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Emerging Trends in the Very Early Stage Segment of the Capital Markets: the Role of Venture Incubators, Business Accelerators, Equity Crowdfunding and Business Angels in Filling the Equity Gap

Prof. Vincenzo Capizzi, *Ph.D.*

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Agenda

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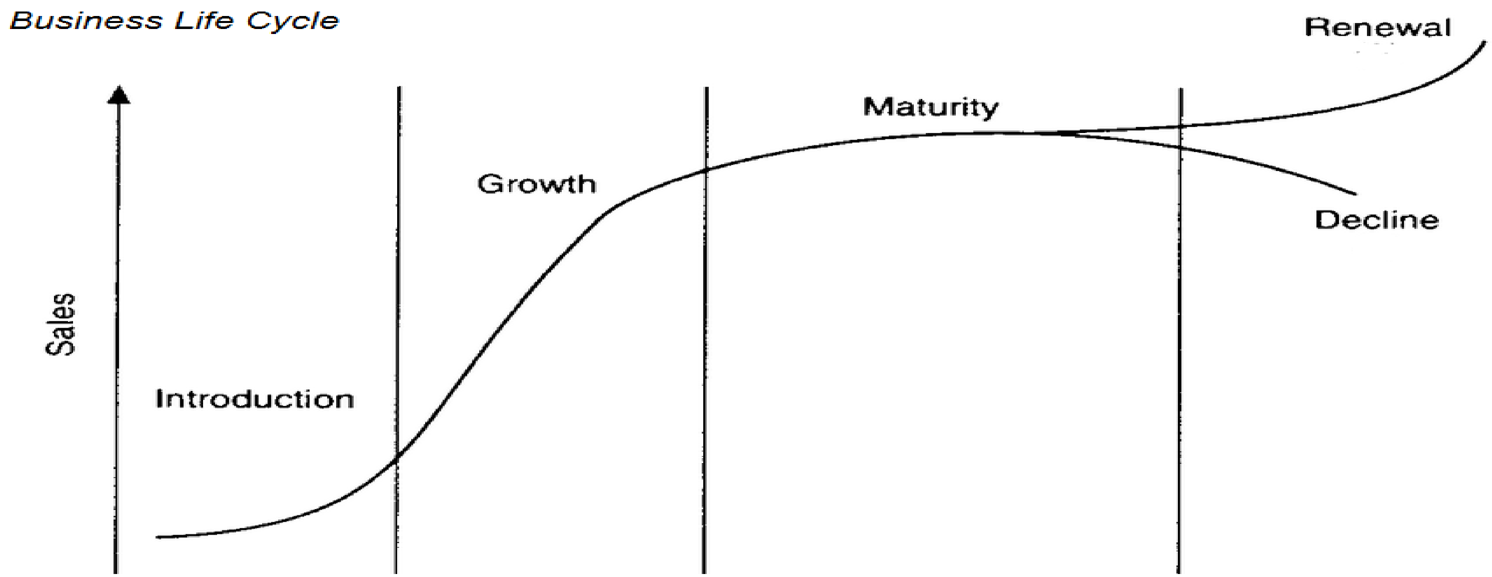
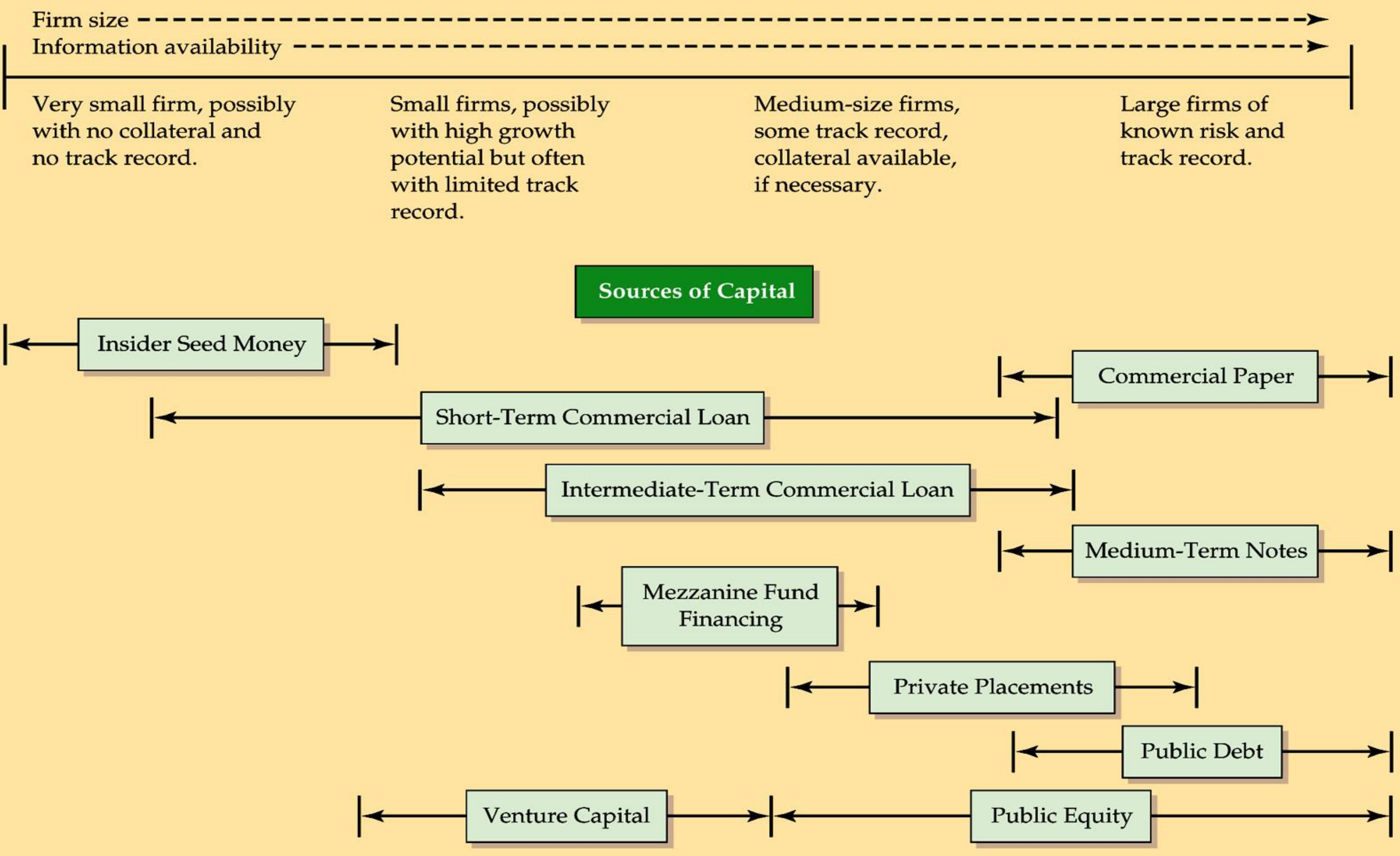
The Early Company Life Cycle (1/3)



- Making reference to the well known framework of the Company Life Cycle, in the introductory stage we find the potentially most profitable and riskiest investment opportunities: **startups.**
- Most relevant issues and source of risks:
  - ✓ Incomplete management team
  - ✓ Production/Distribution Process not yet tested/optimized
  - ✓ Patents for proprietary technology not yet received (just started the filing process)
  - ✓ Brand loyalty not yet built
  - ✓ Low volume of revenues, negative/limited profitability margins and cash flows
  - ✓ Low bargaining power and competitive positioning
  - ✓ Low information disclosure aptitude

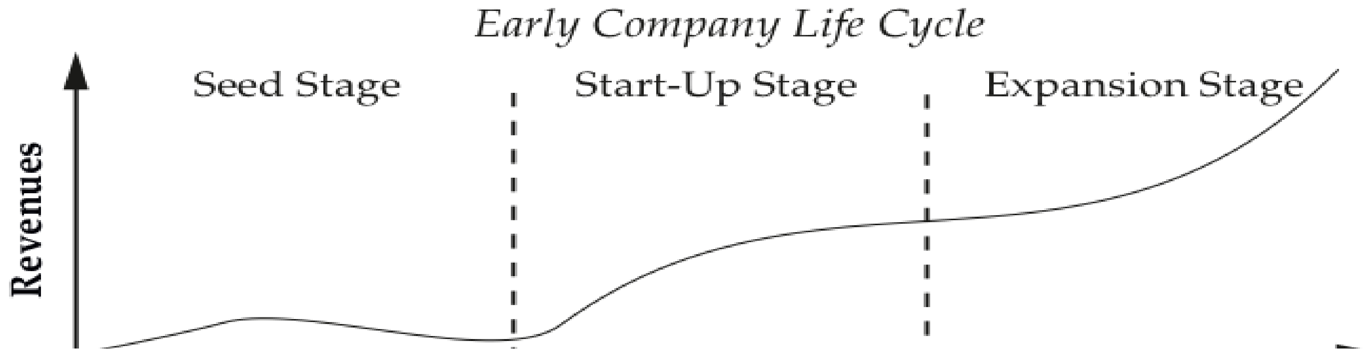
The Early Company Life Cycle (2/3)

The relationship among **life cycle**, **firm size, fundraising policies**, **financing contracts**: a matter of **information asymmetry** and **default risk**



The Early Company Life Cycle (3/3)

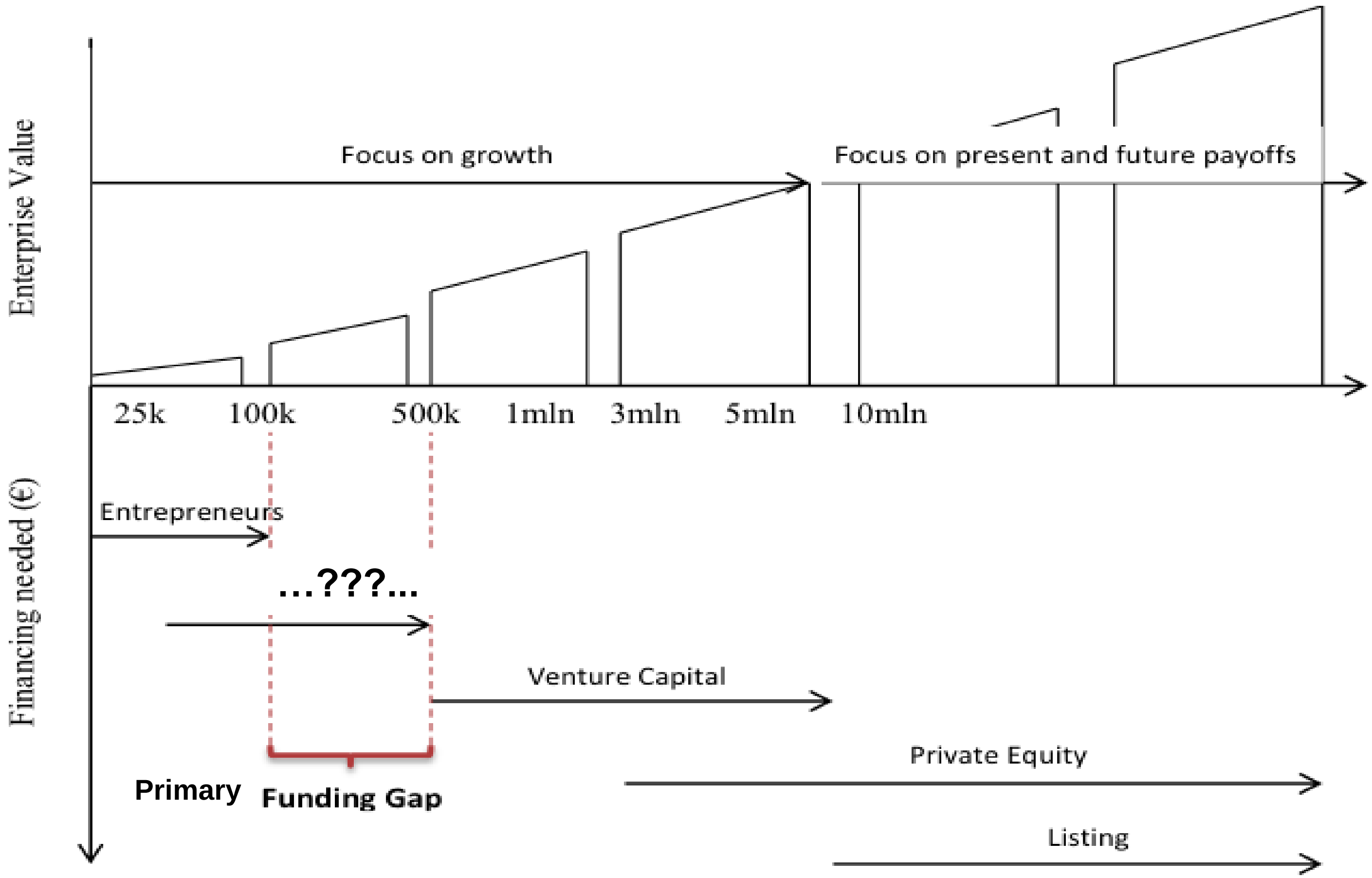
- However, by shedding light over the **introductory** (or **early**) stage of company life cycle, going beyond standard business and financial concepts, it is crucial to further segment it, identifying still different stages with specific features, business and revenue models, risk-return profiles



