



Concept Symposium 2016

Governing the Front-End of Major Projects

Aspects of sustainability – New harbour in Kirkenes



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The world is turning its attention towards the Arctic, which is a region of significant and increasing geopolitical importance. Kirkenes has a strategic position in this focus, having a harbour to the Barents sea, and being located by the border between Russia and Norway, close to the northern border of Finland. A concept study on relocating and expanding the harbour and improving the transport route E6 in the Kirkenes area has been performed. This concept study has dealt with a number of different aspects of sustainability; economical, environmental and cultural.

The economical sustainability in the Kirkenes area may be improved if a new harbour is established to serve the increasing number of commercial ships sailing through the Northeast Passage, increased petroleum activities in the Barents sea, and possible railway transport from Finland. On the other hand, intervention with the reindeer grazing areas around Kirkenes may have a negative effect on the economic and cultural sustainability of the traditional herding.

The environmental sustainability may have a positive effect of an optimised global transport. However, petroleum activities may contribute to further climate changes, and harbour activities may represent a threat to local flora and fauna.

To what extent should aspects of sustainability be included in the choice of concept?



Concept Symposium 2016

ASPECTS OF SUSTAINABILITY NEW HARBOUR IN KIRKENES

ELIN S. KVERNEGGEN, HOLTE CONSULTING

CONTENT

- What is sustainability?
- About Kirkenes and the surrounding areas
- Concepts for a new harbour
- Aspects of sustainability in the establishment of a new harbour
- Our recommendation for the new harbour

SUSTAINABILITY – DEFINITION

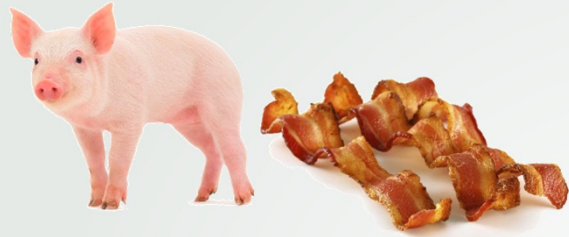
The ability to sustain.

The endurance of systems and processes.

Ministry of Finance:

To what extent the measure still contributes to the achievement of goals after the completion of the project and through its viable lifetime. The evaluation of net utility over time.

SUSTAINABILITY – EXAMPLES



SUSTAINABILITY – EXAMPLES



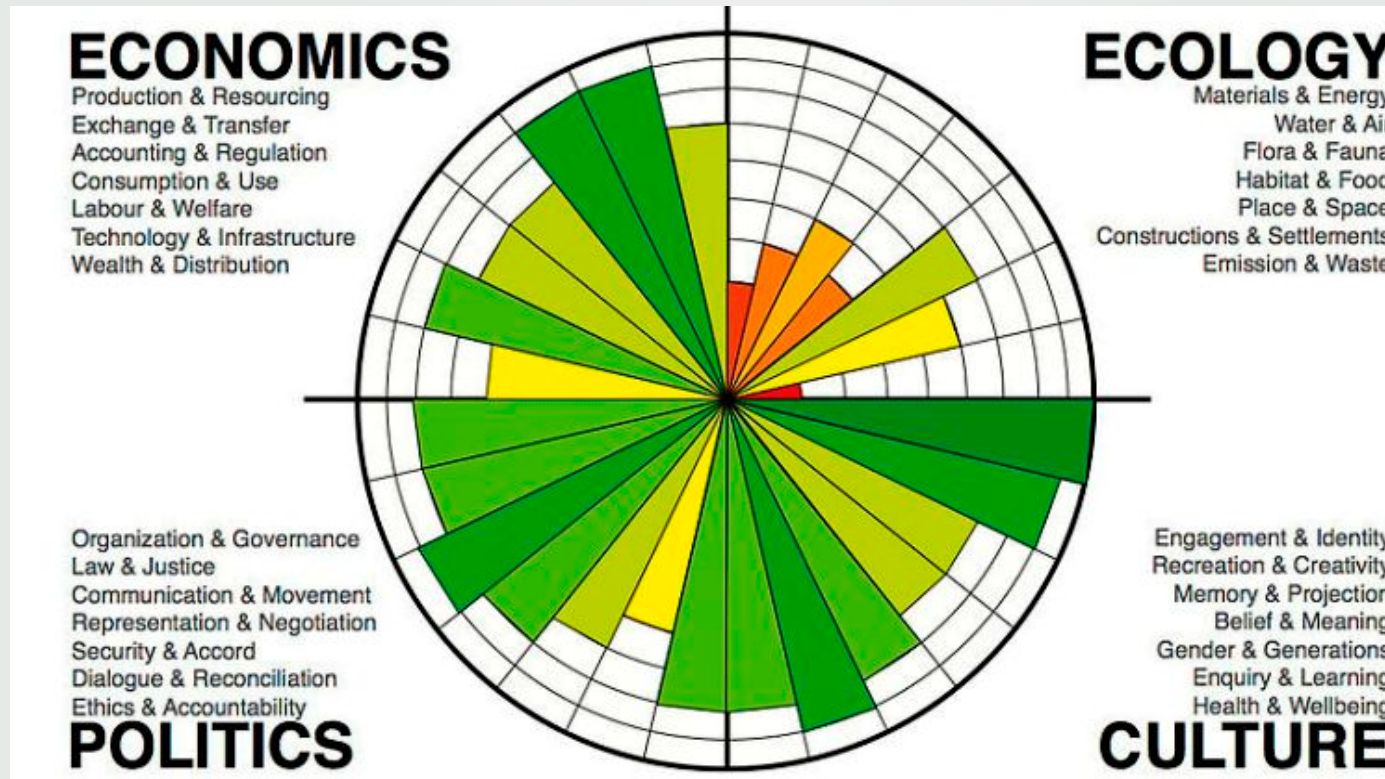
SUSTAINABILITY – EXAMPLES



Malala Yousafzai:

