Interdisciplinariteit in het hoger onderwijs

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Disciplines

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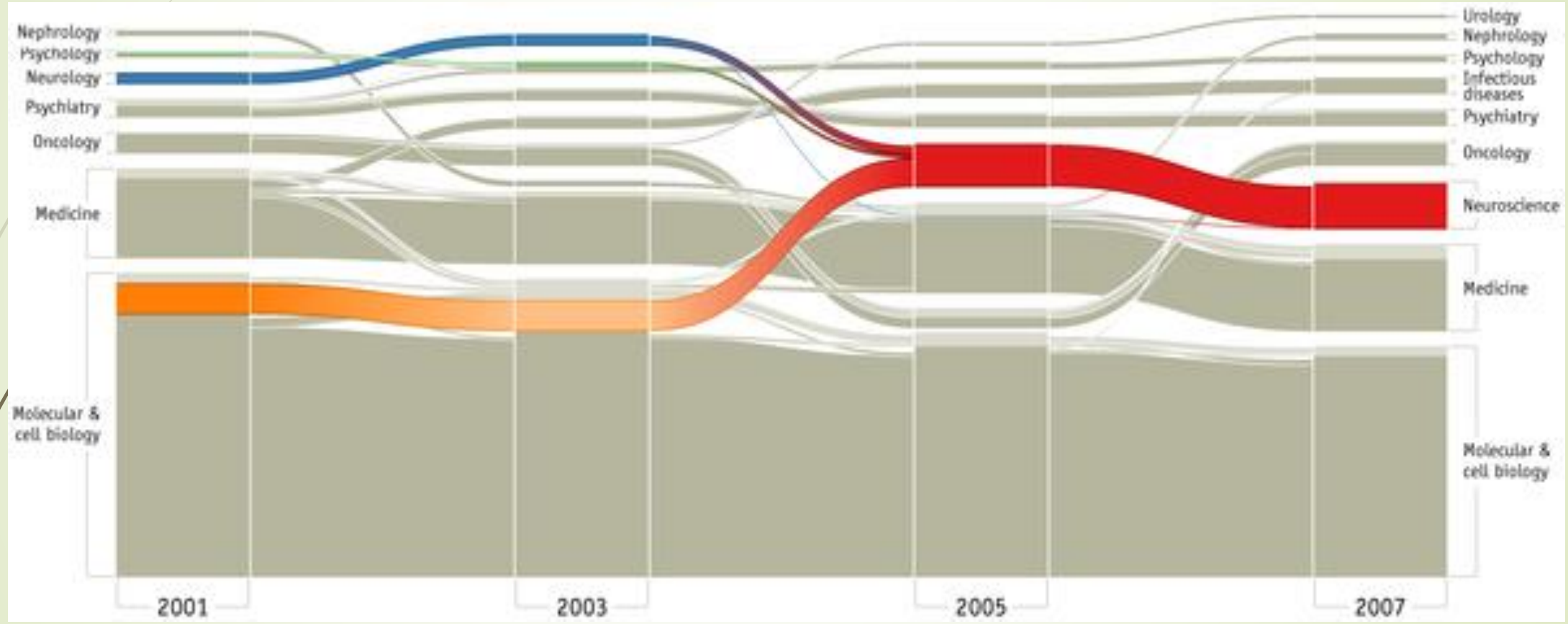
- Disciplines zijn belangrijk:
  - Historisch ‘gestolde’ domeinen van wetenschappelijke kennis
  - Wetenschapssociologisch in discipline-verenigingen, tijdschriften, conferenties, financieringsmechanismen, enz. geconsolideerd
  - Worden als bouwstenen in curricula gebruikt en zorgen dus voor ‘vertragend’ effect
- Maar:
  - Evolueren sterk
  - Grenzen zijn permeabel
  - Meest innoverende kennisontwikkeling aan grenzen of tussen disciplines

Disciplines evolueren



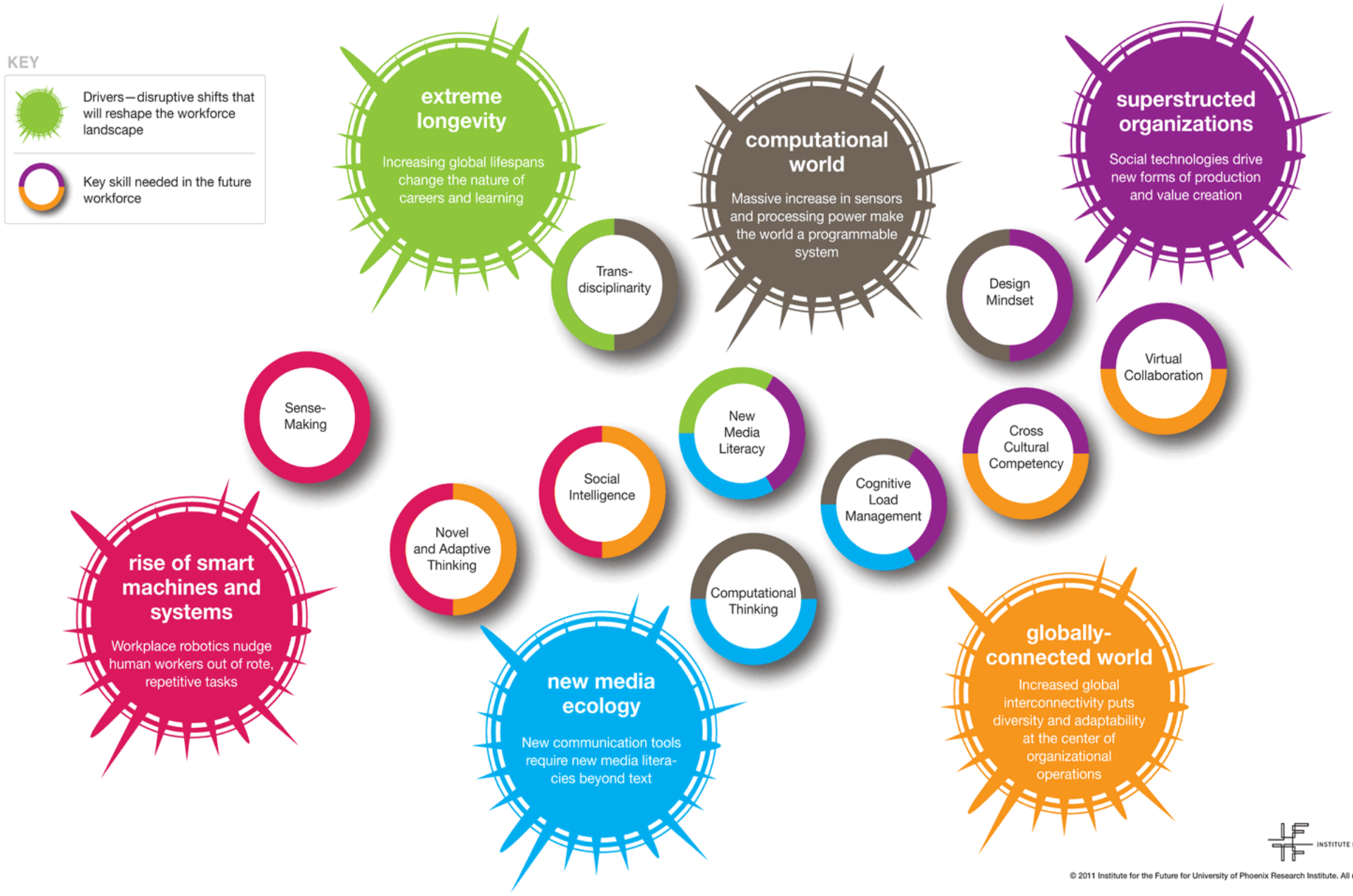
Rosvall M, Bergstrom CT (2010) Mapping Change in Large Networks. PLOS ONE 5(1): e8694.
https://doi.org/10.1371/journal.pone.0008694
https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0008694

Waartoe moet hoger onderwijs opleiden?

