**Rathenau Instituut** 

## Science, Technology, and Innovation in Society

Work Programme 2025–2026



## Preface

We are living in troubled times, times of conflict and shifting geopolitical power relations. Security – offline and online – features prominently on the agenda, and innovation is viewed in the light of Europe's quest for competitiveness and strategic autonomy. At the same time, however, various groups within society are seeking to connect with each other.

Over the past two years, the Rathenau Instituut's work programme has focused on five themes: digitalisation, climate, health, knowledge and innovation for transitions, and the way the science system works. We will continue to position these themes at the heart of our work programme in the next two years, building on the results of research and dialogue in recent years and considering the developments that are taking place in the world.

Society is facing various challenges that demand solutions, and new knowledge, technology, and innovations can assist in finding those solutions. Take, for instance, the task of making industry more sustainable, or improving health: in the development and application of knowledge, technology, and innovations, various different public values are at stake that may clash with one another. Making industry more sustainable is not just about its impact on the world's climate but also about employment, strategic autonomy, and security. Improving health involves such issues as accessibility, affordability, and medical ethics.

How can government ensure that societal goals are prioritised in the development and application of knowledge and innovation? And how can we ensure that decision-making is democratic and inclusive, for example when deciding how to make industry and the environment more sustainable?

Over the course of the next two years, the Rathenau Instituut's overall aim will remain to clarify how new knowledge, technologies, and innovations can contribute to tackling urgent societal challenges, while bearing in mind public values. Through research and dialogue, we will shine the spotlight on the impact that developments in science, technology, and innovation have on society.

We are looking forward to the next two years!



**Prof. dr. ir. Eefje Cuppen** Director of the Rathenau Instituut Photo: Laura Marienus



**Drs. Maria Henneman** Chair of the Board of the Rathenau Instituut Photo: Valerie Kuypers

Cover photo: Shoppers at a market in Rotterdam. Robin Utrecht / ANP / Hollandse Hoogte Layout: Jacob & Jacobus

## Introduction

Major transitions are underway in various areas of society. They include the energy transition, the advance of digitalisation in all kinds of fields, and changes in healthcare. These transitions are in part a response to the challenges facing society and are thus in a sense inescapable: the current routes of development are reaching their limits and new directions need to be taken, although it remains to be discovered where they will lead us.

Transitions also create opportunities. Indeed, major changes give us room to rethink how we wish to shape society. Energy systems that are not only carbon neutral but also accessible and equitable, (social) media systems that provide better information and less disinformation, healthcare systems that not only cure people but also help prevent them from falling ill in the first place.

Science, technology, and innovation play a major role in transitions. By developing and deploying new knowledge and innovations in a properly thought-out manner, we can reap the benefits while reducing the risks. That is the contribution that the Rathenau Instituut aims to provide with this work programme.

Our work programme for 2025–2026 builds on that for 2023–2024. The structure remains the same. We specify what we plan to do over the next two years within the broad themes that were selected earlier.<sup>1</sup>

'In fact, a thousand years of history and contemporary evidence make one thing abundantly clear: there is nothing automatic about new technologies bringing widespread prosperity. Whether they do or do not is an economic, social, and political choice.'

> Daron Acemoglu and Simon Johnson, winners of the 2024 Nobel Prize in Economic Sciences, in their book *Power and Progress* (2023).

<sup>&</sup>lt;sup>1</sup> Our work programme for 2023–2024 can be found on our website <u>here</u>. Our latest annual report, which describes our previous work on the various themes, is <u>here</u>.

### Development of this work programme

Up to the present, the Rathenau Instituut has drawn up work programmes each covering a two-year period. Backed by a recommendation from the committee that evaluated the institute in 2023, we have decided to switch to a system of work programmes covering a longer period. We will define our themes for a six-year period and each two years will set out how we intend specifically addressing those themes. In the present document, we therefore specify how we will address the themes set out in the work programme for 2023–2024.

