Nordic Innovation Centre

Nordic Collaboration in Health Services

A feasibility study on the potentials and barriers towards an open market for health services in the Nordic countries

SUMMARY REPORT

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Copenhagen, February 2009

About the report

The full report "Nordic Collaboration on Health Services", upon which this summary report is based, is built on research carried out from May to September 2008, by the Scandinavian consultancy Oxford Research A/S on behalf of the Nordic Innovation Centre.

The full report is available for free download at
www.nordicinnovation.net

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Foreword

The Nordic countries have health care systems in world class. However, our health care systems face many challenges. One way to address these challenges is to look into the potential of collaboration between the Nordic countries. Although the Nordic countries collaborate in a range of areas, health care services have to a large extent been a national issue. Nordic Innovation Centre has as one of its missions to work for a borderless Nordic Region. Therefore the Nordic Innovation Center has commissioned this study. The study should be seen as a starting point on a process on how to increase the Nordic collaboration within health care services.

Ivar H. Kristensen
Managing Director, Nordic Innovation Centre

Preface

A number of developments – advanced technology, increased mobility within the skilled labour market, increased demand for specialisation and EU citizens right to seek health care in another country, etc. – challenge the national health care systems. Health care might in some instances be better provided in another member state, for rare conditions or specialised treatment. This may also be the case in border regions where the nearest appropriate facility may be situated in another country.

On this background, Oxford Research has conducted a feasibility study of the potentials towards an open market for health services in the Nordic Countries. Oxford Research selected four Nordic regions and carried out more than 50 interviews with high level experts within the health care sector. While the study looks into both potentials and barriers, the main focus has been on the potential benefits of a more integrated Nordic health care system.

The results are presented in brief in this summary report. Further details can be found in the full report, which is available for free download at www.nordicinnovation.net. So please keep in mind that we are focusing on the potentials and not the obstacles when reading this report.

Oxford Research wants to express a sincere gratitude for a fruitful cooperation with Nordic Innovation Centre during the project. Last, but not least, Oxford Research would like to thank all of the experts who willingly found time to feed our project team with valuable inputs.

Oxford Research
February 2009

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Why a study on **health care services?**

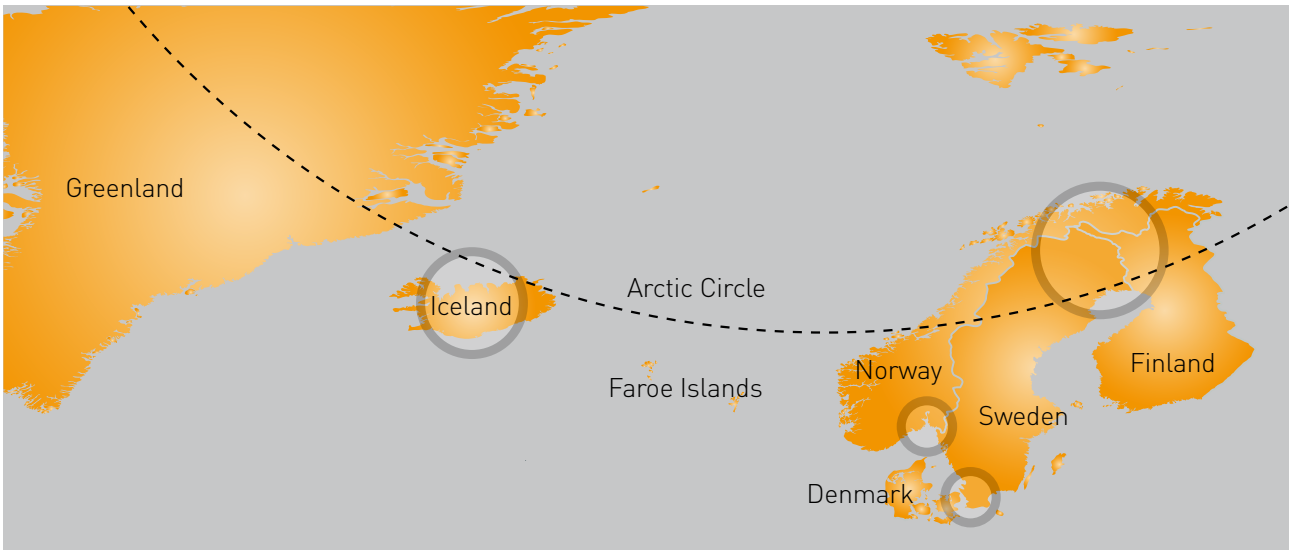
The health care systems in the Nordic countries share a number of similarities as well as a number of challenges in financing, maintaining and developing a public financed health care system with equal access for all citizens. These challenges are related to new sophisticated technology, ageing population, and increasing costs for public health care. Moreover, the mobility of personnel is increasing in the age of globalization, and demanding citizens have the right to the best available health care and are increasingly willing to travel to get it.

