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A Strategy for Small Nations in a Time of Economic Crisis

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'University in a Small Country and Global World'
University of Latvia, 26 September 2009

Ireland or Latvia?

- GDP to decline by 9.8% 2009 and could fall by 14%;
- Public spending deficit €20bn;
- Unemployment expected to rise to 12.2% 2009 and 15% in 2010;
- Government borrowing likely to rise to 11.5% GDP 2009 and 13.6% in 2010;
- Annual inflation fell to -2.6% (June 2009) compared with Euro avr. -0.7%;
- 3%-10% pension levy for public employees, 2009;
- 2%-6% income levy for everyone, 2009;
- Moratorium on public sector recruitment;
- €3bn reduction in public expenditure + reductions in pay/pensions, 2010 budget;
- Review of Higher Education: rationalisation, efficiency, value-for-money.
- U or V shaped recovery?

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1. Setting the Global Context

Setting the Future Global Context (1)

1. Globalisation is forcing change across all knowledge-intensive industries, creating a 'single world market'. The 'battle for brainpower' complements traditional struggles for natural resources. '
2. Application of knowledge is the source of social, economic and political power. Knowledge production (research) transcends national boundaries requiring membership of global networks. Today, knowledge is a geo-political issue forcing HEIs to respond to a diverse range of global, national, regional and local stakeholders.
3. Simple distinctions between basic and applied research have been replaced by the 'knowledge triangle': the inter-relationship between education, research and innovation.

Setting the Future Global Context (2)

4. Worldwide comparisons are becoming increasingly significant. Global rankings measure the knowledge-producing capacity & talent-attractiveness of HEIs.

5. The EHEA and ERA are being reshaped/restructured to ensure the EU can better compete. At the same time, other nations are investing heavily in higher education and human capital.

6. The 'Golden-age' of Higher Education is disappearing at a time when the 'reputation race' is accelerating. This puts particular pressure on small, publicly-funded HE systems.

Crisis Precipitating Trends Already Apparent

- Steep deterioration in public finances forcing rethink:
  - Decreased public investment encourage more emphasis on endowment/private giving and tuition fees (public vs. private good debate);
  - Rationalisation and efficiencies via greater mission differentiation.
- Restrictions on recruitment may force top talent to move elsewhere:
  - Changes to academic contracts, performance contracts, tenure.
- Changes in academic provision:
  - Growth in distance education models;
  - Restriction of students in high cost programmes.
- Greater emphasis on value-for-money via assessment, measurement and benchmarking performance.
- Review of HE Systems and Governance
  - Modernisation agenda: 'restructure or die' (*THE*, 9 July 2009)
  - Shift from autonomy to increased regulation or steering.

2. The ‘Reputation Race’

Rankings and the K-economy

- If HE is the engine of the economy, then productivity, quality and status of HE/HE research is vital indicator;
- Global University Rankings have gained popularity because they (appear to) gauge world class status, provide accountability and measure national competitiveness;
  - Appear to (re)order global knowledge by giving weight and prominence to particular disciplines/fields of investigation,
  - Measure national competitiveness as expressed by number of HEIs in top 20, 50 or 100…
- Most influential rankings:
  - Shanghai Jiao Tong *Academic Ranking of World Universities*
  - Times QS *World University Rankings*
  - *Webometrics*
  - EU *Multi-dimensional Global University Ranking* (to be piloted 2010)

Obsession With Rankings

- Satisfy a 'public demand for transparency and information that institutions and government have not been able to meet on their own.' (Usher & Savino, 2006, p38)
  - Cue to students/consumers re: monetary 'private benefits' of university attainment and occupational/salary premium,
  - Cue to employers what they can expect from graduates,
  - Cue to government/policymakers re: quality, international standards & economic credibility,
  - Cue to public because they are perceived as independent of the sector or individual universities,
  - Cue to HEIs because they want to be able to benchmark their performance.

Positive and Perverse Effects of Rankings

- Driving up institutional performance and providing some public accountability and transparency;
- Focuses public and policy attention on the capacity of institutions;
- Narrow set of indicators used to measure all HEIs creating a single definition of excellence;
- Widens gap between elite and mass education with illusion of diversity;
- Governments and HEIs adjusting national and institutional priorities to match rankings;
- Challenging government, HEIs and the public to (re)think HE, and how and what should be measured.

