



IFEs Strategic Plan

| 2023-2028

Research for a better future



IFE's properties at Kjeller and Halden will be developed, new laboratories and production facilities will be built, and work is underway to establish a research and technology park at Kjeller. Photo: Grape Architects



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About IFE

IFE is a research foundation in which the main activity is research. The Norwegian government founded IFE in 1948 to conduct nuclear research, and in 1953 IFE became an independent foundation. Through its nuclear research, IFE has developed leading research in energy, the environment and digital systems.

IFE's objective is to undertake, on a non-profit basis and for the benefit of society, research and development within energy and other areas that are particularly suited to the foundation's expertise. In 2023, IFE is a multi-faceted organisation which, in addition to research and development, has activity in property, radiopharmaceuticals and nuclear operations and safety. During the strategy period 2023–28, IFE will concentrate its efforts on research activities, and all other activity will underpin the research.

IFE facing major changes

The decision to shut down the research reactors in 2018 and 2019, and the subsequent process to clarify for the government the organisation and financing of the nuclear decommissioning, represent IFE's biggest ever change.

The strategic plan sets out the overarching direction and priorities for the foundation. IFE established a corporate structure in 2022, and this will be implemented in the coming years. The Norwegian Parliament has decided that IFE's nuclear

facilities and organisation are to be transferred to the State, in the form of the Norwegian Nuclear Decommissioning (NND). The radiopharmaceuticals activity will be separated into a subsidiary, Agilera Pharma AS. IFE's properties at Kjeller and Halden will be developed, new laboratories and production facilities will be built, and work is underway to establish a research and technology park at Kjeller. In a collaboration with the research institutes NILU and NIVA, IFE has established the NORIN research alliance, which has an ambition to form a collaborative research group.

IFE's vision, values and social mission

IFE's vision is 'Research for a better future'. Our set of values reflects our diverse range of business areas. The values for the research activity, property activity and corporate staff are 'passion, creativity and integrity'. For nuclear operations and safety, the values are 'safe, credible and responsible', while radiopharmaceuticals' values are 'partnership, precision, safety, innovation and agility'.

IFE currently has two important social missions: research for a better future and value creation in Norway, and safe decommissioning and disposal of nuclear waste after 70 years of nuclear operations in Norway. When the nuclear activity is transferred to the State, research and value creation will continue to be IFE's social mission.

IFE's sustainability strategy¹

By developing more sustainable solutions to key societal challenges, IFE will bring added value to society, our partners and customers, whilst also helping to strengthen value creation in Norway. Research is our most important contribution to ensuring a more sustainable society.

Sustainability will form the basis for all of IFE's activities, and will encompass environmental, social and governance factors. Since 1948, IFE has been at the forefront of energy research, and we are

contributing to the green transition that is needed to meet the UN and global targets for climate neutrality, phasing out fossil fuels and ensuring safe, universal access to energy. IFE also wants to play an important role in the local community by being as a decent and responsible employer, business partner, value creator and contributor to local green communities. We endeavour to implement sustainability in all our activities and daily operations, respect basic human rights, safeguard decent working conditions throughout the value chain, and to be a good employer for all our employees.



1) Link to IFE's sustainability strategy: [IFE Sustainability Strategy by CopyCat AS - Issuu](#)

Strategic direction 2023–2028:

Develop assets and opportunities

The IFE Foundation has a unique history, and the assets we manage have major growth potential. Our strategic direction for the period 2023–2028 is as follows:

- Transfer nuclear activities to the State, in the form of the Norwegian Nuclear Decommissioning (NND).
- Strengthen research by developing values and opportunities in the business areas.
- Reduce risk for the foundation and the business areas.
- Healthy finances, safe and efficient operations.

The core of IFE's strategy for 2023–2028 is to strengthen research by developing the assets and opportunities that lie within the business areas with a view to reinvesting in research competence and infrastructure.

IFE will be organised in a way that reduces the risk for the foundation and research, whilst also ensuring that the cross-risk between the business areas is reduced. A key measure is to establish a corporate structure by spinning off operations into separate limited companies. IFE Holding AS has been established as a wholly owned subsidiary under IFE and will manage IFE's ownership in commercial companies such as Agilera Pharma AS and IFE Invest AS. IFE will consider bringing other owners into Agilera Pharma AS to develop the company further and will eventually sell its interest in the company if that is conducive to creating the greatest value for the foundation. IFE will transfer the research activity to IFE Research AS, which is a wholly owned limited company under the foundation and will work to establish NORIN as a collaborative research group in partnership with NIVA and NILU.

