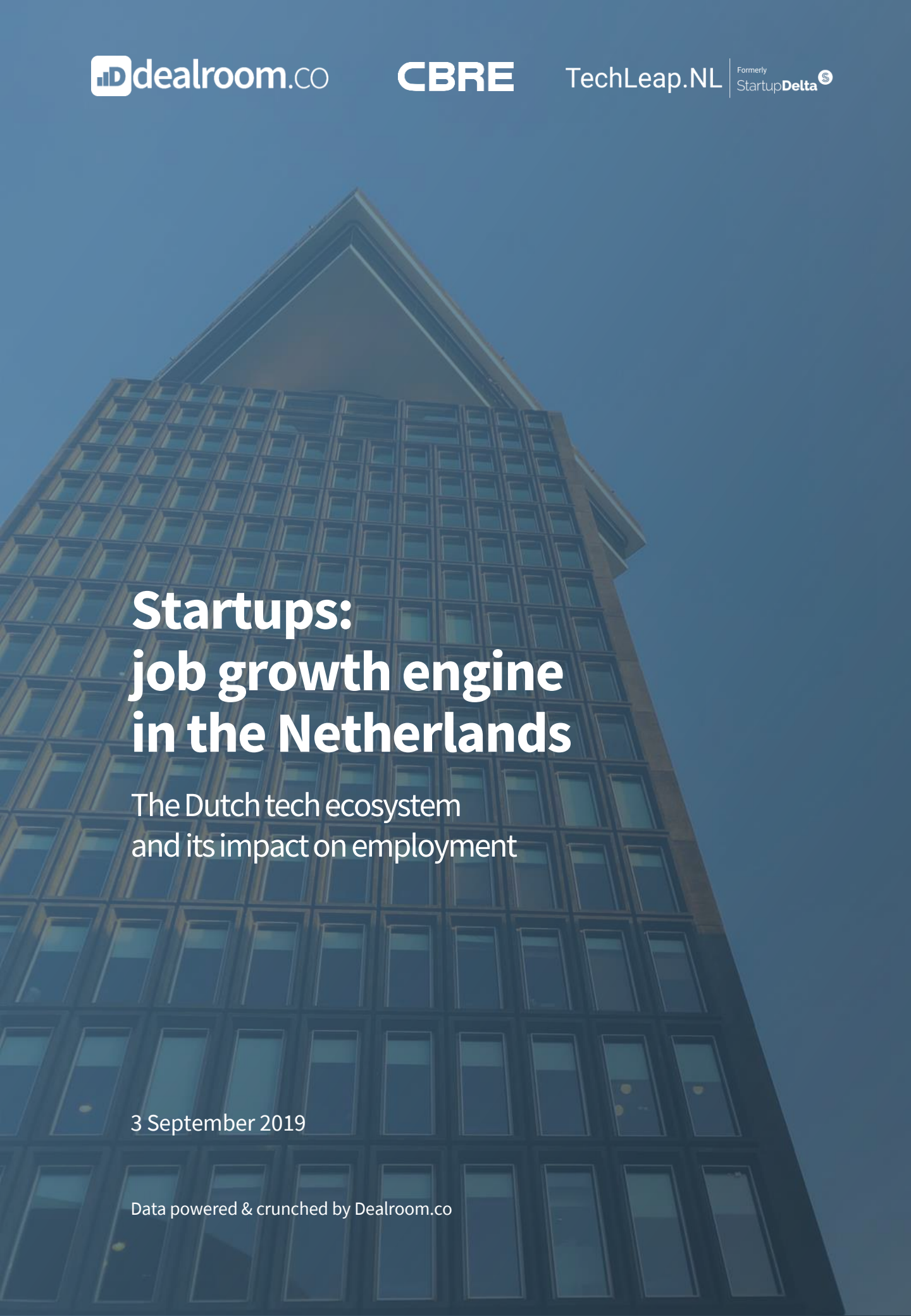


dealroom.co CBRE TechLeap.NL Formerly StartupDelta

Startups: job growth engine in the Netherlands

The Dutch tech ecosystem and its impact on employment

3 September 2019

Data powered & crunched by Dealroom.co

The Dutch startup ecosystem ...

4,311

home-grown tech companies

Vast spectrum of startups from early stage startups to established tech companies like Adyen and Takeaway.com

108k

total jobs at tech companies

These 4,311 home-grown tech companies have created 108,000 jobs in the Netherlands alone

+19.7k

new jobs added in two years

From Dec 2017 to Dec 2018, number of jobs added, representing 11% annual growth

€44 bn

startup value created since 2013

Current, realized and potential future Dutch Unicorns have created a combined value of €44B

… by the numbers.

66%

Dutch startup jobs outside of Amsterdam

While Amsterdam is the Dutch startup capital, two-thirds of all startup jobs are outside Amsterdam: one-third in the next 8 cities, one-third in dozen other cities

19%

Startups backed by venture capital

Venture backed startups scale 3x faster. It takes 15 years for a startup to reach 40 employees, while this takes only 5 years for a startup with €1 million in funding or more.

58%

jobs created by younger startups

Startups younger than 10 years, which on average employ “only” 14 people

43%

of startups based in non-office buildings

Data analysis by CBRE shows that a large number of startups reside in non-office buildings, such as residential buildings, educational use or communal venues

What you need to know.

Startups are the leading job growth engine in the Netherlands, growing faster than any individual sector.

- This number of Dutch startup jobs grew by 19,700 to 108,000 Dutch jobs in the last two years. These are jobs in the Netherlands at startups founded in the Netherlands
- This equates to 23% growth in two years. For perspective, this is about twice as fast as job growth in the IT sector, R&D, and retail (sectoral data from the Central Bureau of Statistics)
- Of the 4,311 startups only 19% are venture capital backed. These venture capital backed startups grow their teams 3x faster

While $1 billion+ startups determine investment returns, jobs are evenly spread across large, medium and small startups.

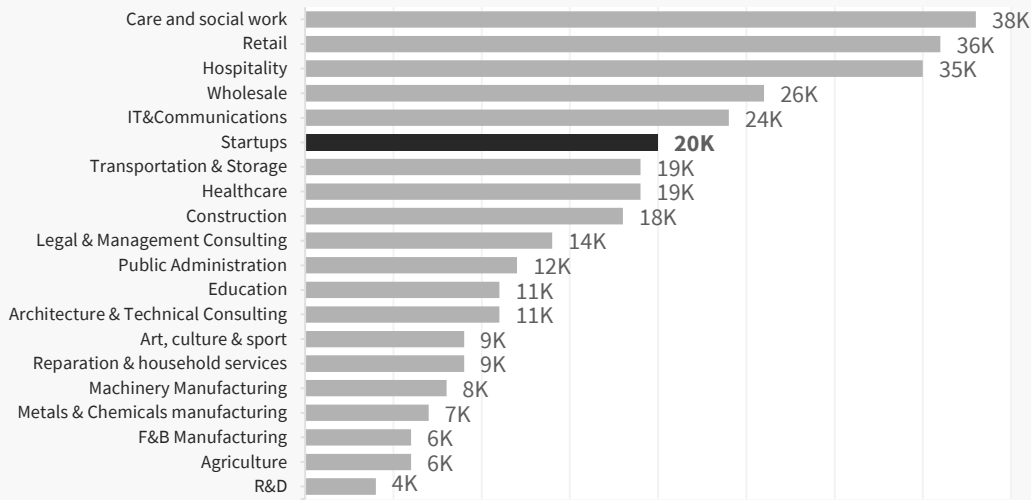
- Since 2013, Dutch startups have created €44 billion in value. The Netherlands ranks #4 in Europe (by comparison, 7th economy and 9th population in Europe)
- This created value is highly concentrated around a small number of companies, led by Adyen (~€20 bn). It's a distinctive feature of the global startup scene, where a small number of highly successful startups determine almost all the investment returns (also known as *Power-Law*)
- Importantly however, jobs are more evenly distributed across large and small companies, younger and older startups. The largest employer (Booking.com) only contributes about 5% of total jobs. Adyen only 0.5%! Apparently, the Power-Law applies less to the jobs market
- More than half of all 19,700 new jobs come from companies younger than 10 years. Companies aged between 5 and 10 years create the most jobs

Startups are a stable job growth engine; a strong argument for broad-based stimulus of the Dutch startup-climate.

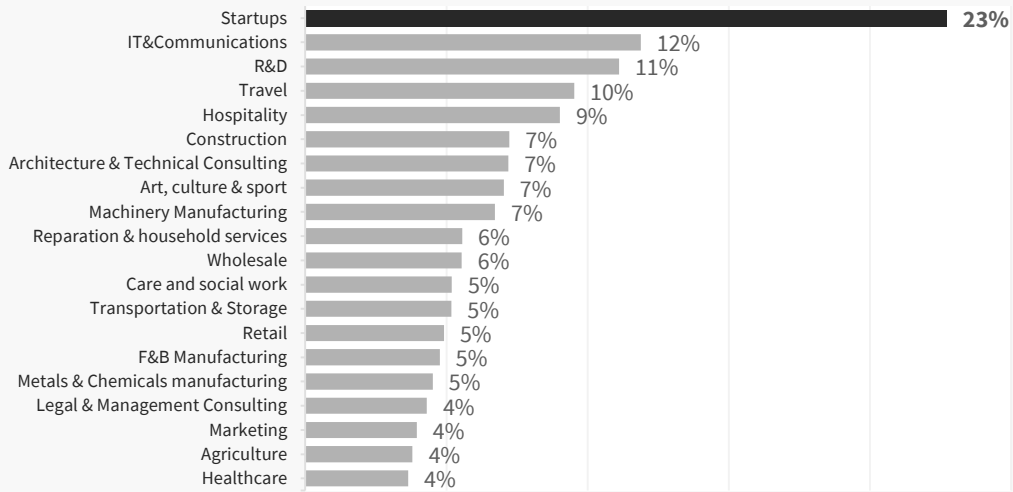
- While startups are (justifiably) seen as risky, in aggregate they provide stable job growth. In fact, 81% of the 4,311 companies that have been researched saw an increase in the number of jobs. Only 15% saw a decline in their number of jobs
- Large startup successes (such as unicorns) are needed to attract venture capital. After Booking.com and TomTom in 2008, another 10 startups unicorns were created in the Netherlands: an average of one per year. The big investment returns are concentrated around a handful of companies, making the landscape still fragile. By comparison, the UK creates one unicorn per month
- Today, 55% of the 4,311 startups have only 10 employees or less. How many of this future generation will succeed depends partly on the startup-climate: availability of talent, education, experience, and capital. Investing in the future of the Dutch startup-sector should be done at scale to ensure that the Netherlands can continue to play at the forefront

Startups are the leading job growth engine in the Netherlands.

With 19.7K new jobs created, startups rank #6 compared with individual sectors



And with a 23% increase in the last two years, the largest relative growth



Period: Dec 2016 - Dec 2018.
Source: CBS (Central Bureau of Statistics), Dealroom.co for startups data

Why we made this report.

Having a healthy tech startup ecosystem is *not only* about being relevant in tomorrow's global economy. Startups also significantly contribute to job growth in today's economy, as this report shows.

This bottom-up analysis (i.e. individual company level) allows us to explore the startup landscape in much greater detail than is possible with traditional survey based jobs data. This also helps us develop a better understanding of the reality of the Dutch startup journey.

This report is a continuation of an earlier report in partnership with StartupAmsterdam. Dealroom envisages doing regular updates of this study to monitor the evolution of startup ecosystems. Inevitably, this bottom-up analysis is not 100% exhaustive and has its shortcomings. Yet, we are confident it offers new insights. We very much welcome feedback.

