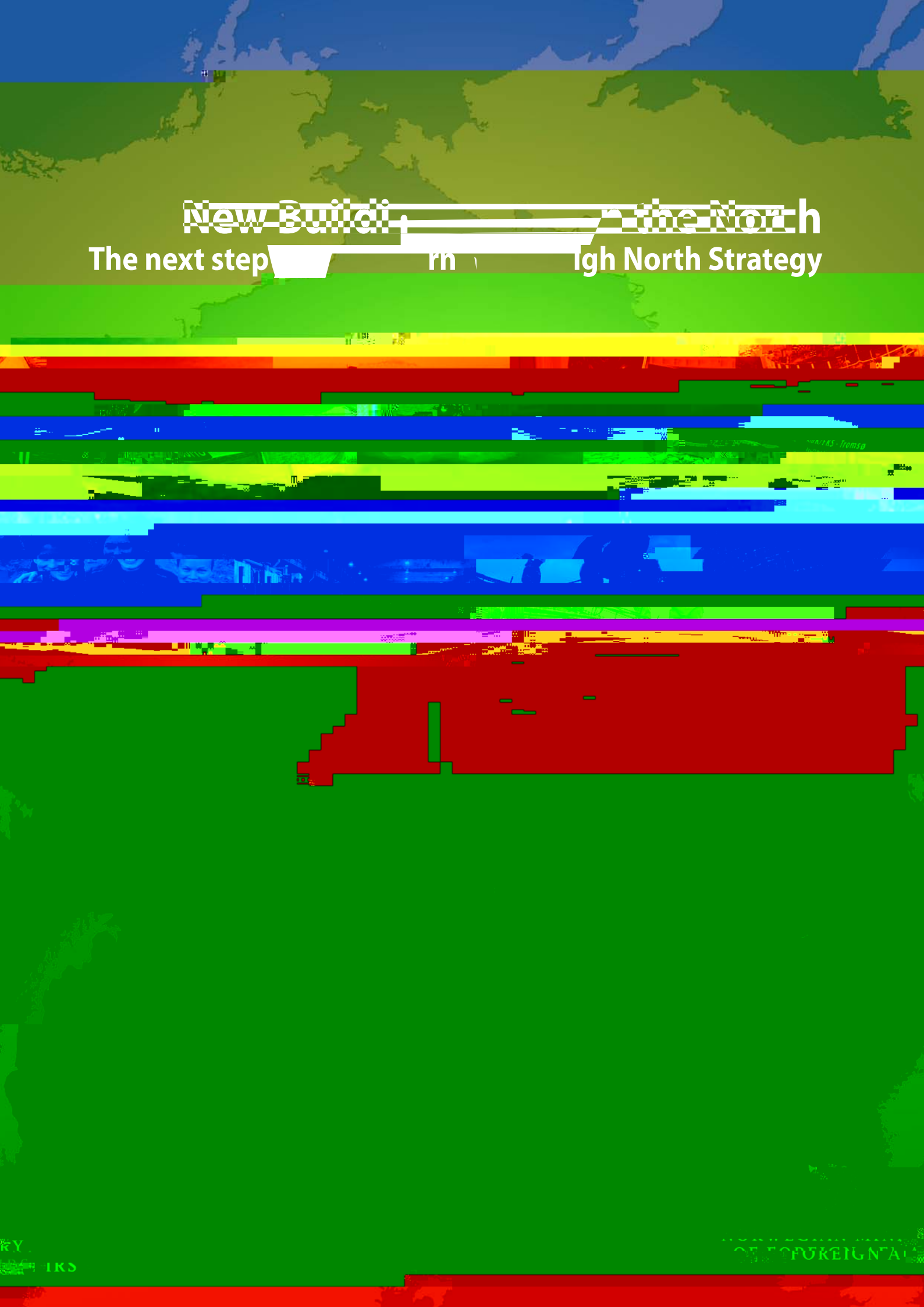
New Buildi[illegible] the Nor[illegible]h

The next step [illegible]rn [illegible]gh North Strategy



Photos front page: Arild Lyssand/MFA Norway, Norwegian Coast Guard, Jan Fredrik Frantzen/Norwegian Centre for Telemedicine, Kjell Ove Storvik/Norwegian Seafood Export Council, StatoilHydro, Christian Houge, Scanpix, Elkem

FOREWORD

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NEW BUILDING BLOCKS IN THE NORTH
THE NEXT STEP IN THE GOVERNMENT'S HIGH NORTH STRATEGY

