Innovation in Europe: Challenges and Opportunities

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Innovation and Economic Reform in Europe and Japan, 18 October 2016

Innovation in Europe: Challenges and Opportunities

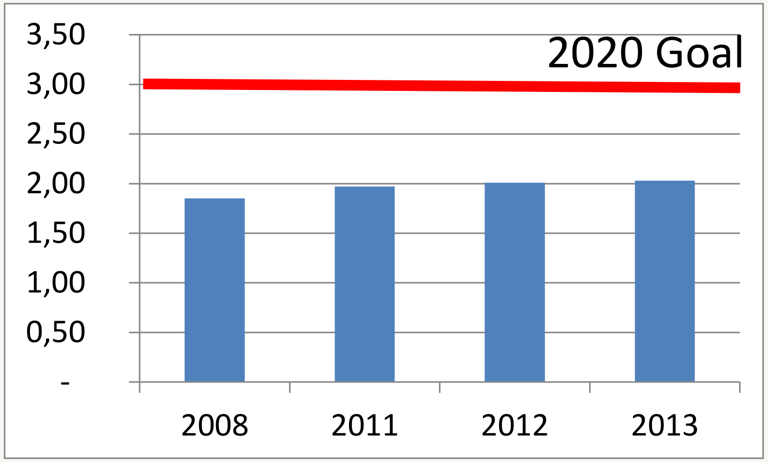
- Strengths, Weaknesses, Opportunities and Threats (SWOT) of the European innovation engine
- Too little investment in R&D?
- Too few start-ups? Not as bad as in the past!
- Challenges in scaling up?
- Lack of venture capital
- European attitudes to disruptive change
- Fear of failure
- Opportunities and threats

Strengths and Weaknesses (SWOT)

- Strengths
  - A talented, well educated and creative population.
  - A strong technology base.
  - An industrial base that has not eroded as much as in some of our global competitors.
- Weaknesses
  - Insufficient private investment in R&D.
  - Little of the public investment in R&D is productised.
  - Entrepreneurial culture weaker than in many of our global competitors.
  - Challenges in finacing entrepreneurial businesses.
  - An expensive social system and an aging population.

Too little investment in R&D?

- Investing 3% of GDP into R&D has been a goal since the Lisbon Strategy of 2000, which failed to achieve it.
- The goal carries forward in current industrial planning in the Europe 2020 strategy.
- European front-runner firms invest as heavily in R&D as the best firms anywhere.
- Government investment in R&D is substantial.
- Many European firms invest too little in R&D and in the use of ICTs, especially SMEs.



Source: Eurostat, Europe 2020 strategy headline indicators, EU28

Stoking the engine of European innovation

Too few start-ups?

- Startups have become cheaper and easier to set-up, making them an attractive vehicle to start an entrepreneurial career.
- The number of European start-ups in media, gaming and communications is comparable to that in the US.
- The European start-up ecosystem is growing fast with leading hubs like London, Berlin and Amsterdam competing with the best in the world.
  - In Amsterdam, startups are attracting three times as much venture capital (VC) funding (much of it coming from foreign investors) as was the case only a few years ago.
  - London and Berlin are equally strong.
  - Southern hubs are catching up quickly. A struggling economy coupled with the need to find new sources of growth are key drivers in Italy, Portugal, Spain and Greece.
- More VC funding is available in Europe than in the past (but still not enough), and there are more successful exits than ever before.

Source: Godlovitch, Kotterink, Marcus, Nooren et al. (2015), Over-the-Top (OTT) players: Market dynamics and policy challenges

Challenges in scaling up?

- In other words, Europe is no longer doing badly in creating start-ups; our problem is rather with *scale-ups*, with bringing innovative firms to the next level.
- Per OECD (2008), “Scale-ups are enterprises with average annualised growth in employees (or in turnover) greater than 20 per cent a year over a three-year period, having 10 or more employees at the beginning of the observation period.”
- While scale-up businesses accounted for only 1% of the total UK business stock, they generated 36.2% of the UK’s economic growth and 68% of total employment growth last year.

Source: Octopus (2014), High Growth Small Business: The economic value of Britain’s fastest growing smaller companies

Challenges in scaling up?

