

Annual report



**noaber**



## Noaber in a glance

# Stichting Noaber Foundation

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The Noaber Foundation aims to initiate, support and accelerate innovations that drive change and improve health and thus have an impact on civil society wherein Noabership (neighborship) is key. We work as an Active Philanthropist and Impact Investor.

*Registered office:*  
**Zonneoordlaan 17**  
**6718 TK EDE**  
**The Netherlands**

### Funding

The Noaber Foundation is financed by a trust fund with the intention to use the trust's return for the general interest. Noaber Foundation was set up to carry out this mission. The trust fund is not included in this annual report. In addition, income is generated through returns on investments from the portfolio of Noaber Ventures B.V.

### Type of organization

Foundation by Dutch Law  
ANBI (RSIN) 850119659

### Year of origin

2000

### Mission

## Driving change, Improving health

### Target organizations

Type: impact organizations and Impact investment organizations  
Phase: Impact projects, pilot or start-up, established but scaling up

### Range of investment size

€ 10,000 – € 1 million for programs  
€ 100,000 – € 3 million for participation



**The future is  
something which  
everyone reaches  
at the rate of sixty  
minutes an hour,  
whatever he does,  
whoever he is.**

- C.S. Lewis



## Preface

**Jan Peter Balkenende**  
Chairman - Noaber

In this annual report for 2021, we look back on a period of 524,160 minutes or 8,736 hours. As in previous years, we have continually considered the essentials of our work. Are we still standing for what we want to stand for? Are we still achieving what we want to achieve? Do we see an opportunity to drive change and are we contributing to improving health?

This is why we commissioned a study in our network that asked whether we are indeed contributing to improvements. The agency that carried out the study found, among other things, that we are rated 8.1 in this respect. I used to think that was a good mark and I still do.

This survey asks so-called 'open questions'. The answers are often very interesting and instructive. One respondent, when asked for suggestions on how to optimize our role, replied the following: "You have a down-to-earth, substantive, no nonsense approach and that's great! However, to what extent are you really proud of your work? And to what extent do you publicize this? As far as I am concerned, Noaber may become more visible!"

Two words in particular stand out to me in this quote. First of all: "sober". I find that a great compliment because I think sobriety is very important, even in the delusion of our day. And finally, "publicity." We do that, I believe, at least annually, when we publish our annual report.

Another comment states that we could establish better connections between the various initiatives we are involved in. These are instructive comments. As a board and staff, we are happy to take suggestions and our commitment to focused things we do even better. After all, the projects in the programs and the companies in our investment portfolios are worth connecting. Think of the triple helix perspective; the collaboration between governments, companies and scientific institutions.

Back to that one comment from the survey. The word "proud" also strikes me in it. I'm not sure that word fits the values-driven family foundation we are and the long-term vision we have. We prefer to replace it with the word "grateful"? Paul Baan, our founder, often says when the United Nations Sustainable Development Goals (SDGs) come up, not for nothing, "Yes, and SDG also stands for Soli Deo Gloria!" From that perspective, we want to act with an eye to the future, at the rate of sixty minutes per hour.



## Preface

Rutger Baan  
Board Member - Noaber



**The key is in not  
spending time,  
but in investing it**

- Stephen Covey



## Preface

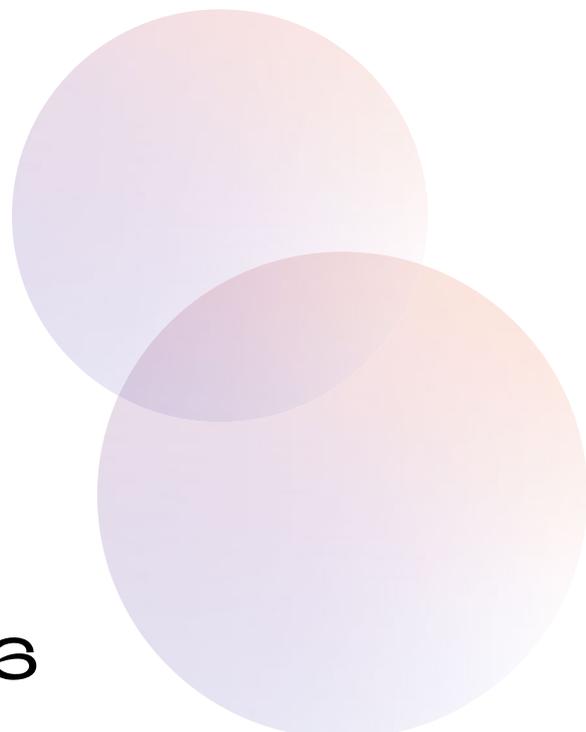
**Rutger Baan**

Board Member - Noaber

In 2021, we as a family foundation were once again able to invest time in achieving Noaber's mission: driving change, improving health. We are grateful for that. We are also grateful because our parents, the first generation, gave us the time to prepare to take over board responsibilities. We learned a lot from them. For example, the importance of believing in and looking for possibilities. And the importance of thinking in the long term, seeing a distant horizon. Meanwhile, we, the second generation, have already begun to give our children, the third generation, the same preparation in an appropriate manner.

Last year I wrote on behalf of my family that our model of donating and investing is aimed at social impact and financial return. That hasn't changed. The cultural compass that keeps us on track has helped us to continue our journey, keeping the core values of the organization and our family at heart.

Last but not least we are grateful for the cooperation between the committed board members and the professional staff. The time we were allowed to spend together was time well spent. After all, we invested in change and health!





**Matthijs Blokhuis**  
CEO

Driving change and improving health define both the role we want to play and the goal Noaber wants to achieve. This ambition is more relevant than ever! We put everything we have towards enhancing the health span of the general population and of every person that is part of that population. We strive to make the world healthier and more sustainable through innovation and the realization of our 'Quadruple Aim.' Not only through the activities and programs supported by Noaber, but also by taking an initiating and accelerating role in enabling a system-based collaborative approach that integrates stakeholder interests and perspectives that provide the foundation with a sustainable transition.

#### Improving health

Demographic, social, and economic trends put increasing pressure on the healthcare sector's sustainability. The recent pandemic was a stress test in this regard. These universal developments result in an ever-increasing percentage of our GDP being spent on healthcare. However, increasing expenditure on healthcare does not go hand-in-hand with increased health, meaning positive health as defined by the Institute for Positive Health. Among other things, this is due to increased welfare and medical and technological advancements; we live longer, but in a relatively unhealthy way, which is causing an increasing gap between lifespan and health span. For people in underserved communities and with less advantageous social and economic conditions this is even more so the case.

At Noaber we believe that optimizing the health span enables people to fulfil their potential and live their lives the way they desire. This is best served through a focus on health rather than sickness. That's why we put population health and lifestyle first in our programs.

In these programs we develop, validate, and support solutions for living a healthier life. At scale, this will ultimately result in sustainable healthcare.

For people, health is not only defined by their physical and mental state of mind and body, but also through a sense of meaning and belonging within their social relations. We believe that being able to provide for and draw upon their social environment (“noabers”) is an integral part of health and contributes to optimizing healthspan. The value of social health seems underestimated at the moment. Therefore, at Noaber we strive to increase evidence, awareness and acceptance of social health as an integral element of quality of life

#### Driving change

A focus on improving health makes sense, but is not yet fully incorporated into the current healthcare system. Regulation, reimbursement and workflows, among others, are focused on sickness rather than health. Whilst we can show efficacy and efficiency at an individual intervention level, change on a systemic level is required to make the transition towards a health focused approach. Such change is difficult as it requires people and organizations to alter their existing procedures, processes, and beliefs in order to accommodate this new approach. This change is taking place in a scattered landscape where cooperation between stakeholders is imperative in order to be successful. Such cooperation is very difficult to kick start and requires leadership, commitment, dedication and resources. We want to create an environment in which new initiatives and approaches focused on enhancing health span are incubated, validated and accelerated. This provides the basis for an open innovation space that facilitates strategic collaboration between trusted partners in a flexible and entrepreneurial setting. Being an independent organization with an entrepreneurial mindset and impact as its main driver, Noaber is well positioned to initiate and facilitate such

cooperation between stakeholders. We can drive change at a systemic level and align stakeholders with this common goal through our own resources, knowledge, experience and networks, which are geared towards achieving that objective and facilitating others to do the same.

#### Pathfinder

We have adopted a programmatic approach to address the complex and interrelated elements of systemic change in clearly defined intervention fields. As a pathfinder Noaber initiates and accelerates such programs with the intent to enhance stakeholder involvement and ultimately hand them over to system-level players or enable others to take on this role if they are up to such challenge. We seek to remain engaged as long as our involvement results in a meaningful contribution for systemic change towards optimizing health span. We initiated programs focused on population health, lifestyle (medicine) and social health as the main areas that require change and where Noaber can play an enabling role to facilitate the transition towards an active and healthy life. Given the complexity we plan to remain focused on and actively engaged in these programs for the years to come, while we continually evaluate the need for additional programs that align with the role we want to play and the goal we seek to achieve.

Our investments (made through Noaber Ventures) provides programs for professionals, patients and people to put the concepts of population health, lifestyle (medicine) and social health to work in daily practice. Once tested and proven meaningful in terms of our Quadruple Aim, they can be scaled for impact.

## Persistence

During the past few years, we have tested, refined, and validated our approach towards driving change and improving health. We are convinced that this focus creates the best possible outcome for our 'Noabers' and that we can play a meaningful role in facilitating the associated transition. There seems to be momentum for this paradigm shift, but a long term approach remains essential. Whilst we can only facilitate others to put this change into motion, we have decided to put all our effort in terms of philanthropy, impact investments and mission related investments to ensure that we use this momentum. We are persistent in our approach to improve health and drive change.

