

# Health & Life Sciences VC market in Finland

Joni Karsikas & Petteri Laakso

Autumn 2021

# Contents

---

Topic		Page	
Background & summary findings		3-4	
Finnish market	General	Overview of Finnish VC market	5-7
	Health & Life Sciences	Global comparison	8-10
		Market segmentation, subsectors and companies	11-17
		VC investor activity	18-21
		Market gaps & opportunities	22-24

# Background and summary of the market gaps

## Background

- Tesi's Health & Life Sciences study was originally conducted in 2019, and this 2021 version is an update/follow-up to that study.
  - The 2019 version was made for internal use only. Results from the 2021 study have been made publicly available.
- Rationale for the study was to assess if there are market gaps, or alternatively untapped opportunities, in the Finnish Health & Life Sciences VC market.
- Based on the findings, it was agreed that Tesi could invest in cases that are a) in earlier stages and b) in "more clinical" areas including, for example, drug development.
  - This approach would complement the typical later-stage investments focusing on revenue scale-up phase.
- Due to the absence of local sector specific investors, it was identified that Tesi should work intensively to improve its network of potential professional sector specific lead investors in order for Tesi to serve as a local anchor investor

## Identified market gaps

- In general, there is shortage of professional capital in all stages and all sub-sectors of Health & Life Sciences.
- The most critical areas were:
  - Institutional (Pre-)Series A rounds
  - Cases that require strong clinical expertise and validation. Includes all sub-sectors but the issue is more prominent in areas such as biotech.
- There hasn't been drastic development in past couple of years: the same market gaps still exist, and the depth of the gap has possibly deepened as can be seen in the presentation.

# Recent market development, summary findings

Market gap has deepened?

Health & Life Sciences, % of VC volumes (€)\*

	2016-2018	2018-2021	Difference
USA	24 %	24 %	-
Europe	19 %	18 %	-1 pp.
Finland	15 %	8 %	- 7 pp.

- The share of Health & Life Sciences VC investments has decreased to <10% for the first time in (at least) a decade. No similar signs in other markets.
- Worth noticing: 2020 was a record year in Finnish VC market as a whole → the success of other verticals has had an impact as well.

Minor changes sub-sector and stage gaps in recent years

- Share of Digital Health investments is increasing globally - a trend that was seen in Finland a few years ago. Biotech/Drug Development/Life Sciences still underrepresented and MedTech overrepresented in Finland, largely due to sector classification of some prominent successes such as Oura. Still, some positive development in Finnish Biotech volumes (e.g. Rappta Seed round)
- Graduation to later stages still problematic in Finland. Relatively small seed or earlier stage investments still overrepresented in Finland but the bridge to (Pre-)A round appears difficult, potentially due to investment needs to achieve sufficient maturity.

Emergence of financing from non-VC sources

- Share of VC funding has systematically decreased in the past years. Angel & crowdfunding represented over 50% of the Finnish market volumes in 2020.
  - Despite positive trends in angel investments and crowdfunding, institutional investors with sector expertise greatly needed to ensure efficient funding funnel to later VC stages.

Positive signs from exits, hopefully healing the old scars

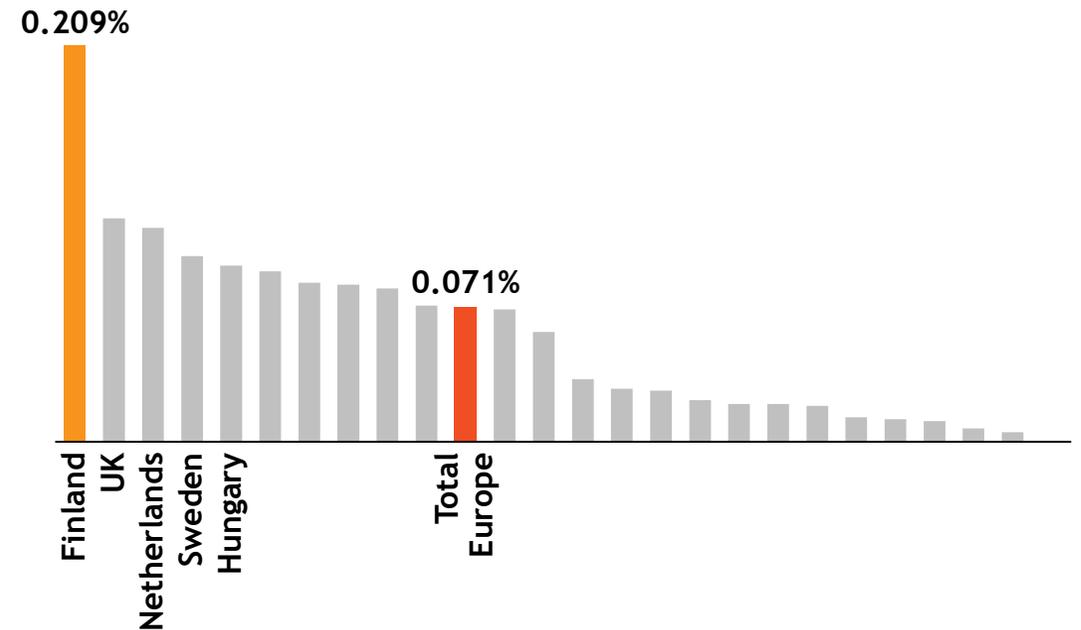
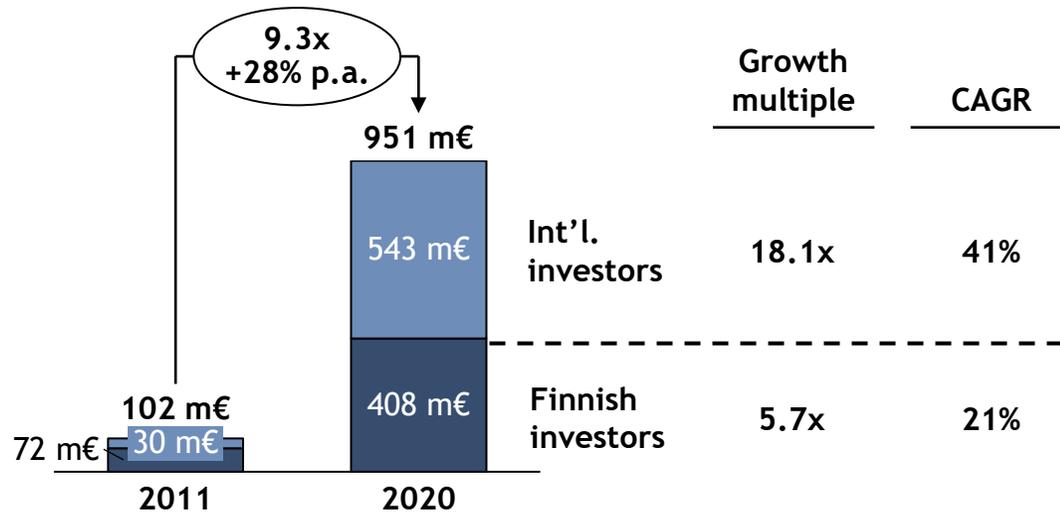
- Positive exits seen in the market, both by the VC backed and the non-VC backed companies. Some examples: Forendo Pharma, Blueprint Genetics, Synoste, Kaiku Health, Noona Health, Mobidiag, Ginolis... Relatively high IPO activity as well, e.g. Nanoform, Nightingale Health, Bioretec, Aiforia.
- A couple of interesting exit processes on-going according to Tesi market intelligence.

