

SoDT report 2023

techleap.nl



State of
Dutch Tech
2023

Executive Summary

What is holding back the Dutch ecosystem?

Our potential with regard to deep tech is insufficiently utilized and there has been a structural and increasing shortage of diverse talent for years. Furthermore, Dutch companies are too dependent on foreign investors, which is at the expense of our autonomy.

The most important takeaways are included below for each theme followed by seven concrete calls to action. These are necessary to reach the government's goal for the Netherlands to catch up with the most successful ecosystems globally.

Boosting the growth and impact of spin-offs

When it comes to spin-off value created by universities, the Netherlands is lagging far behind the UK, Switzerland, Germany and France¹. Techleap.nl analysis shows that, while having a high survival rate, spin-off companies from Dutch universities and university medical centres stay small, thus limiting their impact. 80% of all 745 Dutch spin-offs ever created are still active, but after 10 years, only 48% had more than 10 employees. When

¹ Dealroom & Lakestar, The European Deep Tech Report 2023 (2023)

² State of European Tech 2022

comparing Dutch deeptech companies with their foreign peers, the lack of funding is clear. This is holding back Dutch ambitions to become more technologically independent and to deliver big societal transitions.

Bridging the Talent and Diversity Gap

The Dutch tech sector attracts more international talent than most other sectors. At the same time, the ecosystem lacks gender diversity, as only 10% of Dutch tech (co)founders are female, representing huge untapped potential. Female-only founder teams in the Netherlands account for only 5.2% of all VC deals and 0.7% of VC funding raised. In gender diversity the Netherlands underperforms compared to EU peers. To begin addressing this gap, more data collection by tech companies is needed and investors must implement effective diversity and inclusion policies. Increasing the overall talent pool is particularly urgent, as the percentage of hard-to-fill tech job openings in the Netherlands continues to rise: 59% compared to 57% in 2020 and 58% in 2021.² When it comes to countries where tech jobs are most difficult to fill, the Netherlands has been placed in the top 3 for several consecutive years.

A more resilient and internationally embedded VC-market

Impact investments are on the rise³, more than doubling since 2020 and over €1B raised in 2022. Overall funding is down compared to 2021, with the biggest decrease coming in the largest funding rounds. Nevertheless, early stage investment held its ground and most sectors are growing compared to 2020 levels, except in health. The mix in 2022 shows that investments by US investors have fallen considerably, increasing the importance of domestic funds. To ensure a more resilient and independent capital market and to prevent profits flowing out of our country to the US, Dutch VC funds need to grow (with funding from pension funds) and should co-invest more, as 35% of >€10m deals don't include a Dutch investor and only 41% of these are co-investments with international funds.

³ Based on the Dealroom.co startup database

What is Next?

If the Netherlands wants to achieve its ambitions of strategic autonomy and meeting global challenges, it must accelerate and keep pace with more successful ecosystems outside of the EU and improve in the following areas:

1. **Realign strategic tech policy:** Startup policy needs an **integrated tech policy**, with the needs of entrepreneurs front and centre.
2. **Support deeptech:** Improving efficiency of tech transfer, business support, and funding for **deeptech ventures** to deliver more impact at scale.
3. **Increase capital:** Providing access to more **'smart' capital** while increasing co-investment and knowledge sharing among investors to accelerate growth.
4. **Develop and attract more talent:** Growing and diversifying the **talent pool** from within and from outside the Netherlands to help our startups succeed and scale faster.
5. **Grow the base:** Increasing the number of startups in the Netherlands by stimulating more diversity in leadership and inclusion in the ecosystem.
6. **Boost regional development:** Connecting ecosystems, stimulating **regional development**, and supporting thematic specialisation by addressing legal and other structural barriers in **high-potential domains** like healthtech, biotech, fintech, energy, mobility, and others.
7. **Connect the community:** Growing and empowering a thriving **community of entrepreneurs** at the heart of a successful ecosystem.

Here's what you need to know

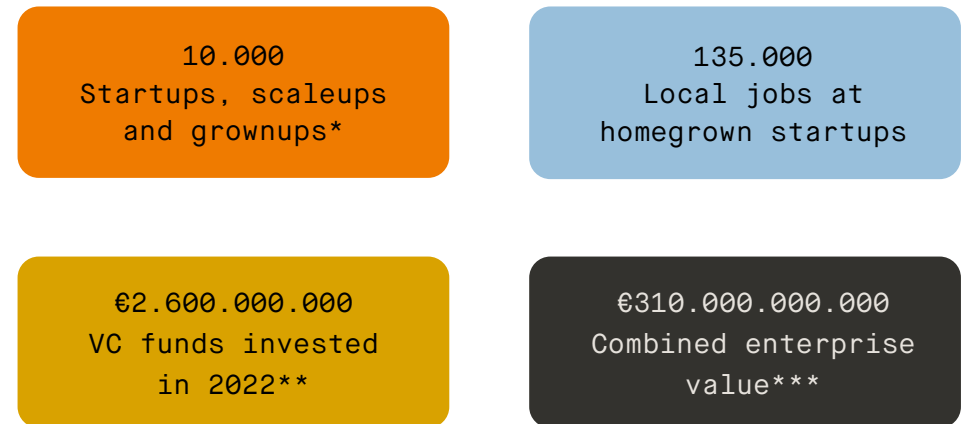
While it would be hard to top the exceptional startup year that was 2021, the Dutch startup ecosystem still delivered impressive results in 2022, with almost double the amount of venture capital (VC) invested compared to 2020. Taking a wider lens, the startup ecosystem has been steadily growing over the last 5 years in terms of number of startups, invested capital, employment, and enterprise value.

Sectors to watch

Companies focused on both social and environmental impact have been particularly successful at attracting talent and capital. Meanwhile, scientific spin-offs show a high survival rate with more than 85% still in business after 8 years. The challenge is to successfully scale these businesses globally.

Where there's room for growth

The Dutch tech sector can still do much more to deliver positive socio-economic and climate impact. The main areas for improvement are: increasing the number of deeptech companies and diversity in startup leadership and boosting the growth and success rate of startups by providing more capital.



Source: Dealroom.co & Dutch Funding Landscape Q4 2022

* Based on reclassified Dealroom data, this is the number of verified startups, scaleups, and grownups with a headquarters in the Netherlands.

** Due to a reporting lag, the last 12 months have systematically underreported VC rounds, more information can be found via: <https://app.dealroom.co/lists/35808>.

*** Based on Dealroom data, this is the sum of the valuations of all startups in the ecosystem. Calculated using estimated valuations based on most recent VC rounds, public markets, and publicly disclosed valuations.

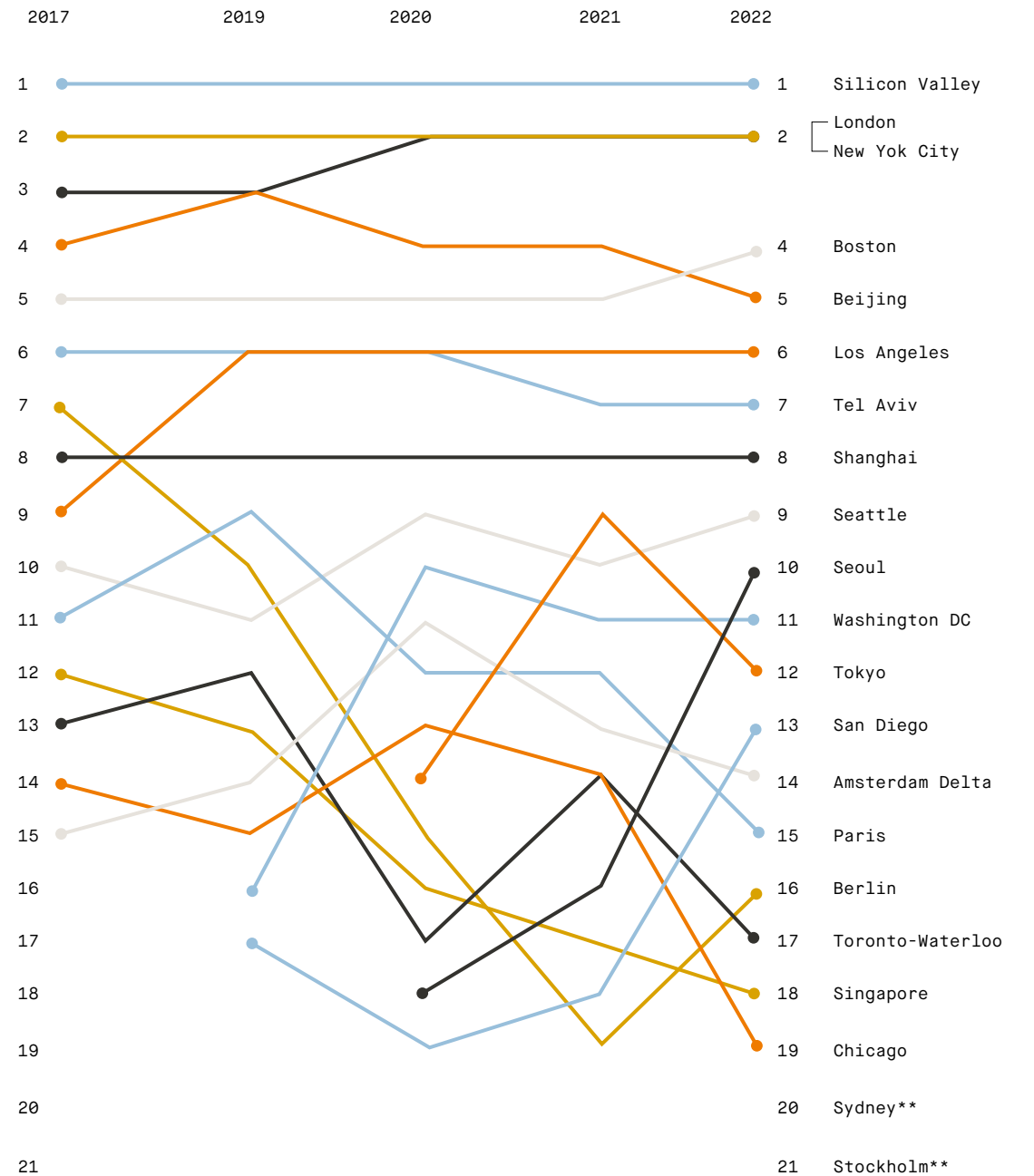
The Netherlands contains the most successful ecosystem in the EU, but is losing pace with the US and Asia.

According to Startup Genome, the Amsterdam-Delta region has overtaken Paris and Berlin as the leading ecosystem in the EU.

Overall, the EU is cooling down compared with ecosystems in US and Asia. Within the EU, the Amsterdam-Delta is the top-ranked startup ecosystem for the second year in a row, overtaking Paris and staying ahead of Berlin and Stockholm.

Startup Genome notes that given the relatively small size of the Amsterdam-Delta region*, its startup ecosystem packs an impressive punch. This is thanks to an open and dynamic business climate that is welcoming to startups and a highly educated and multilingual talent pool.

“the Amsterdam-Delta is the top-ranked startup ecosystem in the EU”



Source: Startup Genome's Global Startup Ecosystem Report 2022.
 * The Amsterdam Delta includes Utrecht and North and South Holland, but not startup hubs like Enschede, Eindhoven, Groningen, or Maastricht.
 ** Sydney is at position 20 in 2022. Stockholm is at position 21 in 2022.

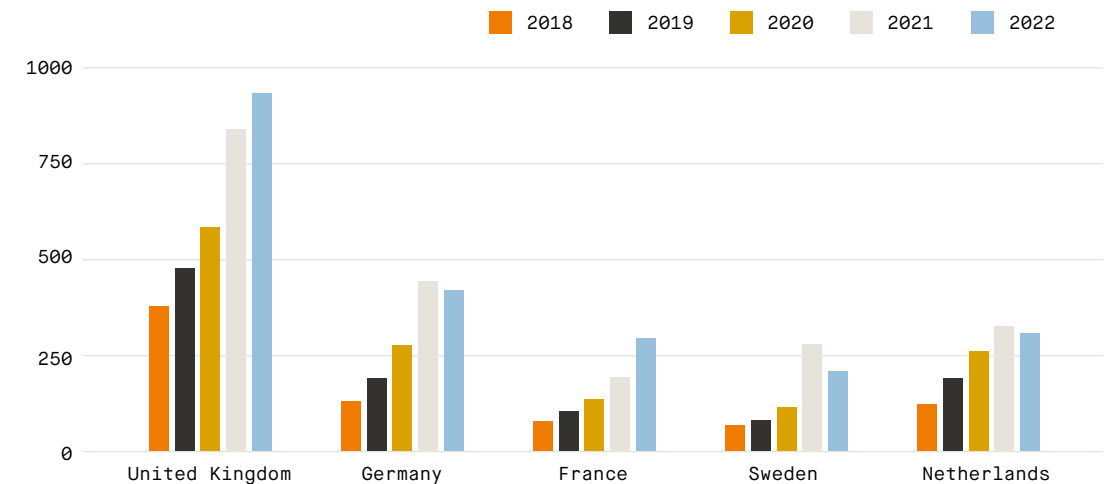
Despite being the most successful EU ecosystem, the combined valuation of Dutch startups stagnated.

Company valuations* in the Netherlands, Germany, and Sweden stagnated while they grew in the UK and France.

Market capitalization (cap) of publicly traded European tech companies** decreased more than 42% or €870B in company value over the past 12 months. The tech sector in the Netherlands dropped from the fourth to sixth position globally at €0.4T (vs €0.8T in 2021) in aggregate public market cap. It still leads in the EU due to tech giants ASML, Prosus, and Adyen.

While the ecosystem value of unlisted tech companies expanded in France and the UK, it stagnated in the Netherlands, Sweden, and Germany as compared to 2021.

Ecosystem value (€b)*; cumulative sum of the estimated value of all startups in the ecosystem



Source: Dealroom and S&P Global data

* Based on Dealroom data, this is the sum of valuations of all startups in the ecosystem. Calculated using estimated valuations based on most recent VC rounds, public markets, and publicly disclosed valuations.

** Based on S&P global data, this is the sum of publicly listed tech companies by market cap. Market cap is the product of the number of outstanding shares of a company and its share price.

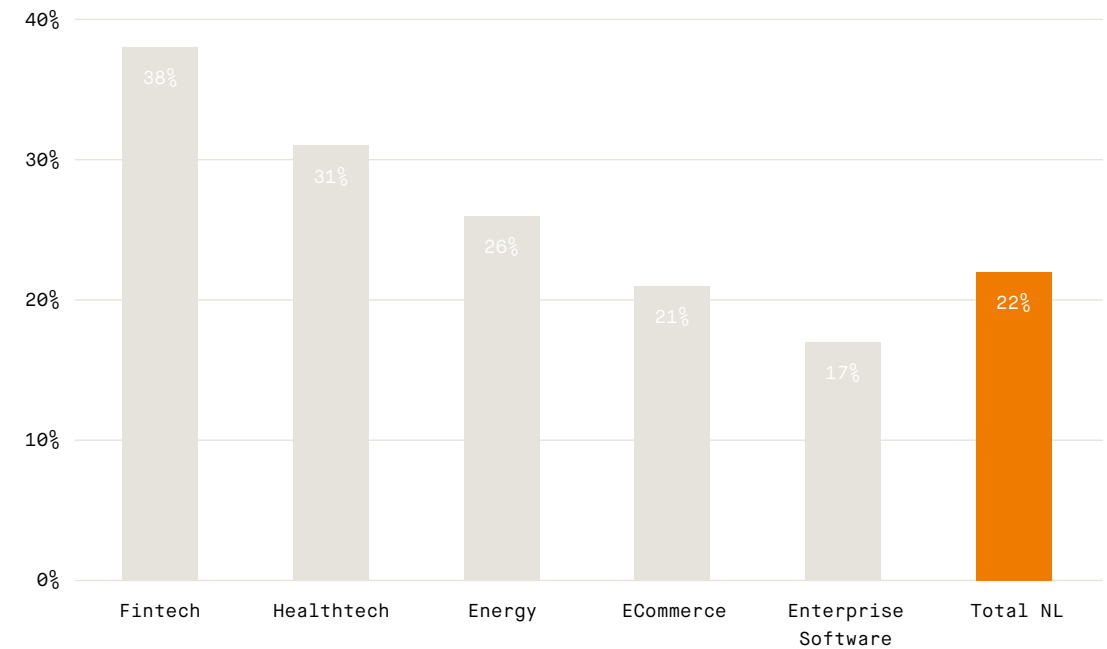
Fintech and healthtech are the leading startup sectors in the Netherlands.

Scaleup to startup ratio differs by sector

The fintech and healthtech sectors are proving the most successful at scaling startups in the Netherlands. However, there is twice as much capital available per startup in the fintech sector as compared to the healthtech sector.

With fintech currently producing the greatest number of grownups and scaleups, it's clear that this additional capital is crucial for scaling.

Scaleup to startup ration by sectors in the Netherlands



Netherlands	Start-ups (€100k-€10M funding)*	Scale-ups (>€10M funding)*	Scaleup/startup ratio	FTE jobs (#K)
Fintech	115	44	38%	15,6
Healthtech	246	76	31%	16,5
Energy	183	48	26%	10,9
ECommerce	242	51	21%	11,5
Enterprise Software	262	45	17%	9,4
Total NL	1.432	318	22%	135,2

Source: Dealroom.co and the Netherlands Startup Employment Report 2022

* Based on reclassified Dealroom data, this is the number of all verified startups, scaleups, and grownups.

The Netherlands welcomed one new unicorn and had two IPOs above \$1B in 2022.

The Netherlands currently boasts 1.4 unicorns per million inhabitants

In 2022, the world welcomed 299 private businesses that exceeded €1B valuation — 3 of these were Dutch companies. Backbase became a unicorn with €120M growth equity in June while Azerion and Allego listed through Special Purpose Acquisition Companies (SPACs) in February and March, respectively. Per capita, Israel is still leading the way with 4.8 unicorns per million inhabitants, followed by Sweden (2.4), the UK (1.7), the Netherlands (1.4), Germany (0.7), and France (0.5).

Name	Status	Launch date	Valuation	Location	Market	Type
Allego.eu	acquired	2013	\$ 3.1b	Arnhem, Netherlands	B2B, energy, transportation, mobility, energy storage	deep tech, commission, manufacturing
Azerion	operational	Feb 2014	\$ 1.9b	Schiphol-Rijk, Netherlands	B2B, B2C, marketing	subscription, saas
Backbase	operational	Jul 2003	\$ 2.8b	Amsterdam, Netherlands	B2n, fintech	commission, saas

The Dutch startup ecosystem still has massive potential for growth.

€400 billion

Additional value creation possible till 2030.

This is equal to 57% of the AEX.

250.000 jobs

Additional jobs possible till 2030.

€1.6 mln per job

Value per newly created job.