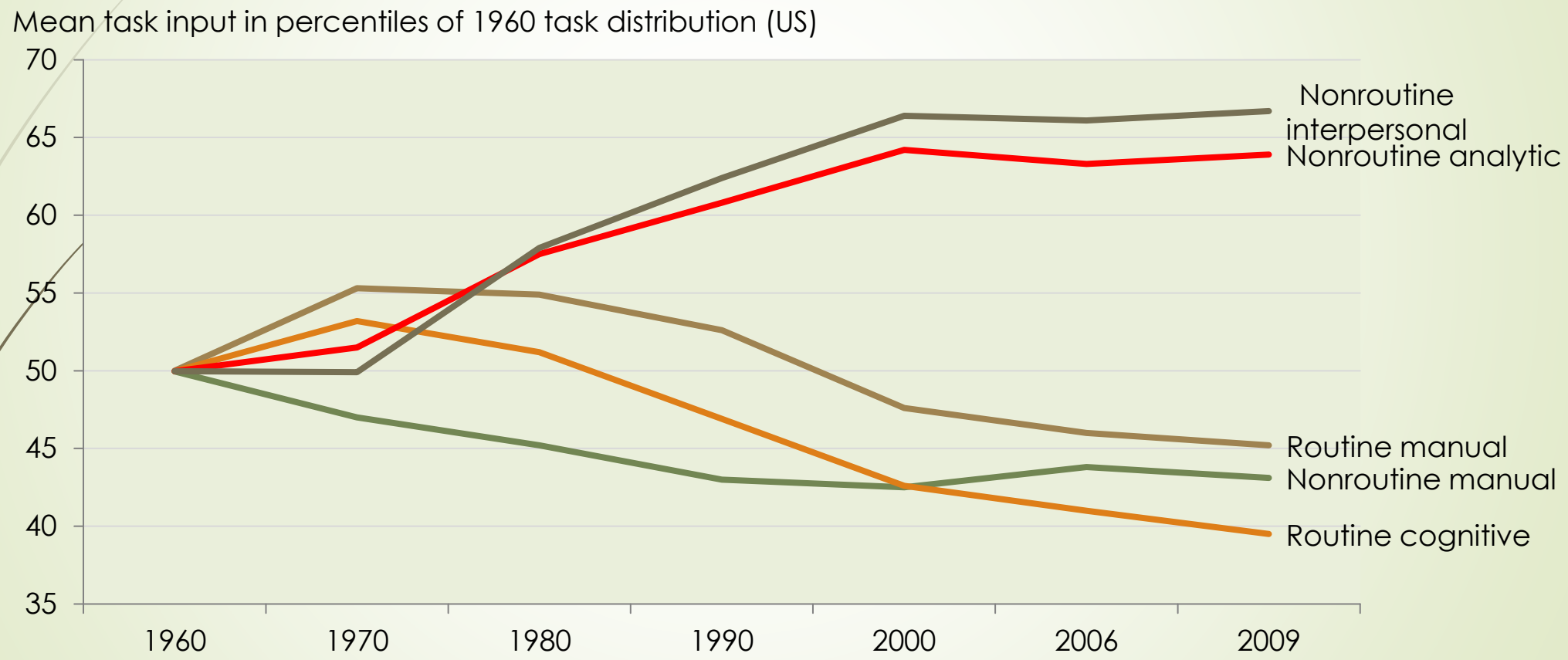
Veranderende competentie-vraag situeert zich niet in disciplines

Future Work Skills 2020

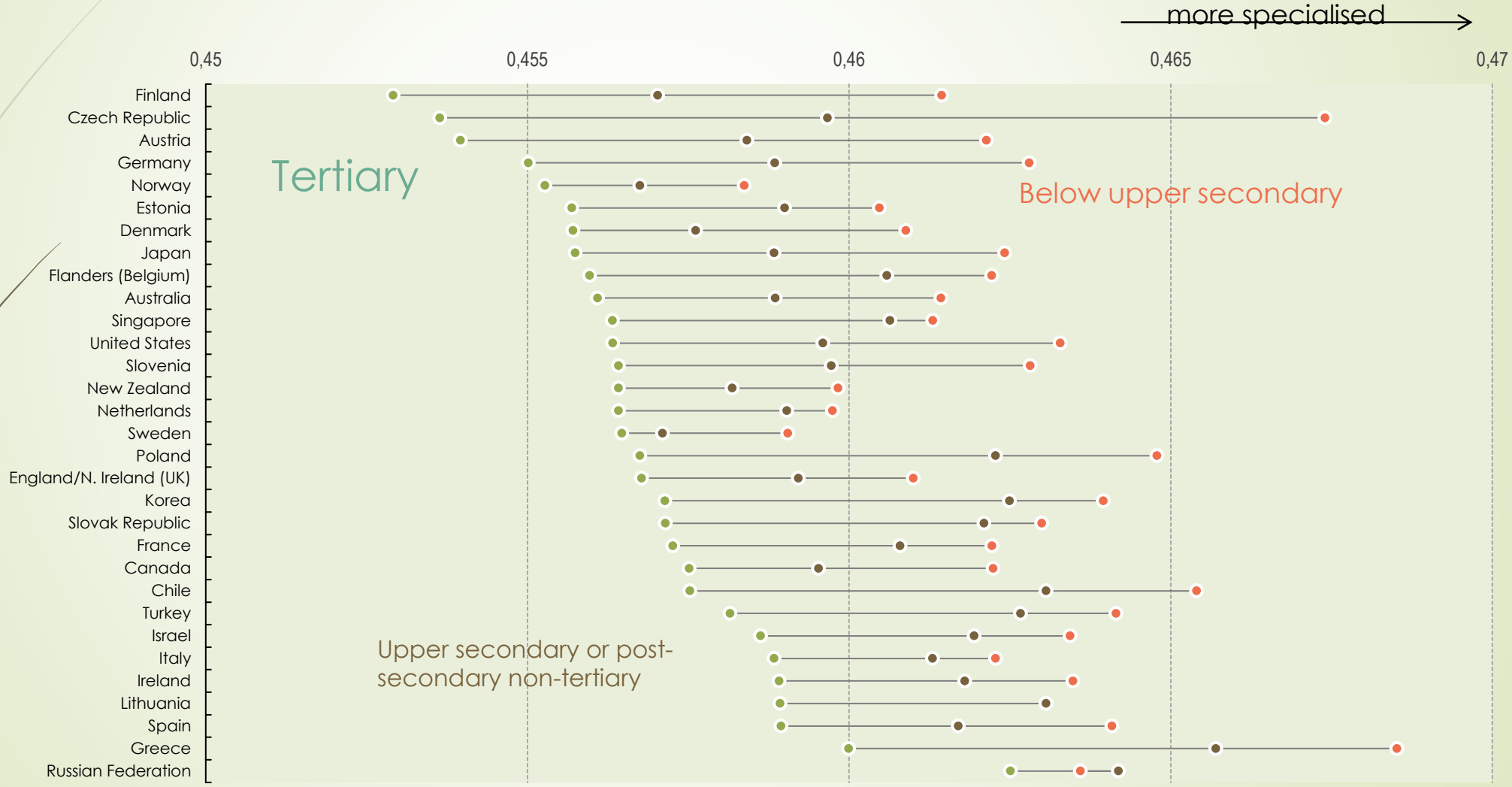
While all six drivers are important in shaping the landscape in which each skill emerges, the color-coding and placement here indicate which drivers have particular relevance to the development of each of the skills.