Our work programmes are developed on the basis of a process of internal and external consultation.<sup>2</sup> Two years ago, we held discussions with, among others, the Netherlands Scientific Council for Government Policy (WRR), the Royal Netherlands Academy of Arts and Sciences (KNAW), a knowledge coordinator at the Dutch House of Representatives, civil-society organisations, scientists, journalists, and our own Programme Council. We asked all these parties about the challenges in the fields of science, technology, and innovation in the coming years, and made grateful use of their inspiring input. This year too, our contacts at the Dutch Ministry of Education, Culture and Science (OCW), the Academy, the WRR, and other organisations have helped us with input and ideas. Given, however, that our concern in the coming period is to further flesh out the current work programme, we restricted ourselves to a limited series of consultations.

The work programme outlines a significant proportion of the Rathenau Instituut's activities. Nevertheless, we also reserve capacity for implementing projects that are not described in the work programme, so that we can respond to current developments in politics and society.

Developments in science, technology, and innovation are achieved within complex eco-systems, with numerous individuals and organisations contributing, each of them having their specific values and interests. New developments and applications of research and innovation should not be understood as a mere technological phenomenon – quite the contrary, they result from confrontation between these divergent values and interests: choices need to be made. The remit of the Rathenau Instituut is to provide politicians and society with the information they need to make wise choices.

How technological change plays out socially – who reaps the benefits and who must deal with the risks – depends on the extent to which technical innovation goes hand in hand with innovation in social relations, organisational structures, and regulations. Indeed, problems sometimes demand societal innovation, with technology playing only a modest role. We therefore always consider scientific and technological developments within the broader context of societal dynamics.

Within societal transitions, science, technology, and innovation play an important role, but one that is not unambiguous. They can help to find solutions to the challenges facing society, but they may also get in the way of finding those solutions. Take, for instance, educational digital applications that improve the quality of education but that can also exacerbate inequality of opportunity. Similarly, digitalisation of information can aggravate fragmentation within society, and modernising the economy and making it more sustainable can come at the expense of established professions and businesses.

It is by no means always clear how science, technology, and innovation should be dealt with in such a way as to enable society to progress. Decision-making on the development of scientific research and the application of new knowledge and technology needs to be organised in such a way as to accommodate different views and perspectives. One challenge here is to involve a broad spectrum of groups to include the diversity of values and interests, including - or in particular - those of individuals who are poorly organised. How can diverse groups of people be kept informed, participate, have their say, and feel heard in a society in which views and opinions can diverge so widely? Research and dialogue are needed to organise scientific and innovation systems in such a way as to maximise their social benefits.

<sup>&</sup>lt;sup>2</sup> For details, see our work programme for 2023–2024.

### The Rathenau Instituut's mission

The Rathenau Instituut was established to contribute to public dialogue and inform political debate on the development of science, technology, and innovation, and to increase understanding of how the science system works.

In pursuing that mission, we conduct research and organise dialogue, focusing on three goals:

- We place social aspects of science, technology, and innovation on the agenda and show where public values, human rights, and the interests of society are affected.
- We promote public discussion and the shaping of political opinion on science, technology, and innovation.
- We support political policy-making regarding the integration of technological developments into society, and the organisation and governance of science, technology, and innovation.

To achieve these goals through research and dialogue, we work together with numerous partners, where our distinctive contribution is characterised by the way we view matters from an independent position and by our focus on public values and the public interest.

### Our overall aim for 2025–2026

As in the past two years, the Rathenau Instituut's intention is to contribute in the coming years to public debate and the development of political opinion on science, technology, and innovation in relation to major structural changes within society. In this work programme, we will focus our activities on the following overall aim:

We clarify how science, technology, and innovation can contribute to tackling the urgent challenges facing society, while bearing in mind public values.

### **Research themes**

As in the past two years, we will pursue that aim in the coming years by addressing four themes:

- Digitalisation
- Climate
- Health
- Knowledge and innovation for transitions
- How the science system works

Figure 1 presents these themes schematically. The first three themes concern important transitions within society that are interlinked. We will explore **Digitalisation** because digital technology is an essential tool that enables – or, on the contrary, frustrates – changes within society, whether these involve alleviating the effects of labour shortages, protecting against new security threats, or promoting social cohesion.

We will also focus on the theme of *Climate*, because climate change necessitates drastic adjustments in society: how can we configure our food supply, energy consumption, and industrial production within planetary boundaries, while taking account of public values?