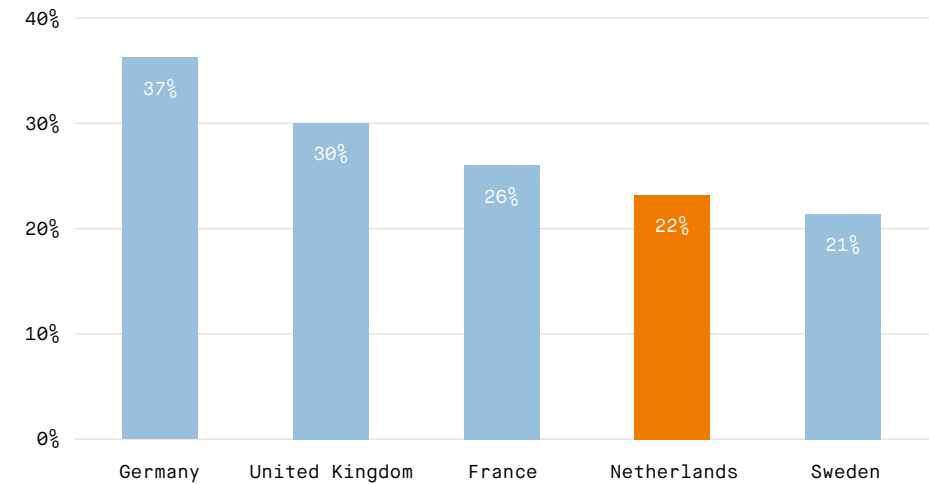
Dutch startups don't scale, lack of capital is a main driver.

The scaleup to startup ratio in the Netherlands is lower than peers.

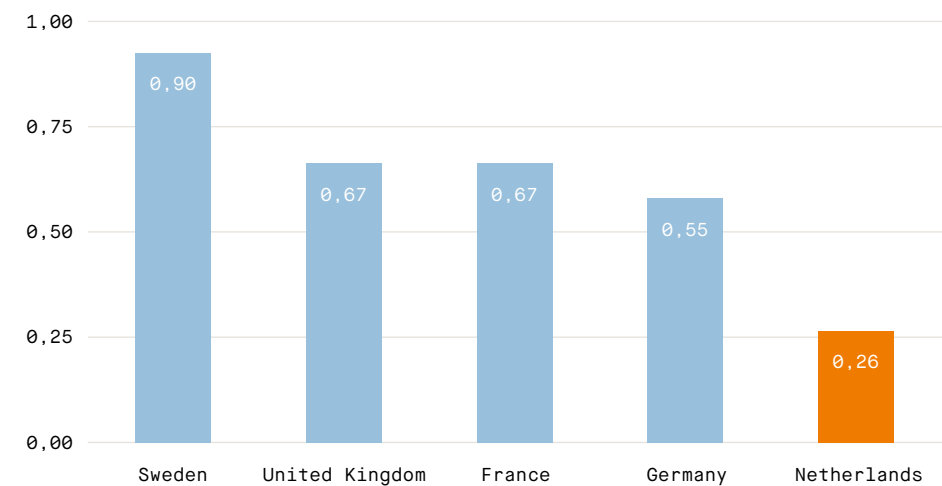
The lack of capital is one the main drivers. In 2022, total VC funding in the Netherlands was €2.6B and the average funding of all startups was €0.26M per startup. This was significantly lower than other major EU startup ecosystems. Sweden stands out with €0.9M in VC funding per startup.

	VC funding in 2022 €M per startup	VC funding in 2022 €B**	Number of startups*
Sweden	0.90	5.1	5.742
United Kingdom	0.67	27.3	40.495
France	0.67	13.9	20.650
Germany	0.55	10.8	19.659
Netherlands	0.26	2.6	10.143

Scaleup/startup ratio



VC funding (€M) per startup in 2022



Source: Dealroom.co & Dutch Funding Landscape Q4 2022

* Based on reclassified Dealroom data, this is the number of all verified startups, scaleups, and grownups.

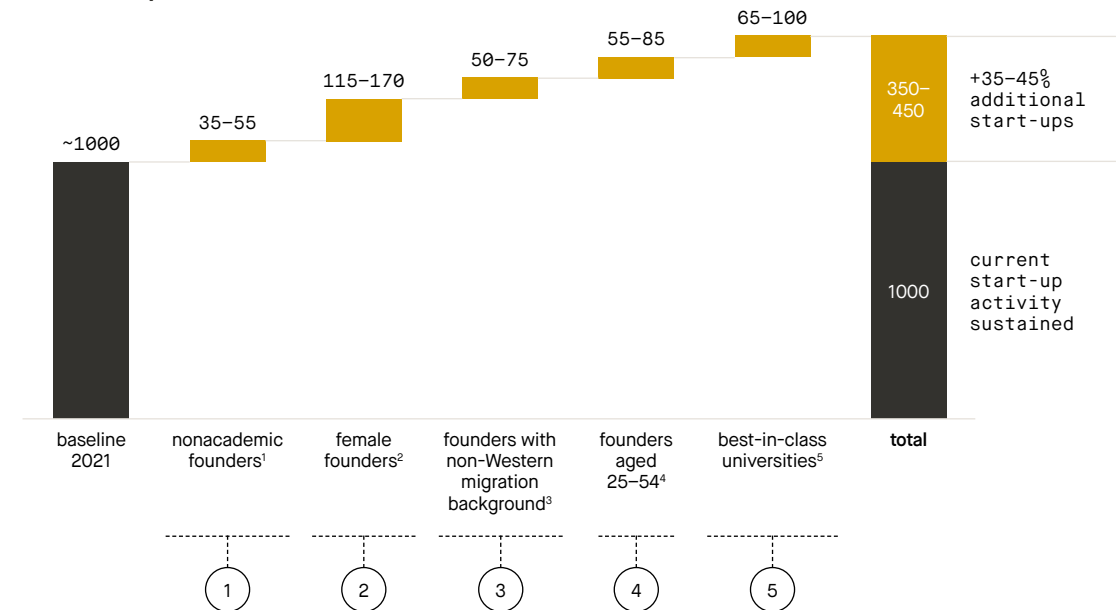
** Due to a reporting lag, the last 12 months have systematically underreported VC rounds.

A lack of diversity in startup founders limits the pool of new ideas and ventures.

Five sources can contribute to a 35-45% increase in the number of new startups by 2030

1. Increase the share of female founders
2. Increase the number of spin-offs from Dutch universities and research institutions
3. Increase the share of experienced founders
4. Double the share of founders with non-Western, migrant backgrounds
5. Increase the share of founders with a nonacademic background

Number of startups founded by 2030 Annually



Note: Figures may not sum, because of rounding. Sources were used as input data analysis.

¹ Annual report on European SMEs 2017/2018, European Commission, 2018

² Dealroom 2019-20; KVK 2022

³ Global startup ecosystem report 2017, Startup Genome, April 17, 2017; CBS, 2021

⁴ Thinking bigger: How ambitious is the Dutch entrepreneur?, Technleap, 2021

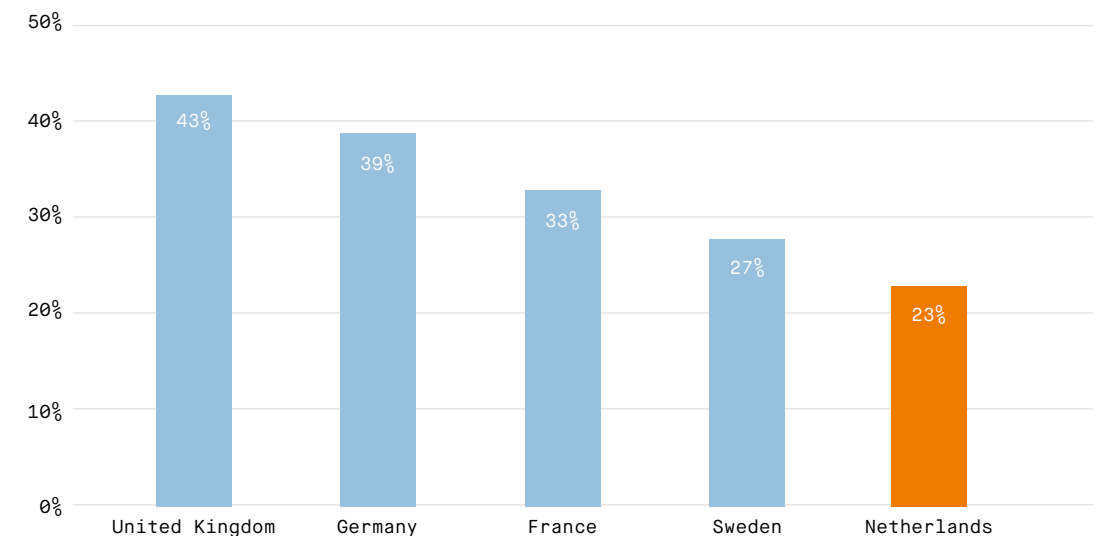
⁵ University of Twente, Delft University, Oxford University, Hebrew University of Jerusalem

Source: McKinsey analysis

Despite the potential, Dutch deeptech is under-invested and does not scale as well as other European countries.

Deeptech	Start-ups* (€100k-€10M funding)	Scale-ups* (>€10M funding)	Scaleup/startup ratio	VC invested in deeptech in 2022 (€B)**
United Kingdom	1041	443	43%	4,8
Germany	517	202	39%	2,1
France	737	241	33%	2,2
Sweden	303	83	27%	2,0
Netherlands	370	84	23%	0,7

Deeptech: scaleup/startup ratio



Source: Dealroom.co and the Netherlands Startup Employment Report 2022

* Based on reclassified Dealroom data, this is the number of all verified startups, scaleups, and grownups.

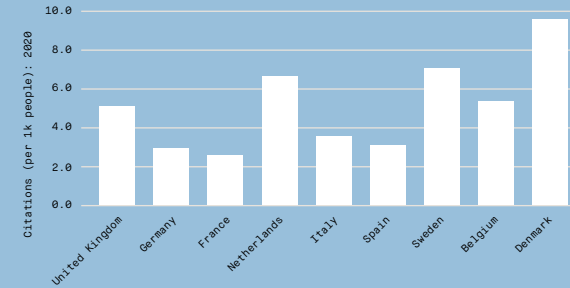
** Due to a reporting lag, the last 12 months have systematically underreported VC rounds.

Building a Deeptech Ecosystem

Dutch scientific research is driving promising deeptech ventures with potential for societal and economic impact.

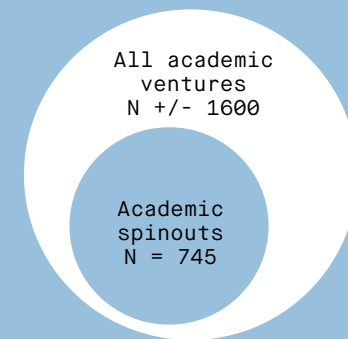
Leading Scientific Knowledge

Citations (per 1k people)



The Netherlands is a high-performing research nation. In 2022, high-potential research areas for the Netherlands are: quantum, augmented reality, and robotics. Of the world's 1% most cited research articles, the Netherlands has a share of 5.6%.

Academic Ventures



Dutch universities and research institutes have historically created an estimated 1,600 startups. Of these, 745 are verified spin-offs: either licensing intellectual property from knowledge institutes and/or being part of their equity portfolio.

Societal and Economic Impact



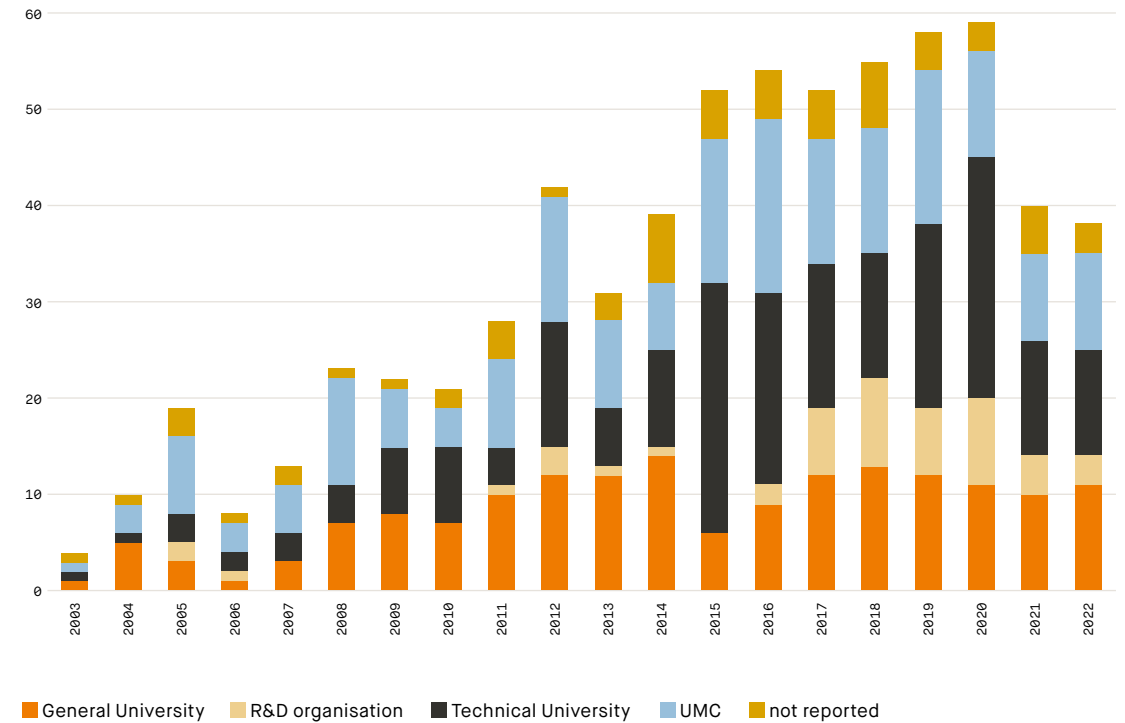
In a rapidly changing world, we are faced with major transitions in healthcare, energy, food and agriculture, high-tech industries, and manufacturing. Technologies developed by research-driven deeptech companies can provide new solutions to these challenges and increase the strategic autonomy of the Netherlands.

The number of spin-offs from Dutch knowledge institutes has increased over the years with new, ambitious ventures emerging.

With an increased emphasis on ‘valorisation’, universities and research institutes have ramped up their efforts to support science-based ventures, substantially increasing their numbers over the past 8 years.

The impact of the Covid-19 pandemic seems to be the likely cause of a decline in the numbers after 2020, but growth is expected to resume in 2023.

The number of new spin-offs has steadily increased over the past 20 years, but this trend reversed in 2021.



674

Spin-offs founded over the past 20 years. This is 90% of the 745 confirmed spin-offs

30%

Spin-offs coming from technical universities

59

Spin-offs created in peak year 2020

Footnote: Spin-offs backed by both a general university and its University Medical Center (UMC) are counted as UMC spin-offs.

Scientific spin-offs from Dutch academic institutions develop and apply a broad range of technologies to serve many different industries.

Technical universities create the most spin-offs

Technical universities are the most common source of spin-offs, accounting for 30% of all spin-offs, followed by UMC's (28%), general universities (25%), and research organisations (7%). For some spin-offs (10%), the knowledge source is still unconfirmed.

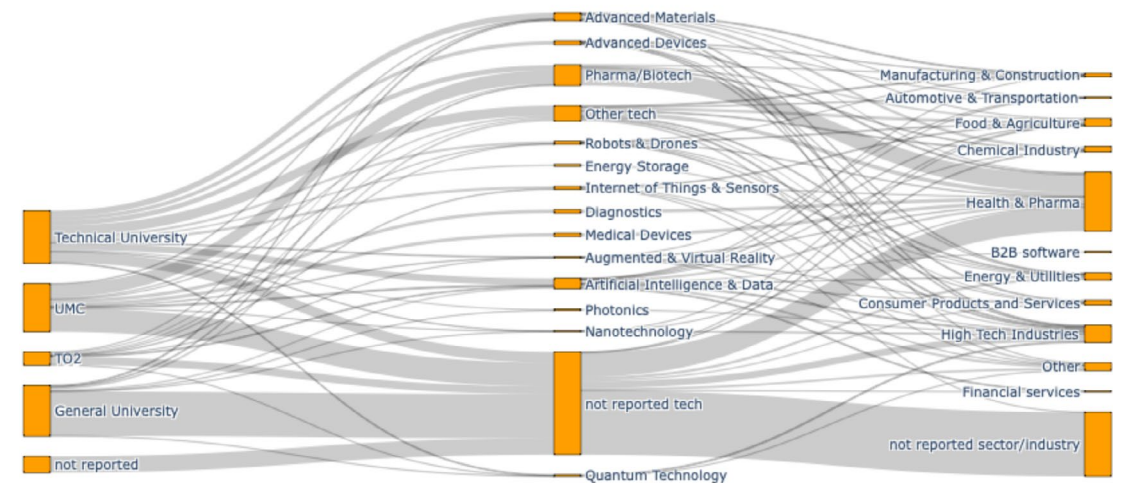
Many technologies converge within a sector

Each spin-off sector has pushed the needle forward on technological innovation, developing and applying a wide range of technologies to suit its market needs.

Most spin-offs in the health and pharmaceutical sector are using biotechnology, advanced materials, and AI.

Although the number of spin-offs in other sectors is lower, these sectors have produced world-leading ventures such as SMART Photonics, Mosa Meat, and LeydenJar.

Science to Impact: Numbers of spin-offs



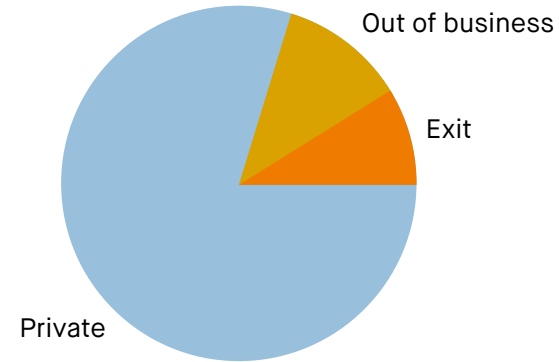
Dutch deeptech startups are resilient, but they take time to scale.

How well spin-offs scale depends on the technology sector combination they pursue. For example, a successful AI spin-off in the financial services industry will usually grow fast. However, deeptech companies typically go through lengthy research and development (R&D) trajectories with relatively small teams.

Of companies still active that were founded in the last 5 years, only 28% have more than 10 employees. For companies founded 5-10 years and 10+ years ago, this number is 46 and 51%, respectively.

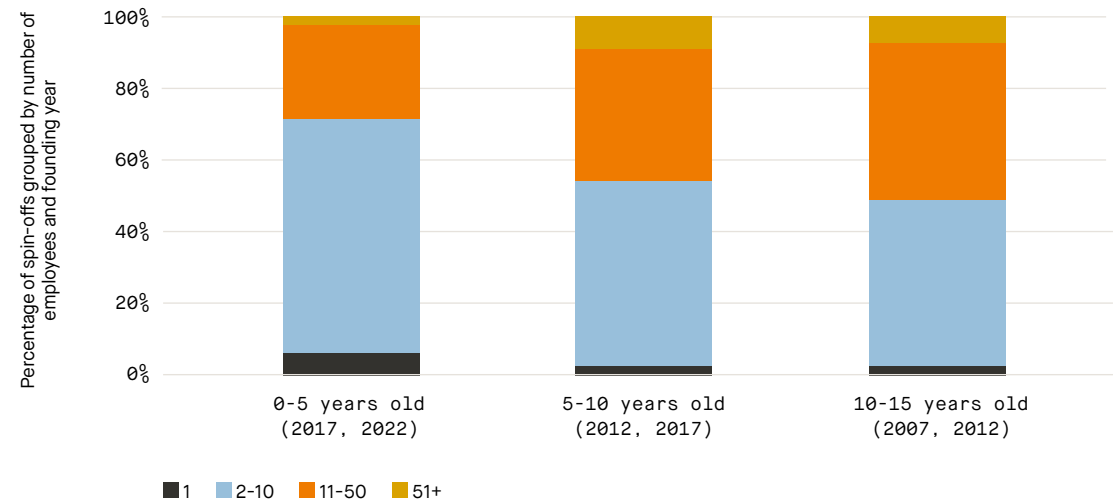
* Beauhurst report

Of all 745 Dutch spin-offs, 80% are still active



Current status of Dutch spin-offs founded between 2003-2022

After 10 years, only 50% of spin-offs had more than 10 employees



21% of mature academic spin-offs made a successful exit in the Netherlands.