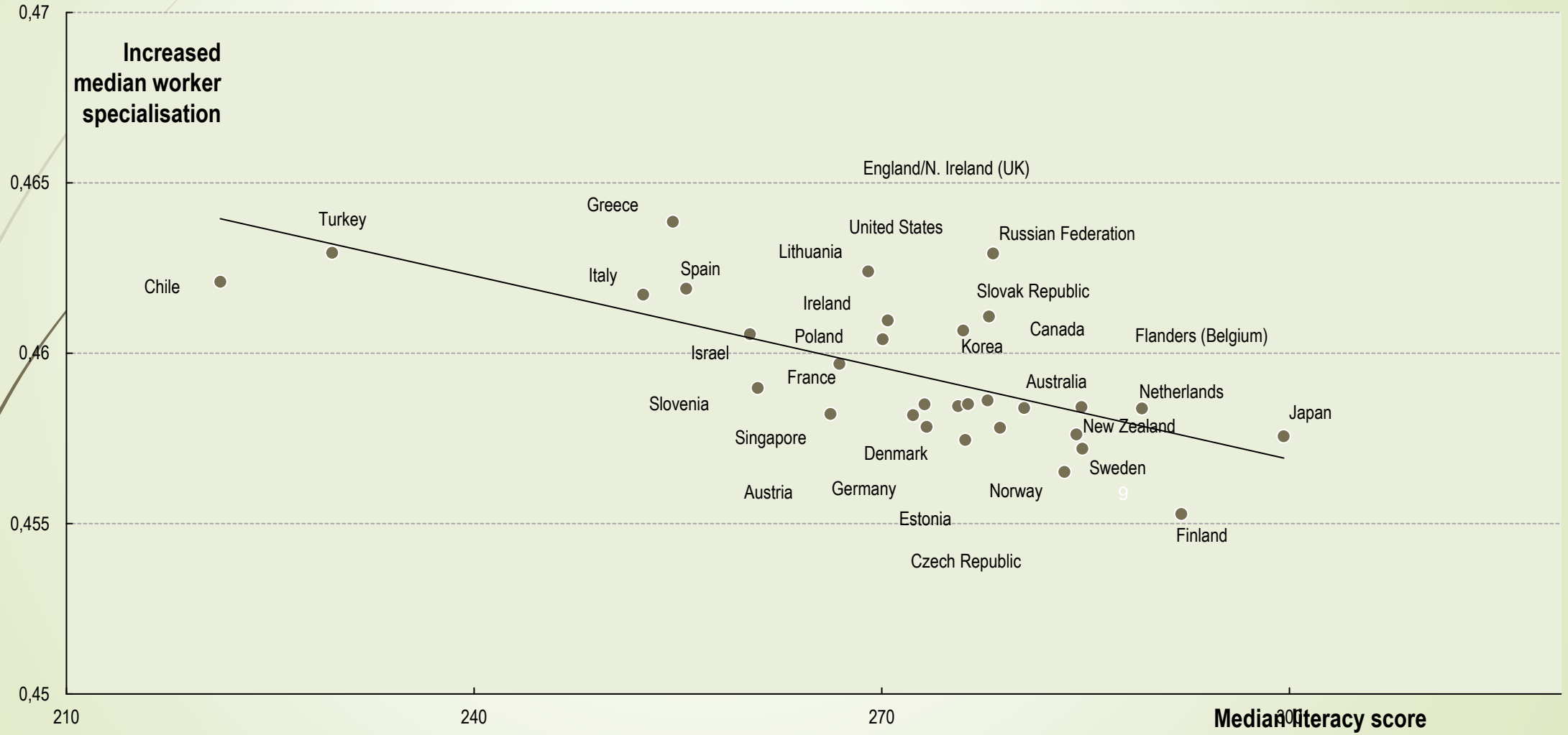
Groeiend belang van non-routine skills



In groeiende kenniseconomieën zijn jobs van hooggeschoolden steeds minder gespecialiseerd

