

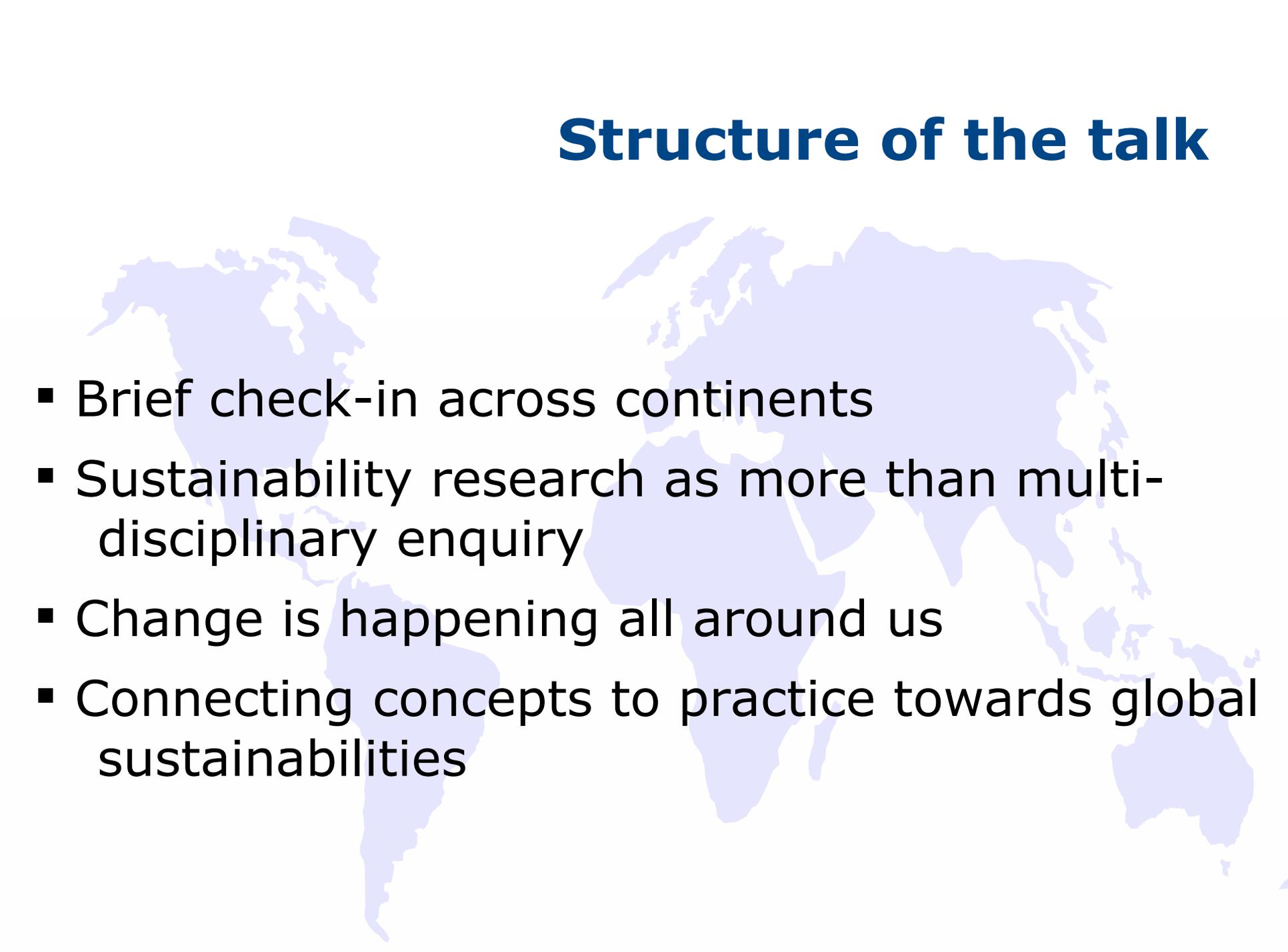
A light blue silhouette of a world map is centered in the background of the slide.

