

AN INNOVATIVE AND SUSTAINABLE NORWAY

SHORT VERSION OF THE WHITE PAPER, REPORT NO. 7 TO THE STORTING (2008–2009)



NORWEGIAN MINISTRY
OF TRADE AND INDUSTRY



« TODAY WE ARE BUILDING THE WELFARE SOCIETY OF THE FUTURE. BUT BEFORE WE CAN DISTRIBUTE WEALTH, WE NEED TO CREATE IT. »

Prime Minister Jens Stoltenberg



AN INNOVATIVE AND SUSTAINABLE NORWAY



We face major challenges in a world that is constantly changing. The level of competition in industry has increased due to globalisation, and the threat of climate change and the scarcity of natural resources are increasingly more noticeable. The balance between people requiring care and those who are able to work places the welfare system under pressure.

Recently we have been confronted with great challenges due to the turbulence in the financial markets. This White Paper is not about what our policy should be to deal with this turbulence, as the Government has already put forward and will continue to propose measures that are vital for Norwegian industry. During times like these, with challenges and unrest, we need to plan long-term. The Government's innovation policy shall provide for long-term sustainable wealth creation in Norway.

To meet future needs, it is the Government's view that we need sound and predictable conditions for industry. We must actively provide for knowledge development, creative thinking, restructuring and innovation. Renewal has always been important for economic growth in Norway.

We must act now so that Norway shall be among the world's best countries to live in, not just for us, but for our children and grandchildren too. We must be successful in achieving renewal through development of new technology, new products and new solutions. We must lay the basis for more innovation in both the private and the public sectors.

The Government will establish favourable conditions for competitive enterprises throughout Norway and develop a society where we provide for our needs while preserving the resource base for future generations. Our goal is to have as much wealth creation as possible, while reducing the strain on the environment.


We must make a concerted effort. Enterprises in the private and the public sectors must take upon themselves the responsibility for innovation. The authorities will provide a framework that supports their innovation activities.

To innovate means to do something new in order to create value. People who live in a stable society based on equality, security, equitable distribution and job satisfaction provide the best starting point for increased innovative ability. Human beings constitute the most important resource in our effort to achieve an innovative and sustainable Norway.

Sylvia Brustad

Sylvia Brustad
Minister of Trade and Industry





« INDUSTRY IS GIVEN LATITUDE TO BE INNOVATIVE WHEN WE
HAVE OVERALL POLICIES PROVIDING A SOUND ECONOMIC
FRAMEWORK. »

Kristin Halvorsen, Minister of Finance



AN INNOVATIVE AND SUSTAINABLE NORWAY

Providing good conditions for innovation must occur on many fronts. Innovation policy covers a broad spectrum of society, and no one should believe that the Government isn't already doing a great deal to contribute to more innovation. We are strengthening the welfare scheme which ensures a high level of education and high participation in the work force, as well as provides a safety net during reorganization processes. Our economic policy contributes to good general conditions and makes it possible for industry to innovate. We are strengthening the policy instruments for innovation and have increased the efforts in research, design, entrepreneurship and simplification.

The Government will establish favourable conditions for increased innovation by advancing:

- **A creative society** with a sound framework and a favourable climate for innovation. We must have high regard for inquisitiveness, thirst for knowledge and the creative urge. A creative society allows people to attempt something and fail, while also appreciating those who succeed. The Norwegian welfare state provides a good starting point for a creative society with a significant capacity to restructure and innovate.
- **Creative human beings** who develop their resources and competences, while grasping the possibility to apply them. Creative human beings share knowledge with other people, and use their creativity to produce new and better solutions. The authorities will help to release the creative impulse by offering sound education, research, and adaptation of working life, as well as by working to bring about a culture that encourages creativity and entrepreneurship in society.
- **Creative undertakings** that develop profitable innovations. Innovation is an important part of enterprises day-to-day efforts to develop better products for their customers and generate greater value for their owners. No undertakings today escape the demand to make continuous improvements. The authorities must provide enterprises with more possibilities to be innovative, and must provide support and regulations where the market fails to provide the necessary impetus.

The Government will continue to develop its innovation policy, among other things, by improving our knowledge base and by establishing strategy councils in specific areas. We have already established strategy councils for tourism and the maritime industry. Now we will establish strategy councils for small and medium-sized enterprises and environmental technology.



