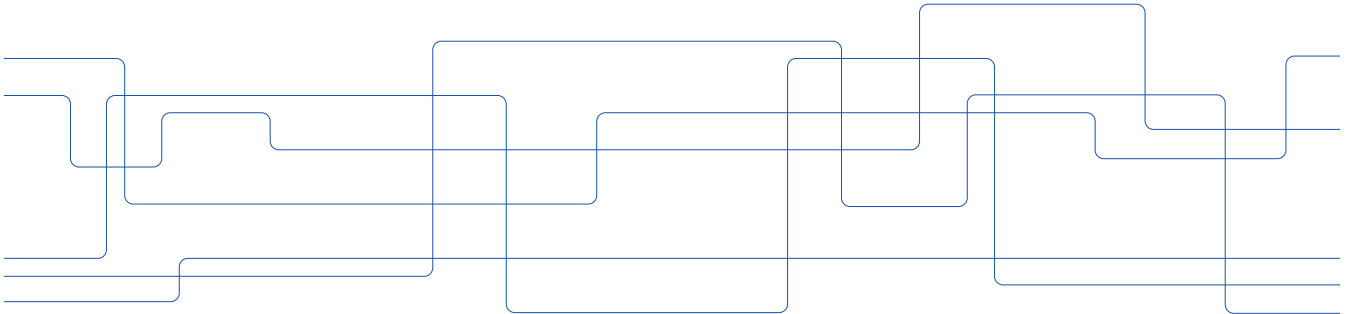




Building Societal Innovation Capacity through Challenge-Driven Education

Jesper Vasell, PhD

*KTH Global Development Hub
KTH Royal Institute of Technology*





This is what we are (mostly) trained for in higher education:



But,...

...how do we know we are solving the right problem, and...

...how do we know that the solution is viable and desired, and not just a technically correct solution to the stated problem?

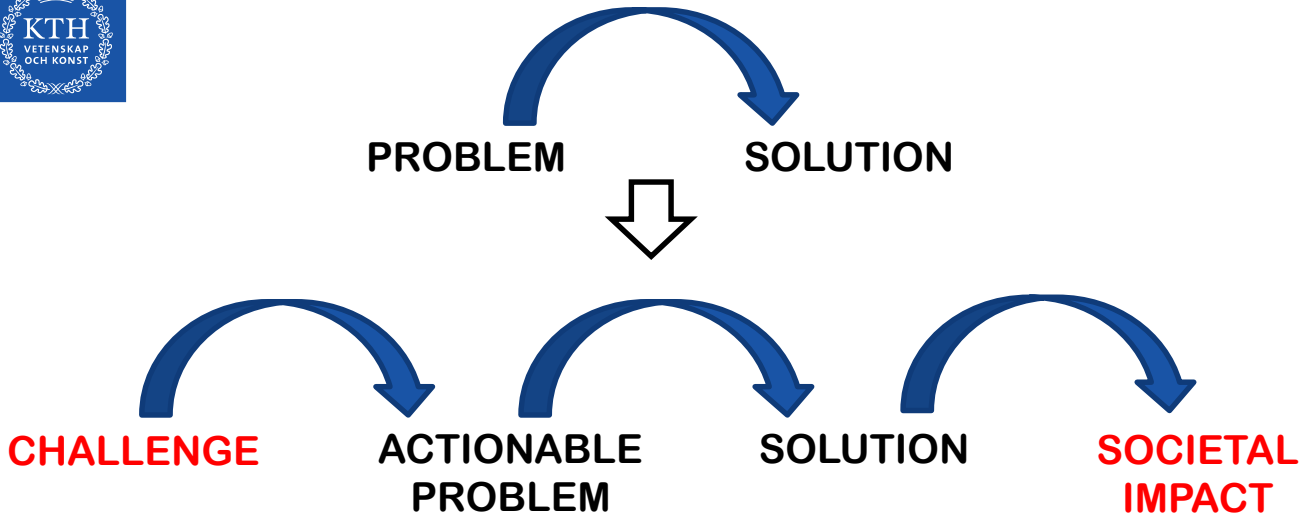
The reality is...

