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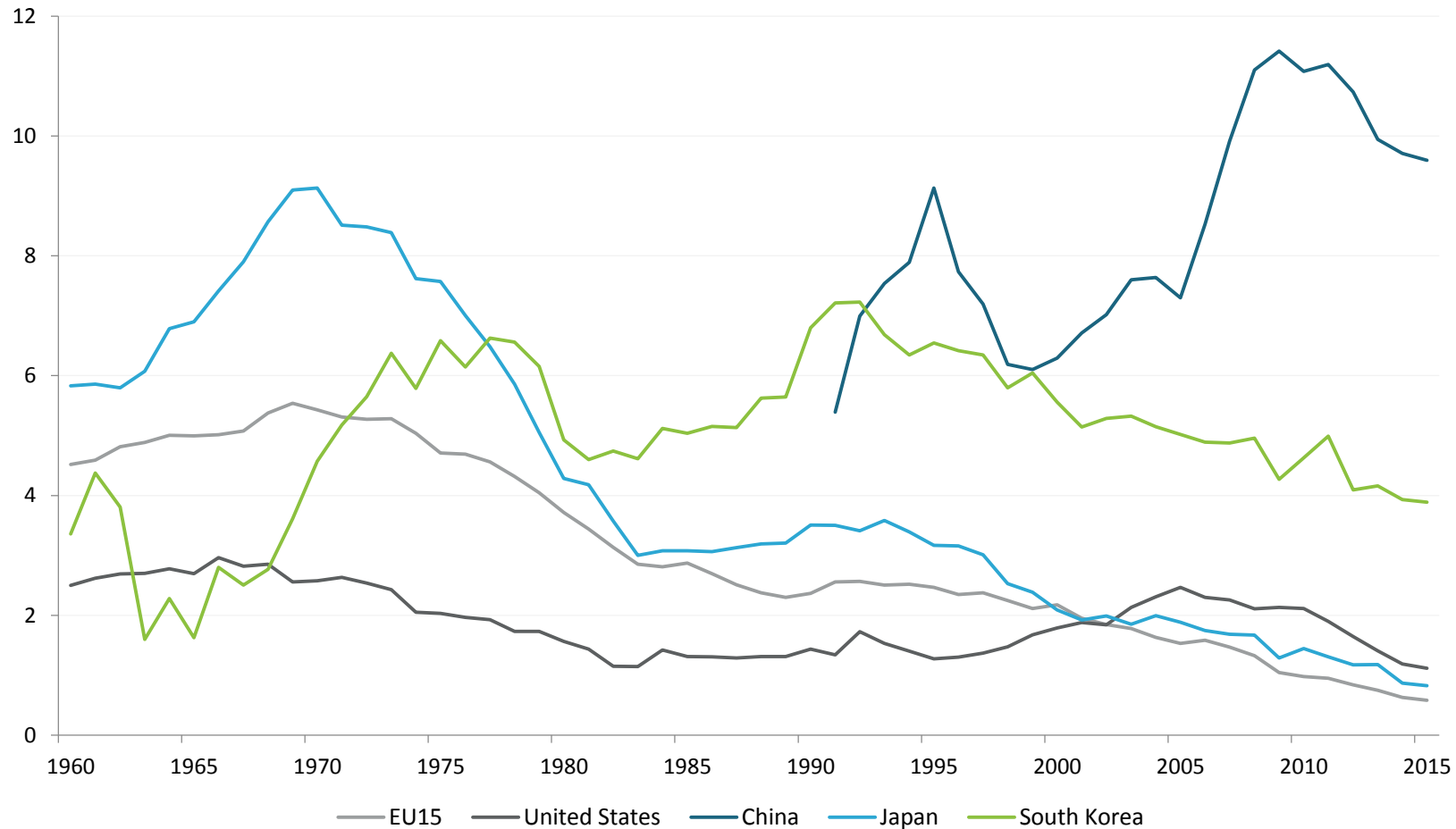
An analysis of
Innovation-related investment gaps in Europe