"First mover advantage doesn't go to the first company that launches, it goes to the first company that scales."

Reid Hoffman, co-founder of Linkedin

Challenges in scaling up?

- Europe lags behind the US and other leading economies in the number and size of scale-up companies.
- Closing the scale-up gap in the UK alone is estimated to generate an additional 238,000 jobs and £38 billion additional turnover in the short term, with greater benefits in the medium to long term.

Source: Coutu (2014), The scale-up report on UK economic growth, based on multiple sources

- Multiple studies suggest that the biggest challenges facing start-ups are (1) access to finance, (2) talent, (3) entrepreneurship culture, and (4) the ability to transfer data (i.e. data protection regulation).
- Data protection is a discussion for another day.

Lack of venture capital (VC)

- "Access to capital is critical for SMEs and start-ups. … [G]rowth finance is important for young innovative firms, which are the drivers of growth and jobs in the economy."
  Source: Karen E. Wilson (2015), How to unleash the financing of high growth firms in Europe, Bruegel,.

- The EU economy is similar in size to that of the US, but
  - Our equity markets are only half as large,
  - Our debt markets are only one third as large, and
  - Venture capital for start-ups is only one fifth as large.
- Previous initiatives do not seem to have moved the ball very far down the field so far (e.g. the SMEs initiative of H2020).
- The Commission is launching a Capital Markets Union initiative that seems to be looking at the right issues.

Venture capital: the US vs the EU

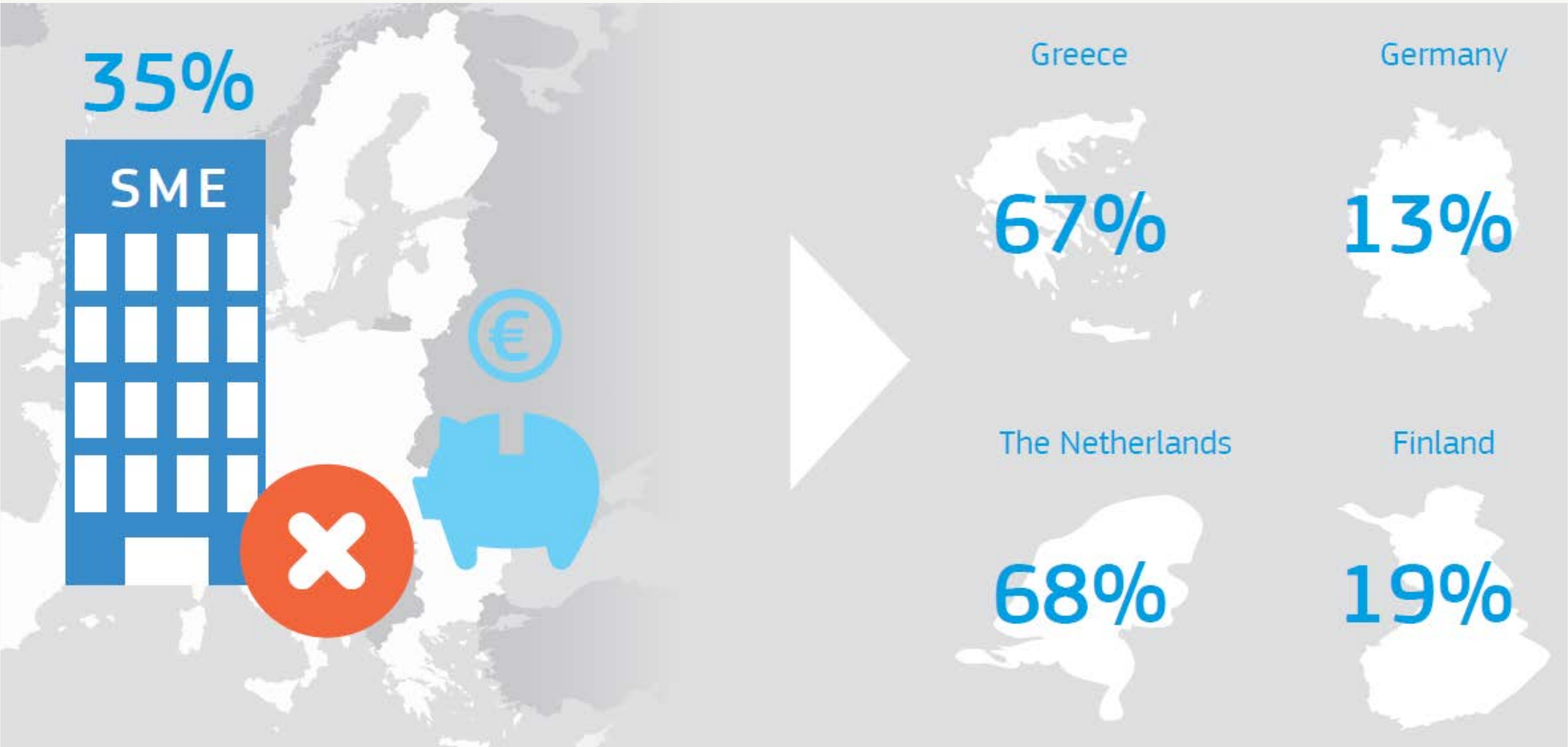
- US-based VCs are better informed and more in tune with technology and startups.
- US-based VC funds are less interested in having a very big stake in a small selection of companies, but rather in having a smaller piece of the pie while hedging their bets to be sure that they are at least involved in one of the few winners.
- US-based VC funds have long term vision, which enables them to offer greater flexibility to the firms that they fund.