...if it is the wrong problem, then our solution is irrelevant.

...there can be many correct solutions to a problem – but not all of them are viable and desired.

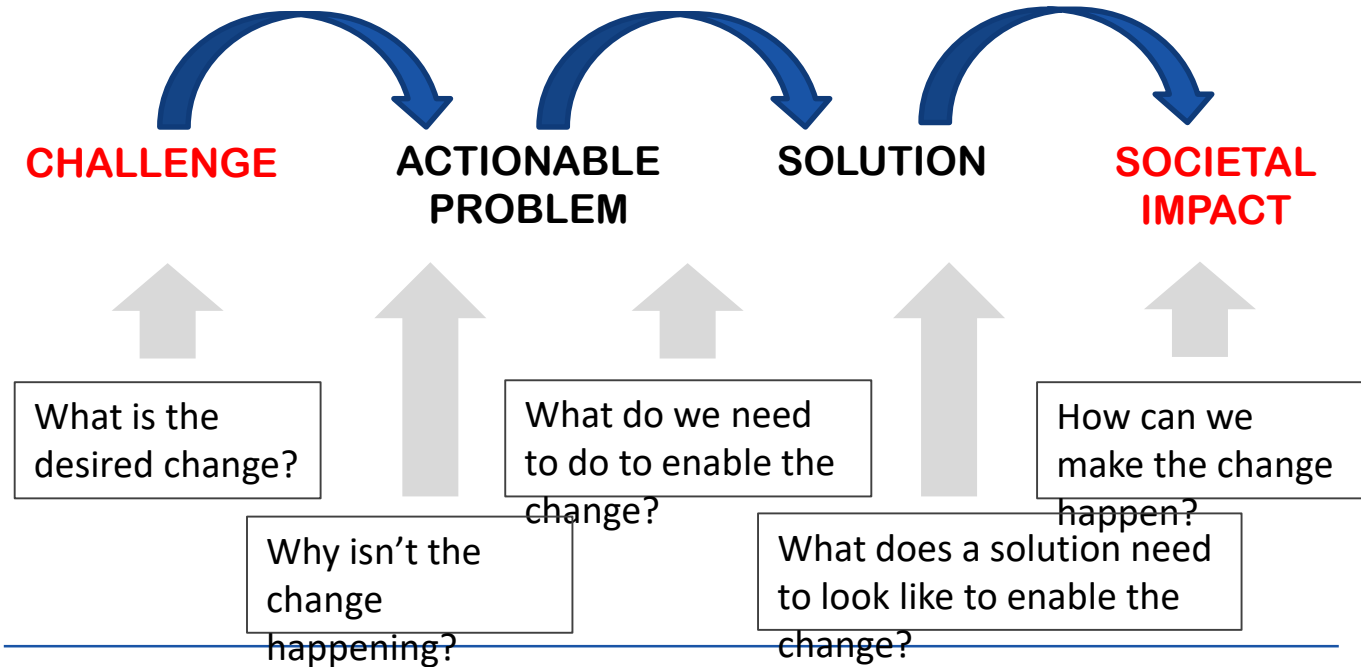
...if the solution is not viable or desired, then it will never have any

impact.





Challenge-Driven Education (CDE)





Challenge-Driven Education (CDE)

CDE provides students with knowledge, systematic methods and motivation to deal effectively with these questions.

CHALLENGE

Innovation Capacity

METAL
FACT

What is the desired change?

What do we need to do to enable the change?

