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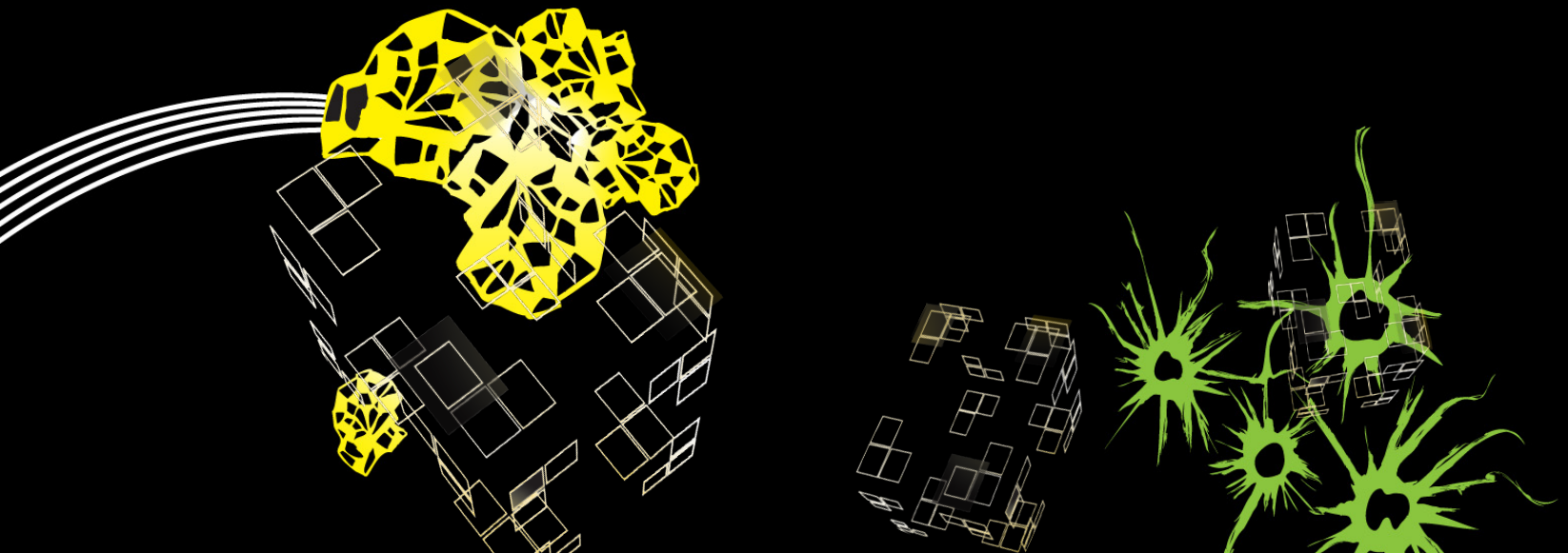
INKOOPMANAGEMENT EN SOFT-SKILLS DOOR CREATIVITEIT

14 APRIL 2022

DR KLAAS STEK



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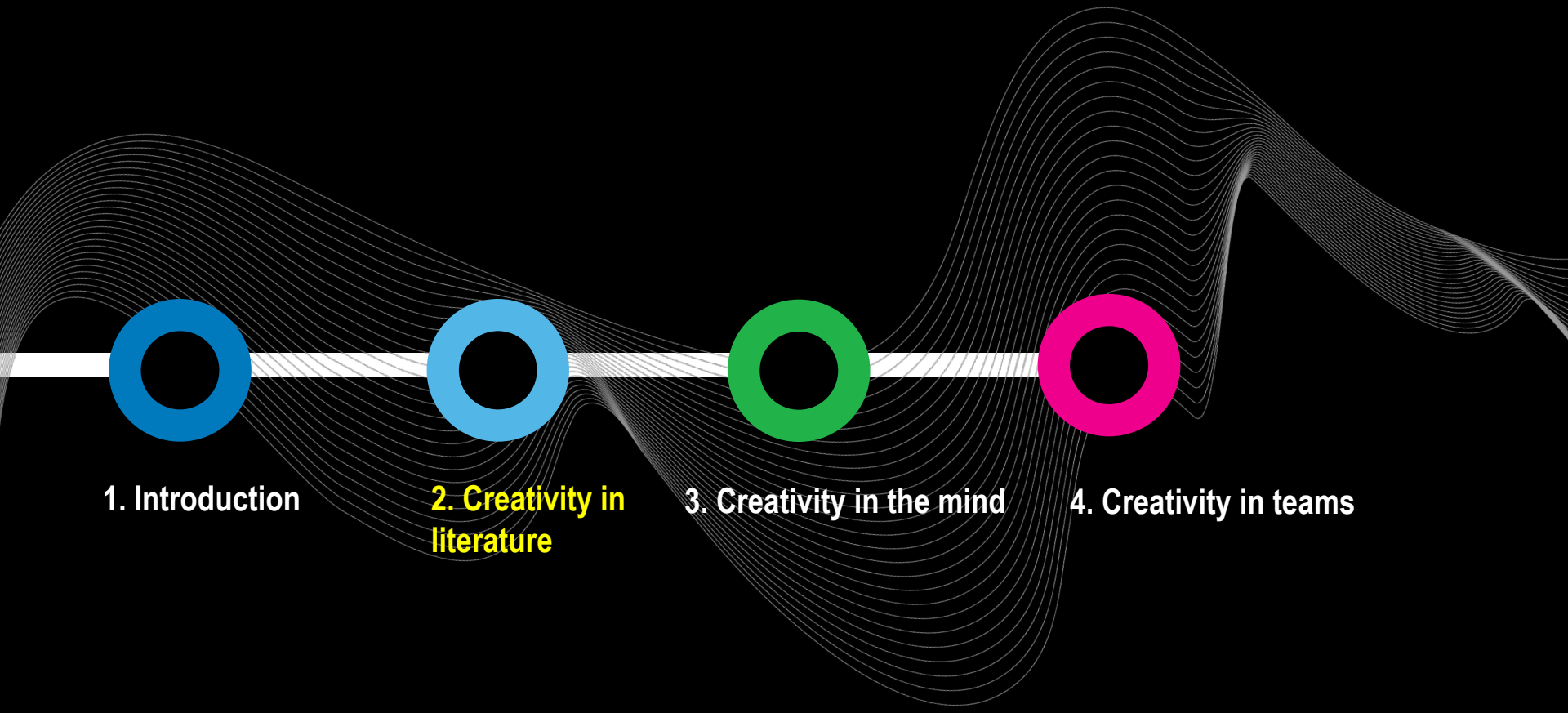

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Introduction

Connect with me

Projects and education



Dr. Klaas Stek,
Assistant Professor

UNIVERSITY OF TWENTE.

EL-IPS.

PROCEDIN

PRECIUS

TU Graz
Graz University of Technology

EPIEM
European Professors of Industrial Engineering and Management

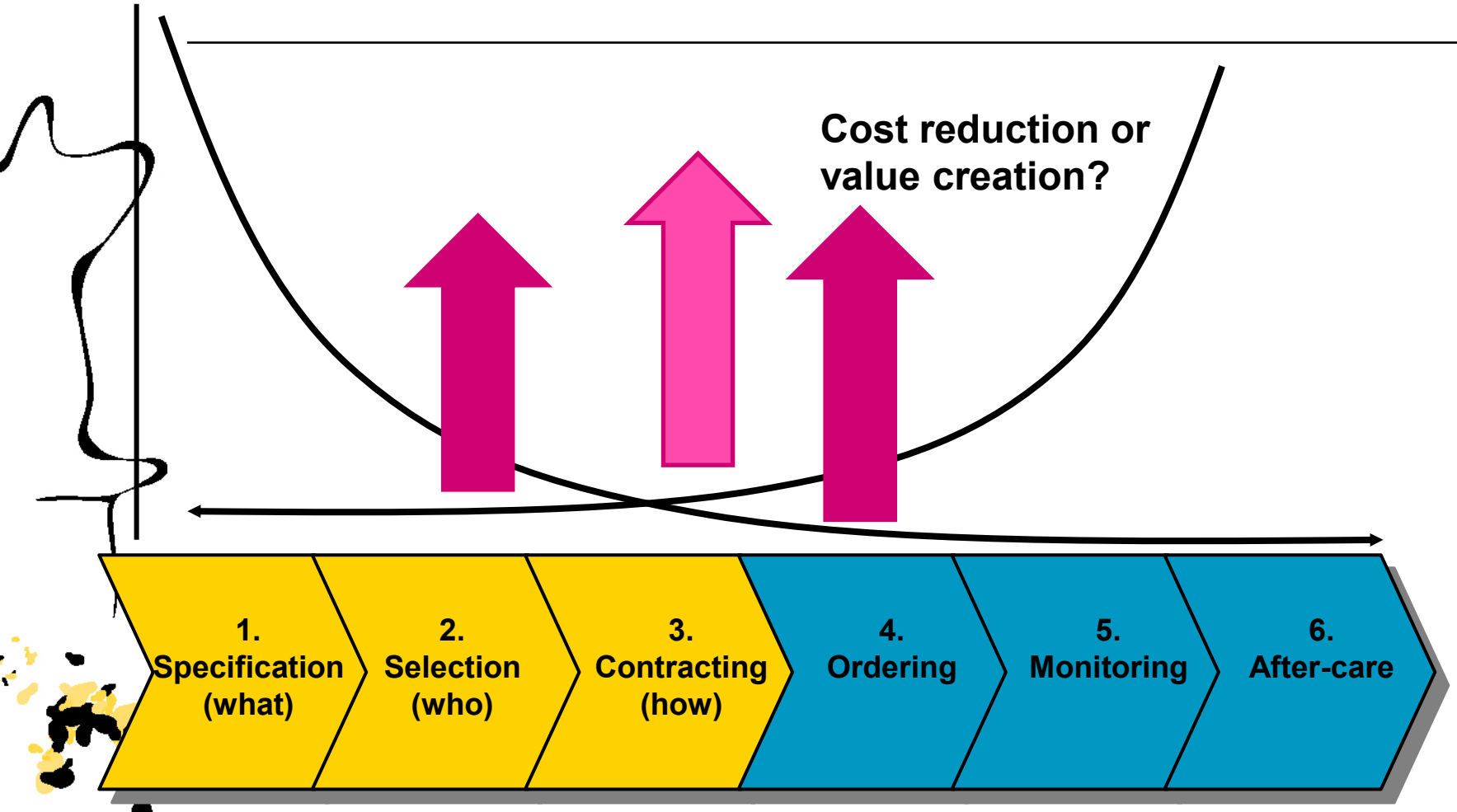
PERFECT
Purchasing Education and Research for European Competence Transfer

KEDGE BUSINESS SCHOOL

PERSIST.

PERISCOPE
FUNDED BY ERASMUS+

WHERE DOES PURCHASING INFLUENCE COSTS?