September 2018, Wilhelm Molterer

Slow productivity growth – even in the US

Long-term productivity growth in major economies

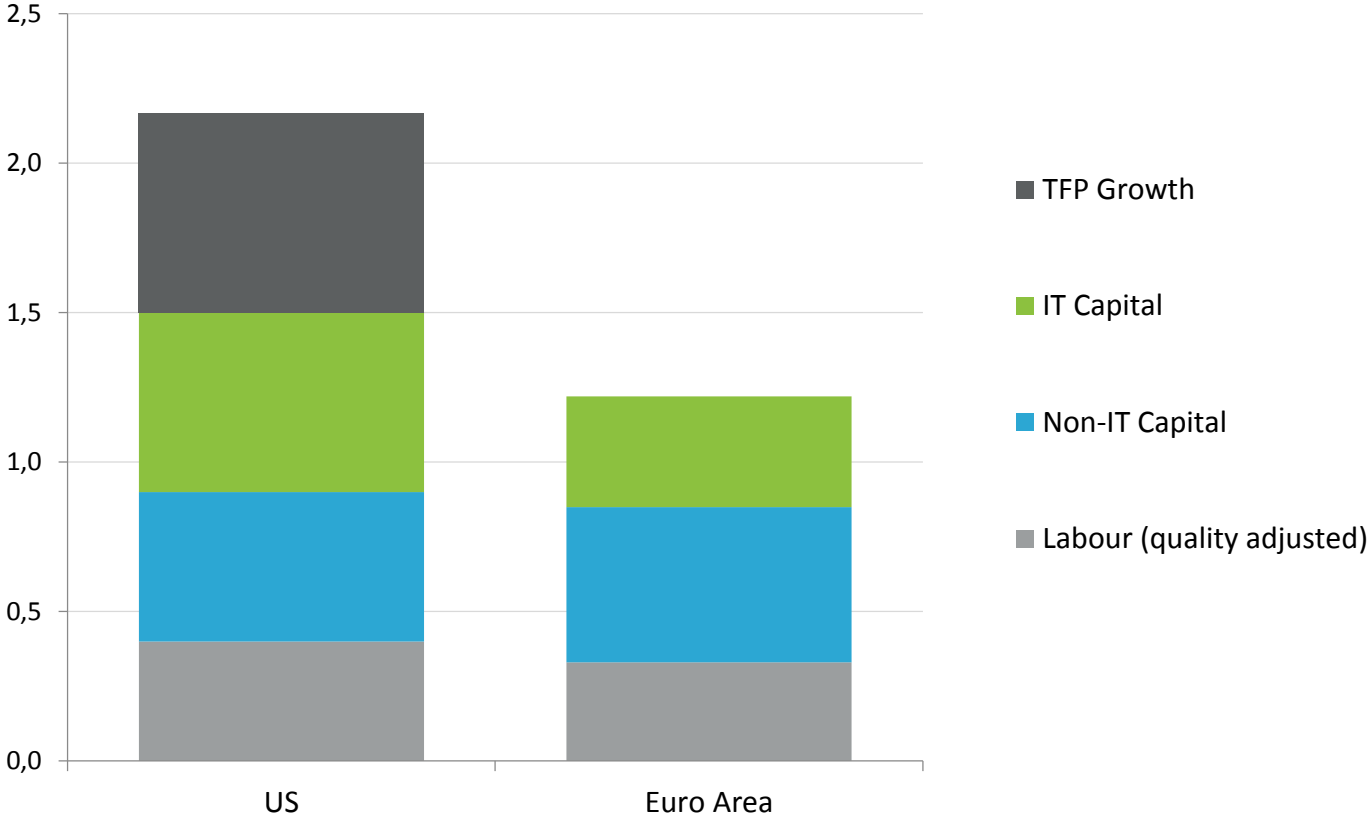
Growth of GDP per hour worked (10-year moving average, %)