Source: Godlovitch, Kotterink, Marcus, Nooren et al. (2015), Over-the-Top (OTT) players: Market dynamics and policy challenges

- EU start-up firms often rely on debt financing rather than VC financing, which contributes to their having a shorter time horizon in their planning.

An over-reliance on bank finance

Percent of SMEs that did not receive all of the financing that they asked for from banks (2013)



Source: European Commission (2015), Capital Markets and SMEs in the EU

The role of Horizon 2020 (H2020)

- The main European instrument to drive progress on Europe 2020 goals is the Horizon 2020 programme.
  - Reduced burden of administration versus previous FP7.
  - Includes a targeted SME instrument.
- A step in the right direction, but:
  - Administration is still complex.
  - Participation and funding are concentrated, with 75% going to the UK, France, Germany, Spain, the Netherlands, and Italy, and very little to newer MS.
  - It is difficult to know what the programme is producing in terms of tangible results – the previous Framework Programme 7 tended to produce *linkages* rather than specific, usable deliverables.

Challenges in measuring the impact of (H2020) public research funding

- Time lag and programming cycles (for setting up of indicators and evaluation)
- Data collection beyond completion of projects
- Appropriate reporting tools
- Scientific practices are evolving, need for new indicators
- Measuring innovation
- Measuring additional indicators (e.g. number of start-ups)
- Establishing causality links of impacts

Source: Lucilla Sioli (2013), “From FP7 towards Horizon 2020”

European attitudes to waves of disruptive change

King Canute's solution to the waves of change

An alternative approach

Fear of failure

- Internet-based start-ups have had to learn to cope with the high risk of failure, a global, a borderless playing field, and often unproven technologies, platforms and distribution mechanisms.
- They grow and fail faster than other businesses, which translates into higher rewards, but also higher risks.

Fear of failure

- Societal attitudes toward failure are radically different in the US versus continental Europe, and bankruptcy laws in many Member States are more punitive.
  - A failed entrepreneur in the US is likely to try again.
  - Resources are not needlessly tied up for long periods of time.
- Changing public attitudes toward failure is possibly beyond the reach of European policymakers, but bankruptcy laws that are more uniform and less onerous might be achievable.

Source: Godlovitch, Kotterink, Marcus, Nooren et al. (2015), Over-the-Top (OTT) players: Market dynamics and policy challenges

Opportunities and Threats (SWOT)

- The obstacles that Europe faces are stubbornly resistant to change.
- The Capital Markets Union (CMU) includes Action Lines to address some of the real problems in order to strengthen European innovation, and a few legislative actions have already been initiated.
  - Better access to risk capital.
  - Enhanced consistency and practicality of bankruptcy laws.
- There is no shortage of good ideas, many of which have been around for ten years or more.
- A key threat is that, instead of seeking to strengthen Europe's ability to innovate and compete, political forces might drive us instead toward protectionism.

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