TOWARDS A EUROPEAN INNOVATION COUNCIL (EIC)
Boosting research-driven entrepreneurship in Europe
Basic understanding
EIC as we see it: reinforcing the ERC

- Investigator-driven
- Bottom-up, no topics
- Extending scientific frontiers
- Scientific excellence
- No regional / political motivations
- Starting grants → Advanced grants

- Innovator-driven
- Bottom-up, no topics
- Creating economic impact from research
- Applied research excellence with business potential
- No regional / political motivations
- Grants/ seed investment for research-driven start-ups, spin-offs, → SMEs, mid-cap and RTOs
Further improve the valorisation of research
e.g. Entrepreneurship in the German knowledge economy

Unternehmensgründungen in der Wissenswirtschaft in Deutschland 1995-2013
(1995=100)

Alle Werte sind vorläufig. Quelle: Mannheimer Unternehmenspanel (ZEW) – Berechnungen des ZEW
ZEW: Unternehmensdynamik in der Wissenswirtschaft in Deutschland, Februar 2015
Bettina Müller, Johannes Bersch, Sandra Gottschalk
Entrepreneurship is a common European weakness. Research-riven start-ups need European market.

- Entrepreneurship common European weakness
- high value creation in research-riven entrepreneurship
- Entrepreneurs from research and in high tech markets need a European (or even global) market
The European Challenge
EU instruments not accessible

➡ Increasing gap and mismatches between Research and Finance

➡ Lack of European instruments to facilitate valorisation of disruptive research → breakthrough innovation
  ■ From proof of basic principle to working technology in operational environment (= investor readiness)

➡ Entrepreneurship in Europe’s knowledge economy is lagging behind (number of companies / Entrepreneurial spirit)

➡ Current EU instruments are often not accessible for research-driven start-ups or spin-offs
  ■ Only SME instrument phase I (in practice often not accessible)
  ■ Some “experiences” with research start-ups under the EIT-KICs
Which gap could the EIC fill?
Research-driven spin-offs and start-ups: boost breakthrough innovation

<table>
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<tr>
<th>ERC</th>
<th>H2020 Pillar III</th>
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<tr>
<td>ERC grant</td>
<td>Collaborative research</td>
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Funding gap
- grants + seed investment

Analysis of potential
Seed funding
- new legal entity where applicable

Uncertainty
Risk assessment
Business success

Phase A
Phase B

EU weakness

EFSI

ERC grant
H2020 Pillar III
Collaborative research

INVESTMENT
EIF + EIB

Funding gap
- Analysis of potential
- Seed funding
- new legal entity where applicable

EIC EIF ERC
## Contributions of applied research to growth strategies

### The Product-market matrix

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<th>Existing products</th>
<th>New products</th>
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<tr>
<td><strong>Existing markets</strong></td>
<td>No research contribution mainly marketing</td>
<td>H2020 improved, new products</td>
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<tr>
<td><strong>New markets</strong></td>
<td>H2020 New fields of application, adapted technologies</td>
<td>High risk <strong>breakthrough innovations</strong>&lt;br&gt;<strong>risk taking companies / spin-off and start-up</strong></td>
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→ Lack of European instruments to facilitate valorisation of R&D for disruptive innovation → to foster breakthrough innovation
## Four recommendations

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<td><strong>1. Strengthen research-driven start-ups and spin-offs</strong></td>
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<td>Introduce an “EIC start” instrument (e.g. as pilot)</td>
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<td>Close the gap between the ERC and EIF / EIB</td>
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<td><strong>2. Support more projects to become “EIC-ready”</strong></td>
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<td>Create one open Horizon 2020 “proof of concept” grant</td>
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<td><strong>3. Design the EIC as a single entry point</strong></td>
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<td>Allow for mixed industry-research consortia</td>
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<td>Simple and “fast-track” procedures</td>
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<td><strong>4. Introduce accompanying HR measures</strong></td>
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<td>Marie Skłodowska-Curie actions for spin-offs</td>
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**Objective:** Use the momentum around the EIC to foster research-driven entrepreneurship in Europe

- Increase number and quality of research-driven ventures
- More ventures reaching **investor readiness** + getting there faster
1. Strengthen research-driven start-ups and spin-offs

