



Ministry of the Interior and  
Kingdom Relations

# Dutch Government Innovation Barometer 2021

‘Employees determine the innovative strength of government organisations’



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# Management summary

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## **The innovation climate is all-important**

This report describes the findings of the Dutch Government Innovation Barometer 2021. It concerns the first innovations survey in Dutch government organisations: which innovations were implemented, how did they come about, and what did they yield? In 2019 and 2020, 86 percent of the Dutch government institutions that took part in the survey implemented one or more innovations. Compared to similar surveys in Denmark, Sweden, Norway, and Iceland this is a good score. However, it becomes evident from the analyses that the innovation capacity of Dutch government organisations varies widely, even between organisations that have similar tasks and sizes. This means that successful innovation is less dependent on external circumstances and is mainly determined by the organisation itself. The organisational climate is all-important: organisations with a powerful innovation climate innovate more often and across a broader spectrum. Through innovations, they create more public value in terms of quality, efficiency, employee satisfaction, citizen influence and achieving political objectives. In practice, the most successful government organisations have a cohesive and organisation-wide approach to innovation.

## **The key factors: employees, safety, and learning**

Employees are the crucial factor for successful innovation. The initiative for innovations often originates from employees: they have the necessary knowledge or acquire it through their networks. The survey respondents also state that a wide range of knowledge and skills within teams is essential.

The main difference between organisations with a powerful innovation climate and organisations with a limited innovation climate is the way they deal with failure. Innovation processes are accompanied by failure: there must be room for mistakes and learning from them. The 2019 ‘WERKonderzoek’ work survey, commissioned by the Dutch Ministry of the Interior and Kingdom Relations (BZK), revealed that, generally, organisational performance is determined to a large extent by the work climate that puts psychological safety and continuous learning and improving first.

## **Conditions: collaboration, external orientation, and vision**

Success is not only conditional on the contribution made by employees, but also on collaboration. Within the organisation for example, innovation experts must work with employees from the primary process. However, collaboration with other organisations is needed as well: Dutch government organisations often involve private parties (consultants and suppliers) in their innovation process. The majority of the implemented innovations turns out to be a copy – that has been adjusted to a smaller or greater extent – of innovations that have been applied elsewhere: thus, collaboration, external orientation, and the employees’ networks are crucial to achieving innovation. Organisations must invest in acquiring good examples. These may be examples from their own sector, of from other government sectors, but they may also be acquired from abroad. Incidentally, a substantial part of the innovations is being conceived and developed within the organisations themselves, namely 30 percent. The political-administrative board, or management, determines whether successful innovation is taking place: a clear vision of the course the organisation must follow is needed to create those preconditions within the organisation that promote innovation.

## Comparing with Denmark: many similarities, but also significant differences

The figures from the Dutch Government Innovation Barometer 2021 have been compared to the figures from a number of Scandinavian countries, particularly with data about Denmark. These data make clear that apart from many similarities, there are also significant differences. In Denmark, innovations tend to be triggered by external incentives (laws and regulations, restructuring, budget cuts), while in the Netherlands, the trigger more often originates from within the organisation, identifying and grasping opportunities to innovate (new technology, successful innovations in other organisations). Far more often than in Denmark, innovations in the Netherlands are funded by the organisation itself and technology plays a major part. As for results, Denmark mainly focuses on improving the quality of services and products, slightly more than in the Netherlands. Proportionally, enhancing efficiency plays a much greater part in the Netherlands than it does in Denmark.

## Innovation in practice

The report presents the innovations implemented by Dutch government organisations in 2019 and 2020 in considerable detail. It makes clear that Dutch government organisations innovate extensively and across a broad spectrum: often, innovation of products, services, processes, and/or the interaction with citizens is combined. Furthermore, the report describes technology underlying innovations, knowledge networks, innovation incentives, on the factors promoting or, conversely, hindering innovation. One important observation is that, in a number of cases, the COVID-19 pandemic has played a role in accelerating innovation, for instance where location-independent work, digitisation and datafication are concerned. Regarding the outcomes, the report observes that in two thirds of the cases, innovation has resulted in enhanced efficiency, and in almost as many cases it has improved quality.