Good things take time...

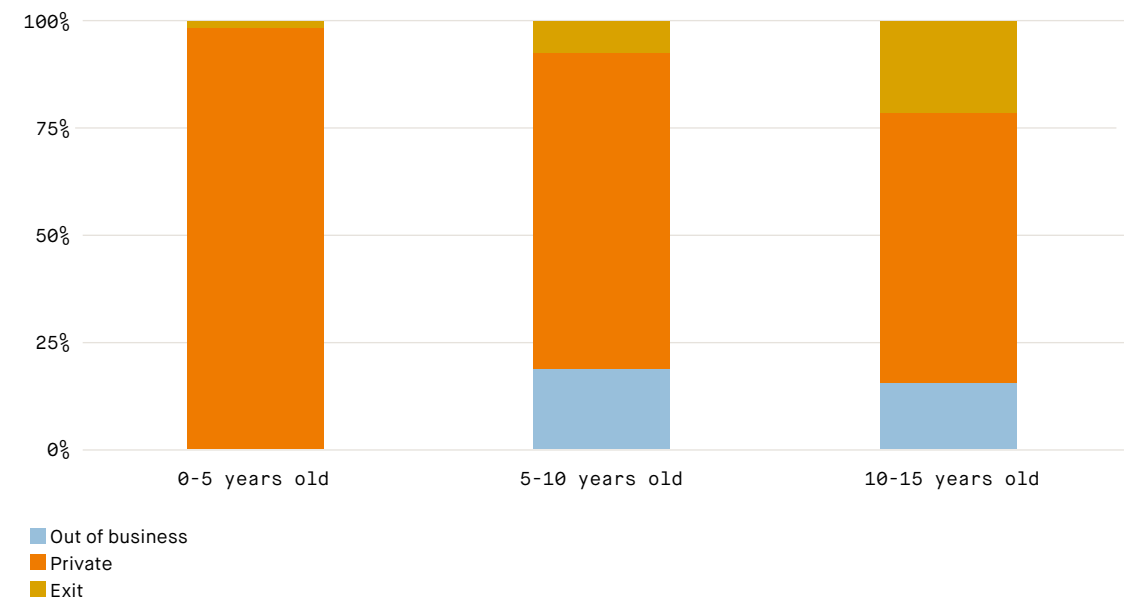
University spin-offs take at least 10 years to achieve an exit, at which point 21% get acquired. After 10 years, more than 64% are still active privately.

This is likely due to the development time required for these kind of startups. These statistics can also indicate a general lack of ambition to grow the business out of its original academic context. However, the potential here cannot be understated. Several of these companies are primed to become international champions across a range of sectors, including SMART Photonics (photonics), Mosa Meat (food), Xeltis (pharmaceuticals), LeydenJar (energy storage), and Hardt Hyperloop (mobility), all of which have raised over €50M in funding.

The investment universities have made in their knowledge transfer capabilities over the past 10-15 years is expected to pay-off, with increasing returns from spin-offs projected for the near future.

Of companies 10-15 years old, 21% made an exit while only 15% went out of business

Out-of business, Private and Exit



Spin-offs are mostly funded by public funds, except in life science.

Three types of funding sources were dominant over the last 5 years:

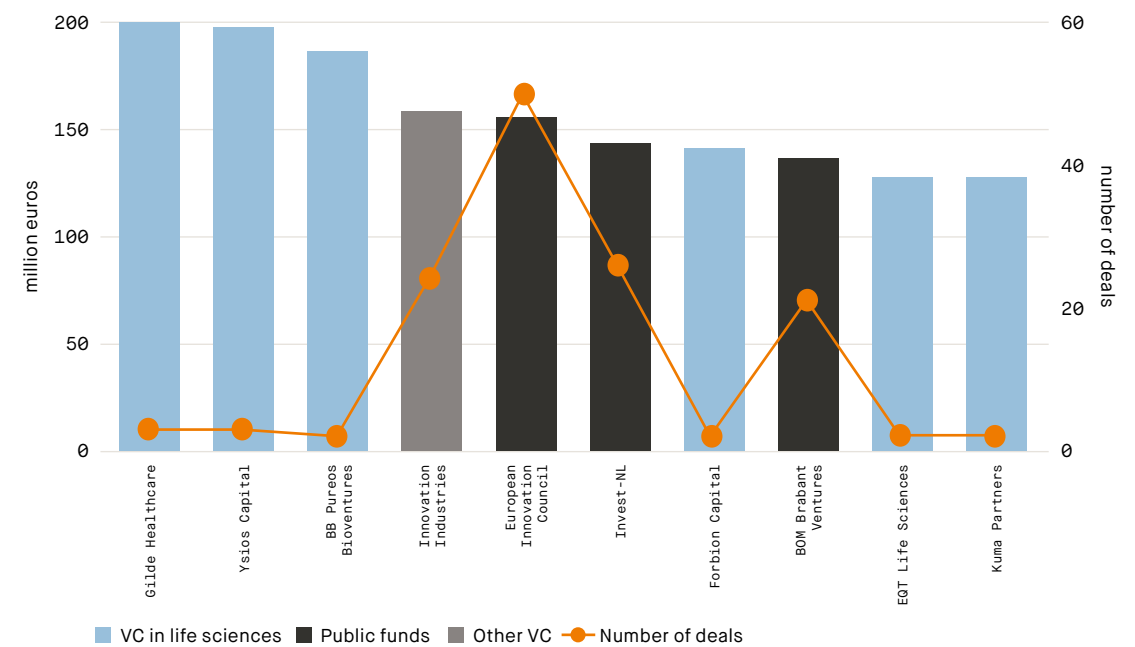
Life science VC firms were top investors in spin-offs. These investors typically made a small number (1-3) of large deals.

In contrast, public funds such as the European Innovation Council, Invest-NL, and BOM Brabant invested smaller amounts in spin-offs more frequently, ranging from 20 to 50 deals over a broader range of sectors.

Non-life science VCs such as Innovation Industries also made more frequent, smaller investments. Larger private investments in deep tech outside life science are rare.

Top investors and investees of the last five years by total accumulated deal size.*









Total deal size participated in per investor, period 2018-2022



source: Techleap and Dealroom.co

* Total value of the deals that these funds have (co)invested in. This may not reflect the actual invested amount per investor due to co-investment.

Comparable transformative deeptech businesses outside The Netherlands have managed to raise much more funding.

	 <p>Triclonics®</p> <p>cancer cell</p> <p>Closing in on cancer</p>	<p>€ 37 billion</p> <p>€ 0.7 billion</p> <p>BionTech, Germany</p> <p>Merus, Netherlands</p>
	 <p>CO₂ free energy solutions. Everywhere.</p>	<p>€ 141 billion</p> <p>€ 0.3 billion</p> <p>CATL, China</p> <p>Greener, Netherlands</p>
	 <p>The world's first solar car</p>	<p>€ 390 billion</p> <p>€ 0.5 billion</p> <p>Tesla, United States</p> <p>Lightyear, Netherlands</p>
	 <p>An on-demand, zero-emission, cheap way to travel long distances</p>	<p>€ 0,7 billion</p> <p>€ 0.08 billion</p> <p>Hyperloop One, United States</p> <p>Hardt Hyperloop, Netherlands</p>

And there are many more examples of successful deeptech businesses...

Leading deeptech startups can yield big returns, but deeptech investments in the Netherlands remain small.

Current valuation of global frontrunner
 Current valuation of Dutch deeptech companies



Financing Growth



State of
Dutch Tech
2023

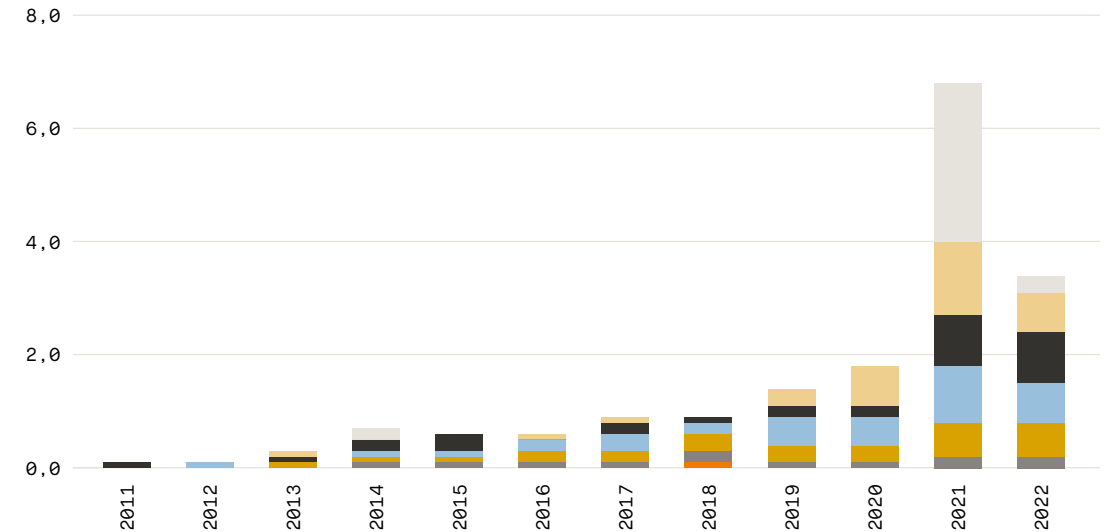
Tech startup investment levels are growing compared to pre-pandemic rates.

After an exceptional VC investment year in 2021, investment in 2022 dropped while remaining nearly double 2020 levels.*

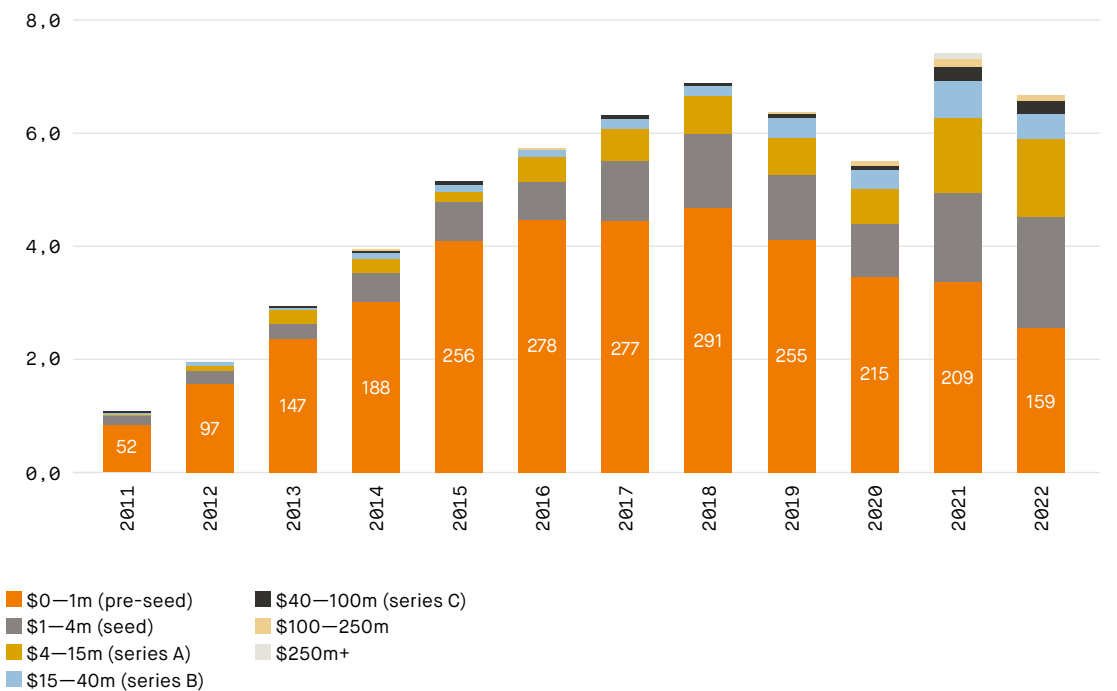
Compared to 2021, 2022 saw a drop in investment levels at all stages except early stage capital (pre-seed: €0-1M).

While the rise in pre-seed funding was positive, fewer deals were made, with 159 deals in 2022 (-24%) compared to 209 in 2021.

VC investment in the Netherlands by round size (€ b)



VC rounds (#) in the Netherlands



- \$0–1m (pre-seed)
- \$1–4m (seed)
- \$4–15m (series A)
- \$15–40m (series B)
- \$40–100m (series C)
- \$100–250m
- \$250m+

Source: Dealroom.co

* Due to a reporting lag, the last 12 months have systematically underreported VC rounds.

Most sectors have taken a hit compared to 2021 but are still performing above 2020 levels.

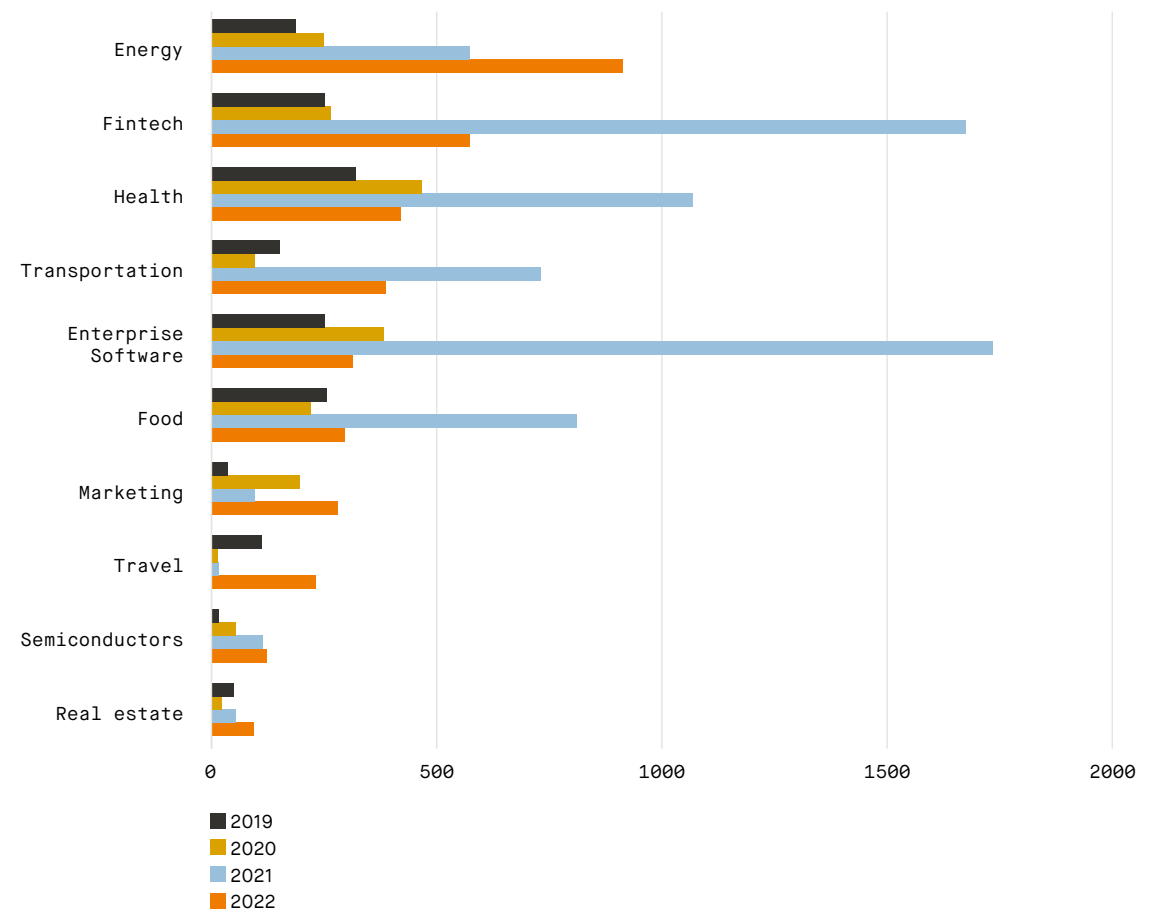
All sectors outperformed pre-pandemic levels

Investment in the energy sector soared in 2022 compared to 2021 and 2020.*

Fintech and enterprise software experienced the biggest decline compared to 2021 but fintech is still at double its 2020 level.

Meanwhile, investments in the health sector are dropping overall, with levels below what they were in 2021 and 2020.

VC investment in the Netherlands by industry (€ b)



Source: Dealroom.co

* Due to a reporting lag, the last 12 months have systematically underreported VC rounds.

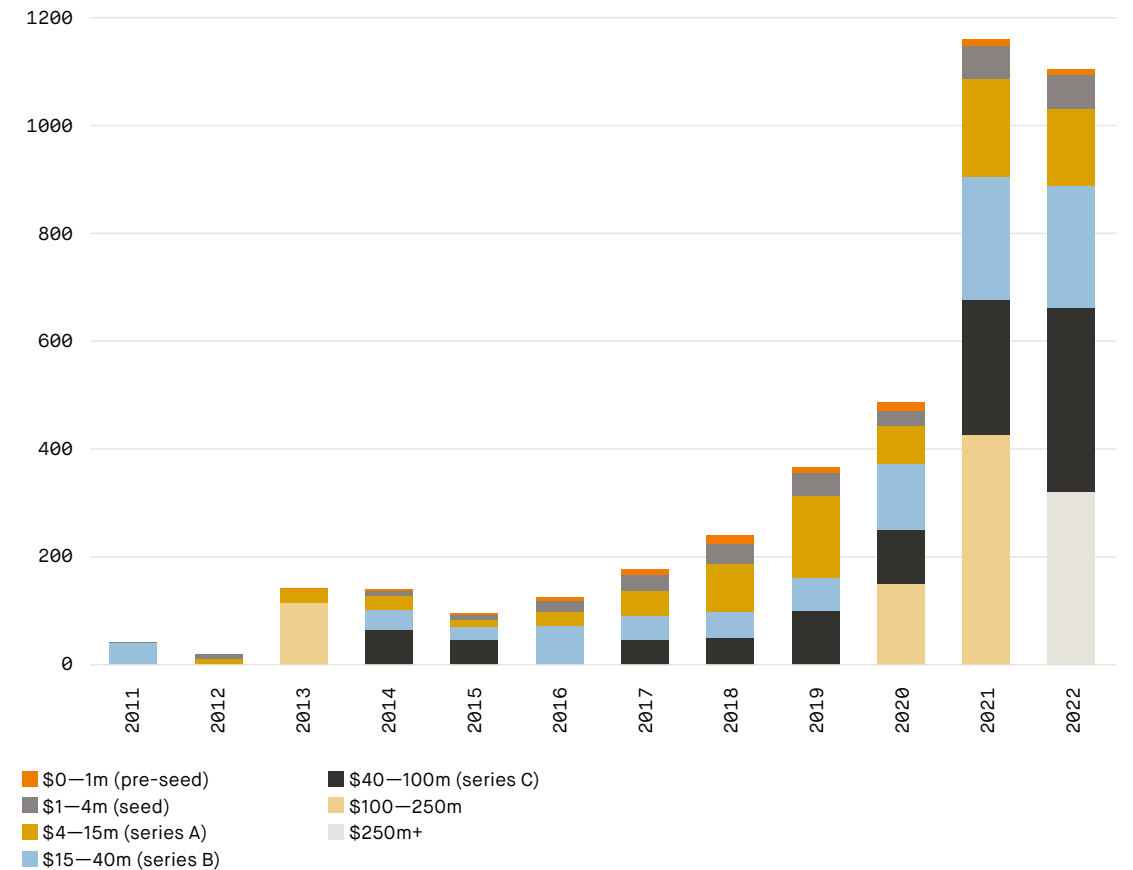
Impact investments are on the rise, more than doubling since 2020 and with over €1B raised in 2022.

