



Towards sustainable public-private strategic partnerships in life science: recommendations from the partnership evaluation of Lighthouse Life Science – Healthy Weight



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## Foreword

In a broad public-private partnership, we have joined forces in Lighthouse Life Science to improve citizens' health and strengthen Danish companies' growth, employment and exports.

Solving complex health challenges requires innovative thinking and the involvement of a broad and differentiated group of stakeholders, and this has been the hallmark of the partnership behind Lighthouse Life Science.

Today, there is a lack of knowledge about how to collaborate and organize well-run partnerships and that knowledge comes, for example, from insight into how to run a partnership operationally, tactically and strategically. The knowledge created and accumulated in Lighthouse Life Science will set a precedent for how to form good public-private partnerships in order to solve complex challenges.

Across the globe, people are faced with solving health issues, and establishing partnerships across the public and private sectors is the obvious thing to do. The partnership model for Lighthouse Life Science is therefore not only relevant in Denmark, but has great potential to inspire internationally. Similar initiatives with holistic approaches to solving health challenges are already being established in partnerships in other countries.

One of the perspectives of Lighthouse's work that inspires many, is the work with the business and health policy as two factors that are mutually dependent. If successful healthcare solutions are created, there will typically also be a commercial potential for growth and employment, creating a win-win-win situation that will benefit citizens, healthcare services, businesses and society as a whole.

We need to work much more in partnerships, both in Denmark and in the rest of the world. We look forward to activating the new knowledge and learnings from Lighthouse Life Science and paving the way for further work to spread the partnership model's collaboration and organizational form.

In Lighthouse Life Science's partnership, we will make Denmark a beacon for innovative healthcare solutions in the field of chronic diseases.

It has been a pleasure to initiate the work on healthy weight in the first phase of Lighthouse.

On behalf of the Lighthouse Life Science partnership



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## **Declarations and thanks**

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The evaluation was conducted in accordance with the University of Copenhagen's Code of Good Scientific Practice. The whitepaper has undergone an independent peer review.

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## Background and aim



Strategic partnerships with a mission-oriented approach, where public and private stakeholders work together to solve complex societal challenges, are increasingly being used. In life science, this approach is particularly relevant because the complexity of the issues requires the innovation and synergy that can emerge in broad and diverse partnerships across sectors, perspectives and disciplines.

The popularity of partnerships is unquestionable, but the challenge is to ensure that they are sustainable and result in truly implementable and effective new solutions created together. However, the big question is how to not only establish and launch these partnerships in the best possible way, but also facilitate and ensure the sustainability of public-private strategic partnerships. The many strategic partnerships in Danish life science are often focused on specific activities within defined, short-term time periods. Often, there is not enough time or resources to gather and disseminate experience and learning about how to best establish and operate strategic partnerships. This means that continuous adaptations of partnerships and knowledge sharing across partnerships can be difficult. We want to change that.

This whitepaper presents an in-depth research-based evaluation of a broad, strategic partnership entitled Lighthouse Life Science – Healthy Weight, which was launched in 2022 on the initiative of the Danish Ministry of Industry, Business and Financial Affairs. The vision of the strategic partnership is to create more equality in health by strengthening innovation and growth within life science and welfare technology. The partnership aims to improve citizens' health and strengthen Danish companies' growth, employment and exports with a special focus on innovative health solutions. The participants in Lighthouse consist of private companies, municipalities, regional stakeholders and knowledge institutions in the Capital Region of Denmark. The partnership model will run until 2030, which is an unusually long project period, and DKK 82 million has initially been allocated for the period November 2021 to August 2023. In addition, there is co-financing from several of the private stakeholders in the partnership. While social equality in health is the overall goal, the initial focus of Lighthouse Life Science is on healthy weight, including preventing, detecting and treating obesity. Today, in mid-2023, Lighthouse's focus has expanded to include mental health, with a continued focus on equality in health. The vision is to work strategically with health challenges that cannot be solved by individual stakeholders alone, but require collaboration across sectors.

As part of Lighthouse, a number of interdisciplinary levers were established to ensure systematic and continuous documentation and learning. As a knowledge partner, researchers at the Department of Public Health, Faculty of Health and Medical Sciences, University of Copenhagen, therefore conducted an evaluation, with professional input from representatives of the Danish Life Science Cluster, the aim of which was to identify learning related to potentials and challenges within public-private strategic partnerships. The ambition is to collect and communicate the most important recommendations as the partnership unfolds, thereby ensuring evidence that will strengthen and qualify both Lighthouse and other strategic partnerships in the field of life science.

# Methodology



The evaluation is based on a qualitative evaluation design where data was collected between September 15th and November 25th, 2022. The population consists of all members of Lighthouse's main consortium and steering committee. After initial presentations of the purpose and methodology at meetings in the two forums, an invitation email was sent out with an information letter and a consent form with an associated information form in accordance with good scientific practice and the GDPR legislation. In total, 31 interviews were conducted with 33 informants, corresponding to 97% of the possible interviewees. One municipal representative declined to participate and, in one interview, two representatives from the same organization participated, as the participation in the main consortium and steering committee was shared between them, respectively. Below is an overview of the interviewees' organizational affiliations.

