



Ministerie van Economische Zaken  
en Klimaat



# Driving Innovation and Economic Growth Through Start-up Success

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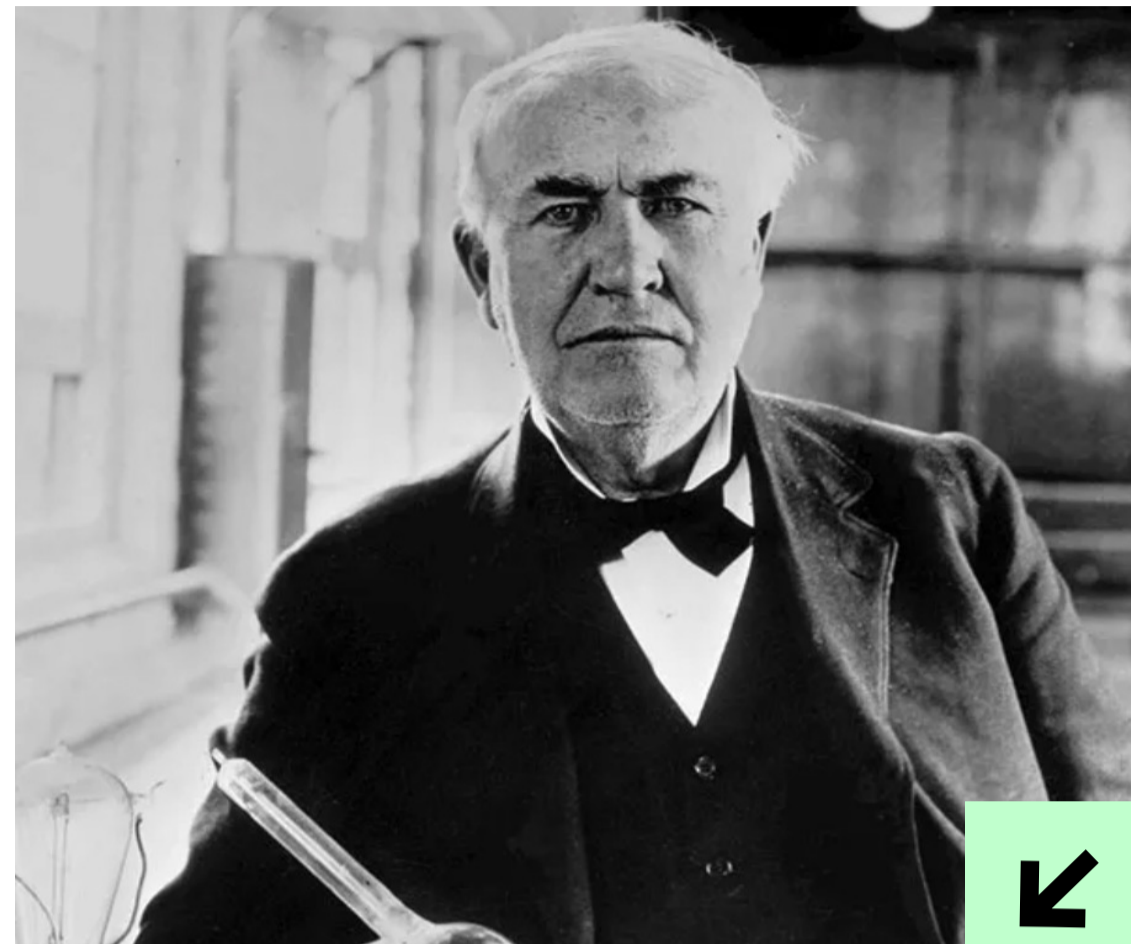
# People want innovations to make life better

## Why is innovation so important?

And what determines its chances of success? Since we are so used to innovation, it is easily taken for granted. Take, for example, artificial light... Once a luxury product, but nowadays available for almost anybody. In 1880, one minute of working for the average citizen, could buy about 4 minutes of kerosene light. By 1950, that same minute of work could buy 7 hours of incandescent light. Today, it can buy around 40 days of LED light. Innovations provide us with greater performance at similar costs. Up until the point that it becomes accessible for almost everyone. It's no wonder people crave innovation.