“With guns you can kill terrorists,
with education you can kill terrorism”

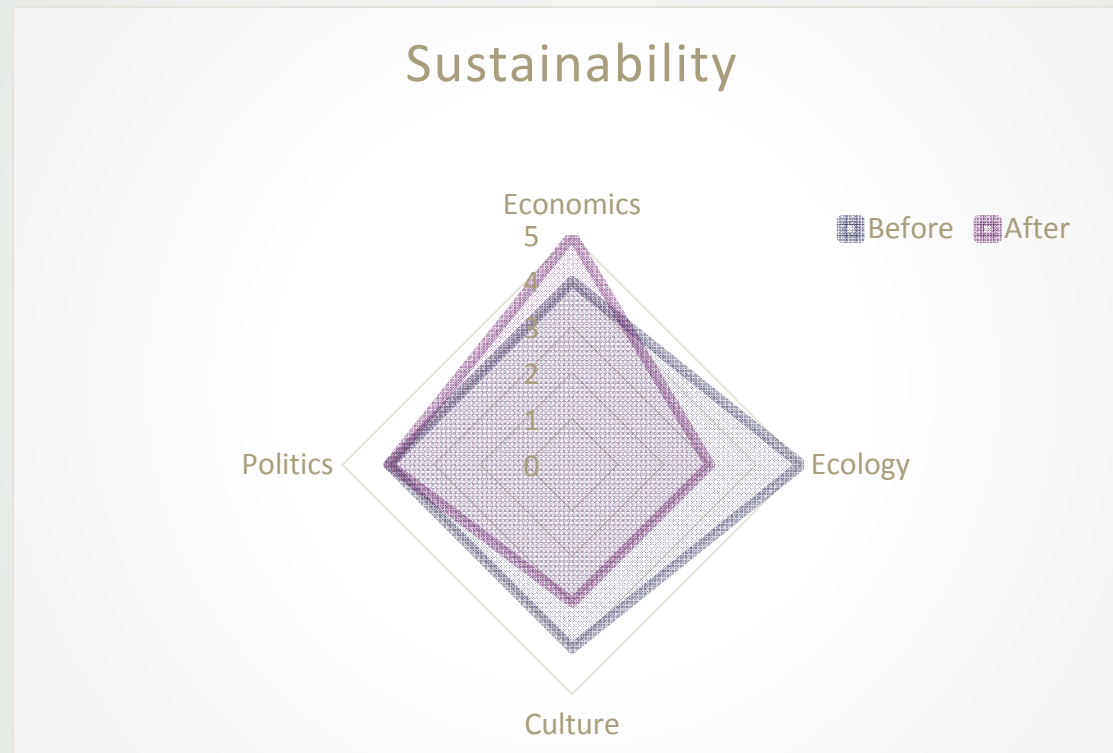
CIRCLES OF SUSTAINABILITY



- The model is being used by organizations such as the United Nations Cities Programme
- The aim of the programme is to improve urban life in cities throughout the world.
- Melbourne, Johannesburg, Sao Paulo, Delhi, Hyderabad, Port Moresby and Tehran – but not Kirkenes (I think)