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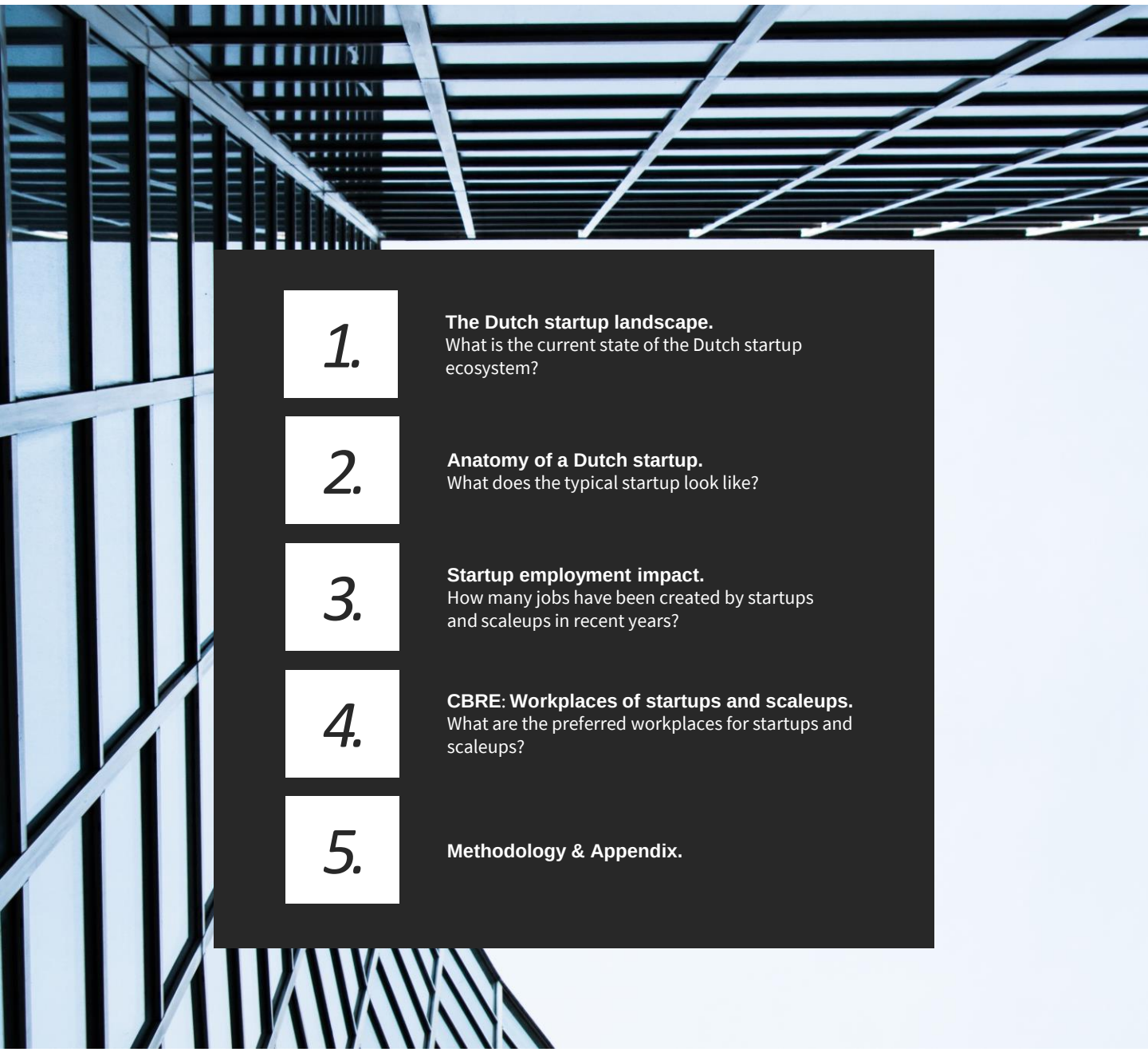
Communication Lead

What's inside this report?



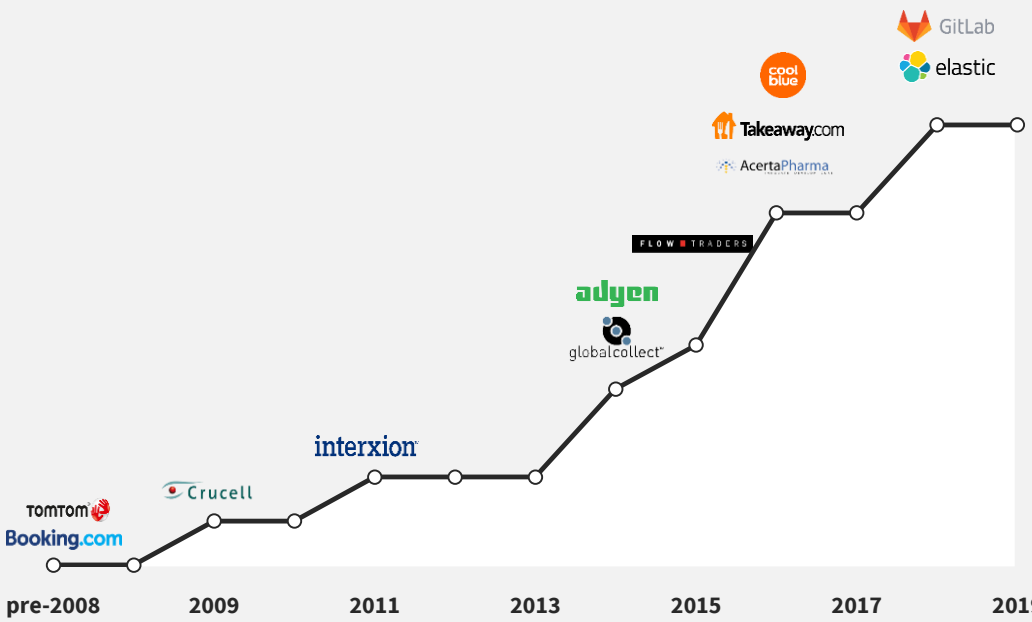
1.

The Dutch startup landscape.

Setting the scene: Dutch startup landscape and its performance on the European stage.

The Netherlands is creating new $1 billion+ startups every year.

Startups by year in which $1 billion+ valuation reached



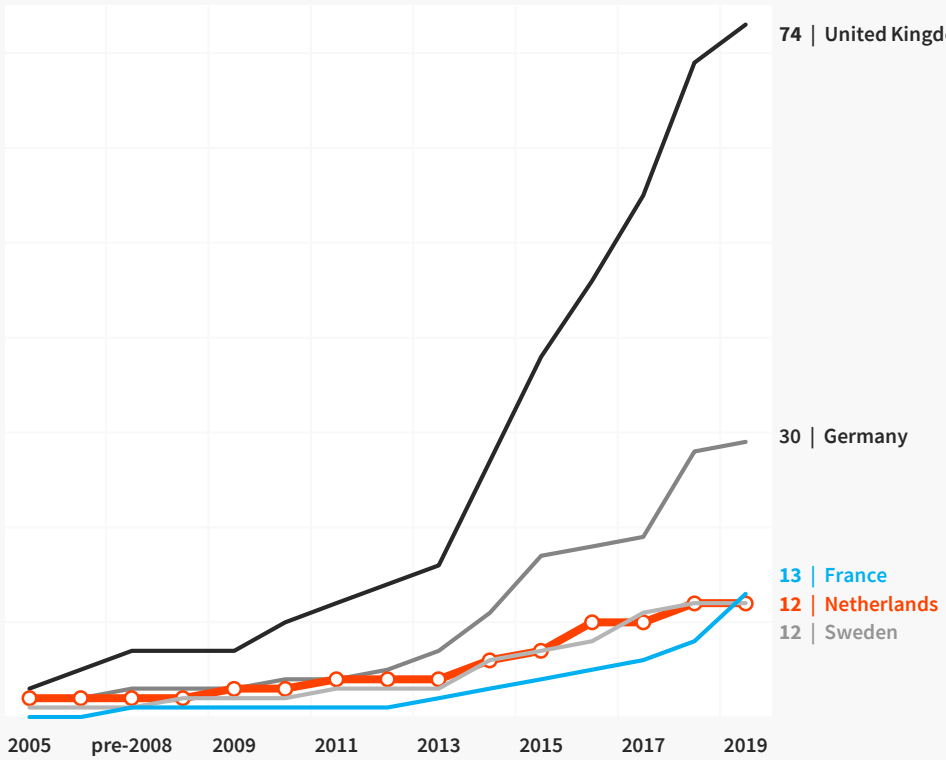
Source: Dealroom.co
Note: Booking reached $1 billion valuation around 2008 (Dealroom estimate) and TomTom in 2005.

Arguably the first two Dutch $1 billion+ startups were Booking.com and TomTom. Founded in 1996, Booking.com was acquired in 2005 for just $135 million by Priceline and crossed the $1 billion valuation around 2008 (Priceline has since rebranded to Booking Holdings, and is currently valued around $80 billion, most of which is driven by Amsterdam-based Booking.com). TomTom went public in 2005 at $0.6 billion and crossed $1 billion soon after.

Since then, at least 10 new Dutch startups have reached a $1 billion valuation, either realised through an exit or unrealised valuation implied through a funding round. Adyen is currently leading that pack, valued at $20 billion. It's Europe's third most valuable venture backed company ever. Two additional startups which also crossed the $1 billion mark but are not included here are TransIP (merger) and Bitfury (unconfirmed valuation).

The Netherlands ranks alongside France and Sweden by number of $1 billion+ companies.

Cumulative number of unicorns

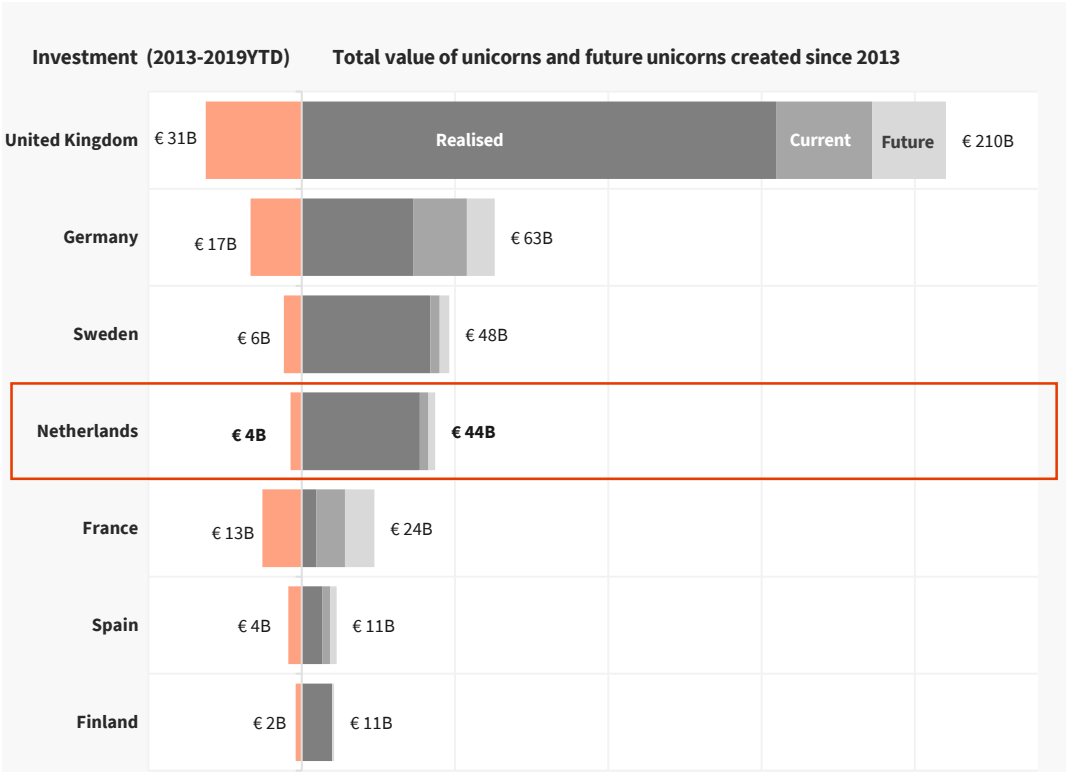


Source: Dealroom.co.

Why the focus on unicorns? Building a unicorn requires skill, talent and capital. The number of unicorns coming out of an ecosystem is an indicator for the extent to which these key ingredients are abundantly present in the ecosystem. In addition, the $1 billion+ milestone is a key objective for venture capitalists, who need big outcomes to compensate for losses made on most of their investments.

With 12 unicorns (startups that have exceeded a $1 billion valuation), the Netherlands ranks fourth in Europe behind the UK, Germany and France. This is impressive, considering that the country ranks #7 by GDP and #9 by population. However, France has rapidly caught up.

The Netherlands ranks #4 in Europe by ecosystem value created since 2013.



Source: Dealroom.co and Yahoo Finance for public market values. Note: The market value is equal to either an estimate based on last (or similar) transaction for private equities or market capitalization based on last trading day for public equities. The total value of unicorns in the Netherlands excludes Booking.com as it became a unicorn before 2013.