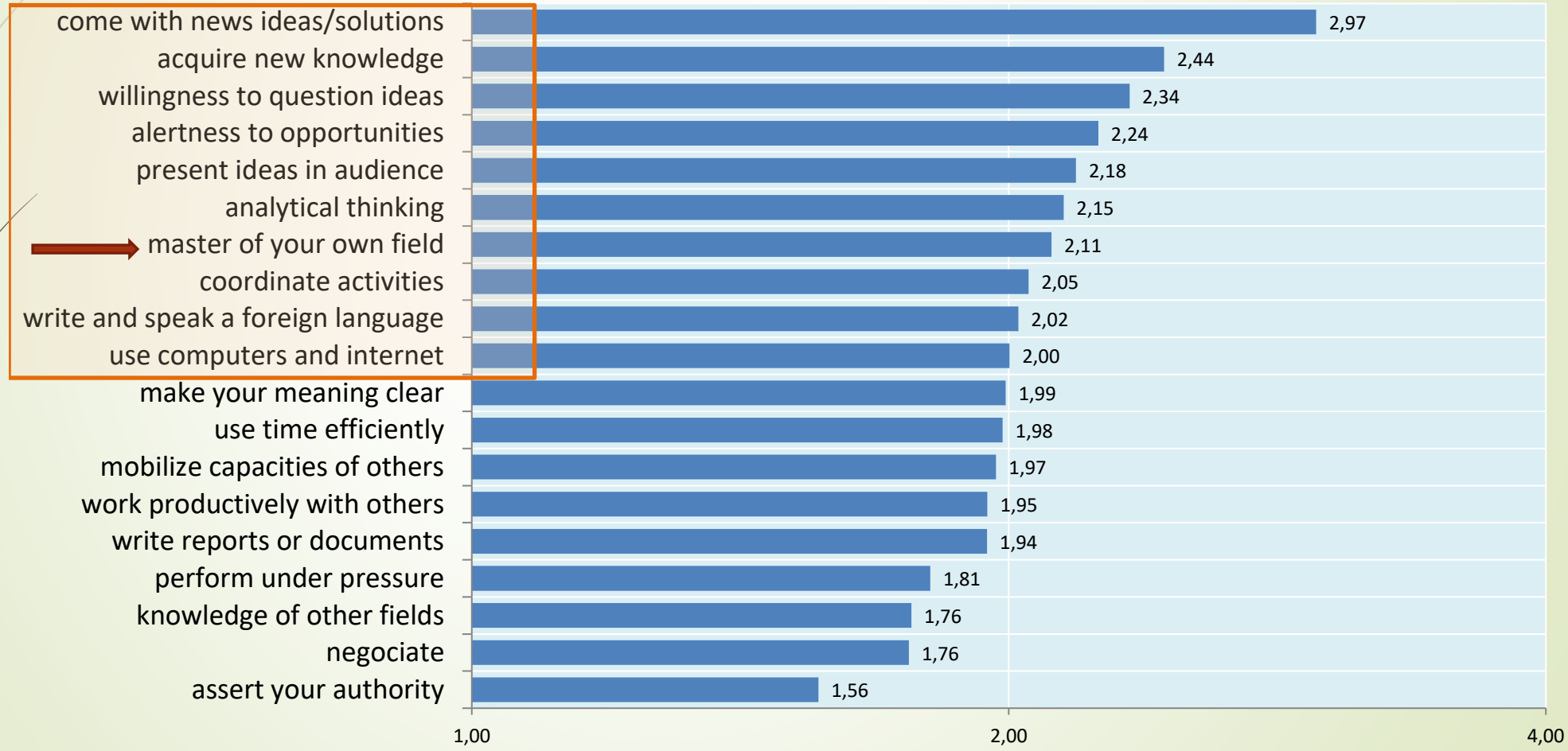


Specialisatie in jobs correleert negatief met hoogte van skills



Source: Survey of Adult Skills (2012, 2015)

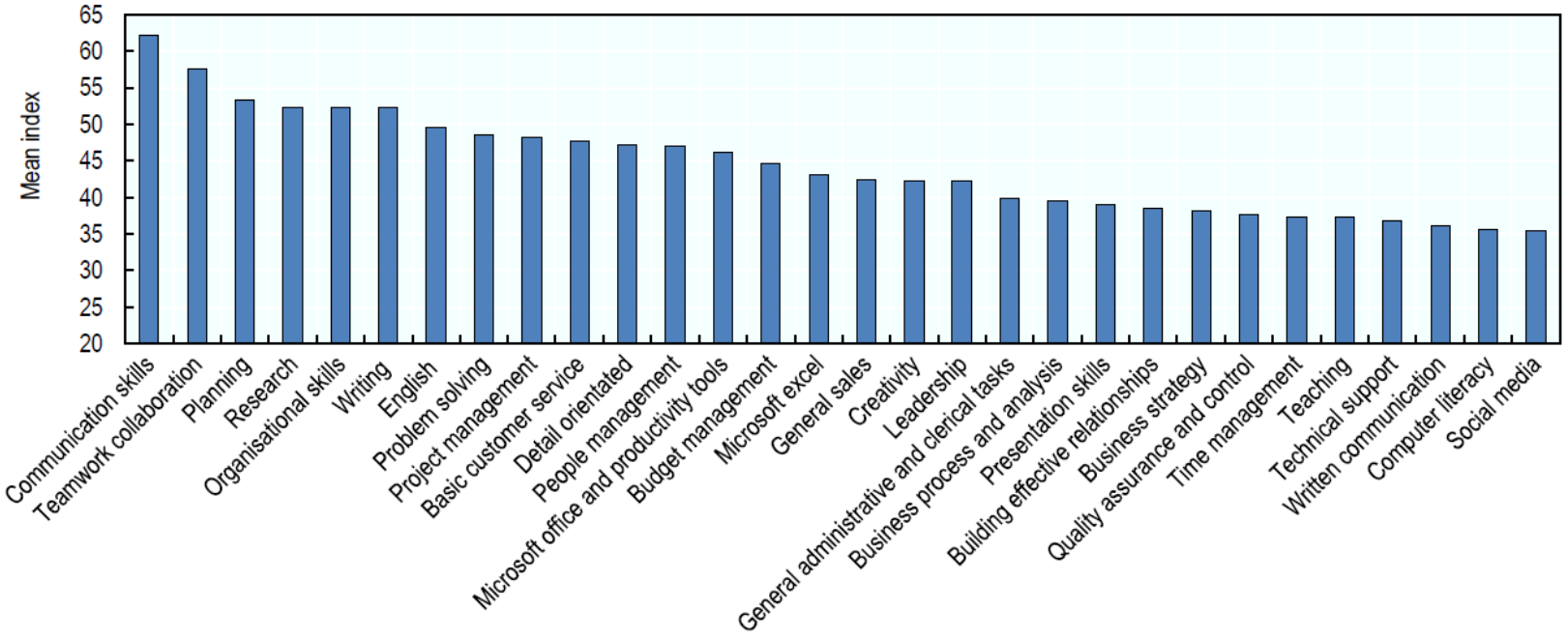
Welke competenties vragen werkgevers?



Transversale competenties in jobadds

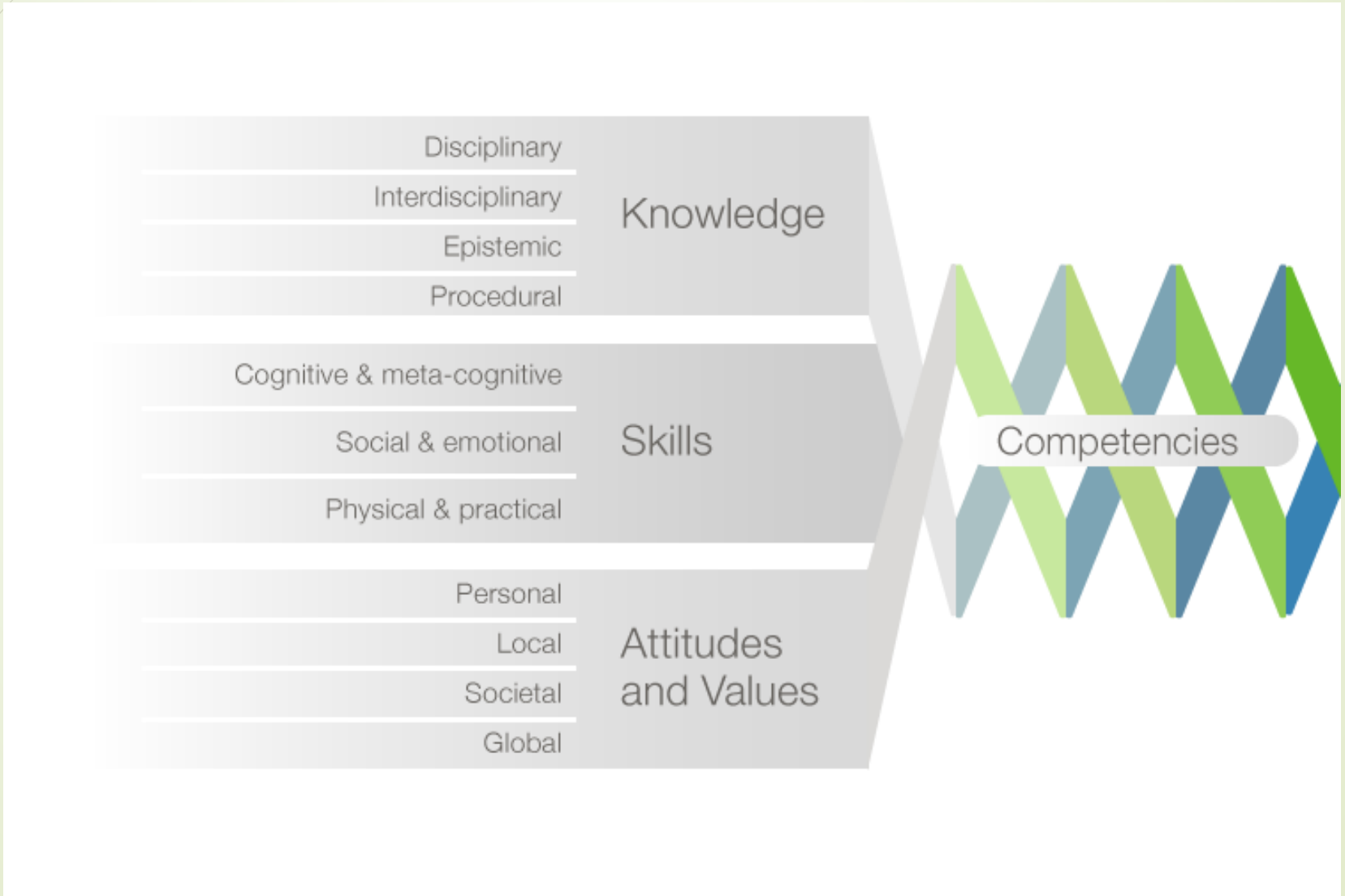
Figure 5.8. Top 30 transversal skill keywords, by degree of transversality

