



EIF's Impact Assessment (ImA)

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OBJECTIVE

To support **smart, sustainable** and **inclusive** growth for the benefit of European SMEs.

HOW

By offering a wide range of **targeted products to support SMEs and mid-caps**, ranging from venture capital to guarantees and microfinance.

WHERE

Working with financial intermediaries across the **EU-28 and EFTA countries, candidate and potential candidate** countries.

Shareholders

- 59.8% European Investment Bank (EIB)
- 28.1% European Union*
- 12.1% 31 public and private financial institutions

Strong capital base

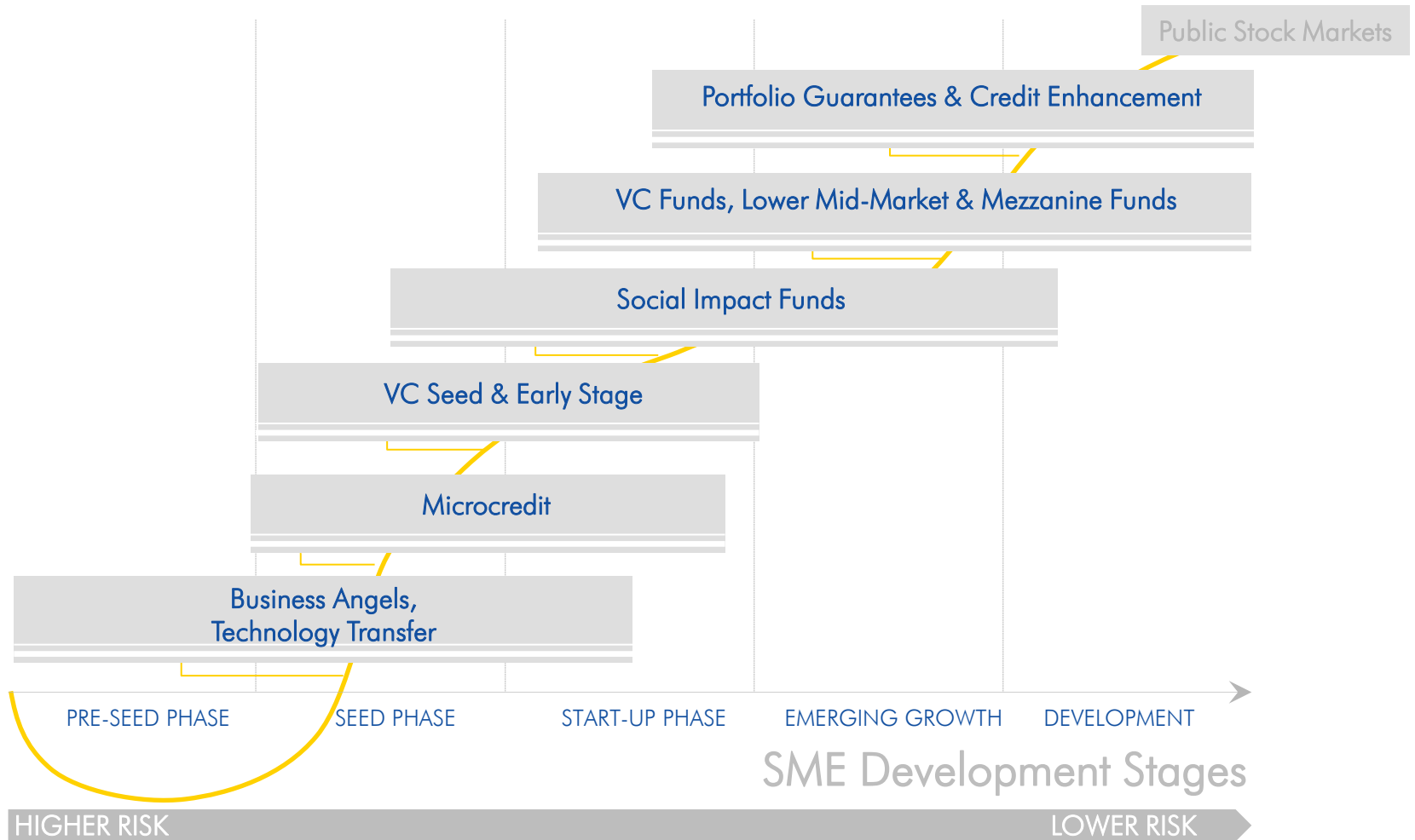
of EUR 4.5bn

AAA-rated

by the three major rating agencies

Over 20 years

of market experience in SME financing



Overall commitments

- EUR 3.3bn (2014)
- EUR 7 bn (2015)
- EUR 9.4bn (2016)

