Aspects of Future Skills

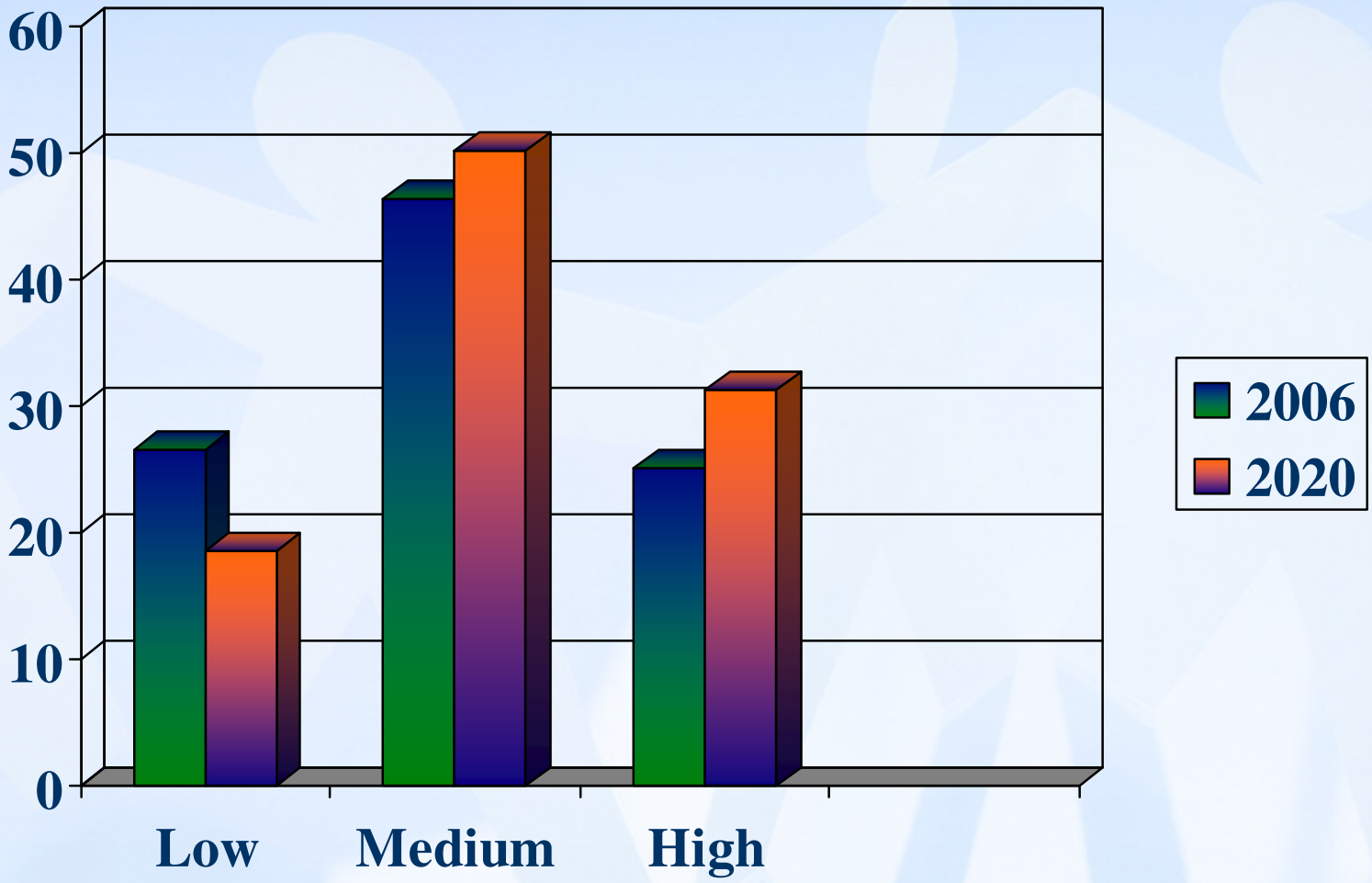
Who decides? Pays? Benefits?