## Our investment policy

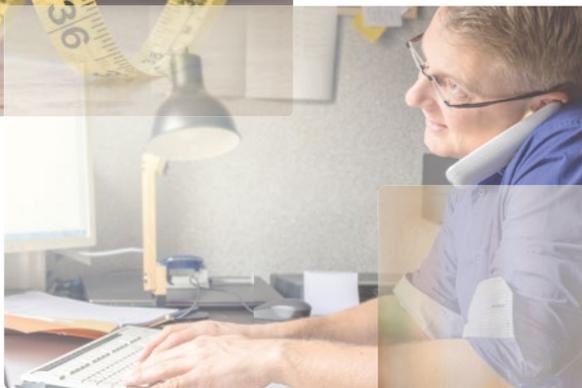
The overriding principle of Noaber Ventures' investment strategy is to invest with impact. Impact investments are investments made into companies, organizations, and funds with the intention to generate a meaningful contribution to the health of people and realize our Quadruple Aim alongside a financial return. Our attribution relates to the early stage focus in under-institutionalized domains. Our active involvement is intended to support and influence the project or Investment with a focus on outcome(s). Given the investment focus on companies with early stage ideas, pilot or startup or established but scaling up, the risk of the portfolio companies is considered high.



Annual  
review



# Discover the Highlights of 2021





## Organization

#1

# Celebrating continewity



January 26, 2021 was a special day. Noaber is a family foundation, founded by Paul and Mineke Baan. On Paul's birthday - he turned 70 - the parents transferred the board responsibilities to their children, the second generation. This meant that daughter Annelies and son Rutger became board members of Noaber (Rutger already was) and that Paul and Mineke increasingly distanced themselves from the organization. Of course they are both still active and available for giving advice.

In 2021, we also celebrated our 21st anniversary. To mark the occasion, we released a special 'triptych'. In a book, author Edwin Venema, described the history of Noaber. Jan den Ouden provided the design and many of the illustrations. Pianist and composer Armin Seggers was asked to interpret the Noaber Journey musically. Finally, the third part of the triptych is a video featuring key people from the past 21 years, including Paul and Mineke Baan and a few of their children.

The composition, performed by Armin Seggers himself, and the video can be listened to and viewed via:





## Organization

#2

# Culture Compass: NICE to have



In 2021, we took the time to rethink what and how we can summarize our culture in a few clear terms. Words and thoughts that help us 'continew' to navigate and orient ourselves in choices we make and directions we choose. In the end, we chose a compass as our metaphor: our cultural compass. With four 'wind directions': the (magn)ethical north

with the core concept of noaberschap. The enterprising east. The key concept that fits here is entrepreneurship. Then the daring south. This requires courage. And finally, the wild west. The key concept here is innovation.

That's NICE, isn't it? Noaberschap, Innovation, Courage and Entrepreneurship?

#3

# A new corporate identity and website

# noaber



Moving with the times, continew! That, too, is a challenge. Sometimes that means changing your logo and corporate identity. We asked Steets, an agency in Veenendaal, for advice. After reviewing our communication wishes, we made a number of decisions. The compound 'oa' had to stay. This so-called ligature has become part of us. A more radical decision was that we would no longer use the word foundation in the logo because we want to emphasize that all our activities are focused

on a unambiguous mission: driving change, improving health. The typeface that was proposed is the Konstant Grotesk. The art-director of Steets slightly lengthened the right leg of the 'n': a small, subtle reference to the fact that we seek depth or, in other words, impact. Finally, at the same time as the introduction of the new logo, our website was also revamped with the possibility of choosing a black (modern) or white (traditional) version.



## Organization

#4

# Moving to Zonneoord Estate



From a villa to a knowledge and innovation campus. From Rosmersholm to the Zonneoord Estate. They are only a few kilometers apart but what a world of difference! After about 20 years we moved into a modern office with all the modern conveniences and many other advantages. Not only do we work in the middle of the woods (healthy!), but we can also use all the facilities of the estate (hospitable!).

In terms of atmosphere we have lost nothing, but efficiency and business quality we have improved. Of course it was a pity that the COVID-19 measures prevented us from making much use of everything from the start, but now that everything has been relaxed in that respect we enjoy it all the more. If you have an appointment at our office - the Estate - we will be happy to show you around!





## Programs

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We have adopted a programmatic approach to address the complex and interrelated elements of systemic change in clearly defined intervention fields. We initiate and accelerate programs with the intent to enhance stakeholder involvement and ultimately hand them over to system-level players or enable others to take on this role if they are up to such challenge. By doing this, we seek to remain engaged as long as our involvement results in a meaningful contribution for systemic change towards optimizing health span. The programs are focused on population health, lifestyle

(medicine). A third program is under development'. The theme will be 'social health'. These three areas require change where we could play an enabling role to facilitate the transition towards an active and healthy life.

Given the complexity we plan to remain focused on and actively engaged in these programs for the years to come, while we continually evaluate the need for additional programs that align with the role we want to play and the goal we seek to achieve



## Programs

#1 lifestyle (medicine)

# De eerste 1.000 dagen (First 1,000 Days)



The Dutch Health funds are committed to curing diseases and providing quality of life for people with chronic conditions. But they are also committed to preventing people from getting sick. “And the younger we start doing that the better,” they write on The Healthy Generation website. The Collaborating Health Funds (SGF) are implementing a multi-year program to realize a “dream and ambition”: the healthiest youth in the world by 2040! Part

of this program calls attention to the first 1000 days of a child because these are crucial for a good start. The health of a child before, during and after birth appears to be an important predictor of problems - both physical and mental - in later life. We are fundraising partners with the Bernard van Leer Foundation for this program because the objective fits with our mission: driving change, improving health.



[gezondegeneratie.nl](https://gezondegeneratie.nl)



## Programs

#2 lifestyle (medicine)

# Well living lab



The Well Living Lab (WLL) is a laboratory, affiliated with the Mayo Clinic (Rochester MN), that investigates how buildings can contribute to the health of their occupants.

The WLL conducts research, the results of which are incorporated into the Well Living Standard®. Several studies were conducted during 2021 on ventilation and health; partly related to the COVID-19 pandemic. In the coming years, WLL will also conduct a field study in Groningen, in collaboration with the UMCG and the RUG. The Well Living Standard referenced: The WELL Building Standard® is a performance-based system for measuring,

certifying, and monitoring features of the built environment that affect human health and well-being through air, water, food, light, fitness, comfort, and mind.

A number of buildings at the Zonneoord Estate - where we have held offices since 2021 - have earned The WELL Building Standard® (Platinum) in the past year.



[www.welllivinglab.com](http://www.welllivinglab.com)  
[www.zonneoord.nl](http://www.zonneoord.nl)



## Programs

#3 lifestyle (medicine)

# GezondMeten

(Measuring Health)



Lifestyle medicine still has a limited - scalable- revenue model. One of the consequences is that it is difficult to finance large studies. It also doesn't help that there is no standard for measuring (positive) health outcomes. In this project, which is a cross-over with our population health program, a validated basic set of questions is being developed to measure health unambiguously and to make interventions and outcomes

more comparable. GezondMeten is a project consisting of researchers from Leiden University Medical Center (LUMC), Alette Jacobs School of Public Health (University of Groningen), Salut, TNO and Lifestyle4Health. We actively support this initiative, together with the Fred Foundation and the Institute for Positive Health (iPH). The questionnaire has now been developed and published.



[www.gezondmeten.nl](http://www.gezondmeten.nl)



## Programs

#4 lifestyle (medicine)

# Lifestyle dashboard UMCG

*Mrs. Jansen has an appointment in the UMCG. At home she has filled in the questionnaire about her lifestyle via the patient portal again. Last time she visited the dietician she scored red on the nutrition domain. Her sodium excretion was also too high. This showed she was eating too much salt, which increases blood pressure. The dietician helped Mrs. Jansen make small improvements in her diet. She was given many tips about using herbs in cooking and which products contain a lot of salt and which she should therefore avoid. This time Mrs. has an appointment with her doctor. During the consultation the doctor turns his screen towards her. The food domain is now yellow, a step in the right direction! In addition, the overview of the lifestyle measurements shows that her sodium excretion has decreased. For Mrs. Jansen, it is nice to be able to see the results of these small adjustments. It helps her to understand the difference her diet can make for her health.*

In the UMCG a lifestyle dashboard has been developed based on an idea by nephrologists Dr. Paul van der Boog (LUMC) and Prof. Dr. Gerjan Navis (UMCG). The lifestyle dashboard gives healthcare providers insight into the lifestyle domains of patients and their lifestyle-related medical measurements. These data form the basis for a quality lifestyle system. Noaber was involved in the development of the dashboard.

Nine domains of the patient are mapped which are colored red, yellow or green. The domains are: addictive substances, mental well-being, social network, quality of life, sleep, vulnerability, points of attention, nutrition and exercise. This information can be combined with lifestyle-related measurement data such as blood pressure, cholesterol, weight, malnutrition scores, etc. In this way, information reported by the patient is placed alongside objective measurements, creating a feedback loop.

In 2021 the UMCG started to implement the Groningen Lifestyle Intervention Model (GLIM) in four departments. The lifestyle dashboard is used for registration of lifestyle factors in the electronic patient record (EPD). Over a period of three years, working groups of healthcare providers from various specialties, domain experts and technical support from the business intelligence and information management departments have worked to create broad support for the lifestyle dashboard.

We are involved in this development because we expect the impact to be significant when other hospitals start using the dashboard.



# Programs

#5 population management

# HealthKIC



The HealthKIC Foundation was created at the initiative of Noaber and is now also facilitated by Menzis, PGM, Alles Is Gezondheid, the Bernard van Leer Foundation and the Ministry of Health, Welfare and Sport.

Our health care system is designed to treat illness. As a result, we lack structural funding for programs that keep people healthy. Moreover, we do not sufficiently measure what does and does not work in the field of health interventions and we lack organizational power. This is why HealthKIC has developed the 'Kavelmodel'. It adds a number of important and necessary preconditions to the current system. Moreover, it is a model that does not cause a revolution,

but gives an evolutionary nudge in the necessary direction. In 2021 a start was made to prepare two 'kavels': the Achterhoek (the Eastern part of the Gelderland Province) and the municipality of Ede.

Leonie Voragen and Carl Verheijen were guests in the SlimmeZorg podcast in which Arno Rutte talked with them about the Kavelmodel. In the podcast they talk about how regional care can be organized differently and innovatively. The focus is on improving health within the regional context and working together with all stakeholders in the care and welfare sectors. That means that there is no room for non-commitment.

[Listen to this episode on your favorite platform!](#)





## Programs

#6 population management

# Validation of risk stratification



Within the Dutch healthcare system the focus is shifting from a disease-oriented approach to a more population-oriented approach. Since all residents in our country are registered with one general practice, this offers a unique opportunity to perform Population Health Management analyses based on data from general practitioners.