Leveraged volumes

- EUR 13.9bn (2014)
- EUR 26.9bn (2015)
- EUR 42.7bn (2016)

SMEs supported

- over 1.8 million since 1994
- 175,000 in 2016

Partners

- 600 private equity funds
- 400 banks, guarantee and promotional institutions

Resources and mandators

- European Investment Bank
- EIF own resources
- European Commission
- Member States/regions
- Managing authorities
- Corporates/private
- Public institutions
- Other third parties



Intermediaries and counterparts

- Fund managers
- Commercial banks
- Development and promotional banks
- Guarantee institutions
- Leasing companies
- Corporates
- Business angels
- Microfinance institutions



micro-
enterprises,
SMEs
and small
mid-caps

- **The recent increase** in business volumes led to the need to know more about *our impact* to:
 - show and justify *our raison d'être*
 - answer questions from different stakeholders
 - learn from the past – for new products, new mandates.

- **However, EIF is very specific:** to properly perform ImA, there needs to be in-depth knowledge of:
 - EIF's products and markets
 - available data and data issues
 - necessary econometric tools and methodologies.

- **EIF's solution:** the Research & Market Analysis team has started an ImA work stream:
 - 2.5 years in the making, the work stream produced 4 WPs covering a significant share of EIF's policy toolbox (guarantees, microfinance, VC). Current focus is VC.
 - Studies are based on state-of-the-art methodologies, facing in-depth internal review processes and discussions with top-level academics. Freely downloadable as PDF.

ImA Guarantees (1/2)

MAP / CESEE

Background:

- Despite their recognised importance, credit guarantees have rarely been the subject of rigorous research.
- In the context of the *Vienna Initiative 2* (focussed on CESEE*) EIF and EC undertook a quantitative study aimed to assess the impact of SME Credit Guarantees.

Research questions:

- How to estimate the economic additionality of Credit Guarantees?
- What is the economic additionality of the MAP Facility in CESEE?

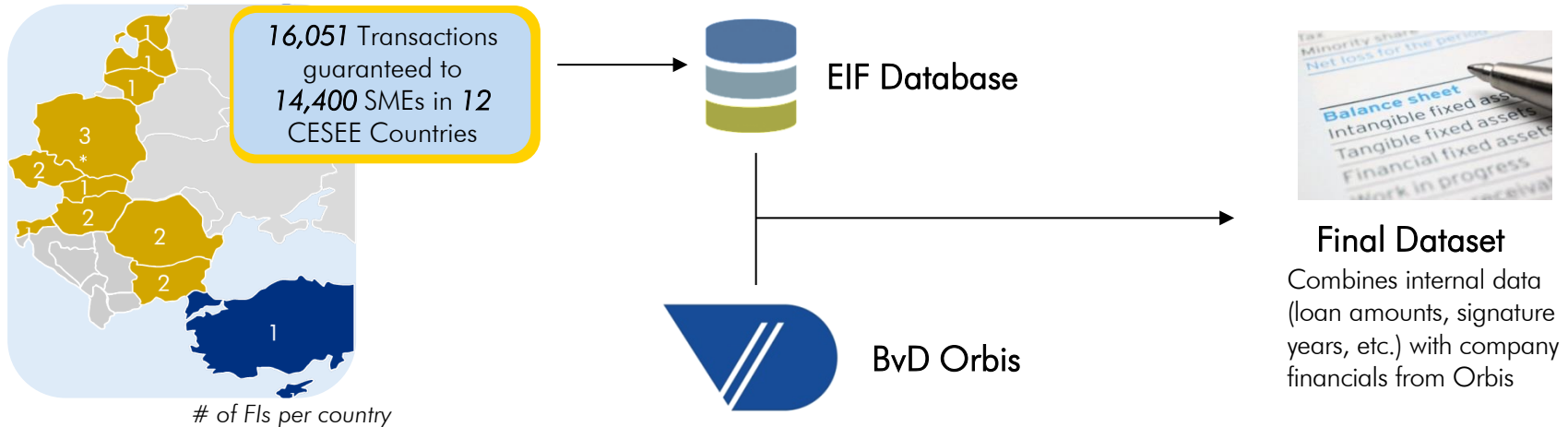
Main findings:

