



Evaluation of Innovation Norway's Public-Private Innovation Partnership Programme

Efforts & Lessons Learned

Experiences from Project Participants and Programme Partners

January 2020

Reading Guide

This report summarises insights and lessons learned from Public-Private Innovation Partnerships (PPIP) and Innovation Norway’s Public-Private Innovation Partnership programme (hereafter “the PPIP programme”). It is the result of an in-depth evaluation among current programme participants and programme partners conducted in the period August 2019-January 2020. You can read the report in 3 ways depending on your needs and interest, by using the buttons in the lower right-hand corner of each slide:



Just take me to the conclusions!

Do you only want the overall conclusions and a quick overview of evaluation results?

Read the 10 selected pages that together provide an executive summary.

What do I do?

Click on the exclamation mark icons to change pages throughout the report.



I want guidance on PPIP!

Do you plan to enter into a public-private innovation partnership (PPIP) and want information on how to initiate and execute PPIP-projects?

Learn about the Innovation Partnership Programme. See examples of other PPIP projects and read their experiences and key advice on how to become successful with PPIP.

What do I do?

Click on the grey question mark icons to change pages throughout the report.



I want the full report!

Do you want to read the full result of the PPIP programme evaluation and get insights into project experiences, the process model for PPIP and PPIP effects?

Read about lessons learned in the first two years of the programme, and recommendations for programme improvements.

What do I do?

Click on the forward mark icons to read page by page.

Background

In 2017, Innovation Norway together with Agency for Public Management and eGovernment (Difi) and The National Programme for Supplier Development (NPSD) decided to launch a new programme “Innovasjonspartnerskap” allowing public institutions and private companies funding and support for Innovation Partnership Procurement projects (PIIP).

At present, 14 projects have received funding and the programme partners wish to evaluate the programme and identify the initial perceived effects and general lessons learned. Focus is on an ‘Insights Evaluation’ with the aim to understand what works and what does not work in the current programme model.

The Innovation Agency INNOBA has been in charge of the evaluation. INNOBA specialises in public-private innovation and has taken part in the development and improvement of approaches to public-private innovation partnerships and procurement practices on national, regional and local levels across the Nordic Countries.

The evaluation process was commenced in August 2019 and will be finalised in January 2020 with a CO-Creation workshop on possible programme improvements. This report documents evaluation insights and lessons learned.

Approach

The PPIP Programme supports the creation, management and success of public-private innovation partnerships including the possible procurement and rapid implementation of partnership results. The programme aims to remove barriers to innovation in the public and private sectors and thereby create long-term innovation results. The evaluation sheds light on every step towards programme success and expected effects. As a result, it becomes possible not only to understand the current workings of the programme but also to form a solid baseline for any later evaluations of long-term programme effects.

Public-Private Innovation Partnership (PPIP) Programme

Short Term Effects

Long Term Effects



Primary Evaluation Questions

The evaluation answers the following overall questions:

- From a perspective of the current programme participants: what are the **current overall experiences** with Public-Private Innovation Partnership Procurement under the PPIP programme?
- To what extent has the PPIP programme **process recommendations** (process model) worked to support successful Public-Private Innovation so far?
- To what extent has PPIP programme **service offerings** to programme participants supported successful Public-Private Innovation?
- So far, what have been the perceived short-term and long-term **effects** of the programme?
- What specifically can be **improved** in the PPIP programme to create maximum effect?

Approach

The evaluation is a chance to stop for a moment and reflect together in order to find the best possible road ahead. Focus is on intermediate insights and lessons learned from the perspective of programme participants and programme partners. The purpose is to find ways to improve the programme in order to create the best possible results in the coming programme period. The evaluation approach is based on a combination of qualitative and quantitative techniques. This makes it possible not only to document the overall current state of the programme but also to understand the underlying explanatory factors and lessons learned. The primary evaluation components are outlined below:



Online survey

Quantitative survey identifying current and potential programme effects sent out to all public institutions and private companies who participate, or have participated, in PPIP projects.

The survey also functions as a baseline for future measurement of long-term effects and programme results.

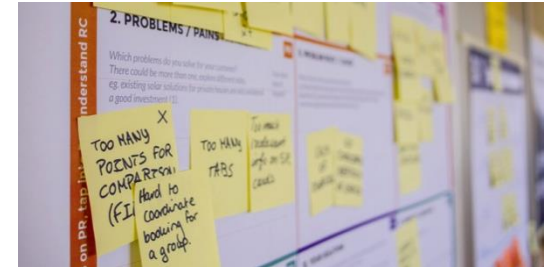
- Responses from 92 out of 198 individual programme participants with representatives from all projects.
- Detailed survey data report available.



Qualitative interviews

65 in-depth qualitative interviews with project participants and programme partners to understand causal explanations to preferences and actions.

- Interviews with different types of private and public participants in each PPIP project.
- Interviews with programme partners on both practical and strategic levels.
- Supplementary interviews with selected companies that did not enter into PPIP projects.



CO-Creation

CO-Creation techniques to help the programme target group take part in setting the direction for possible programme improvements.

- Idea development in interviews on programme improvements and recommendations.
- CO-Creation workshop with programme partners and participants.



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A

Programme

Overall Programme
Experiences



Overall Programme Experiences

The PPIP programme has been active for a little over 2 years. Interest in the programme has been high, and so far, 14 projects have received financial support for innovative procurement and innovation projects.

The overall status of the programme is as follows:

- **14 PPIP projects are in progress.** 5 have executed PPIP tenders and are in the process of developing new solutions in a public-private innovation partnership. 1 of these have finalised development efforts and is ready to purchase and implement.
- **Most projects are still in early stages** either defining needs and project focus or in dialogue with the market and preparing for PPIP tenders.
- **Sizes and types of project teams vary.** Some projects involve many partners, scientists and researchers in project efforts. Others have smaller project partner groups.
- **Overall programme satisfaction is high.** More than 90 % of the participants in the PPIP programme are satisfied, very satisfied or extremely satisfied with the programme at this stage.

In the following section, you can see the current stage of the 14 projects and learn what organisations and companies are involved so far. You will also get an overall introduction to PPIP and the PPIP programme.

Please visit the report appendix if you wish to read more about each of the 14 projects and see what challenges they attempt to solve.

What is PPIP?

Public-Private Innovation and Implementation

PPIP is about **developing and implementing new societal solutions** via close collaborate partnerships between public institutions and private companies.

Public and private sectors in The Nordic countries have worked for many years with new forms of public-private innovation (PPI). Innovation Norway has, among others, been at the forefront of this work in Norway.

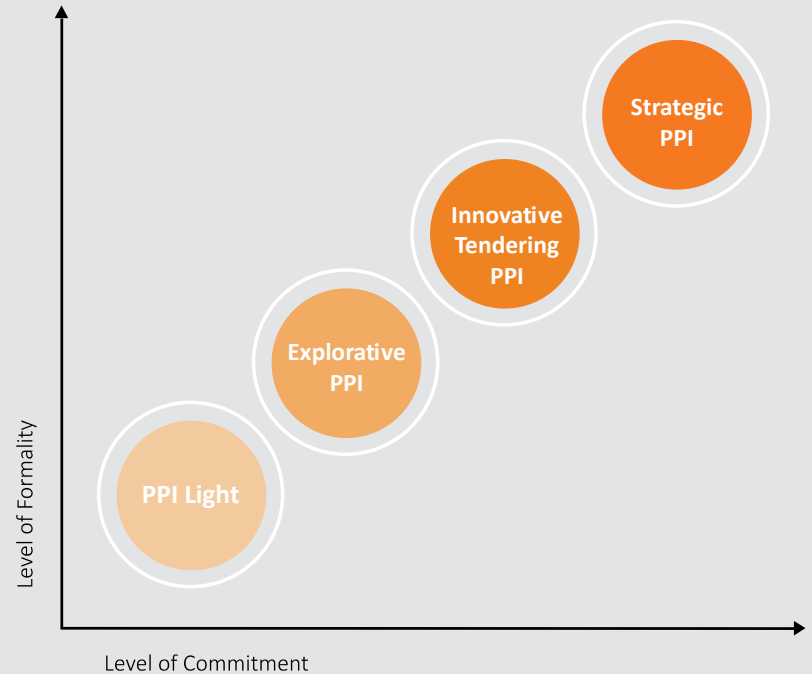
Collaboration generally happens in four overall different ways ranging from informal knowledge sharing (**PPI light**) and co-development of prototypes and experiments (**Explorative PPI**) to the more formal types of PPI connected directly to procurement and implementation (**Innovative Tendering PPI**). Finally, PPI takes place on a strategic level in binding and long-term development partnerships (**Strategic PPI**) *.

PPIP is the latest form of Innovative Tendering PPI. This particular form of PPI makes it possible to link the development of new solutions closely to implementation.

The basis for PPIP is a new **European Tender Directive**, Dir. 2014/24/EU, that was approved by the European Union in 2014. One of the goals of the directive was to create new opportunities for more flexible, innovation-oriented, and open tendering processes in the public sector – and to make room for new public-private innovation partnerships.

*Public-private innovation (PPI) is the cooperation between public institution(s) and private company(ies) around the **δεσλοπι εντ οφνεω ανδ ιννοπατιαε σολπιονσφορ της βενεϊτ οφ public welfare.***

This cooperation can be more or less formal and include everything from development of initial ideas and prototypes to purchase and implementation of fully developed, radically new, products, services or concepts.



PPI Typology Model, INNOBA, 2019

* The terminology is based on previous analysis of PPI practices performed by INNOBA in 2017 and 2018 and the subsequent development of INNOBA's PPI Typology Model.



How PPIP?

A New Approach to Procurement

In order to execute PPIP in an efficient way a new PPIP process model was developed in Denmark in 2016*. This process model was adopted by the Innovation PPIP programme in 2017 by Innovation Norway and has since been further refined. According to the model, PPIP is carried out in a five-step process:

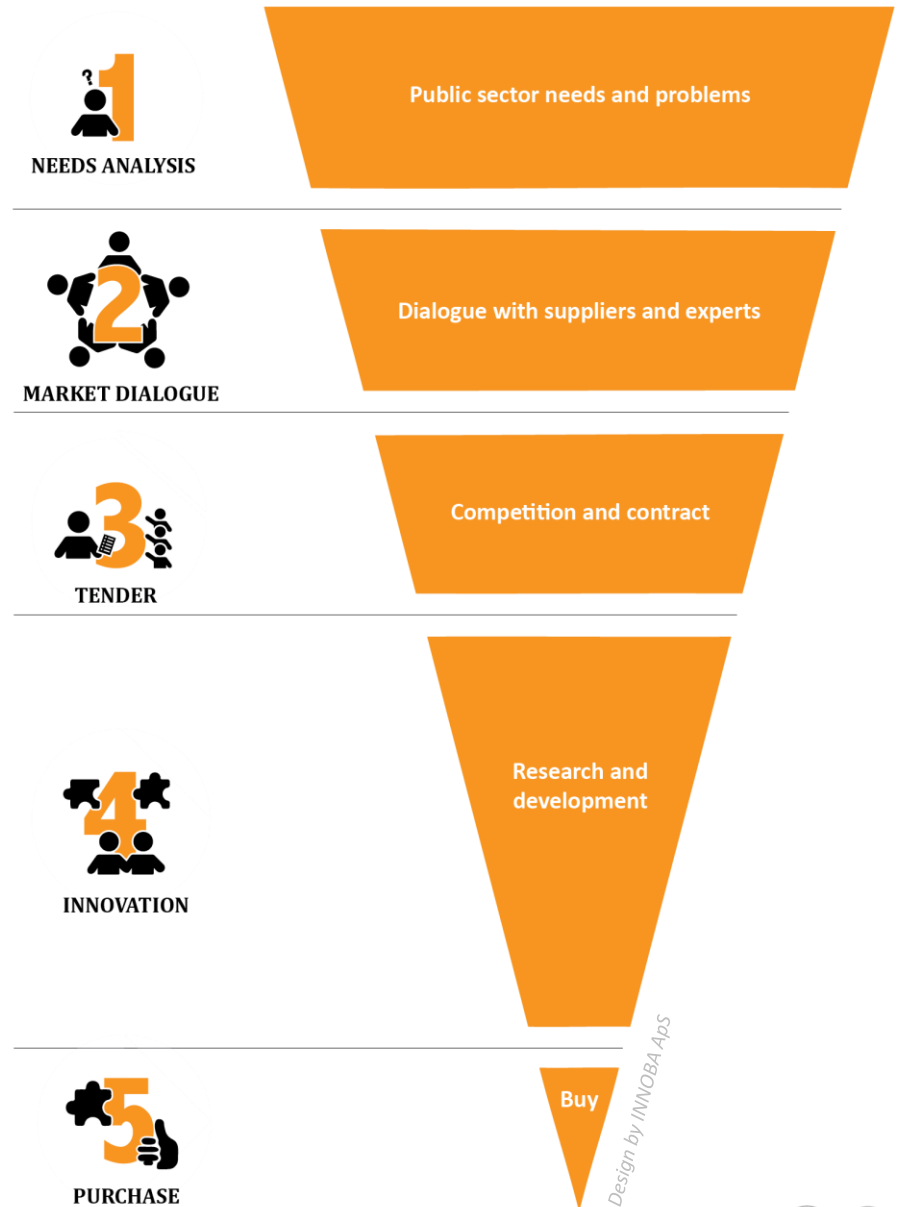
First, the public institution seeks to further **understand** the problem to be solved in a public-private innovation partnership. Actions include problem identification, needs analysis, and calculation of potential economic and welfare benefits from a new solution.

Second, the public institution enters into **market dialogue** with potential private sector innovation partners, experts and advisors. Other public institutions with similar needs might also be invited (possible co-signers of the partnership contract).

Third, the public institution issue a **PPIP tender**. One or more private companies are selected via negotiation and tender dialogue. A partnership contract must be signed covering not only collaboration on development but also potential purchase of the final solution.

Fourth, the public institution works closely together with the selected company(ies) to **experiment, test and develop** an innovative solution.

Finally, the public institution **purchases and implements** the final solution – if so desired (without additional tendering). Other public co-signers of the contract can do the same.



* PPIP Process Model, INNOBA, & Lundgrens, 2016

Why PPIP?

Room for innovation

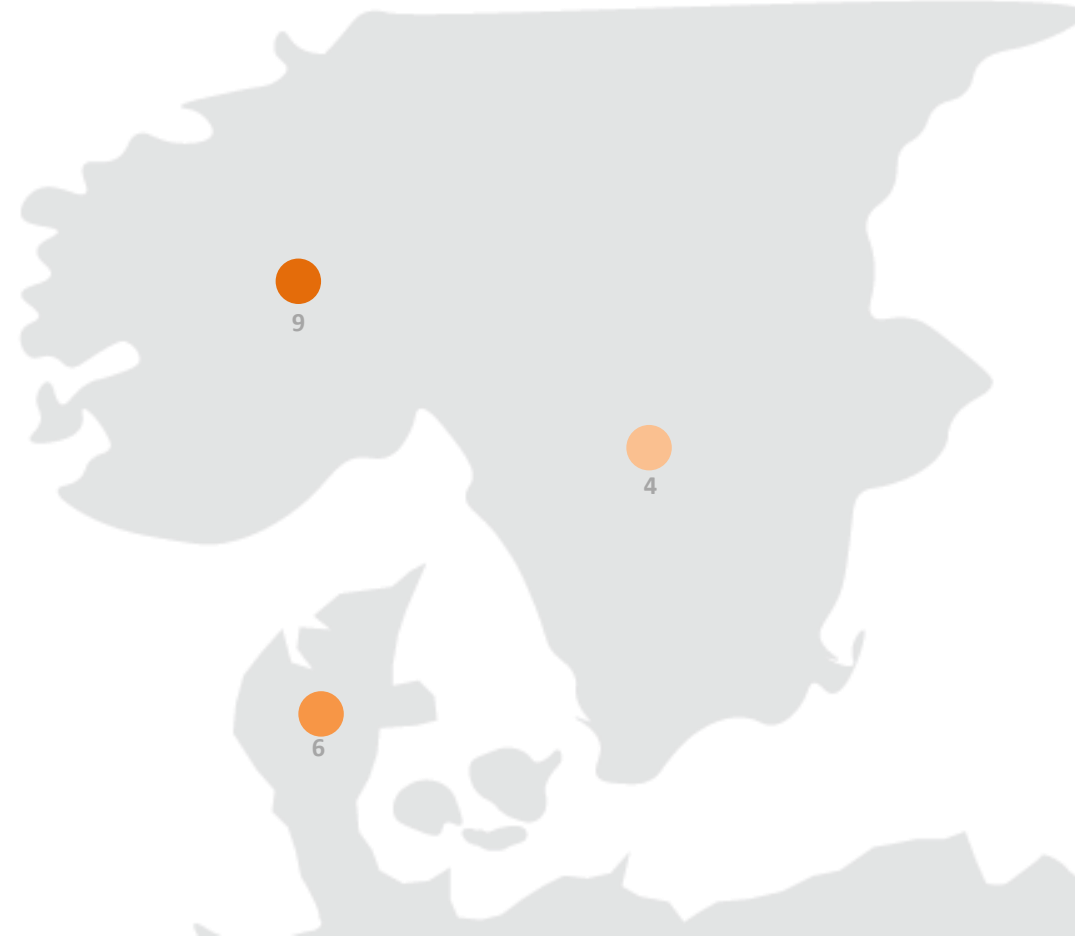
There is an untapped potential for societal and commercial results in public-private innovation. The public sector needs new technology from the private sector, radical ideas and innovative approaches to meet future challenges. The private sector can test and co-develop new solutions in the public sector in order to find the right technology, products, concepts and services for sales and export.

However, in traditional public tender processes and other public-private interaction it can be very difficult to make room for innovation. The dialogue between the public institution and suppliers is often very formal and follows strict rules. It can be difficult to introduce new ideas and approaches.

The PPIP tender approach seeks to change this with:

- More room for **radical innovation** and **public-private idea development** in public tendering
- Chances to **tailor-make** solutions from the private market to current and future public needs and/or to challenge these needs
- Possibilities for public institutions to work together on innovative solutions to common needs through **co-tendering**
- Increased chances of not only development but also **implementation** of new innovative solutions
- Potential **economic and welfare benefits** in the public sector
- Potential **business benefits** for private companies

PPIP tendering is still a relatively new PPI format. Uptake of the new tender form has only just begun in the European countries. The Nordic countries were first to test PPIP tendering (in Denmark).



