‘Innovation Index’ – a bull market

How often do “innovation” and related terms appear in the European Commission database?

Source: Science|Business research
EU RDI Funding – A rising tide
Average annual spending, in billions

Framework
Cohesion
Strong clusters are associated with strong growth

Source: European Cluster Observatory, 2008
EU innovation leaders and laggards

Source: EU Regional Innovation Scoreboard 2014
Silicon Fen

- **57K** employed in **1,500 technology-based firms** with combined annual revenue **£13 billion**

- Of the 1,500, the university has backed **300 hi-tech and 200-computer based companies** (which earn £250m between them) with more than a **£1bn of funding** and it also owns the IP on more than **1,000 patents**

Source: Cambridge Enterprise 2013

- **Notable companies:**
  - ARM Ltd
  - ABCAM plc
  - Autonomy Ltd
  - CSR plc
  - Domino printing sciences plc
  - Xaar
  - Microsoft European research lab HQ
  - Toshiba European research lab HQ
  - AstraZeneca global R&D & corporate HQ
Silicon Allee

- Energy technology: **6,200** companies, **75,000** employees, turnover **€17 billion**
- Life sciences: **313,700** employed in **280** medtech, **220** biotech and **30** pharmaceutical companies – including Bayer, Berlin-Chemie, Pfizer, Sanofi-Aventis and Takeda Pharma – with turnover **€6 billion**
- Photonics: **4,000** people employed in **390** companies, **€2 billion**
- ICT, media and creative industries: roughly **37,000** companies – including Axel Springer AG, Universal Music Germany, Viacom International Media Networks – **300,000** workers and turnover of **€30 billion**

Spinouts
- Free University: 2006 to 2013 about 100 **companies** have been founded with support of tech transfer service *profund*
- Humboldt-University: Tech transfer unit Humboldt-Innovation has been involved in 50+ spin-outs since 2005

Source: Berlin Partner
Leuven

- 300 high-tech companies, employment, >24,000, turnover €400 million
- Notable spin-outs:
  - METALogic
  - @mire
  - FUGEIA
  - RNA Tech
  - TiGenix

Stockholm

- 22,000 ICT companies, employment 200,000
- Billion dollar IT companies with offices in Stockholm:
  - Spotify
  - Klarna
  - King
  - Mojang
  - Skype
  - Mysql
Regional innovation: Good effort, poor results

- Is regional spending rising on RDTI?
- Do you have a regional RTDI strategy?
- Does the region have autonomy to set strategy?
- Does strategy include demand-side measures?
- Has the regional RTDI strategy had impact?

Source: EU Regional Innovation Monitor 2010
The rich spend smarter:
Share of structural funds applied to RTDI projects

Source: EU Regional Innovation Scoreboard 2014
EU innovation dialectics

- Solidarity v Individualism
- Excellence v Cohesion (‘broadening’)
- Growth v Austerity
- The Centre v the Regions
- SMEs v MNCs
- Universities v. RTOs v Companies v ?
What would it take?

- Money: not more, but smarter
  - Separate excellence/concentration from cohesion/redistribution
  - Carve 10% of the RDTI structural funds into a new programme based on competition among regions, so the most promising ideas can be tested.
  - Liberalise (slightly) pension fund regulation to allow more risk-investment.
- Universities: strengthening the cluster core
  - More funding for success, however defined
  - Greater autonomy for university management, to experiment
  - Expand enterprise programmes – but not for spin-outs alone
- The market conditions: sine qua non
  - The Single Market must go deeper
  - Academic and technical job mobility must rise
  - Focus on demand-side stimulus, e.g. public procurement (SBIR)
- Brussels’ role is limited: Single Market, best practice, competitive funding