The EU integration will probably affect the Nordic health care integration, as it is likely that Nordic patients will choose treatment in other Nordic countries, when receiving health care abroad. Equally, there is a general lack of capacity in the Nordic health care sectors.

These common challenges make up framework conditions for further Nordic cooperation. It is also a solid framework condition that there is a tradition of Nordic cooperation, albeit not systematic in all areas. Nordic cooperation within health services is far from being a new phenomenon. Since the establishment of the Nordic Council in 1952 and the Nordic Council of Ministers in 1971, the membership of Denmark, Sweden and Finland in the EU, and the Agreement on the European Economic Area (EEA), steps have been taken to remove barriers for an internal Nordic market for health services.

Some concrete initiatives are: Cross border exchange of Norwegian patients ("The Patient Bridge"); cross border exchange of patients in the Oresund region ("Borderless health care in the Oresund region" published by Öresundskomiteen 2002); dental care cooperation in the Karesuando region between Sweden and Finland (EUREGIO 2007), Interreg project on the provision of e-health services in the Baltic Sea Region ("Baltic eHealth"), etc.

Oxford Research visited four Nordic regions and carried out more than 50 interviews with experts within the health care sector. The case studies were selected in order to provide valuable and diverse input to the overall conclusions.



NORDIC COLLABORATION IN HEALTH SERVICES

Iceland was chosen due to its small population. It is increasingly difficult for small countries such as Iceland to keep up with the global trend within health care towards more specialized experts and treatments.

The North Calotte region is interesting because of demographic challenges and a sparse population divided between three countries.

The Oresund region with a population of 3.5 million people is the largest and most densely populated area in the Nordic countries. It also hosts strong medical industries.

The Oslo and Gothenburg region are great urban areas but not as close proximity as in the cities in the Oresund region.

The chosen regions share to a certain extent common potentials and barriers, but every region also has unique contexts and preconditions. The regions are different also in the degree of existent cooperation. The Oresund region has for example come quite far in promoting cooperation between the Region Skåne, Sjælland and Copenhagen. Iceland has also developed its cooperation with the other Nordic countries. Oslo-Gothenburg and the North Calotte region have so far, for different reasons, not developed the Nordic integration to the same degree. All four regions are united by the fact that there are great potentials through further integration. These potentials are not isolated to our cases, but can bear fruit for all regions within the Nordic countries.

The objective of the study is to provide a platform and knowledge that enables a further and more detailed analysis of potentials for exchange and mobility of health care services between the Nordic countries.

In the following section the main findings from the study will be presented. The findings are based upon desk research and interviews with 51 experts from the health care sector, that is, representatives from public and private hospitals, researchers, organisations and different levels of the public authorities – municipalities, regions and national authorities. The four case studies are conducted with the expert interviews as point of departure.