Sources: Van Weele; Telgen



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EUROPEAN LABORATORY FOR INNOVATIVE PURCHASING AND SUPPLY EDUCATION

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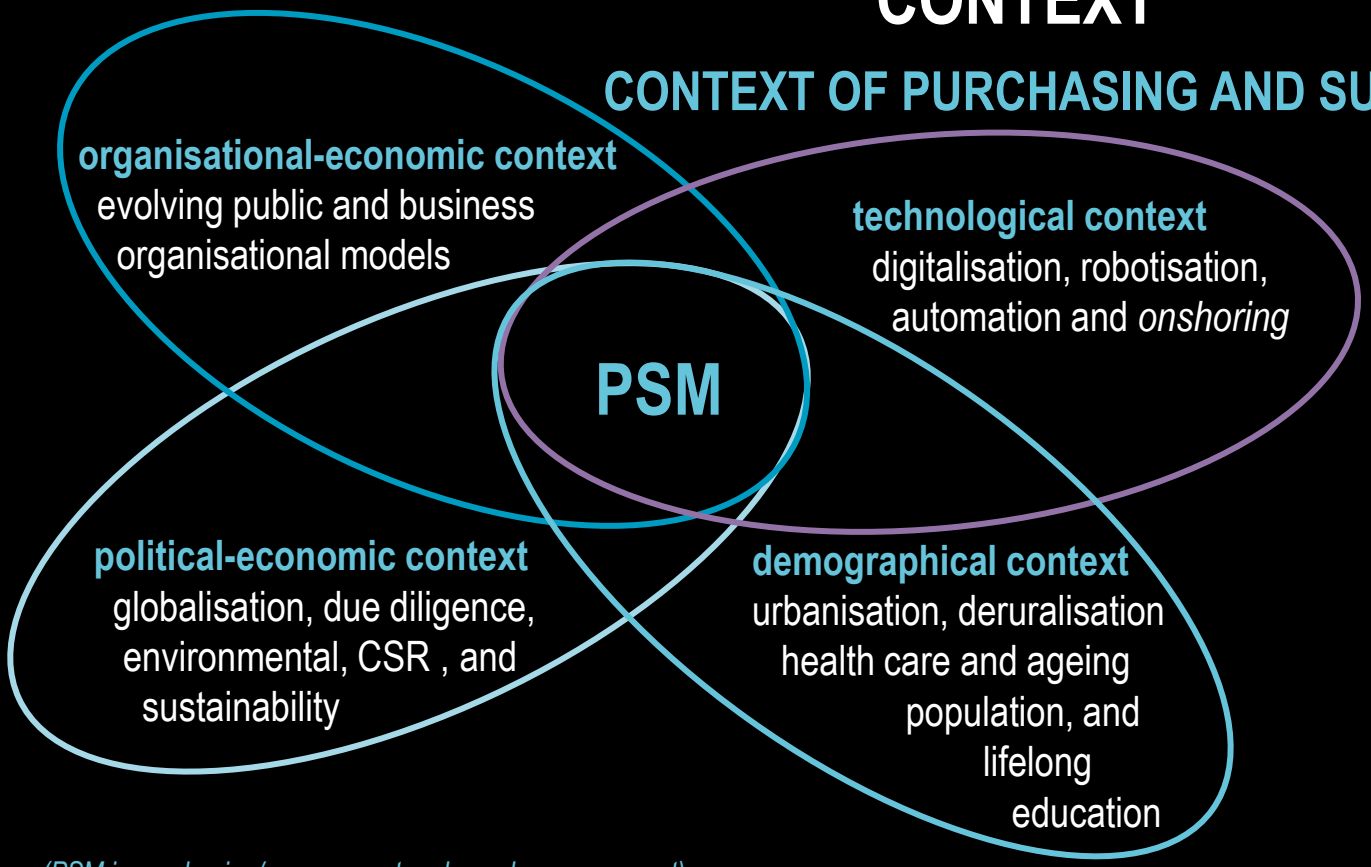
CONTEXT

CONTEXT OF PURCHASING AND SUPPLY



(PSM is purchasing/procurement and supply management)

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CHALLENGES

social responsibility

due diligence for conditions 'upstream' in the supply chain

environment

scarce resources

div. footprints (e.g., CO_2/H_2O)

maintaining competitive advantage

creating an innovation responsive environment

keeping up with technological advancements

supply risk management

being resilient towards supply chain disruptions

individual competences

changing job requirements

developing skills and acquiring knowledge

lifelong learning

health procurement

ageing population

pollution

adoption of new technologies

digitalisation

automation of purchasing processes

machine-to-machine communication

buyer-supplier relationship

establishing supplier satisfaction

becoming a preferred customer

legal issues

governance, rules and regulations

implementing supply chain law and rules

supplier markets

dynamics and competitiveness

market stewardship

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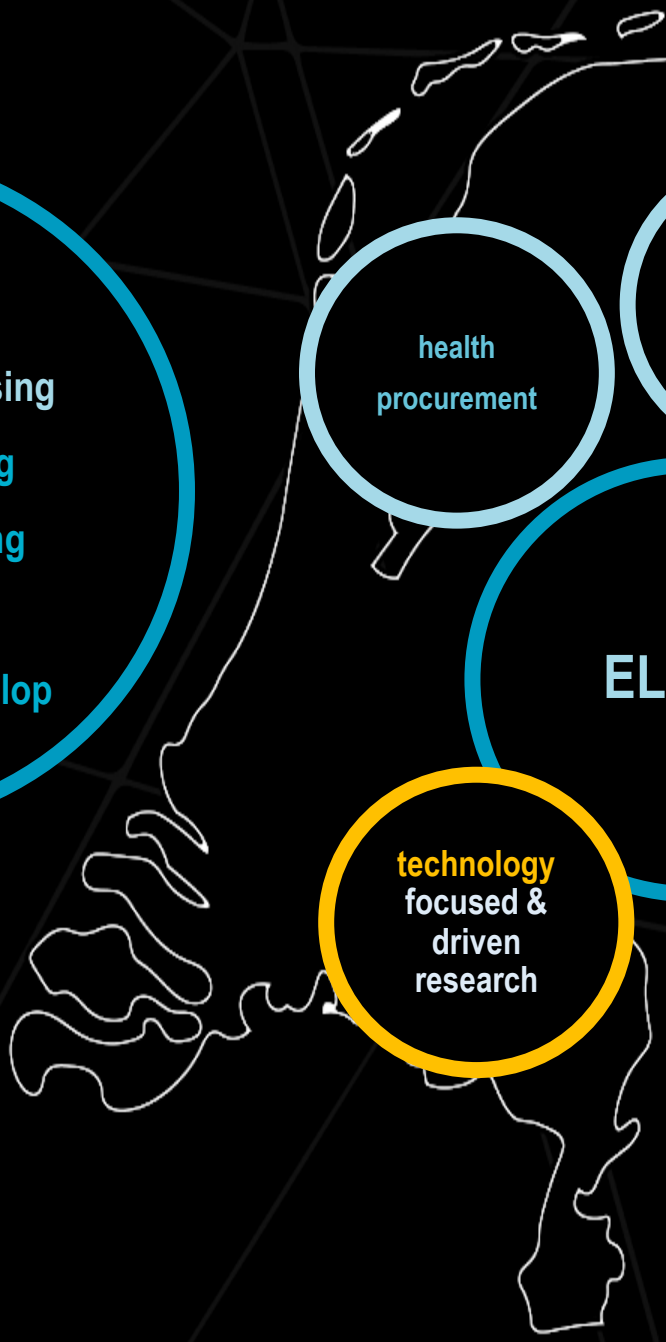
exploring future challenges in purchasing and supply, creating insights and enabling individuals and organisations to develop



health procurement

industrial procurement

public procurement

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project-delivery procurement

technology focused & driven research

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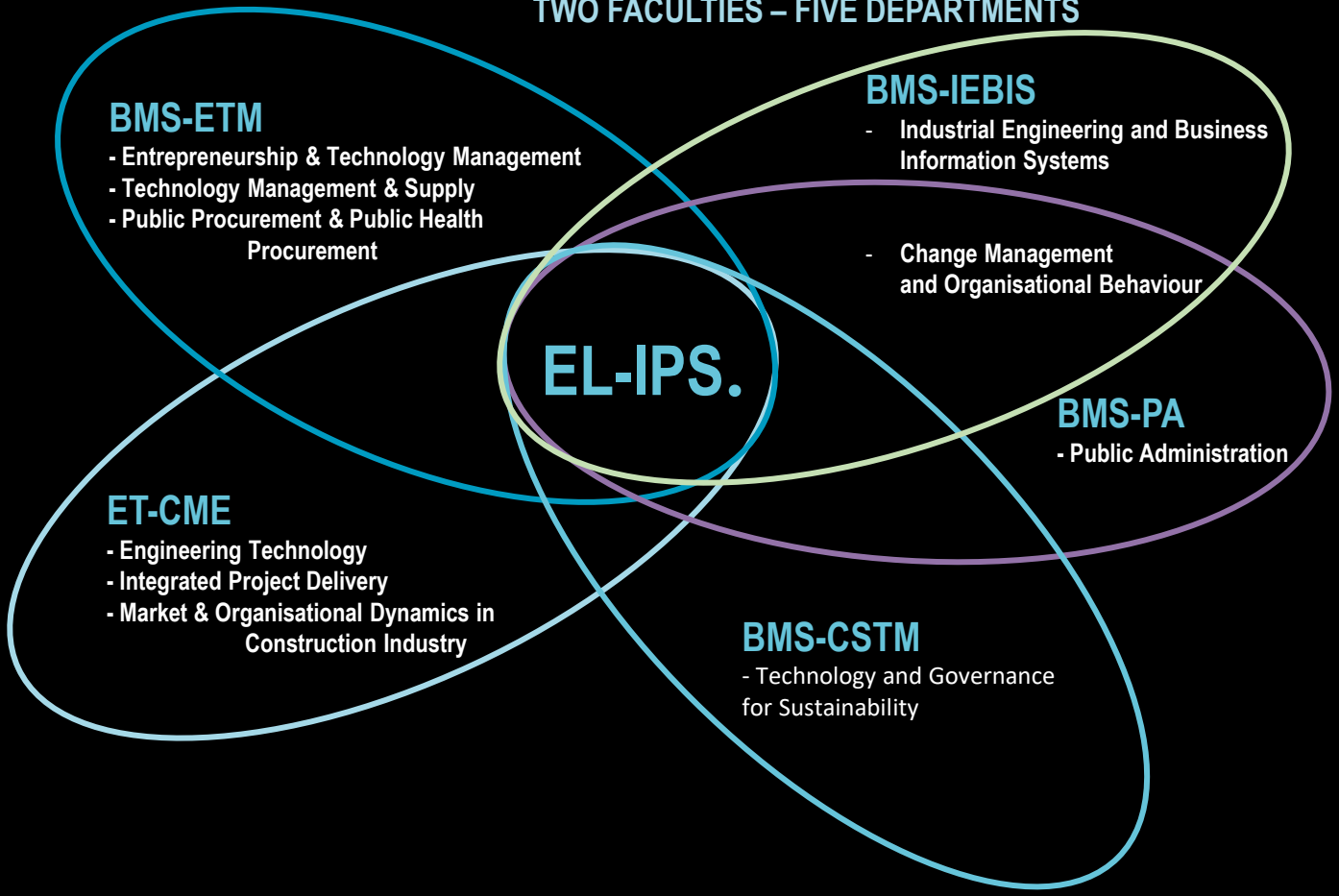
THE EL-IPS TEAM