- The "Seed Stage" is a completely different story from the "Start-Up Stage": most of all, it is a matter of both **scalability** and **equity *gap*** *(see following section)*.
- **Scalability refers to the act of growing larger, while keeping intact (i) the ease with which business is done and (ii) the business's profitability.**
- All businesses are scalable to a given point, but some have to make significant changes to their models to grow any further (due to high vs. low upfront investments, capital vs. labor intensive technologies, tailor made vs. standardized products, etc.).
- Moreover, not all the entrepreneurs have the desire and capability to scale up to a large organization, preferring (i) comfortable living for them, family and friends, (ii) majority equity stakes, (iii) low risk strategies (so-called ***lifestyle companies***)

The Equity Gap Issue (1/2)

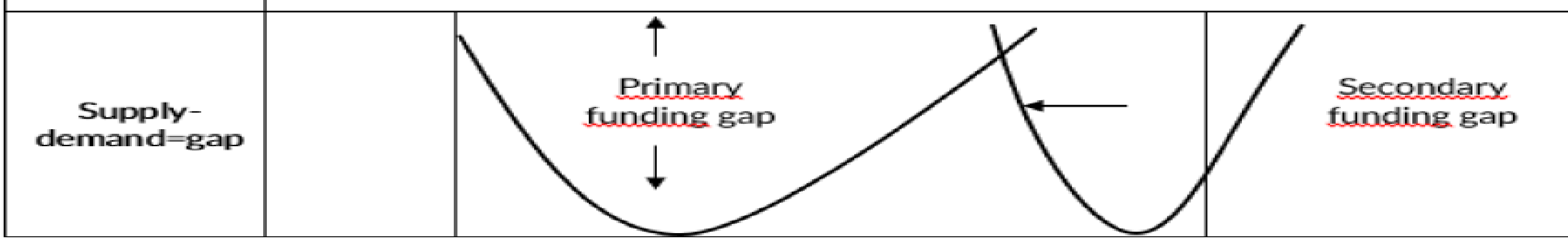
- **The "equity gap" (or "primary funding gap") refers to that size of startups' funding needs usually neglected by venture capital investors because of its intrinsic lower IRR and innovation potential.**
- Between entrepreneur's equity injection – eventually coupled with family & friends' capital – and venture capital average investment there are the typical financing needs of the large majority of crucial actors of a given economic and social system: **SMEs.**



The Equity Gap (2/2)

- The typical monetary investment need in the very early stage of a company life cycle is often limited not because of lack of "**ambition**", but because of the lack of "**marketability**" of the company output (yet to be tested/industrialized/promoted)
- The possibility to stimulate **innovation** and technology breakthroughs relies on the capability to offer concrete solution to the Primary Funding Gap, whereas successive round of financing required to let the innovative companies to further grow at the domestic and international level ("Secondary Funding Gap") best match venture capital investment targets.

Stage	Pre-seed	Seed/Start-up	Initial growth	Expansion
Supply	Founders Crowdfunding platforms Incubators/Accelerators	Business Angels		Venture Capitalists
Demand activities	Business planning	Prototyping, technological development, sales and marketing		Market strategy, focused geographical spread-out
Capital need (€)	10k 55k	100k 200k ...	500k 1m	1.5m 2m



Demand and Supply of Risk Capital

The equity gap issue can be faced by letting young SMEs get access to the most recent, opaque and unregulated segment of the capital markets: the "early stage financing industry"

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1 The early stage financing industry

2 The Main Actors in the Early Stage Financing Industry: Features and Investment Policies

- Crowdfunding Platforms
- Science/Technology Parks
- Business Incubators and Accelerators
- Business Angels, BANs, BAS, BAGs
- Venture Capitalists
- Main differences between Angel Investors and Venture Capitalists
- Not Investing Actors

3 The Main Actors in the Early Stage Financing Industry: Emerging Trends

4 The Role of Banks, Financial Institutions and Public Authorities in the Early Stage Financing Industry

5 Boosting Entrepreneurial Ventures and Filling the Equity Gap: Open Issues and Policy Suggestions

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The Main Actors in the Early Stage Financing Industry: Features and Investment Policies

The followings are the most relevant and actually operating actors in the early stage financing industry

- Crowdfunding Platforms
- Science/Technology Parks
- Business Incubators & Accelerators
- Business Angels, BANs, BAS, BAGs
- Venture Capitalists
- Not Investing Actors

Crowdfunding Platforms (1/2)

- Crowdfunding is an alternative source of capital allowing to support a wide range of ideas and ventures. An entity or individual raising funds through crowdfunding typically seeks **small individual contributions from a large number of people**. (retail vs. wholesale segment of the capital market)

- A crowdfunding campaign generally has a specific target amount for funds to be raised, or goal, and an identified use of those funds. Individuals interested in the crowdfunding campaign – members of the "crowd" – may share information with each other about the project, and use the information to decide whether or not to fund the campaign based on the collective "wisdom of the crowd" (ICT is crucial for crowdfunding).

- Using social media channel and Internet to raise capital in small amounts from a large group of people is a common use methodology. A crowdfunding platform has to be seen as a marketplace where the demand for capital driven by entrepreneurs matches the supply of financial resources led by investors and individuals.

- The **online platforms** (i.e. Indiegogo, Kickstarter, FundedByMe, RocketHub, the Italian SiamoSoci) are the place where investments and donations are generally made and also fundraising activities are coordinated and administrated. A short presentation video about the characteristics of the seeking capital startups and a short description/teaser usually accompany each projects.

Crowdfunding Platforms (2/2)

- The concept of crowdfunding is very broad and can be applied to different industries/areas of interest (ONG, Education, Arts, Real Estate, Entertainment etc…). This financing method is becoming really common for social entrepreneurs, activists, charities and so on.
- Depending on the typology of capital provided, we can find
  - ❑ **Donation-based** (and/or **Reward-based**) crowdfunding
  - ❑ **Equity-based** (or **Royalty-based**) crowdfunding
  - ❑ **Debt-based** crowdfunding
- The main rationale for **donation-based crowdfunding** is the small unit size of the investment (€5 - €35 range), preventing individuals from expecting back returns from their investment. Thanks to this, **crowdfunding projects could take take the form of not-for-profit activities or social improvement projects**. **Rewards** can eventually be represented by tickets for a particular events, regular updates, free gifts as far as other kind of intangible returns.
- In the case of **equity-based crowdfunding** people obtain stocks in exchange for the capital provided: as startup's minority shareholders, they have no control rights but profitability expectation (even if not in the short run) as far as the business grows. Eventually, investors can receive back a royalty, calculated as a share of profits.
- Finally, in the **debt-based crowdfunding** the investors receive their money back with interests; these processes are named peer-to-peer lending or lend-to-save allowing the bypass of traditional banks. Differently from standard bank loans, such a fundraising policy implies debt contracts with (i) no collaterals/guarantees and (ii) return profiles not fully consistent with borrowers' intrinsic default risk.

Science/Technology Parks (STPs)

- A **science park** (or technology park, university research park, biopark, technopolis) is an organization managed by specialized professionals, whose main aim is to increase the wealth of its community by promoting (i) the culture of **innovation** and **entrepreneurship**, and (ii) the competitiveness of its associated businesses and knowledge-based institutions.

  In fact, it is a physical place that support university-industry and government collaboration, offering favorable conditions to let entrepreneurs founding and setting their ventures.
- To meet these goals, a Science Park stimulates and manages the flow of knowledge and technology amongst universities, R&D institutions, companies and markets; it facilitates the creation and growth of innovation-based companies through incubation and spin-off processes; it provides other value-added services together with high quality space and facilities (power units, telecommunication hubs, management offices, security, reception, convention centers, entertainment, parking etc.), and equity as well (usually coming from Government/Supranational backed schemes promoting new business startups).
- There are currently about 700 STPs worldwide (around 220 in Europe, 200 in USA, 120 in Japan, 100 in China, 60 in UK, 6 in Italy) *[Source: UNESCO, 2015]*.

  The first park was founded in California in 1951 near Stanford University and foreshadowed the community known today as **Silicon Valley**.

Business Incubators and Accelerators (1/4)

- **Business Incubators** and **Accelerators** can play a vital role in startup overall success, providing the jumpstart that the companies need during the critical startup phase.

- **The main goal of these institutions is to strengthen local and national economies by creating jobs, enhancing the entrepreneurial climate, sustaining businesses, and accelerating growth in various industries.**
  By helping an entrepreneur to start a new company, incubators and accelerators give the community the ability to benefit from an increase in the number of available jobs and from the additional revenue that is brought to the city or town as a result of the new business activities.

- In order to help new companies develop and successfully launch – and similarly to what science parks do – incubators or accelerators may simply offer a **business facility** or an **office space** that can be used to help the startup secure and manage its first customers. Others use also **experienced mentors** and **volunteers** to create classes and seminars that focus on various relevant topics (business planning, setting up accounting procedures and records, tracking customer orders, marketing a new business to particular niche markets, go to market strategy, internationalization strategies, etc). Additionally, they enable entrepreneurs to **network with the surrounding business and financial community**.

- However, there are some relevant differences in the kind of support provided to entrepreneurial ventures.

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Business Incubators and Accelerators (2/4)

- Starting with an "official" definition", **Business Incubator** is an *organization designed to encourage the growth and success of startups through the provision of multi-disciplinary professional support*.
- Business incubators are typically run by nonprofit organizations, public entities frequently supported by governmental initiative aimed at spurring job creation and innovation such as government groups, economic development agencies, business alliances, or academic groups though a variety of services and training (i.e. Universities spin-off).
- These organizations essentially nurture the growth of startups allowing them to live for a couple of year (**incubation period**) with favorable operating and economic conditions, making them ideal for entrepreneurs who want to develop their company gradually.
- Some universities also offer **incubation centers** where entrepreneurs can tap into the research activities on campus or take existing research and turn it into a commercial business. Most incubators provide multiple resources for member companies, including business facilities, office services, marketing assistance, legal advice, mentorship, networking opportunities, as well as (not frequently) equity.
- In some incubators, a part from equity, there is the chance to receive a **grant** and some **financial support** to help the company in its early stage.

Business Incubators and Accelerators (3/4)

- ***Startup** or **Seed Accelerators** are fixed-term, cohort-based programs centered on highly scalable companies entering a national or global market. These programs offer to the "portfolio companies" multiple executive education and mentoring sessions, as well as hands-on training periods, and culminate in a public pitch event or "demo day".*
- Moreover, the portfolio companies set up with an accelerator have offices and common spaces to share with others growth oriented companies. In this sense, accelerators serve as a type of boot camp that focuses on rapid growth and a successful product launch.

Business accelerators are therefore more suitable for startups that want to reduce time to market, rather than grow gradually.

- Differently from Incubators, Accelerators:

1. are mainly held and sponsored by private organizations;
2. provide few months high-intensity programs (whereas the incubation period could last years) ending with a graduation and the demo day;
3. select companies through a highly competitive application process;
4. provide financial support to the portfolio companies (10k – 50k average range), in exchange for equity, raising funds mainly from venture capital funds;
5. focus on small teams, rather than on individual founders;
6. don't provide resources on a "on demand" basis, believing in the peer support, feedback and networking originated inside the classes;
7. focus on a wide range of industries (including ICT and web technologies, mobile apps, advertising, gaming, retail, healthcare and finance), while incubators usually specialize in biotech, medical products and clean-tech.

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Business Incubators and Accelerators (4/4)

- When compared to Venture Capitalists, Business Incubators and Accelerators are particularly well suited in order to fill the equity gap, due to both the **stage** of the startup and the **small unit size** of the equity capital provided.
- The amount of money that the incubator or accelerator typically grants or invests into participant companies, is usually helpful just to **build a prototype** or **first version** of the product or service.

  The conditions and the amount of initial funding will also depend on many other factors, including the idea, the market, and the number of founders.
- Regardless of the amount of seed capital offered, it is important to know what the money entails. Many accelerators or incubators will provide funding in exchange for an equity stake in the company, most often in the range of **6% to 10%**, and some may also require a convertible note.
- Greater equity holdings could create troubles in the following rounds of financing, decreasing the amount of the shares to offer to new investors. Furthermore, a number of empirical studies show that the relationship among different actors of the early stage financing industry is ambiguous, particularly due to financial contracting issues: therefore, **small shareholdings subscribed by incubators and accelerators could make it easier for mutual funds to invest in the expansion stage of the company lifecycle**.

Business Angels, BANs, BAS, BAGs (1/2)

- **Business Angels** are private investors, also called **informal investors** (or **informal venture capitalists**), who invest on an individual basis in unlisted small and medium sized enterprises (SMEs).

- Differently from the other actors of the early stage financing industry, <u>they don't focus just on seed and startup investments</u>: their intervention can allow young as well as mature small companies to grow and innovate/optimize/refocus their business models

- They are often businessmen and women who have sold their business, and provide not only **finance** but also their **experience**, their **business skills**, their **relationship network** to the entrepreneurs with whom they are in contact.

  What makes it specific the intervention of many business angels is their willingness to concretely support the entrepreneur also in his operating and managing activity: in fact, many angels think at themselves as "**co-entrepreneurs**".

- Just to anticipate one major finding described in the following section (*emerging trends in the early stage financing industry*), surprisingly, despite the low attention paid by both researchers and policymakers, on an overall basis, **the amount of capital intercepted and invested by business angels is very close to venture capitalists' ones.**

	USA		**EUROPE**	
	Angel Investors	Venture Capital	Angel Investors	Venture Capital
Invested capital	24.8$ bn	29.6$ bn	5.5$ bn	7.3$ bn
Number of investors	298.000	548	n.a.	108
Total deals	71.000	4.050	18.500	1.344

Source : US ACA (2014), EVCA (2014), EBAN (2014)

Business Angels, BANs, BAS, BAGs (2/2)

- **Business Angel Networks** (**BANs**), **Business Angel Syndicates** (**BAS**), **Business Angel Groups** (**BAGs**) are either formal or semi-informal association of angel investors aimed at facilitating the matching of investment demand and supply: they institutionally create links among angels, attract prospective investees to angels and match both parties for deals.

