



OPETUSHALLITUS
UTBILDNINGSTYRELSEN

Hidden Competences

- is society and working life able to identify and utilise the learning outcomes from international experiences?

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7.12.2018





EDUFI in a nutshell

- From the beginning of 2017 Finnish National Board of Education and Centre for International Mobility CIMO merged to form the **Finnish National Agency for Education (EDUFI)**
- We are the national development agency for **education and training, early childhood education and lifelong learning** and for **promoting internationalisation** in Finland
- Independent legally under Ministry of Education and Culture
- Personnel 370 + 50 in two separate sub-agencies
- Director General Olli-Pekka Heinonen



FINNISH NATIONAL
AGENCY FOR EDUCATION

*we create
trust through
openness*

*we reinvent
ourselves for the
benefit of the
learner*



*we design
solutions
together*

we walk the talk

Our vision

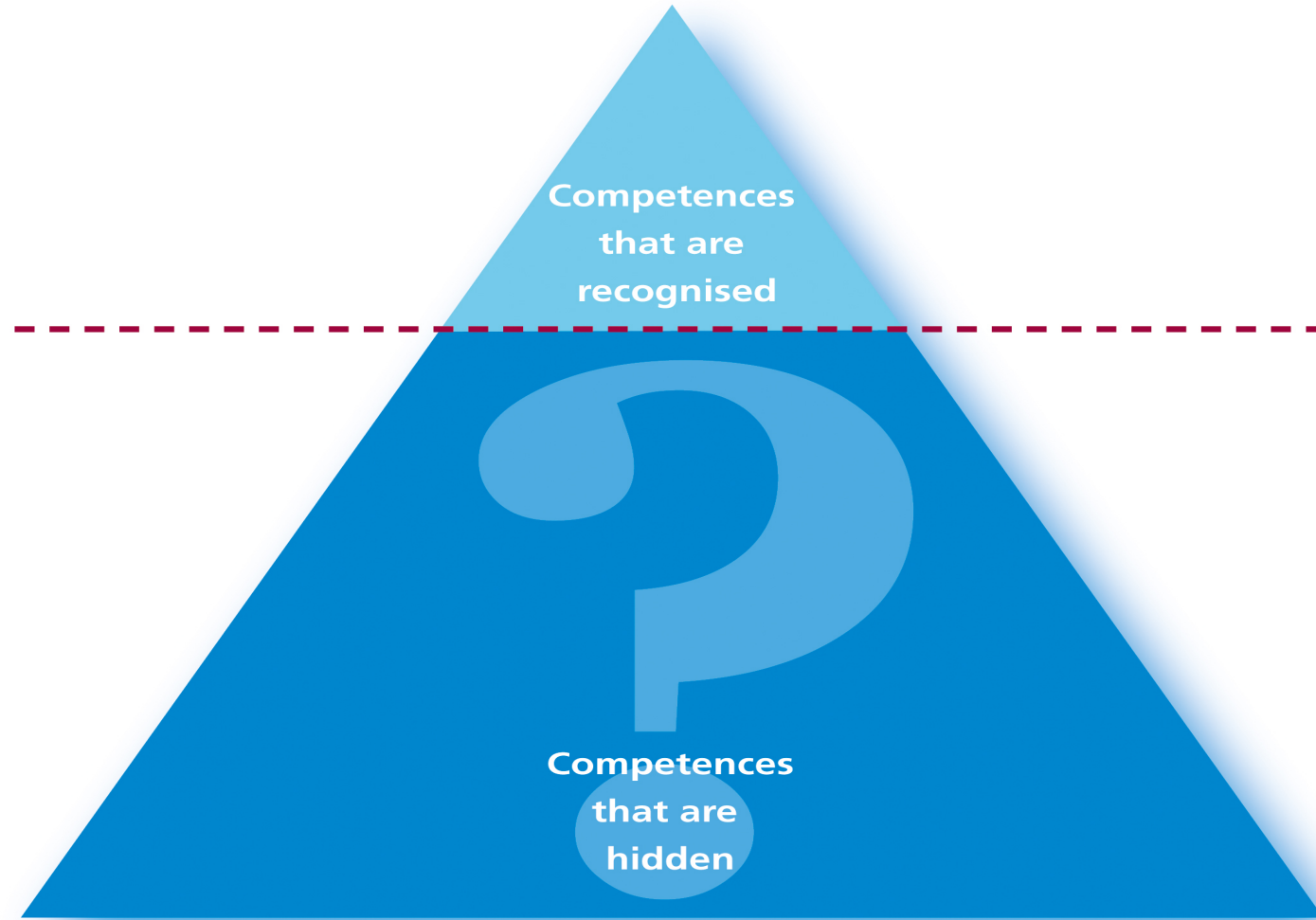
**Everyone can grow to their
full potential**

The Hidden Competence -study

- A joint research project between CIMO (since 2017 EDUFI) and DEMOS Helsinki (a Finnish think-tank) in 2012-2013
- Investigating the importance of international experiences to a changing society and the future of working life
- The project comprised:
 - Expert and gatekeeper workshops
 - Expert interviews
 - A survey for students and employers (283 Finnish employers and 1770 students took part)
- Final report "Hidden Competences" in spring 2013 → an English version was published in summer 2014, see www.cimo.fi/hiddencompetences

Why?

- For Finland, international cooperation has always been a possibility, as well as a necessity.
- The Finnish society is far more international now than it was 30 years ago.
- The global world requires a new type of know-how that is, by default, global in its fundamental set-up.
- Skills, traits and attributes developed through international experiences are not yet recognised by employers in a comprehensive way.



Only a small portion of international competences are currently recognised.

