

L'enseignement supérieur au service de la société de la connaissance : tendances et scénarios à l'horizon 2025

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Challenges in OECD countries

- **Expansion of tertiary education**
 - Quality and relevance of education
 - Quality and productivity of research
 - Call on the public purse in a context of competing priorities (crises, ageing, public debt, etc.)
- **Globalisation**
 - Increased competition between systems
 - Importance of being in international knowledge flows
- **Governance**
 - Trend towards more institutional autonomy
 - Policy instruments to steer at a distance (indicators, etc.)

Outline

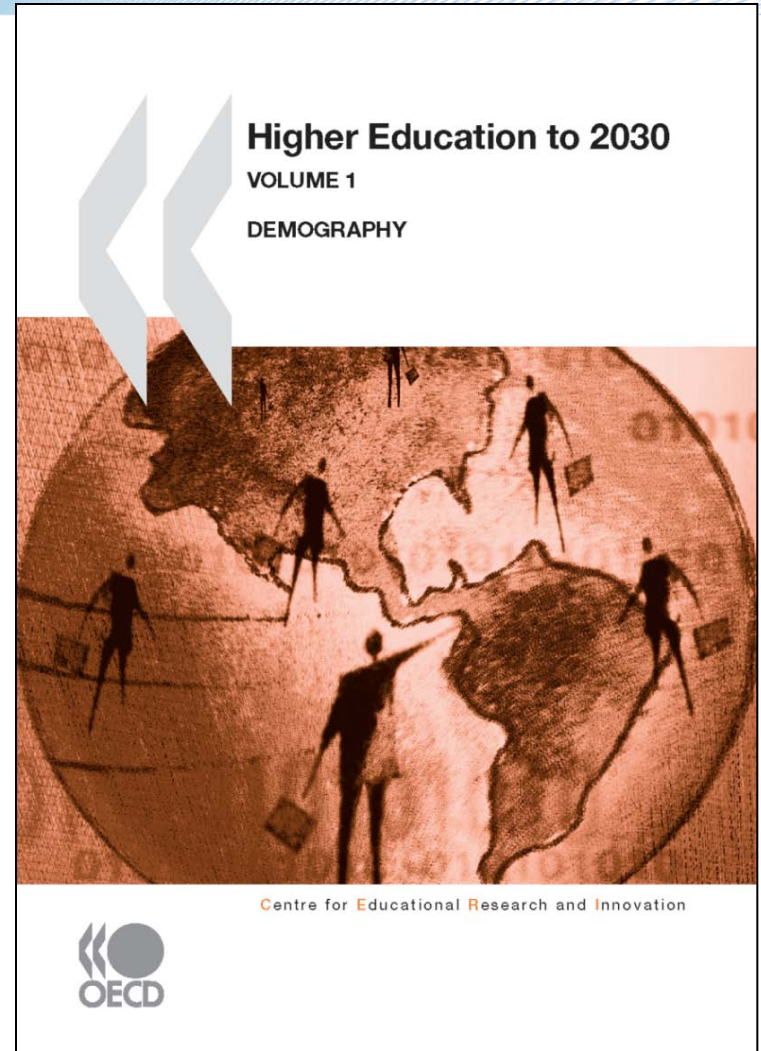
- Trends
 - Demand for tertiary educated people
 - Expansion of tertiary education
 - Governance of tertiary education systems
 - Privatisation of tertiary education
 - Funding of tertiary education
 - Internationalisation
 - Academic research
 - Skill development

- Scenarios for higher education

TRENDS IN HIGHER EDUCATION

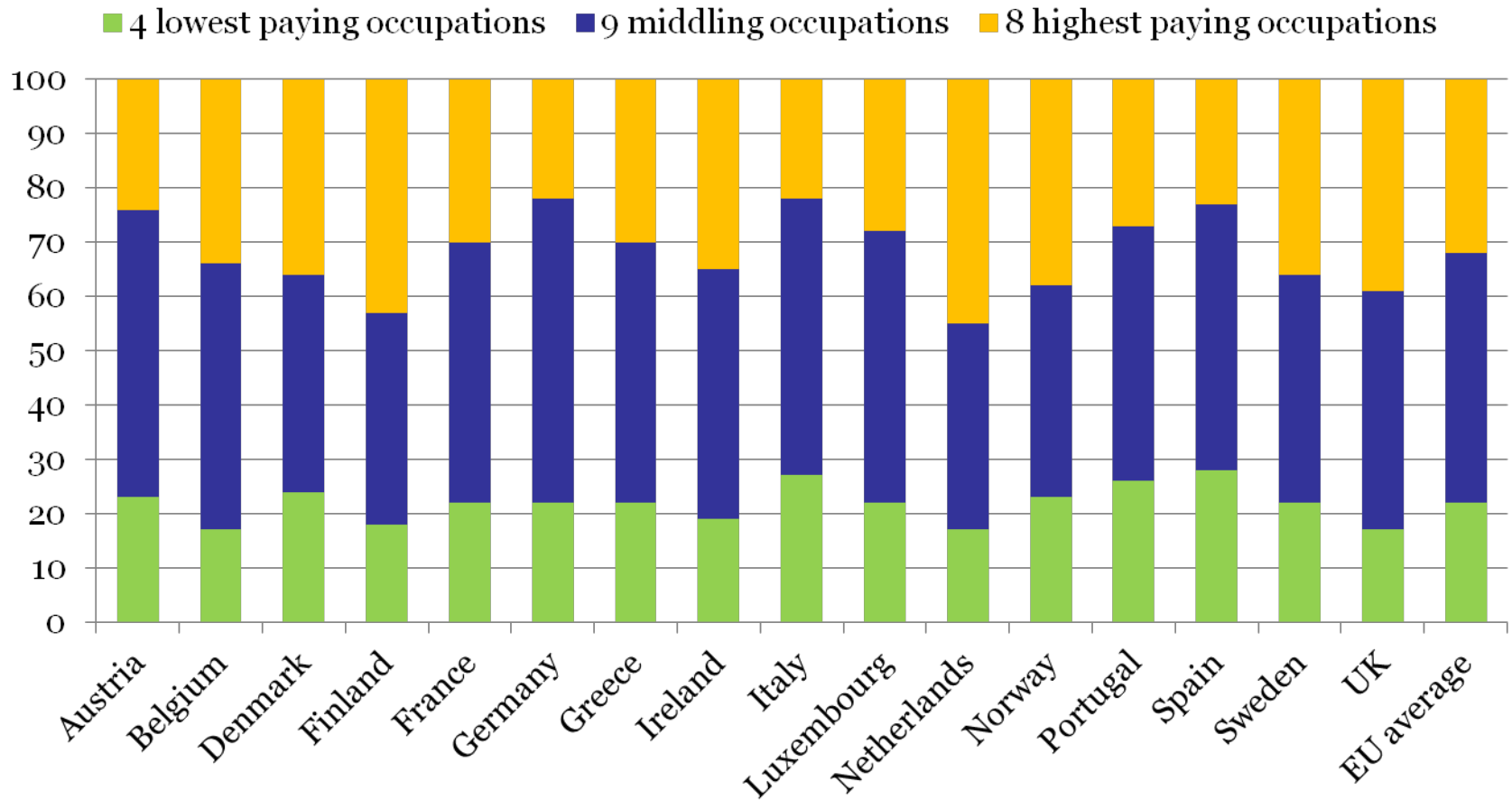
Expanding for more graduates?

DEMOGRAPHY

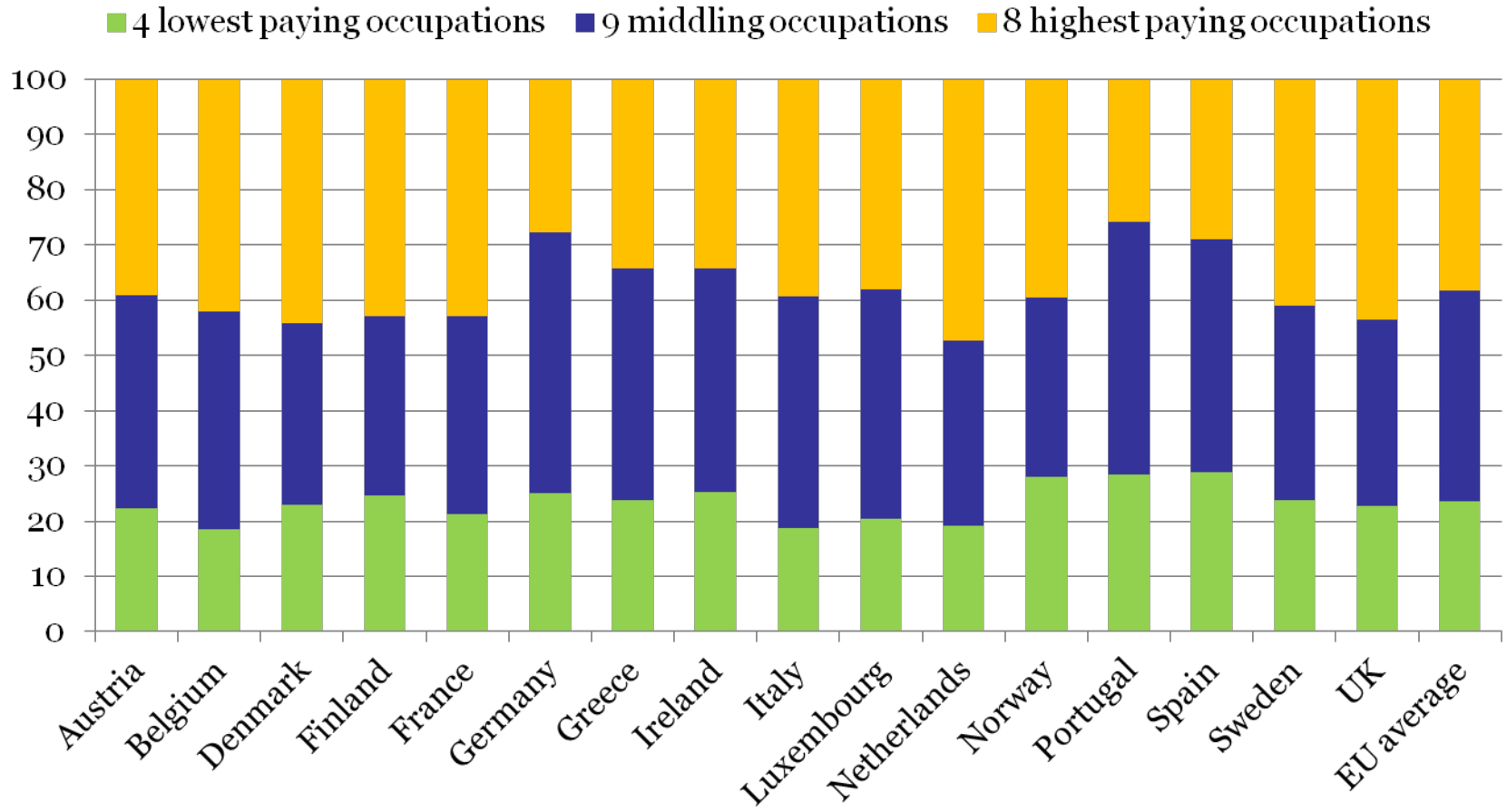


A change in the skills needed? (Skills biased technical change)

Employment structure in Europe in 1993 (hours worked)

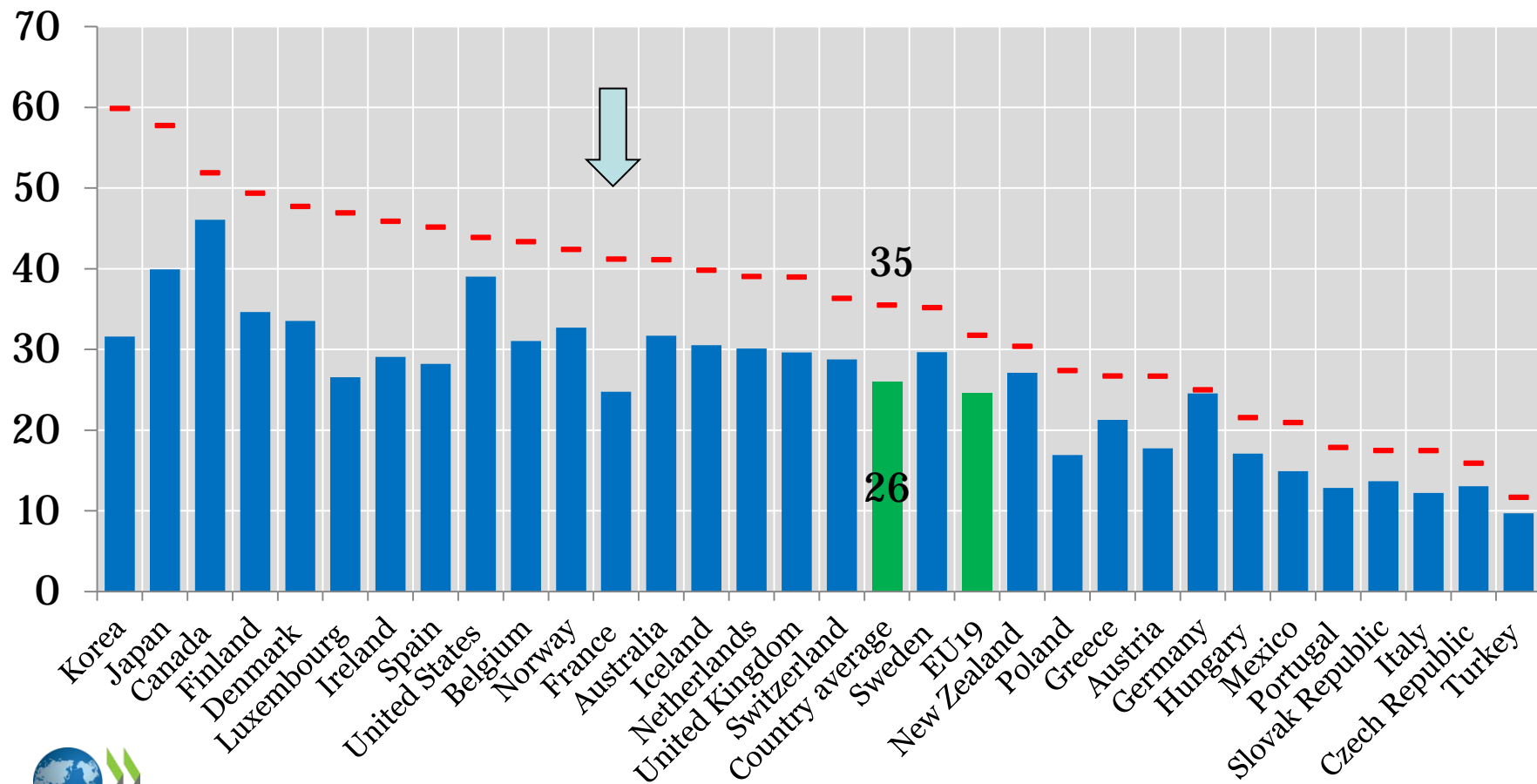


Employment structure in Europe in 2006 (hours worked)



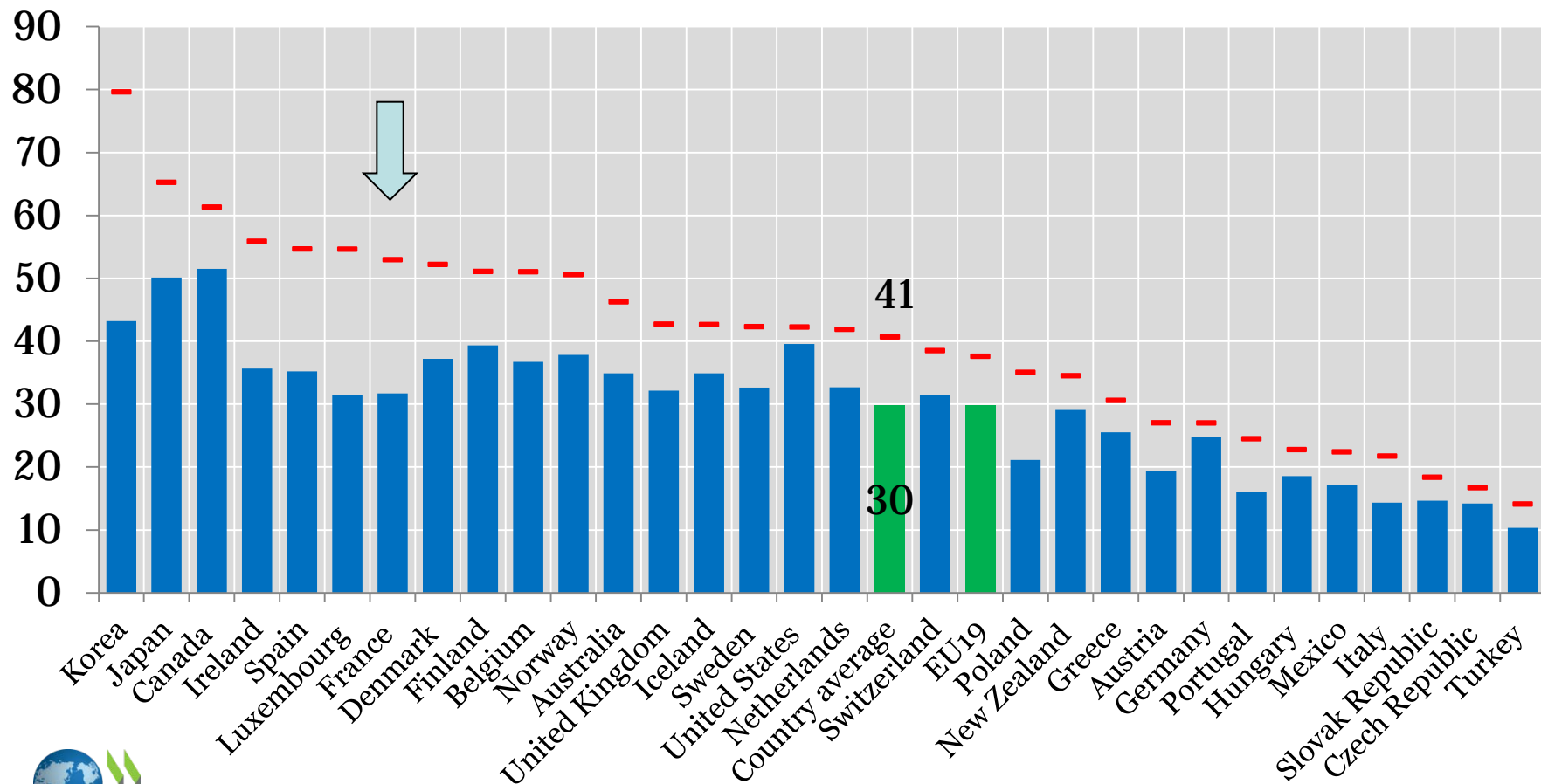
Tertiary educational attainment (%) of 25-64 population

