The world beyond 2015: is HE ready?

From cosmetic reform towards a whole system transition

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United Nations
Educational, Scientific and
Cultural Organization

United Nations Decade of Education for Sustainable Development (DESD, 2005-2014)

Review of Contexts and Structures for
Education for Sustainable Development
2009

United Nations
ucational, Scientific and
Cultural Organization

United Nations Decade of Education for Sustainable Developme
(2005-2014)

Shaping the Education of Tomorrow:

2012 Full-length Report on the UN Decade of Education for Sustainable Development

Sustainability & SD

- Sustainable Development/Sustainability has become a useless concept: it means so many different things that it means nothing, people with opposing viewpoint all embrace it, rendering is a de-politicized/neutered idea that won't change the world


HYBRID
Sustainable excitement.

Erosion of trust in science?

- GMO-foods are inevitable…
- Runaway (?) climate change…
- Calcium supplements for women…
- Should men >50 be tested for prostate cancer?
- Is organic sustainable and locally grown better?
- Are vegetables grown in cities healthy?
- ….

‘ We are drowning in information while starving for wisdom’ E.O. Wilson, 1998, p. 300)

Post-normalism

- Complexity
- Uncertainty and indeterminacy
- Contestation and controversy – extinction of ‘truth’
- Shallowness and hyper-connectivity – erosion of meaning
- Emergence - reflexivity

PROBLEMS

simple

EASY TO SOLVE

Summary

A clear problem with a clear solution

Properties

- Predictable
- Straightforward
- Obvious

complex

RESISTS SOLVING

Summary

The problem and the solution are not clear but can be understood with time

Properties

- Many familiar elements
- Hidden root courses
- Non-linear
- Inter-operating parts affect
- Each other