# Overview of Finnish VC market

# Finland is the most active VC market in Europe with international investors driving the growth

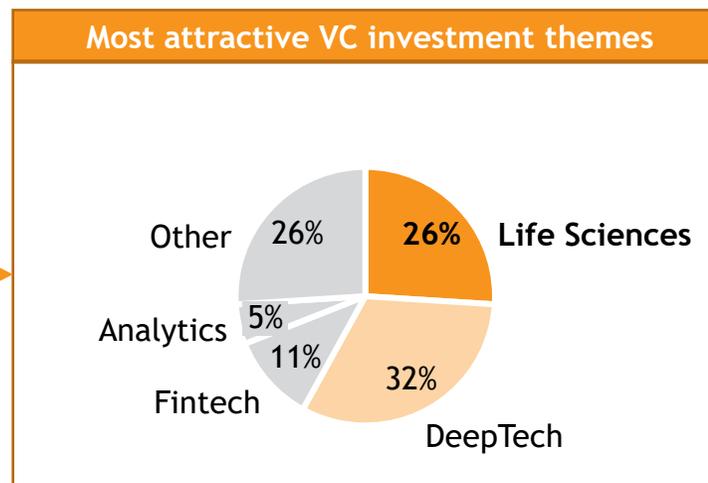
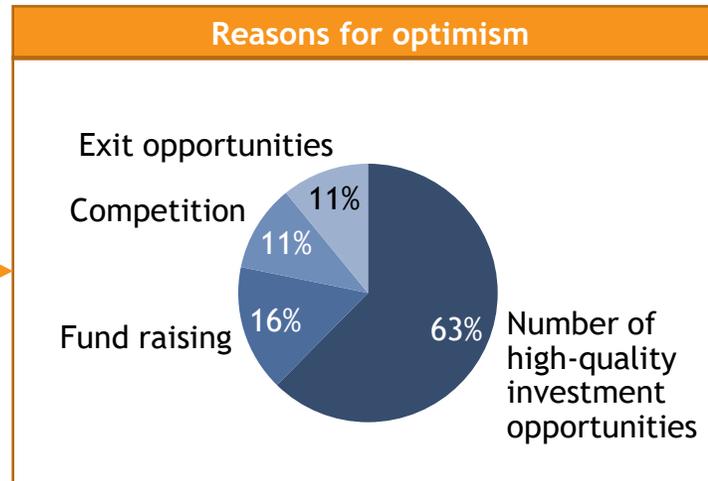
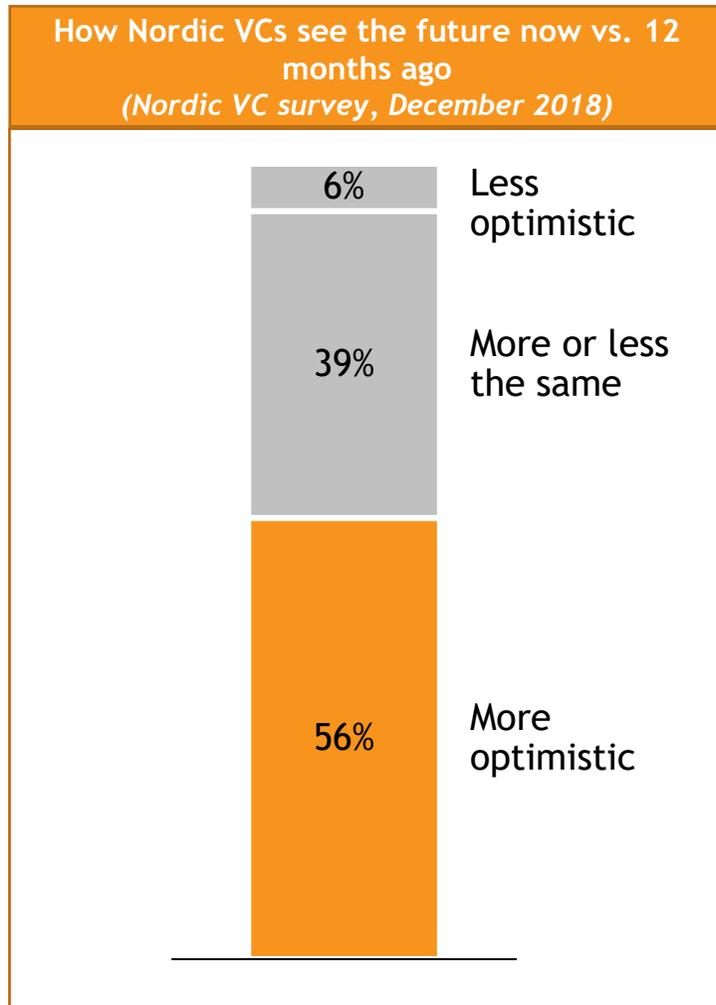
In the last 10 years Finnish VC market has matured drastically with international investment volumes increasing fifteenfold...

...and as a result, Finland has risen to #1 position in overall VC investment volume (per GDP) in Europe (2020)



Local VC ecosystem has matured and deal flow improved greatly during the last decade. First wave of international VC investors, mostly focused on ICT, found the market. Signs of similar trends are already visible in other verticals as well.

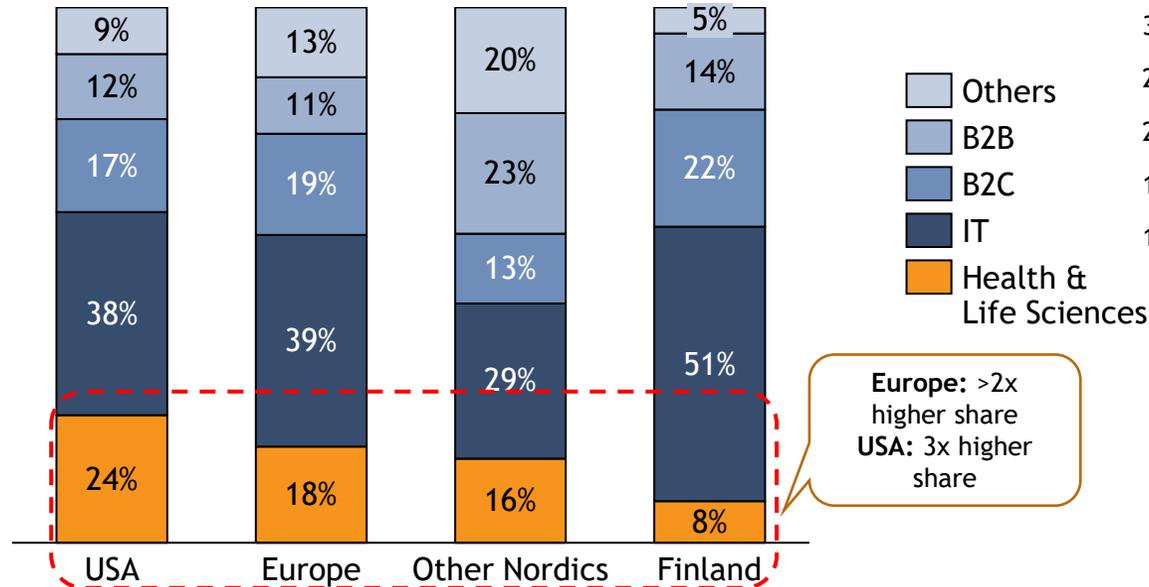
# High quality deal flow fuels optimism - DeepTech and Life Sciences are the most prominent future domains