The core of IFE's strategy for 2023–2028 is to strengthen research by developing the assets and opportunities that lie within the business areas with a view to reinvesting in research competence and infrastructure. Photo: Bo Mathisen



IFE's strategy for the business areas

IFE's strategy for developing the research activity

IFE's main purpose is research. We will develop and strengthen the research activity, and have set the following strategic direction for 2023–2028:

1. Leading provider of research, innovation and value creation in Norway and the EU.
2. Driving force for a robust, fair and sustainable society.
3. International expert in energy and environmental research and human-centred digitalisation.
4. Leading facilities for testing and experiments in Norway.
5. An attractive workplace.
6. Influence public discourse within our areas of expertise.

Society is facing major, complex challenges. Industry, business and the public sector need access to research institutes with experience in developing innovative, robust and forward-looking solutions. IFE will further develop research in energy, the environment and human-centred digitalisation in order to be the preferred partner for business and the public sector in the development of more sustainable and robust societies.

IFE's establishment of the NORIN research alliance together with the environmental institutes NILU and NIVA is an important step in creating a more

prominent role both in Norway and on the global stage. The ambition is to establish a collaborative research group that encompasses energy, climate, environment, digitalisation and civil protection. IFE will work proactively to ensure that NORIN becomes a strong and attractive research entity covering the whole of Norway, and conducts extensive activities internationally.

One of IFE's competitive advantages is its unique research infrastructure, which includes state-of-the-art laboratories in Halden and Kjeller. The research infrastructure will be further developed with the addition of new laboratories, optimisation of the laboratories, and continuous improvements in HSE. IFE will be an attractive workplace where researchers, technicians as well as staff can thrive and develop. Motivation and job satisfaction will be enhanced through, for example, management and employee development, training, employee participation, and good work processes and support systems.

IFE will be visible and profiled in research debates and public discourse on topics where we have the experience and knowledge to contribute insight that benefits society. IFE will strengthen its role as a contributor to society through increased participation in the media, at conferences, and in boards, councils and committees where decisions about measures and societal development are made.



IFE will further develop research in energy, the environment and human-centred digitalisation in order to be the preferred partner for business and the public sector in the development of more sustainable and robust societies. Photo: Pixel & Co

IFE's strategy for value creation

For the period 2023–2028, IFE has the following strategic direction for value creation through innovation and commercialisation:

- Actively contribute to value creation in society through IFE's research.
- Strengthen IFE Invest AS in order to stimulate research innovation and commercialisation and actively follow-up companies.
- Establish a network of relevant business incubators, TTOs and investors.

IFE considers it part of our social mission to stimulate value creation through innovation and commercialisation in research. The most important contribution is through research and development

projects that we carry out for the business sector. In these projects, we help companies develop or improve operations, products and services with a view to safeguarding their competitiveness and market position. This helps retain existing jobs and develop new ones as part of the value creation in Norway. IFE's strategy for its research activity is based on our role as a partner for the business sector that increases value creation.

IFE has extensive experience in obtaining patents and licences and in forming spin-off companies from research activities. The current FORNY programme under the Research Council of Norway for commercialisation activities will be phased out in 2023. The new arrangement requires the institutes themselves to take more responsibility for commercialising their research, and IFE's many years of experience means we are well equipped for this.

IFE Invest will be the institute's tool for promoting innovation and commercialisation from our research, in addition to active follow-up and developing the companies in the portfolio. IFE will not tie itself to one business incubator or TTO. We will use the actor or actors with relevant expertise, networks and access to capital that fit the individual case. IFE Invest will also further develop the strategic collaboration with relevant investors and industry players in Norway and abroad.

IFE's strategy for developing its properties

IFE has large properties in Kjeller and Halden, and has set the following strategic direction for 2020–2028:

- Develop buildings and infrastructure in order to maximise the value and use it to promote the foundation's research and development.
- Maintain a reasonable risk and investment level for the foundation.
- Transform the property at Kjeller into one of Norway's most attractive research and technology parks in the fields of energy, environment, climate, civil protection, digitalisation and radiopharmaceuticals.
- Develop and operate service deliveries and take responsibility for results as part of the property activity.

