

R&D as the backbone of the Ministry

The Ministry of the Environment's R&D Action Plan 2020



Photo: Penitti Hokkanen

The Ministry of the Environment's strategy "Building Sustainable Living Environments and Green Growth 2022" defines the goals and objectives of the Ministry's activities. The aim of this research and development (R&D) action plan is to promote the realisation of the strategy. The plan was prepared by the Ministry of the Environment's Research Team under the direction of the Research Director.

The action plan aims to promote the long-term development of R&D activities, while also improving their efficiency and impact. The plan presents objectives for R&D activities as well as actions derived from them, the realisation of which is monitored and updated regularly.

The Ministry's R&D activities form an extensive focus area, which includes influencing other operators in the field of R&D and the ministry's own information gathering, as well as research and development related to experimental projects. A separate mapping of the Ministry's innovation activities is currently being prepared in accordance with the guidelines of the Research and Innovation Council.

Making full use of information

The Ministry's R&D activities produce information that supports administration for the purpose of forecasting

operations, evaluation, decision-making, and the development and implementation of national and international environmental policy and legislation. The activities strengthen R&D cooperation with other administrative sectors, trade and industry and other financiers. Furthermore, the activities contribute to and strengthen the Ministry's knowledge management, expertise and social impact. The roles of the Ministry's R&D operators are presented in figure 1. The Research Director coordinates the Ministry's forecasting, experimentation and innovation activities, which are closely connected to R&D activities.

The Ministry of the Environment directs some of its operational expenditure towards information gathering as part of its research and development activities. This includes assessments, evaluations and syntheses, as well as portals and seminars that facilitate the utilisation of results. The Ministry's research, assessment and analysis activities are collected annually in a plan that spans the entire administrative sector.

Mission statement

In order to ensure access to the necessary information and expertise, the Ministry of the Environment:

- performance manages R&D activities in its own administrative sector,
- gathers R&D data that supports its administrative sector together with other operators, and
- actively influences other R&D operators in the sector.

Objective

The building of sustainable living environments and green growth is based on well-researched information.

R&D data benefits many

- R&D data is used by
- the government, municipalities and municipal federations, other public administration,
 - trade and industry,
 - EU bodies,
 - international organisations,
 - associations and citizens,
 - the real estate and construction sector,
 - various operators in the housing and cultural environment sector,
 - the Housing Finance and Development Centre of Finland (ARA),
 - Metsähallitus and
 - Centres for Economic Development, Transport and the Environment and regional state administrative agencies

Starting points and key changes in the operating environment



Photo: Johanna Kinnari

The Ministry of the Environment's previous R&D strategy was completed in 2012, based on which a brochure and a report were also prepared ([YMrä 22/2011](#)). Due to significant changes in the operating environment, the strategy has been updated and at the same time changed into an action plan.

The Ministry of the Environment's strategy was prepared in 2014. For R&D operations, it emphasises comprehensive expertise, cooperation and interaction skills and networking.

R&D operations are also steered by the Government Programme, according to which science and research resources should be utilised more efficiently and the impact of operations should be increased. The profiling, division of labour and cooperation of universities and research institutes should also be promoted. Furthermore, the programme promotes the implementation of a culture of experimentation, one of the aims of which is to facilitate the practical utilisation of research results. To this end, the Ministry of the Environment's

experiment and pilot projects have in recent years focused on promoting green growth and the protection of the Baltic Sea.

In accordance with the Government Programme, national research funding is to be cut, which will further emphasise the importance of EU funding. Key EU funding instruments in the Ministry of the Environment's administrative sector include the research and innovation programme Horizon 2020 and the LIFE programme. The Ministry's role in the Horizon 2020 project has been broadened through the reformation of national committee work, while the LIFE programme has added integrated projects as a new project type for the 2014–2020, opening up possibilities for very large projects.

Operations have also been significantly changed by the resolution on the comprehensive reform of state research institutes and research funding (TULA) from 2013. The Consortium for Research on Natural Resources and the Environment (LYNET) currently connects seven

research institutes (SYKE, Luke, Evira, VTT, the Geological Survey of Finland, the Finnish Meteorological Institute and the National Land Survey) and four different administrative sectors (TEM, LVM, MMM and YM). SYKE's budget will decrease by several million euros during 2016–2018 (TULA + other cutbacks). On the other hand, new financial instruments supporting the government's decision-making (VNTEAS: the Government's analysis, assessment and research activities) and strategic research created as a result of the TULA reform also open up new opportunities. New key operators include the Government working group for the coordination of research, foresight and assessment activities (TEA Working Group) and the Strategic Research Council (STN).

