HOW DO EUROPEAN POLICIES SHAPE NATURE-SOCIETY INTERACTIONS? INTRODUCING THE MAGIC APPROACH

MAGIC NEXUS

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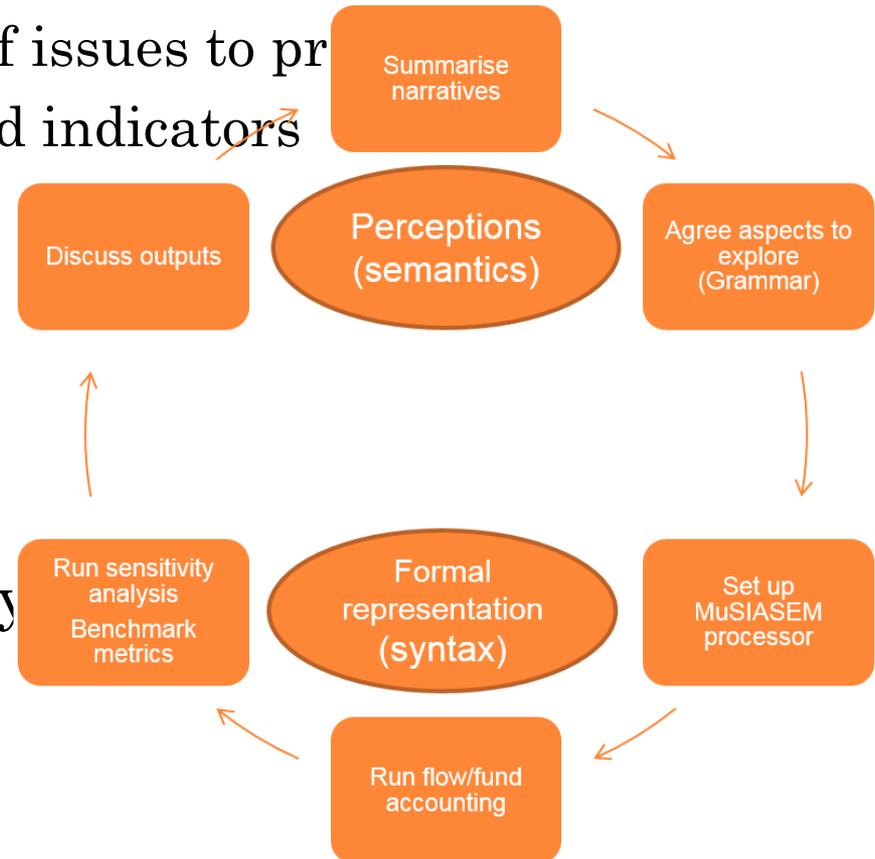European Commission Joint Research Centre

WHAT IS MAGIC?

- H2020 project: "Moving Towards Adaptive Governance in Complexity: Informing Nexus Security"

- How do EU policies shape the management of socio-ecological systems?

- In terms of 'Water-Energy-Food Nexus' = WEF nexus

- Runs 2016-2020: check www.magic-nexus.eu for updates

HOW DOES MAGIC DO THIS?

- Uses 'Quantitative Story-Telling'
  - Stories or narratives about situation, problems and solutions
    → qualitative 'grammar' of issues to pr
  - formal representations and indicators
    → quantitative syntax

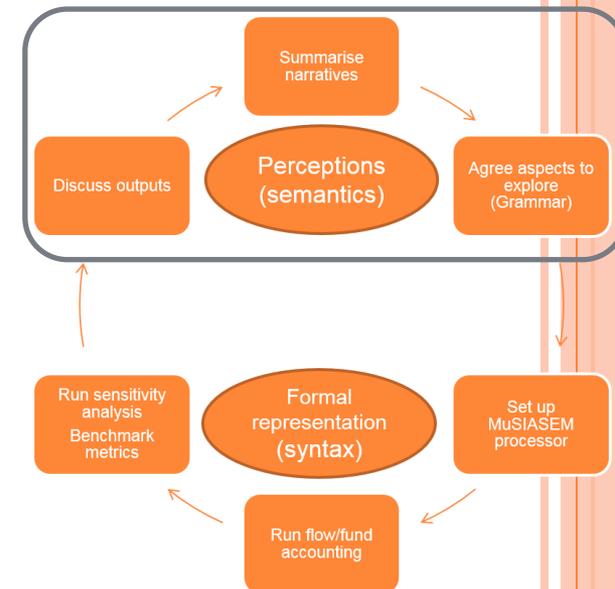- Mixes disciplinary skills to elicit and quantitatively represent stories

Summarise narratives

Discuss outputs

Perceptions (semantics)

Agree aspects to explore (Grammar)

Run sensitivity analysis
Benchmark metrics

Formal representation (syntax)

Set up MuSIASEM processor

Run flow/fund accounting

HOW DOES MAGIC DO THIS?