Impact investments growing steadily, regular VC investments slowing

VC funds invested €1B in Dutch impact startups in 2022, which is more than twice as much as 2020 and only slightly less than record-breaking year 2021.*

This shows that, despite a looming economic crisis, investors are willing to bet on sustainable companies. Of every €3 invested in tech companies in the Netherlands, €1 now goes to a green startup.

Venture capital investment into Dutch impact startups (€ M)



Source: Dealroom.co

* Due to a reporting lag, the last 12 months have systematically underreported VC rounds.

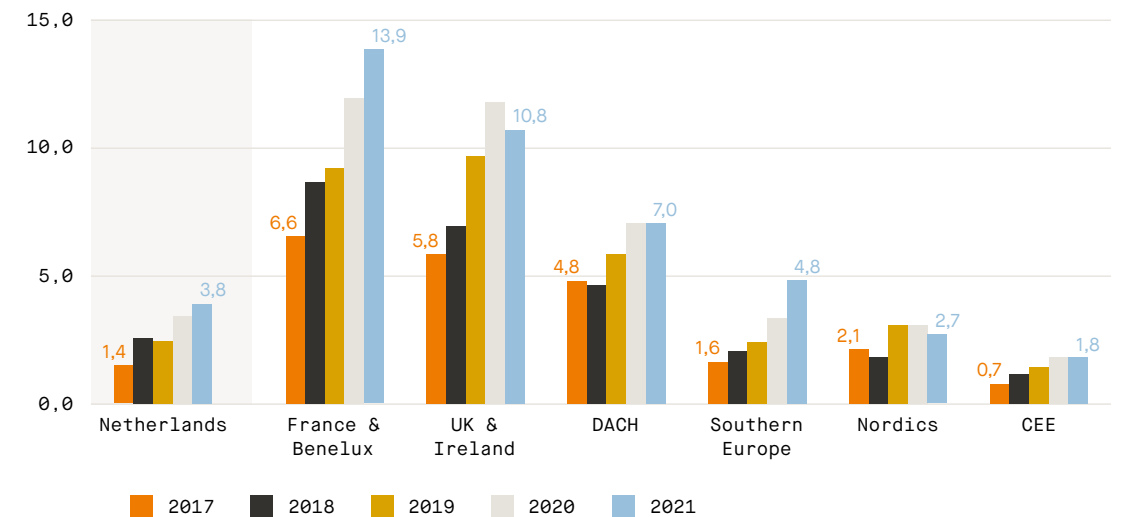
Startup growth potential is hopeful, with considerable dry powder capital available for tech companies.

Dry powder* levels have reached €3.8B in the Netherlands, more than doubling over the past five years.**

Dry powder is a strong indicator of an ecosystem's future investment potential, and with Dutch funds raising new capital in recent years, we can expect to see it deployed in the near future.

In 2022, the Nordics, the UK, and Ireland bolstered their dry powder reserves — 11% and nearly 10% respectively — while Germany remained flat.

Dry powder (€B) by region per year, 2017-2021



Source: Invest Europe

* Dry powder refers to the amount of available capital available for future deployment. It is a metric that has a material impact on the capital supply available in a market, with implications on the propensity for founders to get funding, as it is reserved to be deployed within a certain timeframe.

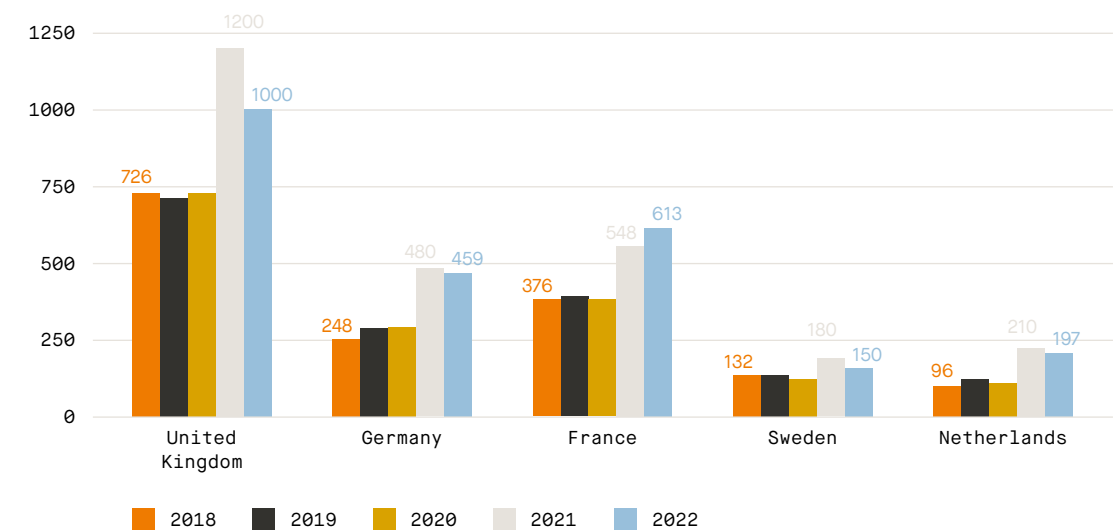
** Available capital supply for venture funds, which is defined by Invest Europe as 'firms focusing on early-stage, later-stage, and both.'

VC funding rounds above €2M dropped slightly but are still nearly double 2020 levels.

The Netherlands is on-trend while France stands out as it increased its number of investment rounds greater than €2M.

In France, the total number of VC funding rounds above €2M increased by 12% in 2022 compared to 2021.* At the same time, the Netherlands saw a 6% decline, the UK and Sweden dropped by 17%, and Germany decreased slightly, with a 4% decline.

Number of VC rounds > €2M



Source: State of European Tech 2022 report and Dealroom.co

* Due to a reporting lag, the last 12 months have systematically underreported VC rounds.

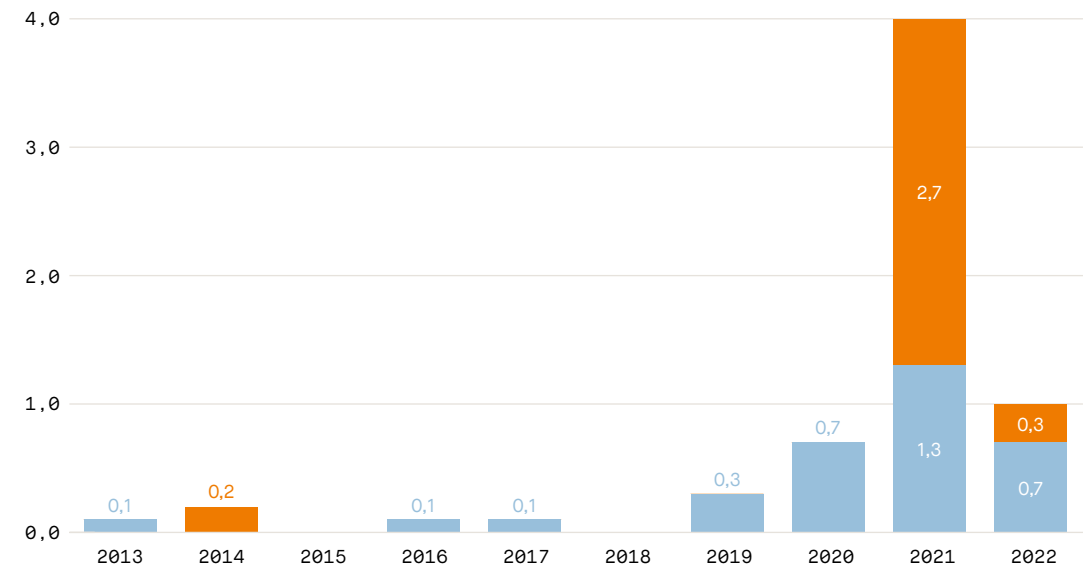
There was a big drop in large investment rounds above €100M, setting the Netherlands back to 2020 levels.

No real mega rounds were reported in 2022

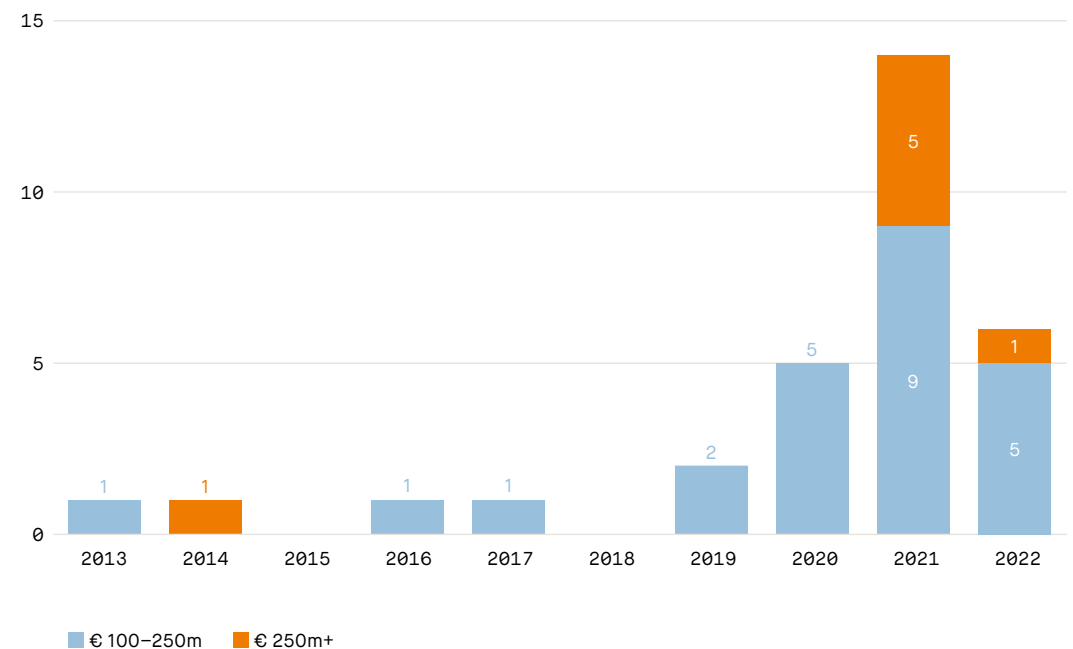
Unfortunately, the stellar growth of 2021 — including €250M+ rounds from MessageBird, Mollie, Picnic, and others — wasn't sustained. Even so, 2022 garnered slightly better numbers than 2020.*

In 2022, there were 6 rounds above €100M compared to 14 in 2021, with the biggest going to Perpetual Next, Mews, Leyden Labs, Backbase, Repeats, and Pyramid Analytics.

VC investment: €100 million+ category (€ b)



VC rounds: €100 million+ category (#)



Source: Dealroom.co

* Due to a reporting lag, the last 12 months have systematically underreported VC rounds.

Overall, US VC dropped from 49% to 23% of all investments, yet the rise in Dutch VC couldn't fill this gap.

€1.4B in funding came from Dutch investors in 2021 and 2022.

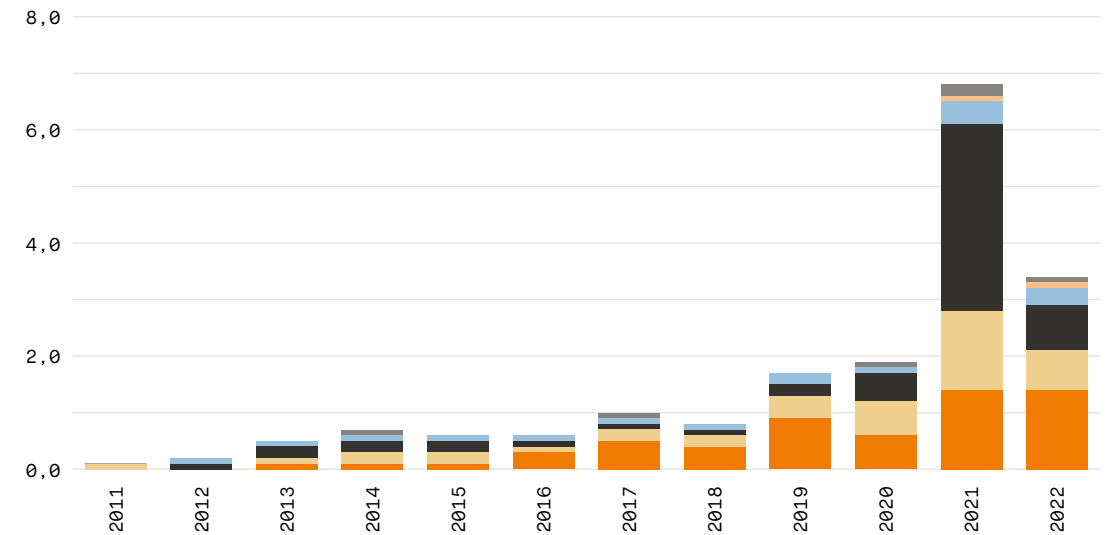
Investment in absolute numbers from US funds is down to nearly a quarter of what it was in 2021*, while investments from EU funds halved and domestic funds remained steady.

Looking at the overall funding mix, the US has fallen considerably which has led to an increase in the relative importance of domestic funds. To ensure a more resilient capital market in The Netherlands, domestic funds need to grow to reduce dependence of foreign capital.

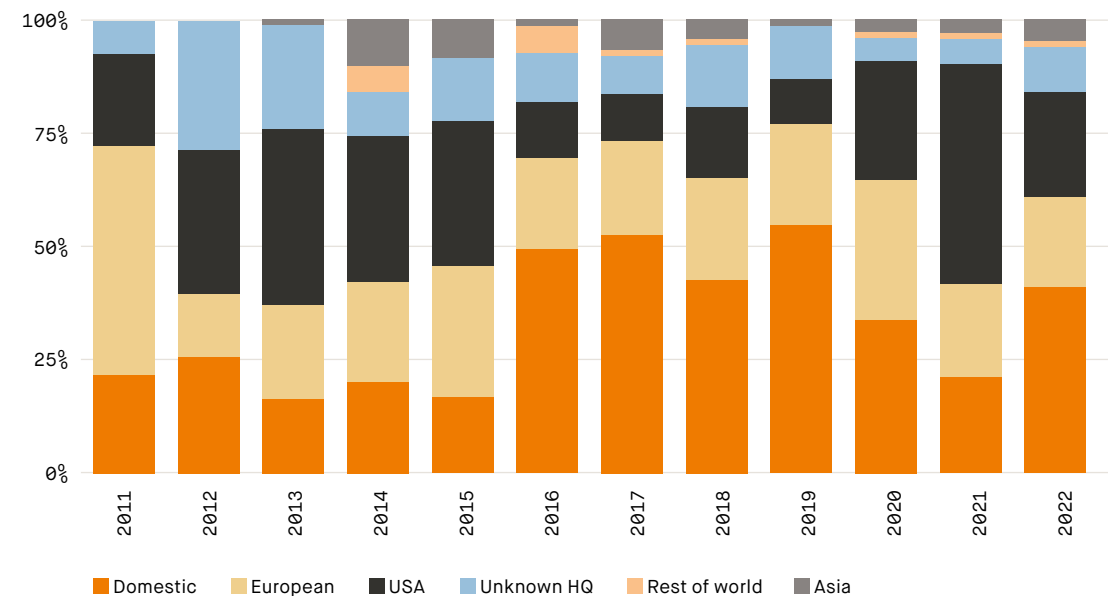
Source: Dealroom.co

* Due to a reporting lag, the last 12 months have systematically underreported VC rounds.

VC investment in the Netherlands by investor location (€ b)



VC investment in the Netherlands by investor location (% of total)



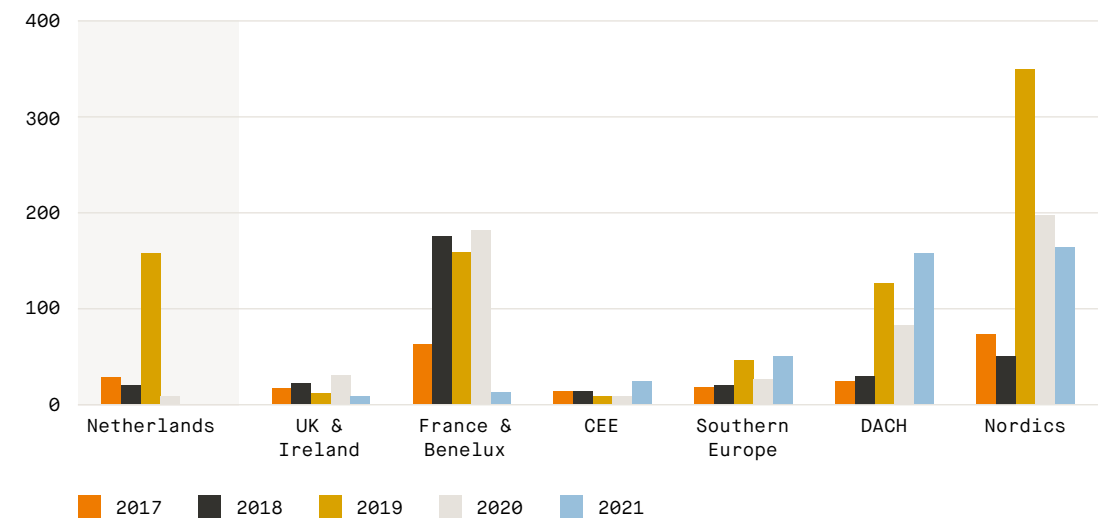
As fund sizes remain small, Dutch pension funds hardly invest in the VC asset class.

Dutch pension funds allocation to Venture Capital is very limited.

Dutch pension funds are the largest in the world and represent a big share of national invested savings. From these savings, the contribution to Dutch VC is negligible, with only a one-off 'spike' of €150M in 2019.*

Pension funds in the Nordics are considerably smaller than Dutch funds but are consistently investing more in VC than European peers.

Pension funds committed (€M) to VC funds by LP region, 2017 tot 2021



Source: The European Data Cooperative, developed by Invest Europe

* 2022 data reporting will be available in the run of 2023.

No material changes were observed based on other available funding data sources.

Dutch investors do not co-invest as well as other markets.