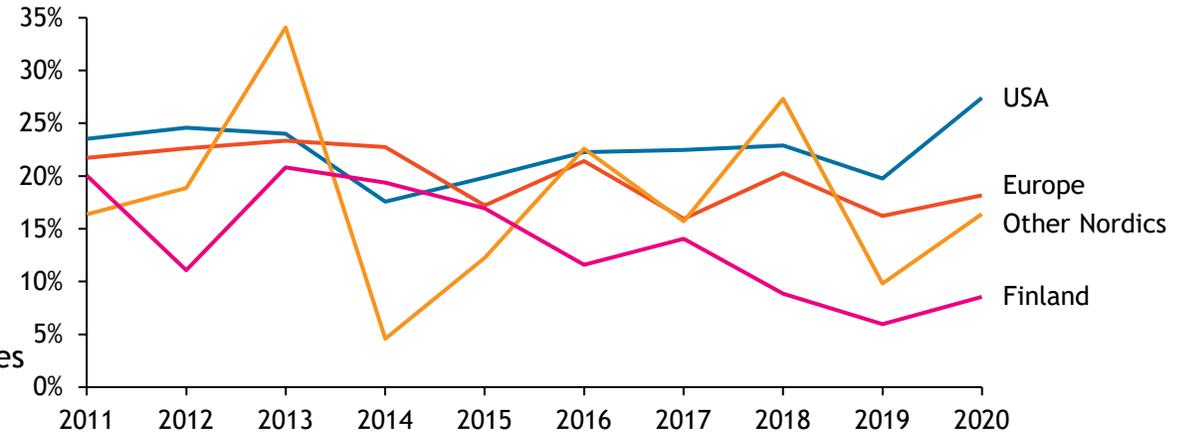
# Global comparison

# Finnish Health & Life Sciences VC sector could be "underfunded" by tens of millions € per annum

Sector distribution of VC investment volumes (€), 2018-2020\*



Share of Health & Life Sciences VC investments (€), 2011-2020

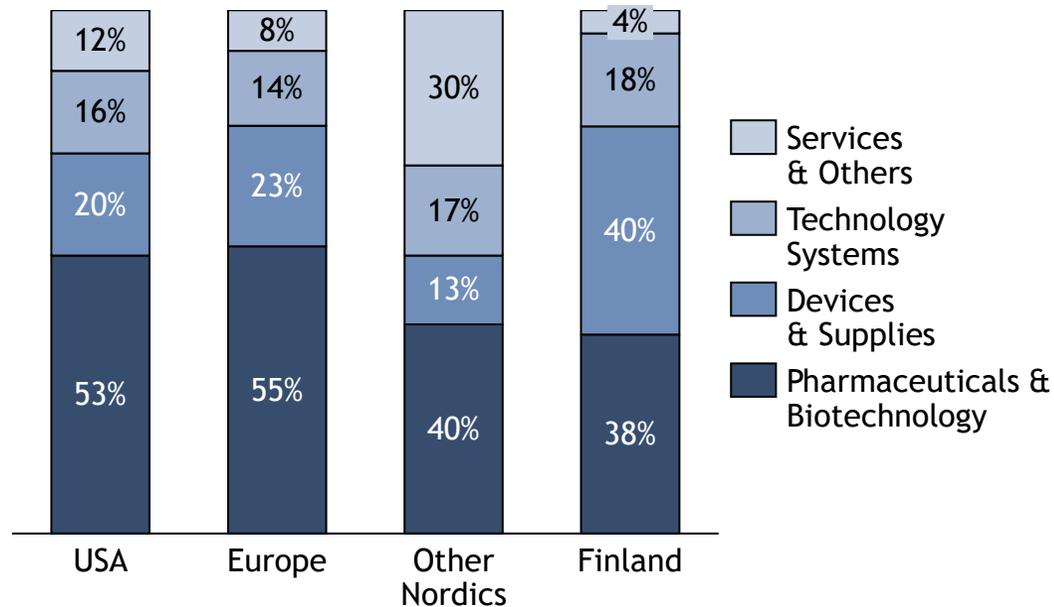


	Last 10 years	Last 5 years	Last 3 years	2020
USA	23 %	24 %	24 %	27 %
Europe	18 %	18 %	18 %	18 %
Other Nordics	16 %	16 %	16 %	16 %
Finland	10 %	9 %	8 %	9 %

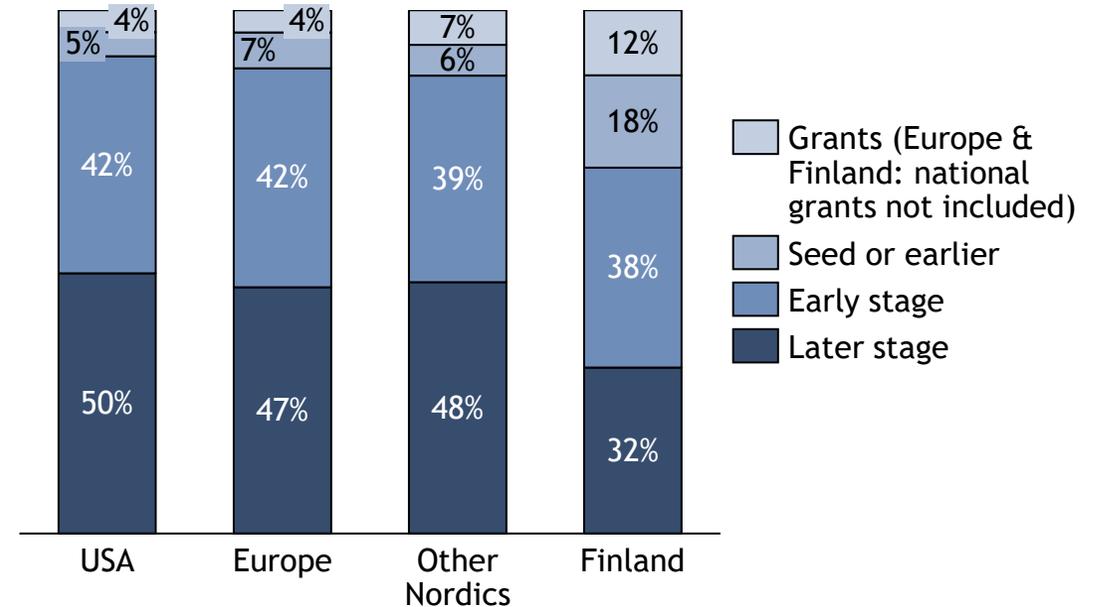
- Health & Life Sciences (later "HLS") VC investments represent over 20% of the total volumes globally. Finland lags behind both Europe and USA when it comes to the share of HLS investments, and unlike globally, the trend has been negative. Some of underlying reasons and related opportunities are presented later.
  - "Cutting the corners" simplification: if the above mentioned gap was proportioned to the Finnish VC market size (i.e. the HLS sector would attract as much capital as in Europe on average), the local HLS underfunding would amount at 60-70 m€ in annual VC investment volume.

# Investment activity gap between Finland and Europe is mostly explained by low investments in pharmaceuticals and low graduation to the later stages

HLS investment volumes by sub-sector (€), 2018-2020



HLS investment volumes by investment stage (€), 2018-2020



- Pharma/biotech and later VC stage are the key areas explaining low HLS investment volumes vs. peer markets. There seems to be a chicken and egg problem with biggest impact in these two areas.
  - Finnish pharmaceuticals ecosystem is thinner compared to other Nordics. At the same time, local VC investors are often either generalists or software focused, mostly avoiding clinical evidence driven investment cases. From HLS company perspective, limited funding options have channelled the demand more and more towards angel investors and crowdfunding platforms.
- On a positive note, activity in Digital Health seems to be very high compared to other geographical markets.