“Change” – cues from research towards global sustainabilities

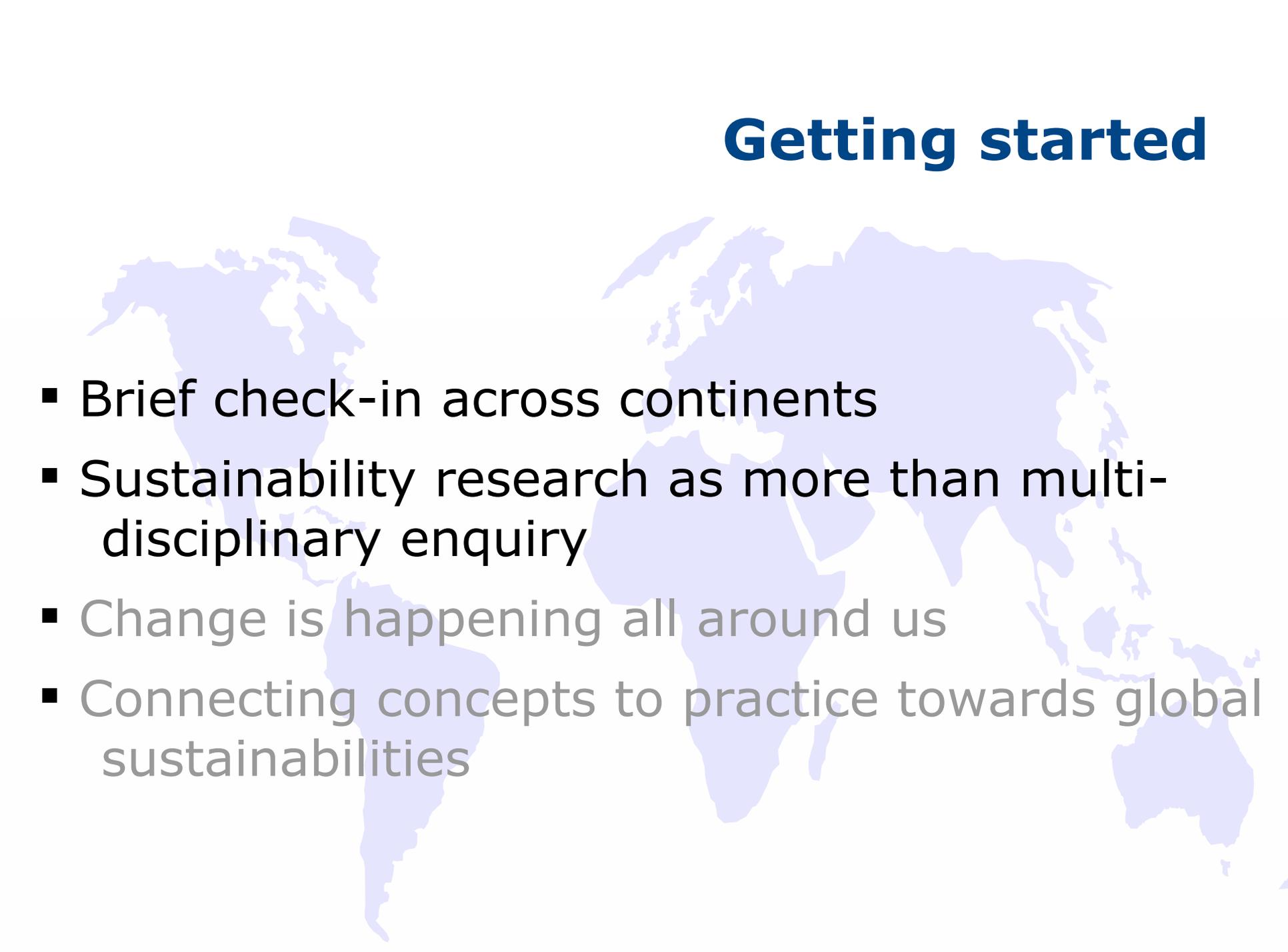
**Dr. Cornelia E. Nauen
Prof. Stella Williams**

**Mundus maris
Sciences and Arts for Sustainability asbl**

Structure of the talk

- 
- Brief check-in across continents
 - Sustainability research as more than multi-disciplinary enquiry
 - Change is happening all around us
 - Connecting concepts to practice towards global sustainabilities