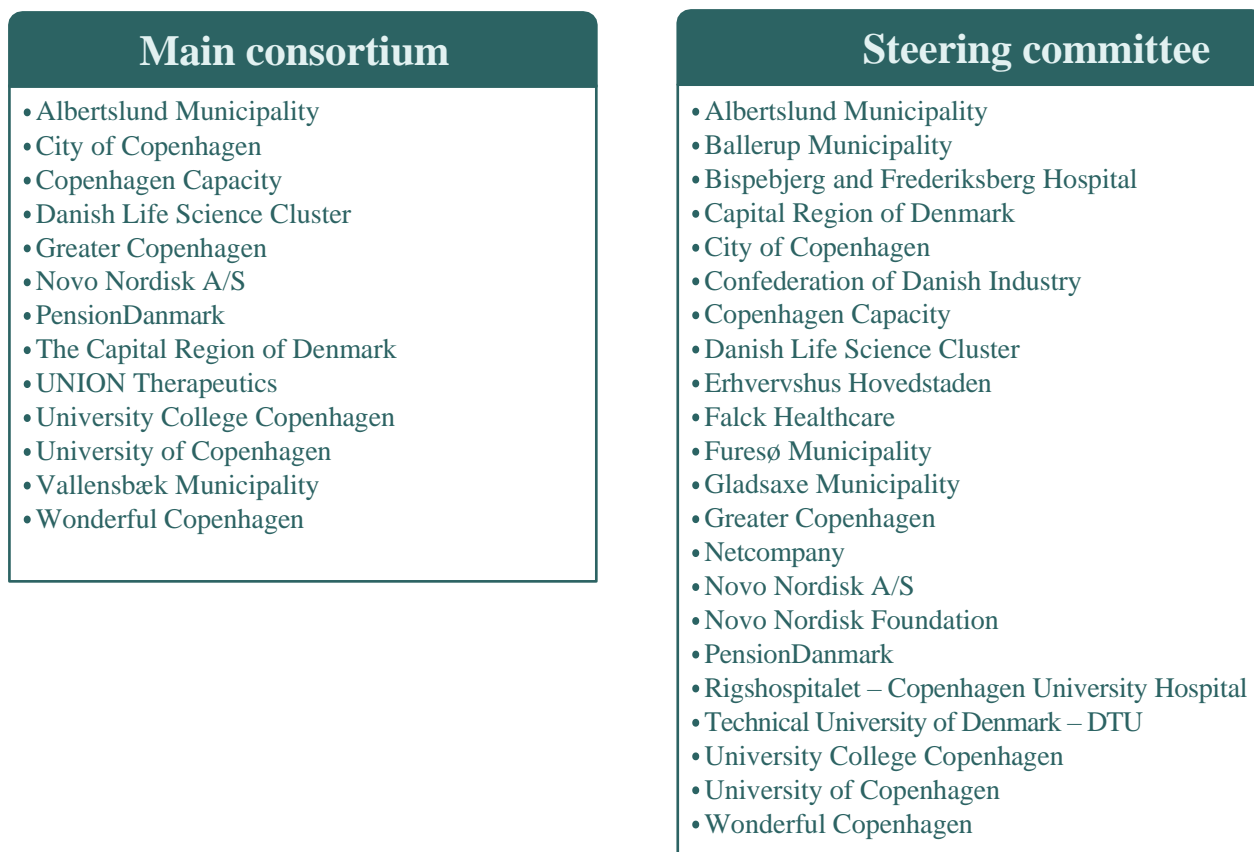


Figure 1: Overview of interviewees' organizational affiliation



Prior to each interview, a brief characterization was prepared of the interviewee's organization and role in Lighthouse and generally in relation to Danish life science. In all but one of the interviews, two researchers participated to ensure quality, consistency and depth in the interviews. In addition, field notes were written after each interview. The interview guide was semi-structured and consisted of a series of questions to uncover potentials and challenges in the partnership. Questions were asked about rationales for participation, roles, expectations and degree of fulfillment, perception of value creation in the link between growth, health and business promotion, relevance of the participating stakeholders, any missing stakeholders and the key points of attention for the partnership's future development and anchoring. All interviews were recorded, transcribed verbatim and analyzed thematically using NVivo software. The starting point for the analysis was the identification of potentials and challenges according to the above-mentioned themes in the interview guide. For each theme, both agreement and divergence of the stakeholders' perspectives were analyzed to include the diversity of the extensive data. In total, the data consists of 550 pages of interview transcripts and 60 pages of field notes. Based on the thematic analysis of the empirical data, which consists of a number of perceived challenges and potentials of the partnership, ten overall recommendations were developed and are presented below. Selected quotes are included with an indication of whether the quote is from a public or private partner, respectively.