# Foreword

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Public administration involves complex social challenges that increasingly demand creative and innovative solutions. To date, these solutions have resulted in a wide range of successes. Thus, numerous innovations contribute to a government that key in better to the needs and desires in society. Anyone working in public administration may feel justly proud of that!

It is immensely valuable to share engaging innovations and innovative ways of working within public administration. Thanks to this exchange, we can all learn from and inspire each other. So far, an overview of developments in the field of innovation was missing. That is why the Ministry of the Interior and Kingdom Relations (BZK), together with the Dutch Association of Public Management (VOM), has taken the initiative to meet this need in two ways

- The first initiative is the development of a Dutch Government Innovation Barometer. This barometer systematically charts what types of innovations are being developed, and how. Thus, we have adopted a working method that has been used in Denmark, Sweden, Norway, Finland, and Iceland for several years. Consequently, it is easy to compare our study results with the results in these Northern European countries. This knowledge is intended as a source of inspiration for anyone within public administration who is working or wants to start working with innovation. The Ministry of BZK has developed this initiative in collaboration with ICTU Foundation.
- The second initiative concerns a campaign for electing the Best Government Innovation of the Year. This Innovation Award aims to highlight successful innovations in public administration. Thus, they can be a source of inspiration for everyone seeking to invest in a better government. The VOM has assumed responsibility for this initiative and will publish about these remarkable innovations online.

The present report contains the results of the first Dutch Government Innovation Barometer. We hope this it will provide you with fresh inspiration to enhance the innovative potential of public administration.

Marieke van Wallenburg

*Director General Government Organisation*

*Ministry of the Interior and Kingdom Relations*

The Hague, November 2021

# 1. Introduction

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In 2021, the survey for the Dutch Government Innovation Barometer was carried out for the first time. It is a new study that makes it possible to analyse innovation in the specific context of government. The report is an initial explorative analysis, which chiefly aims to be a conversation-starter about innovation in government. The Dutch Government Innovation Barometer was inspired by examples of similar studies and monitors in a number of Northern European countries, particularly Denmark.<sup>1</sup> Wherever possible, we will link findings in this report to outcomes from similar studies carried out in Denmark, Norway, Sweden, and Iceland.

The study does not only focus on the nature of specific innovations occurring in government organisations in the survey period (2019 and 2020), but also on the way innovations come about and are implemented, and on the factors promoting or, conversely, hindering innovation. Also, the results of innovations are described. Moreover, we touch on the innovation climate in organisations and the differences that exist on that score, referring to the broader topic of organisational culture and the correlation between working climate, employee satisfaction and employee engagement, and organisational performance. To start with, the analyses in this report are mainly descriptive in nature. In order to fully understand the results of innovations and the innovation climate, (statistical) explanatory analyses were also carried out. In order to add operational colour to the study results, some representatives of the organisations under study were interviewed. These particular organisations were approached, because they have implemented interesting innovations and because the organisations scored high on innovation climate.

The three cases have been included in separate (green) text boxes. Apart from these, a number of innovations that have been implemented by other organisations were selected. They have been anonymised and can be found throughout the report in separate (blue) text boxes.

1,374 organisations were approached for this study, 366 of which submitted full questionnaire replies (response: 27 percent). Due to the size of the organisations, we separately approached organisational units of ministries and of the 15 largest municipalities. Out of the 366 organisations, 313 had implemented innovations in 2019 and 2020. See also [Annex 1: Accounting for the survey](#).