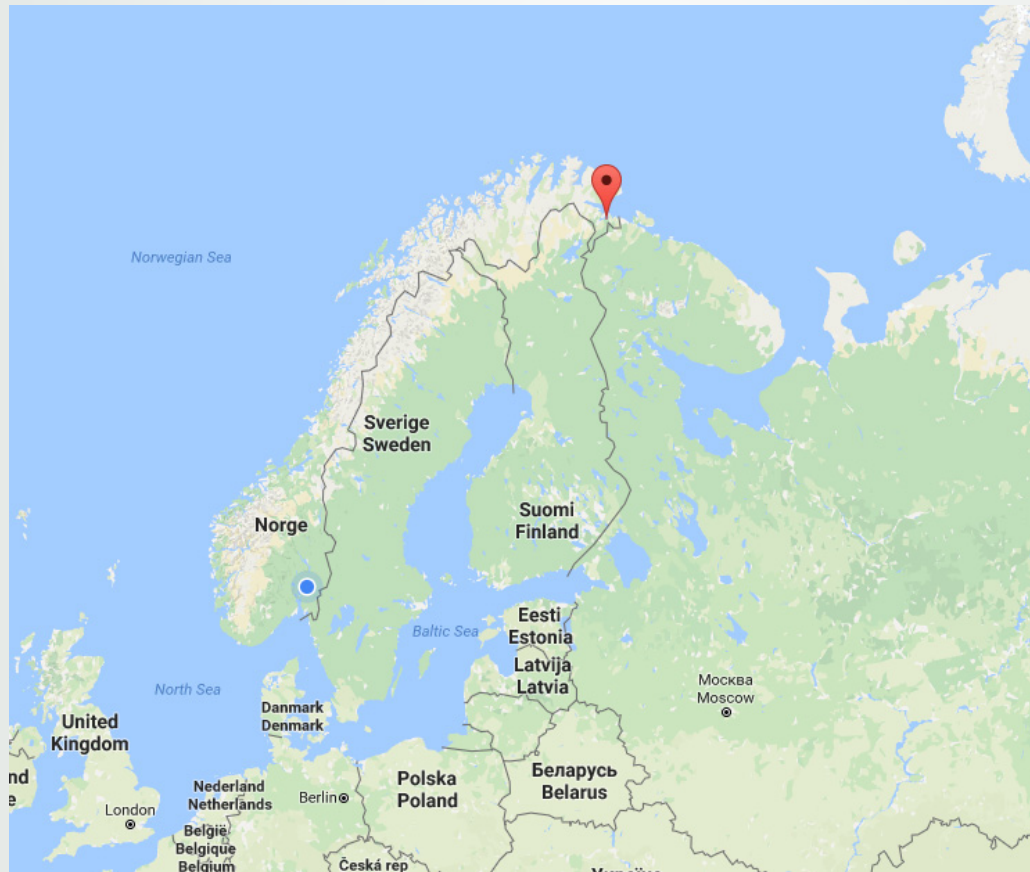
SUSTAINABILITY ASSESSMENT OF PROJECTS

Relevant for projects affecting cities or regions



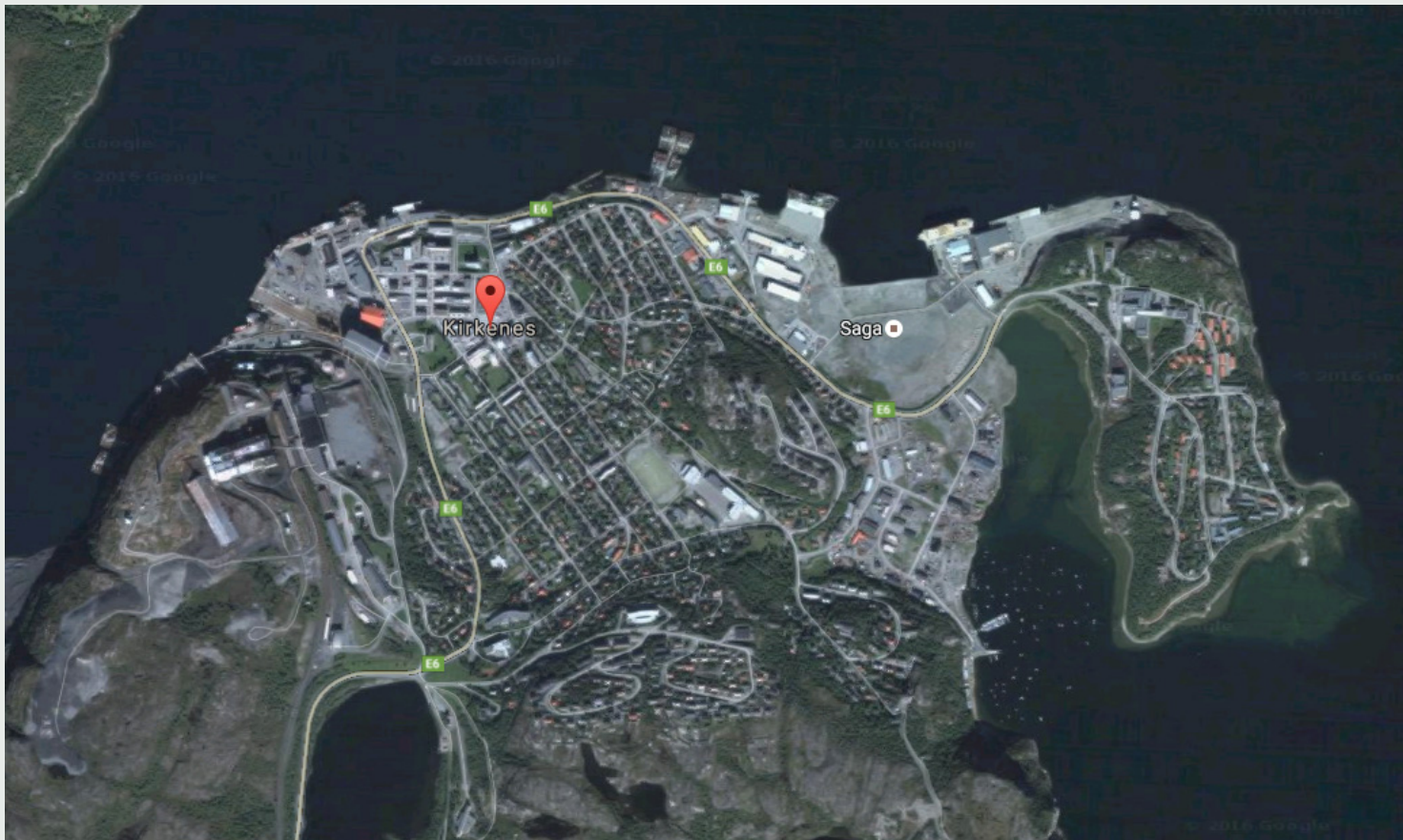
KIRKENES ON THE MAP

- Kirkenes (Sør-Varanger) is on the Russian border in the north of Norway.
- This region was populated already 10 000 years ago.
- Borders between Russia and Norway was drawn in 1826, and people had to choose nationality.



THE CITY OF KIRKENES

- Sør-Varanger has a population of about 10 000,
- About 3 500 live in Kirkenes
- A harbour, an airport and the roads E6 and E105 are important to the infrastructure.



