What should the engineering academic know about the European agenda?

Engineering Professors' Council - London - 12th April 2011

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European Commission

Overview

1. **The Challenge**: a Europe with increasing (and unmet) skills needs

2. **A European Response**: Europe 2020 – a strategy for smart, sustainable and inclusive growth

3. **Stimulating and supporting progress:** An EU reform agenda for the modernisation of higher education

4. **What next**: how can HE systems respond?
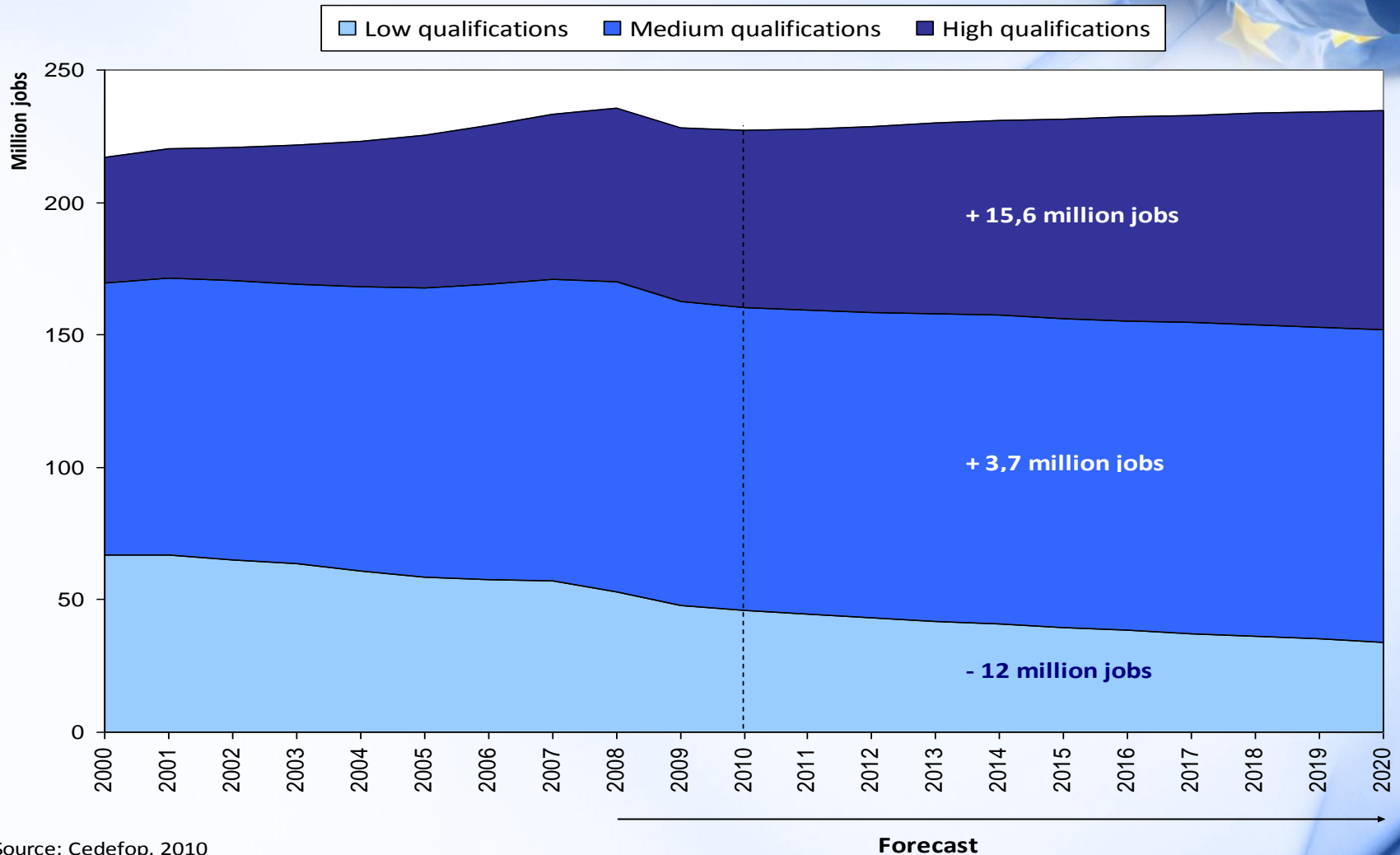
1 – The Challenge

A Europe with increasing (and unmet) skills needs

What will the EU labour market look like 10 years or so from now?

