Our mission

Thousands of children have an unfavourable position from the very first phase of life and are unable to reach their full developmental potential. This has major consequences for health, well-being and social participation, thus hindering a strong future society.

Our mission is to enable a healthy start for future generations: to optimize developmental opportunities for all children and young adults, irrespective of their backgrounds and starting points.

We bring together multiple scientific perspectives, societal partners, parents and youth to identify opportunities and co-create preventive strategies to tackle this complex societal challenge. The Rotterdam-Delft region is our 'living lab'.

Our approach

We aim for societal and scientific breakthroughs through cutting-edge research with an interdisciplinary perspective, and co-creation with our societal partners.

We strongly believe that we need a new kind of researcher to lead these projects, who is able to connect science and society. That is why we actively invest in innovative education for our future changemakers.

The geographical proximity of Delft and Rotterdam creates the perfect ecosystem for the convergence of medical, social and technical sciences, education and research facilities. To enable engagement of partners, parents and youth in all our projects, we develop physical, creative spaces that serve as 'societal microscopes'.

Cutting-edge research

Our community of top researchers work within a variety of scientific disciplines, including: (bio)medical, social, management, governance, economical, design, technical and behavioural sciences. We research the optimal conditions for children and young adults, aged -1 to 25 years old, to grow up in tomorrow's society. We involve society at every step of the way: from problem definition to designing and testing solutions.

Besides combining disciplines, the integration and use of the infrastructure and laboratories of the convergence institutes are crucial in the convergent Healthy Start research.

Example: Accessible, state-of-the-art MRI scanner

Education for change-makers

Healthy Start creates impact-driven educational activities for students, researchers, and professionals. Within existing academic and professional education programs, we actively foster an environment where knowledge and methodologies are shared, allowing future leaders to develop while addressing the societal challenges that Healthy Start focuses on.

Additionally, insights from our ambition projects are made accessible through modules and methods tailored for educational and community organisations. To ensure these educational activities remain relevant and up-to-date, Healthy Start continuously assesses the knowledge needs of the community and identify gaps in the current educational offerings.

Example: TU Delft Convergence Education Fellowship

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The first 1000 days

The first 1000 days of a child are crucial for the entire life course. Environmental factors, such as place of residence, social network or severe stress have an impact on the health and wellbeing of the child, also later in life. We aim to reduce inequality of opportunity through an optimal start for every child.

Example: We research cost-effectiveness of preconception lifestyle interventions to examine to what extent the investment of preconception care leads to a feasible financial return in the future.

Children's hospital of the future

The urging shortages of medical resources and staff, mainly nurses, in combination with the increasing demand for specialized care, call for improvement and redesign of current healthcare organizations and the hospital. We work together to develop innovative solutions for affordable pediatric care of higher quality.

Example: We set up a large-scale research project with nurses in the Sophia Children's Hospital in Rotterdam. Our goal is to gain insight into what nurses need to develop and thrive within their profession.

Active lifestyles for children with chronic disease

Nearly half of children in the Netherlands do not engage in enough physical activity. For children with chronic diseases, maintaining an active lifestyle is even more crucial. We aim to explore how smart technology can monitor, motivate, and empower children with congenital heart defects to achieve an active lifestyle, ultimately benefiting children with other chronic conditions.

Example: We are investigating how two wearable devices, a wristband and an ECG shirt, can be used to monitor and support children with chronic diseases during physical activities and sports.

Mental well-being of youth

The mental well-being of youth in the Netherlands is increasingly under pressure. There are initiatives aimed at addressing this issue, but there is uncertainty about their effectiveness and quality. We bring together researchers, young people, policy makers and societal organizations to develop an effective approach to tackling this challenge.

Example: Together with Openbare Basisschool De Tandem and EUR Studio, we created an online lesson series on mental health and the brain for primary school children.

Youth deliquency and addiction

Youth with antisocial behavior and addiction issues often face challenges in other areas, such as employment, education, and mental well-being. While interventions exist, their effectiveness is limited. We create strategies together with youth that empower them, based on their motivations and long-term goals.

Example: In co-creation with youth, we conduct research on whether daily self-monitoring allows young adults to gain more insight into their own behaviour.

Youth participation to shape the future society

Despite the growing number of youth participation initiatives, significant groups of young people remain under-represented. We aim to empower the next generation of youth to conquer societal challenges and shape the future society. To this end, we dive deep into the needs of youth and develop creative and inclusive participation tools in co-creation with youth and societal partners.

Example: We developed a learning process for policy advisors at the municipality of Rotterdam, supported by a facilitator's manual and a set of experiment cards.

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We believe every child and young adult should have the opportunity to reach their full developmental potential. Within Healthy Start we explore the early-life origins of disparities in health and well-being from a transdisciplinary perspective. We identify early-life opportunities and co-create innovative preventive strategies with our partners, leading to better health, well-being and participation for future generations.

