COPEN HAGEN MANUAL

A guide on how and why your country can benefit from measuring public sector innovation

INNOVATION BAROMETER

The 20 flags on the front cover represent the various nations of the 60 dedicated individuals who generously participated in co-creating the Copenhagen Manual. A list of the members of this amazing community is available at innovationbarometer.org/who-we-are, which also provides an overview of national contact persons for Innovation Barometers and similar measurements.

Copenhagen Manual
A guide on how and why your country can benefit from measuring public sector innovation

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INTRODUCTION

Welcome to the Copenhagen Manual – a guide on why and how your country can benefit from measuring public sector innovation. The Copenhagen Manual is a helping hand for those who are in a position to further data-informed strategies for public sector development or have been given the responsibility for preparing, analysing or communicating a survey on public sector innovation.

Like other instruction manuals, the Copenhagen Manual offers examples of use, handy tips and general warnings. The manual discusses setting strategic goals, communication, reaching respondents, adapting the questionnaire and defining public sector innovation. The manual offers an opportunity to mirror public sector innovation capacity by way of internationally comparable data. The Copenhagen Manual, with emphasis on the 'open' in *Copen*hagen is:

- the result of an co-creation process that welcomed the participation of all interested parties
- based on the open sharing of a multitude of experiences, good and bad
- open to interpretation, making it usable in different national contexts and open to continuous discussion of added practical experience as actors from more countries conduct surveys on public sector innovation

The Copenhagen Manual is not a definitive standard. It is a practical help, intended to be universally applicable in the sense that it points to important issues and trade-offs that need to be addressed by anyone seeking to survey public sector innovation successfully.

The manual is universal in spirit without recommending conformity. Public sectors everywhere face challenges, and because they are organised differently their challenges may also differ. The citizens' expectations, political will and the possibilities available to public employees differ. Public sector decision makers across the globe need to find a balance between using a purely national survey versus one with internationally comparable data. The Copenhagen Manual is intended to be a helping hand, regardless of the balance.

The Copenhagen Manual is the product of a joint effort by 60 people who were encouraged, practically assisted and supported by the Nordic Council of Ministers. What began as an ambition in the five Nordic countries quickly developed into a diverse and expanding community of decision makers, civil servants, innovation consultants, survey experts, statisticians, communications specialists and scholars from 20 countries.

What we share is the belief that public sectors around the globe face numerous challenges that require innovation, but the lack of comparable innovation data should not be one of them. We invite you to join our community at innovationbarometer.org

Copenhagen, February 2021

How to use the Copenhagen Manual

We use manuals to help us do things. We are of the firm belief that measuring public sector innovation is a thing that needs help doing. Many attempts to measure public sector innovation have stranded due to a lack of available answers on the practical how-to questions that inevitably follow the hope of measuring public sector innovation and efforts to do so. The Copenhagen Manual is a set of instructions intended to help us do this particular thing in a manageable and proper way.

Good instructions must do several important things:

- Describe the actions or procedures necessary to perform a task
- Explain how a product works and its applications
- Describe how the product may be misused
- Warn users about hazards
- Encourage users to act in a safe and appropriate way
- Meet information standards and requirements

However, we should not expect instructions, regardless of how well they are written, to overcome poor design or problems such as:

- Overly complex procedures
- Unreasonable demands on the memory of users
- Inconsistency in terms of user motivation and behaviours
- Hazards that are difficult to perceive, appreciate or control

As this is a manual we would like to make you aware of certain features and limitations concerning what you are about to read.

Inspired by old-fashioned folders and binders, the design of the manual enhances findability, allowing you to easily locate the answers to how-to questions and straightforwardly adapt them to your specific context. A drag and drop approach lets you take what you need from our systematically arranged segments on the creation of public sector innovation statistics. Each section begins with an overview on what to expect and includes these features:

- Subject-matter texts
- Actionable advice
- Use cases
- Warnings
- Quotes from the co-creation community

If, for example, you consider yourself a use case kind of person, these can be quickly identified in the various sections, allowing you to leave the other stuff behind and rapidly be on your way to applying them to whatever end you might find useful.

The Copenhagen Manual is a tool that is designed to meet a specific goal: Helping you get started on measuring the public sector innovation that is undoubtedly happening in your context. Only time will tell if this community of like-minded souls and the resulting co-creation of the Copenhagen Manual will produce the desired outcome: More and better public sector innovation measurements.

Whether the Copenhagen Manual is an effective tool in the hands of the users will be a matter of continual evaluation and testing. Thus, the work will continue on our designated website, innovationbarometer.org, where you can become a member of the co-creator community. Pay us a visit and leave your mark.

WHAT IS AN INNOVATION BAROMETER?

In 2015 the Danish National Centre for Public Sector Innovation, in association with Statistics Denmark, published the world's first official statistics on public sector innovation and named the survey the Innovation Barometer.

It is a nationwide representative survey of innovation in the public sector. Data are collected using a questionnaire for public sector workplaces of all kinds, e.g. kindergartens, nursing homes, hospitals and educational institutions.

By 2018 Norway, Sweden, Iceland and Finland had all conducted one or more national surveys, utilising similar methodologies and definitions, though adapted somewhat to better serve national agendas. Their ongoing efforts contributed to methodological adjustments, improving the original survey design.

All Nordic countries chose to call the survey an Innovation Barometer. Thus, through a series of national decisions, the Nordic Innovation Barometers emerged. All nine owners of the five Nordic Innovation Barometers are co-initiators of the Copenhagen Manual.

The Copenhagen Manual is freely available for use. Whether the resulting survey is called something completely different than Innovation Barometer is unimportant.

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HOW TO DEFINE PUBLIC SECTOR INNOVATION

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PART 1

HOW TO SET STRATEGIC GOALS FOR AN INNOVATION BAROMETER

PART 1 IS DESIGNED TO HELP:

- MAKE THE DECISION TO CREATE AN INNOVATION BAROMETER
- MOTIVATE OTHERS TO CREATE ONE
- SET STRATEGIC GOALS FOR YOUR INNOVATION BAROMETER
- OPTIMISE ITS STRATEGIC USE
- IDENTIFY ITS TARGET USERS
- DEFINE ITS USE
- MAXIMISE ITS TOTAL VALUE, INCLUDING UNFORESEEN USES
- FORM PARTNERSHIPS AND REDUCE OBSTACLES TO PROMOTE ITS USE
- SHOW HOW OTHER COUNTRIES USE THEIR INNOVATION BAROMETERS

1.1
SET YOUR COURSE OF ACTION AND HELP OTHERS MOVE IN DIFFERENT DIRECTIONS

Because you're reading this document we assume that you are in a position to decide, or motivate others to decide, to establish an Innovation Barometer. We must warn you, however, that we do not provide definitive answers but rather questions to guide you in finding the right answers in pursuit of your own strategic goals. We do this by showing how others have set their strategic goals and by describing the purposes of previous Innovation Barometers.

Based on experience in the Nordics, it is advisable to clarify the Innovation Barometer's purposes in advance. Should it be used to devise national strategies? Or to help identify which innovation tools and approaches your public sector needs? Or something else entirely? Elucidating the purpose beforehand aids in selecting relevant topics, prioritising the questions and finding the right collaborators. A clear purpose also provides a better foundation when addressing opposition to the Innovation Barometer.

ACTIONABLE ADVICE 1.1
DEFINE AND PRIORITISE THE PURPOSES OF YOUR INNOVATION BAROMETER

- Gather the main actors interested in having an Innovation Barometer.
- Identify its many purposes:
  - » What drives the various actors toward the Innovation Barometer? Which purposes can be defined within the group of interested actors?
  - » Explore connections and hierarchies between the purposes.
  - » Prioritise the purposes – what is the main purpose? What sub-purposes have a secondary or tertiary priority?

Process tip: Have a Post-it-Note party. Write one purpose on each Post-It Note to unmask the wide range of varied purposes that the actors bring to the table. Move the notes around to group them to identify patterns, connections and hierarchies. Discuss and decide on how to prioritise each purpose. If needed, use dot-voting to highlight the main priorities, which can lead to a discussion on whether they are the right ones to prioritize.

"We did the first Innovation Barometer to inspire public sector workplaces to innovate by showing what others are doing. But the goal was at bit too vague. To inspire others, barometer findings had to be transformed into self-assessment tools and handbooks, which is what we did. On the positive side, the barometer once and for all busted the myth about the public sector being unable to innovate, which was unexpected but very important."

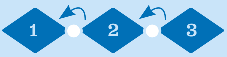
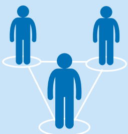
Ole Bech Lykkebo, Head of Analysis
The National Centre for Public Sector Innovation (COI)), Denmark

An Innovation Barometer is a powerful tool, but it does not tell you everything about public innovation. Once you have defined and prioritised the purposes of collecting data on public sector innovation, ask yourself this question: Is an Innovation Barometer the most relevant tool to serve your purposes? In any case, you should also consider alternative or supplementary methods of data collection.

For example, if an in-depth assessment of the outcome of a particular innovation or a deep understanding of particular types of complex innovation processes is required, a barometer will not be sufficient. If your purpose is to study the organisational culture's significance for innovation capacity, a barometer may be relevant as it enables comparisons across multiple workplaces. However, asking for only one answer per workplace will typically only give you the perspective of the manager or a trusted employee. If you want deeper insight into the organisational culture, you probably need to survey more employees and managers in each organisation, or use qualitative interviews or field studies. In short, let your purpose guide your choice of data collection methods.

ACTIONABLE ADVICE 1.2

ASSESS WHETHER AN INNOVATION BAROMETER IS THE RIGHT TOOL

	Your data needs	Innovation Barometer	Alternatives
	Generalisable knowledge on public sector innovation representative of a large number of workplaces	+	÷
	In-depth assessment of the outcome of a particular innovation	÷	Evaluation
	Innovation processes	+	Qualitative interviews or field studies
	Organisational culture	+	Qualitative interviews or field studies
	Your next data need...		

There are many examples of unintended uses of Innovation Barometer data being applied in unanticipated ways. The prerequisite is of course that data is made available for others to use. The recommendation is to clarify at an early stage whether data is to be shared – and with whom and how. Will the data be my data or our data?

ACTIONABLE ADVICE 1.3

DECIDE EARLY ON TO MAKE DATA OPENLY ACCESSIBLE

Decide early on where and how you would like to position your Innovation Barometer on the Data Openness Continuum shown below. Choose a position as far right as possible to maximise the combined value of your Innovation Barometer, including unforeseen uses.

MY DATA — **OUR DATA** → **OPENNESS**

Use data controlled by data owner only

Recommendation: Decide early on where and how to position your Innovation Barometer

data accessiblity continuum

There may be good reasons not to share all data with everyone, for example, if respondents are granted anonymity, but remember that anonymity can be maintained even when third parties are allowed to analyse data. Thus, our general recommendation is to keep data and results as accessible as possible. It is imperative, however, that systems are in place so respondents cannot be identified, not even indirectly.

There are multiple ways to make data available to others. To allow the correct interpretation of data, the methodology of data collection also needs to be available, just as any methodological issues should be highlighted.

USE CASE

OPEN DATA ACCESS

The Norwegian Digitalisation Agency, Digidir, has published anonymised Norwegian Innovation Barometer microdata at state level. This allows anyone to download the data and carry out their own analyses. Anonymising the data is challenging. Simply removing identifying variables (such as names) is often insufficient as individual workplaces can also be identified by combining multiple variables. Size, location and service area, for instance, can result in singling out an individual workplace.

USE CASE
RESEARCH DATA ACCESS

In Denmark specific projects approved by Statistics Denmark can gain access via its Research Services to Innovation Barometer microdata upon request. This makes it possible to enrich the microdata with existing registry data on individual workplaces and includes access to identifying information too sensitive to openly share. Unfortunately, these services are only available to international researchers affiliated with authorised Danish research environments, which means the data are not publicly available.

Since this is the case, the National Centre for Public Sector Innovation (COI) can, at its discretion, conduct analyses on behalf of other actors, such as news media.

dst.dk/en/TilSalg/Forskningsservice

USE CASE
ACCESS TO RESULTS

The Icelandic Innovation Barometer has an interactive interface that allows anyone to explore publicly available data and combine multiple variables without accessing microdata. The availability of a larger amount of raw data provides greater flexibility than fixed tables and figures.

Nonetheless, tables and graphics are also good ways to make data available as they are accessible and easy to reuse. We will have more to say about these possibilities in Part 2. How to communicate an Innovation Barometer.

opinbernyskopun.island.is/samvinna/

1.2
LOOK FOR PARTNERS AND LISTEN TO SCEPTICS

An Innovation Barometer generates statistical knowledge on public sector innovation, which in most countries provides a whole new type of public sector innovation knowledge. Keeping Sir Francis Bacon's famous aphorism "knowledge is power" in mind, these new types of knowledge can be expected to raise both expectations and concerns.

Our general advice is to ask yourself this question: Who in my country is likely to oppose the survey or its results? Engage in a dialogue with them to reach a compromise or an understanding.

USE CASE
ENGAGING IN DIALOGUE

The introduction of the first Innovation Barometer in Denmark in 2014 illustrates how concerns around the Barometer were treated. There was intense public debate in Denmark in 2014 that the public sector had become a new public management monster, with excessive requirements for measurements and documentation. Some argued that employees were forced to waste their working hours filling out forms that no one read instead of providing actual services to citizens. The view was that quality, efficiency and job satisfaction had all fallen victim to this rigid regime.

To suggest yet another measurement of the public sector in such a climate, of course, was bound to attract criticism. Sceptics predicted such a statistic was destined to become yet another benchmarking exercise that would shame, not help, municipalities, service areas, or professions that fell below average. COI and Statistics Denmark conducted seven open workshops to engage in an open dialogue with sceptics and participants from various organisations who were interested in completing the Innovation Barometer survey and using the results. This dialogue helped to sharpen the purpose of the survey, to reassure the sceptics and to engage more proponents.

One result from the workshops was a decision to refrain from the usual practice of Statistics Denmark to make the survey mandatory and instead to make it voluntary. It was clearly communicated that the survey's main purpose was to enhance public sector innovation by providing public sector workplaces with inspiration on how others had used public sector innovation to improve their services. In addition, it was plainly communicated that benchmarking was not the purpose of the statistic. The dialogue also resulted in adjustments in the questionnaire to simplify theoretical concepts and add new aspects, such as organisational culture. We will have more to say on the questionnaire in Part 5.

ACTIONABLE ADVICE 1.4
ADDRESS POSSIBLE CONCERNS EARLY ON

- [ ] Ask yourself and someone outside your organisation who in your country might be concerned about how the results will be used.
- [ ] Announce preparations for your survey publicly and monitor less enthusiastic responses.
- [ ] Assume that sceptics have valid reasons and invite them to give advice on how to increase the response rate and get the most out of the Innovation Barometer

An equally important question is: Who are the other actors in my country who might also be interested in statistical knowledge on public sector innovation? Reach out to these organisations as well at an early stage, preferably before collecting any data, to create interest and perhaps find collaborators. Consider formulating the very purpose of the study with these partners to create shared owner¬ship and stronger legitimacy. Also consider adding a very limited number of questions that are valuable to your partners. Part 5 contains more information on the questionnaire.

ACTIONABLE ADVICE 1.5
MAXIMISE THE USE OF DATA

Ask yourself and a trusted colleague: Who beside us can use Innovation Barometer data? Expand and adjust the checklist below. Invite some or all on your list to a workshop BEFORE data collection begins. What advice can these actors offer? What can make the Innovation Barometer useful to them?

- [ ] Top officials
- [ ] Public sector innovators
- [ ] Policymakers
- [ ] Managers of innovation support programmes
- [ ] Interest groups
- [ ] Researchers
- [ ] Teachers
- [ ] Private consultancies

... and more

WARNING!

Your constructive invitation may generate far more questions than any volunteer respondent would bother to answer. Do not offer to expand or complicate the questionnaire. Always be your respondent's guardian. This may disappoint your guests. However, they would have been more disappointed not to have been consulted.

1.3
HOW TO USE AN INNOVATION BAROMETER

OECD guidelines for measuring private sector innovation have been in use since publication of the first edition of the Oslo Manual in 1992. Since then several countries have regularly collected statistical data on private sector innovation.

The availability of detailed knowledge on private sector innovation compared with the lack of knowledge on public sector innovation has perpetuated the myth that innovation only occurs in the private sector. For at least a decade the question of how to measure public sector innovation has been the starting point for much debate and several attempts to capture the essence of public sector innovation through measurement. So far, no consensus has emerged.

The Innovation Barometer aims to correct the imbalance between knowledge on public and private sector innovation by providing an operational framework that is applicable in and adaptable to most public sector settings.

Innovation Barometer data provide a new starting point for public sector innovation. Instead of discussing whether or not innovation occurs in the public sector the Innovation Barometer provides a yardstick to measure it and a meaningful foundation for discussions on how to further public sector innovation.

The rest of Part 1 shows the many uses that this operational framework has provided for measuring public sector innovation to date. We begin with uses closely related to public sector innovation, debunking myths, identifying gaps in innovation capacity and furthering innovation in the public sector. We then expand to even wider societal uses – research, education and policymaking.

Actors from 20 countries have been involved in co-creating the Copenhagen Manual, leading to another broadening of the perspective – from national agendas to transnational comparisons and collaboration. During the process of drawing up the manual this shift in mindset has become clearer to everyone in the Copenhagen Manual community. Consequently, our final case in Part 1 is the forthcoming Dutch Innovation Barometer, which has transnational comparisons as one of its explicit purposes.

USE CASE
DEBUNKING PERCEIVED AND CREATING NEW WISDOMS

Prior to the publication of the Norwegian Innovation Barometer, some expected the findings to convey, that public sector innovation only occurred in the largest and most centrally located municipalities in Norway. However, the results demonstrated that innovation by no means are limited geographically, but occurs extensively throughout the country. Now that these facts are established, further development can take its starting point from there.

