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



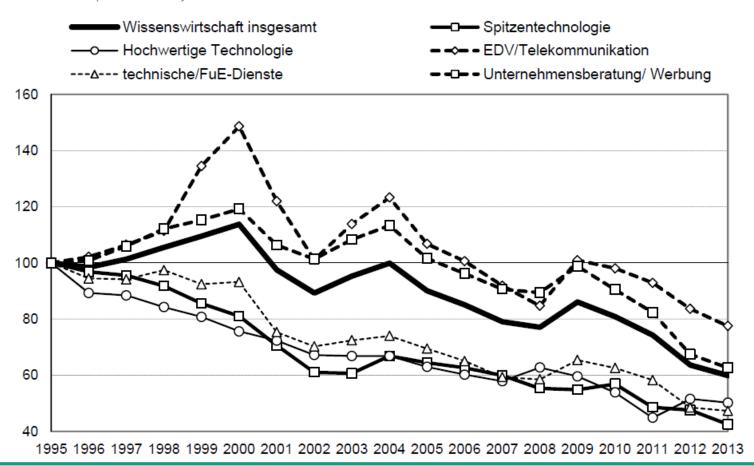
- Innovator-driven
- Bottom-up, no topics
- Creating economic impact from research
- Applied research excellence with <u>business potential</u>
- No regional / political motivations
- Grants/ seed investment for research-driven <u>start-ups</u>, <u>spin-offs</u>, → SMEs, mid-cap and RTOs



Further improve the valorisation of research

e.g. Entrepreneurship in the German knowledge economy

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





Entrepreneurship is a common European weakness Research-riven start-ups need European market

NEWEUROPE Global entrepreneurial spirit index finds **Europe lagging** Published 15:22 November 18, 2015 AMWAY ENTREPRENEURIAL SPIRIT INDEX **Amway** Der Amway Entrepreneurial Spirit Index gibt an, wie ein repräsentativer Bevölkerungsanteil eines Landes einem Gründungsvorhaben gegenübersteht. Der Indexwert wird aus dem Durchschnitt der drei gleich gewichteten Dimensionen "Erwünschtheit", "Durchführbarkeit" und "Stabilität gegen sozialen 23. SCHWEDEN 01. INDIEN 24. GROSSBRITANNIEN 48 02. CHINA 25. SCHWEIZ 03. THAILAND 04. VIETNAM 26. SLOWAKEI 05. SÜDAFRIKA Ø EU 06. MEXIKO 27. LETTLAND 07. MALAYSIA 28. KOREA 08. SLOWENIEN 29. NORWEGEN 09. BRASILIEN 30. SPANIEN 10. TÜRKEI 31. PORTUGAL 11. LITAUEN 32. ESTLAND 12. KOLUMBIEN 33. BELGIEN 13. FINNLAND 34 FRANKREICH 14. USA 35. RUMÄNIEN 36. UNGARN 15. DÄNEMARK 16. NIEDERLANDE 37. BULGARIEN 17. TSCHECHIEN 38. ÖSTERREICH 18. GRIECHENLAND 39. UKRAINE 40. RUSSLAND 19. IRLAND 20. AUSTRALIEN 41. DEUTSCHLAND Ø WELTWEIT 42. POLEN 43. KROATIEN 21. ITALIEN 22. KANADA 44. JAPAN Bei Gleichheit des Wertes entscheidet die ungerundete Zahl über den Rang @ Amway, 2015 all rights reserved

- 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



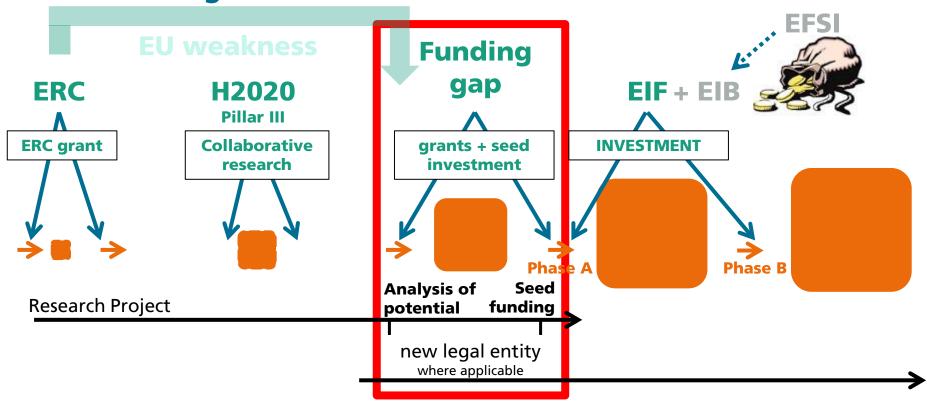
The European Challenge EU instruments not accessible