  Such networks come in a number of forms: some are structured as formal associations or federations of BANs on a national basis, while others are set up on a regional or local basis; some other networks resemble “investment clubs” (sometimes exclusive ones).

  Some angel networks are focused on a certain **industry** or **technology** or **market**.

- For singular and individual prospective, BANs provides relevant benefits and, among them, the most important is **co-investment**, that allows each member to share the entrepreneurial risk. We can assume that the perceived risk to bargain with an investee firm in a sector far from his/her own background is high and a co-investment offer a possible solution to go beyond the first barriers.

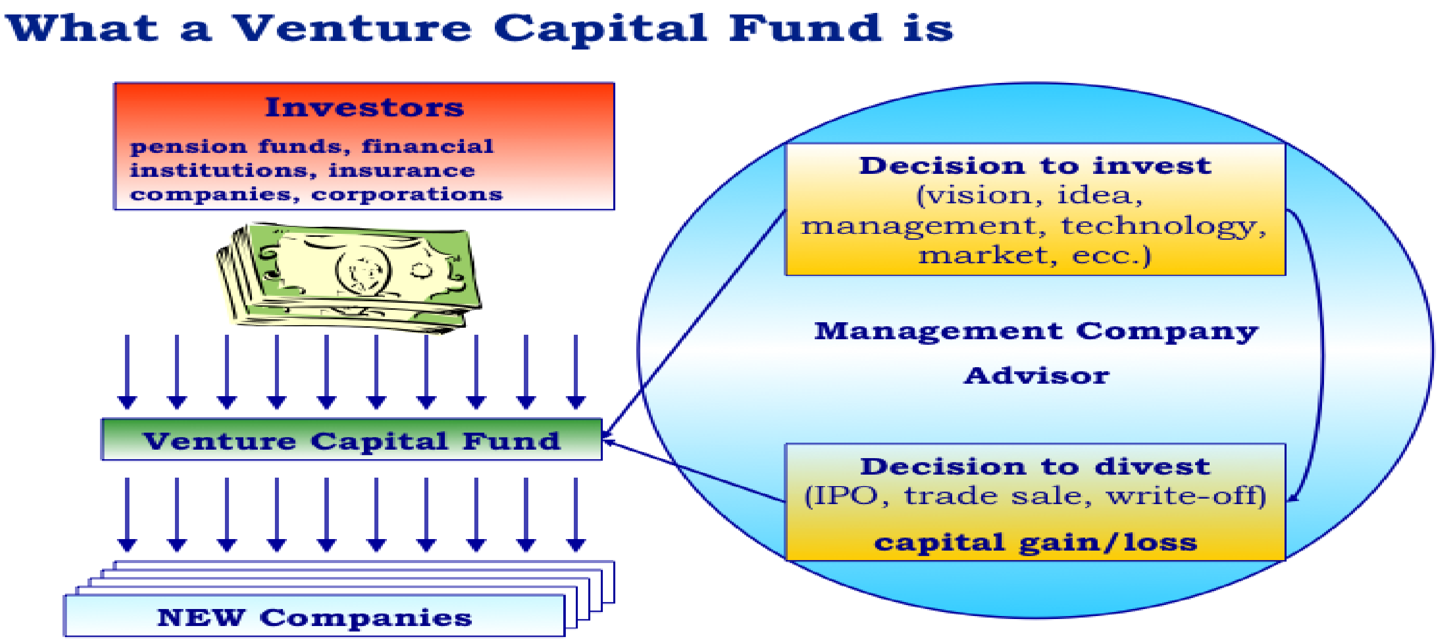
  Also, there is a **knowledge sharing** effect, in that individual investors who are member of an angel networks usually can support startups with advices or services far from their background and competencies.

  Another major advantage provided to single investors by BAN is the volume and quality of **deal flows** and this is essential in the informal market where angels find it difficult to learn about prospective deals ad originate investment opportunities.

- BANs’ major operating tool consists in **dedicated platforms** where both business angels and early stage firms can contact each other. This kind of platform can work through the net, magazines or organized events. Besides, the networks give startups direct access to a new source of finance alongside with bank financing and risk capital.

Venture Capitalists (1/3)

- Venture Capital is a major segment of the Equity Financing industry, whereas the other major segments are Private Equity and Capital Markets (IPOs).
- **Venture Capitalists (VCs) are institutional investors focused on startup companies as preferred asset class where to invest the capital raised**.
- The most widespread legal structure adopted all over the world is by far constituted by the **mutual investment funds** and, namely, by the **closed-end funds**, who are managed by dedicated management companies.



- Another common legal structure allowing to perform venture capital activity is the "**limited partnership**", where **general partners** manage the capital raised and the investment/divestment process and **limited partners** just provide capital as financial investors.

Venture Capitalists (2/3)

- Venture Capitalists focus most on **high tech entrepreneurial ventures** with high growth **market potential** at the domestic and international level. For this reason they usually operate at an individual basis in the startup stage and on a collective basis in the seed stage (through syndicate/club deals)

- The high profitability expectations (IRR), which compensates for the intrinsic high operating risk of the target investment, is pursued by **actively** supporting the company in its value creation path (*hands on approach*). This implies, among the others, sharing relationships with the business and financial community, supporting the board in the strategic decision making process, opening new markets, involving better quality company managers, stimulating growth strategies through M&A etc.

- Governments can support venture capital for specific country/industry development goals through “state-owned” venture capital funds or directly underwriting shares of the already existing venture capital funds (“private-owned” ones).

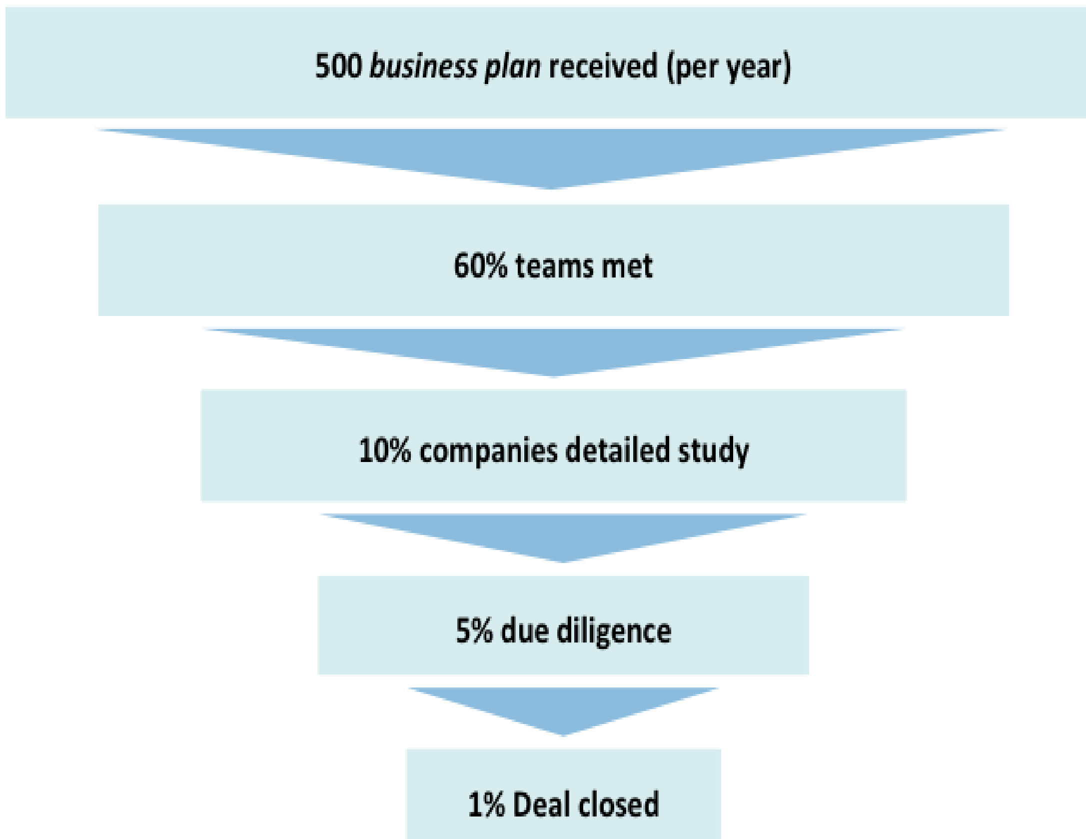
- **Corporate venture capital** is another typology of venture capital, performed by dedicated departments or financial companies of large multinational corporations desiring to invest in innovation but not inside their organization (due to risk and reputation issues). It is common in the pharmaceutical or high-tech industries and it is a way to provide strong incentives to potential entrepreneurs as well as monitoring mechanisms.

Venture Capitalists (3/3)

The selection process is highly competitive in venture capital: only a marginal quote of the business plan reaching VCs' headquarters becomes a closed investment

- The two main goals pursued by VCs and deeply impacting on their operations are **value creation** and **risk minimization**.
- In order to reduce the <u>adverse selection</u> and <u>moral hazard</u> problems coming from the high **asymmetric information** associated startups, VCs implement the following strategies:
  - ❑ portfolio diversification
  - ❑ deal syndication
  - ❑ covenants (veto rights)
  - ❑ staged financing
  - ❑ preferred stocks
  - ❑ board sits
  - ❑ exit right
  - ❑ mentoring

Dealflow and attrition rate analysis of a major VC Fund



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Main differences between Angel Investors and Venture Capitalists

Characteristics	Angel Investors	Venture Capitalists
Background	Former entrepreneurs	Finance, consulting, some from industry
Investment approach	Investing own money	Managing a fund and/or investing other people's money
Investment stage	Seed and early stage	Range of seed, early stage and later stage but increasingly later stage
Investment instruments	Common shares (often due regulatory restrictions though)	Preferred shares
Deal flow	Through social networks and/or angel groups/networks	Through social networks as well as proactive outreach
Due diligence	Conducted by angel investors based on their own experience	Conducted by staff in VC firm sometimes with the assistance of outside firms (law firms, etc.)
Geographic proximity of investments	Most investments are local (within a few hours' drive)	Invest nationally and increasingly internationally with local partners
Post investment role	Active, hands-on	Board seat, strategic
Return on investment and motivations for investment	Important but not the main reason for angel investing	Critical. The VC fund must provide decent returns to existing investors to enable them to raise a new fund (and therefore stay in business)

Not Investing Actors (1/2)

- ***Gatekeepers*** can be considered specialist and independent advisors who assist institutional investors and companies in their investment decisions. In the old and dyadic relation between founders and investors they can be identified as a third part, and act as **bridge for equity financing gap**, supporting entrepreneurs in matching a good fit investor and vice versa. As an intermediary player, gatekeepers can use their reputation in the equity financing market to mitigate the problems of investors' adverse selection and moral hazard in the future portfolio companies. They are legitimated as controllers of the information's flows and they can influence networks around themselves. They are equipped to give information about companies better than most investors do. Investors trust them and the market confidence suffers when independence and integrity are compromised.

- Similar to accelerator or incubator for the types of services provided, ***non-profit foundations*** could be considered as special advisors who help and spread entrepreneurial pills of knowledge. These kind of organizations are not interested to make money and net profits, but their objective is more social and ethical so far from the well known idea of increasing revenue. Their main goals are: (i) helping to increase country economic growth, (ii) reducing unemployment rates, (iii) supporting inexperienced and young entrepreneurs (iv) fostering business education of potential start-uppers and (v) spreading entrepreneurship culture inside economic and social systems.

Not Investing Actors (2/2)

- Together with non profit foundations often operate other institutions like **university research centers**, **chambers of commerce** or other **public-private organizations** sharing the same goals: boosting entrepreneurship and entrepreneurial ventures

  These organizations try to develop a support network for prospect entrepreneurs. The strength and the effectiveness of the network are extendable and observable in several terms (e.g. capital raised to date, paying customer acquired, local or national partnerships, etc.). Concretely, they help in establishing a robust equity financing market, both formal and informal.

  Hence, this type of foundations and organizations can connect entrepreneurs with relevant mentors and investors close to their network, and create the fertile ground for the creation of a modern culture of entrepreneurship based on their location. They use <u>educational initiatives</u> inspired by the winning entrepreneurial models and the best practices, and in the last twenty years the awareness about this topic has started to grow together with the number of startups founded all over the world.

- It should be noted that there are other not investing actors involved in the early stage financing industry, such as **lawyers**, **advisors, former entrepreneurs** ("**serial entrepreneurs**"), **experienced professionals** well as **policy makers** strongly desiring to support startups in their growth path.

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1 Startups and the early stage financing industry

2 The Main actors in the Early Stage Financing Industry: Features and Investment Policies

3 The Main Actors in the Early Stage Financing Industry: Emerging Trends

- Worldwide Crowdfunding Platforms
- Science/Technology Parks
- Business Incubators
- US Business Accelerators
- European Business Accelerators
- European Business Angels
- Italian Business Angels
- Venture Capitalists

4 The Role of Banks, Financial Institutions and Public Authorities in the Early Stage Financing Industry

5 Boosting Entrepreneurial Ventures and Filling the Equity Gap: Open Issues and Policy Suggestions

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Worldwide Crowdfunding Platforms (1/2)

Crowdfunding is not only growing at an unprecedented rate but it is also impacting government policy, informing enterprise innovation, and changing the role of financial institutions around the world.