**What are international
competences?**





UNITED NATIONS
CLIMATE CHANGE CONFERENCE
COP19/CMP9
WARSAW 2013



GLOBAL MEGATRENDS

Scarce resources

Changing demographics

Technological planetarism

Interlinked economies

2014

2030

2050



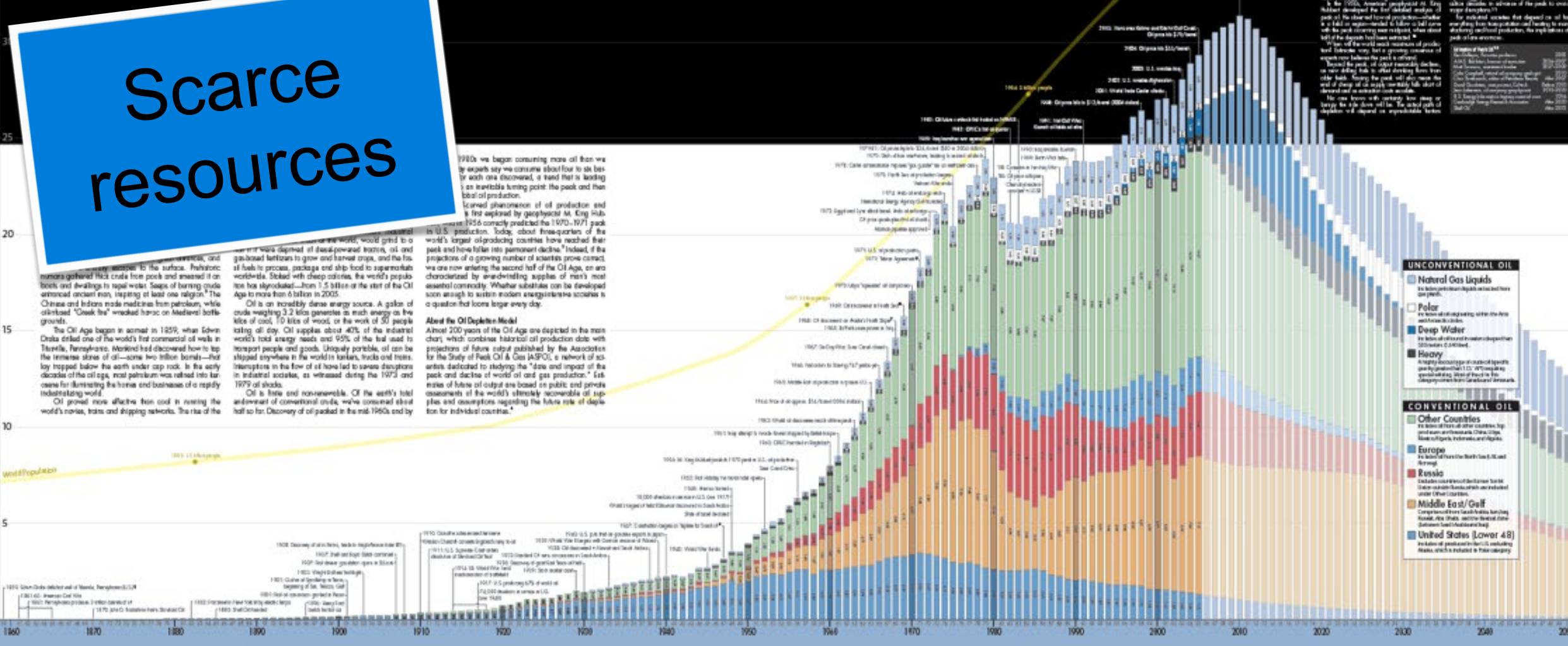
Scarce resources

In the 1980s we began consuming more oil than we can produce. By 2005, we were consuming about 100 million barrels a day, and we are now entering the second half of the Oil Age, an era characterized by dwindling supplies of the world's most essential commodity. Whether substitutes can be developed soon enough to sustain modern energy-intensive economies is a question that looms larger every day.

About the Oil Depletion Model
 Almost 200 years of the Oil Age are depicted in the main chart, which combines historical oil production data with projections of future output published by the Association for the Study of Peak Oil & Gas (ASPO), a network of scientists dedicated to studying the "date and impact of the peak and decline of world oil and gas production." Estimates of future oil output are based on public and private assessments of the world's remaining recoverable oil supplies and assumptions regarding the future rate of depletion for individual countries.

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The Power of Oil

Transportation
 About 55% of oil goes to power the world's cars, trucks, airplanes, trains, and ships, together numbering some 650 million. For many types of transportation—airplane, car, truck, and so on—there are few viable alternatives to oil today. The world depends on oil in the form of gasoline, diesel and kerosene for 95% of its transportation energy needs.

Food
 It's estimated that people in the industrial world consume about 10 calories of fossil fuel for every calorie they eat. Oil powers the tractors on the farm and the trucks that carry crops and livestock to market. It runs factories that turn raw products into packaged foods. Fertilizers and herbicides are oil and gas-based. Without these fossil fuel "inputs," the world could drop 25% to 30% in energy supply.

Energy Needs
 Nearly 40% of the world's energy comes from oil, and more than 50% comes from fossil fuels: oil, natural gas and coal.

Electricity and Heat
 Though it varies by country, roughly 70% of the world's electrical power comes from fossil fuels—nuclear, oil, coal, natural gas (NG) and coal (CO2)—with nuclear and hydroelectric making up most of the rest. CO2 emissions, such as those from power plants, homes and businesses, and fuel for motor vehicles, trucks, ships, and jets, in the United States, about 40% of homes are heated with oil.

Green and Red Fuels
 In recent decades, the world has seen without the wealth of petroleum byproducts that feedstocks for plastics, drugs, detergents, synthetic rubber and fibers, fertilizers for crops, cosmetics, dyes and dyes, and many other products. Fertilizers and herbicides are oil and gas-based. Without these fossil fuel "inputs," the world could drop 25% to 30% in energy supply.

Energy-Intensive
 Oil fuels yards on the order of 20 times more energy than it takes to obtain and process it.

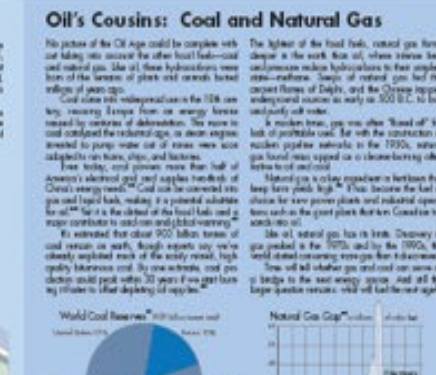
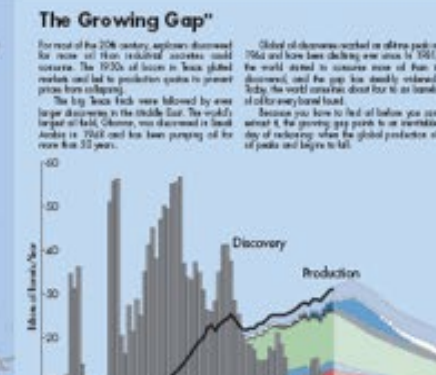
Production and Consumption*

Oil Producers in million of barrels per day, 2004
 (Source: BP, 2005)

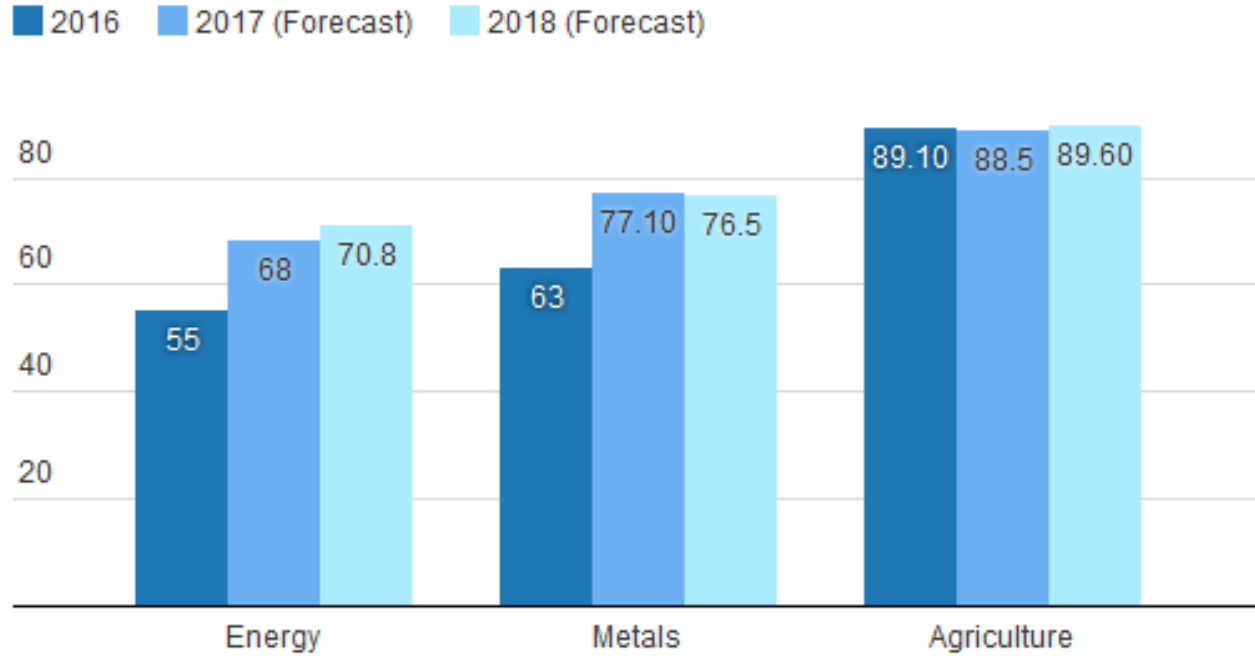
Oil Consumers in million of barrels per day, 2004
 (Source: BP, 2005)