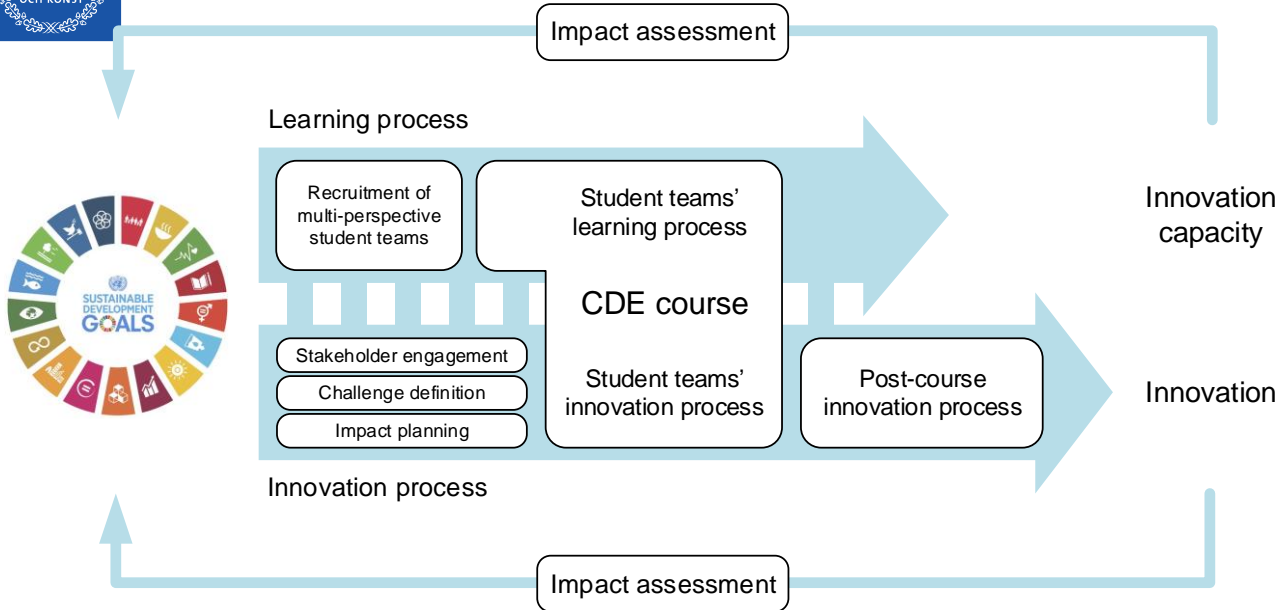
How can we make the change happen?

Why isn't the change happening?

What does a solution need to look like to enable the change?



GDH^{CDE} Concept



The key idea in the GDH^{CDE} concept is to integrate a learning process and an innovation process to address societal challenges in the context of the 17 SDG:s. It has a two-fold impact: Innovation and Innovation Capacity.



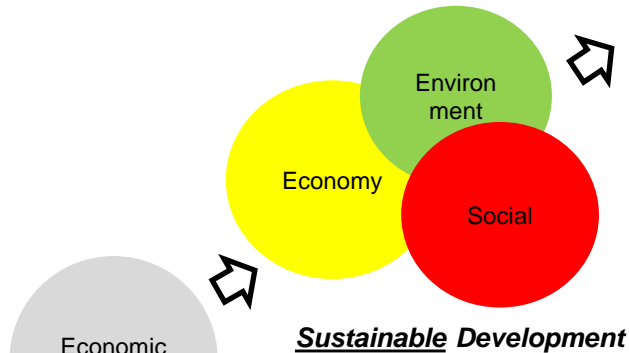
Why is CDE important in the world of today?

Let me give you three perspectives...



”The sustainable society”

A changing perspective on societal challenges



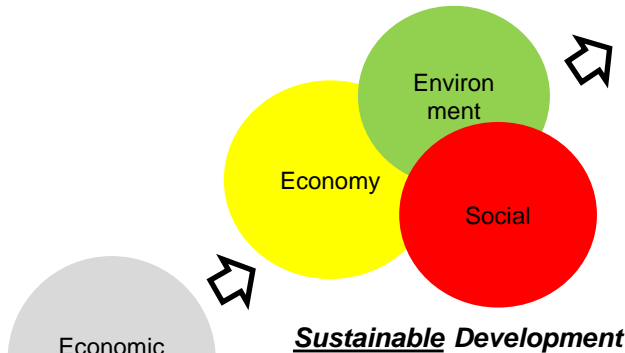
Economic Development



Global Sustainable Development

A changing perspective on societal challenges

“Triple bottom line”