Drivers **towards a further Nordic integration**

On the basis of a literature survey five different drivers towards increased Nordic cooperation have been identified. In this context a driver is an either endogenous or exogenous factor, which historically, presently and in the future can facilitate a deeper integration of the Nordic health care system. The five drivers are:

1. Economies of scale, including:

- *Capacity:* A larger Nordic market for health care services could foster better use of the given resources, especially in the specialised treatment areas. However, it is important to be aware, that at the present there is a general lack of capacity in the Nordic countries, which at the moment makes it difficult to use other country's capacity, especially within the area of mass treatments.

- *Competencies:* A larger and more integrated Nordic market for health care services provides an increased scope for establishing Nordic regional centres, which can attract the most skilled doctors and researchers. These Nordic regional centres of excellence could function both as providers of specialised treatment, and also as centres of research and development.

- *Price:* A larger and more integrated Nordic market for health care provides a scope for providing specialised treatment at the most cost effective level. An increased flow of patients seeking specialised treatment across borders calls for good coordination in regard to scarce or excess capacity.

- *Quality:* By creating specialized units, which serve a larger geographical area, it is possible to provide better and more cost effective treatment for rare and complex diseases. In order to provide the highest quality of treatment for rare diseases it is crucial that doctors experience constant practice within the field, and that demands a certain size of population.

- *Large scale technology investments:* Specialisation and investments in new, advanced technology amount to considerable costs. Therefore it can be advantageous to make common technological investments in order to keep up with the technological development.

2. Information & Communication Technologies:
The advances over the last decade within the area of ICT have been tremendous. This development has also affected the health care sector in various ways and will continue to do so in the future. A specifically interesting area which the ICT development has given birth to is e-health. E-health is very likely to be an important driver of integration, and is subject to extensive discussions both at the European and Nordic levels. The European Commission views e-health as something that can improve access to health care and boost the quality and effectiveness of the services offered. Nordic initiatives on e-health include e-recipes, consultation from specialists via video conferences, electronic and transferable charts and even "tele-dialysis".

3. Demand driven health care: the demand driven part of health care plays a prominent role in relation to the potentials for an integrated Nordic health region. Traditionally, focus has been on the supply side when discussing Nordic health care. However, this focus has changed in recent years towards a more demand driven conception of health care. In short, demand driven health care is the concept that incorporates the empowerment of the patients into the co-ordination and

organization of health care. The reason for this shift in the conception of health care is that especially strong patient groups do not take the provision and quality of health care for granted anymore. One outcome of the more demand driven conception of health care is the increased use of the private health sector. Historically, the Nordic market for private medical treatment by hospitals, clinics, etc. has not been very large. However, during the last decade we have experienced an upsurge in private health services. Another outcome of the more demand driven conception of health care is the increase in the new phenomenon Health Travel (or Health Tourism). By health travel is meant going abroad with the primary purpose of medical treatment.

4. ***Global workforce:*** The Nordic countries have a tradition of cooperation in health care mobility, which has been proactive in relation to the EU legislation. There is a high degree of mobility of health care personnel in the Nordic countries. But a high flow of health care personnel between the Nordic countries does not necessarily solve any bottleneck problems. Instead, the tendency we see today is that doctors and nurses go where the pay-checks are highest. The high inflow of Nordic health care personnel in Norway is to a large extent due to the high wages in Norway.

5. ***Policy:*** There exist numerous policy initiatives both at European as well as Nordic level, which are aimed at increasing the European and Nordic health care cooperation. The initiatives are aimed at different areas such as patient mobility, mobility of personnel, education, research and development, e-health, etc.

Barriers **towards integration**

Most of the barriers concern tradition and the organisational unwillingness to give up mandate – patients, clinics, equipment, or treatment areas. Such barriers are common in the health care sector (and other sectors dominated by professionals as well), and they are not necessarily related to an unwillingness to cooperate on an international basis, as these barriers are also well known in regional planning processes. The professional culture obviously also plays a role, as doctors in general are reluctant to send patients to other doctors, be it in another region or another country. These organisational barriers are mainly a hindrance to the further division of labour and planning of centres of excellence across the Nordic countries.

