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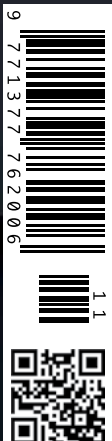
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# Public-Private Partnerships: A Win-Win for Danish Healthcare and for the Industry

Summary: The Danish model shows that, when Public-Private Partnerships (PPPs) work, they can usher in innovation and solutions previously regarded as out of reach.



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While healthcare authorities in many countries are experiencing increasing demands and costs due to an ageing population and more patients with chronic diseases, they are, at the same time, in a kind of opposition to healthcare and pharma companies, which provide solutions and products for their problems.

In Denmark, based on a long legacy of PPPs, the relationship between healthcare authorities and private companies is gradually changing. They stand together to face the challenges of healthcare and work together in PPPs to find new solutions. This is a win-win for healthcare and for the industry.

## Public Private Partnerships in Denmark – A Decades-Long Legacy

The tradition of PPPs in Denmark is based on a decades-long legacy where public and private organisations more than 80 years ago realised that they could benefit from closer cooperation even though, at that time, it was more informal and not PPPs as we know them today.

The Nordic Insulin Laboratory (now Novo Nordisk) was established in 1927. Already in 1932, the company established the first Nordic Diabetes Hospital to treat diabetics, and the public healthcare system soon realised that their patients could benefit from the highly specialised expertise that was available at the Nordic Diabetes Hospital. During the 1930's and 1940's this led to an informal cooperation, where the Nordic Diabetes Hospital contributed to

improving the treatment of diabetes in Denmark.

During the 1970's, the cooperation with Nordic Diabetes Hospital was formalised as a public-private collaboration by the County of Copenhagen and Nordic Insulin Laboratory under the name Steno Diabetes Center.

Recently the Steno Diabetes Center in Capital Region was upgraded and expanded and the PPP, Steno Diabetes Center, is now present in all five healthcare regions in Denmark. A considerable grant of close to €1bln from the Novo Nordisk foundation made it possible to expand this cooperation to cover all of Denmark.

The common vision behind the national Steno Diabetes Centers is to reduce the prevalence of diabetes, increase life years and the quality of life for diabetes patients and reduce diabetes related co-morbidity and complications. All Steno Diabetes Centers in Denmark work to achieve this vision but they address the diabetes challenge in slightly different ways:

- Region North: focus on digital health.
- Central Region: focus on integrated care and prevention.
- South Denmark Region: focus on strengthening primary care services.
- Region Zealand: focus on reducing co-morbidity and improve equal access to diagnostics and treatment.
- Capital Region: focus on world-class research and education.

With both a common vision and, at the same time, addressing diabetes in different ways, the Steno Diabetes Centers build on local strongholds across Denmark, which support research and development in the whole country.

Danish Healthcare Authorities as well as the Novo Nordisk Foundation have a strong interest in ensuring that the grant for the national Steno Diabetes Centers results in new diabetes research and treatment, which would not have been possible without the grant from the Novo Nordisk Foundation. Nobody wants a development where the public-private cooperation tradition gradually results in a situation, where private contribution replaces investments, which would otherwise have been financed by the state of Denmark. This is not only because such a development would reduce the impact of research, but also because it could lead to a private sector-biased prioritisation of research and treatment. This is also the reason why the Steno Diabetes Center project is organised in such a way that Danish Healthcare Authorities are in full control of the project; they have voting rights on the boards and the Novo Nordisk Foundation have observatory members on the boards of the projects.

### User-Driven Innovation: The Informal Culture of Public-Private Cooperation

Denmark is internationally known for user-driven innovation – a culture, where the needs for innovation and ideas for new solutions are based on a strong collaboration between hospitals, universities and private companies.

A typical user-driven innovation project originates from a hospital, a municipality, a primary care organisation or another healthcare organisation, which has identified a problem they want to solve through innovating new concepts or solutions. Often universities or cluster organisations can play a role in motivating healthcare organisations to bring strategic or daily operation problems forward.