United Kingdom, 2017-2019



Note: The chart presents the 30 most transversal skills, knowledge areas and technologies emerging from the ML analysis of the text contained in online job postings in the United Kingdom in between 2017 and 2019. Larger bars denote stronger transversality calculated as the eigenvector centrality of each keyword in the corpus of labels collected in online vacancies.
Source: OECD calculations based on Burning Glass Technologies data, May 2021.

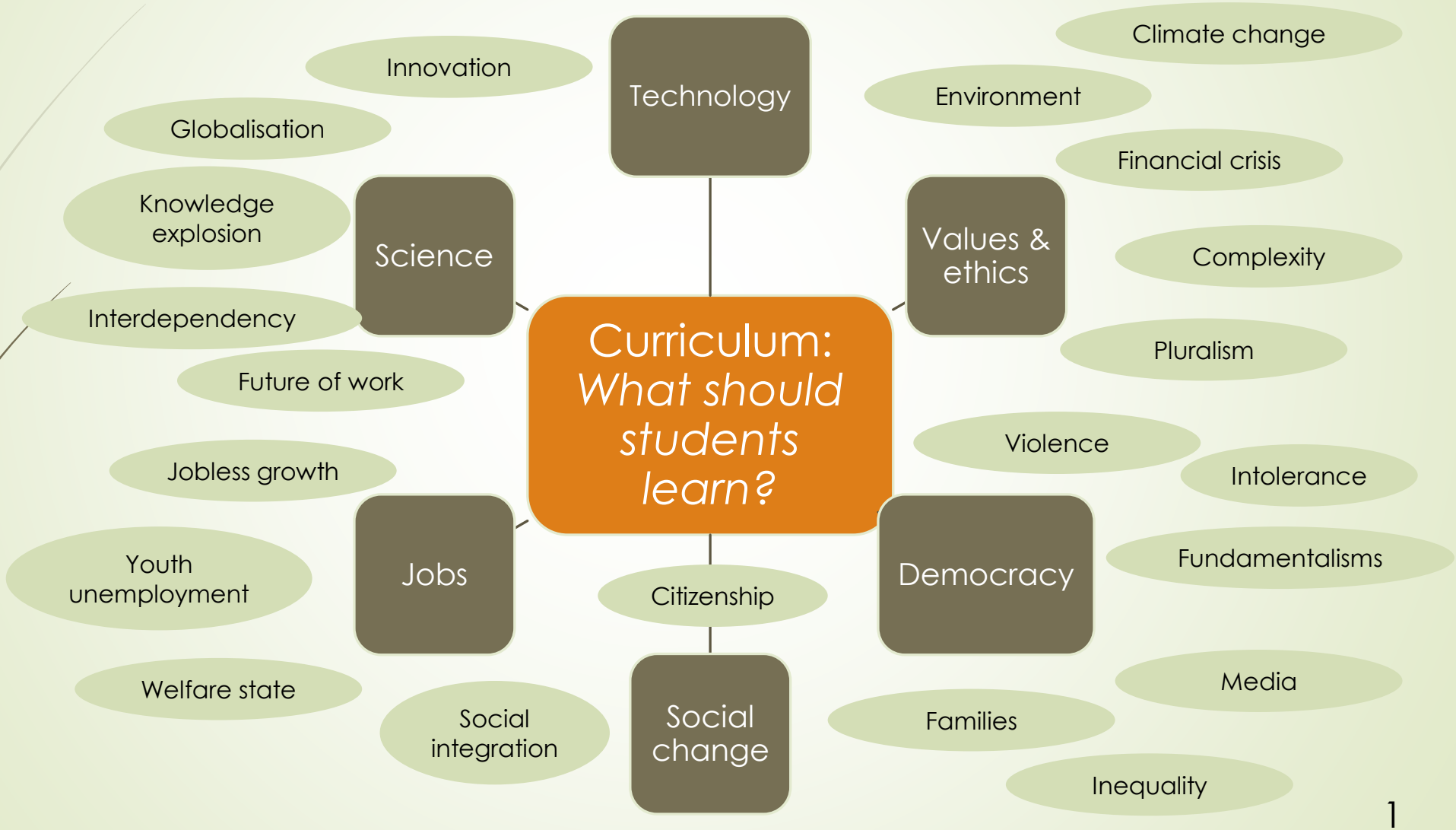
Wat zijn competenties?

