



THE NETHERLANDS BRAIN INITIATIVE

OUTLINES FOR A
NATIONAL BRAIN
AND MENTAL HEALTH
KNOWLEDGE
AND INNOVATION
PROGRAMME



Rationale

Brain and mental disorders have a major impact on the daily lives of individuals and those close to them. Brain and/or mental disorders affect one in four Dutch people and cause considerable problems for them, their families and society as a whole. Treatment options for these people are limited, and prevention efforts are still inadequate due to a lack of knowledge and effective programmes. The healthcare costs for this target group amount to over EUR 25 billion annually¹. This is more than a quarter of the total healthcare costs in the Netherlands. The Netherlands Brain Initiative, a collaboration between the Brain Foundation Netherlands, MIND, ZonMw, NWO and Health~Holland, was created against this background.

The Netherlands Brain Initiative was launched on 30 September 2021 with a manifesto that recognises the urgency of the problem, while at the same time presenting a concrete ambition and identifying opportunities for action. This manifesto, which was proudly presented to Her Majesty Queen Máxima, was the result of a collaborative effort of numerous dedicated 'co-thinkers' from across the healthcare and research sectors. It has yielded a wealth of inspirations and ideas that will be explored and taken up in the coming years. The current programme is designed to provide the space for that to happen.

The Netherlands Brain Initiative can build on the enthusiastic support of many organisations and individuals – more than 300 experts (including experts with personal experience), organisations and initiatives have signed the manifesto. This broad involvement is essential to achieve the plan's goals. The Netherlands Brain Initiative underlines the urgency of taking action now to better understand, prevent, treat and, if possible, cure brain and mental disorders.

¹ www.hersenstichting.nl/nieuws/een-op-vier-heeft-hersenaandoening

Ambition for people with brain and/or mental disorders

The Netherlands Brain Initiative has the ambition to enable people with brain and/or mental disorders to live five years longer in good health by the year 2040. This forces us to think about how we can reduce the risk of developing disorders, how we can promote brain and mental health, and what is needed when problems arise. The questions of what works, what does not work and why something works or does not work are always the starting point for action and research. Expertise through experience plays a logical and crucial role and is built into the programme as a prerequisite.

TOGETHER

The Netherlands Brain Initiative is based on the conviction that productive interaction between people with brain and/or mental disorders and their families, researchers, healthcare professionals, knowledge institutions, companies, and social and governmental organisations is a prerequisite for success. People with brain and/or mental disorders and families have a special place in this.

MANIFESTO

'Joining forces with the patients of today and tomorrow and their families will enable us to invest much more in implementing promising solutions and ensuring that practitioners and innovative companies act on them. (...) Joining forces with the patients of today and tomorrow and their families will enable us to use all kinds of new knowledge and techniques to finally develop real solutions.'



Achieving this ambition requires the development and application of knowledge and cross-domain interaction. The programme enables the acquisition and consolidation of new and existing knowledge and data from psychiatry, psychology, neurology, neuroscience and other relevant disciplines² through an interdisciplinary approach. The connection between research, development and practice innovation will always be a requirement for a holistic approach. There should also be a focus on transdiagnostic approaches, exploring what disorders have in common in their origins and impacts. Thus, the Netherlands Brain Initiative aims to establish and sustainably anchor a new national knowledge and innovation structure in the field of brain and mental health. This structure will support the faster implementation of better solutions for prevention, treatment and care in practice. The structure should grow and flourish from the opportunities identified in the manifesto. It should bring together organisations, people and data, who learn from each other and find ways for knowledge and experience to flow broadly to the places where it matters, thus impacting practice. The Netherlands Brain Initiative will shape this approach in new programming.

² The Netherlands Brain Initiative wants to connect with all disciplines that can be involved in helping people. Examples include geriatrics, youth, rehabilitation and philosophy.

Approach

The Netherlands Brain Initiative is a national knowledge and innovation programme. The programming is based on two prerequisites for all activities: the input of experienced-based knowledge and a focus on impact. In addition, the desired interdisciplinarity, transdiagnostic approach and holistic work will be used as criteria in the programming, along with the prerequisites, to facilitate evaluation and selection. Other important criteria will also be taken into account in the development of the programme, such as attention to diversity in populations.

