



Faculty of Design

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Disciplinary Convergence in Scientific Collaboration: Using storytelling as a research integration mechanism

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Disciplinary Convergence in Scientific Collaboration

using storytelling as a research integration mechanism



12/31/2022

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OF TWENTE.

TU/e EINDHOVEN
UNIVERSITY OF
TECHNOLOGY

NEON
research



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Topic: *Experiencing energy and mobility transitions*

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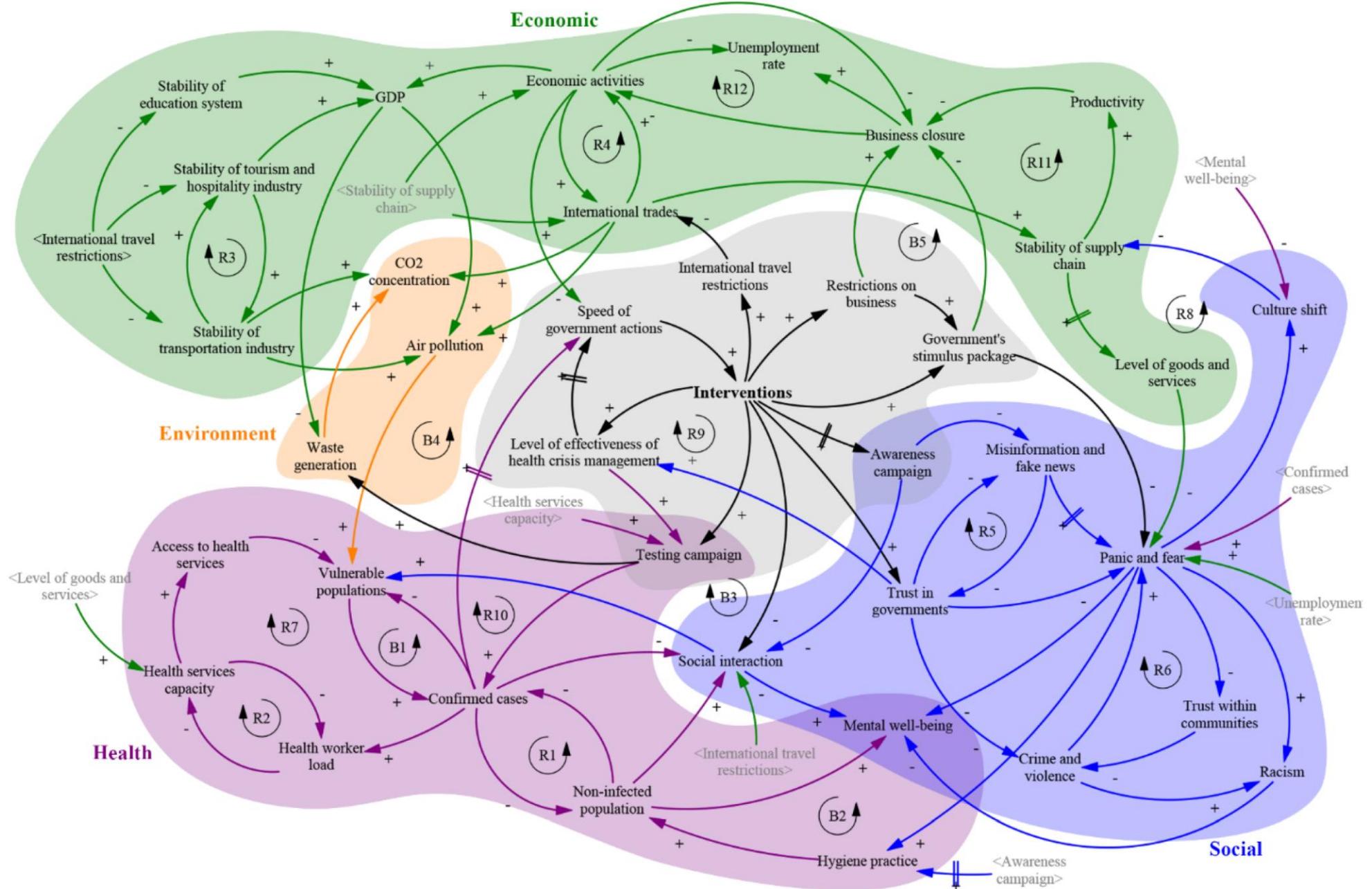
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Wicked problems