Innovation is a central theme in history, and it follows similar patterns<sup>1</sup>. It specializes our production capabilities and diversifies our consumption options. Past innovations also show us that inventions become commercial products when there is strong market demand. For an innovation to be successful, it must be useful to individuals and save time, energy, or money in accomplishing a task.

Innovation is a gradual, incremental, collective, and inevitable process. It occurs in a free market through collaboration, trial and error, and the recombination of existing ideas and technologies. For this process to thrive, entrepreneurs and researchers must collaborate with each other and most of all, understand the need of their customers.



## Who invented the light bulb?

Thomas Edison is often credited with inventing the light bulb, but several others\* had developed versions before him. By the late 1870s it was Edison that successfully brought the light bulb to the market. He employed over 200 researchers, including Nikola Tesla, conducting tens of thousands of experiments to create a light bulb that people wanted to buy.

\*Marcellin Jobard (Belgium), William Groive, Frederick de Moyle Warren de la Rue (England), Alexander Lodygin (Russia), Heinrich Göbel (Germany), Jean-Eugène Robert-Houdin (France), Henry Woodward, Matthew Evans (Canada), Hiram Maxim John Starr (America) and others.

<sup>1</sup>How innovation works (2020)

## Go!

- From inventions to innovations.
- From technical to market readiness.
- From collaborations between startups, industry and knowledge institutions to getting into the market early, have a common focus and reducing risk by sharing investments.

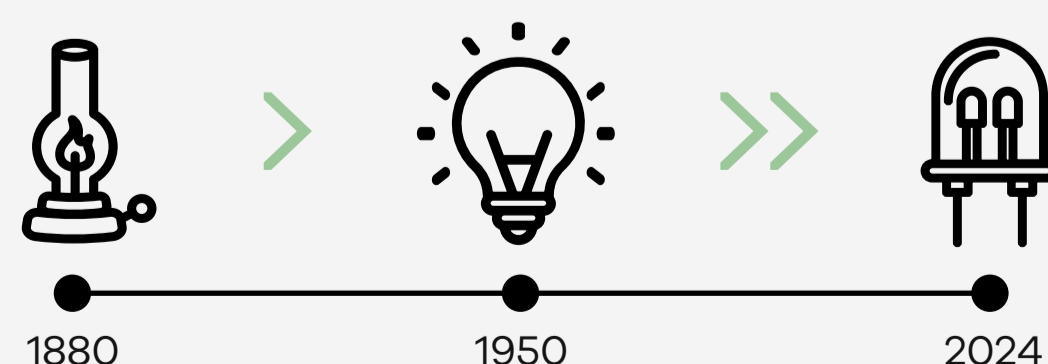


FIGURE 1

150 years of innovation: from kerosene, to incandescent to LED light.