No. of PPIP Tenders in Nordic Countries, 2016-19, EU Tender Data Base (TED), November 2019

The PPIP Programme

The Innovation Norway PPIP programme seeks to promote PPIP tendering by reducing risk via financial aid, project support, and knowledge sharing. The programme is built on a partnership between central organisations and decisionmakers across sectors and traditional organisational silos. Financing comes from several different state sources and is coordinated with the existing Norwegian business- and public sector support efforts. Below are some facts about the programme:

NOK 136,5 m. to 14 projects
So far: NOK 12 m. in 2016 (1 project), NOK 32 m in 2017 (4 projects), NOK 34 m in 2018 (4 projects), NOK 58,5 m in 2019 (5 projects).

Public institutions apply for PPIP funding and –support. Further financing expected in 2020.

In 2019, PPIP project calls coordinated with The Research Council of Norway’s Pre-Commercial Procurement Programme.

3 ministries involved in co-financing of the PPIP programme budget.

Innovation Norway (IN), The Agency for Public Management and eGovernment(DIFI), and The National Programme for Supplier Development (LUP) cooperate as informal programme partners and work actively with project support.

Approx. 2-3 year projects, 1 project has been finalised, many are in start-up phases.

Financing mainly goes to suppliers’ development costs, possible to use up to 10% for other external costs.

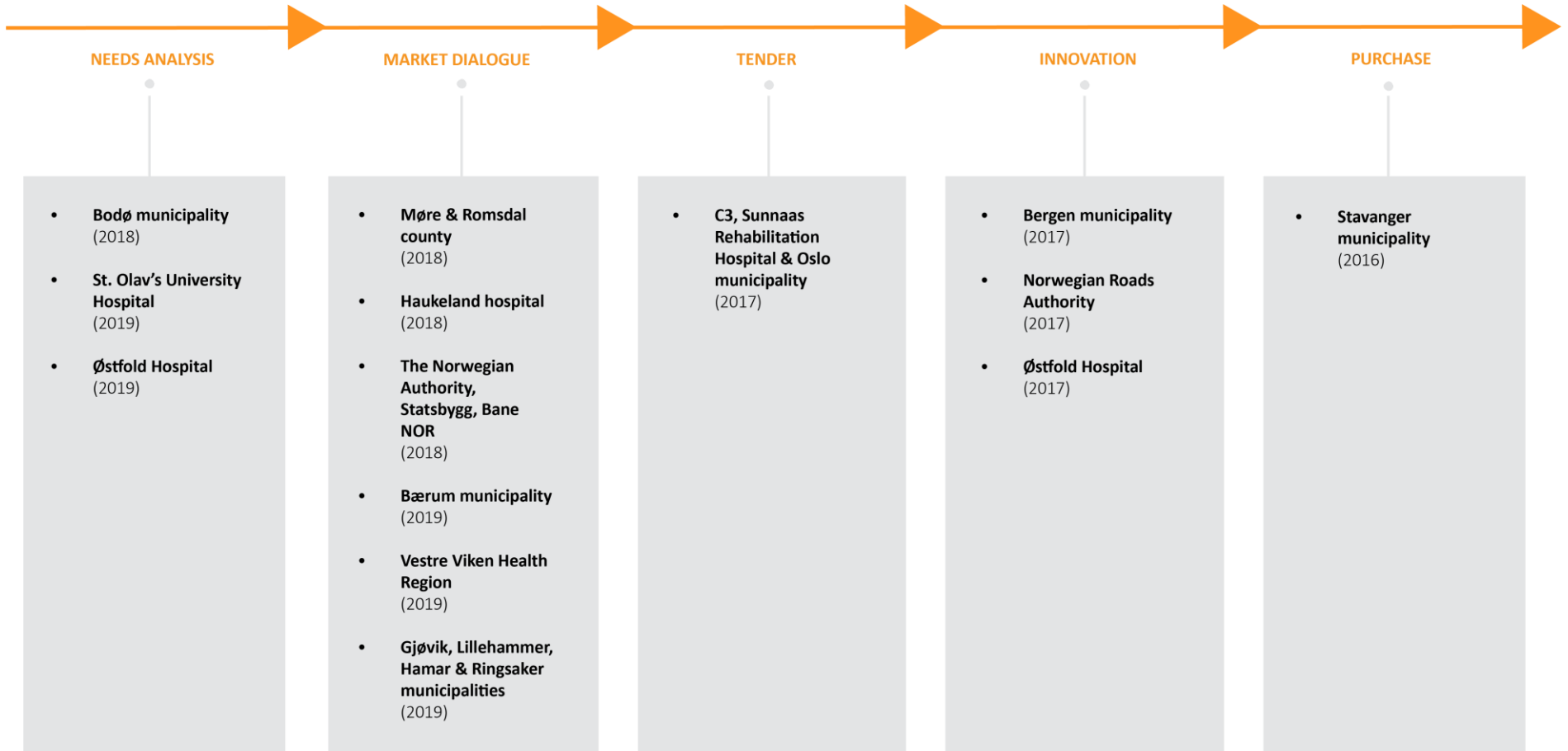
In addition to financial support, projects receive in-depth process guidance, assistance in building innovation capacity, PPIP advice, and sparring from project partners.

Ad hoc programme cooperation with organisations representing public institutions (local, regional, national level) and private companies.

Top management commitment and dedicated project management demanded.

Programme Projects

So far, 14 projects are in progress at different stages of the PPIP process.



Please see the report appendix for an introduction to each PPIP project including project theme, project stage (per end of 2019), and project team.

Overall Programme Experiences

Generally, PPIP project participants are very pleased with the PPIP programme and programme services.

“If the project delivers as promised it will be a revolution in the healthcare sector!” - Public institution

“From an innovation perspective, innovative procurement with public-private innovation partnerships work very well.” - Public institution

“It has been worth it all!” - Public institution

“Here we make sure our products are based on market needs. It is REALLY GOOD!” - Private company

“The cooperation between public and private sectors provides great synergies and open up new markets!” - Private company

“The programme helps us bring research to the industry. It is like an acceleration of ideas.” - Research institution

“This tender procedure has made it possible for us to innovate better. It becomes easier to go from prototyping to commercialisation and implementation.” - Public institution

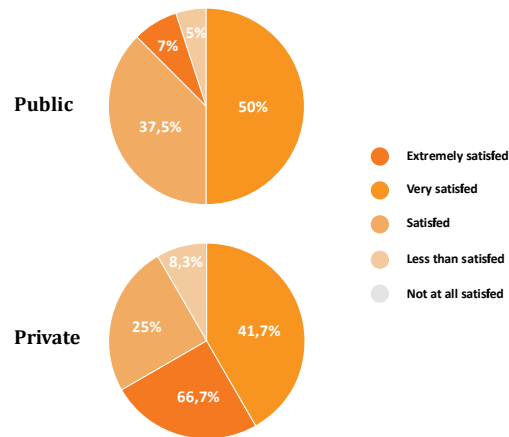
“It is an opportunity to develop exactly what the customers need. We would not have been able to do this without this project.” - Private company

“The value of the contract is in the hundreds of millions. It is a big chance for a smaller company.” - Private company

Overall Programme Experiences

Participating public institutions and private companies alike would recommend the programme to others and only very few are not satisfied on an overall level with their participation in the PPIP programme. This is a very high overall satisfaction rate and indicates that the programme so far delivers an attractive value proposition to programme participants. However, this does not mean that participating in a PPIP project is easy or that there is no room for programme improvements. Sections B, C and D of this report describe challenges and lessons learned in regards to the PPIP process model, the PPIP service offering, and current expected PPIP effects. Section E presents concrete ideas for programme improvements.

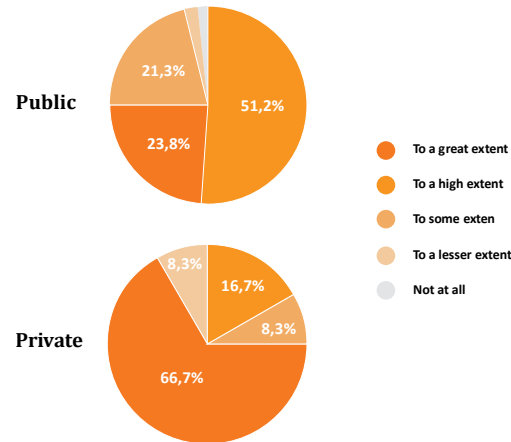
How satisfied are you with the advice and sparring you have received in the PPIP Programme?



Satisfaction with PPIP Programme

- 98% of the public participants and 92% of the private sector participants in the PPIP programme are satisfied, very satisfied or extremely satisfied with the programme*.

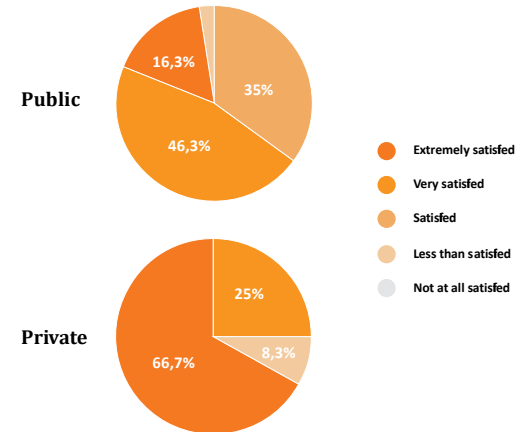
To what extent would you recommend the PPIP Programme to others?



Recommendation of the PPIP Programme

- 75% of public sector employees and 83% of private-sector employees that participate in the programme **would recommend programme participation to others**. Further 21% and 8% respectively would recommend the programme “to a certain degree”*.

In general, how satisfied are you with your participation in the PPIP Programme?



Satisfaction with PPIP Programme Services

- 95 % of the public sector participants and 92 % of the private sector participants are satisfied, very satisfied or extremely satisfied with the programme partner service to PPIP projects*.

* Online PPIP programme survey (Please see survey report for further detail)



B

Process Model

Experiences with the
PPIP Process Model



Process Model Experiences

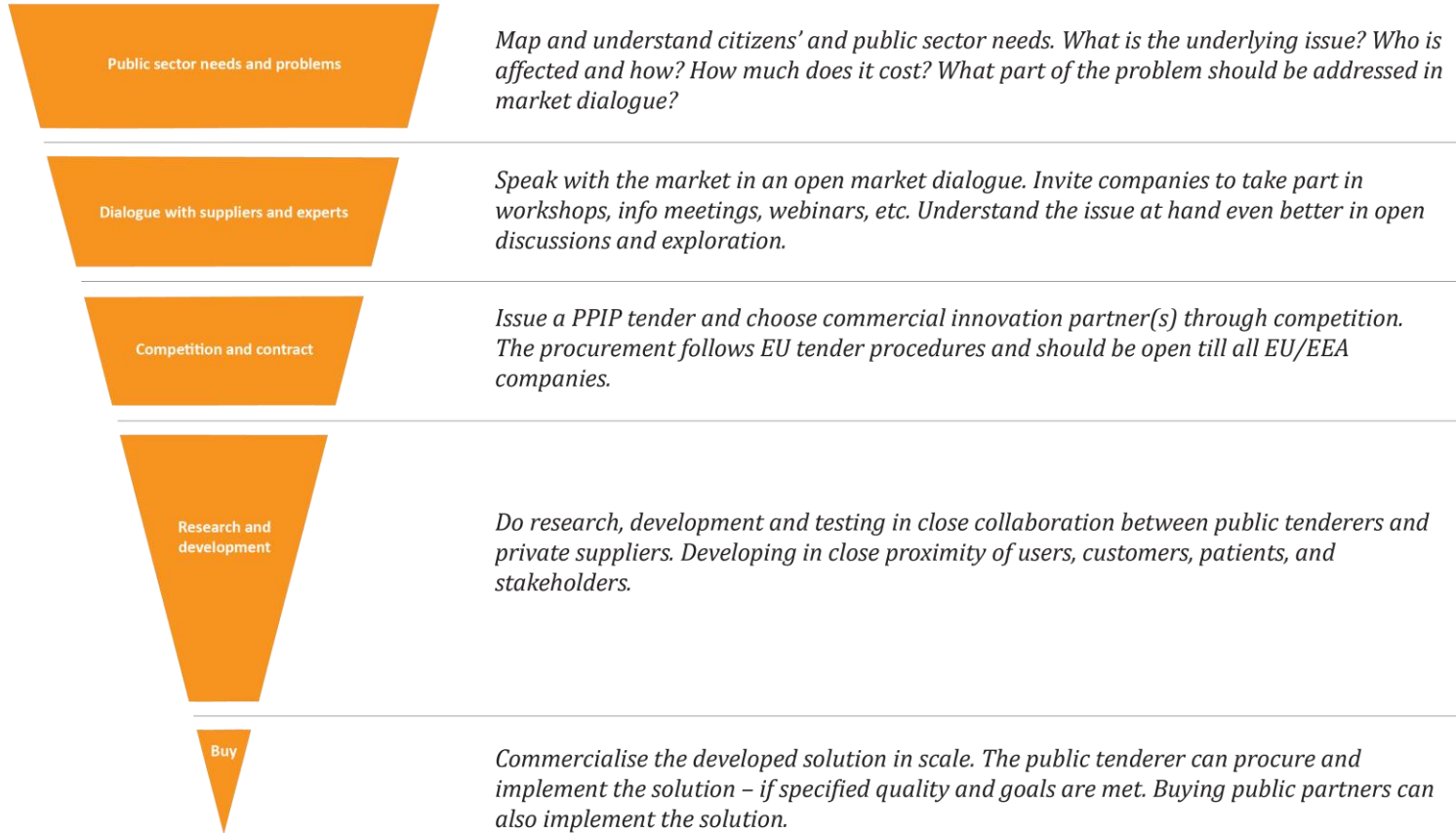
In order to be funded under the PPIP programme projects must follow the PPIP Process Model. This model recommends a five-stage from needs analysis, initial market dialogue and PPIP tendering to solution development in a public-private innovation partnership and purchase of the final solution. Overall experiences with this process model among programme participants include the following:

- **PPIP is complex** and it can be difficult to know who can apply, how and for what type of project.
- **It takes skill to narrow down needs and project scope.** The more public partners from the beginning the more difficult it is to define common challenges and project scope.
- **Market dialogue adds value** – in the right dosage. Market dialogue gives valuable input to the public tenderers but can if not handled correctly seem diffuse and resource-demanding for private companies.
- **PPIP tendering is resource-demanding** for all parties involved. One key to success lies in the wording of tender document incl. formal demands.
- **CO-development works very well.** The PPIP model makes it possible for public and private parties to work closely together on future innovative solutions.
- **No implementation yet.** It is vital for especially private companies that PPIP also leads to implementation in the long run.

In the following section, you can read about programme participants' experiences with each of the phases in the PPIP process model. You can also read participants' top 10 advice to others who want to work with PPIP and PPIP tendering.

The PPIP Programme Process Model

In order to get funding from the PPIP programme projects must adhere to the Norwegian PPIP process model (see page 9 for an introduction to the PPIP process model approach). Each project must follow five steps in order to promote public-private innovation and -implementation in accordance with current tender law. The purpose of the process model is to make it easier for project participants to go through innovative tendering.



Currently, more PPIP programme participants have experiences from the initial phases than from phases 4 and 5. However, the evaluation has supplied lessons learned from all phases.



Overall

An Overview of PPIP Processes

The process model follows the legal framework for PPI tendering. It describes 5 steps towards procurement and implementation of innovative solutions. All projects must follow the model.

Positive experiences

- Most public participants find that the process model **supplies an overview** of what they can expect from a PPIP project.
- The model also works well as **assurance that the project follows current rule sets** even though procurement is experimental and has a different (new) approach to tendering.

Experienced challenges

- There is a **lack of written guidance** on how to execute each phase in practice. This means that many projects use the model more rigidly than originally intended.
- Both public and private organisations find the PPIP phases very **resource demanding**. There is a potential for more time and resource-efficient approaches to phase execution.
- Some programme participants find that the process model is not flexible enough to cater for the differences between projects and innovation challenges. **One size does not fit all.**



"It is very important that we have had help from Innovation Norway and The National Programme for Supplier Development. It feels safe to have someone telling you, that this is the right way." – Public institution

"If we had not been introduced to the model we would have started directly with the procurement document – we would have not done the initial phase. We learned a lot." – Public institution

Overall

An Overview of PPIP Processes

A sense of security

- Many of the public PPIP participants are new to innovative procurement and public-private innovation partnerships. They see the process model as a means to **confidence and security**.
- However, the model does not explain exactly how to execute each phase, nor does it present the many **varied tools and approaches** available for creative innovation.
- There is a **tendency to be quite rigid** in project steps following the same model in all projects. However, innovation processes seldom follow a straight line. For example, it is not unusual to have to revisit needs analysis and project scope after market dialogue – as well as during development processes. This is not explained in the current process model.

Kill your darlings

- Legally, it is possible to **end a PPIP project** after each of the 5 phases. It is also possible to end the project after set stage gates during phase 4 “Research & Development”. This does not seem perfectly clear to all programme participants.
- One project is currently redefining project scope based on inputs from the market dialogue. The new project scope could be suited for an initial research project prior to PPIP. Hence, a research project would be a natural next step for the project but it does not fit the PPIP process model.
- Other projects might realise during the market dialogue that large scale innovation projects are not needed after all. In such cases **it is currently difficult to end the project – or move the project** to another more suited funding programme.

What about “PPIP light”?

- Public and private participants alike find all PPIP process model phases **resource demanding**.
- Many express a need to do PPIP in a more resource-efficient manner*.

Potential for improvement

- How might the process model more clearly depict iterative innovation processes?
- How might we implemented into the PPIP process approach how to end or change PPIP projects mid-way?
- How might PPIP projects receive more assistance in executing each PPIP phase in a less rigid way?
- How might one find new more resource-efficient ways to do PPIP tendering?

* This corresponds to experiences in Denmark where a recent PPIP project has been successfully ‘fast tracked’.



Start-up

Entering into the PPIP Programme

Before entering into the PPIP programme, project owners must set a project team and apply for funding. The application process includes a brief written application and oral presentation with the participation and support of top management. Projects are required to explain how they will assure proper project management, the necessary competencies, etc.

Positive experiences

- The application procedure generally seems **to promote top management support** among public sector project owners.
- All projects have presented project applications with the participation of top management and top management is represented in project steering committees.
- Most participants think **application procedures have been manageable**. However, some found it difficult e.g. to understand demands for innovation or to define a PPIP suitable challenge, especially if they lack innovation competencies.