TRADITIONAL INDUSTRIES IN THE AREA



OTHER INDUSTRIES IN THE AREA



NEW HARBOUR IN KIRKENES – BACKGROUND

Background for the concept study

- Potential for increased business activities
 - petroleum
 - industry
 - logistics
 - seafood
 - tourism

- The current harbour location leads to heavy traffic through the town centre



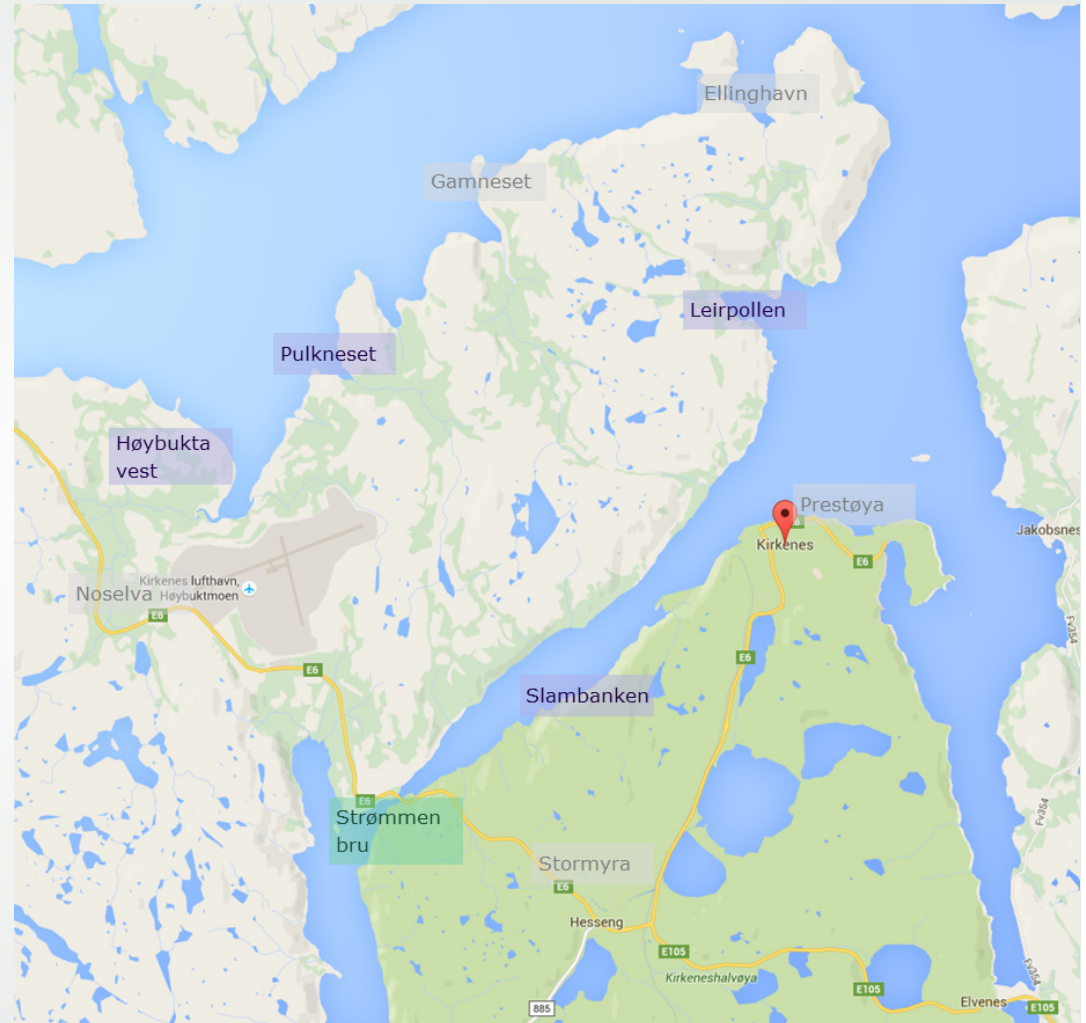
However..

