# ACCELERATING THE IMPACT OF CLEANTECH INNOVATION:
# RECOMMENDATIONS FOR FUTURE PROGRAMS

CLEANTECH IMPACT ACCELERATOR

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## BARRIERS AND OPPORTUNITIES FOR STARTUPS IN THE GREATER COPENHAGEN REGION

Over a 3-year period, the Cleantech Impact Accelerator (CIA) program has supported more than 60 startups in developing their business, pitching their solutions to big corporations and expanding their network across and beyond the Greater Copenhagen region. Additionally, the startups have received 1:1 sparring and support on financial and technical matters. Throughout the project, the team has collected insights and learnings regarding the barriers and opportunities that startups face. This report will summarise these learnings as well as provide recommendations for future accelerator programs and other key actors in the innovation ecosystem.

## THE PRIMARY TARGET AUDIENCE FOR THIS REPORT IS:

- Facilitators of future programs containing aspects of matchmaking and acceleration for startups in Greater Copenhagen and beyond. For these actors, the report can be used for inspiration and frame of reference when designing and facilitating programs.

- Granting authorities can use the findings and recommendations as an indicator of which types of activities to fund.

- Corporations can use the recommendations to understand how to use matchmaking actively when scouting for and engaging with innovative startups.

- Startups in Greater Copenhagen and beyond may find it useful to understand which barriers other startups are facing, particularly when attempting to engage with big companies.

**NB!** This report is based on experience from the 3 year-long program, the Cleantech Impact Accelerator. Insights on challenges and recommendations are based on interviews with startups and corporations, 1:1 discussions between the facilitators and startups, as well as experiences that the facilitators have made through project activities such as workshops, matchmaking sessions and masterclasses. For privacy reasons, specific startups and corporations will not be quoted even though insights are based on their statements. For concrete cases and examples, the reader is referred to two films consisting of interviews with the participants, as well as articles which contain statements from specific companies. Additionally, this report draws on conclusions from the project P2P finBIO, which has gathered conclusions from innovation ecosystems in the agri-food and bioeconomy ecosystem in Denmark, Andalusia, France, Portugal and the Netherlands.

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# BARRIERS AND OPPORTUNITIES FOR STARTUPS IN THE GREATER COPENHAGEN REGION

## ESTABLISHING AND UTILIZING FRUITFUL COLLABORATIONS TO ACCELERATE THE IMPACT OF INNOVATIVE TECHNOLOGIES

*A key focus throughout the project has been to establish collaborations between startups and bigger companies with the rationale that this is necessary for accelerating the impact of cleantech solutions.*

The startups who participated in the program hold significant potential for impact through new and innovative solutions to sustainability issues within a variety of sectors – from excess biological waste streams of food production to the built environment in cities.

However, startups typically lack the financial capacity, distribution networks, customer base and other resources required to accelerate the market adoption/commercialization of their technology.

Contrary, larger corporations have a broader set of resources necessary to commercialize and accelerate wider market adoption, but they often lack capabilities for solving sustainability challenges through innovative solutions.

Therefore, collaborations between startups and corporations hold great potential for accelerating the impact of innovation, given that both parties contribute with valuable resources. However, such collaborations can be challenging for startups and corporations to initiate and establish.

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**Through the interaction with startups and corporations in the program, the facilitators have identified the following barriers that startups face when pursuing collaboration with corporations:**

**Challenge: Getting your foot in the door**

The first barrier startups meet when seeking collaborations with big corporates is to get the attention of the big company. According to several of the startups participating in the program, this has proven to be a challenge if there is no preexisting connection.

*Addressing the challenge: Matchmaking*

Establishing this initial contact is the key purpose of matchmaking between startups and larger corporations. As mentioned by two of the startups in the program, a benefit of having a matchmaker who initiates the interaction is that this provides a neutral platform for each party to assess the relevance of a potential collaboration.

The matchmaker obtains an understanding of the needs of the big company based on which they identify startups with relevant technologies. This way, the matchmaker has already provided an informal "stamp of approval" for each party by indicating that there is a potential for a match between the need and the technology.

One of the corporations participating in the program expressed that this matchmaking process, where a neutral actor has lined up pitches from a series of startups with potentially relevant technologies, was a time-efficient way for them to scope the market for innovation. He specifically mentioned that they most likely would not have gone into further dialogue if they had just received an email directly from the startup.

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## Challenge: Establishing contact with the right person in the organization

As mentioned by several of the participants, it is challenging to find the right person in the corporation. Previous experience from startups as well as pitches facilitated in this program shows that it is relatively common for a startup to pitch their solution to someone in the corporation only to realize that the person does not have the mandate to make a decision.

This often hinders the startup from progressing with a potential collaboration, which means that it is ultimately a waste of time for both parties.