Apart from that, seven barriers are located in the study:

Culture/language: Patients are unwilling to receive care in other countries. Many examples have shown that patients are more likely to stay at home and wait for the treatment than to go abroad and have the treatment instantly. However, this picture might change when the patients become better informed, and as the younger generations with more international experience enter the health care system.

Demographic density: Demographic density can be a precondition to cooperation, but within the densely populated regions, the sizes of the populations on both sides of the borders are big enough to have a national based health care system.

Geographic distance: In the scarcely populated regions, on the other hand, the distances to cooperate across borders are so huge, that the patients are unwilling to travel so far, as long as the illness is not life threatening.

Mentality and prestige (national to local): There is competition across the Nordic countries, and the health care authorities do not necessarily want to give up competences/mandate in order to cooperate on mobility of patients.

National health care systems: Health care systems are differently organised across the Nordic countries which can cause hindrances to cooperation processes.

National legislations: In the fields of recognition of medicine, patient safety etc., there still exist different legislations that may cause problems related to the mobility of patients.

Quality development: Quality development is a potential area of cooperation, as the common and sophisticated indicators of quality are currently lacking.

Potentials **and current level of cooperation**

– findings from the four case studies

The four case studies concern both scarcely and densely populated areas, which provide different angles in relation to the question of economy of scale. Among the densely populated areas are the Oslo-Gothenburg region and the Oresund region, and among the sparsely populated areas are Iceland and the North Calotte Region.

If one considers the densely populated city areas such as the Oresund region or the Oslo - Gothenburg region, the main driver is the economy of scale, understood as the gathered capacity and know how, the possibility to reach millions of patients within a short time limit, and the possibility for health care employees to commute on a daily basis. Conversely, in the scarcely populated areas in Iceland and the North Calotte region, the main driver is the lack of economy of scale, and hence there is a need for further cooperation.

Another general and very important experience from the case studies is that cross border cooperation often takes necessity as a point of departure. Cooperation is carried out when the need to take common action is obvious. Many cooperative initiatives are bottom initiatives from the health care personnel on the basis of personal network, which seeks pragmatic solutions to common challenges.

Technological investments

The need for making large scale technology investments can in the future be a driver towards further Nordic cooperation, in order to gain both geographic proximity and greater critical mass.

For instance, in these years, giant leaps are being made within the area of corpuscular radiation. Unfortunately, the equipment needed for providing treatment within corpuscular radiation is extremely costly. The price of a scanner used for treating heart irregularities by the use of corpuscular radiation is estimated to be around 1 billion DKK (134 million EUR). A consequence is that a substantial patient base is needed in order to justify making the investment. This provides great incentives for the Nordic countries to pool some of their large scale investments and subsequently make the equipment available to citizens of both (or all) countries involved in the investment.

Problems in relation to the financing of large scale equipment are likely to arise if public agents are involved. If public parties on behalf of a country agree on the investment, the costs have to be shared according to some predefined formula. The problems now arise when defining the usage and ownership of the equipment, since there are many unknown factors behind the future usage such as, will the technology become obsolete, will one region experience an unexpected higher fraction of patients, etc.

Large scale investments can be more suited for private consortiums since they are better at coping with the risk of the investment and ultimately raising the needed capital. In Kiel, Germany, a private consortium is in initial talks with neighbouring countries (among them Denmark) about the interest of investing in a corpuscular radiation scanner, which will be placed in Kiel. The idea is that private patients or public health systems can buy capacity at the facility. However, public actors also consider common technology investments, so it is a driver which is not yet fully unfolded.

Some patients, especially the elderly patient groups, might not want to travel long distances in order to be treated. The geographic proximity can be a pull factor toward further Nordic integration in terms of common technological investments within certain regions, as the other side of the border is

closer than a bigger city in the same country. The examples of common technological investments are not many, but it is assessed that the potential is there in the long run, and moreover, that the potential is increasing, given the further process of specialisation and technological development.