wicked

RESISTS DEFINING

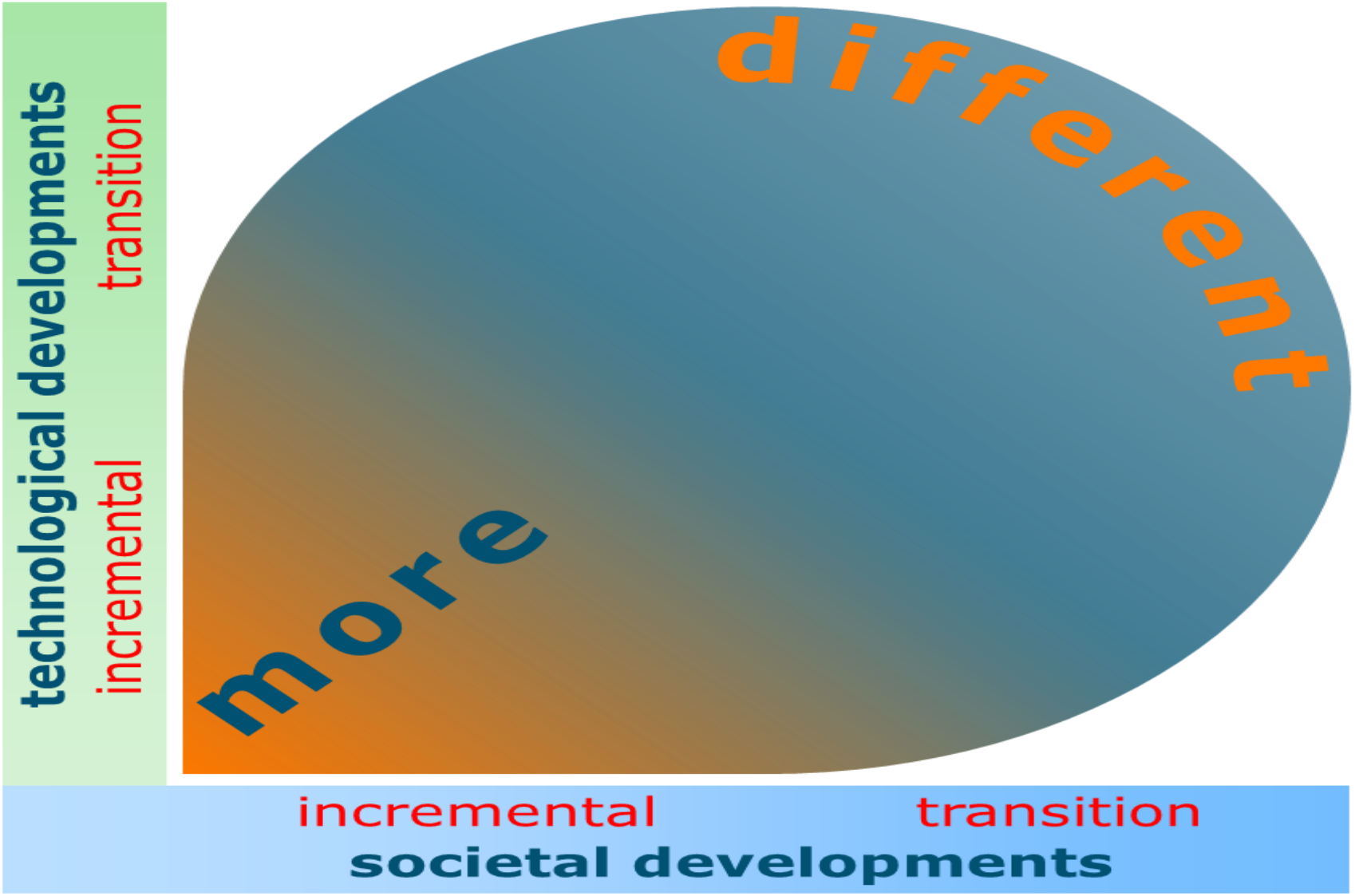
Summary

Problem and solution not understood and keep shifting when we try to define them

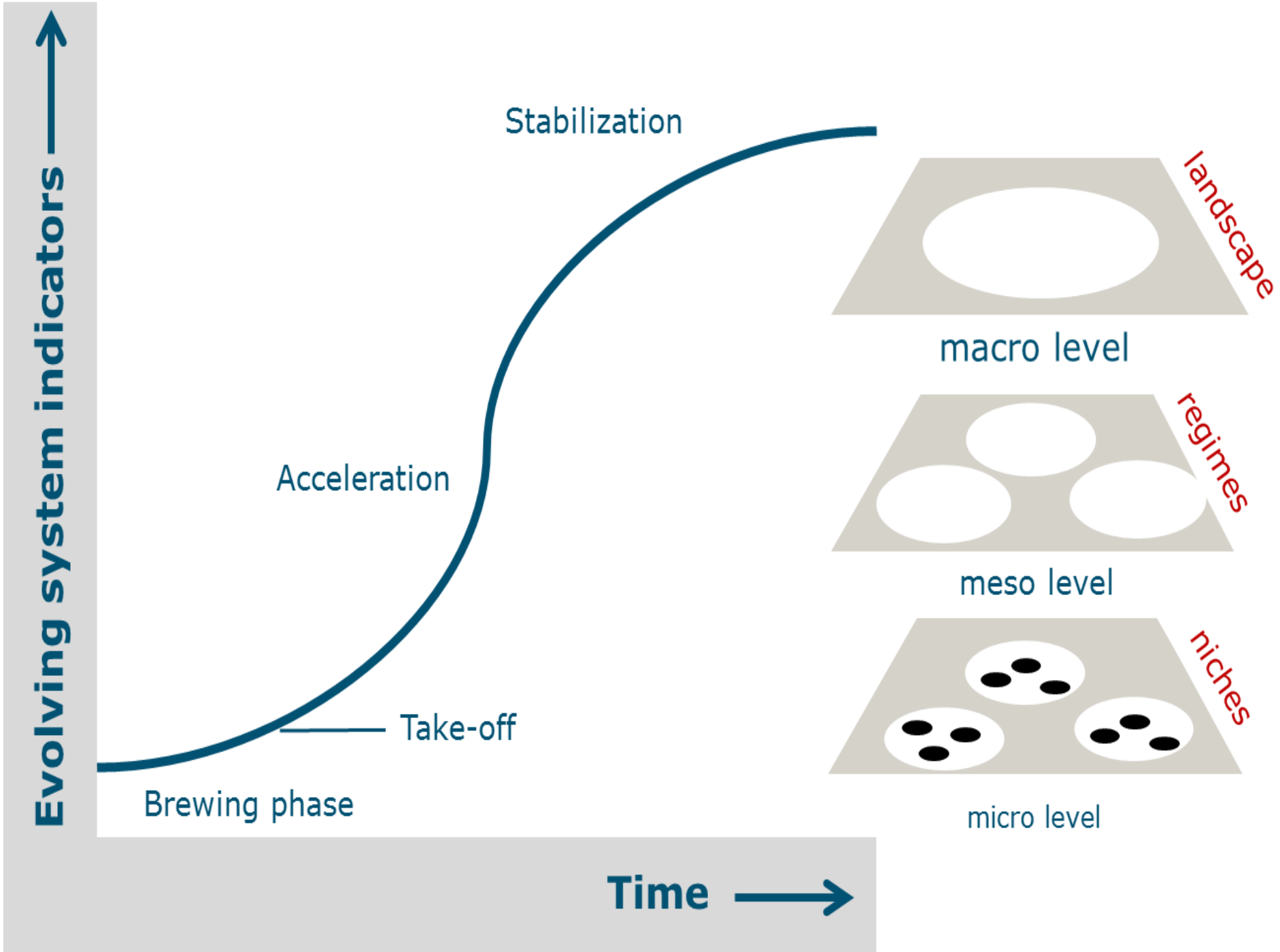
Properties

- Ambiguous, chaotic
- Many stakeholders with
- Conflicting perspectives
- Many elements are hidden and unknown
- No right/wrong solution
- Not-quantifiable
- No precedents