And how to solve them



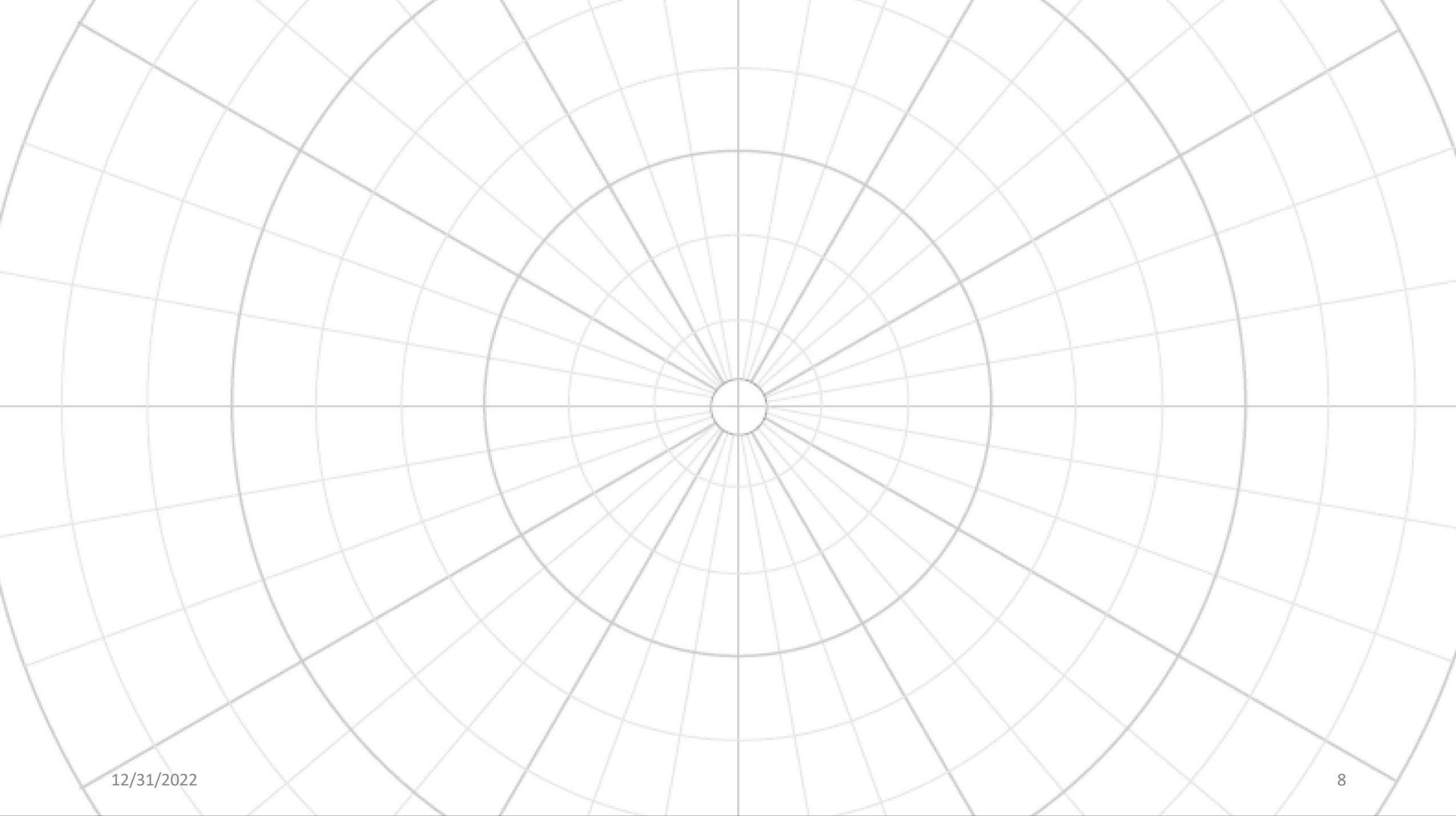


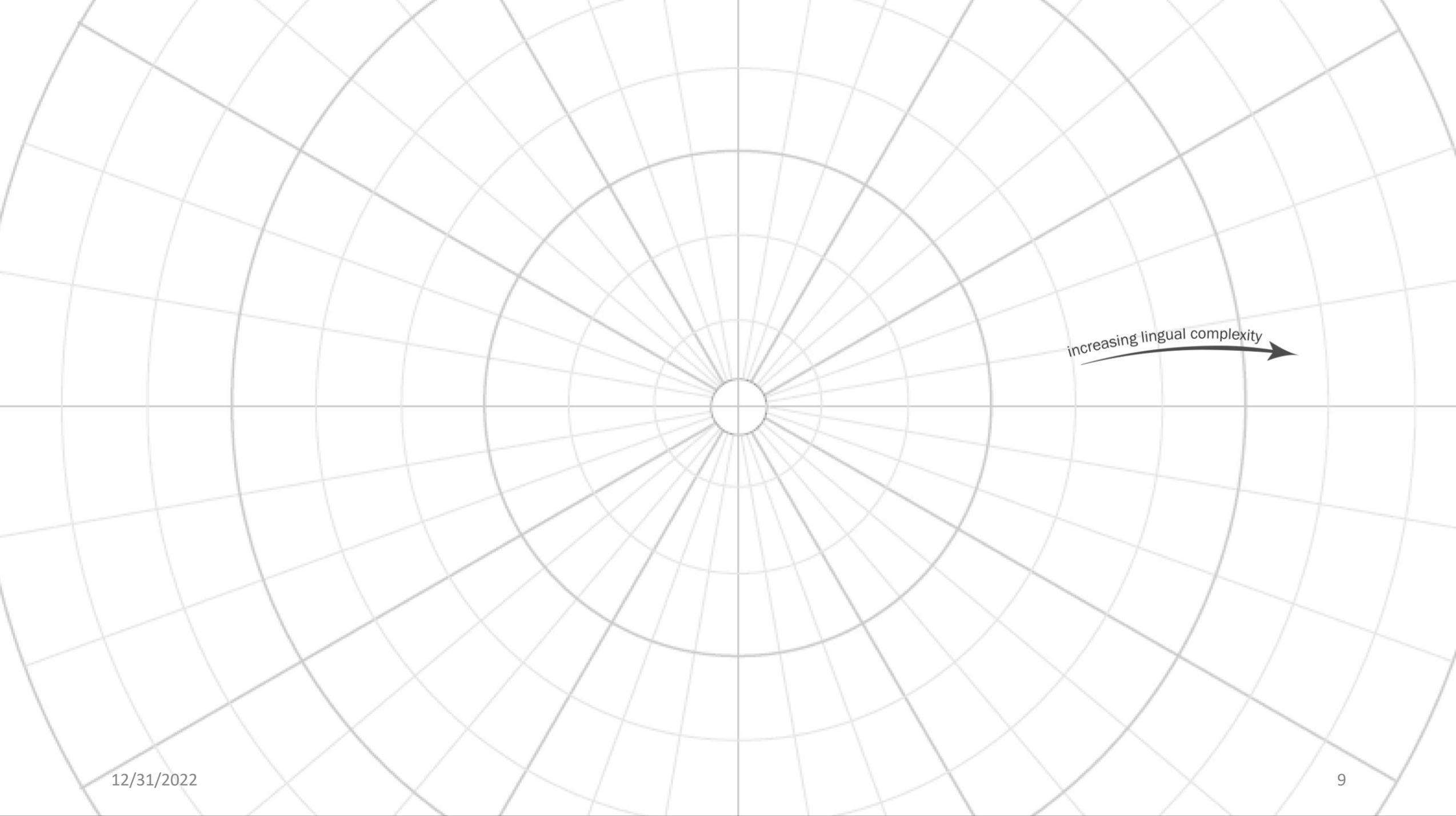
Wicked problems...

Can't be solved by research limited to a domain

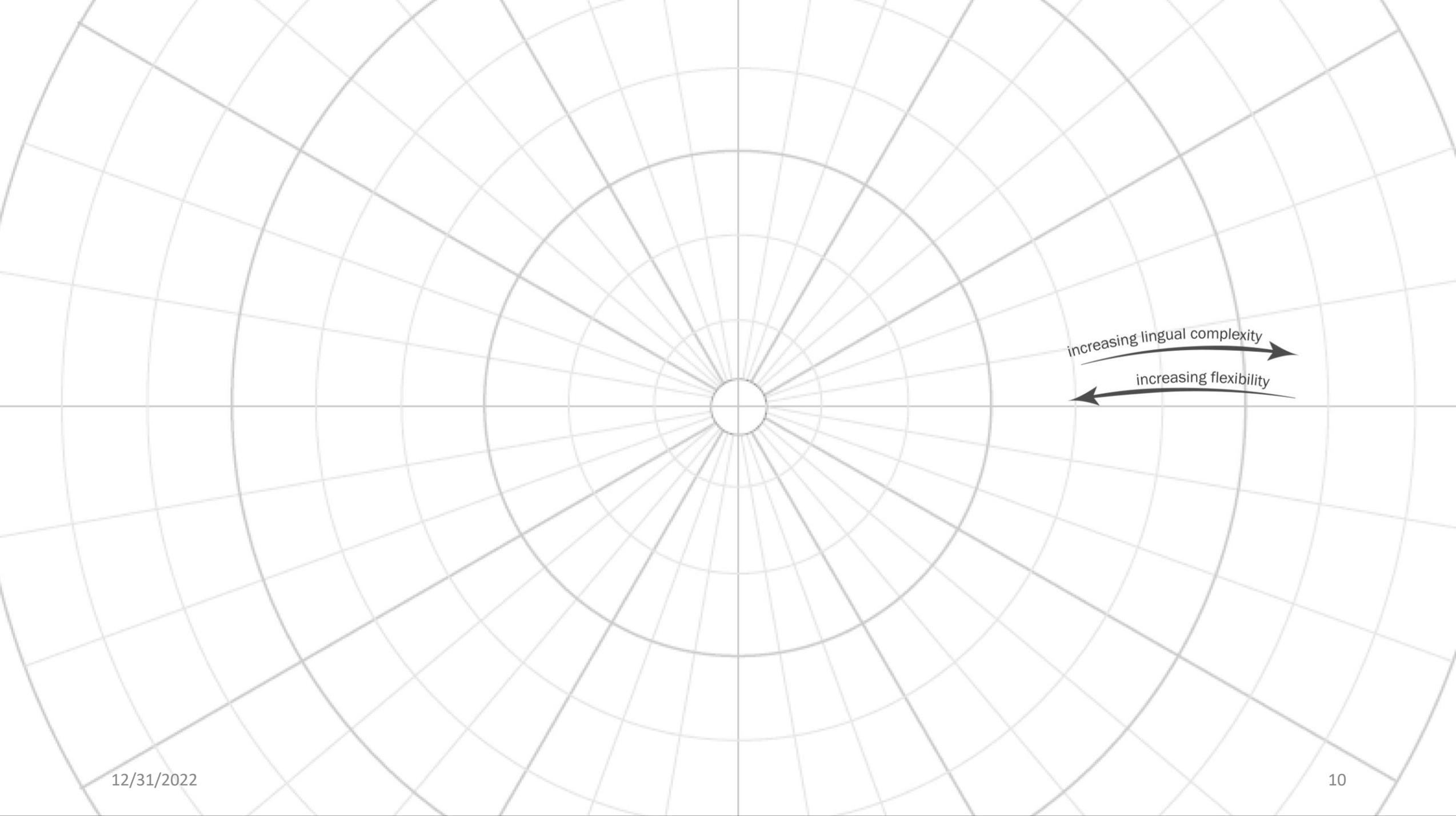
Require cross-disciplinary collaboration

