

1. Introduction

1.1 Summary

The Government's vision for an active industrial policy is:

Norway will be a world leader in industry and technology.

This means that we must become greener, smarter and more innovative to foster future growth, jobs and tax revenues. The Government will facilitate growth in both existing and new enterprises and promote Norway as an attractive country for industrial activity. Economic stability and a weak krone are important factors for creating new growth in businesses and industries exposed to foreign competition, and the Government takes this into consideration when forming its economic policy.

Norway has a proud industrial history. We have many strong industrial communities, and our industry will continue to evolve through the exploitation of our abundant natural resources, our capability to adapt, knowledge transfer between industries and exploitation of new market opportunities. We have a small and open economy, and trade with foreign markets has generated substantial revenues.

We have strong academic communities and supply enterprises that are based on Norwegian expertise, but we also acquire capital and knowledge from abroad. Flat organisational structures, a high level of trust and a good social safety net foster improvement, development and industrial restructuring so that expertise can be transferred to new profitable activities.

Industrial activity contributes to business development throughout the country. Although Norwegian industry is dominated by certain sectors, it is far more diversified than before. In the past local communities were often dominated by cornerstone companies. Today we see growing interaction between a wider variety of businesses and between research and education. Other contributing factors that are rarely mentioned are the roles of industry as a developer of technology and supplier to other businesses, and as a driver of technology development in other sectors. Industry and the ripple effects it creates therefore continues to be of high significance for Norway and for the many local communities throughout the country.

The industry contributes to building the welfare of our country. We must build on the strong industrial communities and enterprises we already have. We also need to develop new profitable business activities that will help increase total value creation. We need enterprises – both existing and new – that can take advantage of favourable framework conditions, a skilled labour force and extensive technology and market opportunities to create new activities and jobs in Norway.

Norwegian business and industry is changing. Continued globalisation and an ageing population affect the national and international framework conditions that Norwegian industry is facing. The petroleum industry is highly significant for Norway's economy. Although the petroleum industry will continue to be important for the Norwegian economy for many decades to come, industry demand will no longer contribute as strongly to supporting activity in the mainland economy. Our main challenge will be to strengthen other parts of the private sector and facilitate growth and employment in industries exposed to international competition. Many industries must contribute to achieving this, and industry will play an important part. Simultaneously, we are facing climate challenges that require society – both in Norway and internationally – to make the transition to a more sustainable, low-emission

society. We must think greener, and many of tomorrow's low-emissions solutions will need to come from or through cooperation with industry.

In parallel, we are facing technology advancements in the area of digitalisation and other enabling technologies which over time will transform Norwegian industry as we know it. This is occurring at a rapid rate. New materials are being used, and processes are being changed, automated and digitalised. It is a matter of more effective, more precise and more automated production, as well as of new products, new value chains and new business models. Combining this trend with our industrial skills base presents many new industrial opportunities.

Technology development is reducing the importance of wage costs when enterprises decide where to produce. More emphasis is now placed on delivery time, quality, flexibility, development potential, proximity to expert communities, suppliers and customers. This trend presents new opportunities to relocate industrial activity to a high-cost country like Norway, something we are already witnessing.

This is the backdrop against which the Government now presents the first white paper on industry since 1981. Then, like now, the focus was on technology development. But at that time the situation was rather different. It was a period when Norwegian and international petroleum activities were experiencing strong growth. Many other industries underwent major restructuring as a result of fierce competition from low-cost countries, and the structure of Norwegian industry was far less diverse than it is today. Although environmental awareness was growing, climate challenges were not a key issue.

In Norway we have succeeded in creating significant value, providing us with a level of welfare that is among the best in the world. We are producing goods and services effectively and to a high standard, and at the same time hold a strong position in a number of key markets. Norwegian enterprises have expertise in different fields, something that has evolved over many years of research, development and practical experience. We also have a strong industrial culture based on trust, inclusion and cooperation, all of which promotes advancement, development and restructuring. Our industry has a workforce that is skilled, that cooperates, and that places emphasis on exploiting opportunities for profitable activities.