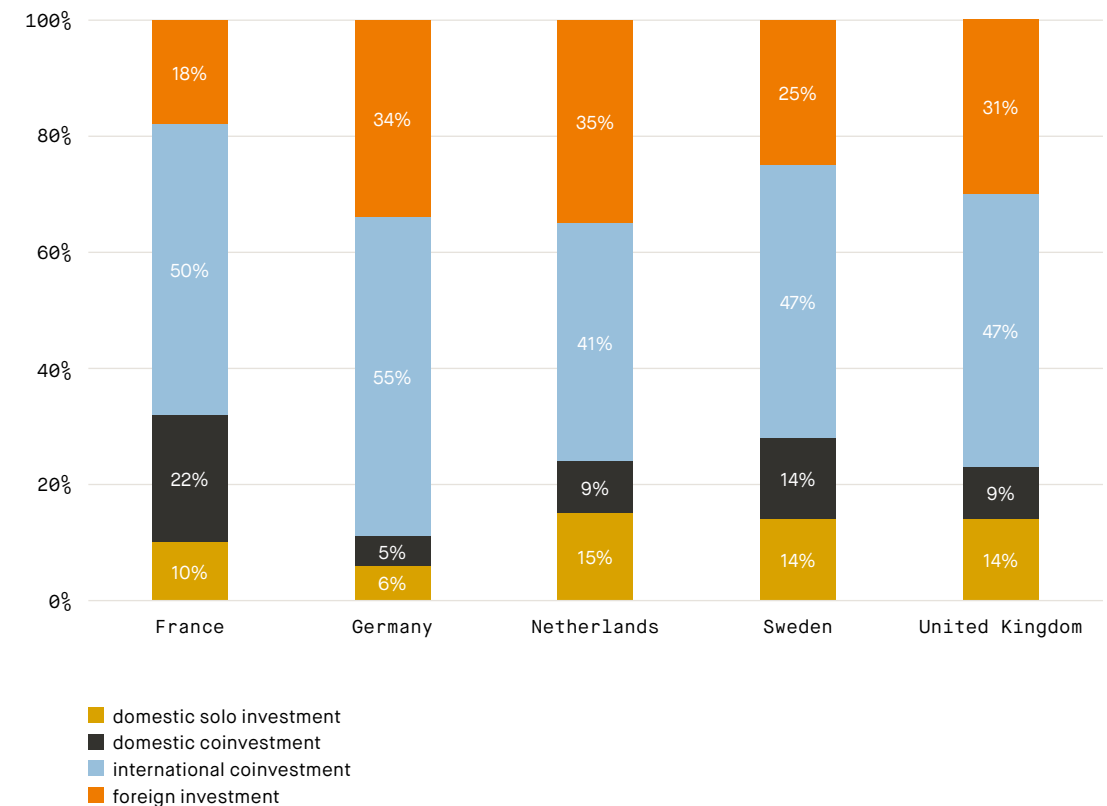
Dutch investors are not cooperating enough.

Assessing, investing and supporting tech companies increases in complexity. Co-investment helps share knowledge, reduces portfolio risk, improves assessment of companies' potential and ensures valuations are more in line with international practices.

35% of >€10m deals in the Netherlands are made without a Dutch investor. Only 41% of >€10m deals are co-investments of Dutch and foreign investors.

The Netherlands also has the largest percentage of solo domestic deals — at 15% — compared to France, Germany, Sweden, and the UK.

Co-investment deal type distribution for deals >€10 from 2018 onward



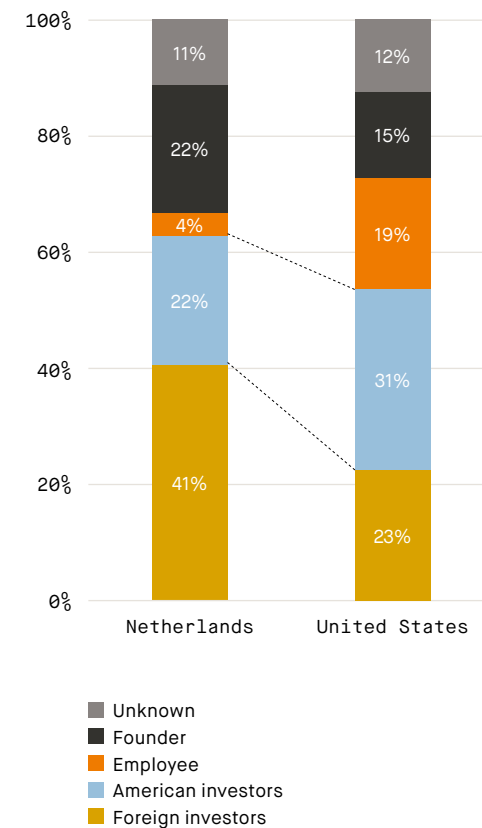
As a result, US VC dominate Dutch cap tables, leading to dependence and a capital outflow.

When liquidity flows out of the Netherlands to foreign investors post-exit, it is harder for founders to amplify the power of the Dutch ecosystem.

In The Netherlands, more capital flows out of the ecosystem to foreign investors, as Dutch VC are relatively small and employees do not share as much in the profit.

This leaves little value to reinforce the local ecosystem. In the US, more value stays in the region through investors, founders, and employees. This creates a self-sustaining ecosystem where capital empowers the next generation of founders.

Share ownership at exit of a Dutch unicorn compared to an American unicorn



Talent attraction and inclusion



State of
Dutch Tech
2023

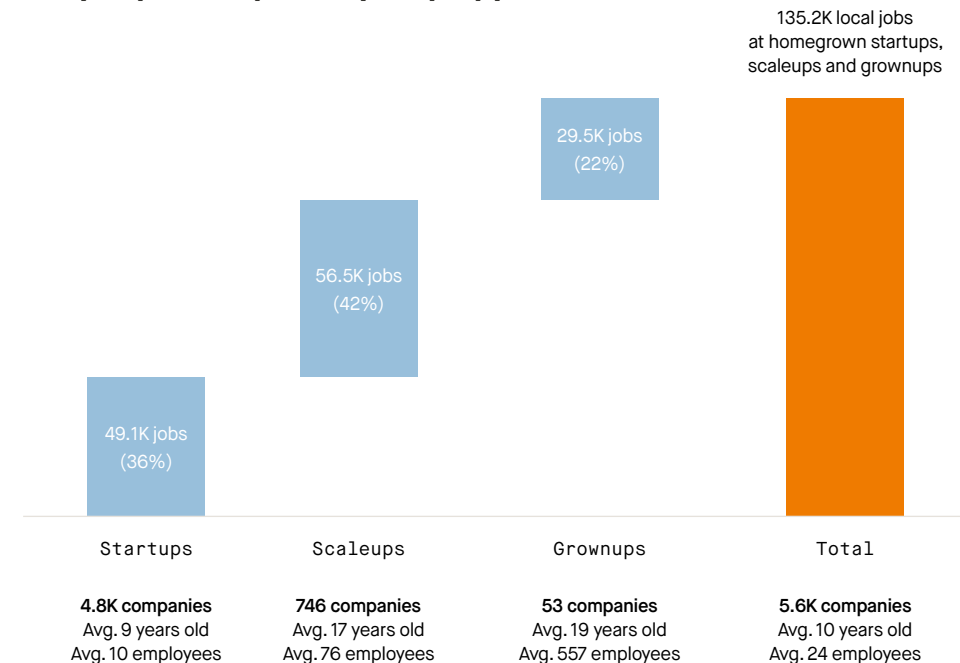
135,000 employees are working at startups, scaleups, and grownups in the Netherlands.

The number of employees at startups, scaleups, and grownups has been steadily increasing over the past few years, from 109K jobs in 2020 to 130K in 2021 and 135K in 2022.

Startups remain a driver of employment growth in the Netherlands, with annual job growth of the tech sector in 2022 at 7.6%.

Dutch startup employment showed resilience during the first half of the year. Layoffs were most common at big tech companies and the talent they released were absorbed quickly by the labour market.

Employees by company type



Attracting tech talent remains the main bottleneck for many startups.

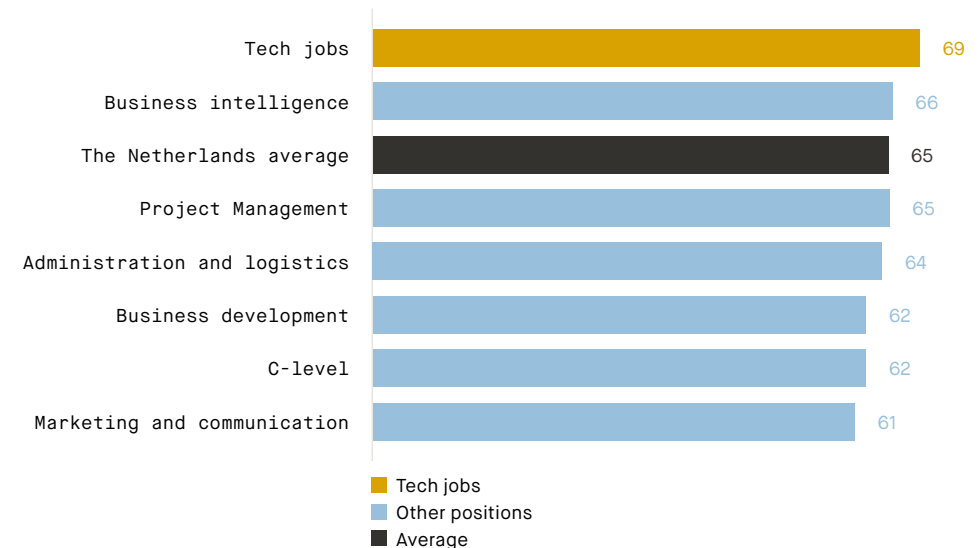
Dutch tech job openings take more than 60 days to fill and % of hard to fill jobs in tech rises

The percentage of hard-to-fill tech job openings continues to rise: 59% compared to 57% in 2020 and 58% in 2021. On average, vacancies stay open 60+ days.

In 2022, Belgium overtook the Netherlands with the highest percentage of hard-to-fill jobs. The percentage of hard-to-fill startup jobs also rose in Sweden, Germany, France, and the US.

While startups and scaleups are still hiring, big tech has announced layoffs that could lessen the pressure on a tight labour market.

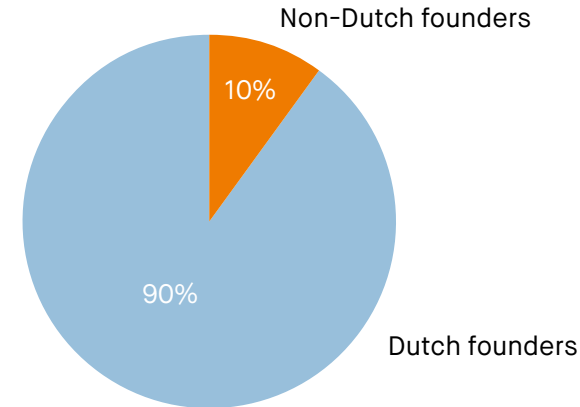
Number of days a vacancy remains live in the Netherlands January-September 2022 (excluding internships)



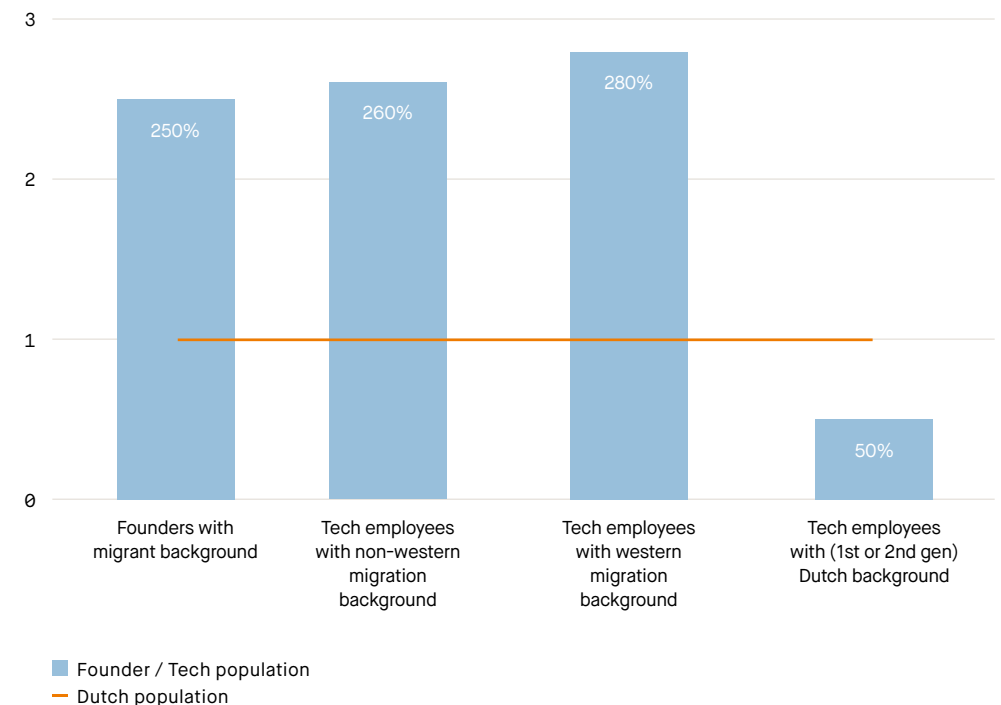
10% of tech founders in the Netherlands have a migrant background, and the sector attracts more foreign talent than other sectors.

When we compare the ethnic frequency of tech employees to their % in the make up of the Dutch population as a whole*:

- Tech employees with non-Western migration backgrounds are **2.6x** over-represented compared to % in the Dutch population
- Tech employees with Western migration backgrounds are **2.8x** over-represented compared to % in the Dutch population
- Tech employees with Dutch nationality (this includes 1st or 2nd generation Dutch) are **0.5x** under-represented compared to % in the Dutch population



Frequency comparison to Dutch population:
100% = matches Dutch population proportion



Source: DiversityHeroes 2022, LinkedIn Insights 2022, CBS 2022

* This insight is based on the native language submitted by LinkedIn members

Dutch female founders are under-represented vs peers in other EU countries.

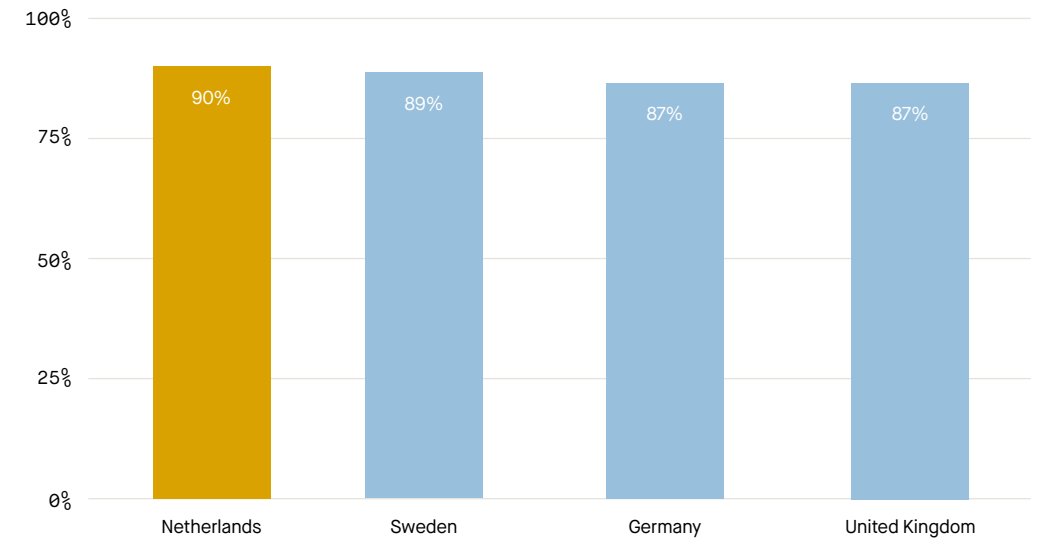
The Dutch tech sector is still dominated by male founders and employees.

90% of Dutch founders in the startup ecosystem are male, making it less gender diverse than Germany (87%), Sweden (89%), and the UK (87%).

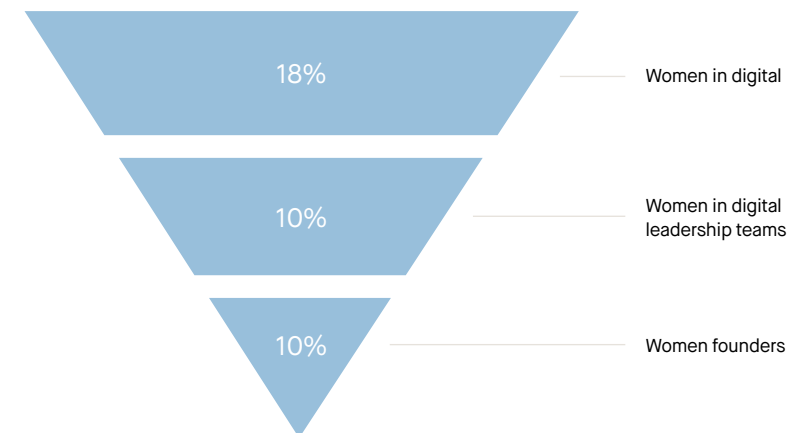
10% of all (co)founders in the Dutch startup ecosystem are female, while women make up 18% of the total Dutch digital industry.

Overall, there is clearly much untapped potential in the Netherlands when it comes to female entrepreneurship. Even though the number of female entrepreneurs is growing, very few scaleups are run by female entrepreneurs.

Male founders* (% of total founders)



Representation of women in the digital industry

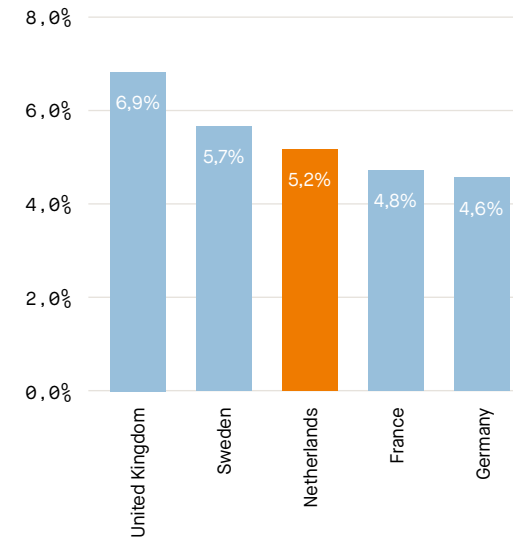


Source: Dealroom.co, 2022 Dutch Diversity & Inclusion in Digital report

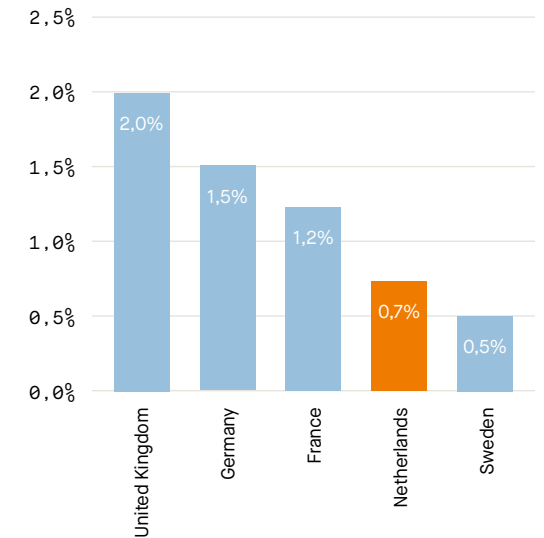
* Based on available Dealroom.co gender data of founders.

Female-only founder teams in the Netherlands account for 5.2% of all VC deals and 0.7% of VC funding raised, below EU peers.