Getting started

- 
- Brief check-in across continents
 - Sustainability research as more than multidisciplinary enquiry
 - Change is happening all around us
 - Connecting concepts to practice towards global sustainabilities

Sustainability Research (1)

Is driven mostly by the need to stop the misconception of eternal growth: reality check

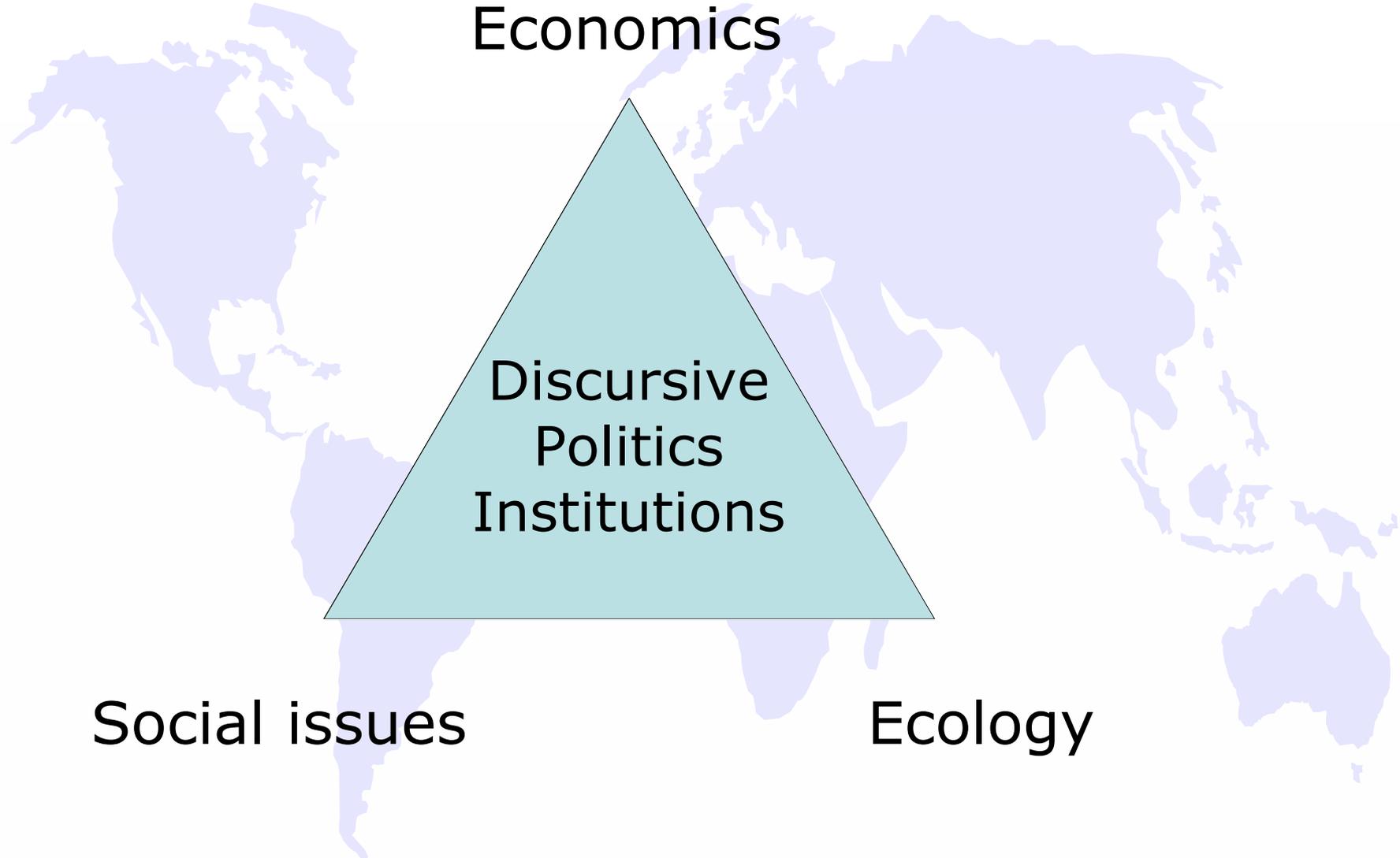
- The resources on Earth are finite, even though we are very ingenious in finding new technical fixes - right now by borrowing from the future
- Our Earth is quite unique within the accessible parts of the universe, we better make it work
- We produce enough food to feed everybody, but 1 billion is obese and 1 billion is hungry
- Shifting baseline or a unifying narrative?