Economic Development



Global Sustainable Development

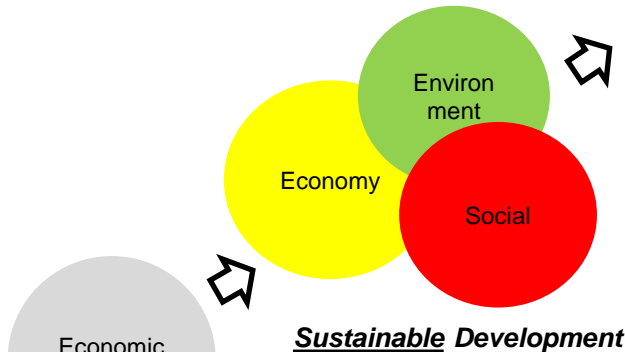
Economic growth is needed for economic sustainability, but it is also a major cause of social and environmental unsustainability...

A changing perspective on societal challenges

Agenda 2030



Global Sustainable Development



Economic Development



A changing perspective on societal challenges

Agenda 2020

I claim that...

...a university must contribute to the development of the capacity for global sustainable development through research, innovation and **education**.

This involves providing society with the necessary knowledge, skills and motivation for societal transformation.

...one of the most effective ways to bring this to society is through education that gives students innovation competence. CDE does that.