TWO FACULTIES – FIVE DEPARTMENTS



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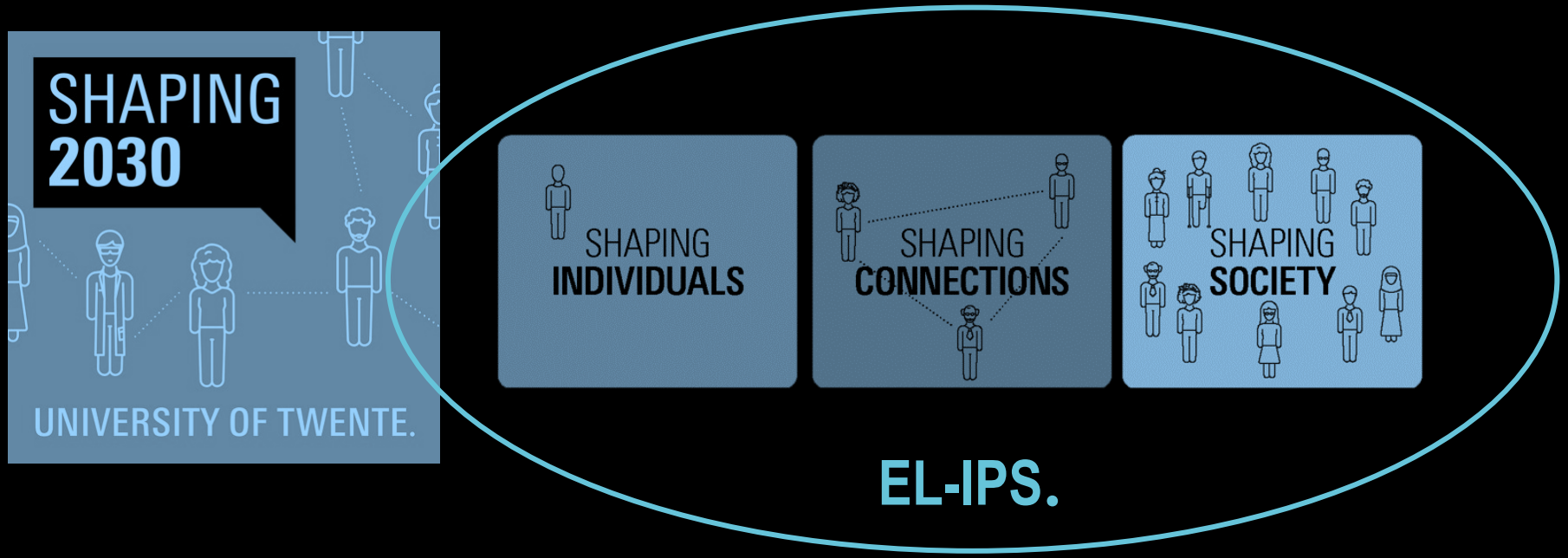
SHAPING 2030

PEOPLE-FIRST UNIVERSITY OF TECHNOLOGY



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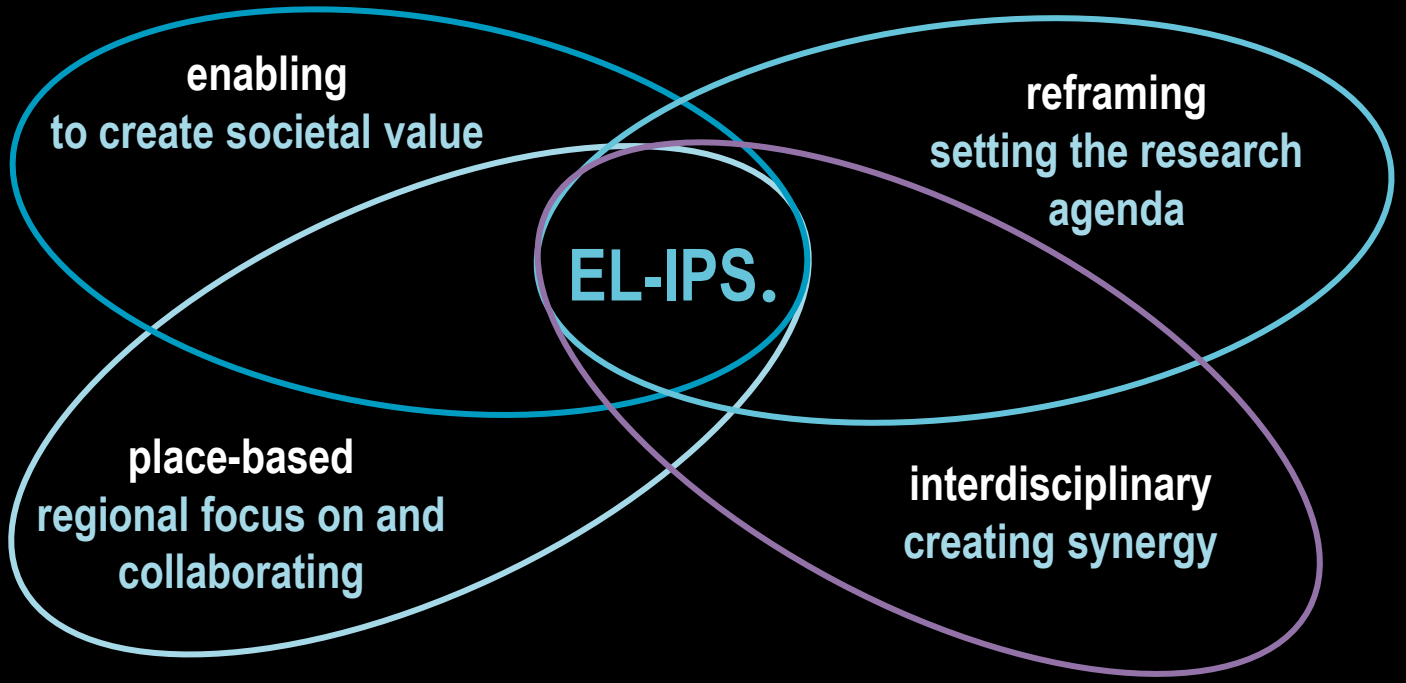
SHAPING 2030

SHAPING SOCIETY WITH EL-IPS.



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UNIVERSITY OF EL-IPS.

- Engage in ground-breaking research
- Have profound societal impact
- Excel in Innovative Education
- Construct multi-disciplinary answers to the grand challenges of tomorrow's world

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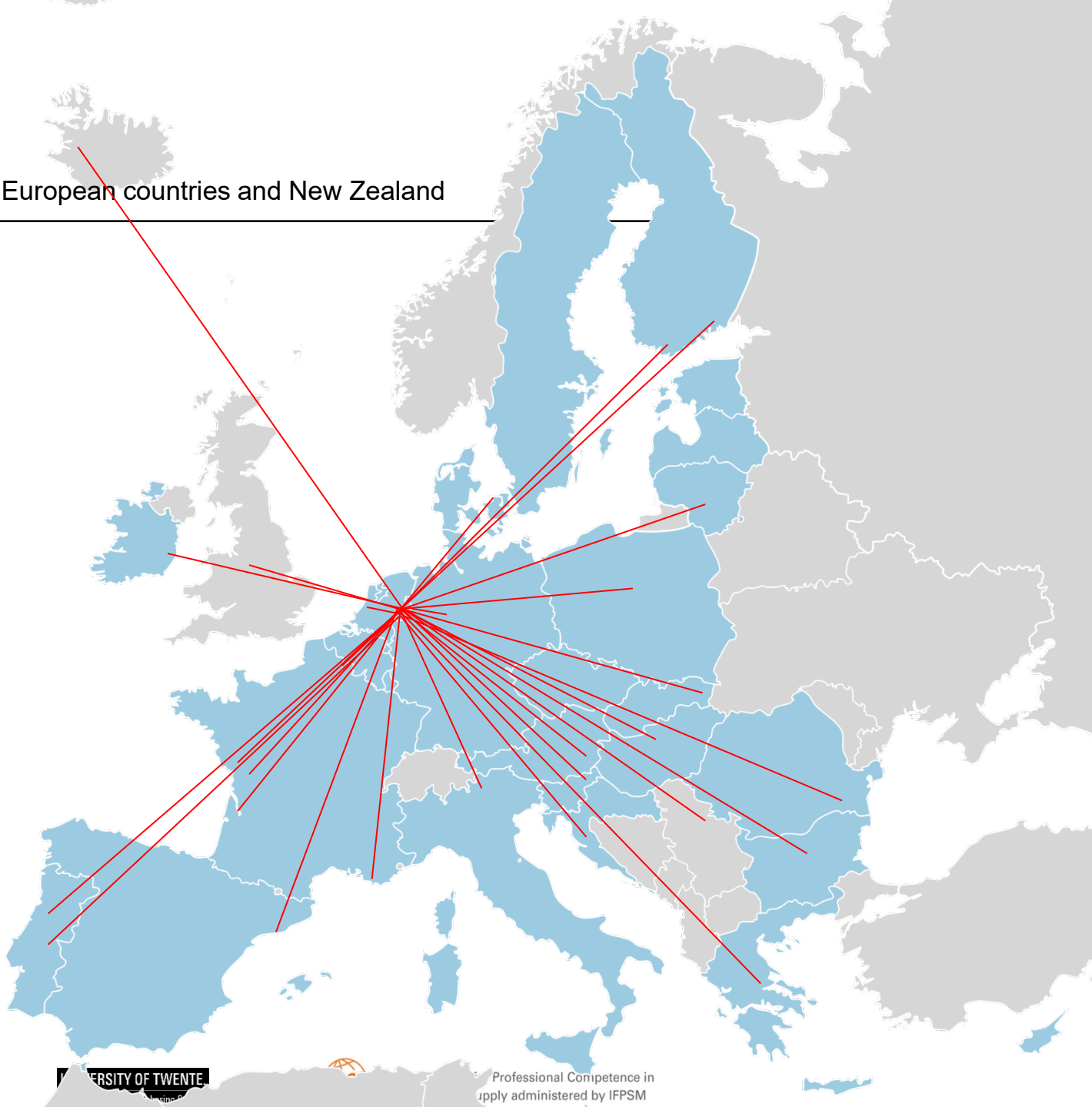
Project partners