Over the next 10 years, the rising living standards we know today may be challenged. Good welfare schemes are contingent on a good balance between those who contribute to government budgets and those who receive benefits. We must create more value, and industry must contribute.

The need for restructuring will grow, and this in turn will create both challenges and opportunities. Norwegian industries and enterprises have always had to adapt, and modern-day business and industry is radically different from that of 40 to 50 years ago. Over time, restructuring has led to exceptional productivity growth in industry. Technology development changes production processes, products, services, business models and trading patterns. New actors are entering the market and challenging the position of established businesses. This trend will affect the labour market. New work tasks will arise, while others will disappear or be automated. Skill requirements will change. In addition to changes that can be attributed to digitalisation and advances in enabling technologies, Norway has to become less reliant on the oil industry as the main engine in our economy. More Norwegian enterprises than ever before must find their revenue base in markets outside the petroleum industry. Simultaneously, enterprises in all industries must facilitate sustainability and low-emission solutions.

The will to adopt new technology is strong, and our digital infrastructure offers ample value

creation opportunities. We have a number of well-developed clusters and networks that are based on exploiting our natural resources in the ocean and on land. The expertise, overviews and collaborative culture of our business clusters can lay the groundwork for further growth.

We must address both the challenges and the opportunities presented by climate and environmental issues. Norwegian industry has already achieved significant success in adapting to increasingly stringent emission and pollution requirements by adopting smarter production processes, new technical solutions and new technology. Efforts to adopt more climate-friendly and environmentally friendly production methods continue. These will help enhance green competitiveness and may have positive effects for Norwegian industry in both national as well as global markets, where emphasis is increasingly placed on environmental aspects.

Yesterday's solutions will no longer adequately address current and future challenges. We must constantly think smarter and more innovatively. The Government's vision for Norway is to become a leading knowledge-driven industrial nation. Norway will need more high-productivity industries and jobs in the future, industries that can finance and maintain a high level of welfare.

The Government's industrial policy is to achieve greatest possible total value creation within sustainable limits. The Government's industrial policy will contribute to achieving the same main objective. The Government will contribute to providing favourable framework conditions for Norwegian business and industry. There are several features of industry that distinguish it from other sectors in Norway. It has strong local entrenchment while at the same time operating largely in global markets. It is highly export-oriented and is exposed to fierce international competition, a situation that requires continuous restructuring and improvement. Our front-runner model means that wage trends set the premises for wage levels for the rest of Norway, and thus has a bearing on other sectors as well as on society at large. The Government's focus on research and innovation has a direct impact on industry. Norwegian industry is allocated a large share of research and development funding, making it well equipped to backsource high-technology production to Norway. These will all be central issues in the Government's consideration of the present and future situation for Norwegian industry.

Norway stands out in the sense that our industry has always been based on renewable energy. This has provided us with a unique starting point for future development. In the transition from a low-emission society, industry will play a key role in developing new and smarter solutions that can replace activities which currently produce emissions.

The Government will facilitate conditions for business and industry through favourable framework conditions that support the development of new activity and increased value creation. The Government has given priority to growth-oriented tax relief for Norwegian enterprises and ordinary employees. Appropriations for market-driven research and innovation have risen significantly. And we have facilitated faster construction of roads and railways. The Government has also focused on simplification and digitalisation to enable enterprises to spend less time on reporting and more time on creating value and jobs.

High employment rates and rising living standards will in future require an economic policy that will accommodate improvement, innovation and restructuring rather than preserve old organisational structures and production methods. The tax level should therefore continue to be lowered, and infrastructure, government regulation and the education system must be designed in such ways as to provide enterprises with competitive conditions.