There is no urgent need for a larger harbour

NEW HARBOUR IN KIRKENES – CONCEPTS

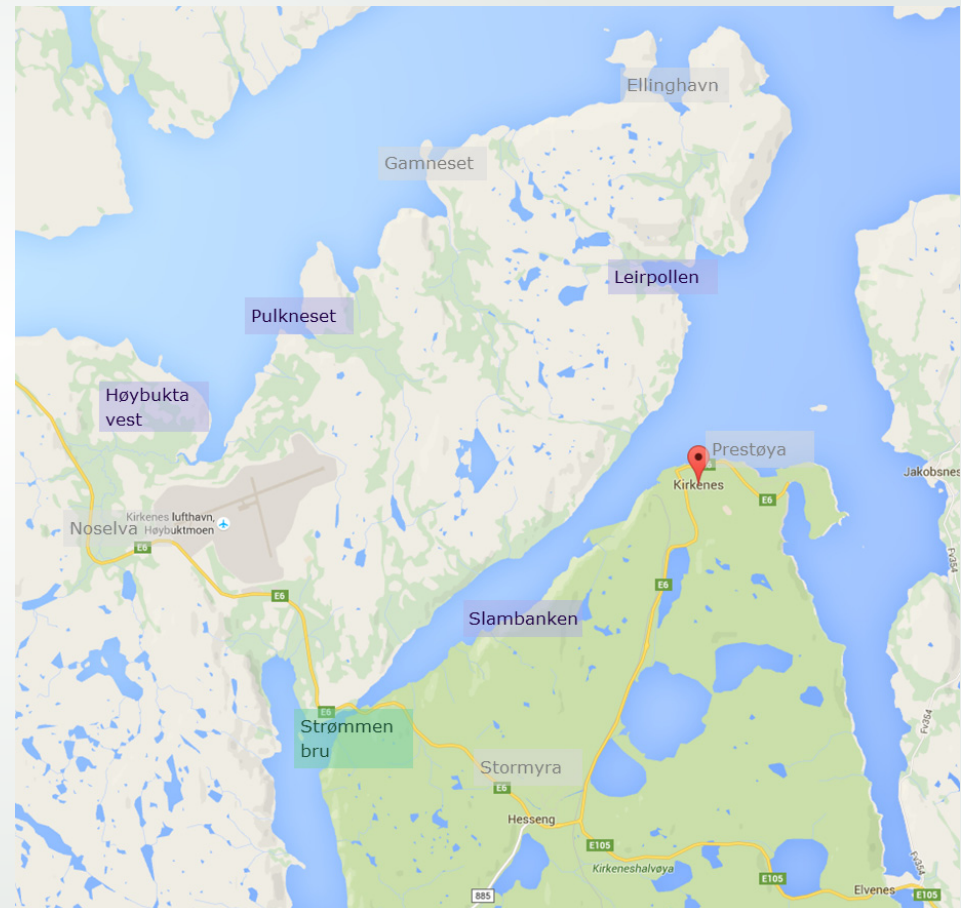
- As is – in the centre of Kirkenes
- Leirpollen (2 alternative pathways)
- Pulkneset
- Høybukta vest
- Slambanken

An upgrade of E6 is also a part of the concept study, but is not included in this presentation



NEW HARBOUR IN KIRKENES – ABOUT THE CONCEPTS

- Same size and functionalities
- Different cost (mainly due to road length)
- Different consequences to nature and reindeer
- Different realistic potential for business
- Negative net utility

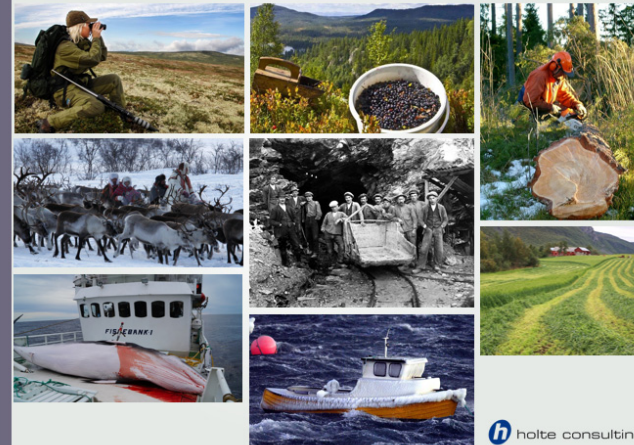


THE KIRKENES AREA – ECONOMICS

Production, use, and management of resources

- Iron ore, minerals, seafood/aquaculture, petroleum, reindeer, mechanical industries, tourism
- Slightly higher unemployment than Norway average after closure of iron ore mine. People who lose their jobs often move. A lot of commuters.
- Airport, harbor, E6 and E105 (no railway)
- Trading with Russia and Finland

TRADITIONAL INDUSTRIES IN THE AREA



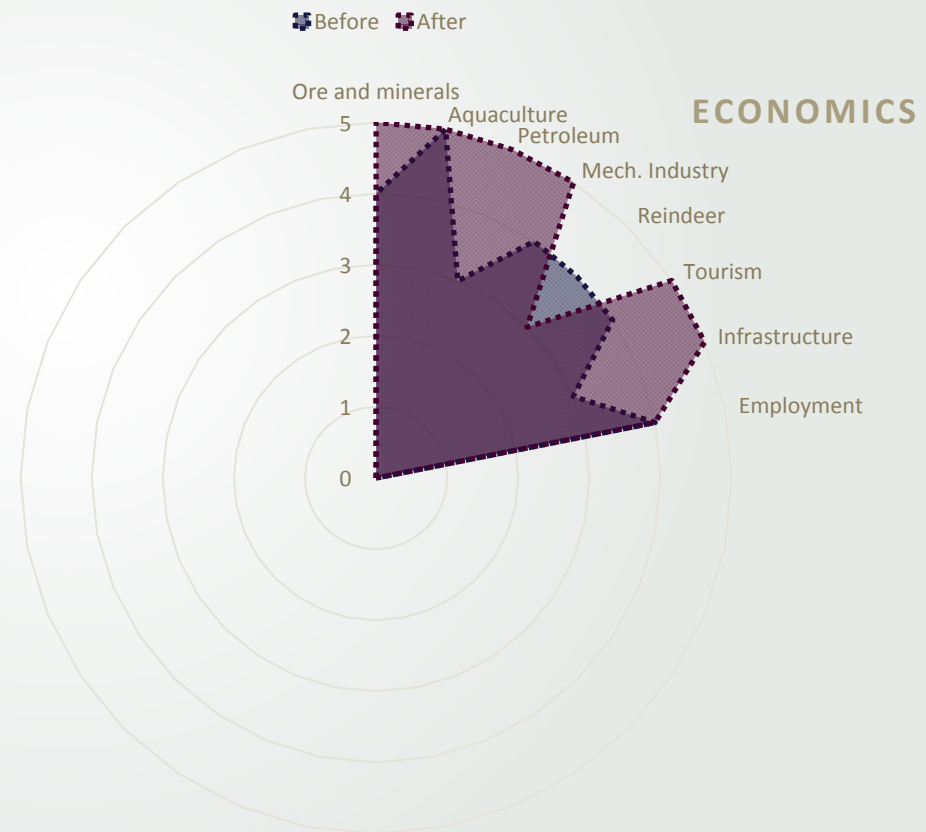
OTHER INDUSTRIES IN THE AREA



EFFECTS OF NEW HARBOUR ECONOMIC SUSTAINABILITY

Production, use, and management of resources

- Better facilities for
 - ship loading of minerals
 - petroleum activities
 - yard industries
 - logistics and shipping
- More attractive city centre
- Reduced reindeer herding