Experienced challenges

- It is up to project owners to assure **top management support among other project partners** – this can be challenging
- **Dependence on individuals:** several projects have experienced changes in project management since the application phase. For some projects this has meant considerable delays and project setbacks.
- Many projects **struggle to dedicate enough project management resources**.
- Private **companies generally lack (more) tailor-made information** about programme potential and what they can expect from PPIP processes.



"So many discussions back and forth. It was very difficult to apply for funding – we almost gave up." – Public institution

"We have an innovation manager. Otherwise, we would not have applied." – Public institution

"Everybody is so busy – just introduce the programme in a short manner. It is highly relevant for us to join in such projects. But first of all we need to know that it is." – Private company



Start-up

Entering into the PPIP Programme

Discover the PPIP Programme

- Only public institutions can apply for funds in the PPIP programme. Hence, private companies cannot initiate a PPIP project. This insures that PPIP projects are based on real public sector needs and willingness to invest.
- Nevertheless, it also means that private companies are not necessarily as aware of the programme and the potential of the programme for market development. This is the case for Norwegian as well as international companies.
- Sometimes an innovative private company see an unmet need or challenge in the public sector with great potential for improvement and value that public employees might not even be aware of.
- The **private sector participants** usually know about the programme only through a specific call for market dialogue or tender. They often do not understand the details in the PPIP approach and **lack information** about programme possibilities communicated in a more commercial language.

Apply for PPIP funds

- In most projects the application approach has resulted in important **top management support** throughout project phases.
- However, **not all projects have dedicated the corresponding resources** for especially project management.
- Some projects have experienced how project management and support often **depends on individuals**. This can be challenging when these individuals change jobs or are less involved during a long project period.
- In some projects project managers **have very little dedicated time** for PPIP project management.

Use the PPIP approach

- Many programme partners mention that it can be a problem for some project applicants to 'fit into' the PPIP approach. **Some PPIP projects might be more suited for other types of PPI.**
- In 2019, Innovation Norway arranged programme calls together with The Research Council of Norway in order to make it possible to sort programme applicants into projects most suited for PPIP and other projects more suited for explorative PPI – or 'contract-based PPI' (see page 9 for further explanation of different types of public-private innovation).
- It makes sense to find the right type of PPI (a tender approach) for each public challenge instead of the other way around.

Potential for improvement

- How might we make sure that top management support continues throughout a 2-3 year project period even when changes occur in top management locally?
- How might we assure continuous and dedicated project management resources in all PPIP projects?
- How might we promote innovative companies' possibilities to proactively participate in PPI projects?
- How might we base the PPI/tender approach on the project rather than the other way around?



Why enter into the PPIP programme?

In the online evaluation survey, public and private sector participants were asked to choose the top 3 reasons for entering into the PPIP programme. Private companies expect long-term commercial results. Public institutions want innovative solutions to defined problems – and they want to improve their abilities to work in new ways with innovative procurement and public-private partnerships.

For most public sector participants, the primary reason to enter the PPIP programme is to solve a concrete problem and find implementable innovative solutions.

Public institutions also enter the PPIP programme to try new ways of public-private collaboration and PPI.

The possibility to get knowledge, sparring and project assistance from the PPIP programme partners has been a central motivator for public sector programme applicants.

The primary reason for entering into the programme for private companies is the opportunity to develop new products/services together with clients – and with external co-financing.

Companies also see the PPIP programme as a means to open the public market for existing solutions.

25% of private sector participants expect the PPIP programme to bring them closer to public clients and add competencies in public-private innovation.

Only 15 % of public participants choose access to funding as the main reason for entering the PPIP programme.



Needs Analysis

Public Sector Needs and Problems

In the first phase of PPIP, the project team must revisit the innovation challenge and try to map and understand the underlying issues. The purpose is to get detailed insights into what needs and problems constitute the basis for the innovation challenge. The phase prepares the project group for market dialogue and later development efforts.

Positive experiences

- For many public sector participants, **this phase is very important** as a tool to change the procurement approach towards innovative procurement.
- Especially the procurement employees **better understand** how to think in needs rather than in solutions before talking to the market.
- Focus on common needs also motivates projects to **find other public sector partners** across traditional sector barriers.
- The phase gives **valuable insights** into later solution development efforts.

Experienced challenges

- Some problems are more complex than others. Projects with very complex problems and many innovation partners tend to **use more time than planned** in this phase.
- Generally for all projects, it is a challenge to **narrow down project scope** and prioritise identified needs.
- It is difficult for projects to assess **what level of innovation** is sufficient for PPIP. Especially in the very technical projects it is difficult to get an overview of existing solutions in the market and understand levels of innovation.



“Project scope becomes too wide – that is a general problem.” – Programme partner

“We have really listened to the users. It was a very thorough process. This has been incredibly important.” – Public institution

“Most often the suppliers develop something they assume we need. Here, we can really communicate and co-develop what we want.” – Public institution

Needs Analysis

Public Sector Needs and Problems

Understand needs

- Several projects get assistance from external consultants (service designers, researchers, etc.) in order to analyse and research needs.
- Methods used range from large scale observations and interviews to quick meetings and evaluation. **Not all have the necessary competencies** to do needs analysis in an efficient way that creates the foundation for project scope and -development.
- For some it becomes a **special challenge** to understand what specifically constitutes an innovation challenge suitable for PPIP.

Decide on scope

- Projects in general experience very high innovation expectations. There is some confusion as to “**how innovative a solution needs to be**”.
- In relation to this, it can be difficult for projects **to get a full overview of what is already in the market** (and thereby: to what extent a new solution will be innovative compared to what already exists). This is especially the case if the technical complexity is high.
- Some projects use a lot of time in this first phase on other things apart from needs analysis: setting the project team, finding other public sector partners, identifying the project manager, etc. This prolongs the phase.
- It is difficult for most **projects to narrow down and define project scope** and what (part of the) innovation challenge to focus on. **The more public partners the more difficult to define project scope.**

Set the team

- All projects are obliged to have project groups and steering committees. For some projects this setup **can be bureaucratic** and delay the iterative process and decision making.
- Some projects have **very large project teams**. These teams experience difficulties in the form of inefficiencies and coordination challenges.

Potential for improvement

- How might we ensure that project scopes are wide enough for innovation and narrow enough for project execution?
- How might we make it easier to define and communicate a common challenge among several public institutions?
- How might we define what is innovative (enough) and what is not?
- How might we assure proper market screening prior to project efforts so that we do not ‘re-invent the wheel’?



Market Dialogue

Dialogue with Suppliers and Experts

In the second phase of PPIP, projects initiate and open dialogue with suppliers, experts and other types of private sector companies. Research institutions also often take part in the market dialogue. The purpose is to understand what solutions are already in the market and identify the innovation potential, as well as possible paths - for solution development.

Positive experiences

- Public institutions and private companies have **many positive experiences** from the PPIP open market dialogues.
- Especially the public project owner get **valuable inputs and knowledge** from the project market dialogues.
- **Companies of all sizes** have participated in market dialogues, including SME's (more than 200 companies in total so far).
- The interviewed **SME's** experience that the open market dialogues give them access to the public sector and open doors.

Experienced challenges

- Not only public institutions but also private companies need (more) **introduction to PPIP**. The interviewed companies often mention that they did not know what to expect from PPIP.
- Companies, that have participated in market dialogue but did not take part in the following PPIP project, have found some market dialogues **unnecessarily time-consuming**.
- Some companies suggest different approaches to innovation-oriented market dialogue.
- When the **project scope is too wide** market dialogue is difficult.
- Projects tend to use a **narrow range of formats** for market dialogue.



"The market dialogue was difficult because we facilitated it ourselves - at that stage we needed outside help." – Public institution

"With the inputs from the market we saw our project much more clear. It was really good!" – Public institution

"The process is demanding when it is time spent without payment." – Private company



Market Dialogue

Dialogue with Suppliers and Experts

Contact the market

- It has been difficult for some projects to do a thorough **market screening**: they do not know what solutions are already in the market and what innovation potential to expect.
- Market dialogue can help with this. But sometimes relevant solutions or companies exist in other countries. Focus on **international market dialogue** has been low.
- It has been a challenge to **explain to companies** what PPIP is in a language that highlights the commercial value and potential.

Execute market dialogue

- To facilitate a good market dialogue **takes skill**. Many projects have had help from external facilitators.
- When the **scope is not clear** the market dialogue becomes diffuse and does not make sense to companies. One project had to re-evaluate project scope and narrow down the innovation challenge because companies found the project too 'fluffy'.
- Some market dialogues have been unnecessarily **time-consuming** in the eyes of the interviewed companies. Especially the middle-sized companies complain that time spent is not financed and a big investment.
- However, the more commercial potential in the project the more time spent on market dialogue is reasonable to the companies.
- Some companies suggest projects might use **more time on market dialogue with pre-qualified companies** and less time on the initial open market dialogue.

Choose the right format

- It is interesting that most projects follow **one market dialogue approach**: 2 workshops with the participation of 40-100+ participants. This approach is relevant for some innovation challenges but not all. Projects seem to lack awareness of other dialogue approaches that might be relevant in different projects and at different stages in the PPIP market dialogue phase.

Potential for improvement

- How might we maintain focus on open and early market dialogue even when it is difficult?
- How might we broaden the toolset for market dialogue available to PPIP projects?
- How might we assure time spent proportional to potential market value?
- How might we make sure that the potential of PPIP is communicated clearly to private companies (including relevant foreign companies) in a commercial language?



Tender

Competition and Contract

In the third phase of PPIP, projects issue a PPIP tender calling for private sector innovation partners. The tender covers not only co-development of a new innovative solution. It also covers the possible purchase of this solution (if it lives up to defined demands). Other public institutions following the project can take part in the tender with an option to buy. It is possible to enter into innovation partnership with more than one company.

Positive experiences

- The tender format includes negotiation and tender dialogue. It also sets a framework for innovative collaboration and implementation via purchase. This **works well** for companies and public institutions.

Experienced challenges

- Only a few projects so far have used the opportunity to enter into innovation partnerships with **more than one supplier/group of suppliers**. One project made agreements with two different teams but asked them to work together on one solution.
- Projects generally **need help formulating** the tender material in a way that does not hinder innovation.
- Evaluation of tenders has been difficult due to **low comparability**.
- Some companies think that the **PPIP contract is too rigid** for agile innovation processes.
- Companies generally complain that it has taken **too much time** to get from the initial market dialogue to an actual development and procurement deal.



"The tendering process was difficult because of doubts about the interpretation of regulations." – Public institution

"It takes an agile process to be able to drive radical innovation and 'fail fast'. This has not been the case. It took 1 year and 4 months to get from the first initial contact until the tender came out. That is a long time!" – Private company



Tender

Competition and Contract

Formulate tender material

- **“The devil is in the detail”**: it is a challenge for projects to ensure that the innovative approach from the first two PPIP phases continue in the actual formulation of the tender material.
- Usually, legal experts take over at this stage and they have not always been part of the earlier phases.
- The demands and framework formulated legally in the tender material (including the PPIP contract) can either support or hinder iterative innovation processes.
- **Projects generally lack the experience in formulating PPIP friendly process demands.** In some instances, this has resulted in heavy and time-consuming evaluation procedures and/or contracts that (in the minds of companies) hampered the iterative innovation processes.
- Pricing constitutes a special area in PPIP tenders. Projects are required to identify a **max price** for the (not yet developed) solution in order to have a starting point for pricing. However, it can be difficult to calculate what is a reasonable price framework for something you do not know.

Pre-qualify companies

- It has been difficult for some projects to **formulate the pre-qualification criteria**. It has been a concern to make sure that SME’s and innovative start-ups were not excluded from the PPIP tender.
- Some companies mention that demands for previous product references or financial strength might **hinder new players** with the most innovative solutions from participating.

Choose supplier/innovation partner

- Many find **it difficult to compare** different offers for PPIP-partnership. The different companies and suggested solutions in an innovation process are not always directly comparable.
- In some cases there is a tendency to **use “old school” approaches to contracts** in order to minimize risk and control the innovation partnership. However, companies feel that such an approach makes it difficult to take risks, experiment and run iterative innovation processes

Potential for improvement

- How might we ensure formulation of legal PPIP documents that promote rather than hinder innovation processes?
- How might we work with calculated risk in partnership contracts?
- How might we assure that prequalification criteria do not exclude the most innovative companies?
- How might we make it less resource-demanding to tender PPIP for public and private participants alike?



Innovation

Research and Development

In the fourth phase of PPIP, public institutions and private companies develop new solutions in close collaboration. Both parties invest time and resources in the partnership and they come up with new ideas together. Typically, the company already has a solution in mind. This needs to be tested and further developed in cooperation with potential end-users and stakeholders.

Positive experiences

- Currently, 4 out of 14 PPIP projects in the PPIP programme have direct experiences with the innovation phase.
- Feedback is **generally very positive**.
- The companies feel they **get access to solutions tests** in a real setting.
- Public institutions participate with important deep knowledge of own needs and **get to be innovative in finding solutions** to these needs.

Experienced challenges

- It is important to apply close and innovation-oriented collaboration in this phase. Regular traditional meetings are generally not enough to harvest the real value of PPIP.
- It **takes advanced management skills** in companies to work in larger teams with e.g. science partners, other company partners, etc. as well as public partners.
- Some companies point out the **danger of a potential slow development** process that will be surpassed by technology development in the market.
- Other companies **fear the development process will not be iterative** enough because of contract restraints.



"It is a unique opportunity to be part of the innovation process and develop something!" – Public institution

"It is good to cooperate with the client so the solution fits client needs. It is a huge advantage in regards to later sales." – Private company

"These processes have a tendency to take too long. This is not always smart if the technology is constantly evolving." – Private company

Innovation

Research and Development

Develop together

- The primary reason for entering into PPIP is to give access to co-development of solutions that solve public sector/societal needs.
- So far, experiences in the PPIP projects are positive. Both companies and public institutions alike **experience real value in co-creating solutions**.
- Science institutions also participate and there are good examples of **science transfer** to the private sector in PPIP projects.

Assure innovation

- Some companies experience slight **structural restraints** in the PPIP model. If the partnership contract is too rigid it becomes difficult to work with real iterative development processes.
- Other companies **fear that development processes take too long** because of slow decision making, comprehensive project planning, and specific process demands. This leads to risks of solutions that might be technologically surpassed by the market before finalised.
- It can also be a challenge (yet still positive) for some companies to “let the clients into the development department”.
- However, all interviewed companies see PPIP as a **very positive opportunity to get access** to public sector users and very valuable knowledge of current & future market needs.
- Assuring a high level of innovation and efficient development processes seems to be **easier for companies, that already work with iterative development processes** and have tried public-private development cooperation before.

Make the solution market-ready

- There is a **time limit** on the innovation phase in the PPIP programme. It seems most suited for projects with a rapid time-to-market development process.
- The more market-ready the solution idea is from the beginning the easier it is to reach a mature solution in the given time span of the PPIP.
- Hence, **very experimental**, un-defined, radical innovation processes, that start with only a vague idea **might be suited better for other types** of PPI.

Potential for improvement

- How might we support agile and innovation-friendly processes in development phases of PPIP?
- How might we work with rapid prototyping, fail fast and other techniques and at the same time assure contractual follow up?
- How might we shorten the development phase (and other PPIP phases) to avoid solutions that do not follow rapid technology changes?
- How might we make it easier for companies in PPIP projects to take the step from prototyping to a market-ready solution?



Buy

Purchase and Implementation of Solutions

In the final phase of PPIP, projects can purchase the developed solution without further tendering. Public buying partners can also use their right to purchase the solutions within the framework of the PPIP contract. The public institutions can also choose not to buy if the solution does not live up to expectations.

Positive experiences

- Only one PPIP project in the PPIP programme has reached this phase. They are in the process of purchasing and/or deciding on next steps.
- Needless to say, **this phase is vital for companies** in PPIP projects. With a large contract comes references to the rest of the public sector as well as return on investment on the development phase.

Experienced challenges

- In the current PPIP model there is a **time limit on the first purchase**. This means that the public project owner must invest in the solution within 3 months from the finalisation of phase 4. **This poses challenges**.
- The leap from phase 4 to phase 5 can also be difficult for companies. Especially smaller companies can have **difficulties scaling production** in the short timeframe of the purchase agreement.
- It constitutes a **special challenge** to have a project owner who is not the final “problem owner”. One such project has experienced lower commitment to procurement and issues connected to tendering.
- **Buying partners are not always committed** to final purchase of the solution.



“The buying Partners must be better connected to the project if there is to be a chance that they will buy the product.” – Public institution

“The last PPIP phase is too short. You need at least 6 months. It is far too little time for decision making among the public partners.” – Private company



Buy

Purchase and Implementation of Solutions

Prepare the solution for purchase

- Both public institutions and private companies can face challenges with the **short time frame for purchase** in the current PPIP standard contract.
- Further, it is a general experience within PPIP projects that **pricing can be difficult** prior to purchase*. The PPIP partner contract includes a max price and a reference price for the winning company. However, the final price of the solution must often be negotiated in phase 5.
- The **negotiation position** of the private and the public organisation in PPIP can differ depending of the project setup. Current PPIP projects in the PPIP programme have generally not taken this into consideration.

Decide to buy

- The public institutions in the PPIP projects need approved budgets and top-level decision making to buy the developed solutions at scale.
- **Not all PPIP projects have approved budgets** for purchase at the beginning of the PPIP projects. This could be a result of the possibility to choose not to buy in the PPIP contract.
- Some PPIP projects have **not involved the procurement department** from the beginning of the PPIP project.
- It is difficult for the public institutions – and especially **the buying partners** – to make the decision to purchase within such a short time frame.
- In principle, there should be a **higher level of commitment** to buy in PPIP than in most other PPI models.

Prepare for the future

- Not many of the PPIP projects in the PPIP programme have thought of **further innovation** of a solution once purchased. However, it is not uncommon that innovative solutions need to develop continuously.
- Further innovation and potential co-development after PPIP is not currently a part of the PPIP programme model.

Potential for improvement

- How might we calculate and negotiate the final price for procurement?
- How might we make it possible to procure the developed solution for a longer period of time post PPIP?
- How might we include the public buying partners with procurement options in final implementation?
- How might we assure continuous innovation post PPIP?

* See "Evaluation of Nordic Experiences with PPIP" for the Danish Ministry of Commerce, 2018, by INNOBA ApS.