In practice the Innovation Barometer generates evidence supporting a positive narrative about the public sector as innovative, competent and adaptive – especially when the data is combined with case studies on innovations in the public sector. This positive approach creates a contrast to the public sector commonly being described as an expense, a tax burden and a second-rate institution compared to the private business sector.

WARNING!

Use the Innovation Barometer data and examples to tell positive stories about public sector innovation, without overselling the latter. Acknowledge that there are hurdles to overcome and avoid undermining your credibility by ignoring problems.

The aim of documenting innovation activity in the public sector is not to make the public sector look good. It's about providing a solid, encouraging foundation for asking new questions – whether or not the data initially looks encouraging. It can also be used to identify gaps and to come up with solutions on how to fix them.

USE CASE
RAISING AND ANSWERING NEW QUESTIONS

When using data to address questions, new ones often arise. Politicians at local and regional level can play a crucial part in innovation. When the Norwegian Association of Local and Regional Authorities (KS) compared Norwegian and Danish Innovation Barometer findings they wondered why local politicians in Norway did not initiate or promote innovation as often as their Danish counterparts. The Association decided to dig deeper by developing a supplementary questionnaire solely for local and regional politicians. It turned out that they were true innovators, with 87% of city and regional councils initiating innovation in their last term and with 69% of mayors involved in innovation processes. These percentages are higher than in Denmark.

ks.no/fagomrader/innovasjon/innovasjonsledelse/innovasjonsbarometeret-for-kommunal-sektor/politisk-innovasjonsbarometer-2020/

WARNING!

In general do not expect Innovation Barometer data to directly help public sector employees innovate more successfully. You must transform data into something more concrete that is designed and tested to be easily applicable in certain situations.

USE CASE
IDENTIFYING AND ATTEMPTING TO FIX A GAP IN INNOVATION CAPACITY

Danish Innovation Barometer data showed that the overall innovation rate was high but that less than half of the innovations were evaluated. Consequently COI decided to focus attention on how to enable more and better evaluations of public sector innovations. A guide to help the evaluation process was developed, which took the Innovation Barometer findings as a starting point. These results were supplemented by qualitative findings on the difficulties with, and the solutions for, evaluating innovation. This combined knowledge served as a platform for a co-creation process with public sector employees who had an interest in evaluating public sector innovation.

https://www.coi.dk/en/what-we-do/evaluating-innovation/

USE CASE
IDENTIFYING FACTORS THAT ENABLE AN INNOVATIVE CULTURE

The NZ Innovation Barometer is designed to identify and measure the factors that influence an innovative environment. The long-term goal of the Innovation Barometer is to create an enabling innovative culture in the public sector, where public servants have the tools, knowledge and permission to innovate, to encourage more innovations in addition to the politically driven innovations. The NZ Innovation Barometer will provide senior leaders with interactive data highlighting their agency's strengths and areas for improvement, as well as recommendations to improve innovative ability, with progress being tracked over time.

"Public sector innovation is acknowledged as being vital to drive better outcomes for citizens. However, you cannot manage what you are not measuring, and currently we do not provide public sector senior leaders with measurement data, trends, benchmarks or examples to show how to lift innovative ability. Public sector leaders who want to see their agency deliver better outcomes are saying they need data and insights to take practical action."

Sally Hett, Programme Manager & Innovation Specialist
GovTech NZ - Creative HQ

An Innovation Barometer can also serve to make an impact on strategic agendas at a national level, e.g. when governments or parliaments discuss reforms or societal challenges. If that is the ambition, it is advisable to integrate the innovation barometer into the process from the beginning as opposed to simply publishing numbers at some point.

USE CASE
NATIONAL STRATEGIC IMPACT

In 2018 the Norwegian government announced its intention to boost innovation in the public sector to meet its goal of having a sustainable, efficient and modern public sector highly trusted by the public. To that end, the government engaged in an open process to write a white paper on public sector innovation to present to the Norwegian parliament in 2020. The Norwegian Digitalisation Agency carried out the Norwegian Innovation Barometer at state level with the explicit purpose of creating a knowledge base for the white paper. In combination with an existing Innovation Barometer covering local and regional levels, this provided a complete picture of public sector innovation in Norway.
offentliginnovasjon.no

Iceland recently adopted a national innovation strategy that was intended from the outset to cover all areas of society, though the initial focus was on the private sector. The Innovation Barometer, however, provided a variety of solid new data on public sector innovation, eventually broadening the strategic focus.

Denmark showed a high rate of innovation overall but the percentage of people who made an effort to disseminate innovations to other workplaces was lower than expected.

As a result the National Centre for Public Sector Innovation began focusing more heavily on this area. In addition toolkits, networks and internships were established to enhance the capacity of the public sector to spread innovation.

Other knowledge has also helped form the foundation of these efforts, but the Innovation Barometer has supported and legitimised the overall course of action.

coi.dk/en/what-we-do/evaluating-innovation/

An Innovation Barometer can also provide a better understanding of both public and private sectors innovation that furthers collaboration between the sectors. It enables comparison and can pave the way for learning, cooperation and partnerships between the public and private sectors, either in the form of knowledge and technology transfer or of service provision.

USE CASE
BETTER UNDERSTANDING AND MORE COLLABORATION

Statistics Sweden and the Swedish innovation agency Vinnova are preparing the second round of the Innovation Barometer. This will involve making more comparisons with the corresponding survey in the private sector to provide mutually beneficial learning.

scb.se/en/
vinnova.se/en/

Greece conducted a public sector innovation survey in 2020 that was inspired by the Innovation Barometer. One of the purposes was to pave the way for mutually beneficial collaboration and partnerships between the public and private sectors, either as knowledge and technology transfer or as service provision.

innovation.gov.gr

Good management thrives on good data. An Innovation Barometer can also provide data and knowledge that can be integrated into on-the-job training programmes for present and future public sector leaders.

USE CASE
EXECUTIVE MANAGEMENT TRAINING PROGRAMMES

A survey of local Norwegian municipal politicians that was conducted after comparing the Danish and Norwegian Innovation Barometers showed that the politicians do not feel that they have sufficient knowledge to effortlessly initiate innovation processes. To meet this need the Norwegian Association of Local and Regional Authorities (KS) is developing a course on innovation management for elected leaders.

The Danish edition of Canadian author and public servant Jocelyn Bourgon's international bestseller, A New Synthesis of Public Administration - Serving the 21st Century (2017) incorporates Danish Innovation Barometer data. Her Danish co-author, Kristian Dahl, uses the Innovation Barometer in his perspective on emergence, one of the four management perspectives the book covers. Bourgon's work also provides a structural framework for the Danish Ministry of Finance's comprehensive management development programme at state level and for an ambitious KL (Local Government Denmark) executive development programme at local level.

Iceland's Innovation Barometer data have directly aided the Icelandic Ministry of Finance in improving education on innovation to chief executive officers in the public sector.

Innovation Barometer data have also been used in educational institutions and in research contexts.

USE CASE
INNOVATION BAROMETER DATA USED FOR RESEARCH AND EDUCATIONAL PURPOSES

Innovation Barometer data has been used for various research purposes, for example, in the peer-reviewed article "Public Value through Innovation: Danish Public Managers' Views on Barriers and Boosters" (2020), published by the *International Journal of Public Administration* and authored by Ditte Thøgersen, a PhD student at Copenhagen Business School, and co-authors Susanne Boch Waldorff and Tinne Steffensen.

Daði Már Steinsson's University of Iceland master's thesis, "Public sector innovation: How can the government promote further innovation in public sector workplaces?", is based on data from the Icelandic Innovation Barometer.

Researchers from the University of Aalborg in Denmark have been granted access to Innovation Barometer data at Statistics Denmark's research access. The Norwegian Innovation Barometer has stimulated interest in doing more research on public sector innovation with or without use of Innovation Barometer data. The findings to date have inspired researchers at institutions of higher learning to ask new research questions.

COI's handbook, *NYT SAMMEN BEDRE [NEW TOGETHER BETTER]*, is used to teach public sector innovation in upper secondary and higher education, putting the Innovation Barometer on the syllabus in Denmark.

Instead of continuing to mainly rely on data on innovation and entrepreneurship from the private sector educational institutions in Norway are increasingly using Innovation Barometer data. This has lead the Norwegian Association of Local and Regional Authorities to conclude that student interest in working in and for the public sector is likely to increase when introduced to an innovative public sector through their education.

"We actively support the use of the Innovation Barometer at educational institutions and are pleased that several students are using our data in their master's thesis. We believe it opens the eyes of young people to the fact that innovation also occurs in the public sector, encouraging more graduates to seek public employment."

Une Tangen, Senior Advisor, Norwegian Association of Local and Regional Authorities, Research, Innovation and Digitalisation

Once results from Nordic Innovation Barometers were published actors with various interests have also utilised the data to formulate policy. Thus, Innovation Barometer data have been used to strengthen the underlying evidence-based foundation of existing discourse and new policies, which may lead to public sector innovation playing a role in societal contexts where it is generally not taken into consideration.

USE CASES PUBLIC AFFAIRS

In 2017 the Danish government announced a reform to produce greater cohesion to achieve a more citizen-centred public sector. The aim was for municipal and regional authorities with overlapping responsibilities to provide seamlessly coordinated services. Although Local Government Denmark, an interest organisation comprising Denmark's 98 municipalities, agreed with the reform's overall purpose, it emphasised that shortcomings were not due to the inability of the municipalities to cooperate, highlighting innovation in its argumentation. Citing the Innovation Barometer, the organisation pointed out that 78% of municipal innovations occur in collaboration with one or more public or private actors outside the individual workplace.

A supplementary survey of local politicians completed in conjunction with the second round of the Norwegian Innovation Barometer showed that about half of all mayors found that certain legislation or other centrally established rules inhibited local innovation processes. The Norwegian Association of Local and Regional Authorities has incorporated these findings in its argument for reducing central regulation. This view is not new, but now innovation data is embedded in the ongoing dialogue between local and regional authorities and the central government.

USE CASE ORGANISATIONAL LEARNING AND TRANSNATIONAL COMPARISONS

The forthcoming Dutch Innovation Barometer surveys central government, municipalities, provinces, water management agencies and public collaboration authorities. One of its aims is to offer top civil servants in these organisations the opportunity to participate in organisational learning by reflecting on the performance of their own organisation compared to others. This perspective will be strengthened by benchmarking Dutch results against some of the results of the Nordic countries. In addition, the Dutch Innovation Barometer will include a question on the impact of COVID-19 on the performance of the organisations.

USE CASE
USER-CENTRIC INNOVATION DATA FOR ORGANISATIONAL DECISION-MAKING

The experimental project InovX: Innovation Panel for Public Sector was designed to diagnose innovation strategies used in the Portuguese public administration. The Portuguese Experimentation Lab for Public Administration (LabX) started a collaborative team with scientists and experts, adopted an experimental approach and acquired a representative sample from 92 public organisations spread out across various administrative levels and areas of government. Innovation diagnoses were generated for each organisation based on the data collected and individually sent to their managers, providing relevant and usable information about their innovation strategies and capacities. An interactive dashboard prototype was also used to explore the provision of customised options visualising the information available to end users. This user-centric approach allows the detection of challenges in terms of existing capabilities and supports public organizations into making sustainable and impactful decisions.

labx.gov.pt

USE CASE
DIFFERENTIATED INNOVATION SUPPORT TO MEET DIVERSE NEEDS

The Greek Ministry of Interior serves as a horizontal unit for innovation throughout the public sector. In this capacity, it provides innovation support to enhance the skills of public servants and the innovation capacity of public organisations. In 2020 the Ministry did a survey on innovation capacity targeting all three levels of government: ministerial, regional and local. The purpose was to do data management to put public organisations into clusters, such as innovation lions, allowing the design of targeted support to better meet the various needs of the different clusters.

innovation.gov.gr

PART 2

HOW TO COMMUNICATE AN INNOVATION BAROMETER

PART 2 IS DESIGNED TO HELP:

- DECIDE ON THE AMOUNT OF RESOURCES TO ALLOCATE TO YOUR COMMUNICATION EFFORTS
- FIND TIPS ON YOUR COMMUNICATION AT THE START OF THE PROJECT
- INTEGRATE COMMUNICATION INTO YOUR PROJECT MANDATE AND BUDGET
- CUSTOMISE CONTENT TO MATCH TARGET AUDIENCES
- EXPAND THE TIME PERIOD AND NUMBER OF OCCASIONS FOR COMMUNICATING INNOVATION BAROMETER NEWS
- INVOLVE COLLABORATORS AND STAKEHOLDERS IN YOUR COMMUNICATION EFFORTS
- LEARN MORE ABOUT HOW TO PRODUCE GOOD CASE STUDIES
- ESTABLISH A VISUAL IDENTITY

2.1

HIGH RETURN ON INVESTMENT IN COMMUNICATION

A traditional way of communicating statistics is to begin by writing a lengthy report based on months of careful analysis and interpretation. Then, in the capable hands of the communications department, it is made available for download on your website, and communications does its utmost to get media coverage of the main findings. In this part, we provide advice on how to increase the return on your investment in an Innovation Barometer by thinking differently about communication.

”An effective statistical report tells a story about the data. Stories engage people and they endure. When you find and tell the story about your data, there is a better chance of engaging with the general public and informing public policy.

Always aim to write text that a journalist can copy and paste. Being quoted is the best way to ensure that your story is read the way that you intended it to be.”

Helen Cahill, Statistician,
Editorial Board, Central Statistics Office, Ireland

ACTIONABLE ADVICE 2.1

AVOID LETTING YOUR NUMBERS STAND IN THE WAY OF YOUR MESSAGE

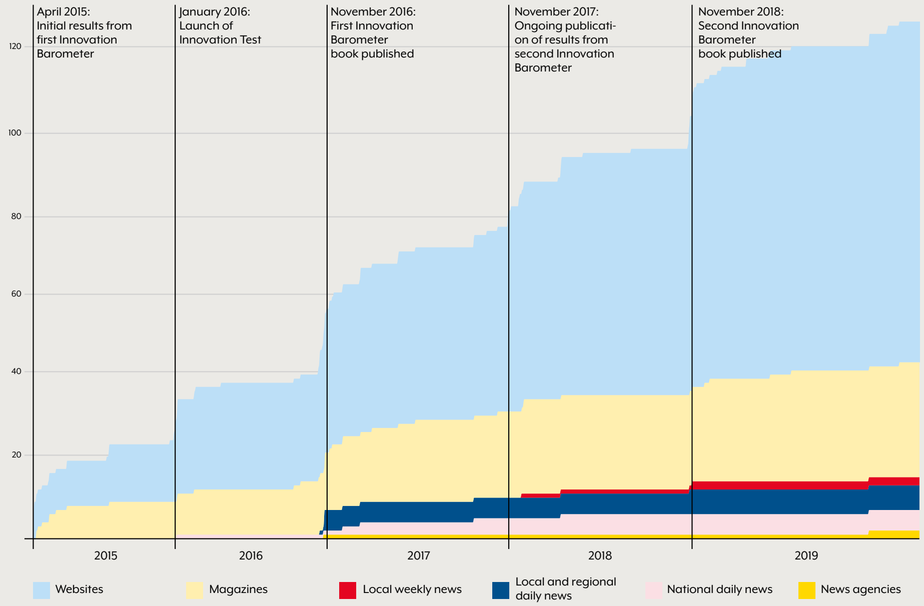
On their own, statistics are just numbers. To mean anything, their value must be brought to life and the goal is to turn data into information and information into insight. To make the statistics more tangible:

- Have public employees actively working with innovation share their personal interpretation of your data.
- Find good case studies that showcase what the numbers mean - focus on the people and the stories behind the numbers.
- Have experts give advice on how to deal with some of the difficult aspects that the statistics uncover.
- Use the numbers as a tool to tell stories on specific public sector innovation topics.
- See how it's done at the UN: **unstats.un.org/unsd/EconStatKB/KnowledgebaseArticle10350.aspx**

The results of the first Innovation Barometer in Denmark were published in March 2015, based on data collected in 2014. Since its publication and as of December 2020, Denmark has completed three Innovation Barometers. Following a traditional approach, this would have translated into three reports and three waves of news exposure – if the coverage was successful each time. However, by working in a radically different way the Danish Innovation Barometer was mentioned 132 times in 102 different news media outlets over the five and a half years since its launch.

USE CASE
MORE RESOURCES SPENT ON COMMUNICATION THAN ON DATA

From the start COI chose to spend more time and money on communicating the results than collecting and processing data. This decision has paid off in numerous ways, including excellent media coverage.



Most media coverage originates from COI's own press releases. However, a large and continuous flow of stories also generated public use of Innovation Barometer data not directly initiated by the COI. For example, the news media often used Innovation Barometer data in articles on the public sector.

The most important and overarching piece of communication advice, especially if you have limited resources available, is not to think of communication as a separate task to be dealt with after the actual work is done. From the very beginning, think of communication as an integral part of your Innovation Barometer work, as this very thinking will increase both the potential resources that can be (re)allocated into successful communication and your chances of reaching your strategic goals and intended audience.

You can expand your reach by planning and initiating your communication early on, by finding partners and by developing formats to match your target groups. In this part of the manual, we show how others have done just that.

ACTIONABLE ADVICE 2.2

PLAN, INITIATE AND INTEGRATE COMMUNICATION WORK EARLY ON

- Plan and initiate communication efforts as early as possible - and certainly before collecting data
- Establish a clear link between your strategic purposes for doing an Innovation Barometer (Part 1) and your early thoughts concerning communication

Why - or for what purpose - are you doing an Innovation Barometer (Part 1)?

Who are the relevant target groups that you hope to inform, help, influence or engage with your Innovation Barometer?

What data do you need to collect and from whom (Part 4)?

USE CASE

THE NZ INNOVATION BAROMETER PROMOTION VIDEO

In New Zealand the NZ GovTech Hub developed an introductory video that explains the Innovation Barometer and its purpose.

The deputy chief executive who signed off on participation in the project is also featured in the video, which also explains why his agency is participating, what the benefits are and what excites the agency about the Innovation Barometer.

https://www.youtube.com/watch?v=7Y_lrZJFCbY&feature=youtu.be

The absolute amount of resources meaningfully spent on communication naturally depends on the overall budget and your scope, target groups and strategic goals. When looking to include the resources spent on communication into this pool of decisions, it can be helpful to do a thought experiment.

