) to the environmental (crops for changing climates and agricultural gene drives). The early identification of such issues is relevant to researchers, policy-makers and the wider public.

LUKE KEMP*, LAURA ADAM, CHRISTIAN R BOEHM, RAINER BREITLING, ROCCO CASAGRANDE, MALCOLM DANDO, APPOLINAIRE DJIKENG, NICHOLAS G EVANS, RICHARD HAMMOND, KELLY HILLS, LAUREN A HOLT, TODD KUIKEN, ALEMKA MARKOTIĆ, PIERS MILLETT, JOHNATHAN A NAPIER, CASSIDY NELSON, SEÁN S ÓHÉIGEARTAIGH, ANNE OSBOURN, MEGAN J PALMER, NICOLA J PATRON, EDWARD PERELLO, WIBOOL PIYAWATTANAMETHA, VANESSA RESTREPO-SCHILD, CLARISSA RIOS-ESPINOZA, DEBORAH SCOTT, ALA, ROBERT DJ SMITH, GWYN UTTMARK, BONNIE C WINTLE, IRLAND*



Emerging trends and technologies: a horizon scan for global public health

CSER's futures work

Role playing games – *Intelligence Rising*

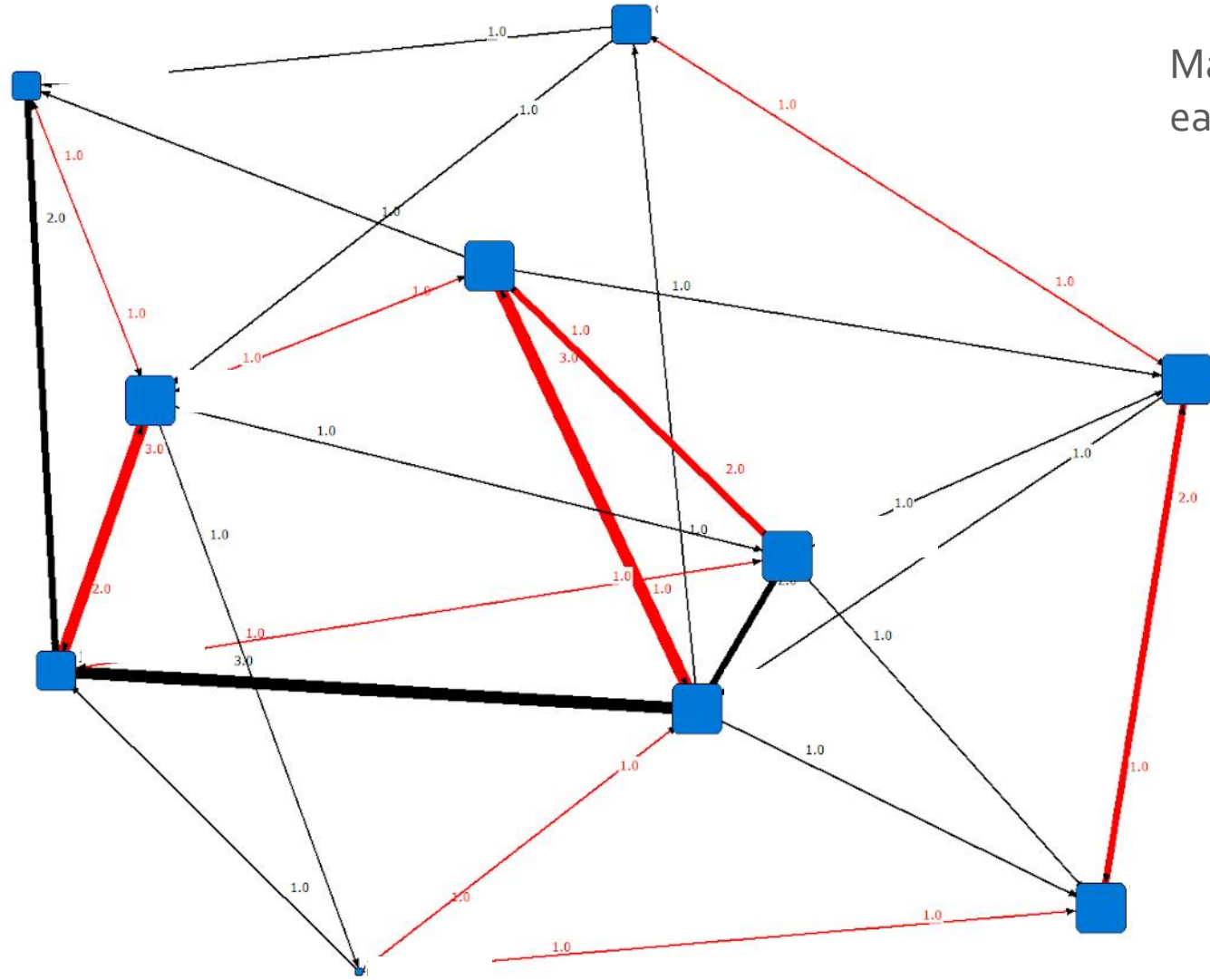
- Exploring **possible pathways and futures** for artificial intelligence
- People play country actors or tech companies and seek to develop AGI or CAIS systems – but they must develop ethical research too to enable safe deployment.
- Played with leading AI development companies, students, EA groups, some corporate clients.