# Start-up successes drive innovation and major economic growth

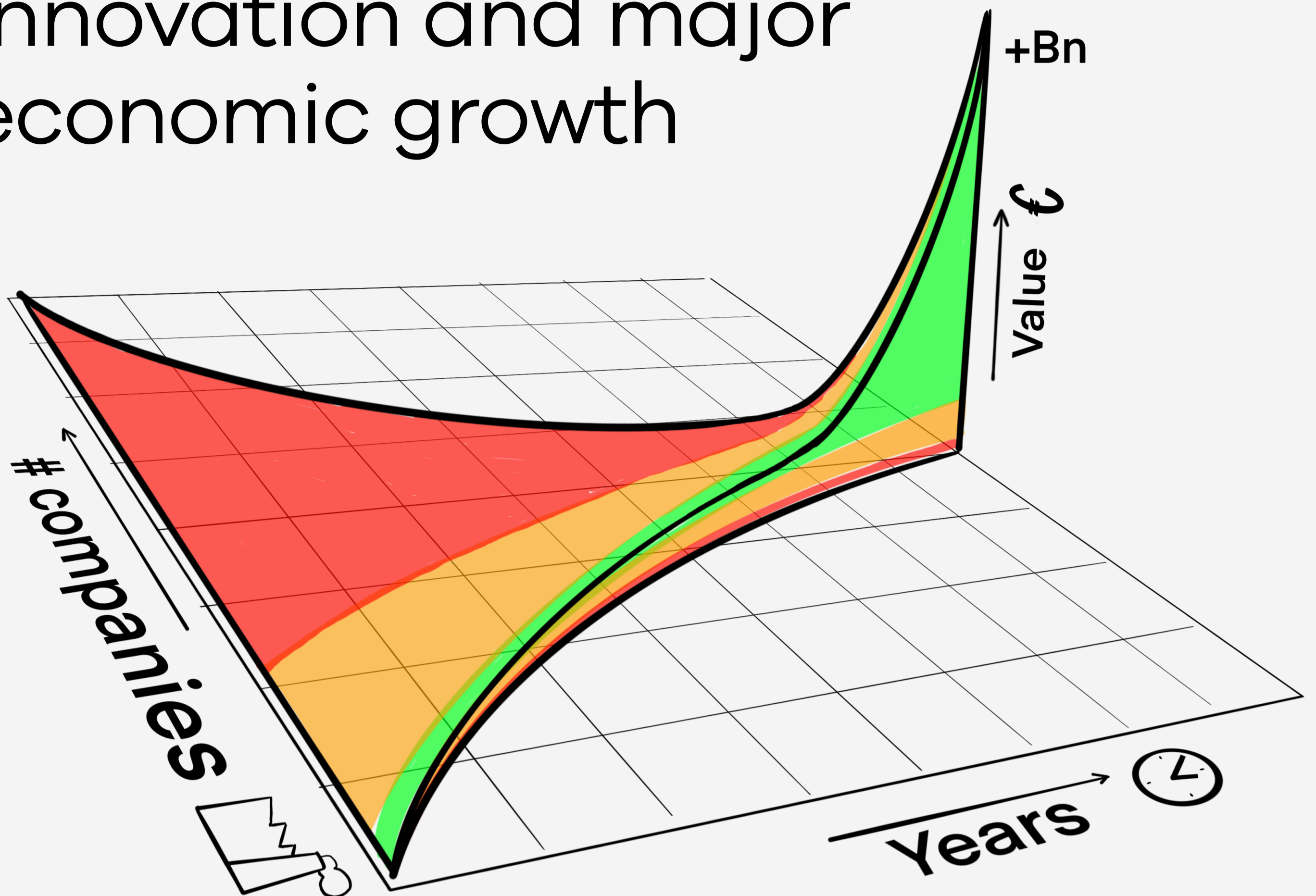


FIGURE 2

A 3D visualization demonstrates that most of the economic value (represented by the green colour) is generated by a small percentage of start-ups.

## Innovative solutions are essential for solving problems.

These problems range from obvious needs like artificial light, to complex challenges like shifting to renewable energy. To develop solutions for such problems, the economy needs spaces for innovation, and fortunately, such spaces exist. Innovations, especially disruptive ones<sup>1</sup>, are most often developed by small companies: start-ups. Statistical data shows that most start-ups either fail or remain small and low in value<sup>2</sup>. This is not necessarily a bad thing, as innovation involves trial and error, and failure is part of the process. But, under the right circumstances and with a bit of luck, less than one percent of start-ups

experience hyper-exponential growth<sup>3</sup>, with some becoming multi-billion companies. These companies contribute significantly either directly or indirectly to economic growth and make innovations accessible for everyone.

The government helps to create space for innovation. Projects funded by the National Growth Fund aim to make the economy better and more sustainable by investing in infrastructure, human capital and new technology. To make sure these investments pay off, the innovations must develop in such a way that their products meet market demand. Start-ups are ideal for this journey.

<sup>1</sup>Disruptive Innovation (1995), <sup>2</sup>Gritd (2022), <sup>3</sup>Correlation Ventures (2014)