Source: Calculations based on data from The Conference Board Total Economy Database™

US/Euro area growth gap: *from a combination of employment, IT capital and TFP*

GDP growth by main driver (1999-2014, %)



Source: OECD

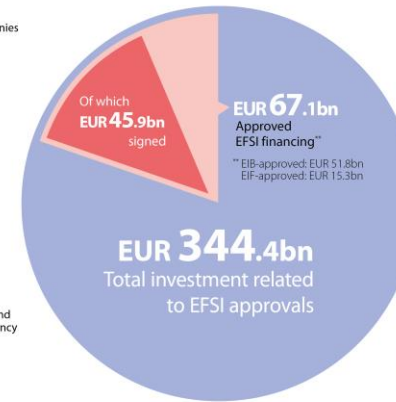
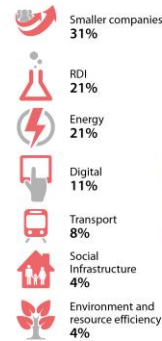
EFSI target exceeded

European Fund for Strategic Investments (EFSI)

- ▶ **EUR 335 bn** in investment mobilized
 - ▶ Exceeding the original target of EUR 315bn
- ▶ **EUR 65.5 billion** financing approved
- ▶ **898** operations to benefit **700 000** SMEs across EU-28
- ▶ Narrow the **investment gap left as a result of the financial and economic crisis**
- ▶ → **EFSI 2.0** – aiming for **EUR 500 billion** in investments mobilised by **end-2020**

EIB Group figures As of 18/09/2018

EFSI investment by sector*

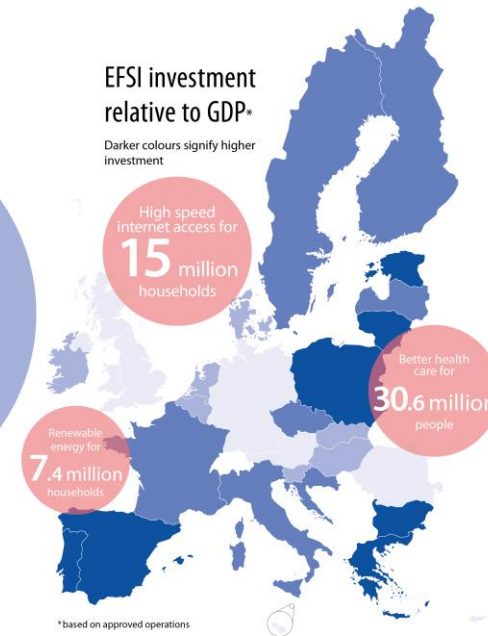


Target by 2020 **EUR 500bn**



EFSI investment relative to GDP*

Darkier colours signify higher investment



... but yet unfinished business ahead of us

- ▶ **While aggregate corporate investment has recovered, investment gaps remain in key strategic and technology areas and in innovation, energy and sustainable infrastructure.**
- ▶ **Total investment gap: EUR 400 billion p.a. through 2030**