Consider all the resources your contributors must invest. If 2,000 public sector managers spend 15 minutes each answering the questionnaire, this adds up to about three months of work time. Your own organisation or collaborators will spend at least the same amount of time completing the data collection and analysis. If nobody is aware of or uses your findings, then these hours were wasted.

The point to stress here is that it is not advisable to spend six months collecting and processing data and then only spend the last day communicating the report. This approach means risking that only very few people will read your report.

ACTIONABLE ADVICE 2.3
(RE)ALLOCATE RESSOURCES TO COMMUNICATION

- [ ] Introduce a narrative on the potentially lost impact if you do not prioritise solid efforts to communicate the Innovation Barometer results
- [ ] Identify the communication resources in your organisation and any collaborators working on conducting the Innovation Barometer survey
- [ ] Include these communication resources early on in the process
- [ ] Look for advice and input from the communications resources early on
- [ ] Identify communication platforms and outlets and prioritise what is easily accessible and what demands more effort. If you have few resources – pick the low hanging fruits and one or two bright apples higher up.

A strategy for optimising the return on communication resources is to take advantage of external factors. Keeping an eye out for items that Innovation Barometer results can be linked to will help you disseminate your results to a broader audience. For example, if the government has announced a reform in a particular field and you have data relevant, plan to communicate your results in this context as well.

ACTIONABLE ADVICE 2.4
UTILISE EXTERNAL RESOURCES

- [ ] Keep an eye out for current agendas that the dissemination of Innovation Barometer data can be linked to.
- [ ] Co-create communication efforts with collaborators and stakeholders to add insights and reach a wider audience.

Another way of utilising external resources is to invite your partners and stakeholders (Part 1) to take part in both the specific design of communication products and the subsequent dissemination. When your partners become co-writers or co-creators, it adds insights and credibility to your Innovation Barometer findings. When your partners actively share the messages or products in their own networks, for example on social media, you reach an often highly relevant audience that may otherwise be hard to access.

USE CASE
TWO PARTNERS – LARGER AUDIENCES

The Danish Innovation Barometer is a joint venture between Statistic Denmark and COI. Both partners communicate about the findings on their respective platforms.

STATISTICS DENMARK

Statistics Denmark communicates new statistics via:

- News from Statistics Denmark - An online newsletter with many subscribers.
- STATBANK Denmark - An online database where anyone can download data for free in user friendly formats. Data are also available in English, for example, innovative workplaces in the public sector by sector and type of innovation.
- Its website, dst.dk/en, which also contains a detailed description of the Innovation Barometer, carried out according to international standards.
- Data for research. International researchers can gain online access to anonymised micro data (individual personal or corporate) if affiliated with an authorised environment in Denmark, e.g. a university.

COI NATIONAL CENTRE FOR PUBLIC SECTOR INNOVATION

COI continuously communicates on topics related to the Innovation Barometer through channels such as:

- COI newsletter
- Press releases
- Infographics shared on social media
- Books and online publications
- Websites:
  - » innovationsbarometer.coi.dk
  - » innovationstesten.dk
  - » Innovationbarometer.org

Sometimes there is the risk of downgrading communications at the end of the project, e.g. if resources are tight. However, by integrating communication in the project plan (preferably from the beginning) you significantly reduce the risks of cutting communication resources.

ACTIONABLE ADVICE 2.5

INTEGRATE COMMUNICATION IN YOUR PROJECT MANDATE AND BUDGET

- [ ] Make sure that communication is included in the project mandate, e.g. by making it part of the project goal or a specific sub-goal.
- [ ] Include communication in the project budget.
- [ ] Organise the early involvement of expert communication professionals, either from a specialist in your own organisation or external consultants..

USE CASE

CONFERENCES AS A COMMUNICATIONS PLATFORM

One of the criterions of success for the Norwegian Innovation Barometer was that the mayors who make up the political leadership of the Norwegian Association of Local and Regional Authorities would embrace the findings. The Association released the Innovation Barometer for municipalities at its annual summit for mayors. The local politicians learned about the key findings and embraced them. Since then, the findings have been used at other meetings and events across the country, helping the Innovation Barometer became part of the story of an innovative municipal sector.

The main findings of the Norwegian Innovation Barometer for the state sector were first presented at an established, well-visited management conference in Norway. Even though the Innovation Barometer was still under completion, which means a final version was not yet available, it had its own spot on the programme. However, presenting at a conference with the Innovation Barometer's most important target groups in the audience was a good starting point and provided a taste of what was to come. One result was that the Ministry of Local Government and Modernisation and its Secretary General also became key actors in communicating the Innovation Barometer's findings.

2.2
CUSTOMISE CONTENT TO MATCH TARGET AUDIENCES

To achieve the largest possible impact from your Innovation Barometer, tailor your communication to the most relevant format for each target group.

The first Danish Innovation Barometer used data to produce a/an:

- Credible report to convince scholars and policymakers
- Pamphlet with 10 pieces of advice for practitioners
- Set of cases for the media
- Book used at educational institutions
- Set of infographics for social media
- Online self-evaluation tool

Some inspiration to guide your segmentation:
If your aim is to inspire *public sector practitioners and innovation professionals,* handbooks and online guides will probably fit your purpose better than a thick report. If you want to appeal to *scholars* and *high-level decision makers*, a systematically documented report and careful interpretation may be necessary.

If increased *legitimacy* is important, consider writing an authoritative book with all the data contained in other communication products. A book is referenced by others writing on public sector innovation and can be lent at public libraries. A book is reviewed. And a book increases the likelihood of the Innovation Barometer becoming part of the syllabus at educational institutions.

ACTIONABLE ADVICE 2.6

CUSTOMISE FORM AND CONTENT TO MATCH TARGET AUDIENCES

- [ ] Research the preferences of your specific target group and customise form and content for each group.
- [ ] Test the wording, use of language and tone of voice on specific user groups, for example by befriending your local communication/language expert.
- [ ] Consider what format is used on various platforms for each target group:

	Name of target group 1	Name of target group 2	Name of target group 3
Handbook			
Online tool			
Freely available report			
Textbook			
Peer-reviewed article			
Infographics			
Blog			
... what caught your eye on a previous occasion			

USE CASE

TAKE AN INNOVATION TEST

In Denmark and Sweden, COI and SALAR (The Swedish Association of Local Authorities and Regions), which both produce Innovation Barometers, offer online self-evaluation tools – innovation tests – that let interested public employees and political leaders answer questions from the Innovation Barometer questionnaire and immediately receive visual comparisons of their own workplace with the national average. Both online tools aim to create curiosity, dialogue, learning and reflection.

innovationstesten.dk and **innovationstestet.se**

USE CASE
THE HANDBOOK NYT SAMMEN BEDRE (NEW TOGETHER BETTER)

Since the findings in the second edition of the Danish Innovation Barometer did not differ significantly form the first, there was little reason to update an earlier book. Instead, COI chose a new format – a handbook – to provide an in-depth look at one theme: collaboration on public sector innovation.

The handbook NYT SAMMEN BEDRE (NEW TOGETHER BETTER), available in Danish only, is for public sector practioners who seek inspiration to create new solutions in collaboration with actors outside their own workplace.

It is not necessary to read the entire book as it contains a section on various types of collaborators:

- Other public workplaces
- Citizens
- Voluntary organisations
- Knowledge institutions
- Private companies
- Private foundations
- International partners

Each section contains practical advice, tools, cases and infographics based on Innovation Barometer data.

It is not necessary to communicate everything to everyone simultaneously. The same numbers and findings can easily be produced in various versions and presented differently depending on which target group you are trying to reach. In this way, an Innovation Barometer becomes more durable, prolonging its newsworthiness.

Dividing messages into smaller, more accessible communication pieces also makes it easier for more people to find the time to digest them. Indeed, you may think of communications as a cake, better served in small, delicious slices instead of overwhelming portions.

A few particularly interested individuals may have an appetite for more information, which is why it must be made available through, for instance links, detailed tables and descriptions of the methodology.

ACTIONABLE ADVICE 2.7
PUT THE CONTENT INTO BITE-SIZED CHUNKS

- [ ] Make a plan for what results will be communicated to specific target groups, on which platforms and when.
- [ ] Make theme-based releases aligned with your primary focus, e.g. collaboration on public innovation, citizen engagement or the role of politicians.
- [ ] Spend time and energy suitably communicating about each part.
- [ ] Make it easy for target groups to access more in-depth results and data if they are hungry for more.

USE CASE
INNOVATION CALENDAR SPURRED ATTENTION

Prior to the launch of the Norwegian Innovation Barometer for local government, the Norwegian Association of Local and Regional Authorities selected ten thought-provoking findings and presented them like an Advent calendar to generate a sense of anticipation. Each flap stated, “Did you know …?” followed by a new fact. A month before the launch, the Association began opening the flaps one by one at varying intervals. To read the findings interested parties had to sign up for a newsletter, and many quickly did. The Association promoted the Innovation Calendar in its general newsletter and on social media to create interest and curiosity before the full release.

When communicating various results to a variety of target groups at different times a strong visual identity can serve to unify the results. Establish a design manual that defines the colour palette, font and individual elements such as templates for cases and figures. Consistent use of design features and reusing formats can increase the likelihood of recipients recognising you as the sender of the message.

WARNING!

Do not expect the numbers alone to be a storyteller. Some target groups will not think they are as interesting as you do.

A simple design manual will get you a long way but must be adhered to strictly. If a creative format like infographics is preferable, then you will probably need help from a professional graphic designer, which costs time and money but adds a professional shine your results, an investment often rewarded with a bigger audience.

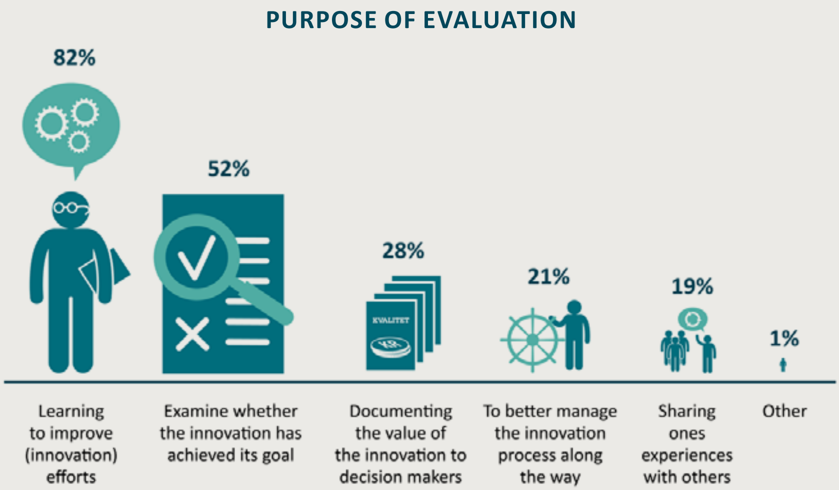
As a cheaper alternative, stick to a program like Excel and apply your design manual to increase readability and make your charts stand out in a crowd. To make charts attractive for social media, use large font sizes and minimise details like axes and grids.

ACTIONABLE ADVICE 2.8
ESTABLISH A VISUAL IDENTITY

- [ ] Use a design manual to create a consistent visual identity.
- [ ] Find your own unique - and recognisable - style to communicate findings, e.g. through infographics.
- [ ] Repeat features in your communication, e.g. by using the same template for cases each time.
- [ ] Add your logo to figures to be cited automatically as the source.

USE CASE INFOGRAPHICS

COI uses infographics created by professional graphic designers to make results more engaging than ordinary numbers and charts do. A chart can be simple and attractive or done even more creatively. Infographics convey a large amount of information using minimal text and are suitable for not only printed media but are also social media friendly.



2.3
WORKING WITH SHORT CASE STUDIES

The concept of public sector innovation may seem intangible, but a good example can help your Innovation Barometer message reach a broad audience. To produce a good case study, you must first find a good example of public sector innovation. This can often take a long time to find, so make an early start on identifying relevant cases and engage your network in this search.

"Finding and producing good case studies takes time. This is partly because clear and concise text takes time to produce and partly because finding good leads is time-consuming. On top of that, promising cases will prove unusable more often than one would think because the value of the innovation is not documented well enough. So, make an early start!"

Paul Sauer, Communications Manager
The National Centre for Public Sector Innovation (COI)

For a case study to work well, you must be able to demonstrate the value the innovation created. Keep in mind that this value is not limited to financial aspects. Value also includes realising political goals, improving quality, increasing efficiency, strengthening democracy or enhancing employee skills or work satisfaction. Inquire about existing documentation that verifies the value of the innovation. Formal evaluations are not a requirement, but the innovator must present some form of assessment demonstrating tangible value creation. Be sure to obtain information on what the situation was like before and after the innovation to identify the improvements generated.

Some cases might initially seem too complicated to present briefly, but sharp editing that highlights key issues can work wonders. Readers eager to learn more can contact the innovators directly.

When writing the text, emphasise the ingenuity of the solution and the value created instead of the process of getting there, no matter how fascinating and important. A good case provides a snapshot of the solution that illustrates the added value.

A good case focuses the reader's attention. Pique curiosity and interest by taking high-quality photographs of the innovation, users, developers or where it was implemented, which can be costly, or obtain legal permission to use existing photographs.

If you are working with multiple case studies, for example in a large publication or on a website, make sure the case studies show various kinds of innovation and cover a variety of sectors and service areas. This introduces readers to a broader spectrum of public sector innovation.

ACTIONABLE ADVICE 2.9
CASE STUDIES CAN DRAW ATTENTION TO YOUR RESULTS

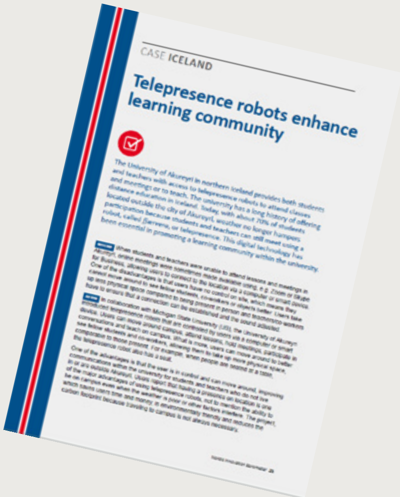
- Make press releases more effective by incorporating a good example – instead of a number – in the headline. Let it be the gateway to your story. This is especially true in terms of reaching a broad(er) range of media that do not have the same veneration for public sector innovation statistics as you do, but who can identify with and see the significance of a new solution that benefits citizens.
- The next step is to immediately illustrate the example with the statistics to get the message across from the Innovation Barometer and your organisation.

USE CASE
A PUBLIC SECTOR INNOVATION CASE STORY

The template for innovation cases in the Nordic Innovation Barometer includes three items:

- A short introduction emphasising the value created.
- A description of the initial problem or situation addressed.
- A description of key aspects that solved or improved the situation.

The two Danish Innovation Barometer books also include contact information for one or two individuals, which serves a dual purpose. First, readers can easily contact the innovators independently if they desire additional information, which is especially useful if the aim is to replicate it. Second, it prompts the innovators to share the case on, for instance social media, automatically expanding the reach of the case.


CASE ICELAND

Telepresence robots enhance learning community

PART 3

HOW TO DEFINE PUBLIC SECTOR INNOVATION

PART 3 IS DESIGNED TO HELP YOU:

- LEARN MORE ABOUT THE DIFFERENCE BETWEEN PUBLIC SECTOR AND BUSINESS SECTOR INNOVATION
- UNDERSTAND THE NEED FOR A MANUAL ON PUBLIC SECTOR INNOVATION
- BECOME MORE FAMILIAR WITH THE DEFINITION OF PUBLIC SECTOR INNOVATION
- UNDERSTAND THE INSPIRATION FROM THE OSLO MANUAL
- DEFINE THE UNIT OF MEASUREMENT
- UNDERSTAND THE DIFFERENCE BETWEEN INNOVATION AND INNOVATION ACTIVITY

3.1
USE A DESIGNATED YARDSTICK TO MEASURE PUBLIC SECTOR INNOVATION

If you want to understand and improve the empirical phenomena of public sector innovation, you need relevant, meaningful and systematic measurement to prioritise your efforts, track developments over time and learn from comparisons with others. This is the basic premise of the Innovation Barometer. This part of the manual argues that relevant and meaningful measurement requires an interest in public sector innovation on its own terms, not just as a presumed identical twin of business sector innovation that just happens to be non-profit..

Public sector innovation and business sector innovation have many parallels and innovation statistics on the business sector inspired the inception of the Innovation Barometer. In this part, however, the focus is on the characteristics of public sector innovation that distinguish it from its business sector counterpart.

”In my opinion the main difference is that, unlike public sector innovation, everyone sees business sector innovation as something that is needed, must be proactively reached and vital for businesses to survive in the market. In contrast, public sector innovation, and mainly public administration innovation, is still not seen by many as vital as there is basically no market competition between government agencies.

Thus, what makes public sector innovation special is that it must fight much harder to occur, to prove its importance, to convince the doubters and to survive its entire life cycle, from idea phase to implementation phase. Another challenge that makes it harder is that public sector innovation usually exists in a highly risk-averse environment. While in the business sector higher risk is associated with higher potential gains, governments usually prefer business as usual rather than spending taxpayer money on uncertain results.

Another important special aspect associated with public innovation is its positive impact on a society as a whole. In my opinion this is the main goal of public sector innovation, while the main goal of business innovation is (usually) to earn profits for the company.

Anna Urbanová, Analyst, Department for Strategic Development and Coordination of Public Administration, Ministry of the Interior of the Czech Republic

3.2
PUBLIC SECTOR INNOVATION AND BUSINESS SECTOR INNOVATION OPERATE WITH DIFFERENT LOGICS

The public sector operates with a political logic and conducts tax-funded activities aimed at creating a politically defined public good or at serving citizens' needs. This is fundamentally different from the logic of a competitive market. A somewhat trivial observation perhaps. Yet, it is far from inconsequential that some countries now have data that indicate how profoundly innovation activity is affected by differences in the overall framework for public sector and business sector innovation.