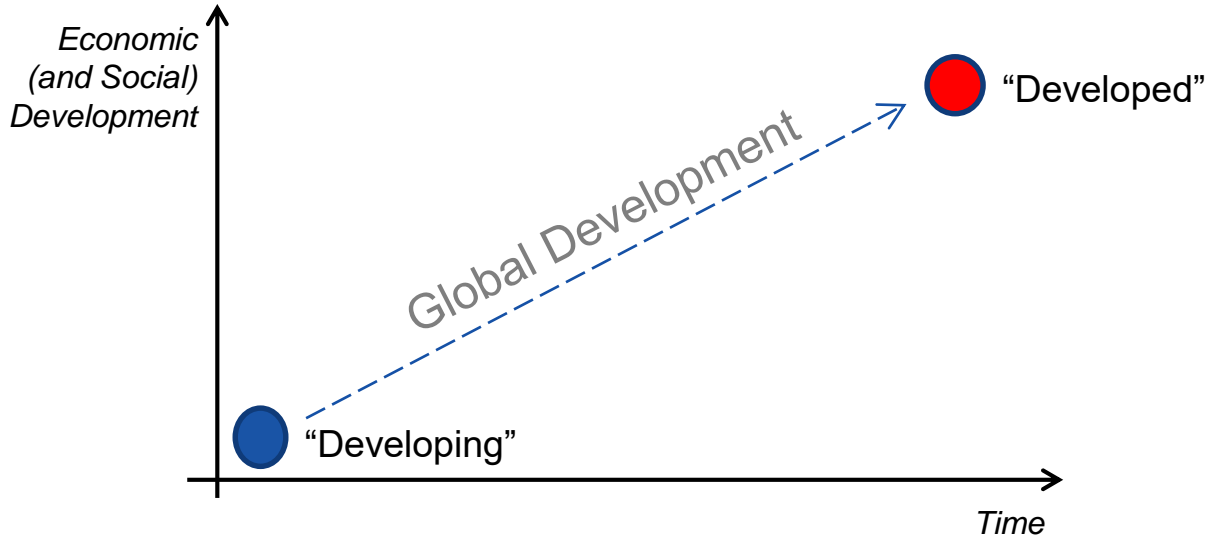
Economic Development

2

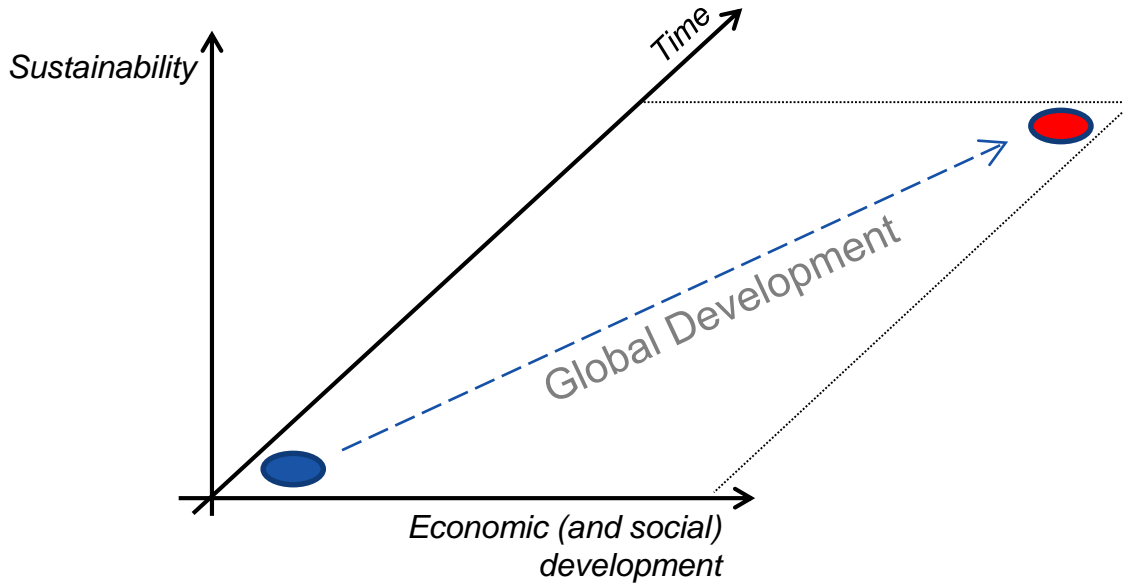
“The opportunity”




Global Development used to equal Economic Development

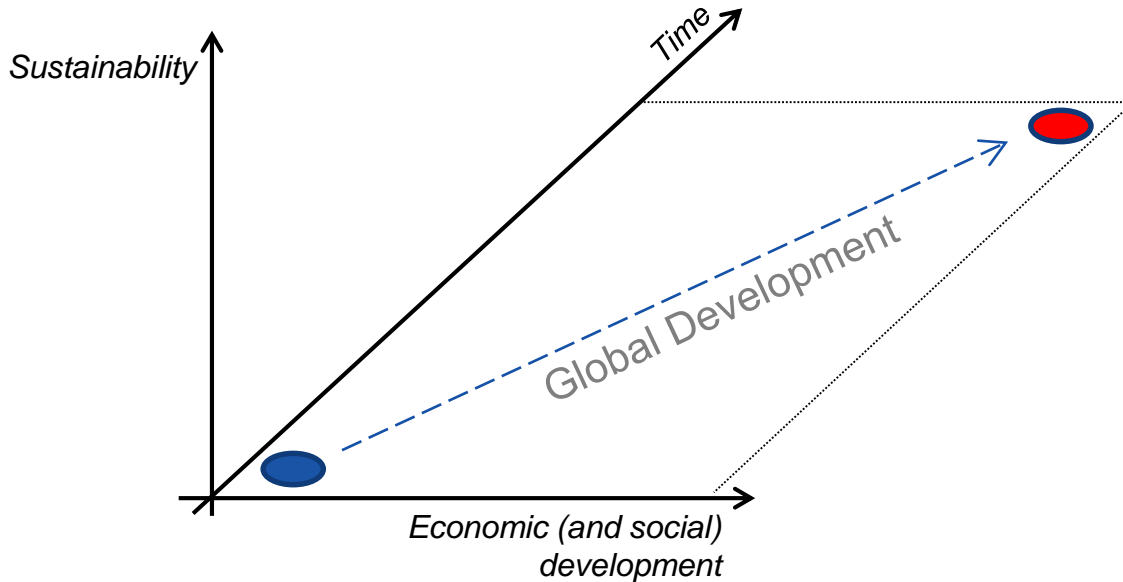


What if we introduce the sustainability dimension?