Norway is already a leading industrial nation in oil and gas activities, and the Government will

facilitate Norway's ability to maintain this position for a long time to come. Norway is also a leading industrial nation in sectors that rely on our natural resources in the oceans and on land, such as energy-intensive industry and maritime and marine activities. We have several sectors with significant potential to contribute to future value creation. We have a world-leading petroleum-related service and supply industry which still has the potential to significantly contribute to our future welfare, and new opportunities exist for industrial development based on the expected growth in ocean industries. We have a unique processing industry that can take advantage of abundant supplies of renewable energy. To reinforce this, we must exploit our competitive advantages and build on our accumulated know-how and experience.

Norway has the potential for continued growth in many other sectors that are based on natural resources, such as fish, minerals and forests. These resources will be important in the transition to a high-technology society, a low-emission society and to a more bio-based economy.

We also observe interesting developments in knowledge-based areas such as ICT and digitalisation, health, biotechnology and the creative industries, where in some areas we have knowledge and research communities that are at the forefront of their respective fields and where the potential for further development is considerable.

To be a world leader in industry and technology, we must build on what we already have and think innovatively. In addition to the above-mentioned natural resources, Norwegian industry has a skilled workforce, is highly digitally developed, and has strong clusters and networks in a range of sectors. We have the ability to continually improve ourselves, and the technological changes are conducive to Norwegian business and industry. This offers good opportunities to develop new enterprises and new products. Furthermore, we have strong enterprises in many industries with potential for growth. We therefore possess all the prerequisites for achieving our vision for Norway of becoming a world leader in industry and technology.

The Government sees significant opportunities for a strong Norwegian industry in the future. In this white paper the Government presents the key framework conditions in an active industrial policy which it considers to be decisive for ensuring that Norwegian industry successfully meets current and new challenges in the time ahead:

Sustainable conditions

Global warming is one of the major challenges of our time, and can only be resolved through broad international efforts. The spread of environmental contaminants, the loss of biodiversity, local pollutants and pressure on water resources also represent serious problems. If we fail to address environmental considerations and make a timely transition to a low-emissions society, we risk serious adverse consequences for value creation and for society. Industry has a particular role to play as supplier of climate-friendly solutions at home and abroad, and itself produces emissions that must be addressed. A good and sustainable solution to the challenges faced by the industrial sector will make a significant contribution to the transition to a low-emission society.

The Government will pursue a proactive policy in support of a green transition of the Norwegian economy, and will formulate a strategy for green competitiveness to prepare Norway and business and industry for a low-emission future. The Government will present a strategy for green competitiveness in connection with the central government budget for 2018.

The Government will also contribute to ensuring favourable conditions for Norwegian energy-intensive industries. The Government will contribute to counteracting the risk of carbon leakage by, inter alia, continuing the CO2 compensation scheme for energy-intensive industries. The Government's vision is that a CO2 compensation scheme should continue to run after 2020. The Government will work towards achieving this goal.

The Government wants to further develop the positive cooperation within the industry sector that arose in connection with development of a road map for the processing industry, and will therefore establish a coordination strategy called Prosess21. The primary task for Prosess21 will be to examine the best way of pursuing a strategy of minimal emissions and sustainable growth for the processing industry, which must contend with strong international competition and which supplies environmental products for other industries in Norway and abroad.

The Government will follow up the commitment to promote Norwegian green solutions to increase exports and to attract foreign investments to Norway, inspired by the State of Green initiative in Denmark. The Government will also strengthen Norway's profile as a leading maritime nation.

In addition, the Government will use financial instruments such as taxes and support schemes to promote energy efficiency, development of environmental technology and other investments aimed at reducing emissions that are harmful to the climate and the environment. The Government has already strengthened the Environmental Technology Scheme with over NOK 274 million since its establishment in 2013, and the 2017 appropriation is the largest ever. Furthermore, considerable funds have been allocated to environmental research projects via the Research Council of Norway, and the Government has strengthened its commitment to environmentally friendly shipping.

Good access to capital

Access to capital is an important requisite for developing and restructuring business and industry. Generally there does not seem to be a shortage of capital in Norway, but particularly small and medium-sized enterprises can sometimes find it difficult to gain access to investment capital. The Government will now appoint a public committee to examine whether or not potentially profitable projects in Norway have sufficient access to capital.