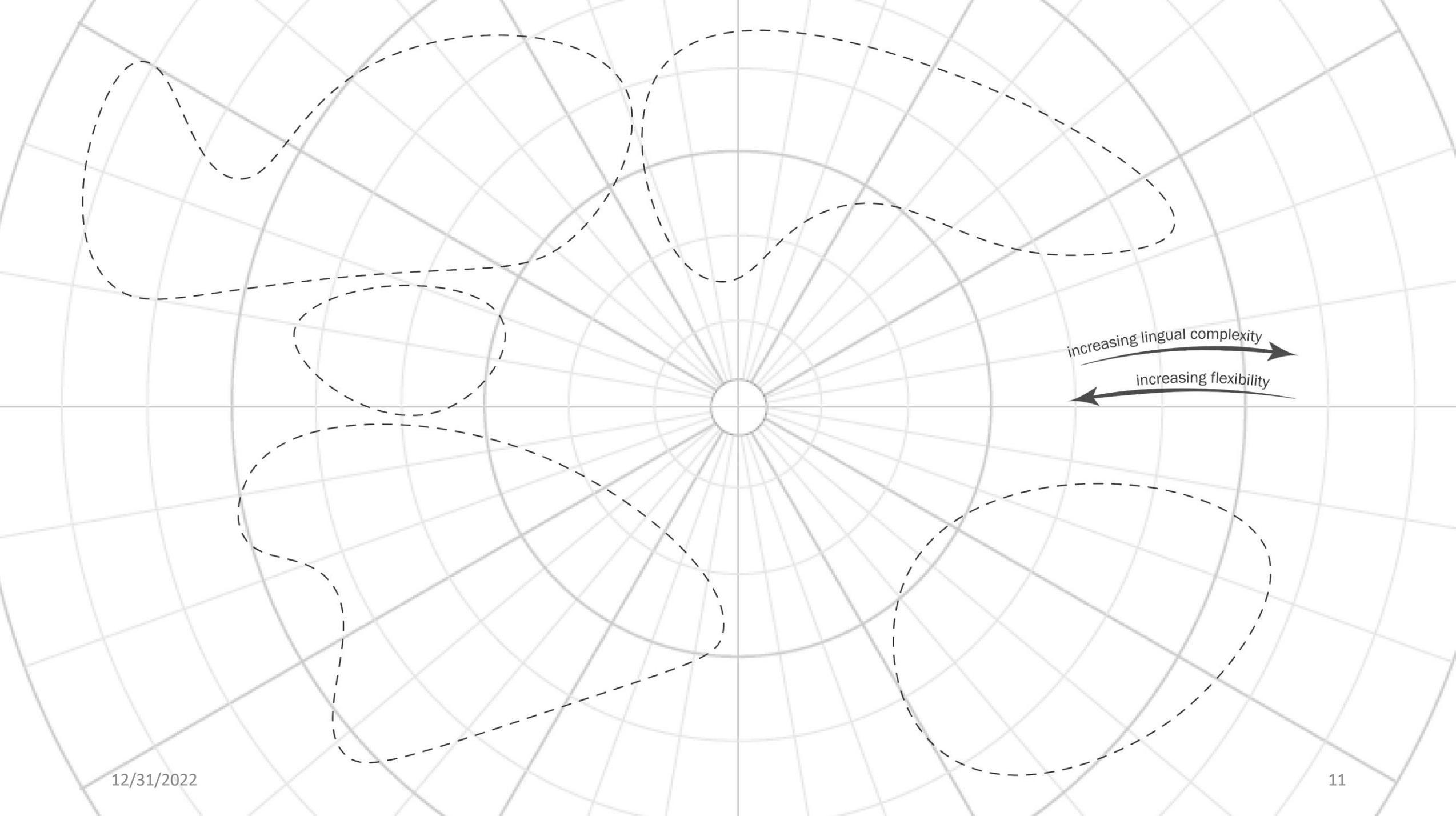
Scientific collaboration has become challenging due to increasing abstraction and specialisation in its fields (Weingart, 2010)