To ensure continuous knowledge sharing and its impact on the alignment of Lighthouse's partnership model, we worked constantly with the analysis and dissemination of preliminary results in the form of specific recommendations in parallel with the data collection. Preliminary results were presented at meetings for the main consortium and the steering committee by way of 1:1 meetings for exchanging ideas and feedback with partner organizations, and in broader dissemination to stakeholders in Danish life science, including at seminars and public events.

# Results and recommendations

## Complex societal challenges call for long-term strategic partnerships

**Recommendation 1: Establish long-term, strategic partnerships if the challenge is complex.**



Lighthouse Life Science addresses a complex societal challenge centered around reducing social inequality in health, i.e. the fact that living conditions, health and disease are systematically unevenly distributed in society, depending on, among other things, education level, income and other social conditions.

A common finding across the interviews is precisely the need to enter into broad and especially long-term public-private strategic partnerships when solving the many complex societal challenges of the welfare state. The interviewees highlight a number of interwoven challenges which they see as important motivations for entering the partnership. In particular, these address the challenges of a fragmented and rapidly evolving society where social inequality in health is significant and where an aging population calls for sustainable healthcare solutions. In addition, several highlight the pressing challenges of recruitment and retention in the welfare professions, and untapped potential in the use of health data and digitized solutions. Social equality in health and, in the first round, focus on healthy weight, call for interdisciplinary, cross-sectoral and multi-dimensional solutions focusing on the individual, family, local community and overall societal structures across policy areas and disciplines rather than the often individual-centered, short-term interventions developed and implemented in smaller and more ad hoc partnerships that have characterized the field so far. Therefore, Lighthouse is perceived as relevant in light of major societal challenges, in Denmark and internationally, and many emphasize the need for the business community to work even more with the challenges of the healthcare system and thereby support the sustainability of the welfare state.

“I take a broad, socio-economic view of health inequality. Denmark has an aging population and a workforce that is being reduced over time due to demographics. That's why chronic diseases are actually a ticking time bomb. So if we can improve the chronic disease dimension, it's indirectly promoting business because it increases the labor supply, which will strengthen the business community.” (private)

This was particularly evident in interviews with municipal and regional stakeholders responsible for delivery of healthcare services.

“It’s always good when you’re in a public sector muddle to learn something from the private sector: business and clarity. But also to learn about their ignorance on some points. Because then you might change some prejudices into concrete knowledge.” (public)

The partnership thus makes sense as a framework for learning and competence building, which provides new ways of approaching the problem in cross-fertilization that would otherwise not happen in shorter-term and less broad-based projects. The importance of the time horizon, working towards 2030, is described by many as crucial, because social inequality in health is indeed a complex, ongoing challenge. The strategic opportunity to connect Lighthouse with the UN Sustainable Development Goals is highlighted by several as obvious.

## Recognizing the complexity of the challenge and the importance of approach

**Recommendation 2: Use a participatory, exploratory and user-centered process before identifying and describing solutions.**



When the challenge that a strategic partnership aims to solve is complex, the approach to formulating new solutions under the auspices of the partnership must reflect this basic premise. Recognition of complexity can be at odds with the speed that often characterizes strategic partnerships. Despite the fact that Lighthouse's timeline is 2030, funds are awarded with short application deadlines, a limited period for the implementation of the funds and thus expectations for the delivery of concrete, measurable results which require that the partnership, already in the preparation of the application for funds, can set out concrete proposals for solutions.

Here, several interview participants emphasize that the speed and demand for quick solutions in the partnership is at odds with the nature of the problem. Quick, often individual-focused solutions do not solve challenges of social inequality in health, and often do not show real impact in the short term, let alone the long term. Time to curiously explore and thus understand the partnership's specific problem area, especially in everyday contexts where, for example, new technology must make sense, show impact and free up resources, is necessary to create real innovation, growth and knowledge that can be scaled across contexts. Here, several participants point to the need to incorporate participatory, exploratory and user-centered approaches with time and courage to rest more in the exploratory phase where the problem must be understood before the solution is designed. This calmer approach recognizes that truly new solutions with impact come about when there is room for interdisciplinarity and different perspectives to be used in the concrete solutions with different stakeholders that take place under the framework of the partnership's shared mission. In both establishing and facilitating strategic partnerships, inspiration can be drawn from design-thinking, where a structured and rapid process moves from user-centered problem exploration to the development and pilot testing of solutions, which is highlighted by some as possible ways to work with real and impactful partnerships around complex issues. Mapping relevant participants in the partnership must be based on an open exploration of the problem at hand, identifying relevant approaches and partners based on the nature of the problem across disciplines and sectors. This increases the likelihood of truly new, implementable, meaningful and effective solutions with ownership and upscaling potential. Not least

in the healthcare sector, where solutions for the prevention or treatment of obesity can tend towards an attitude-based, individual-oriented and simplistic understanding of the problem, the participatory, exploratory and user-centered approach is necessary.