Specialisation and international centres of excellence

The increased degree of specialisation can move the development in the direction of global centres of excellence in the Nordic region. In the Oresund region, the diabetes cluster is for instance a prominent centre of excellence, concerning both the medical industry and the hospital care, as well as cross border and cross sector cooperation. But the further specialisation and establishment of such centres of excellence in some cases demands a further division of labour between Nordic countries – and there might be professional and national interests against an advanced degree of labour division.

Many of the experts that Oxford Research has spoken to, emphasize the potential gains in higher specialisation. If the doctors are allowed to narrow their competencies further, increased quality will be the result. That however, requires a certain population size. The so-called critical mass differs of course between different medical fields. However, it is very likely that some medical specialities will be able to improve treatments if there were only one or two centres of excellence in the Nordic countries, instead of one or several in every country.

Specialisation example
The Gothenburg and Oslo regions cooperate in areas such as child and heart surgeries and pancreas cancer. To stay specialised within this area, one specialist has to perform at least 2 operations each week. The plan for VGR (Region Västra Götaland) is to decrease the number of hospitals treating pancreas from five to one centre of excellence at the Sahlgrenska Hospital in Gothenburg. This centre could indeed cover the entire Nordic area according to Lars-Olof Rönnquist, Health care Director at VGR.

International market for health care services

Iceland is the case in our study which has come furthest in planning for health tourism. Iceland views the centres of excellence and a higher degree of labour division as a market possibility – to brand Iceland and the other Nordic countries with a Nordic brand based on quality and clean environment. Iceland already attracts health care tourists within certain treatment areas, such as psoriasis, and other hospitals in the Nordic countries, including public hospitals, treat patients from all over the world. There is an interest in this perspective across the countries, but one main obstacle at the present time is the lack of capacity in all Nordic countries. Some experts think that the private health care sector has to be the first mover in the international health care market in the North. There is the Sahlgrenska International Care AB who offers health care treatment for foreign patients when capacity is available, but the numbers are small at the moment.

Increased health travel is a by-product of the more demand driven health care market. The authors behind the few reports and articles that have been published on health travel all seem to agree that the market is growing and prosperous. However,

when it comes to the extent of health travel there seems to be very differing views.

Seen from a global perspective the provision of private medical treatment is a growing and extremely valuable market. At present, patients' conception of the health market is moving towards a global market with no borders.

The estimated extent of the health travel differs a lot depending on who is addressed and how it is measured. In a recent study by McKinsey it is estimated that the current market for medical travel is only 60.000 to 85.000 patients a year. The main conclusion of the study, besides the extent of medical travel, is that most medical travellers seek high quality and faster service instead of lower costs.

Mobility of personnel

The Nordic countries have a long tradition of sharing health care personnel, as there is both a well established administration and recognition of authorization certificates, and as there in general has been mobility between the Nordic countries.

Traditionally, a pull factor behind mobility of personnel has been overcapacity in some countries and undercapacity in others. The mobility has also been driven by differences in wages. An example of this is seen in the Oslo-Gothenburg region, were the higher Norwegian wages attract personnel from the Swedish side of the border, but also partly in the Oresund region, where the flow of personnel at the present is from Sweden to Denmark. In general, all Nordic countries try to attract personnel from abroad, also from countries outside Europe, and therefore the situation is one of potential competition between the Nordic countries.

There are different models of sharing expertise between countries. Both in the dense and the sparsely populated areas, doctors move permanently to the region. Iceland educates an overcapacity of doctors, and it has not been a problem to attract these doctors back to Iceland, given that the positions are there. This is different in the North Calotte region, where there is a constant lack of health care personnel. In the densely populated areas, i.e. Oresund, commuting is also common. Moreover, another way of sharing expertise is to have shared positions, were the specialist/physician travels about. There has been an example of this in the Oresund region, and the model has been used in Iceland as well, where the physicians occasionally travelled to rural districts, or where an international specialist went to Iceland to perform transplantations.

In the Oresund region, the opening of the Oresund Bridge has pushed forward the mobility of personnel in the region, so infrastructure obviously plays an important role.