Another way to compare European ecosystems is by value created. The chart above shows the combined value of all realised unicorns (exited), unrealised unicorns, and potential future unicorns (valued $250M or more, but less than $1 billion). Importantly, the above chart excludes Booking.com since we look at 2013-2019.

The left side of the same chart shows the amount of capital invested, which on the one hand displays relative capital efficiency and on the other hand displays the rate of value creation going forward. In the Netherlands, the amount of capital invested has been relatively low, especially compared with the high amount of value created. This is partly due to Adyen, but also other big outcomes. Sweden's €48 billion is heavily driven by Spotify.

The next generation is on its way …

Valuable tech companies with HQ in the Netherlands per industry, and their estimated valuation.

Industry	SaaS	Deep tech	Fintech	Health	Mobility
€10B+		ASML, NXP			
€1-10B	elastic, GitLab	BITFURY	adyen, FLOW TRADERS	AcertaPharma, TORNIER, Crucell, uniQure	TOMTOM, here
€500M- 1B	mendix	PRODRIVE TECHNOLOGIES	globalcollect	PREXTON, AudioNova	
€250-500M	MessageBird		BINCKBANK	Merus	
€100-250M	ohpen, we transfer, FRAMER	GEOPHY, MIMETAS	CarePay, brand new DAY	XELTIS, MICREOS	dott
€0-100M	virtuagym, zivver, five degrees, WONDERFLOW	SMART PHOTONICS	payconiq, mollie, bunq, SWISH FUND, Ikbenfrits.nl, BUX, frontclear	ViCentra, siilo.	Swapfiets, felyx, ETERGO, AMBER, VANMOOF, ULU

1 of 2

… with several potential future unicorns on the horizon.

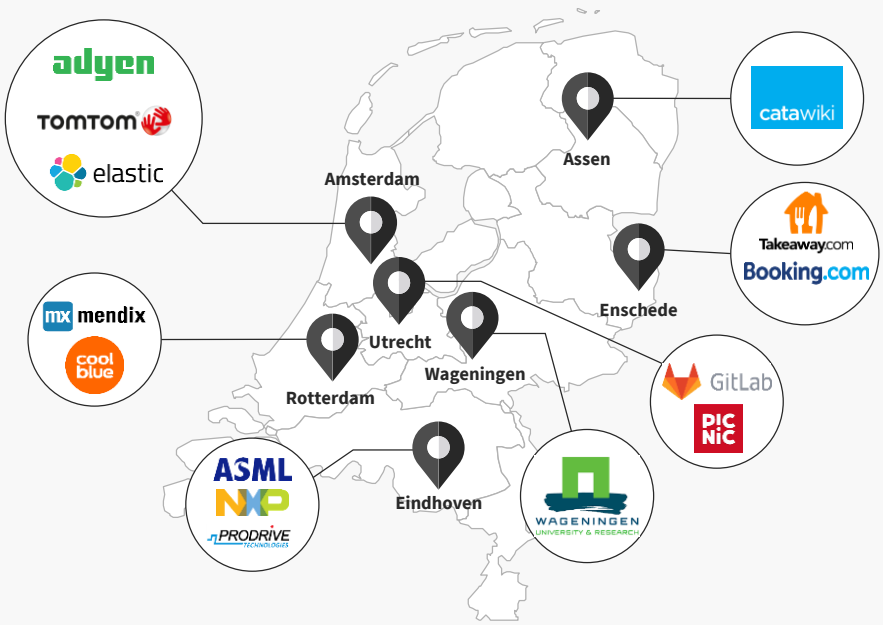
Valuable tech companies with HQ in the Netherlands per industry, and their estimated valuation.

Cleantech	Marketplaces & eCommerce	Food	Travel	Energy	Industry
			Booking.com		€10B+
	bol.com, coolblue	Takeaway.com			€1-10B
		PICNIC			€500M- 1B
	catawiki	PROTIX		avantium	€250-500M
The Ocean Cleanup, Ioniqa, PeelPioneers	Tiqets, 3D HUBS			apX Group	€100-250M
solarnow, ampyx power, Voltea	SnappCar, greetz.nl, centralpoint	mosa meat, crisp, MINIBREW	Withlocals, FINDHOTEL, bidroom, roadmap, TRVL, polarsteps	LithiumWerks, Airborne Oil & Gas, Black Bear, GreenFlux, vandebron	€0-100M

2 of 2

The next big thing can emerge from anywhere in the Netherlands.

Selected high profile companies by founding location



Some of the most prominent tech companies were launched outside of Amsterdam. For instance, ASML and NXP are two global semiconductor giants, both based near Eindhoven. Founded in 1984, ASML manufactures machines for producing microchips. NXP is a leading global semiconductor manufacturer that was spun out of Philips in 2010. Both companies are not included (founded before 1990), but positive spill-over effects and form a breeding ground for a new generation of Deep Tech (such as Prodrive).

The campus around Wageningen University has become a global center of excellence for innovation in food and agri-technologies.

Utrecht, Rotterdam, Eindhoven, and Enschede have each been the breeding ground for at least one $1 billion+ startup (unicorn).

2.

Anatomy of a Dutch startup.

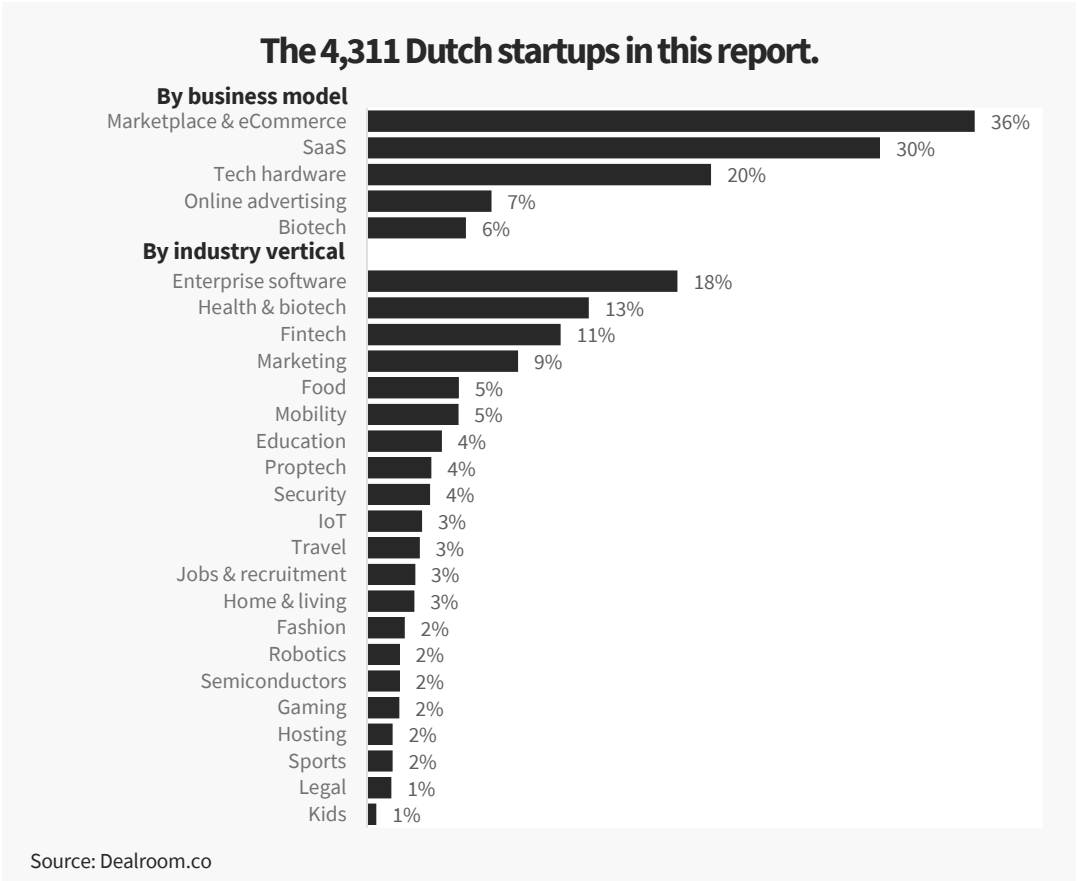
From founding to maturity, what does the typical startup journey look like?

How to define startups? Understanding the dataset.

Startups in this report were hand-selected from of a larger set of companies collected by Dealroom and StartupDelta. What is a startup? They share most (not necessarily all) of the following characteristics:

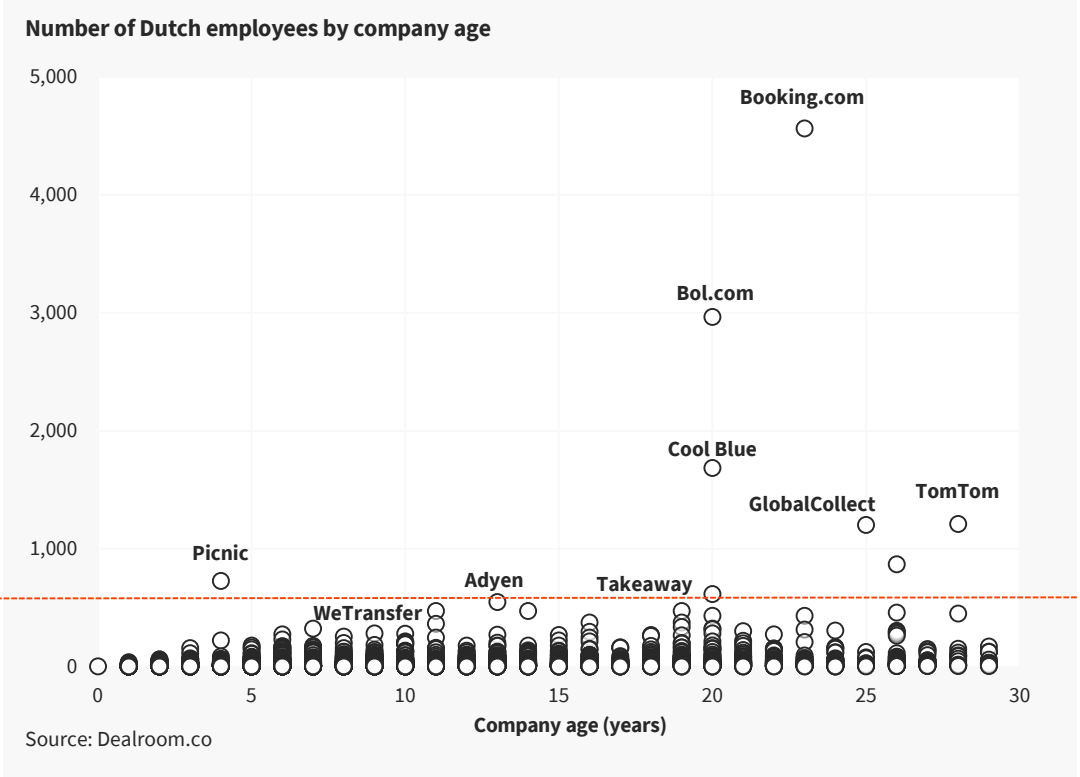
1. **Innovative by design:** both the product and/or business model are innovative
2. **Tech enabled**: either proprietary tech/software or business processes heavily enabled by tech
3. **Rapidly scaling/scalable:** once product-market fit is found, achieve high growth by leveraging its platform
4. **Global ambitions:** related with #3, startups have global (or at least international) ambitions
5. **Venture backed:** VC-backed companies mostly meet the previous criteria. But only 19% of companies in the dataset are venture backed.

Of the 4,311 active Dutch startups in this report, 36% are an online marketplace/ecommerce/platform, 30% are a software provider (usually Software-as-a-Service), 20% are startups developing tech hardware, 7% biotech. The remaining 6% are online advertising based startups. Below is also a breakdown by industry vertical.



Source: Dealroom.co

Only 0.2% of startups reach more than 500 employees; 89% of jobs are with smaller companies.