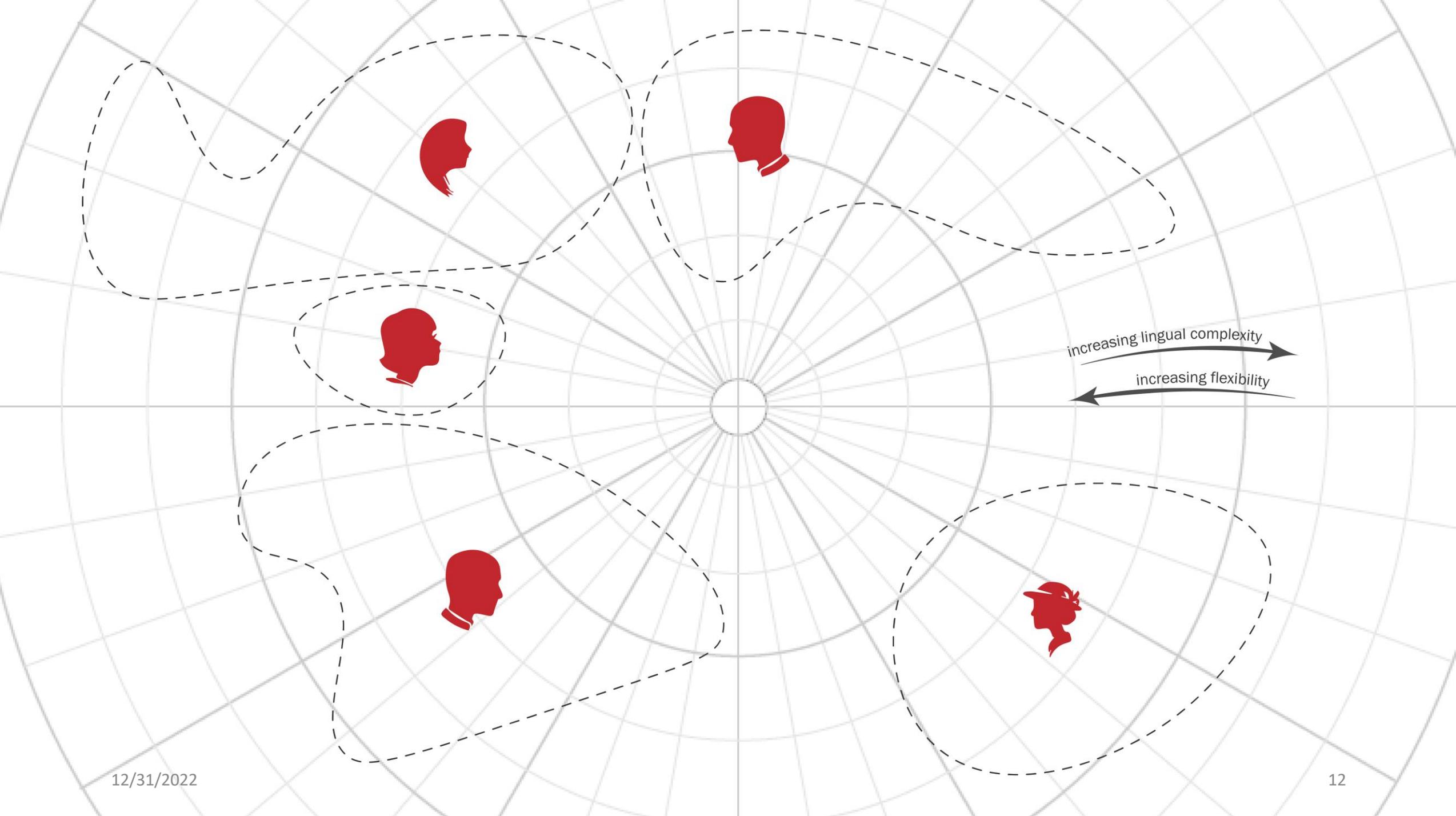


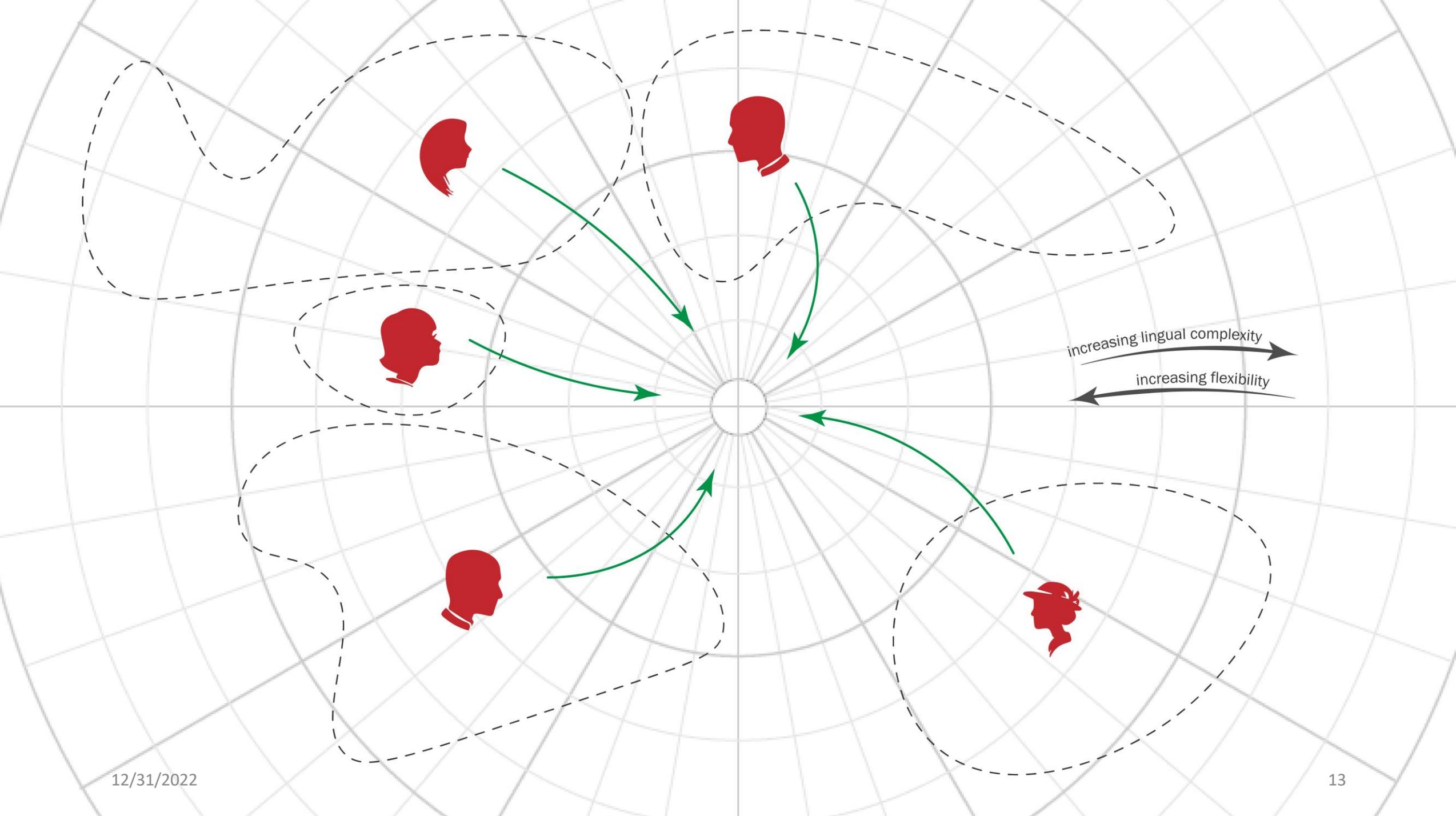


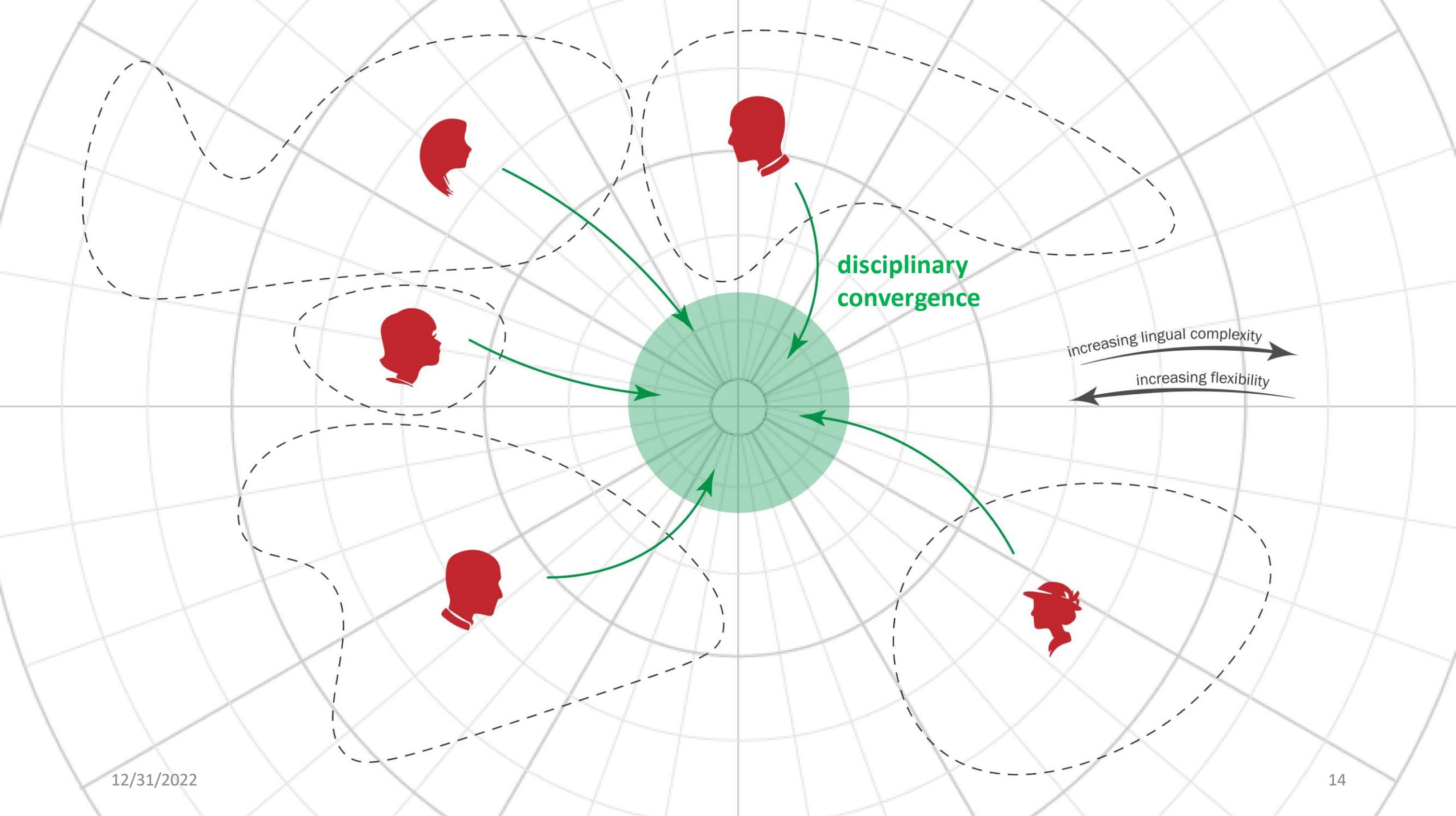
increasing lingual complexity →











**disciplinary
convergence**

increasing lingual complexity →
← increasing flexibility