Sustainability Research (2)

Consilience between different areas of enquiry of the world around us - natural and social sciences

- This is another way of approaching the sustainability triangle, the relationship between economic, social and environmental dimensions, eventually mediated through institutions and the political process, but requiring greater effort by science
- Addressing shifting baseline to ensure we have a future
- But some baselines need to shift.

Sustainability Research (3)



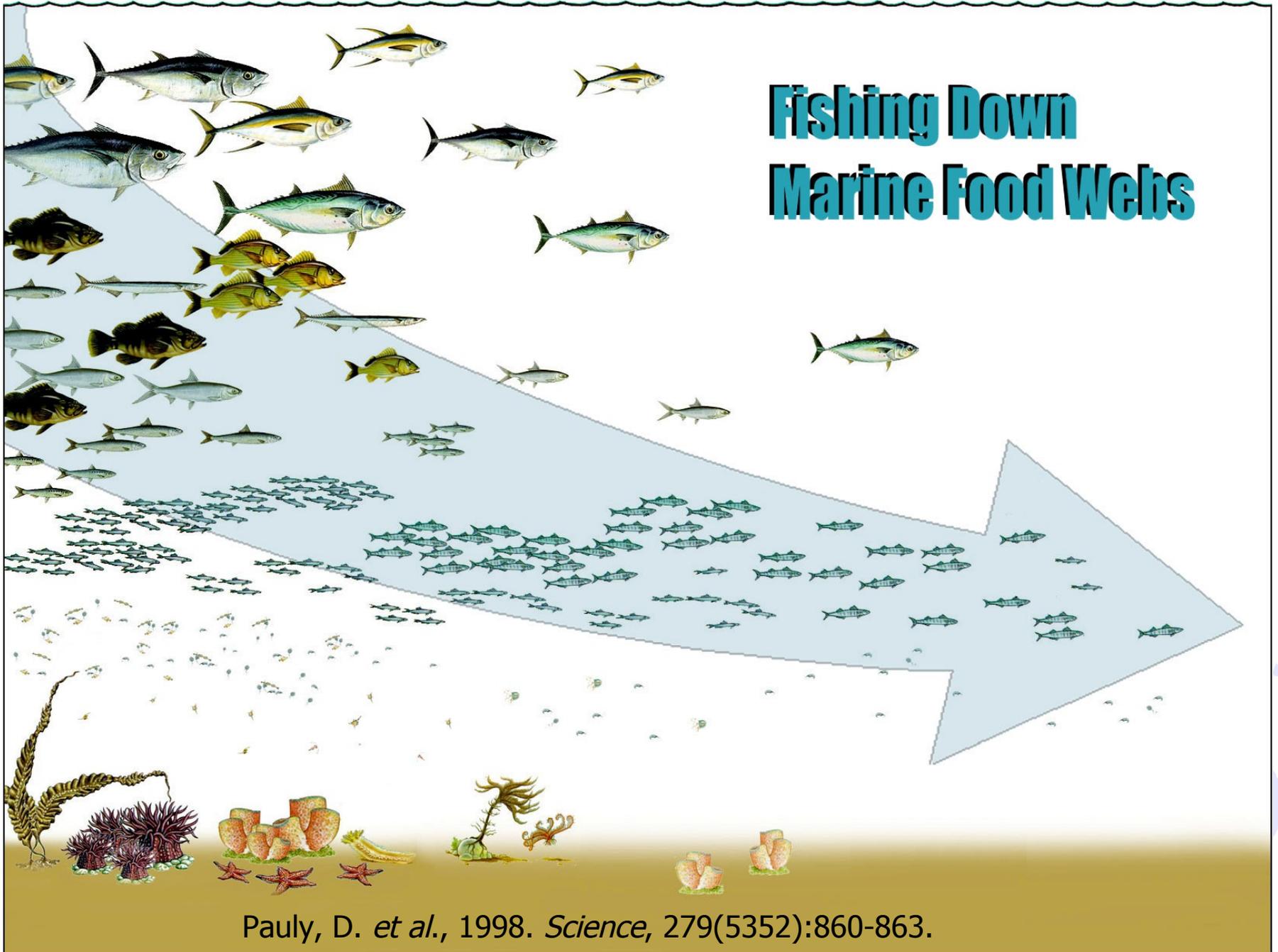
Sustainability Research (4)