# Investing only pays off if start-ups grow their customer base

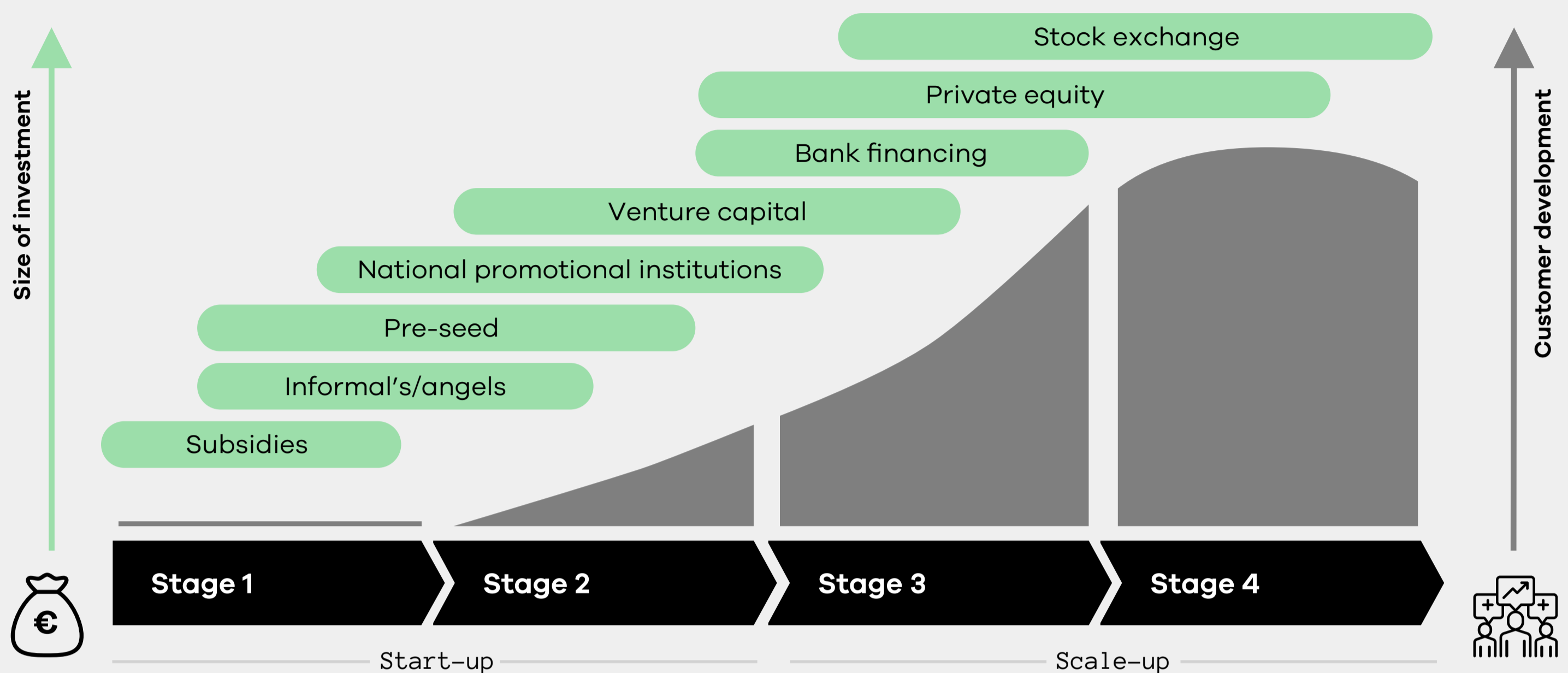


FIGURE 3

The company growth stages and a selection of available types of funding per growth stage

## Growing a start-up is not an easy task.

One of the key challenges is financing the business while developing the product. Especially for early-stage start-ups, developing complex technology may take many years<sup>1</sup>. For each stage, different types of external funding are available. Typically, subsidies and angel funding are most common in the pre-market stage. In early stages publicly funded investors support start-ups financially in their further development. In later stages, private investors such as venture capital, private equity and dept financing step in. In the final stage, an Initial Public Offering (IPO) brings the start-up public capital.

Eventually, all start-ups must gain commercial customers buying their product. For this reason, start-ups must put a high priority on their customer development<sup>2</sup>. A start-up that is developing their customers goes through several stages. Stage 1 is about discovering the ideal customers. Stage 2 focuses on validating these customers. In Stages 3 and 4, the start-up works on creating a customer base and building the company. These stages are called the scale-up phase.