■ 2005 - 2025 (T20)



Tertiary educational attainment (%) of 25-44 population

■ 2005 - 2025 (T20)

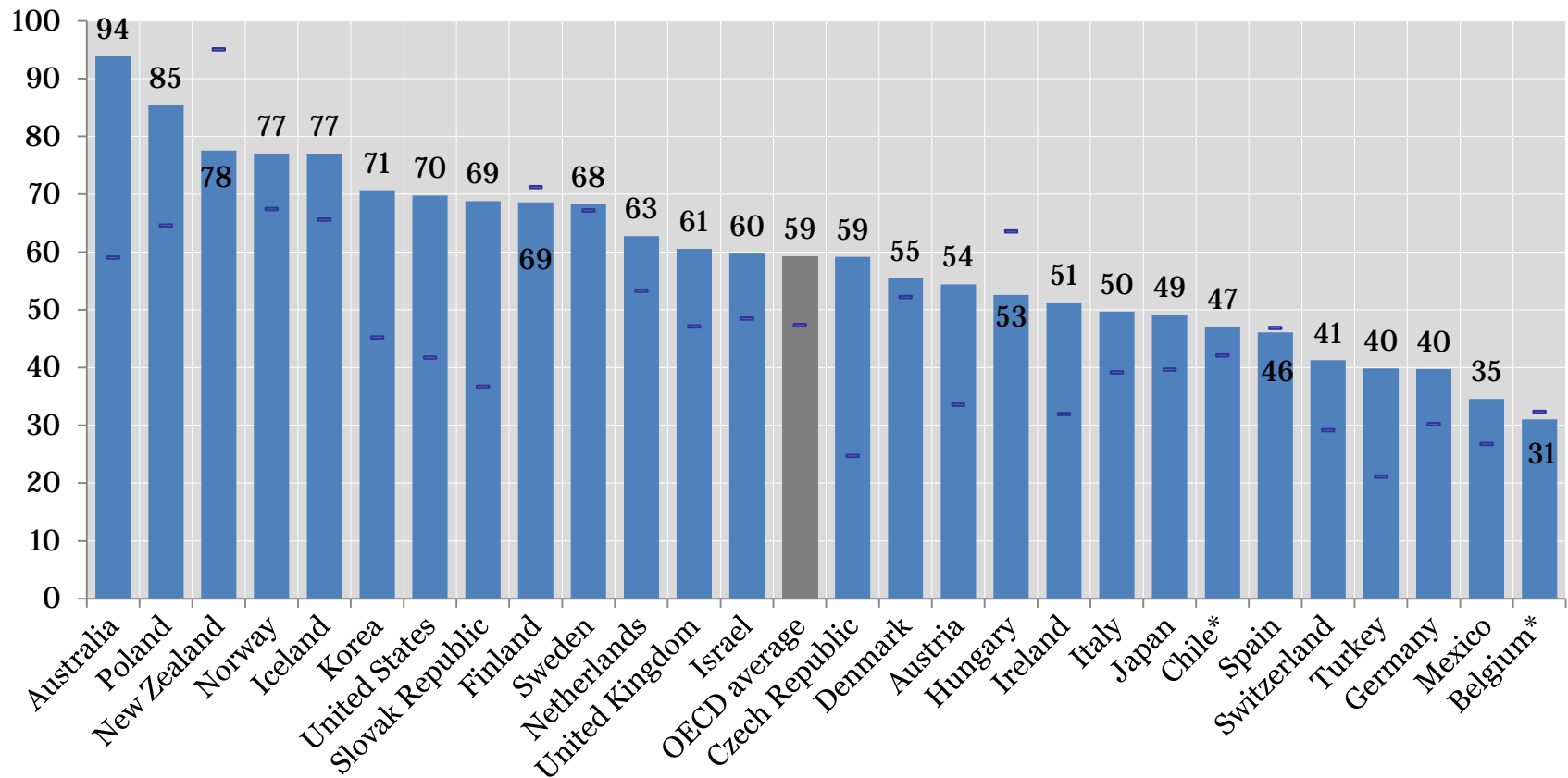


Will the expansion of tertiary education continue?

Entry rates into tertiary education (5a), 2000 and 2009

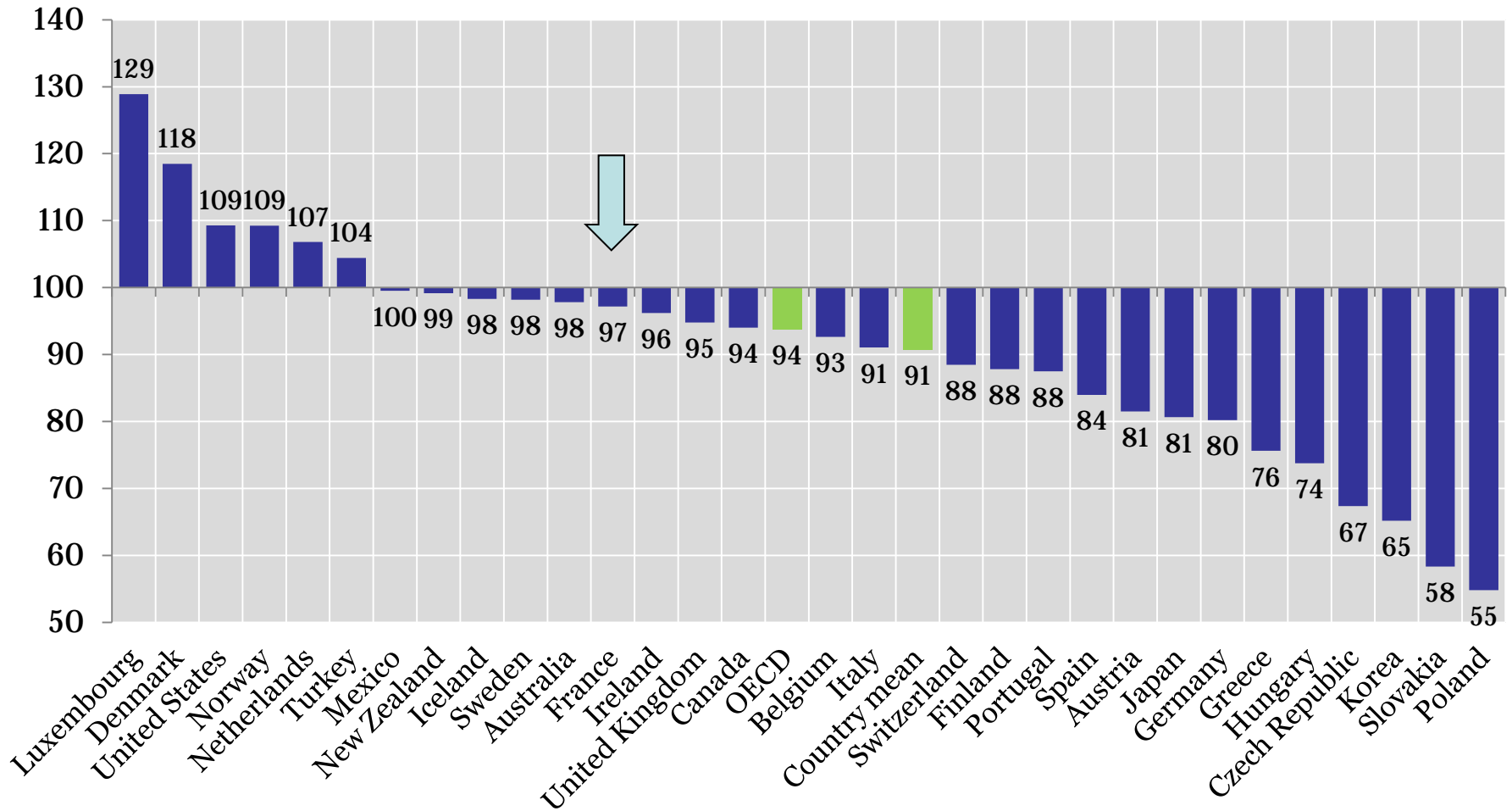
Percentage of upper secondary graduates who will enrol in 5a in their life

■ 2009 - 2000

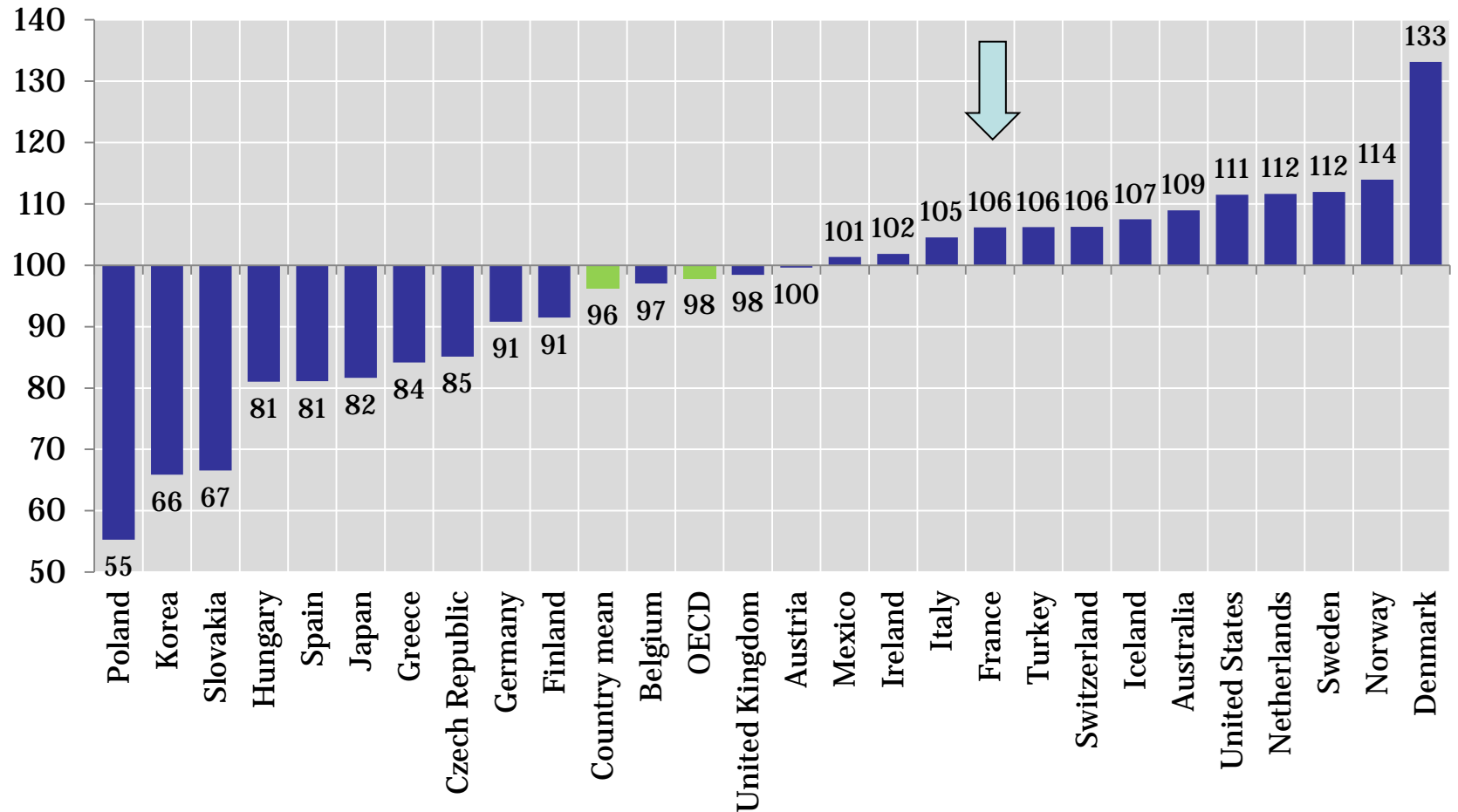


Evolution of the 18-24 population by 2025 (2005=100)

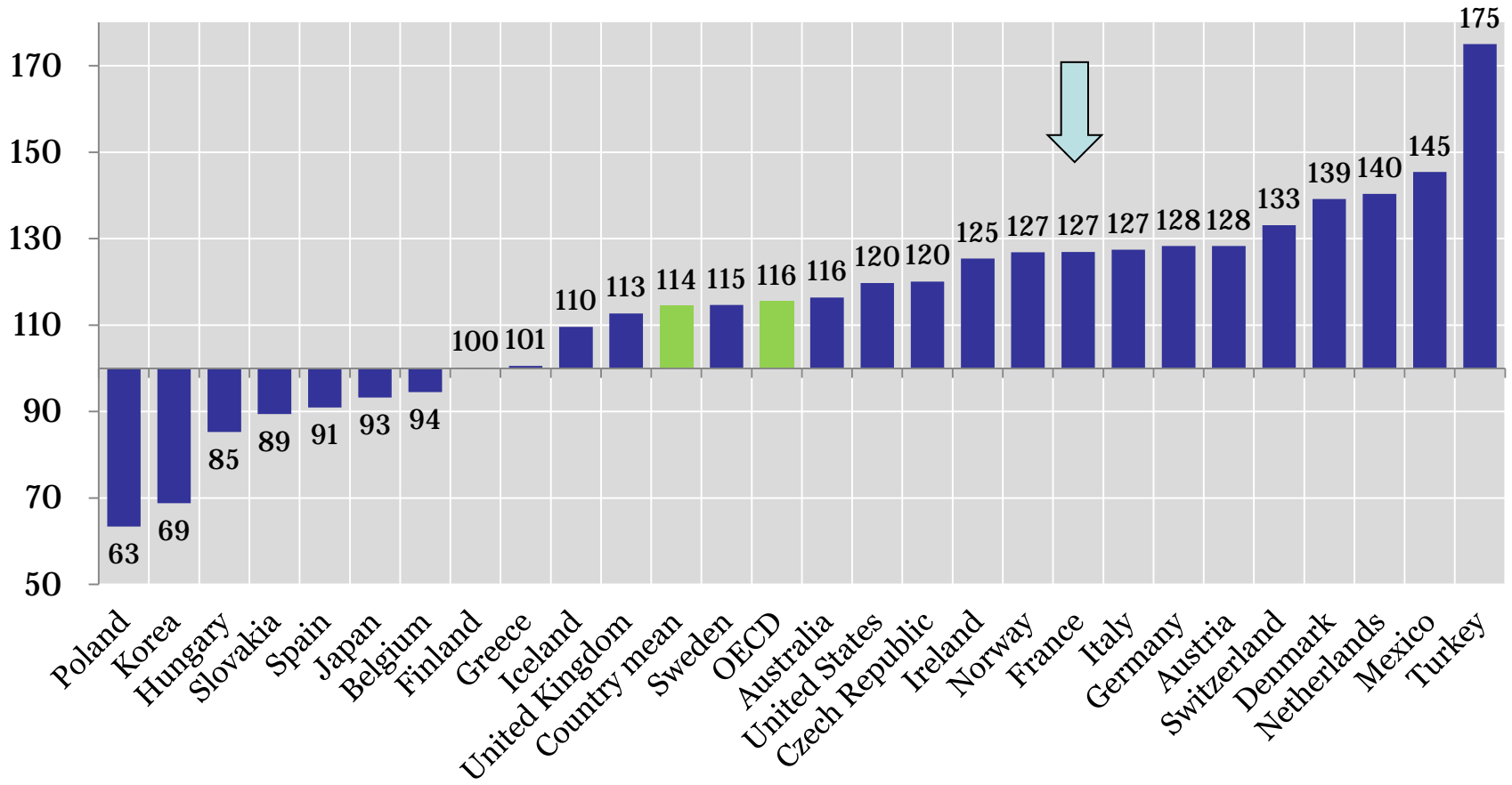
2025



Scenario 1: Projected tertiary enrolments in 2025 under current conditions (2005=100)