What Global Rankings are Telling Us

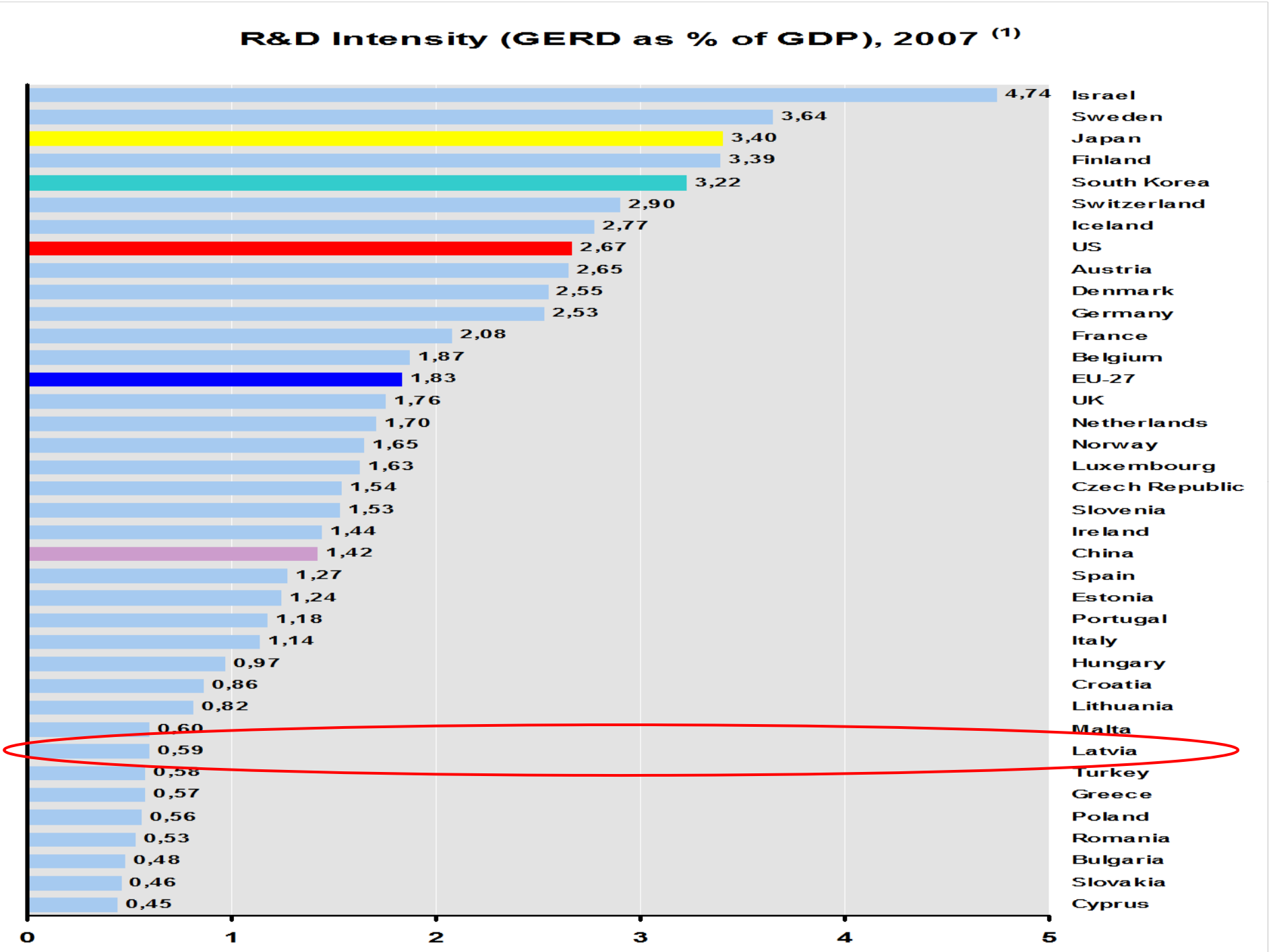
- Of world's 17,000+ HEIs, research concentrated in top 500.
- There are ~250 world-class research-intensive institutions.
- There is a 'super-league' of ~25 world-leading institutions:

Indicator of Global Competitiveness?