Project partners in several European countries and New Zealand



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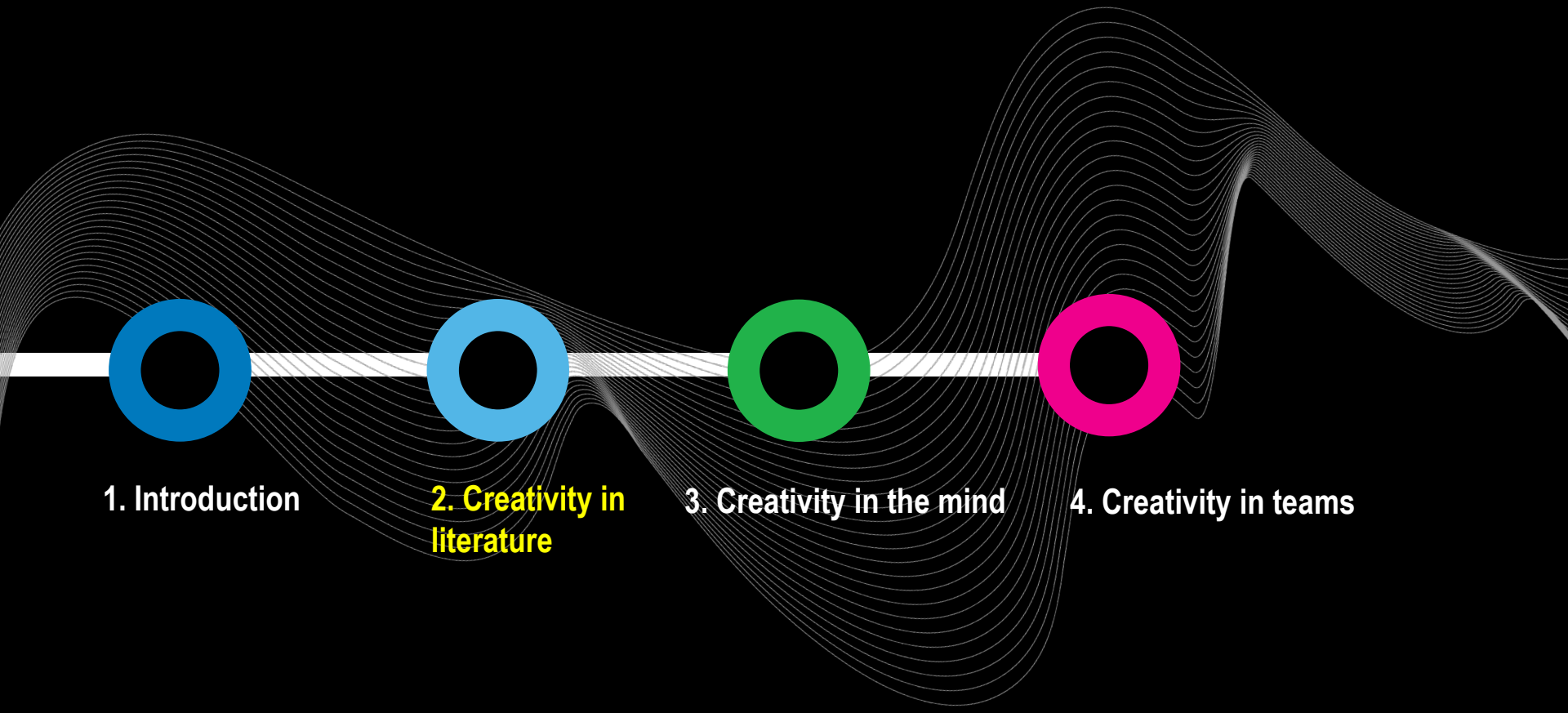

1. Introduction
2. Creativity in literature
3. Creativity in the mind
4. Creativity in teams

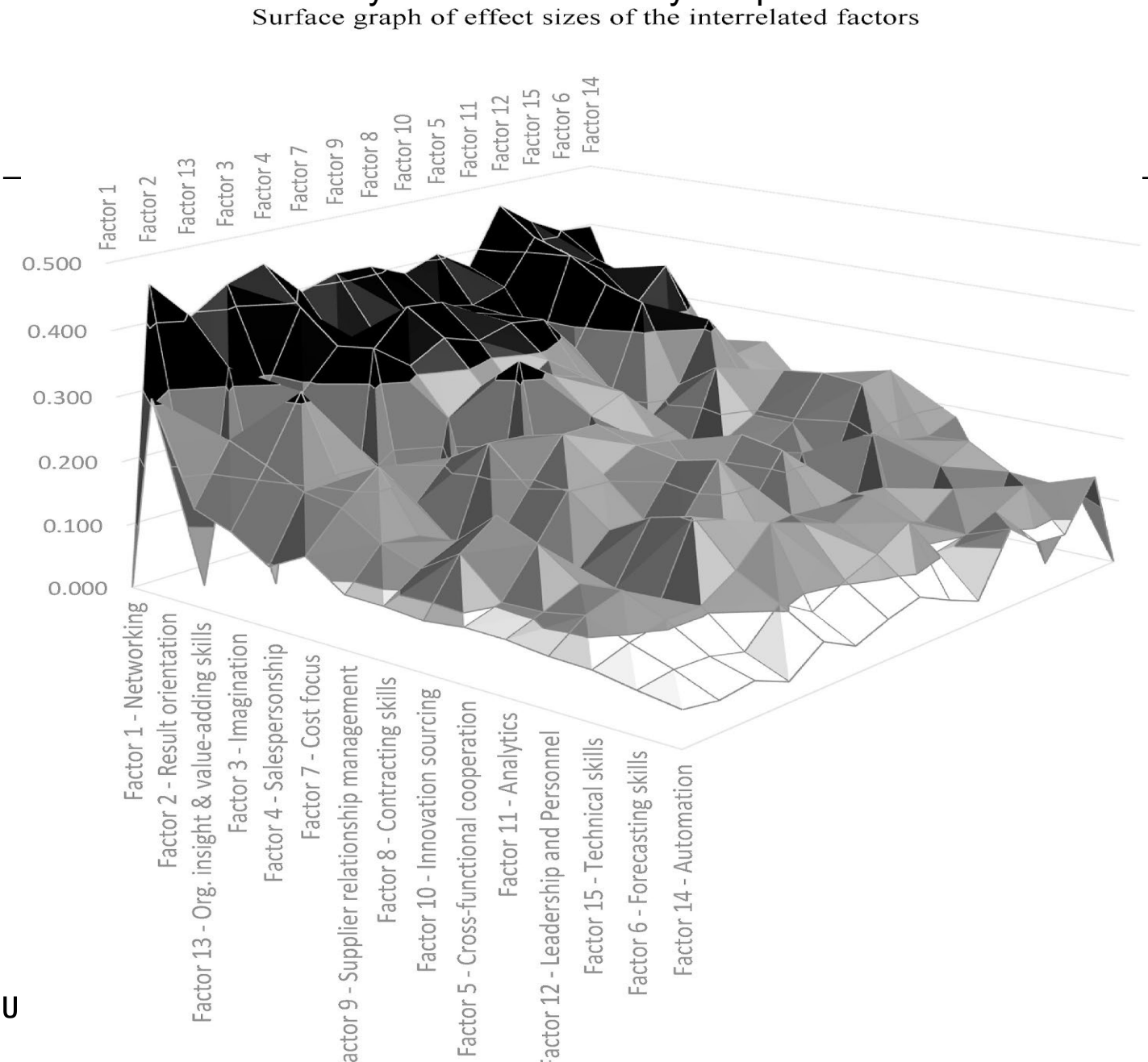
Crises and purchasing and supply skills

Connecting COVID-19 impacts with strategic changes and essential competences.

Impact of COVID-19	Strategic Change	Competence (Factors) Needed
Supply shocks	Diversification/dual sourcing, Localising supply chains	(8) Contracting skills, (9) Supplier relationship management, and (10) Innovation sourcing
Demand shocks, Bullwhip effect	Emphasis on supply chain visibility, Increased resilience through stockpiles	(14) Automation and (15) Technical skills
Transportation and requirement costs	Localising supply chains	(9) Supplier relationship management

Purchasing and supply skills hierarchy

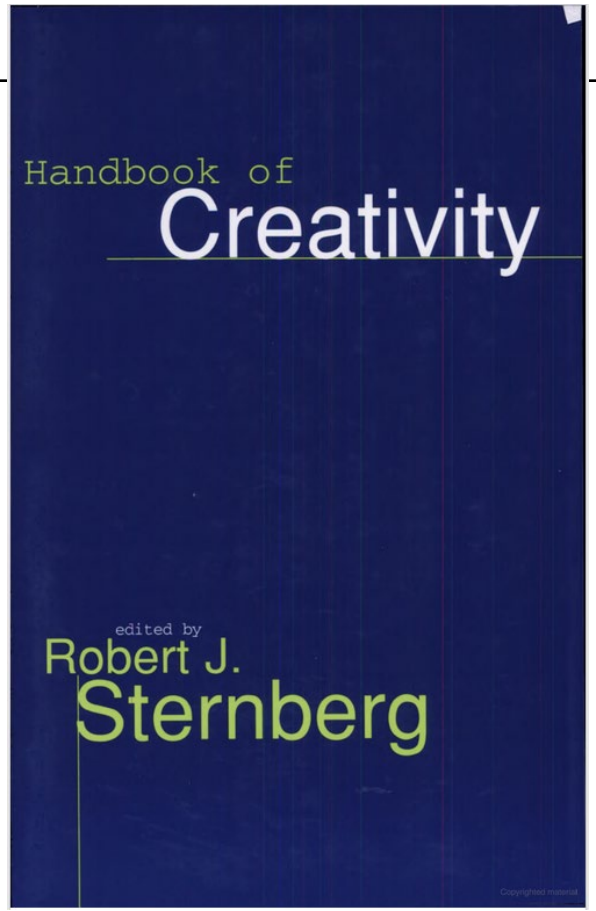
Soft skills are necessary conditions to carry out professional skills