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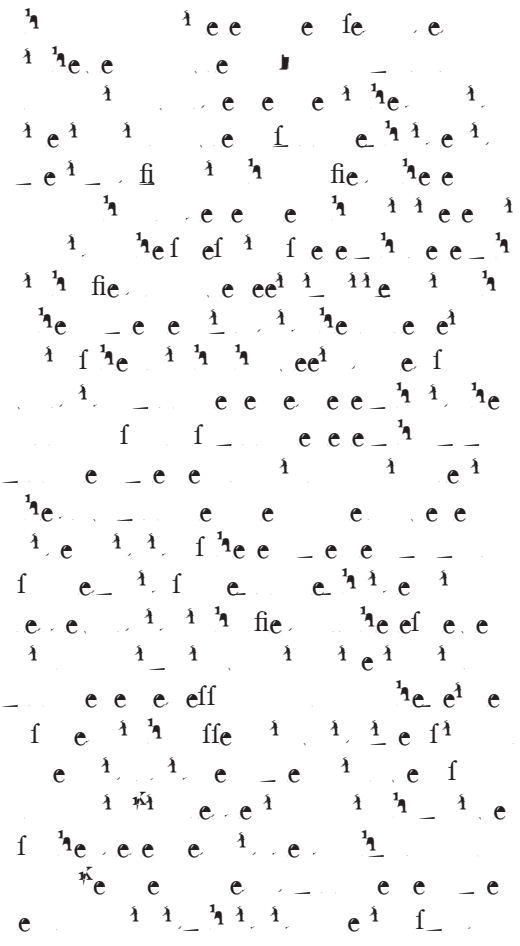
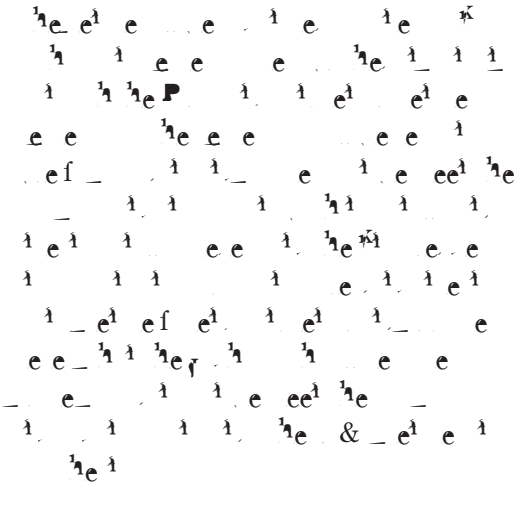
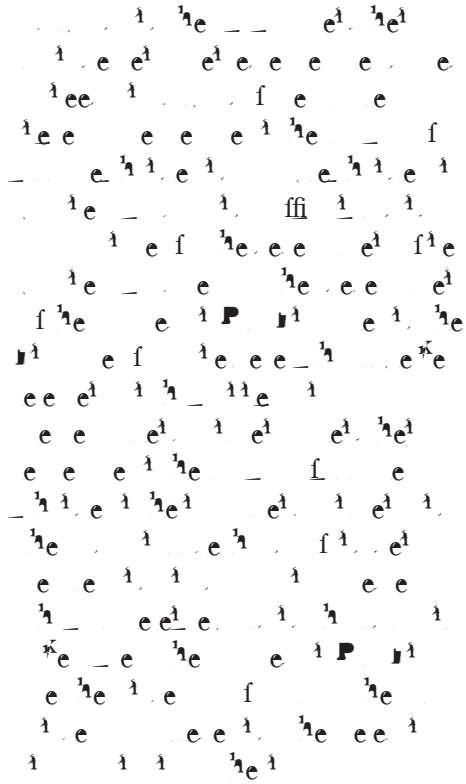
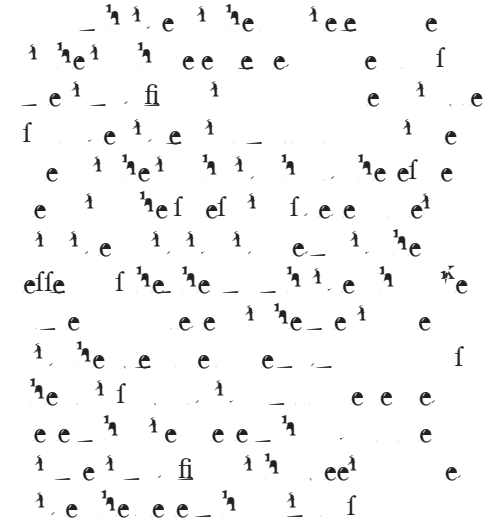


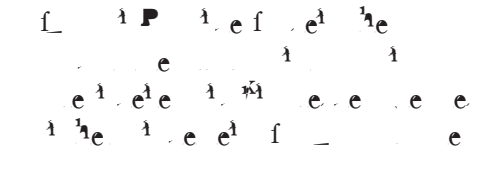




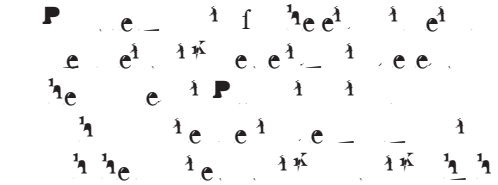
- *New research programme on climate change and ocean acidification:*



- *Knowledge building on the impacts of and adaptation to climate change for business and industry, based on cross-sectoral cooperation:*



r û *The establishment of an environmental specimen bank of ecological toxins:*



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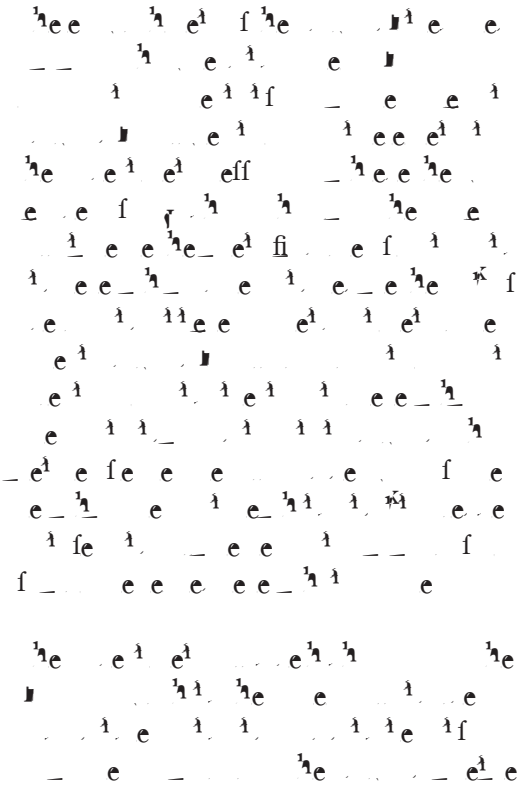
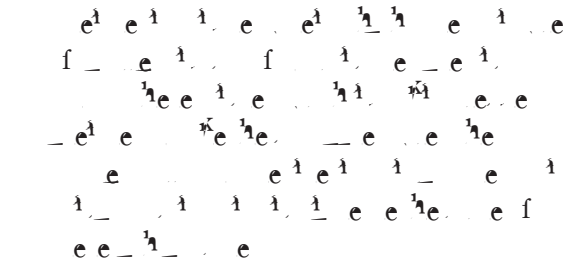
1.2.1 Establishing an Arctic earth observing system in Svalbard