Healthcare is facing fundamental challenges, which is why we have chosen *Health* as our third theme. Given an ageing population, how can we utilise new technology to increase the number of years during which people enjoy good health, how can we reduce the need for youth care, and how can we increase the effectiveness of health promotion? What impact can developments in medical biotechnology and artificial intelligence (AI) have in this regard?

The fourth theme, *Knowledge and innovation for transitions*, deals with the role of knowledge and innovation in enabling transitions within society.<sup>3</sup> This theme has its own line of research, while simultaneously feeding into the first three themes. Within this theme, we therefore examine how to organise knowledge generation and innovation processes so as to promote a responsible digital society, a sustainable economy, and a healthy society.

<sup>3</sup> Advancing insight has led to the term 'innovation' being added to the title of this theme.

With the fifth theme of this work programme, the Rathenau Instituut addresses the task of increasing understanding of *How the science system works*. Part of our focus within this theme is on specific developments in the science system, for example efforts aimed at more open science or the use of Al in research. We also continue with ongoing research, for example into financial expenditure within the science system and public trust in science. We make facts and figures available, conduct in-depth analyses on specific matters, and answer topical questions from the Ministry of Education, Culture and Science. Monitoring and analysing the way the science system works provides an important knowledge base for achieving the aims of the other four themes within the work programme.

#### **Current developments**

In the coming period, we will explore these five themes in greater depth, conscious of the fact that the social context is subject to change. We are facing rising geopolitical tensions and increasing concerns regarding national security. In response, national and European policy is increasingly focusing on strategic autonomy, leading to greater investment in military as well as economic and societal resilience.

This has implications, for example, for the theme of digitalisation, where we are confronted by the dangers of manipulation using disinformation as well as the risk

of disruption of crucial digital infrastructures and increasing economic dependence on big technology companies from countries that are not well-disposed to us. It also has implications for the theme of how the science system works, where knowledge security demands ever greater attention and where funds for civil knowledge generation are shrinking while those for military research and innovation are increasing.

These developments are significant as regards our security and competitiveness, and ultimately our freedom. We keep close track of them and pay attention to them not only when implementing our work programme but also when utilising the discretionary margin that we have set aside for responding to current events.

#### **Programmes**

In this work programme, unlike in previous years, we have specified one or two programmes per theme. These programmes are intended to determine the focus of our projects for the next two years within a broad, longerterm theme. We thus ensure greater coherence between our projects and a sharper focus on the intended outcomes.

In the following sections, we explain in greater detail what we will be working on over the next two years.

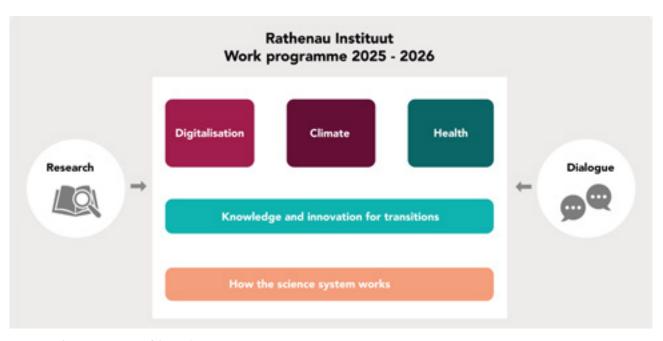


Figure 1: Schematic overview of the work programme

### PART 3 \ THEMES \ DIGITALISATION



Exhibition: 'The Grand Illusion – 200 Years of Virtual Realities'. Teylers Museum 2024. Photo: Rathenau Instituut.

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# **Digitalisation**

Digitalisation has been underway for decades now and seems to have a momentum of its own, but there are countless choices that need to be made when applying and deploying digital technology. In addition to the benefits, we are now ever more aware of the downsides. In the past two years, we showed how emerging technologies such as generative AI, quantum technology, and immersive technology have an impact on values such as privacy, autonomy, and health.