### *Addressing the challenge: Ensure decision mandate*

Based on the experience of the program, it is crucial for startups seeking collaborations with big companies, as well as mediators who facilitate matchmaking processes to conduct some initial research about the organizational structure in the corporation to assess who in the organization to reach out to.

Ideally, the person should have the decision mandate. If the person does not have the mandate, it should be someone who has the possibility (through rank and/ or connections in the organization) to be an "ambassador" for the startup by redirecting them to the right people.

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**Challenge: Getting the right message across**

The pitches that were facilitated in the program showed that it is crucial for the startup to have a deep understanding of the needs of the corporation, and to utilize this knowledge to customize the pitch. According to the startups and corporates in the program, pitches work better when the startups understand the challenge their technology is meant to solve, and when they frame their technology as a solution to the specific issue at hand.

*Addressing the challenge: Understand and communicate the challenge of the corporation*

To address this challenge, the matchmaker has an important task in getting the corporation to explain its needs. This can be done in different ways, but the experience from this program is that the most efficient is to host an introductory webinar (or physical event), where the corporation explains in detail what they are looking for and which challenge(s) they need new innovations to solve. In this session, it is also important for the corporation to explain which type of collaboration they envision to level expectations.

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## Challenge: Going from the expression of interest to collaboration

Another challenge is that potential collaborations very often lose momentum once the torch is passed on to the people in the organization who are supposed to make it happen. Many of the startups in the program have experienced that they participate in meetings with enthusiastic management representatives who show an interest in the startup's technology. However, most of these meetings are not followed up by action, and expressions of interest very rarely turn into formalized collaborations.

Discussions and panel debates at the final event also made it evident that Sweden is further ahead in addressing this issue, and startups experience that Swedish corporations are better at putting actions behind their words. However, it was also emphasized that there has been a positive development on this matter in Denmark over the past few years, partly because of matchmaking actors who make it easier for startups to find corporations with relevant technology needs.

### Addressing the challenge: Provide a neutral playing ground for interaction and prioritize collaboration in the innovation strategy

Matchmakers play an important role by matching innovation needs with new solutions as well as creating a neutral playing ground for the startups and corporations to interact. However, sparking interest is not enough. Addressing and discussing this issue with startups as well as corporations is also key, and it is necessary to be open about the issue in order to address it.

There is a need for corporations and startups to get a common language for discussing how to engage in collaborative innovation processes. The most successful collaborations established in the CIA program were those where the corporations had established internal processes dedicated to collaborating with innovative startups. This requires that the corporation prioritizes and frames their innovation strategy and organizational structure around it.

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## CROSS-REGIONAL COLLABORATION IN THE GREATER COPENHAGEN REGION

*A core aspect of the Cleantech Impact Accelerator was to enable cross-regional collaboration by exposing Danish and Swedish startups to potential partners, buyers and investors.*

### Challenge: Lack of network and knowledge about opportunities

Through the program, the facilitators experienced that many of the startups lacked knowledge regarding the opportunities on the other side of the bridge. It was clear from the interactions facilitated between Danish and Swedish startups that many of them did not have pre-existing networks across the region despite the proximity.

Initially in the CIA program, the partners planned to facilitate general events and network meetings to address legal, cultural and corporate differences between the two countries. However, interactions with the startups showed that there was no interest in such generic and informative events if there was no call to action or specific business opportunities involved.

The startups were generally interested in cross-border collaborations, but they were not interested in general knowledge unless it was accompanied by concrete opportunities.

*Addressing the challenge: Facilitate matchmaking with cross-regional end users*

To address the lack of knowledge about opportunities on the other side of the bridge, as well as accelerating collaboration, the CIA program facilitated different cross-regional activities with a concrete call to action. This consisted of matchmaking with corporations and other potential partners or buyers across the bridge.

The matchmaking was supplemented by preparatory sessions where startups pitched to each other to initiate a more informal breakdown of barriers between the two regions.

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**Challenge: Lack of cross-regional investments**

Through the financial sparring in the CIA program, it became evident that investors are very locally bound, and even short distances, like the one between Denmark and Sweden, can be a barrier.

This is a challenge for startups when they move towards the scale-up phase where it is often necessary to find investors outside of their own region. It also became clear that most of the startups that used the financial sparring in the program were focusing mostly on soft funding instead of hard funding.

Many tech-heavy startups chose to focus on soft funding in order to have resources for product development. However, to scale up their business, it is necessary to focus more on market development through sales and hard funding.

*Addressing the challenge: Storytelling and promotion of regional stars*

Program facilitators can address these challenges through clear storytelling and promotion of success cases and good examples of regional startups.

Moreover, bringing Danish and Swedish innovation to international challenge owners and investors is important and does not necessarily happen on its own. Matchmakers need to act as catalysator.