- Employment in 2020: 235 million (~ pre-crisis peak, 2008)

- Jobs becoming more knowledge- and skills-intensive
  - Currently >80 million adults are hampered by low levels of basic skills

- Impact of globalisation and technological change is leading to changes in sectoral employment structure and demand for demand for new and different types of skills
  - The skills people have don't match skills needed to get jobs, this could worsen if we don't act

- Jobs employing highly qualified people > 1/3; **by 2020 35% of all jobs will require high-level qualifications**
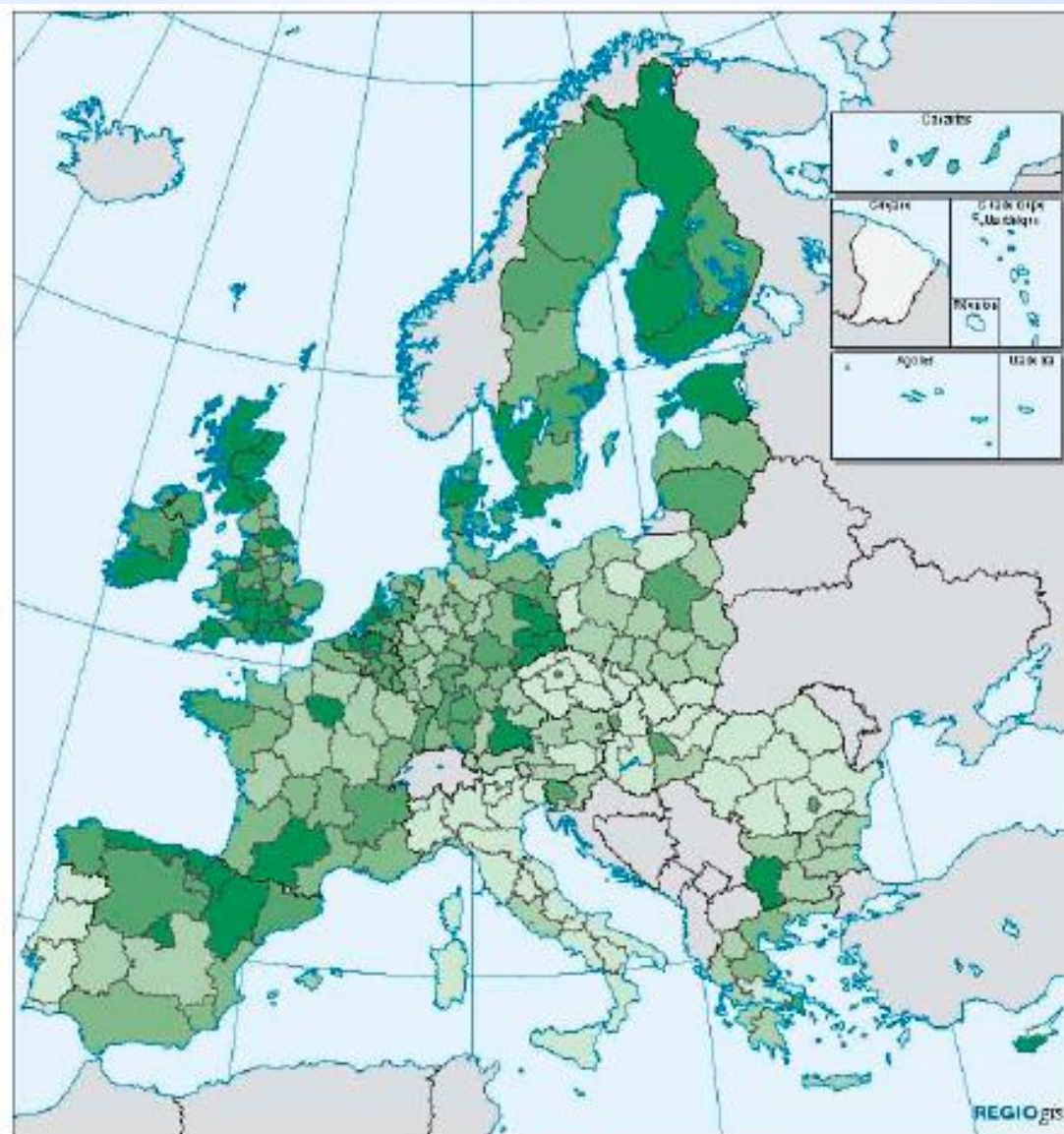
More jobs for the better qualified
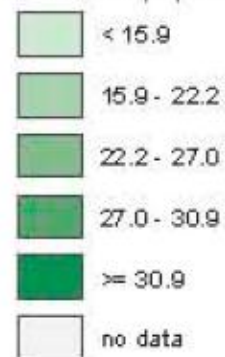
Legend: Low qualifications | Medium qualifications | High qualifications