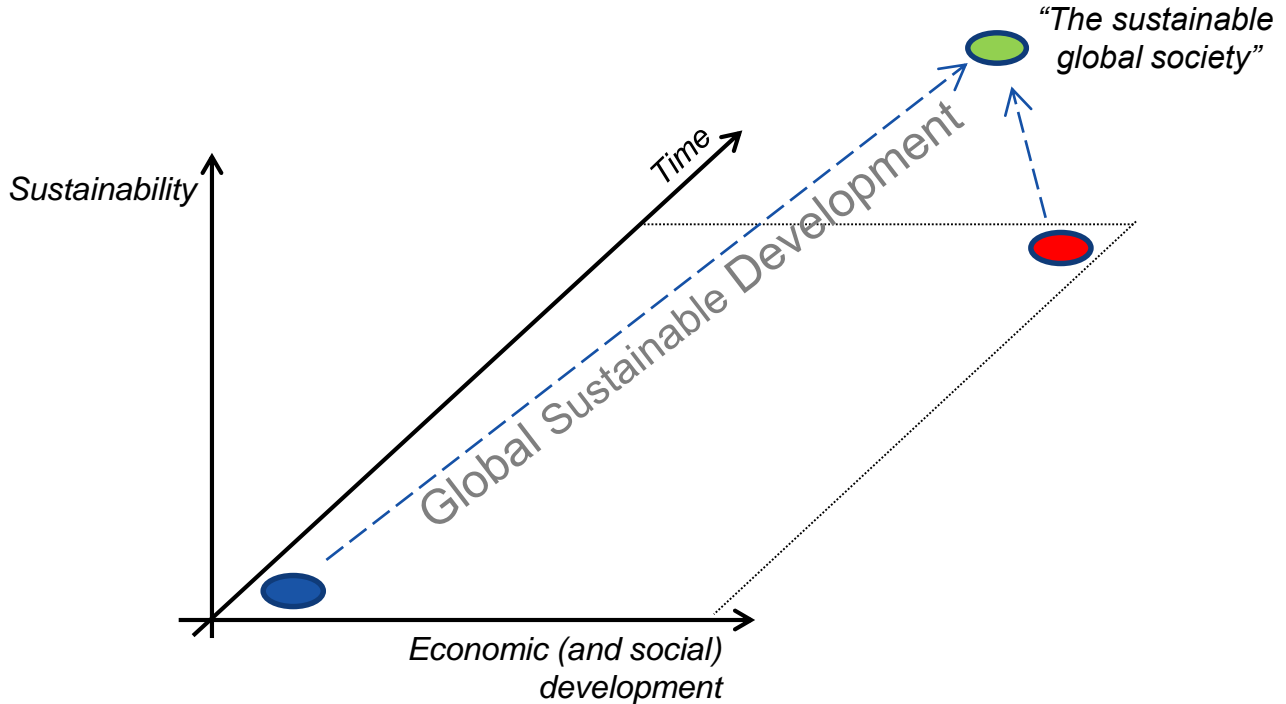
Introducing sustainability shifts the target...