This study is about Dutch public administration. To elucidate that notion: the survey was carried out in organisations that come under central government, divided into ministries including their services and agencies on the one hand and the quasi-autonomous administrative bodies on the other. The Judicial Authority and the Prosecution were also surveyed (sector: legal system), as well as the High Councils of State. Likewise, municipalities, provinces and water boards are part of the population, including their joint schemes, as are services from the 15 largest municipalities. Lastly, a number of private law bodies were approached, which can to a large extent be regarded as public in terms of funding, management, and services.<sup>2</sup> They include, among others, a number of (national) museums.

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1 See: <https://co-pi.dk/>. A recent publication about innovation in the Danish public sector: OECD, Public Sector Innovation Scan of Denmark (2021): <https://oecd-opsi.org/wp-content/uploads/2021/03/Public-Sector-Innovation-Scan-of-Denmark.pdf>.

2 They come under the Dutch Standards for Remuneration Act ('Wet Normering Topinkomens').

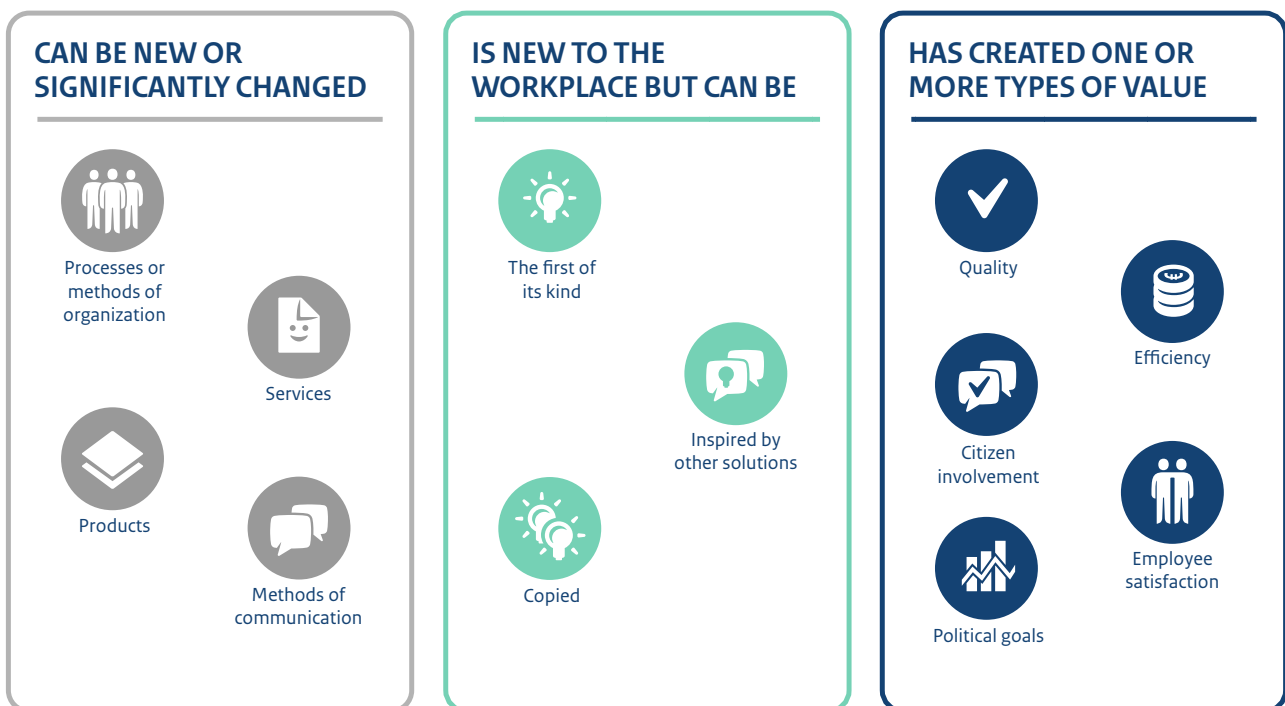
## Definitions

With respect to defining the concepts in this survey, two considerations play a key role. Firstly, an attempt was made to use substantively consistent and lucid terms that are understood by representatives of government organisations. Secondly, there was the aim to stay as near the questions and the answer categories used in the aforementioned Scandinavian countries as possible. For that reason, the questionnaire of the Danish *Center for Public Innovation* (COI) was chosen as a starting point for the survey. By asking many of the same questions, aspects of survey results can be compared to results from those countries.