Healthy Start is part of Convergence, a strategic alliance between TU Delft, Erasmus MC and Erasmus University Rotterdam.

www.convergence.nl/healthy-start

Co-creation

The Healthy Start Ambitions, which form the core of our program, are co-developed with societal partners and experience experts in 'Sandpit Sessions'. These sessions are an example of the various co-creation approaches Healthy Start initiates to ensure that what we do is truly relevant. Some examples of how we co-create and engage with youth and societal partners:

- Participatory research and collaborative methodologies
- Think tanks, where an international group of excellent researchers develop answers to complex societal challenges
- Co-research sessions, engaging with young people at community centers in Rotterdam and The Hague
- Engaging with children at neighbourhood festivals in Rotterdam to explore children's participation in research

Interdisciplinary perspective

Healthy Start addresses the opportunities and challenges for youth in a multidimensional way and works on collaborative solutions. We approach problems from different fields and use a systems approach, examining various aspects of a problem simultaneously.

Within our research community, we encourage collaboration between disciplines. We are constantly working to strengthen this community and involve people with new ideas, both familiar faces and newcomers. This is made possible through networking events, lectures, workshops, our online platform, and our Healthy Start Stories.

Example: The Healthy Start Stories is a series of personal interviews with the people behind Healthy Start.

Researcher of the future

The complex nature of transdisciplinary research calls for curious researchers with a highly adaptive mindset, who are commited to tackling real-world challenges.

Our research teams, consisting of early-career and established scientists, are at the forefront of advancing transdisciplinary approaches. By fostering collaboration and knowledge transfer, these researchers embody our vision and bridge the gap between science and society. Through our Healthy Start Young Community, we share transdisciplinary knowledge, methodologies, and opportunities to further develop our profiles.

Dream big, start small

Through our Healthy Start-ers Fund we support scientists and their societal partners to create science-based impact products or prototype solutions, or investigate opportunities for innovation in education and build new collaborations.

Every year, we award a number of innovative project proposals with a starter grant to kick-start these initiatives. Each of the projects bring us knowledge about how to create impact and improve transdisciplinary collaborations. Each represent a small step towards our greater ambitions.

Example: Sprint projects are short-term, high-impact projects.

Societal microscopes

Healthy Start creates dedicated creative spaces where mixed teams from the ambition projects can come together for co-creative sessions, knowledge exchange, and skills workshops. Additionally, it is essential to our goals and approach to establish environments where collaborative development, testing, and experimentation can take place. In these so-called 'societal microscopes' the focus is on people as users, experts by experience, and subjects of research, placing them at the heart of the process.

The Healthy Start Hub in the heart of Rotterdam is the first step toward a network of spaces that facilitate an open environment for science and society to come together.

Healthy Start

Our mission is to enable a healthy start for future generations: to optimize developmental opportunities for all children and young adults, irrespective of their backgrounds and starting points.

Healthy Start is part of Convergence, in which TU Delft, Erasmus MC and Erasmus University Rotterdam join forces and cross boundaries between institutes and disciplines to create new perspectives and solutions for the urgent and complex societal challenges of our time.

Convergence

Convergence Healthy Start Improving the future for new generations

Foundational partner

Delft Design Labs

The Delft Design Labs originated in 2017 as platforms for design innovation and knowledge development in which staff members of the Faculty of Industrial Design Engineering (IDE), students of TU Delft and external partners work together. One of the underlying motives for establishing the labs was to involve more IDE students in the faculty's research, so that the student work would contribute more to knowledge development in design research.

Delft Design Labs

"Our collaboration is extremely valuable – by sharing the experiences and needs of parents, we create a positive impact on the neonatal journey of parents and their children."

- Sylvia Obermann, Care4Neo

"Through our collaboration, we can connect the strengths of practice and science and develop innovations for our treatment program."

- Laura van Duin, De Nieuwe Kans

TU Delft

Foundational partner

SYNC Lab

SYNC Lab is a research group at the department of Developmental Neuroscience in Society at Erasmus University Rotterdam. SYNC stands for Society, Youth and Neuroscience Connected. Our mission is to bridge multiple levels of measurement to understand how young people develop into contributing members of society.

Erasmus SYNC lab YoungXperts

"The research gave us insight into the challenges our colleagues at the municipality face regarding youth participation. The advice and tools we received, we now apply regularly."

- Yentl Lieuwma, Gemeente Rotterdam

Foundational partner

Generation R

Generation R is a prospective cohort study from early fetal life until young adulthood in a multi-ethnic urban population, among 10,000 mothers, fathers and their children. The study is designed to identify early environmental and genetic causes of growth, development and health. The results contribute to the development of strategies for optimizing health and healthcare for all children and their parents.

Generation R

Erasmus MC University Medical Center Rotterdam

Erasmus University Rotterdam

Rotterdam-Delft region: a unique ecosystem

TU Delft, Erasmus MC and Erasmus University Rotterdam are in close vicinity to each other in the Netherlands, based in Rotterdam and Delft.

The Rotterdam-Delft region is a unique ecosystem where the complex societal issues we want to tackle and the partners who are willing to work on solutions, are present. With its young and diverse population, the Rotterdam-Delft region is our perfect 'living lab'.

Colophon
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