Y-axis: Million jobs (0 to 250)

X-axis: 2000–2020

+ 15,6 million jobs

+ 3,7 million jobs

- 12 million jobs

Forecast

Source: Cedefop, 2010

4

Not enough people have high level education

% of total population aged 25-64

- < 15.9
- 15.9 - 22.2
- 22.2 - 27.0
- 27.0 - 30.9
- >= 30.9
- no data

But, is going to university a waste of time?

- **Higher Education is expensive**
  - Cost to the student (living costs, tuition fees, administration/examination fees, opportunity cost)
  - Cost to the state (provision of education, subsidisation of other services eg. transport, health cover)

- **There is no guarantee of a job at the end of it**
  - Graduate unemployment and underemployment are giving increasing cause for concern.

Absolutely not!

- **HE is one of the best financial investments an individual can make**: private return on investment is high
  - – wide differentiation by country (↑CZ, PT, PO↓SK, DK, SE, LT)
  - – wide differentiation by university faculty (↑Engineering, Medicine ↓Agriculture, Humanities) and by university/ HE institution

- **The demand for higher education graduates is not saturated -** by 2020, 35% of all jobs will require high-level qualifications (today: 29%)

- **HE is a good insurance policy against unemployment**, and especially long-term unemployment

2 – A European Response

Europe 2020:
a strategy for smart, sustainable and inclusive growth

**A European Response:
If higher education is so important –
what are we doing about it?**

Higher education, at the centre of our strategy for growth and prosperity:

- – Europe 2020 Strategy

- – Flagship initiatives to drive progress

- – A strategy for the Modernisation of Higher Education

Europe 2020:
3 interlinked priorities

1.) Smart growth: developing an economy based on knowledge and innovation

2.) Sustainable growth: promoting a more efficient, greener and more competitive economy

3.) Inclusive growth: fostering a high-employment economy delivering social and territorial cohesion

"Europe 2020 is about what we need to do today and tomorrow to get the EU economy back on track […] We need to build a new economic model based on knowledge, low-carbon economy and high employment levels."

Europe 2020, June 2010

7 flagship initiatives

Smart Growth	Sustainable Growth	Inclusive Growth
Innovation « Innovation Union »	Climate, energy and mobility « Resource efficient Europe »	Employment and skills « Agenda for new skills and jobs"
Education and employment « Youth on the move »	Competitiveness « An industrial policy for the globalisation era »	Fighting poverty « European platform against poverty »
Digital society « A digital agenda for Europe »		

What can the European Commission do?

- Education Policy = national competence

  « the EU's role is to contribute to the development of quality education by encouraging cooperation between Member States and, if necessary, by supporting and supplementing their action » (Lisbon Treaty)

- Develop the European dimension in education, encourage mobility and cooperation between universities

- Open method of co-ordination (benchmarking and peer learning amongst Member States)

- Strategic reflection and policy shaping

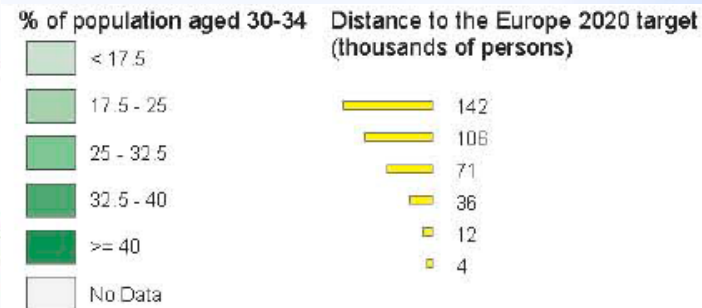- Specific initiatives and instruments

Europe 2020 Targets

- **Education**:
  - ⬇ the share of early school leavers to 10% (currently 15%)
  - ⬆ increase the share of the population aged 30–34 having completed tertiary education to at least 40% (currently 32%)

- **Employment**: ⬆ employment rate to > 75%

- **Research and development**: ⬆ investment in to 3% of GDP + innovation indicator

- **Energy**: ⬇ greenhouse gas emissions by > 20% & ⬆ share of renewable energy to 20%, and ⬆ energy efficiency by 20%

- **Poverty**: ⬇ the number of Europeans living below national poverty lines by 25%

How are we doing compared to the European Benchmark?