At the current stage of digitalisation, there are two specific developments that demand our attention. First, digital technology is getting more and more 'up close and personal'. For instance, artificial intelligence and immersive technology are increasingly able to mimic human and social behaviour. This has implications not only for our relationship to technology but also for our relationships to one another. Second, technology companies are gaining more and more influence in such areas as education, the media, and science. This dominant position is increasingly interfering with the way democracy and the rule of law can function.

### Programme: 'Directing digitalisation'

### Towards a humane digital technology

To what pressure on young people's mental health does the shift of social life into a virtual world - including the advent of virtual friends - lead? Can 'grief bots' help us cope with the loss of a loved one who has died? How do we agree on what is authentic when it is increasingly difficult to distinguish between what is fake and what is real? A new wave of digital innovations is making it urgent to explore what they mean for how we interact, cohabit, and love. What do these innovations mean for our self-image and our humanity? How can we ensure that these emerging applications enrich our relationships? Through research and dialogue, the Rathenau Instituut aims to help strengthen society's ability to determine how to use digital technology. This requires a broader awareness of the features, effects, opportunities, and risks of emerging digital applications, as well as an understanding of the values that people find important in this respect.

That is why – in our 'digital future dialogue programme' – we are organising discussions on emerging digital technology with people across the country. We are supporting this process with further research into the significance of emerging digital technology for human dignity and into specific opportunities for individuals, consumers, and politicians to influence it. In doing so, we focus in any case on issues around digitalisation and social relationships (love, friendship, family, death), the community and democracy (public space, disinformation), and the living environment (nature, the built environment).

## Reviewing the relationship with technology companies

Often, new applications of digital technology come from Silicon Valley and China. Directing further digitalisation requires not only raising awareness among citizens, consumers and politicians, but also appealing to the social responsibility of tech companies. Promoting the socially responsible development of technology makes it necessary to properly understand these companies: what interests and business models are behind the digital technologies that are increasingly permeating society? Some tech companies now play such a central role in society that their influence has extended into numerous public domains, including democracy and the rule of law. What is needed to maintain democratic control over the further digitalisation of society in a world full of geopolitical tensions? And what Dutch or European alternatives to essential digital services would be possible if we prioritise public values, democratic control, and strategic autonomy?

To gain a better understanding of the development and societal impact of digital services, we conduct research on the companies behind dominant digital technologies, on possibilities to influence the development of these technologies or to set preconditions at the national and European level, and on alternative designs and technology providers. We focus on design and procurement choices that will enable public organisations to ensure that account is taken of public values in the development and application of digital technology.



Maasvlakte 2 in the port of Rotterdam. Photo: Robin Utrecht / ANP / Hollandse Hoogte

# Climate

To contain the effects of global warming, the European Union and the Netherlands aim to be climate neutral by 2050. Achieving that target requires drastic changes, particularly because the climate challenge is linked to other challenges and opportunities as regards health, biodiversity, water quality, food security, social equality, and geopolitical relations.

The Rathenau Instituut aims to contribute to public and political discussion on a sustainable society through research and dialogue. Specifically, we investigate the role that science, technology, and innovation can play in that regard. The opposition to wind farms,  $CO_2$  storage, and nitrogen reduction measures shows that sustainability is also a democratic challenge.

Over the past two years, within the Climate theme, we have studied the disposal of radioactive waste. In the next two years, we will focus on sustainability in two fields: energy-intensive industry and the residential environment. In both fields, we will investigate not only the sustainability issues themselves, but also the processes and institutions that are necessary for socially responsible and inclusive decision-making, with a voice being given to a broad spectrum of views and interests – this is what we mean by working democratically toward sustainability.

# Programme: 'Working democratically toward sustainability'

### Sustainable industry

The Netherlands aims at a fully circular economy by 2050, with its industry being climate-neutral. Making energy-intensive activities more sustainable – for example oil refining, chemicals, steel and fertiliser production – is a complex task. It requires huge amounts of renewable energy, in addition to carbon capture and storage. Industry must also start using renewable raw materials and, for example,  $CO_2$  derived from industrial processes or from the atmosphere. Making industry more sustainable demands large-scale private and public investment in innovation and infrastructure. That will require balancing up various interests, such as future earning capacity, quality of life, and claims on renewable energy, infrastructure, raw materials, and space.