Top 10 PPIP Advice

From current PPIP programme participants



Use a dedicated project manager

It is important to have a dedicated project manager from the very beginning. Preferably in a full-time project position. The person selected should be experienced in innovation processes and with strong process steering skills.

A qualified and dedicated project manager is vital to project success. Projects without it have experienced delays and project setbacks.

Private company participants should also bring strong project management skills to the table in order to assure a qualified and efficient development phase.

Support agile project management: organise a small dedicated project group of 5-6 people – involve others on an ad hoc basis.



Top management support is crucial

A PPIP project is not only about development but also about large scale procurement and implementation. Top management support is very important in all participating organisations.

Not only with the public sector project owner but also among following public partners and within the private companies supplying technical solutions.

In addition decision-making procedures should be clear and agile so that the project is not hindered by bureaucracy.



Be realistic with resources

PPIP projects bring a lot of value but it takes time to do things differently.

Be realistic about project resources and set aside the necessary manpower for each phase and task.

Almost all PPIP projects that are beyond the initial PPIP phases have used more time than expected. Always use resources where it matters most.

Private companies should consider potential commercial gains compared to resources invested.



Watch out for complexity

Complex problems sometimes take complex solutions. But try to keep it simple.

Projects with many partners and innovation challenges that involve system development experience more delays and adversities. These might also hold great and radical potential - but be prepared...

Projects with small teams and focus on product development tend to experience progress faster.

Be very clear on project scope and define priorities early with all project partners to focus project efforts.



Let go!

Innovation is not a linear thing. There is no fixed recipe for innovative radically value-adding solutions.

Accept that every single step cannot be planned, that you will go back and forth, and that you do not know the result from the beginning.

Make sure that the private companies in the partnership are not constrained in their innovation efforts by too many contractual demands.

As a private company: be prepared to let the customers engage with your internal product/service development.

Top 10 PPIP Advice

From current PPIP programme participants



First understand, then decide

The first step in PPIP projects is for the public project owner to understand own needs and challenges.

In contrast to regular procurement, PPIP is about unknown solutions to known problems. Hence, time in the beginning should not be used on describing a solution but on understanding the underlying needs behind the innovation challenge.

Be prepared to use more time than expected on this. It is well spent. But do not overdo it. Go on and get moving. You will get back to understanding needs, user involvement, and idea development many times during the PPIP project.



By smart with market dialogue

The value of a good market dialogue prior to PPIP tendering cannot be overestimated.

All projects that have executed market dialogue so far have praised the outcome and value to the project.

However, be aware of resources spent. Market dialogue can be done in many ways. Workshops, info meeting, webinars, 1-1 meetings, dialogue cafés, etc.

Make sure your approach to market dialogue makes sense to companies. Time spent on their part should be proportional to the commercial potential of the project.



What you tender is what you get

In some PPIP projects internal brainstorming, needs analysis, project scope, and market dialogue have been very open, innovation-oriented phases. However, once the PPIP tender material must be formulated there is a tendency to narrow down the innovation potential.

In-house and external legal advisors, tend to focus on reducing risk and strengthen control of project outcomes.

Be aware that you formulate PPIP legal documents in a way that promotes innovation rather than the opposite. Involve your procurement department and legal advisors from the very beginning.



Be real cross-disciplinary

In order to solve cross-disciplinary challenges you need a cross-disciplinary team.

Make sure to involve people with competencies within innovation, project management, needs analysis, public-private communication, tendering, etc.

Involve the potential public procurers early to assure the right procurement approach. Involve the solution target groups in needs analysis and development processes. Etc.

Companies should be aware of the potential of partnerships with other suppliers, researchers and experts.



Go for the big value

PPIP is about not only development but also the implementation of innovative solutions.

Bring focus to purchase and implementation from the very beginning:

Work on assuring budgets and the framework for procurement from the very beginning of the project.

Ensure political and administrative support

Actively involve all public partners that have options to purchase the final solution.

As a private supplier: make sure you have the necessary and scalable delivery system in place by the end of the innovation partnership.

C

Service Offering

Experiences with
Programme Services



Service Offer Experiences

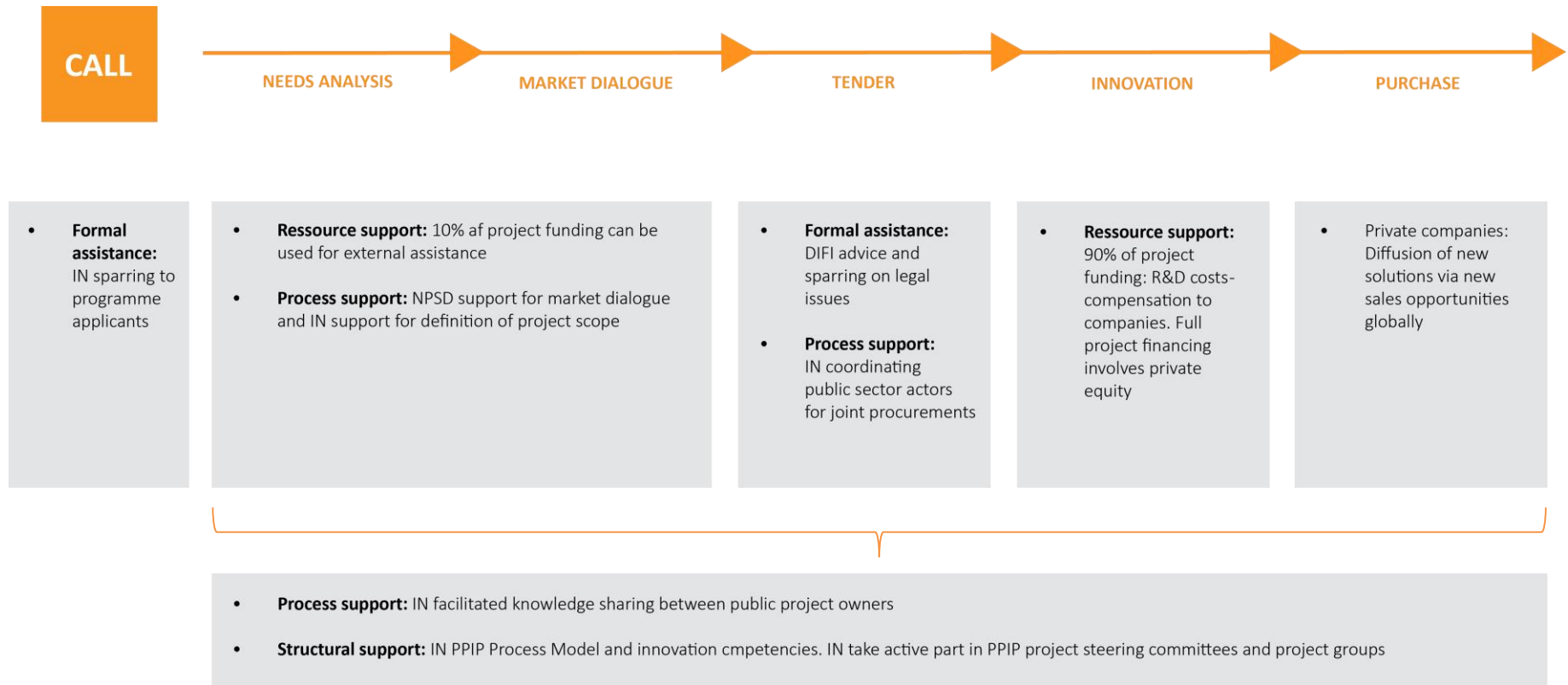
In the PPIP programme, projects receive not only funding but also a variety of process support. Programme partners supply advice and assistance, public project owners meet for knowledge sharing, and each project has a budget for further external support. Overall experiences with these support services include the following:

- **Overall satisfaction** with programme support is very high.
- There is a need for dedicated resources for project management within **resource support**.
- Projects would benefit from more **formal assistance** in the form of legal support with a focus on innovation-oriented tender and contract solutions.
- **Process assistance** works very well but could be prioritised in a more differentiated way. There is also a need for clearer roles for each project support function.
- **Structural support** consists of very active roles in project management and – execution for programme partners. This is a strength but also constitutes a risk of ‘double roles’.

In the following section, you can read about programme participants’ experiences with the PPIP programme service offering.

The PPIP Programme Service Offer

PPIP programme projects generally receive support in four areas: resource support, formal assistance, process support, and structural support.



In the following, you can review lessons learned and project experiences with the different areas of PPIP programme support.



Overall Service Offering

General Satisfaction Among PPIP Participants

Compared to typical public sector innovation support programmes (also in other Nordic countries), the Norwegian PPIP programme offers a high level of support service to project participants.*

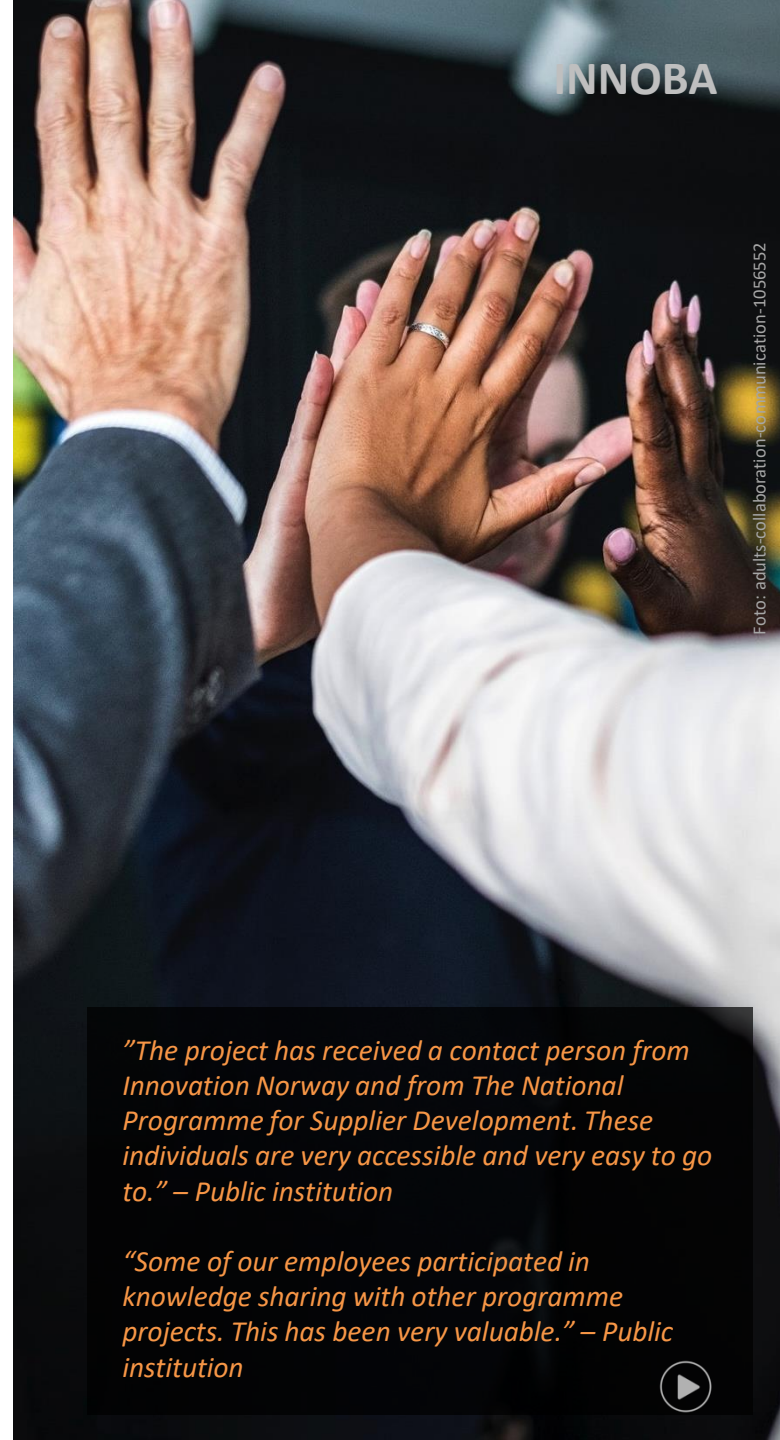
Positive experiences

- Public and private sector PPIP participants alike are **generally very satisfied** with the programme service offering.
- 95 % of the public sector participants and 92 % of the private sector participants are satisfied, **very satisfied or extremely satisfied** with the programme partner service to PPIP projects. At the same time, 98% of the public participants and 92% of the private sector participants in the PPIP programme are satisfied, very satisfied or extremely satisfied with the programme in general (see section A).
- Especially the public sector participants feel **the service offering has made a real difference** in their ability to succeed in their PPIP efforts.

Potential challenges

- With a high level of support there is always a **risk of support dependency**.
- It is vital that PPIP participants build the competencies and structural framework to be able to do innovative procurement and PPIP in the future - also without programme support.
- This assures that PPIP – and innovative procurement in general - becomes an integral part of everyday public procurement in line with other procurement approaches.

* Reference is made to e.g. the Danish Innovationsfonden, Markedsmodningsfonden (previous), etc.



“The project has received a contact person from Innovation Norway and from The National Programme for Supplier Development. These individuals are very accessible and very easy to go to.” – Public institution

“Some of our employees participated in knowledge sharing with other programme projects. This has been very valuable.” – Public institution



Resource Support

Financing of Innovation Costs

PPIP projects receive funding from the PPIP programme. Payments differ depending on project needs and funding decisions. Each project can use 10 % of funding for external assistance (e.g. service designer, process facilitator, innovation expertise, legal assistance, etc.). 90% of funding must be used for companies' development costs in the PPIP innovation phase.

Positive experiences

- The possibility for financing (combined with process assistance) makes it possible to try new procurement approaches at a **reduced risk**.
- Companies spent considerable additional resources on entering into public-private collaboration – often at high risks. Especially for SME's, **co-financing of development costs is a precondition** for participation.

Experienced challenges

- In order to be selected for PPIP funding, projects must live up to certain **levels of innovation**. These levels can be difficult to understand/define.
- **Project management costs** constitute a considerable challenge for some PPIP projects. The public sector project owners are responsible for project management. This often constitutes a considerable investment of resources, especially if the project involves multiple partners.



"We not only need funds for suppliers, but also funds to spend on internal budgets." – Public institution

"What is innovative and what is not innovative? How can we know what is a sufficient level of innovation?" – Public institution



Resource Support

Financing of Innovation Costs

Project selection and market screening

- In order to be selected for funding, a project must work with solutions that do not already exist in the market. Projects are **required to do an initial market screening** to decide whether there is truly a need for new innovative solutions in the selected project area.
- The **PPIP programme also does a market screening** in connection with the evaluation of project applications.
- Furthermore, market dialogue in approved projects will also give **insights into existing solutions**.
- However, there is **not at present a systematic approach** to thorough national - and especially international - market screening prior to project approval*.

Revised levels of innovation

- PPIP projects must work with innovation. However, **'innovation' is difficult to define**. When is something innovative (enough)?
- Some PPIP participants ask for a more **precise definition** of what it takes to be innovative at the level necessary for PPIP tendering.
- At one hand, PPIP programme projects are expected to go through all five phases of the PPIP process model within 18-36 months. On the other hand, they are expected to reach radical innovation in a close collaboration between multiple partners.
- Some projects **might benefit from a less ambitious understanding** of innovation.

Resources for project management

- Some struggle finding the necessary resources for PPIP project management – especially because **the task is demanding** in first-time-PPIP-projects.
- Sometimes project managers are asked to run the PPIP project on top of their normal daily tasks because of **lack of resources**. These projects struggle to assure speed and progress in project processes.
- Several public sector participants **suggest a reserved budget** for project management of e.g. 10% of PPIP project funding.

Potential for improvement

- How might we ensure (even better) both national and international market screening and the right level of innovation?
- How might we better secure resources for strong PPIP project management?

* This is a classic challenge in public innovation projects. There is generally a lack of overview/data of on-going projects resulting in risks of double innovation across sectors.



Formal Assistance

Legal Aid and Formal Sparring

PPIP projects can ask for formal assistance from DIFI (The Directorate for Management and ICT) and from Innovation Norway (IN). DIFI supplies sparring regarding the legal aspects of PPIP tendering and IN answers questions about formal PPIP project funding requirements.

Positive experiences

- Programme applicants have access to IN sparring when applying for funding. Later, project managers can also ask questions about formal programme requirements for project management, -organisation, and – finances.
- In general, **public sector programme participants are satisfied** with this IN formal assistance.
- Formal legal assistance and sparring from DIFI is also **very valuable** to projects – and constitutes a risk-reducing factor.

Experienced challenges

- Other potential PPIP participants, **private companies and research institutions** mention that they **could use more general information** from IN and partners about PPIP possibilities.
- Some of the companies could also use **sparring and legal assistance** in areas like business to business contracting, intellectual property rights, PPIP partnership contracting, etc. – in order to reduce their innovation risks and to assure an innovation-oriented legal framework.
- Further, companies and some public sector participants experience that the **legal processes** connected to the PPIP tendering phase (phase 3 of the PPIP process model) can have a tendency to **hamper iterative and radical innovation** processes.



“Do innovation and fail fast - it requires an agile process. It has not been like this.” – Private company

“Our legal team has no experience with this type of innovative procurement. We need to think innovatively in terms of legal solutions too.” – Public institution

“We have been struggling to fit our project to this format.” – Public institution



Formal Assistance

Legal Aid and Formal Sparring

Removing formal barriers

- PPIP projects experience a **very good formal service** from the PPIP programme about application demands, project reporting requirements, etc.

More legal assistance?

- The accessible **legal sparring from DIFI is very valuable** to projects.
- However, projects have a tendency to go from a very innovation oriented mind-set to a more cautious and traditional approach once legal documents need to be written.
- From the experienced challenges it seems as if projects need **more help in assuring innovation-oriented approaches** in the legal details of contracting and tender documents.
- The need for innovation-oriented legal assistance is often not top of mind for project managers early in project phases. Challenges often turn up later – once legal documents are already signed. Hence, it might be **necessary to raise awareness** early in PPIP projects of typical formal PPIP pitfalls.
- **For example**, prequalification requirements can exclude relevant innovative SME's with too much focus on prior large scale references and financial strength. Tender dialogue can be hampered by an unnecessarily formal approach. Time at resources can be multiplied by too long public and private tender documents. Price negotiations can become problematic without the relevant pricing model in the partnership contact*. Etc.

More open market access

- Private companies and research institutions cannot apply for PPIP funding directly from the PPIP programme.
- However, some mention that companies could contact public sector clients and spread the word about PPIP opportunities. However, they **need more tailor-made (commercially oriented) information** to do so.