The Johns Hopkins Adjusted Clinical Groups (ACG) system is an internationally used method for predictive population analyses. The model categorizes individuals and maps their health risks based on their health profile, taking into account age, gender, diagnoses and medications. However, the ACG system was developed with non-Dutch data. Therefore, for wider implementation in Dutch general practice, the system needs to be validated within the Dutch health care system. A study to this end was conducted by Shelley-Ann M. Girwar and Marc Bruijnzeels et al. In 2021, [they published an article](#) showing the results of the first use of the ACG system on Dutch GP data. The aim of this study was to investigate how well the ACG system can distinguish between different levels of GP use. The population for this pilot analysis

consisted of 23,618 individuals admitted to five participating GP practices within one region in the Netherlands.

Although the use of the ACG system usually recommends the use of both primary care and hospital care data, this study shows that the ACG shows promise when used with only primary care data, especially in a primary care system with mandatory GP list. “All in all, applications such as the ACG hold great promise for health care systems, as the ability to predict future health use may be beneficial for person-centered health intervention strategies, such as screenings for care management interventions, as well as for local, regional, or even national care management.”



[www.bmchealthservres.biomedcentral.com](http://www.bmchealthservres.biomedcentral.com)



## Programs

#7 new program

# Social health: the development of a new program

In 2021, work began on preparing a new program. This program will be launched in 2022. To define the program, we worked with external experts, including Verwey-Jonker Institute.

### Analysis

Our social functioning in relation to health deserves more attention and awareness. Because various literature studies show that social health is closely related to both physical and mental health. People with satisfying social connections live longer, (positively) healthier and happier lives.

However, as a result of the individualistic tendency in our society, social relationships and social support are under pressure, both in the known risk groups and in our society as a whole. Moreover, the importance of the social context in which we find ourselves is systematically underestimated, by citizens but especially in the provision of care and support. The dominant biomedical model gives little room to the social perspective and there is no infrastructure to effectively increase social health.

### Wicked problem

At the same time, the issue is complex and we note a lack of a clear vision of what is needed in policy to help realize the importance of people's social relationships on an effective scale and with impact. However, there is scientific evidence to support the hypothesis that social relationships have a positive impact on mental and physical health. In addition, we have the impression that there is a lack of support for securing these ideas, in part because the evidence is ambiguous. Finally, we believe that there are not enough proven concepts available to work with here in practice and that knowledge and action perspectives are lacking within the social domain but especially within the medical domain.



## Programs

#7 new program



### Decision-making

As a result, it is proposed to the board to carry out a three-year development program starting in 2022 with the aim of raising awareness, inspiring and building an infrastructure and foundation to increase social health in the Netherlands. This important theme suits us because we consider it a white spot within the health perspective in the Netherlands. The potential that we see is great and we believe that our efforts can add much to this unexplored playing field.

Driving change, improving (social) health  
Our role will be driving change by entering into dialogue, unlocking knowledge, tapping into energy, stimulating and connecting parties. In short, our role is to take the initiative to create a breeding ground for transition in the longer term.

This development program will: stimulate (potentially) successful initiatives that respond to social connection, demonstrate that a social perspective yields positive health gains and that the consumption of care can be reduced and/or used more effectively and generate broad support and publicity for this message.

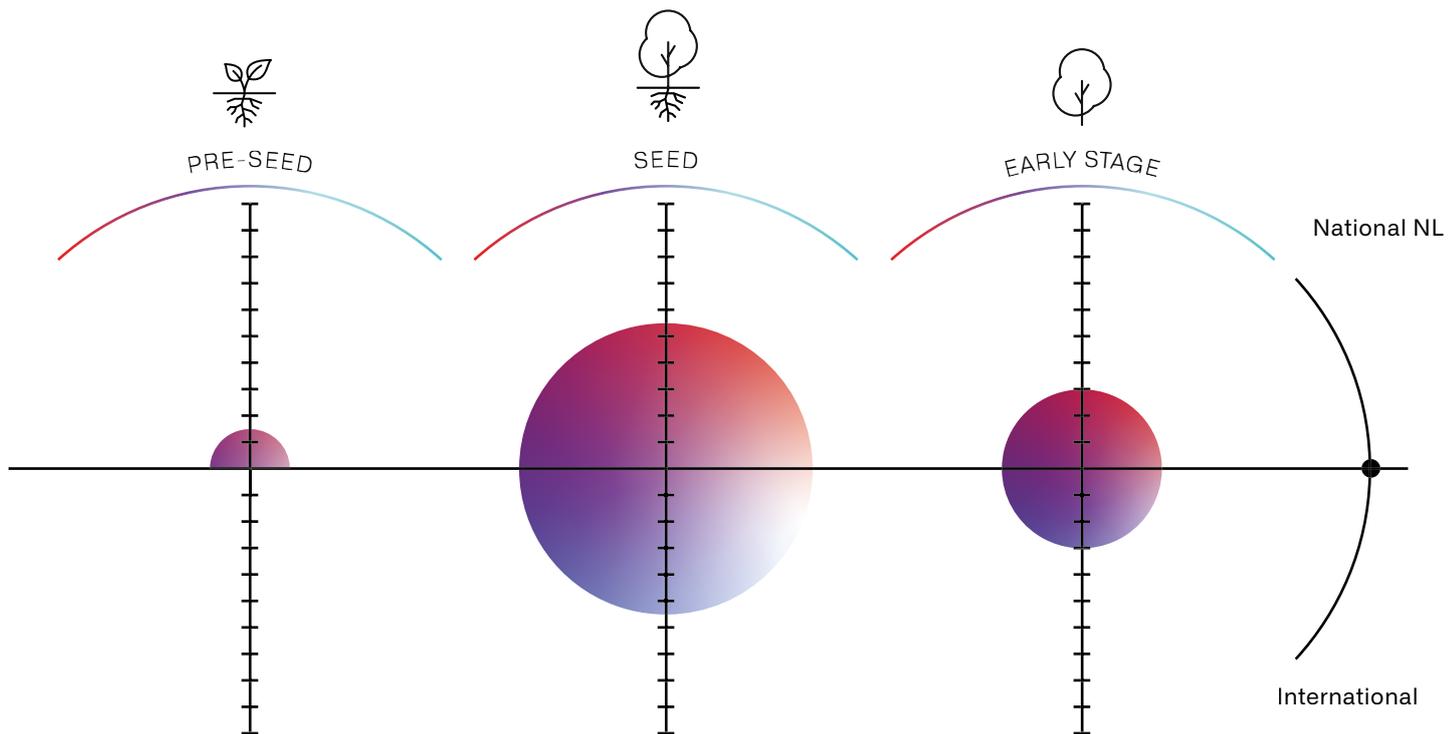
### Finger exercises

A number of exploratory projects were funded in the 2021, including with Join Us and Nutrition Lives.

The collaboration with Join Us involves the creation of a professional structure for equipping professionals on how to effectively combat loneliness among young people.

With Nutrition Lives, we are investigating whether and how awareness and action perspectives on social health can become a part of their lifestyle programs and what the effect is.

# Investments



- Innovation/product development
- Primarily NL
- 10 companies/funds

- Product development/ market entry
- National and international
- In NL via NxG II fund
- 10-12 companies/funds

- Market entry/market expansion
- National and international
- 5 companies/funds

Our investments are primarily on (pre-)seed impactful healthcare technology ventures that contribute to a healthy, active life and quadruple aim. Core focus areas include health activation, early screening and diagnostics, smart chronic care management and health systems. Early-stage investments are limited to follow on investment within the current portfolio or co-investments with strategic partners and funds. Generally, we are the first professional investor in a venture. Pre-seed investments are done through partners.

Noaber Ventures' portfolio includes 16 direct investments and 8 indirect (fund) investments. Through the fund-in-fund strategy, a total of 55 healthtech companies are supported.

Through Rockstart (29), Amino Collective (14), Blue Sparrows (5) and NLC (16), the majority of these companies are in the pre-seed phase.



## Investments

#1

# Investment Advisory Committee



The role of the Investment Advisory Committee (IAC) is to build up a portfolio of Noaber Ventures investments based on the investment strategy set by the board. The main focus is on new (pre-)seed investments because we expect them to realize the greatest impact.

It concerns both Dutch companies and international companies. Companies within specified domains are actively approached on the basis of market analyses. In addition, we look at propositions that are put forward from

our network of investors and entrepreneurs who have worked with Noaber Ventures before. All companies are checked against the strategy and general criteria for investments.

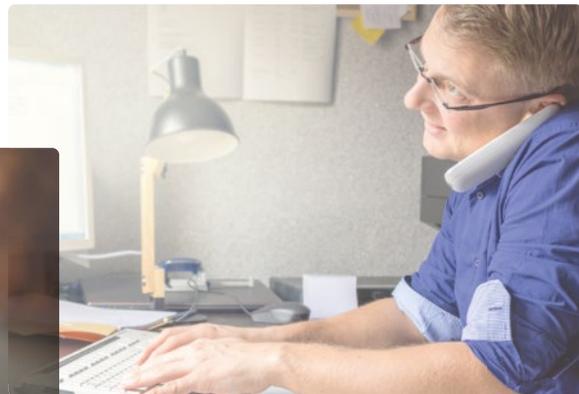


## Investments

#2 direct investment

# Buurtdokters

(Neighborhood Doctors)



General practitioners (GP's) have less and less time for the core task of being a doctor for their patients. Healthcare is changing and practices are under pressure, while appropriate GP care remains very important for patients. It is defined by access to a doctor in the neighborhood who knows the patients' lives and is available for the long term. Buurtdokters is a network for and by GP's. Together they work on their mission: easily accessible, long-term and appropriate GP care for everyone. This starts with a committed team and a

well-organized practice. Applying integrated solutions, overview is created and the GP is given time and flexibility, so that being a practice owner becomes manageable and attractive. The team is relieved, work processes optimized and, if necessary, IT systems adapted. Follow-up, modernization, training and guidance will be provided. Everything that is deployed is aimed at improving practice. And all this stems from a future-proof vision and in cooperation with care partners in the immediate vicinity.