Top Oil Exporters in million of barrels per day, 2004
 (Source: BP, 2005)

Top Oil Importers in million of barrels per day, 2004
 (Source: BP, 2005)

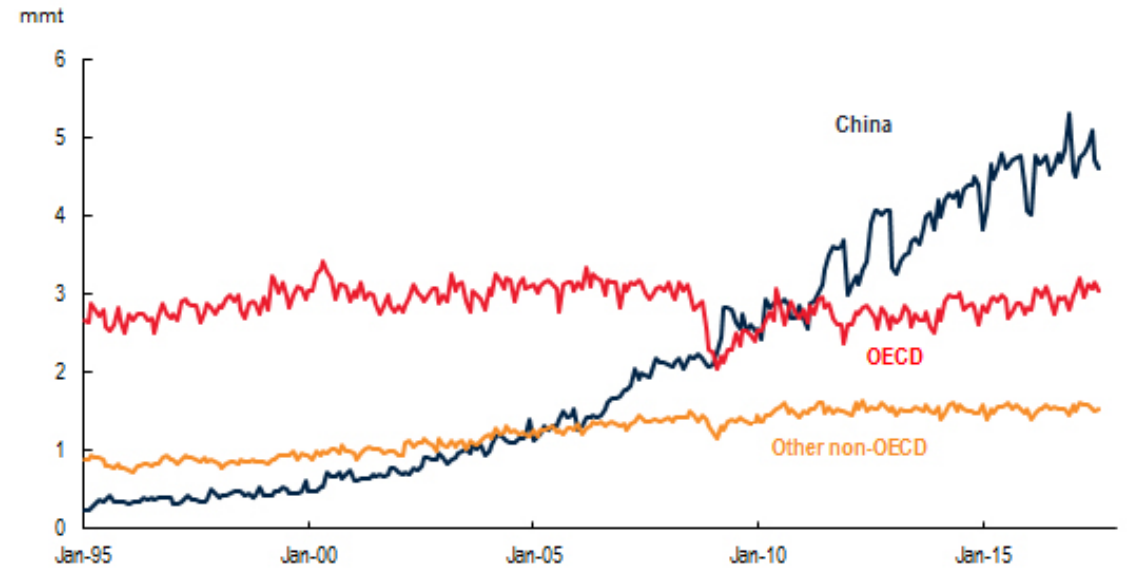


Commodity prices are expected to stabilize in 2018.



Source: World Bank

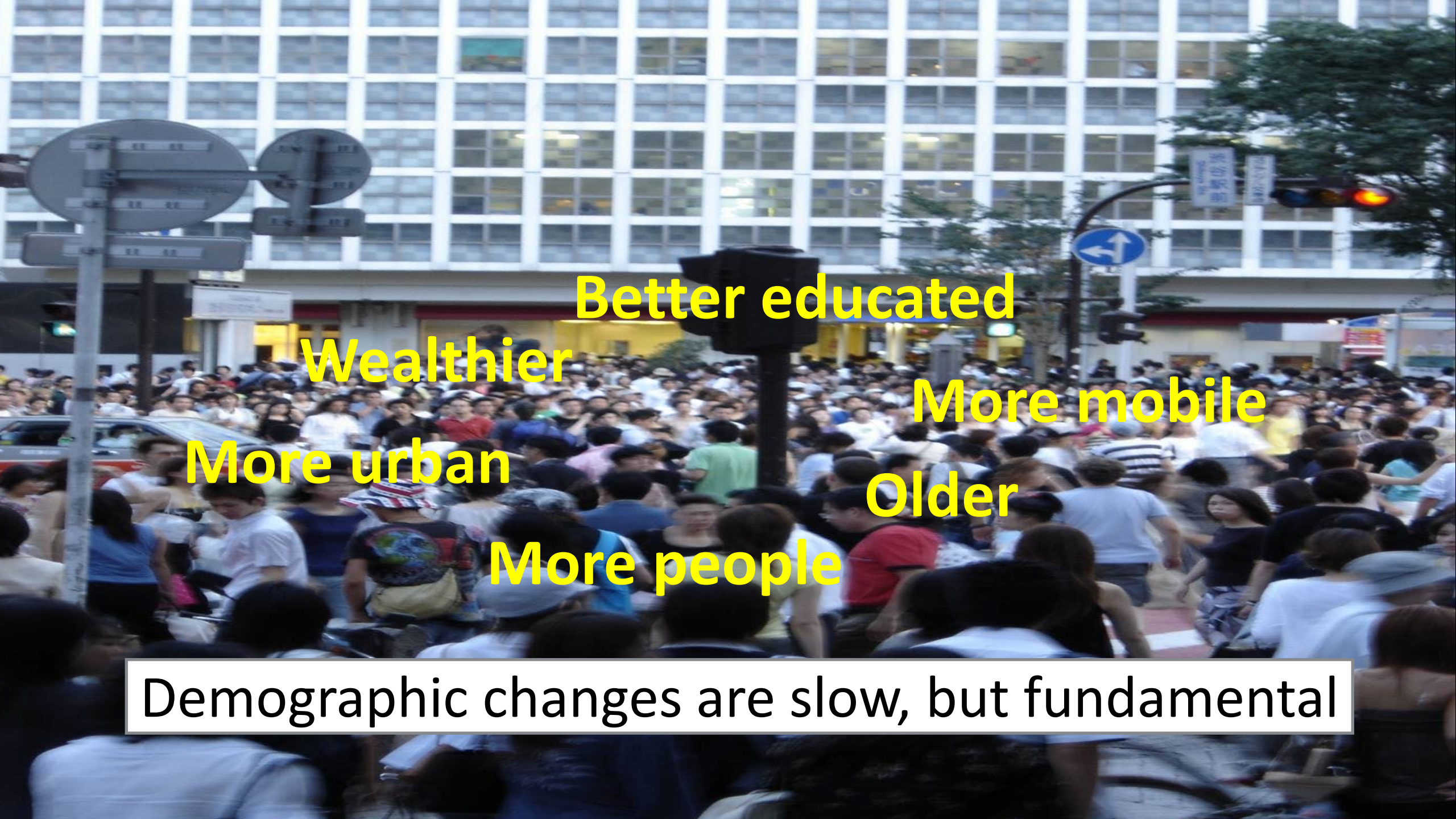
China has become the world's predominant metals consumer



Source: World Bureau of Metal Statistics.