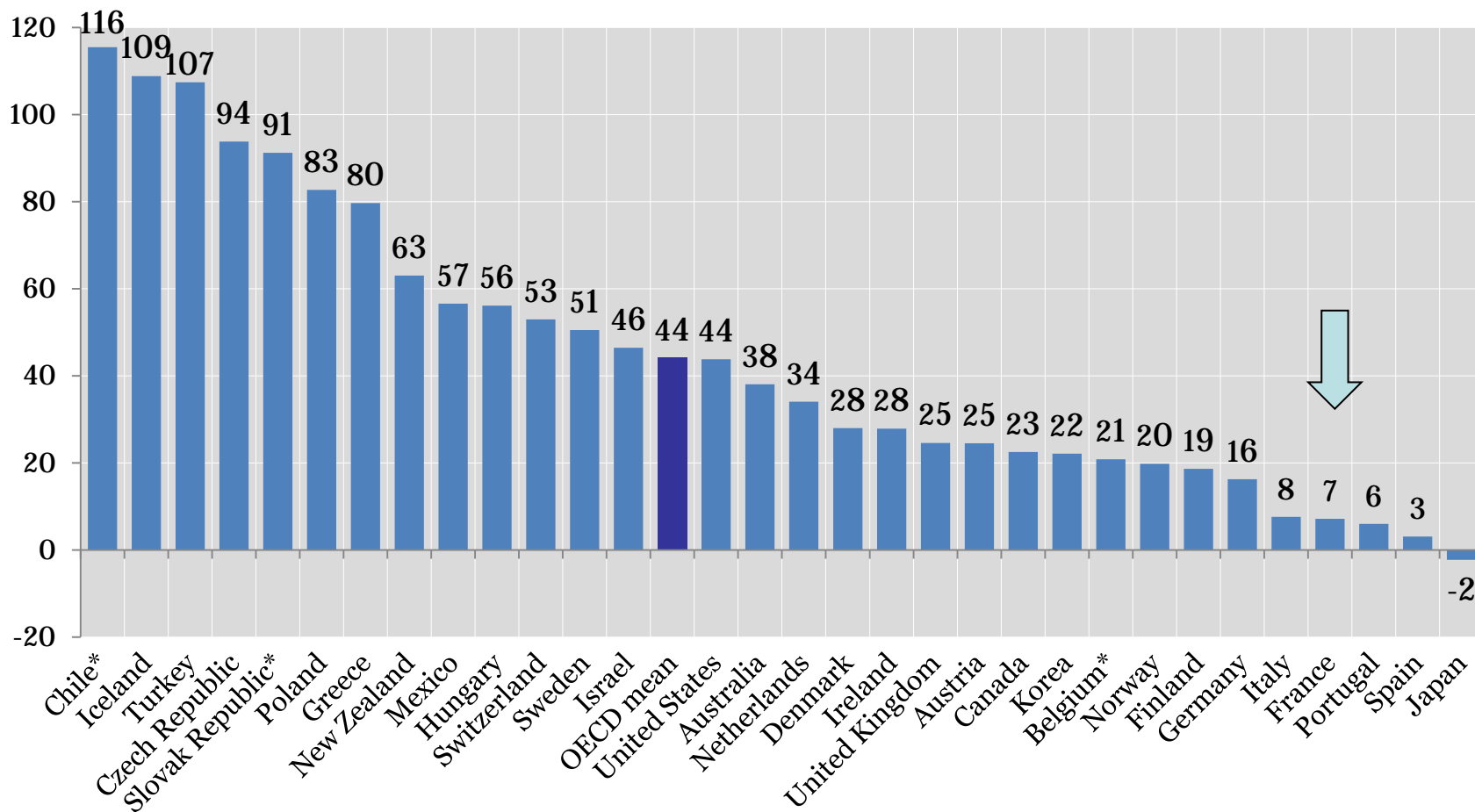


Scenario 2: Projected tertiary enrolments in 2025 under recent trends (2005=100)



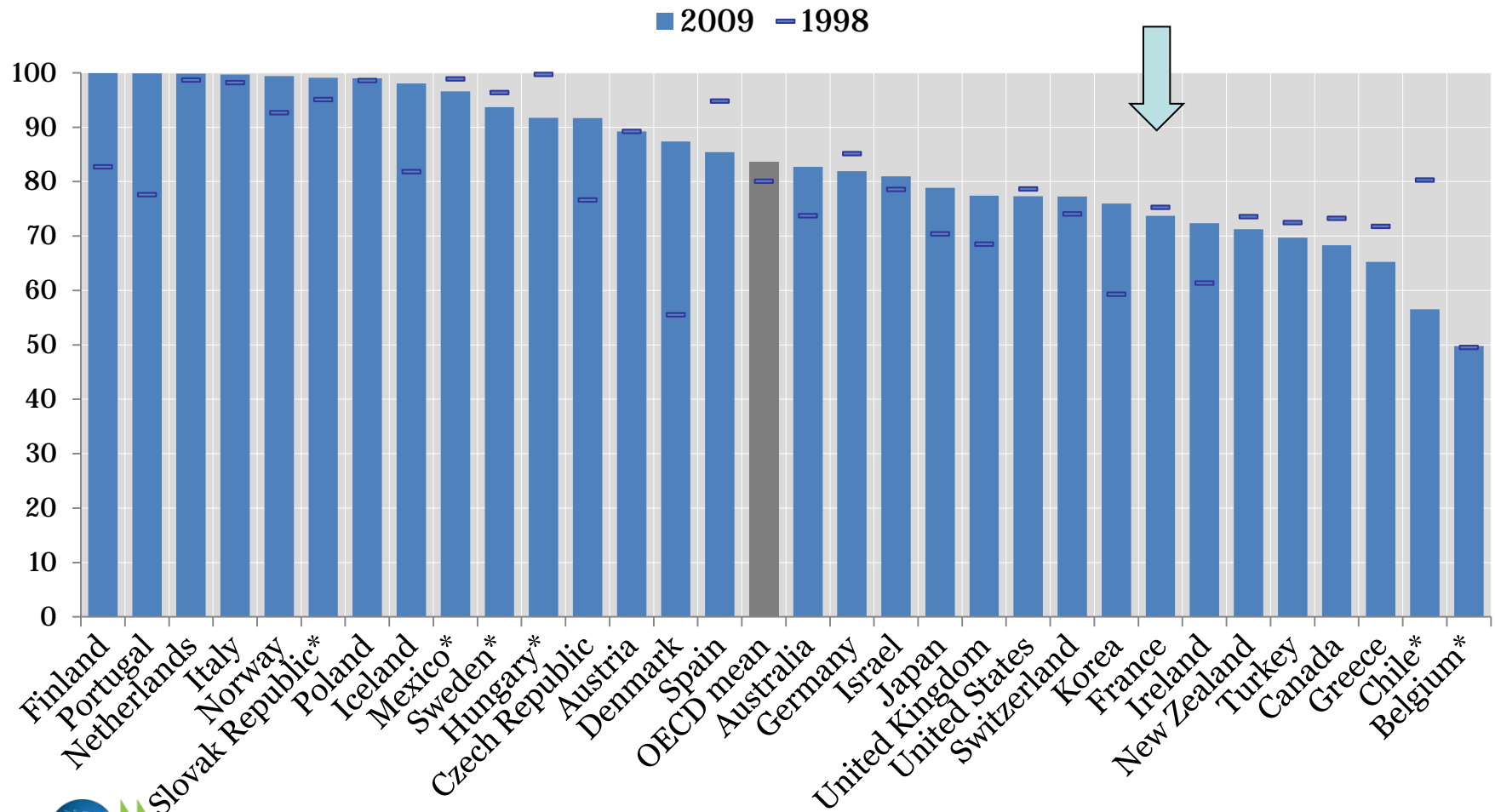
Growth in tertiary enrolments (1998-2009)

(%)

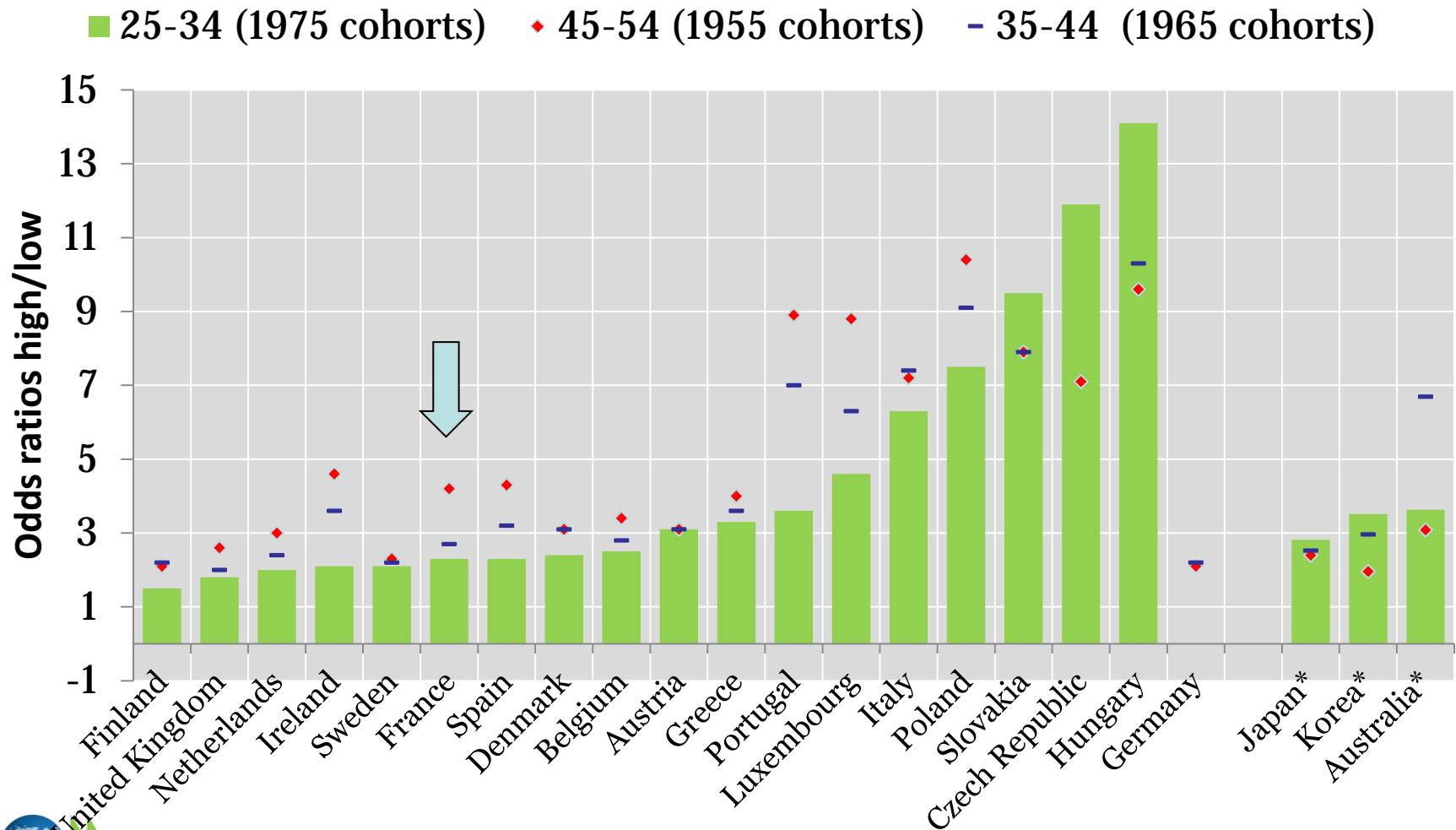


Share of enrolments in general programmes (5a) and evolution (1998-2009) (%)

Little change, or a tendency towards more academic programmes

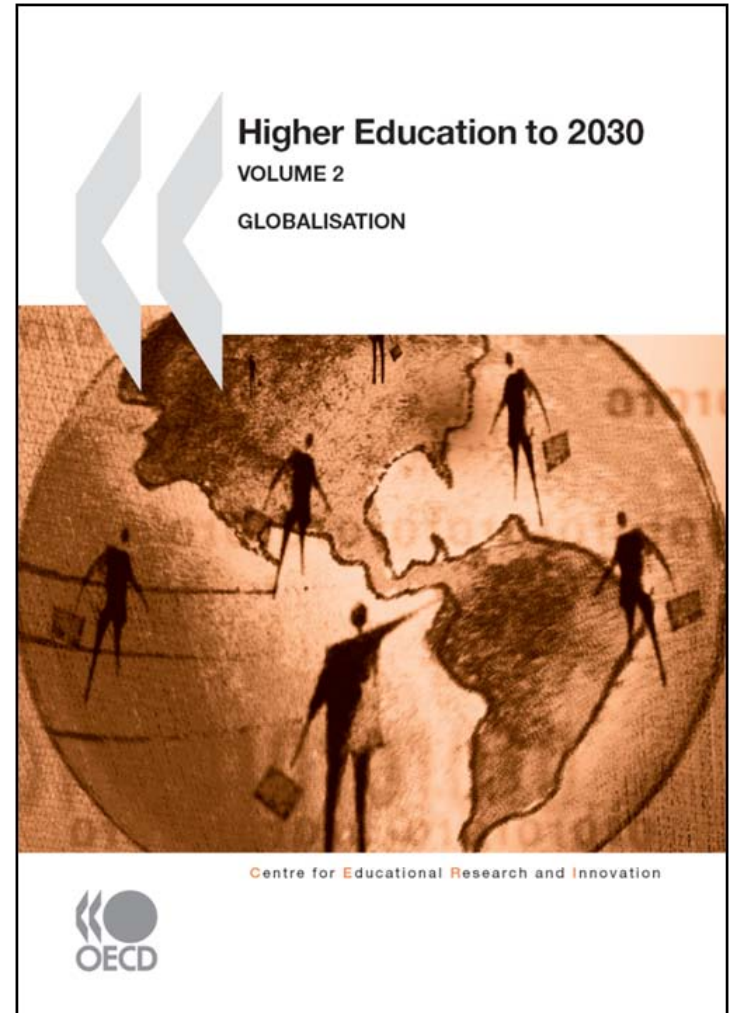


Social inequity over time (father's education)



- Privatisation of higher education
- Cross-border higher education
- Academic research
- Trends in governance

GLOBALISATION



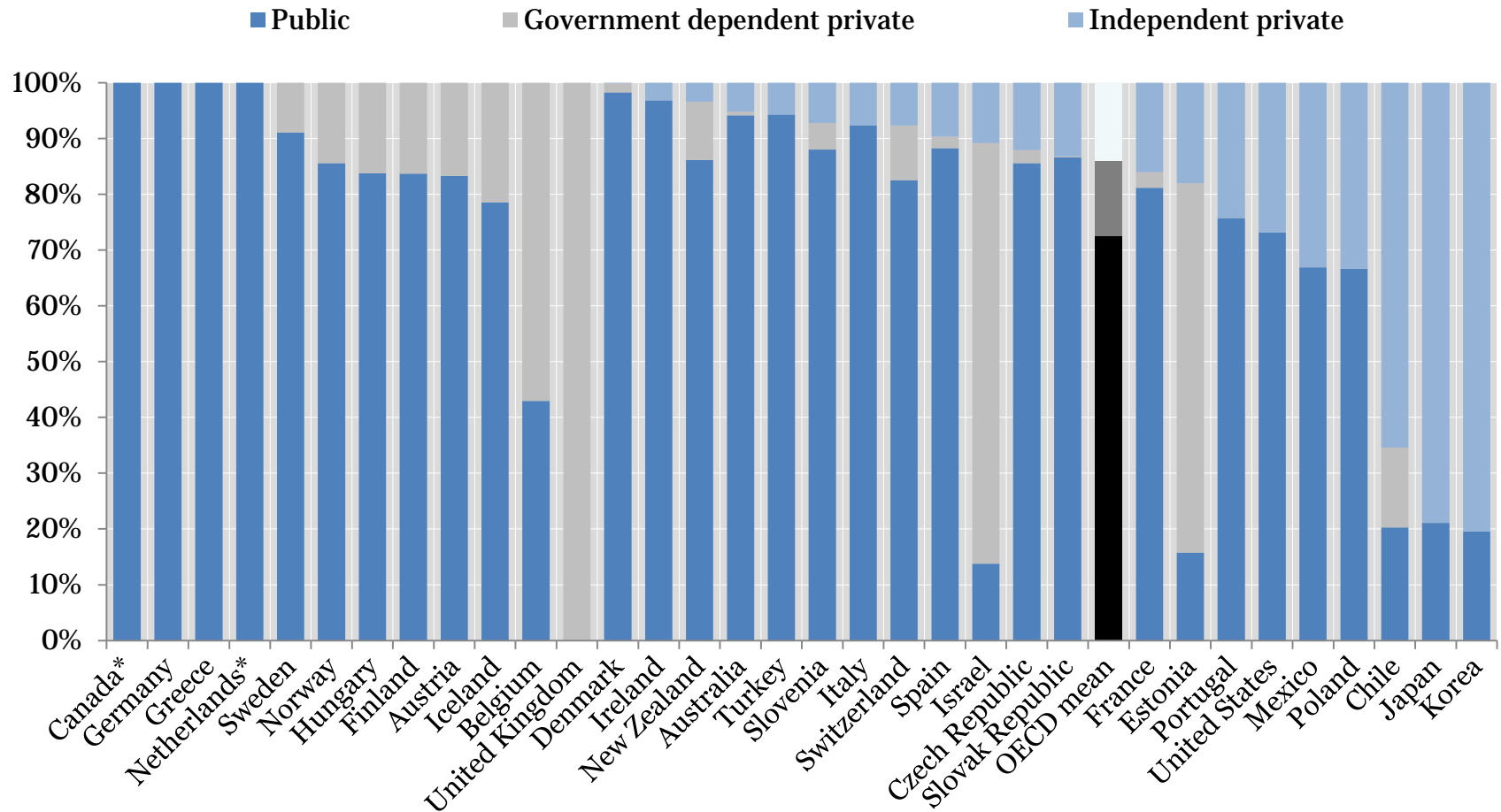
Governance

3 key trends in governance

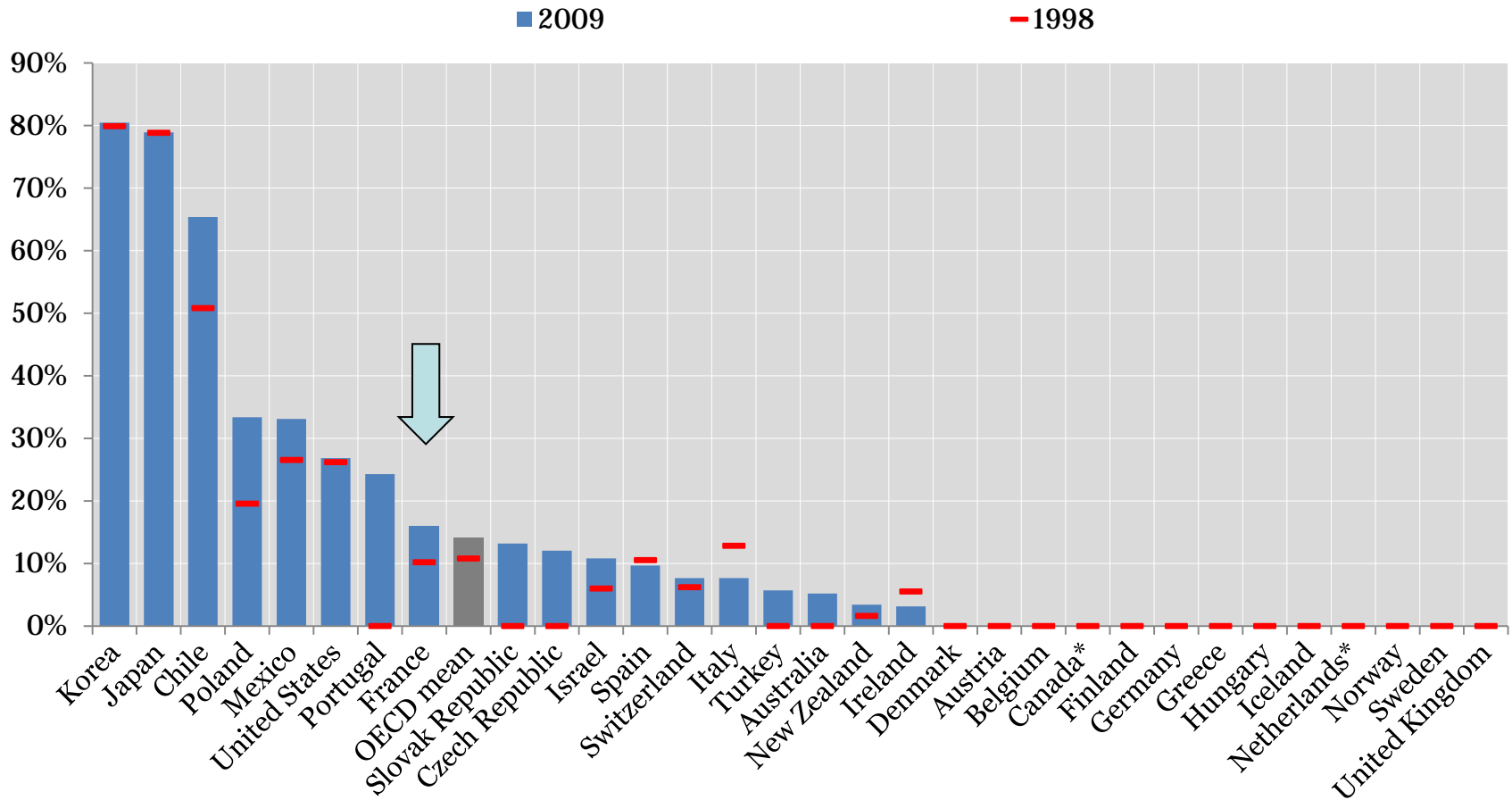
- **Globalisation: international harmonisation**
 - Bologna: degree architecture (BMD), Quality Assurance, ECTS, international mobility
 - Cross-border higher education and people mobility
 - International rankings
- **Diffusion of New Public Management practices**
 - Autonomy and accountability
 - Steering by incentives/sanctions and contracts
 - Universalisation of quality assurance mechanisms
- **Increasing importance of quantitative indicators in system steering**
 - Learning and employment outcomes
 - Research output
 - Rankings

Privatisation of supply?