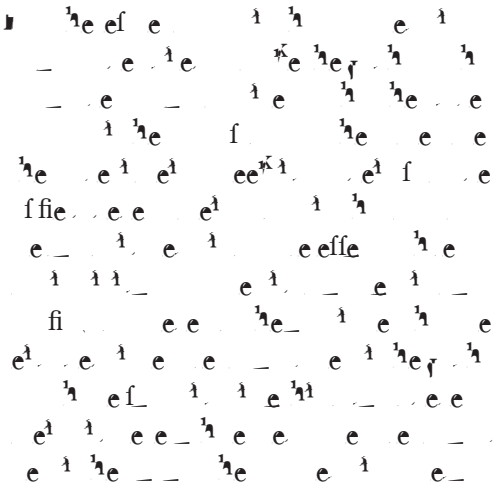




1.2.2 Building a next-generation radar system in the High North (EISCAT 3-D)

1.2.3 A new ice-class research vessel

2.2.2 Improving maritime safety



3.1.2 A national initiative for marine bioprospecting

3.1.3 Exploring the potential of bioenergy based on marine algae

3.1.4 Combating illegal, unreported and unregulated (IUU) fishing

.2

3.2.1 Developing Norwegian ports and supply industry in connection with a possible opening of new sea routes in the north

3.2.2 Developing expertise on maritime activity in Arctic areas

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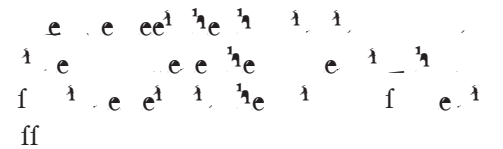
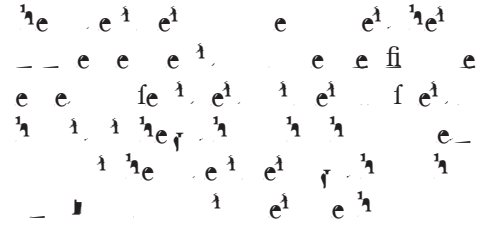
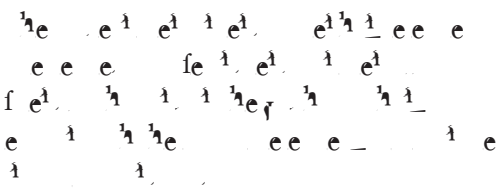
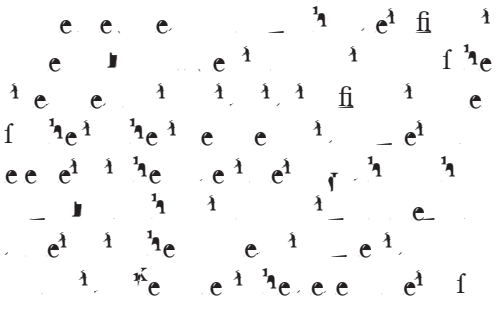






3.2.3 Satellite-based automatic ship identification



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3.3.3 Assessing alternative locations for petroleum bases in eastern Finnmark

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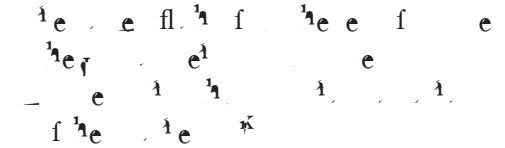

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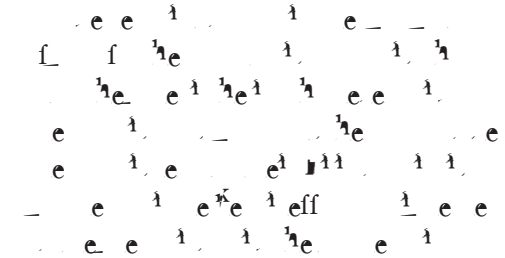
year-round tourism:



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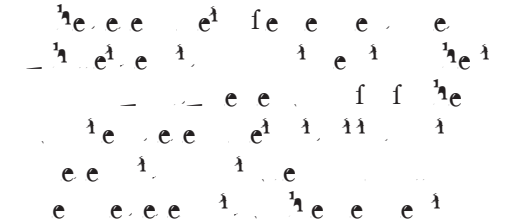
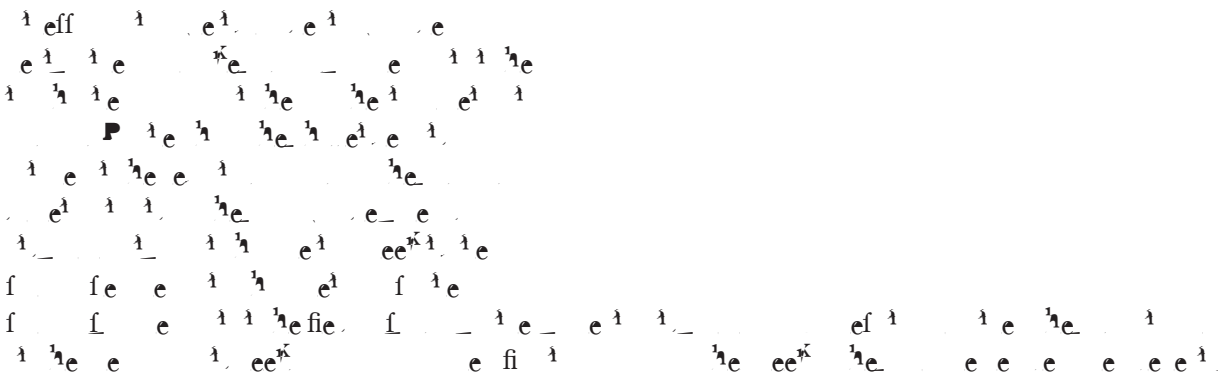
in the field of tourism – knowledge about nature, protection of the natural environment, culture, the cultural heritage, market development and product development:





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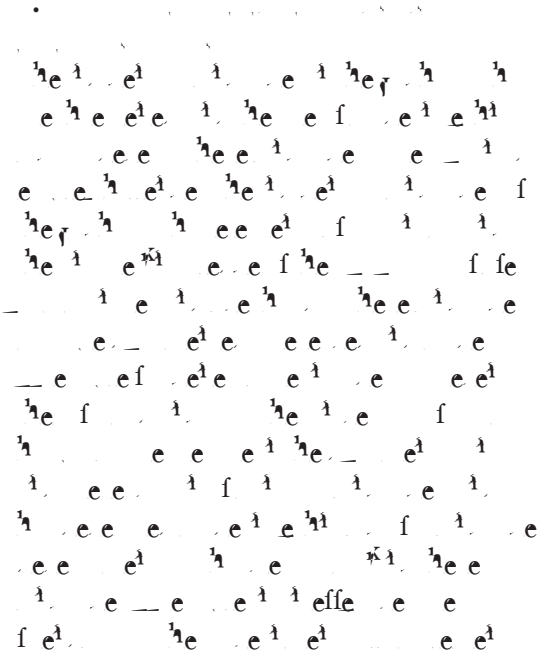