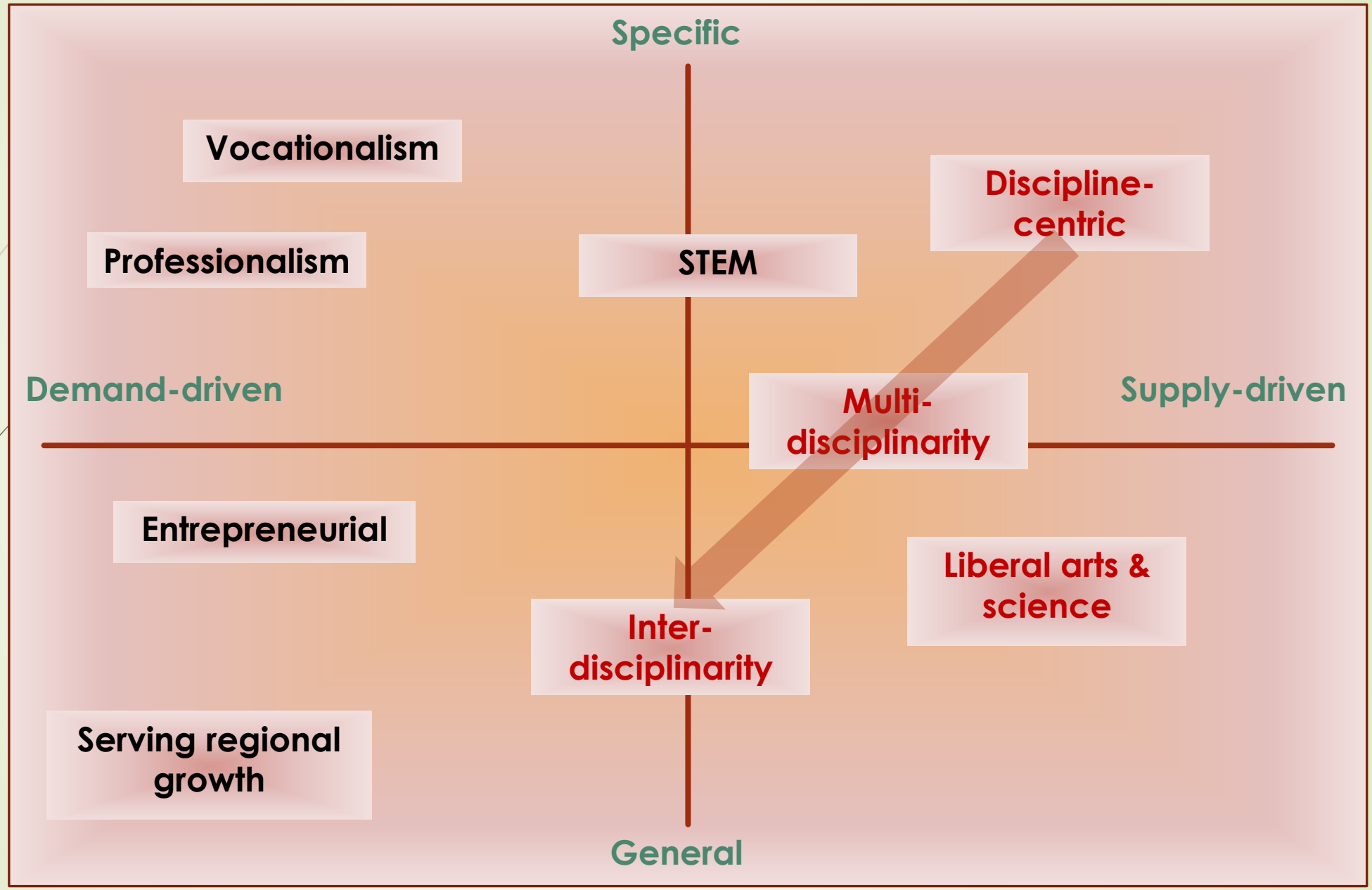


Hoe antwoordt het hoger onderwijs?

Tendenzen in curriculum-ontwikkeling naar vraagsturing en generieke, transversale competenties

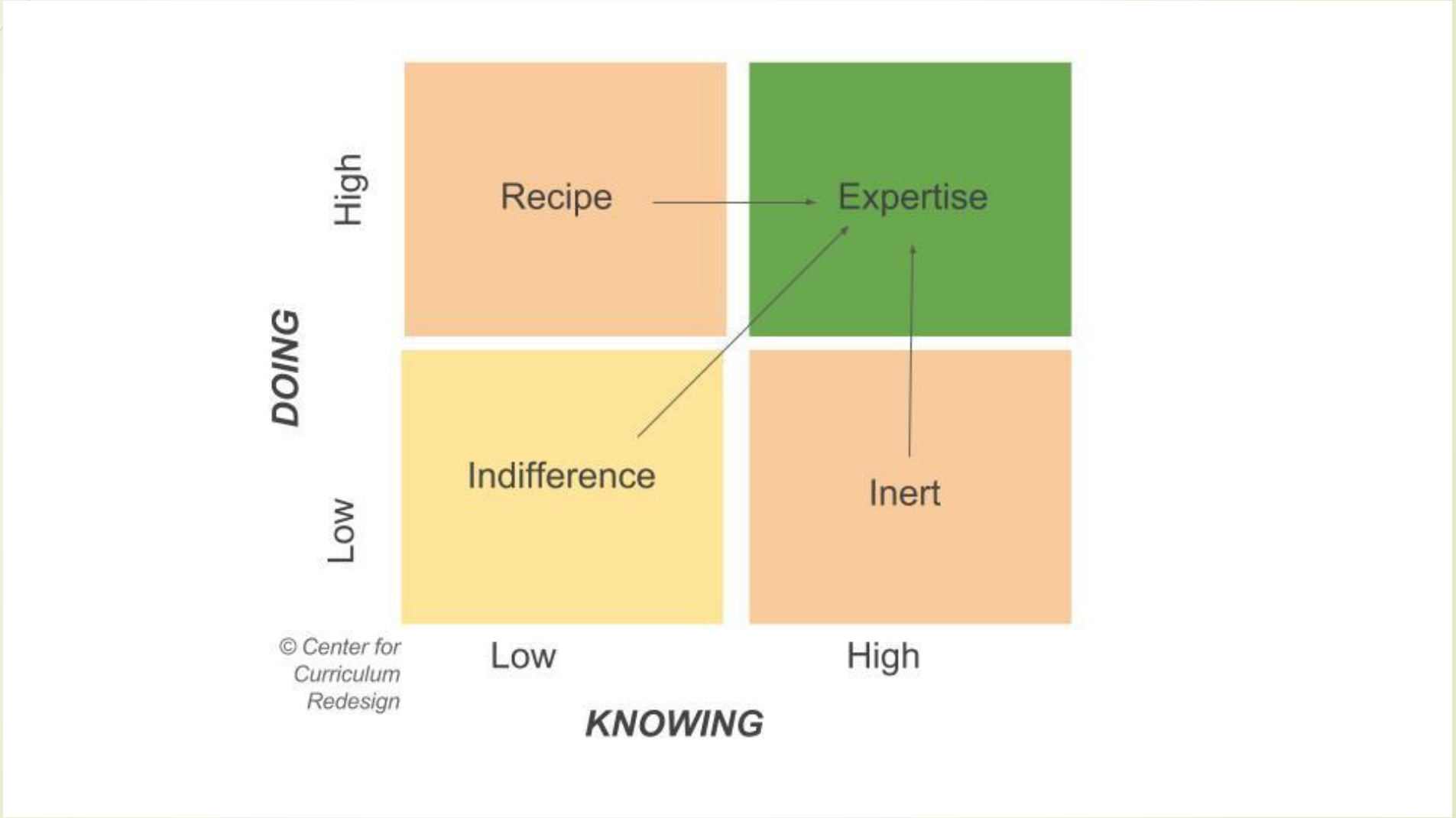
Curricula moeten vele vragen integreren




Specific
Vocationalism
Professionalism
STEM
Discipline-centric
Demand-driven
Multi-disciplinarity
Supply-driven
Entrepreneurial
Liberal arts & science
Inter-disciplinarity
Serving regional growth
General

Interdisciplinariteit in curricula inbouwen

Van kennis naar expertise en transfer



De “I”, “T” en “M” shape profielen

“I” shape	“T” shape	“M” shape
Vertical line: functional disciplinary skill	Horizontal line: ability to apply knowledge across situations	Multiskill profile with ability to apply knowledge across situations/domains
		
Poor	**Good**	**Best**
Examples • Microsoft CRM expert • Paid search expert • Mobile analytics	Examples • Social manager • Content marketer	Examples • Product designer + coder • Big data + electronics • Musician + animator