# GENERAL RECOMMENDATIONS FOR PROGRAMS WITH MATCHMAKING AND ACCELERATION ELEMENTS

The Cleantech Impact Accelerator consisted of 4 different tracks, each with different thematic focuses and somewhat different structures and contents. This approach was taken to test different methods to understand which aspects that work best.

*Based on this experience, the partners recommend the following for future accelerator programs:*

**Choose the right startups**

Make an informed decision about which maturity level of startups you work with.

It is recommended that the chosen startups are on a relatively similar stage in terms of maturity level and TRL. This makes it easier to provide relevant acceleration services as well as match them with corporations.

The higher the TRL level, the easier it is to facilitate matchmaking, since the solutions are then more mature which makes it easier for the corporations to see the value and move further with a potential collaboration. However, startups with a higher maturity level typically require more advanced acceleration services which set higher demands for business development support.

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<u>Choose a thematic scope</u>

Another key recommendation is to set an appropriate thematic scope. The CIA experimented with the composition of startups by choosing a thematic focus in some tracks while making it more open in others.

The conclusion here was that it is crucial for the networking aspect to choose a thematic scope because it makes the network among the startups more relevant if they are in similar or related industries.

In the thematically open track, startups showed little to no interest in peer-to-peer feedback and networking.

<u>Work actively with diversity</u>

When recruiting startups for the programs, the consortium behind the CIA program faced a challenge in identifying and involving startups with women in the founding team.

Diversity in the startup ecosystem was addressed in different ways throughout the program, but the most successful initiatives (measured on traction and participation) were events and debates dedicated to showcasing positive cases and role models.

For future programs, the consortium recommends that such events are used also in the recruitment phase to identify potential participants for the program.

Furthermore, it is recommended that program facilitators invest time at the beginning of the process to enhance their own knowledge about how to attract women to accelerator programs (i.e. through targeted language, communication channels etc.).

**Thematic and demand-driven matchmaking process**

Through the engagement of 9 different corporations in different types of matchmaking processes. The consortium has compiled the following recommendations for matchmaking:

Frame the matchmaking around the demands of the corporation/challenge owner

In the CIA program, the partners experimented with both a demand-driven process and a supply-driven process. In the former, three corporations were selected and their needs and challenges were defined. Based on this, startups with potentially matching solutions were selected to participate in the program. Contrary, in the supply-driven process, the consortium first chose the startups and then identified potential customers and partners with needs matching the solutions.

The conclusion here was that the demand-driven process is recommended. Firstly, it makes the value proposition for startups clearer in the recruitment phase if there is already identified an end-user and a market need from the beginning. Secondly, it is more appealing to challenge owners since the program will then be framed around identifying solutions for their challenges, and the program will function as an efficient way for them to scout for a variety of potential solutions.

Lastly, the role of the matchmaker is more natural in the demand-driven process. In the supply-driven process, the matchmaker takes on the role of finding potential customers and partners, and "kicking in doors" which can be time-consuming and inefficient. Contrary, in the supply-driven process, the matchmaker's role is to help startups solve an actual need on the market.

<u>Understand and scope the needs of the corporations/challenge owners</u>

As a facilitator of matchmaking, it is essential to invest time in understanding the needs of the corporation/challenge owner to be able to find startups with solutions with the potential to solve the challenges. Additionally, it is necessary to ensure that the startups also get an understanding of the need, so they understand the challenge their solution is meant to address.

<u>Ensure commitment</u>

A prerequisite for successful matchmaking is that all parties are committed to the process. Therefore, it is necessary to ensure that corporations and startups will invest time in the engagement, as well as following up afterwards. This can be done informally or formally by either stressing the importance of the recruitment process or signing declarations specifying the required hours spent in the process.

**Tailormade support**

The CIA program also experimented with both tailormade 1:1 support and generic upskilling. While both elements were appreciated, the tailormade aspects were easier for the startups to translate into actual results. Therefore, the consortium recommends including tailor-made support from internal or external experts (depending on the consortium composition). For example, technical support and validation, as well as financial sparring have been valuable elements. Other elements such as a legal helpdesk providing support on legal aspects could be added.

**Define the consortium structure and roles clearly to utilize different competencies**

The roles in the consortium became increasingly clear during the program. Based on continuous improvements and a final evaluation, the partners agreed that a clear role division would be a key recommendation for future consortia.

Specifically, the core competency of the clusters lies in the network and matchmaking aspect. It is therefore recommended that clusters primarily focus their efforts on facilitating matchmaking and networking within the thematic area they specialize in.