Changing demographics



Better educated

Wealthier

More mobile

More urban

Older

More people

Demographic changes are slow, but fundamental

Technological planetarism



Disruption and exponential growth

Time until 50 million users:



Phone
75 years



Car
62 years



Television
14 years



Internet



Spotify
8 years



Netflix
7 years



Twitter
19 months



Pokemon Go
19 days

A collage of numerous US one hundred dollar bills, featuring the portrait of Benjamin Franklin, scattered across the frame. A blue rectangular box with a white border is overlaid on the top left, containing the text "Interlinked economy".

Interlinked
economy



As China's Economic Picture Turns Uglier, Beijing Applies Airbrush

Edward Wong and Neil Gough

Thursday, 25 Feb 2016 | 11:12 AM ET

The New York Times



Xi Jinping | Getty Images



Traditional understanding of international experience



- Language skills
- Wide networks within one's field
- Understanding of international business
- Ability to work with multiple people
- Having lived or studied abroad

Extended understanding of international experience



- Ability to think outside one's sphere of experience
- Broad networks also in different fields
- New abilities and skills during free time
- Works with diverse groups of people regardless of language or location
- Follows global media



The survey results: a brief overview

- Total of 2056 responses
- Nationally representative
- Also adequate regional coverage in Finland

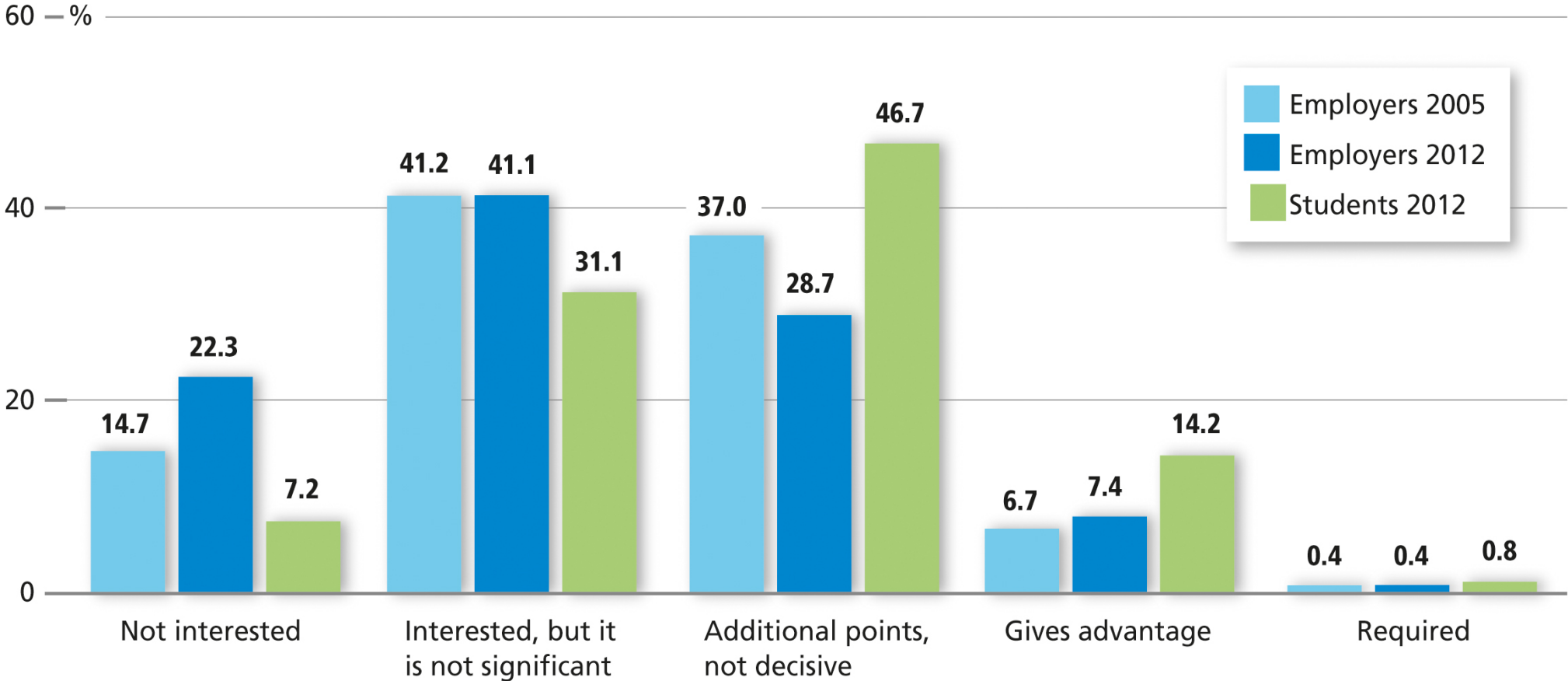
- Students from secondary-level VET and higher education

- Employers from a great variety of sectors

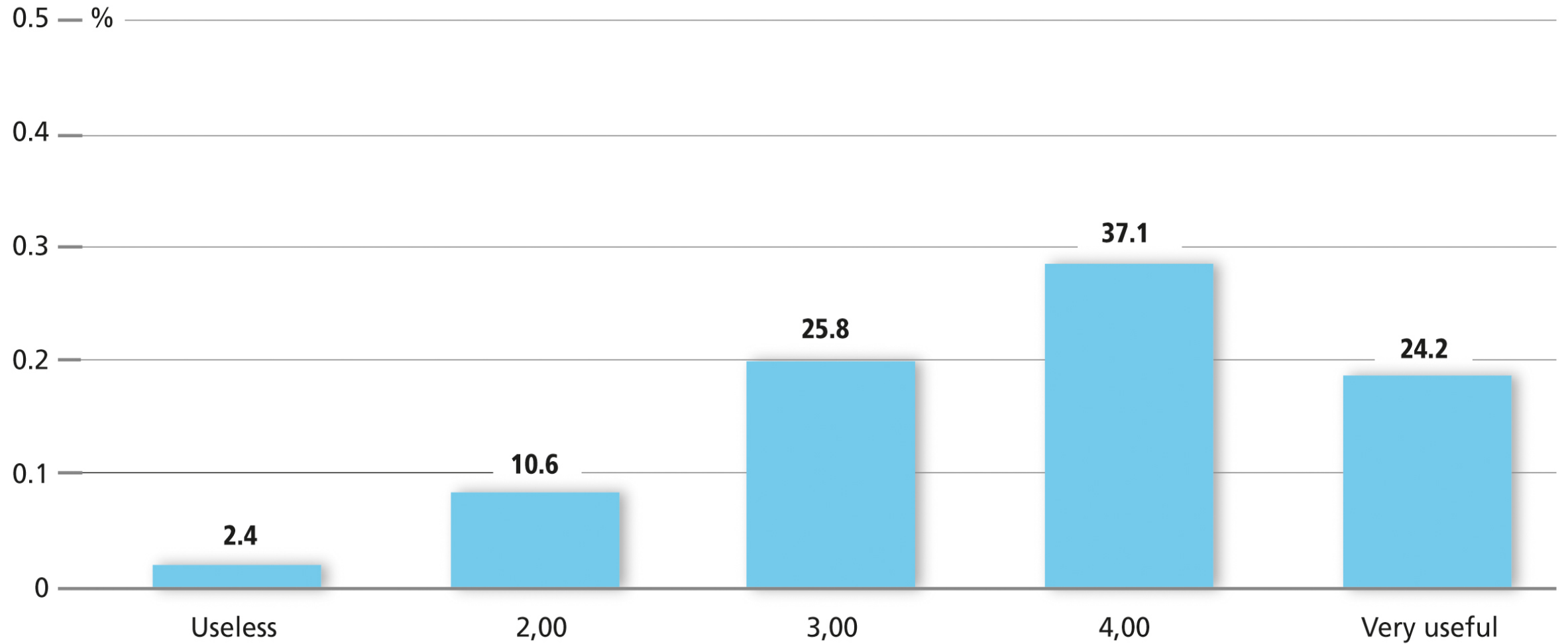
Over 80 % of both students
and employers feel that
being international is a positive outlook.