 "The sustainable global society"



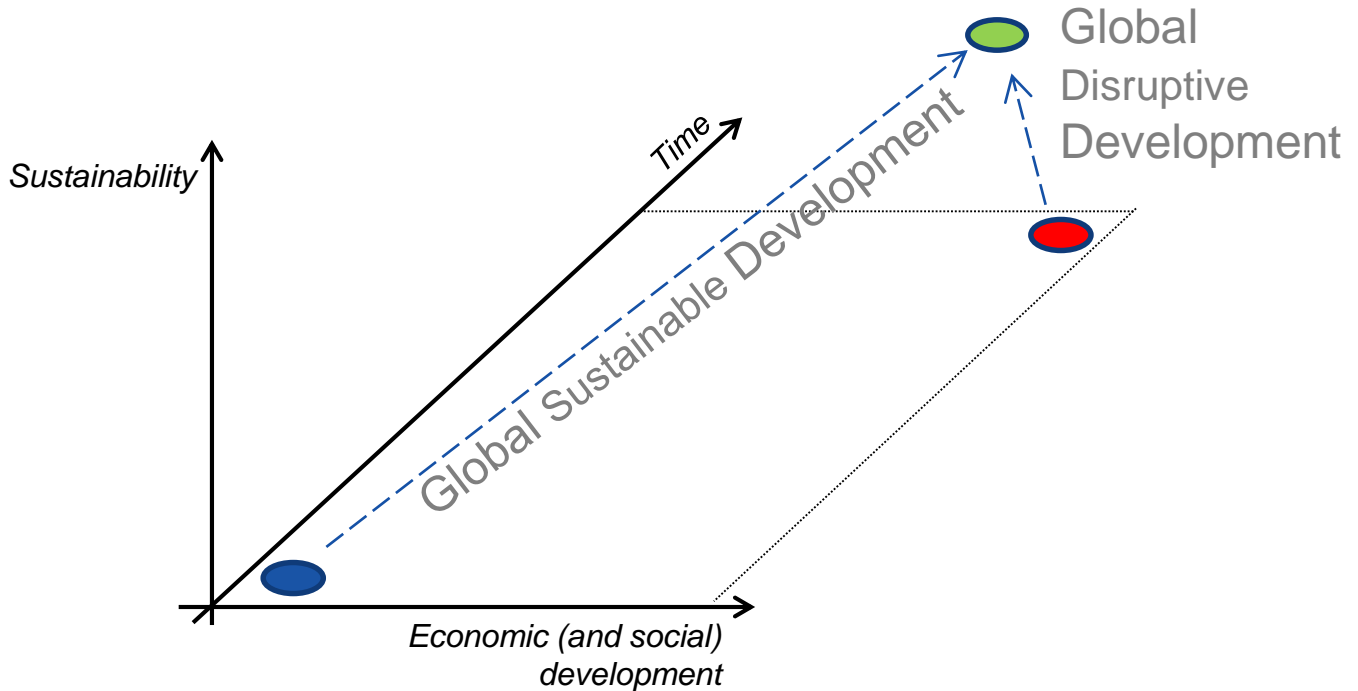


Global Development becomes Global *Sustainable* Development





Global Sustainable Development leads to Global *Disruptive* Development, for some of us...





"We are all developing

I claim that...

*Professor Henrietta Moore,
director of the UCL Institute for Global Prosperity*

...developing economies can not, and need not, become globally competitive by copying and emulating developed countries at a lower cost.

...global sustainable development requires collaboration and mutual innovation, which creates opportunities for developing economies to become globally competitive through the "unfair advantage" of being less developed and not needing to go through "disruption".

...to successfully exploit the opportunity, societal capacity for innovation is needed. CDE contributes to that.



”The societal innovation capacity”



What is societal innovation capacity?

Society's capacity to create innovation from knowledge and skills, and to create and sustain innovation processes leading to desired societal impact?

Elements of Societal Innovation Capacity...

POLICY

That guides, controls,
enables and creates
incentives

Policy can at best be
stimulating by setting
goals and bringing
attention to
innovation...