- Significant increase in employment by beneficiaries compared to counterfactuals.
- Significant rise in turnover within the first five years after signature date.
- Temporary setback in productivity, partially absorbed in the medium run.
- Smaller and riskier businesses were positively impacted the most.
- **Development of a consistent methodology (next slide)**

ImA Guarantees (2/2)

Data and Methodology

Data



Methodology: propensity-score matching and difference-in-difference

1. First difference: performance *before vs after*
2. Second difference: treatment vs control
3. Difference-in-differences: impact



ImA VC (1/3)

The EIF VC Portfolio, as at end-2014



13,800+ REGISTERED PATENTS

fostering drug discovery, Hi-Tech etc.



2,900+ INVESTED COMPANIES**

the majority of EIF PE investments



41 WORLD COUNTRIES

significant focus on EU28



150+ IPO COMPANIES

in more than 20
intl. stock exchanges



**85,000+ HIGH-SKILL AND
HIGH-TECH JOBS CREATED**

(net job creation)



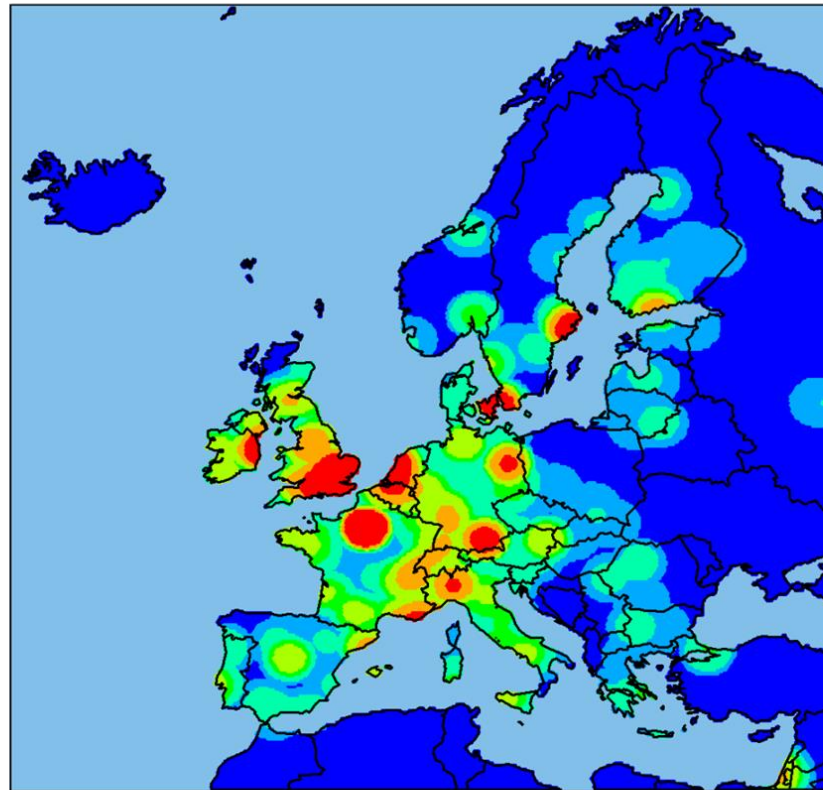
**UP TO 11 BN EUR
SUPPORTED INVESTMENTS**

channeled through 320+ VC funds

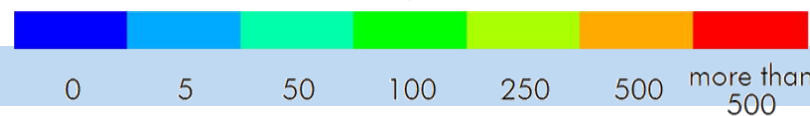
**Seed and Start-Up stage only, excl. Expansion