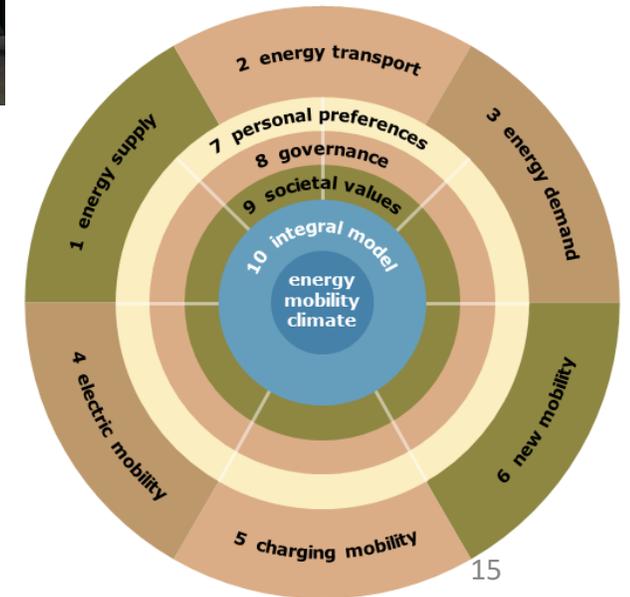
Context: NEON

New Energy and mobility Outlook for the Netherlands

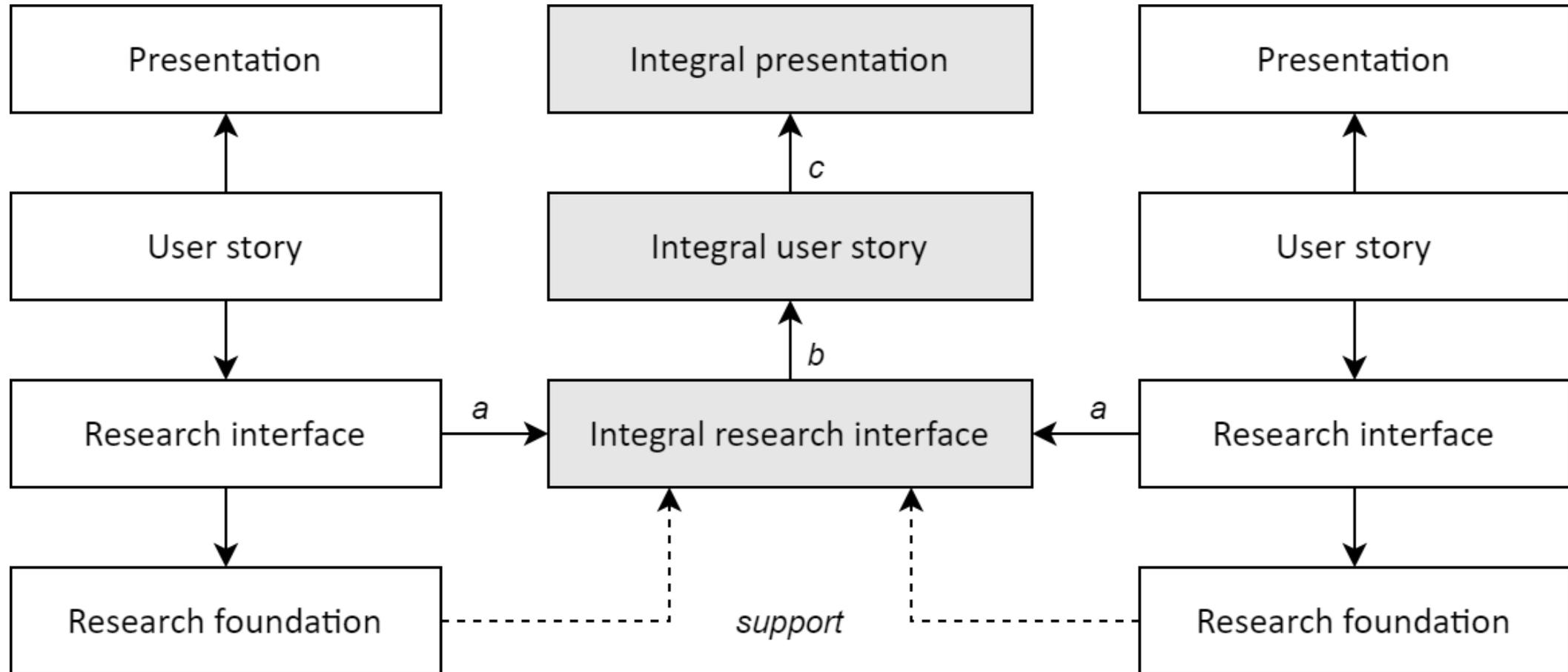
- Over 30 Ph.D.'s
 - Social sciences
 - Engineering
 - Behavioural sciences
 - ...