<sup>1</sup> Gritd (2022,2023) <sup>2</sup> Steve Blanks (2013), <sup>3</sup> StartupFramework©

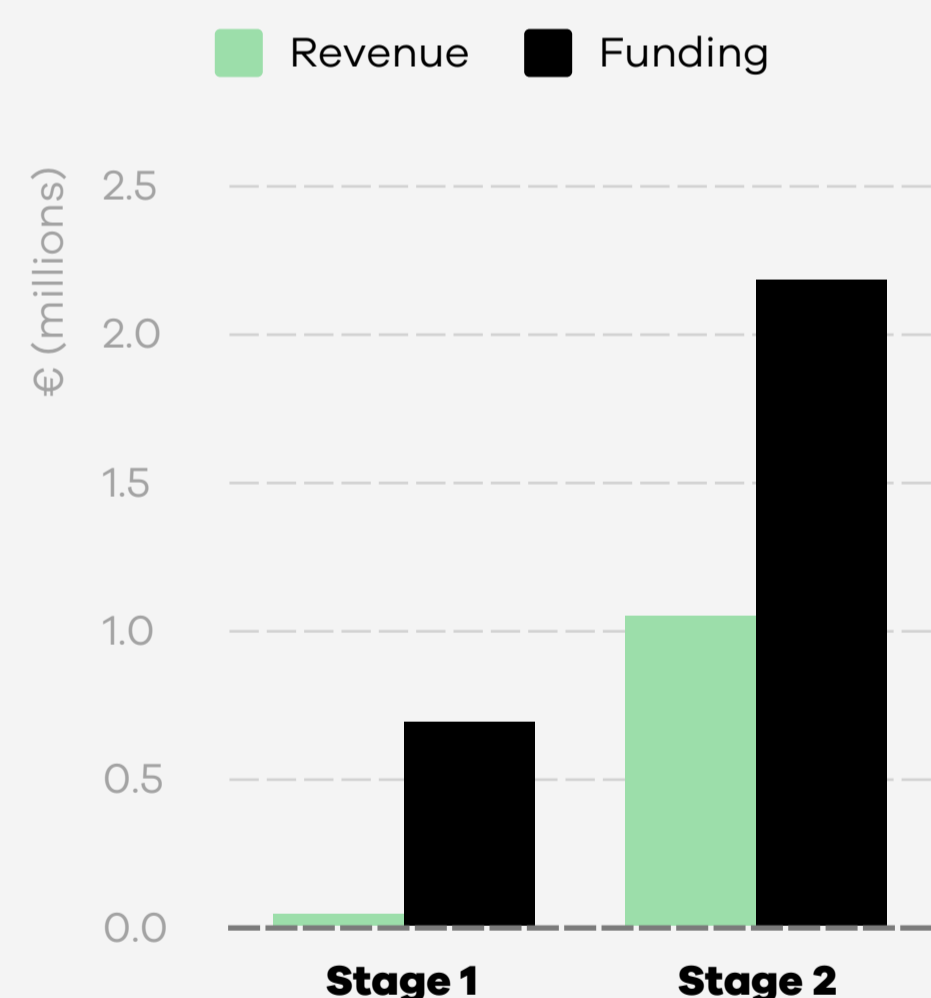


FIGURE 4 Average amount of revenue and invested per growth stage

## Gritd has developed a quantitative model to measure and evaluate start-up growth<sup>3</sup>.

In Figures 4, the typical amount of investment and achieved revenues are shown for Stages 1 and 2 start-ups. On average it takes a start-up between € 1 to 2 millions to move from Stage 1 to Stage 2. This means that they enter the market and start earning revenue.