IFE considers it part of our social mission to stimulate value creation through innovation and commercialisation in research. The most important contribution is through research and development projects that we carry out for the business sector. Photo: Pixel & Co



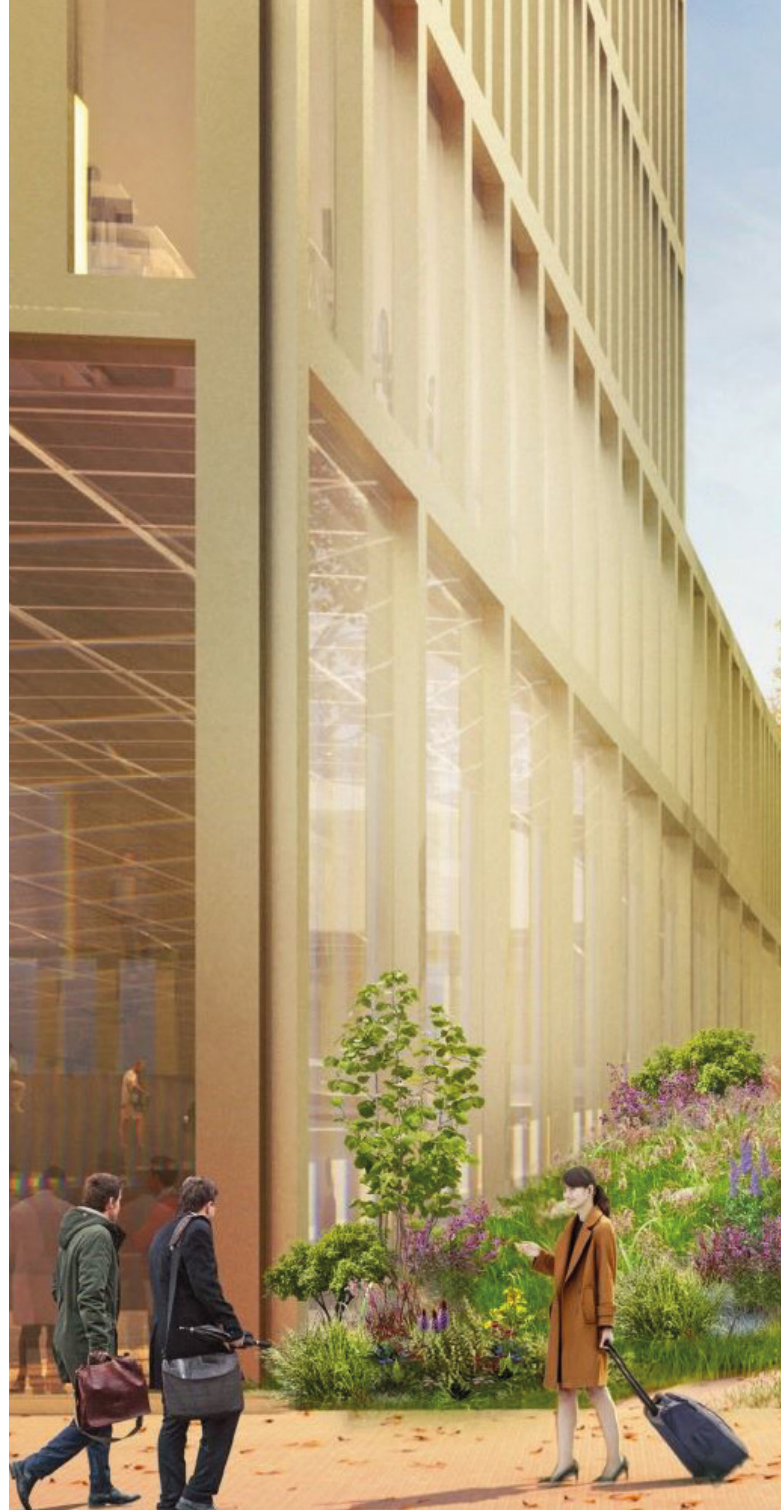
The process of developing the properties and the investments will extend beyond the strategy period and will require considerable investment. Although ambitions are high, they are based on current capabilities, which are being systematised and strengthened. In order to maintain a responsible level of risk and investment for the foundation, the development will take place gradually, development partners will be sought for and a proactive approach will be taken to concept and service development to help increase the value of the properties.

IFE has devised a detailed zoning plan as a basis for transforming the property at Kjeller into one of Norway's most attractive research and technology parks. This plan corresponds to the master plan for the area, which has three key, comprehensive strategic priority areas: sustainability; safety and preparedness; digitalisation.

We will attract partners who conduct research and innovative activities within the priority areas of IFE and its partners, with a focus on energy, environment, climate, civil protection and digitalisation, as well as radiopharmaceuticals. The park will specialise in laboratory-intensive research and facilitate testing and small-scale production. The level of both physical and digital security will be high, as will the level of sustainability.

The area will complement other leading environments in the region, including Oslo Science City and Oslo Cancer Cluster, and will be attractive to international companies looking to form collaborations with other players in the Oslo area, as the location is close to Gardermoen and Oslo city centre.

Together with partners, IFE will take an active role in the development of a research and technology park in Halden. These partners will support and



highlight IFE's leading position in digitalisation, decommissioning and cyber security, and the ambition is to be an international centre for research and innovation companies in these areas.