Mobility of patients within specialised treatment areas

Concerning mobility of patients, it is important to distinguish between mass treatment areas and highly specialised treatment areas. Mass treatments make up the most costly part of the public expenditures on health care, while the potential to establish cross border cooperation on mass treatment is limited. This is due to the fact that the Nordic countries at the present time lack capacity, and hence have to send patients to e.g. Germany, which has an overcapacity. However, the potential to cooperate on specialised treatment areas/small patients groups is huge, and, given the further specialisation of health care, also growing.

There has already been established a more or less systematised cooperation in the field of specialised health care, such as children's heart diseases, transplantations and other highly specialised clinical operations. However, the picture remains that the overall systematic approach to cooperation is lacking, as the cooperation often

takes place within certain areas and is based on bottom-up initiatives. This also concerns the planning of health care services and a higher degree of labour division across borders, which is not an area of cooperation at all. Iceland regularly sends a number of its patients abroad, mainly to the Nordic countries and USA, to solve its capacity problem that stems from the lack of critical mass.

E-health

E-health means that it is possible to have, for example, a specialised physician's opinions, even though the physician is thousands of kilometers away. This is especially attractive in the scarcely populated areas. Due to this, the possibility of e-health is often used, also across borders, but there are limitations to the use of e-health. In the North Calotte region, the national health system has an advanced use of e-health, but there is not synchronisation between the national e-health systems (i.e. electronic journals, recipes and distance counselling). There are however international projects looking at the potential to find new tools and products for long distance treatment. Iceland views electronic prescriptions as an area that is advantageous to cooperate on, and has started a pilot project with Sweden in this field.

Higher integration between the national health care systems is needed for cross border e-health to be successful. Increased rights to access patient files, registers and catalogues across borders are also needed.

Nordic initiatives on e-health include e-recipes, consultation from specialists via video conferences, electronic and transferable charts and even "tele-dialysis" (where a patient with renal failure can get dialysis at the local care centre and have the data automatically transferred to specialists at the hospital). Such initiatives are only, however, to be regarded as the "tip of the iceberg." An increased use of ICT in the everyday work of caretakers, such as the regular use of e-mail, has made health care personnel more accessible to their colleagues at other hospitals, and more willing to seek help and consultation from other establishments than their own.

The use of ICT and e-health is a growing phenomenon that has great impact on the functioning of health care on many levels. For health care personnel, e-health means better access to knowledge and new discoveries as well as greater possibilities to gain help from outside the hospital. This is especially important for health care establishments in remote areas where the resources aren't extensive enough to include all forms of specialities. In such cases, video conferences can be of great relevance. Since remote areas are something fairly common in the Nordic countries, this kind of e-health is a driver towards Nordic cooperation.

The increased accessibility, which is especially important for remote areas, is not only an improvement for the care takers. Patients in these areas, who have a regular need for care, are generally bothered by having to travel far to meet necessary specialists repeatedly. This means that e-health initiatives both have the potential to satisfy the patient and reduce patient travelling costs in strained budgets.

Economic gains can be retrieved not only from the decline of patients travelling, but also from enhanced productivity. The use of electronic charts, for example, has made the process of correct treatment faster and more secure, compared to the time consuming and insecure practice of sending charts by regular post.

Quality development

Some actors emphasize that common indicators of quality can be a driver toward further cooperation; better indicators of quality will act as a driver towards more cooperation, because if one hospital department finds out that another is better, it will be important to get to know why.

The study highlights the need for developing more indicators of quality to measure Nordic quality of care, in order to market Nordic health care services internationally. Quality indicators therefore work as a catalyst for many of the other drivers. However, quality indicators are not unproblematic; it is difficult to measure quality in the health care sector.