“As soon as we talk about obesity, we know that there are three times as many people with obesity among the less educated compared to the highly educated. So the social gradient is extremely important here. We need to get much deeper into the substance to understand what causes social inequality to hit health so hard. Including a better understanding of what factors cause some people to overeat.” (private)

Such an approach allows for solutions that are more genuinely based on the extensive research-based evidence that exists around social inequality in health. Social inequality in health is complex, it is shaped over the course of life, and is both individually and structurally modifiable. The problem calls for solutions that reflect this complexity and involve policy and practice in different arenas of the welfare state. Public-private strategic partnerships with a shared vision must ensure the inclusion of different perspectives that reflect the complexity of the mission, both in the partnership and in the associated efforts that develop concrete solutions.

## Clear and inclusive narrative about the value of the partnership

**Recommendation 3: Formulate an inclusive and clear narrative to ensure meaning and direction.**



Strategic partnerships between public and private stakeholders are inherently characterized by a large degree of diversity, including in views on the nature of the problem, on how participation in the partnership can be valued and in the operationalization of what forms meaningful connections across the board.

The wide range of perceptions of what constitutes the partnership's key value concepts, with interviewees pointing to growth, innovativeness and research-based knowledge, is on the one hand necessary and useful when different stakeholders work together to create something truly new. On the other hand, the diversity also poses a challenge, as the interviewees point to a significant amount of work for each stakeholder to make sense of the partnership and align with their own and the organization's drive and strategy. For the municipalities, this work consists, for example, of creating relationships with important welfare areas that have political priority and overlap, but are not identical to Lighthouse's specific activities within healthy weight. Creating more health equality is the overall vision for the partnership. The municipal and regional partners see this as important in order to be able to attribute meaning to the partnership and prioritize it in municipal or regional everyday life. Here, participation in the partnership should help deliver core public services, now and in the future, but at the same time, participation requires short-term resources that can be difficult to find if the activities of the partnership are on the periphery of the municipal and regional focus.

“If we can find solutions that work, then deep down I don't really care if it creates growth.” (public)

In contrast, interviews with representatives from parts of the business community show that the rationale of reducing social inequality in health is too long-term and diffuse to be meaningful, while the more short-term and measurable concept of growth is what drives them to find value in Lighthouse.

There is a strong desire among stakeholders to ensure that diversity of opinion is incorporated into the facilitation of strategic partnerships. Rather than silent knowledge that can frustrate participants, especially when the initial honeymoon phase is over and the work of attributing meaning to the

partnership can frustrate and outstrip the resources you can dedicate, a common direction should be set through a clear, facilitated shared narrative. It is about setting aside time and space for a transparent and wide-ranging dialog about what the common drive is and how the different perspectives on the problem, value and relationships in the partnership contribute to the useful new direction. This supports the participants in balancing, clarifying and prioritizing the partnership, especially in relation to the backgrounds of the respective organizations they represent. Ensuring time to understand the perspectives represented, discuss differences, and identify individual and the shared drive also ensures that what can be perceived as mutually exclusive rationales can be articulated and balanced. Do we want growth where we move a business from one maturity level to another, preferably quickly? Innovation where we develop new, better solutions to complex problems that require curiosity, openness and risk-taking to stay in the exploratory phase longer before deciding what the solution can be in the welfare society? And/or is the value creation operationalized as solid research-based knowledge where, in a longer perspective, the focus is on ensuring evidence of the partnership's societal impact coupled with better education of the future workforce via the knowledge institutions' education programs? A common narrative creates direction, community and is necessary in that part of the partnership that deals with branding, nationally and internationally, in terms of workforce, new partners, funding and overall visibility.

The evaluation shows a need for the facilitation of decision-making processes, especially in relation to the allocation of resources, to ensure inclusiveness in relation to the different values which the participants seek through the partnership in order to maintain meaningfulness for both private and public partners. An external review board with Danish and international expertise within growth, innovation and knowledge selected based on the specific issue in the partnership is highlighted by several as important to ensure transparent and solid decision-making processes where the different rationales are represented, although the trade-off will ultimately be a matter of strategic choices.

“In Lighthouse, purpose and outcomes are super subjective for the individual partner. So it's very difficult to create that common image.” (private)

## Facilitating knowledge, role sharing and relationship building

**Recommendation 4: Make sure to facilitate knowledge, roles and relationships across the partnership's stakeholders.**



The first phase of Lighthouse was characterized by high speed as the means, in the form of business promotion funds, had to be implemented in a large number of specific activities across the partners within a very short period of time. A key learning point across the interviews is about a strong need for facilitation of the start-up of the partnership in relation to onboarding, balancing of expectations in terms of roles, capabilities and knowledge across the different stakeholders in the partnership. Making explicit expectations about what role is played in the partnership is especially important when the partners represent large, often complex organizations that other stakeholders in the partnership may not necessarily have a clear understanding of. Differences in mandates, cultures and overall organizational conditions are tacit knowledge, and the risk of each partner feeling that the potential of the partnership is not being realized increases if the space for a consciously curious exploration of each other is not prioritized. The involvement of resources in the partners' organizational backgrounds, the development of new collaborations as a spin-off of the original partnership, and the long-term integration into the partners' strategy is better ensured when time and resources are allocated to onboarding.