# 51% of Dutch start-ups are not focusing on the right problem

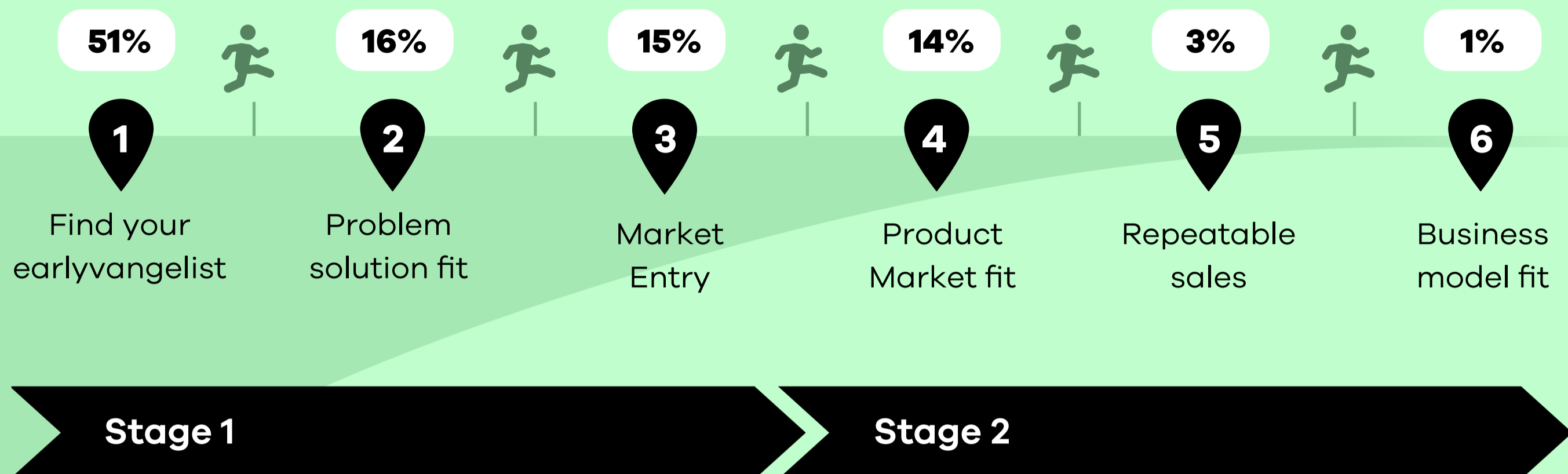


FIGURE 5

The key challenges of customer development are separated by 6 milestones in the start-up phase. The percentage of start-ups per milestone reflects their greatest challenge.

**An analysis of failed start-ups shows that next to raise funding (38%), the second key reasons for their failure is the lack of market need for their product<sup>1</sup> (35%).**

This issue is likely relevant for Dutch start-ups as well. A meta-analysis of over 2,500 start-ups found that 51% struggled the most with finding ideal first customers, or 'earlyvangelists'<sup>2</sup>. This means that many start-ups haven't yet proven that a unique group of customers is willing to take a risk to solve a critical problem. In other words, they do not focus on the right problem.

To overcome this, start-ups need validation from engaged customers who help refine their Minimum Viable Product (MVP) for larger markets. Identifying and understanding these early customers is important as they can guide start-ups in creating real value.

Once start-ups begin selling commercial products, their biggest challenge shifts to achieving product-market fit. This is when early adopters love and regularly use the product or service. Key metrics for this stage include usage, referrals, and retention. Data indicates that about 96% of start-ups have not yet reached this milestone.

<sup>1</sup> Cbinsights (2021), <sup>2</sup> Gritd data (2023)