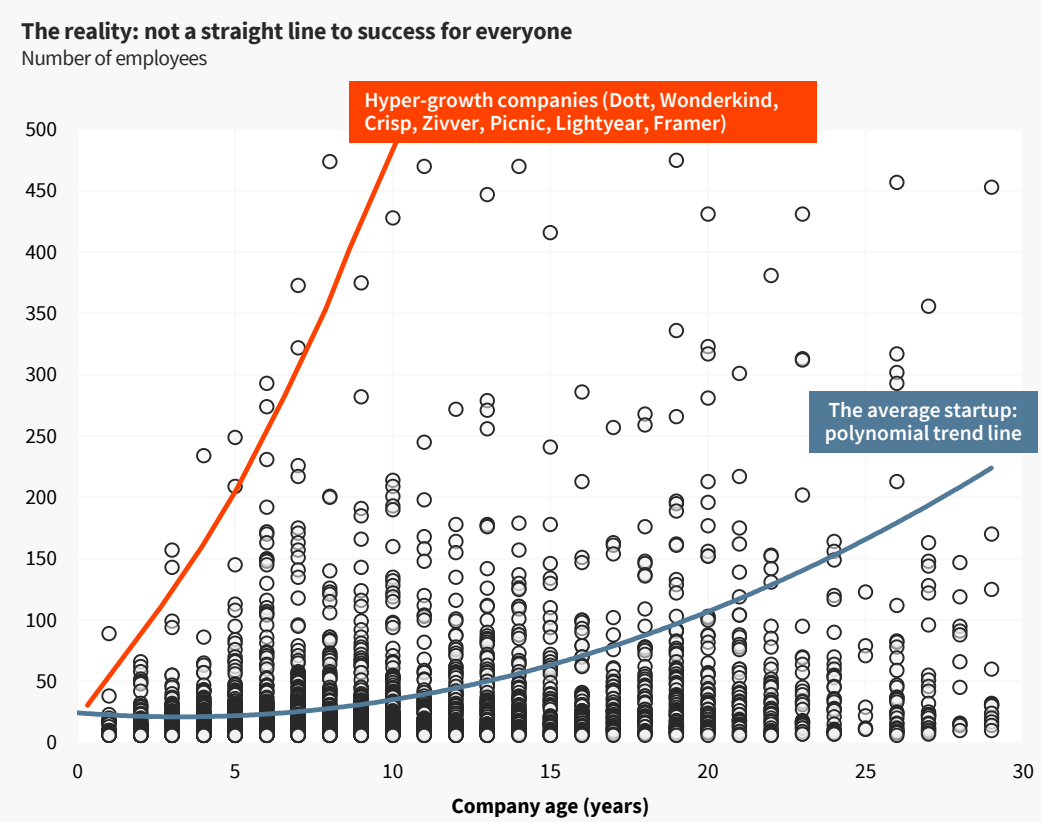
11% of jobs are from companies with over 500 employees

89% of jobs are from companies with under 500 employees

Startups and venture capital follow *Power-Laws*: very few big outcomes determine all the returns. For venture capitalists this concept is key: it's normal for 70% of startup investments in a VC portfolio to be unprofitable. But for a few outliers, the sky is the limit (think Amazon, Google, Spotify, Adyen). It's important to be aware of this phenomenon when interpreting VC investment returns, but also startup data more generally. Extreme results are not "outliers", they are *everything*. Indeed, Booking.com contributes far more value than all the other companies combined (for more on the subject, this EIF report provides a great overview).

But what about employment data? Do Power-Laws also apply there? The chart above shows that companies with less than 500 people still provide 89% of jobs. Unlike company valuations, jobs are more evenly distributed across large and small companies, younger and older startups. The largest employer (Booking.com) only contributes about 5% of total jobs. Adyen only 0.5%!

True “hyper-growth” is rare. Most jobs are with companies on a more moderate growth track.



The above scatter chart shows the same data as on the previous page but zooming in on the companies below 500 employees. Each dot shows a startup on a unique journey. Only a small group of companies are on a hyper-growth track.

Most of the jobs are with companies following a more modest growth trajectory. Many of these are startups with a meaningful size, without necessarily being on the path to a unicorn status.

And as companies like TomTom and UiPath have shown, it sometimes can take nearly a decade before a company finds hypergrowth.

The key conclusion so far is that success from a venture capital perspective is not the same as success from an employment perspective.

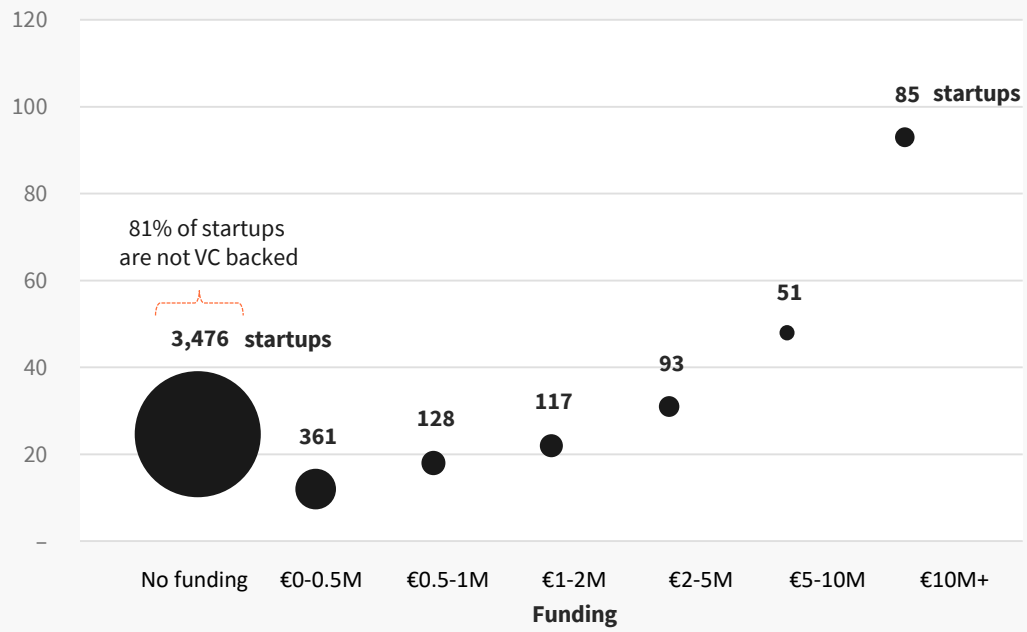
Only 19% of startups are venture backed.

Venture capital is an important catalyst for growing startup teams. Within the dataset, only 19% of companies are venture backed. Why only 19%? Not every startup is backable by venture capital, due to (perceived) lack of scalability or other reasons. Some startups don't need venture capital as they're profitable. Also, venture capital is for not for any startup nor for every founder as they prefer to stay independent.

That said, nowadays nearly all startups that make it big (e.g. become unicorns) are venture backed (in excess of 95% unicorns in Europe are VC backed). Increasingly, the most successful startups go through multiple stages of venture funding, as the cost of building a startup has increased (mostly due to salaries and online competition leading to higher marketing costs).

The below bubble chart shows that 3,476 Dutch startups (81%) are not VC backed, with an average team size of 25 (this includes Booking.com). Meanwhile, 85 Dutch startups (2%) have more than €10 million in funding, with an average team size of 93.

Average number of employees by VC-funding stage



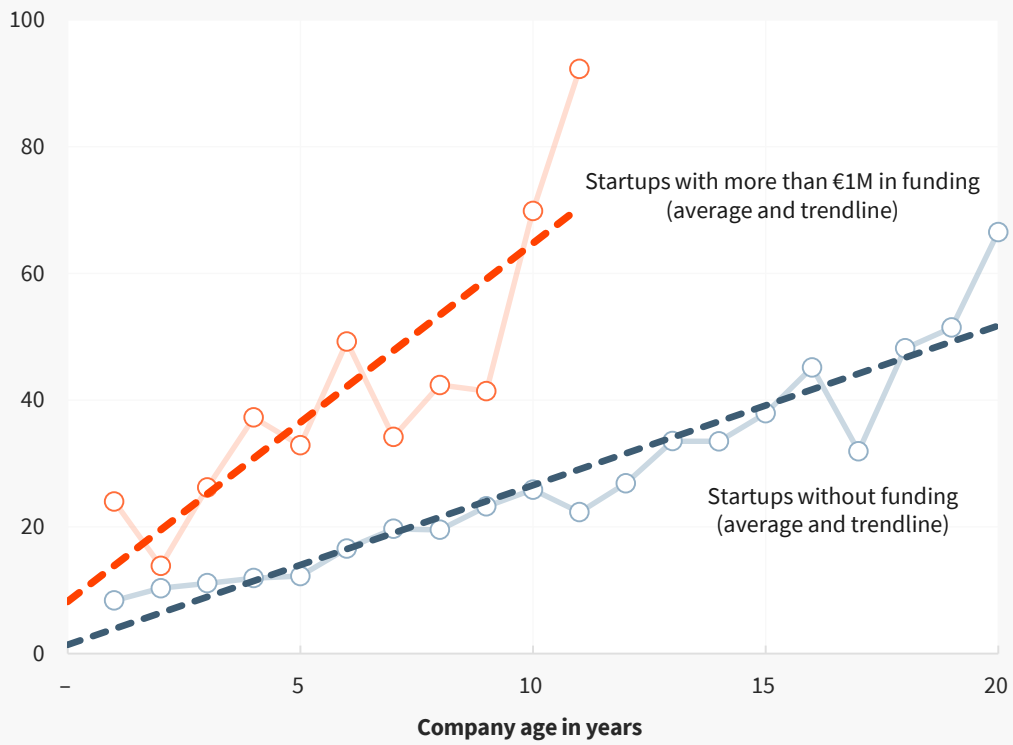
Note: bubble size shows number of companies.
Source: Dealroom.co

Venture Capital backed startups scale 3x faster on average.

The chart below shows how venture capital is a catalyst for growth: venture capital backed companies scale 3x faster on average. For example, the average startup with €1M or more in funding reaches on average around 40 employees after 5 years, while the same is true for non-funded startups after 15 years! This is a two-way street of course: faster growing companies are more likely to receive VC-backing, while that backing enables faster growth.

Because only 19% of startups in the dataset are venture-backed, the blue line is a more common trajectory for startups. It takes roughly five years to reach 17 people, ten years to reach 28 people, and fifteen years to reach 40 people, on average. This is perhaps at odds with what most people think of when they think of startups, but as the startup mantra says: "it's a marathon, not a sprint".

Average employees for funded and non-funded startups, by age



Source: Dealroom.co

3.

Startup employment.

How many jobs have been created by startups & scaleups in recent years?

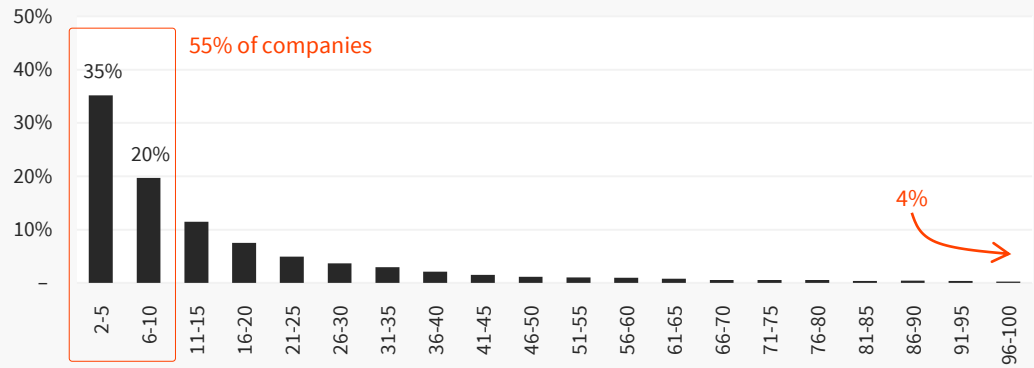
> This Dealroom report shows the clear contribution that Dutch startup and scaleups are making to the economic prosperity of the Netherlands. They are the driving force behind job growth and innovation in the new economy”

Constantijn van Oranje
Special Envoy TechLeap.NL
(Formerly StartupDelta)

Of the 4,311 Dutch startups, 55% have 2-10 employees or less.