The obsession with macro-economic growth obscures the fact that it is at the expense of almost all parameters of environmental health and social equity. But research looking beyond GDP shows how poorly this represents what matters to most citizens (Constanza *et al.* 2014)

The European Parliament is stimulating research and reflections to go beyond GDP since more than 10 years, including through public hearings

Wilkinson and Pickett (2009, 2010) "The Spirit Level. Why Equality is Better for Everyone".

Fishing Down Marine Food Webs



Pauly, D. *et al.*, 1998. *Science*, 279(5352):860-863.

An example: the global fisheries crisis (1)

Challenging 'official discourse' based on wrong statistics through reconstruction of past ecosystem states and catches:

- quantifying huge 'errors' in catch figures
- demarginalising 'small-scale' fisheries and their actors, who produce much more than admitted, if not most
- revealing growing illegal, unreported and unregulated fisheries undermining the future
- concomitant attention to the economic and the (under-researched) social dimensions.

An example: the global fisheries crisis (2)

A recent confrontation of such catch reconstructions with the results of sociological and ethnographic research produced a richer picture for interpreting observed data and looking for alternative courses of action (MARE Conference, June 2013):



Next

- 
- Brief check-in across continents
 - Sustainability research as more than multidisciplinary enquiry
 - **Change is happening all around us**
 - Connecting concepts to practice towards global sustainabilities

Change is upon us (1)

There is no shortage of worrying research results about the massive degradation and collapse of marine ecosystems and the fisheries they once supported.

There is growing awareness about that, but despite international conventions, such as on Biological Diversity (CBD), prohibition of trade in endangered species (CITES), the Law of the Sea, efforts towards reform of the Common Fisheries Policy (CFP) in Europe ... progress is agonisingly slow

Change is upon us (2)

We are not alone to note the long impact times of research results, particularly concerning the environment and nature protection.

Ten years after the first, the European Environment Agency put out the update of its earlier report

“Late lessons from early warnings”

(2013). In many areas it often takes decades or longer, before action is taken.

Food, health & local matters attract more attention.



Change is upon us (3)

We understand that

(a) we fail to grasp the advanced state of degradation, it's too complex

(b) in the richer countries, purchasing power “makes the water flow uphill”, buffering many from the immediate effects of nature consumption, at least for food availability.

(c) we have forgotten past states

(d) urbanisation and fast pace of life create a disconnect from nature and from ourselves

(e) research results coached in specialist language remain elusive for the many.

Change is upon us (4)

Humans do not have a universal set of values. Richard E. **Nisbett** (2004, "The geography of thought") has shown that cultural upbringing can generate different interpretations of the same situation in people e.g. in some of the Asian cultural traditions and in people brought up with argumentative 'Western' habits in the Greek tradition of thinking.

That has profound implications for how we experience transitions towards sustainabilities.

We can learn from each other and actually find richer responses to challenges, but we ought to be aware of the differences and not jump to conclusions or judgements.

Change is upon us (5)

Most of us optimise their decision in relation to a local context or, in any event, some reference points within our reach. It's human nature to compare ourselves with peers, here and now, not in the past and far-flung places.

That impregnates how we experience our world.

A.E. **Kahn** (1966) spoke in this context of the “Tyranny of small decisions” - nobody decided to ruin the world, but it's happening anyway – unexpected consequences of the cumulative effects of small actions in a complex world.