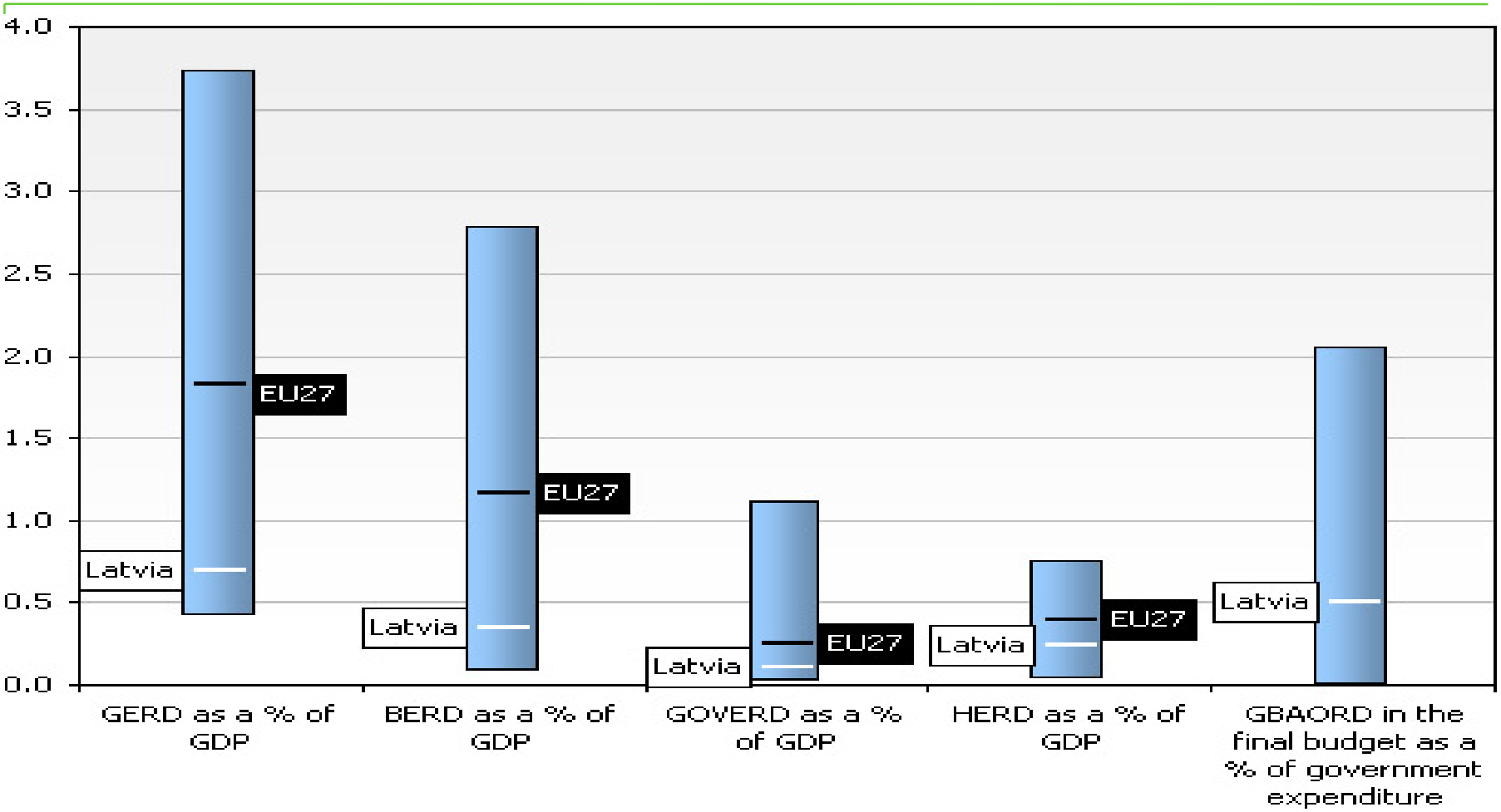
Top 100	Times QS		SJT Ranking	
	2007	2008	2007	2008
US	37	37	53	54
Europe	**35**	**36**	**34**	**34**
Australia/New Zealand	9	8	2	3
Asia Pacific (incl. Israel)	13	14	7	5
Canada	6	5	4	4
Latin America/Africa	0	0	0	0
Switzerland	1	3	3	3
UK	19	17	11	11
France	2	2	4	3
Germany	3	3	6	6
Japan	4	4	5	4
China (incl. HK)	5	5	0	0
Latvia	**0**	**0**	**0**	**0**
Sweden	1	2	4	4
Russia	0	0	1	1