## Investments

#3 direct investment

# Follow on investments

### Elsa (Sweden)

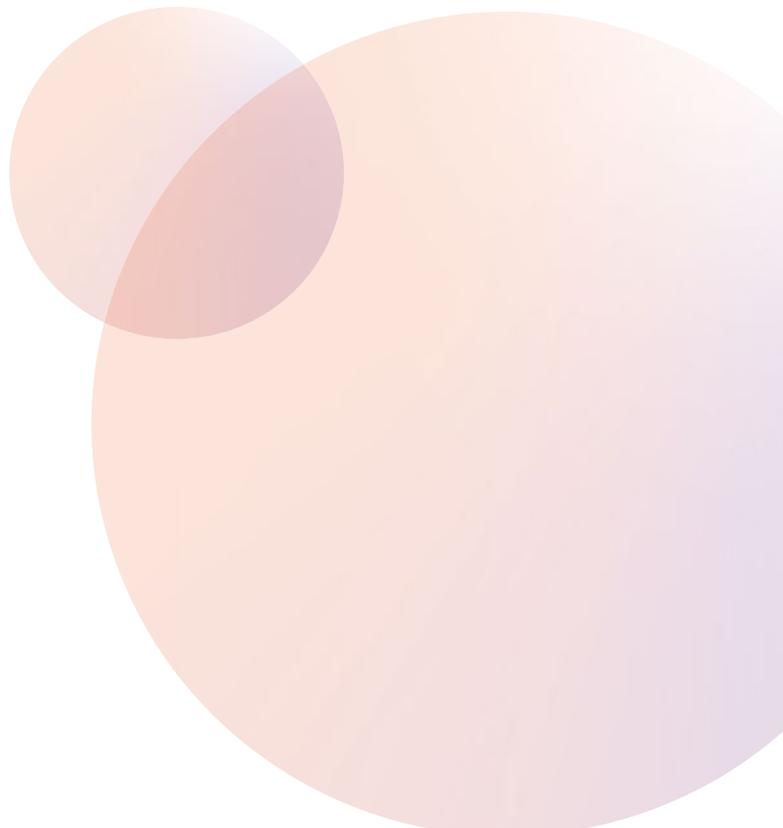
The Elsa Digital Companion Application is developed to support people diagnosed with Rheumatoid Arthritis to reach a new normal faster and live life to its fullest. Users can track and follow up on symptoms, habits and medications to better understand how these correlate. After setting up a personal plan, Elsa will guide the user through everyday life. With software-driven Cognitive Behavioral Therapy interventions we have designed health programs, endorsed by health-care professionals. The programs offer support with self-management techniques to better cope with the illness.

### Solve (Netherlands)

Solve's mission is to contribute to future-proof healthcare: accessible, personalized and affordable. Whether you're a patient, caregiver or care manager. Solve's solution is MediMapp, a digital platform, where patient and caregiver navigate along valuable, relevant, data- and care path driven information, in all phases of the care process. Before, during and after treatment. Solve offers a way of working that provides insight into care (processes). Insight unburdens everyone in the healthcare organization. Including the patient.

### M-sense (Germany)

With the headache diary of M-sense Migraine a patient can discover his individual headache pattern by documenting attacks, track medication intake and effects, and find out what triggers the migraine. Future migraine attacks are avoided with validated non-drug therapy methods derived from clinical practice. During an attack, the app provides exercises conceived to soothe pain. A doctor's report, developed by specialists, serves as the foundation of information for the medical consultation. It provides the patient's physician with a brief, concise overview attack and symptom history, enabling him or her to tailor their treatment.



#4 indirect investments

# NextGen II: first investments

NextGen Ventures is a Noaber initiative. There are two funds. In 2021 NextGen II did its first investments.

Manomatrix uses 3D technology to make braces that fits a hand perfectly. Not only the form is personalized, but the support and stiffness of the brace are also tailored to the life and needs of patients.

SmartLockr is a secure and easy-to-use data sharing solution. The company's solution can be integrated into widely used work environments, such as Outlook (plug-in and in the browser), Gmail and cell phones.



#5 indirect investment

# NLC



NLC is a 'venture builder' that sets up new ventures based on technology innovations from a network of universities and university medical centers.

At the moment the focus is mainly on medtech. About 40 companies have now been started from NLC, with shares in the organization acquired. Noaber Ventures

gets the opportunity to continue investing in these companies. This helps us to increase the number of opportunities in the field of digital health.

# Driving change

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# Keep in touch with projects even in the period after funding. There is still a lot to learn in that phase too.

- Respondent on survey

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## Introduction

How do our partners view us in terms of the role we would like to play: are we driving change? Are we making the contribution that we envision in this regard? Are we helping change the health system and processes in that system, and what does all this do on a societal level?

We used these questions to commission a survey for the people we work with: the investments and the projects in which we are or have been involved. A research company prepared a questionnaire that was sent to all our partners (projects, investments and interlocutors).

A total of 38 respondents completed the questionnaire, resulting in a response rate of 39.2%. With this response rate and a chosen (standard) confidence level of 95%, the margin of error for this study is 12.5%. This means that if, for example, 50% of the participants indicate that they are satisfied with the role of Noaber, the actual percentage of the total population is between 37.5% and 62.5%.

## Our role

Noaber is generally referred to as involved, ambitious and innovative. Associations such as 'nice people', 'impact' and 'collaboration' are also mentioned. The vast majority of respondents are (very) satisfied with the sector knowledge, involvement and reliability of Noaber. Respondents are the least satisfied with the support in obtaining further (structural) funding (50% (very) satisfied). Of the respondents who have already completed cooperation with Noaber, 34% indicate that the objectives drawn up at the start of the cooperation have been achieved. The remaining respondents score neutral on this.

58% of respondents indicate that the role of funder contributed most to achieving the result of the collaboration. In the start-up phase of projects, respondents find connecting and advisory roles important in addition to the funder role. In the implementation phase, the advisory role is most important. Finally, in the closing phase, respondents mainly value the role of knowledge sharing.

Of the respondents, 37% indicate that Noaber could focus more on connecting and sharing knowledge. Almost half of the respondents indicate that more could be put into the implementation phase. Nevertheless, 86% indicate being (very) satisfied with the role Noaber played. None of the respondents indicate being (very) dissatisfied.

Finally, respondents give Noaber an average of 8.1 on a scale of 0-10. The lowest mark given is a five, the highest a ten.

#### Substantive changes in the health system

More than half of the respondents indicate that collaboration with Noaber contributed to the development of a product/service and the creation of a market for it, the development of the organization size and their positioning in the field. Almost three-quarters of the respondents indicate that the collaboration did not result in the introduction of regulations based on or as a result of the initiative.

Nearly three-quarters of respondents indicate that the collaboration with Noaber contributed to improving the range of products or services surrounding health and care and innovating the health care system as a whole. More than half mentioned that the collaboration has contributed to improving health, patient satisfaction, caregiver satisfaction and the health care system as a whole. A reduction in health care costs is what respondents see least as a result of the collaboration (43%).

#### Health system process changes

Almost three quarters of the respondents mention that the cooperation with Noaber contributed to (structurally) bringing partners together in, for example, a consultation structure. Also, according to more than half of the respondents, collaboration and processes surrounding health and care are more efficient as a result of the cooperation with Noaber.

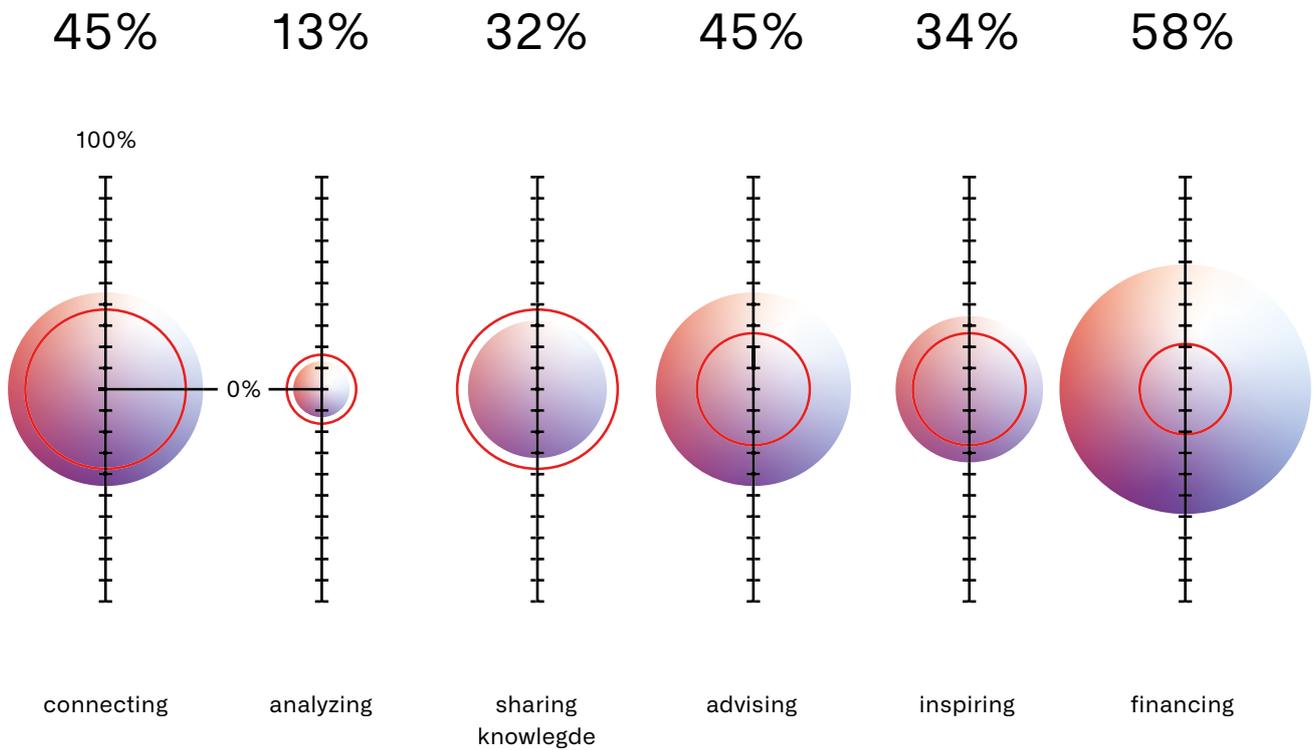
#### Social changes in the health care system

By far the most respondents mention challenging others to look for innovations in the health care system and creating and increasing social awareness about health as a consequence of working with Noaber. Slightly less than half of the respondents assert that the collaboration has created a different way of thinking within their own organization.