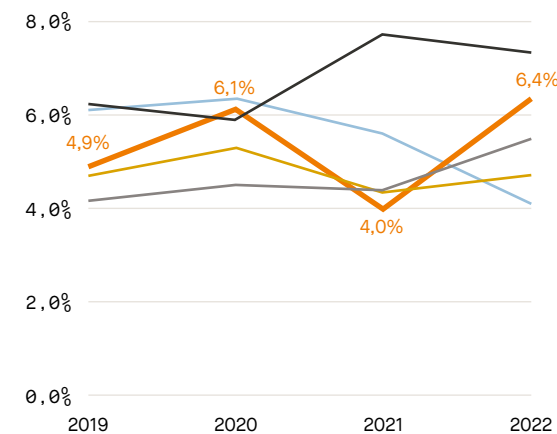
Rounds: % share female founder only of total gender data available (2019-2022 total)



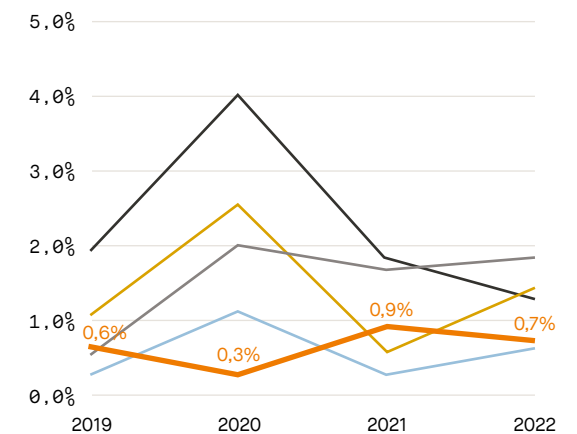
Value: % share female founder only of total gender data available (2019-2022 total)



Rounds: % share female founder only of total gender data available



Value: % share female founder only of total gender data available

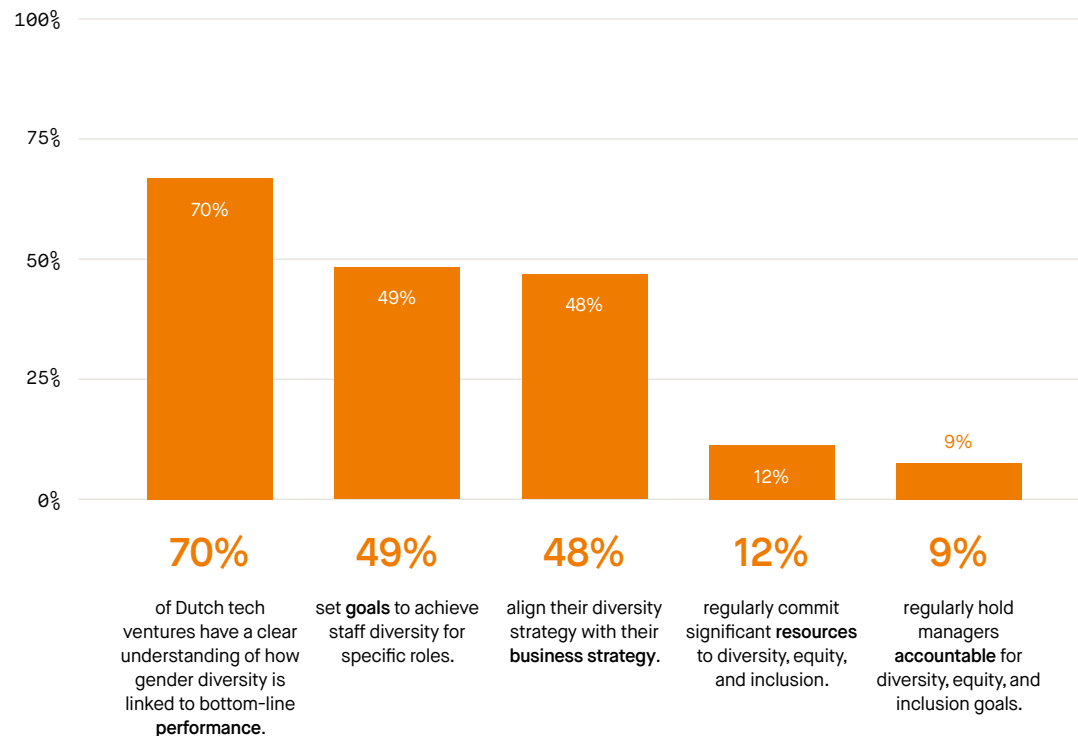


- Netherlands
- United Kingdom
- France
- Germany
- Sweden

Source: Dealroom.co

* Due to a reporting lag, the last 12 months have systematically underreported VC rounds. In this slide, we only look at available gender data.

How to improve? Create a people-first culture that empowers growth with more consistent strategy and accountability.



Source: Fundright Report

FundRight published their report where 142 startups answered questions around gender diversity specifically. While we encourage startups to mindfully track other diversity measures too, we are aware that currently this data is not yet available at many startups.

More privacy-friendly data is needed to create effective, people-first cultures.

While structural factors still need to be addressed to foster a more diverse and inclusive tech sector, organisations can already step up their efforts by applying best practices in diversity, equity, and inclusion (DEI)

However, to maximise the impact of these efforts and actions more DEI data is necessary.

Early research with Dutch startups shows young companies tracking ethnicity. It shows that there is a path towards increasing knowledge around DEI, even though a bigger effort is needed.

Of surveyed Dutch startups:

37% have never tracked gender diversity in new hires

40% have never tracked gender diversity in candidates interviewed

49% have never tracked gender diversity in the applicant pool

56% have never tracked gender diversity in pay rates

57% have never tracked gender diversity in promotions

Source :DiversityHero 2022, Fundright Report

FundRight published their report where 142 startups answered questions around gender diversity specifically. While we encourage startups to mindfully track other diversity measures too, we are aware that currently this data is not yet available at many startups.

The flywheel of sustainable ecosystems



State of
Dutch Tech
2023

In the Netherlands, the flywheel that will enable next generation startups to scale isn't spinning yet.

In a self-sustaining ecosystem, the following elements show us that a startup flywheel is spinning:

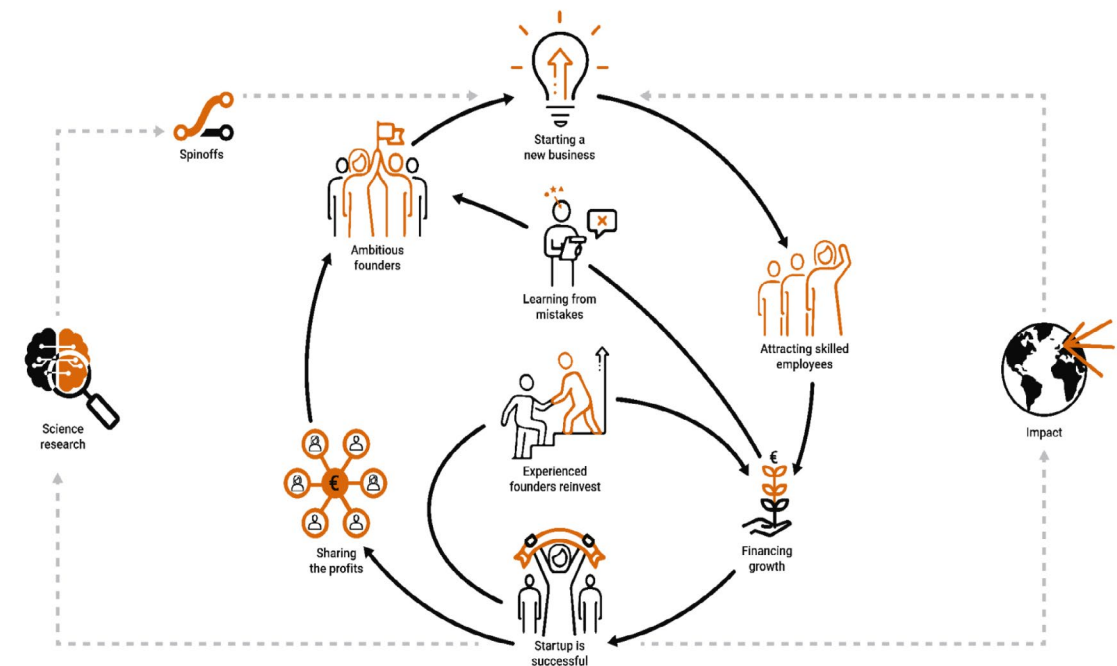
- Redistribution of profits between employees, founders, and investors
- Reinvestment of profits into new businesses
- Growing ambition in the ecosystem through a pay-it-forward culture

In this type of ecosystem, failed startups are important too, as they are good learning opportunities for founders to gain more experience and ambition.

Improving the spinning of the flywheel leads to sustainable growth in a number of startups and increases their chances of success, with better outcomes for the Netherlands as a whole.

The Netherlands' flywheel has bottlenecks in:

- Tech transfer (valorisation)
- Talent
- Capital
- Ambition



Too few employees of mature tech companies are founding and funding the next generation of startups.

While experienced employees of mature tech companies are founding startups, the amount lags behind other countries.

In the Netherlands, 100+ startups were (co-)founded by individuals who first gained experience as employees at one of the 29 Dutch unicorns or at tech and R&D-intensive Dutch corporates. This new generation of startups already generates 3K local jobs and over 5K jobs globally. But these numbers are low compared to the US, Sweden, Israel, the UK, and others.

Former employees of the Dutch unicorn Adyen have so far founded 5 new startups. Whereas at Uber in the US, for example, employees have gone on to start 230 new companies. Skype employees in Estonia have founded 109 new startups, Spotify employees in Sweden launched 51, Gett employees in Israel started 25, and Revolut employees in the UK founded 18.

Startups founded by former employees of Dutch unicorns and tech behemoths



Better stock option policy can accelerate the flywheel, with 18% potential impact on employment growth by 2030.

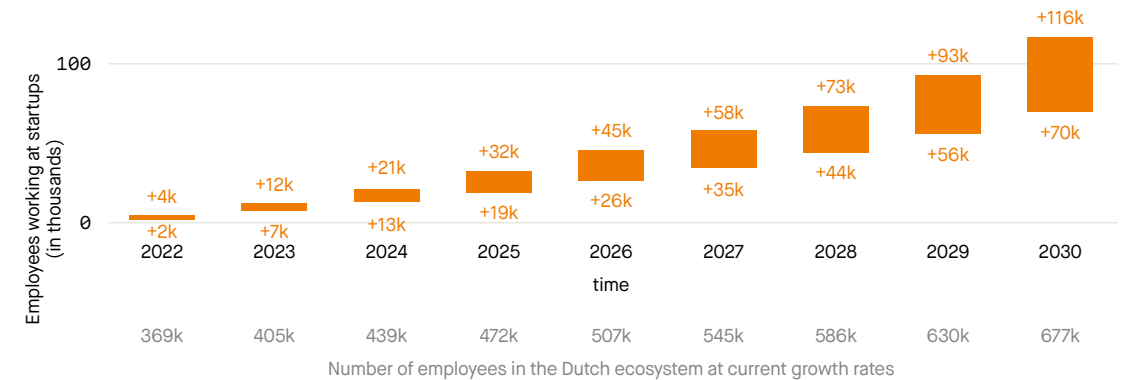
Employee Stock Ownership Plans (ESOP) that give workers shares of stock can align the interests of employees with those of the company, as the company's success translates into future financial rewards for them.

These plans also help staff feel more appreciated and better compensated for the work they do, which increases innovation and firm performance.

If the Netherlands implements similar stock option policies as benchmark countries like the UK, US, and Sweden, the ecosystem growth potential is huge:

- 116K in additional startup jobs by 2030
- €470-690M in yearly additional available early stage funding
- €1.4-2.3B in returned taxes per year

Growth opportunity in startup jobs with ESOP implemented effectively (from 2022 to 2030)



Source: On behalf of Techleap.nl, Van Huystee Consultancy built a quantitative model to show the impact of better stock option policies in the Netherlands, 2022. Stam, E., Kleverlaan, R. and Spaans, L. (2021) Making employee ownership work in startups and SMEs. University of Utrecht.

In combination with tax support for early stage investment, €2B would be available for Dutch startups by 2030.

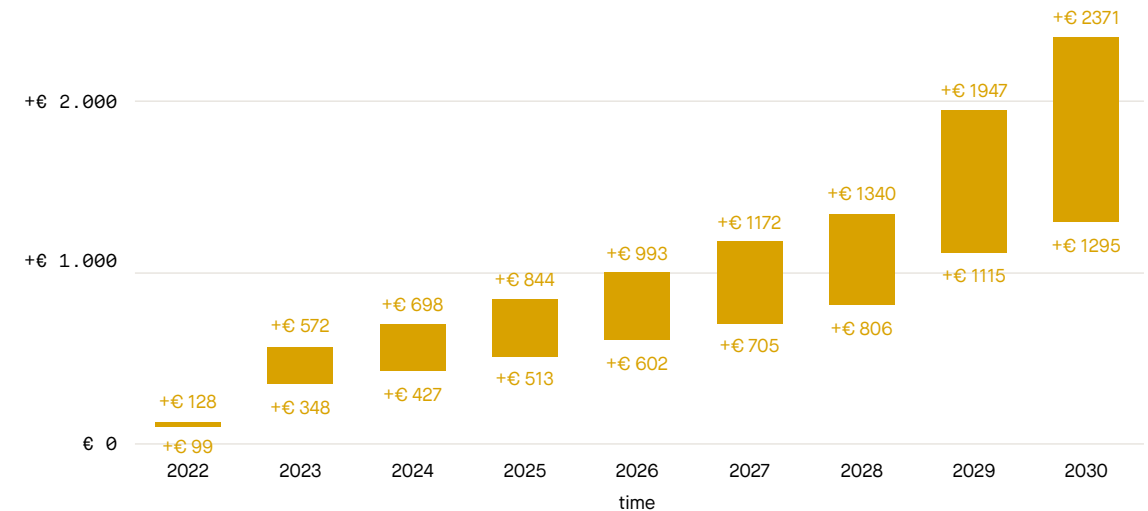
Tax support for early stage investment by private investors would fill the current gap in early stage funding.

In the UK, Enterprise Investment Schemes (EIS) and Seed Enterprise Investment Schemes (SEIS) have generated £24B pre-seed and seed funding (1994-2020) and £1.4B respectively (2012-2020). In Germany, the 'INVEST' scheme, a combination of subsidies and tax incentives, has generated €910M between 2013 and 2020.

In combination with an effective stock options scheme, this same approach could generate €2B of funding per year by 2030 in the Netherlands and up to €4B in additional tax revenue per year by 2030 — a total of €8-16B between 2022-2030.

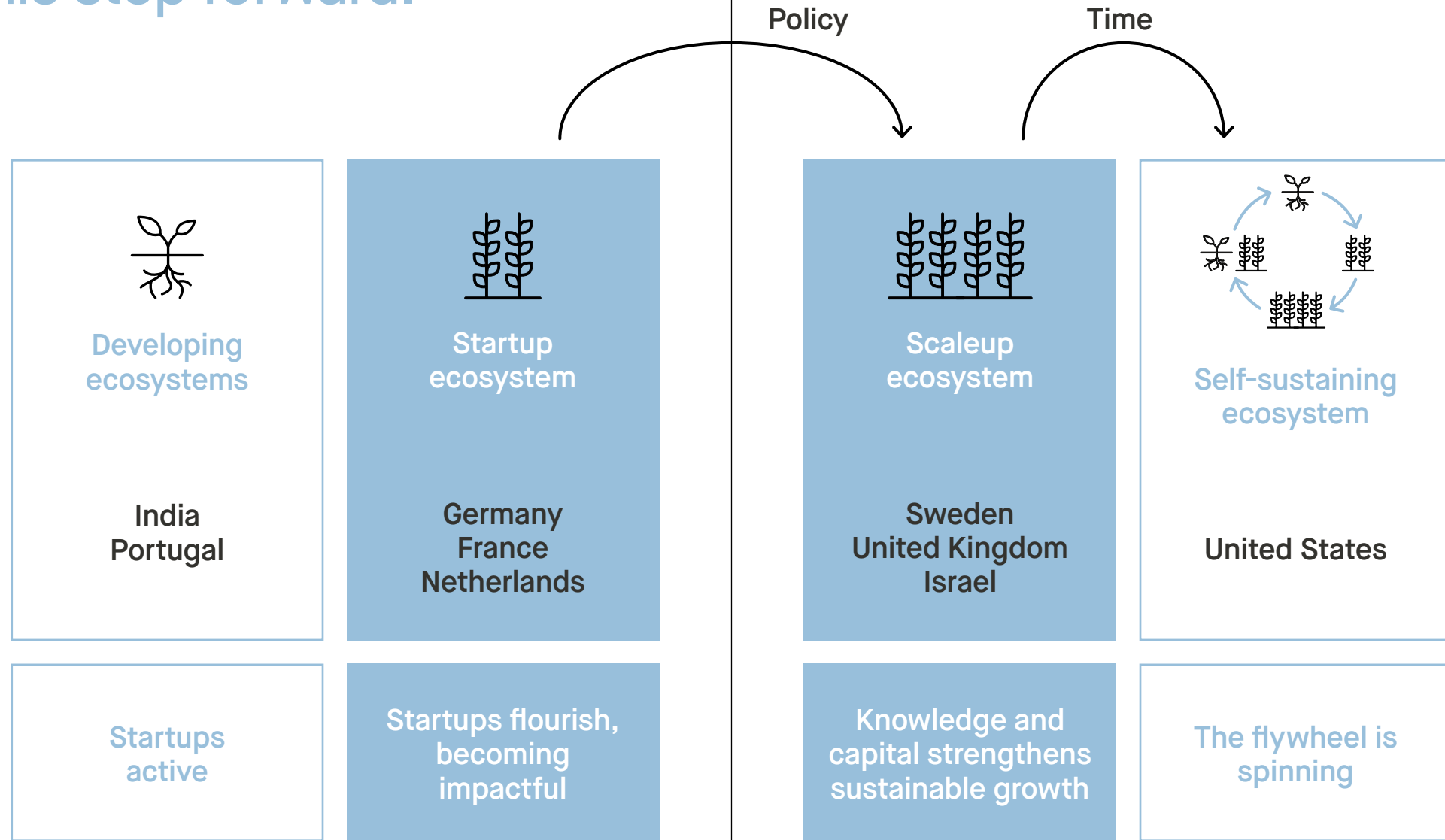
As an additional benefit, experienced entrepreneurs and employees of mature tech companies would stay engaged in the tech ecosystem and not only invest money but also time, expertise, and their network to benefit the next generation of startups.

Additional reinvestments from founders, angels, and employees per year



Sources: On behalf of Techleap.nl, Van Huystee Consultancy has built a quantitative model to show the impact of a competitive stock option policy and angel investments scheme in the Netherlands, 2022. PwC, Het onbenut potentieel in de financiering van startups (2022). Stam, E., Kleverlaan, R. and Spaans, L. (2021) Making employee ownership work in startups and SMEs. University of Utrecht

With strong collaboration between the public and private sector, the Netherlands can take this step forward.



Regional analysis

Regional diversity is a strength, if sufficient scale and density can be achieved through connections and clustering.

The Netherlands is building a nationwide ecosystem through public initiatives that drive connections between key startup hubs.

Successful ecosystems thrive by virtue of strong connections, which usually depend on geographic proximity. The Netherlands is at an advantage here with many small, specialized ecosystem hubs across the country.

Through collaborations with hubs such as Up!Rotterdam, Founded in Groningen, Braventure, and many more and the formation of the nationwide BOLD community and Dutch Startup Association, the Netherlands has been actively bringing together entrepreneurs within and throughout all provinces. The result? A country that builds on the strengths of different hubs and knowledge institutes, operating as one single ecosystem.

Startups, scaleups and grownups* (#) by province



Source: Dealroom.co

Based on reclassified Dealroom data; this is the number of all verified startups, scaleups and grownups

North Holland: the largest pool of startup jobs.