- Focus on case studies
  - 5 sets of EU policies
    - WFD, Natura2000, Energy Strategy, Circular Economy Strategy & Common Agricultural Policy
  - 5 innovation case-studies
    - i.e. Fracking, GMOs, Bio-fuels, Desalinisation and PES

- Focus of this talk
  - Focus on what we know from eliciting stories
  - Focus on policies
  - Based on 31 interviews & policy document analysis

NARRATIVES ABOUT INTERACTIONS

1. Society-nature interactions & key trade-offs

2. If and how polices shape trade-offs

NARRATIVES ABOUT INTERACTIONS

1. Society-nature Interactions & key trade-offs

- Environment versus economy – viewed as trade-off

  "of course the biggest tension... it's about the economy and environment" Agr_A

- Contrasts with official documents and new concepts

  "Working with nature, rather than against it, can further pave the way towards a more resource efficient, competitive and greener economy"

  DG Env introduction to Nature Based Solutions at
  https://ec.europa.eu/research/environment/index.cfm?pg=nbs

Narratives about Interactions

- Trade-offs between different 'green' goals

  "regarding how we are using water to create energy, hydropower for example, we are facing serious problems now, right now, with bigger power plants which are causing the degradation" Wat_A

NARRATIVES ABOUT INTERACTIONS

- Trade-offs between different actors or sectors

   We have to connect with the environment, we have to connect with food, we have to connect with energy, we have to connect with Trade…" CC_A
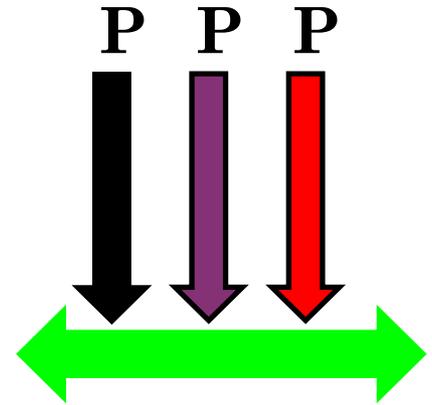
- Trade-offs between member states

   "it's not only about facts there are interests involved and that kind of thing…. …member states looking for alliances with other member states" Agr_B

NARRATIVES ABOUT INTERACTIONS

2. How do policies shape trade-offs?

- Increasing push for policies to consider others' goals..

  "we are at the moment uh...reaching out of our silos" Agr_A

- …but not all see it happening

  "...in theory there are all these groups of DGs working together right now at the level of the Commission. This is not really visible: at least that's my...experience." Agr_C

NARRATIVES ABOUT INTERACTIONS

- CAP is key…

    "the basic link between…many DG Environment Directives and the Common Agricultural Policy comes from cross compliance. Because they have come to rely on the Common Agricultural Policy to enforce their policy" Agr_C

    …but gives priority to agricultural livelihoods

    "agricultural activity is an activity that touches on many issues….trying to say that is has to be simpler then is translated to saying 'don't bother us with the Water Directive'. Yeah come on…. you are causing serious environmental problems" Env_A

NARRATIVES ABOUT INTERACTIONS

○ Society's expectations and behaviours

"there could be some [new] types of community practices …changing the behavior of consumption" Ener_A

○ Pre-existing interests and past priorities

"when you have a very solidly established policy and you come and you adjust a little bit, you obviously immediately walk on the feet of established interests" Env_A

Therefore current policy mix may not encourage balanced consideration of trade-offs from human-nature
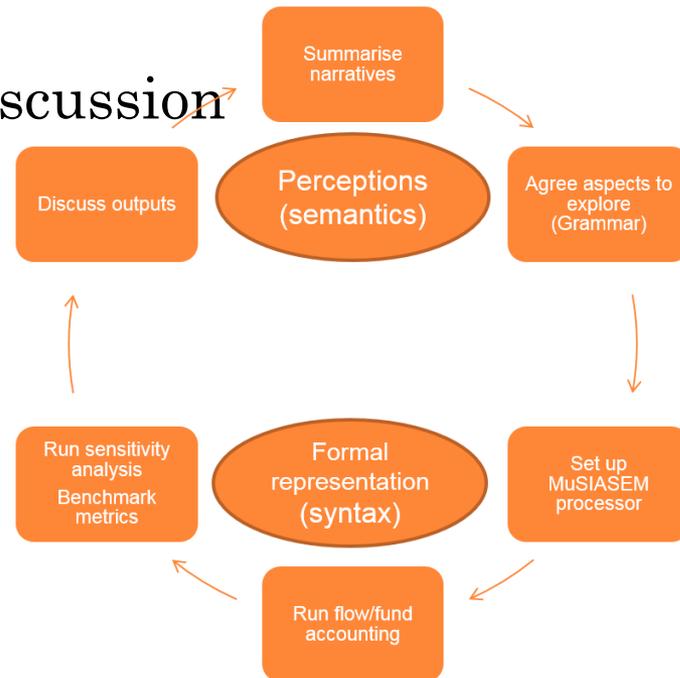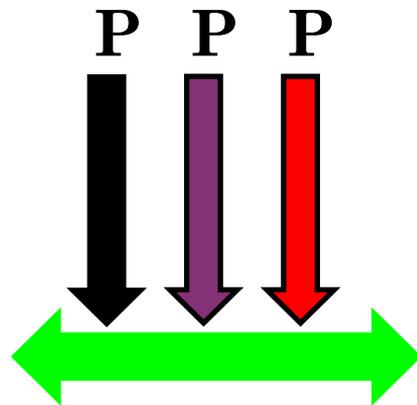
SUMMARY

- Agreement that policies need to consider connections between issues

- Exposes challenges to doing so

- Highlights varied views
  - i.e. Which connections are most important

- Narratives in policies may not necessarily match those of involved individuals

Conclusions

- QST as a strategy to help resolve trade-offs?

  ✓ Does not take for granted problems to be resolved
  ✓ Can highlight & contrast implications of different narratives
  ✓ Allows for reflection and discussion

P   P   P

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- Role of scientists?

  - ? (How) will we balance stakeholder relevance & scientific credibility?
  - ? How to handle overt conflicts between different views and sources of knowledge?
  - ? 'Scientists' also influenced by and influence process?

- In early stages: watch this space!

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