CFPs (Crowdfunding platforms) raised **$16.2 billion in 2014**, a 167% increase over the $6.1 billion raised in 2013. North America still accounts for the largest market but in 2014 Asia overtook Europe, even if just by a small margin.

Massolution forecasts that worldwide crowdfunding volumes will more than double again in 2015, till to reach $34.4 billion.

Growth Rates By Region in 2014

- North America: crowdfunding volumes grew 145% to $9.46 billion
- Asia: crowdfunding volumes grew 320% to $3.4 billion
- Europe: crowdfunding volumes grew 141% to $3.26 billion
- South America, Oceania and Africa grew 167%, 59% and 101%, respectively

(Source: Massolution, 2015 Crowdfunding Industry Report)

Worldwide Crowdfunding Platforms (2/2)

Growth Rates By Models in 2014

The growth in funding volumes continued to be primarily driven by **debt-based** crowdfunding, but significant annual growth in **equity-based** crowdfunding and increased adoption of newer **hybrid** and **royalty-based** models show that the allocation of funding volumes across different models will be more highly distributed over the coming years.

- **Debt-based** crowdfunding grew by 223% to $11.08 billion
- **Equity-based** crowdfunding grew by 182% to $1.1 billion
- **Hybrid-based** crowdfunding grew by 290% to $487 million
- **Royalty-based** crowdfunding grew by 336% to $273 million
- **Donation and Reward-based** crowdfunding grew by 45% and 84% respectively

Most Financed Categories of Investments in 2014

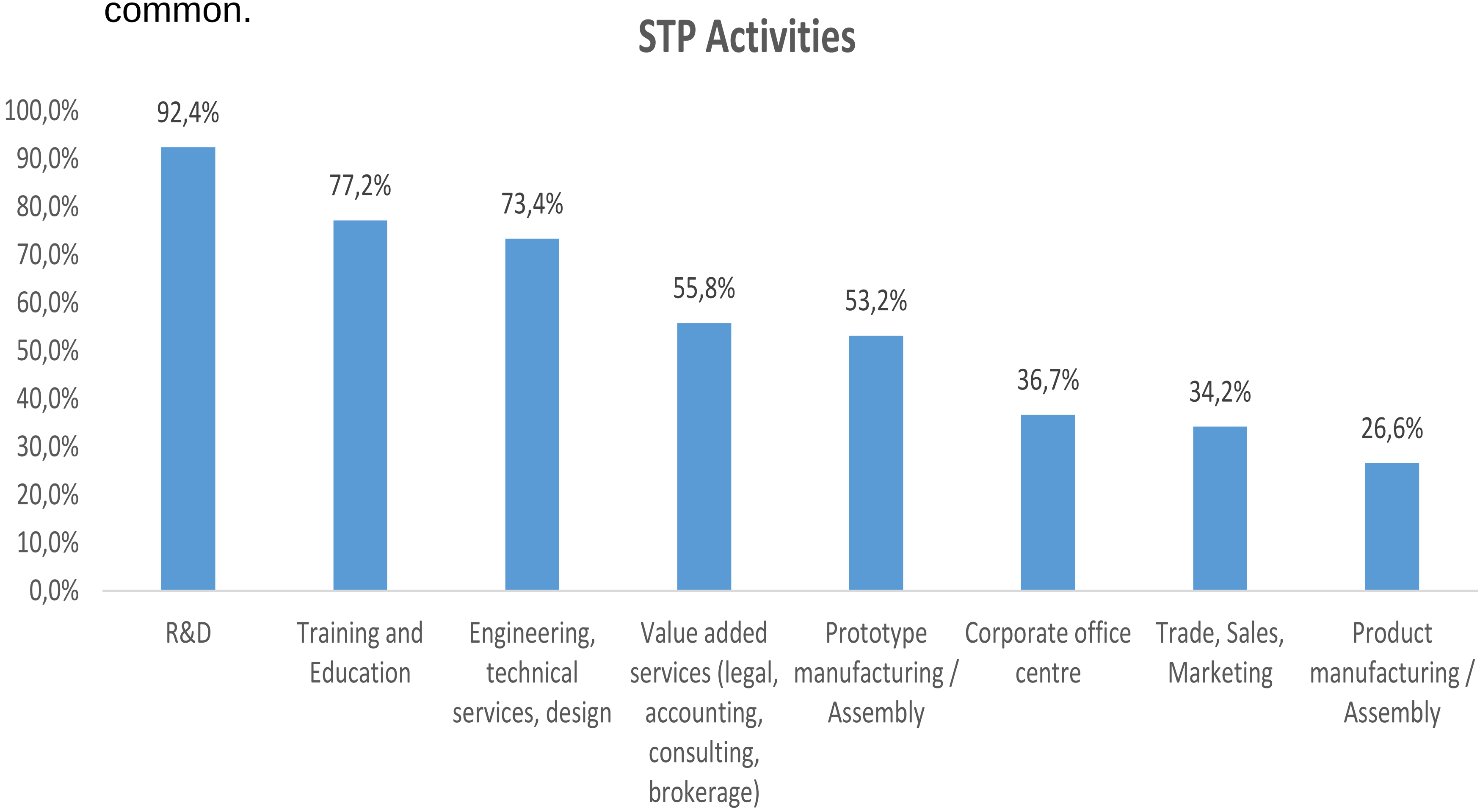
Crowdfunding's popularity as a way to fund creative, philanthropic, and social endeavors still prevails but crowdfunding's application for entrepreneurial ventures began to gain significance over time. In 2014, the leading categories of funded investments were:

- **Business & Entrepreneurship** at 41.3% / $6.7bn
- **Social Causes** 18.9% / $3.06bn
- **Films & Performing Arts** 12.13% / $1.97bn
- **Real Estate** 6.25% / $1.01bn
- **Music and Recording Arts** 4.54%/ $736m

(Source: Massolution, 2015 Crowdfunding Industry Report)

Science/Technology Parks (STPs) (1/3)

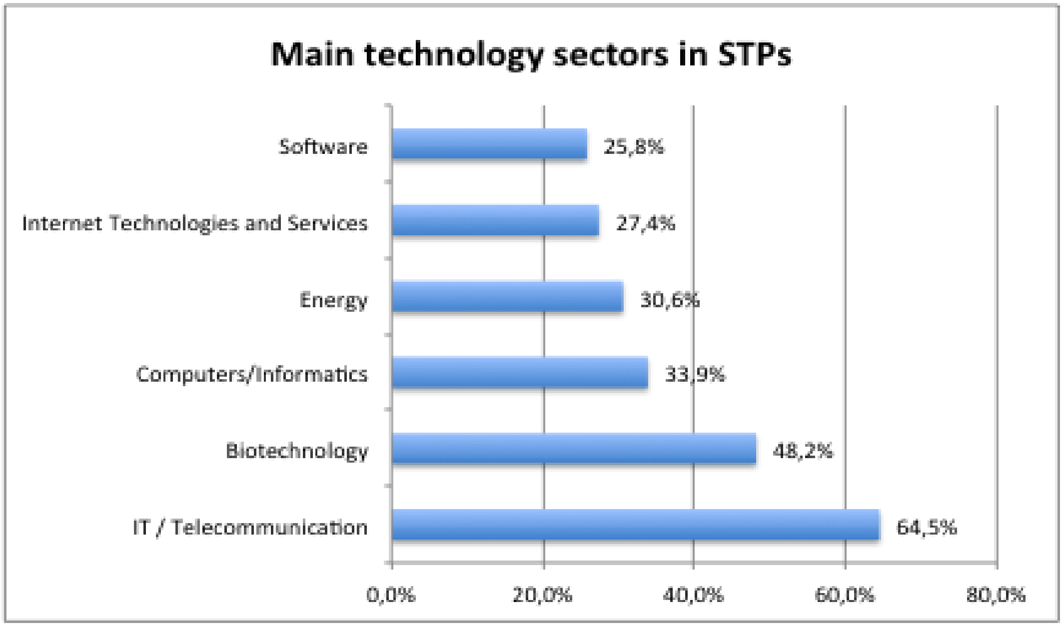
- Generally, the STPs support the companies in the activities of R&D, training and education, engineering, technical services and design, administrative and staff activities. Support in activities such as product manufacturing and marketing is less common.

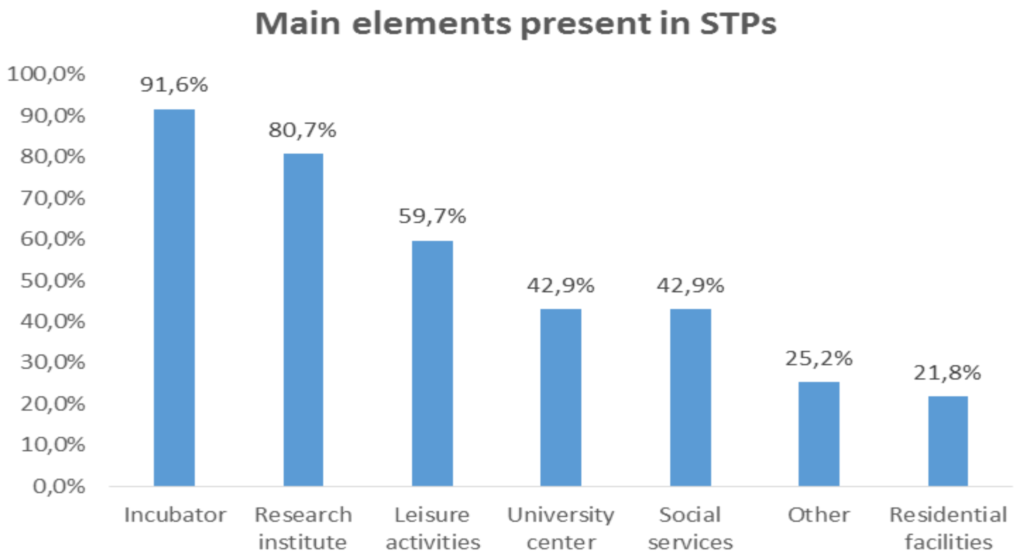


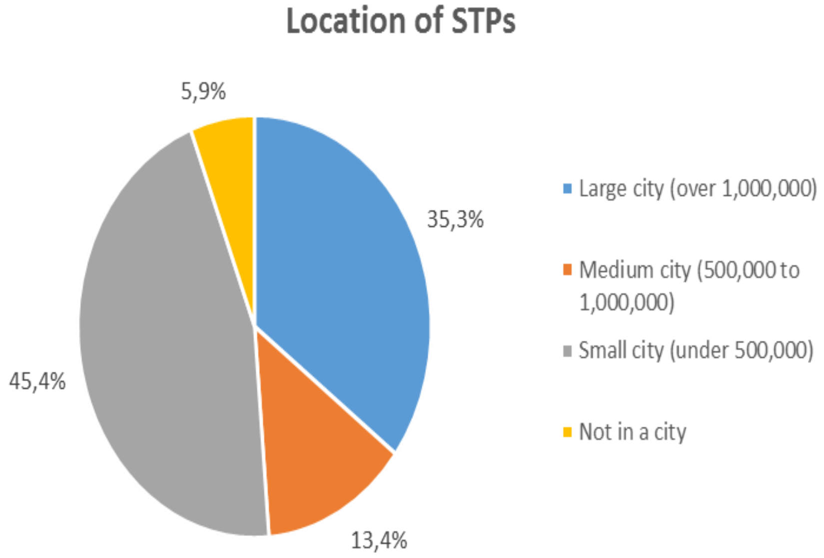
Source: IASP, International Association of Science Parks and Areas of Innovation (2014)

Science/Technology Parks (STPs) (2/3)

- **Business Incubators** (present in 91.6% of STPs) and **Research Centers** (present in 80.7% of STPs) are two of the most common building blocks in Parks around the world.
- The resident companies inside the STPs are most of all **Technology Startup** operating in ICT, biotech and informatics.
- Science and Technology Parks are an **urban phenomenon**, with only 5.9% not located in a city. This urban nature of STPs is proving to be a consistent growth driver over years.