Similarly, focus and peace of mind must be ensured for ongoing exchange, rather than primarily operation and management of specific activities, even if this prioritization in the partnership is challenged by time pressure, resource scarcity and focus on progress. Many report that participation in strategic partnerships requires curiosity and openness to the opportunities and challenges of diversity, while at the same time contributing deep knowledge, demonstrating the ability to bring your own professionalism and rationale into a meeting with other individuals' points of view, and prioritizing time to develop a common language.

The work of using one's own role, exploring others' roles, establishing relationships and bringing resources into play is necessary for 1+1 to make 3, i.e. for synergies and new solutions to emerge, which require addressing cultural and organizational barriers. A balance must be struck between the size and diversity of the partnership on the one hand, and the opportunity for relationship building and trust between partners on the other. Many point out that a particularly energetic, curious and



courageous personality is required among the frontrunners from each partner as a good start. The personal is powerful but also fleeting, and relationships need to be shared and supported among a wider group.

“When I need to break down barriers, I start by listening. If you really listen and try to understand, you find that people are actually interested in breaking down the barriers. [...] And then I start with the employees where there is more common ground [...]. Then you start with the ones who understand and then you show the others that it's safe.” (private)

## Transparency and time to create an ongoing sense of purpose

**Recommendation 5: Create time and space for continuous adaptation, balancing of expectations and transparency in decision-making processes as these are important prerequisites for participation.**

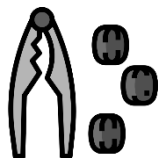


In general, the partners express great goodwill regarding Lighthouse, which is perceived as a trust-based partnership with good start-up funding in an important area with great potential within Danish life science. Most participants feel the pace is fast, and several highlight the need to pull the acceleration out of the partnership to ensure peace of mind for ongoing reflection and transparency in the processes, so that motivation and meaningfulness could be strengthened and maintained. The creation of a sense of purpose is challenged, for example, when specific projects around the development of innovative solutions that are promising in the idea phase, but in the implementation of the project turn out not to have the soaring altitude that was predicted. For example, this happens when there is a mismatch between the concrete solution and the reality of welfare professionals' practices. While the partnership's overall potential, and in relation to the specific solutions developed in projects between the partners, is thus perceived as promising, several point to a need to ensure time for ongoing adaptation and balancing of expectations so that the developed solutions reflect the complexity of reality. This is especially important in partnerships that need to find short-term solutions to complex problems that are inherently dynamic, context-dependent and changeable, shaped by a network of interdependent factors and frameworks. As one interviewee highlights, the ultimate test of success in strategic partnerships in complex areas is whether the partnership is found to be so meaningful, transparent and educational that people continue to actively participate even when their own needs are not immediately met, for example in the form of funding for the development of a specific technology. This requires transparent decision-making processes coupled with time to adapt and balance expectations.

“You simply have to pull the speed out of some of this stuff, because that's what happens time after time after time. Deadlines are too short and there's a lot of money that we can't just leave behind, we have to get some partners together and do something or other.” (public)

## Strengthened facilitation via partnership center

### **Recommendation 6: Establish a partnership center to support administrative processes and internal communication.**



The administrative and documentation requirements embedded in the grant to Lighthouse and the large number of partners of different sizes, place special demands on the facilitation of the partnership. Especially among knowledge institutions, municipal stakeholders and small businesses, there is a great need for better support for administration and documentation requirements in particular. In addition, there is also ongoing communication internally between the partners in Lighthouse so that knowledge is shared in a timely manner and "reinventing the wheel" in each partner's organization is avoided. Some interviewees point out that the learning curve is too steep in relation to administration and documentation and highlight that the long-term commitment to and engagement in the partnership becomes difficult if the draw on resources in the individual organization exceeds the utility value of the partnership. This also requires a willingness and courage from the perspective of the participating organizations to engage in a true partnership centered around a goal under a shared vision. If strategic partnerships are to be anchored in long-term strategies across partners with varying degrees of resources, administrative processes must be supported so that they work better for everyone. This is especially true in the start-up phase, where learning new processes and, for many, a new "organizational language" means work for the individual long before the results of the efforts show up in concrete projects and solutions.

For example, several public stakeholders highlighted how municipalities and, to some extent regions, are less ready for partnerships with a high degree of business promotion funds, not least in light of savings, recruitment challenges and demographics drawing on the core services in these welfare sectors.