THE KIRKENES AREA – ECOLOGY

Human engagement with and within nature, also including the built-environment.

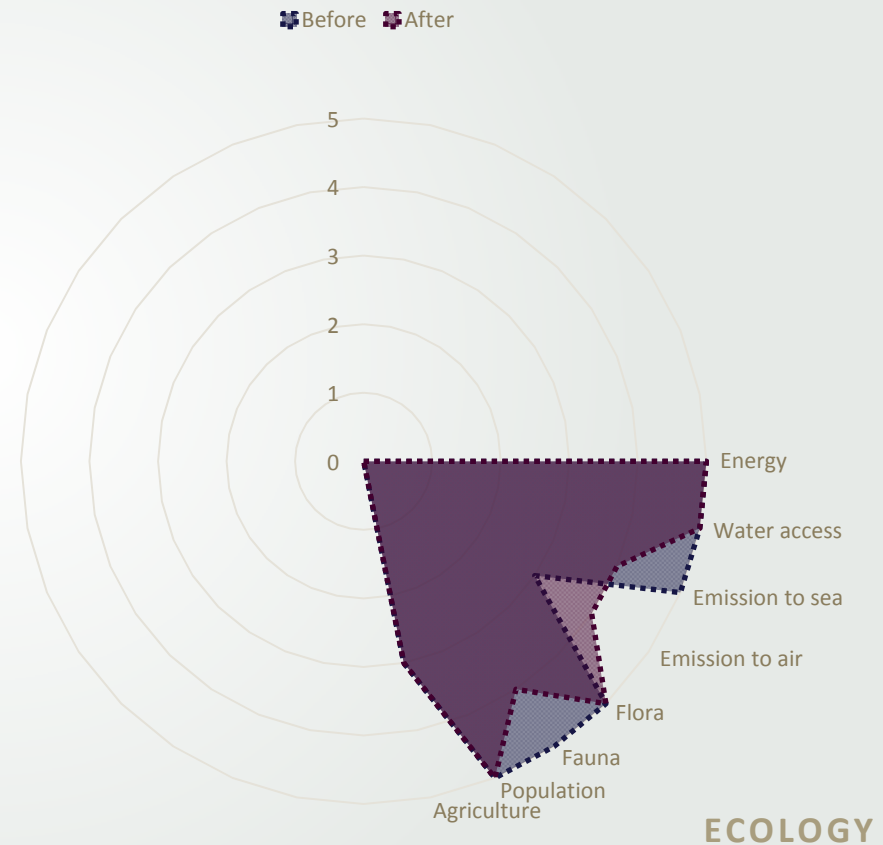
- Hydro power
- Sea, lakes, fjords, rivers
- Strict emission control, clean air
- Many eastern plant and animal species
- Bears, glutton and lynx, moose and reindeer
- Not very densely populated
- Natives (sami people) and migrants from Norway, Russia and Finland



EFFECTS OF NEW HARBOUR ECOLOGIC SUSTAINABILITY

*Human engagement with and within nature,
also including the built-environment*

- Higher risk of pollution of sea and fjords
- Reduction of grazing areas for reindeer
- Less dust emission in town centre
- Petroleum activities may contribute to increased CO₂ emission
- More transport on sea instead of on road



THE KIRKENES AREA – CULTURE

Practices, discourses, and material expressions, which express continuities and discontinuities of social meaning

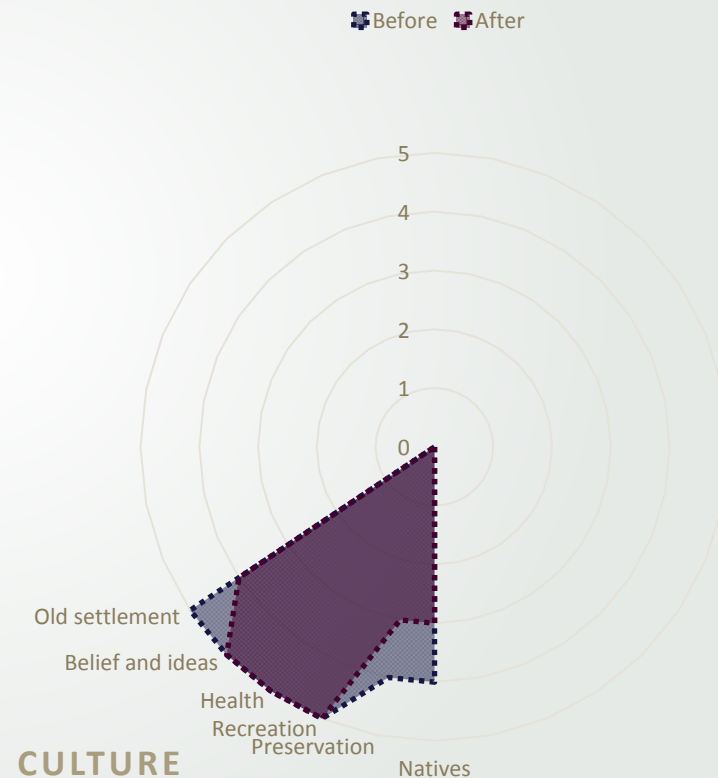
- Mixed culture of Sami people, Norwegians, Russians and Finns
- Immigrants from Asian and African countries
- People from about 60 nations
- Industrial workers, fishermen, service workers, Defence staff, reindeer sami and miners
- Kirkenes characterised as industrial town and revival town
- Traces of settlements from 10 000 years back
- Large areas for recreation