« INNOVATION AND ENTREPRENEURSHIP ARE IMPORTANT FORCES
IN FOSTERING RESILIENT INDUSTRIAL ACTIVITIES THROUGHOUT
OUR COUNTRY. »

Liv Signe Navarsete, Minister of Transport and Communications

INNOVATION IN NORWAY

We have provided a sound basis for high levels of both wealth creation and welfare. In international terms, Norway is one of the leading countries with regard to wealth creation and productivity. This is not least due to our capacity to exploit scarce resources, among other ways, by means of new technological and organisational developments based on new and improved knowledge.


Innovation does not merely encompass research, high-technology and products. The Government believes that it also concerns issues such as employees trust and participation, as well as low wage dispersion. Strong welfare schemes have crucial importance in our ability to adapt and innovate.

Although we have been successful in establishing favourable conditions for innovation and restructuring, there is still room for improvement in a number of important areas.

The Government will establish better conditions for small and medium-sized enterprises. We want more women, young people and elderly people to have opportunities to contribute to innovation at their workplaces and to start their own enterprises.

The quality of the education system must be strengthened in order to ensure access to manpower with sound and relevant competency. Private research investments must be strengthened in order to safeguard long-term knowledge development in industry. At the same time, the Government will increase research investments in the public sector, and make it easier for commercialising good business ideas.

The public sector is facing major challenges, which cannot be solved merely by increasing resources and personnel. It is also necessary to innovate new solutions and to organise work in a smarter way. This applies not least to the healthcare sector. People must be able to trust solutions from the public sector. The quality of services shall not be dependent on the individual user's financial situation. A sound, efficient and innovative public administration is also a valuable element to ensure stable and predictable conditions for industry.



« WE NEED KNOWLEDGE TO CREATE WEALTH. THEREFORE, WE NEED
AN EDUCATION SYSTEM IN WHICH MORE PEOPLE FINISH EDUCATIONS
WHERE THEY HAVE GAINED MORE KNOWLEDGE. »

Bård Vegar Solhjell, Minister of Education



KNOWLEDGE AND COMPETENCE

A competent workforce is essential for innovation and increased wealth creation. We acquire knowledge and competence through education and training, and develop it further through work experience, learning and knowledge sharing.

The demand for competent personnel provides challenges for the education system. International surveys have shown Norwegian pupils to be less proficient in reading and science subjects than those of countries we usually compare ourselves with. Collaboration between education and working life has been strengthened, but there are still major gaps both in scope and intensity. Both work tasks and production processes are becoming increasingly complex, and therefore the need for continuous competence development and on the job training is increasing.

Much of the knowledge we need is developed abroad. Knowledge and education have been internationalised. This demands that we are able to keep up with developments, and that we internationalise our knowledge and education system.

The Government will improve the quality of Norwegian education at all levels. We have already presented a white paper on quality in basic education. The education system must provide development opportunities for all people. We will strengthen the collaboration between education and working life, as well as invest in lifelong learning through on the job training.

Today's pupils and students are the ones who will be creating the job opportunities and values of tomorrow. By concentrating on entrepreneurship in the education system we will strengthen future generations attitudes and knowledge of entrepreneurship.

The Government will:

- Submit a white paper to the Storting (The Norwegian Parliament) on teachers role and education
- Submit a white paper to the Storting on internationalisation of education
- Follow-up the Government's strategy for promoting mathematics, science and technology
- Review how the education sector and working life are working together, and consider various strategies to strengthen this field
- Submit a white paper to the Storting considering the structure of the education system with a view to future competence needs
- Advance a mentality encouraging entrepreneurship, among other ways, by presenting an action plan on entrepreneurship in education, with particular emphasis regarding higher education.



« THE ESTABLISHMENT OF REGIONAL RESEARCH FUNDS WILL ENSURE
INNOVATIVE ACTIVITIES THROUGHOUT THE COUNTRY. »

Magnhild Meltveit Kleppa,
Minister of Local Government and Regional Development

INNOVATIVE UNDERTAKINGS

In order to prevail in an increasingly tough international competition, we need innovative enterprises and industrial environments throughout Norway. Our enterprises are themselves responsible for utilising the potential that exists in the market, and many undertakings have demonstrated an excellent capacity to innovate and create value. The authorities are responsible to create conditions that improve the enterprises' potential to be innovative.

Creative human beings that share their knowledge and experience, and apply their creativity to reach new and better solutions, are important for us to reach the goal of an innovative and sustainable Norway.