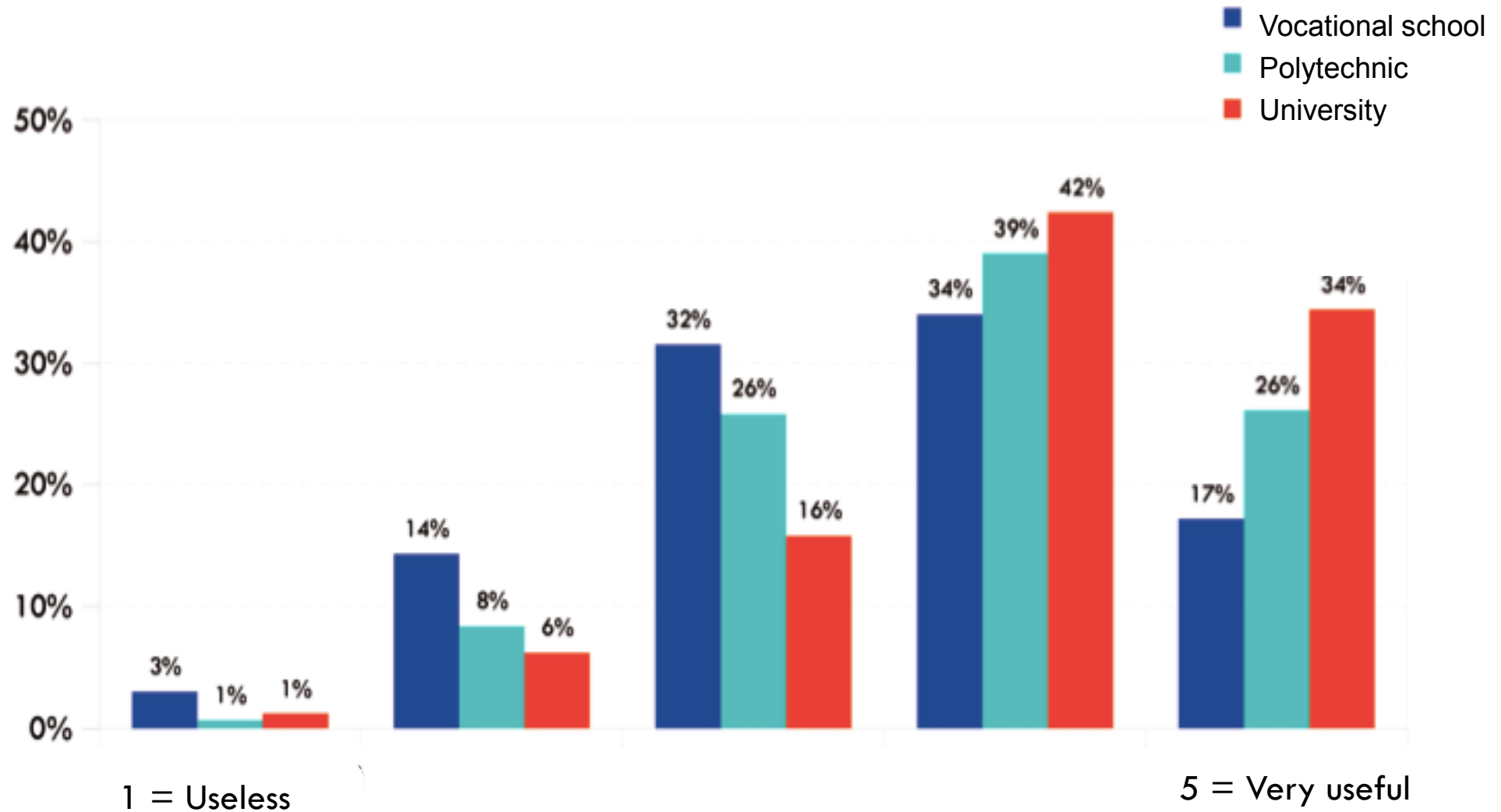
However, it matters little when recruiting...