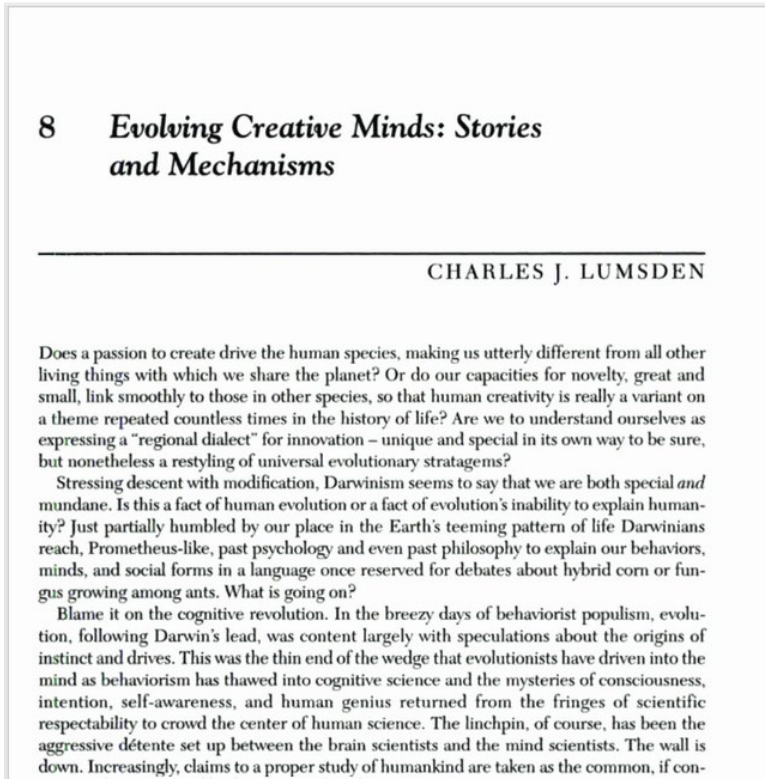


1 Networking *Capacity to be empathetic; Social Manners; Loyalty; Conscientiousness; Honesty; Comprehension of Complexity; Building Relations/Networking; Ability to Solve Problems; Customer-oriented* **2 Result orientation** *Self-assurance; Poise; Proactivity; Result-orientated action-taking; Willingness to take risks; Capacity to Advice; Ability to Resolve Conflicts; Power of Persuasion* **13 Organisational insight and governance** *(Understanding how to) add value to the organisation; Understanding Corporate Governance; Understanding the Position of Purchasing in Organisation Project Management Skills; Team Ability Skills; Optimisation of Purchasing Processes; Process Management* **3 Imagination** *Creativity; Inventiveness; Willingness to Learn; Holistic Thinking* **4 Sellership** *Salesperson skills; Personality Characteristics Development (e.g. entrepreneurial); Cross-cultural Awareness; Customer orientation* **7 Cost focus** *Cost Reduction Techniques; Solicit offers; Global Sourcing; Making cost analyses; Negotiation; Purchasing knowledge* **9 Supplier relationship management** *Supplier Relationship Management; Supply Risk management; Supplier Evaluation; Supplier Development; Early Supplier Involvement; Strategic Business Partner; Sustainability* **8 Contracting skills** *Developing specifications for supplies; Contract Development (design of contracts); Contract Management; Claims Management; Evaluate Offers & Supplier Selection; CSR; Working together with the Legal department* **10 Innovation sourcing** *Innovation Sourcing; Innovation implementation; Category Strategy Development; Stakeholder Relationship Management; Pooling Planning & Demand; Supply Market Analysis* **5 Cross-functional cooperation** *Cooperating with the departments such as Marketing Management; Logistics and Storage; Research & Development; Production/Operations; Quality Management* **11 Analytics** *Set key performance indicators (KPIs); Performance Measurement and Follow-up; Statistical Analyses; Big Data Analyses; Portfolio Analysis Support* **12 Leadership and Personnel management** *Purchasing Roles and Job Profiles; Personnel Selection Process; Employee Integration and Development Plan; Employee Performance Measurement; Leadership/ managing personnel; Training personnel; Managing change processes; Working together with the department Human Resources Management* **15 Technical skills** *Technical knowledge of products and production systems; Technology Planning (knowledge on its own company's technological requirements); Commodity and Domain-Specific Knowledge* **6 Forecasting skills** *Forecasting of the demand; Enterprise Resource Planning; Supply Chain Analysis* **14 Automation** *Automation; Procurement IT Systems/e-procurement applications*

Creativity in literature

Creativity is a distinct attitude of Homo Sapiens





8 *Evolving Creative Minds: Stories and Mechanisms*

CHARLES J. LUMSDEN

Does a passion to create drive the human species, making us utterly different from all other living things with which we share the planet? Or do our capacities for novelty, great and small, link smoothly to those in other species, so that human creativity is really a variant on a theme repeated countless times in the history of life? Are we to understand ourselves as expressing a "regional dialect" for innovation – unique and special in its own way to be sure, but nonetheless a restyling of universal evolutionary stratagems?

Stressing descent with modification, Darwinism seems to say that we are both special *and* mundane. Is this a fact of human evolution or a fact of evolution's inability to explain humanity? Just partially humbled by our place in the Earth's teeming pattern of life Darwinians reach, Prometheus-like, past psychology and even past philosophy to explain our behaviors, minds, and social forms in a language once reserved for debates about hybrid corn or fungus growing among ants. What is going on?

Blame it on the cognitive revolution. In the breezy days of behaviorist populism, evolution, following Darwin's lead, was content largely with speculations about the origins of instinct and drives. This was the thin end of the wedge that evolutionists have driven into the mind as behaviorism has thawed into cognitive science and the mysteries of consciousness, intention, self-awareness, and human genius returned from the fringes of scientific respectability to crowd the center of human science. The linchpin, of course, has been the aggressive détente set up between the brain scientists and the mind scientists. The wall is down. Increasingly, claims to a proper study of humankind are taken as the common, if con-

Lumsden, C. J. (1999). Evolving creative minds: Stories and mechanisms. In R. J. Sternberg (Ed.), *Handbook of Creativity* (Vol. 1, pp. 153-168). Cambridge: Cambridge University Press.

Creativity in literature

Creativity is a distinct attitude of Homo Sapiens

An explanation for the success of the *Homo sapiens* and the extinction of the Neanderthals is: "*Homo sapiens can create and commit to exchange institutions that promote trade and insurance, and may organize themselves to reap the gains from trade that emerge from the specialization of labor*" (Horan et al., 2005, p. 4).

Thus, specialisation and trade (i.e. voluntary exchange) are the traits that are positively associated with the *Homo sapiens*. "*The early Homo sapiens bear the sign of major changes in cognition and culture linked to creativity*" (Lumsden, 1999, p. 164).

Lumsden, C. J. (1999). Evolving creative minds: Stories and mechanisms. In R. J. Sternberg (Ed.), *Handbook of Creativity* (Vol. 1, pp. 153-168). Cambridge: Cambridge University Press.

Horan, R. D., Bulte, E., & Shogren, J. F. (2005). How trade saved humanity from biological exclusion: An economic theory of Neanderthal extinction. *Journal of Economic Behavior & Organization, 58*(1), 1-29.

Creativity in literature

The lack of creativity and therefore the lack of trade led to the extinction of the Neanderthals

ELSEVIER

Journal of Economic Behavior & Organization
Vol. 58 (2005) 1–29

JOURNAL OF Economic Behavior & Organization

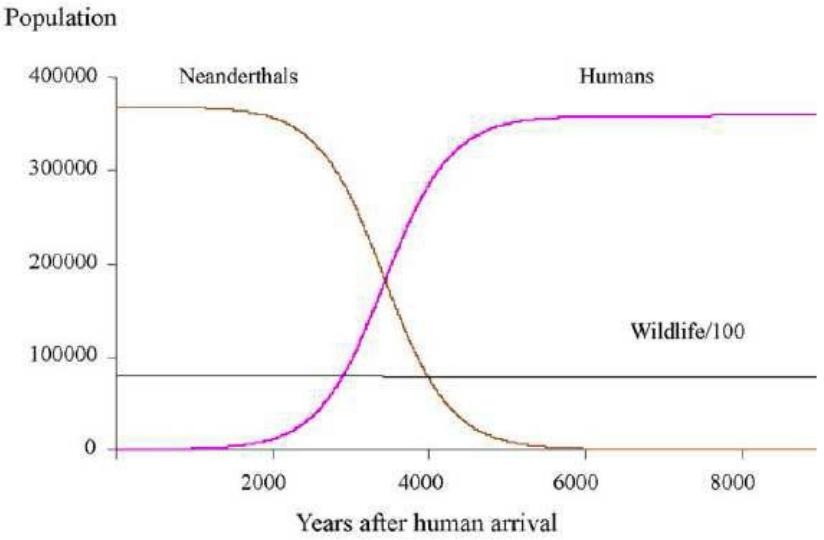
www.elsevier.com/locate/econbase

How trade saved humanity from biological exclusion: an economic theory of Neanderthal extinction

Richard D. Horan [a,*], Erwin Bulte [b], Jason F. Shogren [c]

[a] *Department of Agricultural Economics, Michigan State University, East Lansing, MI 48824-1039, USA*
[b] *Department of Economics, Tilburg University, P.O. Box 90153, 5000 LE Tilburg, Netherlands*



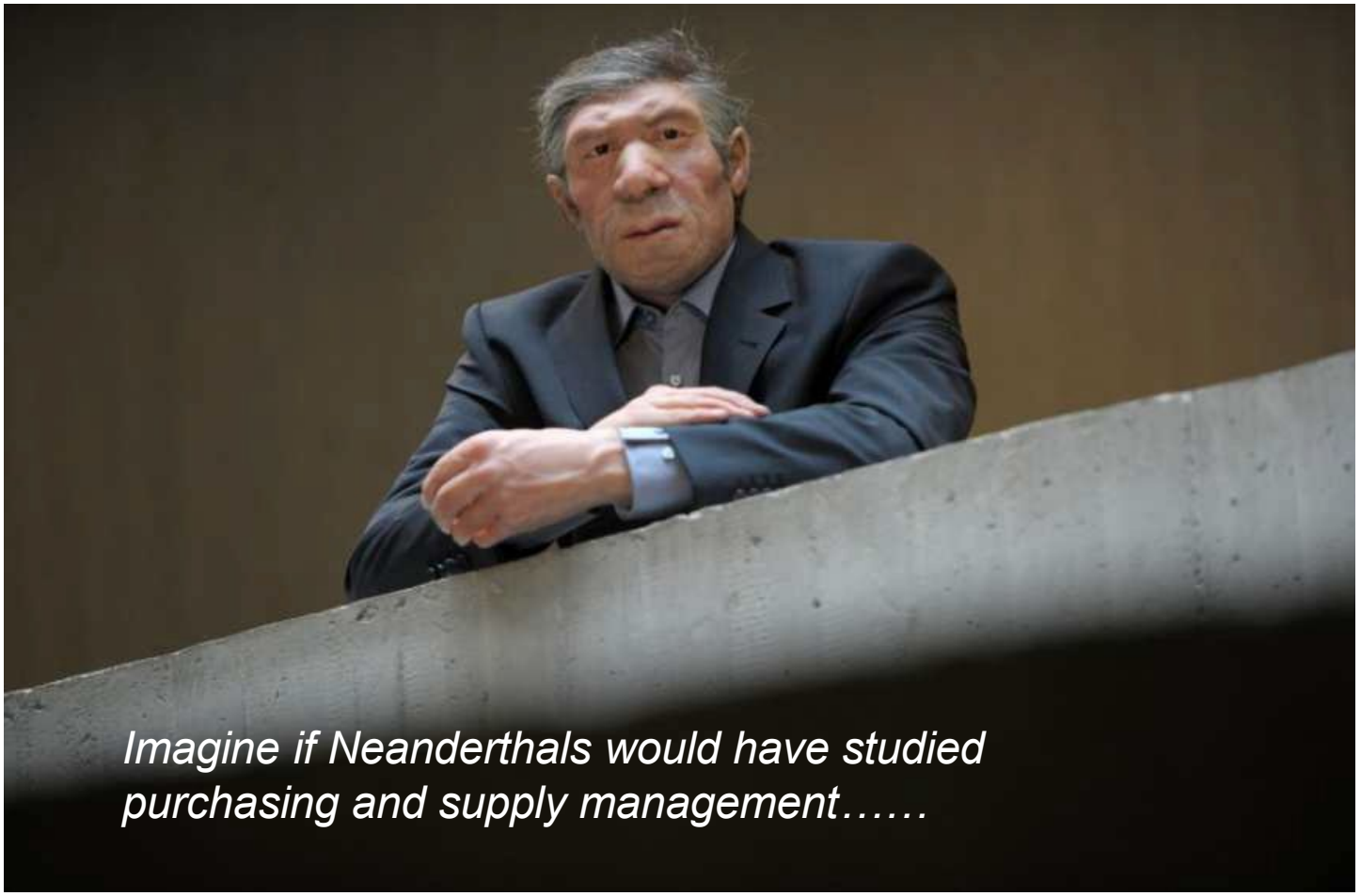


- Neanderthal: Artefacts from regional materials
- Homo sapiens: Materials from far away spots
- Simulations show: productivity gap led to extinction of less productive group. Same amount of nutrion provided.