User-driven innovation projects may not be based on an idea for an actual product but rather on a problem that needs to be solved. As an example, the Alexandra Institute at Aarhus University and Horsens Regional Hospital initiated a project in the early 2000s to work out a solution to increase the quality and outcome at the surgery department. The early phases of the project focused on hygiene compliance but, it was realised through the process that the biggest contribution to increase quality and outcomes could be achieved by optimising awareness, coordination and collaboration and the

project then took a different direction.

As a result, a solution to replace the white boards at the surgery department was developed and after a pilot with the new solution, which is based on big touch screens which represents activities in a new and comprehensive overview, a randomised control trial documented that the new solutions contributed to both increased quality, higher production and a valuable change of the culture among the staff involved.

A spin-off company was then created, and the developed concept and solution is now used widely in Danish hospitals as well as internationally. The project also put a spotlight on the importance and potential of real-time coordination at hospitals – which again inspired further innovation and solutions as described in the Healthcare DENMARK white paper on Hospital Logistics (2017) that is available on the Healthcare DENMARK homepage.

“ IN DENMARK, THERE IS A LONG TRADITION OF THE PRIVATE AND PUBLIC SECTORS STANDING TOGETHER TO FACE CHALLENGES OF HEALTHCARE AND WORKING TOGETHER TO FIND NEW SOLUTIONS ”

### The Industry as a Partner: Private Initiatives Driving Healthcare Sustainability and Transformation

In Denmark, the transformation of healthcare accelerated 15 years ago, when the increasing demands for healthcare services created long waiting lists for treatment at Danish hospitals. Since then Denmark has restructured its hospital sector and new initiatives to strengthen primary care and healthcare services in a municipal setting have been implemented. This includes a focus on e-health and telehealth which again relies on patient education and empowerment.

Recently the private industry introduced initiatives that, in different ways, support the public healthcare system transformation efforts.

Leo Innovation Lab was established by the company Leo Pharma as an independent lab with a mission to improve the lives of people living with

chronic skin conditions. Leo Innovation Lab does not address this mission through research in new medical treatments but rather through digital innovation with aims to address the challenges of the modern patient journey.

The programme Cities Changing Diabetes was launched in 2014 by Novo Nordisk, University College London and the Steno Diabetes Center. In collaboration with cities around the world, Cities Changing Diabetes helps communities understand their unique set of diabetes challenges, identify areas and populations at greatest risk, and design targeted interventions that can put change into motion.

“THE HEALTHCARE INDUSTRY IS PLAYING AN INCREASINGLY IMPORTANT ROLE IN TERMS OF INNOVATIVE CONTRIBUTIONS TO OUR HEALTHCARE SYSTEM AND AS AN INDUSTRY THAT CONTRIBUTES TO SOCIETY, WEALTH AND RESEARCH”

In 2019, 25 cities around the world are participating in Cities Changing Diabetes partnerships. In Copenhagen the cooperation resulted in the Copenhagen Centre for Diabetes, which address the local diabetes challenge with new initiatives within prevention and early detection of diabetes, patient mentoring and education. However, every Cities Changing Diabetes partnership is different and based on a cooperation to address the specific diabetes issues for the partnering city.

The company Coloplast is supporting patient education and empowerment through the Coloplast Care – a portal which provides advice and education to users of catheters and stomia bags. This portal, and the services it provides, is highly valued by patient organisations.

Both Lundbeck Foundation and Novo Nordisk Foundation have recently provided grants of millions of euros to the Danish Personalised Medicine initiative – a public healthcare system initiative that aims to contribute substantially to future

healthcare transformation. As a first step within this initiative, the Danish Genome Center has now been established, and when this is in full operation, it will collect DNA and Genome profiles on a national level, in order to share this for research and treatment of patients.