Discussion as to how industry can be made more sustainable is currently mainly between technical experts, policymakers, and the existing industrial clusters, with a great deal of emphasis on making existing industry more sustainable. Greater attention is needed for 'green creative destruction', i.e. building up new, sustainable industrial ecosystems, together with the responsible phasing out of polluting industries. The Rathenau Instituut aims to contribute to broadening public discussion of the sustainable industry of the future. We will do so by enriching the content of the discussion and by enabling new groups to have their say.

### Sustainable residential environment

Improving sustainability has an impact on our residential environment. National goals require specific implementation in municipalities, villages, neighbourhoods, and streets. Various parties are working there to make homes more sustainable, make cities climate-proof, make agriculture more naturefriendly, integrate renewable energy technologies, and improve water quality. All this often takes place under enormous time pressure.

Plans for renewable energy, such as geothermal energy and wind turbines, frequently clash with other wishes, such as for housing, nature protection and spatial quality, and as a result lead to conflicts with and among residents. To do justice to different aims, local authorities – together with individuals and businesses – increasingly apply democratic procedures to achieve environmental sustainability. Innovations in environmental and energy technology help to foster sustainability. But digital and social innovations also offer opportunities – for example energy cooperatives organise and finance the supply of energy in a new way.

The Rathenau Instituut will investigate how increasing sustainability takes place within the residential environment and how this can be organised both effectively and democratically. We shall investigate cooperation between national and local authorities and the involvement of the public. We shall learn from the obstacles citizens face and how innovation can be deployed responsibly in that regard. We intend sharing the lessons learned with authorities and citizens so as to contribute to sustainability at the local level and to improve the national debate on this issue.



Baby Builder, an installation by the artist Bertrand Burgers at Dutch Design Week 2021. Photo: Edwin Smits

# Health

Health in the Netherlands is under pressure. Our subjectively experienced health is declining, the health gap between rich and poor remains persistent, ageing is leading to a growing demand for care, and young people are having a tough time mentally. At the same time, healthcare vacancies remain unfilled, the availability of medication is problematic, and healthcare costs continue to rise. Solutions are being sought, for example, in artificial intelligence and new biotechnology.

To what extent the promises of emerging health technologies will be fulfilled, and who will benefit most of them, remains to be seen. What role technological innovation can play in tackling the challenges in the field of health depends on how it is managed. Curing patients requires a specific approach to the deployment of science, technology, and innovation; keeping people healthy for longer requires efforts in a different direction.

Through research and dialogue, the Rathenau Instituut aims to contribute to timely democratic decision- and policy-making regarding the deployment of science, technology, and innovation in the field of healthcare. Within the Health theme, we have focused in recent years on the socially responsible development of biotechnology. We will continue to do so, but we will also explore how research and innovation can contribute, not so much to curing disease but to promoting health.

### Programme: 'Innovating for health'

### Towards responsible medical biotechnology

In the coming years, the use of AI will alter the pace and methods of biotechnology research. AI can be used, for example, to develop drugs targeted at specific genetic profiles. Pushing the boundaries of what is technically possible will lead to new questions about what is socially desirable, and how these societal interests can be incorporated into the development of biotechnology.

The Rathenau Instituut recently organised a number of social dialogues to explore what values and arguments people consider important in the development of biotechnology. Our research shows that public interests are only weakly represented in existing systems of innovation. Over the next two years, we will focus on how public values can be incorporated more structurally into the governance of biotechnology, including when AI plays an increasing role in it. We will remain involved as a societal partner in various research consortiums dealing with medical biotechnology.

### Innovation and technology to sustain health

A great deal of effort goes into technological innovation with to cure sick people efficiently. Less effort is being expended on innovation aimed at preventing illness, i.e. keeping people from getting sick in the first place and fostering good health.

Over the next two years, we will explore the options for a new programme on the role of science, technology, and innovation in promoting health and preventing disease. How can science, technology, and social innovation – in addition to technical innovation – contribute to the more holistic and biopsychosocial promotion of health? And how can we position people – individuals, patients, and also care professionals – at the centre of this? We will explore this issue together with individuals and stakeholders from the fields of science, industry, and the medical sector. We will build on our earlier insights, for example on different ways of thinking about health, neurotechnology, epigenetic editing, planetary health, and health technology specifically for women.