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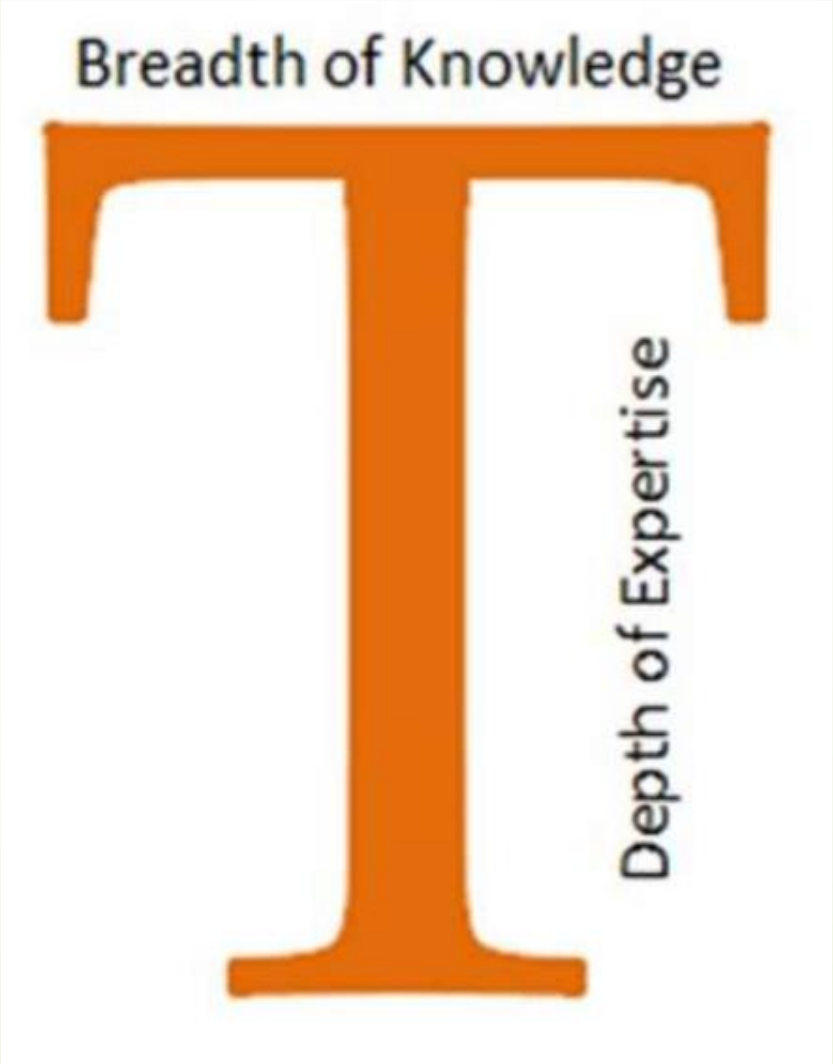
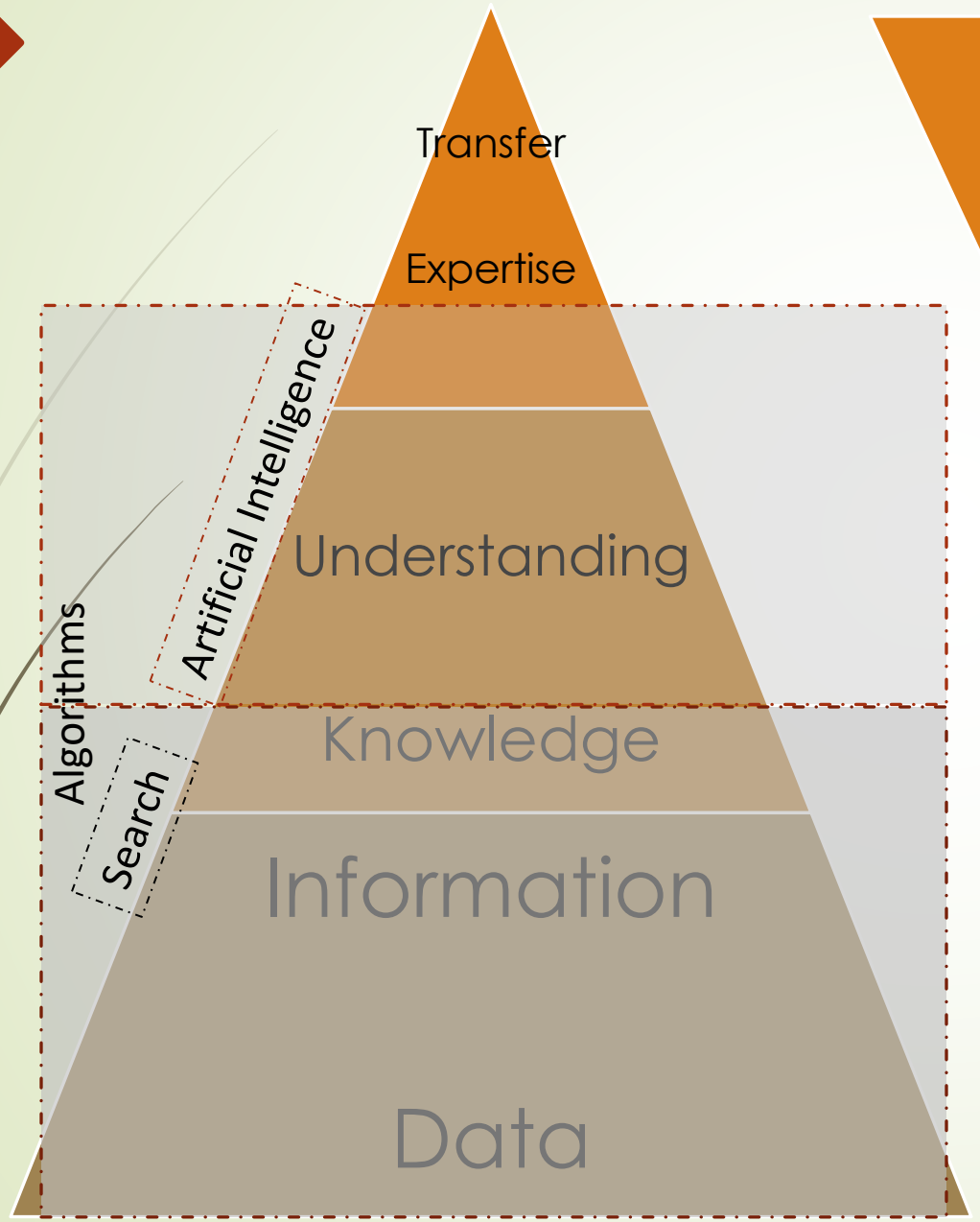
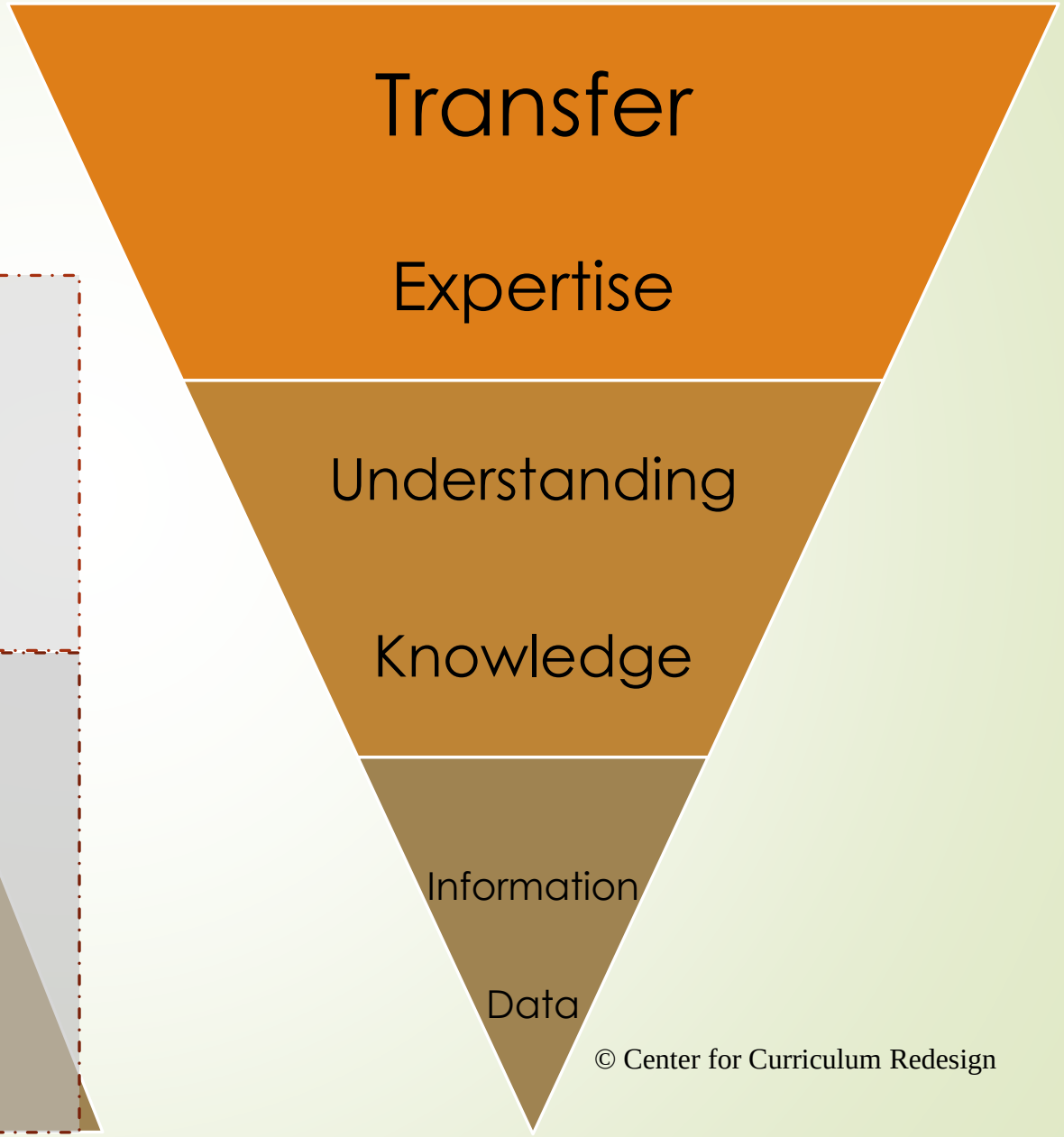
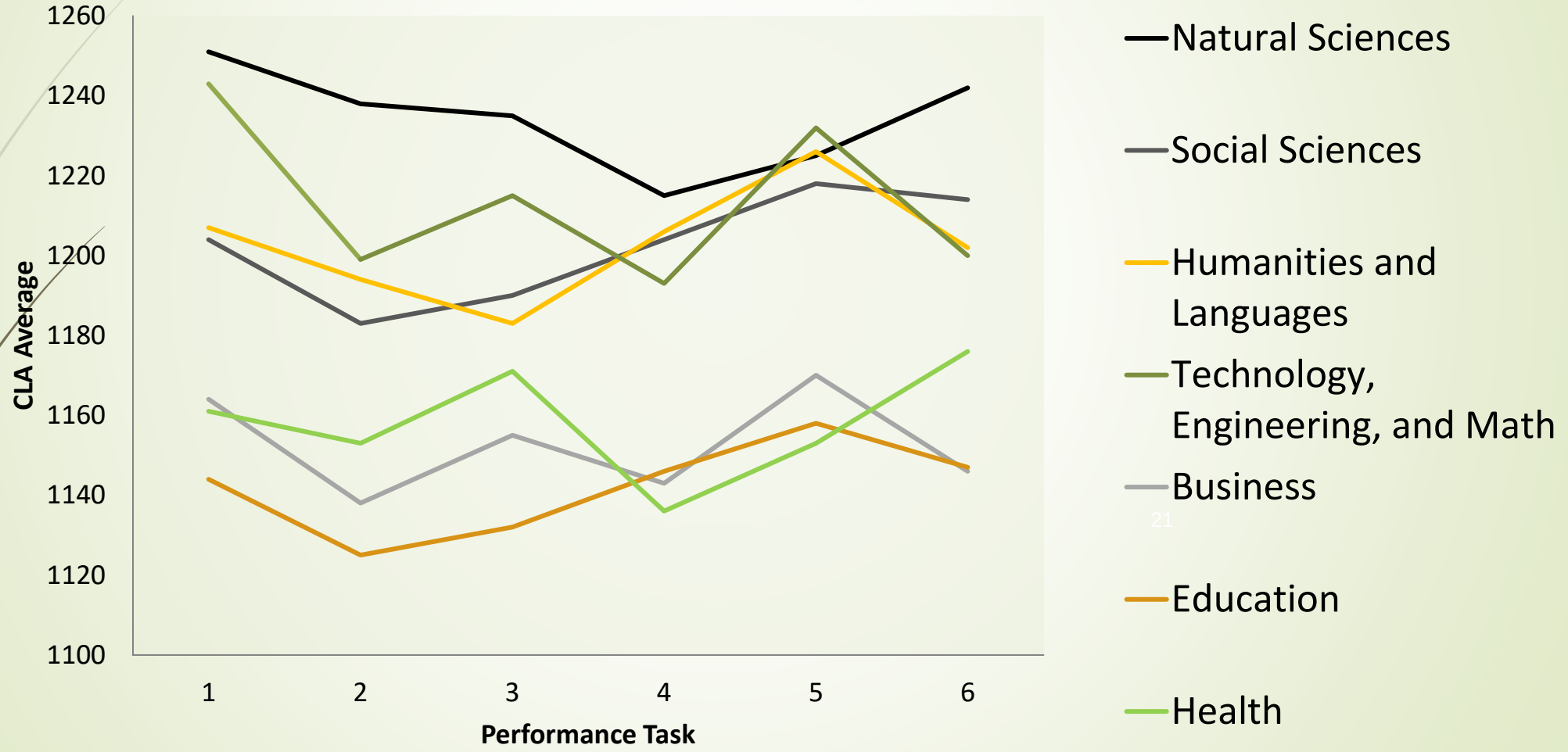






Domeinen verschillen in mate waarin ze generieke competenties ontwikkelen



Data over 'critical thinking' in hoger onderwijs ogen niet zeer bemoedigend

Mastery levels of the participants by class, type of HEI and in total (%)

	Advanced	Accomplished	Proficient	Basic	Below basic
In total	0,2	10	31	40	19
1st year students	0,0	7	29	41	23
3rd year students	0,4	13	32	40	15
University students	0,6	22	39	32	7
UAS students	0	5	27	44	24

- For nearly 60 percent of the Finnish undergraduate students, the generic skills were on a *basic* or lower level while for the rest, about 40 percent, these were on a *proficient* or higher level.
- Very few students reached the highest mastery level (*advanced*).
- 24 % of UAS students reached the lowest mastery level only (*below basic*), whereas among university students only 7 % fell into this mastery level category.

Dank voor uw aandacht!

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