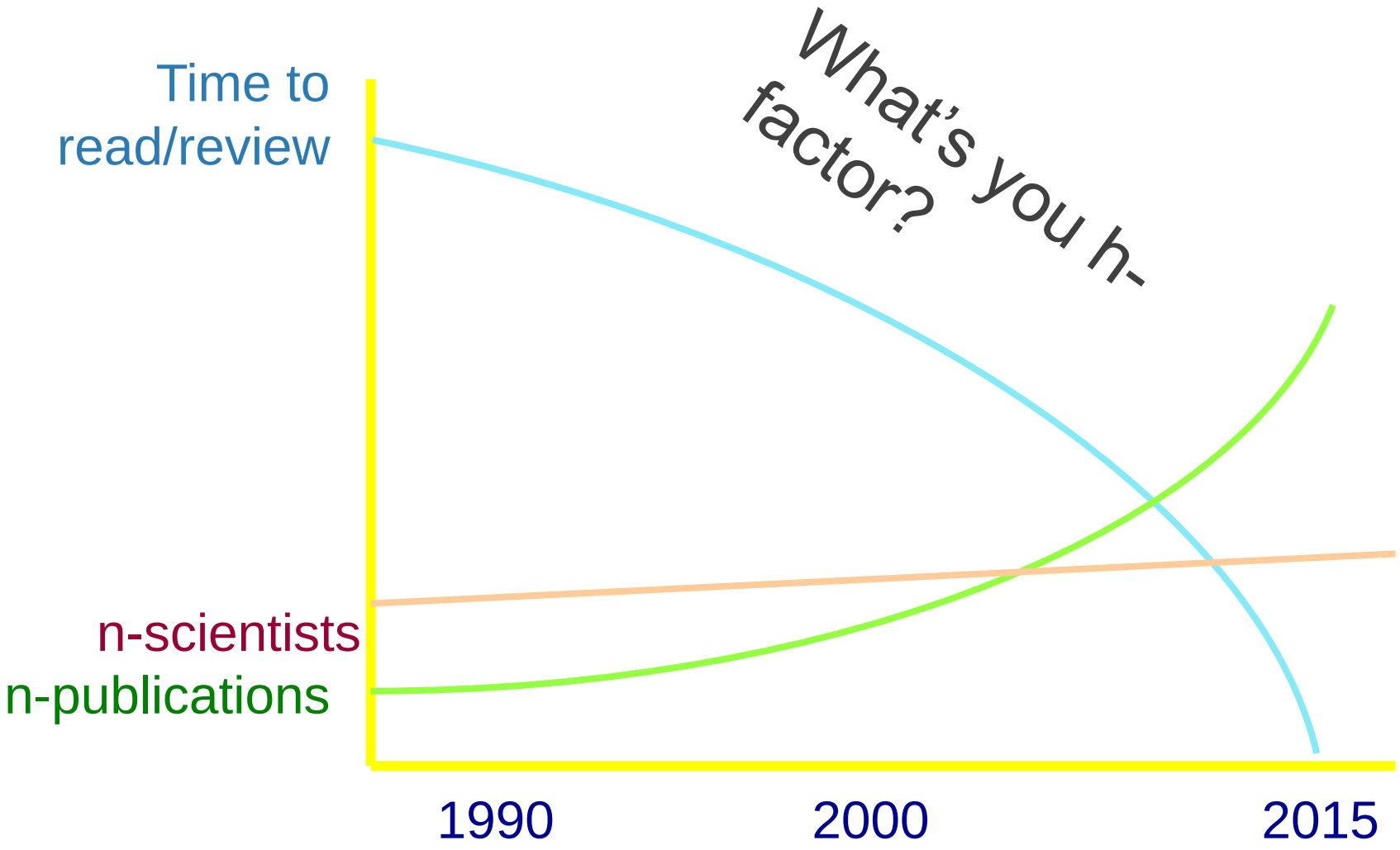
Source: Rob Gibson, 2013

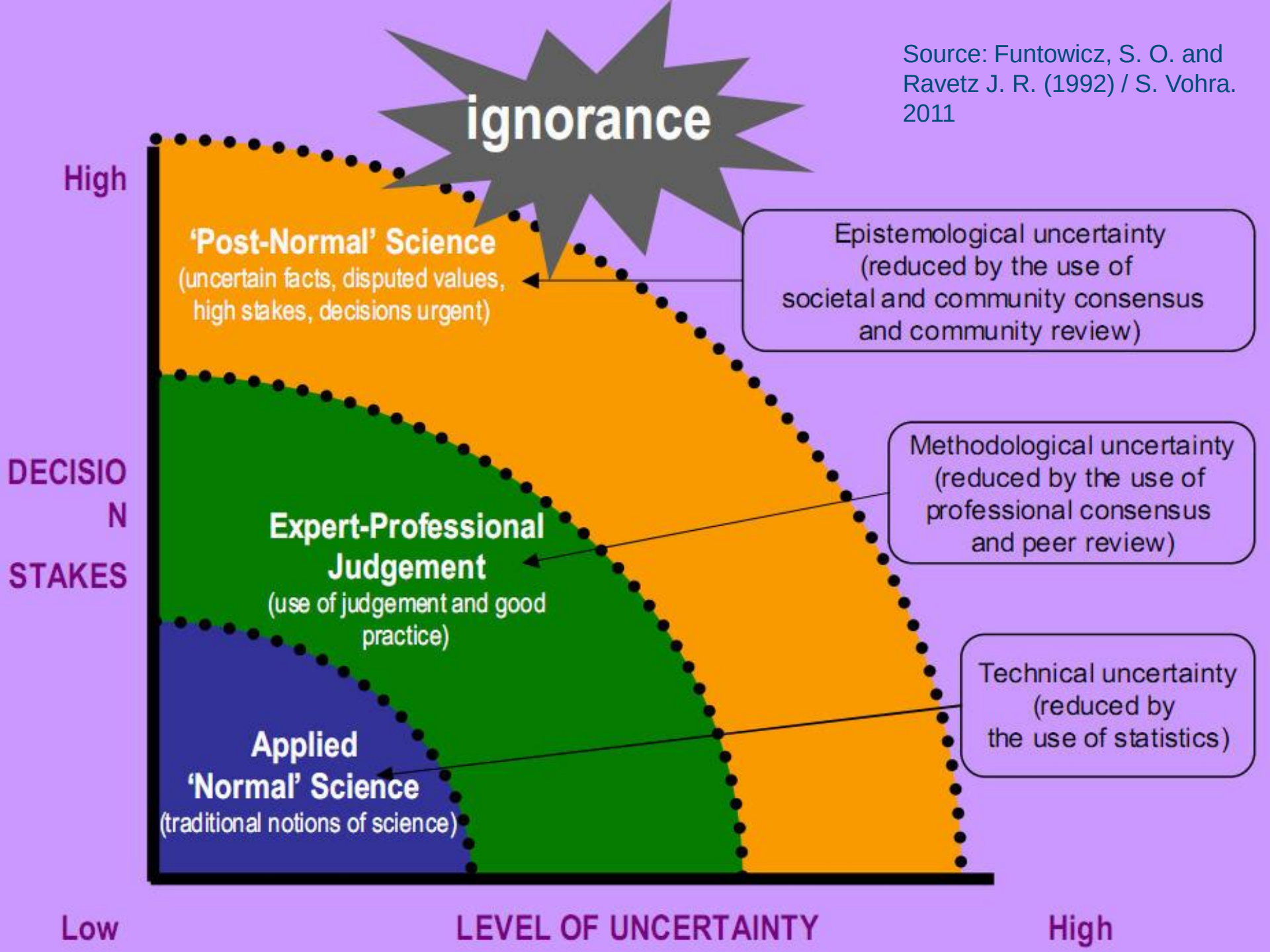


Based on Kropff, 2012


Evolving system indicators
Time
Stabilization
Acceleration
Take-off
Brewing phase
landscape
macro level
regimes
meso level
niches
micro level