These new funding instruments necessitate increased effectiveness. In other words, research data must more effectively meet the needs of its appliers, and it must be easily utilisable. This calls for new kinds of joint planning between researchers and those who utilise research data. In this area the Ministry is supported by panels (particularly the Climate Panel and the Nature Panel), the Forum for Environmental Information and Future Earth Finland, among others.

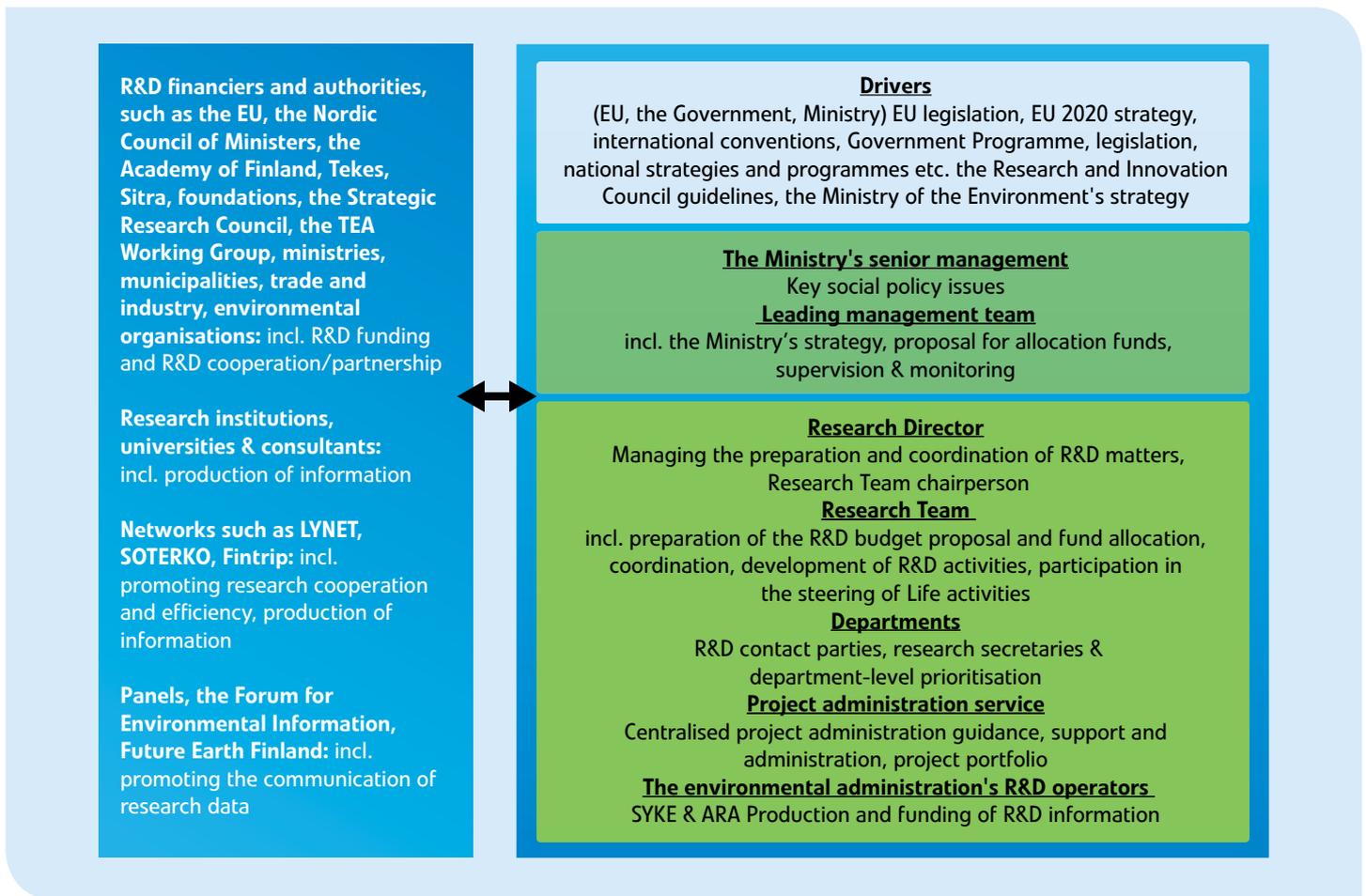
Digitalisation and e-services provide new opportunities in the R&D sector.