# **Finnish market**

**Market segmentation, sub-sectors &  
companies**

# General information on data

---

- ◆ We have used our own internal sub-sector classification on the following pages, meaning that there is a disconnect with e.g. sub-sectors used by Pitchbook.
  - The rationale was to avoid misclassification of companies. For example, Digital Health companies could be included in ICT, B2B or Healthcare sectors.
  - Similarly, there are sub-sectors where classifications are not always intuitive. For example, diagnostics companies could fall into multiple sub-sectors.
  - Manual classification was possible due to limited dataset, i.e. scope including only Finnish companies, and should be more accurate compared to automated classification.
  - For international benchmarking this approach is impossible. Thus, Pitchbook data and classifications were used on previous pages.
- ◆ The dataset used on following pages has been aggregated from multiple different sources, meaning that the figures are not comparable with the international benchmarking presented on earlier pages.
  - The data on following pages should be richer and more accurate compared to a single source of data.
  - The data has been aggregated from Pitchbook, Unquote, Repo Media, Finnish Business Angels data, Mergermarket and Finnish Business magazine Talouselämä.

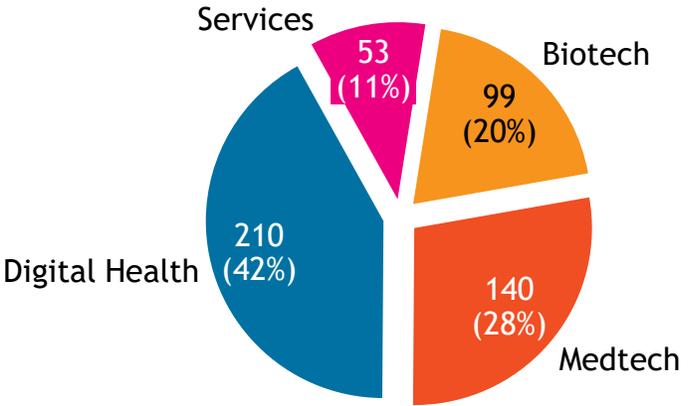
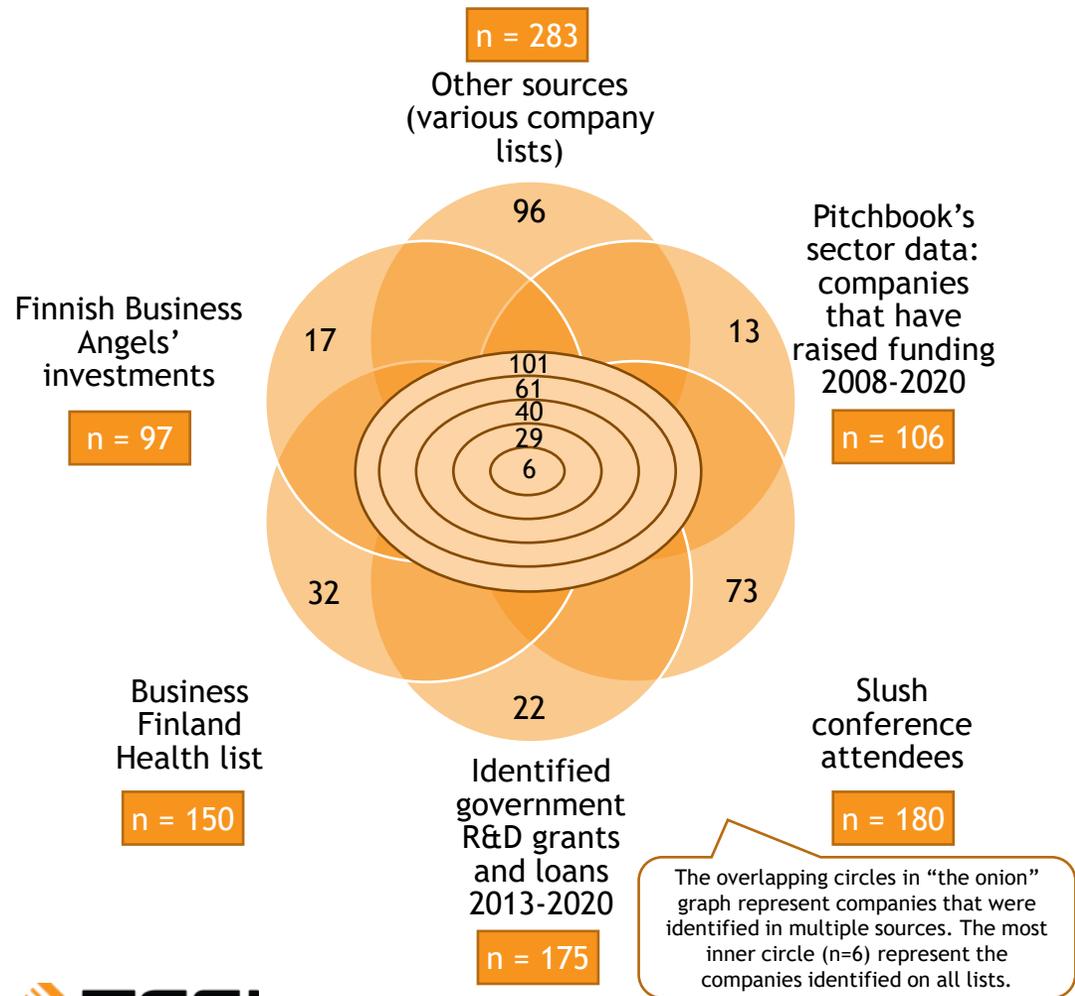
# Health & Life Sciences is highly heterogenous field between and within the sub-sectors

	Biotech / Therapeutics & Diagnostics	MedTech / Devices & Materials	Digital Health / Software												
Description	<ul style="list-style-type: none"> <li>Includes biotechnology, therapeutics as well as diagnostic tests / methods.</li> <li>Does not include software used for therapeutic or diagnostic purposes (e.g. DTx or AI assisted diagnostics).</li> </ul>	<ul style="list-style-type: none"> <li>In principle, all hardware companies.</li> <li>Highly heterogeneous group of companies with varying level of clinical evidence needed to succeed.</li> </ul>	<ul style="list-style-type: none"> <li>In principle, all Health and Life Sciences related software companies.</li> <li>Includes potential deal flow companies for both ICT focused VCs as well as specialised (Healthtech/Medtech) VCs.</li> </ul>												
Comments on the Finnish market	<ul style="list-style-type: none"> <li>Lower number of companies compared to other European countries.</li> <li>From investors' point of view, possibilities to find good value due to low competition among local investors (=specialist VCs).</li> <li>Opportunities in early-stage / tech transfer due to high quality research.</li> </ul>	<ul style="list-style-type: none"> <li>Due to Finland's strong roots in engineering, medical devices and materials has been the strongest sub-sector for years.</li> <li>Local knowledge clusters include for example biometrics, sensors, imaging and automation.</li> </ul>	<ul style="list-style-type: none"> <li>Currently the hottest sub-sector in Finland, especially in earlier stages.</li> <li>Local strengths include e.g.                             <ul style="list-style-type: none"> <li>Quality and quantity of health data</li> <li>Need for remote monitoring and communication solutions (sparsely populated and aging country)</li> </ul> </li> </ul>												
Share of European VC market vs. share of Tesi's portfolio (€)	<table border="0"> <tr> <td>VC / Europe</td> <td>Tesi</td> </tr> <tr> <td></td> <td> No investments</td> </tr> </table>	VC / Europe	Tesi		No investments	<table border="0"> <tr> <td>VC / Europe</td> <td>Tesi</td> </tr> <tr> <td></td> <td> Newlcon Onbone Optomed Oura Health</td> </tr> </table>	VC / Europe	Tesi		Newlcon Onbone Optomed Oura Health	<table border="0"> <tr> <td>VC / Europe</td> <td>Tesi</td> </tr> <tr> <td></td> <td> BCB Medical BC Platforms (Oura Health)</td> </tr> </table>	VC / Europe	Tesi		BCB Medical BC Platforms (Oura Health)
VC / Europe	Tesi														
	No investments														
VC / Europe	Tesi														
	Newlcon Onbone Optomed Oura Health														
VC / Europe	Tesi														
	BCB Medical BC Platforms (Oura Health)														
Company examples															