“It's not as if you [the municipalities] just grab these partnership opportunities, and you don't have the knowledge of what kind of researchers can support it. And how would we get the money to do it if we really wanted to? And maybe there isn't always an understanding of how it could benefit us in the long term, and not just make it more expensive, but maybe actually make it easier and make citizens more self-reliant in some areas, right? Or at least in terms of prevention.” (public)

A partnership center that gathers competencies and knowledge that is continuously communicated to the partners is highlighted as a way to ensure the greatest possible value, anchoring and knowledge sharing with the least possible draw on resources and frustration for the individual partner. In addition, several point out that a partnership center with an overview of the stakeholders and resources for communication can help facilitate relationships and match-making across the stakeholders, whereby new collaborations can develop within and as a spin-off of the specific partnership.

## Long-term value creation through organizational alignment and skills development

**Recommendation 7: Make sure strategies are aligned and focus on skills development as part of long-term value creation.**



The long-term value creation in the partnership's organizations is highlighted as crucial across all the stakeholders. The specific people involved in Lighthouse can be seen as potential gatekeepers who must continuously translate between their own organization's strategy and knowledge on the one hand, and the partnership's activities and rationale on the other. Many experience a risk in the transition from personally driven change to organizational embedding, which requires real involvement of the people behind the change, a clear mandate and anchoring in their own organization. This is challenged by partnerships with a high degree of external funding where, as mentioned above, you have to justify relevance and the draw on resources within your own organization. Several interviewees emphasize that strategic partnerships should avoid "meta-narratives about value" and instead specifically "show it instead of tell it" in order to ensure participation and thus value creation over time. This concretization can be done, for example, by the large companies in the partnership, the so-called supertankers, advising and involving the SMEs, which thereby gain actual networks and knowledge from the partnership that can support their work with innovation and growth.

“Can we somehow create a model where we have a supertanker in Denmark that can bring a lot of escort boats with it? Can we help create a trend that makes the large companies take responsibility and open up their internationalization? And conversely, how can SMEs hook up with a large company and use it as a gate-opener? In other words, to get smaller companies to create some exports in their internationalization and use the knowledge bank that a large company has. And that the large company uses small businesses to exchange ideas and develop products to create a new future.” (public)

In terms of actual value, public stakeholders emphasize the need for more practical suggestions on how the partnership can lead to value in the welfare frontline. For example, through the development of welfare technology, which frees up capacity in the form of hands and heads for complex welfare tasks relating to vulnerable citizens, and which retains and provides a boost in prestige and meaning in the working life for employees, both regionally and locally. The municipalities in particular emphasize that value creation through participation in strategic partnerships is ensured when the

partnerships relate better to the reality of the municipality than is often the case. Here, existing municipal projects and more general political initiatives within a shorter period of time can be prioritized.

“The regions already have a fairly strong focus on research, development and innovation. This means that when you walk in the door and talk about health, innovation and growth, well then you already have the same approach as the business community. You're used to thinking, what's in it for the patients?” (public)

Skills, knowledge and learning are highlighted as additionally important elements of long-term value creation for each partner. Capacity building, where employees gain the knowledge, skills and interdisciplinary language to work in strategic partnerships, requires time and more longer-term career paths than project-based hires can often offer. Supporting retention and sustainable career paths, for example through meriting and crediting for participation in strategic partnerships, shared positions and mobility across stakeholders, or a "talent pool" can increase value creation through more long-term capacity building in Danish life science, both in the public and private sectors.

“The problem is: what happens to the good people you have? Do you think they stick around and think: "Okay, I'll just wait and see how the application goes and whether I get an extension". No, the good ones are leaving, which shows the weakness of this system. However, we are all for creating Lighthouses and working with excellence, because it will develop Denmark in the right direction.” (private)

## Focus on implementation and upscaling

### **Recommendation 8: Prioritize implementation and upscaling from the outset and continuously throughout the lifetime of the partnership.**



While the strategic partnership is articulated as a playground where new solutions can be developed, several emphasize the risk of the partnership becoming "another round of Project Denmark", primarily due to the short time horizon and the aim of the business promotion funds. There is a need to balance this focus on rapid innovation vis-à-vis focus on the implementation in practice across private and public arenas. This will eventually provide the breeding ground for upscaling effective solutions that are truly implementable in practice. Implementation and upscaling requires time and support, and several emphasize the need for a clearer implementation strategy in regard to promising solutions. Among other things, this includes earlier mobilization of procurement, but also a higher degree of political will and courage to prioritize long-term implementation of new solutions. Although Lighthouse's ten pilot projects were seen as promising, several point to the risk of them becoming just another part of the many projects that are launched but end when the project grant expires. Here, focus should be on implementation, ensuring continuous adaptation and improvement, and thus supporting upscaling in the long term.