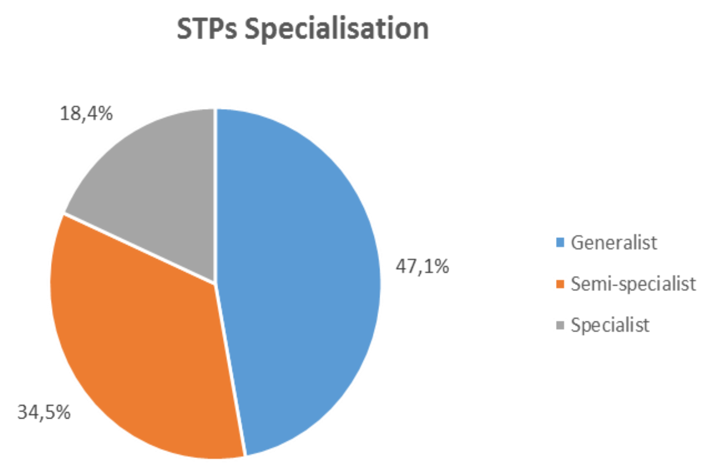


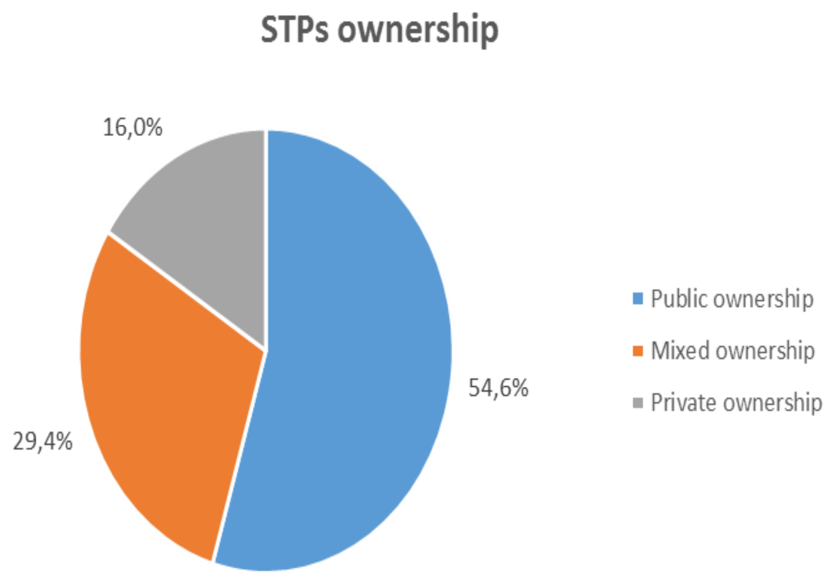


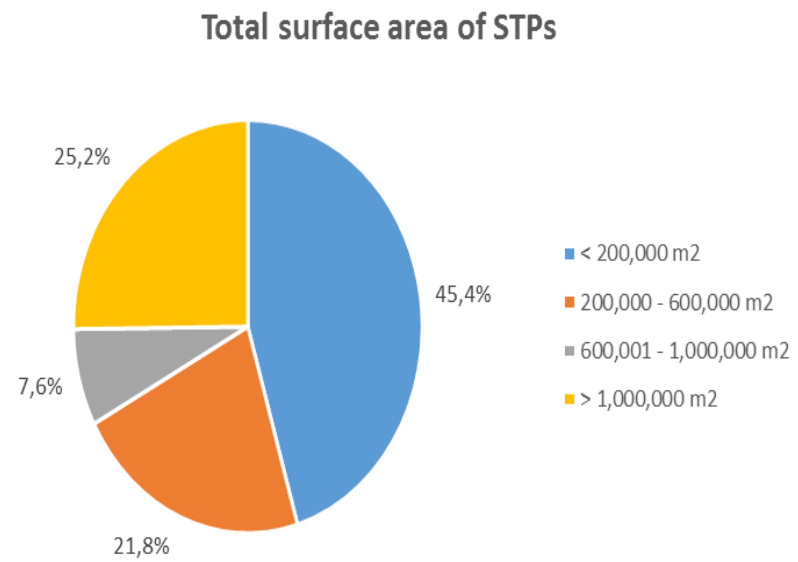
Source: IASP, International Association of Science Parks and Areas of Innovation (2014)

Science/Technology Parks (STPs) (3/3)

- **Specialists** are parks that concentrate on one or very few technology sectors. **Semi-specialists** are parks with a clear emphasis on one or very few technology sectors yet have companies and institutions from other sectors. **Generalists** do not have a clear preference in the types of technology that they work with.
- Regardless of the <u>ownership</u>, almost 50% of the STPs have a surface area wider than 200.000 m^2







Source: IASP, International Association of Science Parks and Areas of Innovation (2014)

Business Incubators: UBI Global Data (1/2)

Top Business Incubation Rankings 2014

Global Rankings University Business Incubators 2014 »

Regional Rankings University Business Incubators 2014 »

Global Rankings University Associated Business Incubators 2014 »

- + Europe Top 10 University Business Incubators 2014
- + North America Top 10 University Business Incubators 2014
- + South America Top 10 University Business Incubators 2014
- + Asia & Oceania Top 10 University Business Incubators 2014
- + Most Promising Africa University Business Incubators 2014

Business Incubators: UBI Global Data (2/2)

Europe Top Ten University Business Incubators - 2014

#	Incubator	University	Country
1	SETsquared	University of Bath, Bristol, Exeter, Southampton, Surrey	United Kingdom
2	Encubator	Chalmers University of Technology	Sweden
3	INiTS Universitäres Gründerservice Wien	Vienna University of Technology, Vienna University "Alma Mater Rudolphina"	Austria
4	DTU Symbion Innovation	Technical University of Denmark	Denmark
5	Incubatore di Imprese Innovative del Politecnico di Torino (I3P)	Politecnico di Torino	Italy
6	Uppsala Innovation Centre	Swedish University of Agricultural Sciences; Uppsala University	Sweden
7	NDRC	Dublin City University; Dún Laoghaire Institute of Art, Design and Technology; National College of Art and Design; Trinity College Dublin; University College Dublin	Ireland
8	iMinds	University of Antwerp; University of Leuven; Ghent University; Vrije Universiteit Brussel	Belgium
9	YES!Delft	Delft University of Technology	Netherlands
10	GU Holding	University of Gothenburg	Sweden

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US Business Accelerators

For the full ranking and methodology, go to **www.seedrankings.com**

TOP 10 U.S. ACCELERATORS

1	AngelPad	LOCATIONS: San Francisco, NYC COHORTS / PER YEAR: 2 DIFFERENTIATORS: Valuations, Funding **angelpad.com**	ALUMNI SAY: "If you want to learn how to fundraise, and how the silicon valley works, this is a fantastic place to do it. Couple this with a great group of people and you've got a winning mix."
2	MuckerLab	LOCATION: Los Angeles COHORTS / PER YEAR: 1 DIFFERENTIATORS: Alumni, Funding **muckercapital.com**	ALUMNI SAY: "Delivers demonstrable value to their portfolio companies in the areas of product-market fit, traction, and fund raising."
3	techstars	LOCATIONS: Various COHORTS / PER YEAR: 12 DIFFERENTIATORS: Survival, Valuations **techstars.com**	ALUMNI SAY: "Techstars provided us with excellent opportunities to learn from knowledgeable folks. It also provided us with connections and credibility to fund-raise quickly and painlessly."
4	Polsky Center; Edward L. Kaplan, '71 NVC New Venture Challenge	LOCATION: Chicago COHORTS / PER YEAR: 1 DIFFERENTIATORS: Exit Size **research.chicagobooth.edu\nvc**	ALUMNI SAY: "Very strong mentorship, ecosystem and exposure to customers and potential investors."
5	The Alchemist Accelerator	LOCATION: Santa Clara COHORTS / PER YEAR: 1 DIFFERENTIATORS: Valuations, Survival **alchemistaccelerator.com**	ALUMNI SAY: "Massively improved ability to fundraise and sell to enterprises. Very helpful, great classmates, great connections to investors, customers and industry experts."
6	StartX	LOCATION: Palo Alto COHORTS / PER YEAR: 2 DIFFERENTIATORS: Funding, Alumni Satisfaction **startx.stanford.edu**	ALUMNI SAY: "StartX was awesome in every way: Great support, Great mentorship, Free office space, Cash stipend, Great community, Tons of connections to potential investors."
7	AMPLIFY	LOCATION: Los Angeles COHORTS / PER YEAR: 3 DIFFERENTIATORS: Valuations, Exit Size **amplify.la**	ALUMNI SAY: "The team behind Amplify LA has been instrumental in all aspects of the business, from helping us close the financing round to establishing a core team and helping us drive product development efficiently."
8	500	LOCATION: Mountain View COHORTS / PER YEAR: 2 DIFFERENTIATORS: Survival, Alumni Network **500.co**	ALUMNI SAY: "500 Startups is very beneficial to startups new to the US startup ecosystem. They have a large network and the 500 Startups model helps teams make the connections they need."
9	Capital Innovators — Accelerating growth	LOCATION: St. Louis COHORTS / PER YEAR: 2 DIFFERENTIATORS: Survival, Alumni Satisfaction **capitalinnovators.com**	ALUMNI SAY: "This far exceeded any of my expectations. The mentors, the training, and the expertise were amazing. My valuation tripled at the end of the program."
10	DreamIt Ventures	LOCATIONS: Various COHORTS / PER YEAR: 3 DIFFERENTIATORS: Valuations, Alumni Satisfaction **dreamit.com**	ALUMNI SAY: "Excellent community building, networking and skill development. Overall a phenomenal experience."

European Business Accelerators (1/2)

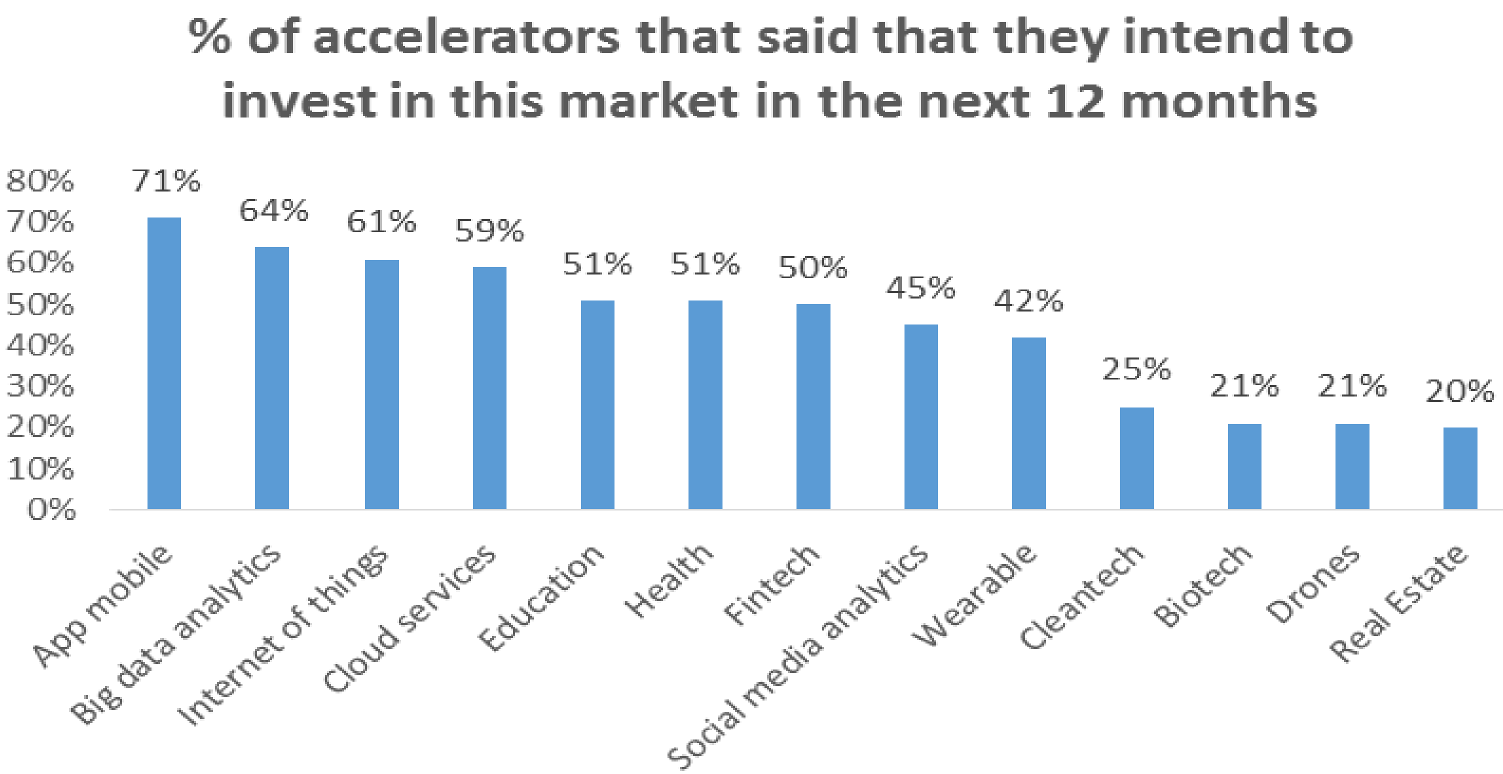
- There are around over **100 startup accelerators** in Europe and this number will keep growing in the near future. Accelerators, despite their business model being relatively young in Europe, seem to have established themselves as an attractive first investor for many early-stage startups.
- According to a recent survey, in 2014, **76 European Accelerators** invested **€ 39,578,636** in **1.588 startups**.

Country	Investment
United Kingdom	€13,245,636 in 599 startups
Spain	€6,216,000 in 101 startups
Germany	€2,905,000 in 59 startups
Bulgaria	€2,835,000 in 36 startups
Italy	€2,565,000 in 38 startups
Netherlands	€2,480,000 in 59 startups
Denmark	€1,907,000 in 48 startups
Ireland	€1,885,000 in 81 startups
France	€1,820,000 in 212 startups
Hungary	€1,400,000 in 15 startups

Source: Fundacity, European Accelerator Report (2014)

European Business Accelerators (2/2)

- **Seedcamp** was the first accelerator founded in Europe, in 2007, by a group of 30 entrepreneurs. Many others were created the following years, including **Tetuan Valley** (2009), **Startupbootcamp** (2010), **Le Camping** (2011), all with similar, yet different structures and business models.
- Today the hottest topics for investment **are mobile apps**, **big data analytics** and **Internet of things**, as shown below and already anticipated in the previous section..



Source: Fundacity, European Accelerator Report (2014)

European Business Angels (1/2)

- Angel investments in Europe increased to **5.5 billion Euros** in 2013, a growth of 8,7% from 2012, remaining the main financier of European startups.

- Within the visible market, the **United Kingdom** continues to be the leading country with 84,4 millions invested in 535 companies. **Spain** comes second with 57,6 million Euros of investment followed by **Russia** with 41,8 million Euros.

