



Strengthening the bridges

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Omstendigheter

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1 Dear friends,

5 The United States is one of Norway's oldest, closest and most important partners. Our nations are linked by both modern and historic ties. The Norse explorer Leiv Eiriksson was the first European to land in North America, nearly five centuries before Columbus. Between 1845 and 1925, more than 800 000 Norwegians - about one third of Norway's population - emigrated to the
10 United States. Today, between five and six million Americans claim Norwegian ancestry, and there are consequently more "Norwegians" in the United States than in Norway.

For the younger generations, Norway's ties with the United States are primarily
15 cultural. We are influenced by American culture, and we are drawn towards the American spirit because of its vitality and creativity. I always return from the US with a feeling of having been thoroughly stimulated, motivated, and let me add in a positive sense also provoked - to challenge ideas and presumptions, both yours and my own.

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In political and security terms, Norway and the United States are still close. And we need to remain close now that we have moved from the cold war into an open and unpredictable landscape of globalization, interdependence and new threats and opportunities.

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One important dimension of our relations is the bridges between our two countries in the fields of business and academia. And the role that the

30 Commonwealth of Massachusetts and its many world-class educational and scientific institutions plays.

However, given that Norway is the world's third largest exporter of oil and third largest exporter of natural gas, I would like to begin with the energy links between us.

35 Norway is one of the largest non-Opec suppliers of oil and gas to the US. In recent years, around half a million barrels of crude oil per day have been delivered from the Norwegian continental shelf to North America. Later this year, we will start deliveries of substantial quantities of liquefied natural gas (LNG) from the Snøhvit field in the Barents Sea. The LNG from the High North will be shipped to the terminal at Cove Point, Maryland, where large investments have been made to double capacity by 2009. The Snøhvit field will provide a steady source of gas to the north-eastern United States for years to come.

45 The development of the petroleum resources on the Norwegian continental shelf began with American companies and American technology. Americans were instrumental in developing what proved to be a highly competent and competitive oil and gas sector or cluster in Norway.

50 Today, Norwegian companies are helping to unlock the resource potential of the Gulf of Mexico, underpinning increased US oil and gas production. The two major Norwegian oil and gas companies, which are now merging, Statoil and Hydro have made sizeable investments in exploration and production projects in US waters in the Gulf of Mexico. They have the competitive advantage of ground-breaking technologies - developed on the Norwegian continental shelf - that can tackle your deep reservoirs.

60 In other words, technology and capital are now being transferred in both directions.

The US is not only one of the main foreign investors in Norway, it has also become a major recipient of direct investment from Norway. The US is the single largest recipient of investments by the global branch of the Norwegian Government Pension Fund, which now totals approximately USD 300 billion. US investments constitute about 35% of the Fund's assets.

A key challenge for Norway as a major energy producer is how we can help to meet the continued demand for hydrocarbons with reduced emissions of carbon dioxide. This is to be met through technological developments in the capture and storage of CO₂, greater energy efficiency, and breakthroughs in renewable energy.

Technology will ultimately be key to reducing dependence on oil and gas, reducing the carbon content of hydrocarbons, and making the transition away from fossil fuels. But the benefits of improved technology can only be realized in the future if investments are made in research, development, and demonstration (RD&D) today.

If it is substantial enough, the RD&D effort could trigger a revolution in how we produce and use energy. For such a revolution to take place, however, it is not sufficient to unleash the strong forces for innovation in the private sector. Government must also lend its support, especially for technologies that require significant development efforts to demonstrate commercial potential.

For Norway, as a major energy producer, one of the main sustainability and technology challenges can be summed up in the following question:

- How can we help to meet the continued demand for hydrocarbons from the Norwegian continental shelf with reduced emissions of carbon dioxide?

Companies operating on the Norwegian continental shelf have developed technologies that separate CO₂ from the oil and gas produced and reinject it into the reservoir for underground storage. This method has attracted considerable international attention. The question is whether underground storage of CO₂ could also be feasible and economical for power stations and other major industrial users of fossil fuels in Europe and beyond. Scientists estimate that there is storage room in the offshore reservoirs for much of Europe's CO₂ for decades to come.