Source: Horan et al. (2005)

Creativity in literature

The lack of creativity and therefore the lack of trade led to the extinction of the Neanderthals



Creativity in literature

Creativity – Big-C and little-c

In creativity research there are two directions: *"everyday creativity (also called "little-c"), which can be found in nearly all people, and eminent creativity (also called "Big-C"), which is reserved for the great"* (Kaufman & Beghetto, 2009, p. 1). Examples of little-c given by are: *"creative activities in which the average person may participate each day,"* such as *"coming up with a creative solution to a complex scheduling problem at work"* (Kaufman & Beghetto, 2009, p. 1).





you

Kaufman, J. C., & Beghetto, R. A. (2009). Beyond big and little: The four c model of creativity. *Review of general psychology, 13*(1), 1-12.

Creativity in literature

Creativity is leading to innovativeness when it is *novel* and *useful*



In the literature there has been a considerable amount of attention for the concept of **creativity** that is leading to ***innovativeness*** and that is underlining the importance of both ***novel*** and ***useful*** idea generation (Perry-Smith & Mannucci, 2017).

Perry-Smith, J. E., & Mannucci, P. V. (2017). From creativity to innovation: The social network drivers of the four phases of the idea journey. *Academy of Management Review, 42*(1), 53-79.

Creativity in literature

Creativity and innovation –starting with idea generation and leading to implementation

Parts of this innovation process are *"idea generation, idea screening, concept testing, development, and launch"* (Roy, Sivakumar, & Wilkinson, 2004, p. 62) or *"idea generation, idea elaboration, idea championing, and idea implementation"* (Perry-Smith & Mannucci, 2017, p. 53).

Perry-Smith, J. E., & Mannucci, P. V. (2017). From creativity to innovation: The social network drivers of the four phases of the idea journey. *Academy of Management Review, 42*(1), 53-79.

Roy, S., Sivakumar, K., & Wilkinson, I. F. (2004). Innovation generation in supply chain relationships: A conceptual model and research propositions. *Journal of the Academy of Marketing Science, 32*(1), 61-79.

Creativity in literature

Soft skill factors 'Team creativity climate' in PSM (derived from Stek and Schiele, 2021, p. 9)

Factors	Competences/items
1 Networking	Capacity to be empathetic; Social Manners; Loyalty; Conscientiousness; Honesty; Comprehension of Complexity; Building Relations/Networking; Ability to Solve Problems; Customer-oriented
2 Result orientation	Self-assurance; Poise; Proactivity; Result-orientated action-taking; Willingness to take risks; Capacity to Advice; Ability to Resolve Conflicts; Power of Persuasion
3 Organisational insight & value-adding skills	(Understanding how to) add value to the organisation; Understanding Corporate Governance; Understanding the Position of Purchasing in Organisation Project Management Skills; Team Ability Skills; Optimisation of Purchasing Processes; Process Management
4 Imagination	Creativity; Inventiveness; Willingness to Learn; Holistic Thinking
5 Sellership	Sellership skills; Personality Characteristics Development (e.g. entrepreneurial); Cross-cultural Awareness; Customer orientation

Source: Stek, K., Schiele, H., 2021. How to train supply managers – Necessary and sufficient purchasing skills leading to success. Journal of Purchasing and Supply Management 27, 100700.

Creativity in literature

SUTQ research Stek – Critical thinking is a necessary condition for strategic thinking

Factors	Competences/items
4 Imagination	Creativity; Inventiveness; Will to Learn; Holistic Thinking (or strategic thinking)

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critical thinking + creativity = strategic thinking

Source: Mintzberg, H. (1994). The fall and rise of strategic planning. *Harvard business review, January-February*, 1-16.

French business school

~~critical thinking~~ + creativity = ~~strategic thinking~~

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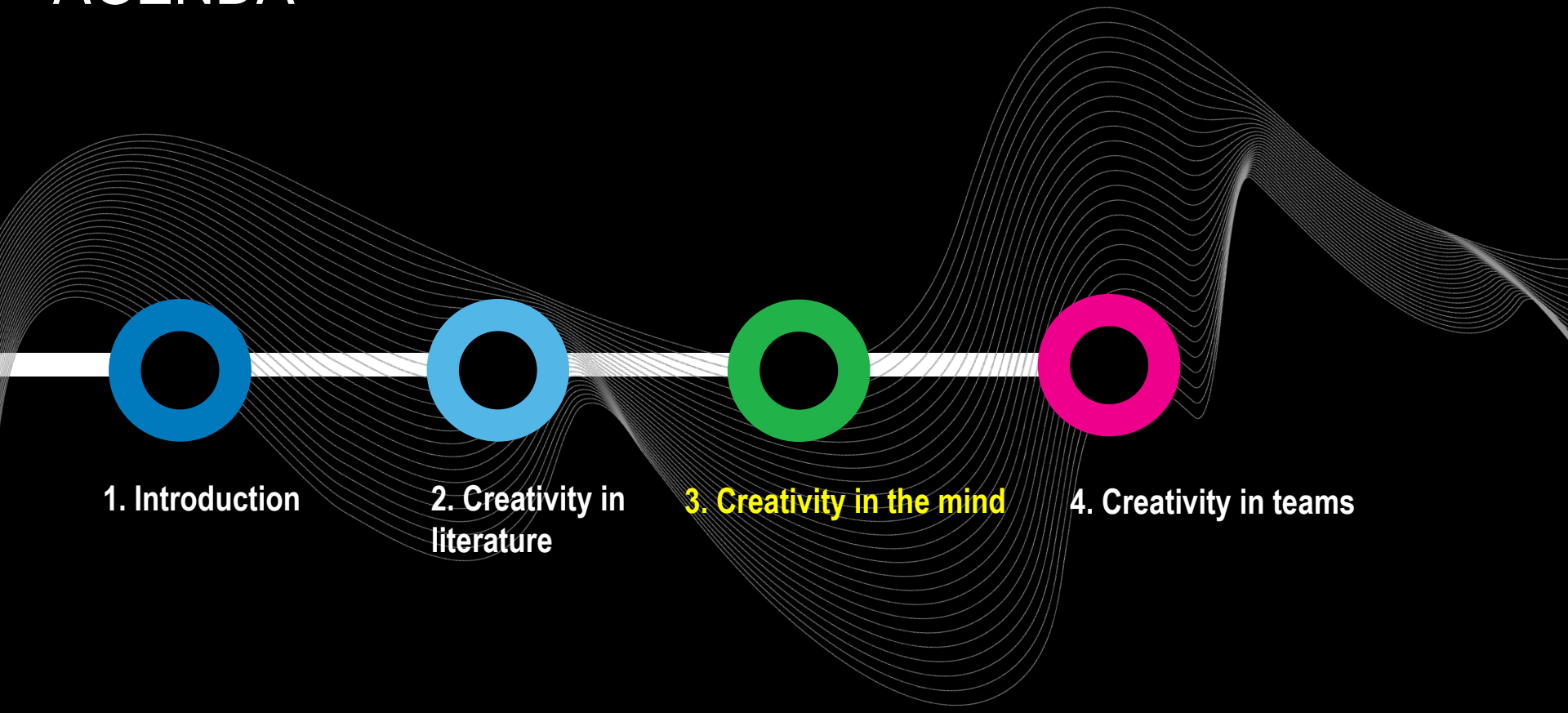

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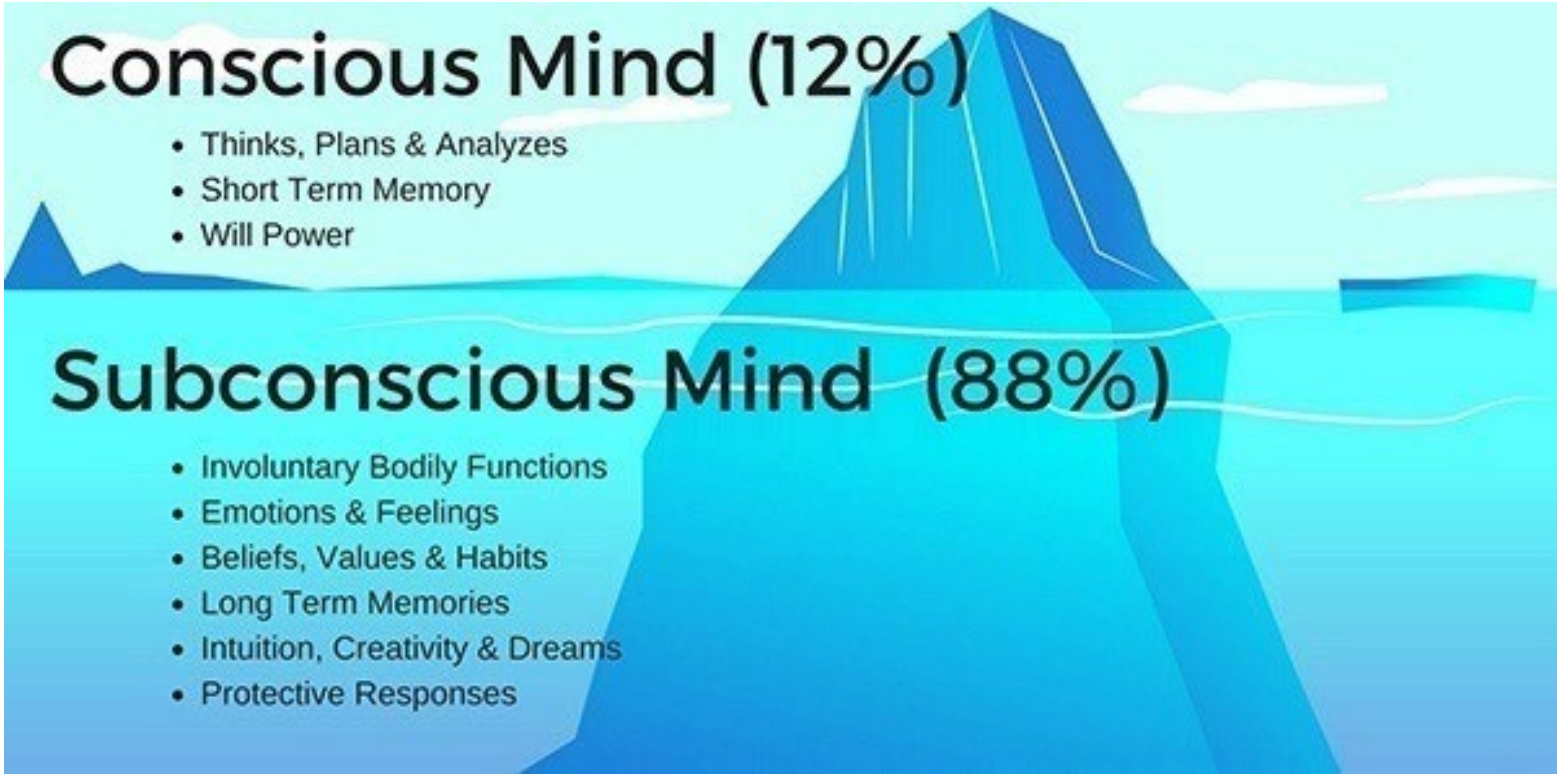
Creativity in the mind

