



# financing entrepreneurial ventures in Europe

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## BASIC CHARACTERISTICS

The VICO dataset contains information on new high-tech companies operating in seven European countries (Belgium, Finland, France, Germany, Italy, Spain, and the United Kingdom). The data infrastructure has been built during the VICO project, funded by the 7th Framework Programme of the European Commission within the theme "The role of finance in growth, employment and competitiveness in Europe" (SSH - 2007 - 1.2.3).

The aim of the VICO project was to conduct an extensive study about the impact of Venture Capital (VC) financing on the economic performance of new high tech companies in Europe.

Its uniqueness lies in the overall number of companies (8370), the country coverage, and the extent of information gathered. It also gathers information on VC investors (1125). It covers firms for 10 years after their foundation (the latest year of foundation taken into account being 2006).

Data can be broadly classified as firm-level data, investor-level data and investment-level data. Detailed information was collected for each firm, investor, and investment, including firm's accounting and patenting data, investor type and experience, and deal-specific information for each investment round (e.g. round date, amount and equity invested).

## INFORMATION ON SUBSTANTIVE CONTENT OF VICO

### Data sources:

The dataset includes two strata of companies: the first is a sample of VC backed companies and the second a control group of non-VC backed (but potentially investable) companies.

For VC-backed companies, investment and investor level data was first obtained from VentureXpert. Additional information was collected using country specific sources (e.g. VCPro-Database, BVK Directory, or Private Equity Monitor and extensive web searches).

For control group companies, a list of companies the main source was Amadeus (and its local equivalents).

As to patent data, the main source of information was PATSTAT.

### Data processing:

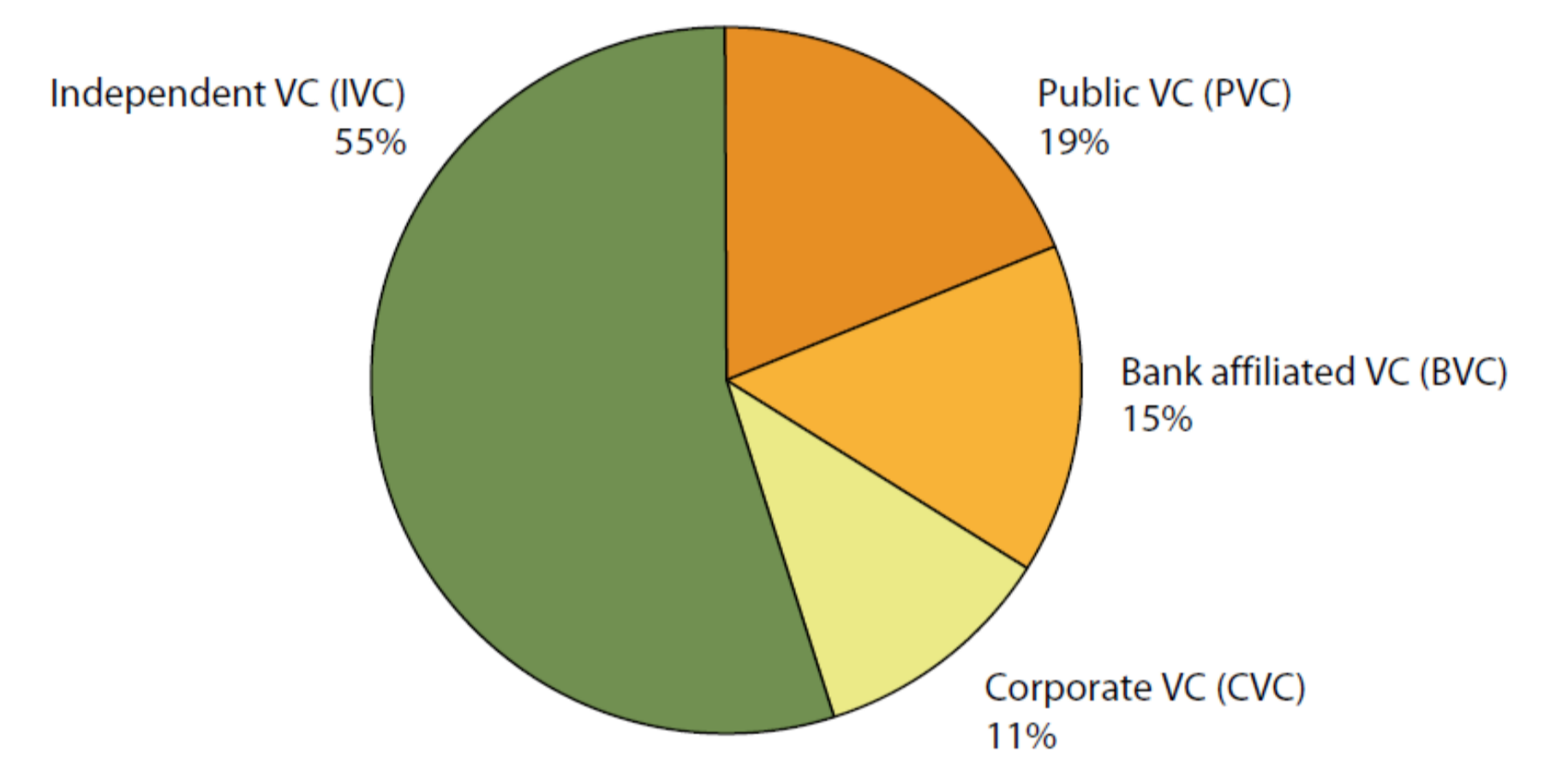
Data were collected by local teams for each country. Once VC-backed companies were identified, a random sample of non VC-backed companies (control group) was drawn in each country. A relative ratio of VC-backed to control group companies was kept at 1:10.