# We have compiled a long-list of >500 Finnish Health & Life Sciences companies

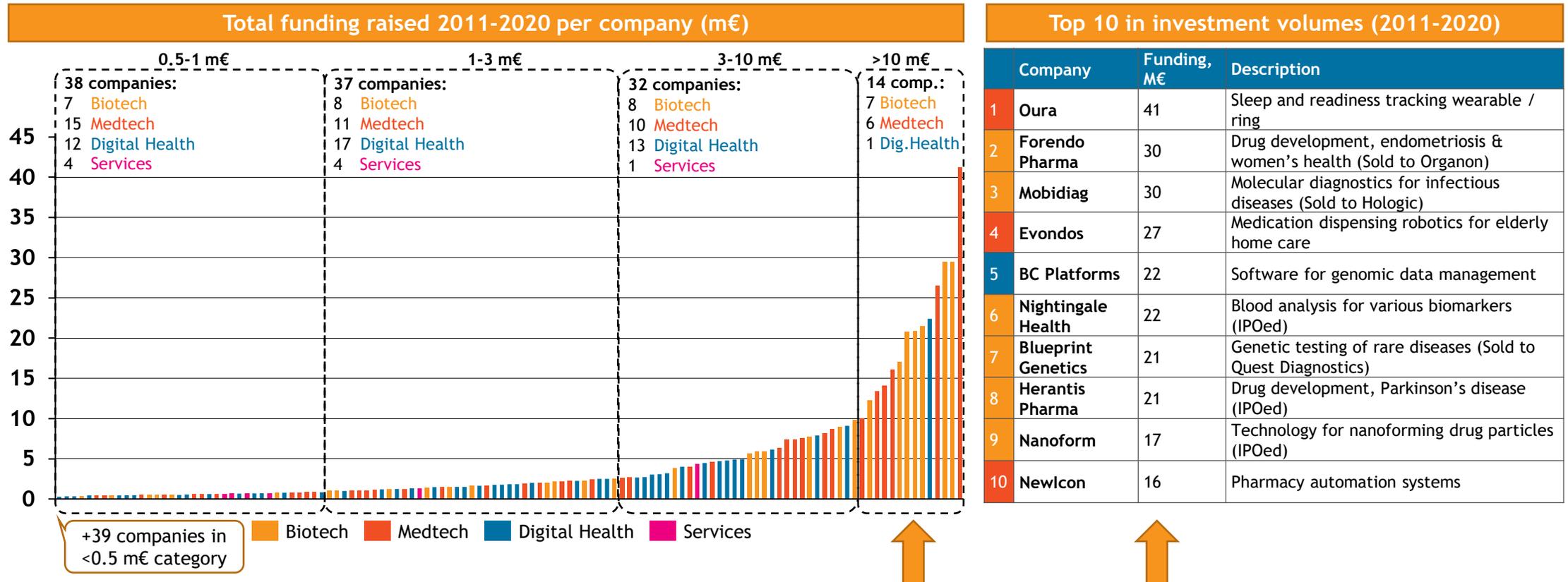
We have gathered from various sources a long-list of some 500 Finnish companies operating in the segment...

...out of which about 40% is in Digital Health, 30% in Medtech and 20% in Biotech



- Digital Health is likely overrepresented in the long-list due to lower capital needs and clinical evidence requirements.
  - For example, over 60% of the Slush (local tech conference) participants included in the long-list were Digital Health companies, often in earlier stages of development.

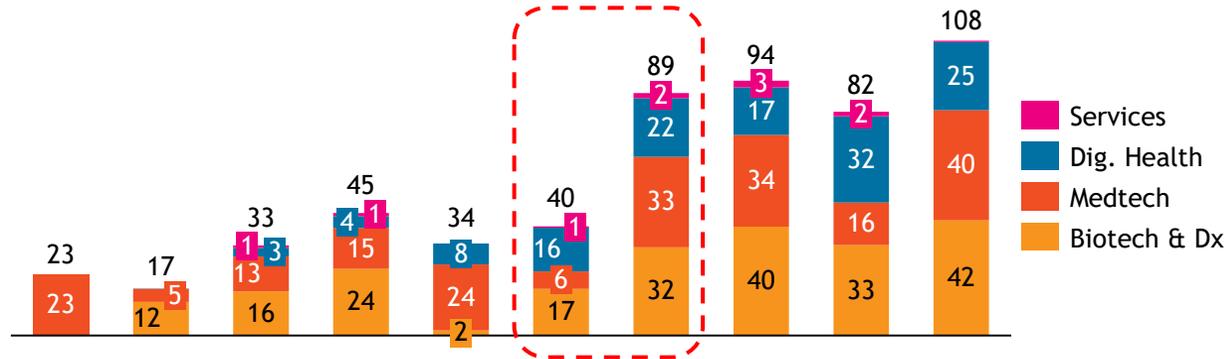
## During the last 10 years largest funding rounds have been raised in Biotech and Medtech field, but the long tail includes increasing amount of Digital Health companies



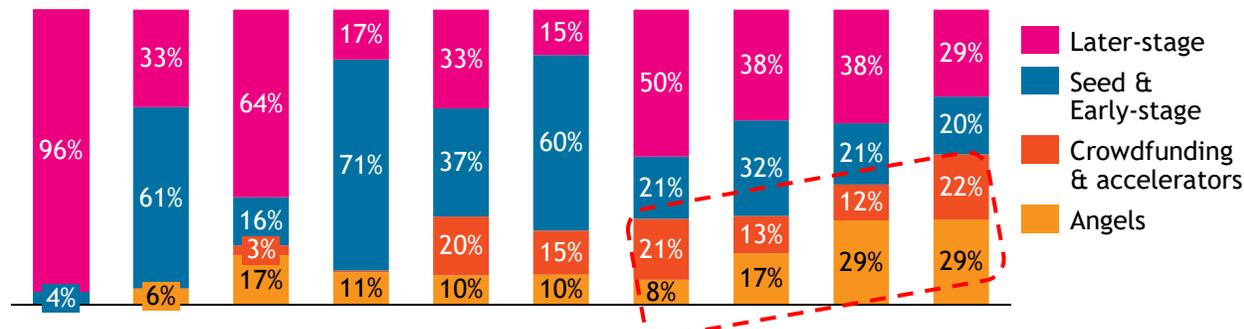
- **Please note that the graphs above are based on public data, meaning that a significant share of funding data is not available (e.g. internal rounds).**
- Biotech and Medtech companies well represented in the group of companies that have raised over 5 m€. On the other hand, Digital Health has recently attracted significant early-stage funding.
  - Digital Health as an investment theme is relatively new. It is expected that many of these companies will raise larger rounds in the next years.
  - There is shortage of Biotech and Medtech companies maturing to later-stage VC. However, first investment rounds in Biotech tend to be larger.

# Investment volumes in Health & Life Sciences haven't stayed on par with overall VC market development despite non-VC financing sources partially filling the gap...

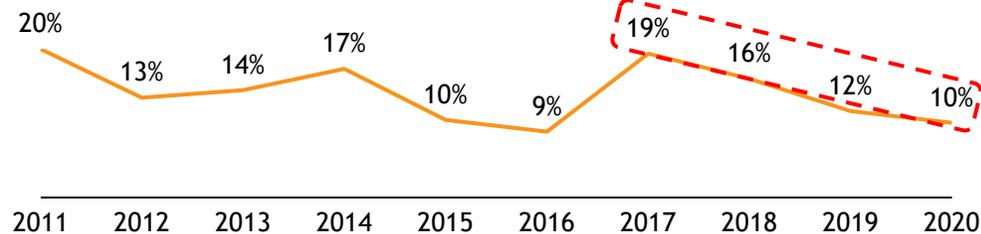
Finnish HLS investment volume development (m€)  
By sub-sector



Volume breakdown  
By stage



Share of Health & Life Sciences (% of all VC investments)\*



## Development trends

- Step-up in investment volumes in 2017 with Digital Health emerging as the third pillar in investment themes.
- In a bigger picture, Health & Life Sciences has not seen similar surge in last years' volumes as the Finnish VC market as a whole.
- Share of non-institutional capital has increased: share of angel and crowdfunding rounds exceeded 50% of all Health & Life Sciences investment volumes in 2020.