Wealth of U.S. Universities, 2007

	Endowment $b	Gifts Raised $m	SJT Rank	Times QS Rank
Harvard	34.9	614	1	1
Yale	22.5	304	11	2=
Stanford	17.2	911*	3	19
Princeton	15.8	254	8	6
MIT	10.0	333	5	10
Columbia	7.2	913	7	11
U-Penn	6.6	450	15	14
Cornell	5.4	406	12	20=
Dartmouth	3.8	159	101-152	71=
Brown	2.8	126	86	32


R&D Intensity (GERD as % of GDP), 2007 (1)
4,74 Israel
3,64 Sweden
3,40 Japan
3,39 Finland
3,22 South Korea
2,90 Switzerland
2,77 Iceland
2,67 US
2,65 Austria
2,55 Denmark
2,53 Germany
2,08 France
1,87 Belgium
1,83 EU-27
1,76 UK
1,70 Netherlands
1,65 Norway
1,63 Luxembourg
1,54 Czech Republic
1,53 Slovenia
1,44 Ireland
1,42 China
1,27 Spain
1,24 Estonia
1,18 Portugal
1,14 Italy
0,97 Hungary
0,86 Croatia
0,82 Lithuania
0,60 Malta
0,59 Latvia
0,58 Turkey
0,57 Greece
0,56 Poland
0,53 Romania
0,48 Bulgaria
0,46 Slovakia
0,45 Cyprus
0
1
2
3
4
5

Relative Expenditure on R&D, 2009



Can Latvia Afford this Reputation Race?

Even before the current crisis, small nations face major difficulties seeking to build world class universities without impoverishing the rest of the system or sacrificing other social/political objectives. The gap is very wide.

- 'World-class University' estimated to cost min. $1.5-$2b year operation (Usher 2006; Sadlak & Liu 2007; Sowter, 2008).
- This would require 987% or tenfold increase in the total Latvia HE budget being diverting for a single university.

According to Sheil (2009), institutional budgets of Harvard, Princeton, Yale and Stanford provide ~ $149,000 — $227,000 per enrolment.

- Assuming 125,000 students, the equivalent for Latvia would be ~$1,216 per enrolment.

3. A Strategy for Small Nations

Concentrating Resources: Favoured Strategy

- Create greater vertical or hierarchical (reputational) differentiation
  - Concentrate excellence and funding in small number of elite universities;
  - Create greater differentiation between teaching and research universities;
  - Using research performance and international visibility + competitive mechanisms and rankings as market indicator/shaper.

- China 985 and 211 Projects
- Germany Excellence Initiative
- Brain Korea 21 Program
- Japan Top 30 & Global Centers of Excellence
- Canada Networks of Excellence
- Taiwan Development Plan for University Research Excellence
- France 'Operation Campus'

Does Strategy Work?

- Mergers and concentration done for 'right reason' can increase efficiency, productivity, and quality.

But...

- No evidence that more concentrated national systems generate higher citation impact than those in which output is more evenly distributed (Moed, 2006);
- Concentration/specialisation most relevant in only 4 disciplines of 'big science' (Moed, 2006);
- Could reduce national research capacity with 'knock-on consequences for regional economic performance and the capacity for technology innovation' (Lambert, 2003, p6);
- Total investment in R&D is main indicator of success rather than manner in how funding distributed between institutions (Hoj, nd; Barlow, 2007).

An Alternative Strategy

- Create greater horizontal (mission or functional) differentiation
  - 'Create diverse set of high performing, globally-focused HEIs' to support excellence where it occurs – field specialisation;
  - Close correlation between teaching and research functions;
  - Link 'compacts' to mission and performance.

- Australia: *Review of National Innovation System* (2008), *Review of Higher Education* (2009)
- Norway: *Review of Higher Education* (2008)
- Catalonia: *University of Catalonia* (2008)

Some countries are restructuring higher education to create 'Harvard here' model:

	Field 1	Field 2	Field 3	Field . . .
PhDs and research intensive	Institution A1			
Masters and some research	Institution B1			
	Institution B2			
Baccalaureates and scholarship	Institution C1			
	Institution C2			
	Institution C3			
	Institution C4			
Diplomas and extension services	Institution D1			
	Institution D2			
	Institution D3			
	Institution D4			
	Institution D5			

An alternative is to create institutions of field specialisation:.