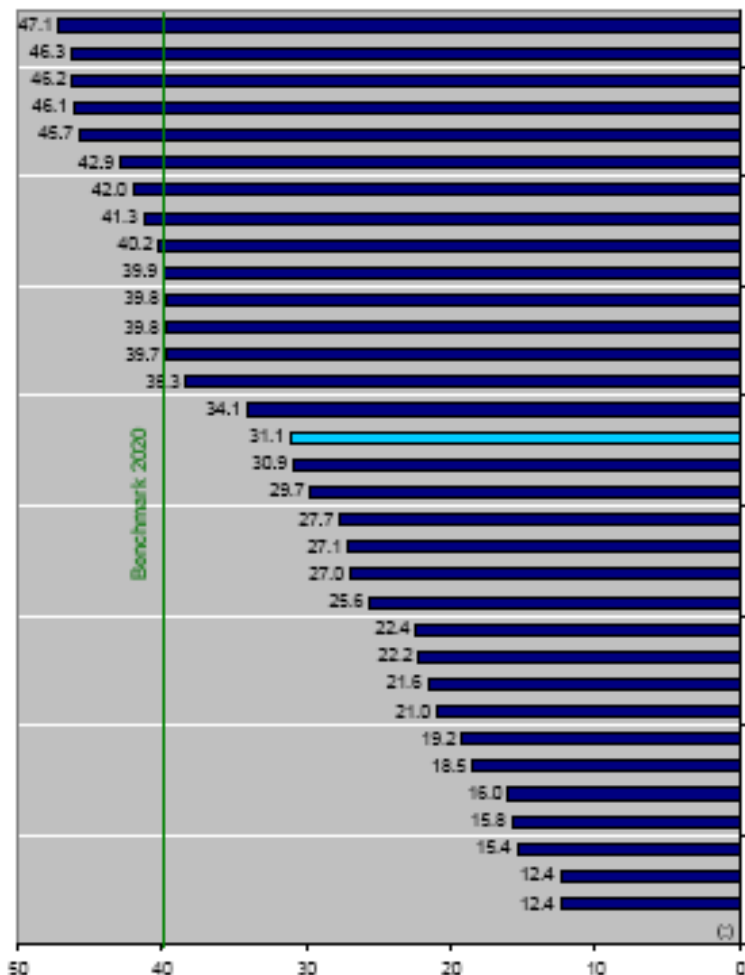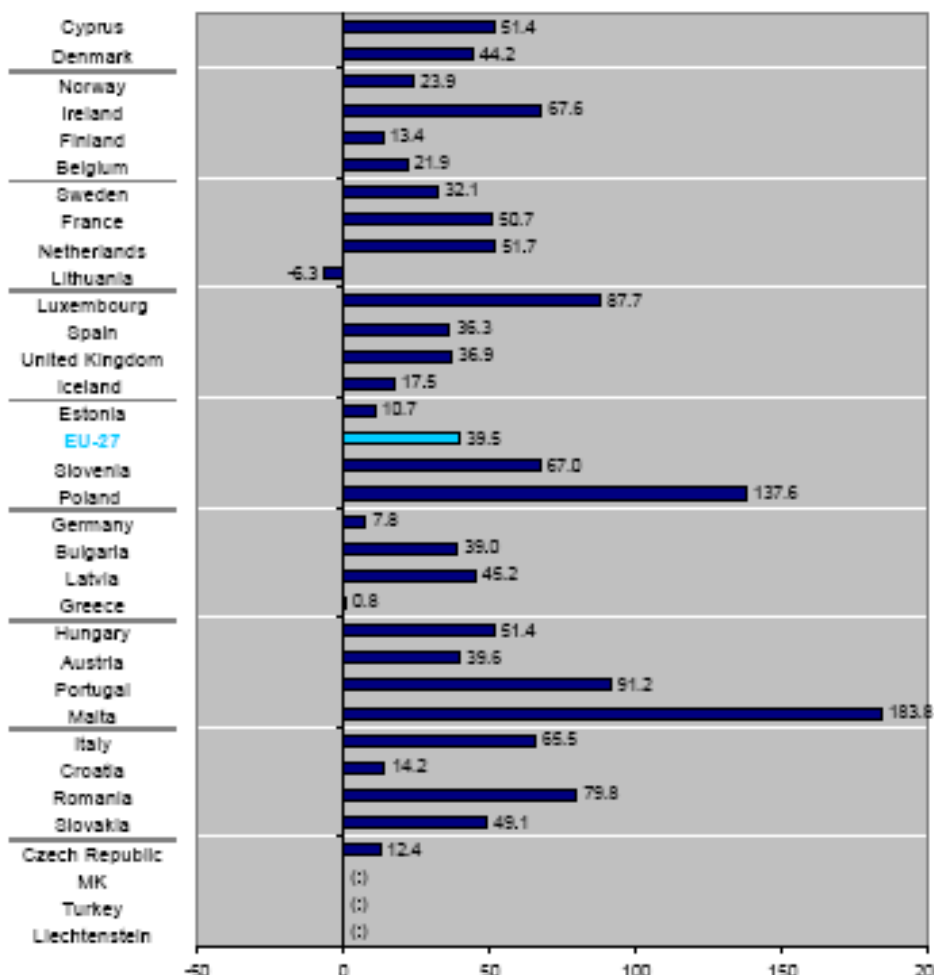**(40% of 30-34yr olds to be qualified at HE level by Europe 2020)**