Notes:

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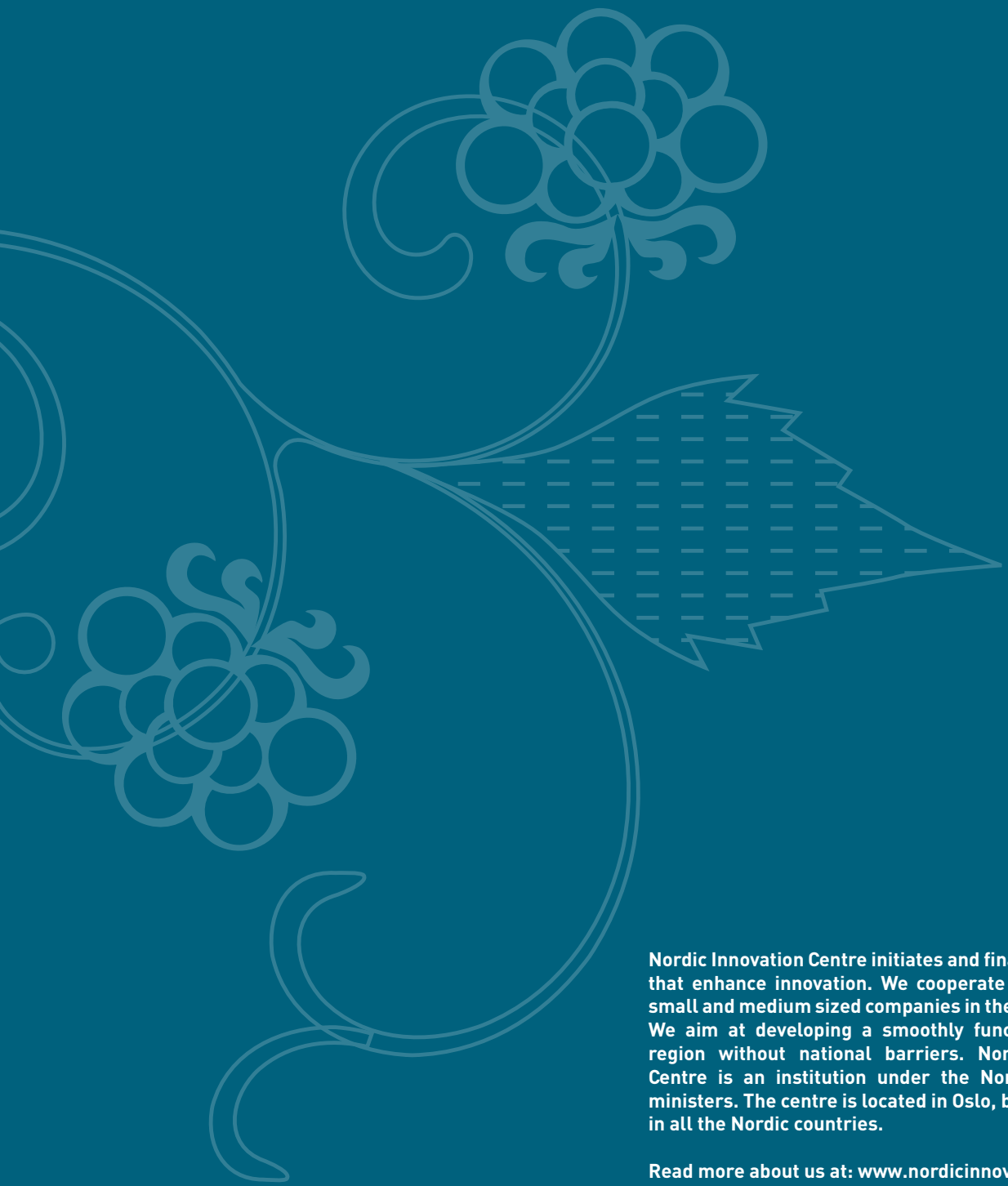

Nordic Innovation Centre initiates and finances activities that enhance innovation. We cooperate primarily with small and medium sized companies in the Nordic region. We aim at developing a smoothly functioning Nordic region without national barriers. Nordic Innovation Centre is an institution under the Nordic Council of ministers. The centre is located in Oslo, but has projects in all the Nordic countries.

Read more about us at: www.nordicinnovation.net