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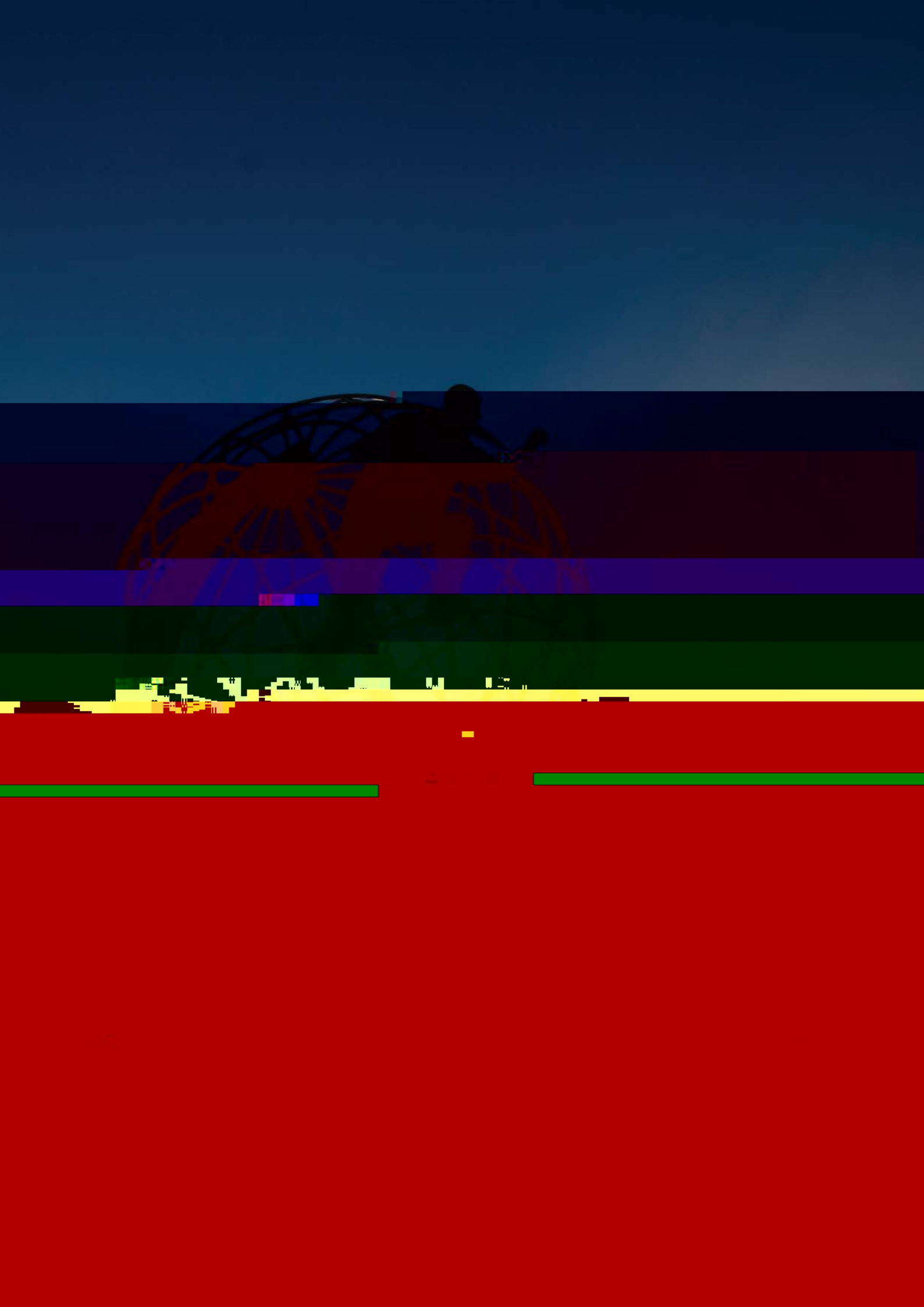


Photo: Johan Wildhagen/ Innovation Norway

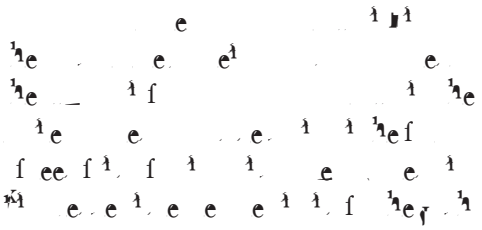
The Government's High North Strategy

The Norwegian Embassy in Moscow. Photo: Barents Secretariat

Minister of Foreign Affairs Jonas Gahr Støre and I ēāāÆ[ûāĈ<ÆÖÆāĈ§þĈÚ´Ĉ0Úþ§Æ»ÖĈ Affairs Sergej Lavrov exchange the documents for commencement of the Varangerfjord agreement of 2007. The agreement is the first border agreement between Norway and I ēāāÆ[ĈāÆÖs§Ĉá×¶qzĈ[Ö}Ĉ it establishes the border between the two countries in the Varangerfjord area. The meeting was held in Kirkenes in June 2008. Photo: LÚþ»þÆÑĈ I [ĈÃĈ?Íā§ÖzĈ Nordlys

?ę§þ̊áĢĢ̊ĢĢĢ̊é§ÚéÍ§̊ now pass the border control station at Storskog each year. Photo: Barents Secretariat

Cooperative projects and exchange



THE REGION OF OPPORTUNITY

Knowledge, innovation and exploitation of the inherent advantages of the region are key elements of the Government's plan for strengthening economic growth in the High North. We want to promote bridge building between research and industrial activities. Increased wealth creation is largely dependent on a well developed and well functioning infrastructure. Better transport and communications in Northern Norway will make it easier to live and do business in the region and to visit it as a tourist.

INTRODUCTION

Photo:
To-Foto/Hurtigruten

The hermit crab, Pagurus pubescens, contains substances with properties that may be useful for research and industry.
GÃÚĊÚyĈ < [þi [ÖÌć I îĈ îĈ
Johansen

WEALTH CREATION

I §āÚēþs§āĈ }ÆāĊÆÖsĊÆę§ĈĊÚĈĊÃ§Ĉ 2 Æ»ÃĈ = ÚþĊÃĈ can be developed and sold. Innovation in areas such as exploitation of small molecules from marine organisms and experience of the great outdoors can provide good business opportunities.