- → 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 researchdriven 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



Uncertainty

Risk assessment

Business success



Contributions of applied research to growth strategies The Product-market matrix

Existing products New products Existing No research contribution H2020 markets mainly marketing improved, new products High risk <u>breakthrough</u> H2020 New innovations markets New fields of application, risk taking companies / adapted technologies spin-off and start-up

→Lack of European instruments to facilitate valorisation of R&D for disruptive innovation → to foster breakthrough innovation



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

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



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

→ Rol expected

Connecting the links of the innovation chain for disruptive innovation



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

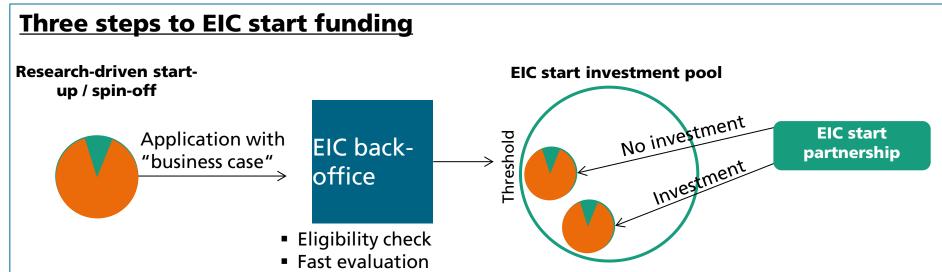
Grant for operation **EIC start partnership** EIC back-office EC (using existing "the fund of funds" Funds for seed funding infrastructures) Return on investment Return 5-10 years Seed investment · ^{In}novation voucher Seed investment **R&I** provider Ticket size: € 1,5 – 3M Subordinate convertible loan with a discount Innovation voucher loan convertible into shares at time of third party R&I service investment; discount for early risk taking Access to best-in-class Innovation voucher technology Voucher size: € 50k Research driven start-up / spin-off

EIC start partnership

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





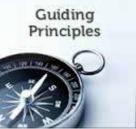
EIC start: Bridging the spin-off and start-up gap



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 Rol 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



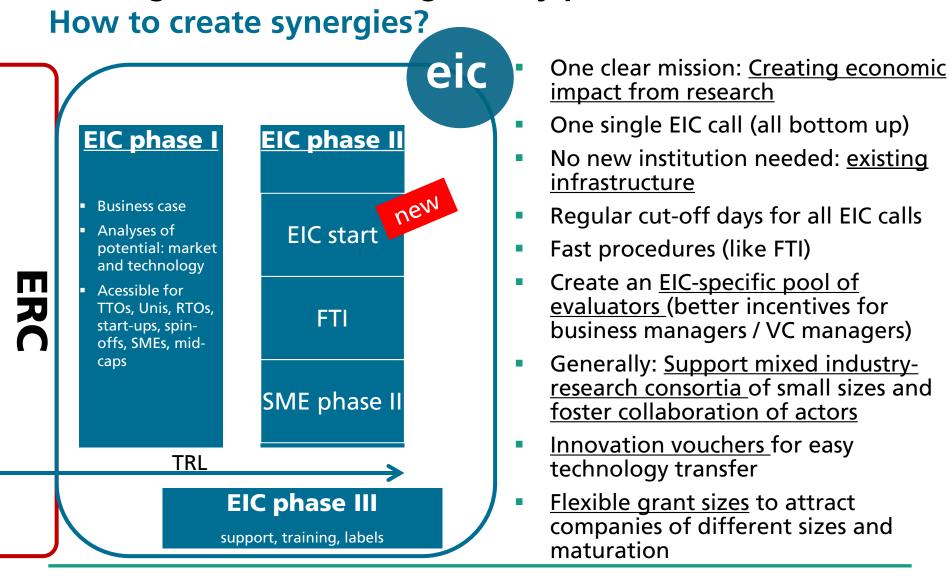
Recommendation

- 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





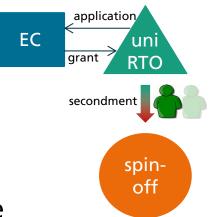
3. Design the EIC as a single entry point



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

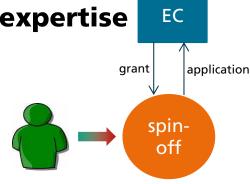
Introduce MSCA equivalent for spin-offs

- 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





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