Potential for improvement

- How might we find ways to reduce legal risks of PPIP for both public and private PPIP participants?
- How might we assure that the innovation potential of projects is not suppressed by a (too) cautious legal approach to PPIP tendering and contracting?
- How might we strengthen information efforts about PPIP opportunities towards private companies and research institutions?



Process Assistance

Innovation and PPIP Advice

Currently, all PPIP projects receive a dedicated contact person from all 3 programme partners. These help with project scope, (IN), market dialogue (NPSD), coordination of public partners (IN), PPIP & innovation competencies (IN), and project knowledge sharing (IN).

Positive experiences

- According to responses in the online survey, the possibility for sparring and assistance from programme partners is an even more important reason for entering into the programme for public organisations than financing.
- 23 % of public participants choose “Assistance from the programme partners” as one of 3 top reasons for entering into the PPIP programme. In comparison, 15 % choose “Possibility for innovation funding” among top 3 reasons*.
- This underlines **the importance of advice and assistance** as a risk minimiser and motivational factor for PPIP projects.

Experienced challenges

- It should be noted, that the **private companies** in most projects **do not have much direct contact** with programme partners. They primarily receive support via the public sector project manager. Hence, their process assistance depends on the competencies of the project manager.
- Private companies’ **satisfaction with process assistance so far is high**. However, it should be noted that only a smaller number of companies have participated in PPIP programme projects for a longer period of time – and mostly in projects with strong project managers.

* Online PPIP programme survey (Please see survey report for further detail).

Assistance from Innovation Norway, The National Programme for Supplier Development, and The Agency for Public Management and eGovernment was crucial. And they fulfilled their roles perfectly.” – Public institution

“Phase 5 is too short and there is not enough help to get as a company from the programme. Here you feel alone and uncertain if the purchase will take place.” – Private company



Process Assistance

Innovation and PPIP Advice

Differentiated sparring

- Many projects have a high need for assistance with market contact, market dialogue, needs analysis and project scope.
- However, **one size does not fit all**. Some projects need much less assistance than others.
- Projects can use up to 10% of funding for **external assistance** from consultants, innovation experts, service designers, etc. In general, public sector partners who have received such assistance have been more pleased with market dialogue outcomes and project scoping.

Better coordination

- It is often **not clear to projects what they can expect** from each project partner – and who to talk to in regards to different sparring needs.
- Both public project managers and programme partners feel a need for **more clear roles** for programme support personnel.
- Some projects ask for **one primary contact person** who can direct them to relevant competencies and assistance within each of the three programme partner organisations.
- It has been decided to use local offices in Innovation Norway for PPIP process assistance in the future. This would further add to the need for clear roles and **structured knowledge sharing** across programme support employees.
- Some projects look forward to **local representatives** as they can feel that “Oslo is very far away”.

Knowledge sharing

- The possibility to **share knowledge with other PPIP projects** in seminars and via direct contact is highly valued by PPIP project managers. Several ask for more such activities.
- Similarly, it might be relevant with **cross-country knowledge sharing** and training **between project support personnel** when more PPIP projects come on board.

Potential for improvement

- How might we work with more differentiated levels of sparring and assistance to PPIP projects?
- How might we define more clear roles for each programme support employee in the programme partner organisations?
- How might we make it easier for PPIP projects to manoeuvre between support contacts and available competencies?
- How might we assure PPIP competence building across project managers and support personnel in a scaled PPIP programme?



Structural Support

Process Model and Management

The PPIP programme requires top management support from the public sector tender organisations in order to assure PPIP project success. In order to assist with innovation competencies and support project success even further, Innovation Norway takes part in every project steering committee and project working group.

Positive experiences

- Generally, projects feel they get **valuable knowledge** from Innovation Norway representatives in terms of innovation sparring, assistance in scoping projects and in assuring continuous programme support.
- Participation in **steering groups seems** to ensure a continuous innovation focus in projects over time.

Experienced challenges

- On one hand, the very active role of the funding organisation in each PPIP project is a strong model that strengthens return on investment of innovation funds.
- On the other hand, there is a risk of **'double roles'**: Innovation Norway functions as a funding institution, project approval institution, project steering stakeholder as well as – to some extent – a project execution assistant.
- In some projects it works very well. In others, double roles might be a challenge.
- A relevant question might be to what extent and in what detail Innovation Norway should play a role in project execution in the long-run.

"I am excited to see: will the public partners buy the developed solutions. There are no guarantees but this is what we hope for." – Programme partner

"Some projects are a little 'over administrated'. There is a steering committee and a project group and we use a lot of time to sell ideas from one to the other." – Programme partner



Structural Support

Process Model and Management

A systemic perspective

- A very **hands-on approach** from the funding agency means focus and attention to detail in projects.
- There is a **chance to assist and step in** at the right time to support projects on a structural and systemic level.
- Participation in steering committees ensures **continuous presence with top management** and a chance to increase project tempo and high levels of innovation.

Active participation

- **Some projects** work with a narrow scope, a small project team, and strong solution ideas from the beginning. **Other projects** are very complex, work with system-oriented and cross-sector challenges, and are organised in multiple partnerships.
- Hence, projects have very **different needs for structural support** and – participation.
- Some programme partner representatives, as well as project participants, ask for **more clear mandates and guidelines** for what influence and role the funding agency should play in projects.
- Others feel the organisational demands (steering groups, project groups, representatives from all partners, etc.) **run the risk of being too bureaucratic** for rapid project execution.
- It can be difficult for the individual partner support employee from partner organisations to know **when it is the right exit time** for hands-on support in project groups - and for projects to know what can be expected in terms of on-going assistance.

Other PPIP partners

- Some programme participants mention that it might be a good idea to look closer at **the role of the external public sector project partners**. These follow a PPIP project in order to be able to use a purchase option together with the public project owner.
- However, they are **not always closely connected** to the PPIP project process and run the risk of too loose, or lack of, top management support for later investments.

Potential for improvement

- How might we be clear(er) on the different roles of IN employees as a funding partner, steering committee member and project execution assistant?
- How might we find the right balance in hands-on activities of the funding agency in projects?
- How might we cater for project differences and variations in needs for structural support?
- How might we assure a stronger role for external public sector project partners with an option to buy?



D

Results

Perceived Effects of
the PPIP Programme



Perceived Programme Effects

Most projects are still in the early phases and only one project is in the process of final procurement. Hence, it is still early to look for overall programme effects. However, programme participants have been asked to reflect on **intermediate effects** and on their **expectations** connected to long-term commercial as well as welfare effects. This supplies intermediate insights. It also functions as a baseline for future long-term effect measurements.

Programme participants mention the following effects:

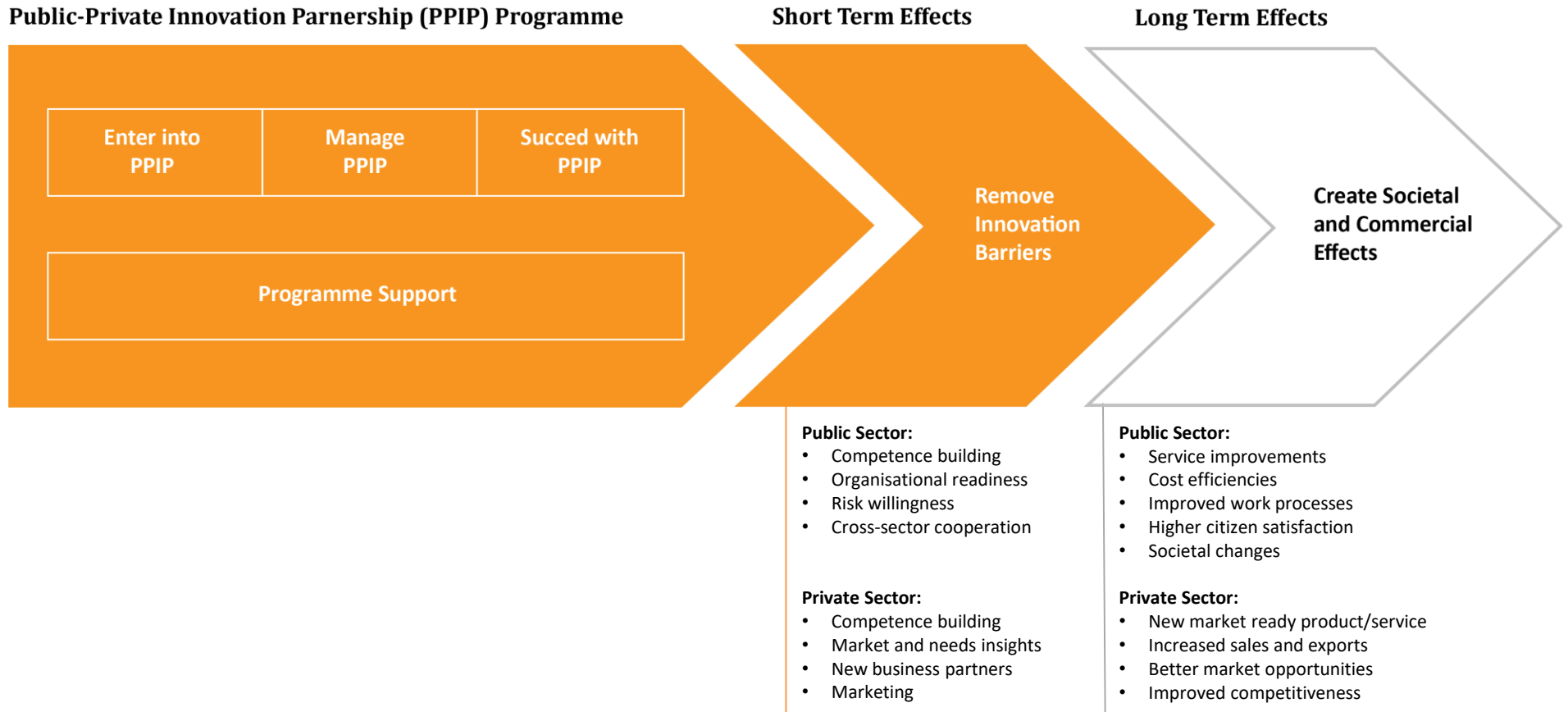
- Public sector participants point to intermediate effects in terms of **strengthened innovation capabilities, more cross-sector cooperation** and **improved internal work processes**.
- They expect long-term effects in the form of concrete new innovative solutions that **can save costs, improve lives for citizens, and create societal improvements**.
- Companies mention that the programme has so far resulted in **strengthened business networks, new business partnerships** and **positive marketing**.
- They expect concrete long-term **commercial results**.

In the following section, you can find more details on suggested effects from both public sector and private sector participants of the PPIP programme.



Effects Approach

The PPIP programme aims to create both public sector welfare effects and at the same time commercial effects for private companies. Different types of effects have been discussed with participants in interviews and tested in the online survey. This has created a baseline for future effects measurements.



In the following, you can find results of the baseline measurement of short-term as well as long-term effects as experienced by the current programme participants. Please note, that no further quantification and calculation of effects is included in this report. The main focus of the current evaluation is on lessons learned so far – and not, at this point, on economic calculations and documentation of long-term societal effects.



Perceived Short-Term Effects

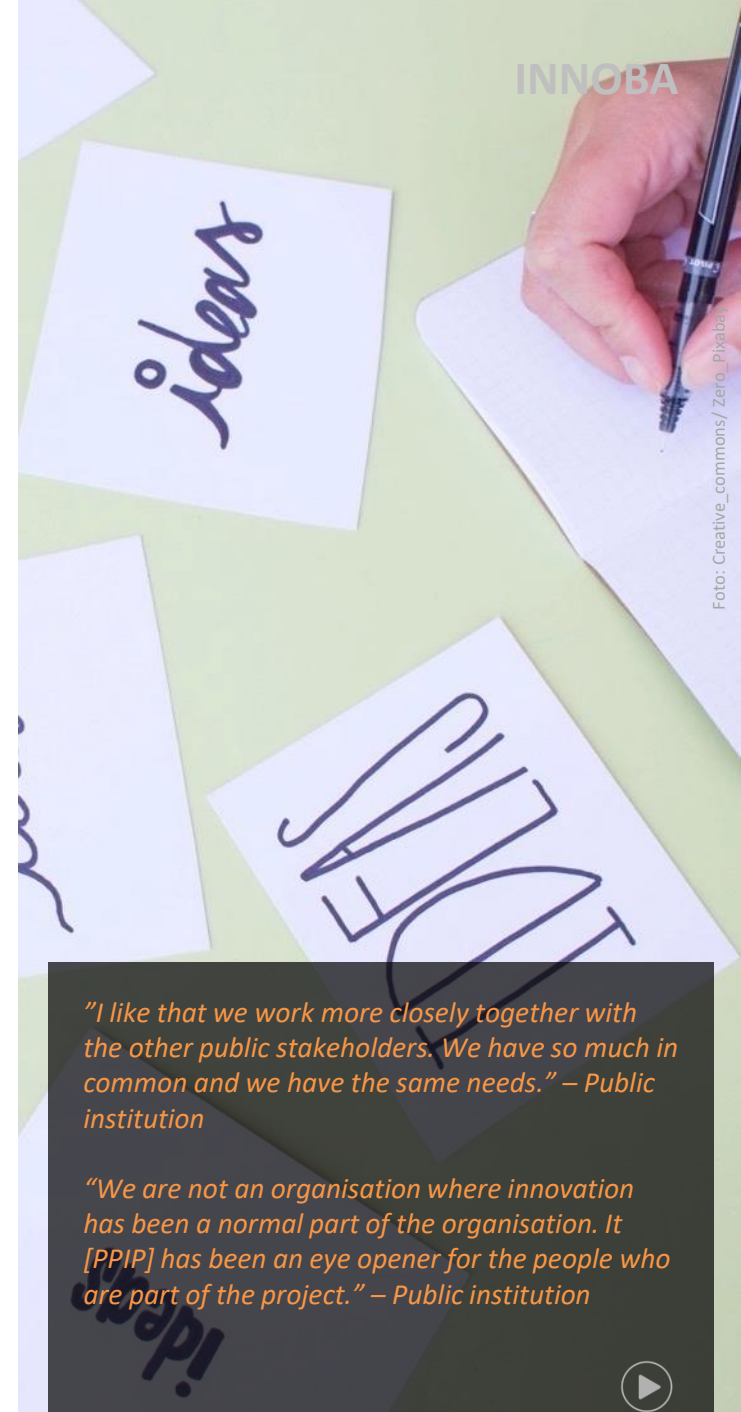
Experiences from the Public Sector of Removed Innovation Barriers.

Innovation competencies and increased public cooperation

- Many of the public sector participants in PPIP programme projects feel the programme has contributed to **improved innovation and innovative procurement capabilities** in their own organisations.
- They also point to **more cross-public cooperation** as an effect of the PPIP programme.
- Some also see **changes in internal work processes** as a result of PPIP efforts.
- Other perceived short-term effects of the PPIP programme are **increased willingness to take risks** in procurement, **early cost reductions** and **increased organisational efficiency** as well as **user- and employee satisfaction**.
- Some projects are in such **early stages** that there are no effects yet.

More public-private innovation partnerships

- It should be noted that the PPIP programme seems to **push forward the uptake** of innovation partnerships as a tender format.
- Neighbouring Nordic countries like Denmark and Sweden have used the innovation partnership tendering format. But uptake has been very slow. Norway has, with the PPIP programme, surpassed these countries in the number of new innovation tenders based on this tender format.



"I like that we work more closely together with the other public stakeholders. We have so much in common and we have the same needs." – Public institution

"We are not an organisation where innovation has been a normal part of the organisation. It [PPIP] has been an eye opener for the people who are part of the project." – Public institution



Perceived Short-Term Effects

Experiences from the Public Sector of Removed Innovation Barriers.

Competence building and organisational readiness

- Public sector PPIP programme participants feel the programme **strengthens innovation capabilities** in their own organisations.
- 66 % (53 out of 80) of public sector respondents in the online survey feel participation in the programme has **better prepared them** and their organisations for future public-private cooperation around innovation efforts. 53 % feel participation has meant an **improved innovation culture** across the organisation as well as more innovation competencies in general (42 out of 80).

Early innovation results

- Projects are at different stages. Some (33 %, or 26 out of 80) public sector participants **already seen new solutions** that can be used in their own organisation and/or in the public sector in general. Others (16 %, or 13 out of 80) experience **changes in work processes** and services.
- 14% (11 out of 80) think participation in the PPIP programme has resulted in a **greater willingness to take risks** and to work with innovation in the future.
- Most projects and individual public sector participants in the PPIP programme have not yet seen changes in citizen or employee satisfaction, economic savings or societal changes as a result of PPIP programme participation.
- In general, the PPIP programme seems to have resulted in **more PPIP tendering** in Norway compared to neighbouring countries without a support programme.

Cross-sector cooperation

- 41 % (33 out of 80) have initiated **new types of collaboration with other public institutions** across typical silo barriers. This is an interesting side effect to public-private innovation partnerships. There is a need for cross-public cooperation in order to address cross-sector issues as part of innovation efforts. The possibility to do common procurement as part of PPIP supports the possibilities to find innovative solutions in cross-sector cooperation.

Baseline – individual public sector participants*

- 66 % feel better prepared for public-private innovation.
- 53 % experience an improved innovation culture.
- 41 % have initiated new cross-public collaboration.
- 33 % have already seen concrete new relevant solutions.
- 13 % experience changes in work processes.
- 14 % have become more willing to do innovation.
- Projects in very early stages have not yet experienced any effects.