#### Quotes

- Continue and add to the support of introducing potential customers and investors.
- The cooperation is pleasant but it is not always clear to me which choices Noaber makes and why. My contacts at Noaber are smart, fast thinkers: that's nice. But they always seem very busy, little time for quiet reflection/ consultation.
- Would appreciate even more insight about connections with other visionary organizations engaged in healthy living and health care transformation activities.
- I would like to act more like partners. Measure real teamwork, so that we achieve the goals together. I can't oversee Noaber, what are they all doing and what do they want to achieve and how can we work together on that.
- Continue with the focus on digital health and connecting your portfolio companies with hospitals on a worldwide basis.

## Our role



 Which three of the roles have contributed most to the outcome of the collaboration?

 Which three of the following roles should be used more?



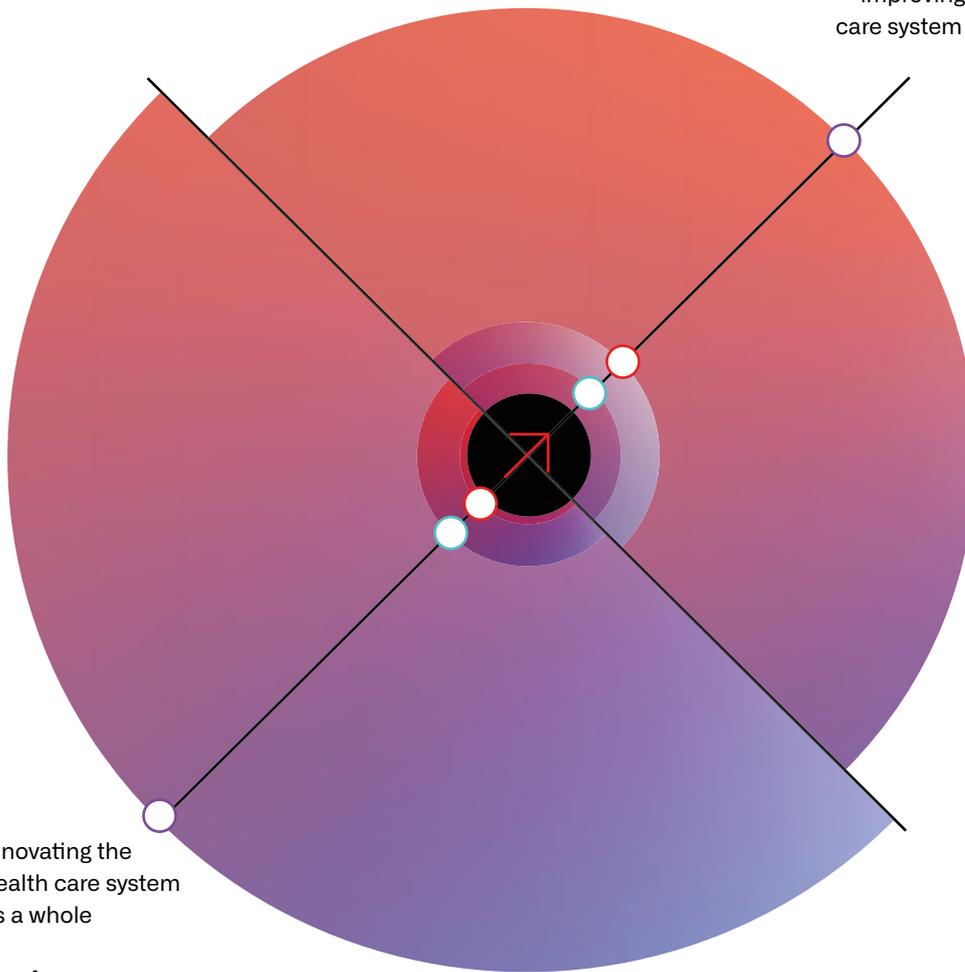
# Impact

Collaboration with Noaber has contributed to...

## Substantive changes in the health care system



improving the health care system as a whole



innovating the health care system as a whole

-  agree
-  neither agree or disagree
-  disagree



# Impact

Collaboration with Noaber has contributed to....

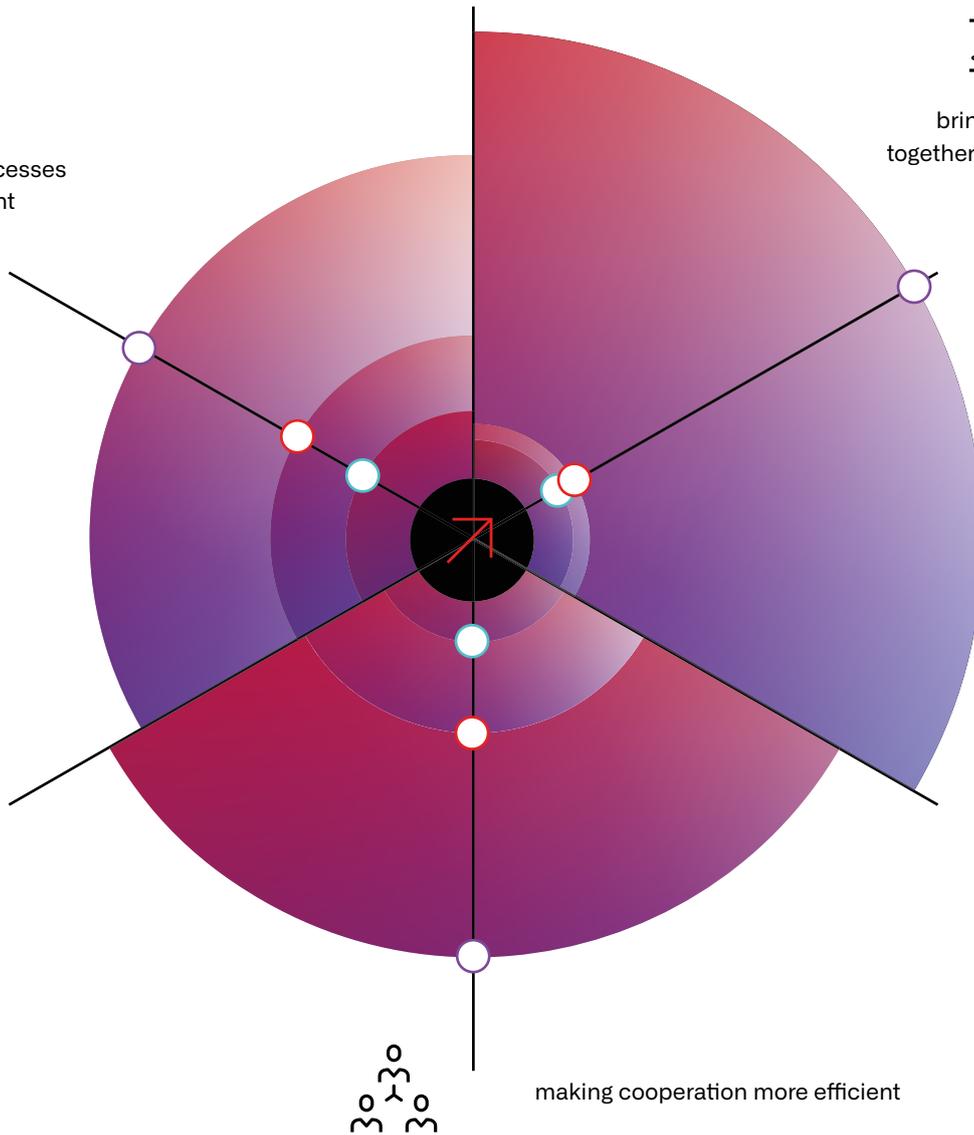
## Process changes in the health care system



making processes more efficient



bringing partners together (structurally)



- agree
- neither agree or disagree
- disagree



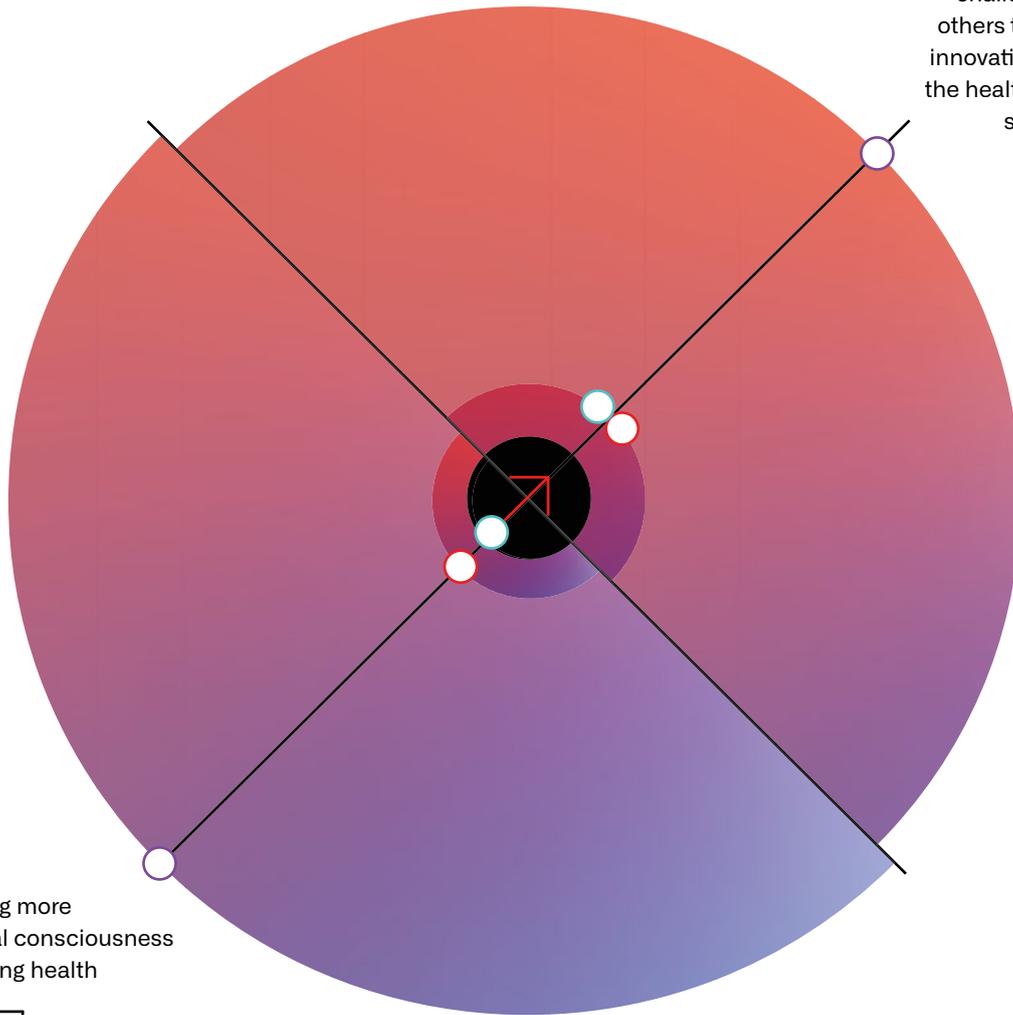
# Impact

Collaboration with Noaber has contributed to...