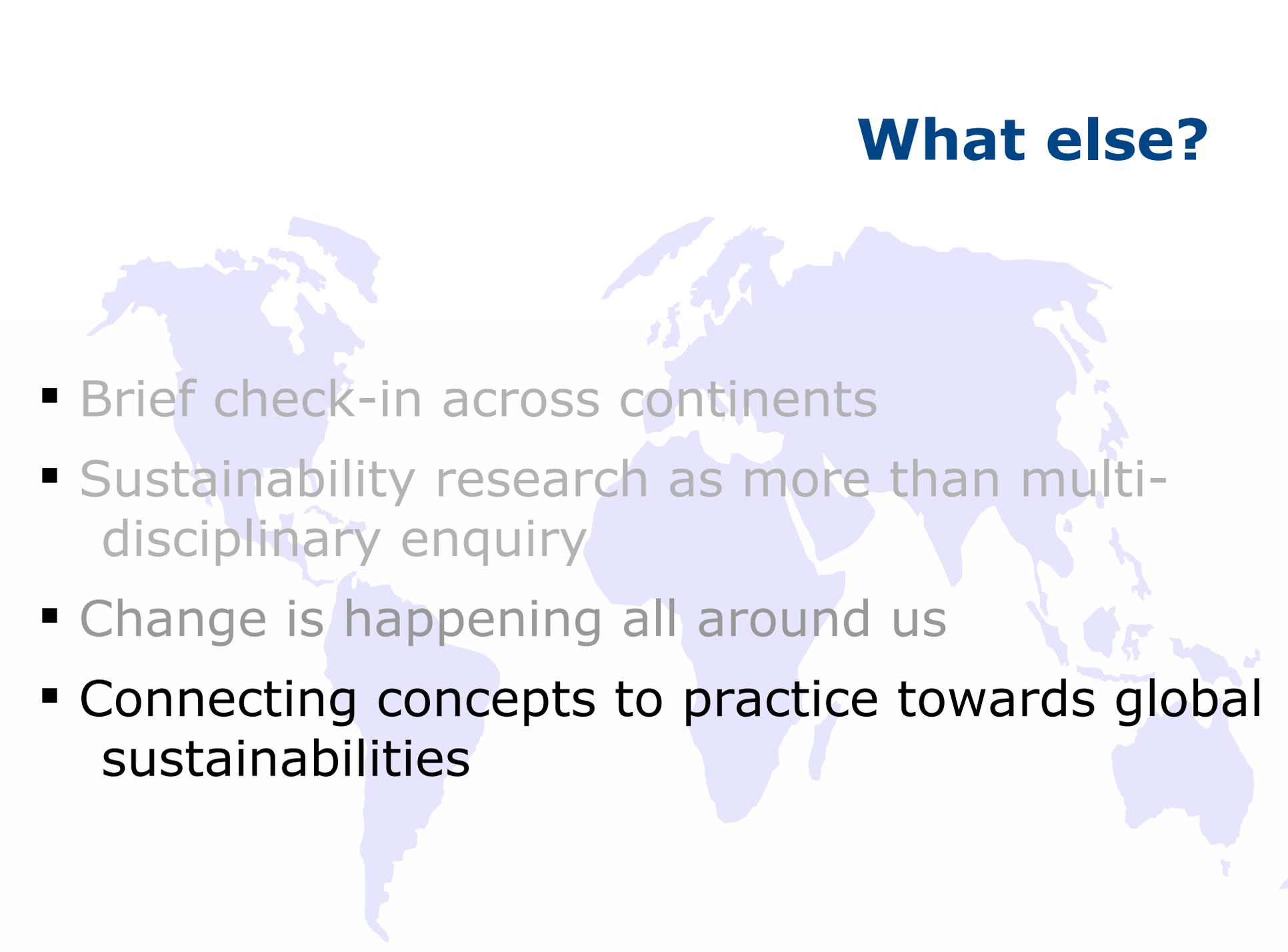
Change is upon us (6)

We underestimate the time it takes to contextualise specialist knowledge and break general scientific knowledge down to the level where operational capabilities are – locally/nationally.

Contextualisation means grasping the specialist knowledge and subjecting it to scrutiny from different angles and trials. That's more a social than a scientific process.

When citizens, the impact specialists, are associated with research in critically engaged ways, that process is helped. We saw in practice an accelerated uptake and use. It's also an escape route to the "Tyranny".

What else?