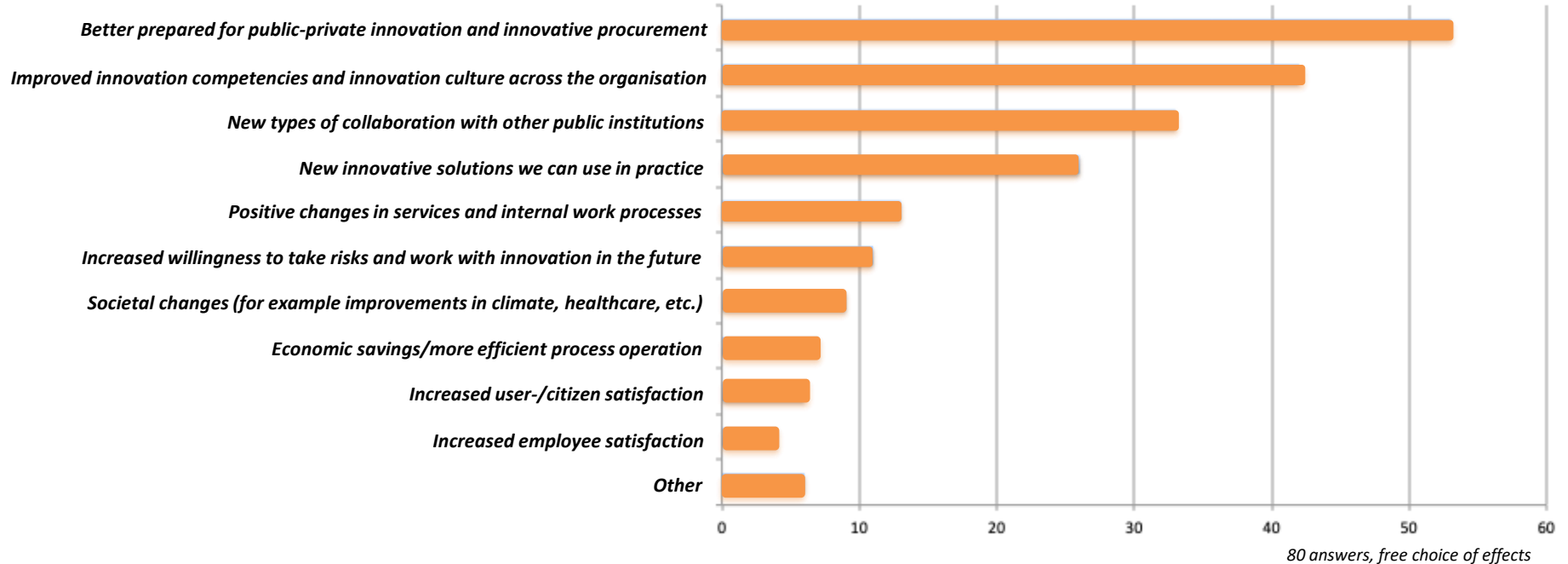
* Please note that participants have responded individually to the online survey. All projects are represented. However, with varied numbers of participants.



Perceived Short-Term Effects – Public Sector

Results of Online Survey among Individual Public Sector PPIP Participants* .

Survey question: “What type of effects would you say your organisation has already experienced as a result of participating in a the Innovation Norway Innovation Partnership Scheme? (choose as many effects as you want)”



* Online PPIP programme survey (Please see survey report for further detail).



PPIP Tendering in the EU

Comparison of PPIP Tendering in Norway and Other Countries*

2016:	2017:	2018:	2019:
Belgien: 0	Belgien: 1	Belgien: 2	Belgien: 2
Bulgarien: 1	Bulgarien: 0	Bulgarien: 1	Bulgarien: 1
Danm ark: 1	Danm ark: 4	Danm ark: 1	Danm ark: 0
Estland: 0	Estland: 2	Estland: 3	Estland: 0
England: 4	England: 5	England: 12	England: 13
Finland: 1	Finland: 8	Finland: 13	Finland: 9
Frankrig: 3	Frankrig: 10	Frankrig: 6	Frankrig: 14
Grækenland: 0	Grækenland: 0	Grækenland: 0	Grækenland: 0
Island: 0	Island: 0	Island: 0	Island: 0
Italien: 0	Italien: 3	Italien: 5	Italien: 8
Letland: 0	Letland: 0	Letland: 1	Letland: 0
Lichtenstein: 0	Lichtenstein: 0	Lichtenstein: 0	Lichtenstein: 0
Litauen: 0	Litauen: 0	Litauen: 0	Litauen: 0
Luxem bourg: 0	Luxem bourg: 0	Luxem bourg: 0	Luxem bourg: 1
Malta: 0	Malta: 0	Malta: 0	Malta: 2
Norge: 0	Norge: 1	Norge: 6	Norge: 2
Nederlandene: 1	Nederlandene: 6	Nederlandene: 12	Nederlandene: 6
Polen: 2	Polen: 5	Polen: 4	Polen: 5
Portugal: 0	Portugal: 0	Portugal: 0	Portugal: 0
Schweiz: 0	Schweiz: 0	Schweiz: 0	Schweiz: 0
Slovakiet: 0	Slovakiet: 0	Slovakiet: 0	Slovakiet: 0
Slovenien: 0	Slovenien: 0	Slovenien: 0	Slovenien: 1
Spanien: 1	Spanien: 1	Spanien: 5	Spanien: 1
Sverige: 0	Sverige: 1	Sverige: 2	Sverige: 1
Tjekkiet: 0	Tjekkiet: 1	Tjekkiet: 2	Tjekkiet: 6
Tyskland: 2	Tyskland: 8	Tyskland: 6	Tyskland: 7
Ungarn: 0	Ungarn: 0	Ungarn: 0	Ungarn: 0
Østrig: 0	Østrig: 0	Østrig: 2	Østrig: 4

Foto: ...

* Based on data from the European Tender Data Base, TED, 2019. Data extracted with the kind assistance of Lundgrens Advokater.



Perceived Short-Term Effects

Experiences from the Private Sector of Removed Innovation Barriers.

New Business Partners and Competitive Advantage

- Private companies, that participate in PPIP projects, tend to experience strengthened **business networks, new business partnerships** and **marketing effects**.
- They also mention that they have attained **new competencies** within public-private innovation, more knowledge of the public sector and the better ability to respond to innovative public procurement.
- Some companies think they already have a **stronger competitive advantage** because of participation in a PPIP project.
- Research institutions in PPIP projects see PPIP as a means to accelerate the **uptake of research knowledge** in the private sector.
- Companies see limited short-term effects on sales, exports, no of employees, and product portfolios.
- Some projects are in such early stages that there are no effects yet

Small Sample for Effect Evaluation

- It should be noted that **many project have not yet selected company partners** via tendering.
- The evaluation of private sector experiences of effects is based on insights from companies participating in PPIP projects.
- These are **primarily from the four projects** that are in the innovation and purchase phases of PPIP.
- Private sector inputs to the evaluation in general come from survey responses, qualitative interviews with current PPIP partners as well as interviews with companies that have participated in market dialogue but were not selected for PPIP partnerships.



"There are big synergies in the cooperation between the public and private sectors. It opens up for new markets." - Private company

"The effects of such a programme helps us bring research to the industry." - Research institution



Perceived Short-Term Effects

Experiences from the Private Sector of Removed Innovation Barriers.

Increased competitiveness

- When asked in the online survey about short-term effects of PPIP, private companies mention that **PPIP has contributed to increased competitiveness** in several areas.
- 42 % (5 out of 12) think their **overall competitiveness** has been strengthened through participation in a PPIP project.
- 50 % (6 out of 12) think participation has supplied short-term effects within **marketing and networking**. They have also gained **new business partners** as a result of PPIP participation.
- 25 % (3 out of 12) Have gained **increased knowledge** about the public sector and public sector markets. Furthermore, 42 % (5 out of 12) mention that PPIP participation has meant increased **competencies within innovation** and/or public-private innovation.

Business results

- Companies **have not yet seen concrete business results** of PPIP participation.
- Projects are for the most part **still in the early phases** and companies have not yet experienced increased sales/export, more employees or new market-ready products/services as a result of PPIP projects.
- It is **vital for companies that PPIP contribute to real business results** in the long-run. 92 % (11 out of 12) chose to participate in a PPIP project because of expected concrete business opportunities.

Starting up

- Most companies participating in the PPIP programme have only started PPIP partnerships with public sector partners.
- Hence, it is **still early to evaluate even short-term effects** of the PPIP programme for private sector participants and number should be seen in that light.

Baseline – individual private sector participants*

- 42 % experience increased competitiveness.
- 50 % see short-term effects within marketing, networking and new business partnerships.
- 25 % have gained more market knowledge.
- 42 % have new competencies within innovation and/or public-private innovation.
- Some SMEs mention PPIP as a means to enter the public sector market.
- Private sector participation in PPIP projects are, for the most part, still in very early stages. Hence, the research sample for a baseline survey has been limited.

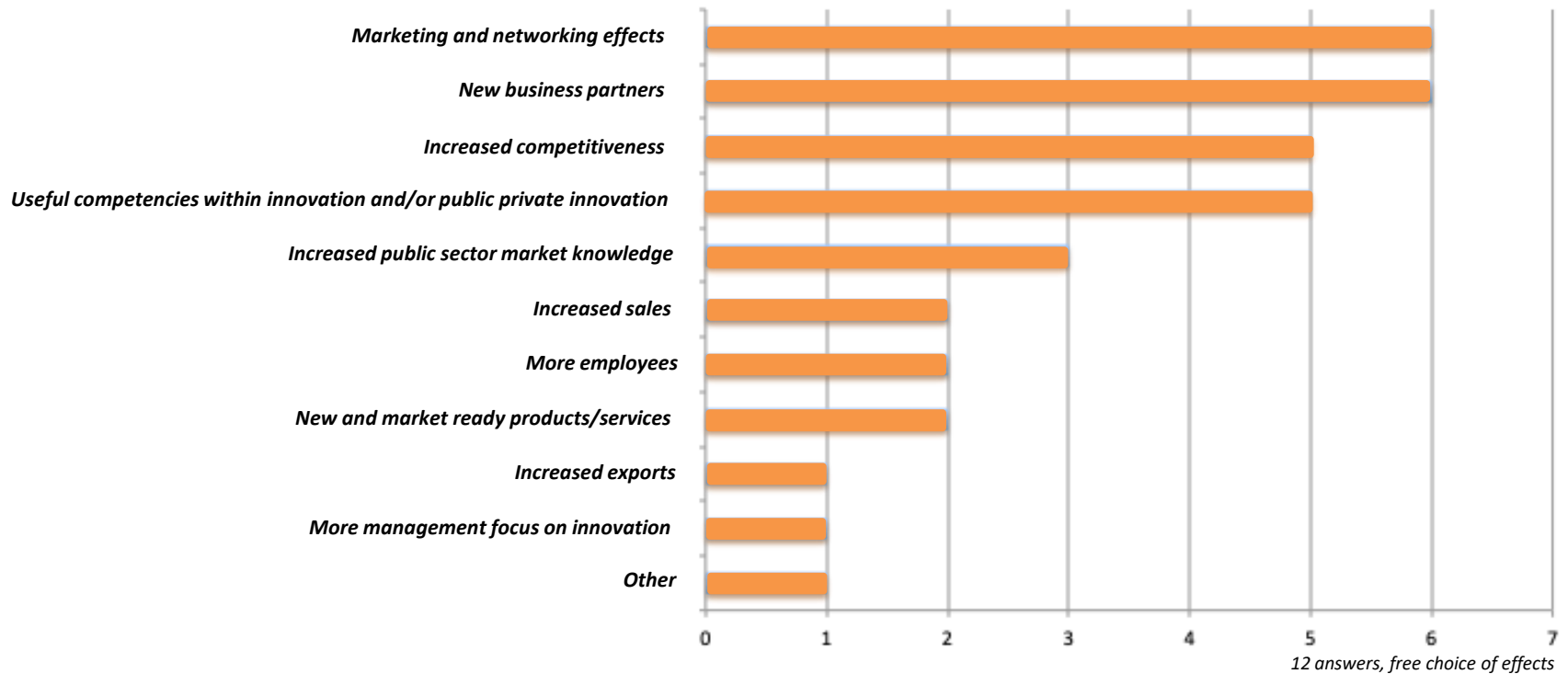
* Please note that participants have responded individually to the online survey. All projects are represented. However, with varied numbers of participants.



Perceived Short-Term Effects – Private Sector

Results of Online Survey among Individual Private Sector PPIP Participants* .

Survey question: "What type of effects would you say your company has already experienced as a result of participating in a the Innovation Norway Innovation Partnership Scheme? (choose as many effects as you want)"



* Online PPIP programme survey (Please see survey report for further detail).



Perceived Long-Term Effects

Experiences from the Public Sector of Societal Effects.

New innovative solutions

- In the long-term, public organisations expect concrete results in the form of **better solutions** and **societal improvement**.
- Other expected long-term effects include **cost reductions**, more **satisfied citizens** and a positive effect on **employee satisfaction**.
- In qualitative interviews, public institutions mention that PPIP could result in saved time for employees and better service to citizens.
- Furthermore, several expect the programme to have a long-term effect on **cross-public cooperation** and changes in **internal work procedures**.
- Many mention that PPIP projects have the potential to not only improve public services in one organisation but also to **solve problems across the public sector** on a larger scale.

A new innovation culture

- Many public institutions mention the potential to change procurement culture with PPIP project. They expect general **changes in work cultures** and more innovation oriented organisations as a result of the PPIP programme.
- They say that a successful PPIP case could **open doors** for more innovative procurement.
- This indicated a potential for **more in-depth innovation** in the public sector as a result of PPIP projects where new solutions also drive new ways of working internally and externally.



"This can show that innovation can be part of the procurement process." – Public institution

"We want to use new technology to create new solutions in the healthcare sector." – Public institution

"We are very focuses on cost benefits. It is important that we get something out of this." – Public institution

Perceived Long-Term Effects

Experiences from the Public Sector of Societal Effects.

New solutions and societal change

- The primary aim of PPIP programme participation for the interviewed public institutions is not just new knowledge and inspiration. They **expect concrete results**.
- 81 % (65 out of 80) of public sector participants in PPIP projects expect concrete **new innovative solutions that are ready for use** as a result of PPIP programme participation.
- 54 % (43 out of 80) expect that PPIP projects will result in **societal changes** (improvements in climate, healthcare, etc.) in the long-run.
- 46 % (37 out of 80) look forward to **positive changes in services and internal work processes** as a result of PPIP participation.
- 46 % (37 out of 80) also expect PPIP projects to deliver **economic savings** and/or more efficient process operations.
- Public institutions also mention that their PPIP projects will likely bring increased **citizen satisfaction** (41 %, 33 out of 80) and **employee satisfaction** (29 %, 23 out of 80) in the long-run.

A culture for innovative procurement

- Many public sector participants believe that PPIP participation can be a **tool for organisational change**.
- 64 % (51 out of 80) think that PPIP programme participation can bring improved **innovation competencies and innovation culture** across the organisation.
- 56 % (45 out of 80) expect to be **better prepared for public-private innovation and innovative procurement** as a result of PPIP efforts.

The big scale

- In qualitative interviews, many respond that a long-term effect of PPIP projects could be improvements on a larger scale in the public sector. The possibility of buying partners and multiple public project partners in PPIP projects support this potential.

Baseline – individual public sector participants*

- 81 % expect concrete new innovative solutions.
- 54 % expect societal changes from PPIP projects.
- 46 % think PPIP participation will bring economic savings, changes in services and internal work processes.
- 41 % look forward to increased citizen satisfaction and employee satisfaction (29 %).
- 64 % hope to see improved innovation competencies and innovation culture across organisations.
- 56 % expect to be better prepared for innovation in the future as a result of PPIP participation in the long-run.

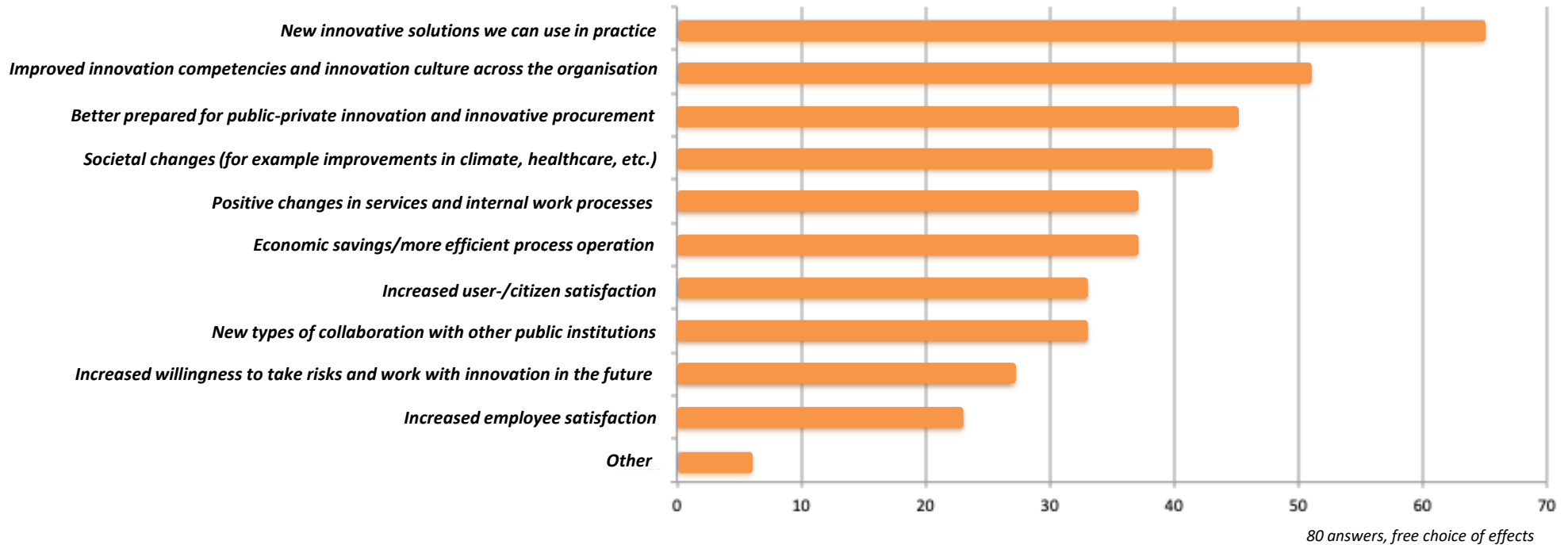
* Please note that participants have responded individually to the online survey. All projects are represented. However, with varied numbers of participants.



Perceived Long-Term Effects – Public Sector

Results of Online Survey among Individual Public Sector PPIP Participants* .

Survey question: “What type of effects do you expect your organisation will experience in the long run as a result of participating in a the Innovation Norway Innovation Partnership Scheme? (choose as many effects as you want)”



* Online PPIP programme survey (Please see survey report for further detail).



Perceived Long-Term Effects

Experiences from the Private Sector of Commercial Effects.

Sales, Exports and New Markets

- In the long-term companies expect **increased competitiveness** in markets as a result of PPIP project participation.
- They expect **increased sales**, and possibly exports, as well as **more employees**.
- Furthermore, companies look forward to **new products/services**, new **business partnerships**, and **marketing** effects.
- Another possible long-term effects according to companies is **stronger market knowledge** and thereby a better starting point for sales and product development aimed at the public market.
- Companies also value the opportunity to work closely with users and they expect an **accelerated product development process** as a result of this.