In this survey, the definition of *innovation in government* is applied as it is used by the Observatory of Public Sector Innovation (OPSI) of the Organisation for Economic

Cooperation and Development (OECD) (see Image 1): *Innovation in the public sector is implementing new approaches and applications that work at creating public value.* In this case, ‘new’ means a really new application or a significant improvement of existing applications. The fact that significant improvements also count as innovations, means that a broad definition of innovation is being applied.<sup>3</sup> Applications or approaches comprise products, services, and methods as well as communications. These may have been conceived and developed within the organisation itself or they may have been copied from other organisations to a greater or lesser degree. Public values that are realised are: enhancing efficiency, quality, employee satisfaction and citizen or client engagement, and achieving political objectives.

Image 1. Innovation according to the OECD



<sup>3</sup> By a stricter definition, only really new applications are considered to be innovations.

## 2. Considering international comparisons

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As mentioned before, the Dutch Government Innovation Barometer has been inspired on surveys that have been carried out in Scandinavian countries for some time. In that respect, it is important to keep in mind that all these surveys are based on different approaches (as to what units were surveyed), sample size and measuring periods.

From an international perspective, civil society in the Netherlands is extensive and active. One explanation can be found in pillarisation: traditionally, various social roles – education, caring for the poor, sick and elderly, news supply, professional associations, trade unions, employers' organisations, political representation – were organised within faith-based pillars. Partly because of this history, Dutch society has been strongly focussed on unanimity and collaboration between interest representatives. Moreover, thanks to its location and its economic history as a trading nation, the Netherlands is a logistical hub. Over time, the streams of raw materials and products have been supplemented by various services, including virtual ones. Lastly, the Netherlands is known as a society with a strong focus on innovation, and it can be systematically found in the top-five most innovative countries in the world.<sup>4</sup> The Scandinavian countries likewise tend to have top-level scores in this respect.

In spite of this specific national context, it may be quite instructive to compare the Dutch situation to other countries. Benchmarks must primarily be seen as an indication of differences and similarities. They serve to mirror the Netherlands and function as starting points in the search for explanations as to why certain matters in our country go well or leave scope for improvement, in order to learn from them.

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4 [https://www.wipo.int/global\\_innovation\\_index/en/2020/](https://www.wipo.int/global_innovation_index/en/2020/)



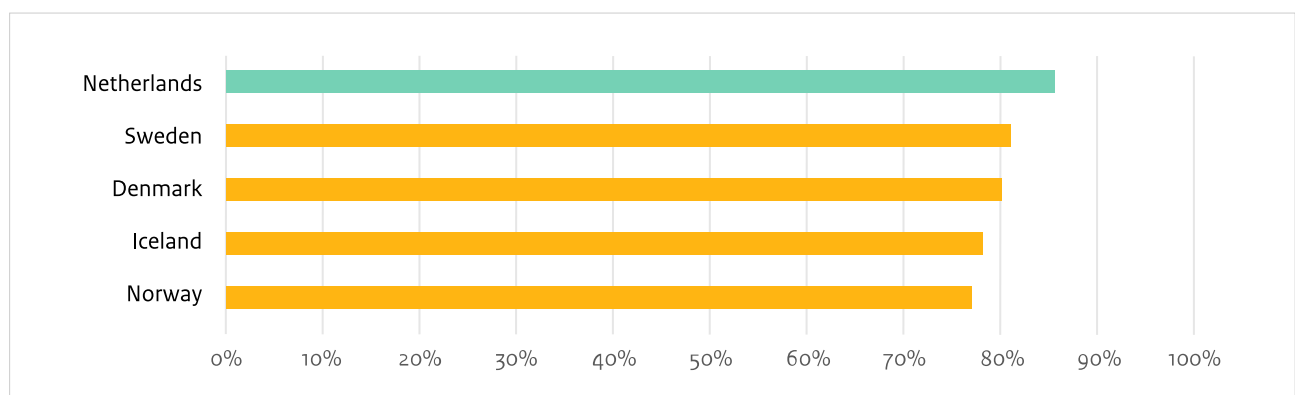
### 3. Innovations in government organisations