Zero-emission zone The Hague. Photo: Laurens van Putten / ANP / Hollandse Hoogte

THEME 4

# Knowledge and innovation for transitions

Knowledge and innovation are required if we are to tackle the major challenges facing society in such areas as climate, health, and food. Government, therefore, uses targeted policies to mobilise knowledge and innovation. In practice, however, that is proving difficult. It raises fundamental questions about the role of knowledge and innovation as regards societal challenges and the role of government in guiding and coordinating knowledge and innovation.

A feature of many of these challenges is that views differ as to what exactly the problem is, and how to tackle it. Innovation can be used to improve existing systems, but also to bring about radical renewal and systemic change. How and to what extent should politicians and policy makers be actively involved in coordinating and guiding innovation? What policy approach will be effective in getting scientists, professionals from various fields, civil servants, entrepreneurs, and individuals to work together on what is needed to address the challenges in an effective and fair way?

Within this theme, we have produced analyses over the past two years of how applicationoriented knowledge ecosystems function. Over the next two years, we will help to take knowledge and innovation policy for tackling societal challenges to the next level, by learning from and with pioneers.

### **Programme: 'Challenge-driven innovation'**

## Challenge-driven knowledge and innovation policy

IIn this programme, we investigate how government can mobilise research and innovation for dealing with sustainability transitions and tackling societal challenges in a targeted manner, for example to enable natureinclusive agriculture, future-proof healthcare, or waterrobust spatial planning. In recent years, all kinds of new ideas have been developed for making innovation policy 'mission-driven' and 'transformative'. There are various initiatives - such as the Netherlands Climate Research Initiative and the Dutch Research Agenda that are experimenting in practice with the challengedriven programming and funding of research and innovation. Together with pioneers, we aim to take such a challenge-driven approach a step further. What difficulties do the pioneers come across? Where do they see opportunities?

We shall contribute to the further development of challenge-driven knowledge and innovation policies by investigating, highlighting, and advancing a number of promising practices. We will do this together with policymakers at various levels of government, with policy practitioners at funding organisations, programme agencies and other intermediary organisations, and with individuals and organisations who put challenge-driven knowledge generation and innovation to practice.

Together with policymakers we aim to learn, for example, about decision-making for challenge-driven innovation programmes: what values and interests are most important and how should one deal with power inequalities, conflicts and uncertainty? Other questions concern the coordination of challenge-driven innovation policies with other policy fields and how to design a monitoring system that enables guick learning and adjusting. With policy practitioners, we aim to learn about how civil-society organisations and individuals can be given a significant role in research and innovation. How can different types of knowledge be brought together and applied? What changes are needed in the conditions for awarding grants and in the selection criteria? With scientists and others engaged in transformative or transdisciplinary research, we aim to learn about the problems they encounter and about opportunities to increase the scope for a challengedriven approach to knowledge and innovation.

## Design of challenge-driven approaches in specific cases

We are looking for two or three cases for this programme, preferably linked to one of the other themes within this work programme. The aim here is to come up with practical modes of action for policymakers and policy practitioners to further improve challengedriven approaches. In the case studies, our intention is to join with stakeholders to seek solutions to specific challenges through action research, and to learn from those involved about options for adopting a challengedriven approach. Exploring various cases will enable us to develop both generic and domain-specific insights and to further refine challenge-driven approaches for knowledge generation and innovation.



The Eise Eisinga Planetarium in Franeker, declared a world heritage site in 2023. Photo: Jilmer Postma / ANP

THEME 5

# How the science system works

Part of the Rathenau Instituut's scope is to clarify how the science system works. We therefore produce an extensive series of fact sheets and data publications and issue various periodic reports, including the Total Investment in Research and Innovation (TWIN) figures and the Balance of Science report. In addition to these ongoing activities, we produce in-depth analyses on specific themes in response to current developments in science and policy.

The themes we investigate include public investment in research, scientific career development, and trust in science. Two developments that require particular attention in the coming years are the effects of cuts in research budgets and the impact of AI on scientific research.