An open door for smaller companies

- In qualitative interviews, SMEs mention that the PPIP tendering has made – and will make - it possible for them to enter a public sector market that would otherwise be difficult for smaller sized companies.
- They see PPIP as an opportunity for them to get into big sales and scale their company.



"We save money because we hit the market with the right solution. We get the chance to develop our products together with our public clients. This is quite unique in public procurement." – Private company

"The difference in the innovative procurement process is... that it opens up for smaller companies who would not normally be able to win a contract of this type." – Private company



Perceived Long-Term Effects

Experiences from the Private Sector of Commercial Effects.

Concrete business results

- 75 % (9 out of 12) companies expect **increased sales** and **strengthened competitiveness** as a result of PPIP participation in the long-run.
- 58 % (7 out of 12) expect **export results** from PPIP projects.
- 42 % (5 out of 12) look forward to long-term **marketing and networking** effects.
- 92 % (11 out of 12) chose to participate in a PPIP project because of expected concrete business opportunities.
- 67 % (8 out of 12) also enter into the PPIP programme because it supplies an opportunity for co-funding for product/service development.
- It is **vital for companies that PPIP contribute to real business results** in the long-run.

A new entry into the public market

- Some interviewed SME's see PPIP as one way to **get access** to an otherwise closed public sector market.
- 67 % (8 out of 12) expect **new business partners** and **increased public sector market knowledge** 33 % (4 out of 12) as a long-term result of PPIP participation.
- PPIP is a chance to work closely with users – and also in some cases research institutions in a way that is not normally accessible.

The link to procurement

- Most PPIP projects are still in early phases. **None of the projects have so far resulted in procurement.**
- Companies see final procurement of solutions in scale as **an important success factor** for PPIP participation.

Baseline – individual private sector participants*

- 75 % expect increased sales and strengthened competitiveness as a long-term result of PPIP.
- 58 % expect increased exports.
- 42 % look forward to marketing and networking effects.
- 67 % expect new business partners.
- 33 % expect increased public sector market knowledge.
- Real business results in the form of increased sales and business competitiveness is vital for company satisfaction with PPIP participation in the long-run.

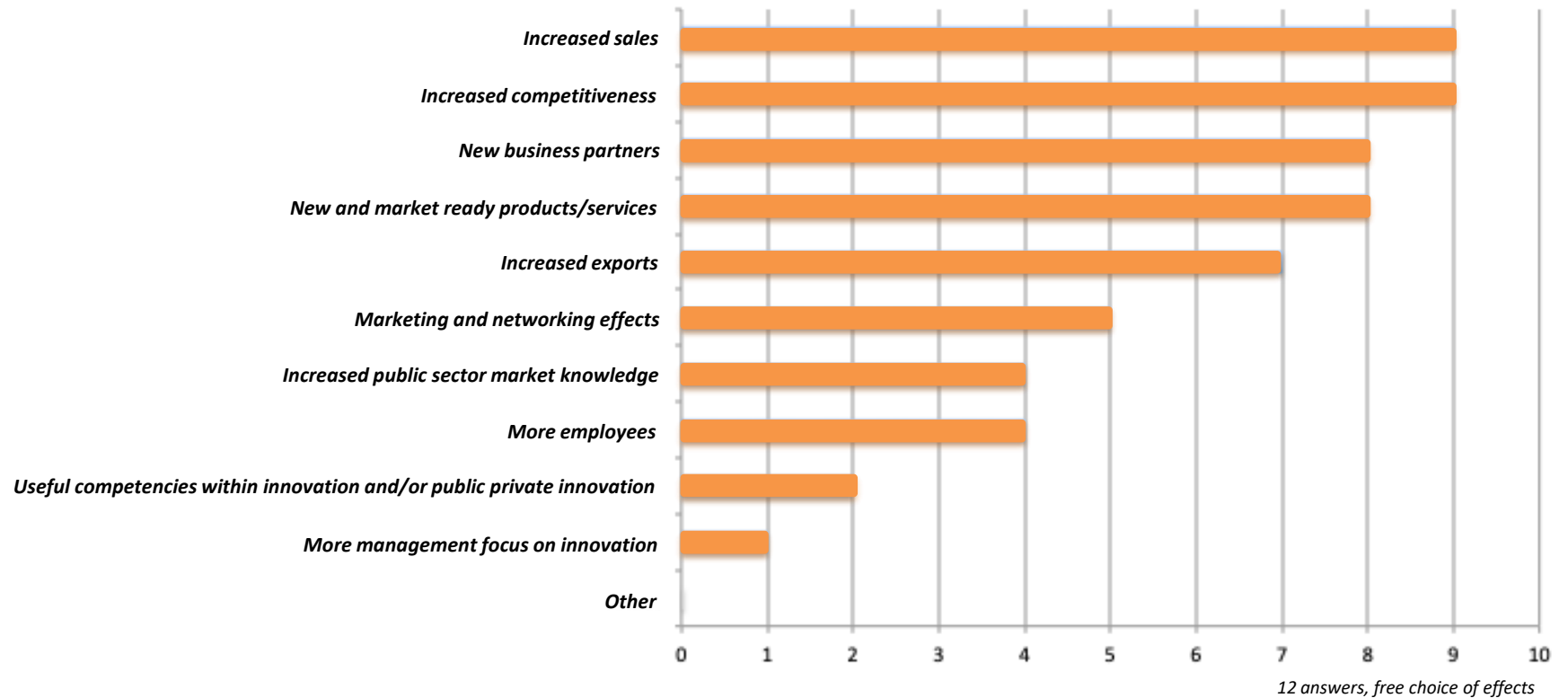
* Please note that participants have responded individually to the online survey. All projects are represented. However, with varied numbers of participants.



Perceived Long-Term Effects – Private Sector

Results of Online Survey among Individual Private Sector PPIP Participants* .

Survey question: "What type of effects do you expect your company will experience in the long run as a result of participating in the Innovation Norway Innovation Partnership Scheme? (choose as many effects as you want)"



* Online PPIP programme survey (Please see survey report for further detail).



E

Next Steps

Ideas for Programme
Improvements



Ideas for Programme Improvements

As part of the PPIP programme evaluation, programme partners and –participants have reflected on potential programme improvements. This has resulted in general insights (as described in previous sections of this report). Results are also concrete ideas and suggestions in five overall areas.

Satisfaction with the programme is high. In order to make the PPIP programme even better, programme participants and –partners suggest:

- **An adjusted process model**
- **Possibilities for PPIP light and/or a wider PPI approach**
- **Strengthened project management**
- **Differentiated programme services**
- **Competence building and communication**

Each area of ideas has been discussed in qualitative interviews as well as in a CO-Creation workshop with programme stakeholders. The ideas constitute initial thoughts and inputs that will have to be further developed and refined in potential programme adjustments. Please see more details in the following section.

An adjusted Process Model

The Easy Project Road Map

Programme participants and –stakeholders find the current process model helpful. However, the model (and/or the use of the model) could benefit from certain adjustments.

Experienced challenges

- Some projects suggest **extra phases** to the process model in order to better illustrate time spent before and after partnership activities.
- Participants tend to use the current process model in a somewhat rigid manner. There are **no tools, examples, how-to guidance**, further explanations, etc. available in the current model.
- The current design(s) of the process model is intuitive and easy to understand but it **does not visualise** the iterative nature of innovation. Nor does it show how and when partners can leave the project if so desired.
- The legal framework for the PPIP Process Model is clear. However, **old habits can set in** when translating this into concrete tender documents and partnership contracts.
- Current formal demands for a **short purchase period** after the innovation phase constitute a challenge for public buyers.



Ideas for Improvements

Supplementary Explanations and Examples

A broadened five-step approach

- **Phase zero?** The model might be strengthened by introducing a phase zero focusing on project establishment (defining project focus, finding relevant following partners, choosing project manager and –management, etc.).
- **Prolonging phase five?** The programme requirement for a brief purchase period (90 days) is a problem. Could this be prolonged? Could the projects work with framework agreements for follow up procurement?
- **Phase six?** It might be a good idea to also add a phase six focusing on implementation and profit realization. Alternatively, it might be necessary to better explain that phase five ('buy') also includes implementation of the solution – and possibly further purchase and ongoing solution refinement.
- **Supplementary guidance?** The programme could supplement the current process model with further guidance on how to work with each phase in practice. This could include explanations, best practice advice, examples, different possible approaches, etc.

A more clear focus on procurement

- **Invitation to the procurement department?** Should it be a formal requirement for project owner procurement departments to take more actively part in all project phases including project start-up, needs analysis and market dialogue?

- **Presentation of buying- and following partners?** Could the difference between buying partners (initial commitment to solution procurement) and following partners (following the project for lessons learned) be communicated more clearly?
- **How much prior commitment to procurement?** Should project owners as well as buying partners commit to a secured procurement budget prior to project start-up? Or would (an even stronger) commitment to final purchase of a solution hamper the will to experiment?

The innovation approach

- **A more iterative process model?** Innovation is agile and iterative and the current process model can be (mis-)understood as rather linear. Could the model be redesigned and/or better explained to assure it is used for iterative innovation processes?
- **Stop and go evaluation after each phase?** In principle, a PPIP project could change focus after each phase. For example, one might find after a thorough needs- and market analyses that the project might be better suited for initial experiments than innovative procurement. Should it be possible to stop or radically change the project after each phase with a mandatory stop-go evaluation?
- **A more innovation-oriented legal approach?** Would it be possible to support legal interpretations of the PPIP approach with better guidelines, examples or cases? Should projects receive more hands-on support for contract and/or tender document formulation, etc.?



Partnership Light

The Fast Route

According to evaluation result, each of the five current PPIP phases requires a good amount of time and resources. Some programme participants ask for the possibility of ‘PPIP light’.

- The current PPIP process model **takes time and resources**. This might be necessary – and suited – for some projects. Other projects might benefit from a more ‘light’ model.
- At present, some programme applicants feel they **must fit their project to the PPIP tendering model**. One might argue, that the PPIP approach should be selected to fit the project rather than the other way around.
- It is a challenge for companies to take steps from prototyping to a market-ready solution – the PPIP process model does help but might also in some instances **take too long** to be market competitive.
- There are some limits to experimental innovation in PPIP tendering – especially because the approach entails formal tendering prior to innovation. It takes skill to **maintain the experimental and iterative approach** within the current formal framework.
- *Experiences from Denmark show that **it is possible to fast track PPIP tendering** – and combine the approach with other types of PPIP.*

* See e.g. the project “Fremtidens regnvandshåndtering” from 2018-19 in Frederiksberg Municipality where INNOBA has assisted with a fast track PPIP approach.



Ideas for Improvements

A Fast Track Possibility

A light approach?

- **Do complex challenges exclude simple processes?** The PPIP programme aims to remove barriers to innovative solutions for complex societal problems. It might be difficult to find simple, easy and 'light' innovation processes for complex challenges.

A PPIP light model

- **Is it possible to develop a PPIP light fast-track?** Maybe projects could be screened and suitable projects could be directed towards a fast-track PPIP model? This model might follow the same processes including procurement but with less time and resources spent.
- **Two different routes?** Could projects with multiple participants, very complex cross-sector challenges, and systemic innovation follow one route? And projects with well-defined challenges, strong technical competencies in the market, smaller partner groups, etc. follow another route?
- **A PPIP light pilot?** Is it possible to do a PPIP light pilot with a selected project(s) and based on experiences with fast track possibilities from previous PPIP projects?
- **Top leader support:** Top leader support is essential in order to secure the success of the Innovation Partnerships and therefore a light version has to include a focus on top leader support in the initial phases.

Possible efficiencies and optimisation

- **Ongoing and flexible application process?** Should the programme have a more flexible application process where projects can apply for programme support more often and at different stages?
- **Flexible choice of tender procedure?** Maybe it should be possible to choose tender procedure after needs analysis and market dialogue – rather than before. Maybe a possibility to change to another innovation programme if PPIP tendering is found not to be suited?
- **Stronger market screening?** Could market screening efforts be strengthened in the programme, including international market screening? Could this be used as a basis for evaluating the level of innovation needed in the project as well as expectations for project duration, etc.?
- **General procurement support?** Could the programme contribute to efforts in general to support competencies for complex procurement in the public sector? Maybe via knowledge sharing, inputs to policy development, etc.



Strong Project Management

A Strong Hand on the Steering Wheel

The evaluation shows that the public sector project owners feel that PPIP project management is a comprehensive task.

- PPIP project management – in its current form – is **resource demanding**. Especially if the organisation has no previous experience with innovative procurement and/or PPI.
- Programme participants and stakeholders feel that professional project management markedly **increase the chance of a successful** PPIP project. This is the case especially for projects with a high level of complexity, multiple partners, and cross-sector participation.
- Some public programme participants **lack the necessary resources** for project management. As a consequence, project managers in these organisations handle PPIP project tasks in their spare time.
- Organisational **changes**, individual job changes, and changes in internal resource allocation can be a challenge for PPIP project management.
- At present, there is **no co-financing** from the PPIP programmer for project management tasks. The programme supports knowledge sharing among project managers as well as sparring to project managers from the PPIP programme partner organisations.



Ideas for Improvements

Dedicated Resources and Support

Project management support

- **Formal project management demands?** Should projects be obliged to have a full-time/part-time employee dedicated to project management from the beginning of the project? Especially in the most complex projects?
- **Project management as part of a phase zero?** There is a need for a stage zero (see page 67) with a strong focus on project establishment, project leadership, risk analysis, stakeholder analysis and partner identification. Should there be formal demands for identification and choice of a qualified project manager in this phase?
- **Qualification demands?** Should the programme set certain PPIP project management requirements? Including requirements for project managers' qualifications and innovation experience?
- **Project management toolbox?** Project leaders need training in project management and innovation competences in order to lead an Innovation Partnership. A toolbox containing the most commonly used project management tools would make sense for those project leaders who do not have project leadership experience.

Continuous project management over time

- **Top management as a support system?** Top management support is vital to secure project management over time. If project managers change jobs or organisational changes affect the project, top management can secure project continuation.
- **Co-financing the project owner?** Would it be possible to reserve 10% of funding to project management?
- **What about the private sector partners?** Should the PPIP programme also focus on project management skills and roles for the private sector solutions suppliers?



Differentiated Service Offer

One Size Does Not Fit All

The evaluation shows that in terms of programme service and sparring to PPIP projects one size does not fit all.

- Currently, the PPIP programme offers the **same service package to all** PPIP projects. However, some projects make use of and need, more sparring and assistance than others.
- Compared to other innovation programmes, the PPIP programme offers a very high service level to projects. The evaluation shows that this is essential for programme participants. However, it is also **resource-demanding in a scaled programme** with an increasing number of projects.
- Projects are sometimes **confused about the role** of the different assigned contact persons as well as other potential 'helpers' from the PPIP programme partners.
- Innovation Norway has a double role as a funding agency and project participant. It can be a challenge to find the right balance between a **hands-on and hands-off approach** to project decision making.
- In the long-run, programme participants should be able to continue PPIP activities on their own (post programme). The more a PPIP approach is **support dependant**, the more difficult it is to scale.



Ideas for Improvements

Differentiated Levels of Sparring and Clearer Roles

Different service levels to different projects

- **Needs screening?** Should projects be screened upon application to decide levels and type of project assistance? Maybe each project should have a 'sparring budget' with specific numbers for allocated sparring hours, type of sparring, contact persons, etc.? Or would this hinder the flexibility of the programme?
- **More complex, more help?** Should the most complex projects receive a higher 'sparring budget' than the more simple projects? Maybe depending on competence levels, technical complexity, innovation level, number of partners, etc.?
- **Special kick-off for complex projects?** Maybe the more complex partnerships should be offered professionally facilitated start-up meetings as a standard? These meetings could include project scoping, development of project plans, setting the team, potential partner identification, stakeholder analysis, resource prioritization, etc.

Clear roles and responsibilities

- **Role road map?** Could roles and responsibilities for each type of project support partner be described and communicated? Should project participants have access to a 'list of helpers'?
- **Internal competence building?** Should all new project service employees from the partner organisations go through a training course? This could assure the same approach to PPIP throughout the programme and contribute to internal learning among PPIP partners.
- **One-stop shopping?** Should projects have one primary contact person among programme partners? This person could be responsible for contact and coordination with other sparring persons across the three PPIP partner organisations.



Competence Building & Comm.

Stronger Internal and External Knowledge Sharing

According to evaluation results there is a need for competence building in current projects and clearer communication to new projects.

- PPIP tendering takes skills. The PPIP programme offers not only financing but also sparring to potential PPIP projects. The evaluation shows that **competence building is of great value** to project owners and project participants.
- Project participants are very pleased with the **ongoing knowledge sharing** between projects and would like more of this.
- Many programme participants and stakeholders mention that an improved competence level is **key to promoting more public-private** cooperation and innovative tendering.
- Projects tend to follow a relatively **narrow set of innovation tools** (e.g. in market dialogue). There seems to be an unmet need for a wider toolbox for PPIP tendering in all phases.
- Especially companies ask for **better communication** about programme opportunities in a commercial language. Currently, for example information online is limited (e.g. about current projects, commercial opportunities, etc.).



Foto: boy_ Photo by Ben White on Unsplash



Ideas for Improvements

Systematic Competence Building and Clear Communication

General competence building

- **Early self- and risk analysis?** In order to identify the need for new competencies an early self-analysis might be required in the project group. This would make it easier to identify gaps of competences in the organizations involved.
- **The PPIP academy?** Could (should?) the PPIP programme be a competence development programme as much as an innovation programme? With PPIP project management training courses, tool kits, etc.?

A PPIP tool kit

- **A PPIP toolbox with methods and process tools?** There is a need to create toolbox with method and process tools in order to secure a differentiated use of tools that match the needs of the specific project. Such a toolbox could be digital and combined with an online platform for networking and knowledge sharing between PPIP programme participants.
- **Best practice videos online showing results and effects?** Best practice experiences and stories from public institutions and companies focusing on results and effects are powerful communication tools. Success stories can make the Innovation Partnerships visible for others including potential new projects.
- **A mentoring service offer?** The toolkit could also be supplemented by mentoring with tailor-made advice to suit the needs of each partnership. Each partnership could have resources allocated for mentoring.