Why ParEvo?

- A method to adopt **creativity** to futures
- **Applicable across a range of disciplines** that come under the bracket of existential and global catastrophic risk.
- **Improved participant engagement** during the process
- Participation is **anonymous**
- It produces **multiple possible future pathways**, where some scenarios just produce one.
- Enables an evaluation of the outputs but also of participation in the process.
- The **data output** is incredible – provides data on content, levels of interaction between participants and rankings of surviving storylines.

Participant engagements

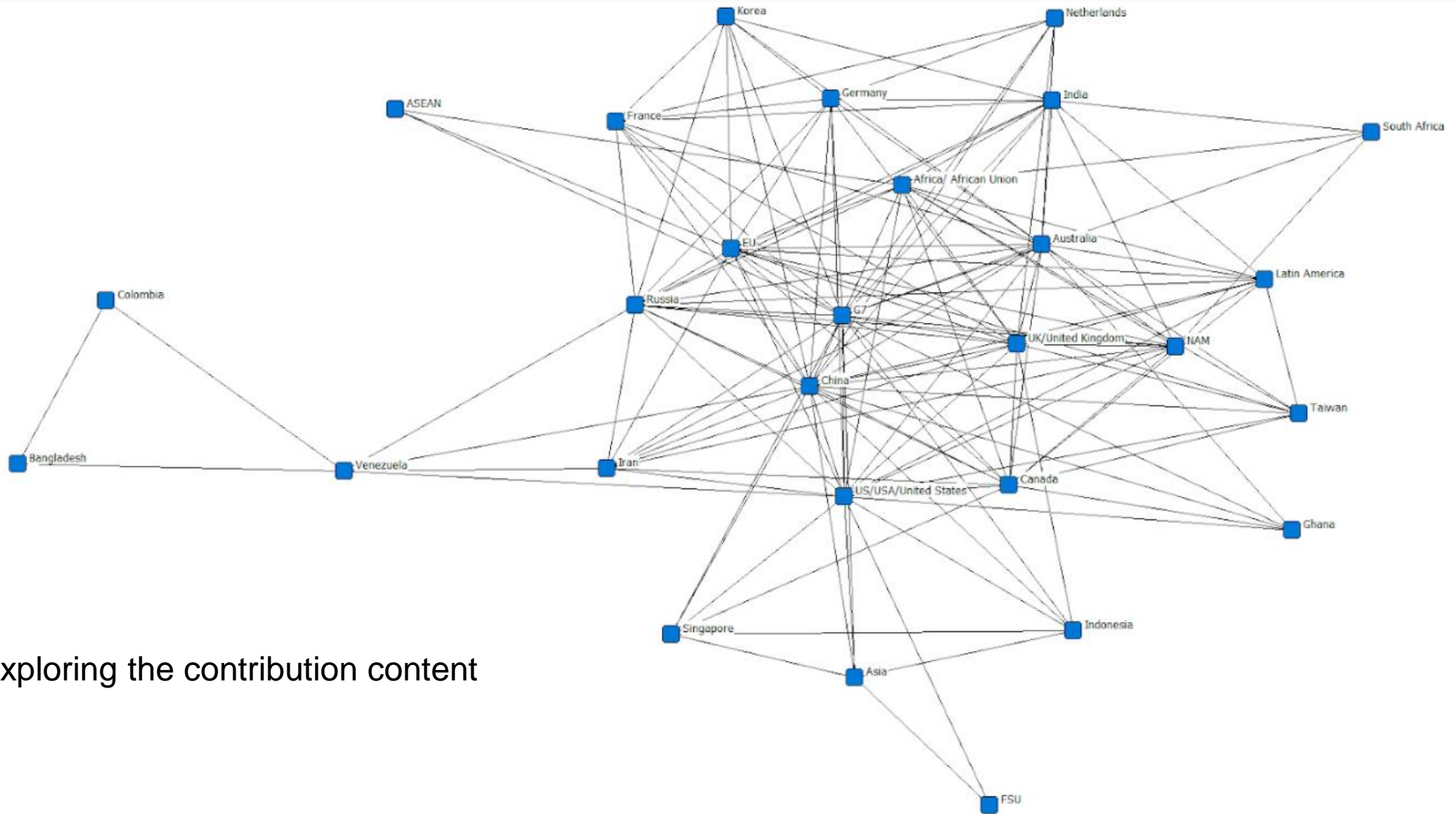


Mapping of how participants interacted with each others storylines.



Red – Reciprocated contributions

Network content analysis



Exploring the contribution content

Evaluating the CSER BioSec exercise

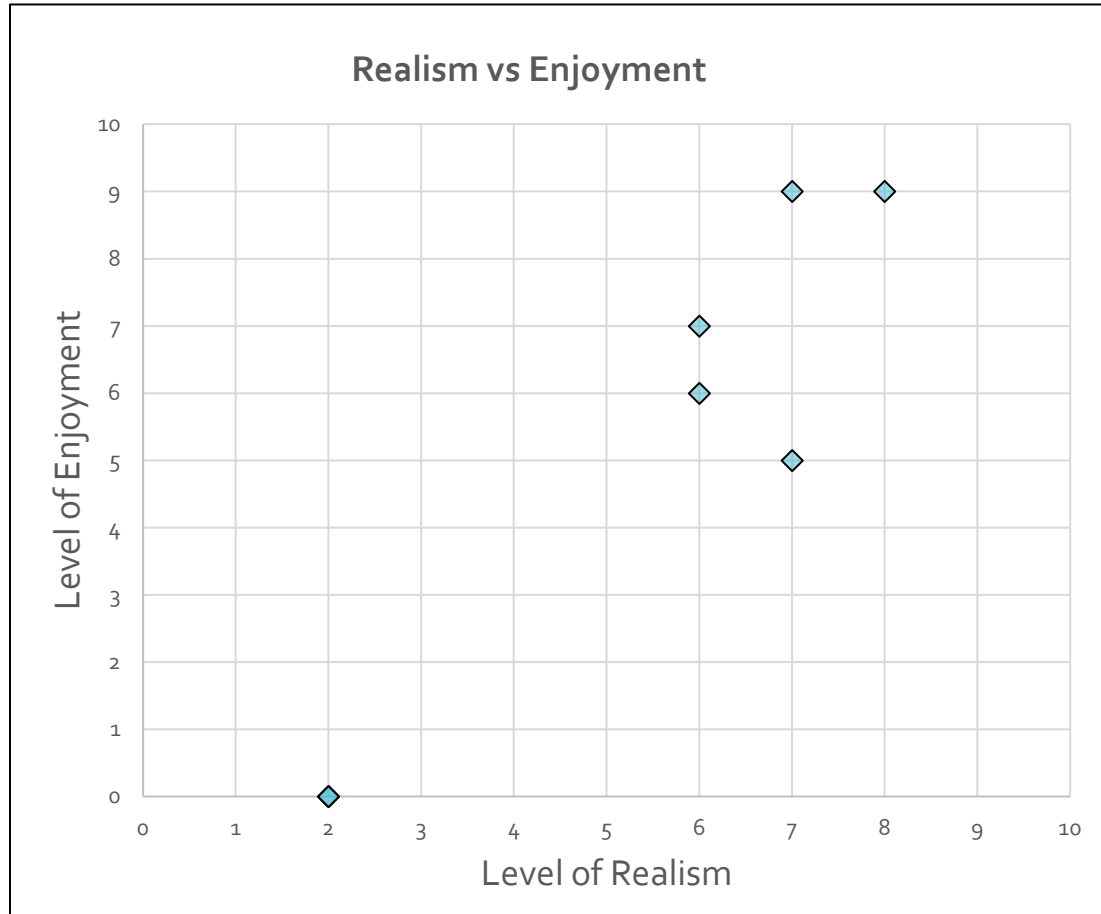
A mixed-methods approach to data collection:

1. Post-exercise LL/ML LD/MD widget for ranking storylines
 - Providing an initial assessment by participants on the quality and plausibility of the storylines produced.
2. Post-exercise survey
 - Exploring how people approached the exercise and assessing potential impacts on participants themselves.
 - 7/11 responses
3. Two focus groups
 - The first time participants were revealed to each other.
 - Discussing the content of the storylines and reflections on participating in the exercise.
 - 10/11 participants
4. Semi-structured interviews
 - A deeper dive into impact and storyline content

Realism and enjoyment

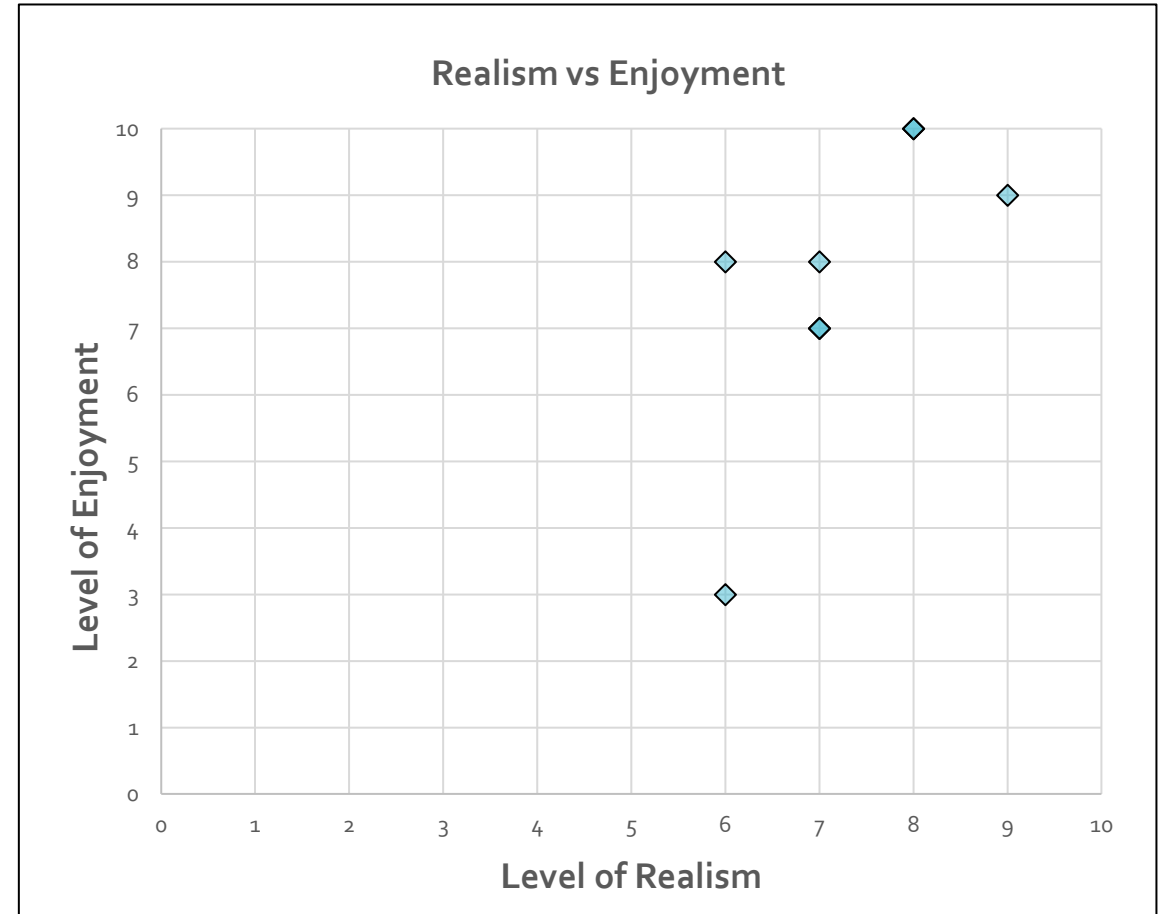
- As the perception of realism in the scenario increases, so too does the level of enjoyment.
- This also translates into improved learning gains and longer-term impacts and behavioural changes.