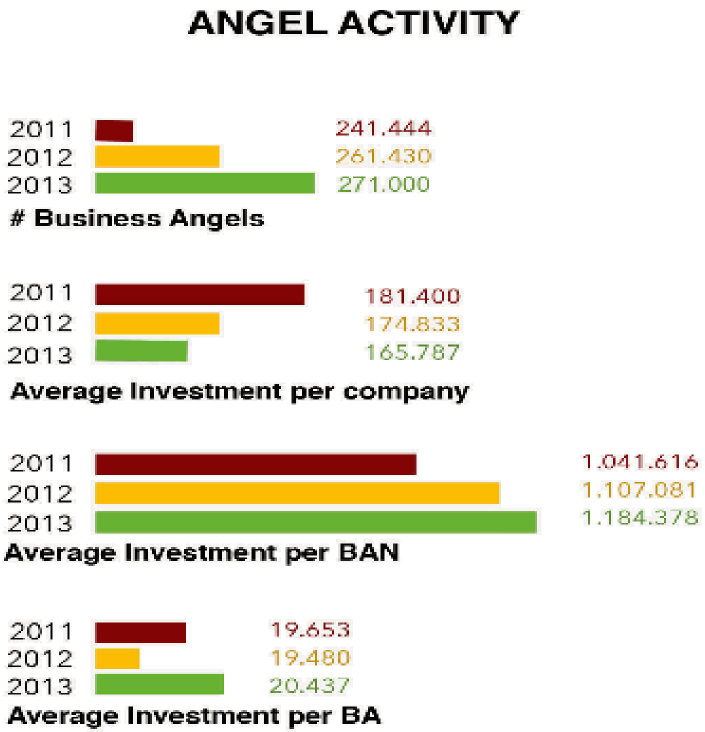
  Furthermore it's worth highlighting smaller players such as **Estonia**, country with a recently created first business angel network (BAN) which led to 4,7 million Euros of investment, making it the top performing country when comparing the investment per GDP ratio.

- The main sector of investment is **ICT** (32%), followed by **biotech & life sciences** (10%), **mobile** (10%) and **manufacturing** (10%). The majority of the targeted companies (87%) are in early stages, notably startup, seed and pre-seed stages.

- Despite the existence of many international investment networks, **cross-border investment remains marginal** with 96% of the deals taking place in the country of the investor ("proximity" business?).

Source: EBAN, Statistics Compendium 2014

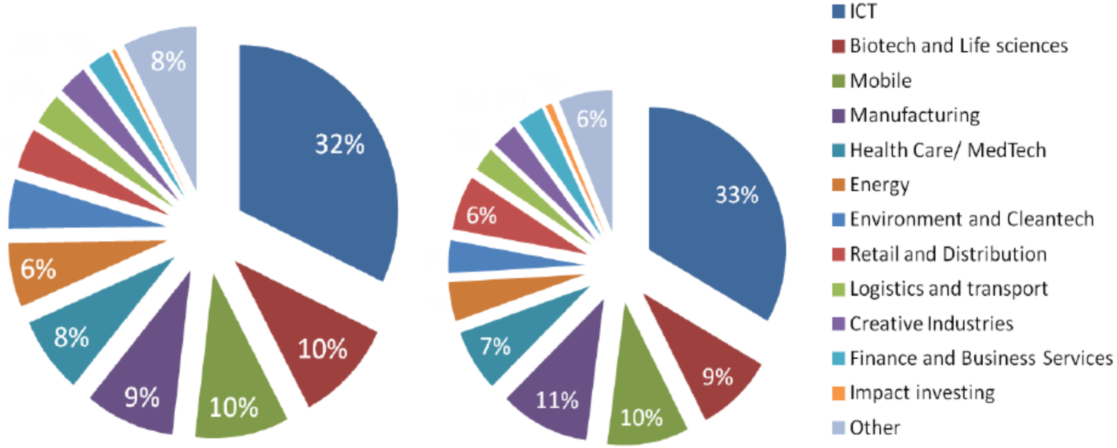
European Business Angels (2/2)



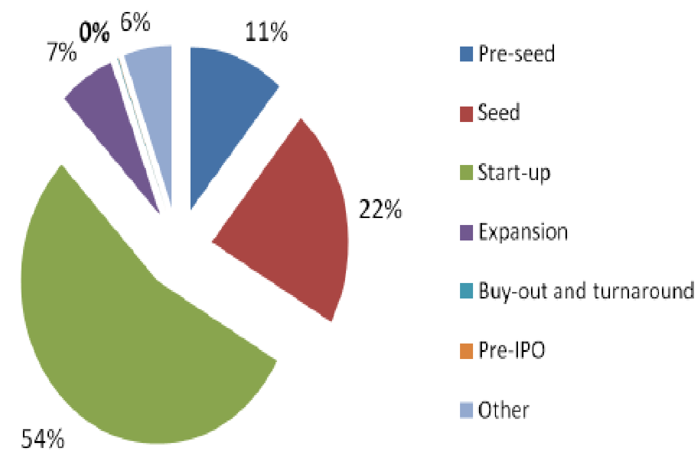
Break down of angel investment by visible and non-visible market; Investment values in million Euros.

	2011	2012	2013
Visible market	427	509	554
Reported by BANs or Federations	298	330	431
Investment by non-reported BANs	129	179	123
Share of visible market	*9%*	*10%*	*10%*
Non-visible market	4317	4590	4989
Total Investment	**4.744**	**5.099**	**5.543**
# Investments	26.158	29.130	33.430
# Jobs created	154.597	178.813	184.170
# Business Angels	241.444	261.430	271.000

Sectors distribution in 2013 by investment amount (left) and number of deals (right)



Investments by investee's development stage



Source: EBAN, Statistics Compendium 2014

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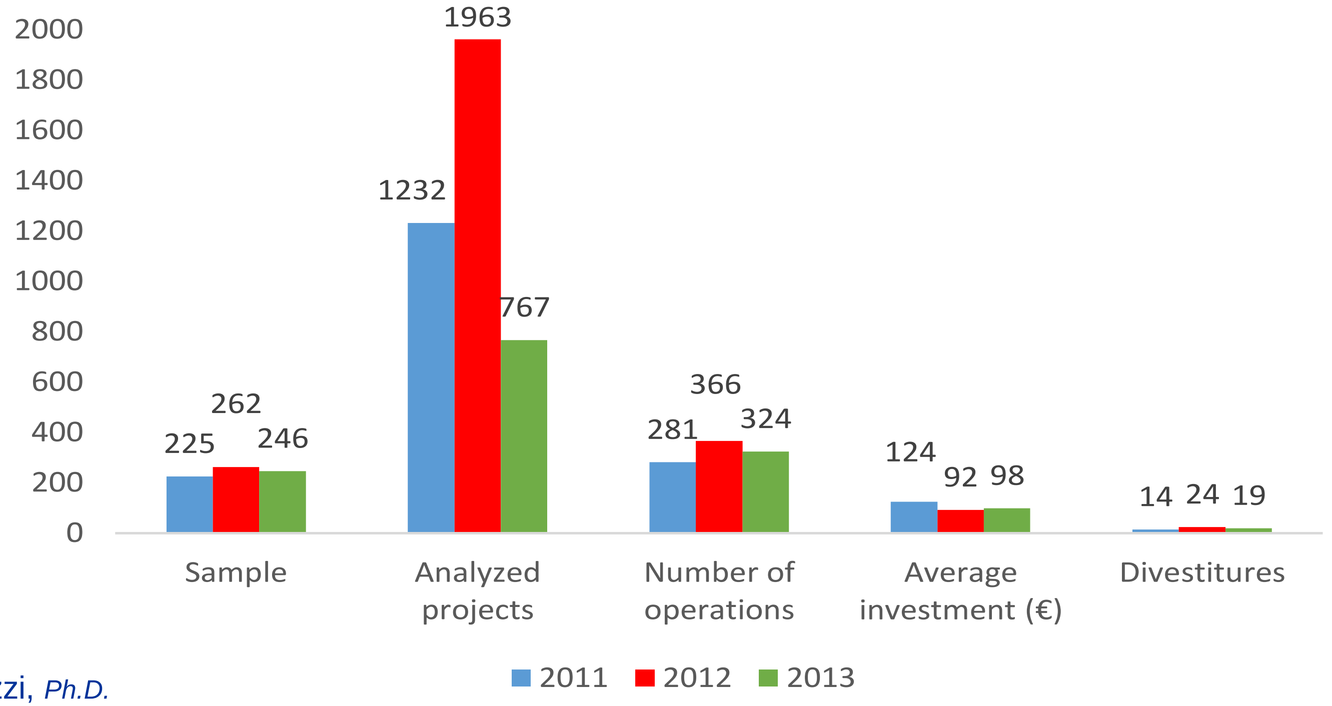
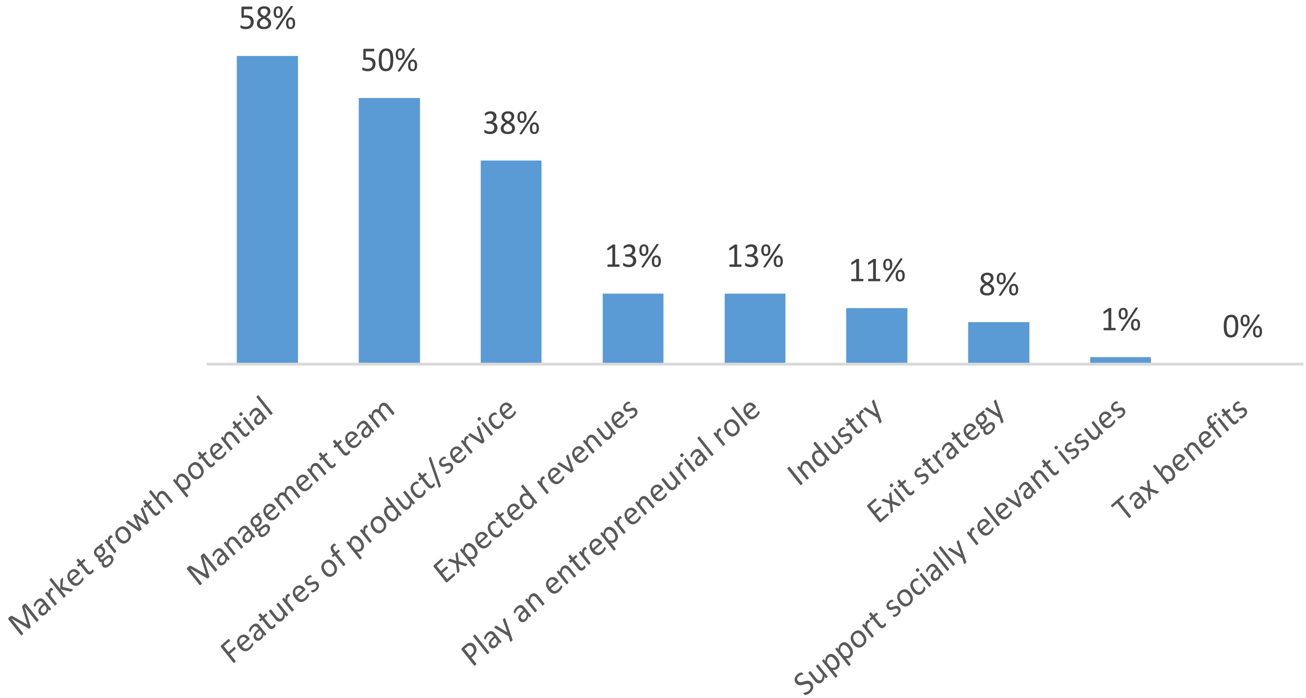
Italian Business Angels: a broad picture (1/2)

- Every year **IBAN** promotes a Survey-based investigation in order to analyze the **Italian informal venture capital market**, mapping both sides of the investments: the business angels (investors) and the start ups (financed firms).
- The Survey 2013 gathered data on investments, divestitures and personal features of Business Angels in 2013, and took place at the beginning of 2014. The new analysis, Survey 2015, is currently in process.
- The sample is **246 Business Angels**, and 324 investments.
- A relevant size of the sample is constituted by aggregate answers from different Business Angels associations (regional BAN and Club of Angels), showing the rise of **syndicated investments**.
- The following chart shows the sample data of the surveys of the last 3 years.