The above examples all illustrate how private initiatives from the industry are supporting public healthcare system transformation in Denmark. Some of the initiatives impact in more indirect ways and others – like the grant for the Personalised Medicine initiative – in more direct ways. The Cities Changing Diabetes initiative is an example of how the Danish tradition for public-private cooperation also inspires international stakeholders and cities.

### Public-Private Cooperation, Growth and Community Value

The healthcare industry is playing an increasingly important role for Denmark. This is both in terms of innovative contributions to the development and transformation of our healthcare system, but also – and especially – as an industry that contributes to society, wealth and research. The Danish healthcare industry export has doubled between 2008 and 2017 and during the second quarter this year, it accounted for a record 20% of all Danish exports. This makes the healthcare industry the strongest growing export industry in Denmark.

A strong healthcare industry stimulates research, job opportunities and talent attraction but the impressive development and the increasing importance of our healthcare sector cannot be taken for granted. This is why the Danish government in 2017 launched a life science growth plan to support the industry but also to contribute to society. The growth plan initiative was a public-private cooperation initiative in itself because it was a committee with members from the private industry, universities and the public healthcare system, which developed the growth plan proposal.

The resulting growth plan, which is now being implemented in Denmark, aims to improve conditions for new investments, strengthen research opportunities and access to research, and also holds initiatives to modernise the Danish Medicines Agency and introduce new models to bring new medicine faster to the market. The establishment of a life science office within the Ministry of Business, to follow up on the execution of the growth plan, is especially important for the impact of the growth plan. The growth plans also emphasise the

importance of attracting researchers and talent. A strong life science industry in itself helps attract the best researchers, but more is needed with the current impressive industry growth rates.

Let us take a closer look at the Danish life science growth plan and a few of the 36 policy initiatives in the plan.

Denmark already is the leader in Europe in the area of clinical trials per capita. However, more capacity is needed to support a growing industry. The public-private partnership Trial Nation is a growth plan initiative, which provides one entrance for the industry, with the ambition to help establish faster access to relevant researchers and clinical trials in all five healthcare regions in Denmark and in all relevant hospitals.

A faster introduction of new medicine, which makes a difference for patients and our healthcare system, is important both for healthcare transformation and industry growth. Therefore, as part of the growth plan, The Danish Medicines Agency is being modernised. In order to support a faster introduction of new pharmaceuticals and further support patient access to new treatments, the Danish Medicines Agency has established a risk-sharing pilot project where the industry will get reimbursement of their products, if they share the economic risk involved with the reimbursement.

During recent years, The Danish Medicines Agency has also increased their staff specifically for the approval of new pharmaceuticals and this will continue with a future increase of the staff of scientific advisors, especially within the field of data analytics. The Danish Medicines Agency will also focus on establishing stronger international relations and cooperation with European and international medical and healthcare regulatory bodies.

These initiatives will lead to faster introduction of new products in a high-quality approval and services process, which is well connected to medical agencies in other countries.

## Partnerships Based on Trust and Confidence

The tradition of public-private cooperation in Denmark comes from a long legacy that, over the years, has developed to become more formal, but also to provide more value for both public and private stakeholders.

Gradually, the Danish tradition is changing the relationship between public authorities and the industry, but this relies on a delicate balance where trust and confidence between the parties is

essential. Public authorities need to be sure that private companies operate with high ethical standards and private companies need to be confident that contributions from industry do not replace public investment, but instead make an otherwise unachievable aim for the industry and for the community possible.

The above examples show that, when successful, PPPs hold a strong win-win potential for all parties – even to the extent of building and executing an industry growth plan for the benefit of both the industry and society. ■

## KEY POINTS



- The tradition of PPPs has a long history in Denmark.
- PPPs can help deal with healthcare challenges such as the ageing patient and chronic disease.
- Trust and cooperation on both sides are essential for success.
- PPPs can create a win-win situation for all involved parties through practical and innovative solutions from healthcare and industry.



## REFERENCES

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