The production and transfer of data is changing. In response, projects such as the environmental data project Envibase launched in 2015 are steering Finland towards a new kind of smart and

open management, use and utilisation of environmental data. In addition to promoting the open publication of research results, the project advocates the openness of research data in order to facilitate the further utilisation of materials. The Ministry of the Environment's organisation was reformed in 2015, as a result of which practices related to the administration of YM R&D and related acquisitions were harmonised and centralised.

The preparation of the R&D action plan was based on several recent assessments and studies.

The evaluation of the social impact of the R&D activities of the Ministry of the Environment ([YMrä 28/2013](#)) stated, among other things, that the Ministry should continue to profile itself as a strong utiliser of research data and at the same time strengthen its position in the vanguard of decision-making based on research data. Meanwhile a survey conducted in 2015 on the Ministry's interest groups found that the Ministry of the Environment's expertise is valued and that cooperation with science and research organisations works excellently. Other assessments utilised include: the effectiveness of ARA's development funding (from 2013), the effectiveness of energy efficiency projects of buildings ([YMrä 2/2016](#)), the activities of the Climate Panel ([YMrä 30/2013](#)) and the effectiveness of green economy experiments and development projects ([YMrä 15/2015](#)). All of these assessments highlight the recommendation for promoting interaction and research communication between different operators.



Foresight and prioritisation

New and upcoming topics are forecasted in various international (such as the European Environment Agency EEA) and national (such as the ministries foresight work) processes and in thematic discussions between the Ministry of the Environment and SYKE. These topics are collected and utilised in R&D activities, particularly those meant to influence other financiers. The prioritisation of R&D activities is based on the Government programme and the Ministry of the Environment's strategy. Relevant key projects in the Government Programme include the promotion of bioeconomy and clean solutions, housing policy, digitalisation, experimentation and the streamlining of



Photo: Riku Lumiaro

regulation. The VN TEAS funding instrument is also utilised to fulfil information needs necessary for the realisation of the Government programme. Furthermore, long-term information needs are served with the help of the strategic research funding instrument.

Within the Ministry, core processes, such as legislation and steering, are supported by departments' research and development activities. Priority is given to projects that affect the preparation and mandatory implementation obligations of national and EU legislation as well as binding international

The Ministry's R&D themes

- Climate change and protection of the air
- The Baltic Sea, inland waters and aquatic resources
- Consumption, production and natural resources
- Ecosystem services and biological biodiversity
- Built environment, land use and housing

agreements. Key focus areas that span several departments include identifying the connections between environmental legislation, streamlining processes and developing impact assessment and monitoring of the state of the environment.



Photos: Jussi Palmén ja Riku Lumijärvi

Objectives

I R&D data is systematically and proactively utilised in activities

- R&D is a permanent part of the Ministry's international and national activities, such as management, foresight, assessment, the development and implementation of environmental policy and decision-making
- R&D promotes the realisation of the Ministry's strategy and action plan as well the Government Programme and the Government's action plan
- Open and high-quality information resources effectively serve the needs of R&D activities
- The Ministry engages in active communication about R&D activities, emphasising the utilisation of produced information

II Cooperation with SYKE and ARA is close and objective-based

- SYKE and ARA support the realisation of the Government Programme and the Ministry's strategy in their part
- Cooperation between SYKE and ARA is close
- SYKE and ARA's performance management processes are clear and well-coordinated, and the realisation of the performance agreement is monitored through detailed and harmonised processes

III Activities are networked for increased effectiveness and interaction

- Interaction between decision-makers, preparers, researchers and other operators is smooth
- As a result of the Ministry's active influence, a significant amount of national and international research funding is allocated to issues deemed important from the perspective of the environmental and the Ministry
- LYNET performance management across administrative boundaries is effective and well coordinated

IV Project management is standardised and efficient

- Project management is effective and user-friendly, serving project planning, monitoring and information utilisation

Measures

- The measures derived from the objectives are described in the table of measures. The Research Director regularly updates the table and monitors the realisation of measures in collaboration with the Research Team.

Table of research and development measures:

www.ym.fi/en-US/The_Ministry/Research_and_development

Links

- www.ym.fi/en-US/The_Ministry/Research_and_development
- www.syke.fi/en-US
- www.ara.fi/en-US
- www.lynet.fi
- www.ilmastopaneeli.fi/fi/in-english/
- www.ymparisto.fi/en-US/Envibase
- www.ymparistotiedonfoorumi.fi/english/
- futureearthfinland.fi/index.php/in-english
- www.fintrip.fi/about/
- www.soterko.fi/fi
- www.vnk.fi/en/government-s-analysis-assessment-and-research-activities
- www.aka.fi/en/research-and-science-policy/strategic-research-funding/
- www.eea.europa.eu