In relation to upscaling, the analysis shows that there is a need to clarify that strategic partnerships not only develop highly specialized technological solutions for specific target groups and contexts, but also ensure that work is done with generic and scalable solutions. On the one hand, Lighthouse's pilot projects that were selected in the application phase provided something concrete to collaborate on, but several emphasize that this focus on specific, individual-focused and digitized solutions is not the whole answer, especially when it comes to solving complex issues around social inequality in health. There is a need to ensure that concrete solutions, selected and matured as part of strategic partnerships, are indeed the most promising, involve the right stakeholders, are effective and can be implemented in everyday practice, thereby increasing welfare. Here, interviewees highlight the need for scalable solutions to be thought of more broadly, or as one interviewee points out: that we are paving a seven-lane highway of generic solutions that can be adapted to the relevant target group and context in question. Because diversity is the norm – especially in the area of inequality – solutions need be diverse and flexible.

In addition, several point out the importance of a continuous and significant focus on internationalization. As one interviewee emphasizes, the first round of Lighthouse is based on an "inside-out" perspective based on local understanding of problems. While this provides relevance to the local context, it can affect the ability to find solutions that can be scaled internationally.

“Our challenge is that the product was developed without having live people on board. So if you had thought about the problem first and had a dialog about it, you could create a standard product that can be scaled for the population group and for ordinary working people. Now one highway has been made and you don't want to deviate from it. But if you had just built a seven-lane highway from the start, and you can easily do that because it's technology that is scalable and cost-effective.” (private)



## A systematic approach to knowledge

**Recommendation 9: Ensure a systematic approach to knowledge with timely involvement of different knowledge institutions to support and document implementation, effect and impact.**



The partners agree on the importance of ensuring solid evidence for the effect of the solutions that are developed as part of the strategic partnership. The many ongoing projects centered around a complex societal challenge provide a great potential to gather data across citizens, sectors and approaches to solutions in order to show the impact of the partnership and the concrete solutions in the short – and especially longer term. Consequently, there is broad agreement that process and effect evaluations, as part of the individual projects and by pooling populations across Lighthouse, represent a significant potential both in terms of ongoing learning and to strengthen the evidence of impact at individual, group and societal level. The systematic approach to knowledge is often de-prioritized in strategic partnerships, while in Lighthouse it was integrated, to a certain extent, into the organizational set-up through the presence of knowledge institutions (university colleges and universities) both in the main consortium and the steering committee, as well as through the individual pilot projects. However, the short time horizon and requirements built into the business promotion funds affect the possibility of utilizing this knowledge potential, especially because these conditions make it difficult to link the different educational and research disciplines which, together, can contribute to a deeper understanding of the nature of the problem field and solutions to it. At the same time, the partners emphasize that independent solid research, quantitative and qualitative, is necessary as it provides a quality boost and can ensure that solutions take into account the existing international evidence in the area in a timely manner. A more systematic approach to knowledge can thereby strengthen project management, form the basis for prioritization, due diligence (stop/go, adaptation) and accountability, which many point out is particularly important in strategic partnerships financed by public (and other) funds. Particularly from a municipal and regional perspective, there is a demand for documentation of evidence of the

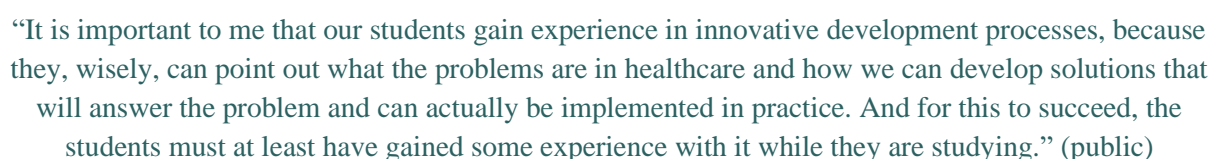
“Soon we won't need to make any more pilots. Shouldn't we just evaluate them as they are? Because many of us have been around for years and know that it doesn't work. So if we could create some evidence on what might work or how it needs to be used so that it works – that would be really great.”

(public)

effect of the specific solutions. Municipal stakeholders in particular point out that both access to researcher competencies and resources for data collection under the auspices of municipalities for use in research and documentation must be ensured.

It is therefore recommended to ensure a framework for systematic and coordinated involvement of knowledge institutions, both researchers and students, based on concrete matches with the right disciplines and methods based on the focus of the partnership and the nature of the project or solution. Opportunities to provide and share data of different kinds vary across partners. Especially in light of the complexity of social inequality in health, there is a need to capture short- and long-term processes and effects across a wide range of health parameters. Therefore, an approach is recommended in which existing data sources and data structures are further developed early on in the partnership, which can support the sharing of data and knowledge across the projects that are progressing through the partnership. In addition, there is a need to incorporate more participatory research approaches that are especially suitable for understanding and solving complex problems, where user involvement, interdisciplinarity and the combination of quantitative and qualitative research methods focused on the individual, system and societal level, are important elements. Ensuring informed consent from citizens and professionals, GDPR compliance and access to the unique Danish registers for measuring of long-term effects requires the establishment up-front of a well-integrated and structured overall framework for the strategic partnership.