EFFECTS OF NEW HARBOUR CULTURAL SUSTAINABILITY

*Practices, discourses, and material expressions,
which express continuities and discontinuities of
social meaning*

- Reduced grazing areas for reindeer may contribute to a weakening of the sami culture
- Changes in business may lead to changes in population
 - Other professions?
 - More commuters?
- Moving old industry out of the town centre may change its characteristics
- Cultural heritage and traces of old settlements may be affected by the construction works



THE KIRKENES AREA – POLITICS

Basic issues of social power.

Public and private governance plus more broadly social relations.

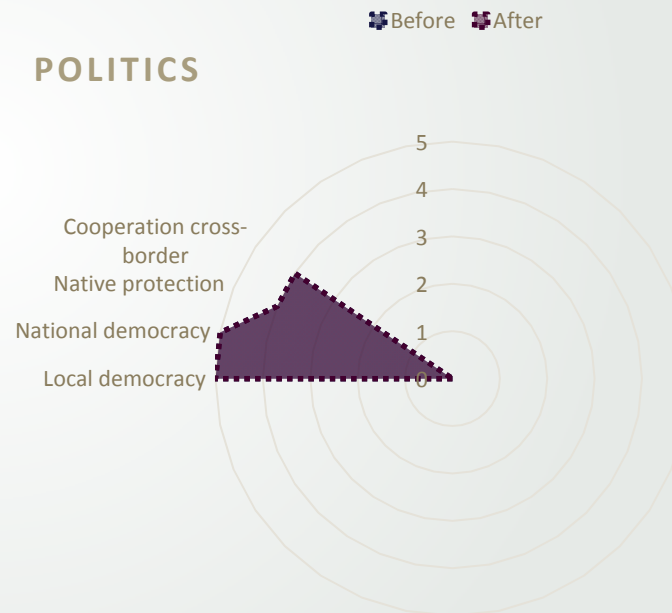
- National and local democracy
- Common with roles in both business and politics locally
- Sami parliament has a right to be heard in issues regarding the sami people and their land
- Sami people are protected by Norwegian and international law
- Local cooperation across the Russian border, and a facilitated crossing of the Norwegian-Russian border for locals (special passport)

EFFECTS OF NEW HARBOUR POLITICAL SUSTAINABILITY

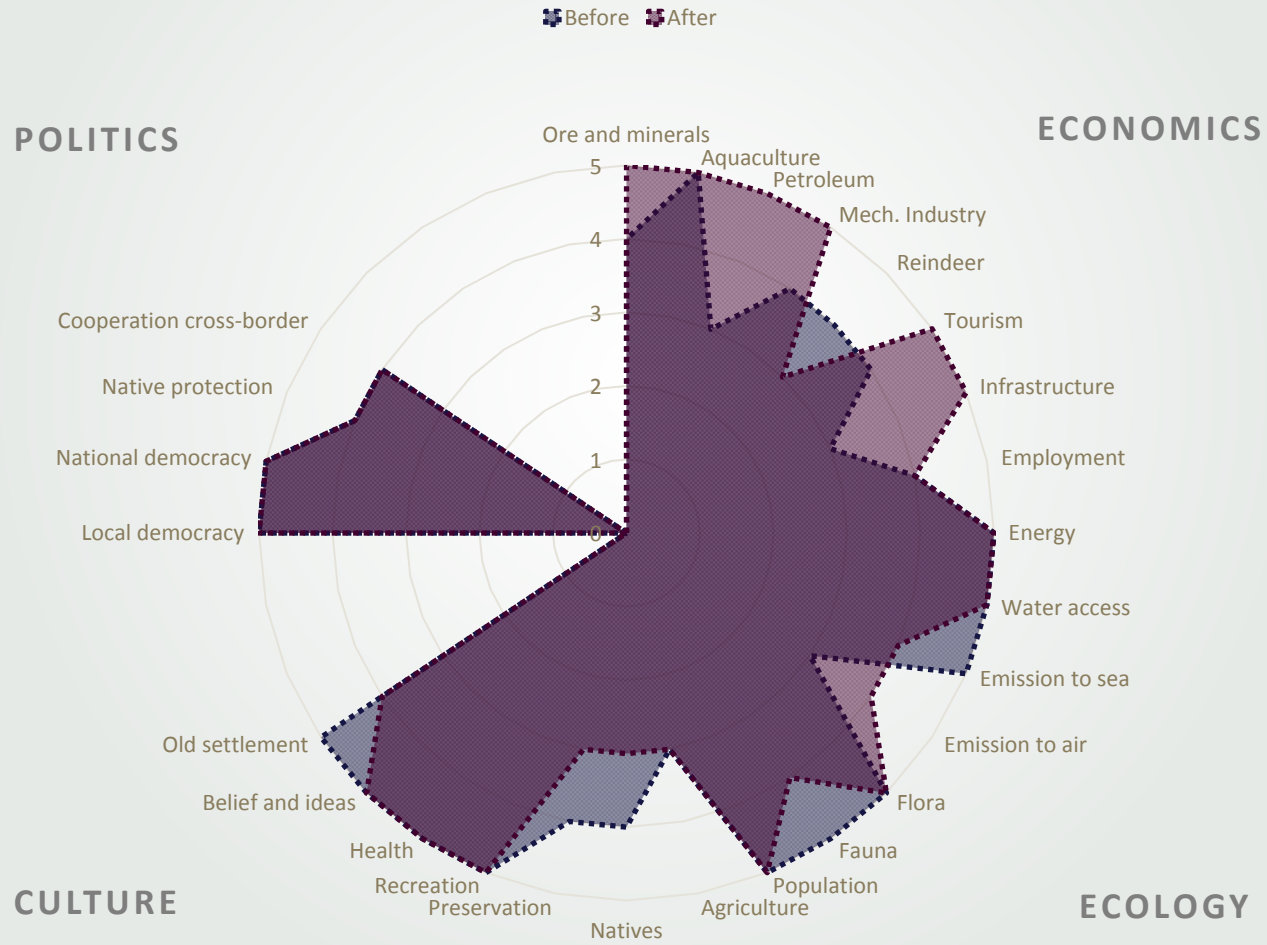
Basic issues of social power.