Distribution of enrolments by control of institution, 2009



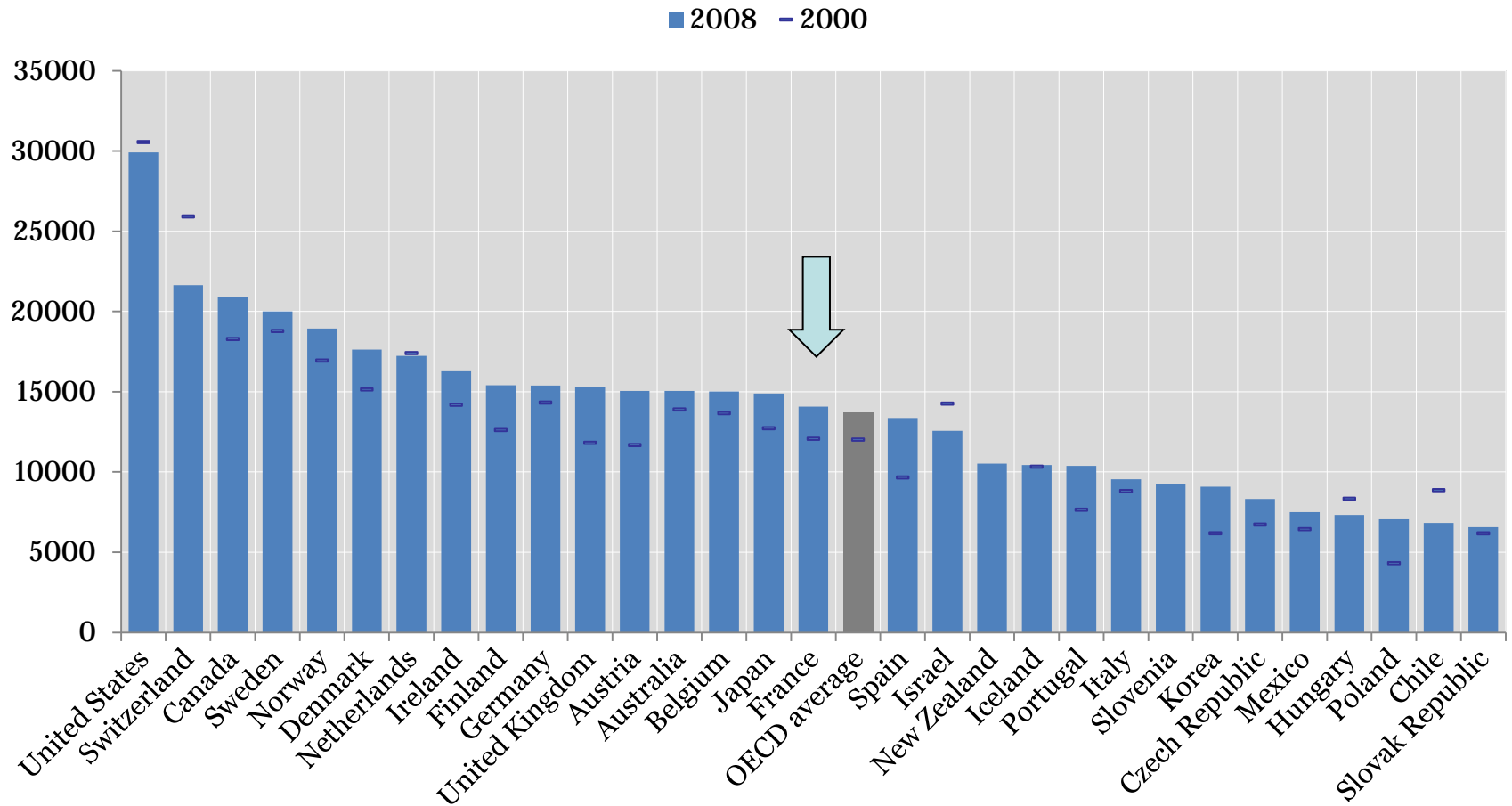
Evolution of enrolments in independent private institutions, 1998 and 2009



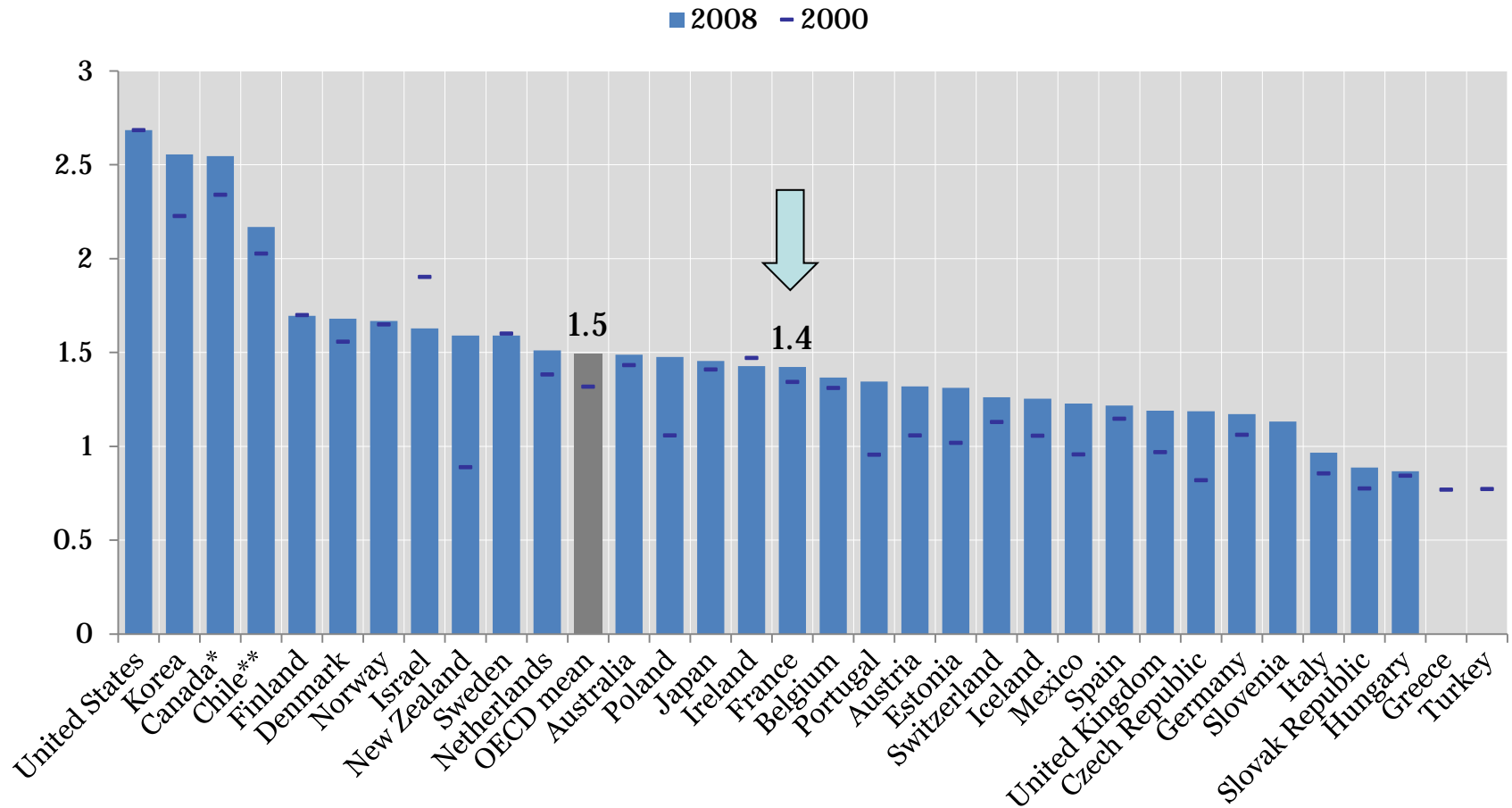
Privatisation of financing? Impoverishment?

Total expenditures per student for higher education institutions, 2000 and 2008

(PPP, 2000 constant USD)

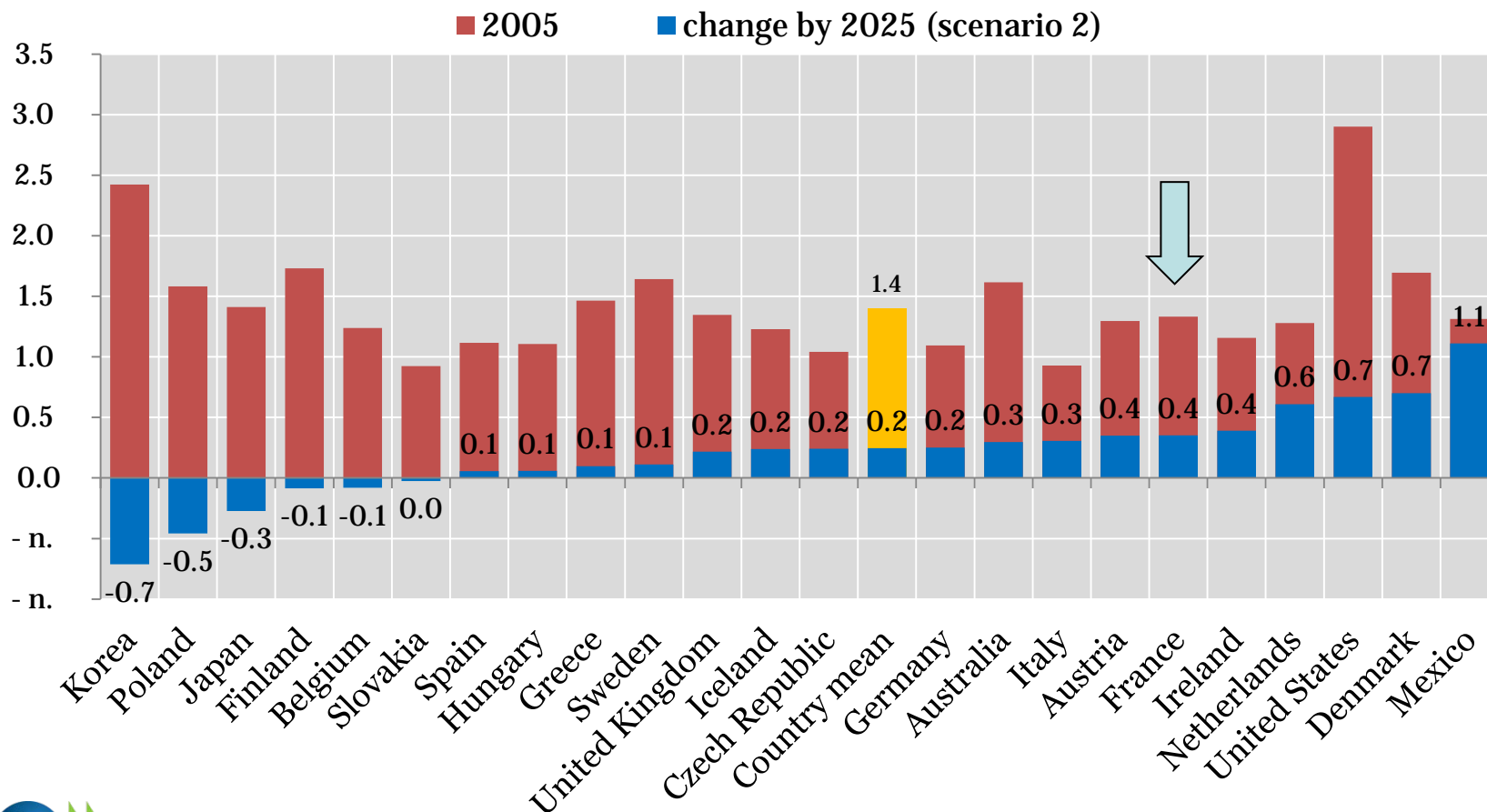


Total tertiary education expenditures as share of GDP, 2000 and 2008



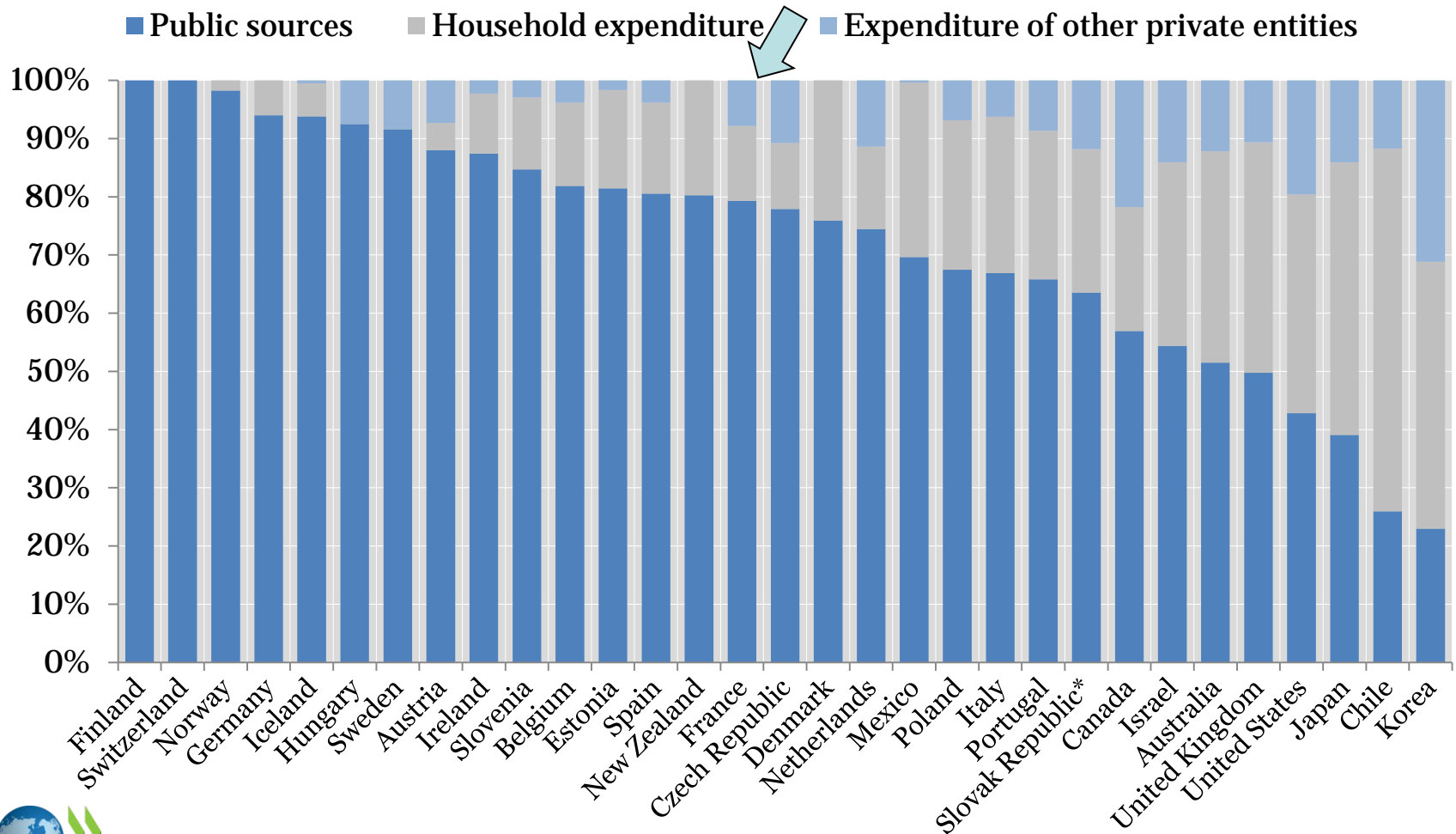
Total expenditures for tertiary education institutions as % of GDP in 2005, and projected difference by 2025 under expansion scenario 2 (GDP points)