ImA VC (2/3)

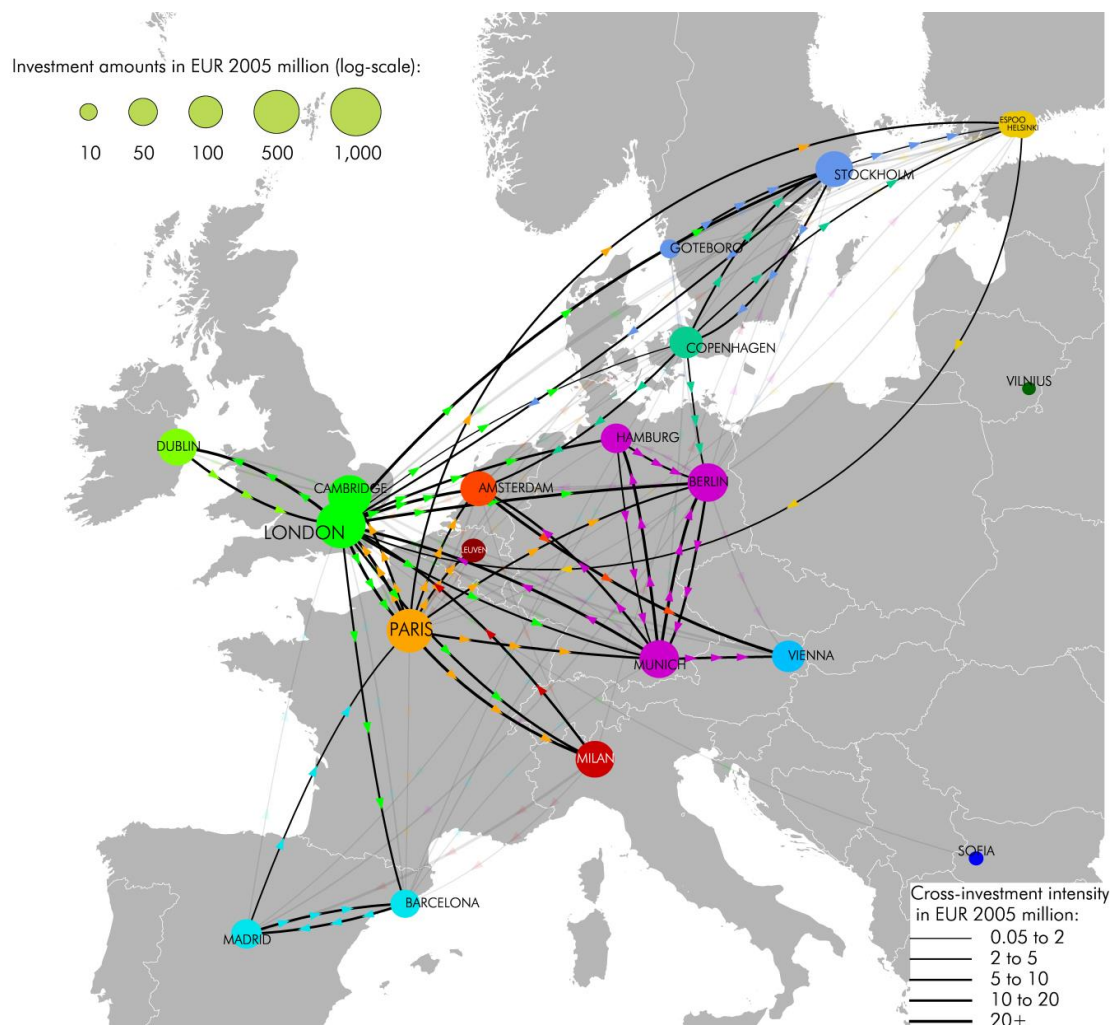
Dispersion: average investment intensity