According to Innovation Barometer data two out of three public sector innovations have been initiated or promoted by new legislation or by the politically elected leadership under whose responsibility the innovative public sector workplace operates. In a Nordic context, the politically elected leadership is the minister, the regional council or the city council for public sector workplaces.

Innovation statistics for the business sector, in contrast, clearly show that gaining competitive advantages is a crucial driver of innovation. Obviously, this is not the case in the public sector. According to Innovation Barometer data the main drivers of public sector innovation are the not-for-profit spread of innovation, collaboration, political decision making, employee initiatives and citizen demands.

The distinction between a political logic and a market logic is not razor sharp. Business sector innovation is also indirectly affected by regulation. For example, incentives for innovation can be affected by changing regulations on product safety, environmental protection, taxation, requirement standards or intellectual property rights. Conversely, public organisations are also exposed to competition. They compete with other public organisations for political goodwill and budgets.

Still, very significant differences exist. Politicians do not run private companies. Elected politicians cannot on a daily basis dictate what specific products and services a private company should develop or how a private company should organise, manage and prioritise its innovation efforts. Politicians, on the other hand, can make tangible decisions on these matters in the public sector. Politicians sometimes even decide, for political reasons, that certain ways of doing things must remain unchanged.

Conversely, market pressures and disruptive technologies can dictate private companies to innovate their business model quickly – or go bankrupt. Public sector organisations less often experience similar time pressure to innovate radically. The COVID-19 pandemic of course being one of the prominent exceptions.

We argue that the dominant logic – politics or market – constitutes a master variable that induces differences in innovative practices in the public and private sectors, as shown in the infographic in figure 3.1.

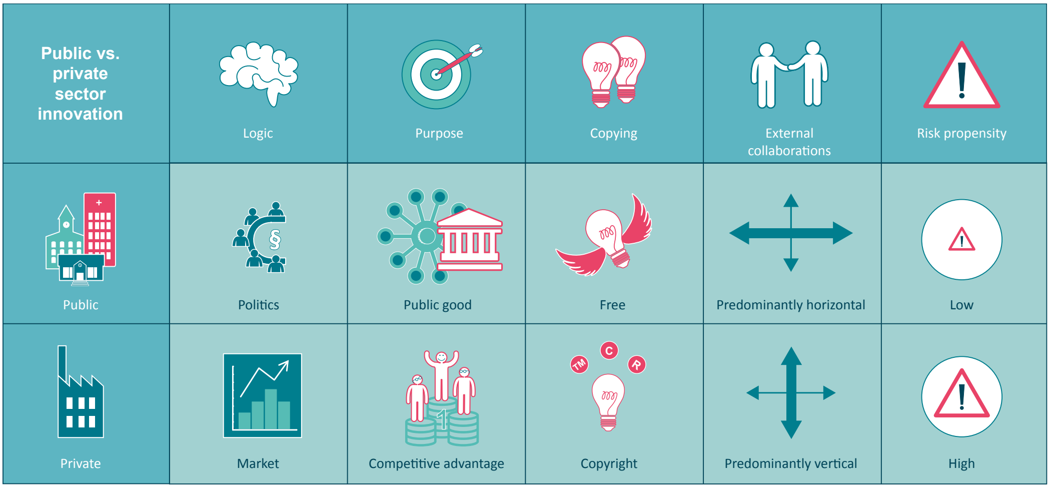


Figure 3.1. Differences in innovative practices in the public and private sectors.

As the infographic shows some public sector incentives and innovation practices are almost opposite to those of the private sector.

Innovation in the form of copying is widespread in the public sector and relatively common in the business sector as well. In the latter, however, the incentive to be copied is highly negative as it goes against the purpose of gaining a competitive advantage. That is why politicians have legislated on intellectual property rights so that private companies can protect their innovations with patents, utility models, design and trademarks for a limited period. While preventing direct copying, intellectual property rights, on the other hand, can stimulate copying in the form of licensing. Franchising is another example of widespread copying in the business sector. Both in terms of licenses and franchises, however, you must pay a fee to use what others have developed before you.

In the public sector, by contrast, uncompensated copying is the norm, since copying does not affect market shares. When a public nursing home introduces a new service to the elderly that the rest of the country's nursing homes subsequently adopt, the number of elderly citizens living on the innovator's premises remains unaffected.

Furthermore, a copy stresses the value of the original, providing positive branding to the innovator. In the nursing home example, the innovator may have a model named after the nursing home, which is of great symbolic importance in a system operating under a political logic. Indeed, according to Innovation Barometer data, every other public sector innovation is actively spread to others by the innovator. We do not know the corresponding figure for the business sector, as innovation statistics for the business sector do not ask this question.

Data also reveals differences in collaboration patterns, which aligns with incentives introduced by market competition (or not). In the public sector a high share of innovations (4 out of 5 in the Nordic countries) is carried out in collaboration. Most frequently horizontal collaborations occur among similar public sector workplaces within the same subsector, e.g. among multiple public schools.

Business sector collaborative innovations more frequently are the result of vertical collaborations up and down the value chain, i.e. with customers or suppliers. Horizontal collaboration with knowledge institutions is also quite common, while collaboration with similar companies within the same industry are rare, as they are usually competitors.

Another marked difference is the propensity to take risks. Risk taking in the public sector is associated with highly negative consequences in the event of failure. Any fiascos can lead to criticism from political opponents and the media, who do not weigh a current failure up against past successes when they pass judgment, unlike a private market where profits on successes can easily offset deficits on failures. In addition, in the business sector risk is associated with the chance of higher gains, as private companies potentially can conquer a world market. Whereas in many cases, the successes of public sector innovators have a more limited direct audience, e.g. the elderly living in a specific municipality.

On top of that, in the public sector, legislation on transparency, political opposition and media scrutiny practically ensures that failures are made public. Whereas business sector failures have a better chance of remaining hidden.

Discussions on similarities and differences between private and public sector innovation are prevalent in academia. Professor Mariana Mazzucato's 2013 book, *The Entrepreneurial State,* documents that the public sector is the core initiator, funder and risk taker of many of the innovations that are later considered to be private innovations developed in a free competitive market. The border between the private and public sectors, also in terms of innovation, is permeable but needs to be drawn firmly when deciding what to include in measuring public sector innovation statistically.

In conclusion, these differences make it necessary to conduct the measurement of public sector innovation in a somewhat different manner if the results are to be relevant and meaningful.

WARNING!

Do not exaggerate the differences. Part 3 might give the impression that public sector innovation and business sector innovation are from different planets; they are not. They are closely related, just not identical. So, whenever you meet innovators from another sector, be prepared to learn from them.

One would not want to measure phenomena in the business sector using a scale labelled "not fully reliable in the presence of market competition". Similarly, measurements of phenomena in the public sector that do not overlook the importance of political logic are preferable. This methodological choice of designing an innovation survey fit for the public sector increases the response rate and the usefulness of the results.

Consequently, direct comparison with business sector innovation statistics becomes more difficult. However, direct comparisons would be challenging regardless, as the phenomena being observed operate with different logics.

Still, innovators in the two sectors will have much in common and much to learn from each other, especially if they have a mutual understanding of their differences supported by meaningful measurements of innovation.

3.3
MEASURING BUSINESS SECTOR INNOVATION – THE OSLO MANUAL

The Oslo Manual, the first edition of the OECD's manual on collecting statistical data on business sector innovation, was published in 1991. Since then a large and an increasing number of countries around the entire world have begun regularly measuring business sector innovation in accordance with guidelines set out in the Oslo Manual. The fourth and current edition was published in 2018 and aims at a global approach to measuring innovation.

Multiple attempts have been made to conduct similar measurements of public sector innovation, but a lack of consensus has led to inconsistent methodologies.

In 2011 the five Nordic countries conducted a joint pilot called Measuring Public Innovation in the Nordic Countries, known as MEPIN. A lesson learned was that it is crucial to adopt questionnaires to a public sector context. The MEPIN project set out to do this, but the pilot questionnaire was quite similar to the one used for measuring business sector innovation.

The Innovation Barometer, initially developed in 2014, draws on principles described in the third edition of the Oslo Manual (2005). Note that additional changes were made between the third and fourth editions of the Oslo Manual, which is also the case for iterations and national implementations of the Innovation Barometer. As a result the current editions of the surveys diverge in several areas, for instance in the classification of innovation types. Although the definitions used in the Innovation Barometer resemble the third edition of the Oslo Manual more closely than the fourth, the key concepts in the Innovation Barometer are described in relation to the fourth and current edition of the Oslo Manual.

The comparisons provided below between the Oslo Manual and the Innovation Barometer are deliberately kept simple, though volumes could be written on the detailed differences between innovation in the public and business sectors. If this topic further intrigues you, delve into the Oslo Manual.

3.4
DEFINITION OF PUBLIC SECTOR INNOVATION AND BUSINESS SECTOR INNOVATION

Key concepts and the methodology used in the Oslo Manual provide the underlying basis of the Innovation Barometer, and the definition of innovation is inspired by the one in the Oslo Manual:

> "An innovation is a new or improved product or process (or combination thereof) that differs significantly from the unit's previous products or processes and that has been made available to potential users (product) or brought into use by the unit (process)."
>
> Oslo Manual 2018: section 1.25

The current and fourth edition of the Oslo Manual captures innovation in the business sector but also in government, non-profit organisations serving households and households. Section 2 provides a generic framework for measuring innovation in various sectors, with section 2.6.1 focusing especially on the general government sector.

For comparison, the definition on public sector innovation used for the Innovation Barometer is shown below in figure 3.2.

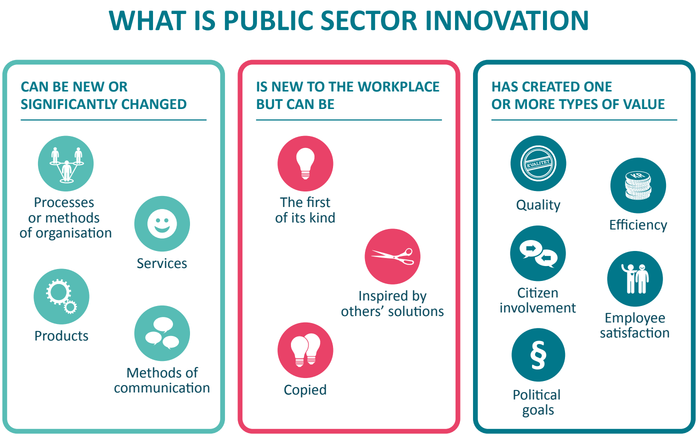


Figure 3.2. Definition of public sector innovation.

The definition used in the Innovation Barometer resembles that in the Oslo Manual in various ways. Table 3.1 sums up the similarities and differences in the definitions. The practical measurement recommendations in the Oslo Manual focus on business sector innovation, which the right-hand column in the table reflects.

Table 3.1. Summary of the differences between the definition of innovation in the Innovation Barometer and the Oslo Manual 2018, fourth edition.

	Innovation Barometer definition of public sector innovation	**Oslo Manual definition of business sector innovation**
Novelty	Innovation must be something **new or significantly changed.** The workplace surveyed must define whether a change is significant. Innovations must be new to the workplace but can be inspired by or a copy of solutions developed and used elsewhere. While private companies patent innovations to prevent competitors from copying them, public sector workplaces are usually at liberty to share innovations with others, and the public sector can benefit from the diffusion of innovation. New solutions and copies regarded equally to emphasise that the value of workplaces successfully implementing others' solutions is just as good (and sometimes even better) as workplaces developing their own solutions.	Innovation must **differ significantly** from the unit's previous products or processes. The surveyed firm must define whether a change is significant based on the definitions, guidance and context provided (section 3.9). Innovations not developed by the firm also included when collecting data (section 3.20). Degree of novelty explored through questions like whether the innovation is new to the world, new to the firm's market or new to the firm only (section 3.56).

Types of innovation	Adjusted version of the four types of innovation in the Oslo Manual third edition: • Products • Services • Methods of communication • Processes or methods of organisation Example of adjustments: “Methods of communication” replaced “Marketing”. External communication in the public sector serves many purposes but cannot be reduced to marketing. Products and services are separated into different categories. Conversely, “Process innovation” and “Organisational innovation” are merged into one category as cognitive testing showed that respondents had difficultly distinguishing between them. Language adjusted to better suit the public sector, e.g. “goods” implies items for sale, whereas “products” has greater relevance.	Third edition includes four types of innovation: • Product • Marketing • Process • Organisational All four types include subcomponents and, notably, product innovation includes both goods and services (2005: sections 155-156). The fourth edition uses eight types of innovation, divided into two overall types: • Product • Business process The third column in the small table inserted table below lists what product and business innovation consist of (section 3.30, 3.39). The inserted table also provides a simplified comparison between the third and fourth editions. Table 3.2 in the fourth edition shows a comprehensive comparison (section 3.45)

<table>
<tr><th></th><th>Innovation Barometer</th><th>Oslo Manual third edition</th><th>Oslo Manual fourth edition</th></tr>
<tr><td></td><td>Product:
• Services</td><td>Product:
• Goods
• Services</td><td>Product:
• Goods
• Services</td></tr>
<tr><td></td><td rowspan="2">Methods of communication</td><td>Marketing</td><td rowspan="3">Business process:
• Production of goods and services
• Distribution and logistics
• Marketing and sales
• Information and communication systems
• Administration and management
• Product and business process development</td></tr>
<tr><td></td><td>Process</td></tr>
<tr><td></td><td>Processes or methods of organisation</td><td>Organisational</td></tr>
<tr><td>Implementation and outcome</td><td colspan="2">By definition an innovation must have created some value to be considered an actual innovation and not merely an innovation process. The fact that the innovation has created value implies that it must have been implemented. The first Innovation Barometer covered four public sector innovation outcomes: Quality, efficiency, citizen involvement and employee satisfaction. As it did not fully reflect the complex political context in which public sector innovation must produce value later iterations included specific political outcomes like “value for businesses” and “value for local communities”, leading to the inclusion of political goals in figure 3.2 and its use in the third edition of the Danish Innovation Barometer.</td><td>Must have been made available to potential users or brought into use by the firm to be considered an innovation (section 3.9.).

The creation of value is an implicit goal of business innovation as well as innovation in other sectors, but not directly included in the definition of innovation (section 2.2).

Inclusion of a comprehensive list of qualitative innovation objectives and outcomes (Tables 8.1 and 8.2). Quantitative measures like sales also suggested as a way of measuring innovation outcomes (section 8.23).</td></tr>
</table>

3.5
WHAT IS THE UNIT OF MEASUREMENT?

An important question is: What entity should an innovation survey focus on? The Oslo Manual defines the unit of measurement as the smallest autonomous legal unit:

> "The **statistical** unit in business surveys is generally the **enterprise**, defined in the SNA [System of National Accounts] as the smallest combination of legal units with "autonomy in respect of financial and investment decision-making, as well as authority and responsibility for allocating resources for the production of goods and services""
>
> (Oslo Manual 2018: section 9.18, in OECD, 2015b: Box 3.1).

The public sector equivalent to the level of enterprise used in the business sector survey is not straightforward. The Innovation Barometer refers to the units of measurement as public sector workplaces, but they can be hard to define precisely. Units or workplaces in complex public organisations might have some degree of autonomy, but not necessarily enough to be considered autonomous. To complicate matters further, autonomy in the workplace varies by country.

Decisions must be based on feasibility and national context – no definitive answers are available about the best approach. Make your decisions transparent so others know what reservations to make about your data and results.

ACTIONABLE ADVICE 3.1
BE PREPARED TO MAKE PRACTICAL DECISIONS

Be prepared to make some practical decisions about what constitutes a public sector workplace. The decisions you need to make will vary by country, so be sure to describe the decisions you make.

- How does one categorise a given workplace as belonging to the public sector or to the business sector? There are clear international standards to define this in the System of National Accounts. The Oslo Manual (2018, section 9.11) suggests defining this by the extent to which the workplace is operating on a market basis,
- What are the minimum and maximum sizes for workplaces? Based on Danish Innovation Barometer experience, it is recommended to omit public workplaces with fewer than three employees from the sample, but the best advice is to test in one's national context. The Oslo Manual (2018, section 9.43) suggests limiting international comparisons to workplaces with 10 employees or more,
- What should be done when the autonomy of a type of workplace is unclear?

If in doubt, try contacting some of the workplaces in question and ask whether answering the survey would be meaningful to them.

USE CASE
DEFINING PUBLIC SECTOR WORKPLACES

For the Danish Innovation Barometer, public sector workplaces were defined using Statistics Denmark's National Accounts definition of public and business sectors and the Business Enterprise Register from Statistics Denmark of all public and business sector workplaces in Denmark. The business register is based on the geographical location of workplaces, i.e. a workplace is defined mainly by having a unique address. Although the business register is a great starting point for defining public sector workplaces, practical decisions still had to be made:

- Since some public sector workplaces are extremely large (1,000+ employees), this is a tradeoff as large workplaces could not be split without deviating from the business register and losing the opportunity to weight the final data to the population.
- Only workplaces with three or more employees were included in the survey.
- Publicly owned enterprises were deemed to mainly operate on a market basis
- Managers could manage more than one workplace, which means including the name of the workplace in the email invitation and at the beginning of the questionnaire helped managers to know which workplace to answer for.

3.6
HOW TO ASK QUESTIONS? AN OBJECT-BASED APPROACH TO INNOVATION

There are multiple ways to ask questions on innovation. A key distinction is whether to focus on a single innovation within a workplace (object-based approach) or on the workplace's innovation activities in general (subject-based approach) (Oslo Manual 2018: section 2.79). Questions on a single innovation can be made highly specific but do not cover all innovation activity within a workplace. Both approaches can be used within a single survey if some questions focus on innovation activity and others on a single innovation.