The Government is concerned with ensuring that profitable enterprises have access to capital. In its current term of office, the Government has therefore reduced taxes by around NOK 21 billion by lowering corporation tax, personal tax and capital gains tax. Inheritance tax has been abolished, thereby easing the liquidity burden on the transfer of family-owned businesses.

The Government has strengthened a number of risk relief schemes for innovative projects by, inter alia, allocating funds to new nationwide seed funds and increasing the scope of innovation loans granted by Innovation Norway in the central government budget for 2017. The Government will now introduce an SME discount in Norway, reducing capital requirements for banks lending to small and medium-sized enterprises. The Government will also introduce a scheme offering tax incentives for long-term investments in start-up enterprises.

To aid Norwegian enterprises to succeed in international markets, the Government will now expand GIEK's range of export guarantees to also include guarantees for investments in Norway that contribute to increasing exports. The Government will also form a strategy for export and internationalisation to provide Norwegian enterprises with favourable and competitive framework conditions in order to equip them adequately when facing restructuring challenges and fierce international competition. The Government will develop

Invest in Norway to facilitate foreign investments in Norway and make Norway a more attractive land for investments. In its export strategy the Government will consider creating a Global Growth Programme aimed at increasing Norwegian exports by providing Norwegian growth enterprises with skills in how to achieve market shares internationally.

Good access to expertise

Updated knowledge at all levels in enterprises is needed in order to achieve our visions. Increasing digitalisation and the development of new digital technologies affect how enterprises, logistics and value chains are organised, and how enterprises develop relationships with customers. Norwegian industry depends on having the world's best qualified and most productive employees in their respective fields. The Government will therefore strengthen the coordination between education and skills policy on the one hand and industrial policy on the other in order to foster good value creation ability in the industry of the future.

The Government will build on our existing knowledge base and facilitate continuous scientific innovation in education and research and in industry itself. The Government will enhance transfer of knowledge and cooperation between industries in order to stimulate new growth opportunities, and has recently presented an ocean strategy in which knowledge transfer is a core element. The Government has strengthened its commitment to clusters to promote restructuring in business and industry. The Government will further develop the current cluster policy.

The Government will initiate a Digital21 process for increased digitalisation in business and industry. The purpose is to establish an integrated and unifying strategy across industries and business sectors. The Minister of Trade and Industry will also establish a coordination forum between the authorities, top industry leaders, knowledge communities and the social partners with a view to promote digitalisation in industry. Support for research, innovation and technology development. The Government will facilitate development of a Norwegian industry that is innovative, knowledge-intensive and competitive, and that can contribute to making Norway one of the most innovative countries in Europe.

Support research, innovation and technology development

In its current term of office, the Government has strengthened the budget for market-driven research and innovation by around NOK 3 billion, including estimated tax deductions for the Skattefunn R&D tax incentive scheme. The Government has focused on broad programmes where competition for funding is strong. These are instruments with strong innovation effects that are well established and well known. Industry is using these instruments actively, and is running good projects that successfully compete for funding. The Government will therefore continue to pursue its strong commitment to industry-relevant research and innovation. The Government will increase appropriations to enabling technologies such as biotechnology, nanotechnology and ICT. In 2017 the Government is allocating an additional NOK 10 million to these areas.

The Government wants public procurements to serve as a driver of innovation and restructuring in the Norwegian economy. Public procurers have considerable opportunities to promote new thinking and development in the supplier market by seeking new and better solutions. The Government will develop an initiative for public-private innovation in Innovation Norway. This will help tie development and innovation closer to public procurements.

The Government is facilitating Norwegian industrial enterprises' access to the infrastructure and research expertise needed to undertake good research and innovation projects. The Government will strengthen the basic appropriation to the technical-industrial institutes. The

Government is strengthening infrastructure to meet industry needs for testing, piloting, visualisation and simulation through support to establish a catapult (test centres). The Government will give priority to expanding the scheme should it prove successful.