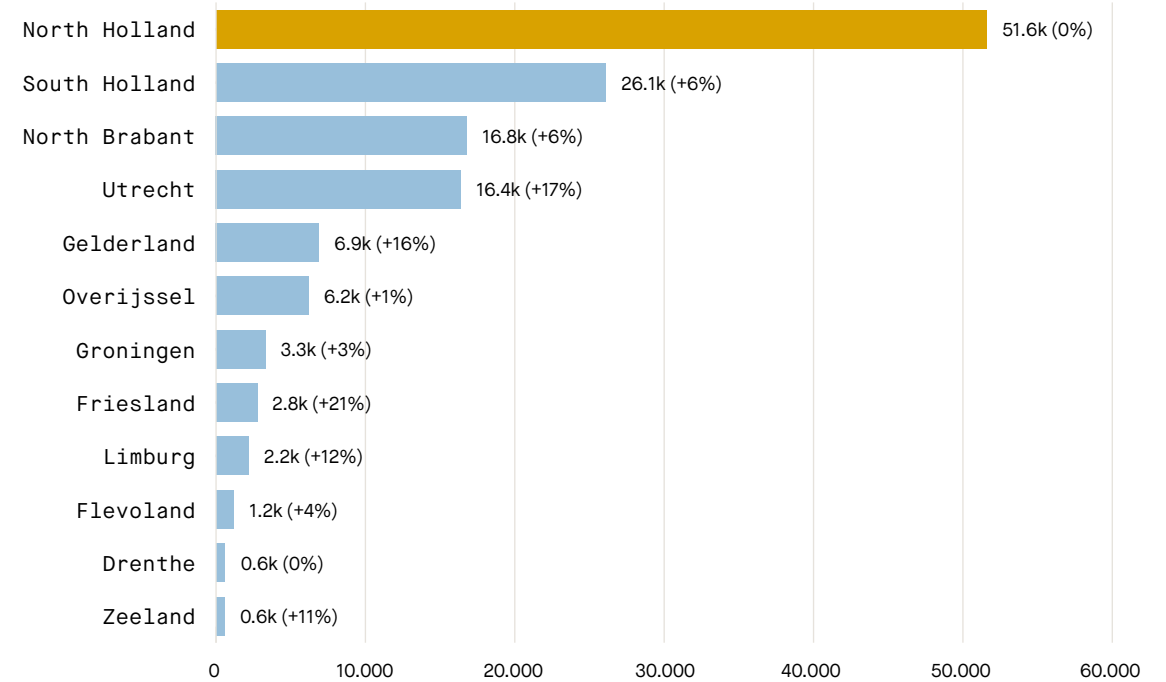
38% of total startup jobs are created in North Holland.

Amsterdam still is by far the largest startup town in The Netherlands generating most of North Holland's startup jobs.

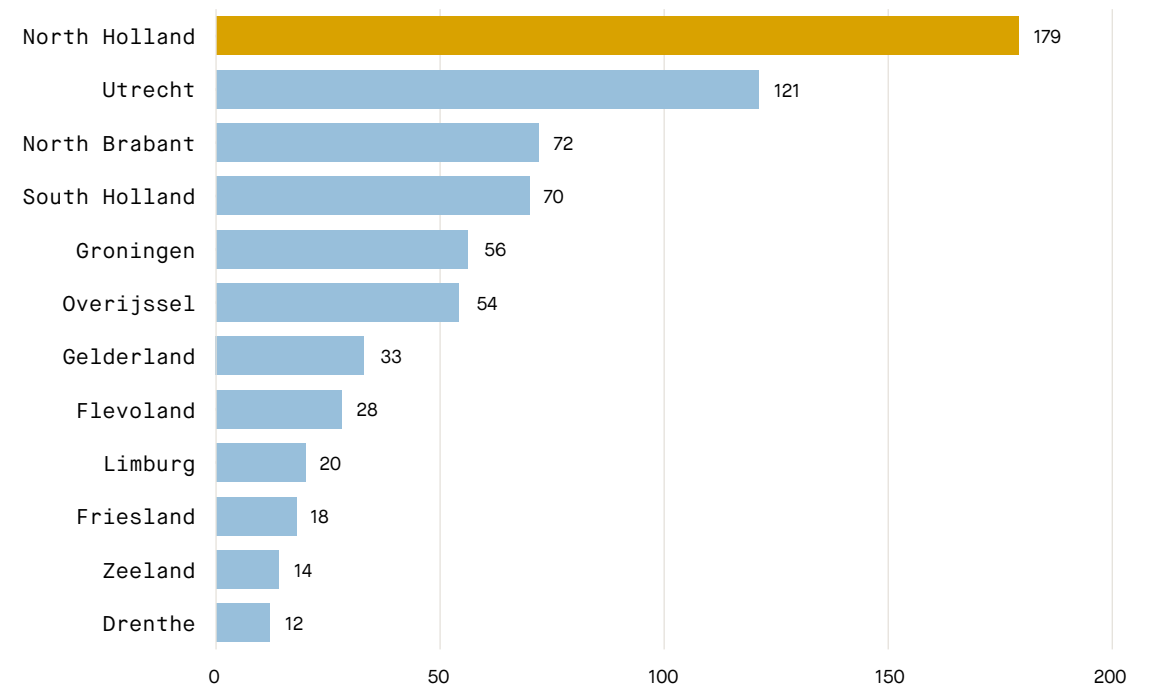
Utrecht scoring high in startup density and growth. While Friesland has the fastest growing startup sector in 2022.

Source: Dealroom.co and The Netherlands Startup Employment Report 2022

Startup jobs(#) by province in 2022 & growth (%) vs 2021



Startup jobs per 1M inhabitants, 2022

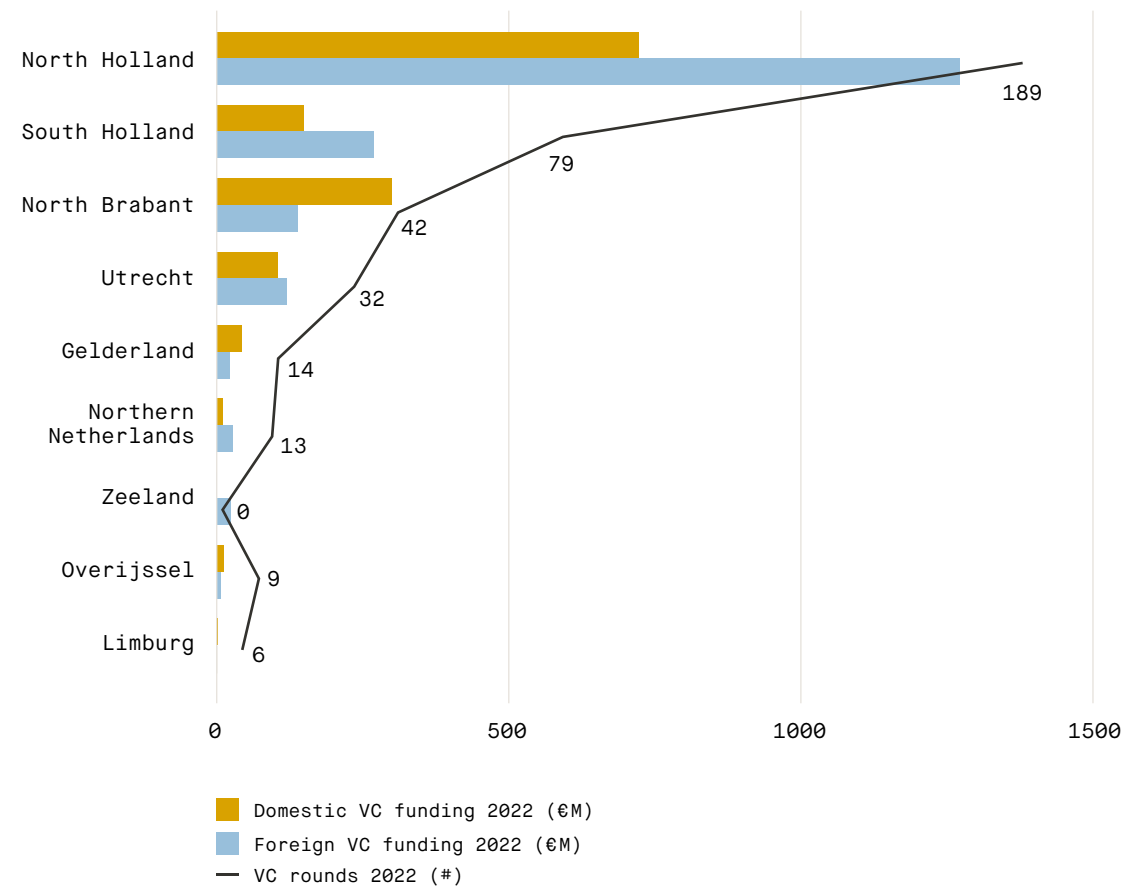


Most funding rounds take place in North and South Holland and are driven by foreign investment.

In 2022, the majority of funding rounds were centered in North and South Holland.*

The biggest investor (based on assets under management) in the Amsterdam region was the Swedish life science VC firm EQT Ventures. In South Holland, the majority of VC funding also comes from foreign VC funds, with InnovationQuarter as the main Dutch VC investor in the region. Gilde Healthcare and Innovation Industries are among the most active private Dutch investors in Utrecht and Brabant, respectively. In the north and south of the country, financing is primarily done through public financing instruments from the Investment and Development Agency for the Northern Netherlands (NOM) or the Limburg Development and Investment Company (LIOF).

Regional VC funding in the Netherlands in 2022



Source: Dealroom.co

* Due to a reporting lag, the last 12 months have systematically underreported VC rounds.

North Holland is the largest center for startups in the Netherlands.

North Holland leads as the most mature startup ecosystem in the Netherlands

North Holland is home to over 3.4K startups* and 51.6K startup jobs, representing 38% of the startup workforce in the country. Some of the country's biggest success cases were founded in North Holland, including the likes of Adyen, Picnic, and Mollie. The region is also home to the largest Dutch impact startup employers, including EVBox and VanMoof.

Many international and local VCs and incubators have headquarters here as well, which helps grow the ecosystem year after year. In 2022, the region raised €2B in VC funding**, with notable rounds such as Mews (€194M series C, including funding from henQ). The region's particular strength lies in the fintech, travel, transportation, and health sectors.

Closely connected to North-Holland is Flevoland. Though small in startup numbers, the region stands out for its food tech industry, with several hubs created in the province in recent years, such as the research institute Flevo Campus.

Notable VC rounds in North Holland in 2022



Perpetual Next
€320M series A



Mews
€194M series C



Leyden Labs
€147M series B



Backbase
€120M Growth
Equity VC



Pyramid Analytics
€126M series E



Crisp
€75M series C

Key facts about North Holland's startup ecosystem

51.6K+

Startup jobs in North
Holland startups
in 2022

€2B

Funding in 2022

14K+

Jobs created
since 2018

Source: Dealroom.co and The Netherlands Startup Employment Report 2022

* Based on reclassified Dealroom data, this is the number of all verified startups, scaleups, and grownups.

** Due to a reporting lag, the last 12 months have systematically underreported VC rounds.

North Brabant is a key province for deeptech startups.

North Brabant is home to nearly 1.1K startups*, making it the third largest province in terms of number of startups.

The region's strength lies in deeptech. The 172 deeptech startups* generate over 5K jobs, representing more than a quarter of the region's startup workforce.

Driving this trend are homegrown startups in the province such as Prodrive Technologies, Lightyear, and Smart Robotics.

North Brabant raised €440M in VC funding in 2022**, 68% of which was domestic funding. Notable rounds were Lightyear (€81M, including funding from BOM, LIOF, and Invest-NL) and SMART Photonics (€75M from the Dutch National Growth Fund). In addition, the €100M DeepTechXL fund launched in 2022.

North Brabant has a well-connected startup support system backed by Braventures and driven forward by leading incubators The Gate and HighTechXL. The local presence of investors Innovation Industries and LUMO Labs also helps reduce financing gaps.

Largest deeptech employers in North Brabant



Prodrive Technologies
Netherlands-based
employees: 1.5K+



Lightyear
Netherlands-based
employees: 600+



Sioux
Netherlands-based
employees: 500+



Adimec Advanced Image Systems
Netherlands-based
employees: 100+



Smart Photonics
Netherlands-based
employees: 100+



EFFECT Photonics
Netherlands-based
employees: 80+

Key facts about North Brabant's deeptech startups

27%

Growth in deeptech jobs, year-on-year

170+

Deeptech startups

850+

New added deeptech jobs since 2021

Source: Dealroom.co and the Netherlands Startup Employment Report 2022

* Based on reclassified Dealroom data, this is the number of all verified startups, scaleups, and grownups.

** Due to a reporting lag, the last 12 months have systematically underreported VC rounds.

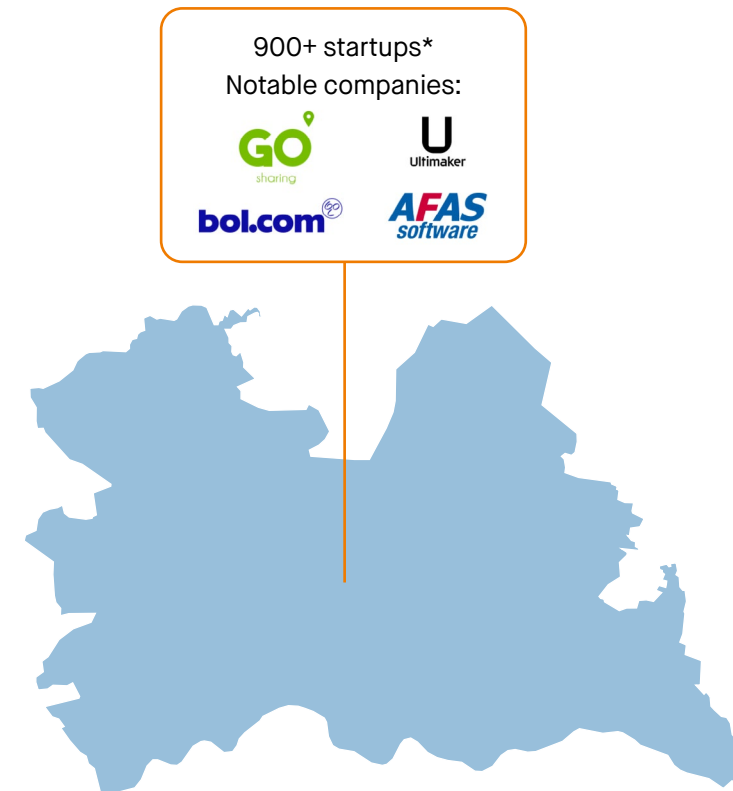
Utrecht ranks second in startup jobs per 1M inhabitants.

Utrecht is the 4th region by number of startup jobs.

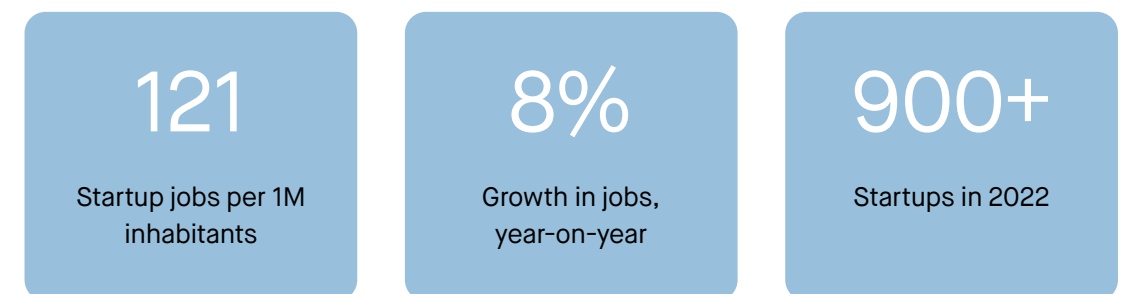
900+ startups created over **16.4K jobs** in Utrecht by 2022* and raised €226M in VC funding**, with notable rounds from Channable (€55M series B, including funding from Peak) and TargED (€39M series A, including funding from Inkef).

The region also stands out for the number of startup jobs per capita, only second to North Holland, with over 100 startup jobs created per 1M inhabitants in 2022. Some of the region's biggest employers include Bol.com, Go Sharing, AFAS Software, and Ultimaker.

Utrecht's key industries are health, fintech and eCommerce.



Key facts about Utrecht's startup ecosystem



Source: Dealroom.co and the Netherlands Startup Employment Report 2022

* Based on reclassified Dealroom data, this is the number of all verified startups, scaleups, and grownups.

** Due to a reporting lag, the last 12 months have systematically underreported VC rounds.

South Holland is a hub for impact-focused startups.

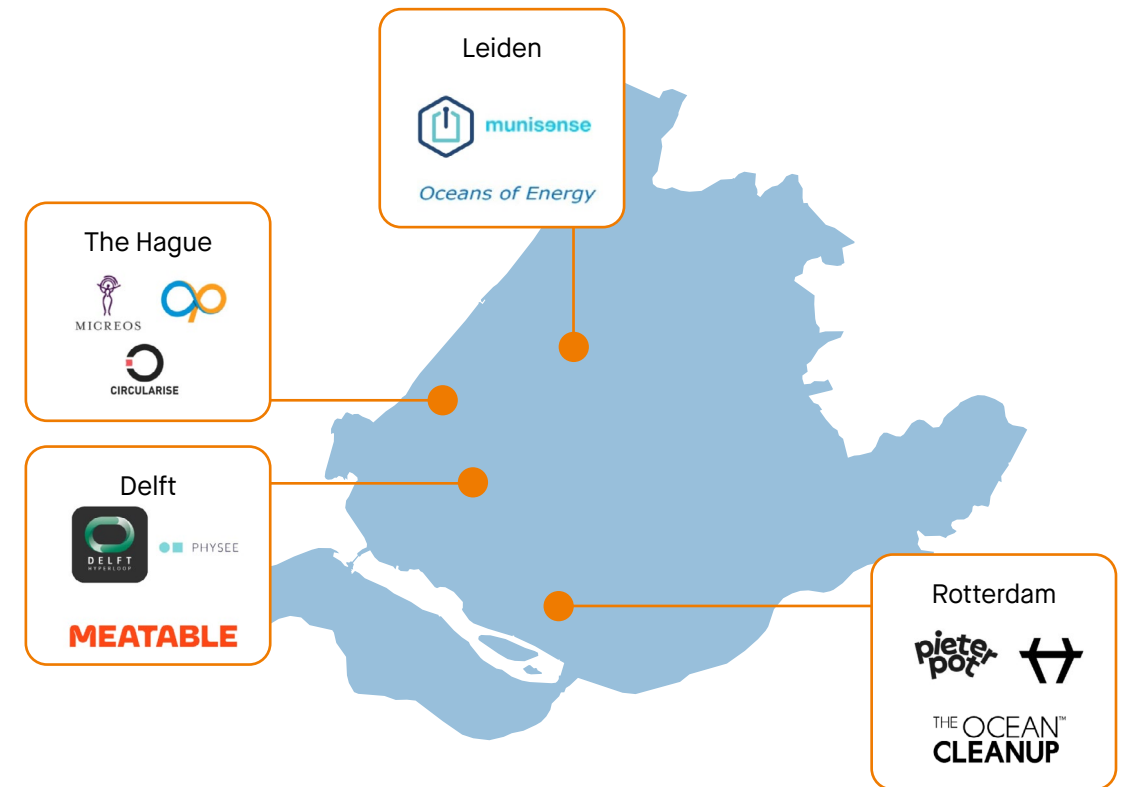
The South Holland province is becoming an ever more important pillar of the national startup ecosystem.

It has a combined value of nearly €50B, with over 2K startups*, which in turn support over 26.1K local jobs.

The region raised €419M in VC funding in 2022**, with notable rounds from ChannelEngine (€45.5M series B, including funding from Inkef) and In Ovo (€34M series B, including funding from ABN AMRO Ventures and the European Circular Bioeconomy Fund). €107M, or around a quarter, of all funding is invested in impact ventures.

The 62 companies in South Holland working towards SDG 7: Clean and Affordable Energy have deep talent pools from leading education institutions such as Erasmus University Rotterdam, Delft University of Technology, and Leiden University at their fingertips.