External communication

- **Development of inspiring cases and best practice examples to communicate the potential of PPIP?** At present it is not possible to find case descriptions of current PPIP programme projects online. There are some initial brief presentations and links but no 'easy-to-go-to' case catalogue. There is a need for better communication to potential PPIP participants/applicants. The appendix of this evaluation report might be a start.
- **Alignment of online communication?** Each of the PPIP partners presents the PPIP programme with different visual tools and explanations online. Might it be an idea with one aligned simple presentation that in a few words explain with the programme potential is – to public sector as well as private sector participants?
- **A commercially-oriented presentation?** Could the PPIP programme be communicated in a more commercial language to companies? Less academic, more bottom-line oriented? With an (even stronger) 'What's in it for me' communication angle?



APPENDIX

Cases

The 14 PPIP
Programme Projects



Empowerment of the Elderly

Home Training and Rehabilitation



Innovation challenge

Today, there are no tailor-made solutions for self-activation and self-empowerment of the elderly when returning from hospital.

Many elders need short-term stays in nursing homes to recover. However, it is a challenge to motivate and support physical training that will continue at home.

This challenge will only grow as the number of elders +80 double in the coming years.

The Municipality of Stavanger seeks to develop innovative solutions that are vital to increased activation and self-mastery for elders in short-term stays. Solutions that can also follow the user to their own home.

Innovation process

In February and March 2017, Stavanger Municipality conducted a needs analysis to further understand the innovation challenge. This was based on interviews and observations with elderly, relatives and health professionals.

On this basis, Stavanger Municipality invited companies to an open market dialogue to uncover possible solutions. After the market dialogue, a tender for innovation partnerships was published. Two supplier consortia were selected for the parallel development of possible innovative solutions.

Stavanger has accepted both solutions and suppliers have been informed that the purchase phase will be initiated. Buying partners have not used their right to buy so far.

Innovation partners

- Stavanger Municipality (Project Owner)
- Topro Industri AS (company partner) + Universidad Politecnica de Catalunya, Eggs Design and Vangen og Plotz in a consortium
- Innocom AS (company partner) + Contango Consulting AS, Safemate AS and Norwegian Smart Care Lab in a consortia

Buying partners (partners with a right to buy)

- Municipality of Bærum
- Municipality of Kristianssand
- Norwegian Welfare & Labour Administration



Smart Maintenance

1,000 Buildings, 10,000 Possibilities

Foto: Unsplash. By Michelle Henderson

Innovation challenge

All public buildings need maintenance. However, the management and operation is very expensive and as a result, many buildings are worn down. The Municipality of Bergen calls for better and more comprehensive management of operation and maintenance for municipal buildings.

The overall goal is to optimize operation and maintenance while reducing annual costs and improving the quality of operation and maintenance of municipal buildings.

More than 20 municipalities have the same challenge and are interested in purchasing an innovative solution.

Innovation process

The project took off with a needs analysis in the summer of 2017.

In March 2018, the analysis was followed by market dialogue with the different types of companies.

Then the project continued with the tender procedure. Two companies won the competition and they are now in the development phase.

The two winning companies have agreed to combine their ideas and technologies in the development phase in order to find the most innovative and future proof solution.

Innovation partners

- Bergen Municipality (Project Owner)
- Oslo Municipality
- GK Inneklima AS (company partner)
- Mazemap AS (company partner)

Buying partners

- Omsorgsbygg and Statsbygg
- 18 municipalities follow the project (the municipalities of Trondheim, Bærum, Sandnes, Drammen, Kristiansand, Tromsø, Lørenskog, Kongsberg, Askøy, Os, Fjell, Lindås, Nye Øygarden, Fredrikstad, Sund, Meland, Radøy, and Fusa)
- Statsbygg

Following the project

- BKK Energy and Infrastructure
- Forsvarsbygg



Tunnel Safety

Self Evacuation via Sound and Senses



Foto: Unsplash. By Michelle Henderson

Innovation challenge

What do you do when driving your car through a tunnel and smoke suddenly blocks your view? In Norwegian road tunnels you find your safe way out during an accident via regular type exits (self rescue). However, you might get confused about directions.

To support optimal self-rescue, the Norwegian Roads Authority has initiated an innovation project. The purpose is to find new ways to guide people out of road tunnels in case of emergencies.

The project experiments with audio and visual stimuli that make people act appropriately for their own safety.

Innovation process

The project has worked in-depth to understand the challenges from all point of views.

After initial market dialogue, the project has completed a tender procedure for innovation partnerships. Four companies were pre-qualified and participated in negotiations about a potential development partnership.

In May 2019, Trafsys and three partner companies won the contract and are now working on the first scientific development and tests of audio tools and – approaches.

There is already international interest in the upcoming new solutions relevant for tunnels across the world.

Innovation partners

- Norwegian Roads Authority (Project Owner)
- Trafsys AS (Company partner) +Norce, Sintef and Norphonic

Following the project:

- Directora for Civil Protection and Emergency



Innovative Home Care

Digital Patient Follow up



Foto: Innovation Norway _ Unsplash

Innovation challenge

Pressure is growing on healthcare services and there is a need for new innovative solutions that can support patients and at the same time be resource-efficient.

For this reason, Østfold Hospital has initiated a project to find comprehensive digital solutions and services that enable safe and satisfying home follow-up - as an integral part of patient care.

The ambition is that the patient can monitor, participate actively and manage his or her own illness from home – in close cooperation with the hospital.

A solution will make it possible to make patients more self-reliant.

Innovation process

Project partners started the project by interviewing patients and health professionals in order to understand and map needs. The purpose was also to find out which patient groups to focus on.

A market dialogue gave an overview of existing solutions and projects that are currently underway. It was confirmed that there were no available solutions already in the market.

In the following tender, Østfold Hospital received 12 ideas for development projects backed by a total of 30 companies behind. One company partner was selected for innovation partnership.

The project is now in the development phase.

Innovation partners

- Østfold Hospital (Project Owner)
- Diffia AS (Company partner) + Netlife Design and Sopra Steria in a consortium
- Sykehuspartner and Sykehusinnkjøp

Buying partners:

- Health South-East RHF
- Halden Municipality
- Fredrikstad Municipality

Following the project:

- NTNU
- St. Olavs and Stavanger Hospitals
- Norway Health Tech
- Norwegian Smart Care Cluster
- Directorate for Electronic Health Care



Patient Rehabilitation

Self Supported Training and Exercise for Stroke Victims



Foto: pexels_ Luis Quintero.

Innovation challenge

About 60,000 people live with sequelae after having a stroke in Norway. Two-thirds of these have disabilities of varying degrees.

Consequently, three health partners have decided to find ways to develop new solutions that help stroke victims to recover from function loss after a stroke.

The ambition is to ensure that patients receive the right type and amount of exercise after leaving rehabilitation institutions. The aim is also to make patients more self-reliant and thereby supplement, or substitute, assistance from relatives and public services.

Innovation process

The project has defined needs and challenges via patient observations, interviews, workshops, etc. A design company helped with interviews and analysis.

After a thorough market dialogue, partners completed a tender procedure and evaluated tenders.

However, due to changes in priorities among innovation partners the project is currently being evaluated.

Decisions will be made about the next phases of the project in the coming months.

Innovation partners

- C3 - Center for Connected Care (project owner) at Oslo University hospital
- Sunnaas Rehabilitation Hospital
- Oslo Municipality
- Sykehusinnkjøp

Following the project:

- Stavanger Municipality
- Stavanger University
- Hospital HF Inner Østfold IKS (Helsehuset in Askim)
- Health South-East RHF
- The Hospital in Vestfold HF
- Larvik Municipality
- Bærum Municipality



Bridges of the future

Cost Saving Solutions for Bridge Maintenance



Foto: Unsplash, By Michelle Henderson

Innovation challenge

In Møre and Romsdal Municipality the road network includes more than 1000 bridges. As is the case with roads in general, bridges need maintenance on a regular basis. Such operations can range from small repairs to full-scale renovation at considerable costs.

In 2010 it was calculated that the backlog on bridges and ferry quays in Møre and Romsdal amounted to about NOK 1.3 billion.

Consequently, the municipality wants to look into possibilities for innovative cost-saving solutions for bridge maintenance. Modern technologies such as digital twins, sensors or 3D-printing have great potential for radical innovations in bridge maintenance.

Innovation process

In August 2018 Møre and Romsdal initiated a bridge maintenance & construction innovation project. They defined needs and developed project plans.

Since then, they have been engaged in market dialogue with more than 45 companies: first workshops, then 1:1 meetings with selected companies.

Currently, the project is tendering innovation and development partnerships to be initiated in 2020.

There is great international interest in the Innovation Partnership since several other countries are facing the same bridge cost challenges.

Innovation partners

- Møre and Romsdal Municipality (Project Owner)

Following the project:

- Nordland Municipality
- Trøndelag Municipality
- Vestland Municipality



Smart Tracking

Tracking Surgical Instruments in Hospitals

Foto: Unsplash. By Michelle Henderson

Innovation challenge

It is of utmost importance for a surgeon to have access to the right surgical instruments during surgery. The instruments must be sterile and counted prior, during, and after surgery. It is a lengthy process to handle surgical instruments and it is very costly if the instruments are lost or difficult to find in the hospital. However, instruments are not traceable at present.

Helse Bergen, therefore, aims to develop an innovative solution that ensures identification and tracking of surgical instruments in hospitals, supports the sterile supply chain and optimises work processes. The solution must withstand chemistry, heat and pressure in connection with sterilisation processes.

Innovation process

In May 2019, Helse Bergen invited companies and suppliers to join a market dialogue at an innovation conference.

The project partners also look into work processes and solution needs.

Market input from the dialogue conference and the results of the needs analysis will be used to prepare tender material for an upcoming PPIP tender on innovative smart tracking of surgical instruments.

Innovation partners

- Helse Bergen, The University Hospital Haukeland (Project Owner)
- Helse West ICT
- Sykehusinnkjøp
- Sykehusbygg

Buying partners:

- Sykehuset Østfold
- Oslo universitetssykehus



Climate-Friendly Landslide Management

Hedging and Ground Enforcement

INNOBA

Photo: Inj p3887, By Michelle Henderson

Innovation challenge

How do you ensure a reduction of the risk of landslides and carry out important development projects without compromising the climate and the environment?

At present, the primary material used for landslide protection is cement. This is not the most climate-friendly solution.

The Public Roads Administration, Statsbygg and Bane NOR are looking for new innovative solutions to this challenge.

The aim of the project is to develop climate-friendly hedging and ground reinforcement methods against quick clay safeguarding the diversity of nature.

Innovation process

Project partners wish to take the lead in climate-friendly ground enforcement solutions. CO2 emission caused by the traditional cement solution is the biggest problem.

In order to use new materials it is vital to ensure their durability and safety.

After a wide market dialogue in November 2018 the project therefor revised the initial project focus. It was decided to focus on methods to document and choose new materials rather than on actual material development at this stage.

Innovation partners

- The Norwegian Public Roads Administration (project owner)
- Statsbygg
- Bane NOR

Following the project:

- The Norwegian Water Resources and Energy Directorate



Water Management

New Solutions for Flood Prevention in Densified Suburbs

Foto: Unsplash, Børn Michèle Henderson

Innovation challenge

Urbanization and climate change are leading to increased challenges related to drainage and handling of water in both terrain and pipelines in Norwegian municipalities.

This leads to damage of buildings through flooding, pollution of urban waterways and bathing places in addition to unclean water in the wastewater treatment plant. Currently, the solution is an old common conduit for both rainwater and sewage. That system does not meet the needs of today or the future.

The Municipality of Bærum wants to come up with new solutions for sewage and rainwater management in densified suburbs.

Innovation process

The project has just completed needs clarification and the first part of the market dialogue.

The market dialogue consisted of a conference for 50-60 companies and organizations followed by smaller work meetings. Subsequently, Bærum has received 30 different input on the needs analysis.

The next step is to start the second part of the market dialogue with 1:1 meetings with selected companies.

Bærum is also in the process of hiring a project manager who will prepare for the coming project phases.

Innovation partners

- Bærum Municipality (Project Owner)
- The project is in the process of finding another municipality to join the partnership.



Video Based Emergency Calls

User Friendly and Secure Solutions for Medical Communication



Foto: Unsplash. By Michéille Henderson

Innovation challenge

Efficient and secure emergency calls are vital for patient security. One way to increase clear communication in emergency calls is by video.

However, existing solutions do not meet demands for documentation, confidentiality, and privacy. There is a need for new user-friendly, secure and fast solution for video calls. A solution that works well and at the same time safeguards the confidentiality and privacy of the patient, caller and health personnel.

Vestre Viken Healthcare Center has initiated an innovation project to develop a technical solution that enables video-based dialogue between their Emergency Medical Communication Center (AMK) and callers.

Innovation process

The needs analysis of the project has been based on in- depth interviews with the hospital staff mapping their needs concerning emergency communication.

Currently, project partners are conducting market dialogue with different suppliers and experts. The purpose is to identify existing solutions in the market and to find possible directions for a public-private innovation partnership.

Vestre Viken Health Care Center service 24 municipalities

Innovation partners

- Vestre Viken Healthcare Center (Project Owner)

Buying partners:

- Sykehuset Innlandet HF
- Oslo Universitetssykehus/Helse Sør-Øst
- Currently, in discussion about possible partnership with Helse Vest/Helse Stavanger

Following the project:

- The Innovation Partnership is looking for closer cooperation with more public sector partners.



Smart Winter Logistics

Smooth and Cost Effective Approaches to Handling Snow



Foto: Unsplash. By Michelle Henderson

Innovation challenge

Norway gets lots of snow every winter. Snowfalls often lead to major challenges related to snow removal operations. The costs associated with this activity have escalated significantly in recent years.

The main cost accelerator is a lack of coordination between the different actors - the Norwegian Public Roads Administration, the municipality, landlords and private households, as well as the lack of information to the residents about snow conditions.

Gjøvik, Hamar, Lillehammer and Ringsaker Municipalities wish to develop and deploy new and more effective solutions for handling snow in collaboration with suppliers.

Innovation process

The project has worked on the needs analysis since august 2019.

The main focus has been: defining the challenge, the needs and ideas.

Besides the needs analysis, the project has also used the initial phase to identify the potential gains of the project.

The first market dialogue was held in December.

Snow removal is a challenge not only in most of Norway but also internationally. Interest from abroad in the project is expected.

Innovation partners

- Gjøvik Municipality
- Hamar Municipality
- Lillehammer Municipality
- Ringsaker Municipality

Following the project:

- The partnership is currently looking for other public institutions that might have an interest in co-tendering or knowledge sharing



Smart City Urban Development

Connecting the City with Data and Technology

Foto: Unsplash. By Michelle Henderson

Innovation challenge

Wouldn't it be nice to have a smart platform, which coordinated and integrated big data to create innovation and new solutions for citizens?

In Bodø, the old airport will be closed down and a new district is being built. The municipality has a unique opportunity to completely re-think urban development and create the smart solutions of the future to improve infrastructure, efficiency, convenience and quality of life.

Today's infrastructure is characterized by a lack of integration and interaction. The result is inefficient services, production, unnecessary use of resources and failure to exploit the potential for increased service quality and service innovation.

Innovation process

Bodø has done needs analysis and is preparing for market dialogue.

A design company has helped carry out a thorough needs analysis via workshops and interviews.

The project owner has been in charge of the process until now and Bodø has just hired a project manager who will lead the process and start the dialogue with the market.

Through the Innovation Partnership and collaboration with entrepreneurs, SMEs and companies, Bodø plan to co-develop a comprehensive platform that facilitates receipt, analysis and management of data.

Innovation partners

- The Municipality of Bodø (Project Owner)
- Salten Brann IKS

Following the project:

- The partnership is currently looking for other public institutions that might have an interest in co-tendering or knowledge sharing.



Smart Clinical Training

Training Professionals for Mental Health Services



Foto: Unsplash. By Michelle Henderson

Innovation challenge

Imagine if you could use "Anne dolls" like anaesthesiologists do or "future operating rooms" like surgeons do to educate people in the field of mental illness. Today mental suffering accounts for 20% of the hospital budget and up to 50% of the municipality health service budget.

The clinical competences of health professionals are crucial to providing good mental health services. Today, training clinical skills is based on master mentoring. This type of training is very expensive and also difficult to qualitatively assure and systematize.

Set. Olav's Hospital will develop a solution that allows health professionals to practice in virtual reality with precise identification of patient behaviour.

Innovation process

The project is in the early stages of the needs analysis.

Set. Olav's Hospital has started off by defining the overall challenges and needs of health professionals.

To ensure new experimental learning, the project seeks new innovative solutions that use movies, 360-degree videos and games as well as VR-based content with avatars.

Project management is in the process of preparing and planning the upcoming phases of the project.

Innovation partners

- Set. Olav's Hospital (Project Owner)

Following the project:

- The partnership is currently looking for other public institutions that might have an interest in co-tendering or knowledge sharing.



Healthcare from Home

Sampling and Analysis Performed by Patients



Foto: Innovation Norway_ Unsplash.

Innovation challenge

There is a great need in the healthcare sector for solutions that improve patient experiences and at the same time save resources in a safe and responsible way.

One area of great potential is sampling and testing (e.g., blood, urine, feaces) performed at home by the patient. The patient can stay at home in a safe and comfortable environment instead of regular visits to the hospital for routine follow-ups.

However, at present no solution exist that will enable patients to do home sampling and testing in a secure and approved way. Sykehuset Østfold wants to develop such a solution together with patients, healthcare employees and technical experts.

Innovation process

The project is in the early phases and Sykehuset Østfold is currently mapping the clinical needs and patient groups that are suitable for home testing.

The next step will be an open market dialogue and identification of existing technologies and products that could be developed into a viable solution.

The legal experts from the procurement department have been involved from day one in order to make sure that laws and regulations are adhered to.

Sykehuset Østfold plans to find one or more companies that can co-develop a viable solution in an innovation partnership.

Innovation partners

- Sykehuset Østfold (Project Owner)

Following the project:

- The project is still in a start-up phase and identifying stakeholders and potential partners.



Contacts

This report has been prepared for Innovation Norway by the innovation company INNOBA ApS.

INNOBA is an innovations consultancy based in Denmark that specialises in Public-Private Innovation and Open Innovation Processes. The company assists public institutions and private companies in the Nordic countries with PPI project planning, needs analysis, partnership facilitation and innovation process management. INNOBA also assist in innovative procurement together with legal partners.

INNOBA has developed the first process guide for Innovation Partnership Tendering based on the new EU Tender Directive and a number of other tools for PPI.

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