Norway, meanwhile, has ambitious goals for achieving additional capture and storage of CO₂. Our long-term goal is to establish a cost-effective value chain for transport and injection of carbon dioxide. This will reduce greenhouse gas emissions and increase oil recovery all at the same time.

110 Last fall, Norway embarked on a major new research, development and demonstration project. Our aim is to build the world's largest full-scale CO₂ capture and storage facility in connection with a combined gas-fired heat and power plant at Mongstad on the west coast. The plant will be fully operational by 2014.

115 This is a cooperative venture between the Norwegian Government and the oil and gas company Statoil. As Prime Minister Stoltenberg has stated, the Mongstad project is Norway's Apollo project. Just as the vision of sending a man to the moon spurred major technological progress in the United States, so we hope that the vision of building a full-scale CO₂ capture and storage facility will accelerate Norway's transition onto a low-carbon development path.

120 But the vision goes further. We expect the Mongstad project to stimulate international technological cooperation, which is critical to coherent, urgent and broadly based action on climate change. Such cooperation will enable the sharing of risks, rewards and technology and will enable coordination of
125 priorities between nations, both rich and poor.

I am pleased to note, therefore, that energy and climate change are important priorities in the Norwegian collaboration with academic institutions in Massachusetts and throughout the United States. MIT is a primary arena for
130 collaboration involving industry and business in this area. Allow me to highlight just a couple of examples.

TRANSES - an acronym for the somewhat heavy title Alternatives for the Transition to Sustainable Energy Services - is a joint research program
135 established by the Norwegian University of Science and Technology (NTNU) and the Foundation for Scientific and Industrial Research (SINTEF) in collaboration with MIT and the Chalmers Institute of Technology in Sweden. The program is designed to be a forum where key stakeholders can model and evaluate alternative strategies for the energy infrastructure of Northern Europe.
140 In another initiative, launched by Statoil and Hydro, researchers at MIT and NTNU have joined forces to develop the gas technology of the future, focusing on challenges such as reducing CO₂ emissions.

CO₂ emissions and climate change are also being addressed by a collaboration

project between MIT and the Bjerknes Centre for Climate Research at the University of Bergen. The Centre has recruited several MIT graduates, and uses the MIT climate model to analyze long-term climate change. In the Arctic and Antarctic regions, researchers from MIT and Norway are working together on issues related to the impact of climate change on the polar regions. This cooperation is taking place under the umbrella of the International Polar Year (2007-2009), a program involving researchers from more than 60 nations.

However, the provision of energy security and climate security does not rest solely on technological RD&D. This is, after all, one of the most important political challenges facing mankind. The world needs an internationally agreed framework through which the developing nations can grow, the wealthy countries maintain their standard of living and the environment be protected from disaster.

While in Washington D.C. earlier this week, I expressed the hope that both the legislative and executive branches of the US Government will rise to the occasion and assume leadership when it comes to building such an international framework. For the world to deal effectively with energy security and climate change, the United States simply has to be part of the solution - not only technologically, but also politically and economically.

Climate change will affect the basic elements of life for people around the world - access to water, food production, health and the environment. Hundreds of millions of people could suffer water shortages, hunger and coastal flooding, and become climate refugees as the world warms.

The costs of global warming will fall heaviest on those who bear the least responsibility for the current state of affairs. This makes climate change a fundamental issue of justice and morality in world politics today.

The UK's Stern Report on the Economics of Climate Change concludes that the benefits of strong and early action far outweigh the economic costs of not acting. The costs of action - reducing greenhouse gas emissions to avoid the worst impacts of climate change - can be limited to around 1% of global GDP each year. The costs of inaction, on the other hand, would cost us at least 5% of global GDP each year, now and in the future.

185 I agree with the Stern Report that tackling climate change is the pro-growth strategy for the longer term, and that it can be done in ways that do not cap the aspirations for growth of rich or poor countries. However, it will require the best of markets and, above all, the very best of politics.

190 Ladies and gentlemen, // Dear friends

Viable cultural, political and commercial ties arise from human encounters, and are sustained by knowledge, insight, creativity and a long-term perspective. This is why education and research are vital not only to global business, but also to
195 international relations in general. Academia and the business sector are by nature separate spheres, with different goals and aspirations. Universities focus on ideas and learning, while businesses concentrate on the more immediate concerns of the marketplace.