Marine bioprospecting: Molecules for sale

[illegible]

[illegible]

Lecturers from the University of Tromsø cooperate with the University of Gothenburg on training young entrepreneurs. Photo: University of Tromsø

Promoting innovation

Outdoor adventures for sale

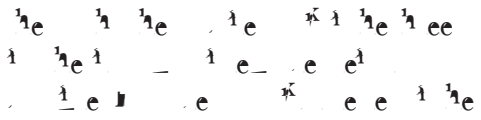
The snow hotel in Kirkenes offers guests a warm experience in cold surroundings. Photo: Geir Moen/gofoto.no

Lars Petter Øie reaches a freshly caught king crab to guests during the crab safari in Kirkenes. Øie's king crab safari is part of Sør-Varanger's award-winning adventure holiday package. Photo: Jørn Tomter

BETTER TRANSPORT AND MOBILITY

Northern Norway is characterised by great distances, and markets are often far away. Wealth creation in the High North is dependent on a well developed and well functioning infrastructure including postal and telecommunications services, roads, airports, railway connections and harbours. The Government's transport plan for the coming years is one of the cornerstones of the High North policy.

Important for the welfare of the inhabitants and for business and industry



Expansion of railway capacity

Air transport is important

The Government gives priority to improvements to the trunk road network in Northern Norway, particularly narrow, winding roads, roads that are difficult to use during the winter, and roads subject to landslides. The picture is from the stretch of highway from Nikel to Kirkenes. Photo: Barents Secretariat

WEALTH CREATION FROM OIL AND GAS

**ēþÚé§ĈÆāĈÆÖĈĊÃ§ĈéþÚs§āāĈÚ´Ĉ[sóēÆþÆÖ»Ĉ[ĊÖ§ĚĈ§Ö§þ»ĜĈéþÚęÆÖs§yĈĊÃ§ĈJÚēĊÃĈ&[þ§ÖĊāĈJ§[Ĉ*
– the sea north of the Norwegian mainland. Petroleum activities in the High North may in the long term have major positive, regional and national ripple effects. The Government will make provisions for petroleum-based employment and wealth creation in Northern Norway.

INTRODUCTION

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[illegible]

[illegible]

[illegible]

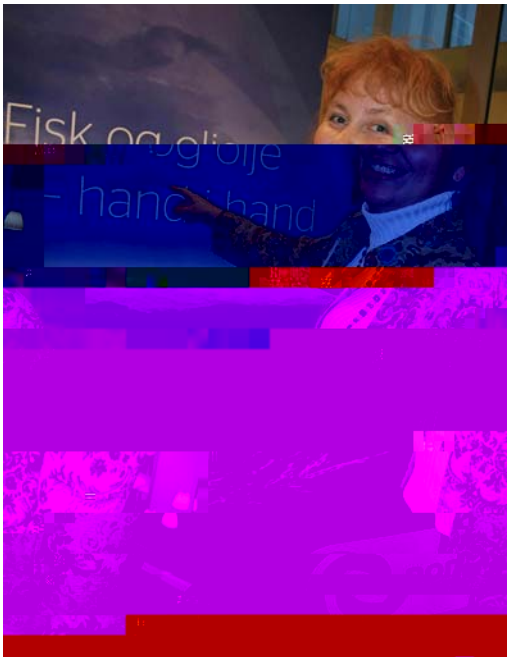
Photo:
) [»Ĉ< [»Ö§ĈJçĜÍ[Ö}ć
StatoilHydro

Activity in the Barents Sea. Photo: StatoilHydro

FACILITATING DEVELOPMENT

The geological mapping of possible petroleum deposits in the High North Ě£ÍÍĈi§ĈsÚÑéÍ§ĉ§}ĈŒÖĈđÇĢ×îĈLÃ§Ĉ1Úę§þÖÅment will allow Northern Norwegian industry to position itself so that local

The illustration shows the seabed installation at Snøhvit, which supplies gas to the new plant at Melkøya. Snøhvit is the first gas development in the Barents Sea, and the first plant for Íǽóēǽ}Ĉ»[āĈǽÖĈ=ÚþĚ[ĜîĈLÃþ§§Å óē[þĈ§þāĈÚ´ĈĈÃ§Ĉ¹ĢĢĈé§ÚéÍ§Ĉ whose work is related to Snøhvit have been recruited from Northern Norway. Illustration: Even Edland/StatoilHydro



In Astrid Tugwell's view, one must see the oppor-tunities of Northern Norway. ãĊ) §ę§ÍÚéÑ§ÖĊĊ) £þ§sĊÚþĊ of a new North Norwegian oil company, she wants to take part in ensuring that oil extraction activities in Northern Norway respect the local environ-ment and employ the local population.
Photo:
Origo/Hege E. Johansen

ENVIRONMENT, LIVELIHOODS AND FISHERIES

Norway must lead the way in the environmental area, be an active partner for other countries and a long-term and trustworthy guardian of environmental and cultural values in the High North. The Government provides for wealth creation through sustainable use of marine and land resources, while safeguarding the functioning and productivity of the ecosystem.