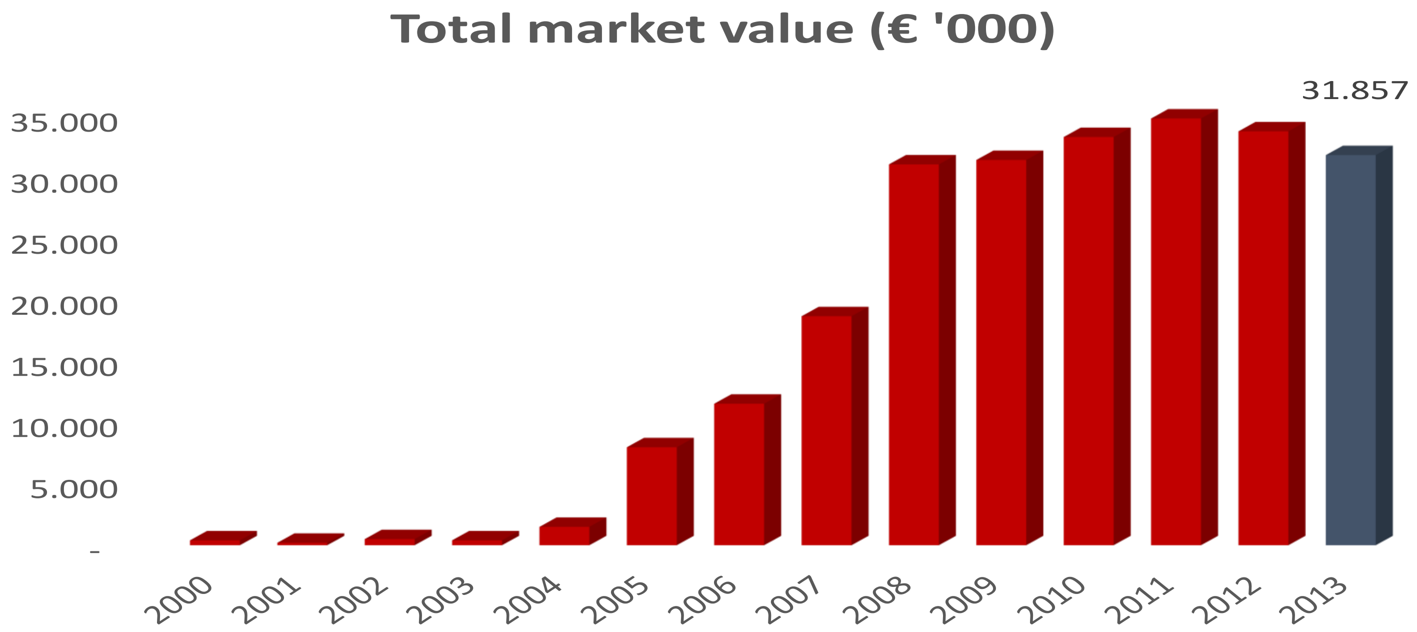
Italian Business Angels: a broad picture (2/2)

- The average Italian Business Angel is between 40 and 50 years old, is male, lives in Northern Italy and is an IBAN (or one of its regional BAN) associate, or is affiliated to an Angel Investors' Club.
- He is an entrepreneur and a former manager, educated (graduate), and his private wealth is below 2.000.000 euro, of which less than 10% is invested in angel financing.
- The most relevant investment decision drivers disclosed by Business Angels are **market growth potential**, **management team** and features of the **product/service**, respectively. He is a long-term oriented investor.
- The following graph shows the most relevant features analyzed by Business Angels when they approach an investment opportunity.



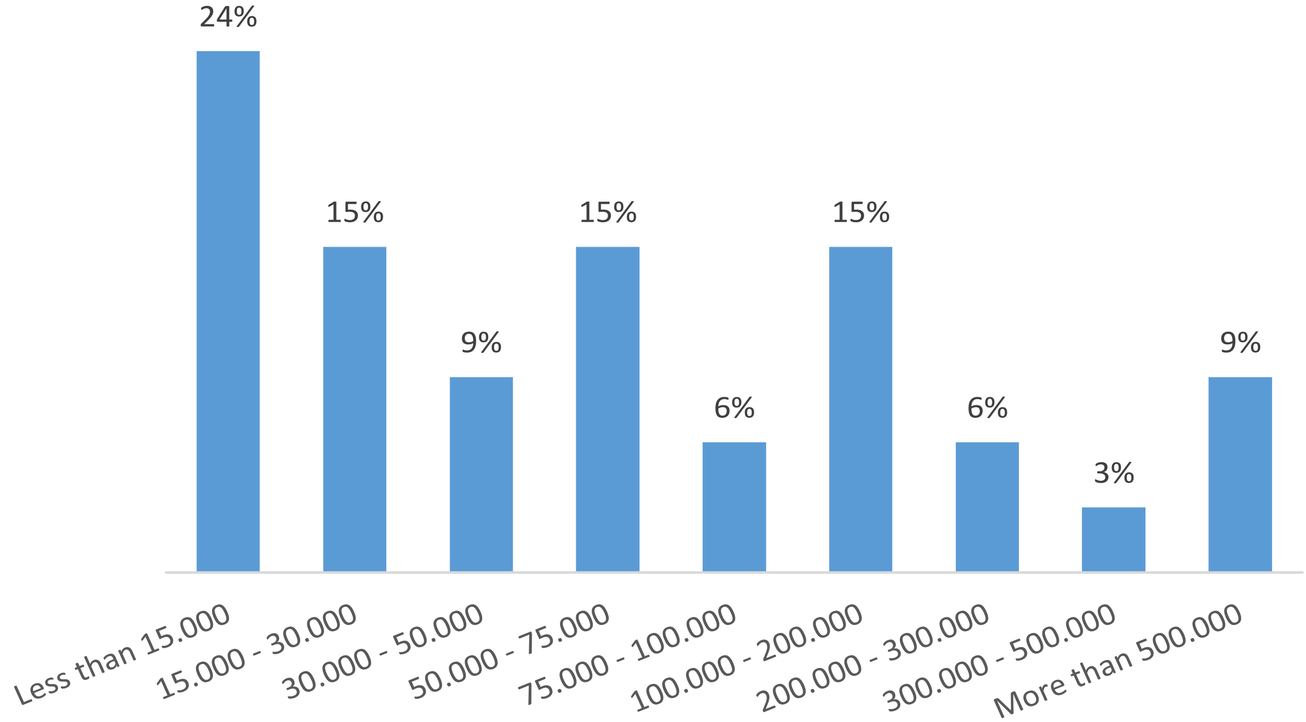
Italian Business Angels: Investments (1/3)

- The Italian informal venture capital market grows steadily, and in 2013 its total value was **€ 31.857.000**.
- This is not an estimation of the "universe" of Business Angels (cfr. Mason, 2008).
- After a constant growth between 2000 and 2008, the annual value of investments is now stable in the range 30 – 35 million euro.



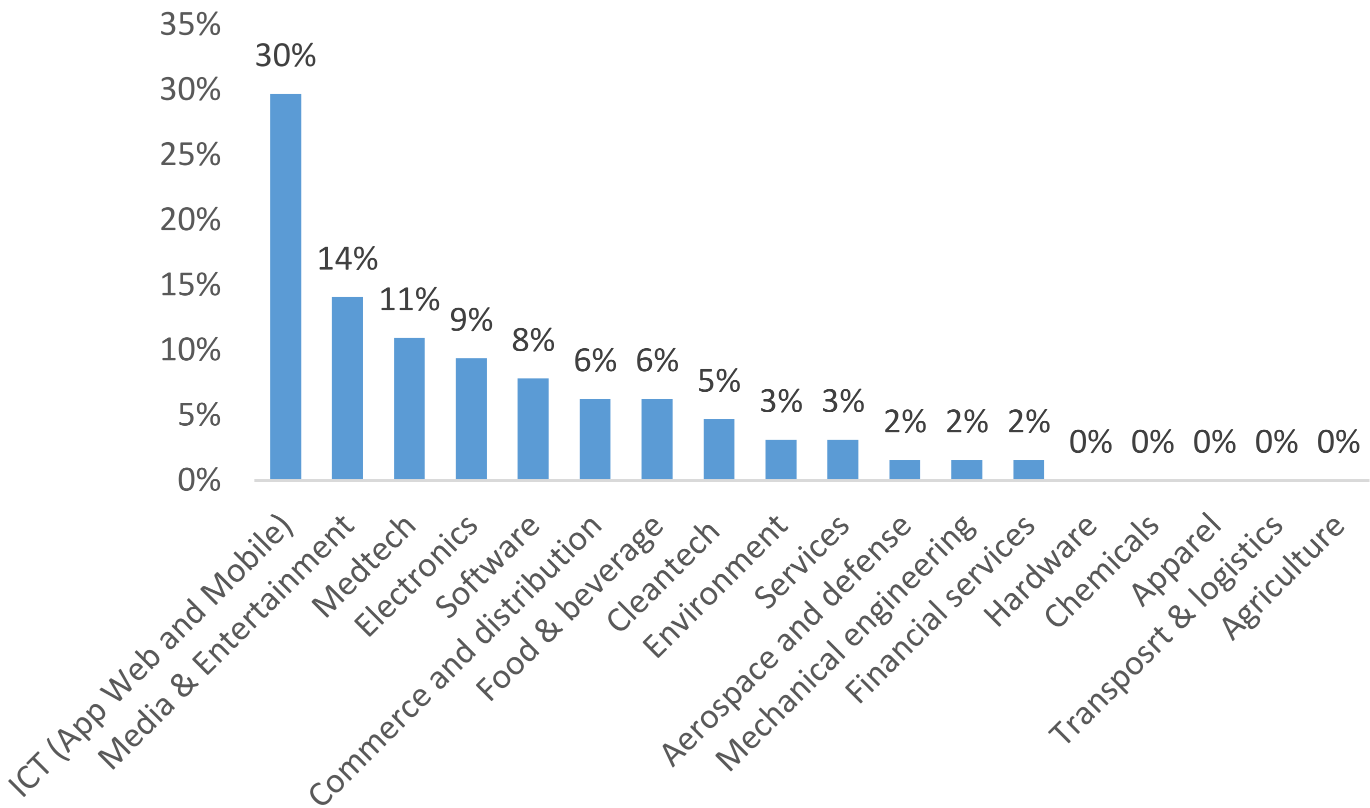
Italian Business Angels: Investments (2/3)

- In 2013, IBAN mapped 324 investments.
- 84% of investments were **equity investments**, 11% were **shareholder financing** and 5% were **collaterals**.
- The majority of investments financed firms established in Northern Italy.
- 35% of Business Angels investments targeted pre-revenue companies (**seeds** and **start-ups**).
- 68% of investments were smaller than 100.000 euro (**primary funding gap**).
- The following graph shows the amount invested by Business Angels in each project.



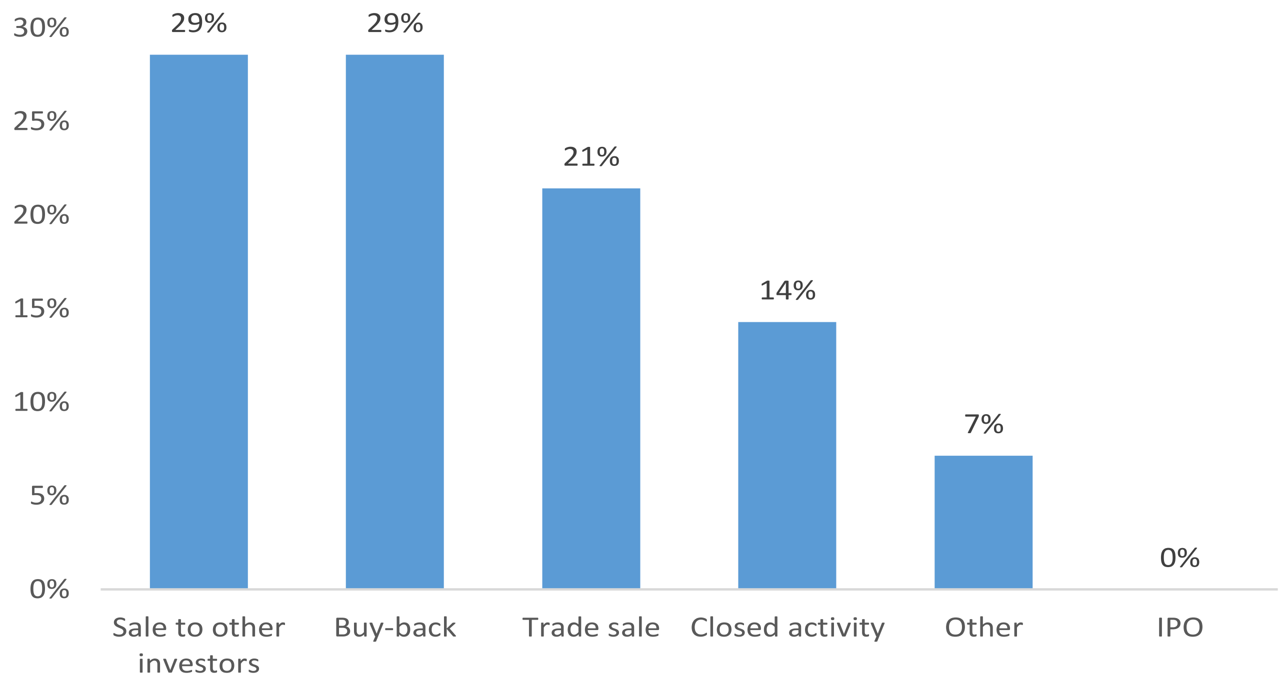
Italian Business Angels: Investments (3/3)

- 74% of Business Angels owned less than 15% of the share capital of the financed company.
- 46% of Business Angels made "solo" investments, and 31% co-invested with 8 or more Business Angels (consistently with previous years).
- The most financed industry in Italy was **ICT**, followed by **media & entertainment** and by **medtech**. The following graph shows the distribution of investments by industry financed (number of investments).



Italian Business Angels: Divestitures

- In 2013 IBAN mapped 19 divestitures.
- Only 10% of the sample reported at least one exit in 2013 (**sample bias?**).
- The industries with the highest number of divestitures were **ICT** and **cleantech**.
- Half of the reported divestitures resulted in a partial or total loss, while 14% had a return over 50%.
- The following graph shows the distribution of the exit strategies actually performed by Business Angels.