GDP set at 2% growth and educational costs per head projected linearly according to 1995-2005 growth rate (constant prices)

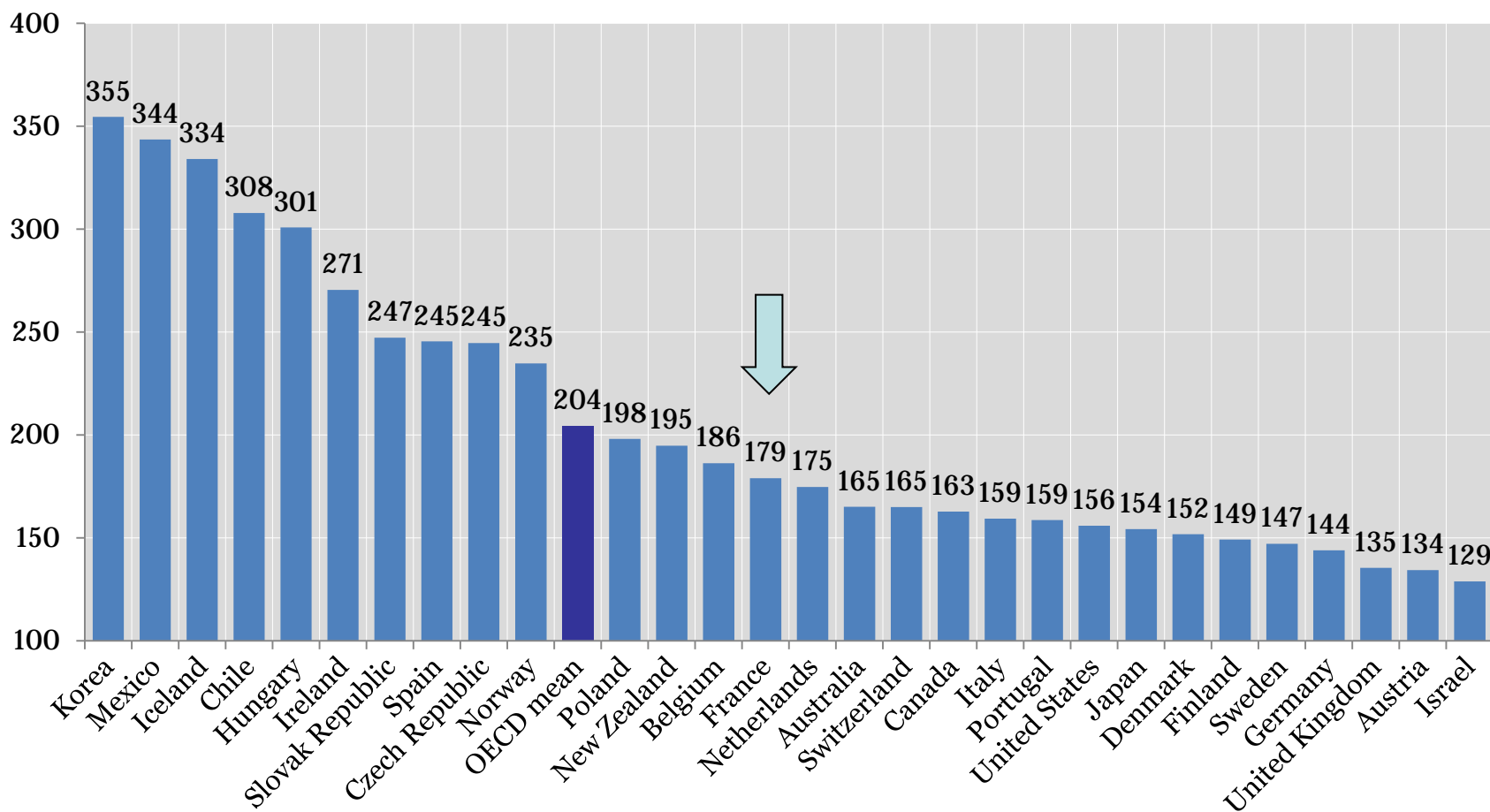


Who finances higher education?

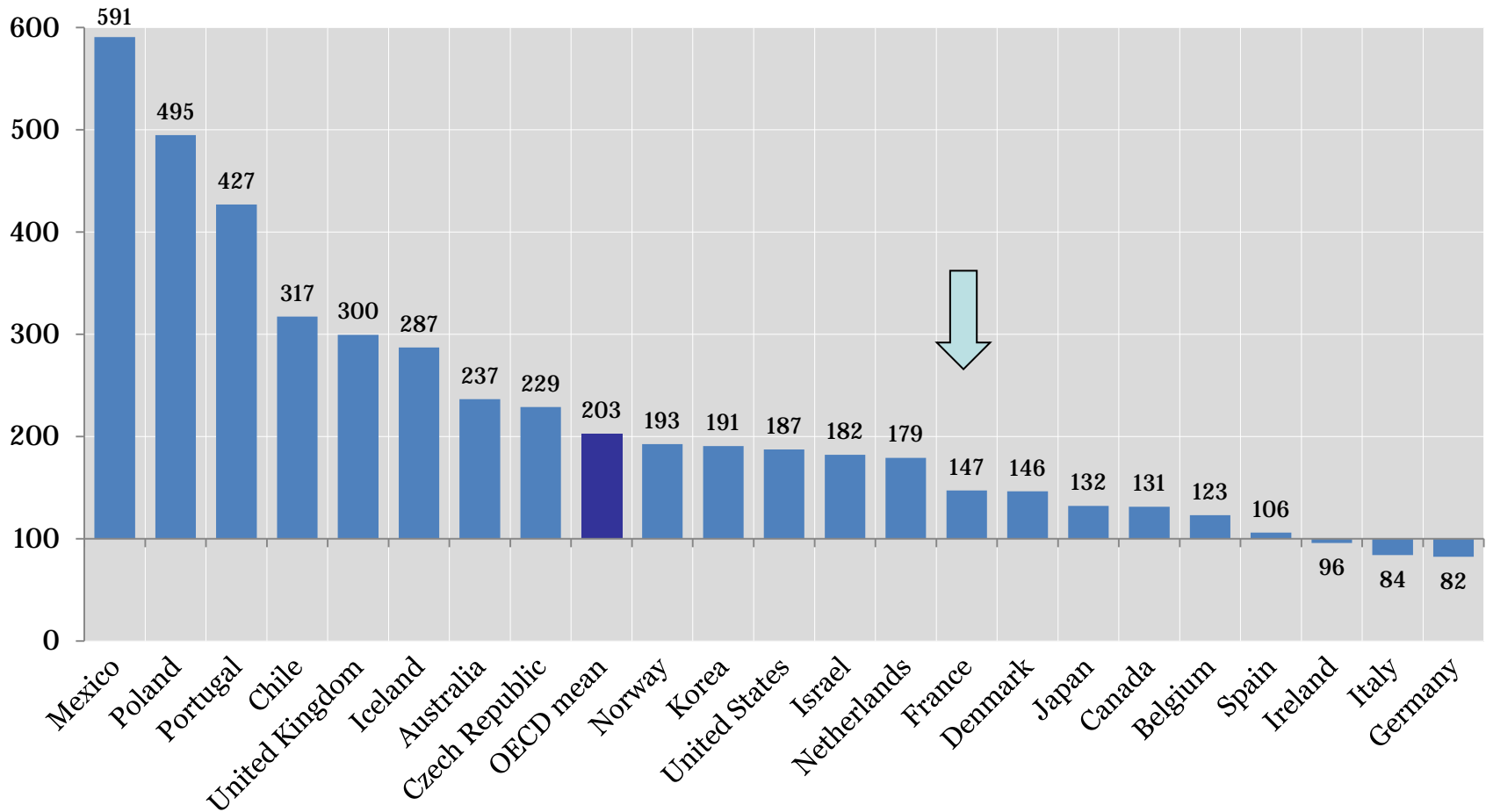
Distribution of funding for higher education, by source (2009) (%)



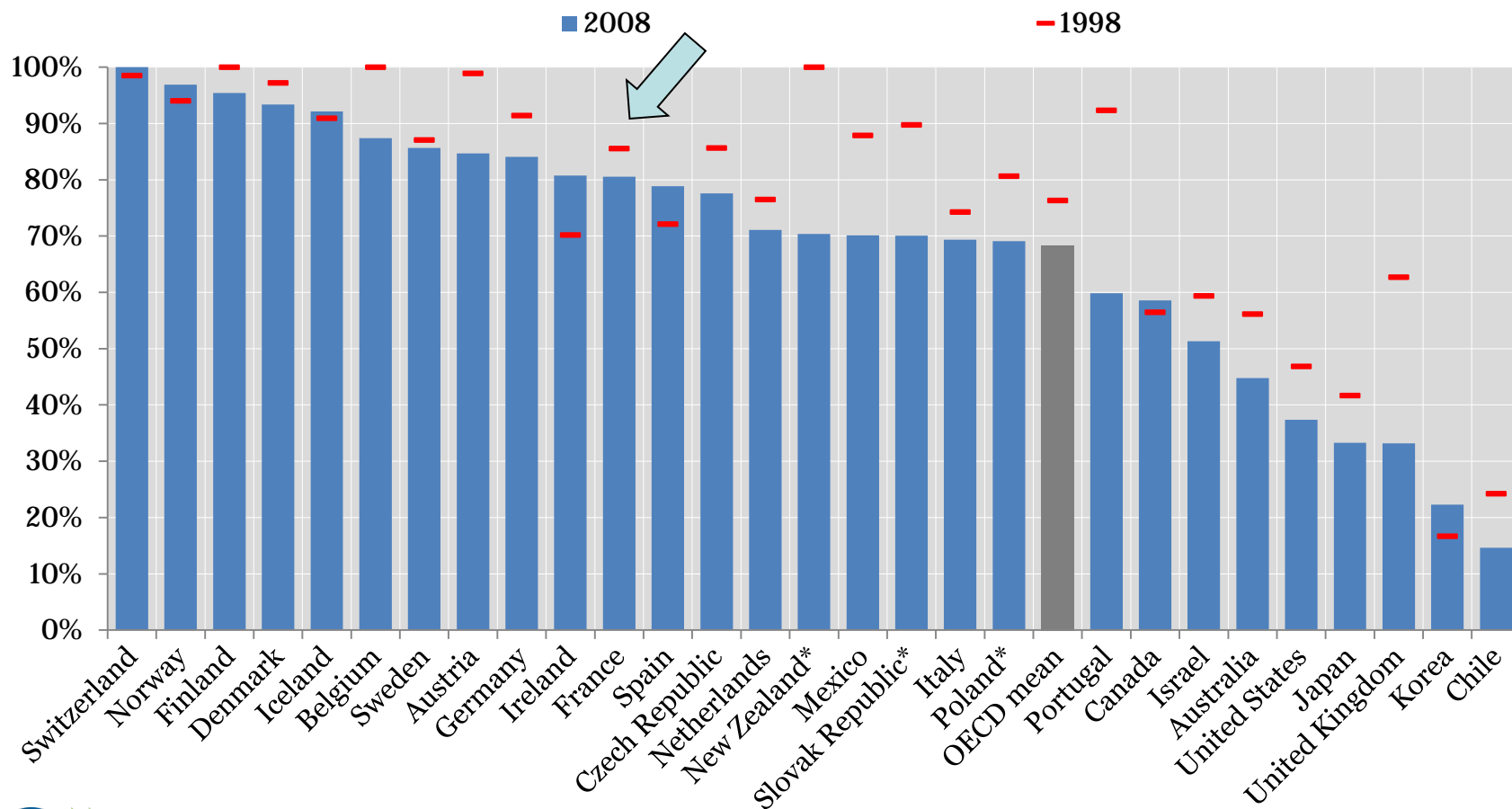
Growth in public expenditures for higher education, 1998-2008 (1998=100)



Growth in household expenditures for higher education, 1998-2008 (1998=100)



Share of public expenditures in tertiary education institutions expenditures, 1998 and 2008



Policy directions

Institutional Funding

Institutional funding for instruction should be formula-driven, relate to both input and output indicators and include strategically targeted components:

- Block grants should rely on transparent formulas based on a balanced array of input and output indicators
- Performance-based funding mechanisms should be carefully implemented
- A possible model is a contractual relationship between institutions and the State
- Institutional funding to include targeted development programmes
- Institutional funding to be adjusted to the particular mission of the institution
- Institutions to be autonomous in the use of their block grants
- Funding to offer some stability for long-term development
- Sources of institutional funding to be diversified
- Complementary streams for the funding of capital infrastructure

Policy directions

Institutional cost effectiveness

Improving cost-effectiveness - possible responses:

- More funding on the basis of graduation rates
- Reduction of public subsidies for students who remain too long in the system
- Conversion of loans into grants if students graduate within nominal time
- The elimination of low enrolment and/or duplicated programmes with possible redeployment of academics across education programmes
- Rationalizing faculty to respond to student contractions
- Increasing use of shared facilities
- Increasing student mobility between institutions

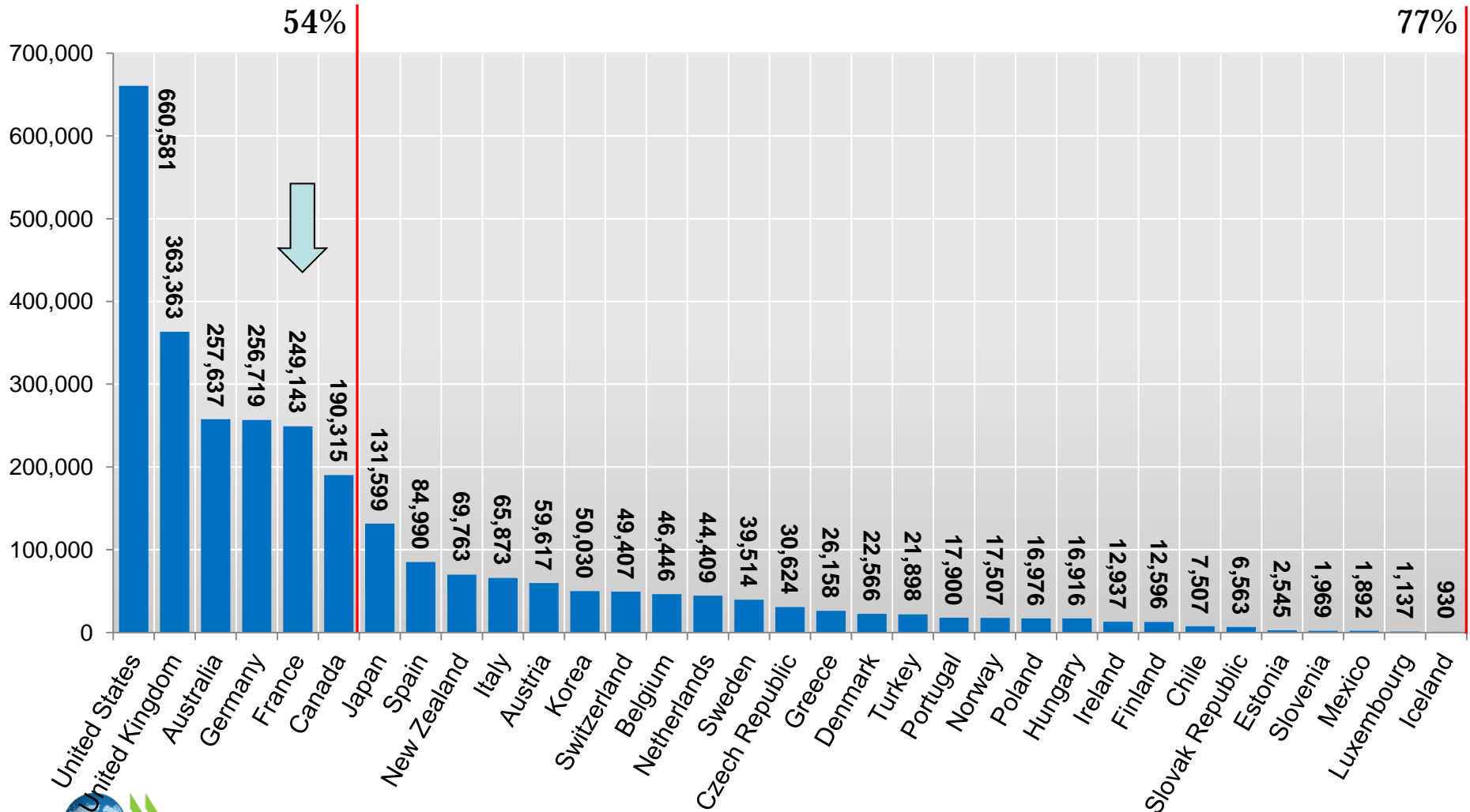
The rise of cross-border higher education

International mobility of students

- OECD countries receive about 80% of the ca. 3.7 million foreign students in the world in 2009
- The number of foreign students within OECD has grown quickly over the past decades and years (by 111% between 1998 and 2009)
- Two thirds of foreign students within the OECD area come from non-OECD countries
- Some of these foreign students are not mobile (or « international ») students, but the bulk of them are mobile

Number of foreign students in OECD countries (2009)