The Netherlands Brain Initiative must unequivocally become both a knowledge *and* an innovation programme. The programme will look for the best possible combination of activities that will have an impact in the short term, as well as activities that lay the foundation to continue making an impact in the future.

EXAMPLES OF SOLUTIONS FOR TODAY AND TOMORROW

- A social approach: care and support should be organised around people's lifestyles. The 'dementia social trials' (local) are an example.
- Care networks: different healthcare providers or organisations work together to improve care for an individual patient. Examples include centres of expertise, the right care in the right place and ParkinsonNet (regional)
- Highly specialised care: this is highly specialised care for patients with complex care needs. As well as providing high-level specialist care, this also integrates research and education. This can be both academic and non-academic (national).
- Innovative therapies: the Netherlands Brain Initiative will focus on aligning the four D's (diagnostics, devices, drugs and data(-bases)). Public-private partnerships can help to facilitate this alignment. Innovative therapies are also an important aspect of the connection between lines 1 and 2.



Programme development and investment will take shape around three programme lines.

LINE 1

Faster implementation of solutions for the patient of today

There is already scientific, practical and experience-based knowledge to be gained in the short term. Within this line, there is room for activities that will lead to immediate changes in practice. Think, for example, of knowledge that is already available for use and can bring health benefits in the short term. Or promoting existing good practice at the local, regional and national levels (see box).

The results will have a direct impact on prevention, quality of life and recovery for people with brain and/or mental disorders. This line focuses primarily on the application of knowledge and should also be seen as an inspiration for what does not yet work or is too poorly understood to do anything meaningful about.

How?

The Netherlands Brain Initiative will encourage projects that can make a difference in the short term. Think about implementing practical solutions based on existing knowledge and connections, funding out-of-the-box ideas with breakthrough potential, or funding ideas from patients, clients and families. For example, discussions are also underway with The Right Care at the Right Place programme (see box) to see if a link can be made with projects emerging from it that can deliver positive results for today's patients. Such 'quick win' projects act as a starter motor and can in turn provide important new insights for follow-up actions in lines 1, 2 and 3. The Netherlands Brain Initiative is also open to a wide variety of useful ways of working. For example, innovation labs, inspiration sessions and care innovations have already been mentioned in previous meetings and consultations. Collaboration with companies can also be interesting to encourage the application of existing knowledge in practice.



RIGHT CARE AT THE RIGHT PLACE

The Right Care at the Right Place is a movement of care and support stakeholders to make people's daily functioning a priority again and to make care sustainable. The three pillars of Right Care at the Right Place are:

1. preventing (more expensive) care;
2. relocating care and organising it around people;
3. replacing care by using smart healthcare and e-health solutions.

Several practical projects are funded through this programme that may be of interest for activities in line 1 of the Netherlands Brain Initiative. These are projects that focus, for example, on cross-domain care, digital innovations or network care. See www.dejuistezorgopdejuisteplek.nl/ for case studies.

LINE 2

Combining knowledge on disorders to find solutions for the patient of tomorrow

This line is about developing new knowledge and techniques to deliver solutions in the broadest sense of the word for patients of tomorrow and their families. This may involve the development and, where possible, implementation of knowledge that may not be directly applicable to the patient of today, but may provide important insights that can help the patient of tomorrow. It looks at commonalities across conditions in terms of symptoms, causes, underlying mechanisms and solutions. The main objectives of the Netherlands Brain Initiative include enabling cross-fertilisation between (care) domains and research phases to develop new techniques for precision medicine, recovery-oriented support and personalised lifestyle interventions.

Understanding the processes in which the brain is involved (basic research) and translating this understanding into applications in diagnosis, treatment or prevention (translational research) are central to this line. Public-private partnerships can play an important role here for eventual application in practice.