INTRODUCTION

Illustration: iStockphoto.com/mevans

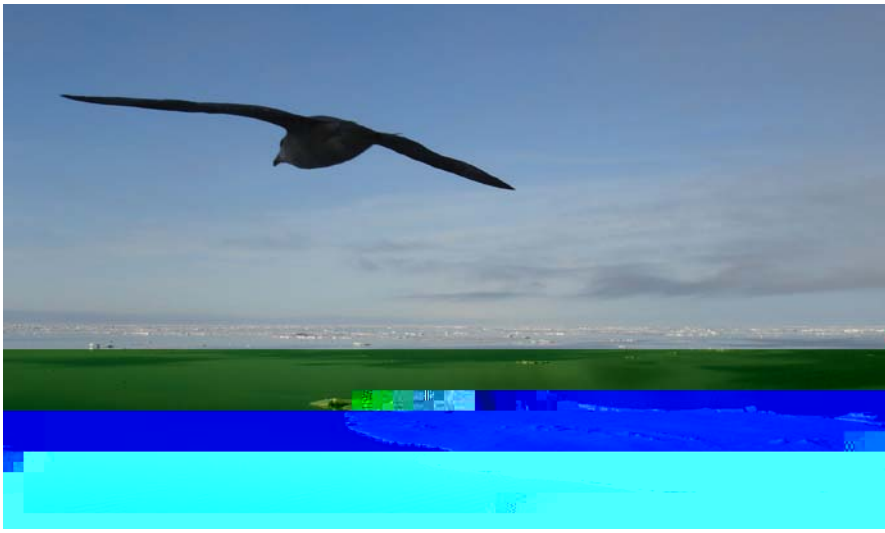
NATURE CONSERVATION

The Government attaches importance to ensuring sustainable exploitation of resources and responsible environmental management of the Barents Sea. Cooperation and the exchange of ÌÖÚĚÍ§}»§ĈĚÆĊÃĈ I ēāāÆ[Ĉ[Ö}ĈÚĊÃ§þĈ þsĈÆsĈ states must be further developed in order to preserve vulnerable species and ensure responsible harvesting of natural resources.

The Barents Sea – Lofoten

Comprehensive plan for the Barents Sea and the sea outside Lofoten

Polar bear conference in March 2009



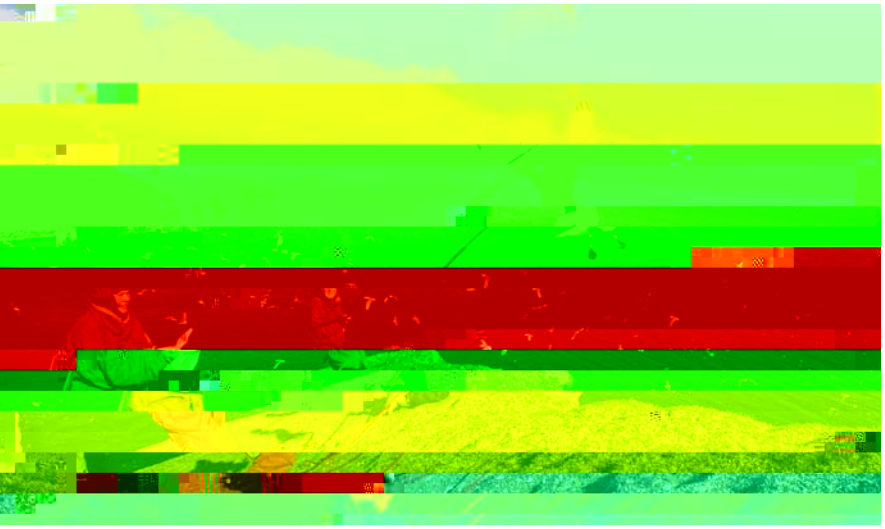
Ivory Gull, here photographed over the Barents Sea, is one of many species threatened by climate change and human activity in the Arctic. The Ministry of the Environment is making efforts to protect the vulnerable ecosystems in the High North. Photo: Cecilie von Quillfeldt

New white paper on Svalbard

The fishery resources of our northern sea areas are among the world's richest. The Government is continuing its efforts to reduce illegal fishing in cooperation with I ēāā£[ÖĊ[ēĊÃÚþ£Ċ£§âî
Photo: Kjell Ove Storvik/ Norwegian Seafood Export Council

The Government has implemented extensive measures to combat illegal fishing in order to ensure that fish remain a renewable resource. Ice melting in the Arctic will open up new sea areas for fishing and transport. It is therefore important to extend cooperation with other countries on management of fish stocks while developing systems for monitoring shipping, emergency preparedness, and search and rescue services.

Cooperation on combati



I§ā§ [þsÃ§þāĈ'þÚÑĈĈÃ§Ĉ Norwegian Polar Institute catching Kittiwakes at Bjørnøya in Svalbard. Photo: Hallvard Strøm/ Norwegian Polar Institute

BIRD LIFE: BAD TIMES FOR NORWEGIAN SEABIRDS

KNOWLEDGE PAVES THE WAY

0ēĊēþ§Ĉ»þÚĚĊÃĈÆÖĈĊÃ§Ĉ2Æ»ÃĈ=ÚþĊÃĈþ§óēÆþ§āĈĊÃ[ĊĈĚ§ĈÆÖsþ§[ā§ĈÚēþĈÌÖÚĚÍ§}»§zĈiÚĊÃĈÚ´Ĉ[Ö}Ĉ in the High North. The Government is investing more in High North-relevant research and in strengthening universities and university colleges in Northern Norway. A key þÚÍ§ĈÆÖĈĊÃÆāĈÆāĈéÍ[Ĝ§}ĈiĜĈĊÃ§ĈI§ā§[þsÃĈ'ÚēÖsÆÍĈÚ´Ĉ=ÚþĚ[ĜĩĈLÃ§Ĉ þsĊÆsĈÆāĈs§ÖĊþ[ÍĈĊÚĈ[ÖĈ understanding of global climate change. Through efforts in relation to Svalbard and