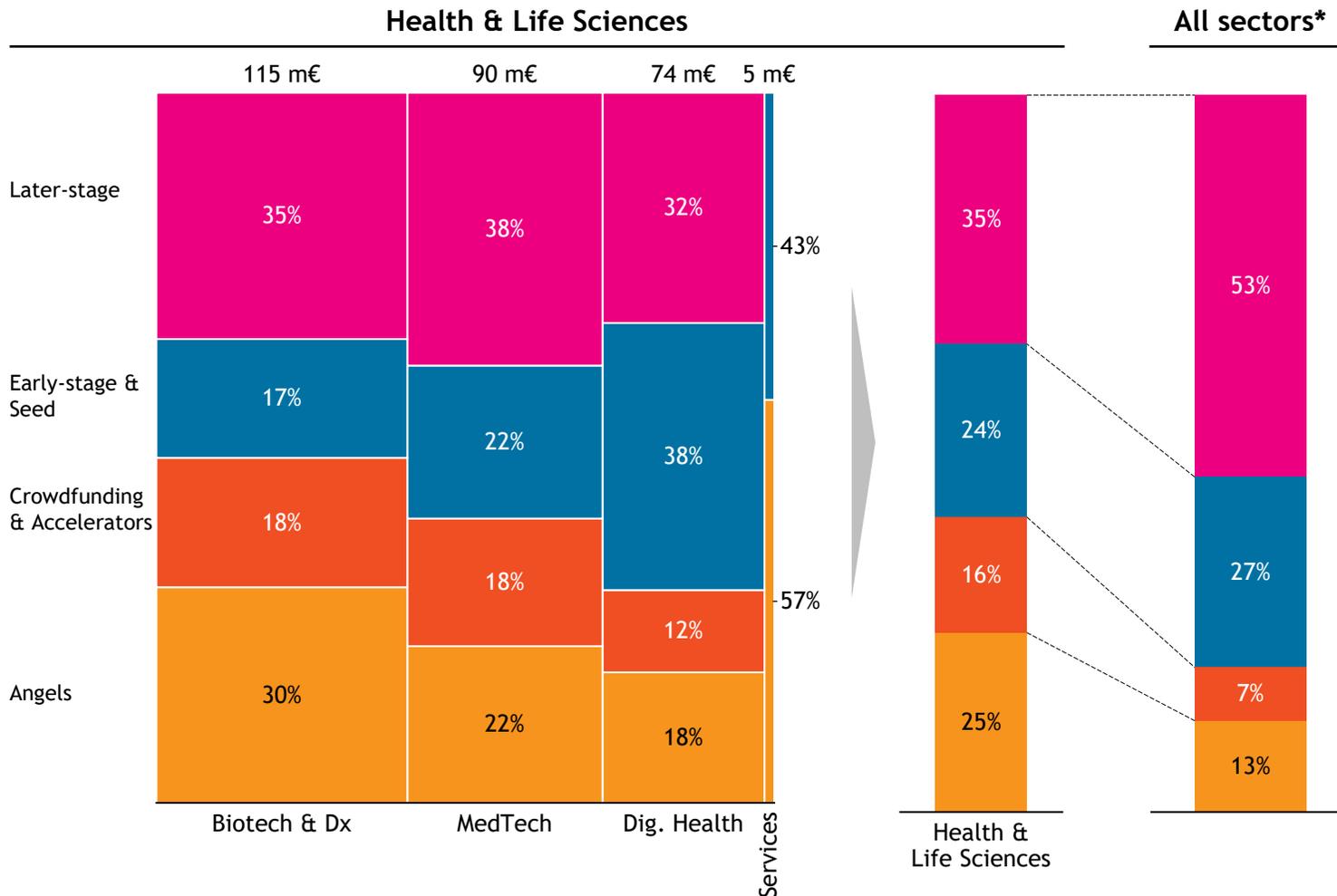
## Notable rounds 2018-2020

Biotech & Diagnostics	(Medical) Devices	Digital Health
Mobidiag (2018) 10	Oura Health (2020) 24	BC Platforms (2019) 13
Nanoform (2019) 10	Synoste (2018) 5	Meru Health (2020) 8
Rappta Therapeutics (2020) 9	Oura Health (2018) 5	Kaiku Health (2018) 4
Nightingale Health (2020) 9	NewIcon (2019) 5	Combinostics (2019) 4
Nightingale Health (2018) 8	Medtentia International (2018) 5	Neuro Event Labs (2020) 4

● Round led by "typical" VC funds  
● Round led by CVCs  
● Round led by others (Corporates, Angels, Asset Mgrs, Crowdf.)

# ...and the trend is more drastic in the investment themes requiring clinical evidence and expertise

Investments by sub-sector and stage in Finland, 2018-2020 (m€)



Sector differences

- Non-institutional funding (angels & crowdfunding) prominently represented in Finnish Health & Life Sciences sector
  - The more clinical application areas, the less local, institutional VC funding directed in Health & Life Sciences.
  - Non-institutional investors filling (small) part of the market gap.
- Digital Health has emerged as a clear favourite for VCs from Seed to Later-stage.
  - Application areas with faster revenue scaling opportunities favoured among generalist VCs.
- Graduation from earlier stages to Later-stage still low compared to Finnish funding landscape as a whole.
  - This is most likely related to time, resources and investments needed to develop the company and underlying validation to that stage.
  - Also, companies may lack the networks and sector-specific support to accelerate the development.

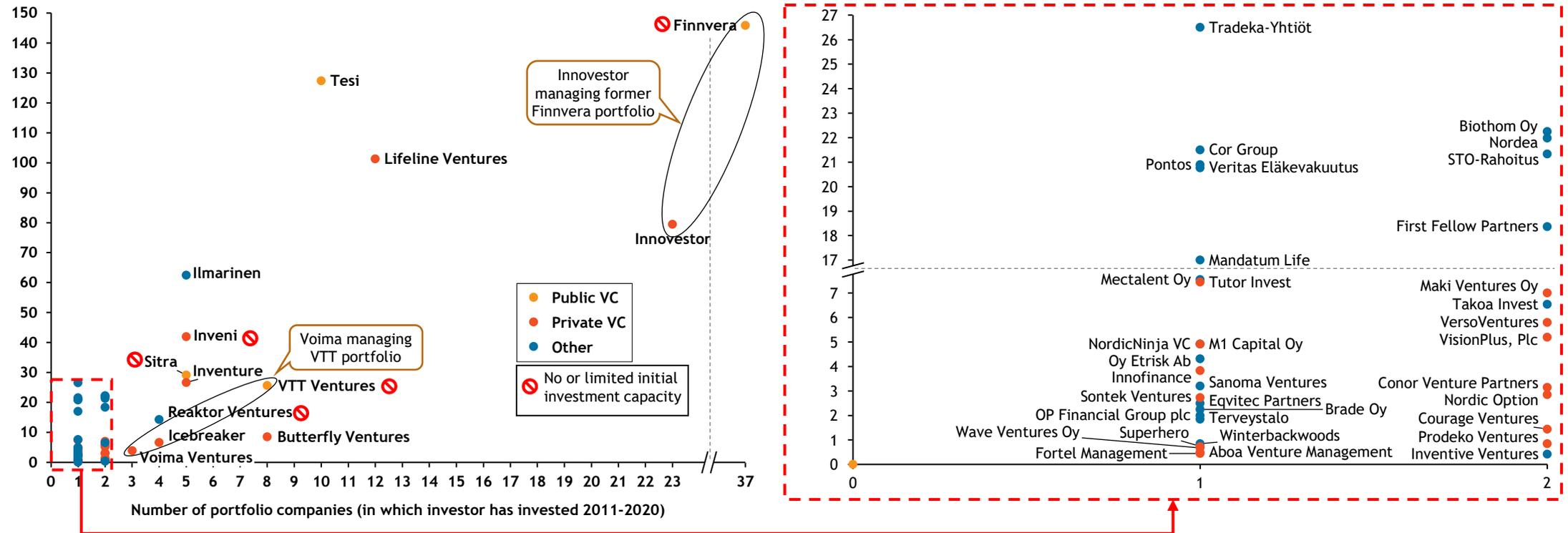
# VC investor activity

# Some of the active local sector investors have exited the market but there are new entrants in earlier stages, mostly focusing on DeepTech