- 
- Brief check-in across continents
 - Sustainability research as more than multidisciplinary enquiry
 - Change is happening all around us
 - **Connecting concepts to practice towards global sustainabilities**

Connecting concepts and practice (1)

We distinguish – following Michael Fullan (2002) – several principles / concepts associated with successful change processes:

- 1. Moral purpose** – closing the gap between high and lower performing schools, social groups, teams in companies
 - This connects to Wilkinson and Pickett's work elucidating the importance of social cohesion
 - As achieving sustainable change requires to keep the big picture in mind, not only egoistically optimize short-term for one self, it is also one of the responses to the “Tyranny of small decisions” met before.

Connecting concepts and practice (2)

2. Understanding the process of change

- Innovate selectively seeking coherence
- Work through the process to find collective meaning and commitment
- Appreciate that all change is bumpy early-on
- Can you use resistance to change to learn something and find better solutions?
- Reculturing: to make desired change stick, people need to change what they value and cooperate to make that happen
- Avoid being mechanistic and embrace complexity (lateral thinking, try to prepare for the unexpected
 - people disconnect without complexity; it makes processes worthwhile)

Connecting concepts and practice (3)

3. Improve relationships

- Developing emotional intelligence is crucial
- Trying to be empathetic towards others – try to put yourself in the shoes of others, particularly those not belonging to your own culture and who may thus experience the same situation in different ways
- Good relationships are crucial for personal wellbeing, for success in work, the ability to get things done and cope with change
- Having constructive and empathetic relationships across cultural boundaries is one of the best preparations for dealing with the unexpected and increase the register of possible responses

Connecting concepts and practice (4)

4 Creating knowledge

- Information becomes knowledge through a social process
- Acquiring knowledge works best through sharing – it's not a scarce commodity, but increases the more it is shared (because of 3 above)
- Sharing knowledge is intimately connected to moral purpose
- Practice is immensely important for creating deep knowledge of a sustainable nature
- Continuous practice and learning is the 'real work'.

Connecting concepts and practice (5)

5 Sharing and coherence making

- Keeping a sense of purpose and coherence is essential in a complex world with its many non-linear developments
- Being open to experience from elsewhere to feed the learning process and embrace different ways to approach the challenge, yet remaining focused on the goal(s)
- Aligning diversity towards the goal(s)
- Sharing responsibilities and foster leadership at all levels to enhance robustness of the process and ensure continuity and continuous evolution of the organisation, school, company, public administration

Story telling for sustainable futures (1)

You want to engage others in your sustainability project – something to consider

“We need new narratives that connect with peoples’ deepest motivations and promote more radical action. Stories engage people at every level - not just in their minds but in their emotions, values and imaginations, which are the drivers of real change. So if we want to transform society, we must learn to tell - and listen to - a new set of stories about the world we want to create.”

Simon Hodges, Storyteller

Story telling for sustainable futures (2)



Fish rulers as teaching aids for more active learning in (almost) real life situations, here a market

Demonstration to the fish mongers is not enough; they suggest government endorsement and dialogue



Story telling for sustainable futures (4)



Give experienced community leaders a voice, putting a human face on the numbers and conceptual knowledge in the sciences;

Connect such local experience to larger trends;

Oppose manipulation, e.g. posturing as 'science' to neutralise people's willingness to act by faking controversy.