This section outlines the innovations that came about in the survey period. In the years 2019 and 2020, 86 percent of the Dutch government institutions involved in the survey implemented one or more innovations. Thus, a very small proportion of the respondents stated that no innovations took place in their organisation.

It becomes clear from the comparison to a number of Northern European countries in Figure 1 that the Netherlands performs quite well from an international perspective: in the other countries, this percentage varies

between 77 percent in Norway and 81 percent in Sweden. In Denmark, in a survey that best matches the Dutch one, 80 percent of organisations stated they innovated in the years 2018 and 2019.

Figure 1. Share of organisations that implemented an innovation in the course of 2 years.



Source: Dutch Government Innovation Barometer 2021 and COI (2019).<sup>5</sup>

#### Four types of innovations

The survey distinguishes four types of innovations, i.e., the innovation of *products, services, processes, and interactions*. The innovation of products (tangible) and services (non-physical products) needs little clarification. The other two types of innovation are described as follows.

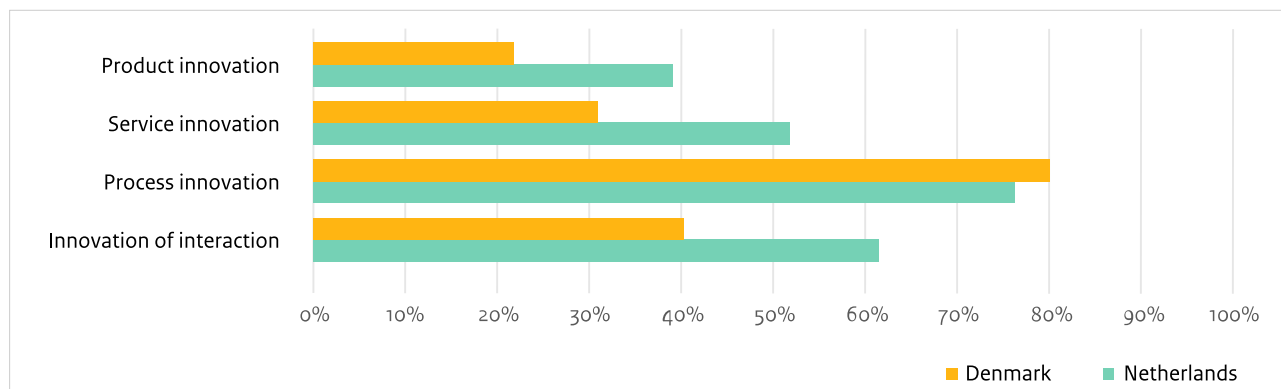
*Process innovation*: renewing or vastly improving the methods and processes used to generate products and services or renewing or vastly improving the organisation of work. *Interaction*: vastly improving or renewing ways to communicate with the outside world. The difference between the one type of innovation and the other is not always absolutely clear. Moreover, there are innovations that combine several types. For that reason, in the questions about innovation types, respondents were allowed to select multiple types.

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Figure 2 shows the most recently implemented innovations, distinguished by innovation type, for both the Netherlands and Denmark. In more than three quarters of the Dutch cases, an innovation of methods, processes and/or the organisation of work was concerned. However, interaction with the outside world also yields high scores in the Netherlands: over 60 percent, notably higher than in Denmark. Services and products innovation lag somewhat behind, scoring 52 and 39 percent respectively, but are still more frequent in the Netherlands than they are in Denmark.