## Societal changes in the health care system



challenging others to find innovations in the healthcare system



creating more societal consciousness regarding health



-  agree
-  neither agree of disagree
-  disagree

# Improving health?

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The key is the fourth aim: creating the conditions for the healthcare workforce to find joy and meaning in their work and in doing so, improving the experience of providing care.

— Riki Sikka et al <sup>[1]</sup>

<sup>1</sup> Sikka R, Morath JM, Leape L. The Quadruple Aim: care, health, cost and meaning in work. *BMJ Quality & Safety* 2015;24:608-610.

<sup>2</sup> Bodenheimer T, Sinsky C. From triple to quadruple aim: care of the patient requires care of the provider. *Ann Fam Med*. 2014;12(6):573-576. doi:10.1370/afm.1713

### Introduction

Quadruple Aim<sup>[2]</sup> is similar to a compass in that it guides an important direction that the health system — both patients and providers, in our opinion — needs to go in. Change won't happen overnight. Rather, continuously driving, updating and optimizing will have a compounding factor that will ultimately lead to a healthier and happier population. That's why we use the Quadruple Aim model to 'score' the impact of our programs and Investment and our entire portfolio.

Quadruple Aim is an approach developed in order to optimize health system performance. The goal of the model is to improve the patient care experience, improve the health of a population, improve the work experience of professionals and reduce per capita health care costs. The model stresses that the strategy is a single aim with four dimensions.

### Enhancing the patient experience

Improving the patient experience aims to enhance the quality of care that patients receive, having a greater focus on individuals and families. Originally, this was the sole aim of

healthcare and it consists of issues like safety, effectiveness, efficiency, patient-centeredness etc.

This aspect is concerned with the individual experience and how they can achieve high-quality, effective care — for both the subjective and objective experience. An improved patient experience creates more educated patients that understand their condition(s) and are provided with the necessary tools to better manage their own care and improve outcomes.

### Improving population health

Naturally, with the Quadruple Aim comes the goal of improving the health of the overall population. As mentioned previously, creating an improved patient experience will help achieve this through more educated patients that can manage their health more effectively. Improving the health of populations takes the first individual aspect of the Quadruple Aim and expands it towards the whole population. Society is facing an increase in chronic diseases, so improving the patient experience for all individuals will ultimately lead to a decrease in prevalence and/or severity of chronic diseases and overall better chronic care management.

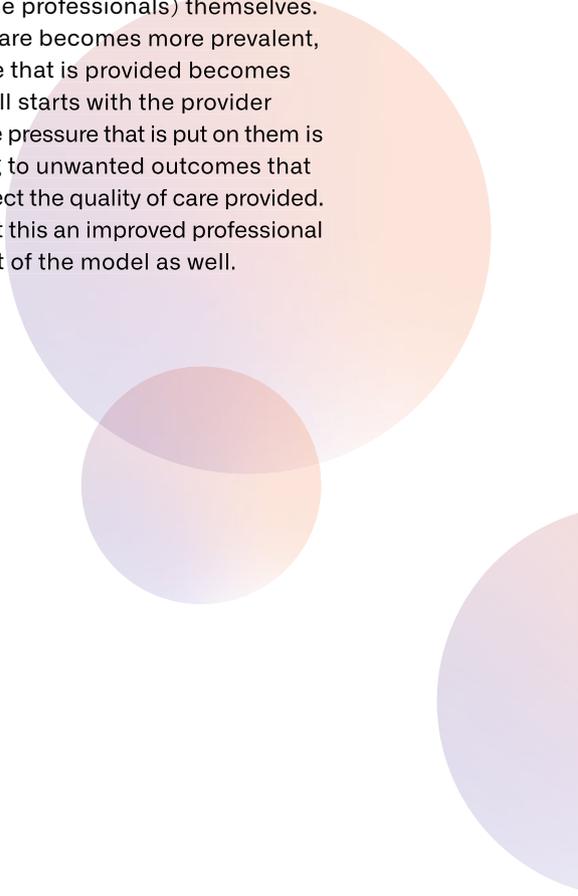
### Lower costs

The Triple Aim intends to achieve the two aspects above while simultaneously reducing the per capita cost of health care. The needs of society go beyond healthcare and resources are required to achieve other desirable outcomes as well.

Keeping this aspect linked with improved patient experience and population health ensures that while costs are driven down, the quality of care isn't compromised. Therefore, while the goal is to improve the health of the population so that individuals don't need to visit providers as frequently, if and when they do it will be much more affordable.

### Improving professional experience

Each of the above-mentioned dimensions is critical in optimizing the health system performance, but one aspect is added: the care providers (the professionals) themselves. As value-based care becomes more prevalent, the quality of care that is provided becomes essential, and it all starts with the provider (professional). The pressure that is put on them is immense, leading to unwanted outcomes that can negatively affect the quality of care provided. In order to combat this an improved professional experience is part of the model as well.