Data were first checked for reliability and internal consistency by each local team. Then data were regularly sent to a central data collection unit which ensured that information across countries was consistent and comparable and its availability balanced. This two-tier structure allowed the early recognition and solution of problems.

As to PATSTAT data, most of the data collection effort was centralized to ensure harmonization in the patenting data and achieve economies of scale in the process.

Country	VC-backed	Non VC-backed	Total
Belgium	89	826	915
Finland	68	692	760
France	112	1,616	1,728
Germany	134	1,206	1,340
Italy	98	959	1,057
Spain	82	794	876
UK	176	1,518	1,694
<b>Total</b>	<b>759</b>	<b>7,611</b>	<b>8,370</b>

Distribution of VICO companies by country



Distribution of VC investments by type of VC investor

## Information on all variables/indicators:

### Firm-level data:

- ✓ General company information: Name, Address, Country, NUTS 2 region, Industry classification, Contacts, Status (active, acquired, bankrupt)
- ✓ Accounting data up to a 10-year time horizon: Income statement figures (Sales, EBITDA, EBIT, Net profit, Cash flows), Assets (Tangible assets, Intangible assets, Cash, Inventory, Debt, Equity), Headcount
- ✓ Data on innovative activity (patents): Patent id codes, Complete history of the application process, Citations, IPC codes

### Investor-level data:

- ✓ VC identity (name of the management company and, if applicable, of the VC fund)
- ✓ Year of foundation of the management company
- ✓ Type of management company (independent VC, corporate VC, bank-affiliated VC, governmental VC, university seed fund)
- ✓ Size (assets under management and headcount)
- ✓ Experience (e.g. number of deals by sector and geographic area, number of exits by type)
- ✓ Specialization

### Investment-level data:

- ✓ Date of the investment
- ✓ Amount invested
- ✓ Equity interest acquired
- ✓ Stage of development of the company (EVCA classification)
- ✓ If syndicated deal: who retains leadership
- ✓ Exit (if the investor/fund exited the investment, when and how)
- ✓ Contact person for the investment (Name, phone, email, mail address)