In 2022, startup jobs grew in the province by 8%.



Key facts about South Holland's startup ecosystem



Source: Dealroom.co and the Netherlands Startup Employment Report 2022

* Based on reclassified Dealroom data, this is the number of all verified startups, scaleups, and grownups.

** Due to a reporting lag, the last 12 months have systematically underreported VC rounds.

The startup ecosystem in the Northern Netherlands is growing rapidly.

Groningen Is the engine of startup development in the North.

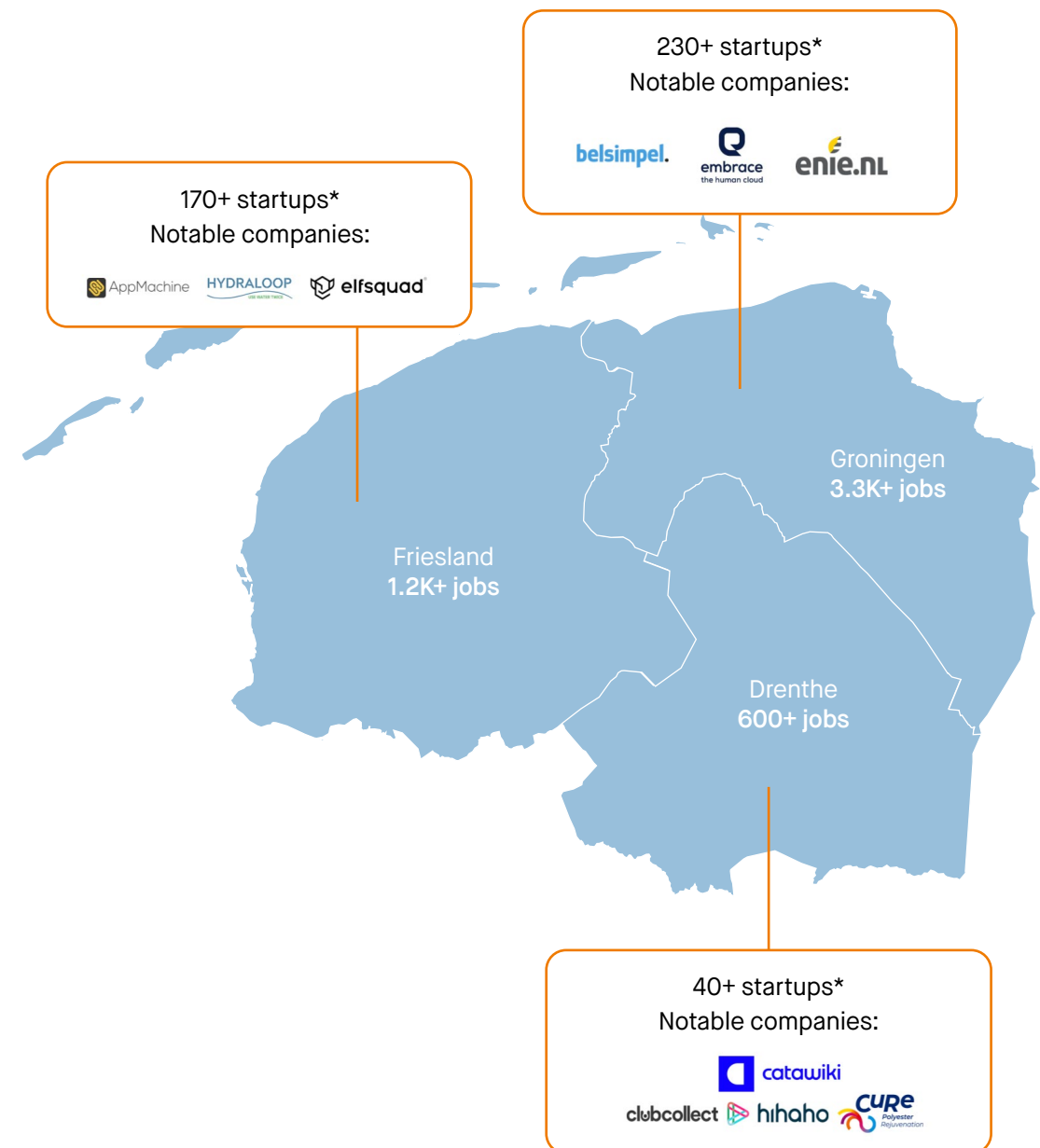
The region is home to around 230 startups* creating 3.3K jobs. Since 2018, the province has increased startup jobs by 12% — growing faster than any other province in the country. Within that period, approximately 1.2K new, local jobs were created by Groningen-based startups.

Startups in Groningen raised €14.7M in VC funding in 2022**, with notable rounds from QDI Systems (€1.3M, including funding from Carduso Capital) and Liv (€0.5M, including funding from NOM and G-Force Capital).

Although modest in number of startup jobs, **Friesland** is home to several innovation hubs. Startups in the region raised €22.7M in VC funding in 2022**, with notable rounds from SusPhos (€10M, including funding from the European Innovation Council Fund) and SeaCurrent (€4.8M, including funding from Invest-NL and PMH Investments). Hubs such as the BioBizz in Balk and the Watercampus in Leeuwarden incubate and accommodate scaling businesses.

Drenthe demonstrates the impact smaller ecosystems can make, producing innovative businesses like ‘Best Startup in Drenthe’ winner SimCPR which is improving CPR feedback for first responders. All VC funding in 2022 in Drenthe was raised by Pectcof (€2.1M, with funding from Brightland Venture Partners and Future Food Fund).

Spotlights and key figures in Groningen, Friesland, and Drenthe



Source: Dealroom.co and the Netherlands Startup Employment Report 2022

* Based on reclassified Dealroom data, this is the number of all verified startups, scaleups, and grownups.

** Due to a reporting lag, the last 12 months have systematically underreported VC rounds.

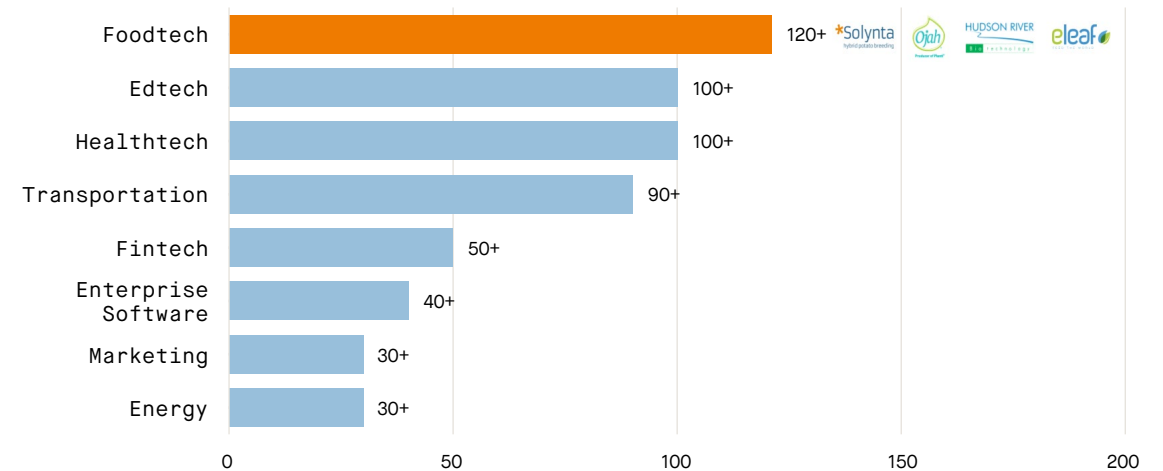
Gelderland is a leader in foodtech with large startups driving growth.

In Gelderland, foodtech startups are adding jobs faster than any other sector.

Between 2021 and 2022, foodtech startups accounted for nearly one fifth of new jobs in the region. Wageningen University and Research is one of the top universities globally in the food field, ranking first in agriculture and forestry and fifth in environmental sciences. Notable spin-offs include Rival Foods, FUMI Ingredients, and Plant-e. Gelderland is also a key region for impact entrepreneurship, with impact ventures making up 11.7% of all startup jobs.

The region raised €66M in VC funding in 2022**, with notable rounds from Elestor (€30M, including funding from EIT InnoEnergy and Invest-NL) and Enzyre (€12M, including funding from Oost NL).

Net local jobs added by Gelderland-based startups 2021-2022



Key facts about Gelderland’s startup ecosystem



Source: Dealroom.co and the Netherlands Startup Employment Report 2022

* Based on reclassified Dealroom data, this is the number of all verified startups, scaleups, and grownups.

** Due to a reporting lag, the last 12 months have systematically underreported VC rounds.

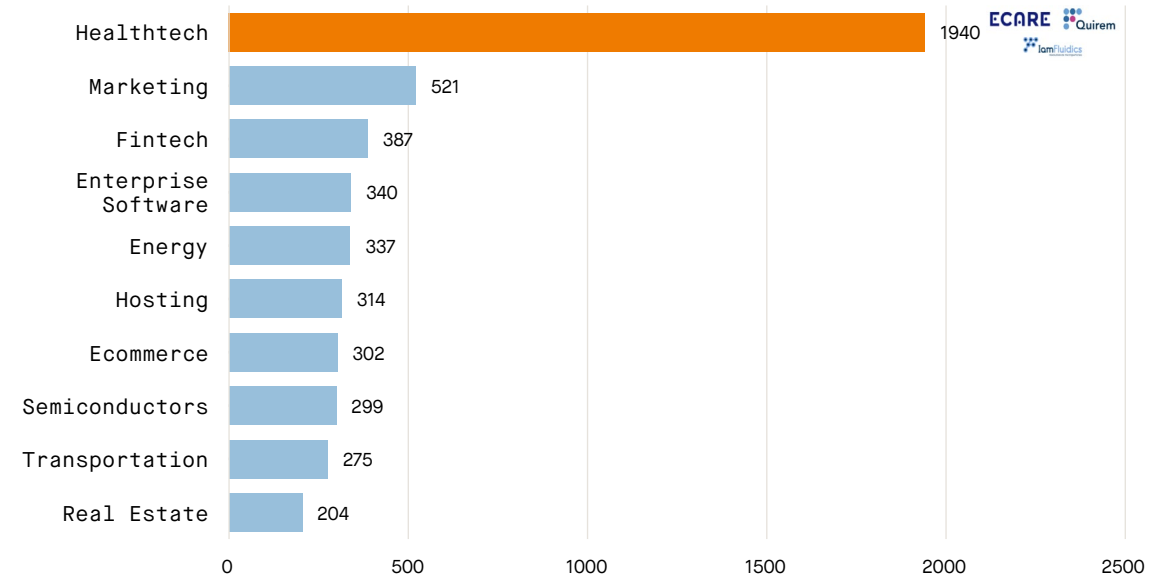
Overijssel is a Dutch healthtech stronghold.

Overijssel is prominent in healthtech

While healthtech jobs are quite equally distributed across the country, the sector stands out in Overijssel, where healthtech contributes a significant share of the region’s total startup jobs. In 2022, healthtech startups contributed to over 30% of the total of startup jobs in the region.

Overijssel based ventures raised €21M in VC funding in 2022**, with notable rounds from Quix Quantum(€5.5M, including funding from Oost NL, FORWARD.one, and PhotonDelta) and lamFluidics (€4M, including funding from Innovation Industries).

Number of jobs per sector created by Overijssel-based companies in 2022



Key facts about Overijssel’s startup ecosystem



Source: Dealroom.co and the Netherlands Startup Employment Report 2022

* Based on reclassified Dealroom data, this is the number of all verified startups, scaleups, and grownups.

** Due to a reporting lag, the last 12 months have systematically underreported VC rounds.

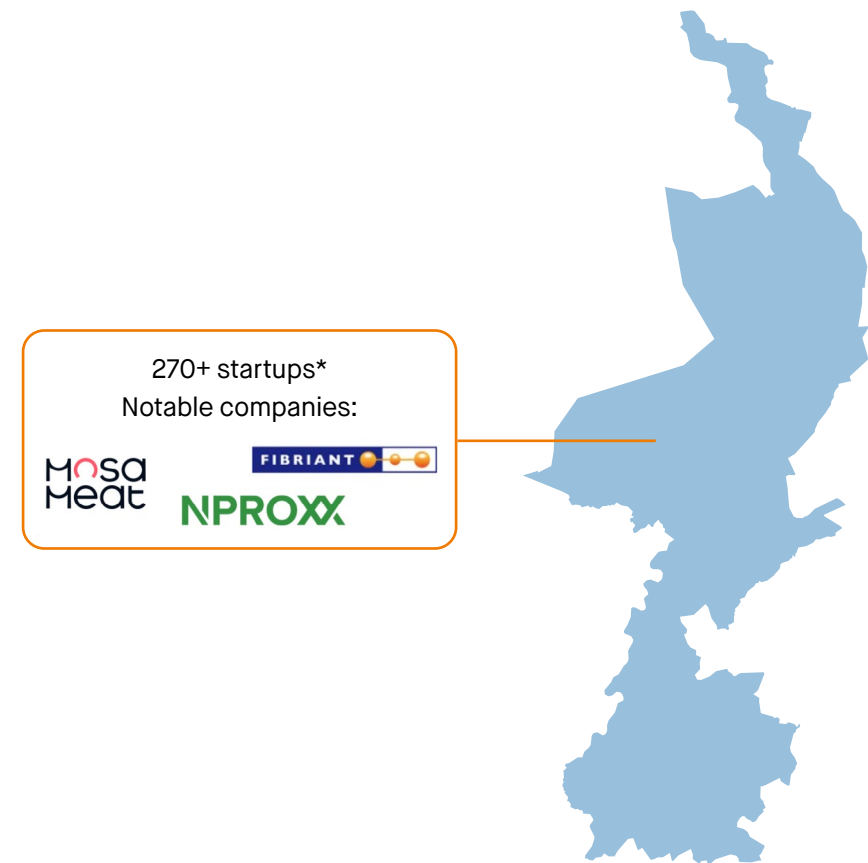
Limburg is well positioned internationally.

Leading chemistry cluster based in Limburg

Limburg is centrally located in the heart of the so-called 'Eindhoven, Leuven, Aachen Technology Triangle' (ELAT) with quick access to the large German market. The Brightlands Chemelot Campus is a leading chemistry hub, with expertise in material science and additive industries.

Maastricht University, KU Leuven, and RWTH Aachen University are key knowledge and talent sources in the region. In 2022, the province supported **2.2K startup jobs**, a 12% increase from the previous year.

Limburg Ventures raised €3.8M in VC funding in 2022**, with notable rounds from S+dB (€1.5M, including funding from Brightland Venture Partners) and Aerial Precision (€760k, including funding from LIOF).



Key Facts about Limburg's startup ecosystem

2.2K

Jobs created by
Limburg startups

€3.8M

Funding in 2022

11.4%

Startup jobs at
impact-focused
startups

Source: Dealroom.co and the Netherlands Startup Employment Report 2022

* Based on reclassified Dealroom data, this is the number of all verified startups, scaleups, and grownups.

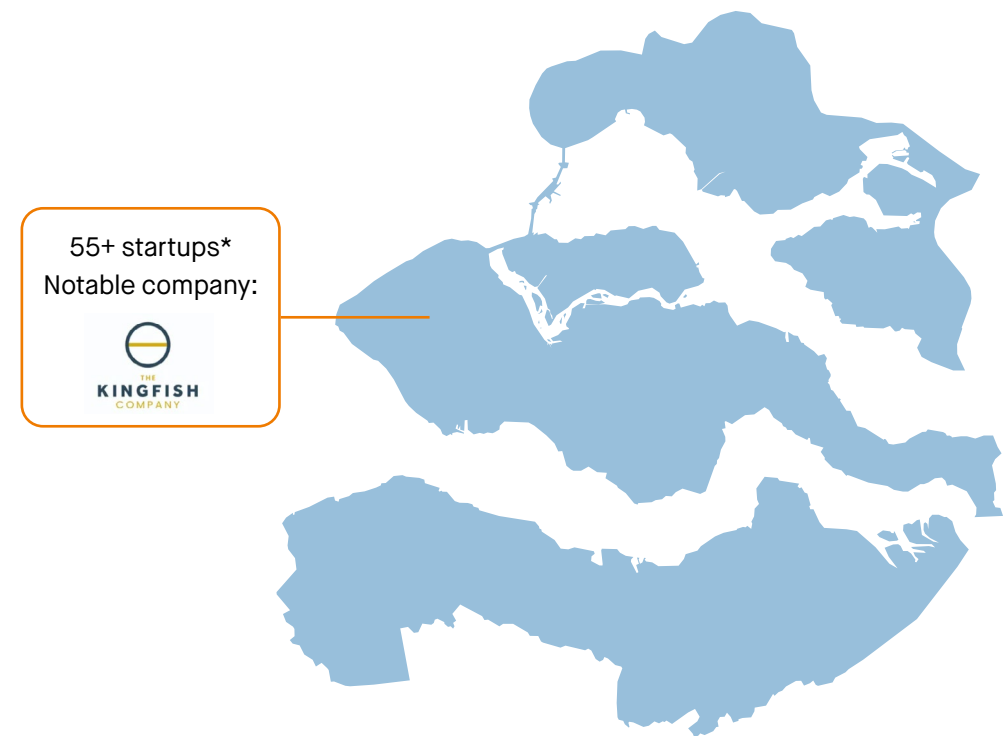
** Due to a reporting lag, the last 12 months have systematically underreported VC rounds.

Zeeland shows growing potential in food and transportation.

Although **Zeeland** has the lowest number of startups and startup jobs in the Netherlands, the region shows potential **for growth in its local food and transport industry.**

The 2022 acquisition of Meatless by BENEIO is a good example of the ongoing foodtech megatrend happening in the region, while the transport industry is well represented by the transportation and logistics company Xxlcare.

The region received €23.5M in VC funding in 2022, all raised by food tech leader The Kingfish Company.** Notably, the regional development agency Impuls Zeeland was involved in the €12.5M funding round** of the Amsterdam-based company Thorizon.



Key Facts about Zeeland startup ecosystem

600

Jobs created by
Zeeland startups

€23.5M

Funding in 2022

Source: Dealroom.co, the Netherlands Startup Employment Report 2022, and the Vegconomist

* Based on reclassified Dealroom data, this is the number of all verified startups, scaleups, and grownups.

** Due to a reporting lag, the last 12 months have systematically underreported VC rounds.

Call to Action



State of
Dutch Tech
2023

Conclusion: The Netherlands is well positioned to be a tech leader, if it manages to address some key challenges

It's time to:

1. **Realign strategic tech policy:** Startup policy needs to be an **integrated tech policy** with the needs of entrepreneurs front and center.
2. **Connect the community:** Growing and empowering a thriving **community of entrepreneurs** at the heart of a successful ecosystem.
3. **Increase capital:** Providing access to more **'smart' capital** while increasing co-investment and knowledge sharing among investors to accelerate growth.
4. **Boost regional development:** Connecting ecosystems, stimulating **regional development**, and supporting thematic specialization by addressing legal and other structural barriers in **high-potential domains** like healthtech, biotech, fintech, energy, mobility, and others.
5. **Develop and attract more talent:** Growing and diversifying the **talent pool** from within and from outside the Netherlands will help our startups succeed and scale faster.
6. **Support deeptech:** Improving efficiency of tech transfer, business support, and funding for **deeptech ventures** to deliver more impact at scale
7. **Grow the base:** Increasing the number of startups in the Netherlands by stimulating more diversity in leadership and inclusion in the ecosystem.



State of
Dutch Tech
2023