At the same time, early involvement of students and researchers from university colleges and universities will support the education of the future workforce, which must be able to work practically to develop the language and skills to work in partnerships around complex societal challenges. In addition, municipal and regional employees will benefit from the opportunity for further education which the collaboration with knowledge partners especially, creates in the partnership. Recent developments towards an even clearer role for knowledge institutions, for example in the form of innovation strategies and practice and innovation processes, emphasize the untapped potential of timely and systematic integration of research and (further) education.



“It is important to me that our students gain experience in innovative development processes, because they, wisely, can point out what the problems are in healthcare and how we can develop solutions that will answer the problem and can actually be implemented in practice. And for this to succeed, the students must at least have gained some experience with it while they are studying.” (public)

## Inclusive funding models

**Recommendation 10: Establish funding models that combine business promotion funds, foundation funds and public funds.**



The framework conditions for strategic partnerships inherently vary depending on the terms and requirements of the funding model. Several point out the risk of partnerships becoming too resource-intensive, both administratively and financially, in the long term when the requirements for co-financing, for example, become extensive.

This is especially true when the funding does not include coverage of overhead, administrative and other consequential costs. For both public and several private partners, these built-in requirements for business promotion funds are a fundamental obstacle to long-term participation in Lighthouse. Thus, there is a need for long-term and sustainable funding for strategic partnerships, taking into account the conditions and financial resources of the various stakeholders. This requires a balance between business promotion funds, public funds, foundations and private investment. Here, a model is recommended where private funds are also involved in facilitating the partnership, thereby ensuring a long-term commitment across the board to solve a complex problem in a long-term perspective.

“If they want to include research, they simply have to understand that we have different funding requirements and that there is no money laying about that we can just put into something like this.”  
(public)

## Recommendations for public-private strategic partnerships

1	•Establish long-term, strategic partnerships if the challenge is complex.
2	•Use a participatory, exploratory and user-centered process before identifying and describing solutions.
3	•Formulate an inclusive and clear narrative to ensure meaning and direction.
4	•Make sure to facilitate knowledge, roles and relationships across the partnership's stakeholders.
5	•Create time and space for ongoing adaptation, balancing of expectations and transparency in decision-making processes, as these are important prerequisites for participation.
6	•Establish a partnership center to support administrative processes and internal communication.
7	•Align strategies and focus on skills development as part of long-term value creation.
8	•Prioritize implementation and upscaling from the outset and continuously throughout the lifetime of the partnership.
9	•Ensure a systematic approach to knowledge with timely involvement of different knowledge institutions to support and document implementation, effect, and impact.
10	•Establish funding models that combine business promotion funds, foundation funds and public funds.

## Conclusion

Public-private strategic partnerships in Danish life science offer a wide range of unique and important potentials that can help solve complex societal challenges, now and in the future. This whitepaper contributes important knowledge about how these partnerships can best be established and facilitated based on an in-depth qualitative evaluation of a specific partnership in the form of Lighthouse Life Science – Healthy Weight in the early stages of the partnership. Prioritizing the documentation of learning to continuously adjust and strengthen the facilitation and organization of partnerships is important in itself. At the same time, research-based learning can support other public-private strategic partnerships within life science. It is our hope that the ten recommendations, which are derived from a synthesis of both challenges and opportunities in connection with the first phase of Lighthouse, can continue to qualify both this and other strategic partnerships in the life science area, nationally as well as internationally.

## Further inspiration and reading

- Lighthouse Life Science. [www.erhvervsfyrtårnlifescience.dk](http://www.erhvervsfyrtårnlifescience.dk).
- Ministry of Industry, Business and Financial Affairs Recommendations from the government's seven Regional Growth Teams. <https://em.dk/media/14205/samlet-afrapportering-fra-regionale-vaekstteams-til-offentliggoerelse.pdf>, 2021.
- Fawcett S, Schultz J, Watson-Thompson J, Fox M, Bremby R. Building Multisectoral Partnerships for Population Health and Health Equity. *Preventing Chronic Disease*. 2010;7(6): A118.
- Gracia JN, Ruffin J. Partnership, research, and leadership to advance health equity and eliminate health disparities. *American Journal of Public Health*. 2014;104, Suppl. 4:S520-1.
- Harrison MR. Effects of public-private partnership on diet-related obesity risk factors among school-aged children: A systematic literature review. *Nutrition and Health*. 2022, epub ahead of print.
- Marmot M, Friel S, Bell R, Houweling TA, Taylor S. Closing the gap in a generation: health equity through action on the social determinants of health. *Lancet*. 2008;372: 1661–9.
- Siegrist J, Marmot M, editors. *Social Inequalities in Health: New evidence and policy implications*. 1st ed. Oxford: Oxford University Press; 2006.
- Torchia M, Calabrò A, Morner M. Public–Private Partnerships in the Health Care Sector: A systematic review of the literature. *Public Management Review*. 2015;17(2):236–61.