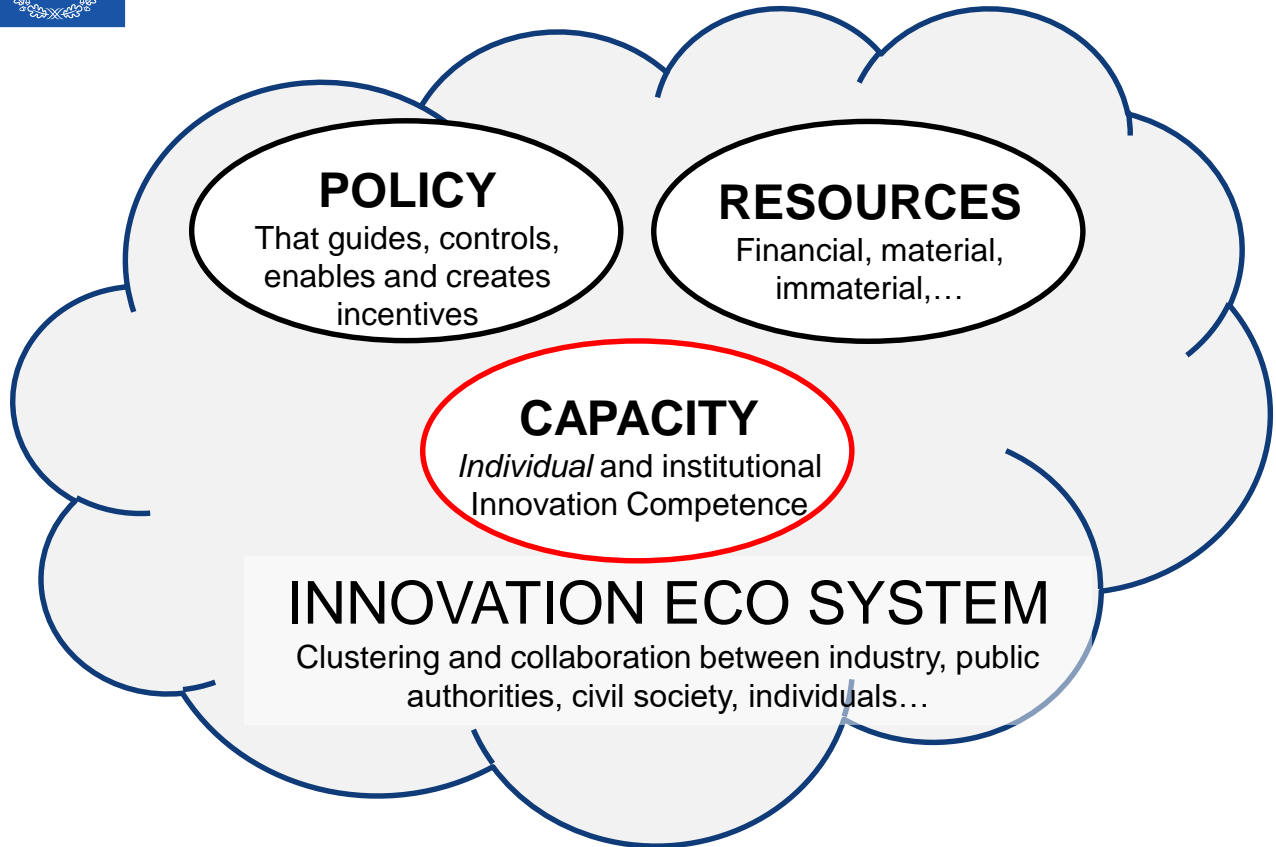
RESOURCES

Financial, material,
immaterial,...

Resources of various
kinds, including
financial resources, are
a necessity for
innovation...

**...but none of them
creates innovation!**

Elements of Societal Innovation Capacity...





Elements of Societal Innovation Capacity...

I claim that...

...challenge-driven education develops individual and institutional innovation capacity by training students to gain innovation capacity, and...

...it also contributes to development of an innovation eco system by building long-term multi-lateral relationships between the university and a variety of societal stakeholders.



In summary...

Challenge-driven education makes the university more relevant in society (1) by addressing sustainable development in a systematic fashion, (2) by developing societal innovation capacity, and (3) by supporting developing economies to benefit from finding unique opportunities to become globally competitive.