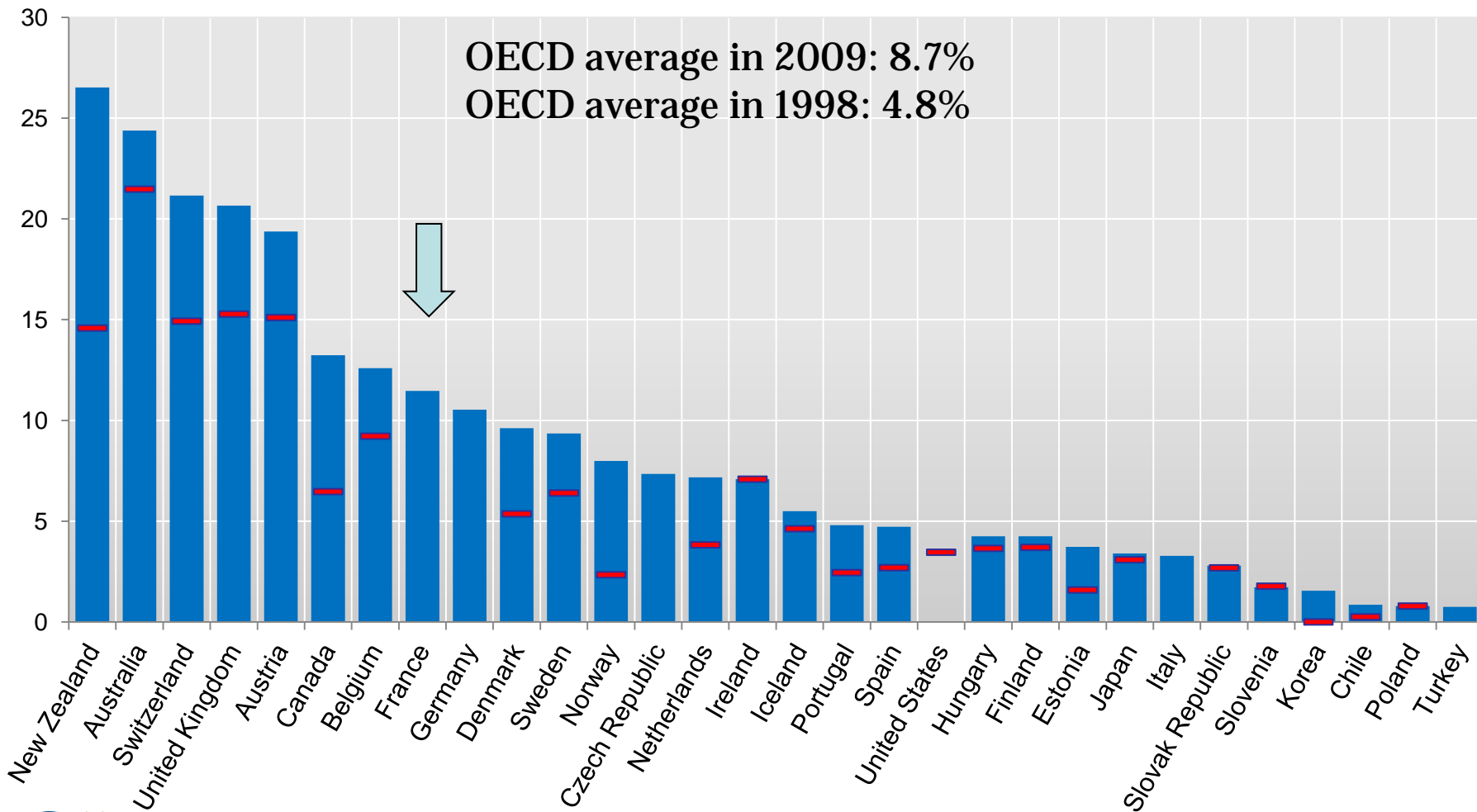
A high, but decreasing concentration in few host countries



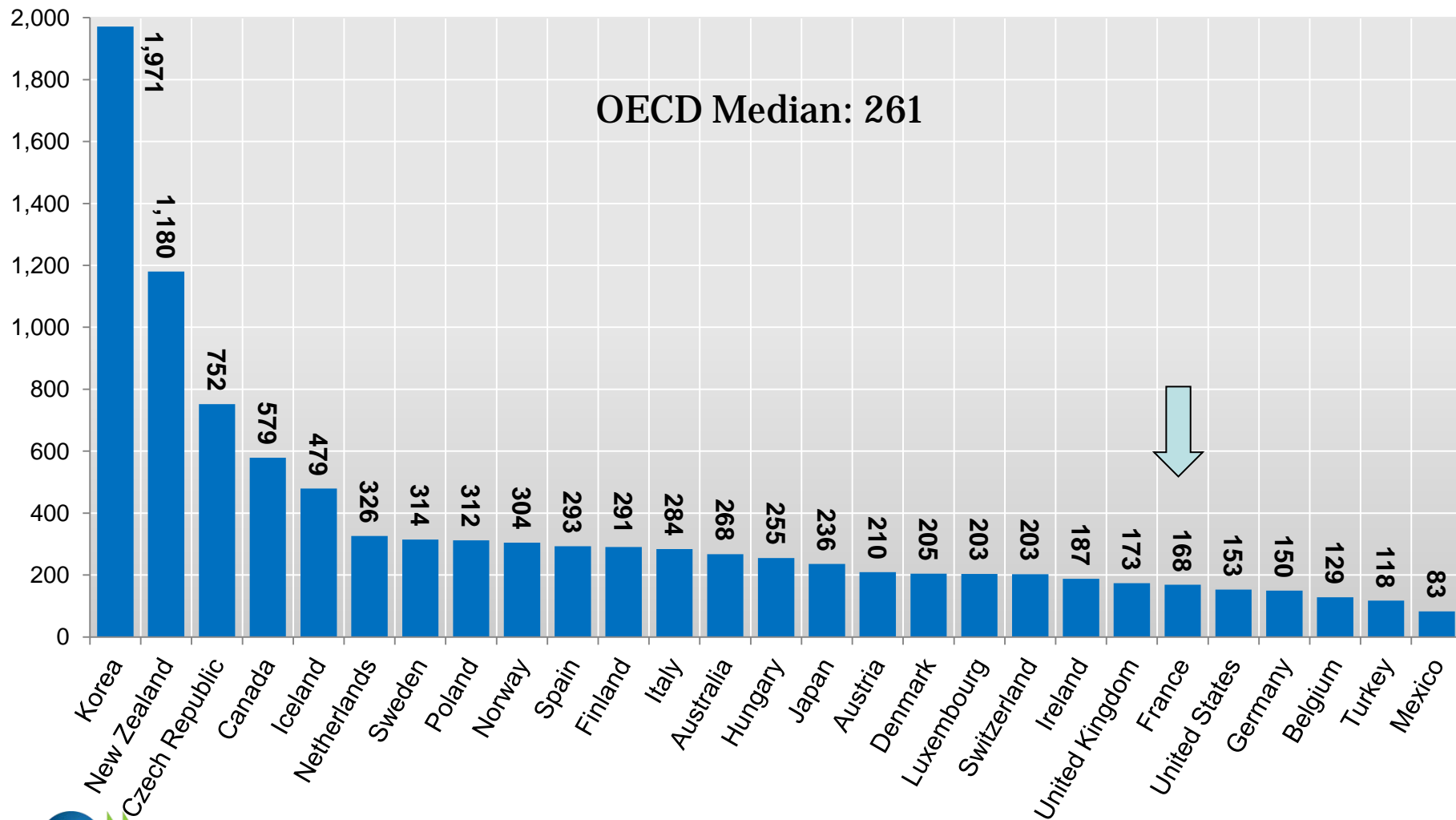
Percentage of foreign students in total tertiary enrolments in OECD countries (2009)

■ Foreign students ■ International students

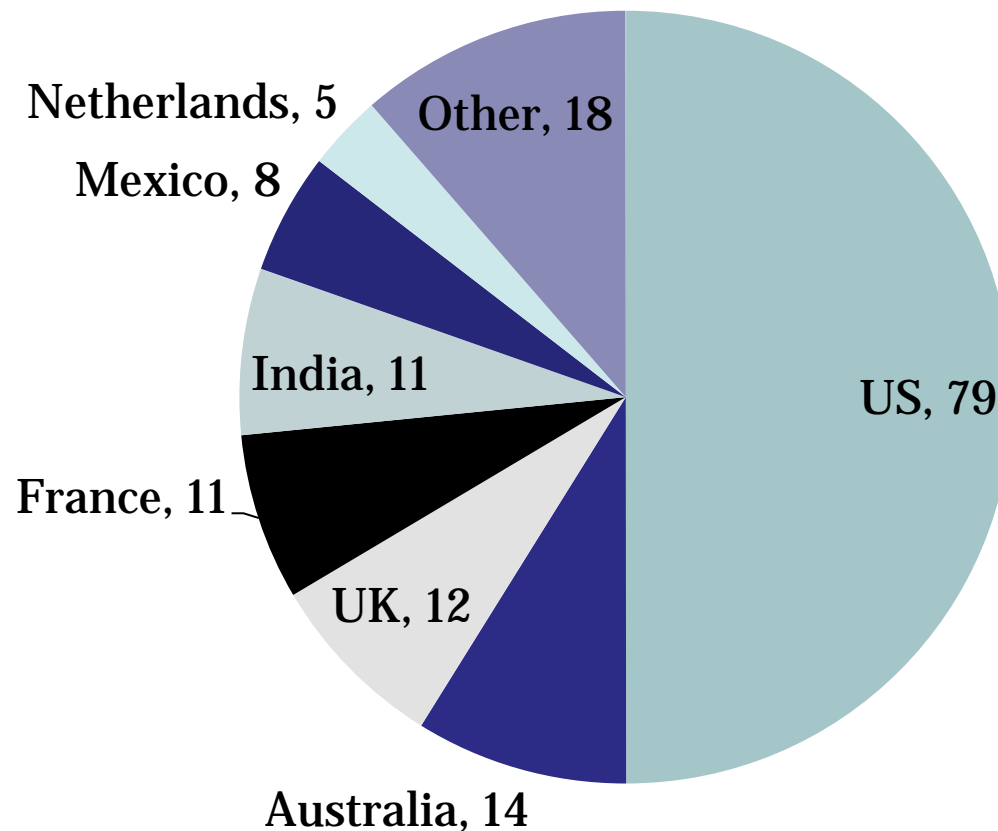
OECD average in 2009: 8.7%
 OECD average in 1998: 4.8%



Growth in the number of international and foreign students within the OECD (1998-2009, 1998=100)



Foreign branch campuses of HEIs, by country of origin (2009)



EXPORT strategies

IMPORT strategies

Revenue generation

Ex: Australia, New Zealand, UK (non-EU), US (undergraduates), Malaysia

Skilled migration

Ex: Germany, France, UK (EU), US (postgraduates)

Capacity building

Ex: Malaysia, Singapur, Honk Kong-China, China, Indonesia, Oman, Dubai

Mutual understanding

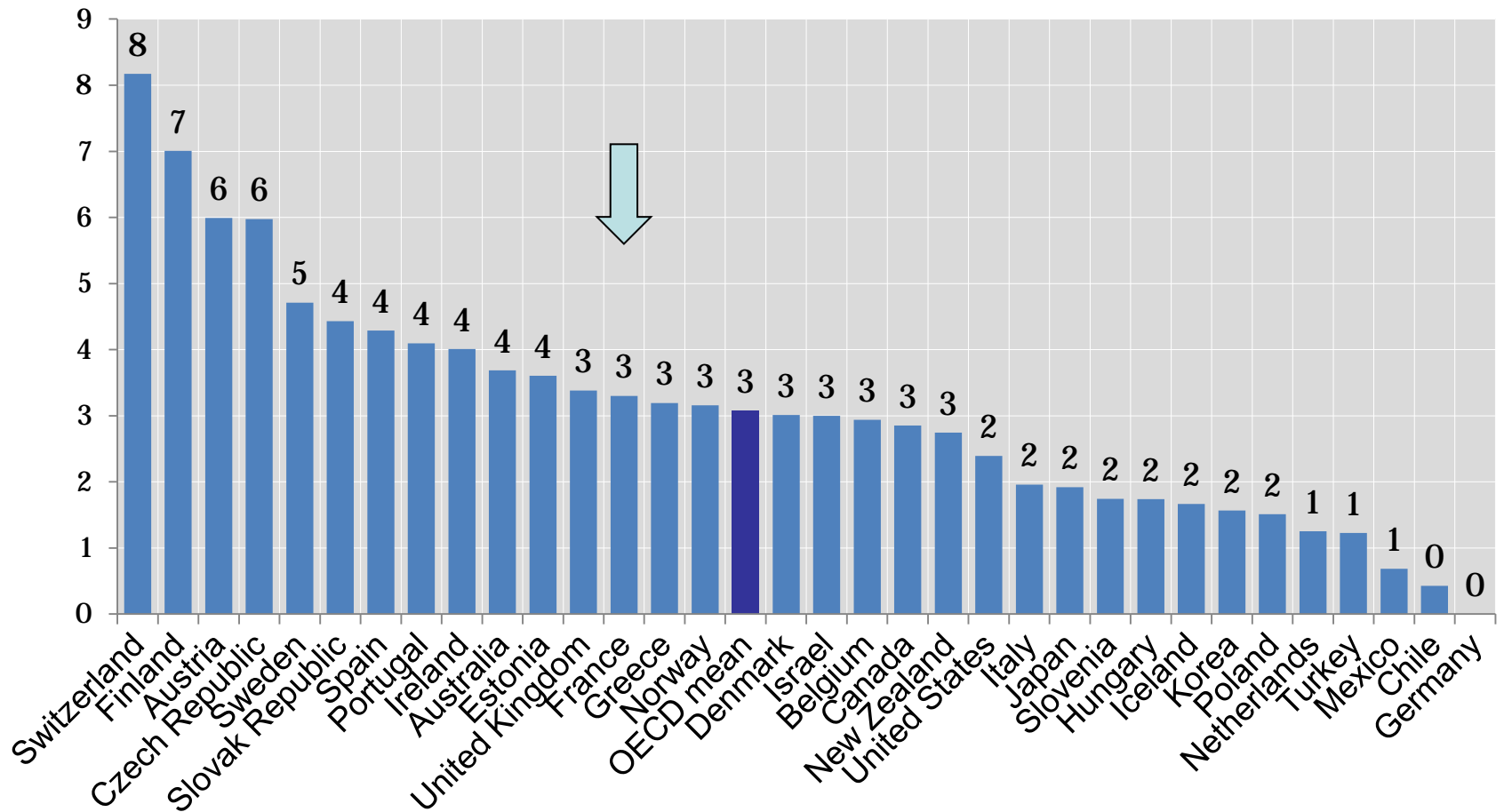
Intensity of economic
rationales

Expected social/economic benefits of cross-border higher education

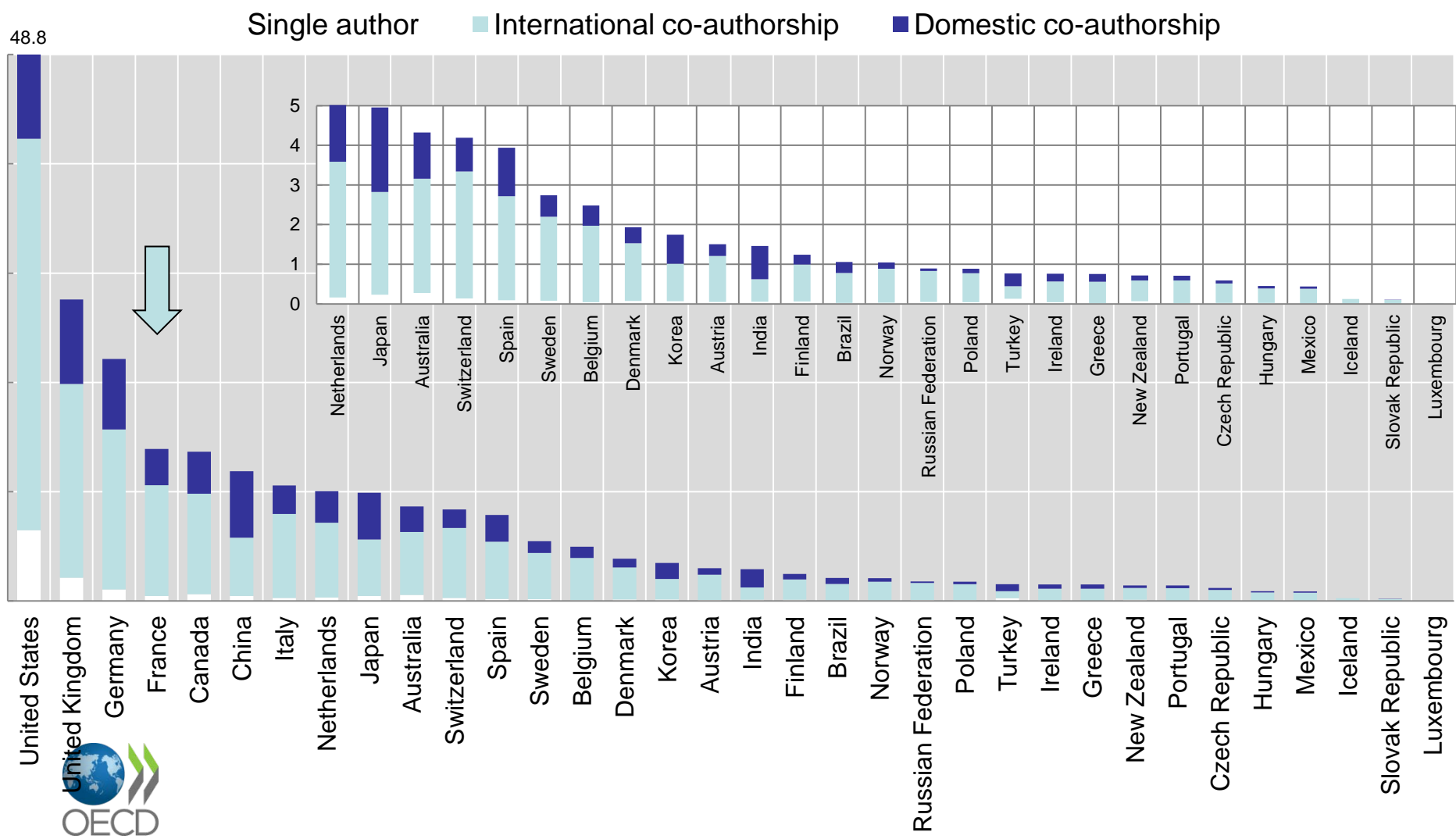
- Cultural, political and geo-strategic
- Academic
 - Quality through benchmarking
 - More rapid awareness and adoption of new knowledge
 - Better trained and connected staff
 - Maintaining capacity in some fields, for now and the future (ageing society, declining interest from students)
 - Generating revenue for institutions in some countries
- Economic
 - More educated (and thus productive) human resources
 - Attracting highly skilled workers (knowledge economy)
 - Generating export revenues
 - Innovation and knowledge networks (essential for tacit knowledge)