Object-based approach	Subject-based approach
Innovation as a single, focal innovation; focuses on the phenomena of innovation	Innovation activities; focuses on the actors responsible for the phenomena

The Innovation Barometer mainly takes an object-based approach, as most questions are focused on the workplace's latest innovation and the Oslo Manual (2018: sections 10.11–10.13) suggests using the latest innovation as one of multiple ways of singling out an innovation. Questions on the most recent innovation generate broad knowledge on a wide range of innovations. This creates knowledge about innovation in general and not just on individual innovations.

Only a few questions in the Innovation Barometer are specifically subject based as they focus on innovation activity in general. If your main interest is innovation capacities and activities, you might need to develop additional questions to cover this thoroughly, for example by asking more questions on the specific process that led to the latest innovation. This could include whether goals and solutions changed during the innovation process, how the workplace handled uncertainties and whether the innovation was the result of a conscious innovation activity or a development that happened to fit the definition of innovation.

WARNING!

Public sector workplaces might not think of their innovation as innovation. Consequently, when asking them questions about innovation capacity in general, be aware that their developments might not be considered an innovation. They may be unsure of how to answer when asked about unspecified innovation activities and capacities.

ACTIONABLE ADVICE 3.2
FOCUS ON THE MOST RECENT INNOVATION

- Asking questions about a workplace's most recent innovation creates broad insight into many different innovations, including simple solutions, innovations copied from others and innovations with unintended outcomes. If the focus is instead on the most successful innovation or on the innovation a workplace is most proud of, it skews the overall picture of innovations toward more prestigious projects, making it resemble the total variation in public sector innovations less.
- Focusing on the most recent innovation has the added benefit that respondents are more likely to remember more details about recent processes.

PART 4

HOW TO FIND RESPONDENTS – AND REACH THEM

PART 4 IS DESIGNED TO HELP YOU:

- DEFINE THE PUBLIC SECTOR IN YOUR COUNTRY
- FIND YOUR WAY TO A DATA SOURCE ON PUBLIC SECTOR WORKPLACES
- DRAW A SAMPLE OF WORKPLACES
- MAKE A STRATEGY FOR REACHING A RELEVANT PERSON WITHIN EACH WORKPLACE
- MAXIMISE YOUR RESPONSE RATE
- ASSESS WHETHER THE SURVEY IS REPRESENTATIVE

4.1
IDENTIFYING RESPONDENTS

If you're reading this, you are most likely a pioneer. You are considering gaining new ground by conducting the first truly representative national survey of public sector innovation in your country. As a forerunner, expect to encounter strenuous and surprising challenges on your path to new horizons. Also, expect to make some mistakes – or at least not to get a perfect first result. That is the essence of pioneering work. Fortunately, after reading this part, your surprises will be fewer as your backpack will be full of knowledge on the many challenges other pioneers have encountered.

Finding and reaching your respondents – the people who are going to provide the data the Innovation Barometer is built on – is possibly the hardest and most time-consuming part of measuring public sector innovation. Overall, finding respondents is a **tradeoff** between **resources** and **data quality**. The more resources available, the more you can ensure a higher response rate and more representative data, increasing the data quality and the legitimacy of the survey overall. However, if resources are limited you might have to make do with a lower response rate and less knowledge about who responded to the survey and who did not.

FEWER RESOURCES:
Low response rate
+ non-representative data
= lower data quality and legitimacy

MORE RESOURCES:
High response rate
+ representative data
= high data quality and legitimacy

Ideally you want:
a. A sample of public sector workplaces that represents all public sector workplaces (the population) as closely as possible
b. One person within as many sample workplaces as possible to answer the survey (a high response rate)
c. The answers to be representative of all public sector workplaces

The essential question left to answer is how to maximise these steps with the resources and options available to you.

The logic of why each step is important is better understood working backwards, as shown in figure 4.1 below. The answers given in the survey must be representative of all public sector workplaces so that when you use the statistics, you are not just representing workplaces that answered the survey, but the public sector as a whole. That is, you want to assume that if the responses show that eight out of ten workplaces have introduced an innovation, this share is also true for those public sector workplaces not directly represented in the survey.

Critics will also have a harder time dismissing your results if your methodology is solid.

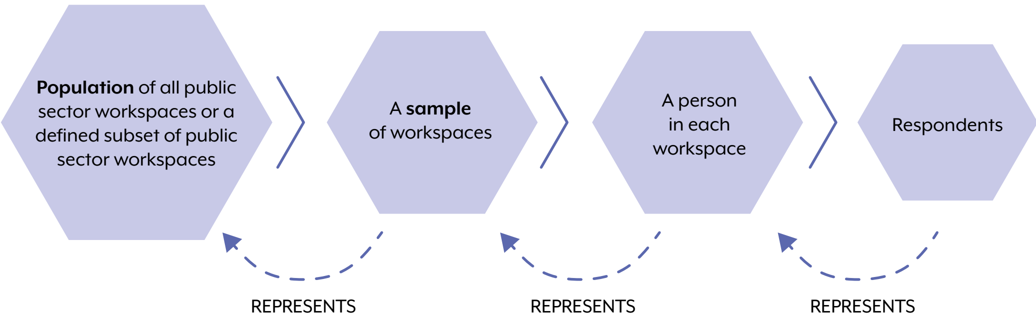


Figure 4.1: Depiction of the logic of moving from a population of public sector workplaces to respondents and back again. A sample of workplaces is drawn from the population and the survey is sent to one person (the manager) within each workplace. Only some of them will fill out the survey, the respondents. To ensure representation you need to know to what extent each step represents the former.

ACTIONABLE ADVICE 4.1: **ESTABLISH YOUR TEAM**

If you are not experienced in survey methodology, collaborate with someone who is. You will need their specialised knowledge to transform the information in the following pages into an actual data collection process. Typically, people with this knowledge can be found in your national statistical office, research institutions, private consultancies and research/analysis units in larger public organisations. The titles might include analysis, data, research or development and they often have a background in social sciences with a specialisation in quantitative research.

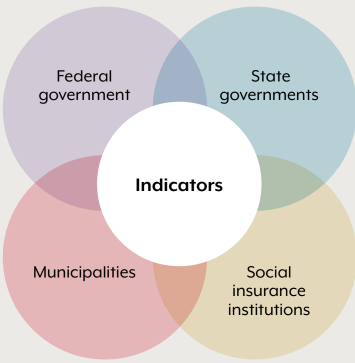
4.2
STEP 1: DEFINE THE PUBLIC SECTOR IN YOUR COUNTRY

Although you probably have an intuitive understanding of the public sector in your own country, you need to make the definition of the public sector clear to yourself and others. As described in part 3.5, public sector workplaces are not always easy to define, and the same holds true for the public sector in general. Defining the public sector early on will help you know what to look for when searching for a data source and making practical decisions on what to include or not. In Part 5 on adapting the questionnaire, we advise you to test in your national context. These tests can also provide practical corrections to your public sector definition. If a respondent disagrees about being defined as part of the public sector, the lines may need to be drawn elsewhere.

A clear definition of the public sector is crucial when doing international comparisons. The size and functions of the public sectors in different countries vary greatly and being aware of these variations is the first step in making meaningful comparisons of countries where the public sectors differ.

USE CASE
DEFINING THE PUBLIC SECTOR

In the pilot for the German Innovationskompass the public sector was defined as the federal government (including special foundations), state governments, municipalities and associations of municipalities (including their facilities such as hospitals), and the budgets of social insurance institutions, e.g. statutory health insurance funds or pension insurance institutions.



Project partners

4.3
STEP 2: FIND A DATA SOURCE

Three possible options for finding your data source are described below.

ACTIONABLE ADVICE 4.2:
BE TRANSPARENT

Carefully describe what you have done in every step so that others know what reservations to make when using your data or making comparisons between countries. The data sources you rely on are not always similar, so transparency is essential.

Option A: Collaborate with your national statistical office

To find potential respondents in the first place, you need a data source on public sector workplaces. That data source should ideally represent the full population of public sector workplaces to ensure representative data. If your data source includes additional information about the workplaces, for example number of employees, type of activity or location area, these background variables can be used to weight the final responses to represent the population more accurately in terms of those variables.

Your national statistical office is most often the natural starting point for finding respondents and reaching respondents. They are likely to have a registry of public sector workplaces and will have the knowledge on how to conduct a survey. Collaborating with your national statistical office is also a way to legitimise your survey.

"Many countries, including in the EU, are obliged to maintain a business register covering both business and public administration. These business registers are used for many purposes, e.g. as a base for drawing survey samples, and can be an important source for finding your respondents. Other sources may also be available in your statistical office, e.g. registers on educational institutions, local administration units and public health institutions , or statistics on public finances or national accounts. So, start by taking a look at what statistics are available online from your national statistical office that cover the parts of the public sector that you are interested in for your survey."

Helle Månsson, Statistics Denmark

Option B: Using another central data source

If collaborating with your national statistical office is not an option, put in sufficient time and resources to research if anyone else has an existing data source on public sector workplaces that you can use. Governmental offices or organisations for local government are likely to have some usable (member) databases, and you can also consider universities or other research institutions. You can also research what data sources other surveys on public sector workplaces have used or are currently using. Gaining access to a data source is another great opportunity for strategic collaboration, as described in part 1.

ACTIONABLE ADVICE 4.3: SET ASIDE TIME AND RESOURCES TO IDENTIFY THE ACTORS WHO CAN LEAD YOU TO A DATA SOURCE

You do not have to cover the public sector in its entirety - the population can be defined as a certain part of the public sector or as a single organisational level (as for instance governmental offices only). Make sure to be transparent about what sectors, branches and types of activities are included in the survey.

The list of possible data sources includes but is not limited to:

- [ ] Your national statistical office
- [ ] Organisations for local or regional government
- [ ] Central government offices
- [ ] Universities and research institutions
- [ ] Private research agencies

USE CASE
USING SELF-REPORTED LOCAL AND REGIONAL GOVERNMENT MEMBER INFORMATION

To obtain a list of local and regional level workplaces for the Norwegian Innovation Barometer, the Norwegian Association of Local and Regional Authorities called on its own publisher, which specialises in maintaining, proofing and supplying data on municipalities and regions. However, its data rely on self-reported contact information on managers and the information is not always complete or up to date. Various registries and data sources, including municipal and regional websites, were used to supplement the original lists.

The data quality of the lists varies greatly from one policy area to another. In education and upbringing, the lists were almost complete, just as the quality was also quite high in health and care. Obtaining contact information on managers within the social services proved difficult as it is publicly unavailable. Consequently, the Association had to rely on the central administration of social services to forward the survey to the relevant managers.

Option C: Rely on administration

If you are unable to find a useful existing data source on public sector workplaces, consider collaborating with various organisations such as municipalities, that can provide data on their workplaces. With a good research design, you can use information from these organisations to present statistics on the public sector in general.

You need to give detailed instructions to the organisations on what constitutes a workplace to make sure they are defined in the same way in different organisations (more on this in part 3).

It is preferable if the organisations will let your organisation contact the respondents yourself, as this will make managing the data collection process easier. Another option is to rely on administrative units to forward the survey to public sector workplaces as instructed. This makes data collection harder as non-response might occur on two levels: the workplace fails to answer the survey and the administration fails to forward the survey.

Make sure someone on your team knows the methodological consequences of two-tier sampling, for example in relation to weighting data and statistical uncertainty in working with a limited number of overall units.

4.4
STEP 3: DEFINE THE SURVEY POPULATION

After identifying your population, you can go two ways: either carry out a survey for the total population or for a smaller sample. If your population is small, e.g. less than 500 workplaces, it is advisable to include all of them. If your population is large, using a sample means fewer people have to spend time answering the survey and fewer resources will be needed to contact respondents. Statistical representation of your population can be achieved by drawing the sample randomly from your data source.

If your population is believed to be homogeneous for certain parameters (e.g. type of activity) you can still draw a sample, assuming that it will be representative of the rest of the population. This may be refined further by grouping the population into strata: If background data, e.g. number of employees are available, the population can be stratified into size classes (e.g. less than 10 employees, 10–19 employees, 20–49 employees) and then samples can be drawn from each stratum. This ensures that the survey population consists of workplaces in all the different size classes. If other variables like the type of activity, e.g. nurseries, elderly care, hospitals and public administration is available further refinement is possible, allowing you to cross size-class by type of activity and draw the sample from each of these strata.

Another option is to oversample or sample all workplaces in some groups/strata to make sure you get enough answers for groups of special interest. Depending on your strategy and communication plan, this may involve groups where you plan to do some separate analysis to communicate targeted results. For non-random sampling, make sure to weight your final data to correct the skewness created.

A relatively large sample compared to the population provides more statistical certainty, allowing a more detailed statistical analysis, depending of course on the response rate. But the survey also becomes more expensive. If mostly interested in the overall distributions of each question, you can manage with a relatively smaller sample, although this decision should be made with someone knowledgeable about surveys to make sure the sample fits your needs. To sum up, sample size is important but knowing who is in the sample is more important.

ACTIONABLE ADVICE 4.4:
SPEND YOUR RESOURCES WISELY

Concentrating your resources on gaining a high response rate in a small sample ensures better data quality than working with a larger sample and obtaining a lower response rate, even if the final number of responses is similar.

USE CASE
COLLABORATING WITH THE NATIONAL STATISTICS OFFICE

The population data source used in the Danish Innovation Barometer is Statistics Denmark's database on public and private sector workplaces (excluding military workplaces). The public sector workplace registry includes about 15,000 workplaces with at least three employees (including manager). It also includes variables about each workplace, such as type of activity, the name and address of each workplace and the number of employees.

The workplaces are defined by geographical location, which means that large entities like hospitals or administrative centres are registered as one workplace, though they might realistically function as several workplaces sharing one address. The registry relies on, for instance municipalities to self-report when workplaces are established, modified or closed down. Consequently, data are not always up to date.

Even though the registry was a good starting point, decisions had to be made about how to handle out-of-date information but also workplaces that did not fit into the categories for types of activity or that had employees with no physical workplace.

Using type of activity and workplace size (number of employees), an initial sample comprising about 7,000 public workplaces was created, with deliberate oversampling of smaller workplaces and workplaces in types of activities with few workplaces to ensure an adequate absolute number of workplaces in these groups (stratification). The sample size was quite large to enable detailed analysis within subgroups, e.g. for specific types of activities.

USE CASE
INNOVATION CAPACITY IN PUBLIC SECTOR ORGANISATIONS

The Department of Innovation and Best Practices of the Greek Ministry of Interior conducted a survey on innovation capacity in public sector organisations that implement governmental policy, collecting data at three levels of governance: Central, regional and local.

A population of 700 organisations was selected as they implement core governmental policies, whereas a large number of smaller organisations were excluded from the initial population. Data on the 700 organisations were sourced from the national repository for the public sector, which is operated by the Ministry of Interior.

The questionnaire, designed to be applicable for different types of organisations, was sent to higher-level managers, with an invitation by the Minister of Interior to complete it. Many of the organisations that did not initially reply had a common trait, they were members of the innovation network facilitated by the Ministry of Interior. After network representatives were contacted personally, responses from higher-level managers increased.

innovation.gov.gr

4.5
STEP 4: CONTACT YOUR RESPONDENTS

To enable a workplace to participate in the survey, you need to know who to contact. This may sound easy, but do not underestimate how time-consuming finding and validating contact information is, even if you are lucky enough to have a data source that contains contact information.

WARNING!

Do not underestimate the task of finding and correcting contact information for managers for each workplace in the sample. Be sure to allocate enough time and resources for this step as it can take longer than anticipated.

The Innovation Barometers in the Nordic countries exclusively used web-based surveys to collect data and sent invitations by email. However, the approach described here can be modified to fit other methods, including invitations by letter.

The ideal person for answering the survey within a workplace is the one who knows the most about its innovation activity. If you do not know who that is, the second-best person to contact is the manager, who either likely knows enough to complete the survey or knows who can. Including a question about who answered the survey makes it possible to analyse whether survey results differ when forwarded to someone besides the manager.

To find contact information use registries when available, search online or contact workplace administrative units.

ACTIONABLE ADVICE 4.5:
CONTACT PEOPLE DIRECTLY

Contact the manager of each workplace directly via their personal email address (firstname.lastname@fictitiousmunicipality.org). Contacting a specific person clearly defines who is responsible to act on the survey and works better than writing to a generic or administrative email address (info@fictitiousmunicipality.org).

USE CASE
OUTSOURCING THE TASK OF FINDING CONTACT INFORMATION TO AN EXPERT RESEARCH AGENCY

In 2018 the Norwegian Association of Local and Regional Authorities hired a private research agency, Ipsos, to find contact information on local and regional workplaces in the five policy areas the Norwegian Innovation Barometer covers. In the 2020 data collection even more time was spent on this task, with about 40 person days devoted to providing good-quality lists of physical addresses and relevant email addresses. This ensured representation in all policy areas in the survey for all municipalities and regions and also in diverse types of workplaces.

Obtaining direct contact information for managers has become harder since the introduction of the European General Data Protection Regulation, which protects people's personal data. The only way to reach some managers involved writing to a central administrative email address and relying on them to forward the emails.

To make the task of forwarding emails more feasible for central administrations, a cap on the number of emails sent to the same central email address was imposed and varying according to the size of each municipality or region. As a result, some groups are underrepresented in the survey compared to the original data source used.

ACTIONABLE ADVICE 4.6:
TAKE PRECAUTIONS WHEN WORKING WITH PRIVATE CONSULTANCIES

- If collaborating with a private consultancy on data collection, it is important to match expectations. Finding information on respondents takes tremendous work, and the hours needed can be difficult to estimate. Take into account this uncertainty when entering into a contract.
- Quality check each step of the consultancy's work, even if you have worked with them before, especially if the task is proving to be difficult.
- Be aware of national and international regulations of how private consultancies process respondents' personal information.

The email invitation can be further personalised to include the names of the manager and the workplace. This will improve response rates. The invitation's wording can also be adapted to match the specific workplace. Including the name of the workplace helps the manager to focus when answering the survey and avoids confusion when the boundaries definition of the specific workplace do not completely match the manager's perspective.