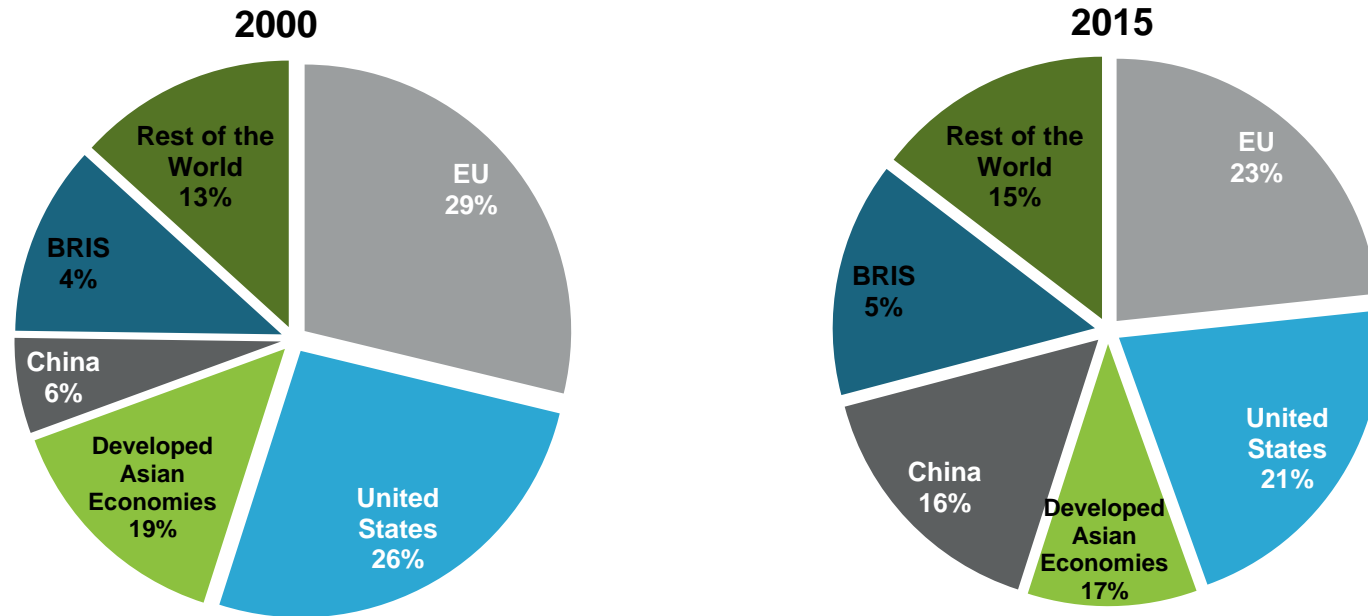
EU 27, EUR bn per year	Investment Gap	Range
Innovation	160	150-170
R&D	110	
Broadband and Digitalisation	50	
Energy	155	145-165
Generation and grids	17	
Energy efficiency	138	
Sustainable infrastructure	88	85-90
Water supply, sanitation, solid waste	7	
Social and affordable housing	6	
Education	8	
Health	17	
Mobility	50	
Total, EUR bn per year	403	380-425
Total, % of the EU 27 GDP (2018 e)	3%	

*Key for Europe:
harness advances in
technology and realise the
potential of human capital*

The shifting global R&D landscape

World expenditure on total R&D; private and public

(% distribution, 2000 and 2015)



Source: Eurostat, OECD, UNESCO

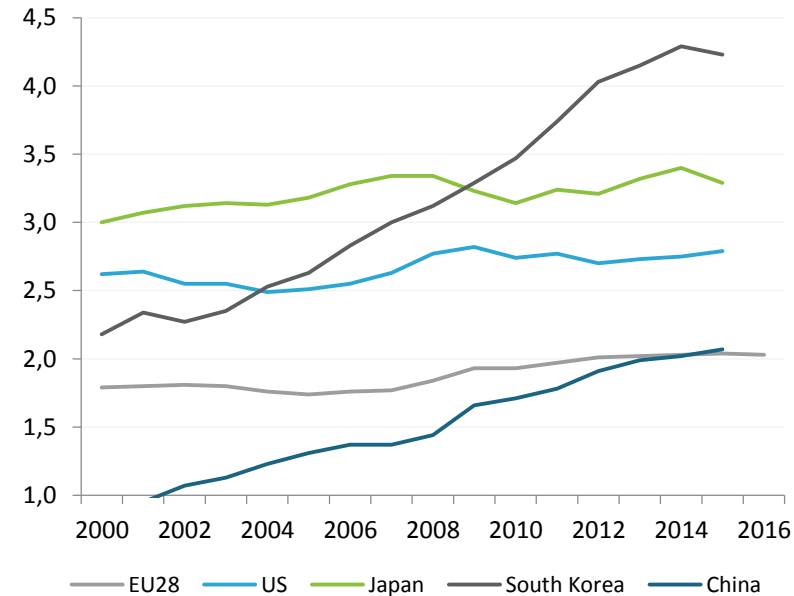
- Europe remains one of the dominant R&D and innovation hubs worldwide, albeit shrinking share in global R&D spending
- Europe's share of public research is higher than its business-related R&D
- Despite shrinking share for the US; it remains, by far, the most important investor in basic and applied research.