Academic research

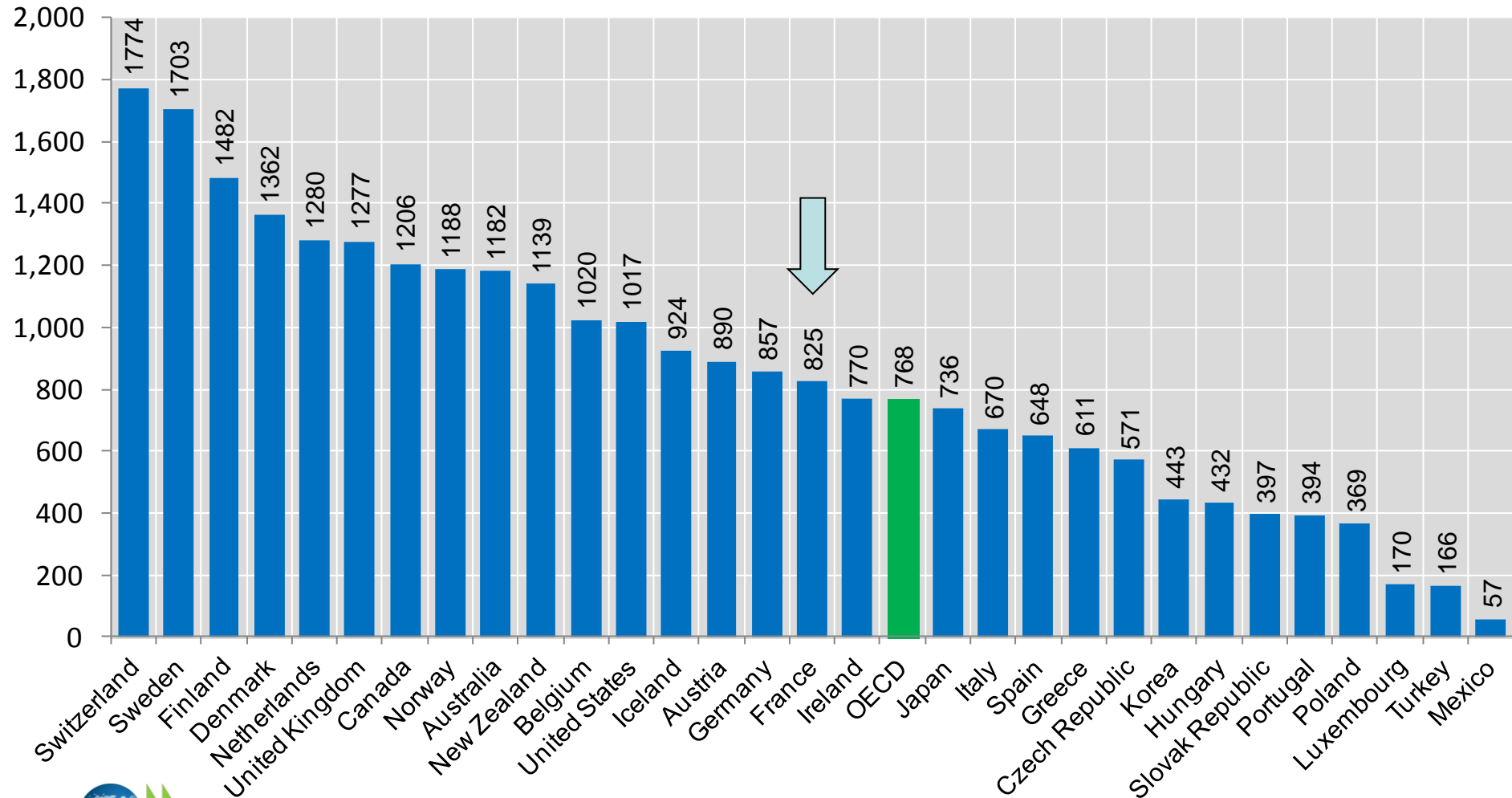
Share of doctoral students (ISCED 6) in tertiary education enrolments in 2009 (%)



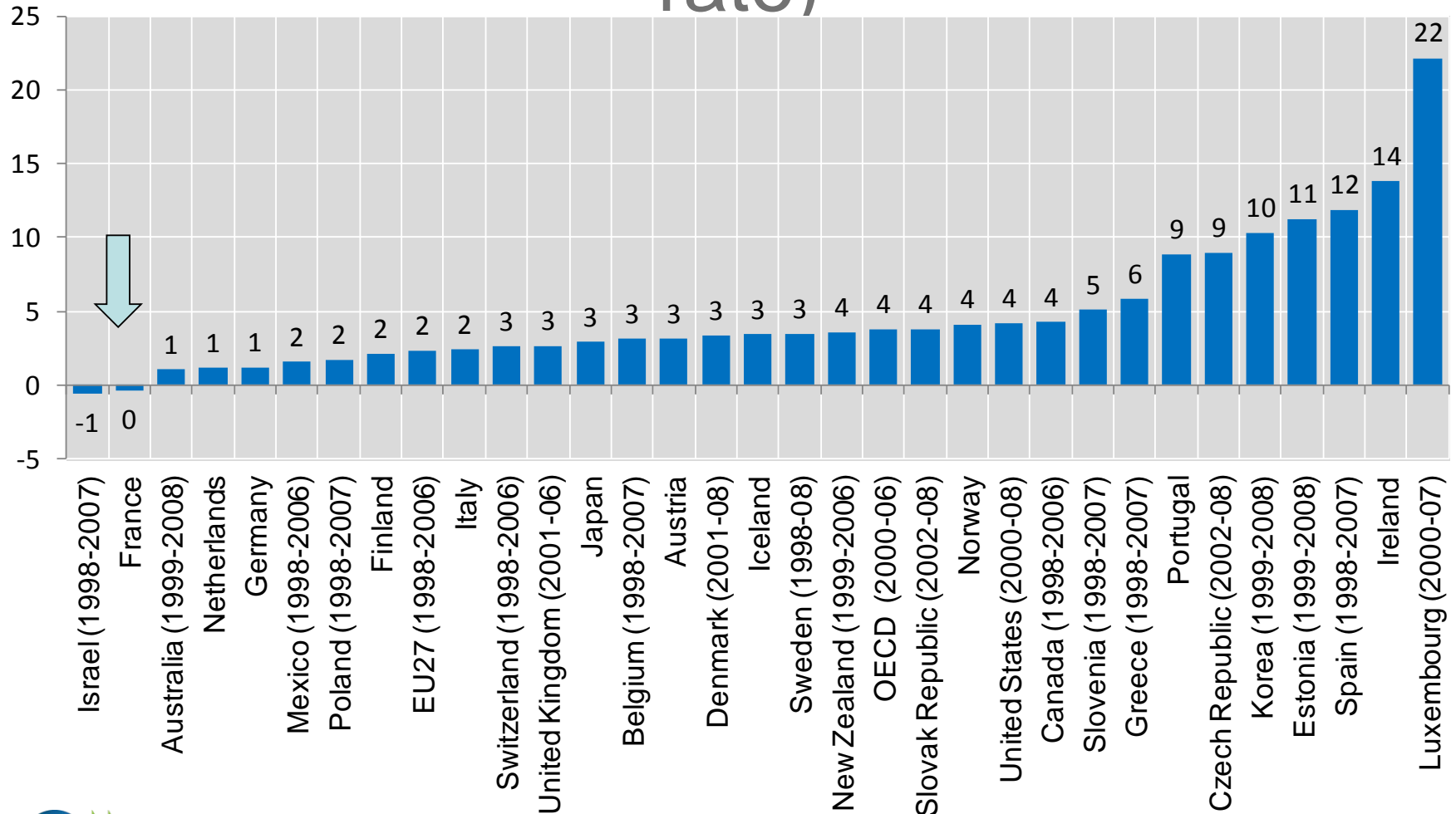
Highly cited (top 1%) scientific articles by type of collaboration, 2006-08



Scientific output (1996-2007) relative to country population (2007)



Change in government R&D budgets, 1998-2008 (average annual growth rate)



Technology

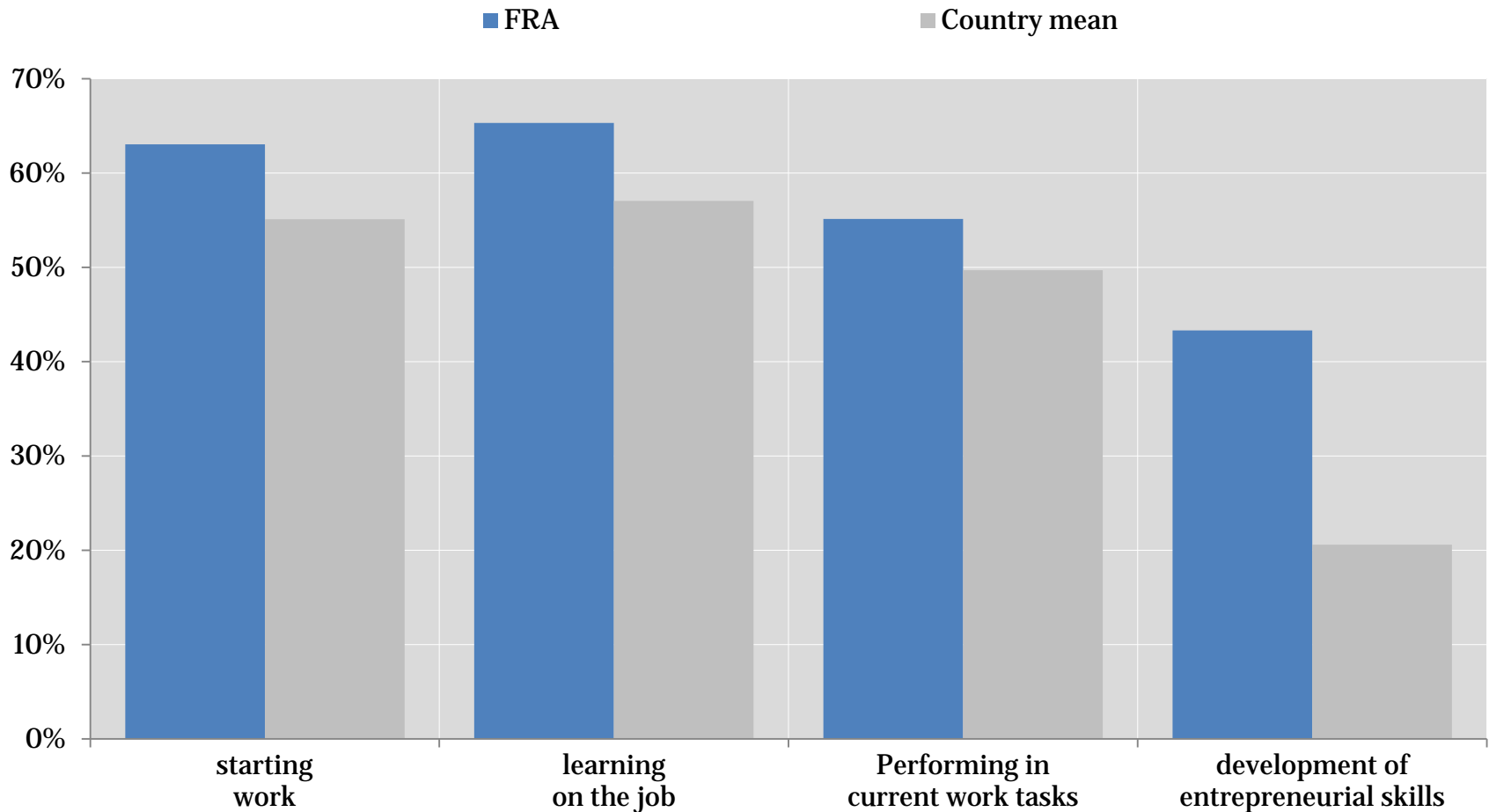
Technology

- **Potential huge impact on research and science**
 - Cyber-infrastructures are revolutionising science
 - E-journals, e-books, e-resources are revolutionising research and access to knowledge
- **E-learning: an impact on the student experience**
 - More flexibility of access
 - Virtual learning and distance learning
 - Blended learning still to be invented, but some changes in higher education pedagogy (e-portfolios, problem-based learning, etc.)
 - Use of videogames?
 - Open Educational Resources

Fostering skills for innovation-driven societies

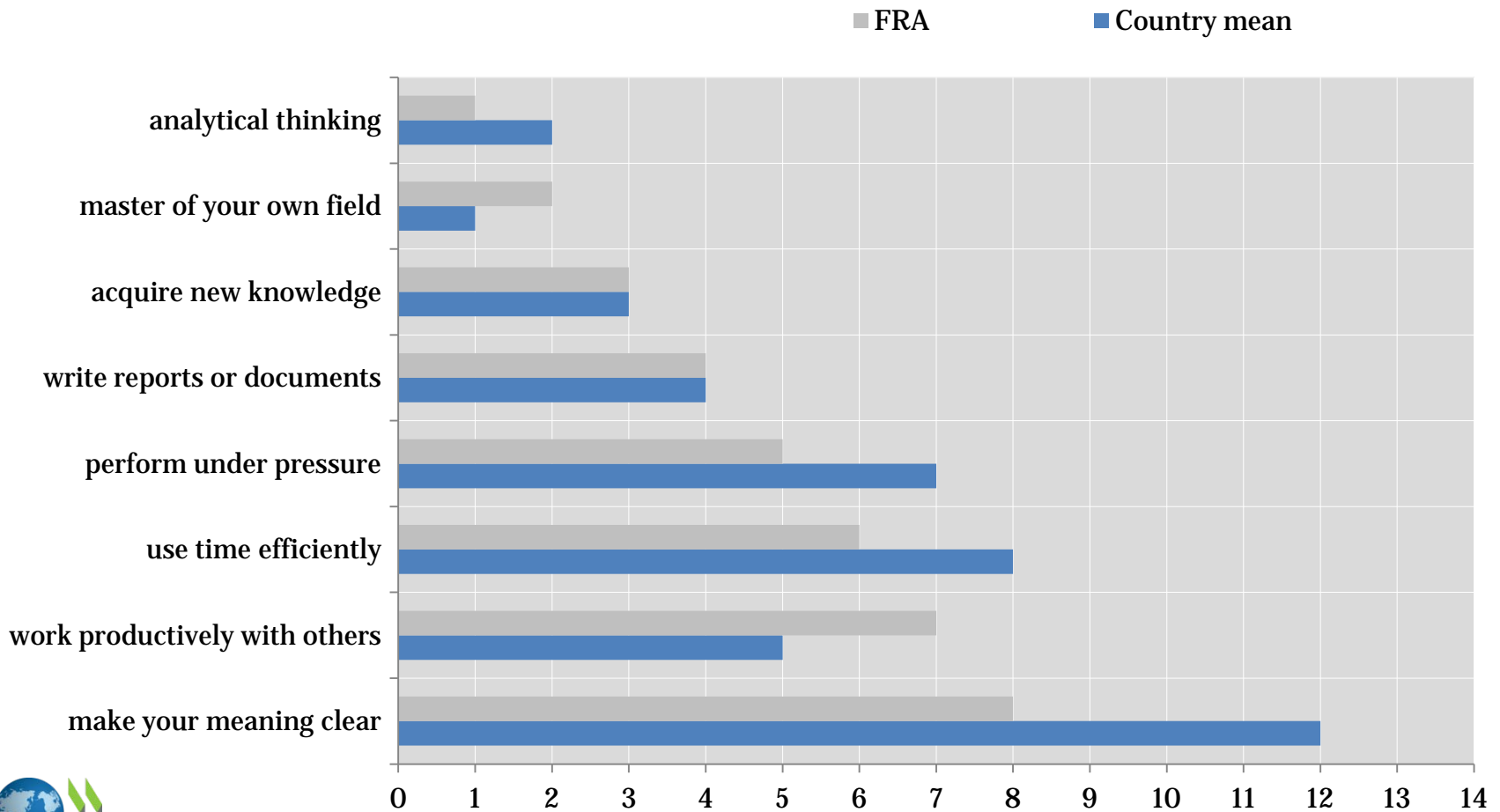
How does university education prepare for different types of jobs?