Partially incomplete view  
- see next page for more accurate view of the key Finnish funds

## Finnish investors: number of investments and capital raised by their portfolio companies (m€), 2011-2020

Funding raised by portfolio companies 2011-2020, m€

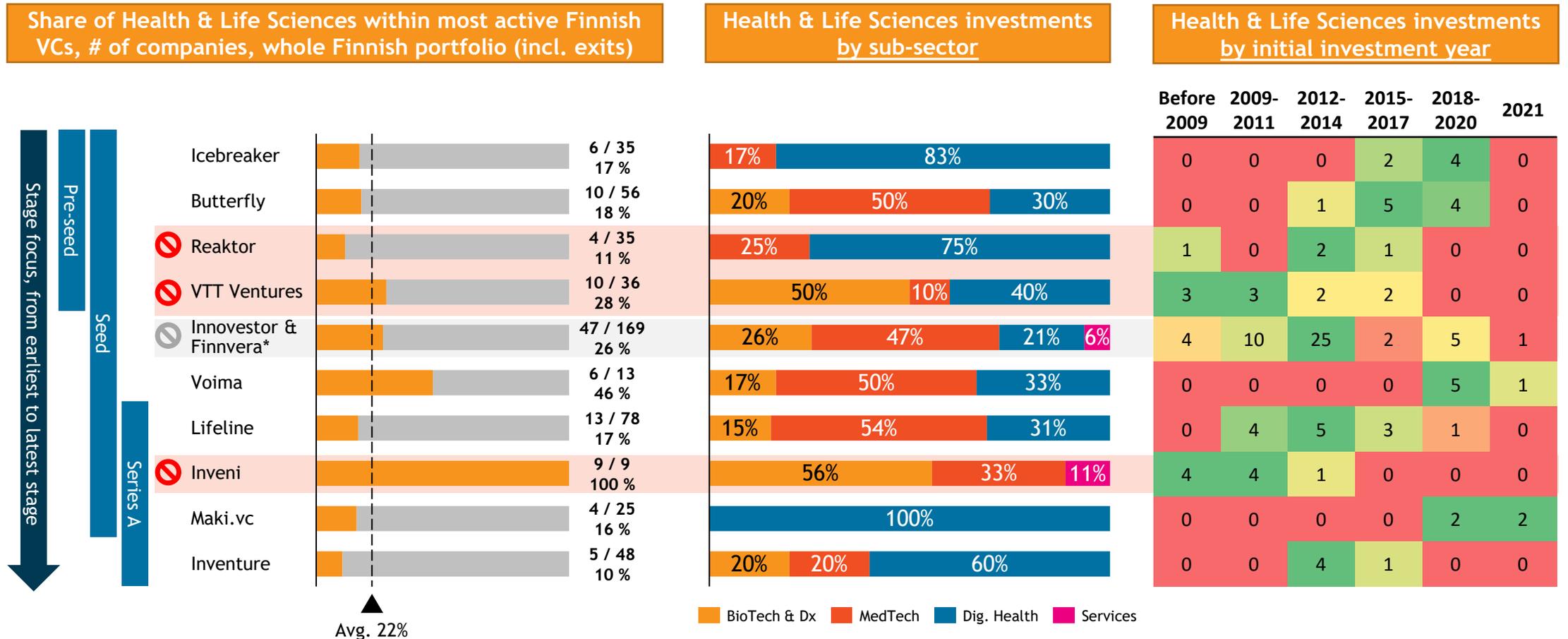


- Out of the Finnish investors that are still making initial investments, Innovestor, Tesi and Lifeline Ventures have been the most active ones measured by number of investments in the sector as well as capital raised by portfolio companies during the past 10 years.
- Some of the more active sector investors have exited the market or ramped down investment operations, having negative impact on the supply of local funding. However, new generalist or deep tech VC funds have been raised in recent years, diversifying the local investor space. These funds could invest in the broader Health & Life Sciences sector among other focus verticals.



Note: Identified accelerators, angel investors, foundations and grant providers removed from the graph.  
 Source: Based on public data with significant limitations. Also, investment rounds without disclosed round size have been excluded from the graphs. Aggregated data from Pitchbook, Unquote, Repo Media, FIBAN, Mergermarket and Talouselämä

# Finnish generalist VCs investing also in Health & Life Sciences are mostly in Seed stage - no local sector specialists in the market right now

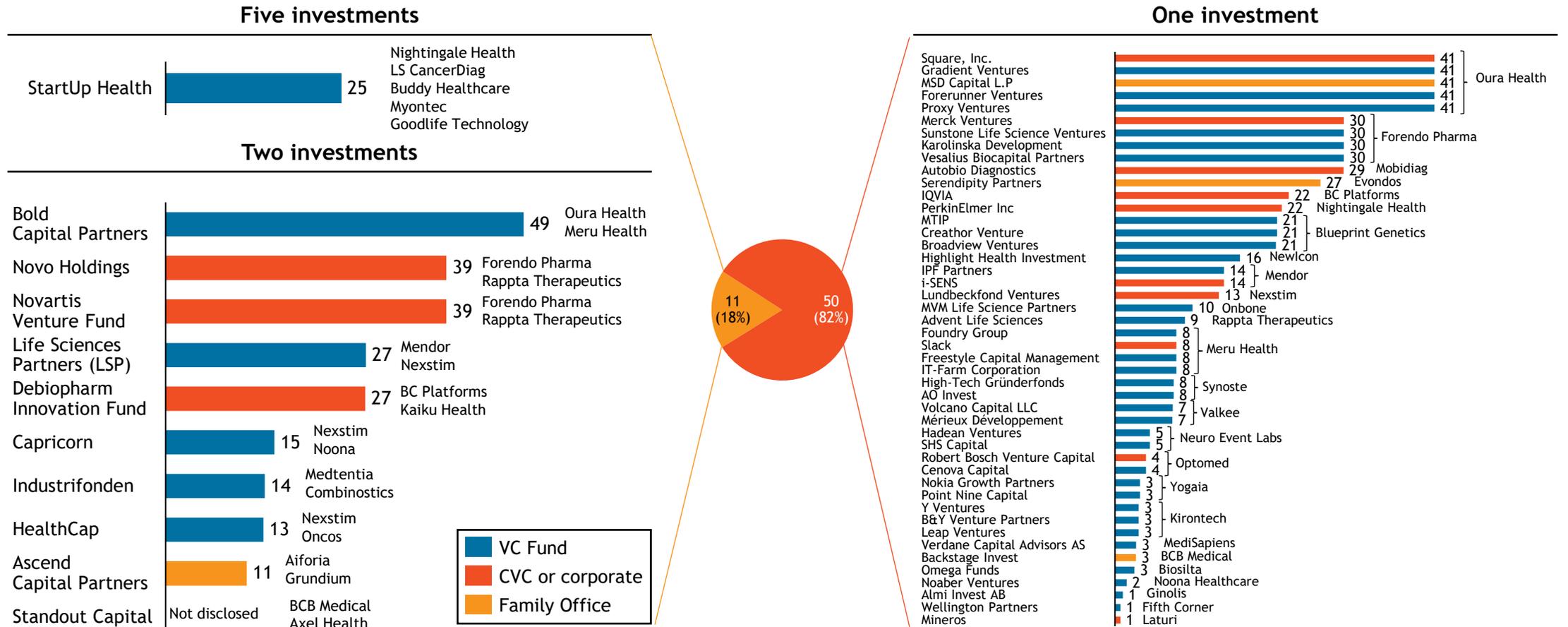


Generalist tech VCs tend to focus more on application areas that are lighter regulated and require less clinical evidence. Four active investors have exited the market during the last few years, but on the other hand, there is increased activity within new Seed stage investors. Since 2018, over 50% of the investments have been made in the Digital Health segment.