Innovation: R&D expenditures

Investment gap: EUR 110bn

- The EU27 spends annually around EUR 255bn on R&D
- As a share of GDP: 2.10%
- Overall R&D spending gap (Horizon2020 target, R&D spending 3% of GDP vs. actual) is about:
 - 1% of EU GDP;
 - Around **EUR 110bn** per year for EU27

Gross domestic expenditure on R&D (% of GDP)

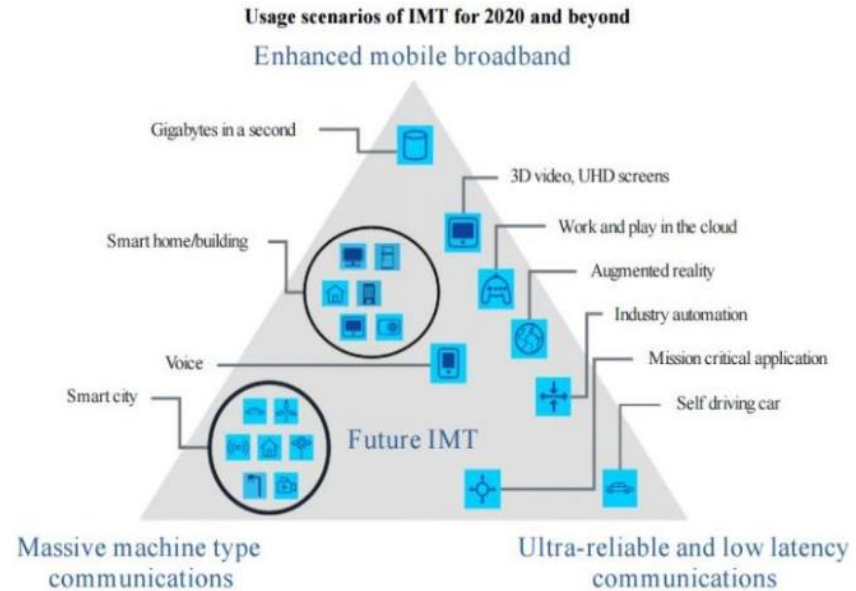


Source: Eurostat

Innovation: Broadband and Digitalisation

Investment gap: EUR 50 bn

- ▶ The growing digital economy needs fast, reliable broadband
- ▶ Europe suffers from a large investment gap in **broadband infrastructure**, estimated at EUR 20bn per annum.
- ▶ The annual investment gap in **digitalisation of industries** is estimated at EUR 30bn
 - ▶ based on investments required for the EU-27 to catch up with the US in terms of ICT investments



Main areas of investment needs – *in the context of innovation, digitalisation and skills*

- ▶ **Digitalisation is the new paradigm**
- ▶ **Two giants are squeezing Europe:** compared to its main competitors in the US and Asia, **Europe has become a laggard** in almost all areas of digitalisation...
- ▶ **Europe's investment gap in innovation and digitalisation is substantial, EUR 160 bn annually:** breakthrough innovation, in particular deep tech, requires large investments over a significant period of time (so-called patient capital).
- ▶ EU's issue here is twofold: rapidly **catch-up** technologically with frontier firms, as well as foster **radical breakthroughs** in areas which it has opportunities to be at the front (i.e. pushing the innovation frontier further).
- ▶ Access to finance
- ▶ **Skills availability is the most frequently cited obstacle to investment (EIBIS 2017/18)**



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A circular arrangement of twelve small blue stars, representing the European Union flag.

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Thank you!

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