Percentage of tertiary-educated workers considering their studies as a good basis for



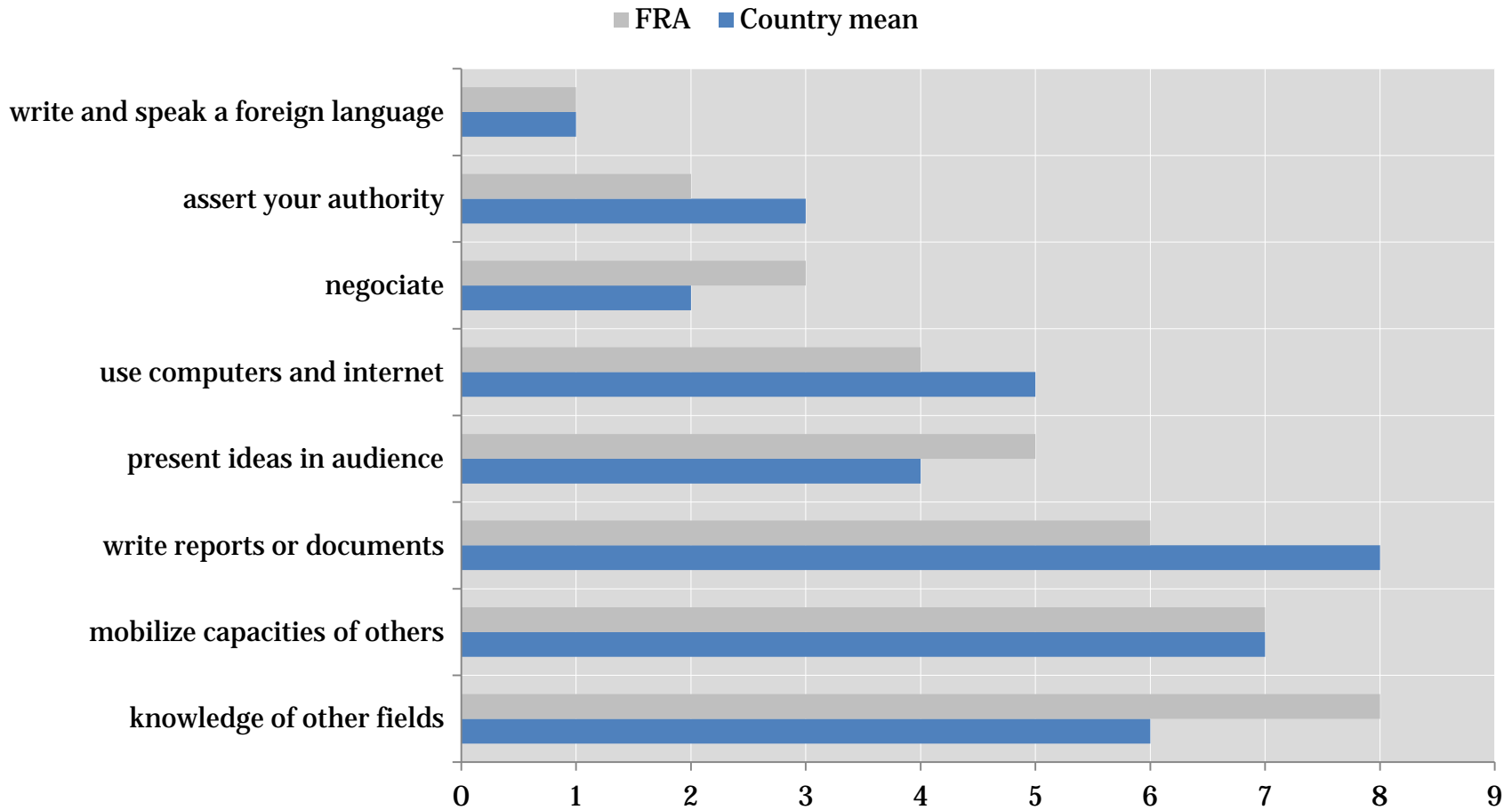
Retrospective assessment of university education for skill development

Rank of strengths (1-8 out of 19)



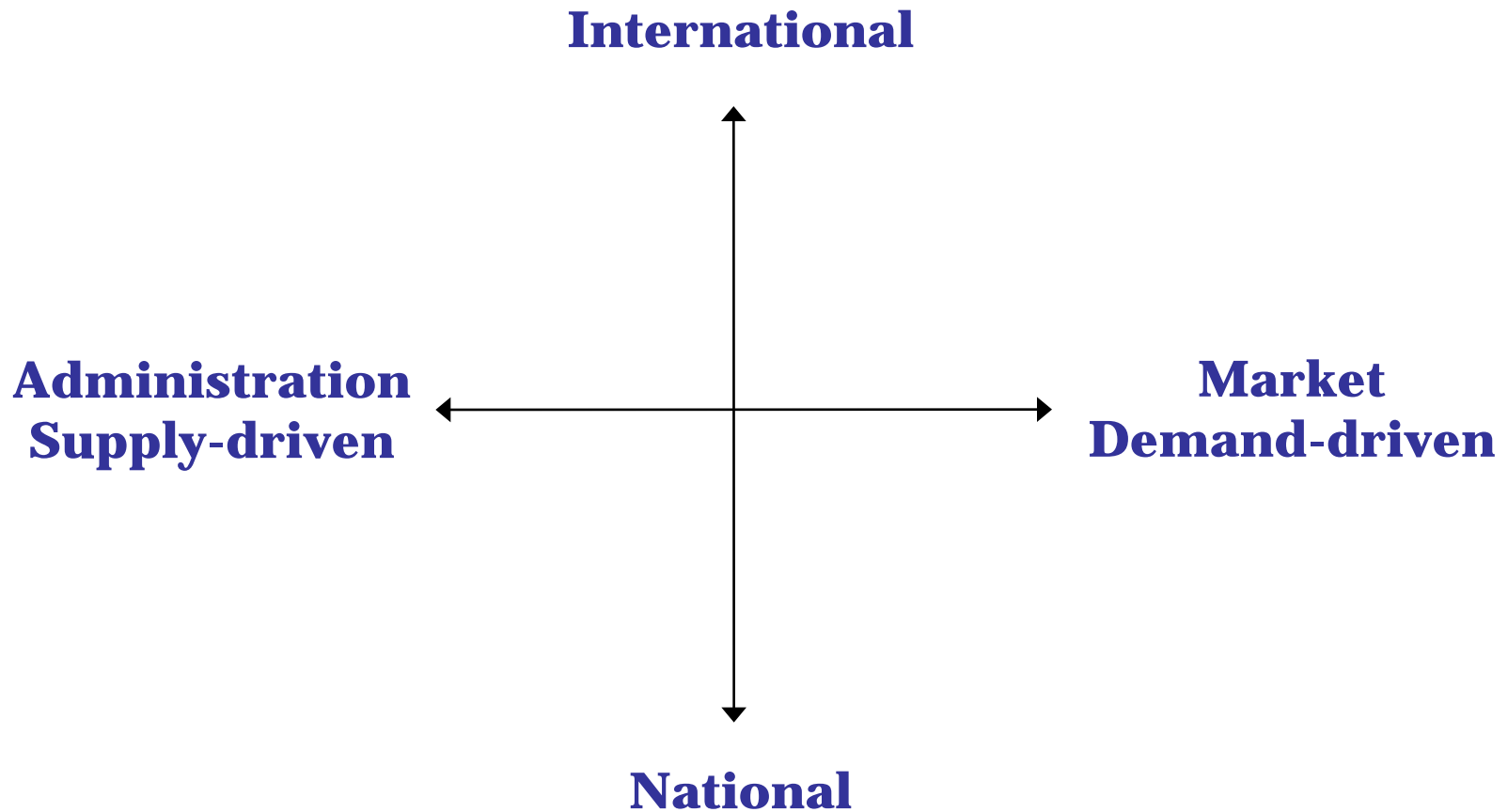
Retrospective assessment of university education for skill development

Rank of weaknesses (1-8 out of 19)



SCENARIOS FOR HIGHER EDUCATION

Scenarios for higher education systems



4 scenarios

- **Open networking**
- **Serving local communities**
- **New public responsibility**
- **Higher education, Inc.**

Scenario 1: Open Networking

Drivers

- International cooperation & harmonisation of systems
- Technology
- Ideal of open knowledge

Related developments

- Bologna process, international academic partnerships and consortia,
- Increasing computing power and culture of openness challenging traditional intellectual property rights

Features

- Intensive networking among institutions, scholars, students (& industry)
- Modularisation of studies under academics' control
- International collaborative research
- Strong hierarchy between networks but quick spillovers
- Lifelong learning outside the HE sector

Scenario 2: Serving local communities

Drivers

- Backlash against globalisation
- More geo-strategic sensitivity in research
- Cost efficiency

Related developments

- Anti-globalisation movements
- Crisis?

Features

- (Re)focus on national and local missions
- Public funding and control of the academic profession
- Convergence between universities and polytechnics
- Elite universities struggle to stay more internationalised
- Less research, mainly on humanities
- Big science relocated to government sector (more secretive and less internationalised)

Scenario 3: New public responsibility

Drivers

- Pressure on public budget (ageing, public debt, etc.)
- Diffusion of governance structures based on new public management

Related developments

- Autonomy given to HEIs (sometimes legally privatised)
- Debates on cost sharing
- Encouragement of competition between HEIs

Features

- Mainly public funding but autonomous institutions controlled at arm's length (incentives + accountability)
- Mixed funding: new markets + more tuition fees (income contingent loans)
- Demand-driven system with more marked division of labour (specialisation but most HEIs continue to do some research)
- Research funds allocated through domestic competitive process (except for Europe)

Scenario 4: Higher education, Inc.

Drivers

- Trade liberalisation in education (GATS, bilateral)

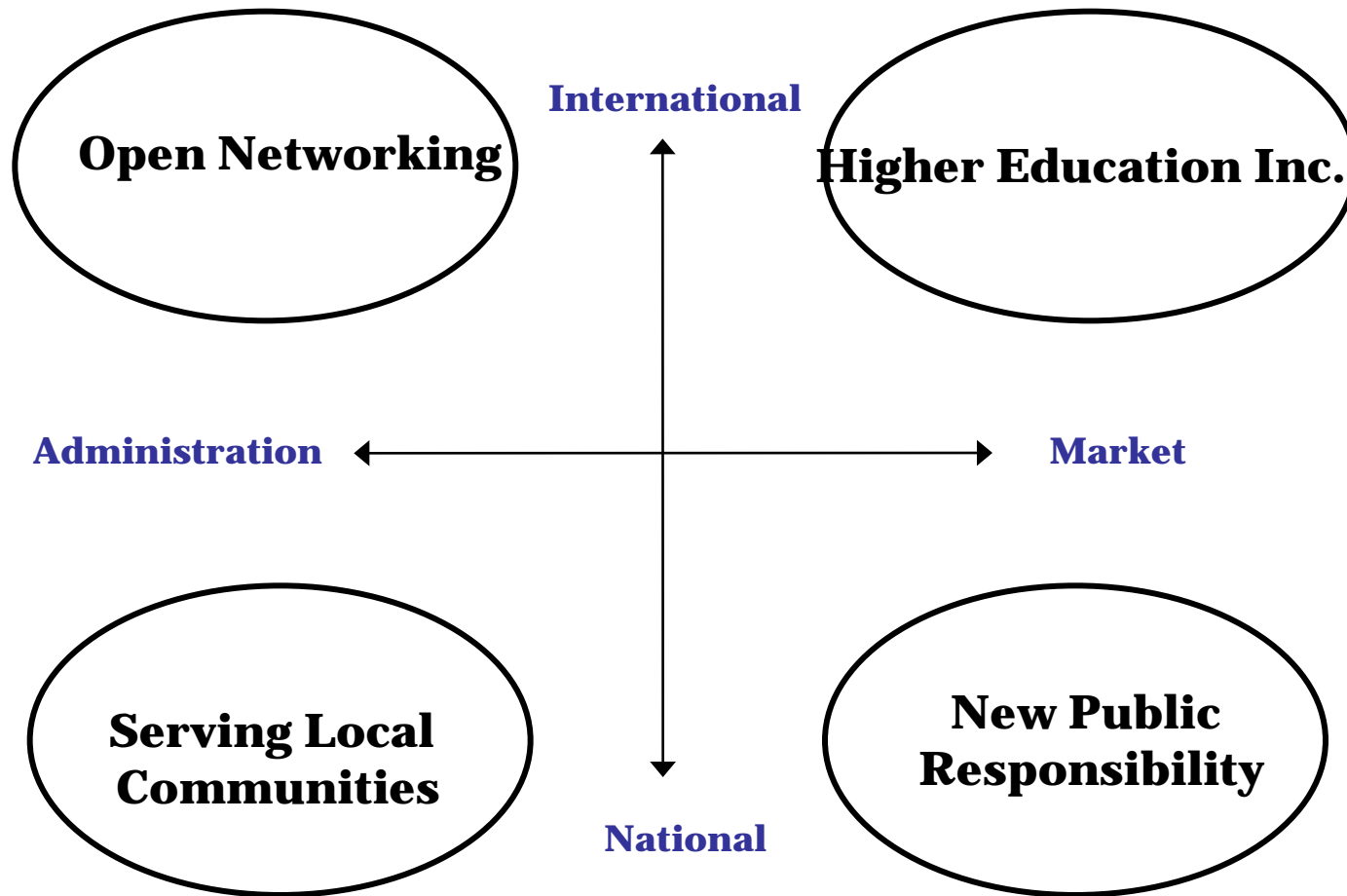
Related developments

- Rise of trade in HE & inclusion of education in trade negotiations
- International competition for students
- Increase of cross-border funding of research

Features

- Global competition for education and research services
- Public funding for non-commercially viable disciplines exclusively
- Segmentation of the education and research market
- Vocational higher education: important share of the market
- Strong (international) division of labour according to competitive advantage
- Concentration of research and worldwide competition for funding
- English as main language of study

Scenarios for higher education systems



A few questions

- **Scenario 1:**

- Sustainable in a knowledge economy?
- In what geo-strategic context?
- What are the incentives to ensure the networks do not serve the interests of their members only and reproduce the national hierarchies at the global level?

- **Scenario 2:**

- Would this lead to greater inequalities within countries?
- What would happen to the progress of scientific research?
- Does this meet the requirements of incremental innovation?

A few questions

- **Scenario 3:**

- Is there a tipping point after which real markets replace quasi-markets, and governments lose some or most of their control over the system?
- To what extent should the concentration of research be encouraged?
- Could this model allow systems to be more responsive to the diversity of individual, social and economic needs?

- **Scenario 4:**

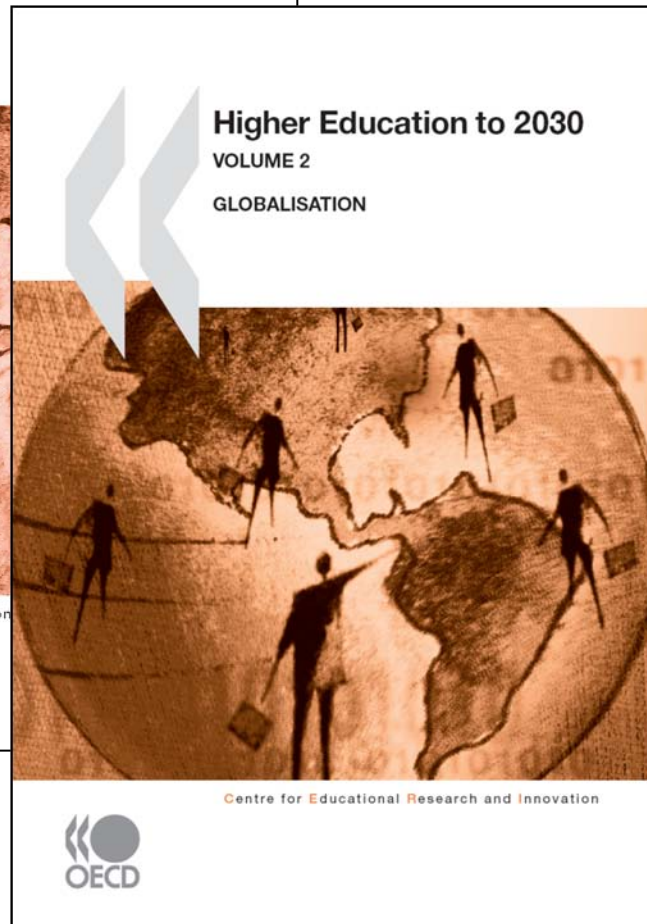
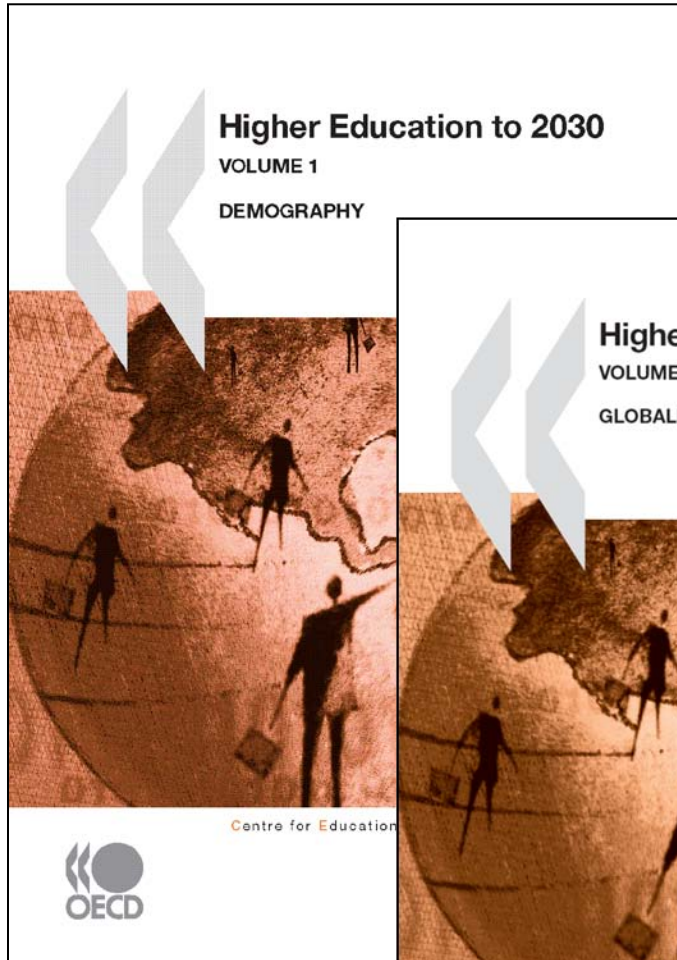
- Will all countries be able to retain some national educational and research capacity?
- Are all systems equally equipped to compete?
- What would happen to areas of human knowledge that are not commercially viable?

What would a global university look like?

- **Scenario 1: worldwide university network playing in different leagues (consortium, partnerships, multi-campus, etc.)**
- **Scenario 2: marginal elitist venture in nationally oriented systems (world class university?)**
- **Scenario 3: national enterprise with programmes and campuses abroad to thrive in its local market at the globalisation era (campuses and programmes abroad)**
- **Scenario 4: multinational enterprise for research and/or for education (global brand)**

RECENT PUBLICATIONS

Higher Education to 2030



Forthcoming:

- Volume 3: technology
- Volume 4: Scenarios

OECD work on internationalisation



Internationalisation and Trade in Higher Education

OPPORTUNITIES

Internationalisation of Higher Education
Introduction



Quality and Recognition in Higher Education

THE CROSS-BORDER CHALLENGE

Guidelines for Quality Provision in Cross-border Higher Education
Lignes directrices de qualité dans l'enseignement supérieur transfrontalier



Cross-border Tertiary Education

A WAY TOWARDS CAPACITY DEVELOPMENT



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THANK YOU

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