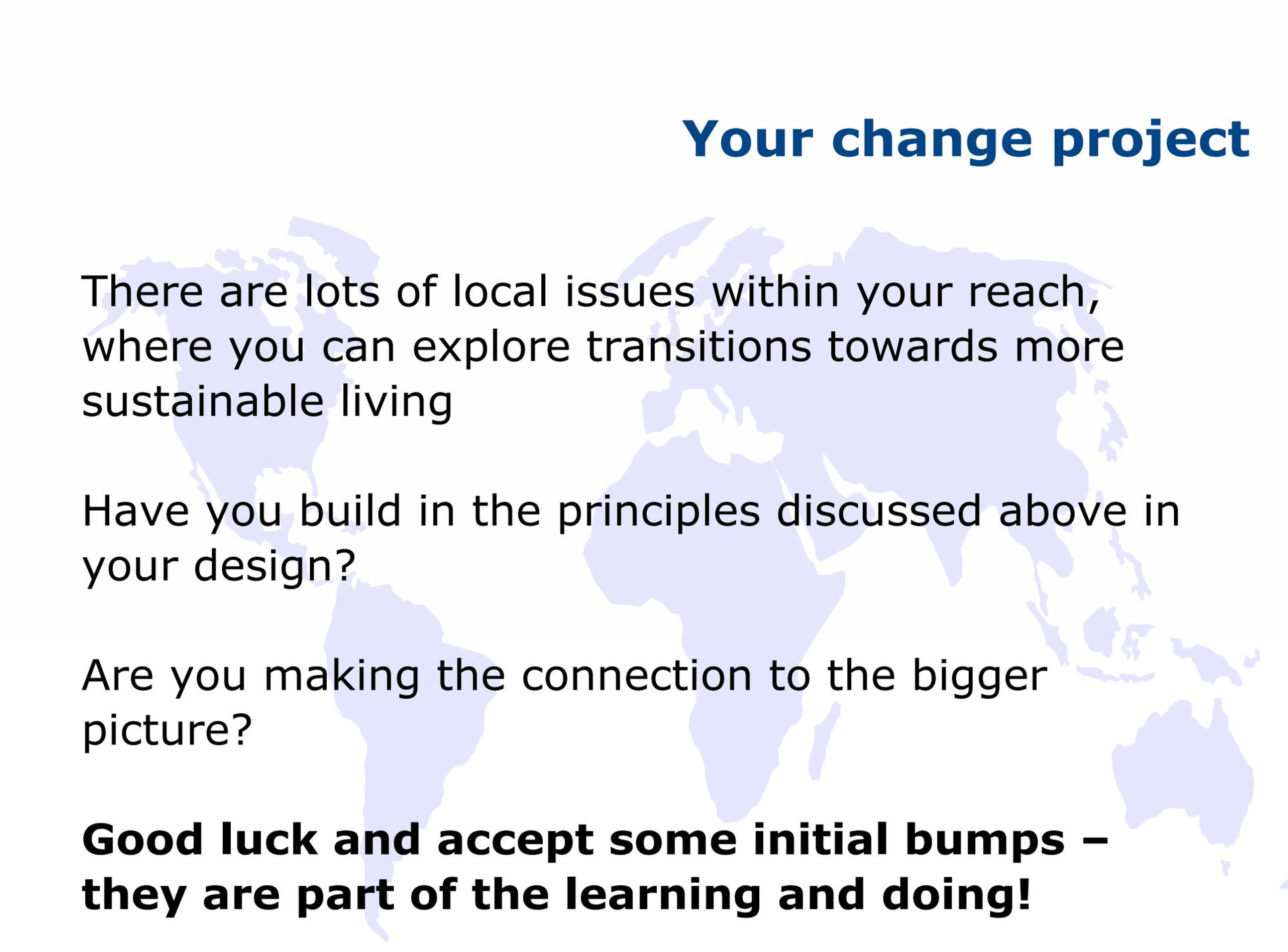
Story telling for sustainable futures (5)

Reflection of complexity in real life that brings together strands from food, environment, health, energy, social networks and more – weaving together these several strands of knowledge through multiple relationships and with a sense of purpose;

Stories that are multi-dimensional and show the connectedness of different issues and resisting the temptation of reducing real life to narrow disciplinary specialisation;

In processes to select the most relevant research questions, researchers focused on narrow and precise questions, while policy makers, practitioners and civil society representatives posed broad-based questions.

Your change project



There are lots of local issues within your reach, where you can explore transitions towards more sustainable living

Have you build in the principles discussed above in your design?

Are you making the connection to the bigger picture?

Good luck and accept some initial bumps – they are part of the learning and doing!

For more ...

<http://www.mundusmaris.org>

Like us on Facebook and YouTube

We encourage and welcome cooperation
for the exploration of new avenues of critically
engaged sustainability research in combination
with experimental work and practice, creating
opportunities for young people

**I'm still a baby,
let me live and grow**



www.mundusmaris.org www.facebook.com/MundusMaris

Thanks!

info@mundusmaris.org