It is becoming increasingly important for Norwegian enterprises to be aware of how to protect their innovations, for example, through patents, trademarks and design rights. Knowledge of this kind may prove to be of decisive importance for the enterprises' potential to make a profit on their innovations.

Adequate and simple rules save industry unnecessary costs and release resources for more wealth creation. Simplification of rules and administrative tasks therefore increases wealth creation and competitiveness. It is the goal of the Government to reduce the use of time and money by industry in their compliance with these rules.

The administrative apparatus must be a good partner that helps to activate innovation and wealth creation in industry. The Government wants consideration of economic capacity, social responsibility and the environment to play a role throughout the work of the administrative apparatus.

The Government will:

- Strengthen the instruments for innovation, among other ways, by increasing allocations to research and innovation and by initiating overall evaluations of Innovation Norway and the Industrial Development Corporation of Norway (SIVA)
- Ensure that the values created are well protected, among other ways, by providing a package of measures for patents and other rights with an improved training provision and a more up-to-date statutory framework
- Strengthen the use of design as an innovation tool by setting up a design-driven innovation programme
- Focus on the employees, and consider new measures for promoting staff-driven innovation in collaboration with the Norwegian Confederation of Trade Unions and the Confederation of Norwegian Business and Industry



« IT IS THE GOVERNMENT'S GOAL THAT NORWEGIAN ENTERPRISES SHALL GROW AND DEVELOP, AND THEREBY GRASP THE GREAT POSSIBILITIES AVAILABLE TO THEM IN THE GLOBALISED WORLD. »

Jonas Gahr Støre, Minister of Foreign Affairs

START-UP AND GROWTH

Establishing a business enterprise requires considerable effort. Being an entrepreneur requires the ability to take risks, think innovatively, see possibilities, and do something with them by effectuating them into the marketplace. Entrepreneurs also depend on society encouraging the establishment of new activities. The public sector can make it easier, among other ways, by focusing on education, competence building and networks.

In 2004, Norwegian small and medium-sized enterprises employed 57 percent of the Norwegian workforce and constituted 54 percent of total sales. Altogether 99 percent of all Norwegian enterprises are small-size. In many ways, these enterprises constitute the backbone of Norwegian industry, thereby contributing to innovation, wealth creation and jobs throughout Norway. It is therefore important to examine the conditions of small and medium-sized enterprises.

The Government wants to see more people being given the opportunity to become entrepreneurs and starting their own businesses. That is why the Government will improve the conditions for women, as well as younger and older people wishing to become entrepreneurs.

Access to capital is essential for newly established enterprises. The Government wants to see effective public sector measures in the capital market conducive to the implementation of economically profitable projects that would not have been funded by the private market.

The Government will:

- Develop an overall industrial strategy for small and medium-sized enterprises
- Elucidate the need for new measures to support female entrepreneurs, and consider how better provisions can be made to realise the good ideas of people with long experience
- Establish favourable conditions for commercialising good business ideas through better information about current policy instruments, and assess new policy instruments



« WE ARE GOING TO ENSURE THAT THE NORWEGIAN FISHING INDUSTRY MAINTAINS ITS LEAD INTERNATIONALLY, BY AMONG OTHER THINGS, FOCUSING ON RESEARCH AND INNOVATION. »

Helga Pedersen, Minister of Fisheries and Coastal Affairs

FOCUS ON DOING WHAT WE ARE GOOD AT

Norway has abundant natural resources and a population with a high level of competency. This gives us a competitive edge for further development in certain industrial areas. Exploiting these advantages is of decisive importance for our future growth and welfare. We must focus on doing what we are good at doing.

Norway is a leading maritime nation, as well as the world's second largest exporter of fish and fish products. In the energy sector, Norway is a major power, with abundant resources and a considerable energy production industry. Tourism is among the world's fastest growing industries and we have a number of world class tourist destinations. Service industries have a major significance for Norwegian wealth creation, with internationally leading enterprises in their sectors. There is a considerable potential for industrial development in the High North.

Development and use of new environmental technology may help to solve major environmental and resource problems in Norway and abroad. Annual sales of environmental technology total in excess of NOK 8 000 billion on the world market, and growth is considerably more rapid than in many other technology markets. The Government's ambition is for Norway to become a leading nation in environmental technology.