IFE will consider the development, ownership and operation of properties in other geographical areas if this supports the foundation's purpose and activities.

IFE has devised a detailed zoning plan as a basis for transforming the property at Kjeller into one of Norway's most attractive research and technology parks. Photo: Grape Architects



IFE's strategy for nuclear activities

After deliberating over the white paper on the safe decommissioning of Norwegian nuclear facilities and disposal of nuclear waste (Meld. St. 8 (2020-2021) Trygg nedbygging av norske atomanlegg og håndtering av atomavfall), the Parliament decided that the State will assume responsibility for the nuclear facilities. To this end, the facilities, licences and organisation will be transferred from IFE to

NND as soon as possible. It was also decided that the government will finance the decommissioning and the disposal of IFE's nuclear waste. Before the transfer takes place, the Norwegian Radiation and Nuclear Safety Authority (DSA) requires the following conditions to be met: NND has obtained a licence, IFE has complied with all relevant orders issued by DSA, the safety reports for the nuclear facilities have been updated and approved, the agreement framework with the State has been established, and



IFE must work actively and constructively with the government and the supervisory authorities to secure the necessary national clarifications, with a view to safeguarding the safe and efficient decommissioning of the nuclear facilities. Photo: Pixel & Co

the facilities at Kjeller and Halden that are not to be transferred to NND have been delicensed.

In order to facilitate the transfer of activities and ensure a high level of safety in all parts of the activity, IFE has set the following strategic direction for nuclear activities for the period 2023–2028:

- Ensure safety, security and operation at the nuclear facilities.
- Facilitate and prepare the transfer of activities to NND by complying with orders issued, finalising safety reports, delicensing the facilities and helping to put in place the main agreement between IFE and the State that regulates the transfer of business.
- Separate the nuclear activities from IFE's other activities in terms of systems, infrastructure and organisation as far as possible within the scope of the licences.
- Work closely with NND to develop expertise, systems and infrastructure so that the transfer of activities is as seamless as possible.

The white paper on the disposal of nuclear waste provided an important framework as well as clarification, but there is not yet a national plan for how this is to be implemented. Norway has no national requirements framework for facilities and

organisations in the transition phase and during decommissioning, there is no comprehensive national regulatory framework for decommissioning the Norwegian nuclear programme, and the interpretation of national requirements and regulations combined with international guidelines and best practices has not been clarified. In addition, no agreed risk profile for the current state of nuclear facilities and infrastructure has been established. IFE must work actively and constructively with the government and the supervisory authorities to secure the necessary national clarifications, with a view to safeguarding the safe and efficient decommissioning of the nuclear facilities. The disposal will cost Norway an estimated NOK 25 billion over the next few decades, and IFE is working to ensure that safety and socioeconomic considerations are factored in.

The transition period during which preparations are made for the transfer of activities from IFE to NND will take time, and the actual decommissioning by NND will take several decades.

Safe decommissioning of nuclear facilities requires expertise and experience. There is a lack of relevant expertise in Norway and internationally. Securing sufficient resources with security clearance is

quite a challenge. IFE and NND must carry out the necessary recruitment process in parallel during the transition period, but will work together on the exchange and development of expertise as far as possible. IFE and NND will recruit new employees to ensure that future senior managers receive the necessary training and to safeguard succession planning. In addition, IFE will help qualify more candidates through collaborations with NND and educational institutions.

IFE's strategy for developing the potential in radiopharmaceuticals

IFE has developed its radiopharmaceutical business, which now holds a unique international position as a development partner, contract manufacturer, wholesaler and distributor. Further growth requires investment in production facilities and infrastructure that exceeds IFE's investment capacity and risk profile as an independent foundation. In order to facilitate further growth and value development, IFE has decided to spin off radiopharmaceuticals into a separate company, Agilera Pharma AS.

IFE has set the following strategic direction for Agilera Pharma for the period 2023–2028:

- Secure new external investors who have the expertise, funding and networks to develop the potential in Agilera Pharma, and in the long term sell the interest in the company if this is conducive to creating the greatest value for the foundation.
- Ensure that Agilera Pharma has premises and infrastructure in the research and technology park at Kjeller that enable it to expand and increase its customer base.

The development of radiopharmaceuticals is an attractive niche for both the pharmaceutical industry and investors. Market studies indicate major global growth in the coming years and a significant increase in the need for the services, expertise and infrastructure of Agilera Pharma AS.



In order to facilitate further growth and value development, IFE has decided to spin off radiopharmaceuticals into a separate company, Agilera Pharma AS. Photo: Pixel & Co



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