<sup>5</sup> Measuring New Nordic Solutions: Innovation Barometer for the Public Sector, see Denmark, 2019 (ISBN Electronic 978-87-970954-4-7)

Figure 2. Innovations by type (most recently implemented), the Netherlands (2019, 2020) and Denmark (2018, 2019).



Source: Dutch Government Innovation Barometer 2021 and COI (2020).

In spite of the differences in Figure 2, it is clear that both countries show a similar pattern, in which process innovations occur most frequently, while services

and product innovations occur less frequently and innovations regarding interactions with citizens occupy an intermediate position.

**Innovation in practice 1:** Introduction of an occupations pillar, an interactive interface for job seekers to get an idea of a job; the interface provides access to a wide range of corporate videos in which images of occupations/roles were shown and the required characteristics/competences were mentioned.

**Innovation in practice 2:** Interactive application for subsistence allowance in a web-based environment that can be completed entirely digitally. Even if the application is incomplete, it is completed interactively within the web-based environment. The questionnaire is automatically tuned to the details that are known in the chain so far and to the applicant's answers. Mutations and income declarations may also be processed in this environment.

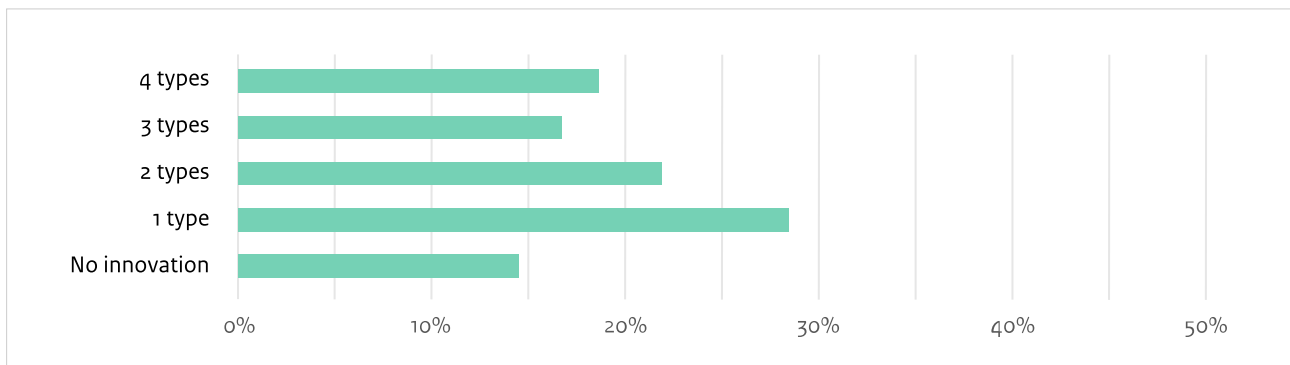
**Innovation in practice 3:** A digital portal that gives care providers, healthcare insurers and other stakeholders insight into the capacity of regular healthcare during the COVID-19 pandemic. This insight assists care providers in their mutual collaboration in order to guarantee the accessibility of COVID care and regular care, and assists healthcare insurers in healthcare mediation for their policy holders.

**Innovation in practice 4:** Instead of an accumulation of various consecutive environmental licenses per business: developing 1 digital register of regulations that always provides an up-to-date insight into the applicable environmental and safety regulations. As a result, it is directly clear to the business, the licensing authority, and the monitoring services what rules apply. This transparency also obtains for governance and residents.

On the basis of the above typology of innovations, a new variable has been constructed that specifies how many types of innovations the most recently implemented innovation combines.

Thus, this variable shows the plurality of the innovation that has been implemented within the organisation, also known as the innovation spectrum (Figure 3).

Figure 3. Innovation spectrum (most recently implemented innovation) (n=313).



Source: Dutch Government Innovation Barometer 2021.