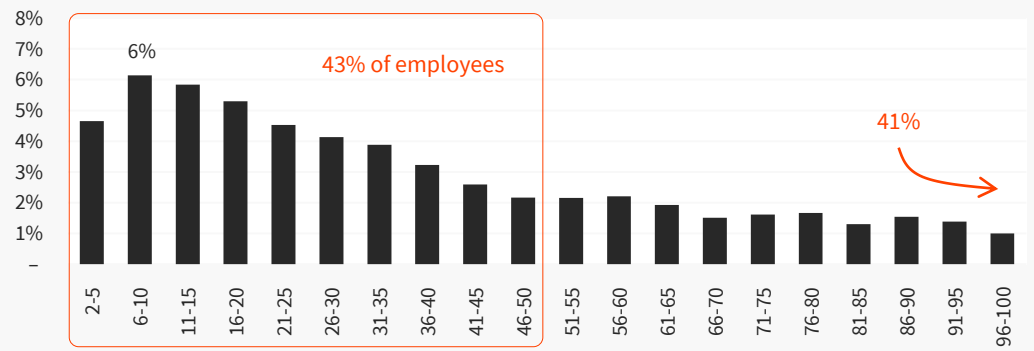
While startups by definition aspire to become big, most are still small. With each increment of 5 people, the drop-off is steep. Of the 4,311 startups, 55% have 2-10 employees. Roughly 96% have 100 or less employees. This pattern is in line with the previous chapter 2.

Companies by team size



Even though most startups are still small companies, their job numbers add up. By job contribution, the “belly” consists of teams of with 50 people or less, with a peak at companies with team sized 6-10 people.

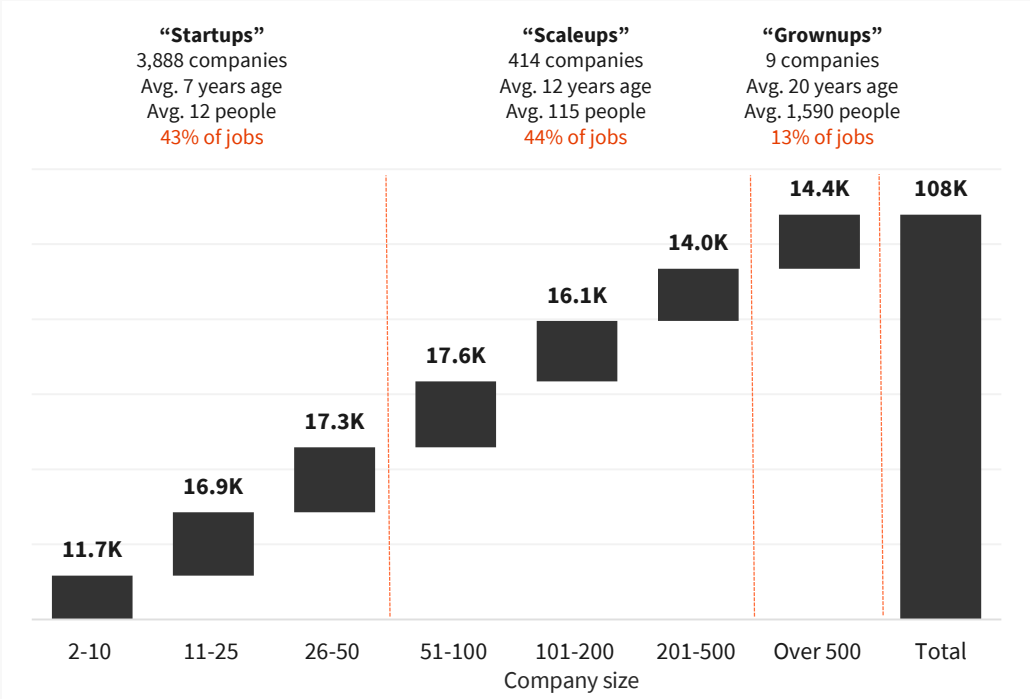
Employees by team size



Source: Dealroom.co

Combined, startups provide 108K jobs, mainly driven by small and medium sized startups & scaleups.

Number of employees, by company size



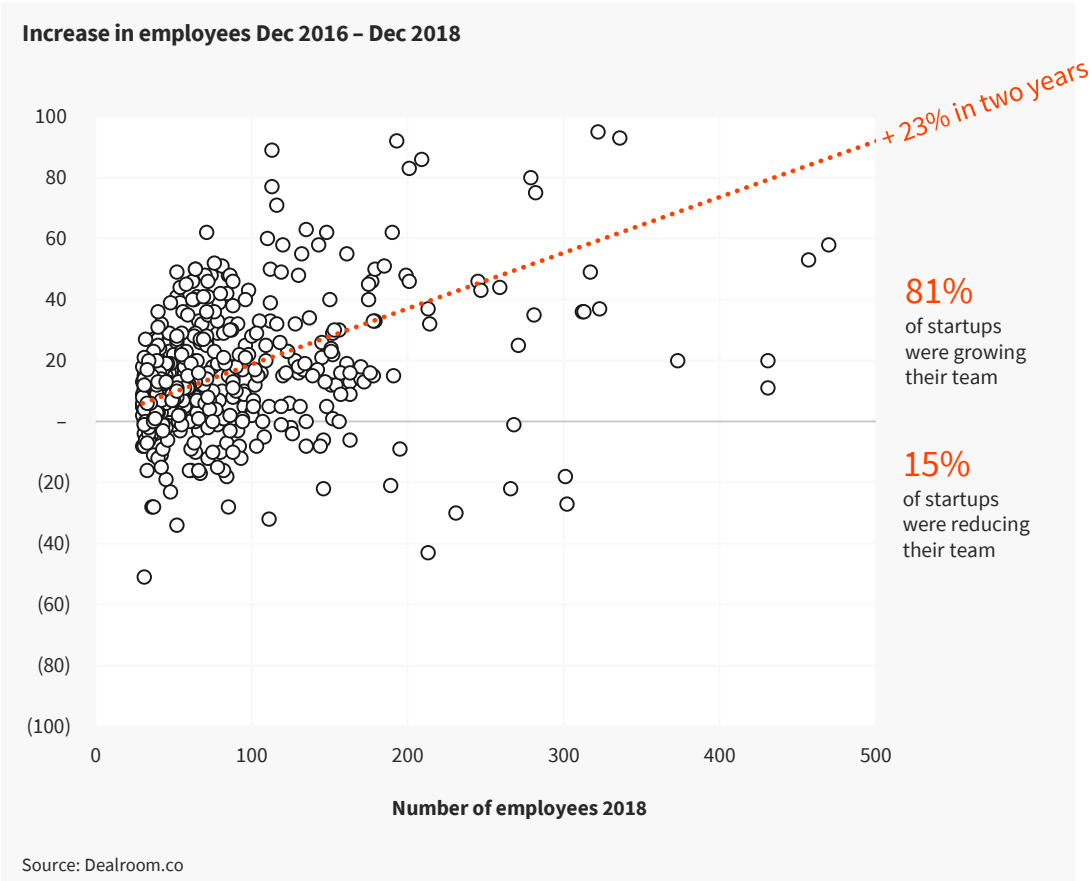
Source: Dealroom.co

The previous chart showed how startups are distributed by size, by showing increments of 5 people. Here, the waterfall chart shows the absolute amount of jobs by category of startup. The columns are divided into categories of roughly equal size.

Some of the startups from older cohorts have since made it big and it may seem odd to call them "startups". They can also be called scaleups or grownups, but they should be included in any longitudinal study on startups as they are the key output.

Here startups are defined as companies with 2-50 employees, scaleups 51-500, and grownups 500+. These thresholds are arbitrary, but matter for the overall conclusions of the report as they provide an intuitive way to interpret the results. Startups (46K jobs) and scaleups (48K jobs) each contribute roughly the same number of jobs. Scaleups are 10x larger than startups and twice as old, on average. Grownups are 14x larger and again almost twice as old as scaleups.

81% of startups were growing their teams, resulting in 19.7K net new jobs added in the last two years.



Source: Dealroom.co

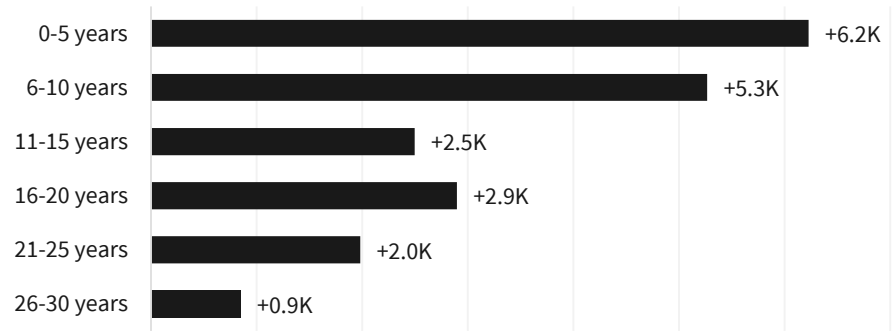
Startups are high risk and many fail in their earlier years. How many exactly will be the subject of a future report. The current dataset shows that 81% of startups are growing their teams, and only 15% reducing their teams. Companies that reduced their headcount during the period, or completely closed down, were included in the statistics.

The 19.7K net jobs added implies an increase of 23% in two years (11% annual growth) which is faster than any other individual sector, as shown on page 5.

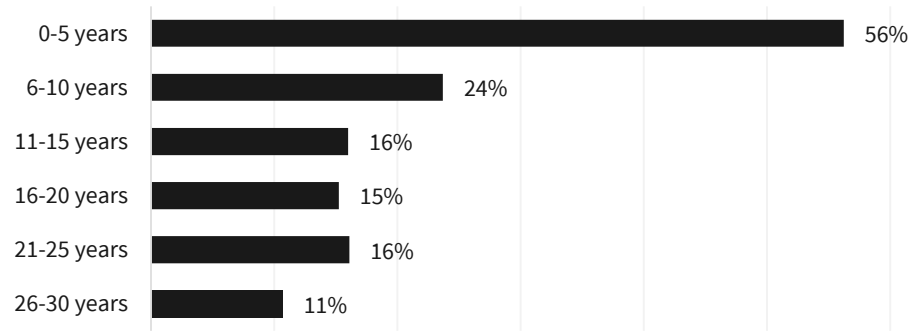
Younger companies add by far the most jobs in absolute and relative terms.

Of the 19.7K net new jobs added in two years, 11.5K (58%) come from companies younger than 10 years. Companies younger than 5 years old add the most jobs, both in relative and absolute terms.

Jobs added between Dec 2016 and Dec 2018 by age of company



Percentage growth in jobs between Dec 2016 and Dec 2018 by age of company



Source: Dealroom.co

Enterprise software, fintech and health are the top three contributors.

The biggest employers and job growth engines are in Enterprise Software and Fintech, which are also the biggest industries by number of startups.

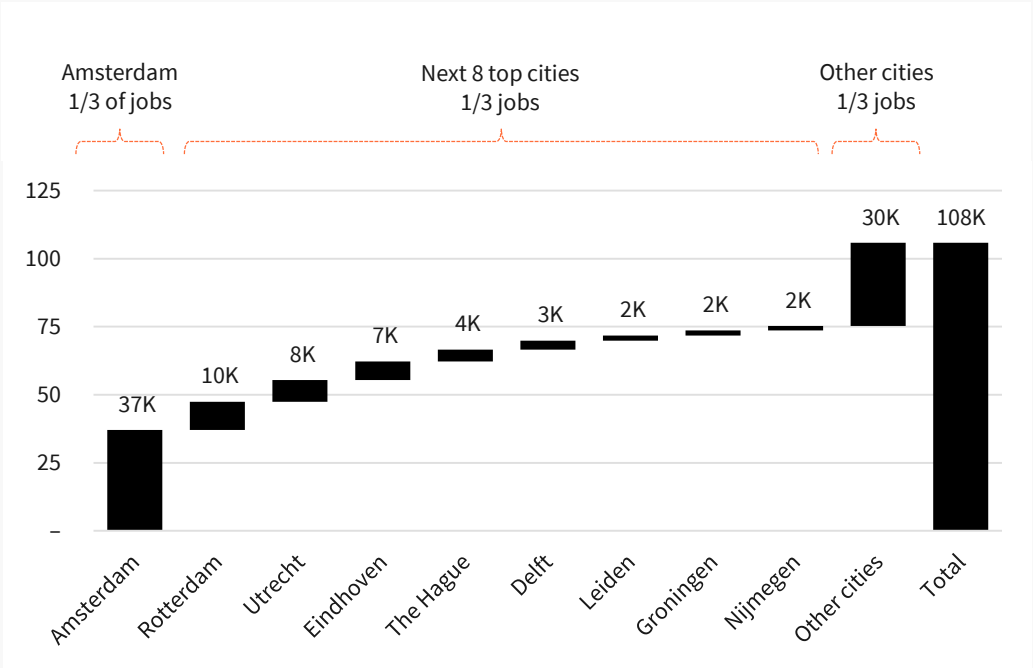
The most jobs per company are in big consumer marketplaces like Booking.com and Coolblue. This includes people involved in customer service and fulfillment. For comparison, while enterprise software companies have added the most jobs, on average, they employ less people per company.