The Government will:

- Focus on environmentally friendly innovations, among other ways, by allocating more research funds to development of environmental technology, by setting up a strategy council for environmental technology and by preparing a national strategy for environmental technology
- Invite the organisations in service industries to a dialogue with a view to developing precise policy instruments for increased innovation in these areas
- Follow up investments in the High North strategy and present a national strategy for marine bioprospecting
- Present an overall strategy for marine industries
- Follow up the national strategy for the tourism industry
- Follow up the national strategy for the maritime industries
- Continue efforts on encouraging further industrial development based on our abundant energy resources
- Participate in investigations of the potential for a future-oriented ocean laboratory



« WE MUST INCREASE WEALTH CREATION WHILE
AT THE SAME TIME REDUCE THE PRESSURE
ON THE ENVIRONMENT. »

Erik Solheim, Minister of the Environment
and International Development

RESEARCH AND DEVELOPMENT

Research generates new ideas and solutions that can contribute to increased innovation. It also contributes to converting innovative ideas into concrete solutions. The research initiatives at companies, universities, colleges, health enterprises and institutes ensure that today's and tomorrow's undertakings are better equipped for the future.

If new knowledge is to result in innovation, it must be put to use. This requires good interaction between undertakings and research institutions. Universities, colleges, health enterprises and institutes participate in international research collaboration and are important entryways for knowledge and technology developed in different countries.

Both the private and the public sector constantly require new knowledge. The Government will focus on R&D which strengthens existing industry, while also contributing to the emergence of new activities. An increased focus on research promoting innovation must be followed up by work on commercialisation of research results.

The Government will:

- Strengthen research in industry by increasing allocations to user-oriented research programmes and to R&D contracts
- Continue the *Skattefunn* tax relief scheme
- Contribute to improved interaction between industry and research by strengthening the industrial doctorates system and efforts related to commercialisation of research results
- Establish favourable conditions for long-term knowledge building, and increase investments in research equipment
- Strengthen regional research activities by allocating NOK 6 billion to regional research funds
- Submit a white paper on research to the Storting



« TO IMPROVE THE QUALITY OF HEALTHCARE SERVICES WILL REQUIRE THAT WE DEPLOY THE FORCES AT OUR DISPOSAL IN SEVERAL AREAS. »

Bjarne Håkon Hanssen,
Minister of Health and Care Services

INNOVATION IN THE PUBLIC SECTOR

The Norwegian public sector is considered to be among the best in the world – and it shall continue to be so in the future. Innovation in the public sector is therefore of great importance. As the employer of approximately 30 percent of the country's workforce, with a volume of procurements amounting to approximately NOK 249 billion, the public sector constitutes an important part of the Norwegian economy.

The Government wants to have a sustainable, efficient and accessible public sector that can modify its pace in order to adjust to changing needs. A good, innovative public administration also ensures stable and predictable conditions for industry.

During the next fifty years, the number of pensioners per employed member of the population will almost double. This will affect both the tasks and the costs of the health-care sector. The public sector – and not least the healthcare sector – must utilise their resources better by working in more intelligent ways and discovering new solutions through research and innovation. In many cases, innovation in the public sector may contribute to increased wealth creation in industry.

Public procurements can be conducted in such a way that they contribute to environmentally friendly and innovative solutions. The Government wishes to promote innovation through public procurements, among other ways, by means of supplier development and competence development of public procurers. Innovation should be given greater priority in procurement processes.

The Government will:

- Review incentives for renewal of the public sector
- Appoint a public committee to propose how to make better conditions for innovation in the social care sector
- Extend the duration of the demand-driven innovation and business development in the health sector to ten years, and also extend it to include research-based innovation
- Involve the users in the development of services through national surveys and measurements of performance achievement
- Establish favourable conditions for wealth creation based on sound solutions in the public sector and increased use of public data
- Strengthen the municipal sector as a service provider
- Increase competency on how public procurements can contribute to innovation and simplify the use of R&D contracts for public procurers
- Simplify interaction with the public sector and ensure greater use of innovative solutions, among other things, electronic signatures
- Strengthen the public R&D contract scheme, with a particular focus on the promotion of innovation in the social care sector
- Aim at strengthening clinical testing units for trial of new medicines



THE ROAD AHEAD

The Government has now submitted to the Storting the first White Paper on innovation. It provides insights into major factors affecting our innovative capability, lays a sound basis for better coordination of innovation policy, while also revealing a considerable necessity to continuously update our knowledge in this area.

We will arrange for discussions and dialogue between the authorities, industry, organisations, as well as the public sector, concerning the status of our innovation efforts and the new challenges we must tackle together. We will pursue this, amongst other ways, through strategy councils already established and those that will be set up in the future.

Together we shall map out the road ahead.



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