	Field 1	Field 2	Field 3	Field 4	Field 5	Field 6	Field 7	Field 8	Field 9	Field 10
PhDs and research intensive	Institution 1		Institution 2		Institution 3		Institution 4		Institution 5	
Masters and some research										
Baccalaureates and scholarship										
Diplomas and extension services										

Gavin Moodie, correspondence 7 June 2009

Strategy for Small Nations

- Should the goal for smaller nations like Ireland and Latvia be to maximise the number of Nobel laureates and top 50 research universities or to maximise access to new knowledge and its application?
- Small nations require a strategic response which:
  - Establishes a coherent portfolio of horizontally differentiated high performing, globally-competitive institutions and student experiences;
  - Ensures participation across the spectrum of world science;
  - Mobilises the whole HE system and its benefits for society at large.

Learning Lessons

A *World Class HE System* can be developed adapting/learning from:

- Strategies of successful mega-regions (e.g. Florida, Sassen),
- Innovation clusters (e.g. Porter, Nelson, Lundvall, Etzkowitz and Leydesdorff),
- Mode 2 research networks (e.g. Gibbons, Nowotny et al),
- Biodiversity (e.g. Rosen, Wilson).

Key Elements to Maximise Position

- National capacity in knowledge formation, research and training, in the main disciplines and inter-disciplinary applications;
- Investment in human capital formation to fuel sustainable social and economic health and wealth, and attract international investment and talent;
- Strategic clustering of HE and research institutes actively engaged with government, industry innovation and arts via the formation of global knowledge cities/regions.
- Balanced, multi-purpose global engagement across teaching, research and doctoral training.

Characteristics of World Class System

- International reputation for participation rates/educational attainment assessed against OECD/other benchmarks;
- Produces graduates with skills/knowledge required to compete in the global employment market;
- Ensures every university identifies/builds on its research & teaching strengths with distinctive internationally regarded reputation/focus,
- Recruits staff and students from international market;
- Systematically benchmarks its entire system, universities and departments worldwide;
- Supports lifelong learning opportunities for citizens;
- Attracts a high proportion of postgraduate students, both taught and research;
- Contributes to generation of knowledge/innovative ideas making a major contribution to society and our times.

Ranking World Class Systems (1)

Rank	Country	Score
1.	United States	100
2.	United Kingdom	98
3.	Australia	94
4.	Germany	92
5.	Canada	92
6.	Japan	90
7.	France	89
8.	Netherlands	86
9.	South Korea	79
10.	Sweden	79
11.	Switzerland	79
12.	Italy	77
13.	Belgium	77
14.	New Zealand	76
15.	China	75
16.	Hong Kong	72
17.	Ireland	71
18.	Finland	70
30.	South Africa	54
40.	Turkey	35

- *System*: No. HEIs ranked 500 or higher ÷ average position.
- *Access*: Total FTE at top 500 HEIs ÷ population size.
- *Flagship*: normalized score based on performance of leading university.
- *Economic:* performance relative to investment.

QS SAFE - National System Strength Rankings

Ranking World Class Systems (2)

Overall Rank	Country	Overall Score
1	Australia	30.6
2	UK	31.1
3	Denmark	39.1
4	Finland	40.8
5	USA	49.0
6	Sweden	49.2
7	Ireland	49.2
8	Portugal	54.3
9	Italy	60.9
10	France	62.2
11	Poland	64.4
12	Hungary	64.5
13	Netherlands	69.6
14	Switzerland	70.3
15	Germany	72.5
16	Austria	76.4
17	Spain	79.4

- *Inclusiveness* – participation rates
- *Access* – Threshold of skill aptitude required for HE graduation.
- *Effectiveness* – Value of HE to labour market as per wage premia.
- *Attractiveness* – Ability to attract international students.
- *Age range* – Lifelong learning capacity as % 30-39 year olds enrolled.
- *Responsiveness* – ability of system to reform and change – measured by speed/effectiveness Bologna Declaration.

University Systems Ranking. Citizens and Society in the Age of Knowledge. Lisbon Council, 2008.

4. Conclusion

Why this Strategy makes Sense

• Small (less wealthy) nations face particular difficulties seeking to build world class universities without sacrificing other policy objectives;

• Higher education is key to sustainable social and economic growth. But despite strong growth in recent years, Latvia's performance and level of investment remains comparatively low;

• A 'whole of country strategy' should focus on enabling more HEIs to achieve some form of unique global leadership;

• By strategically clustering excellence, the aim is to *maximise capability beyond individual capacity*.

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