Total number of jobs and companies by industry (2018)

	Companies	Employees	Employees per company	Jobs added	Growth (Dec '16-Dec '18)
Enterprise software	693	17,717	26	3,532	25%
Fintech	431	15,665	36	2,913	23%
Health	490	10,361	21	1,952	23%
Marketing	335	8,042	24	1,687	27%
Transportation	202	6,278	31	1,361	28%
Food	204	4,030	20	1,299	48%
Home living	104	6,802	65	1,285	23%
Energy	361	7,161	20	1,221	21%
Travel	117	7,134	61	1,081	18%
Media	322	6,433	20	840	15%
Jobs recruitment	108	2,221	21	696	46%
Security	140	3,763	27	608	19%
Semiconductors	73	2,494	34	569	30%
Education	166	3,711	22	560	18%
Sports	57	1,570	28	459	41%

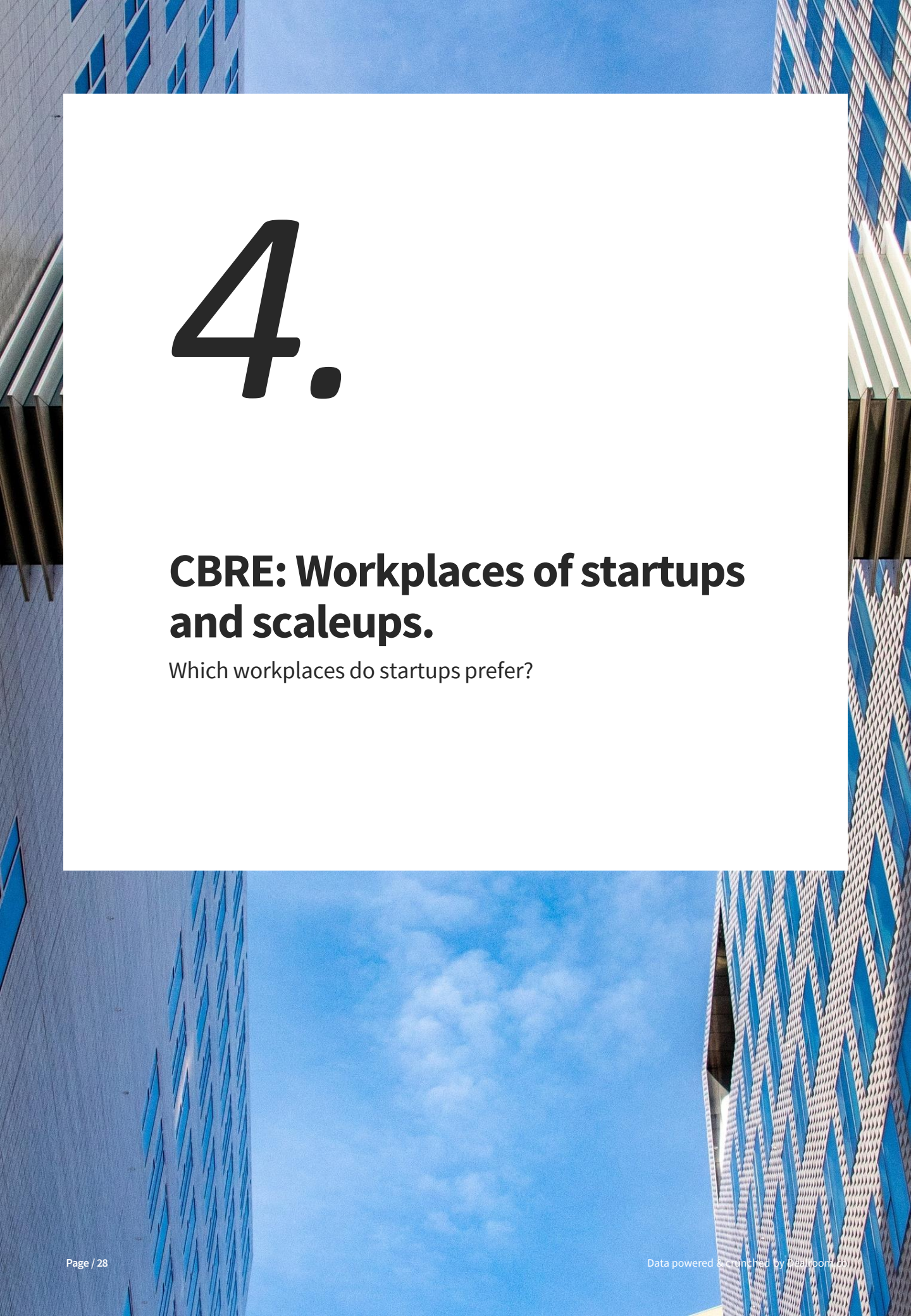
Two-thirds of all startup jobs are outside of Amsterdam.

Number of employees by city



Source: Dealroom.co

While Amsterdam is the Dutch startup capital, two-thirds of all startup jobs are outside Amsterdam. Roughly a third is in the next 8 cities including Rotterdam, Utrecht, Eindhoven, one-third are in dozens other cities. Many of the most prominent Dutch tech companies were launched outside of Amsterdam.



4.

CBRE: Workplaces of startups and scaleups.

Which workplaces do startups prefer?

What are the preferred workplaces of startups and scaleups.

As the number of jobs in startups and scaleups is growing, their demand for workplaces increases too. However, their demand is substantially different from grownup companies. Due to the innovative nature of startups and scaleups, their business can be very volatile. Their revenue models change, as does their demand for skilled workers and workplaces. Especially in the early stages of development. For these reasons, their demand for workplaces and office space can be volatile and grow rapidly.

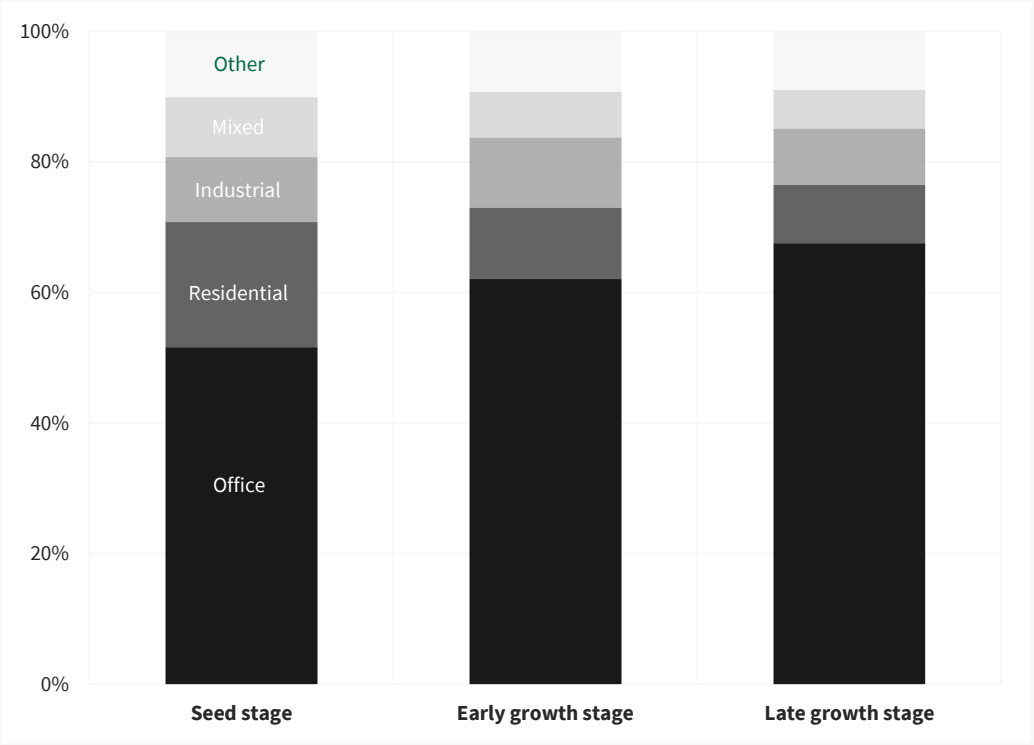
Against this background, the locational preferences of startups and scaleups show a specific pattern, which is different from grownup companies. The following can be concluded from studying the workplaces of startups and scaleups:

- **55% of the startups and scaleups in the Netherlands are located in the four largest cities (Amsterdam, Rotterdam, The Hague and Utrecht).**
- **43% of the startups and scaleups are located in non-office buildings, such as residential buildings, educational use or communal venues.**
- **Especially startups in their early stage of development are located in workplaces other than office buildings. Startups and scaleups in a more advanced stage of development are more likely to be located in office properties.**
- **The availability and price level of office floors and presence of startup hubs (e.g. incubator spaces such as B Amsterdam and Science Tower in Rotterdam) influence the locational choices of startups. In cities where office floors are abundantly available and favourably priced, the share of startups located in office properties is higher than in cities with a tighter market where availability of office floors is limited and prices are higher.**
- **Most startups and scaleups are located in the city centres and mixed used city districts. The Central Business Districts are less popular.**

These conclusions are confirmed by earlier studies that suggest that startups thrive in urban environments. In cities startups find all elements that they need to grow their business. Entrepreneurs can connect with clients, peers, suppliers, investors and universities or research organisations. But they also find other amenities they need to run and grow their businesses in cities. Controversially, workplaces are expensive in cities and startups are cost sensitive as they still have an uncertain revenue stream. Clearly the total benefits outweigh the costs.

Startups by type of location: growing demand for formal offices.

Workplace by startup stage.

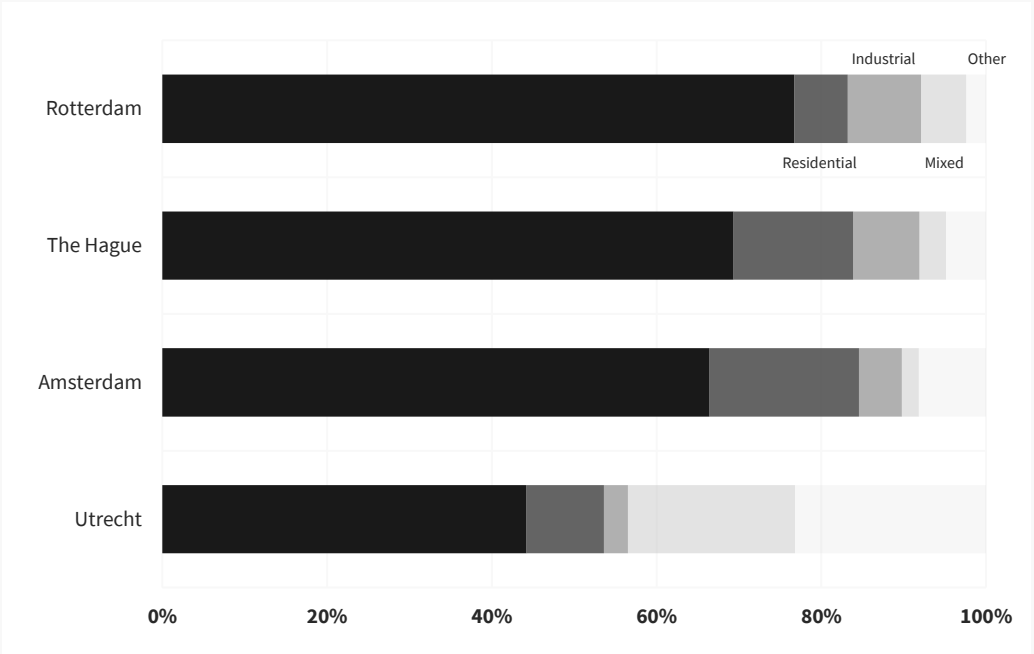


Source: Dealroom.co, BAG, CBRE

The younger the startup, the more likely it is located in a non-office workplace, such as residential buildings or industrial buildings. As the development stage of startups advances, a larger share is located in formal office buildings. This is illustrated in the figure above that presents the type of buildings in which startups are located in the Netherlands. In many cases the startups and scaleups that are located in a residential property have ancillary work-locations elsewhere or are located in buildings in which residential use is dominant.