Photo:
Adnan Icagic,
Tromsø Museum

The world's largest research cooperation

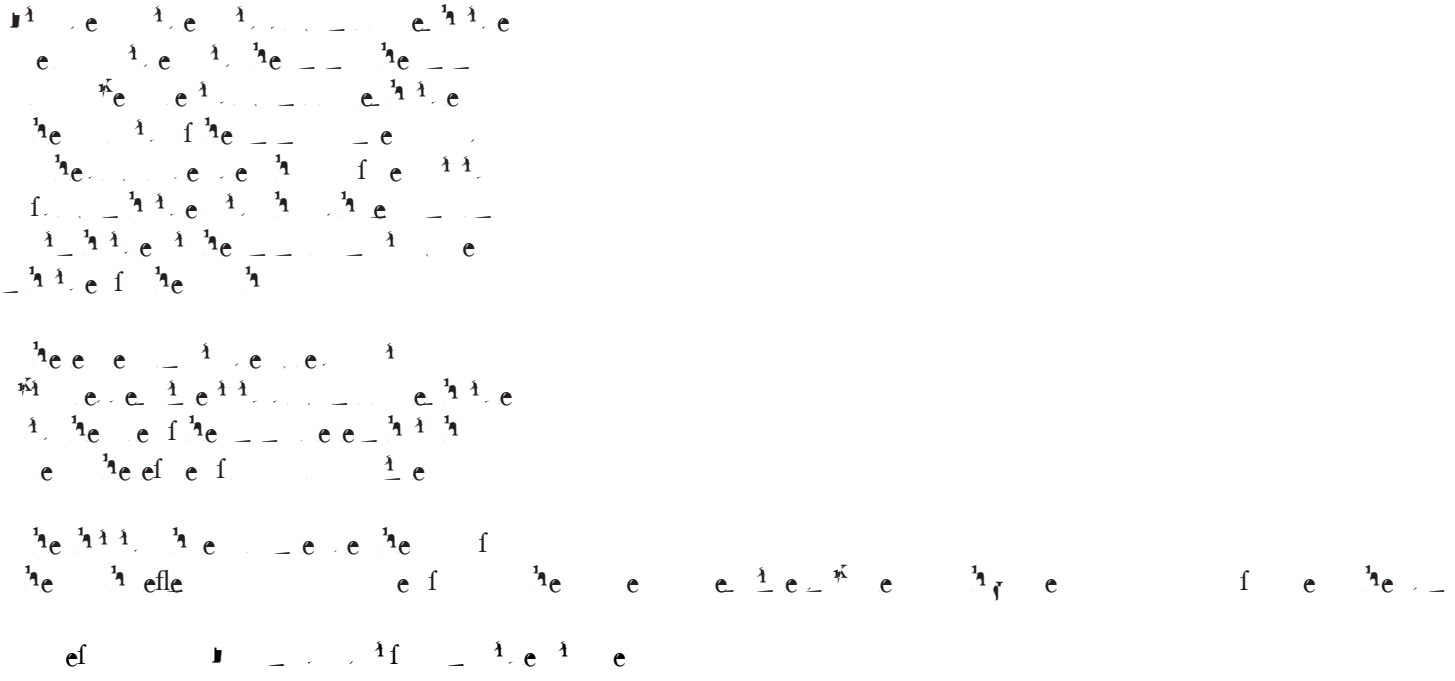
In Northern Norway and in Svalbard, millions of seabirds nest on i£þ}ĉsÍ£´´aîĉI§ā§[þsÃ§þāĉ use the birds as an indicator of the state of the marine environment. The birds are dependent on the availability of food in large areas of the sea and are vulnerable to changes in the number of food species and in their migration patterns. The picture shows guillemots on Bjørnøya. Photo: Hallvard Strøm/ Norwegian Polar Institute

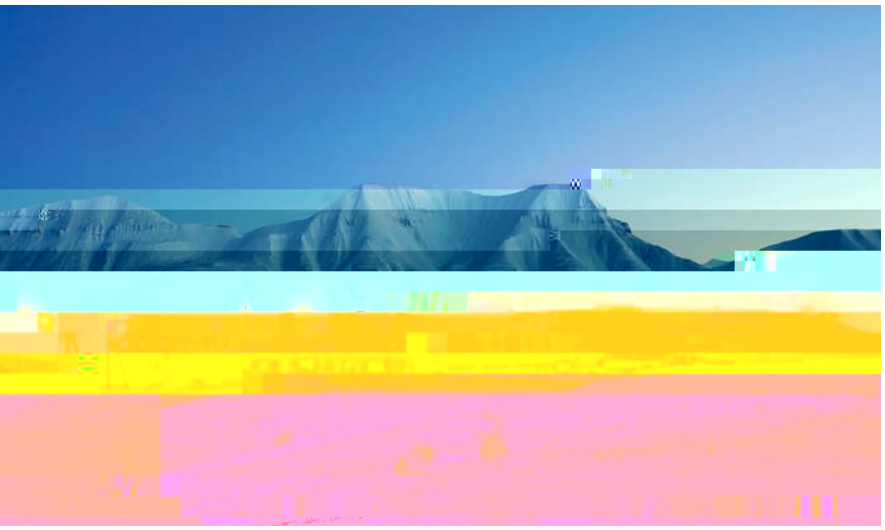
Strengthening of education institutions

Centre for Ice, Climate & Ecosystems (ICE)

CLIMATE RESEARCH: THE KEY ROLE OF THE ARCTIC

I §ã§[þsÃĈ‡ÖĊÚĈĊÃ§Ĉ þsĊ‡sĈÃ[ãĈ[ĈÌ§ĜĈþÚÍ§Ĉ in work on understanding how climate change will affect us. Svalbard's geographical location, good infrastructure and accessibility makes the archipelago a key area for obtaining such knowledge and for efforts to adapt society to climate change.





The picture shows the new building of the University Centre in Svalbard (UNIS). UNIS is the world's northernmost higher education institution, [Ö}ĈÚ´´§þāĈēÖŁóē§Ĉ courses to students from many countries. Photo: =ŁÍāĈG§ĈĈ§þĈ) [Í§ćN=3J

THE SVALBARD GLOBAL SEED VAULT SAFEGUARDS THE WORLD'S SEEDS

Space activities in Svalbard

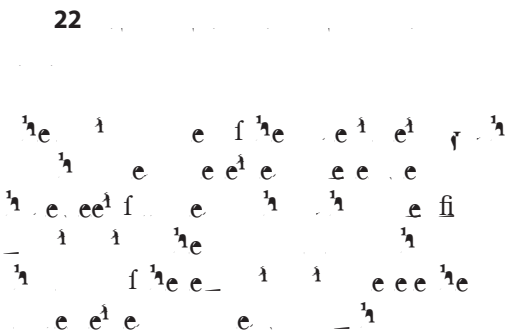
Dangerous melting needs to be understood

An Arctic success: The world's largest ground station for satellites in polar orbits is located in Svalbard. Photo: Norwegian Space Centre

NORWEGIAN CLIMATE RESEARCH: WARMER IN THE ARCTIC OCEAN

I§ā§[þsÃ§þāĈĊ[Ì§Ĉā[ÑéÍ§āĈ of ice cores in Framstredet between Greenland and Svalbard. In the background we see the icebreaker and the Coast Guard vessel "Svalbard". I§ā§[þsÃĈÃ§Íéāĉ̈ĊÚĈ§ěéÍ[±ÖĈ the connection between Arctic and global climate change. The expedition was possible owing to good cooperation with the Norwegian Coast Guard and funding via the International Polar Year. Photo: Sebastian Gerland, Norwegian Polar Institute

THE GOVERNMENT'S HIGH NORTH STRATEGY



GÚã£Ĉ£ę§Ĉ I ēāā£[ÖĈþ§āéÚÖā§ĈĊÚĈĊÃ§Ĉ£}§[ĊÚ´Ĉ[Ĉ Pomor zone. Work on realisation is continuing, among other ways, through the twin town cooperation Sør-Varanger – Petsjenga and the iÚþ}§þĈþ§ā£}§ÖĊĈ3)Ĉs[þ}ĈāsÃ§Ñ§î

1. Further develop the active dialogue with neighbours, partners and allies on High North issues

Active visit diplomacy in relation to the High North has increased international awareness of its importance, particularly regarding the Arctic dimension.