INCUBATORS

The Netherlands Brain Initiative will play a facilitating role in the formation of consortia and networks. The idea is to create an incubator for the (further) development of large long-term partnerships (consortia). Conversations held so far with supporters of the manifesto reveal that there is often a lack of time and money to work together across disciplines on cross-border, creative ideas in the field of brain and/or mental disorders. This is what the Netherlands Brain Initiative aims to encourage with these incubators. Through registration and selection, parties can obtain limited but attractive funding to develop an idea, which eventually – if the idea proves promising – can lead to the establishment of a new consortium or the enrichment an existing one. The Netherlands Brain Initiative designs the invitation, selection and guidance of the networks in such a way that ambition is at the heart of each consortium. The Netherlands Brain Initiative also encourages existing initiatives and projects to join the new consortia as additional building blocks.

The attraction of this working method is that the Netherlands Brain Initiative can steer the consortia to be formed through criteria, selection and guidance. In this way, the ambitions of the Netherlands Brain Initiative are made very concrete and attractive for the consortia, without having to make content-related decisions in the programming that might exclude potentially promising research ideas. A strong network has a good chance of becoming a funded consortium, regardless of the precise content. The multi-annual nature of the Netherlands Brain Initiative will allow consortia to learn a lot from each other. It also ensures continuity in programming and room for evaluation, learning and adaptation (e.g. why do certain networks not develop into consortia, what are they lacking?)

How?

The Netherlands Brain Initiative will encourage the development of large, long-term partnerships (consortia). An interdisciplinary and transdiagnostic approach requires scale, while at the same time allowing a strong emphasis on collectivity in knowledge development and application. These consortia should link the building blocks of practice, research, development and application (practice innovation). Cooperation between parties and individuals throughout the knowledge chain should be a priority. Together with the connecting building blocks (see box), the consortia will use and build on the knowledge and innovation structure to be facilitated by the Netherlands Brain Initiative (line 3). The consortia to be formed should focus on line 1 and line 2 in a coherent way, as today's patient can help tomorrow's patient and vice versa. Knowledge and findings from one line can feed into the other.

LINE 3

Better sharing and use of knowledge and data through a well-functioning knowledge and innovation structure

In order to work in a holistic, interdisciplinary and transdiagnostic way, it is necessary for the different disciplines and parties to meet and engage in productive interactions (e.g. in the incubator). It is essential that knowledge and data can be shared. This is an important facilitator for projects in lines 1 and 2.

How?

Line 3 is about bringing together people, as well as data, (experience-based) knowledge and materials. Bringing data together is not the goal. The goal is to enable federated learning and analysis. Where data infrastructures are already in place, we will look at how they can be expanded or how best to connect to them. The same applies where powerful networks of people already exist.

Lines 1, 2 and 3

The three lines are intertwined and cannot exist without each other. The interaction between the three will be a permanent springboard for prevention and for accelerating the achievement of solutions for people with brain and/or mental disorders and their families. Conversely, the structure supports the translation of unresolved practice problems into new research questions, creative directions and innovations.

The Netherlands Brain Initiative is aware of other current programmes and initiatives that are making significant and meaningful contributions to the same goal. In all its activities, the Netherlands Brain Initiative will strive for optimal coherence with other programmes and initiatives. The aim is to work together towards a powerful mix of useful knowledge and practical innovations in the short term (today) and knowledge development leading to a better quality of life in the long term (tomorrow). Both are interconnected and fuelled by the core infrastructure through which data, models, (experience-based) knowledge and methods are made available and shared. The holistic, interdisciplinary and transdiagnostic approach will introduce innovation, where the involvement and commitment of people with brain and/or mental disorders and their families will ensure that this innovation is used for its fundamental purpose.

Added value

The Netherlands Brain Initiative

The Netherlands Brain Initiative will be a programme without dividing lines, where connections and cross-fertilisation take place between disciplines and fields. Knowledge and data from psychiatry, psychology, neurology, neuroscience and other relevant disciplines will be pooled to bring better solutions for prevention, treatment and care into practice more quickly. The Netherlands Brain Initiative moves from basic research to the patient's environment.