Funding gap identified in cases requiring a) medical expertise and b) investment (round) need of 1m€+.

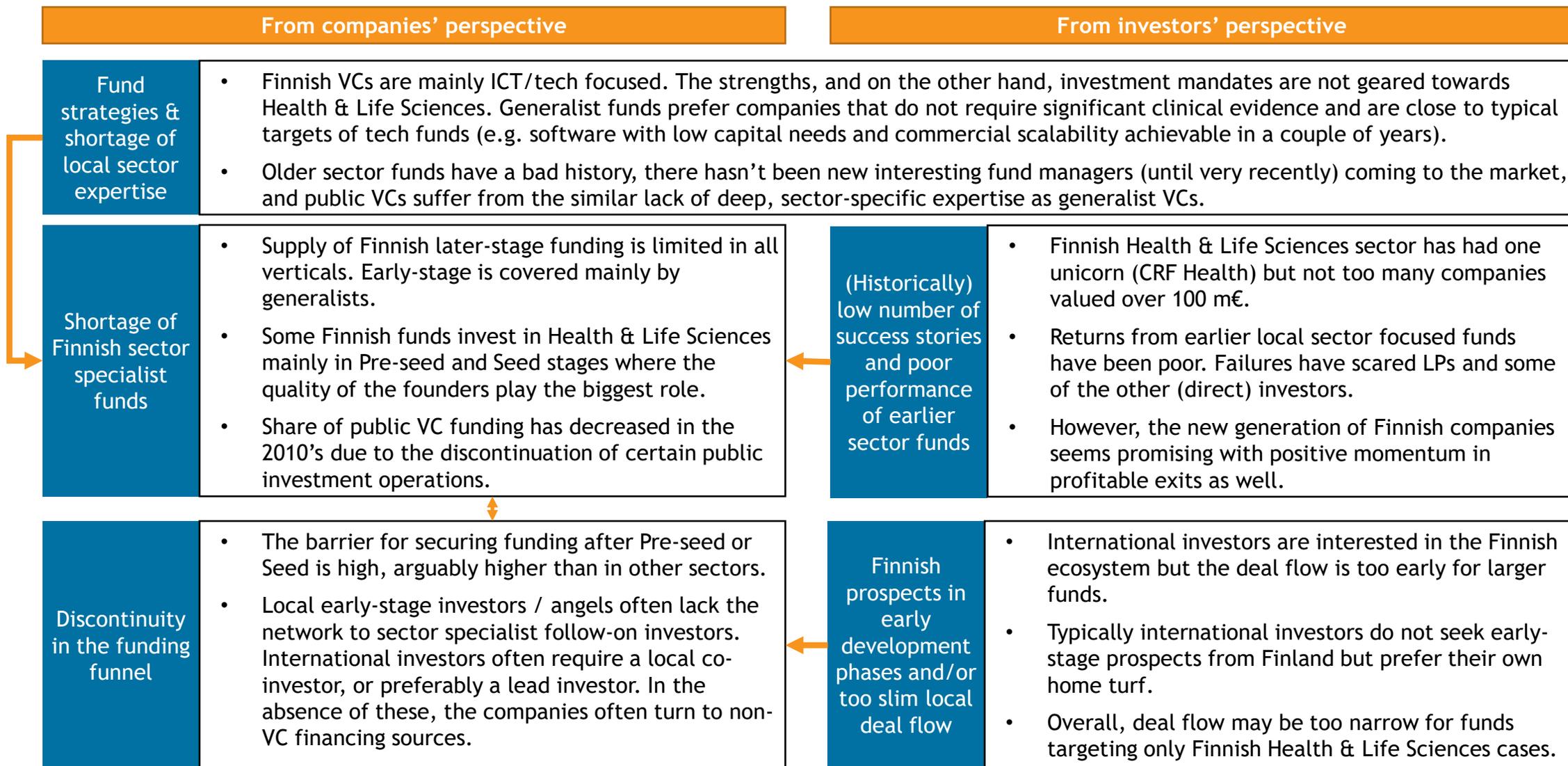
# There are still relatively few international sector specialists regularly monitoring investing in the market regularly

**International investors: number of investments and capital raised by their portfolio companies (m€), 2011-2020**



# Market gaps and opportunities

## The current Finnish Health & Life Sciences market gap is a result from multiple interlinked factors - there seems to be a chicken and an egg issue



## Many of the recently exited or IPO'ed companies have not raised funding from VC funds, some examples below

	 MOBIDIAG Diagnostics/Devices	 nanoform Biotech	 Nightingale Biotech/Diagnostics/Dig. Health	 aiforia® Digital Health
Company description	Molecular diagnostic tests & equipment, mostly for infectious diseases. In 2020 entered into COVID-19 PCR equipment market with a big success: annual revenues increased from 5m€ to 35m€.	Technology for nanoforming drug particles. The technology gives a second chance for drugs that have failed in clinical trials. Revenue currently at ~1m€.	Blood analysis technology for variety of biomarkers from a single blood sample. Currently offered via private clinics and directly to consumers (tests + app). Revenue currently at ~2m€.	AI/ML-assisted software for analysing pathology imaging data. Recently received CE-IVD mark for AI model in lung cancer diagnostics. Revenue currently at ~1m€.
Funding history	(At least) 130 m€ invested in the company as combination of equity and debt.	Raised total of 17 m€ in 2018-2019, 80 m€ in IPO (2020) followed by 40 m€ placing (2021).	Has raised (at least) 40 m€ in equity and debt before IPO. Raised 110m€ in IPO in 2021.	Has raised (at least) 26 m€ in equity, out of which 18 m€ in Series B round in 2021. 30 m€ raised in IPO in 2021.
Investors	Family offices, angels and crowdfunding. EIB as lender.	Mandatum, Ilmarinen. Other institutional investors in IPO.	CorGroup, PerkinElmer, angels. Institutional investors in IPO.	Angels, Ascend Capital (FO), Eprexia (Panasonic Healthcare), Aktia. Institutional investors in IPO.
Financing / ownership status	Acquired by Hologic in 2021. Reported purchase price was 668 m€.	Listed in Nasdaq First North Growth Market Finland. Market cap 468 m€ (15.12.2021)*.	Listed in Nasdaq First North Growth Market Finland. Market cap 193 m€ (15.12.2021)*.	in Nasdaq First North Growth Market Finland. Market cap 130 m€ (15.12.2021)*.



# TESI

Joni Karsikas

[joni.karsikas@tesi.fi](mailto:joni.karsikas@tesi.fi)

+358 40 827 0395

[tesi.fi](http://tesi.fi)

Twitter: @TesiFII