# Impact

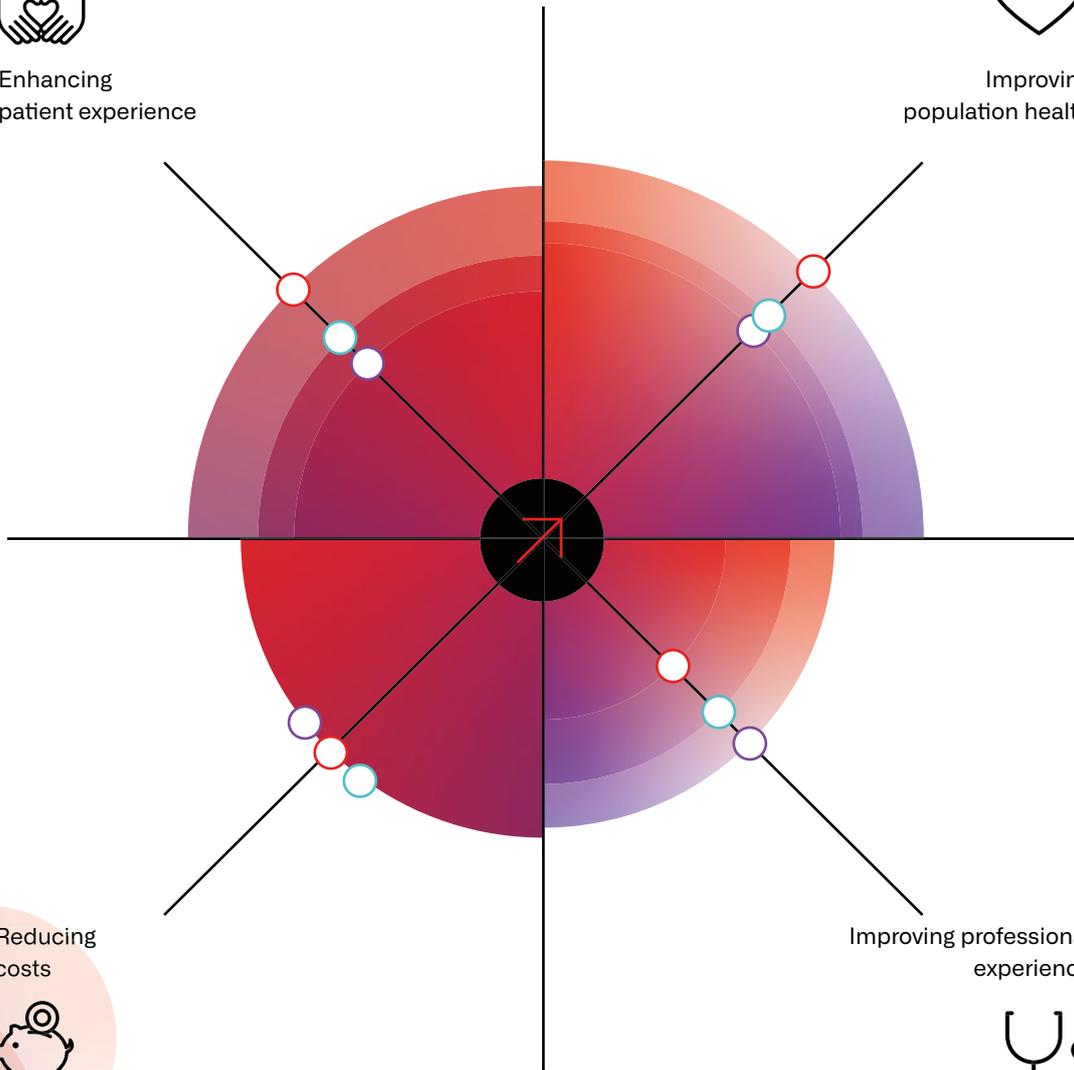
## Quadruple Aim



Enhancing patient experience



Improving population health



Reducing costs



Improving professional experience



-  Programs
-  Participations
-  Total

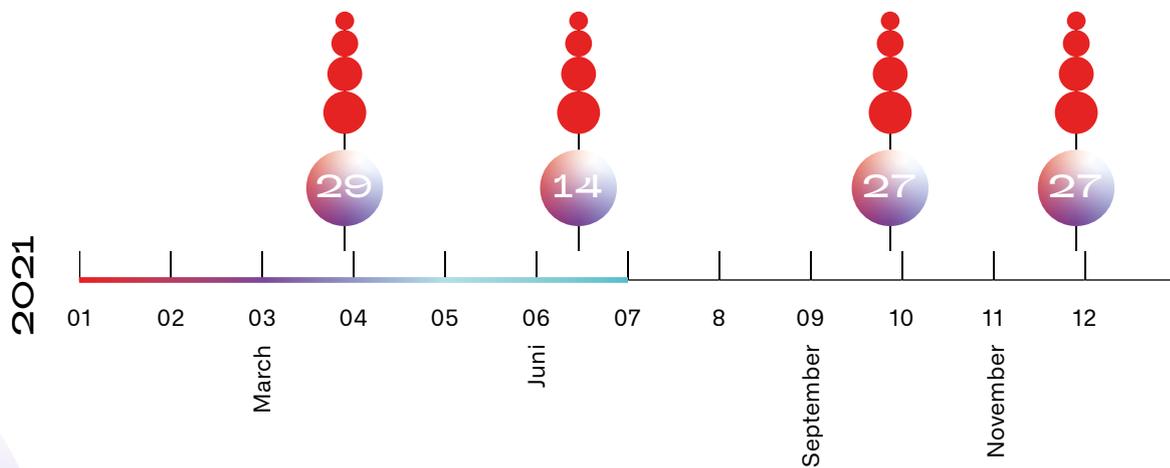


Board  
and staff

# Board & staff



## Board and staff



On all dates, the full board was present

As regards the organization of our decision making and implementation processes, the leanest possible structure has been set up, in which the optimum balance is created between high quality, effectiveness, decisiveness and originality.

Our board is Noaber's decision making body, supported by a service organization. The board had 4 board meetings in 2021.



## Board and staff



**Prof Dr. J.P. (Jan Peter)  
Balkenende**

**Prof. Dr. E. (Elbert)  
Dijkgraaf**

**Chairman Board**  
*Noaber Foundation  
and Noaber Ventures B.V.*

**Board member**

**Other (business) positions**

- Professor Governance, Institutions and Internationalization Erasmus University Rotterdam
- External Senior Advisor to EY
- Chairman Dutch Sustainable Growth Coalition
- Member Supervisory Board Stichting Topsport Community
- Member Advisory Board PortXL (Rotterdam)
- Member Sustainability Advisory Board Van Oord
- Advisor to Rijk Zwaan
- Associate Partner at Hague Corporate Affairs
- Chairman New Mobility Foundation/New Mobility Foundation International
- Member Executive Board Global Center on Adaptation
- Member World Leadership Alliance Club de Madrid

**Other (business) positions**

- Professor Empirical Economics of the Public Sector, Department Of Economics, Erasmus University
- Chairman Stewardship Ventures B.V. (until February 2022)
- Member Board of Advisors Stichting Stewardship Foundation
- Owner Dijkgraaf Strategisch Advies B.V.
- Board member Stichting Eleven Floowers Foundation
- Member Advisory board Van Westreenen
- Chairman Supervisory Board Leliezorggroep
- Member supervisory Board Acture
- Member supervisory Board SRK Groep
- Member supervisory Board Wageningen University & Research (from March 1 2021)
- Member supervisory Board New Amsterdam Invest (from April 1 2021)
- Non-executive Member De Vries en Verburg (from July 1 2021)
- Member Steering Committee Toereikendheid, doelmatigheid en kostenonderzoek MBO, HO en WO (until February 2021)



## Board and staff



**G.G.J. (Rutger) Baan**

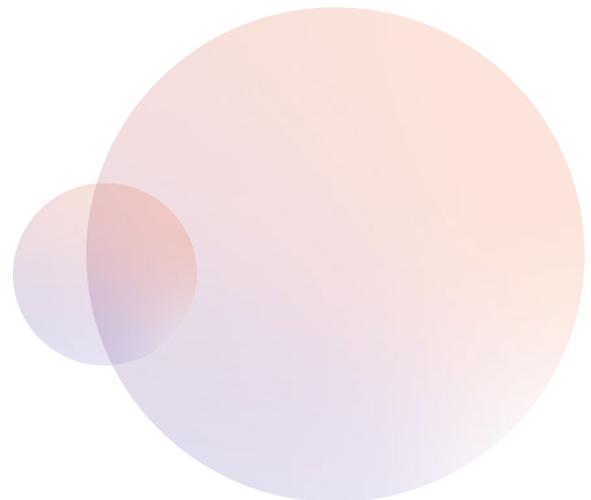
**Board Member**  
*Noaber Foundation and  
Noaber Ventures B.V.*

**Other (business) positions**  
→ Solution Manager IBM Nederland N.V.

**A.J.H. (Annelies)  
van Veldhuizen-Baan**

**Board Member**  
*Stichting Noaber Foundation and  
Noaber Ventures B.V. from January  
2021*

**Other (business) positions**  
→ Gelre Hospital Apeldoorn, Specialized nurse dialysis





## Board and staff



**M. (Matthijs) Blokhuis**

**CEO**

**Other (business) positions**

- Managing Director Noaber Ventures B.V.
- Managing Director Stewardship Ventures B.V.
- Managing Director Eleven Floowers Ventures B.V. (until July 2021)
- Managing Director IRIS B.V.
- Director Vereniging NextGen Ventures
- Director NextGen Ventures Management B.V.
- Chairman of the Board of Silicon Polder Fund
- Supervisory Board Member &niped Prevention B.V.
- Supervisory Board Member Soule Innovation B.V.
- Board member Stichting HealthKIC
- Board member Elsa Science (since September 2021)
- Board member Ambient Clinical Analytics (until May 2021)

**J. P. (Jan Piet) van Barneveld**

**Finance manager a.i.**

**Other (business) positions**

- Owner JP Barneveld Beheer B.V.
- Owner JP Barneveld Management B.V.
- Owner JP Barneveld Vastgoed B.V.
- Owner Van Wijk & Boerma B.V.
- Chair of Stichting Beusichem Leeft
- Kerkrentmeester Protestantse Gemeente Beusichem-Zoelmond



**R. (Roel) Dekkers**

**Investment analyst**



## Board and staff



**B. (Bianca) Groeneveld**

Office manager

**M. (Maarten) Fischer**

Program manager

**Other (business) positions**

- Program Manager George Avenue Foundation
- Board Member Stichting 't Paradijs
- Director Federatie Landbouw en Zorg Nederland



**K.P. (Peter) Haasjes**

Investment director

**H. (Harriet) Gijsbertsen**

Program manager

**Other (business) positions**

- Managing Director NextGen Ventures Management B.V.
- Supervisory Board Member LeQuest B.V.
- Director of Stichting Administratiekantoor AMT-Medical
- Investment Committee Member Blue Sparrows Medtech Fund



## Board and staff



**A (Sandra) Mayr**

**Investment director**

**Other (business) positions**

- Investment manager Vereniging NextGen Ventures
- Supervisory board member Plasmacure B.V.
- Advisory committee member Rockstart Agrifood Fund
- Supervisory board member Quli B.V.

**W. (Warnyta) Minnaard**

**Investment manager**

**Other (business) positions**

- Founder and Chairman of Stichting Vrienden van Hederik
- Boardmember of Stichting Cancer of Unknown Primary Platform - Netherlands (CUPP-NL) - (from 28 June 2021)
- Founder of Warnyta Minnaard Consulting Services



**W. (Wim) Post**

**Program manager**

**B. (Berdine) Preuter**

**Program manager**



## Board and staff



**C.E. (Carl) Verheijen**

**Director knowledge  
and innovation**

**Other (business) positions**

- Director healthKIC Foundation (from August 2020)
- Chef de Mission TeamNL Olympic Games 2022 Beijing
- Ambassador Fonds Gehandicaptten Sport