Where N = 7



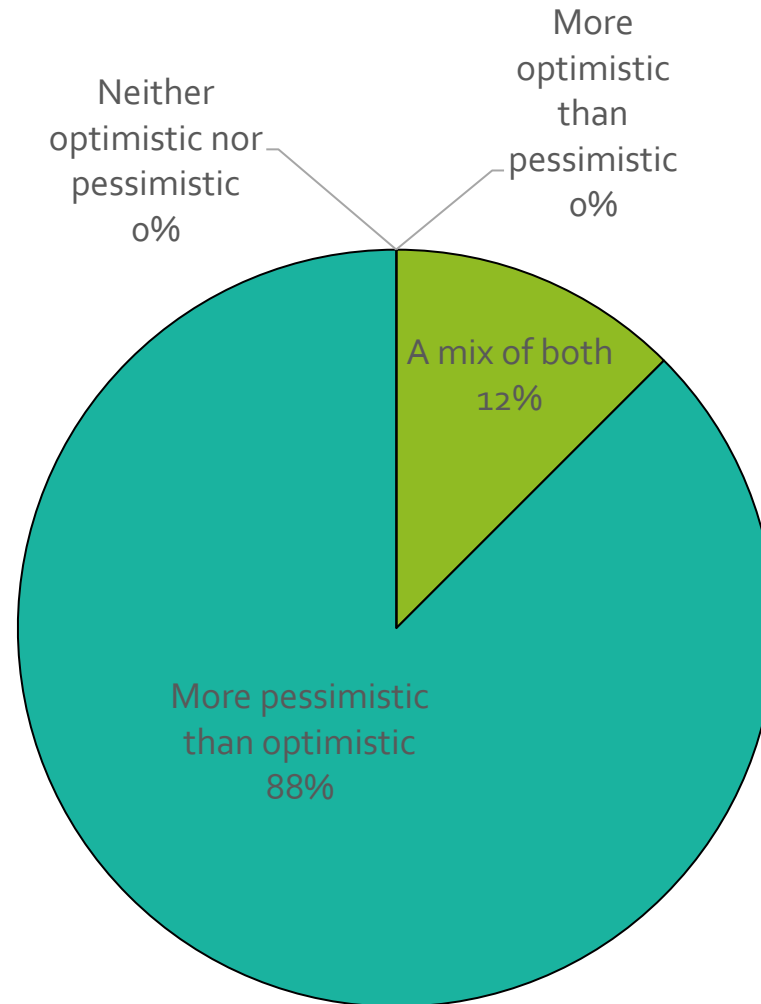
Average Enjoyment - 6.0/10 (7.2)
Average score on realism – 5.4 / 10