2. Strengthen the demonstration and coordination of Norwegian High North policy in international and regional cooperative fora

The High North policy has been presented in most international, regional organisations. International secretariats have been established for the Arctic Council in Tromsø and for the Barents cooperation in Kirkenes.

3. Further develop petroleum activities in the Barents Sea through an active allocation policy to follow up results of exploration and the need for further exploration acreage

In 2008, eight exploration wells were bored in the Barents Sea. In TFO 2008 (assignment of predefined areas) two new production licences were assigned for the Barents Sea. In the 20th licensing round in 2008, 28 blocks in the Barents Sea were announced.

4. Prepare a proposal for establishment of an economic and industrial cooperation zone including both Norwegian and Russian territory in the border areas of the High North

8. Strengthen marine safety in the waters surrounding Svalbard, among other ways, by making the Harbour Act applicable to Svalbard and introducing a compulsory pilot service

The Harbour Act was made applicable to Ję[Íi[þ}ĊÚÖĈáĈ<[ĜĈđĢĢ¬îĈ ĈsÚÑéēÍāÚþĜĈéŁÍÚĈĈ service is under consideration.

9. Strengthen the cooperation with the authorities of Russia and other countries in combating illegal, unregulated and unregistered □shing in the Barents Sea

'ÚÚé§þ[ĊŁÚÖĈĚŁĈÃĈI ēāāŁ[Ċþ§āēÍĈ§}ĈŁÖĈ[Ċþ§}ēsĊŁÚÖĈ ŁÖĈÚę§þµāÃŁÖ»ĊÚ´ĈsÚ}ĊÚ´ĈĆĢĈé§þĈs§ÖĊĊ´þÚÑĈđĢĢ¶Ĉ to 2007.

10. Strengthen e□orts to follow up the comprehensive management plan through survey and monitoring of the marine environment and research into ecosystems and the ways they are a□ected by human activities

A systematic survey of the seabed in northern Ě[Ċ§þāĈë< I =?ĈépÚ»þ[ÑÑ§ìĈĚ[āĈi§»ēÖĈ ŁÖĈđĢĢ¶zĈ[Ö}ĈÑ[ĜĈi§ĈsÚÑéÍ§Ċ§}ĈŁÖĈđĢáĢîĈLÃ§Ĉ [ÍÍÚs[ĊŁÚÖĈÚ´Ĉ=?9Ĉá¬î¬ĈÑŁÍÍŁÚÖĈŁÖĈđĢĢ×ĈāĈ ĊÚĈi§Ĉ}Ł¢Ł}§}Ĉ§óē[ÍÍĜĈi§ĊĚ§§ÖĊĊÃ§Ĉ<ŁÖŁāĊþĜĈÚ´Ĉ Fisheries and Coastal Affairs, the Ministry of the Environment and the Ministry of Trade and Industry.*

11. Strengthen survey, monitoring and research of climate change and environmental toxins in the High North

"BarentsWatch": a pilot project financed by Barents 2020 funds for development of a comprehensive monitoring and warning system for the northern seas. Further process is to be decided ŁÖĈ<[þsÃĈđĢĢ×î

12. Continue engagement regarding nuclear safety and preparedness in the High North

Norway is due to complete the fifth and last dismantling of decommissioned nuclear ārēiÑ[þŁÖ§āĈŁÖĈđĢĢ×îĈ=ÚþĚ[ĜiāĈsÚÖĊþŁiēĈŁÚÖĊĊÚĈ the clearing up of Andreyev Bay will continue with a long-term perspective. The last highly radioactive strontium batteries in lighthouse Í[ÖĊ§þÖāĈŁÖĈÖÚþĊÃĄĚ§āĈ§þÖĈI ēāāŁ[ĊĚŁÍÍĈi§ĈĈ[Ì§ÖĈ out of service this year.

13. Develop environmental technology for and in the High North by means of strengthened R&D investments

The Government is to give priority to Arcĉ£sĊĊ§sÃÖÚÍÚ»ĜîĈ3ÖĈđĢĢ×zĊĊÃ§ĈépÚ»þ[ÑÑ§ĈĊÃ§Ĉ I§ā§[þsÂĈ3ÖŁĈŁ[Ċŀę§Ĉ´ÚþĈ=ÚþĊÃ§þÖĈ=ÚþĚ[ĜĈĚŁÍÍĈ i§ĈŁÖŁĈŁ[Ċ§}ĈēÖ}§þĈĊÃ§Ĉ[ēāéŁs§āĈÚ´ĊĊÃ§ĈI§ā§[þsÃĈ Council of Norway. One of the priority areas is environmental technology in cold climate.

14. Implement more knowledge and development projects under Barents 2020

A number of projects intended to provide more knowledge in, for and concerning the High North are to be supported via the Ministry of Foreign Affairs grant scheme. Several visiting professorships have been established or are in process of establishment.

15. Establish a High North scholarship programme □nanced by Barents 2020 funds

The programme was established in 2007. Each Ĝ§[þzĈ[éépÚëŁÑ[Ċ§ÍĜĈ¶ĢĈāĊē}§ÖĊāĈ´þÚÑĊĊÃ§ĈNJ zĈ '[Ö[}[Ĉ[Ö}ĈI ēāāŁ[ĈāĊē}ĜĈ[ĊĈ=ÚþĊÃĈ=ÚþĚ§»Ł[ÖĈ education institutions.