**T. (Thijs) Schaap**

**Investment manager**

**Other (business) positions**

- Advisory board member bij Newsenselab GmbH

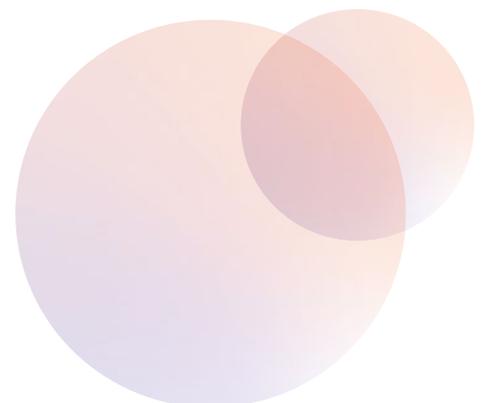


**G. (Gerben) ten Ham**

**Accounting**

**Other (business) positions**

- Owner 4Balance





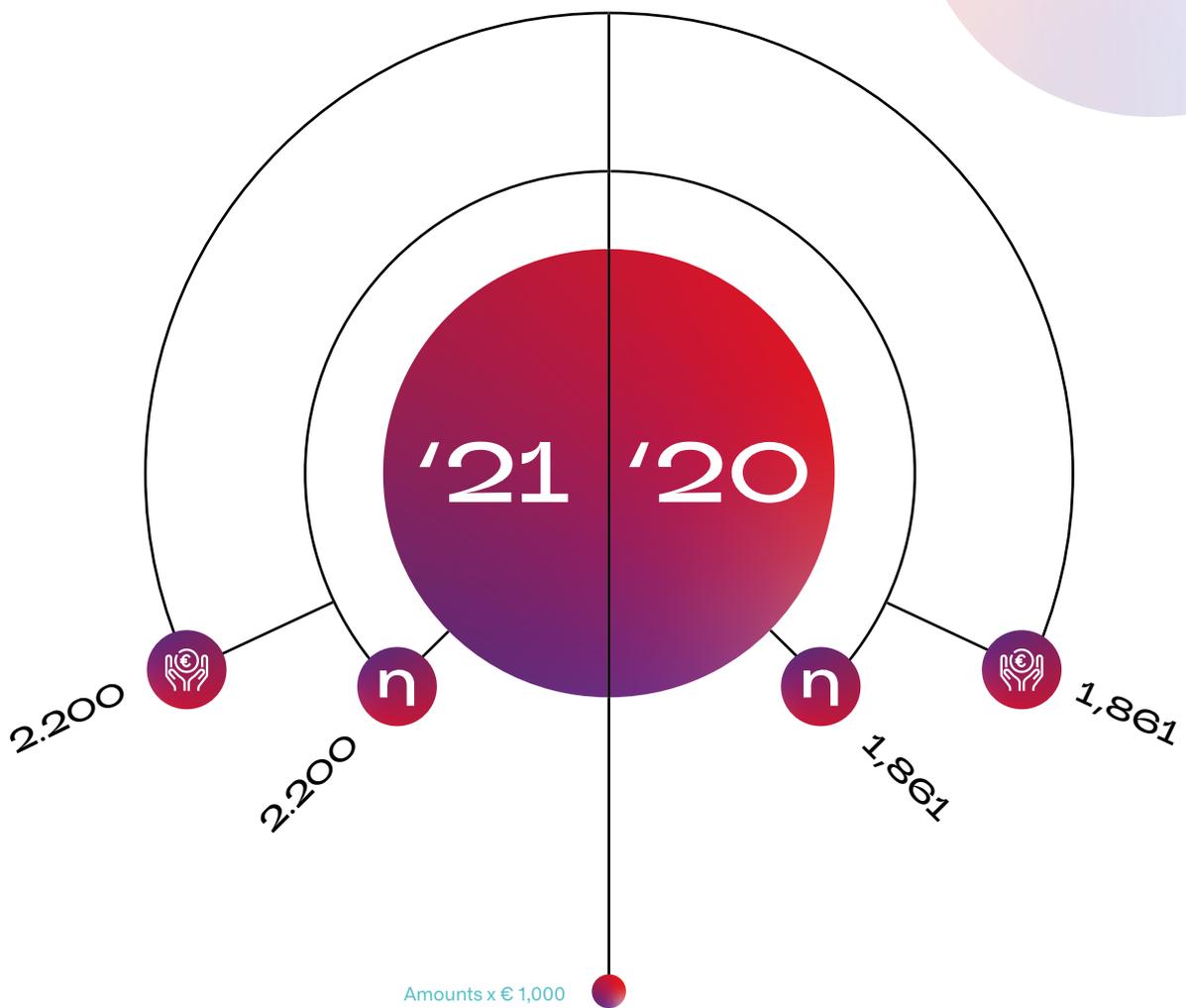
## Funding & expenditures

# Financial

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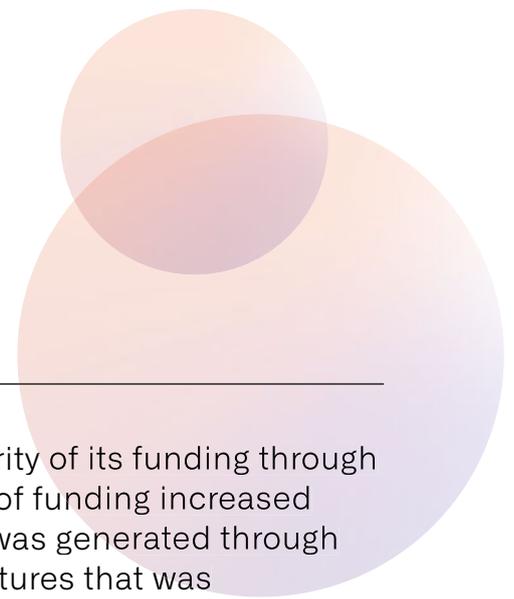
# Funding

-  NOABER
-  INCOME FROM DONATION





## Funding



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In 2021 Noaber Foundation received the majority of its funding through a donation from a related trust fund. The level of funding increased compared to prior years, although no funding was generated through (exits from) participations held by Noaber Ventures that was distributed to Noaber Foundation.

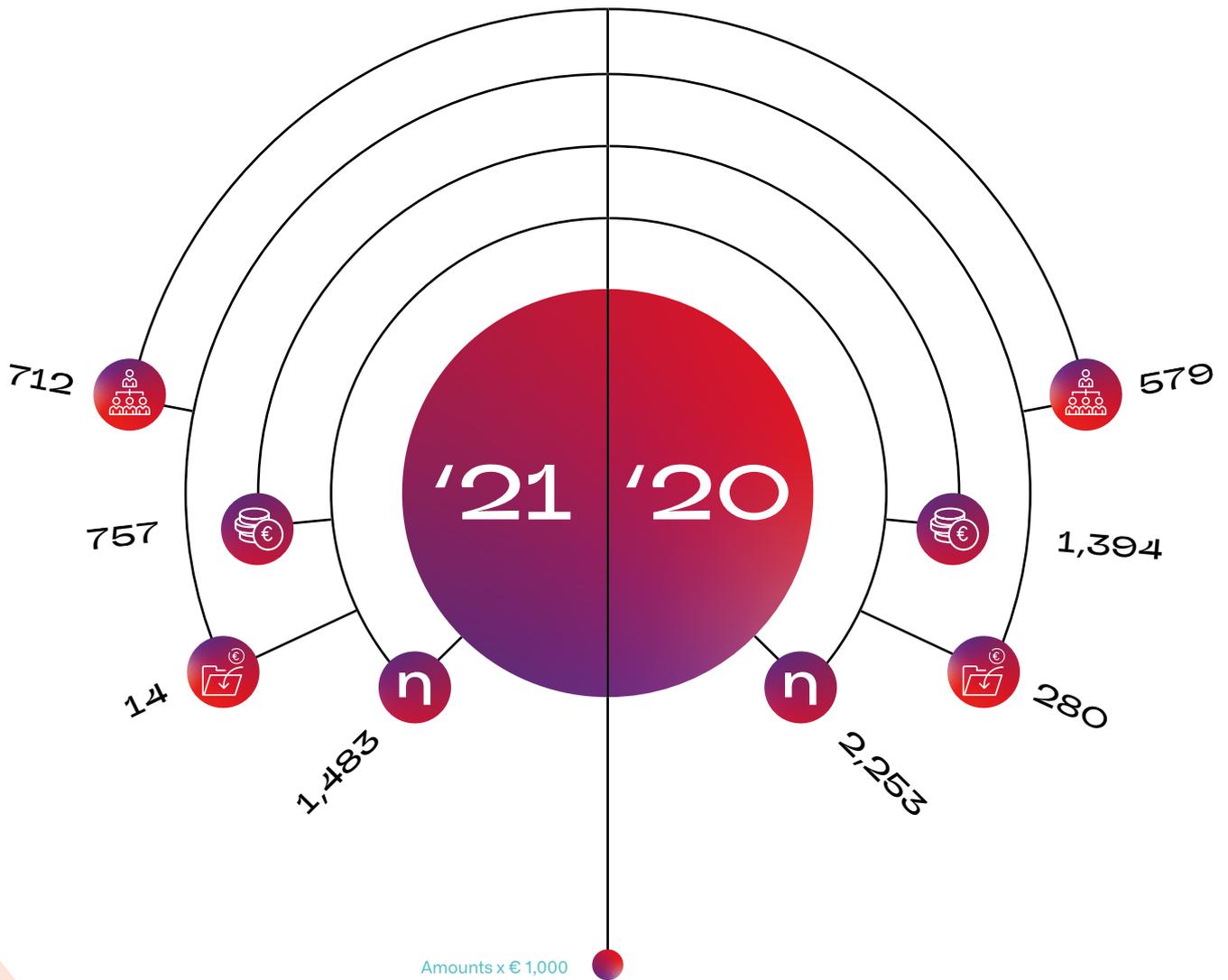
Noaber continues to strive to accelerate its impact through driving change, improving health. During 2020, Noaber evaluated its longer term ambition and the associated funding for the coming years which resulted in an increased funding need. Following discussions, the related trust fund committed to an increased donation for 2021 and the intent to maintain that for the coming years. Therefore, for 2022 and beyond we expect a similar level of funding compared to the 2021 level.

The investments made by Noaber Ventures are considered an instrument that help to achieve the impact objective for Noaber Foundation in an entrepreneurial fashion. In 2022 and beyond, Noaber Ventures will continue to build its portfolio towards a more mature level and therefore will likely reinvest its income from participations in its impact investing portfolio. Distributions from Noaber Ventures to Noaber Foundation are not expected in the coming years.



# Expenditures

- NOABER
- DONATIONS GRANTED
- PROGRAM-RELATED EXPENSES\*
- ORGANIZATIONAL COSTS



\* PROGRAM-RELATED EXPENSES RELATE TO DONATIONS GRANTED



## Expenditures

The policy for Noaber Foundation is that at least 40% of funding received from the related trust fund is allocated towards program related expenses, while the remainder can be applied for impact investments through Noaber Ventures. During the past few years the Board decided to deviate from the policy and allocate all available means, beyond organizational costs, to donations and program related expenses. This decision was prompted by the level of commitments made, the pipeline for donations and the increasing level of proceeds from portfolio companies within Noaber Ventures enabling further impact investments without additional capital contributions. It is expected that this full allocation towards program related expenses will continue for the coming years.

For the past few years, program related expense (including organizational costs) have been on a relatively stable level. Variations are mainly due to accounting principles that deviate from the cash basis of budgeting within Noaber. Donations granted in 2021 were on a relatively lower level as new projects granted and new programs initiated were relatively smaller in size compared to previous years.

In 2021 no capital contributions for impact investments through Noaber Ventures have been made following sufficient available proceeds from (prior) portfolio companies that are reinvested through Noaber Ventures. This trend is expected to continue in the next years as a result of which the need for capital contributions in the coming years is expected to be minimal.

Noaber Foundation takes a complete capital approach towards its activities. Our contributions are not merely measured by the financial resources directly granted to other organizations but also through our own activities, initiatives

and resources. We believe we can increase the efficiency and effectiveness of our innovation programs through an active approach taking initiative, building multi-stakeholder collaborations, facilitating sharing of experience, knowledge, network and providing strategic and operational support to our projects and participations. This approach is reflected in the organizational costs. We regard these organizational costs investments into the impact achieved by the activities of Noaber Foundation. The strategic approach adopted by Noaber

Foundation reflects our commitment towards an initiating, active and engaged approach (driving change) to facilitate a system level change steered towards health span and quality of life (improving health) as a result of which we expect the organizational costs to increase in the coming years. They are considered an essential and integrated part of our innovation programs. This was already visible in 2021 when organizational costs increased compared to 2020.

Annual report