ACTIONABLE ADVICE 4.7:
PERSONALISE CONTACT

If you have the information - or are willing to spend resources on finding it - personalise the email invitation by:

- Including the manager's name
- Including the name of the workplace
- Including number of employees in the workplace
- Customising wording to specific types of workplaces

An example is shown in Appendix 3. Email invitation sent to respondents who are asked to answer the Questionaire.

USE CASE
PERSONALISING EMAIL INVITES INCREASES RESPONSE RATE

Personalising email invitations might not sound important, but it helps increase the response rate. In the first round of the Danish Innovation Barometer, email invitations were sent to administrative email accounts when no personal email address could be found. This produced a response rate of 33%. In the second round the response rate improved to 50% by personalising the email invitation and limiting the sample to workplaces that could be directly contacted.

A private research institute was hired to look up information on name, professional email address and phone number for the manager of each workplace in the sample and to check if the name of the workplace was correct. About 2,000 workplaces were removed from the sample in this process as they no longer existed or the contact information was impossible to find.

People contacted to take part in the survey were addressed by name and their workplace was included in the invitation. Two email reminders were sent. For sectors and types of workplace activities with a low response rate, some respondents were also contacted by phone. The respondents were encouraged to forward the invitation email/reminders to someone else within the workplace if another person knew more about the workplace's innovation activities.

FEWER RESOURCES	MORE RESOURCES:
info@municipality.org	first.last@municipality.org
Dear manager at unspecified workplace	Dear Firstname Lastname at specific workplace

The response rate can be influenced by the impression you create as the sender. When people know the organisation behind the survey and trust that the results will be used constructively and respectfully, they are more likely to respond. A good communication strategy can also help increase the response rate. If people know the survey is coming they will be more likely to answer it.

Ideally, each respondent should be invited to participate via a personal response link. This allows you to see exactly who has replied and to send email reminders exclusively to non-respondents. Knowing who has answered the survey is also necessary for analysing whether answers are representative.

Respondents can be phoned after a few email reminders, but this can be time-consuming and expensive. However, you could decide to strategically boost the response rate in groups with a low response rate by phone contact.

WARNING!

If you do not send your respondents a personal response link or key, you will not be able to send them reminders to answer the survey. Also, you will not know exactly who replied when the data collection is complete.

ACTIONABLE ADVICE 4.8:
DO NOT HESITATE TO SEND REMINDERS

Do not be afraid to use email or phone reminders to encourage people to answer the survey. Surprisingly, many respondents will forget or ignore the first email invitation but will respond to the second or third.

4.6 CONSIDER ESTABLISHING A PANEL OF RESPONDENTS FOR REPEATING THE SURVEY

If you are planning to repeat the survey, consider having a panel of respondents, which has several advantages. The time involved in finding and reaching respondents will be reduced as you have their contact information. You will have identified a part of your population and know their characteristics. When respondents answer the survey for a second or subsequent time, they will be familiar with definitions and know where to find the data in the organisation, which increases the likelihood of them responding.

When retaining contact information in the European Union to reuse in a subsequent survey, the respondent must be in agreement in order to comply with the European General Data Protection Regulation. It is important to state that the respondent will only be contacted for a new public innovation survey. It is also important to state how long the contact information will be kept and when the next survey will be sent. In general, the more relevant information you can provide the respondent the better. Also, think about how the respondent can be motivated, e.g. by sending them the survey results and inviting them to (digital) seminars on the outcomes.

Having a panel will not stop you from having to find new respondents, for example, if people leave their current position. However, the main benefits of maintaining a panel are that you will save time and have more experienced respondents.

4.7

STEP 5: ARE THE ANSWERS REPRESENTATIVE?

When the data collection is complete, statistical analysis will show if the basic characteristics of responding workplaces match the population of workplaces. When this is the case, then the survey is representative of the population. To do this analysis, you need some background data on the full population to compare with the respondents, (e.g., workplace size, location or type of activity), which could be in the original data source or compiled when looking for contact information. Using answers only from the survey is not a solution, as the data for non-respondents will not be available.

ACTIONABLE ADVICE 4.9:

MAKE WEIGHTING DATA AN OPTION

Decide early on if you want to be able to weight the data. You can then decide to find or fact check variables for weighting while searching for managers' contact information.

Variables for weighting data

- [ ] Workplace size
- [ ] Sector
- [ ] Geographical location
- [ ] Service area (type of activity)

If the answers do not match the population, by accident or by deliberate sampling, then answers from underrepresented groups can receive a higher weight, and overrepresented groups can receive a lower weight when doing the analysis. The same variables used for checking if the responses are representative can be used for weighting the answers.

If you end up with a non-representative Innovation Barometer, do not despair. You will still have better insight into public sector innovation than you had before.

WARNING!

Weighting data is a way to compensate for entities that did not respond to the survey, making it possible to analyse the total population, e.g. to be able to calculate the percentage of innovative workplaces in the population. You will never know if there is something you did not measure which separates the respondents from the non-respondents. For example, innovative workplaces may be more likely to reply to a survey on innovation. Some methods can shed light on this issue, for example, comparing replies from those who answered promptly to those who replied only after several reminders. Doing a non-response survey is another way to find out if there are differences between the entities that responded and those that did not.

The respondents might also choose to answer the survey in a way that sheds a positive light on their own workplace. These basic issues are inherent in survey science and are in no way unique to surveys on innovation.

4.8
AN OVERVIEW

You need …	Ideally you should …	If your resources or options are limited …
A data source on public sector workplaces (a sample) that represents all public sector workplaces (the population) as closely as possible; the number of workplaces in the sample is not as important as whether they represent the population as a whole	• Collaborate with the national statistical office • Put in the time and resources, mixed with a bit of luck, to find a great data source	• Use a subset of the public sector • Use a unit other than workplaces • Accept to not know much about the population
To invite every workplace in the sample to be part of the survey and for as many workplaces from the sample as possible to answer the survey (high response rate)	• Find name and contact information on someone who can answer questions about the workplace's innovation activity • Appear a trustworthy sender • Personalise invitations • Send email reminders • Use phone reminders or phone interviews as a follow-up to non-respondents	• Rely on others to forward the invitations • Use generic invitations • Accept a low response rate
The answers to be representative of the population	• Weight data by known background knowledge, e.g. workplace size, location and type of activity • Use phone reminders or phone interviews strategically as a follow-up to underrepresented non-respondents	• Do not claim that the answers represent the population

PART 5

HOW TO ADAPT THE INNOVATION BAROMETER QUESTIONNAIRE

PART 5 IS DESIGNED TO HELP YOU:

- TRANSLATE EXCISTING QUESTIONNAIRES TO YOUR LANGUAGE AND NATIONAL CONTEXT
- HANDLE QUESTIONNAIRES IN MULTIPLE LANGUAGES, IF NEEDED
- ADAPT QUESTIONS TO YOUR LOCAL AND STRATEGIC CONTEXT
- DEVELOP NEW QUESTIONS
- TEST THE QUESTIONNAIRE
- CONDUCT A PILOT STUDY

5.1
FINDING THE RIGHT BALANCE WHEN ADAPTING THE QUESTIONNAIRE

This part covers how to test the existing Innovation Barometer questionnaire in your national context, select what questions to ask and how to translate pre-existing questions. You may also find this section useful if you test and adapt questionnaires you have found elsewhere.

Adapting questionnaires involves striking a balance between only making a few changes to ensure international comparability and managing your resources on the one hand, and adapting it to fit your strategic, national and cultural context on the other.

The Innovation Barometer questionnaire is presented in Appendix 2 with indications of selected core questions that are recommended if international comparability with existing data is a priority.

FEW CHANGES:
+ International comparability
+ Takes few resources and little time
+ Tested in other countries

SIGNIFICANT CHANGES:
+ Fits your strategic goals
+ Fits your cultural context

ACTIONABLE ADVICE 5.1:
TRUST THAT YOU ARE THE EXPERT ON WHAT CHANGES YOU NEED TO MAKE

The Copenhagen Manual cannot provide definitive answers on how much you need to adapt the questionnaire. You are the expert on your country and are the best person to decide on what adaptations are needed. Try to achieve a balance between necessary changes and changes that would be nice. Consider which questions from existing Innovation Barometers you want to be able to compare your data with – and use this to guide your changes. Significant changes might be necessary if adapting the questionnaire to a country that differs greatly from the Nordic countries, where the Innovation Barometer was first developed.

USE CASE
THE NORDIC INNOVATION BAROMETER

What does public sector innovation look like in the context of public schools, libraries and hospitals in the Nordic countries? How innovative are the Nordic public sectors, and who collaborates with public sector workplaces on innovation?

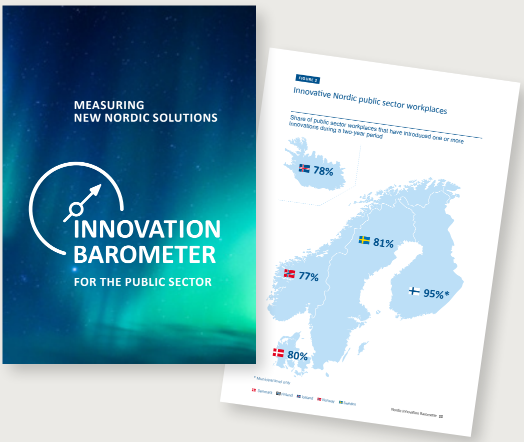
The answers to these questions were provided by the nine organisations responsible for the five Nordic Innovation Barometers when they joined forces in 2019 to present key results from the Innovation Barometer for each of their countries in a joint publication.

Results were astonishingly similar, with four out of five public sector workplaces in all countries introducing at least one innovation over a two-year period. Similarly, four out of five innovations were carried out in collaboration with external partners, e.g. private companies, citizens, non-governmental organisations or other public sector workplaces.

The Nordic countries were able to present the results in this manner because they all used a similar approach. The overall definition of public sector innovation is close to identical in the five countries and many questions are the same. However, some results were challenging to present as some answer categories varied and not all of the questions presented were asked in all of the countries.

The Nordic comparisons shed new light on national results by adding the context of other Nordic countries, sparking new national and international interest in the results.

innovationbarometer.org/nordics



5.2
TESTING THE QUESTIONNAIRE

The most important part of adapting the questionnaire to your local context is to test the questions and the questionnaire with public sector employees who are not innovation specialists. To use your resources efficiently, start by having a few people (e.g. co-workers, networks and family) look at a rough translation of an existing Innovation Barometer questionnaire (innovationbarometer.org). See if they understand the questions and if they would be able to answer them. In addition, ask if the answers to these questions would be relevant in the context of their respective workplaces. This quick feedback can provide a great starting point for selecting what questions to ask, adapting the questions to your local context and fine-tuning the translation of the original material.

WARNING!

Do not get in your own way. Make the respondent opinions and feedback on the questions the front and centre of your attention in the ongoing development of your questionnaire. To put it bluntly: Respondent opinions on the questions are more important than your own ideas about what the questions should be like. If respondents do not understand the questions as intended, the results will be of little or no use.

Once the questionnaire has been adapted, doing a systematic pilot study is also recommended. In a pilot, the draft questionnaire is tested on a small sample of respondents or a group of people highly similar to your respondents. Their qualitative feedback can be used to make changes to questions, and the quantitative results will provide an idea of what the final results may look like – giving you the opportunity to make changes if it becomes evident that something is missing or not working. A pilot will also help to test that the survey software for contacting respondents and collecting answers is working as expected. If you are not familiar with survey methodology, collaborate with someone knowledgeable on how to conduct a pilot study. Figure 5.1 provides a visual summary of the steps involved in testing the questionnaire.

Any testing is better than no testing. If you do not have the resources to make a formal pilot, make sure to prioritise informal testing of the final questionnaire.

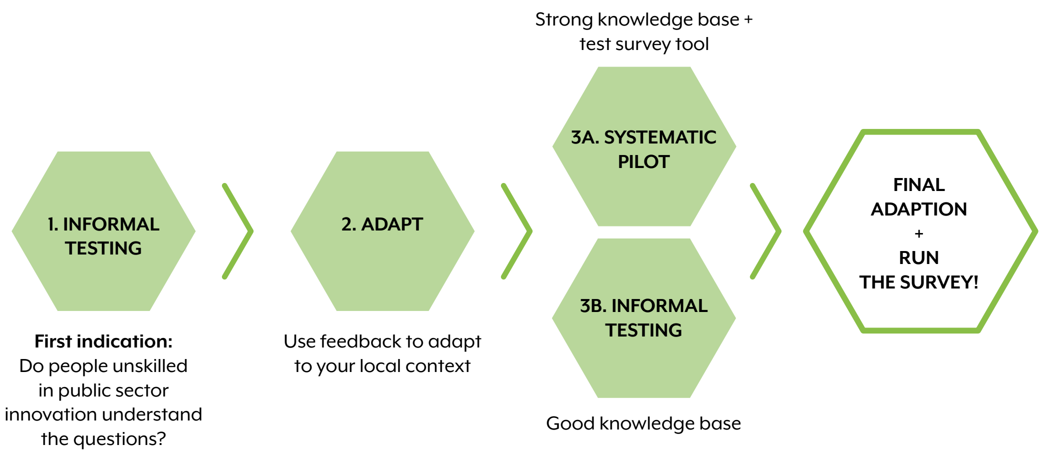


Figure 5.1. Steps involved in testing the Innovation Barometer questionnaire.

USE CASE
PILOTING IN COLLABORATION

In New Zealand, Creative HQ's upcoming NZ Innovation Barometer pilot will provide senior public leaders with interactive data highlighting their agency's strengths and areas for improvement. As the barometer is intended for organisational learning, the data collection method will be appropriately conducted in collaboration with the human resources departments of the participating agencies. These departments will assist both in designing questionnaires likely to engage staff and in executing a random sampling approach intended to reach 10-50% of staff through a one-off 30-minute survey.

Creative HQ has partnered with Victoria University of Wellington to design the survey and to develop the data collection method to ensure academic rigour and adherence to government data security standards.

In addition the pilot has been endorsed by the New Zealand's Digital Government Leadership Group, which comprises twelve central government agency chief executives. This mandate provides credibility and relevance in advance to the data collection that pilot studies typically otherwise need to earn.

5.3
SELECTING QUESTIONS

Depending on your strategic goals (as discussed in Part 1) for the Innovation Barometer and your national context, some questions might be of more or less importance than others. Questions can be dropped, added and modified to fit your needs, but be aware that modifying and developing new questions will add more work and limit international comparability. Keep your strategy and audience in mind when making these decisions.

ACTIONABLE ADVICE 5.2:
THINK TWICE BEFORE MODIFYING QUESTIONS AND ANSWER CATEGORIES

Questions can be modified in multiple ways. Minor modifications include changing the exact wording to make it more comprehensible while keeping the meaning intact. It is often necessary to modify answer categories, as they may not fit your national context. For example, there might be specific national programmes for financing innovation that you want to add as an answer category to a question on funding innovation. Existing answer categories might, on the other hand, be irrelevant to your respondents and can be omitted. Use the testing of the questionnaire to decide what answer categories are relevant to your respondents.

WARNING!

International comparability will often be preserved with minor modifications like these, but larger modifications can compromise it. Larger modifications include asking questions on the same subject but changing their meaning and the underlying logic of the answer categories to such an extent that comparing the answers directly is no longer meaningful. Keep the comparability of questions in mind when deciding on what modifications to make.

You might want to omit questions that are not relevant. Dropping irrelevant questions will generally reduce the burden on respondents as filling out the questionnaire will not take as long.

It is strongly recommended that you keep some core questions to permit international comparisons. In figure 5.2 below, the light green boxes contain the core questions. The questionnaire, which is available for download on innovationbarometer.org, also includes the full questions and indicates core questions with the same colour. Keeping the core questions intact increases the chance of making relevant international comparisons.

Keep in mind that some questions are logically necessary in order to ask and/or analyse other questions. For example, respondents in workplaces with no successful innovations must be identified if you want to analyse whether their organisational culture differs from workplaces with successful innovations.

Be sure to ask the core questions in the same order as described in figure 5.2 because it influences how respondents answer.

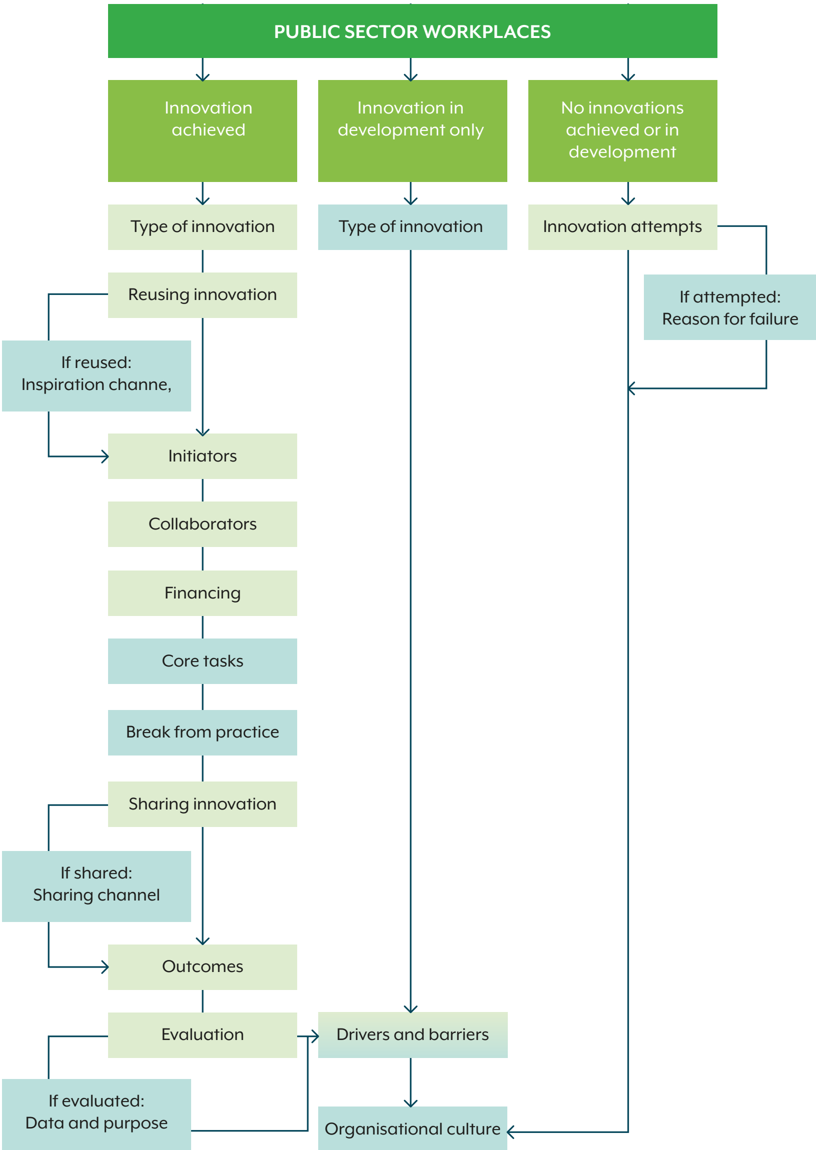


Figure 5.2. Flow chart of the existing Innovation Barometer questionnaire with core questions in shaded green

ACTIONABLE ADVICE 5.3:
DEVELOP NEW QUESTIONS IF NECESSARY

Depending on your strategy, you might want to add additional questions on themes that are important to you.