Public and private governance plus more broadly social relations.

- Possible tension between sami people and politicians due to loss of grazing areas
- Petroleum activities in competition with Russia?
- Moving the harbour out of the town centre could make it more attractive, and possibly increase the population and reduce the commuting



EFFECTS OF NEW HARBOUR SUSTAINABILITY



DILEMMAS

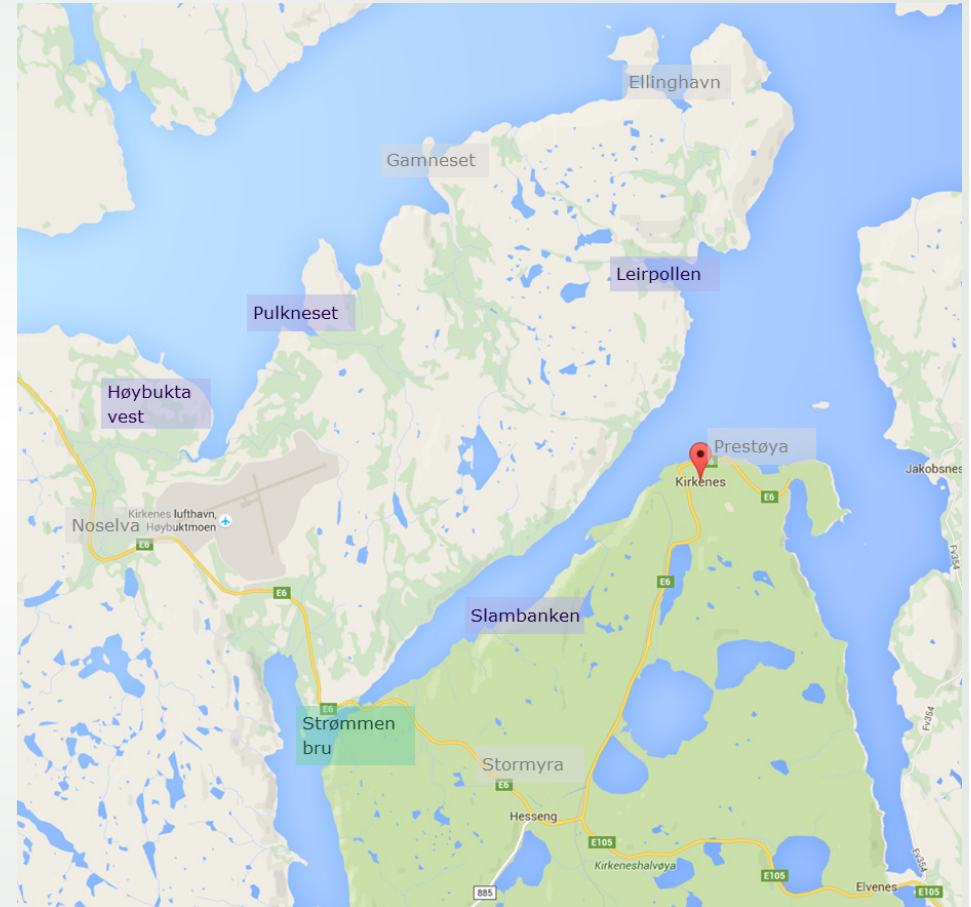
- Reindeer or harbour activities
- Industry or tourism in town centre
- Petroleum activities or less CO2 emission
- Industry/harbour activities or pure nature
- Increase population or leave the land to the natives

Could an analysis like this be a useful supplement to the economic analysis?

OUR RECOMMENDATION FOR THE HARBOUR IN KIRKENES

- Since the sami people and their culture and land are protected by national and international law, we recommended to clarify their view and possible actions before a location of the new harbour is decided.
- The choice of location should be based on the political ambitions for Kirkenes harbour.

Would the recommendation have been different if we had performed a thorough sustainability assessment?





THANK YOU FOR YOUR ATTENTION