How international expertise matters in recruitment, %

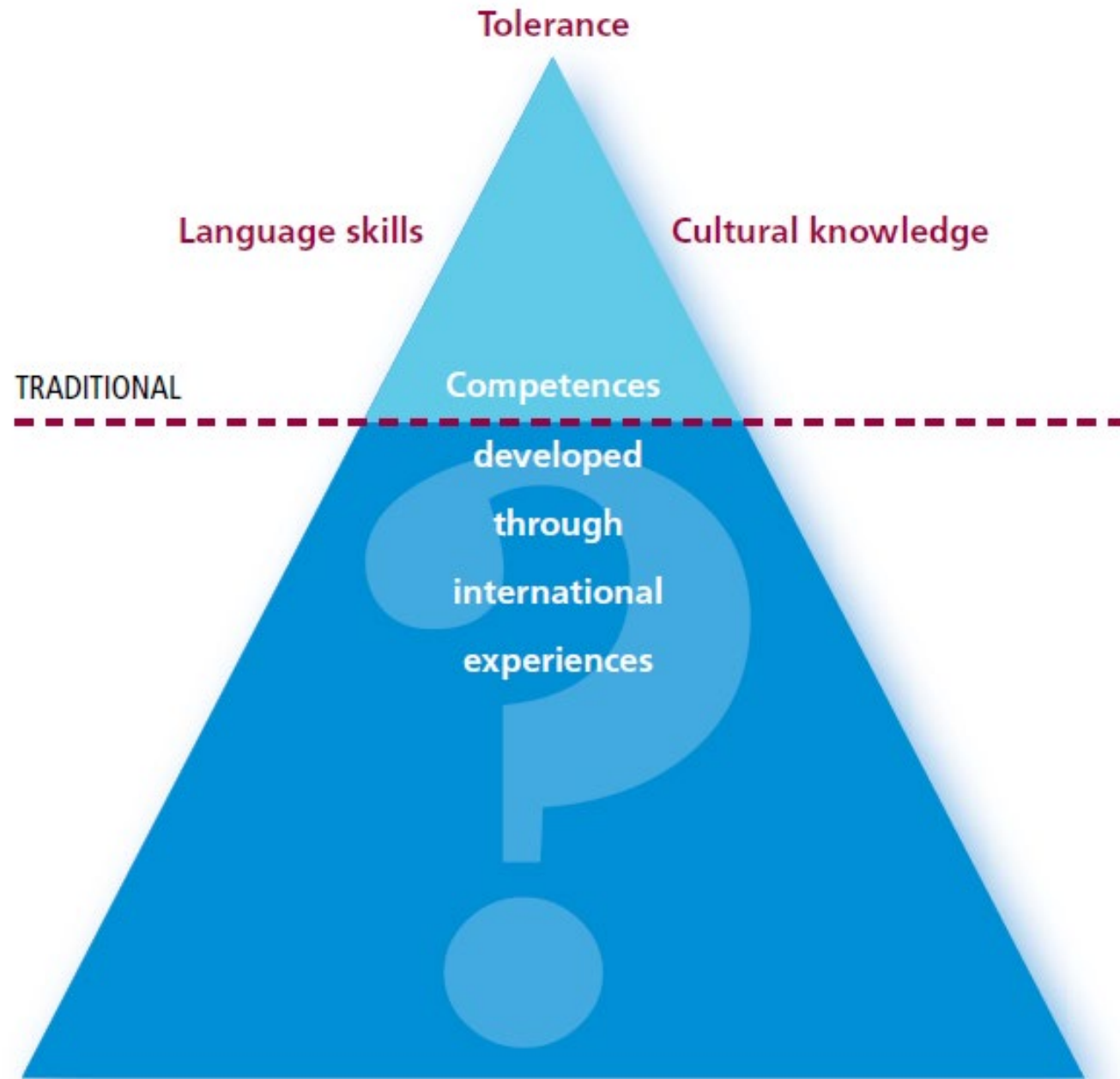


How students estimate the usefulness of international expertise in future working life, %

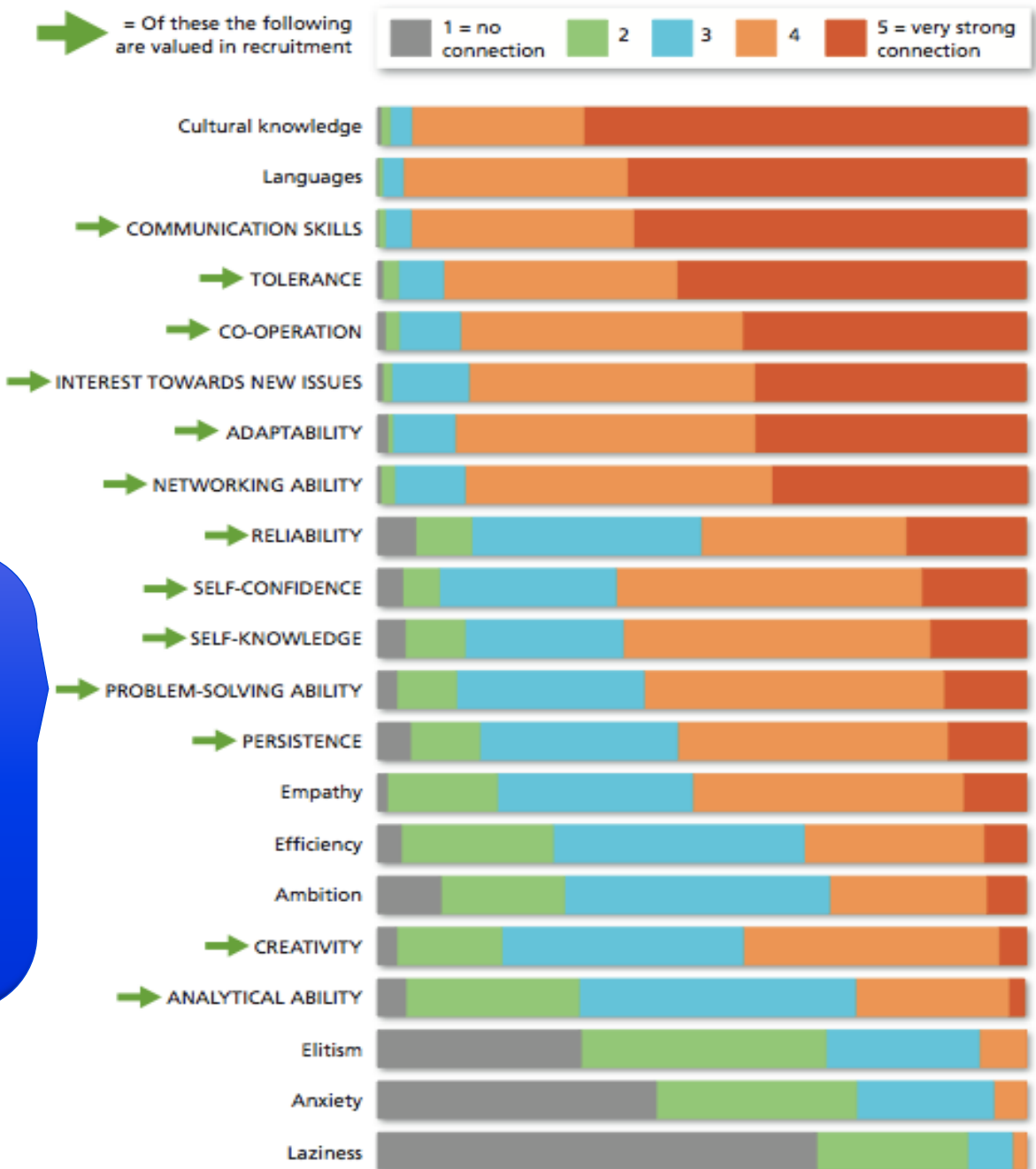




How students estimate the usefulness of international expertise based on level of education.



Employers and international competences: which attributes are linked?



What competences employers value in recruitment?

What attributes employers link to international competences?