200 Although they are separate entities, academic institutions and businesses depend on one another to survive, to set priorities, and to prosper. In the age of globalization, however, businesses and academic institutions need to adapt. In an environment characterized by increasingly rapid change, collaboration across institutional, disciplinary and national borders is essential. Cooperation and
205 international exchange energize - and create opportunities for - all parties.

The US and Norway can look back with pride at a long history of fruitful exchange and collaboration in the education and research sector. During the period following World War Two, the US emerged as a country of great
210 opportunity for Norwegian students. Lately, however, the number of Norwegian students taking degrees in the US has declined sharply, from 2 098 students in 2000 to only 1 297 last year. This is a trend we would be happy to see reversed. At the same time as we would like to welcome more American students to our country.

215 One of the longest-standing academic exchange programs between the US and Norway is the Fulbright Program. Since the start of the program in Norway in 1949, some 1 245 Americans and 3 341 Norwegians have been awarded Fulbright grants. The program was originally funded exclusively from
220 American sources, but today about 72% of its funding comes from the Norwegian Ministry of Education and Research and the Ministry of Foreign Affairs, with the remainder coming from the American Government.

225 The Leiv Eiriksson mobility program, managed by the Research Council of
Norway, is another important initiative to increase transatlantic mobility and
research cooperation. In 2006, approximately USD 1 million was allocated to
48 projects involving guest researcher grants. These enabled Norwegian
researchers to visit the US and Canada, and North American researchers to visit
230 Norway.

The life sciences are another high priority area for a strengthened partnership
between our research and business clusters. Massachusetts is one of the world's
premier centers for research and commercialization in the life sciences.
235 Innovation Norway Boston, which is co-hosting today's event, is facilitating
knowledge transfer between the US and Norway in this area, as well as in the
information and communication technology sector - another area high on our
list of priorities. Moreover, Massachusetts and Norway are both coastal regions,
and a valuable partnership could be developed in the marine sciences and
240 marine technology .

One way of fostering such partnerships is the establishment of a University
Chair, which could form a dynamic and visible bridgehead for enhanced
collaboration. It could, for example, alternate between MIT and one or several
245 Norwegian universities. The Chair concept is explicitly mentioned in the
Norwegian Scientific and Technological Strategy for North America, which I
have already referred to. This strategy also states that "various alternatives for
establishing such bridgeheads should be considered, i.e. part-time
professorships at Norwegian and North American institutions. Preferably, the
250 establishment of such schemes would be reciprocal."

Throughout their histories, Massachusetts and Norway have demonstrated a
remarkable capacity to adapt. During the 19th century, Massachusetts
transformed itself from a mainly agricultural economy to a manufacturing one,
255 making use of its many rivers to power factories producing shoes, furniture, and
clothing. Similarly, at the turn of the 19th century, Norway harnessed the
power of its abundant waterfalls to launch large-scale industrialization and
modernization. Hydro, founded in 1905, was a pioneer of technology that
utilized hydroelectric power to capture nitrogen from the air for fertilizer
260 production and, later on, for large-scale production of light metals.

Neither of these transformations happened in isolation. The industrial
revolution capitalized on the extensive international transfer of technology,
financial resources and people. The next transformation - into global, low
carbon and knowledge-based economies - will require intensified interaction,
mobility and exchange.

Knowledge and innovation will be vital for tackling what may prove to be the
most challenging issues in world politics - energy and climate security. We must
release the inherent power of a concerted effort. A partnership between the
Massachusetts centers of excellence and Norway has a remarkable potential -
not only to make each of us "the biggest small place" on our respective
continents. But also to make a difference in the global effort to tackle climate
change.

Kilde

http://www.regjeringen.no/nb/dep/ud/dep/Utenriksminister_Jonas_Gahr_Store/taler_artikler/2007/bridges.html?id=456157

Emner

Foredrag, Globalisering, Kultur, Miljø, Utdanning

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<https://www.virksommeord.no/tale/strengthening-the-bridges>