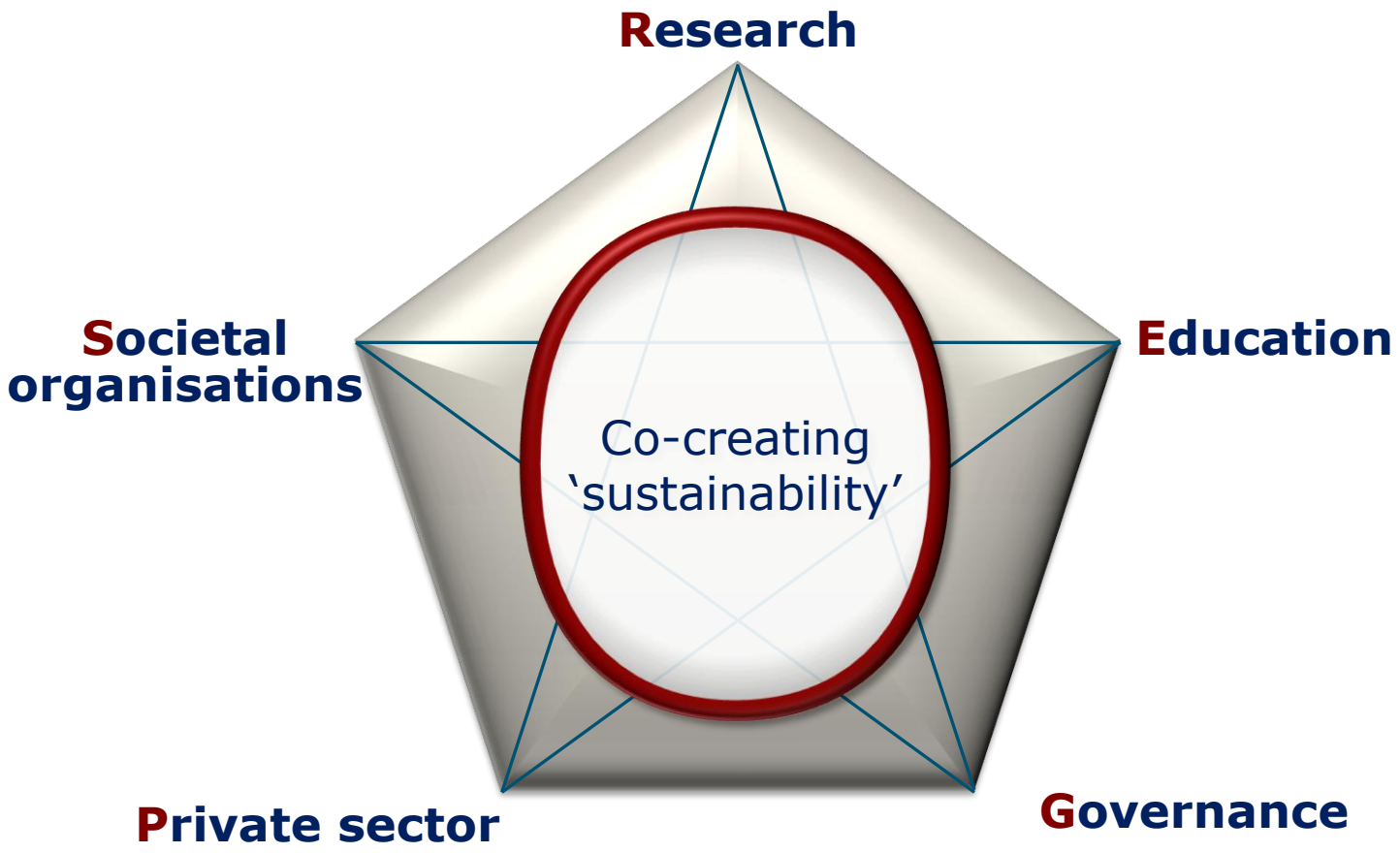
Science for impact factors – trend





Source: Funtowicz, S. O. and Ravetz J. R. (1992) / S. Vohra. 2011

The Big Five


Research
Societal organisations
Education
Co-creating
'sustainability'
Private sector
Governance