% of population aged 30-34
- < 17.5
- 17.5 - 25
- 25 - 32.5
- 32.5 - 40
- >= 40
- No Data

Distance to the Europe 2020 target (thousands of persons)
- 142
- 106
- 71
- 36
- 12
- 4
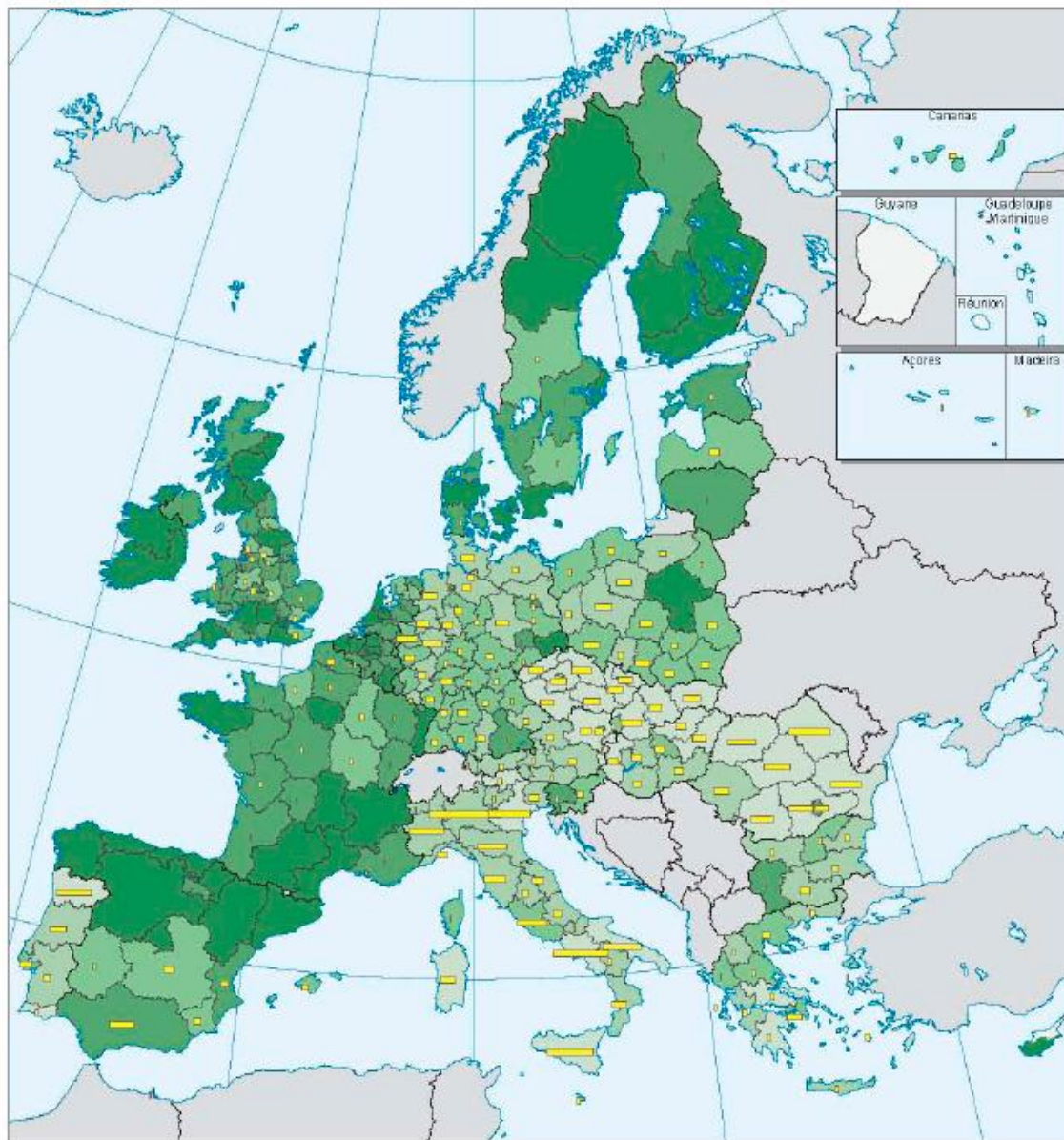
The same as the last slide but a table below