- [ ] If new questions are developed, testing them on potential respondents is essential.
- [ ] Strive not to make the questionnaire too long. For each new question added, a large number of respondents will have to spend time answering it, increasing the risk that they will give up on answering the survey.
- [ ] If multiple themes and a large number of new questions are important to you, consider focusing on certain themes and saving others for the next round of data collection.
- [ ] Limit the number of respondents who have to answer additional questions by conditioning questions on other questions when applicable. For example, respondents whose workplaces have not evaluated their latest innovation need not answer further questions on how they conducted the evaluation.
- [ ] It is best to ask your additional questions on the latest innovation in continuation of the other questions on this topic. Additional questions of a completely different nature should preferably be placed last to avoid influencing how respondents reply to core questions.

Remember to share your new or adapted questions with the Innovation Barometer community, as other countries might want to reuse them. Fast track the availability of your public sector innovation questionnaire to an international audience by submitting it to coi@coi.dk for rapid publication on innovationbarometer.org.

5.4
TRANSLATING THE QUESTIONNAIRE

Finding the right words and phrases to translate the questionnaire can be difficult. Ideally, you want someone on your team who is highly proficient in English and the target language(s). Having a team member who is knowledgeable about specific innovation terms in various languages is also advantageous. If you are working with an external translator, be aware that they might lack specific subject knowledge. Since high-quality professional translations at native-speaker level are time-consuming to produce, be sure to set aside enough time and resources for this task. Use the OECD survey on private sector innovation as a resource for translating specific terms if it has been conducted in your country.

Testing the translated questionnaire(s) allows you to monitor whether the new phrasing is meaningful to respondents, but it will not tell you how accurate the translation is in the first place. It will not always be possible to provide a translation that is both accurate compared to the original questionnaire and meaningful to the respondents. If that is the case, prioritise the reactions of respondents and exercise caution when using the questions for international comparisons.

When translating the questionnaire, it is vital to use consistent terminology. For instance, do not use “private businesses” and “private enterprises” interchangeably; decide on one term and use it consistently. This eliminates a source of confusion for respondents and makes analysing and communicating the results easier and more accurate.

ACTIONABLE ADVICE 5.4:
BEAR IN MIND THAT MULTILINGUAL QUESTIONNAIRES REQUIRE EXTRA WORK

Countries with more than one official language might require that you translate the questionnaire into multiple languages. It will be easier for respondents to answer the questionnaire if they can use their first language. Most modern survey software has a built-in option for creating multilingual surveys that allow respondents to select their language of choice. Your initial contact with respondents can be in the language most commonly used in their area or in all the languages they might prefer.

When conducting a multilingual survey, it is vital that questions are as similar as possible in each language to avoid the risk that the answers given depend on the language used.

Translating the questionnaire involves not only finding the right terminology in another language, but also ensuring that the questions and answer categories make sense in your national context. For instance, do not ask about collaboration with regional workplaces if your country does not operate at regional level. There may also be differences in the number of employees, for example, or the size of the average municipality, population and/or area to be considered. Again, try to find pragmatic solutions that fit the respondents' real world. Be sure to also take cultural norms into consideration when determining how formally or informally you address respondents.

APPENDIX

APPENDIX 1
PREPARATION CHECKLIST

APPENDIX 2
INNOVATION BAROMETER QUESTIONNAIRE

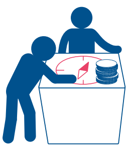
APPENDIX 3
EMAIL INVITATION TO RESPONDENTS WHO ARE ASKED TO ANSWER THE QUESTIONNAIRE

APPENDIX 4
LITERATURE

APPENDIX 1
PREPARATION CHECKLIST

The preparation phase of an Innovation Barometer includes planning and initial work that we recommend be completed or at least well on its way before data collection begins as this greatly increases its potential value.

For the sake of clarity, the checklist divides preparations into three sets of different processes and considerations. Although many of these steps are interdependent and may overlap at one point, each one nevertheless requires separate attention. With an emphasis on various steps that intersect, the checklist also proposes an overall sequence of events.



1. Strategy and resources

Develop a clear strategy for what you want to achieve with your Innovation Barometer. Define and prioritise your main purposes.

Form partnerships. Look for partners with whom you can plan, implement and use your Innovation Barometer. Always consider collaborating with your national statistical institution.

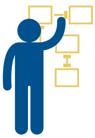
Seek dialogue with sceptics. In the event someone expresses concerns about how the results will be used, assume that these sceptics have valid reasons and invite them to give advice on how to proceed.

Maximise use of data. Decide early on to make data openly accessible and consider the technical aspects of how to share data and with whom.

Include all costs in your budget. From the beginning, set a budget that includes all types of costs, including communication, for example.

Integrate communication. Since communication is just as important as good data, integrate it into the project mandate and budget. Develop a communication plan that allows all relevant audiences to get the full benefit of your new data and analytics.

Establish a project team with a wide variety of skills. Ensure that your team has all the necessary skills to carry out survey design, data collection, analyses, communication, project management, partnership building and strategy development. Seek outside assistance when required.



2. Detailed planning

Find a data source to reach respondents and update necessary contact information early on. So far, the countries doing this for the first time have been surprised by how utterly time-consuming it is!

Decide whether results should be representative and keep this goal in mind in every step of the data collection.

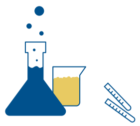
Draw a sample or use the full population as your sample. Stratify the sampling if necessary and possible. Be sure to draw a sample that allows the analysis you plan.

Find contact information on respondents and further personalise first contact with respondents to increase the response rate. Allocate ample time and resources for finding and correcting contact information and other information.

Enrich your sample. Consider the possibility of combining your new data with existing quantitative data (survey or register) to further increase the value of your Innovation Barometer.

Decide whether you want to establish a panel to ease subsequent data collections.

Research for innovation case studies that can help you can communicate your later quantitative findings. This process is time-consuming, so it is advisable to make an early start.



3. Adapting and testing

Test the questionnaire informally with public sector employees who are not innovation specialists. Start by having a few people (e.g. co-workers, networks and family) look at a rough translation of an existing Innovation Barometer questionnaire.

Choose what to compare. When adapting the questionnaire, balance valuable international comparisons against the need for adaption. If international comparisons are important, they must be decided on at an early stage.

Adapt the questionnaire. Adjust the questionnaire, if needed, to better suit your national agenda and specific data needs. Keep as many Copenhagen Manual core questions as possible.

Translate the questionnaire. In addition to finding the right terminology in the target language, ensure that the questions and possible answers fit the structure of your country's public sector and cultural norms. Seek pragmatic solutions that fit the respondents' real world.

Do a systematic pilot test. If resources are tight, do further informal testing instead.

Communicate about your data collection immediately. Tell about the purpose of the survey and make the questionnaire available online when data collection begins. If possible, have other organisations or strategically important individuals endorse the survey to increase awareness and the chance for a higher response rate.

Stay flexible. Keep your mind and process open to new inputs, partners and opportunities – even if your strategy did not include them initially.

APPENDIX 2
INNOVATION BAROMETER QUESTIONNAIRE

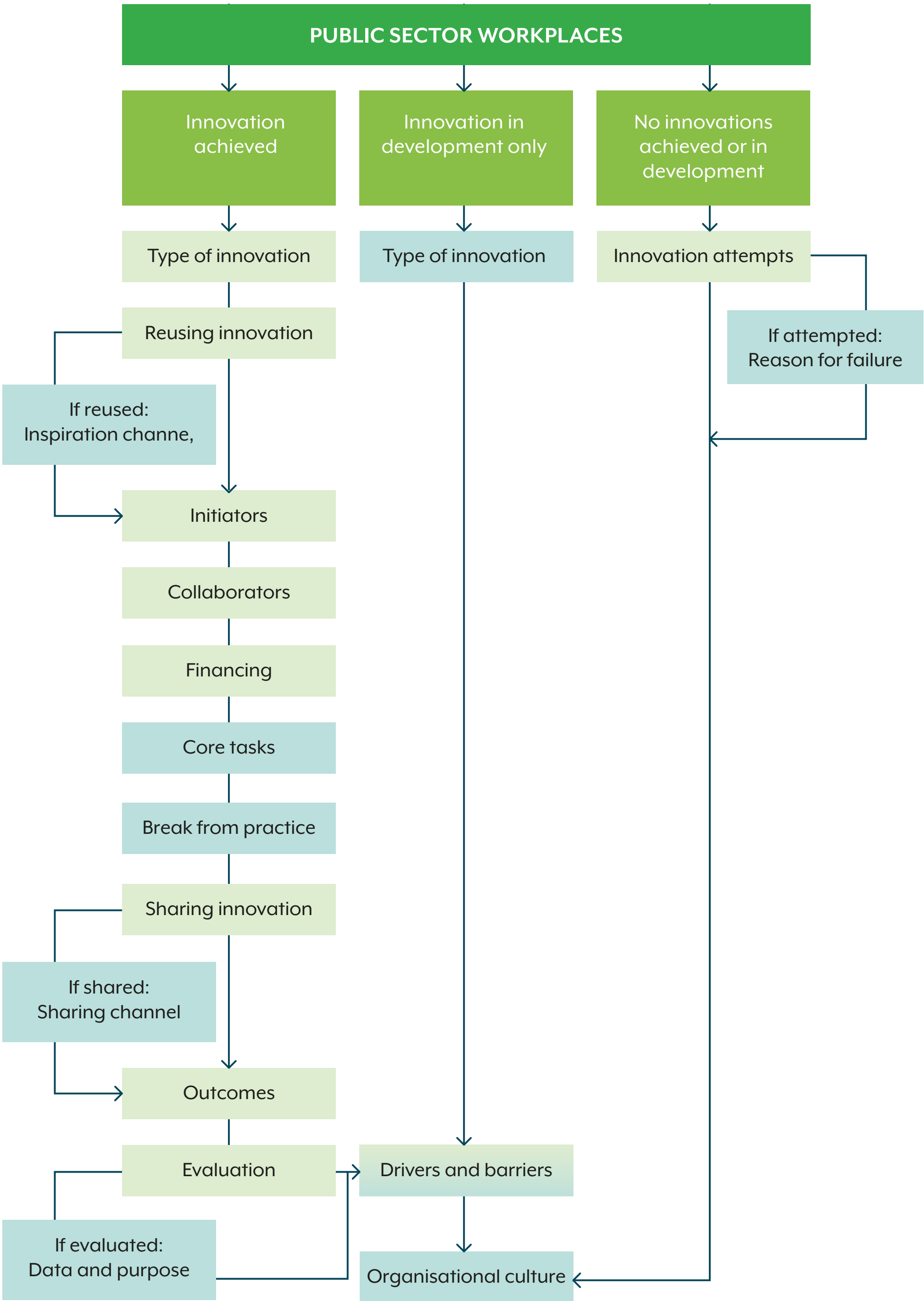
This is a generic Innovation Barometer questionnaire to show what questions should and could be included in Innovation Barometer surveys. Core questions that are recommended for every country to include are shaded green. Unshaded numbered questions are used by more than one country, while the questions in a separate section at the end are used by one country only.

All questions are translated into English, mostly from Danish. To our knowledge, the translation has not been tested in real life.

«[xxx]» represents fields that you must fill in prior to distributing the questionnaire. Items in parentheses provide respondents with supplementary information or instructions.

The filter column describes the nature of the question, which respondents should answer the question and provides technical details about the setup.

Notes provide explanatory information and suggest alternative wording.


PUBLIC SECTOR WORKPLACES
Innovation achieved
Innovation in development only
No innovations achieved or in development
Type of innovation
Type of innovation
Innovation attempts
Reusing innovation
If attempted: Reason for failure
If reused: Inspiration channe,
Initiators
Collaborators
Financing
Core tasks
Break from practice
Sharing innovation
If shared: Sharing channel
Outcomes
Evaluation
Drivers and barriers
If evaluated: Data and purpose
Organisational culture

	Questions	Filter	Answer options	Note
Q1	The questionnaire concerns your work-place «[Name of individual public sector workplace, e.g.: South Hill Nursing Home]» Please only answer the questions for this workplace and not for any institutions or units adjacent to, above or below it. According to the «[Name of relevant organisation, e.g. Danish Central Business Register]» your workplace had «[Insert number]» employees in «[Year]» on average. Please correct the amount if it significantly differs from what is stated above, otherwise leave the field empty.	All respondents Single answer question	[Text field. Only numbers accepted]	Purpose is to correct number of employees if incorrect Modify to fit country and invitation email
Q2	This questionnaire was answered by: *(Tick one box only)*	All respondents Single answer question If Q2=5, skip all questions and go to end page (Q30)	1. The head manager for «[Name of workplace]« 2. A personnel manager 3. An employee who is not a personnel manager 4. Several people together 5. The questionnaire was sent to a workplace different than the one stated above	Gives background information and checks whether the workplace listed is correct Might be highly important for methodological reasons in countries with less background knowledge on respondents

	Questions	Filter	Answer options	Note
Q3	Our workplace operations are directed ...	All respondents Single answer question	1. Primarily towards citizens and/or private companies 2. Primarily towards other parts of the public sector 3. Fairly equally towards citizens/ private companies and other parts of the public sector	Background information on workplace
Q4	Does your workplace make regulatory decisions regarding citizens or companies? *(Regulatory decisions do not need to be the only task or the most significant task that your workplace performs.)*	All respondents Single answer question	1. Yes 2. No 3. Don't know	Background information on workplace

	Questions	Filter	Answer options	Note
Q5	Innovations can be defined in a number of ways. This questionnaire defines an innovation as a new or significantly changed way of improving workplace activities and results. The types of innovation are: • Services • Products • Processes or methods of organisation • External communication methods The innovation must be **new to your workplace** but can have been used before or developed by others. The innovations must have been **put into use in «[Insert two-year period, e.g. 2019–2020]»** but the work can have been initiated earlier. Please do not include minor changes that did not lead to improvements in workplace activities and results. Please consider both the innovations that your workplace may have developed on its own initiative and the innovations that were derived from other people's requirements or ideas for the workplace.	All respondents Single answer question		INFORMATIONAL TEXT FOR CORE QUESTION Not actually a question, informational text for Q7 Products are defined as physically tangible items.

	Questions	Filter	Answer options	Note
Q6	In «[Insert two-year period, e.g. 2019-2020]» did your workplace introduce new or significantly changed ... *(If no innovations were introduced but are under development please tick 'No'.)* a. Products? b. Services? c. Processes or methods of organisation? d. External communication methods	All respondents Single answer battery question	1. Yes 2. No 3. Don't know	CORE QUESTION Q7 contains sub-questions. Respondents must assess items a.-d. separately using the three answer options shown. Directs respondents to questions on a specific innovation (Q8-Q22). If there were no innovations, respondent will be directed to other questions (Q23). If the survey is not conducted at the beginning of the year, insert "the last two years" instead of a specific two-year period.
Q7	Please provide a short description of the **most recent** innovation that your workplace implemented in «[Insert same two-year period as Q6]».	Only if workplace has introduced an innovation (Q6.a, Q6.b, Q6.c *or* Q6.d = 1) Text field	[Text field]	CORE QUESTION Question also asked to help respondents focus on a single innovation and to adhere to it throughout the questionnaire. If the survey is not conducted at the beginning of the year, insert "the last two years" instead of a specific two-year period.

