The role of venture capital:
"VICO - Financing Entrepreneurial Ventures in Europe: impact on innovation, employment growth, and competitiveness"
(Project funded under the 7th Framework Programme of the European Commission)

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Agenda

• The VICO project
• The participation of European New Technology-Based Firms (NTBFs) in EU funded projects
• The role of venture capital
• Coordination of EU projects by NTBFs
Key messages

- European New Technology-Based Firms (NTBFs) face severe obstacles in:
  - participating in EU funded projects;
  - and coordinating these projects.
- The EU projects coordinated by NTBFs include:
  - a smaller number of partners;
  - less geographically dispersed partners.
- **Venture capital** is very helpful in overcoming the obstacles NTBFs encounter in participating in EU projects.
The VICO project

• Objective:
  – Role of VC in financing entrepreneurial ventures in Europe;
  – Impact of VC on innovation, employment growth, and competitiveness of European NTBFs;
  – Focus on heterogeneity in VC in Europe.

• Consortium
  – 9 partners in 7 countries

• Dataset:
  – 8,370 NTBFs, out of which 759 VC-backed;
  – Accounting and VC investments data suitable for micro-economic quantitative analysis.
VICO sample composition

• 8,370 NTBFs

Geographic distribution
- Belgium: 16%
- Finland: 10%
- France: 20%
- Germany: 16%
- Italy: 5%
- Spain: 9%
- UK: 9%

Industry distribution
- Biotech & Pharmaceutical: 45%
- ICT manufacturing: 18%
- Internet: 12%
- Software: 12%
- TLC services: 5%
- Other high-tech manufacturing: 5%
- 5% each
VICo NTBFs and EU projects

- 700 participating NTBFs: 8.4% of total number of firms
- 82 coordinating NTBFs: 11.7% of number of participating firms

Participation in EU projects by country
- Belgium: 10.9%
- Finland: 5.1%
- France: 11.8%
- Germany: 4.3%
- Italy: 13.3%
- Spain: 5.8%
- UK: 6.4%

Coordinatation of EU projects by countries
- Belgium: 12.0%
- Finland: 0.0%
- France: 14.3%
- Germany: 13.8%
- Italy: 10.0%
- Spain: 13.7%
- UK: 11.0%

% of participating NTBFs out of total number of NTBFs
% of coordinating NTBFs out of number of participating NTBFs
VICO NTBFs and EU projects

Participation in EU projects by industry

Coordination of EU projects by industry

% of participating NTBFs out of total number of NTBFs

% of coordinating NTBFs out of number of participating NTBFs
Factors driving NTBFs’ participation in and coordination of EU projects

<table>
<thead>
<tr>
<th></th>
<th>Participation</th>
<th>Coordination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size (sales)</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>VC-backed</td>
<td>++</td>
<td>++</td>
</tr>
<tr>
<td>Number of previous EU projects</td>
<td>++</td>
<td>++</td>
</tr>
<tr>
<td>Belgium</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Italy</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Biotech &amp; Pharma</td>
<td>+</td>
<td></td>
</tr>
</tbody>
</table>
VC and the participation of NTBFs in EU projects

<table>
<thead>
<tr>
<th></th>
<th>Non-VC-backed</th>
<th>VC-backed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation rate</td>
<td>5.97%</td>
<td>21.32%</td>
</tr>
<tr>
<td>Coordination rate</td>
<td>10.72%</td>
<td>14.20%</td>
</tr>
<tr>
<td>Average number of EU projects per firm</td>
<td>2.34</td>
<td>2.11</td>
</tr>
</tbody>
</table>
VC and the participation of NTBFs in EU projects

<table>
<thead>
<tr>
<th></th>
<th>No n-VC-backed</th>
<th>VC-backed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project length (months)</td>
<td>34.7</td>
<td>35.6</td>
</tr>
<tr>
<td>Number of participants</td>
<td>14.9</td>
<td>11.9</td>
</tr>
<tr>
<td>Funding (million €)</td>
<td>3.757</td>
<td>3.233</td>
</tr>
<tr>
<td>Funding per participant (000€)</td>
<td>252.6</td>
<td>271.0</td>
</tr>
<tr>
<td>Geographical diversity of partners</td>
<td>0.729</td>
<td>0.723</td>
</tr>
</tbody>
</table>
Differences in the size of the network, when coordinated by a NTBF:

- Entire sample
  - 15% of networks have 1-5 participants,
  - 42% have 6-10 participants,
  - 19% have 11-15 participants,
  - 9% have 16-20 participants,
  - 15% have >20 participants

- Networks coordinated by a NTBF
  - 40% of networks have 1-5 participants,
  - 45% have 6-10 participants,
  - 9% have 11-15 participants,
  - 3% have 16-20 participants,
  - 2% have >20 participants
Differences in heterogeneity of the network, when coordinated by a NTBF:

**Entire sample**

- 0% of Networks
- 5% of Networks
- 10% of Networks
- 15% of Networks
- 20% of Networks
- 25% of Networks
- 30% of Networks
- 35% of Networks
- 40% of Networks

**Networks coordinated by a NTBF**

- 7.6% of Networks
- 0% of Networks
- 0% of Networks
- 0% of Networks
- 0% of Networks
- 6.7% of Networks
- 28.6% of Networks
- 30.3% of Networks
- 7.6% of Networks
- 0.8% of Networks