EIC: Bridging the spin-off and start-up gap

**ERC**
- Peer review: basic research
- High level of scientific uncertainty: grant
  - “sunk costs”

**EIC**
- Peer review: applied research + seed phase
  1. Analysis of business potential: grant
  2. Shared risk: seed investment
    - Revolving fund
    - Improved investor readiness

**EIF**
- Investment decisions
  - Validated level of risk: investment
  - RoI expected

Connecting the links of the innovation chain for disruptive innovation
1. Strengthen research-driven start-ups and spin-offs

**EIC start: Bridging the spin-off and start-up gap**

- **EIC start partnership**
  - "the fund of funds"

**Seed investment**
- Ticket size: € 1,5 – 3M

**Subordinate convertible loan**
- With a discount
- Loan convertible into shares at time of third party investment; discount for early risk taking

**Innovation voucher**
- Voucher size: € 50k

**EIC back-office**
- (using existing infrastructures)

**R&I provider**
- Access to best-in-class technology
1. Strengthen research-driven start-ups and spin-offs

**EIC start partnership JU**

- Partnership of TTOs, Unis, RTOs, VCs...
  - Investment managers “pitch” companies of the EIC start pool to the board
  - Investment board takes final investment decision

### Three steps to EIC start funding

**Research-driven start-up / spin-off**

- Application with “business case”
- EIC back-office
  - Eligibility check
  - Fast evaluation

**EIC start investment pool**

- Threshold
  - No investment
  - Investment

**EIC start partnership**
1. Strengthen research-driven start-ups and spin-offs

EIC start: Bridging the spin-off and start-up gap

**First steps of EIC start**
- Start “small” like the ERC
- Start with 40 investments p.a.

**Guiding principals of EIC start**
- Only research-driven start-ups and spin-offs
- EIC start partnership as revolving funds: money consumed after some time if RoI cannot be achieved
- Innovation vouchers: support to transfer of best-in-class technology

**EIC start: investment managers’ perspective**
- Assessment of projects according to market and technology potential
- Payment of investments in instalments according to milestones and deliverables
- Side investments of VCs encouraged
- Market development and technology maturation in parallel
  - Objective: viable and “investor-ready” company
2. Support more projects to become “EIC-ready”
Create one general and open “proof of concept”-grant

Two closed “proof of concept”-clubs
- ERC proof of concept (ERC-PoC) only for ERC grantees
- FET Innovation Launchpad is similar
- Both: close gap from basic research to application

Recommendation
- RTOs know how to move research closer to the market!
- Example: Max-Planck-Fraunhofer joint programme
→ Prepare more projects for “EIC readiness”
→ Evaluate ERC-PoC + FET launch pad
→ Create one open “proof of concept”-grant
3. Design the EIC as a single entry point
How to create synergies?

- One clear mission: Creating economic impact from research
- One single EIC call (all bottom up)
- No new institution needed: existing infrastructure
- Regular cut-off days for all EIC calls
- Fast procedures (like FTI)
- Create an EIC-specific pool of evaluators (better incentives for business managers / VC managers)
- Generally: Support mixed industry-research consortia of small sizes and foster collaboration of actors
- Innovation vouchers for easy technology transfer
- Flexible grant sizes to attract companies of different sizes and maturation

EIC phase I
- Business case
- Analyses of potential: market and technology
- Accessible for TTOs, Unis, RTOs, start-ups, spin-offs, SMEs, mid-caps

EIC phase II
- EIC start
- FTI
- SME phase II

EIC phase III
- Support, training, labels
4. Introduce accompanying HR measures
Marie Skłodowska-Curie actions (MSCA) for spin-offs

Introduce MSCA equivalent for spin-offs
- 1 (or more) researchers
- 2 years to set up a spin-off
- Position at university / RTO on hold
- Example: Similar to German “Exist”-programme

MSCA equivalent for the integration of market expertise
- Grant to employ “CEO in residence” at spin-off
- max. 2 years
- Entrepreneurial experience + sector knowledge
Four recommendations

1. Strengthen research-driven start-ups and spin-offs
   - Introduce an “EIC start” instrument (e.g. as pilot)
   - Close the gap between the ERC and EIF / EIB

2. Support more projects to become “EIC-ready”
   - Create one open Horizon 2020 “proof of concept” grant

3. Design the EIC as a single entry point
   - Allow for mixed industry-research consortia
   - Simple and “fast-track” procedures

4. Introduce accompanying HR measures
   - Marie Skłodowska-Curie actions for spin-offs

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