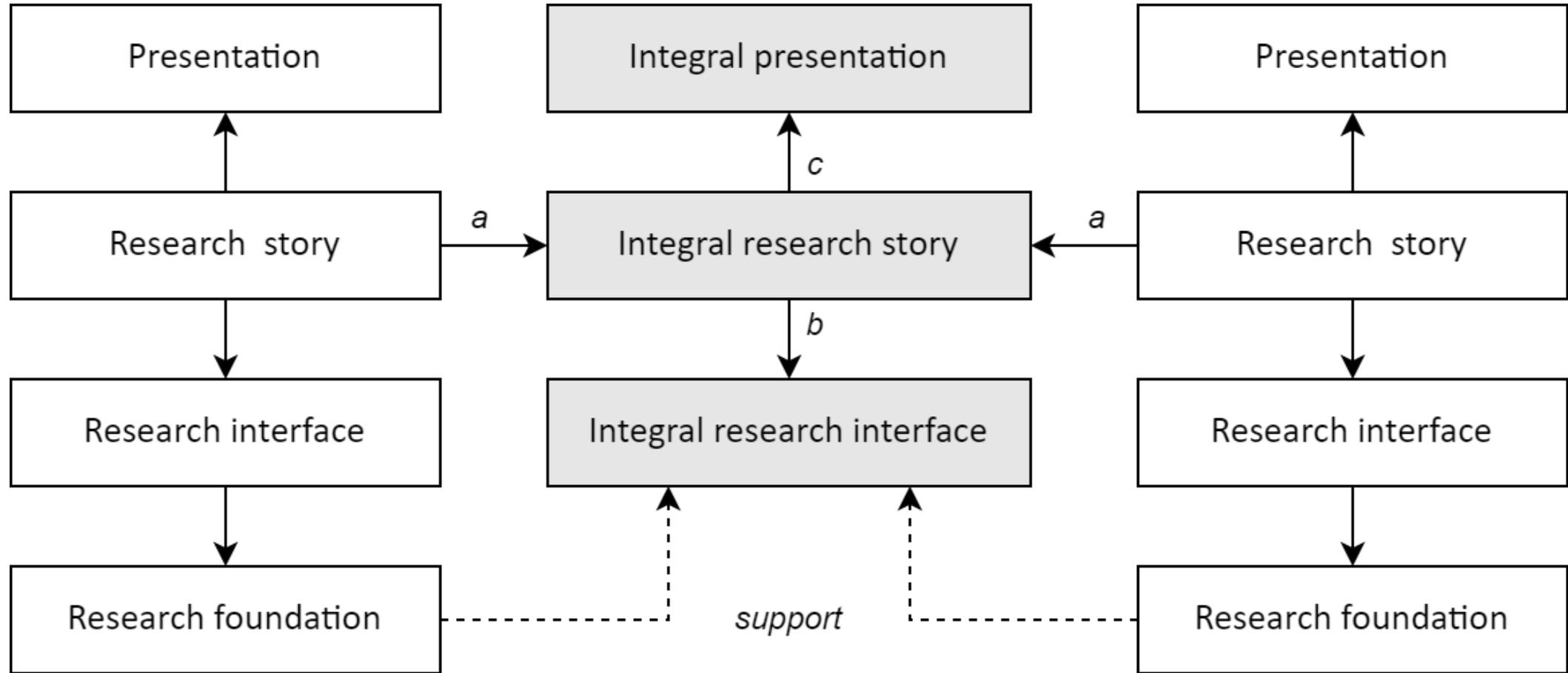


Common goal: integral simulation model of the energy and mobility system in the Netherlands.



Conventional collaboration





Our method: creative storytelling

Using the art of writing narratives (plot, characters, setting etc.) for:

1. Disciplinary convergence
2. Cross-disciplinary collaboration

3 Workshops

1. 1st and 2nd to facilitate convergence, i.e. story-writing
2. 3rd to facilitate collaboration, i.e. collective storytelling

Surveys, interviews and group evaluation to estimate effectiveness

General conditions

Topic: <i>the topic of your research</i>	
Target audiences: <i>the target audience you want to tell the story to</i>	Goal: <i>the goal you want to achieve for the target audience</i>
	Emotions: <i>the emotion you want to evoke in your audience</i>

Story elements

Characters: <i>the characters in your story.</i>	Setting: <i>the setting or scenery of your story.</i>	Plot: <i>the plot of your story.</i>
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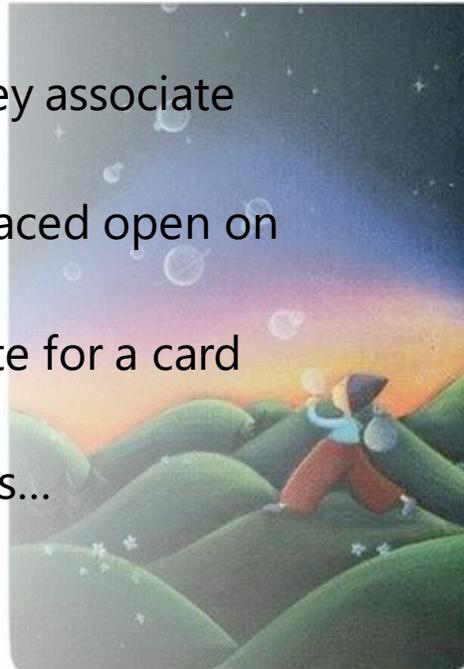
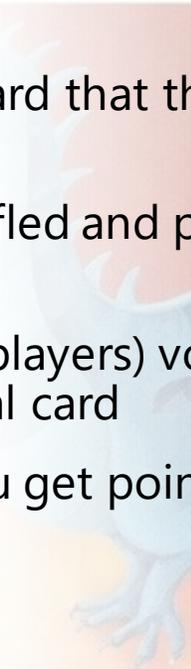
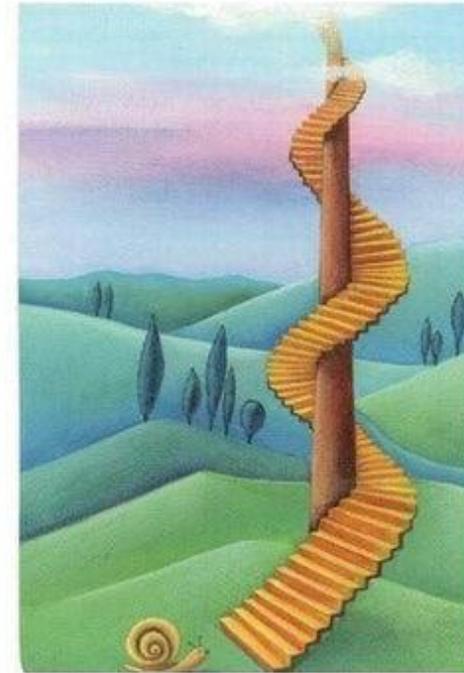
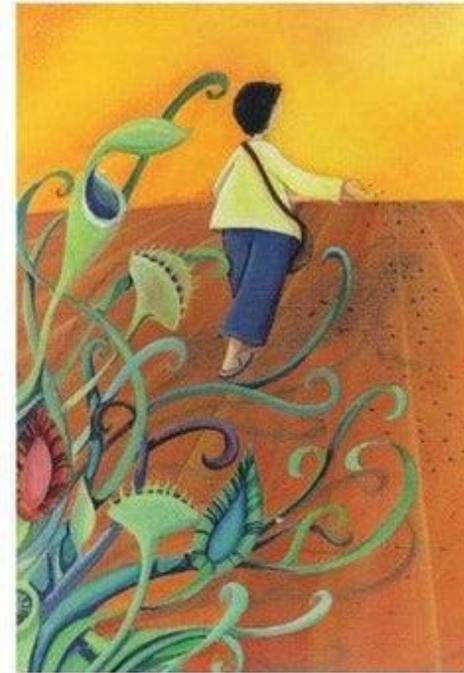
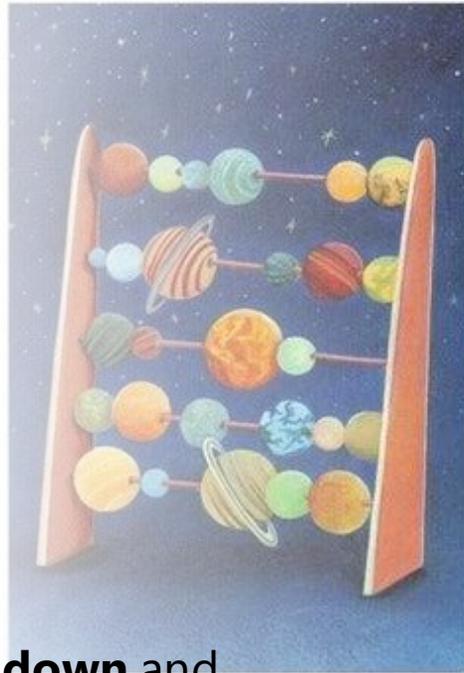
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Creativity- intermezzo: DixIt