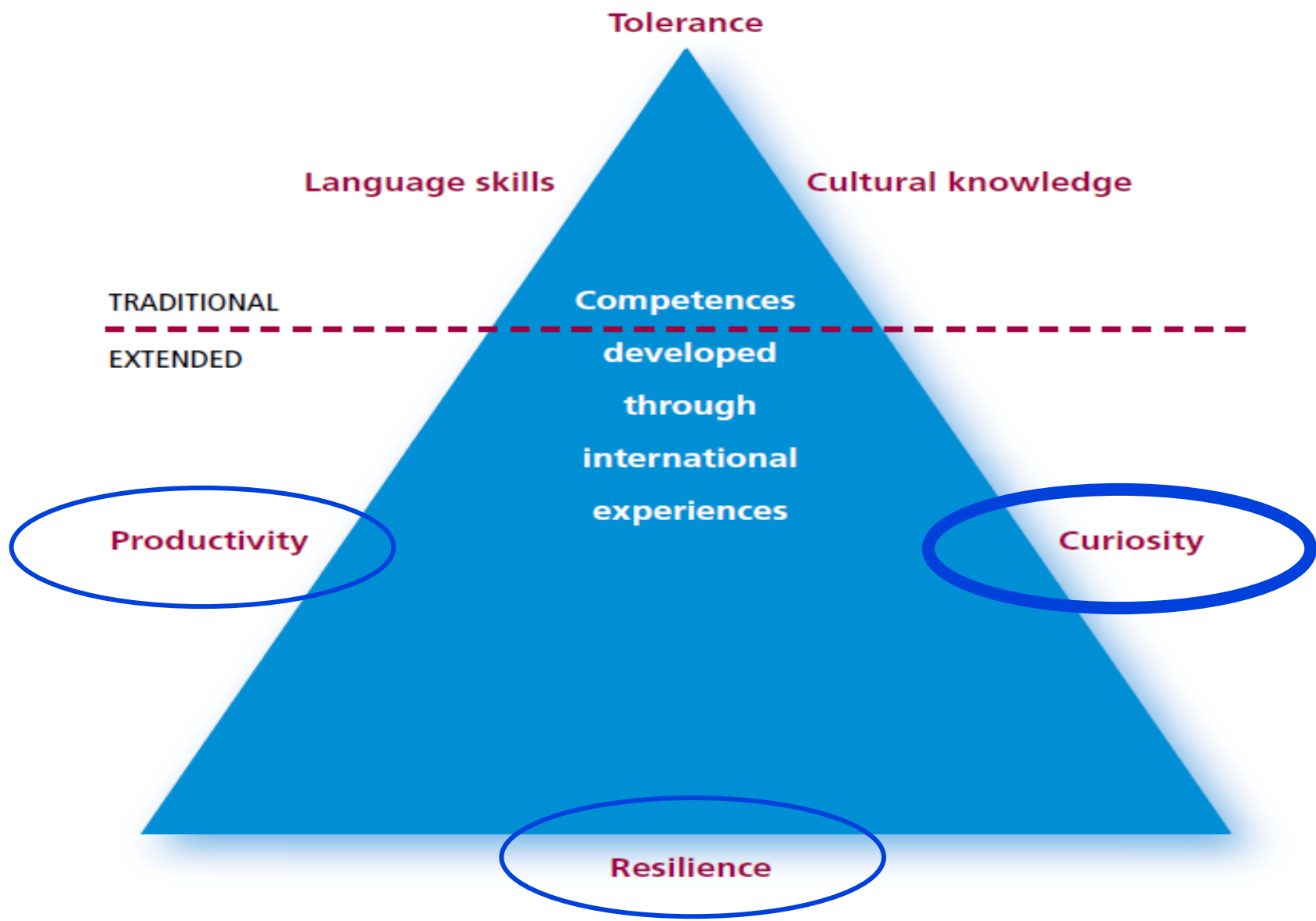
Could international competences
actually work as an indicator
to recognise a wider set
of skills and competences?

Three ways of understanding international expertise

 = very strong

New approach:
Factor analysis
of the
recruitment
criteria and
how they are
linked to
international
competences

| | Productivity | Curiosity | Resilience |
|-----------------------------|--------------|-----------|------------|
| Efficiency | 0.77 | 0.03 | 0.08 |
| Analytical ability | 0.67 | 0.08 | 0.20 |
| Problem-solving ability | 0.58 | 0.31 | 0.22 |
| Reliability | 0.57 | 0.13 | 0.32 |
| Creativity | 0.35 | 0.31 | 0.28 |
| Tolerance | 0.15 | 0.66 | 0.09 |
| Interest towards new issues | 0.20 | 0.60 | 0.45 |
| Cultural knowledge | -0.07 | 0.53 | 0.06 |
| Co-operation | 0.47 | 0.52 | 0.22 |
| Adaptability | 0.32 | 0.51 | 0.38 |
| Networking ability | 0.14 | 0.47 | 0.17 |
| Communication skills | 0.33 | 0.45 | 0.24 |
| Languages | 0.05 | 0.40 | 0.02 |
| Self-awareness | 0.30 | 0.20 | 0.84 |
| Persistence | 0.53 | 0.20 | 0.54 |
| Self-confidence | 0.37 | 0.24 | 0.43 |
| Empathy | 0.23 | 0.31 | 0.34 |
| Anxiety | -0.07 | -0.11 | 0.05 |
| Elitism | 0.28 | -0.02 | -0.11 |
| Ambition | 0.34 | 0.11 | 0.12 |
| Laziness | -0.16 | -0.17 | 0.03 |



From Hidden to Visible Competencies

Conclusions for Students / Institutions / Employers:

- ❖ Better understanding of transversal skills and competences
- ❖ The key role of international experiences in developing those competences
- ❖ Better articulation and communication of these competences
- ❖ A revision of learning outcomes based on an extended understanding of international competence

A new era of skills

A rapidly changing world

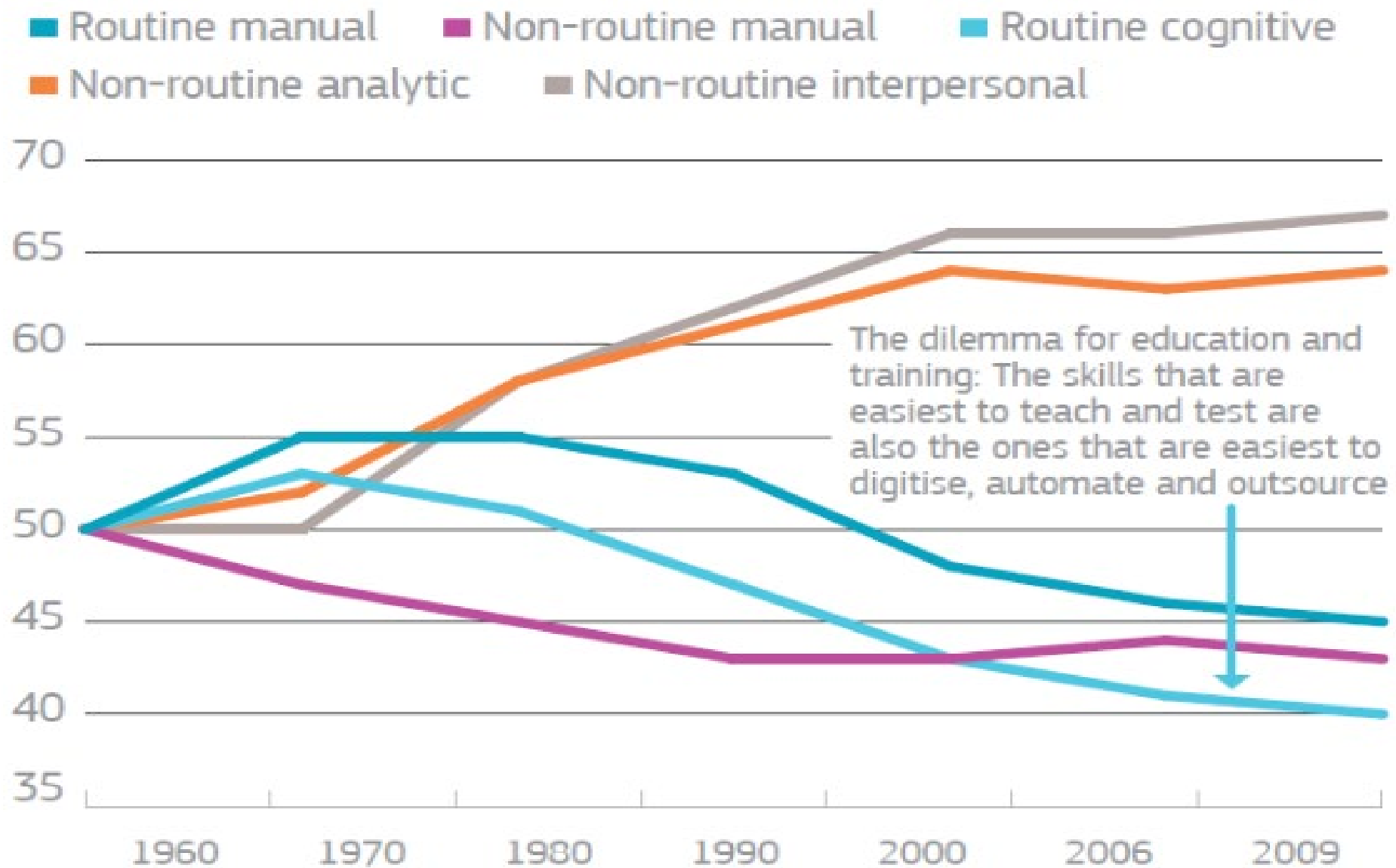
“By one popular estimate, 65 % of children entering primary school today will ultimately end up working in completely new job types that don’t yet exist”