- State
- Individual
- Provider / Universities
- Enterprises / Employees

Market Vs **Supply**

- Foresight Exercises
- Macro Forecasts
- Sectoral Forecasts
- Employer Surveys
- International Benchmarking

EU Skills Forecast: 2020



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EU New Jobs 2020

Low	– 12.5m
Medium	+ 13.4m
High	+18.8m
Total	+19.6m

"New skills for new jobs"

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- Educational upgrading
- Male comparative under-participation and attainment
- Polarisation

1. Changing Global Order

Growth Rates 2007: "BRIMICS"

China	11.9%
India	9.0%
Russia	8.1%
Indonesia	6.1%
Brazil	5.7%
South Africa	5.1%
Mexico	3.0%
EU	3.0%
US	2.0%
Japan	2.0%
(Denmark	1.7%)

World Fact Book 2008

Global GDP 2000 / 2040

	2000	2040
USA	22%	14%
EU15	21%	5%
Japan	8%	2%
India	5%	12%
China	11%	40%
SE Asian 6	6%	12%
Rest	28%	16%
Total	100%	100%

Robert Fogel

High Tech – Low Cost?

Globalisation of innovation?

Graduate dividend?

ESRC

2. Sectoral Change

Sectoral Employment EU 25

Sector	2006	2020	Absolute +/-%
Primary	5.7%	3.9%	-25.3%
Manufacturing	16.6%	14.8%	-2.3%
Construction	7.2%	6.6%	+3.0%
Dist./Transport	25.7%	25.5%	+8.8%
Business/Services	21.7%	25.8%	+30.7%
Non-Market Services	23.1%	23.2%	+10.1%
Total	**204.0m**	**223.6m**	**+9.6%**

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3. Demographic Change

Aging Work Force
Dependency Ratio Increase

↓

- Participation
- Productivity
- Persistence
- Immigrant skills

Employment Rates 2006 OECD Countries

Age	Low	Medium	High
25 – 64	58.4%	75.9%	84.4%
55 – 64	40.2%	52.4%	65.9%

Ed. at a Glance 2008

World Population Vs Development

Countries	Annual Pop. Growth	Under 15 (2015)
High	0.5%	18.8%
Medium	1.2%	26.0%
Low	2.5%	43.0%

UNDP 2008

4. Developmental Role

- **Capacity Building**
- **Applied Research**
- **Student/Staff Exchange**

5. Technological Change

- Speed To Market
- First Mover Advantage
- Innovation Infrastructure
- Shorter Product Life Cycles

EU Innovation Scoreboard

Leaders:	**Switzerland, Sweden, Finland, Germany, Denmark, UK**
Followers:	**Austria, Ireland, Lux., Belgium, France, Netherlands**
Moderate:	**Cyprus, Iceland, Estonia, Slovenia, Czech Rep., Greece, Italy, Norway, Portugal, Spain**
Catching Up:	**Bulgaria, Croatia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia, Turkey**

6. Change to European Green Economy

- Resource Scarcity
- Energy Security
- Climate Change
- Intergenerational Justice
- Copenhagen Conference

Green Skills

- Technologies
- Manufacturing
- Construction
- Energy
- Materials
- Transport
- Services
- Food

7. Change:
The Organisation of Work

- **Education Upgrading**
- **Graduate Dividend**
- **Demographic Change**
- **Green Economy**
- **Productivity in Services**
- **Early Exploitation of New Knowledge**
- **Exploit IT**

8. To-Morrow’s Skills

- High Quality
- Technical Skills
- Generic Skills
- Innovative Capacities
- Research Skills
- Organisational Skills

Generic Skills

- High Communication Skills
- Critical Thinking
- Moral Reasoning
- Preparation for Citizenship
- Living with Diversity
- Preparation for Global Society
- Breadth of Interests
- Preparation for Work

Derek Bok

Tak!