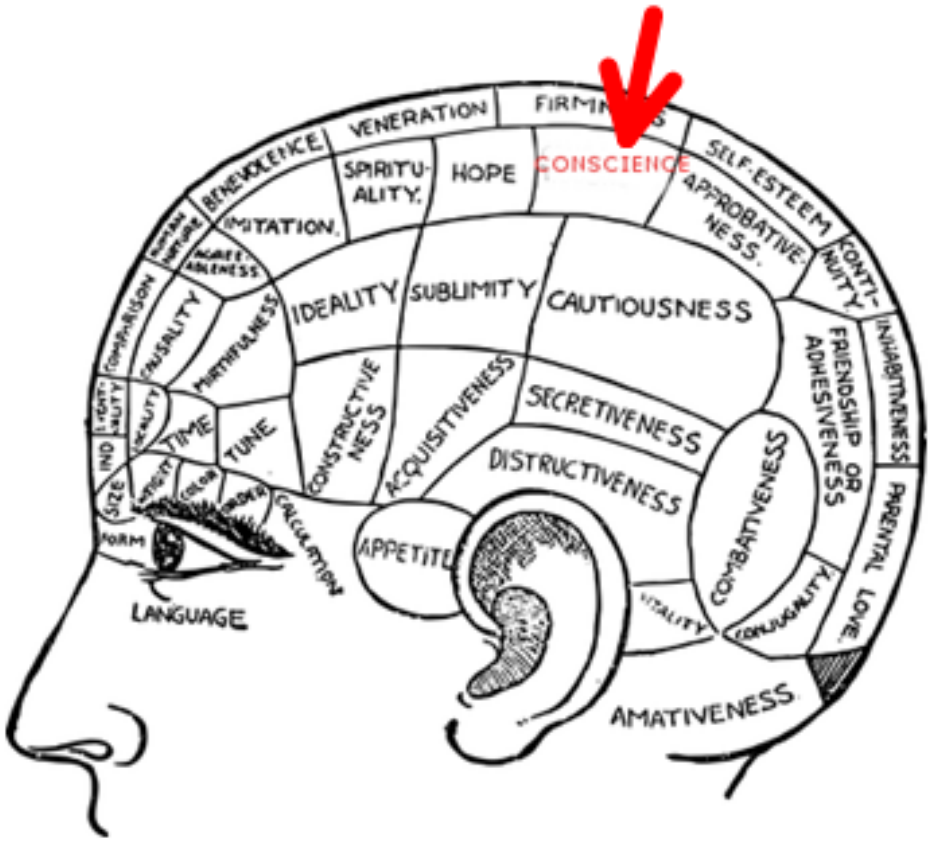
Conscious and the subconscious mind



Source: https://focusyourthinking.com/making-the-same-mistakes/ (February 2022)

Creativity in the mind

Conscious and the subconscious mind



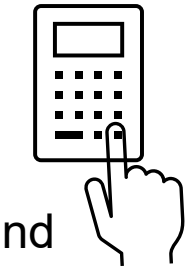
Source: https://moore2cleaning.com/conscience/ (February 2022)

Creativity in the mind

Conscious and the subconscious mind

analogy:

"small"
"calculator"



conscious mind

problem analysis

challenge:

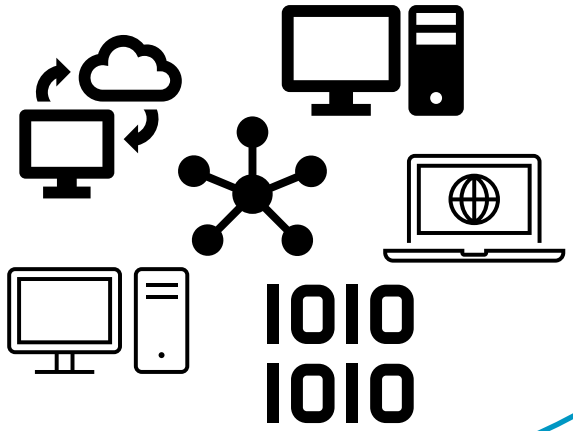
how to make interactions ?

no clear "user interface"

subconscious mind

analogy:

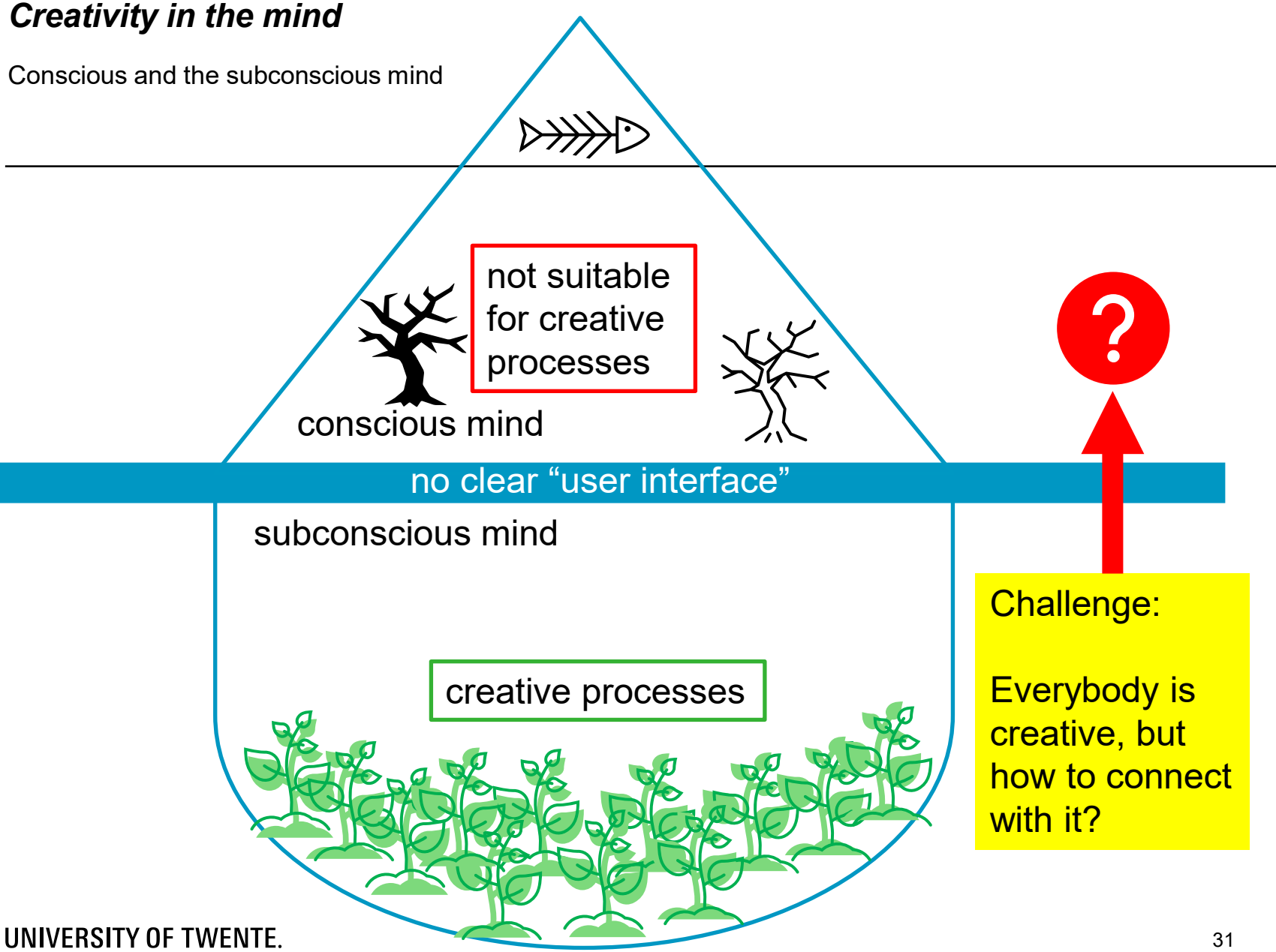
"large"
"network computer"



creative process

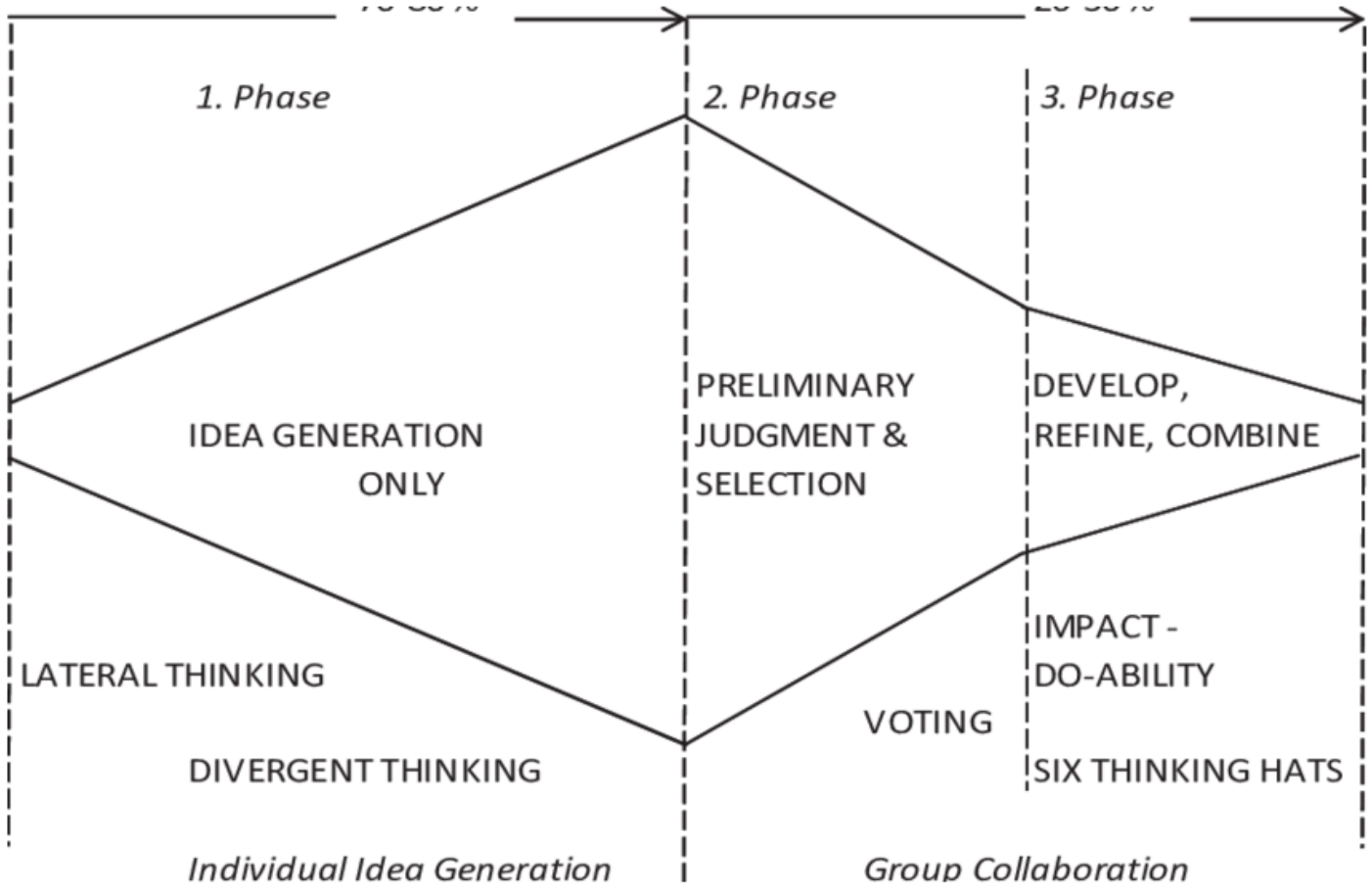
Creativity in the mind

Conscious and the subconscious mind



Creativity in the mind

Serious Creativity - Lateral thinking according Edward de Bono (1933-2021)