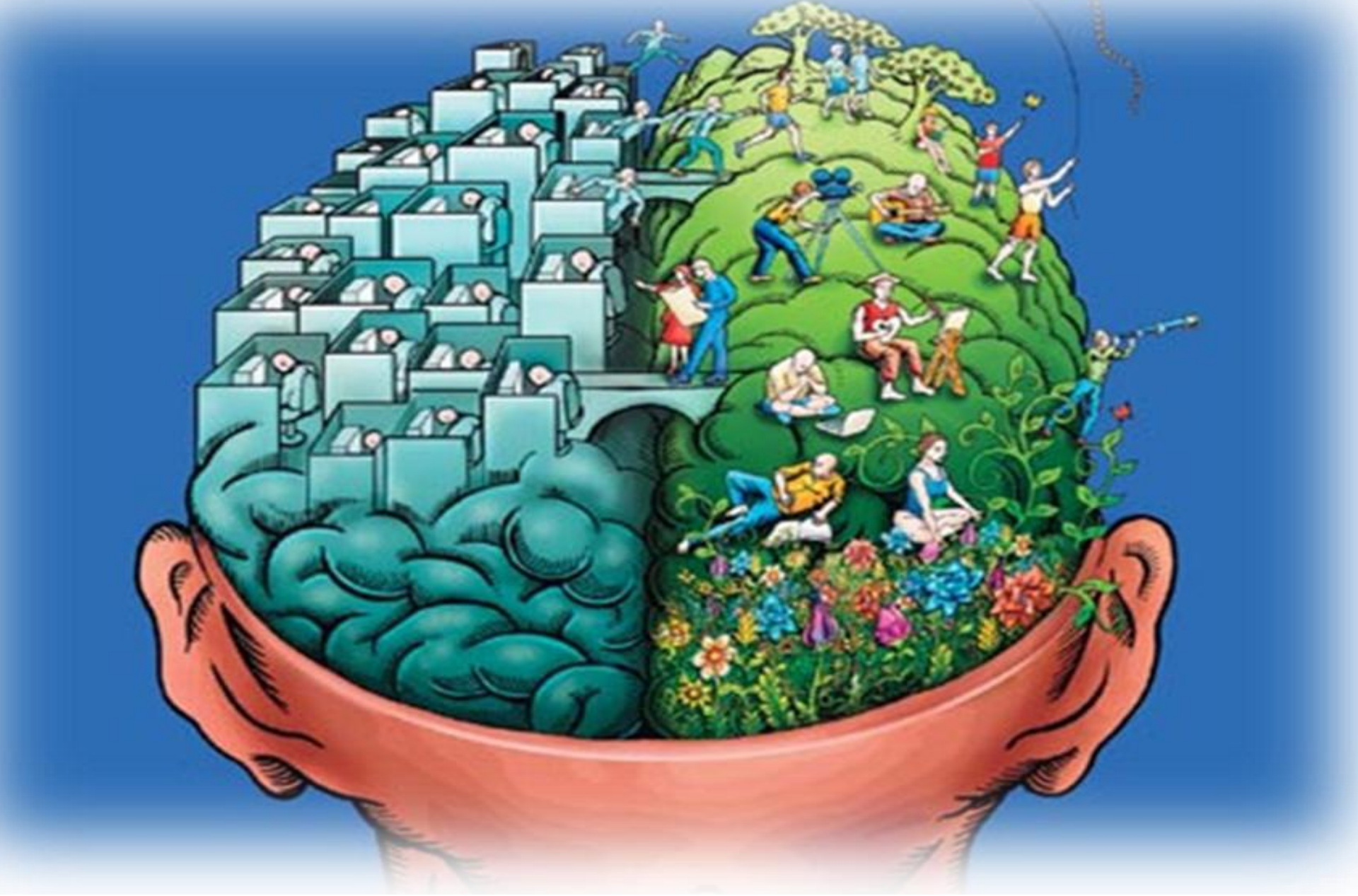


Illustration by VaXzine

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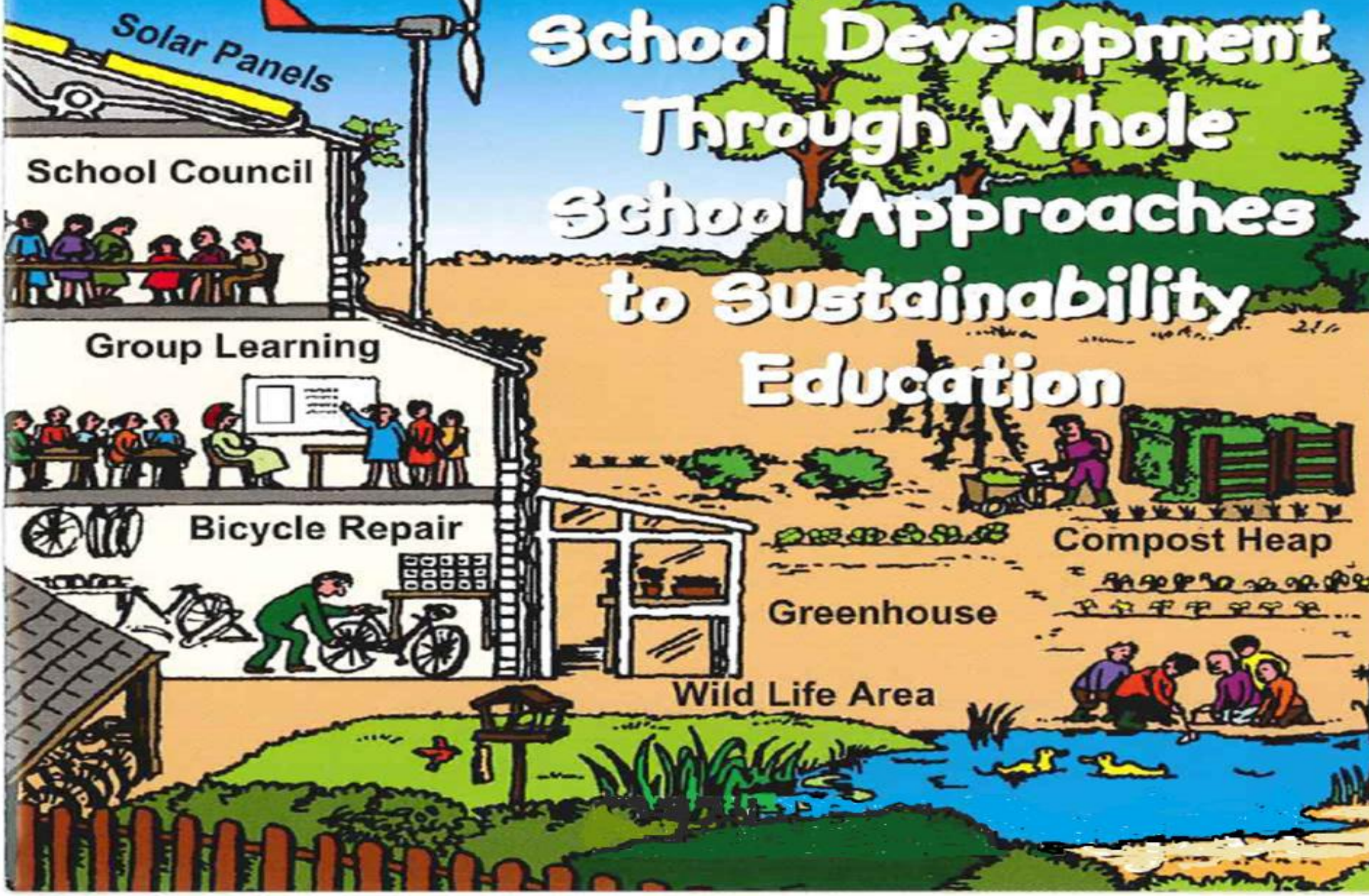
School Development Through Whole School Approaches to Sustainability Education
Solar Panels
School Council
Group Learning
Bicycle Repair
Compost Heap
Greenhouse
Wild Life Area