Startups by type of location: growing demand for formal offices.

Startups by type of workplace by city.



Source: Dealroom.co, BAG, CBRE

In Rotterdam the largest share of the startups and scaleups are located in formal office buildings. In Utrecht, the smallest share is located in formal office properties. The largest share of startups in Rotterdam located in offices coincides with on average lower rental prices and the ample availability in this city as compared to Amsterdam and Utrecht. The small share of startups and scaleups that is located in offices buildings in Utrecht is due to the registration of many startups at the University campus, which is categorised as 'other'.

This large number of startups in the university campus, suggests that the presence of research institutions, universities or other knowledge organisations is beneficial to the innovative and entrepreneurial climate and number of startups within a city. However, to be innovative, cities should develop their specialism in the competitive global market. For startups and scaleups, the presence of universities, local authorities and large mature companies is a fertile ground for growth. The lack of similar concentrations in one of the other large cities does not mean there is no local innovation ecosystem.

Startups by city district: preference for city centers.

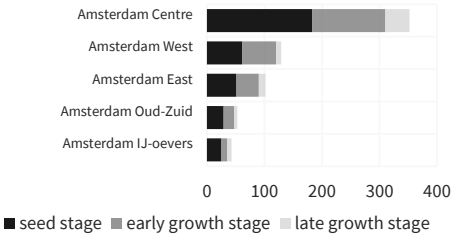
Within the cities, the most favourite locations for startups are the city centres, despite that in these districts office rents are mostly the highest. The presence of many amenities and facilities in both the city centres and the aforementioned startup hubs can explain the popularity of these districts. Also, residential districts, such as Amsterdam West and Rotterdam West are popular. One explanation is the presence of incubator spaces such as the Science Tower in Rotterdam, B Amsterdam is contributing to this popularity. The other explanation is the availability of low priced office spaces and the room for growth.

Based on this analysis, startups and scaleups are an important group of companies in the urban development. They locate on alternative locations then the established companies and can be seen as leaders in the urban development and the rise of new city districts.

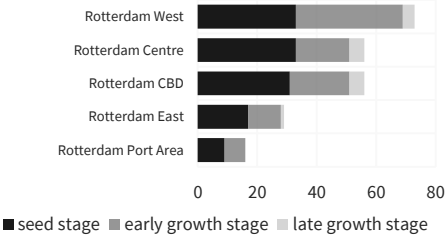
Remarkably, the Central Business Districts (CBDs) and other large office locations are not on top of the list by startups in their early growth stage. Districts such as Amsterdam Zuidas, Utrecht CBD are not ranked in the top 5 city districts with most startups, Rotterdam CBD and The Hague CBD are ranked third. The large scale of the office floors, the high rental levels and formal setting of CBD's can be reasons for this.

The limited presence of startups and scaleups in the CBDs of large cities results in an monotonous sub-environment within these areas. The presence of startups to the CBDs and the office properties can bring new growth opportunities to the established mature companies, as innovation and co-creation is more effective smaller ecosystem. Moreover, the presence of startups in and scaleups is beneficial for the branding of the district or office buildings.

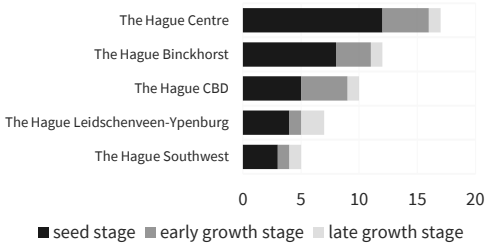
Top districts: Amsterdam



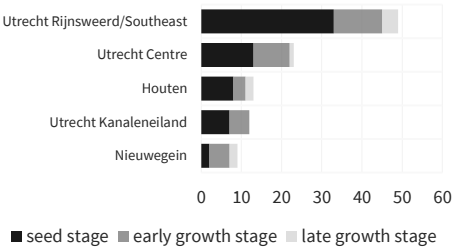
Top districts: Rotterdam



Top districts: The Hague



Top Districts: Utrecht



Source: Dearoom.co, BAG, CBRE

Conclusions and recommendations by CBRE.

Relevant for investors and developers:

- As startups are growing in size and maturity, they become occupiers that need to be on the agenda of property developers and property investors.
- In urban development, startups are often seen as front runners. Their locational choices can be interpreted as the future established location for more businesses. This study shows that these locations are outside of the traditional CBDs and more likely to be in the city centre or in mixed use areas around the city centre.
- The demand for office space is characterised by (1) low cost and flexibility, but also (2) central urban locations, surrounded by amenities.
- The workplace demand of startups and scaleups is volatile. Successful startups and scaleups need a lot of space in a short period of time.
- The presence of startups and scaleups in an area or building contributes to branding of the area and building. But is also can result in more tangible collaboration, business development and growth.

Relevant for governments:

- Startups and scaleups thrive in cities where the interaction between startups and scaleups, the local government and knowledge institutions is successful. The presence of these three elements and their interaction should be facilitated.
- Startups and scaleups are increasingly contributing to the growth of local employment. They should be on the agenda of urban planners when creating their office market policies.
- As the number of startups and scaleups is growing, their demand for physical space increases too. Startups and scaleups compete with other users for the scarce urban space.
- Branding can contribute to the attractiveness of a city. Developing towards a certain specialism is beneficial for the business growth within a city
- The availability of low cost workplaces coincides with more startups and scaleups being located in office buildings.
- The presence of knowledge institutions and universities contributes the number of startups in city.

Relevant for corporate occupiers:

- Large corporates and startups need each other to innovate and grow. Geographical vicinity is one of the main enablers, hence understanding locational decision of startups is important for large and mature corporates.
- Large corporates compete for the same talent as startups and scaleups. Being located in the vicinity of startups and scaleups means that large corporates can benefit from the skills workers develop while working in a startup and scaleups.

5.

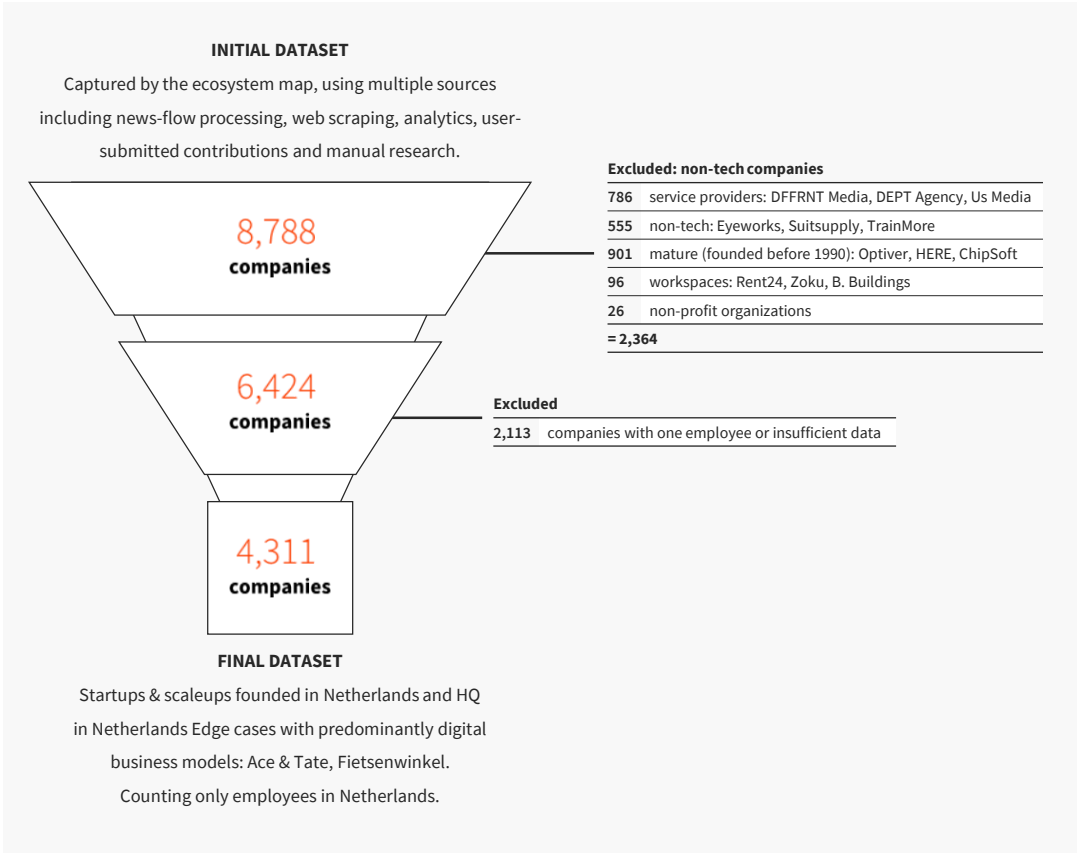
Methodology & Appendix.

How was this report was made?

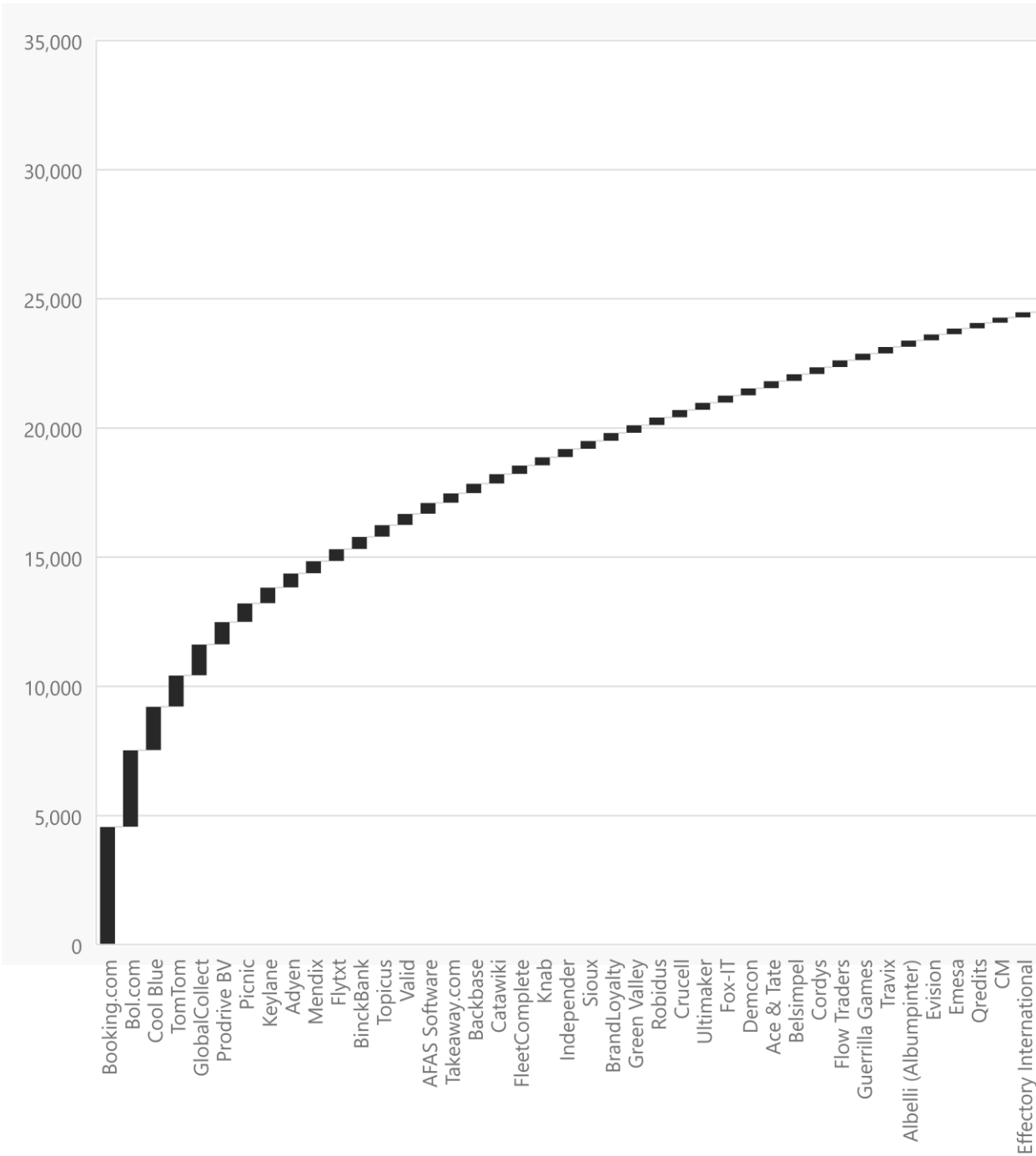
Methodology.