Lateral thinking ideation model, adapted from de Bono (2012)

Creativity in the mind

Conscious and the subconscious mind



How to start the creative process?

- exercise: run, cycle, walk, …
- create passion
- daily practice
- don't repeat thoughts
- sleep
- focus before sleeping
- travel
- do useless things
- be calm
- don't copy, get inspired
- play games
- read books
- make notes of ideas
- look at biology, sports or history
- be flexible in thoughts

Creativity in the mind

De Bono and six distinct types of thinking

De Bono Thinking Hats

					
The White Hat calls for information known or needed. "The facts, just the facts."	The Red Hat signifies feelings, hunches and intuition. When using this hat you can express emotions and feelings and share fears, likes, dislikes, loves, and hates.	The Yellow Hat symbolizes brightness and optimism. Under this hat you explore the positives and probe for value and benefit.	The Black Hat is judgment - the devil's advocate or why something may not work. Spot the difficulties and dangers; where things might go wrong. Probably the most powerful and useful of the Hats but a problem if overused.	The Green Hat focuses on creativity; the possibilities, alternatives, and new ideas. It's an opportunity to express new concepts and new perceptions.	The Blue Hat is used to manage the thinking process. It's the control mechanism that ensures the Six Thinking Hats® guidelines are observed.

https://www.slideegg.com/de-bono-thinking-hats-question-1731

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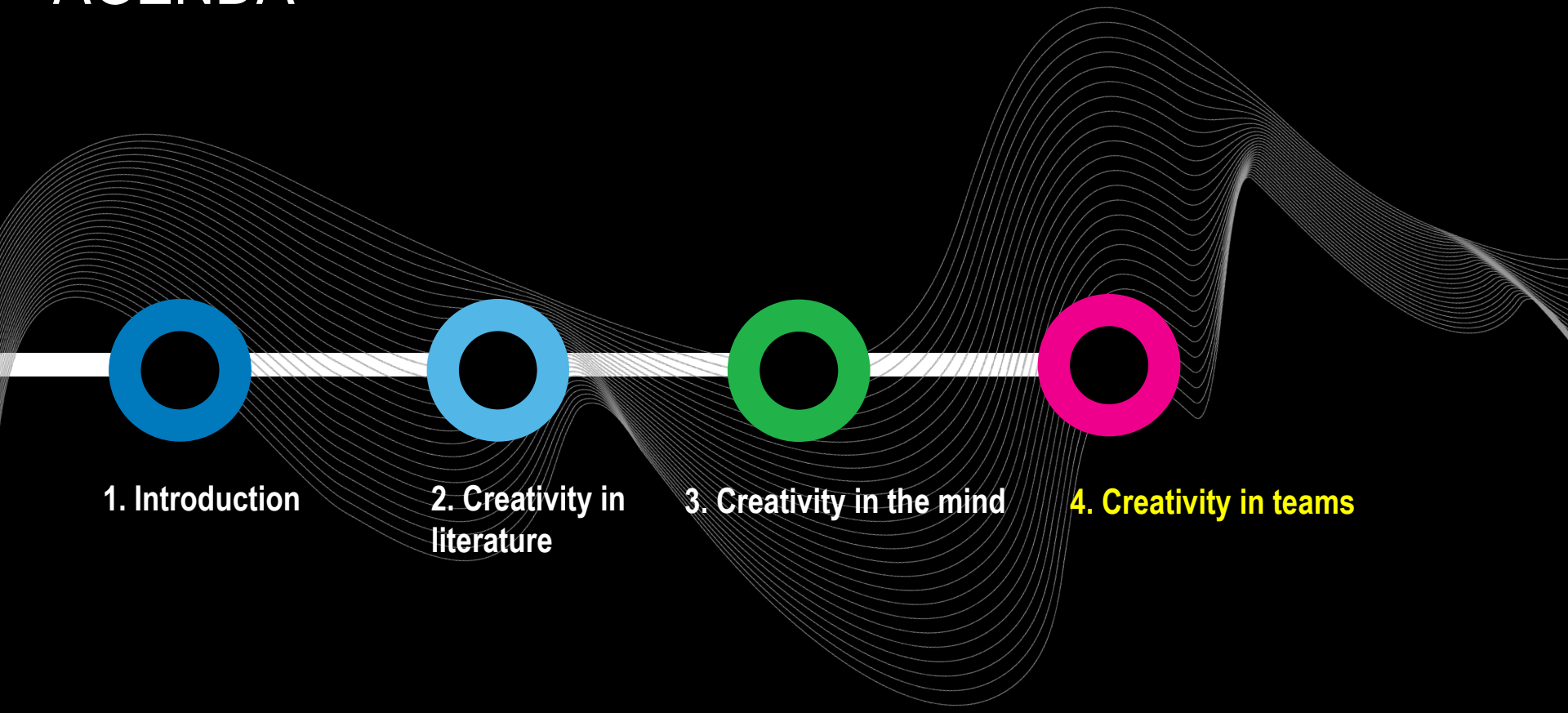
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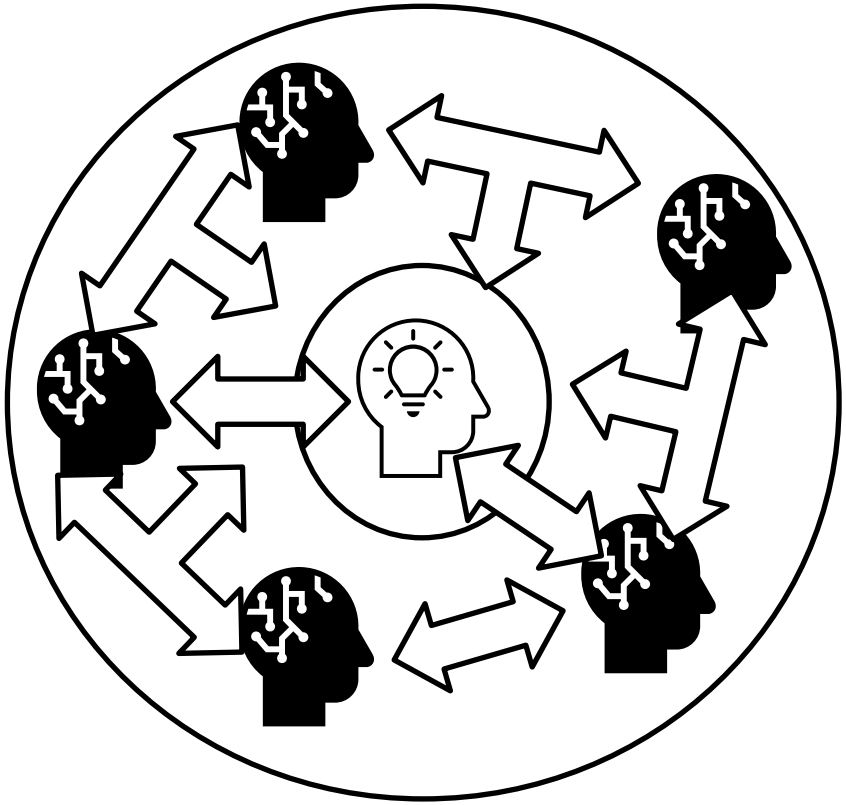
4. Creativity in teams

Creativity in teams

Team Creative Climate – Kiratli et al. (2016)



is creativity created
in the brain or
in teams?

Kiratli, N., Rozemeijer, F., Hilken, T., de Ruyter, K., & de Jong, A. (2016). Climate setting in sourcing teams: Developing a measurement scale for team creativity climate. *Journal of Purchasing and Supply Management, 22*(3), 196-204.

Creativity in teams

Team Creative Climate – Kiratli et al. (2016)

For the PSM function, Kiratli et al. (2016) sees an important role for creativity in sourcing teams and introduced the concept of a *team creativity climate* *"as a means to address the unique challenges associated with a collective, cross-functional approach to develop value- enhancing sourcing strategies"* (Kiratli et al., 2016, p. 196). This creative climate is an organisational atmosphere that enables *"the collective sensemaking process that precedes the origination of creative and successful strategies in sourcing teams"* (Kiratli et al., 2016, p. 202).

In order to promote creativity, Kiratli et al. (2016, p. 196) advice companies *"to install sourcing teams that can capitalise on the specialised knowledge and expertise of their employees across the company".*

Kiratli, N., Rozemeijer, F., Hilken, T., de Ruyter, K., & de Jong, A. (2016). Climate setting in sourcing teams: Developing a measurement scale for team creativity climate. *Journal of Purchasing and Supply Management, 22*(3), 196-204.

Creativity in teams

Items of the factor 'Team creativity climate' in PSM (derived from Kiratli et al., 2016, p. 200)

Items that form the factor 'Team creative climate' in PSM
In our team we are open to each other's views and ideas.
In our team we strive to think across departmental boundaries.
In our team we actively seek out each other for constructive discussions.
In our team we are encouraged to try new ways of doing things.
In our team we are comfortable with exploring unfamiliar or unknown ideas and perspectives.
In our team we openly share our thoughts without fear of rejection.
Building on each other's ideas is an integral part of how we work in our team.
In our team every team member's contribution is taken seriously.
In our team we promote behaviours that are conducive towards a trustful environment.

Kiratli, N., Rozemeijer, F., Hilken, T., de Ruyter, K., & de Jong, A. (2016). Climate setting in sourcing teams: Developing a measurement scale for team creativity climate. *Journal of Purchasing and Supply Management, 22*(3), 196-204.

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