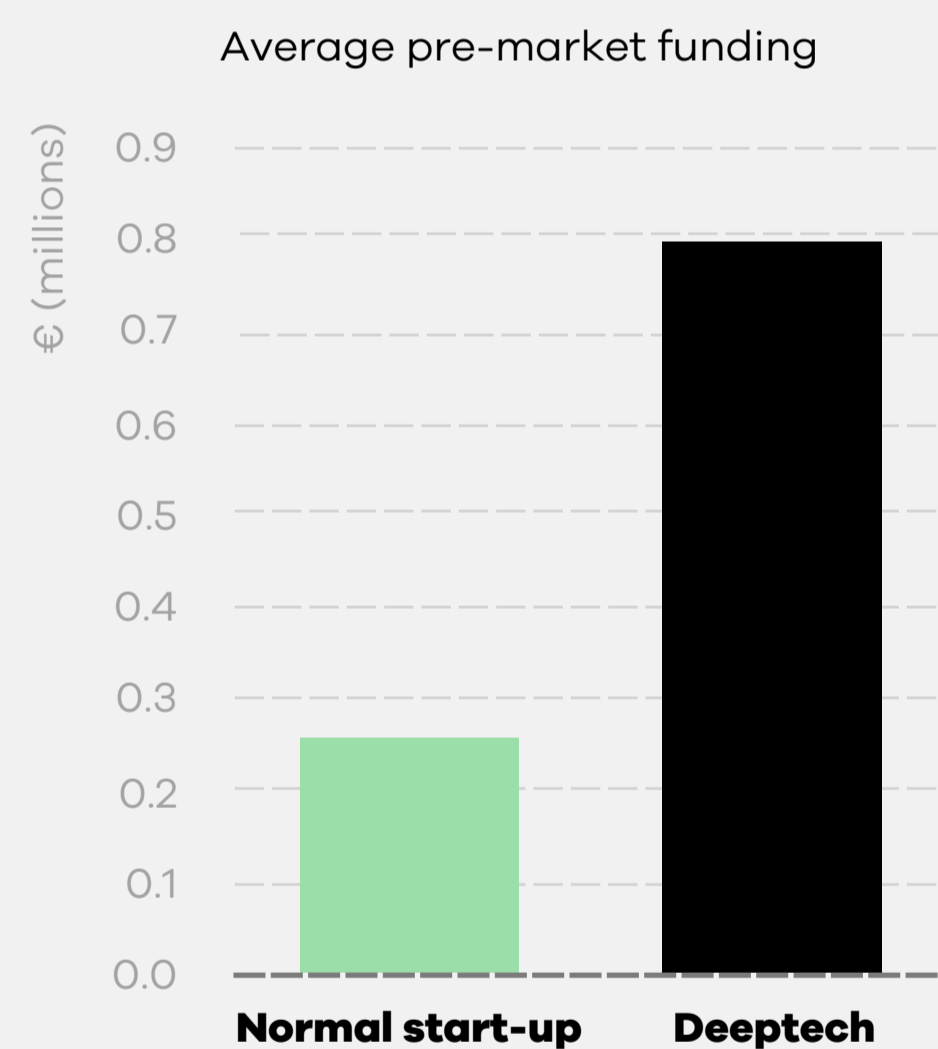


FIGURE 6 Funding needed to enter the market for deeptech vs other start-ups

**Data shows that deeptech start-ups require typically 3 times more funding to enter the market<sup>2</sup>.** There is also more risk of failure involved. This shows that customer development is even more important for deeptech start-ups. On the bright side, once deeptech start-ups enter the market, they generate about twice as much revenue compared to more regular start-ups.

# Generate market traction and accelerate growth by monitoring start-up development

**Monitoring start-up growth is important for staying in control.** Whether you are part of the start-up or assisting as a developer or investor, using data has several benefits. First, data offers an objective way to measure achievements over time. Second, it allows you to benchmark growth. Third, it can identify underperformance or ineffective behaviour.

To measure growth effectively, you need valid data. This means always checking data for accuracy. Next, analyse the data to interpret it correctly. Finally, present and discuss the insights to fully understand the learnings. Often, the discussion about the data is more valuable than the data itself.

<sup>1</sup>See for example: 'Overcoming Scaling Barriers for Dutch Impact Start-ups', Invest-NL (2023)

How can we accelerate start-up growth in the Netherlands? By examining 100+ start-ups that participated in development programs within the Dutch start-up ecosystem, we gain insights into their progress over six months<sup>1</sup>. On average, after the development program the number of customer interviews increased by 35%, the number of employees grew by 7%, total investment rose by 31%, and total revenue jumped by 96%. However, it's important to look at the underlying data for a complete understanding, as outliers can have a big effect on the statistics.

Fortunately, using data to measure growth is becoming standard practice. The innovative power of data becomes increasingly accessible for the start-up ecosystem.

## Growth:



**Duration: 6 months**

More customer interviews

**+35%**

More funding

**+31%**

Employee growth

**+7%**

More revenue

**96%**

FIGURE 7

Monitoring growth over 6 months for metrics: customer interviews (+35%), revenue (+96%), #employees (+7%) and funding (+31%). Cohort sample of 100+ Stage 1 and 2 start-ups, selected from several Dutch development programs.

## IMPRINT

On the instructions of: The National Growth Fund, EZK  
Event: 2024 conference: "The Future of Dutch Innovation"  
Date: June 2024  
Author: Koen Maaskant, PhD

## About Gritd

Providing start-up advisors and investors with training and data insights to help more start-ups successfully grow into scale-ups.



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