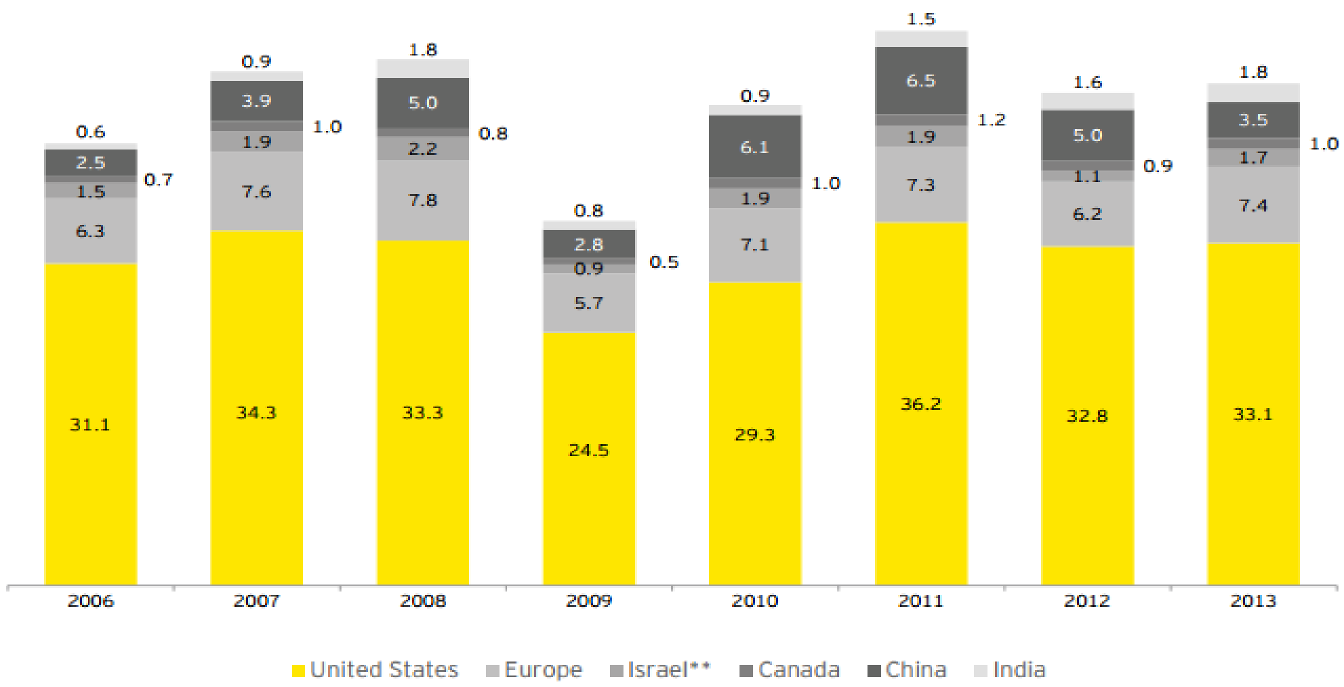


Venture Capitalists: Worldwide Data (1/2)

- 2013 was a solid year for the global VC industry. Reversing the decline seen in 2012, investment levels rose 2% to US$ **48.5 b**.
- Stronger signs of growth in the **US economy**, which account for 68% of global VC activity, came too late in the year to make a significant impact on the overall figures and the remarkable rebound in Europe was not enough to drive significant movement in the global data. **Europe accounts for only 15% of global VC activity**.

Global annual VC investment 2006-13

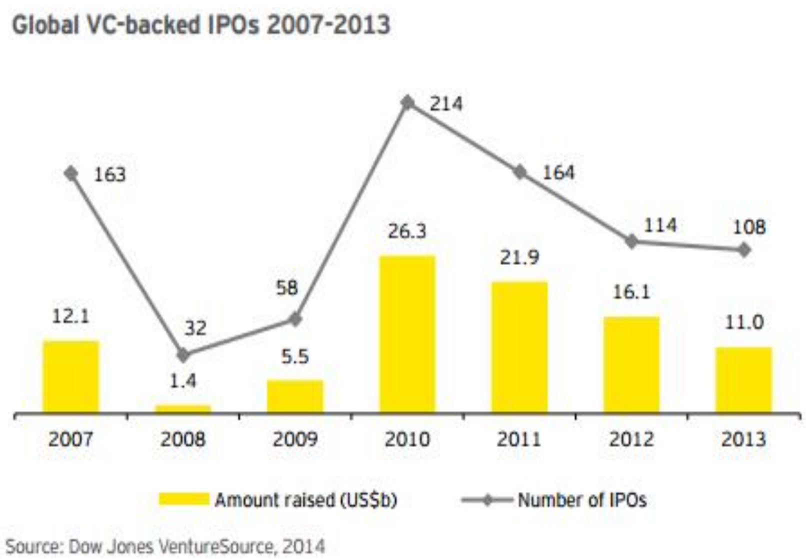
Totals: (Rounds)	4,991	5,805	5,435	4,748	5,349	5,820	5,741	5,753
Totals: (US$b)	42.7	49.7	50.8	35.2	46.4	54.7	47.6	48.5

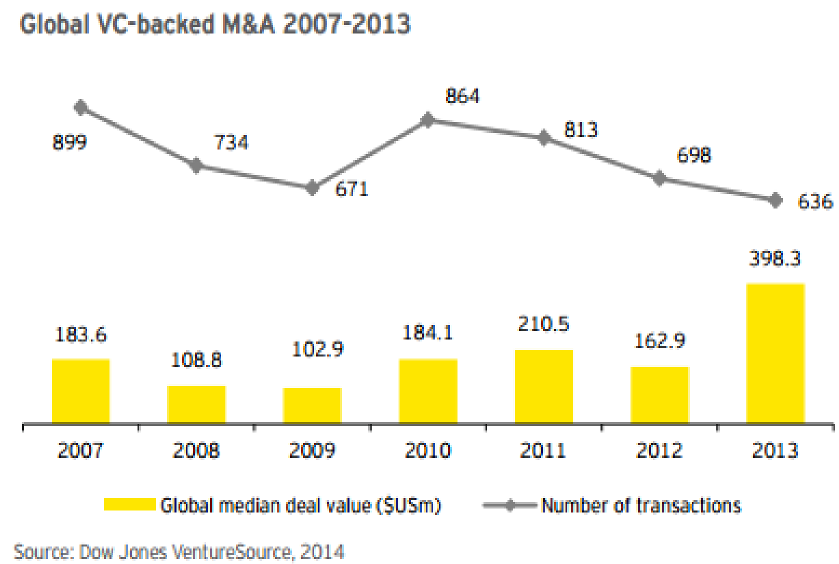


Source: Dow Jones VentureSource, 2014
**All-site Israeli companies

Venture Capitalists: Worldwide Data (2/2)

As far as 2013 VCS' exit are concerned, globally, both the number of, and amount raised from **VC-backed initial public offering** (IPO) exits decreased in 2013, with 14.6% of VC portfolio companies exiting via IPO, up from 8.9% in 2012. The number of **VC-backed mergers and acquisitions** (M&A) exits also fell on a global basis. However, median valuations for M&A rose across all markets, signaling the global wealth of the venture capital market.





Venture capitalists prefer industries with a fast time to market and value generation pattern. Favorite sectors for investment globally are by far consumer services and information technology. Consumer services has a direct and immediate connection with retail markets, offering rapid feedback, when compared to other sectors, on whether investments are likely to pay off and create value.

Venture Capitalists: US Data

Firm	City	# of Deals
Kleiner Perkins Caufield & Byers LLC	Menlo Park, California	110
New Enterprise Associates, Inc.	Menlo Park, California	105
Andreessen Horowitz LLC	Menlo Park, California	86
First Round Capital	Philadelphia, Pennsylvania	81
Google Ventures	Mountain View, California	66
Khosla Ventures LLC	Menlo Park, California	64
Atlas Venture	Cambridge, Massachusetts	62
Sequoia Capital	Menlo Park, California	61
True Ventures	Palo Alto, California	56
SV Angel II Q LP	San Francisco, California	55
Intel Capital Corporation	Santa Clara, California	54
Canaan Partners	Menlo Park, California	54
Bessemer Venture Partners, L.P.	Larchmont, New York	54
General Catalyst Partners LLC	Cambridge, Massachusetts	52
Accel Partners & Co., Inc.	Palo Alto, California	48
Ben Franklin Technology Partners Southeastern PA	Philadelphia, Pennsylvania	46
DreamIt Ventures	Bryn Mawr, Pennsylvania	45
Draper Fisher Jurvetson	Menlo Park, California	45
Foundation Capital	Menlo Park, California	45
Innovation Works, Inc.	Pittsburgh, Pennsylvania	44
Polaris Partners	Waltham, Massachusetts	43
500 Startups, L.P.	Mountain View, California	43
Lerer Ventures	New York, New York	42
Advanced Technology Ventures	Palo Alto, California	42
Redpoint Ventures	Menlo Park, California	42

Source: Pwc, NVCA, MoneyTree Report (February 2015)

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Venture Capitalists: European Data

- 2013 was a watershed year for the European VC industry. The number of investment rounds was up by more than 5% on the prior year and the value of investments rose by 19% to US$ 7.4 b. On the back of an improving economic picture, the **UK** was the dominant hotbed for the region, with investments up 21% to US$2.2b, accounting for around 30% of regional activity.
- Although European VCs conform to the global norm, with the majority of investments made at the revenue-generation or later stages, 2013 saw a definite shift in investment pattern. **VC funds increased their participation at the product development stage in terms of round size, number of rounds and amount invested.**

Key Europe VC statistics

	2010	2011	2012	2013
Invested capital (US$b)	7.1	7.3	6.2	7.4
Invested rounds	1,411	1,322	1,320	1,395
Median round size (US$m)	2.45	2.14	1.96	1.98
Number of VC-backed IPOs	18	15	16	15
Dollars raised (US$b)	0.6	1.0	0.5	0.6
Median time to exit (years)	3.8	9.2	6.2	6.3
Number of VC-backed M&As	217	216	162	157
Median M&A valuations (US$m)	23.0	40.5	26.7	63.8
Median time to M&A (years)	5.7	5.5	5.9	6.3

Source: Dow Jones VentureSource, 2014

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Agenda

The Role of Banks, Financial Institutions and Public Authorities in the Early Stage Financing Industry (1/2)

- Even if a few banks really made it one key driver of their business models finding a number of way to **promote** and **support** it, the early stage financing industry offer significant value generating opportunities for **banking activity**:
  - the surviving startups will be the future champions to finance through the most traditional (and profitable) lending services (**corporate banking**);
  - Job creation and welfare diffusion over a given country/region increase the demand for mortgage loans, cash management services etc. (**retail banking**);
  - As far as company value increases, it is possible to intercept and manage entrepreneurs' as well as angel investors' wealth (**private banking**)

- Together with the future profits potentially coming from startup, there are also social and environmental reasons pushing toward an increased sensitiveness to potential entrepreneurs and the main actors of the early stage financing industry, most of all the possibility to **give a contribution to job creation and country/regional/local welfare**. This could also impact on **banks' reputation** dramatically affected by the world recession still in force since 2008.

- Furthermore, inside banks there are competencies (credit analysis, financial forecasting and business planning, macroeconomic and industry analysis) which could be used to foster business education of potential entrepreneurs and young startups: **mentoring and advisory as marketing tools for banking business**.

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The Role of Banks, Financial Institutions and Public Authorities in the Early Stage Financing Industry (2/2)

- Even if early stage financing industry is a story of low leveraged companies, startups show a number of financial needs that could be satisfied by **financial institutions**.

  They demand:
  - external collaterals and guarantees;
  - short term credit lines to finance working capital investment needs;
  - trade finance services (due to low international reputation and standing);
  - Innovative and affordable financial facilities well suited for their daily operations (**structured leasing contract, district/incubator-based mezzanine bonds, …?**)
- **Public policymakers** and public-owned financial institutions should focus on **new and more effective funding programs for startups**, coupling capital injections with other non-financial resources and implementing the same staged financing mechanisms used by venture capitalists in order to allocate funds in the most efficient way. It is crucial to base upon **experienced professionals** in the selection and monitoring process
- **Regulators**, in order to support policymakers in designing and implementing innovative industrial policies aimed at stimulating the creation of entrepreneurial ventures, should **supervise and monitor also the early stage financing industry, included some of its opaque actors** (business angels).

  The possibility for policymakers to incentivize startups funding through focused and favorable fiscal policies requires a clearer identification and control of angel investors' behaviors as well as competences (a "license" for business angels?).

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Agenda

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Boosting Entrepreneurial Ventures and Filling the Equity Gap: Open Issues and Policy Suggestions

- Early stage financing is an opaque industry with sample biases and methodological issues in identifying and analyzing its main actors.
  Could it be possible, instead of multiplying the research centers, to integrate the existing ones making them exchange their datasets, methodologies and analysis at a regional, national and international level? (No need for more studies and researches but for better quality studies and researches)
- Banks have a number of business and non-business reasons for looking at the early financing industry.
  Could it be possible to leverage on banks' distribution networks, using their branch and subsidiaries as "virtual" crowdfunding platform and "virtual" incubators/accelerators, creating relationships between potential entrepreneurs and investors as well as sharing financial education and mentoring potentialities?
- Stimulating startups implies fostering the **culture for entrepreneurship**.
  Despite the overwhelmingly imbalance toward "business administration" undergraduate and postgraduate programs, "entrepreneurship" can be taught either at the university level or at the job training level.
- It is difficult to stimulate startups creation without an **holistic approach** to the early financing industry and without considering the potential benefits coming from the reciprocal interactions among each others.
  Crowdfunding platforms, business incubators and accelerators, business angels and angel networks, banks and financial institutions, regulators and policymakers should be thought as an "ecosystem for startups". This could help boosting financial innovations in order to fill the equity gap (for instance, designing new "financial securities" issued by the "ecosystem" itself or designing new contracts for startups with a specific contribution given by each actor of the "ecosystem").

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