Dealroom's proprietary database and software aggregate data from multiple sources including processing of public news-flow, data feeds, web scraping, crowd-sourced contributions (verified by Dealroom) and manual research. Data is verified and curated with an extensive manual process, augmented by data processing.

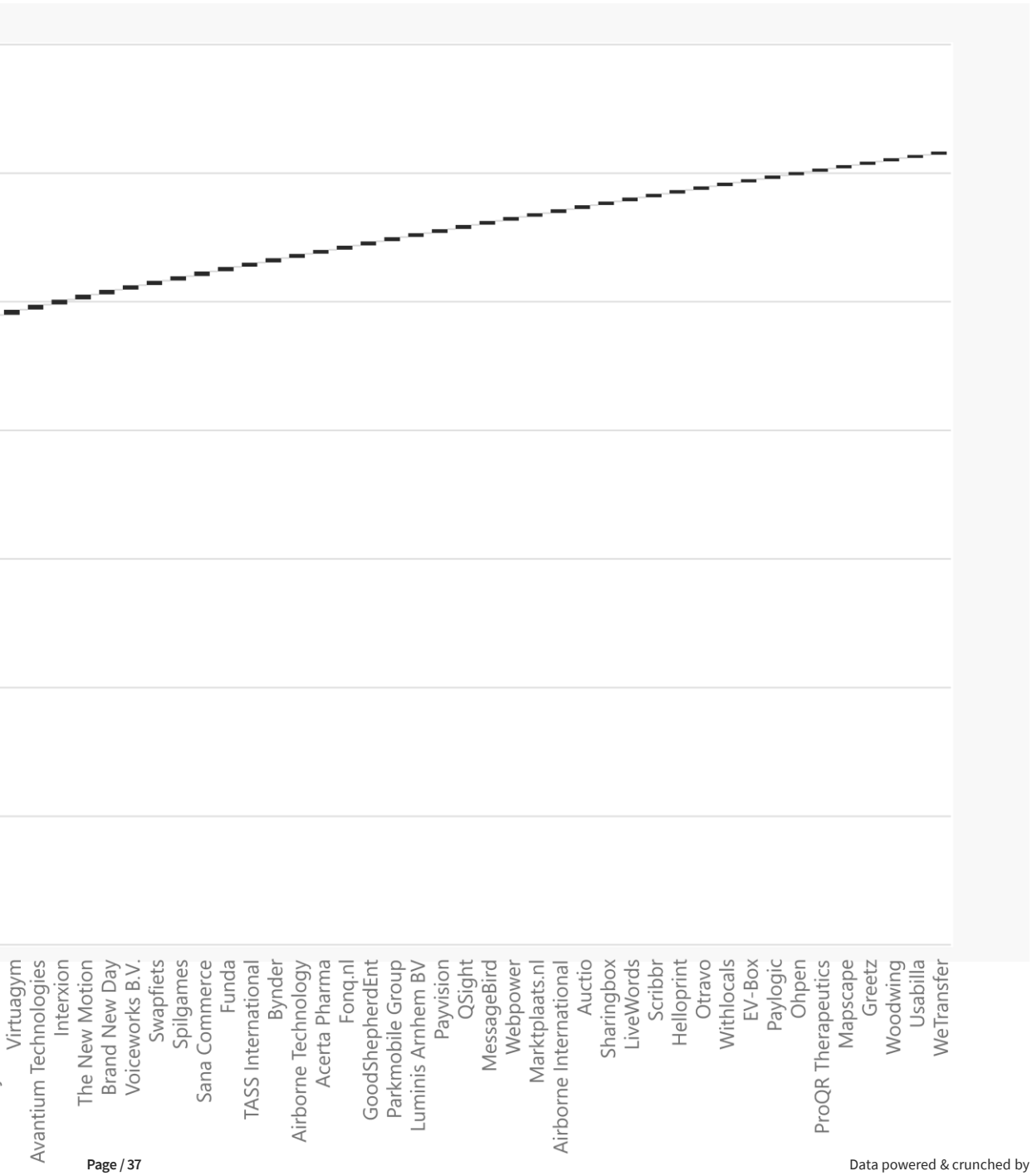
Most underlying data from the report is available online. For more info please visit dealroom.co or contact support@dealroom.co.



The biggest employer adds roughly 5% of jobs ...



… followed by a long tail of medium and small sized startups.



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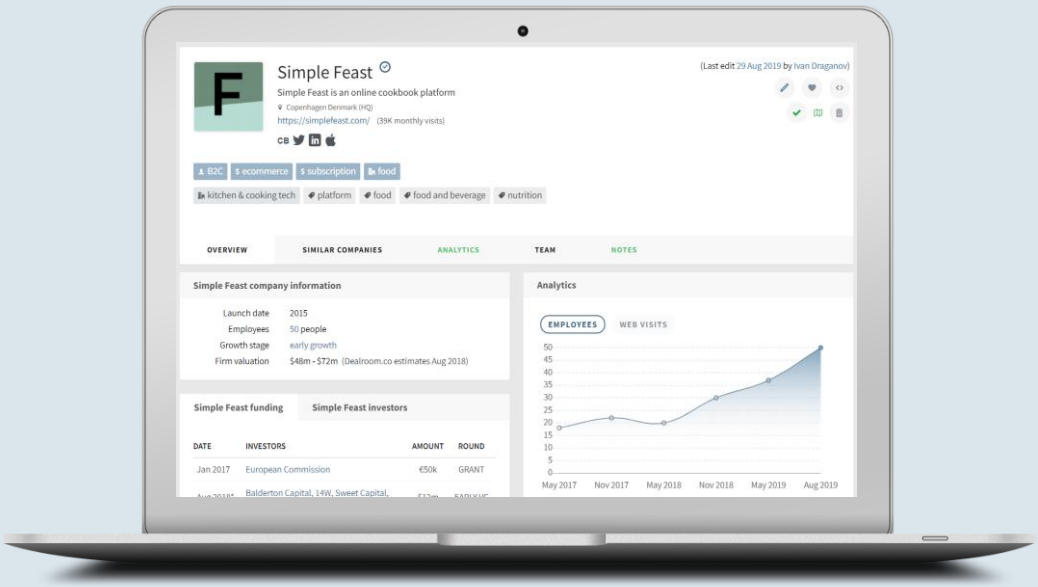

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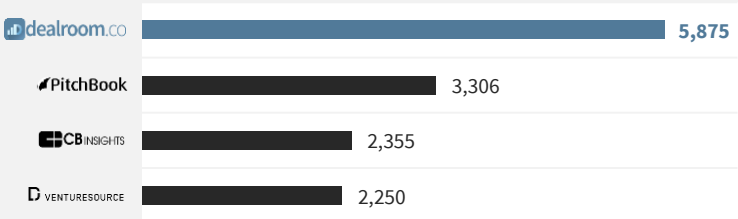
77% better coverage of Europe's startup ecosystems than the #2.

Number of European VC rounds tracked in 2018.



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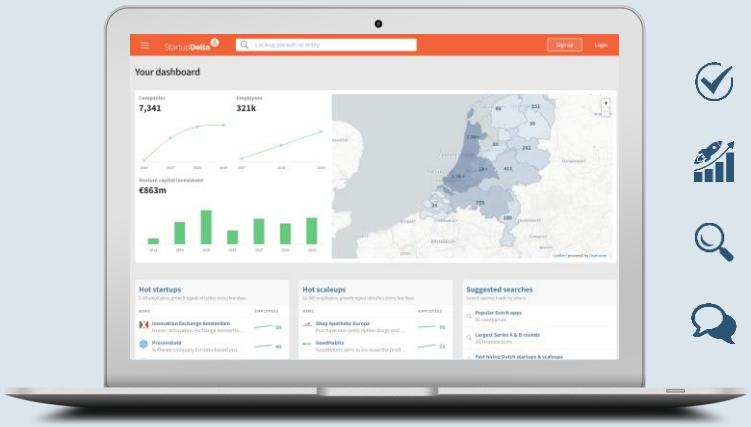
Ecosystem Solution helps governments better understand entire startup ecosystems.



- Fully maintained by Dealroom
- Measure ecosystem activity
- Make ecosystem more accessible
- Foster networking within ecosystem

Rapidly expanding network of tech hubs launching Dealroom-powered ecosystem solutions.

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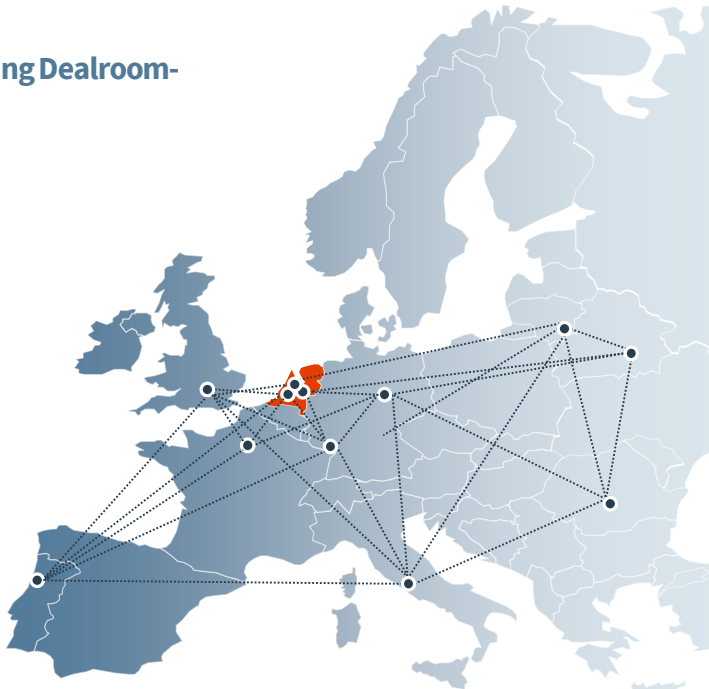

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Definitions of startups that seem very precise, are tricky in reality.

Other reports often use catch-all filters to extract startup/scaleups from a generic company register. An example is to define a startup as any company that grows faster than "x" percent. One problem with this approach is that growth data isn't always available on early stage startups. Having very strict definitions is tempting but often creates many non-sensical results. Below are more such examples. For this reason, Dealroom opts for a heavily supervised manual checking process.

Here's why we don't like to use catch-all filters to define "startups" at Dealroom.

	**AGE** Example: "Only include companies younger than 10 years"	Some companies are >10 years old but clearly are relevant, e.g. Adyen, Takeaway.com. It takes time to build a business! Also, you want to compare startups from different cohorts, while also including those that "made it". Filtering by age makes studies over longer periods of time counterintuitive as startups start to drop-off.
	**GROWTH** Example: "Only include companies that grow faster 20%"	Growth metrics (especially revenues) are not always available, especially for young companies. Establishing an exact % threshold is hard (20% YoY can be fast in some context, but slow in others). % growth should be adjusted for size, making it both complex and arbitrary.
	**INDUSTRY** Example: "Filter by industry codes in ICT"	The industry taxonomy available in traditional company registers are not made for the post-internet age. For example, the industry "ICT" may include a computer shop, whereas a food tech business might be included in "Food & Beverage".

This report is brought to you by:

Founded in Amsterdam in 2013, Dealroom is a global database providing insights on innovative companies and venture capital investment. Its software, database and bespoke research enable its clients to stay at the forefront of innovation, discover promising companies and identify strategic opportunities. Among its clients are world-leading consulting firms, investment banks, multinationals, tech firms, venture capital & buyout firms and governments.

At TechLeap.NL, it is our mission to establish the Netherlands as the ideal place to start, scale, and internationalize innovative businesses. With our unique connection to the government, corporations, investment funds, startups, and innovation hubs, we aim to merge the Dutch startup ecosystem into one single connected and ambitious hub. We break down barriers and improve access to talent, capital and markets.

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