Sustain“ability”

- Understanding sustainable development
- Systems thinking
- Adopting an integral view

} Dynamics of SD

- Questioning hegemony and routines
- Analysing normativity
- Considering ethics

} Critical dimension

- Leadership, agency and entrepreneurship
- Unlocking creativity, utilizing diversity
- Appreciating chaos & complexity
- Fostering collective change

} Change & Innovation

	Science as commodity	Science as community
Research orientation	*Science for Impact Factors* Strong emphasis on publication targets to be met by publishing in ISI journals preferably with a high Impact Factor	*Science for Impact* Strong emphasis on societal relevance targets to be met by positive feedback by extended peers that include those who are to benefit from the research
Educational orientation	*Efficiency* Students are viewed from an economic perspective as clients, input, throughput and output, who need to get their diploma's within the time allocated at minimal costs *Instrumental* – transfer of pre-determined and relatively fixed outcomes	*Authenticity* Students are viewed from a human development perspective as citizens who want to develop themselves and want to engage in meaningful learning around authentic issues that cannot be lectured *Emancipatory* – high degrees of self-determination, space for transformation and co-created and emergent outcomes
Business orientation	*Focus on continuous growth* The university wants to or is forced to (as governments withdraw public money) to get more money out of the market. Faculty get acquisition/ 'billable days' targets.	*Focus on dynamic quality* The university invests in community relations and community outreach seeking to become indispensible and an integral part of the community which in return is willing to support the university.
Epistemological orientation	*Empirical rationalism* Finding an objective truth. Establishing causality. Single truth exists, can be known. Maximize predictability, management and control. Minimize uncertainty.	*Socio constructivism* Co-creation of knowledge, inter-subjectively validated. Pluralist. Not one single 'truth' but many subject to interpretation. Uncertainty as a given. Facts and values are inseparable.
Type of knowledge	*Scientific and technical knowledge* that can (allegedly) be generalized across	*Phronesis: ethically practical knowledge* that is indispensible for the work of making context specific

“We call upon world leaders to support the transformative role of higher education towards SD, and commit to work together and further promote transformative learning and research by encouraging multi-stakeholder, multi-sector partnerships, communicating examples of sustainability practices, …. and recognizing the essential role and responsibility of higher education institutions towards creating sustainable societies.”

(Nagoya Declaration on Sustainability in HE)

Key Points

- Sustainability requires space for systems thinking, integrative design, place & identity, and multiple ways of knowing and associated competences
- Blurring the boundaries between institutional, community-based and workplace learning is essential (hybrid learning in vital coalitions)
- Critical thinking (e.g. questioning taken-for-granted values, behaviours and systems), diversity and participation, and ‘unlearning’ are essential components of sustainability
- HE needs to become a breeding ground, innovation node and centre of expertise for education, research and outreach for transformation and a transitions towards sustainability

UNIVERSITI SAINS MALAYSIA

GLOBAL ALLIANCE ON COMMUNITY ENGAGED RESEARCH

GACER

Living Knowledge
The International Science Shop Network

RCE
REGIONAL CENTRE OF EXPERTISE ON EDUCATION FOR SUSTAINABLE DEVELOPMENT

ACKNOWLEDGED BY

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