Intelligence Rising



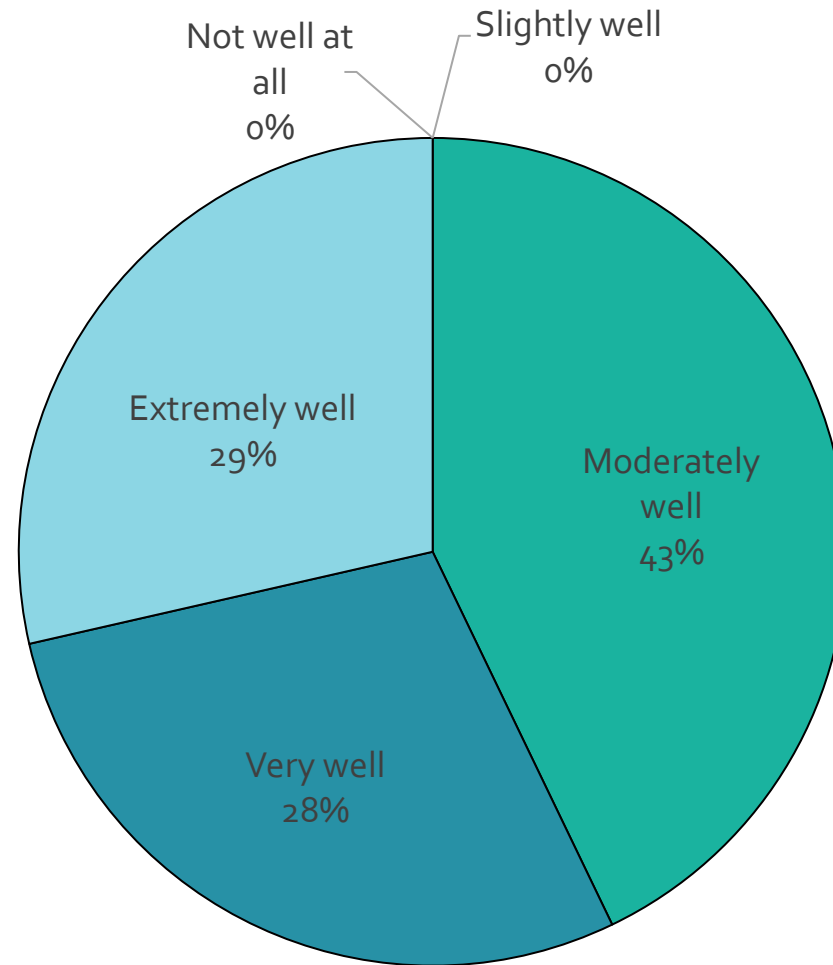
Overall tone of the surviving storylines?

To what extent would you say that overall the tone of the surviving storylines is either optimistic or pessimistic?



Using expertise to inform storylines

How well were you able to use you expertise to inform the storylines?



Storyline selection criteria

Please can you explain how you decided which storyline to iterate?

Participants could iterate just one storyline each round and were able to iterate any storyline, including their own.

"I choose the storylines with the highest plausibility"

"I had a self-imposed rule that I never contributed to a storyline that I have contributed to in the last round."

"I eliminated those that I did not find credible or felt I could not add to"

"Sometimes it was advancing the storyline to the next logical iteration and other times I took the storyline in a different direction – either more optimistic of pessimistic"

Participant impact

As a result of participating in this exercise, do you feel that you learnt anything?

"Yes; It has reminded me to take a broader view. I need to read a wider range of papers etc."

"Nothing profound but good reminder of the range of stakeholders affected by biorisk governance, the inadequacy of current international fora, disruptive role of geopolitics, and low likelihood of breakthroughs in this area anytime soon."

“[It] is a little bit more creative than the work we usually do, which is very analytical and kind of, you know, boring ... But overall, I mean, I would recommend this type of exercise. And I could see its utility across a lot of different kinds of areas. So, I'm a fan!”

Early conclusions

How does ParEvo compare to other futures exploration tools?

- **Engagement** of participants is high and they thoroughly enjoy participating – we had 80/88 possible contributions.
- Narratives produced are **diverse and rich** in content – produced 11 future scenarios from 4 initial contributions.
- Participants mostly opted for **pessimistic futures**.
- Participants said it **widened their view** on emerging issues in the field.
- The process is **significantly simpler than other elicitation tools** (Delphi) and takes less time to complete.
- The data analysis can be challenging - **narrative analysis**.
- The **anonymity of the process** enables participants to explore futures in a safe environment, without feeling judged.
- **Difficult to managing conflicts** within the process – use of commentator and facilitator tools.