## LEGAL ISSUES ENCOUNTERED AND ACCESS CONDITIONS

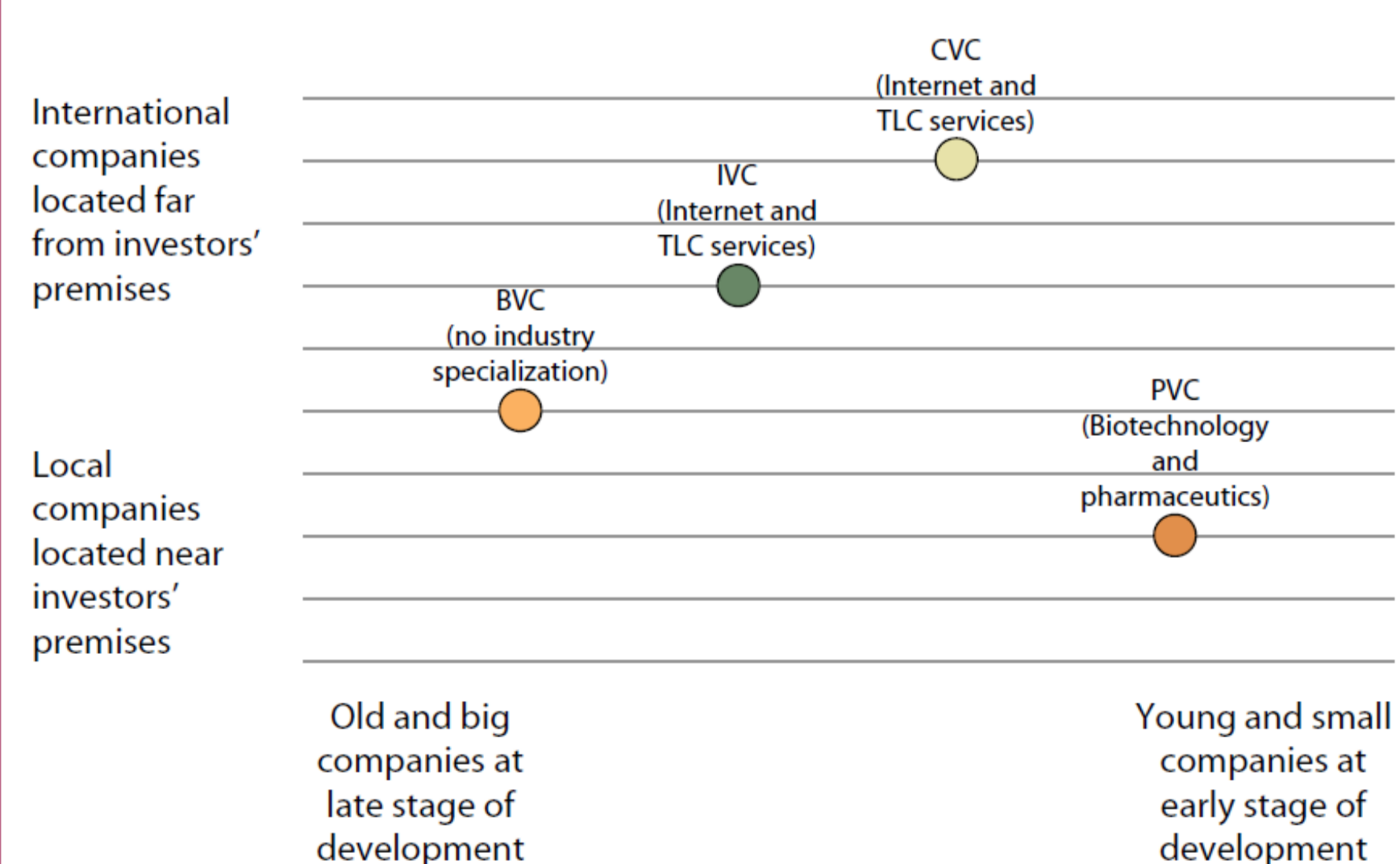
The owner of the database is the VICO Consortium. The access to the VICO infrastructure is available 'on site', to protect data confidentiality. After data harmonisation and integration we expect to complement on site access by distant transnational access based upon aggregated data at country, regional and industry levels (provided privacy rules about levels of aggregation are respected).

## INFORMATION ON THE DATABASE SYSTEM

- ❖ The current data base systems used are Microsoft Access and Stata.
- ❖ The data base is available in both the format and no changes are planned in the future.

## RESULT – INVESTMENT PATTERNS OF VC INVESTORS

Each type of VC investor exhibits significant peculiarities in terms of specialization pattern.



Relative specialization of the different types of VC investor by characteristics of the investee firms

## RESULT – EFFECT OF VC ON FIRM PERFORMANCE

The VICO database has been extensively used in academic contributions on the role of VC in supporting the performance of new high tech companies in Europe. A number of academic articles have been published on the following topics:

- ✓ VC, financial constraints and firm's investments
- ✓ Impact of VC on investee firm's productivity growth
- ✓ The value added by VC to investee firms
- ✓ Impact of VC on investee firm's innovation
- ✓ Public policy schemes attracting VC investors in innovative entrepreneurial ventures
- ✓ The role of domestic and cross-border VC investors in the growth of portfolio companies
- ✓ The role of different types of VC investors on investee firm's performance

## RESULT – AVENUES OF FUTURE RESEARCH

Future research on the performance of new high tech companies can benefit from the availability of data related to the RISIS project.

Some examples of possible avenues of future research are related to the benefits resulting from the integration/harmonization of the VICO infrastructure with EUMIDA/ETER, EUPRO and Leiden Ranking.