	Questions	Filter	Answer options	Note
Q8	Which type(s) of innovation apply to your workplace's most recent innovation? New or significantly changed ... *(Tick all that apply)*	Only if workplace has introduced an innovation (Q6.a, Q6.b, Q6.c *or* Q6.d = 1) Multiple answer question	1. Products 2. Services 3. Processes or methods of organisation 4. External communication methods	CORE QUESTION
Q9	Which of the following applies to the most recent innovation? *(Tick one box only)*	Only if workplace has introduced an innovation (Q6.a, Q6.b, Q6.c *or* Q6.d = 1) Single answer question	1. Your workplace was the first to develop and introduce the innovation (to your knowledge) 2. The innovation was inspired by others' solutions but adapted to suit your workplace 3. The innovation is to a large extent a copy of others' solutions 4. Don't know	CORE QUESTION

	Questions	Filter	Answer options	Note
Q10	How did you hear about the solution your workplace adapted/ copied? *(Tick all that apply)*	Only if work-place has introduced an innovation (Q6.a, Q6.b, Q6.c *or* Q6.d = 1) Only if inspired by others or copied innova-tion (Q9 = 2 or 3) Randomise answer options 1-10 Multiple answer question. Answer option 12 should not be multiple	1. Websites and newsletters 2. Social media (e.g. Facebook, Twitter, LinkedIn) 3. News media coverage (newspa-pers, TV and radio - including web editions) 4. Scientific literature and professional journals 5. Participation in conferences, seminars, courses or training 6. Professional relationships or networks 7. Visits to or from other workplaces 8. Employees or managers at your own workplace (including you) 9. Senior manage-ment 10. Political leader-ship most closely related to the workplace 11. Other, please specify: ______ 12. Don't know	Re. translation of item 10.: 'Political leader-ship most closely related to the workplace is defined as the: city council for municipal workplac-es, the regional council for regional workplaces and the minister for state sector workplaces. Answer options should mirror Q17 when possible

	Questions	Filter	Answer options	Note
Q11	Who or what primarily initiated the most recent innovation at your workplace? *(Tick up to three boxes)*	Only if workplace has introduced an innovation (Q6.a, Q6.b, Q6.c *or* Q6.d = 1 Randomise answer options 1–14 Multiple answer question. Answer option 16 should not be multiple	1. Employees at your workplace 2. Managers at your workplace 3. Citizens 4. Private companies 5. Political leadership most closely related to the workplace 6. Voluntary associations/ organisations 7. Private foundations 8. Higher education or research institutions 9. New legislation or other national political mandates 10. New technology 11. Innovation or other activities at other public workplaces 12. Financial pressure on the workplace	CORE QUESTION

	Questions	Filter	Answer options	Note
Q12	During the development of the most recent innovation, did your workplace collaborate with any of the following? *(Tick all that apply)*	Only if workplace has introduced an innovation (Q6.a, Q6.b, Q6.c *or* Q6.d = 1) Multiple answer question. Answer options 11 and 12 should not be multiple	1. Other municipal workplaces in your municipality 2. Municipal workplaces **outside** your municipality 3. Central government workplaces (**excluding** higher education and research institutions) 4. Higher education and research institutions 5. Regional workplaces 6. Citizens 7. Voluntary associations/ organisations 8. Private companies (e.g. consultants, suppliers and/or other private partners) 9. Foundations 10. Foreign partners 11. No, there was no collaboration on innovation outside our workplace 12. Don't know	CORE QUESTION How you word some answer options depends on the workplace sector; these possible answer options are for municipalities. "Other, please specify: ______" could also be included as a possible answer option

	Questions	Filter	Answer options	Note
Q13	How is the most recent innovation financed? *(Tick all that apply)*	Only if workplace has introduced an innovation (Q6.a, Q6.b, Q6.c or Q6.d = 1) Multiple answer question. Answer option 8 and 9 should not be multiple	1. Central funds within in the municipality 2. National public aid schemes 3. Foreign foundations (e.g. EU or Nordic) 4. Private foundations 5. Collaborators' financial resources 6. Workplace's own budget 7. Other sources of funding, please specify: _____ 8. No funding necessary 9. Don't know	CORE QUESTION How you word some answer options depends on the workplace sector; these possible answer options are for municipalities.
Q14	Is the latest innovation directly related to the core tasks of your workplace?	Only if workplace has introduced an innovation (Q6.a, Q6.b, Q6.c *or* Q6.d = 1) Single answer question	1. Yes 2. No 3. No, but it is directly related to future core tasks 4. Don't know	The term "core tasks" is commonly used in some languages to describe what work employees should ideally spend their time on, as opposed to, e.g. administrative tasks that might take time away from this work.
Q15	Which statement best describes how close the latest innovation is to your previous practice?	Only if workplace has introduced an innovation (Q6.a, Q6.b, Q6.c *or* Q6.d = 1) Single answer question	1. Further development of our previous practice 2. New approach that breaks with our previous practice 3. Don't know	The aim is to somewhat capture both incremental and radical innovation.
Q16	Have you actively done anything to share the most recent innovation so others are able to reuse your solution(s)?	Only if workplace has introduced an innovation (Q6.a, Q6.b, Q6.c ***or*** Q6.d = 1) Single answer question	1. Yes 2. No 3. Not applicable 4. Don't know	CORE QUESTION Replacing the word "share" with "spread" or "disseminate" is an option

	Questions	Filter	Answer options	Note
Q17	What channels have you used to try to spread the innovation? *(Tick all that apply)*	Only if work-place has introduced an innovation (Q6.a, Q6.b, Q6.c or Q6.d = 1) Only if innova-tion is shared (Q18 = 1) Randomise answer options 1-8 Multiple answer question. Answer option 10 should not be multiple	1. Own website and newsletter 2. Social media (e.g. Facebook, Twitter, LinkedIn) 3. News media coverage (newspa-pers, TV and radio - including web editions) 4. Scientific literature and professional journals 5. Presenting for conferences, seminars, courses, or training 6. Professional relations or networks 7. Visits to or from other workplaces 8. Activities within the municipality 9. Other, please specify: ______ 10. Don't know	How you word some answer options depends on the workplace sector; these possible answer options are for municipalities. Possible answers mirror Q10 when possible
Q18	Overall, what outcomes have you achieved with the most recent innova-tion? *(Tick all that apply)*	Only if work-place has introduced an innovation (Q6.a, Q6.b, Q6.c *or* Q6.d = 1) Randomise answer options 1-5 Multiple answer question. Answer option 7 should not be multiple	1. Improved quality 2. Increased efficiency (e.g. same results with fewer resources) 3. Increased employee satisfac-tion 4. Citizens have obtained greater influence on or insight into the tasks we do 5. Reached political goals 6. Other, please specify: ______ 7. Don't know	CORE QUESTION Other answer options have been included in some countries, e.g. **value for businesses** and **value for local communities.**

	Questions	Filter	Answer options	Note
Q19	Has your workplace evaluated the most recent innovation?	Only if workplace has introduced an innovation (Q7Q6.a, Q7Q6.b, Q7Q6.c *or* Q7Q6.d = 1) Single answer question	1. Yes, we have evaluated with external assistance (e.g. by consultants or researchers) 2. Yes, we have evaluated ourselves without external assistance 3. No, but we are currently evaluating 4. No, but we plan to evaluate 5. No 6. Don't know	CORE QUESTION
Q20	Please state whether the evaluation of the most recent innovation includes… *(Tick all that apply)*	Only if workplace has introduced an innovation (Q6.a, Q6.b, Q6.c *or* Q6.d = 1) Only if innovation is evaluated (Q19 = 1 or 2) Randomise answer options 1–5 Multiple answer question	1. Survey(s) among citizens and/or companies 2. Survey(s) among public workplaces which your innovation is aimed at 3. Survey(s) among employees 4. The workplace's own professional assessments 5. Assessment of whether targets set for the innovation have been achieved 6. Other, please specify: ______ 7. Multiple answer question	Surveys do not need to be done as questionnaires and can comprise any kind of inquiry.

	Questions	Filter	Answer options	Note
Q21	What was/were the most important objective(s) with the evaluation? *(Tick all that apply)*	Only if work-place has introduced an innovation (Q6.a, Q6.b, Q6.c *or* Q6.d = 1) Only if innova-tion is evaluated (Q19 = 1 or 2) Randomise answer options 1–5 Multiple answer question	1. Better to be able to manage the innovation process (e.g. midway evalua-tion) 2. To assess whether the innovation has achieved its objective 3. To gain knowledge that can improve our efforts in the future 4. To document the value of the innovation to decision makers 5. To make our experiences available to others 6. Other, please specify: ______	

	Questions	Filter	Answer options	Note
Q22	Which factors promoted or hindered the innovation? Specifically consider the most recent innovation at your workplace only. a. The way we deal with errors b. The way we collaborate across the workplace c. New technology d. Limited financial resources e. The way our employees contribute f. Laws or other national political mandates g. Organisational changes h. Workplace focus on reliability in operations i. The way citizens contribute j. The way private companies contribute k. The political leadership most closely related to the workplace l. The way foundations contribute m. The way voluntary organisations contribute n. The way research institutions contribute o. Other, please specify: ------	Only if workplace has introduced an innovation (Q6.a, Q6.b, Q6.c *or* Q6.d = 1) Single answer battery question	1. Promoted the innovation process to a great extent 2. Promoted the innovation process to some extent 3. Hindered the innovation process to some extent 4. Hindered the innovation process to a great extent 5. Not relevant 6. Don't know	CORE QUESTION Q22 contains sub-questions. Respondents must assess items a.-o. separately using the six answer options shown. Only sub-questions a.-g. are recommended as core questions. Sub-questions h.-o. are optional. Answer categories should mirror Q25

	Questions	Filter	Answer options	Note
Q23	It is registered that no innovation has been taken into use so far. But has any development of innovation happened in «[Insert same two-year period as Q5]»?	Only if no innovation (Q6.a, Q6.b, Q6.c *and* Q6.d = 2 or 3) Single answer question	1. Yes 2. No 3. Don't know	Directs respondents to questions on innovation activity, even if the workplace did not have a recent innovation. If the survey is not conducted at the beginning of the year, insert "the last two years" instead of a specific two-year period.
Q24	Which type(s) of innovation apply to your workplace's most recent innovation work? New or significantly changed … *(Tick all that apply)*	Only if no innovation, but innovation work (Q26 = 1) Multiple answer question	1. Products 2. Services 3. Processes or methods of organisation 4. External communication methods	Q8 and Q24 are mostly identical, but Q8 is about the latest innovation and Q24 about the most recent innovation activity if the workplace had no innovations. Respondents will not answer both Q8 and Q24. Answer categories should mirror Q8

	Questions	Filter	Answer options	Note
Q25	Which factors promoted or hindered the innovation work? Specifically consider the most recent innovation at your workplace only. a. The way we deal with errors b. The way we collaborate across the workplace c. New technology d. Limited financial resources e. The way our employees contribute f. Laws or other national political mandates g. Organisational changes h. Workplace focus on reliability in operations i. The way citizens contribute j. The way private companies contribute k. The political leadership most closely related to the workplace l. The way foundations contribute m. The way voluntary organisations contribute n. The way research institutions contribute o. Other, please specify: ------	Only if no innovation, but innovation work Single answer battery question	1. Promoted the innovation process to a great extent 2. Promoted the innovation process to some extent 3. Hindered the innovation process to some extent 4. Hindered the innovation process to a great extent 5. Not relevant 6. Don't know	Q22 contains sub-questions. Respondents must assess items a.–o. separately using the six answer options shown. Q22 and Q25 are mostly identical, but Q22 is about the latest innovation and Q25 about the most recent innovation activity if no innovation. So respondents will not answer both Q22 and Q25. Answer categories should mirror Q25

	Questions	Filter	Answer options	Note
Q26	Has your workplace tried introducing one or more innovation initiatives that did not improve the workplace's activities or results?	Only if no innovation, but innovation work *or* Only if no innovation or innovation work *or* All respondents Single answer question	1. Yes 2. No 3. Don't know	CORE QUESTION Can be limited to asking respondents with no innovation at their workplace to reduce respondent burden.
Q27	What was the most important reason(s) that the innovation did not improve the workplace's activities or results? *(Tick all that apply)*	Only if unsuccessful innovation (Q26 = 1) Multiple answer question. Answer option 11 should not be multiple	1. Lack of financial resources or financial uncertainty 2. Lack of accountability by political leadership 3. Lack of accountability by administrative management 4. Managers or employees lacked the necessary competencies 5. Internal collaboration did not work well enough 6. Collaboration with other actors did not work well enough 7. The process was not planned well enough 8. We did not have enough time for the work 9. The idea was not good enough 10. Other, please specify: ______ 11. Don't know	"Lack of accountability" is defined as leaders not being aware of and/or involved in the process and failing to support the project if obstacles emerged.

	Questions	Filter	Answer options	Note
Q28	To what extent do you agree or disagree with the following statements about your workplace? a. We are good at collaborating across the workplace b. We want to try new solutions, even though there is a risk that we might make mistakes c. We systematically work towards learning from our mistakes d. We acknowledge people who suggests new ideas, even though they are not applicable e. We find it easy to reuse good ideas from other workplaces f. We systematically incorporate the citizens' and/or companies' perspectives into our work g. We systematically try to find and reuse others' new solutions h. Whenever we introduce new solutions, we always ensure that the implementation is complete i. We systematically examine whether our solutions are useful	All respondents Single answer battery question	1. Completely agree 2. Partly agree 3. Partly disagree 4. Completely disagree 5. Not applicable 6. Don't know	Q28 contains sub-questions. Respondents must assess items a.-i. separately using the six-point scale shown under answer options.
Q29	If you have any comments about the survey, please write them here	All respondents	[Text field]	
Q30	Thank you for your participation. Your answers are very valuable for us.	End of questionnaire		Additional information on when and where results will be published can be added

Additional questions used in one country only:

	Questions	Filter	Answer options	Note
After Q12	What innovation work did the collaborator(s) take part in? *(Tick all that apply)* (list all collaborators ticked in Q12 as sub-questions)	Only if work-place has introduced an innovation (Q6.a, Q6.b, Q6.c or Q6.d = 1) Only if at least one collaborator in Q12 Multiple answer battery question. Answer option 6 should not be multiple	1. Understanding the problem 2. Developing or adapting a solution 3. Implementation 4. Delivery of products, services or concepts already developed 5. Other, please specify: ______ 6. Don't know	Used in Denmark Q28 contains sub-questions. Respondents must assess a number of items separately using the six under answer options. List all collaborators ticked in Q12 as subquestions.
Near Q14	To what extent is technology part of the most recent innovation? Technology concerns both physical and digital solutions.	Only if work-place has introduced an innovation (Q6.a, Q6.b, Q6.c *or* Q6.d = 1) Single answer question	1. The innovation itself is a techno-logical solution 2. Important part 3. Minor part 4. No part 5. Don't know	Used in Denmark
After the ques-tion above	Is the technology **new to your workplace** and/or **a significantly different way of using** an already familiar technology? *(Tick all that apply)*	Only if work-place has introduced an innovation (Q6.a, Q6.b, Q6.c *or* Q6.d = 1) Only if technolo-gy is important part of innova-tion (Above = 1 or 2) Multiple answer battery question. Answer option 6 should not be multiple. Answer options 3 and 4 should not be multiple	1. Yes, it is new to us 2. Yes, the use is significantly different 3. No, the technology is neither new to us nor used in a different way 4. Don't know	Used in Denmark

	Questions	Filter	Answer options	Note
Near Q28	To what extent do you agree or disagree with the following statements about your workplace? a. I am encouraged to be innovative or to seek out better ways of operating a. Most senior leaders appropriately weigh innovative opportunities against risk a. Resources (time, personnel, funding) are provided and managed efficiently in support of innovation a. The use of technology promotes more effective innovation within the organisation	All respondents Single answer battery question	1. Completely agree 2. Partly agree 3. Partly disagree 4. Completely disagree 5. Not applicable 6. Don't know	Used in New Zealand This question contains sub-questions. Respondents must assess items a.–d. separately using the six-point scale shown under answer options. Some questions in Q28 are quite similar. Aimed at individuals
Near Q28	To what extent do you agree or disagree with the following statements about your workplace? a. I feel confident about constructively and openly challenging organisational processes a. When things go wrong my organisation uses it as an opportunity to review, learn and improve the management of similar risks a. Changing priorities happens at a desirable rate (i.e. not too often)	All respondents Single answer battery question	2. Completely agree 3. Partly agree 4. Partly disagree 5. Completely disagree 6. Not applicable 7. Don't know	Used in New Zealand Some questions in Q28 are quite similar. Aimed at individuals
Last	Do you have any ideas on how we can improve public sector innovation in «[name of country]»?	All respondents	8. [Text field]	Used in Iceland

APPENDIX 3
EMAIL INVITATION TEMPLATE

The template below, which is based on an email used in Denmark to invite respondents to the survey, is for inspiration and you are not required to use it.

To personalise the email, enter background information for each recipient and their workplace in the square brackets: «[Text field]». To do a mail merge, the data required to fill in these variables must be readily available in a spreadsheet. The data will be imported, automatically added to the text fields and changed for each recipient.

All red text below must be edited to fit your context, which includes stating who is conducting the survey, the survey completion deadline and the contact person's information.

SUBJECT: How do you develop «[name of workplace]»?

EMAIL:
Dear «[name of manager]»

Statistics Denmark and the National Centre for Public Sector Innovation are compiling new statistics on public innovation. «[Name of workplace]» has been selected to be part of the sample. As a result we would be pleased if you would kindly fill out a survey about your workplace.

The project involves examining whether workplaces in «[sub-sector]» work with innovation, whether it is done collaboratively and the value it creates.

The aim is to provide knowledge that makes it easier for workplaces in «[sub-sector]» to learn from each other.

The survey defines innovation as doing something new that improves the activities and results of the workplace.

Even if no innovation takes place at your workplace, your answers are just as valuable to us.

Please feel free to forward this email to staff who may know more about innovation at your workplace and are better equipped to take the survey.

Completing the survey takes 5 to 15 minutes, depending on your answers.

To take the survey, follow this link «[link]»

Please complete the survey no later than 1 February 2020.

Confidentiality
Statistics Denmark guarantees that your answers are confidential and that individual workplaces will in no way be identifiable when the results are used.

If you have any questions, please contact NN at email@email.com or +45 1234 5678.

We appreciate your assistance and hope that you will participate in the survey.

Yours sincerely

Statistics Denmark
National Centre for Public Sector Innovation

APPENDIX 4
LITERATURE

Bloch, C. (2011), Measuring Public Innovation in the Nordic Countries (MEPIN), Nordic Council of Ministers, Copenhagen.

Mazzucato, M. (2013), *The entrepreneurial state: Debunking public vs. private sector myths,* Anthem Press, London.

OECD/Eurostat (2005), *Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data,* 3rd Edition, OECD Publishing, Paris.

OECD/Eurostat (2018), *Oslo Manual 2018: Guidelines for Collecting, Reporting and Using Data on Innovation, 4th Edition*, OECD Publishing, Paris.

Smith, Timothy P. (edt.) (2003) *Manufacturer's guide to developing consumer products instructions,* U.S. Consumer Product Safety Commission (CPSC), Washington, DC.

UNECE (United Nations Economic Commission for Europe) (2009; 2011), *Making data meaningfull – Parts 1, 2 and 3,* Geneve.

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