2 groups

- Everyone has 6 cards
- Starting player puts down a card **face-down** and says a word
- Other players put down a card that they associate with the word as well
- All face-down card are shuffled and placed open on the table
- All players (except starting players) vote for a card that they think is the original card
- Depending on the votes you get points...



Listening to others – 'What if?'

This box is for you, because we need to talk

**LET'S SHARE AND
CREATE MEMORIES
WITH
YOUR LOVED ONES**

RETURN SENDER together with  HOUSEVITAMIN®

WHAT IF YOU...

Could plan your favorite day?
12/31/2022
What would that day look like?
Detailed as possible

WHAT IF YOU...

Could live
in another country
Where would that be?
What is keeping you
from moving there?
WHY?

WHAT IF YOU...

Could give someone
your greatest gift
What would you give to whom?
WHY?

WHAT IF YOU...

Could have any job
in the world
What would it be?
What is stopping you
from getting that job?
WHY?

WHAT IF YOU...

Could be another person
for one day
What would you be?
WHY?

Could turn back time
What would you change?
WHY?

WHAT IF YOU...

Only have one year to live
What would you do? 26

WHAT IF YOU...

Wish?

Results

Workshop 1 and 2

1. Usefulness of breaking down research into tangible components
 1. Clearness for self and others
 2. Engagement with other participants
2. Understanding and finding target audiences
 1. By consciously considering them
 2. Hearing colleagues
3. Finding the 'big picture'
 1. Seeing 'their' research as part of the whole
4. New presentation and visualisation methods not previously considered