The new 'Science of the Future' programme covers topical issues for the next two years. Our ongoing activities within this theme are listed under 'Science in the Netherlands'.

### Programme: 'Science of the future'

#### Science under pressure

Science is facing hefty budget cuts at a time of increasingly urgent societal issues, increasing workloads, rising geopolitical tensions, concerns about knowledge security, an anticipated decline in the number of Dutch students, and public debates about the societal value of science and about the numbers of foreign students. This combination of factors makes tightening up development strategies and rethinking priorities unavoidable.

Over the next two years – in collaboration with stakeholders from the worlds of practice and policy – we will organise and facilitate discussion of the future of Dutch science, based on monitoring current developments and building on the results of our recent foresight study 'Knowledge of the Future'.

### Artificial intelligence

In this dynamic context, we note a development whose implications are still difficult to grasp, namely the rapid advance of AI in scientific research. What does AI mean for the research process, for the knowledge and skills that researchers require, and for the nature and validity of research results?

We will investigate the increasing options for using AI in various research fields. We will examine its effects on research quality and survey what is needed to safeguard quality. In doing so, we will also highlight use of the services provided by foreign tech companies, bearing in mind issues regarding dependency and knowledge security. The central issues are what AI can mean for Dutch science and what needs to be done to ensure that it is utilised responsibly.

### **Programme: 'Science in the Netherlands'**

### Science in facts and figures

Dutch science is of a high standard and internationally well regarded. Nevertheless, there are significant concerns about such matters as heavy workloads, the strong emphasis on competition, concentration of resources within the system ('winner takes all'), and about opportunities for career development, international mobility, and knowledge security. There is also scope for further development of partnerships so as to improve the societal impact of science. Moreover, the new Dutch government has announced hefty cuts in previously planned investment and there are concerns about the potential decline in trust in science among some parts of the population.

We will inform political debate on science and support policymakers by providing data on recent developments and up-to-date interpretation of those developments. We will do this by regularly updating the data and indicators on our website (the 'Science in figures' section) and by developing new policy indicators and analyses. In doing so, we will offer an up-to-date picture of the state of Dutch science and shed some light on the impact of the announced cuts on research and innovation in the coming period.

Another edition of our regular publication 'Total investment in research and innovation' (TWIN 2023–2029) is planned for 2025–2026. Two surveys are also planned that we repeat periodically: a survey of what motivates researchers and lecturers, focusing on workload, career ambitions and mobility, and another such study to determine the extent of Dutch people's trust in science and the factors influencing that trust. We will also investigate the international mobility of researchers and look back at 50 years of research funding, based on TWIN data.

## Board

The Board of the Rathenau Instituut consists of the following members:

**Drs. Maria Henneman** (chair) – Maria Henneman is director/owner of Henneman Strategies BV, an agency for strategy and (crisis) communication and director/owner of Hof van Amstel BV.

**Prof. dr. Noelle Aarts** – Noelle Aarts is professor of Socio-Ecological Interactions and director of the Institute for Science in Society (ISiS) at Radboud University Nijmegen.

**Prof. dr. Nynke van Dijk** – Dean of the Faculty of Health, Sport and Exercise at Amsterdam University of Applied Sciences and associate professor of Medical Education and Training of Healthcare Professionals at the University of Amsterdam.

Dr. Laurence Guérin – Dean of the School of Education and Society and Professor of Citizenship at Academica.

Dr. Radjesh Manna – Director of Research and Education at Erasmus Medical Centre Rotterdam.

Joep Munten MSc. – Managing director of Hartelt Fund Management.

**Prof. dr. ir. Behnam Taebi** (vice-chair) – Professor of Energy and Climate Ethics and scientific director of the Climate Safety & Security Centre (CaSS) at Delft University of Technology. Also a member of the Scientific Climate Council.

Drs. Kees Verhoeven – Founder and owner of Bureau Digitale Zaken B.V.

Secretary to the Board: **Prof. dr. ir. Eefje Cuppen** – Director of the Rathenau Instituut. Research and dialogue on the societal aspects of science, technology, and innovation

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