EUR k per km²



ImA VC (3/4) Concentration



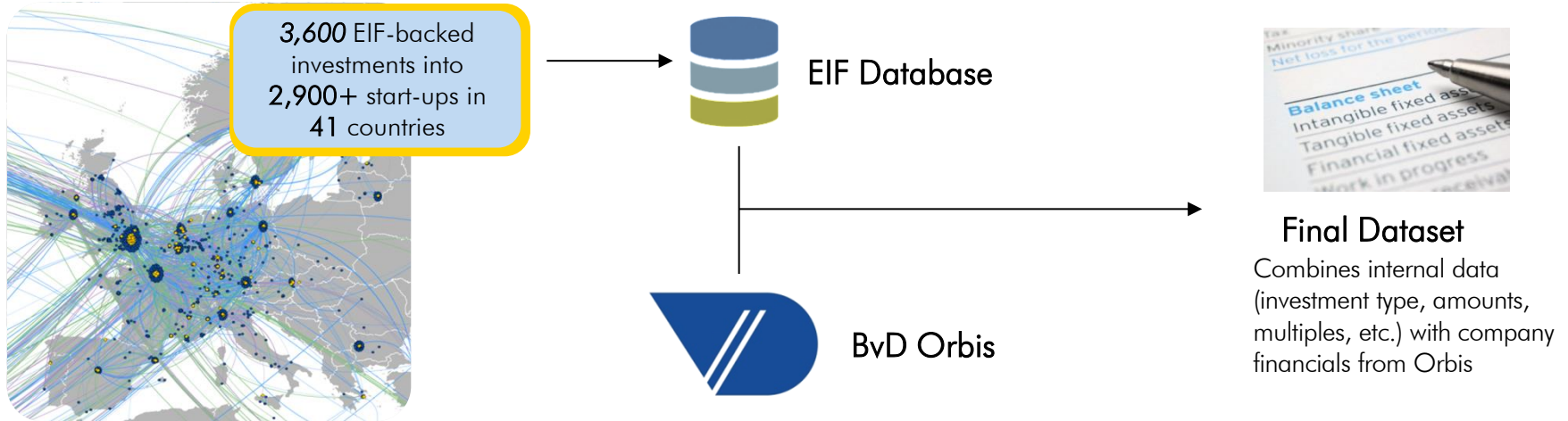
What have we learnt about EIF-backed hubs?

- VC hubs **communicate**: we observe consistent cross-investment routes, especially among hubs with a longstanding tradition.
- VC hubs originated **83% of all invested amounts**. Of these, 63% is invested within national borders, while 37% is **cross-border**.
- Through promotion of cross-border oriented VC firms, EIF supports the build-up of an **European VC market**.

ImA VC (4/4)

Data and Methodology

Data



Methodologies:

1. **Estimation of population parameters:** re-weighting strategy based on missing-at-random (MAR) assumption
2. **Estimation of crowding-in impact:** dynamic panel data estimation based on NUTS2-aggregated inv. volumes
3. **(Forthcoming) impact assessment at start-up level:** counterfactual analysis based on propensity-score matching

Key findings and further work

Main findings:

- EIF's activities supported the build-up of vibrant, interacting VC hubs...
- ... supporting in particular cross-border investments and the internationalisation of VC markets.
- **Results of the econometric model show that EIF activities had significant crowding-in effects, particularly in areas with less developed VC markets (proxied by tertiary education levels).**

Further ImA work:

- Growth patterns of EIF-backed startups (published Dec-2016), Exits & IPOs (H1-2017), EIF supported innovation, VC market ImA (with Invest Europe), etc.
- Expand ImA activity to other EIF business lines.
- Cooperation with EIB ECON regarding Rhomolo.

EIF's ImA is mostly based on micro-data: opportunities and challenges

- Micro-data allows for more flexibility when choosing the most suitable *methodological approach*...
- ... but *data availability* and *timeliness* becomes a critical factor in the set-up of ImA projects.

Thank you ...

... for your attention

EIF is establishing an “impact culture” and “impact” as core competency for EIF



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