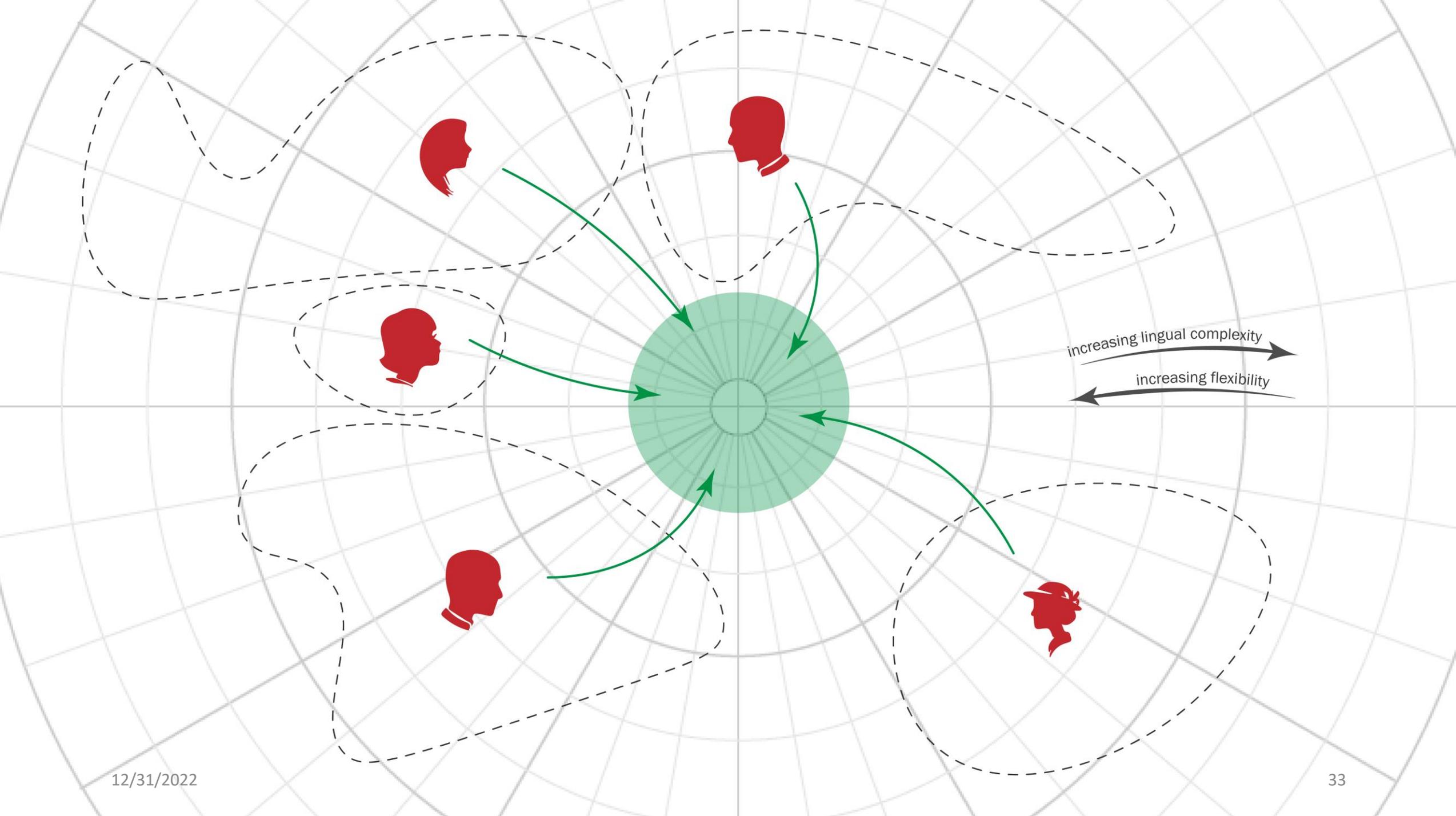
Results

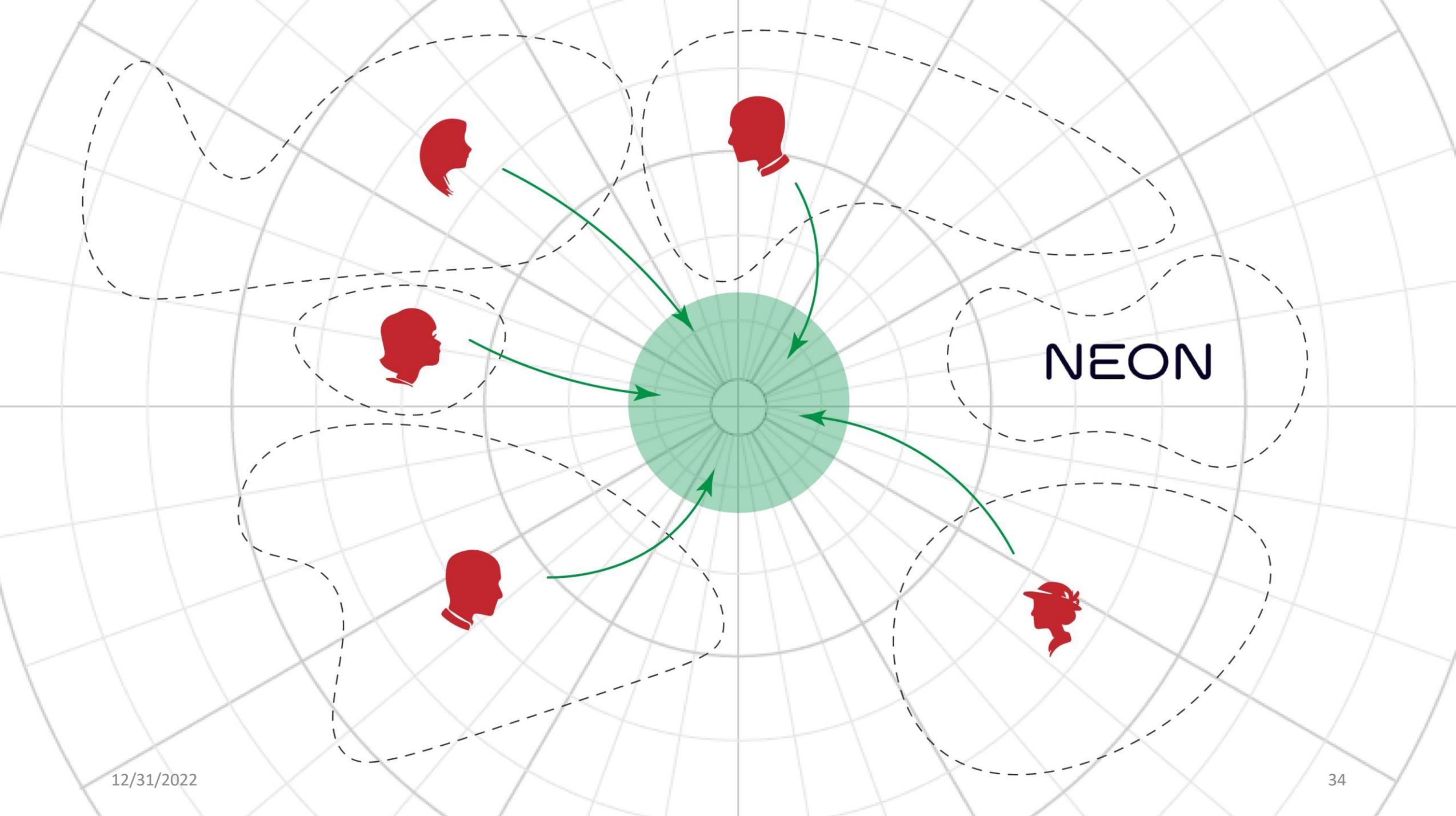
Workshop 3

1. Changing perspectives
 1. *"What if I have to consider this character?"*
 2. Really putting yourself in another's shoes
2. Making compromises
 1. Purposefully finding overlap or complementary aspects
3. Difficulty of collaboration due to external constraints
 1. Supervisors, time availability
 2. Required research output; cross-disciplinary journals
4. Very effective ice-breaking for 2 or 3-person collaboration
5. How does this translate back to actual research?
 1. From creative narrative to a research paper?

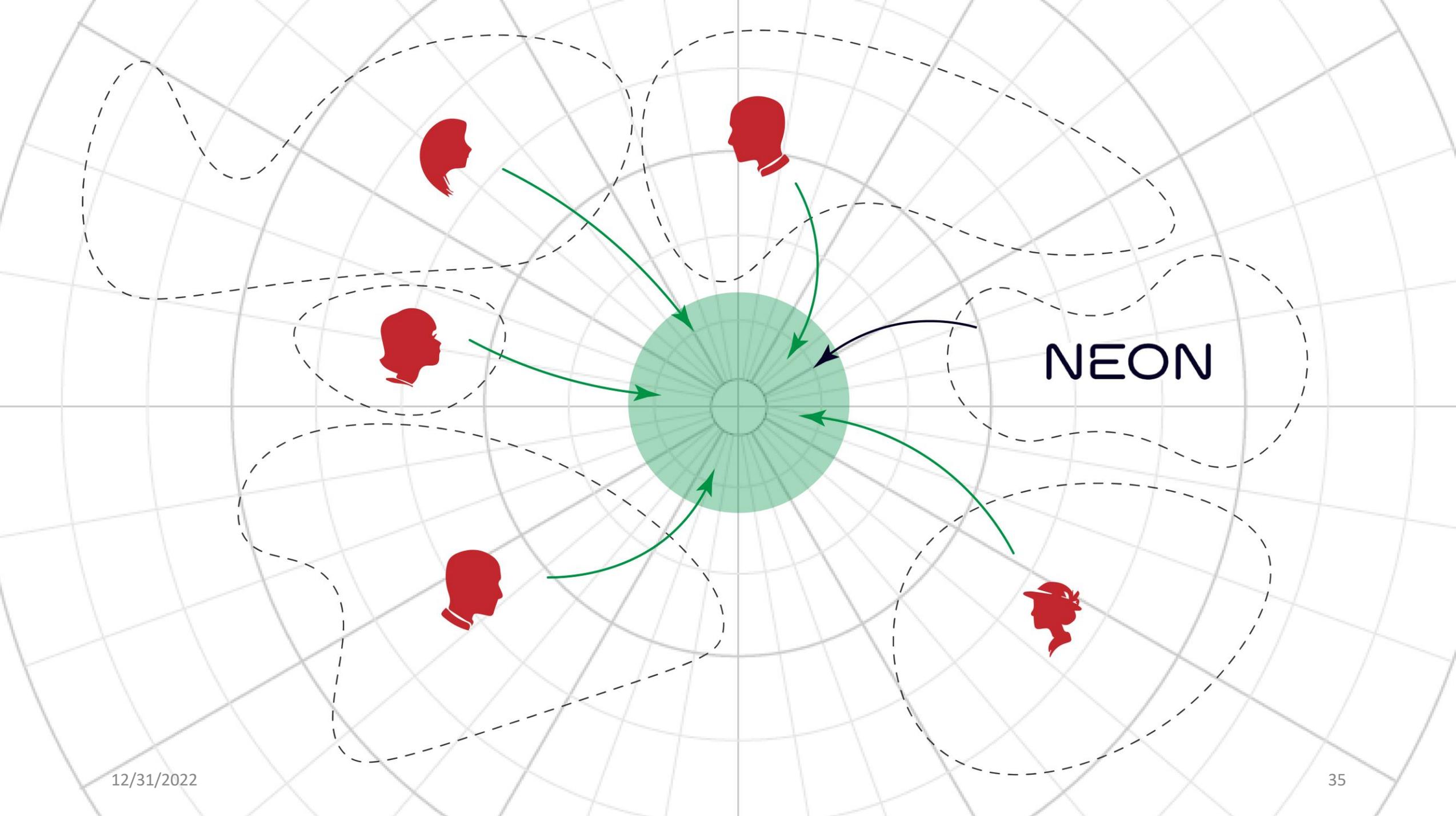
Follow-up

Toward an integral story





NEON



NEON

Discussion

Thank you!



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