Source: World Economic Forum 2016. The Future of Jobs. Employment, Skills and Workforce Strategy for the Fourth Industrial Revolution

Digitalisation and automation





Trends in Routine and Non-Routine Tasks in Occupations, United States

Competitiveness in the late 1990s



What is the competition about?

Efficiency, innovations

What type of expertise is needed?

Ability to multiply and scale models

Which actors are essential for competitiveness?

Creative class

How do companies relate to well-being?

Financing state economy and spreading material well-being in the societies

How is the appeal of areas and locations born?

Technology, tolerance and skilled people

Competitiveness in the late 2010s



Problem solving, innovations

Ability to understand systemic change and design scalable solutions

Curious class

Solving wicked problems

Trust, curiosity and skilled people

In society, curiosity...

- Helps bring hidden competences to use
- Makes transitions between different industries and jobs descriptions easier
- Helps connect global megatrends to one's life and work
- Highlights diverse motivations
- Supports life-long learning



International experience and related competence seems to be a way for identifying curious, productive and resilient people

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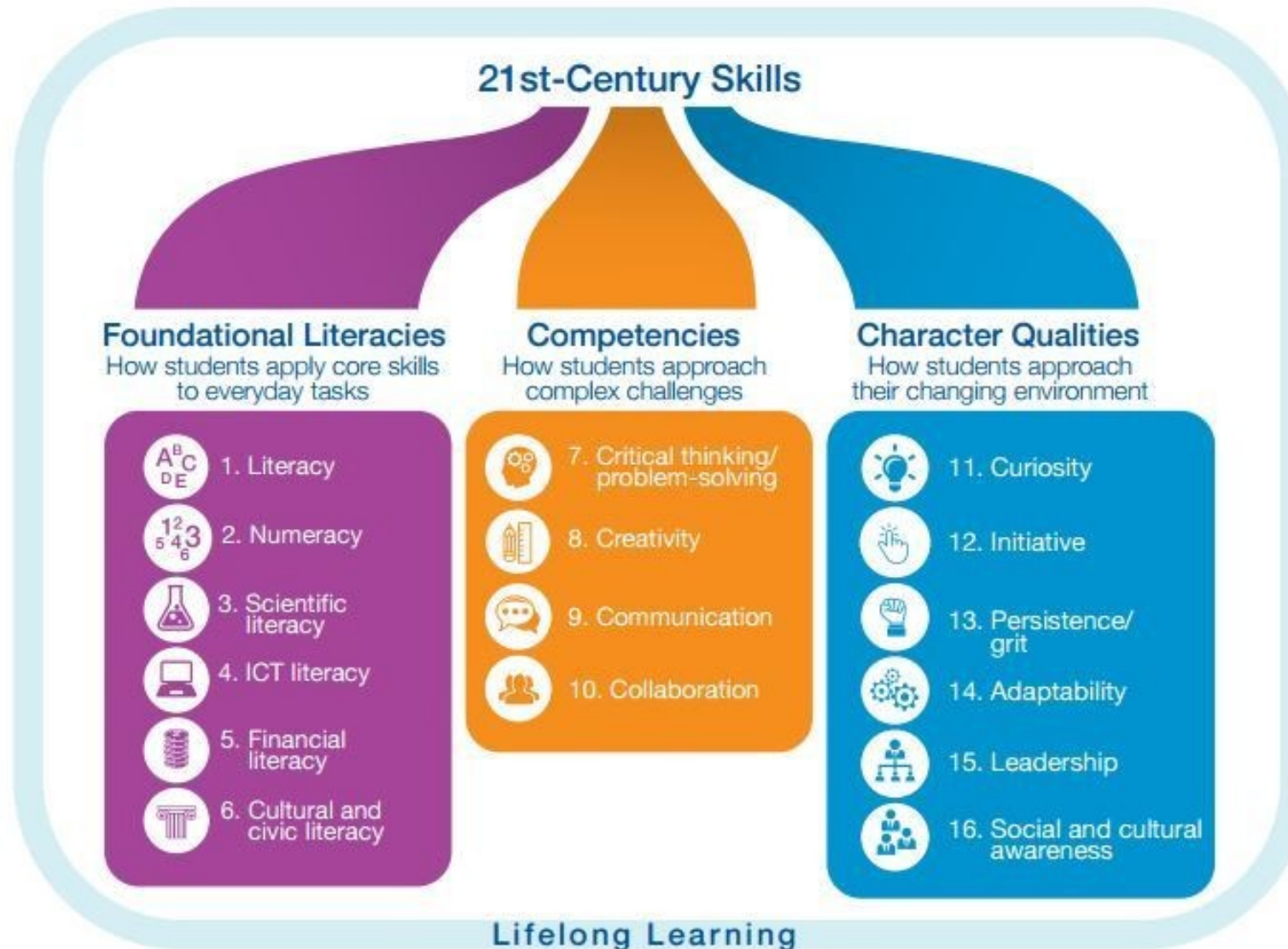
those who are **interested in the world** and have **capabilities to improve our well-being and economies.**

Steps towards a curious society

- Individual motivation and inspiration utilised in education and work life – gatekeepers for motivation-based learning
- Instead of one-track to international experiences, many younger people are international by default.
- In the world full of information, the significance of curiosity emerges – individual and collective initiatives need support.
- Collaboration is the surest way to bring hidden competences to use.
- Connecting solving global challenges and peoples' skills and motivations is the key to the well-being of individuals and also our societies of tomorrow.

Also others have now picked up on future skills?

Exhibit 1: Students require 16 skills for the 21st century



Note: ICT stands for information and communications technology.

Source: World Economic Forum, New Vision for Education (2015)

What have we done in Finland?

Other materials in Finnish and English (some parts):

- The website **www.cimo.fi/hiddencompetences**
- A brief, fun **Facebook-test** to raise awareness and spread the message
- **An Instagram account** for marketing
- **Help and tools for students** in secondary schools, vocational schools and universities on how to describe their competences, produce more informative CVs and do better in interviews
- **Materials for guidance practitioners** on how to work with international competences
- **Seminars and lectures for employers**, followed by an information campaign
- In 2016-17 a further **study on 'international talents' and SMEs**
<http://www.cimo.fi/newcompetence>



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Thank you!

www.cimo.fi/hiddencompetences

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