Contrary, the core competencies of Research and Technology Institutes lie in technological validation and sparring. In the CIA program's last track, this competency was utilized better by setting up a clear process where all startups went through a technological screening and an assessment of their needs for support. This provided a better foundation for technological sparring throughout the program.
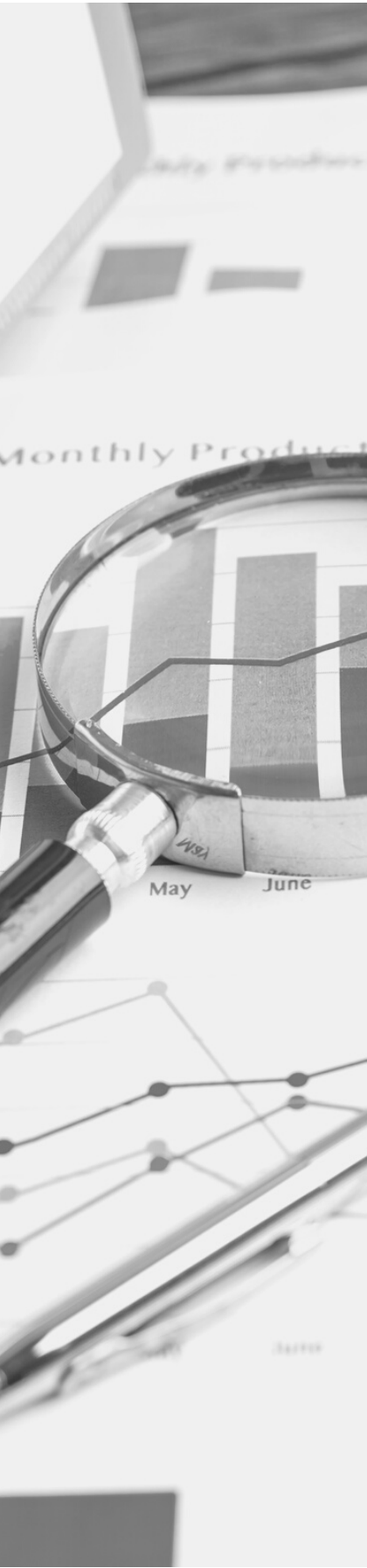
In this program, an external accelerator company was hired to provide expert advice on business development for the startups. It is a clear recommendation to involve such companies, preferably from the beginning to ensure alignment with the rest of the consortium.

**Promote startups and regional strength positions**

To support startups and strengthen the regional innovation ecosystem within specific thematic areas, it is important to ensure coherent storytelling.

This means that accelerator programs need to prioritize communication of success stories and promotion of the most prominent startups from the programs.

Such efforts contribute to strengthening the regional identity and making actors outside the region aware of the quality and industry focus in the region.

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## GENERAL RECOMMENDATIONS FOR CORPORATIONS OR OTHER PRIVATE ACTORS WITH INNOVATION NEEDS AND CHALLENGES

As stated by one of the corporations in the second video,

> *We don't know everything and the world is changing, so the fastest way to learn new things is through cooperation.*

Therefore, the consortium recommends that corporations utilize the clusters in their ecosystem to scout for innovative collaboration partners through demand-driven matchmaking processes.

To achieve the maximum output from matchmaking, corporations should help the clusters and the selected startups to understand the specifics of the challenge they need to be solved to ensure that the identified solutions match. This requires a commitment of time. Moreover, the corporations should consider carefully who from the organization they send to participate in pitching sessions, as it needs to be someone with a decisive mandate.

However, it is not enough to use matchmaking programs to scout for innovation. Going from initial engagement to an actual collaboration is the most difficult part, and this requires that it is prioritized internally in the organization. This means that corporations need to work actively with setting up structures and processes for working with startups and developing a joint language for discussing innovation management and innovation collaborations. It needs to be an integrated part of the innovation strategy.

A key recommendation to this end is that corporations who have succeeded in doing this (or those who are on the way but struggling) share their experience openly and honestly with other corporations. Sharing best practices and learnings with peers is key to creating an ecosystem where collaboration is the default mode of operation.

## FOR BUSINESS ANGELS AND VENTURE CAPITAL FUNDS

Make use of accelerator programs to scout for startups and validate the level of their technologies. This provides an efficient process for identifying startups within the relevant industries and ensures that their technologies are validated. Close collaboration between investors and accelerators can contribute to making the investors more visible to the startups and vice versa.

## FOR GRANTING AUTHORITIES

To help local companies solve complex challenges, as well as help innovative startups scale their solutions, it is essential to support facilitators of matchmaking and acceleration services. This report can be used as a frame of reference when evaluating proposals for grants and other types of funding for such programs by summarizing what works and what does not work.

As a general rule, programs with generic elements of upskilling for startups are not in demand. It became evident in the recruitment phase of the CIA program that the market is saturated with generic offers. Startups require more concrete value propositions such as a clear thematic or industrial focus and opportunities to engage with end users. Startups increasingly demand tailormade programs with 1:1 support on pressing issues, as well as tangible opportunities for development. This should be reflected in the types of programs being funded.