The Netherlands Brain Initiative aims to provide space for different areas of expertise, initiatives, programmes and knowledge agendas. This overarching, holistic and bottom-up approach to Dutch research is a prerequisite for finding solutions for the patients of today and tomorrow and for structurally reducing the burden of disease and mortality caused by brain and/or mental disorders in the Netherlands.



ALIGNMENT WITH ESTABLISHED POLICY

The ambition of the Netherlands Brain Initiative to enable people with brain and/or mental disorders to live five years longer in good health by 2040 is in line with the central mission for the social theme of health and care³. This mission was developed by the Ministry of Health, Welfare and Sport (VWS) for the government's mission-driven top sectors and innovation policy. It is no coincidence that the Netherlands Brain Initiative formulates the same objective; by aligning and joining forces, the set goals are given greater impetus. This also applies to the other parts of the mission, which address lifestyle, care at home, quality of life and participation in society.

³ Health and care. Knowledge and Innovation Agenda 2020-2023. [Website Health-Holland](#).

The many organisations and individuals supporting the Netherlands Brain Initiative demonstrate the importance of a programme that focuses on a holistic, interdisciplinary and transdiagnostic approach. The strength of the Netherlands Brain Initiative lies in this approach. Currently, programmes and initiatives often focus on improving care and quality of life for individual conditions, and there is still a battle to be won in terms of national implementation. The Netherlands Brain Initiative provides space for knowledge development and implementation at the interfaces of disciplines and aims to stimulate innovation by exploring hitherto unusual combinations of disciplines.

COALITION AGREEMENT



Plans from the new coalition agreement⁴ show the need to strengthen the research infrastructure. Among other things, additional investment will be made in research into and treatment of Alzheimer's disease. In addition, the National Growth Fund will be continued by investing in projects that focus on knowledge development, research, development and innovation. These are all aspects that come together in the Netherlands Brain Initiative. We will not only continue to identify and analyse all the pieces of the puzzle, but above all, we will put the different pieces in their right place.

⁴ Coalition agreement, 'Omzien naar elkaar, vooruitkijken naar de toekomst'. [Central government website](#).

What does the Netherlands Brain Initiative require?

The healthcare costs for brain and/or mental disorders amount to €25 billion per year. This is an impressive but stark figure, especially if you consider the limitations and personal suffering involved. With the Netherlands Brain Initiative's ambition to enable people with brain and/or mental disorders to live five years longer in good health by 2040, an indirect effect will be a reduction in healthcare costs. That's why investing in this programme will certainly pay off in this respect as well.

Substantial investments are already being made. The government is investing in research and innovation through other programmes relevant to the field of brain and mental disorders. There is sometimes a serious lack of networking and cooperation. Improving the quality of life of people with brain and/or mental disorders and limiting further increases in healthcare costs requires a commitment that turns many ships into a fleet. The Netherlands Brain Initiative can make this happen. It takes a broader view than other programmes and links knowledge development (from fundamental to practical) to solutions. The Netherlands Brain Initiative adds powerful, unifying elements with its transdiagnostic focus and commitment to broad collaboration between people with brain and/or mental disorders and their families, researchers, healthcare professionals, knowledge institutions, businesses, and social and governmental organisations.

Given the need, positioning and unique and innovative contribution of the Netherlands Brain Initiative, a 10-year programme with a budget of €250 million is being launched. This is an annual investment of only 0.1% of healthcare costs. It is an investment that will have a lasting impact on the knowledge and innovation system will be achieved and generate significant benefits for both people with brain and/or mental disorders and their families, as well as for the Dutch healthcare system.

Colofon

The Netherlands Brain Initiative is an initiative of Brain Foundation Netherlands, MIND, ZonMw, NWO and Health~Holland.

The Brain Foundation Netherlands aims to combine and share the knowledge and data on the brain and mental disorders, so that better solutions for patients can be implemented more quickly in practice.

www.netherlandsbraininitiative.org



Help us **tackle brain and mental disorders.**

Join us in **making this a top priority!**