THE EIT: BUILDING BRIDGES AND SHAPING THE FUTURE OF EUROPE

Alexander von Gabain
Chairman of the EIT Governing Board

EIT Conference: “Fostering Innovation and Strengthening Synergies within the EU”
Dublin, 29 - 30 April 2013
ABOUT DISCOVERY, INVENTION, TRANSLATION & INNOVATION

1. Discovery:
   Finding out something not yet known

2. Invention:
   creating or designing something not existing before

3. Translation:
   processing discoveries and/or invention into innovation

4. Innovation:
   making changes with societal impact based on discoveries and/or invention

Excellent science & research are necessary yet not sufficient ingredients for innovation
EUROPE’S UNLOCKED POTENTIAL TO SUPPORT WORLD-CLASS INNOVATION

- High level of education & solid academic base
- Historical power houses of research & science
- Increasing number of centres of excellence
- Impressive corporations and SMEs
- Long tradition of product development
- Growing European interactions between national R&D players
## CREATING VALUE - CREATING JOBS

<table>
<thead>
<tr>
<th></th>
<th>Europe</th>
<th>USA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No. of employees</strong></td>
<td>63,000</td>
<td>172,000</td>
</tr>
<tr>
<td><strong>Average Investment per year</strong></td>
<td>EUR 6 bn</td>
<td>EUR 18 bn</td>
</tr>
<tr>
<td><strong>Public listed</strong></td>
<td>&lt;10%</td>
<td>&gt;30%</td>
</tr>
<tr>
<td><strong>Origin of patents from commercial enterprises</strong></td>
<td>~28%</td>
<td>~52%</td>
</tr>
<tr>
<td><strong>Total value of companies</strong></td>
<td>EUR ~30 bn</td>
<td>EUR ~300 bn</td>
</tr>
</tbody>
</table>
THE SMOKING GUN: AGE DISTRIBUTION OF INNOVATIVE COMPANIES

Figure 1: Share of leading innovators by age cohort

Source: author’s calculations. Note: Figure based on a sample of 226 companies, obtained from matching firms in the FT Global 500 from 2007 with the 2007 EC-IPTS Top 1000 EU and non-EU R&D scoreboard companies. Leading innovators are thus defined both by their market capitalisation and R&D expenditures. The US has 80 companies in this sample, Europe 86 and other countries 60.
Europe has a history of brilliant entrepreneurs but data suggest we need an ‘entrepreneurial renaissance’ to strengthen our ability to compete globally.
The EIT Proposition for Innovation: Integrating the Knowledge Triangle

Partners and people within the knowledge triangle are at the core of the innovation web beyond the traditional R&D consortia.
THE EIT STRATEGY

- Place ownership, accountability & entrepreneurship into the centre of innovation
- Overcome the silo mentality of the players within and between Member States
- Create innovative ecosystems with global impact, targeting societal challenges
- Seed-fund & catalyze the integration of the innovation triangle
COME IN WITH SEED INVESTMENT WHERE A STEP CHANCE IS MOST NEEDED
THE EIT’s OBJECTIVES

Its aim is to boost the innovation process:

→ from idea to product

→ from lab to market

→ from student to entrepreneur

in areas of high societal need through its Knowledge and Innovation Communities (KICs).
How do the KICs work in practice?

Using KIC InnoEnergy as an example
KI Cs EUROPEAN IMPACT

**Climate KIC:**
- ▲ Co-location centre
- ▲ RIC (Regional Implementation and Innovation Centre)

**EIT ICT Labs:**
- ▲ Co-location centre
- ▲ Associate Partner

**KIC InnoEnergy**
- ▲ Co-location centre
KIC ACHIEVEMENTS SINCE THEIR IMPLEMENTATION IN 2010

- **17** innovation hotspots spread across Europe
- More than **350** partners from business, higher education and research and other relevant institutions
- Approx. **300 million €** EIT investment into the existing three KICs with more than **1.1 billion €** leveraged from external sources
- KICs have recruited more than **1000** students into about **20** specific educational programmes integrating interdisciplinary innovation and entrepreneurship
- Approx. **90** innovation projects initiated by the KICs, **108** start-up companies, 400 business ideas incubated.
Innovation is complex, takes time and needs investments and is risky.

**Example: development of new pharmaceuticals**

<table>
<thead>
<tr>
<th></th>
<th>Research</th>
<th>Development (pre-clinical)</th>
<th>Clinical development</th>
<th>Submission of license</th>
<th>Product licensing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Phase I 1st year</td>
<td>Phase II 1 - 2 year</td>
<td>Phase III 3 - 4 year</td>
</tr>
<tr>
<td>Likelihood of success (percent)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>10</td>
<td>10 - 20</td>
<td>20 - 50</td>
<td>50 - 90</td>
<td>90 - 95</td>
</tr>
<tr>
<td>99</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost (m US$)</td>
<td>10 - 40</td>
<td>20 - 225</td>
<td>20 - 200</td>
<td>50 - 175</td>
<td>100 - 125</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10 - 15</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5 - 10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time (years)</td>
<td>4 - 6</td>
<td>1 - 2</td>
<td>4 - 6</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

$215 - 1,000
NEW PARADIGMS IN INNOVATION:
FROM SINGLE GENIUSES TO COMPLEX NETWORKS

• Go for the best individuals
• Make sure they understand the master plan
• Make sure they form a strong team
• Create respect for the involved competence areas
• Complement strength/weakness profiles of the team members

Source: Science, Vol. 308, p. 640
PARTNERS, TALENTS, NETWORKS, EDUCATION, MINDSET CHANGE, NOVEL CONCEPTS & PLATFORMS

ENTRE & INTRAPRENEURS, PRIVATE INVESTMENT, PROMOTION, MARKETS & CUSTOMERS

PRODUCTS, SERVICES, & FINANCIAL SUSTAINABILITY

IMPACT

SOLUTIONS TO SOCIETAL CHALLENGES

COMPETITIVENESS

HIGH QUALITY JOBS

SUSTAINABILITY

EIT INNOVATION - AN INTEGRATED APPROACH TOWARDS SUCCESSFUL KICs
THE EIT NEEDS TO MANAGE AND TO MONITOR THE INVESTMENT INTO THE KICs

THE KICs NEED TO MANAGE COMPLEXITY TO BUILD THEIR PAN EUROPEAN ‘INNOVATION FACTORIES’

ENTREPRENEURS AND INTRAPRENEURS FOSTERED WITHIN THE KICs NEED TO BE EDUCATED TO TAKE ADVANTAGE OF MANAGEMENT SKILLS

THE GROWTH OF KIC PARTNERS RELIES ON MANAGEMENT SKILLS

HOWEVER, A SMART BALANCE BETWEEN ENTREPRENEURIAL ‘OBSESSION’ AND MANAGERIAL SKILLS NEEDS TO BE MAINTAINED