Share of 30-34 year olds with tertiary attainment, 2008 (%) | Evolution 2000-2008 (% relative change)

Country	Share 2008 (%)	Evolution 2000-2008 (%)
Cyprus	47.1	51.4
Denmark	46.3	44.2
Norway	46.2	23.9
Ireland	46.1	67.6
Finland	45.7	13.4
Belgium	42.9	21.9
Sweden	42.0	32.1
France	41.3	50.7
Netherlands	40.2	51.7
Lithuania	39.9	-6.3
Luxembourg	39.8	87.7
Spain	39.8	36.3
United Kingdom	39.7	36.9
Iceland	39.3	17.5
Estonia	34.1	10.7
EU-27	31.1	39.5
Slovenia	30.9	67.0
Poland	29.7	137.6
Germany	27.7	7.8
Bulgaria	27.1	39.0
Latvia	27.0	46.2
Greece	25.6	0.8
Hungary	22.4	51.4
Austria	22.2	39.6
Portugal	21.6	91.2
Malta	21.0	183.8
Italy	19.2	65.5
Croatia	18.5	14.2
Romania	16.0	79.8
Slovakia	15.8	49.1
Czech Republic	15.4	12.4
MK	12.4	(:)
Turkey	12.4	(:)
Liechtenstein	(:)	(:)

Benchmark 2020

More people should reap the benefits of a university education

- **How will Europe reach the 40% benchmark?**
  - make higher education attractive to more school leavers and widen participation to non-traditional learners (eg mature students, lower SES, minority groups)
  - Reduce drop-out rates
  - More flexible pathways and attendance modes

- Each country will set a **national target** appropriate to their own circumstances

- University is not for everyone and **VET should be a valuable alternative**

But can our higher education systems cope?

- **Capacity**
  - Enough seats to put bottoms on?
  - Enough money to pay for expansion?
  - Enough professors – retirement time bomb?

- Is there a **trade off between quality and quantity?**

- **Diminishing exceptionality?**

- **Competition for students**

3 – Stimulating and supporting progress

An EU reform agenda for the modernisation of higher education

Commission Communication on the Modernisation of Higher Education

- **Policy document** –
  - setting out key challenges, opportunities and recommending action at EU and Member State level
  - guiding EU spending priorities for HE

- Key theme: **How to achieve massification whilst maintaining high quality provision**

- To include an **internationalisation strategy**: how can European HE be more attractive to students and academics from beyond our borders; how can we co-operate better

What will HE systems look like in the next 10 years or so?

- What do **countries and regions** need?

- What do **students** want?

- What do **employers** want?

- How can higher education be **responsive to the needs of society and the labour market** <u>but also shape</u> the future?

How can the EU help transform European universities into global leaders?

➢ Promoting excellence in teaching and human capital development

➢ Ensuring excellence in research and maximising innovation potential

➢ Strengthening equity and equal opportunities and promoting regional development

4 - What next?

How can HE systems respond?

What next:
how can HE systems respond?

- **Higher Education has never been higher on the EU agenda**

- **Reforms are needed** to allow universities to play their full part in driving smart, sustainable and inclusive growth

- **No one-size-fits-all**: each country may find their own solutions

- **Graduate employability**: an increasingly important theme at the European, national and institutional level. More qualitative research needed

- **Learning from each other** will help to advance the modernisation agenda

- **European programmes and policy debate** can provide support and impetus

Find out more …

European Commission – Education webpages:
http://ec.europa.eu/education/index_en.htm

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