Nearly 30 percent of the respondents implemented innovations that are only counted as one type, while the other innovations all concerned plural types: innovations combining 2, 3 or even all 4 types. The term ‘innovation spectrum’ will be discussed in more detail further on in this report.

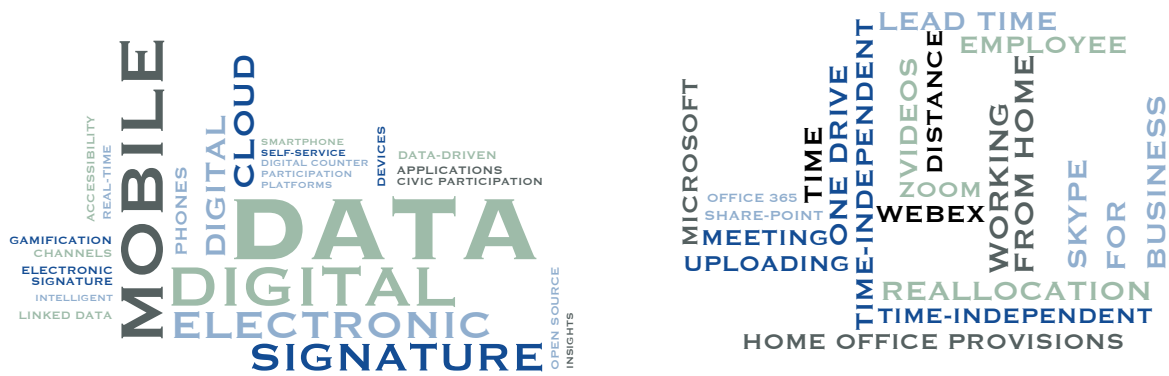
Moreover, text mining software was used to analyse frequently-used terms in the open answers.<sup>6</sup> Two main groups of terms become apparent – see Image 2 – that are connected to some extent. They are, firstly, terms that have been labelled Digital and Data and, secondly, terms in the Working from home and Consultation categories.

### Frequently mentioned innovations: digitisation and working from home

In addition to the closed questions, organisations were also given the opportunity to describe the most recently implemented innovation in words. By way of illustration, fragments of these texts are presented in boxes scattered through this report.

<sup>6</sup> Partly because of the confidentiality promised to organisations, we have opted for the use of the Gavagai Explorer, a Swedish application that stores data within the EU and deletes it after completion of the project, see also: <https://www.gavagai.io/>.

Image 2. Digital & Data (left) and Working from home and Consultation (right)



Apparently, many of the most recently implemented innovations are related to the COVID-19 pandemic. In the word cloud above, the facilities needed to work from home (Zoom, Skype, Webex) are frequently mentioned, as are various terms related to the time and place where the work and activities take place.

Prior to the questions regarding the implemented innovations, the survey respondents were asked specific questions regarding the COVID-19 pandemic. During the peak of the pandemic, 45 percent of the organisations produced fewer to much fewer goods and services.

In 35 percent of the organisations, the production went on as before, and in 28 percent of the organisations, production actually increased (significantly). In more than 70 percent of Dutch public administration organisations, 75 to 100 percent of employees worked from home during the peak of the pandemic. In a quarter of those organisations, the facilities to work from home had been available prior to the pandemic, in the other organisations they were introduced from scratch (4 percent) or improved (see also [Annex 2](#): Background data).

**Innovation in practice 5:** Museums that cater for online versions of temporary exhibitions including online tours and corresponding school programmes that can be supported by a museum teacher both in school and through Teams (360-degree recording and online display of a physical exhibition).

**Innovation in practice 6:** Various examples of online and hybrid court hearings in which various parties participated, sometimes even spread across as many as 5 different countries across the globe and supported by a range of interpreters.

**Innovation in practice 7:** Digital participation processes (through surveys, video conferencing, social media, and web forums) and digital interactions with clients and citizens, e.g., video phoning with residents both for collecting insights and ‘kitchen table talks’ with Social Domain residents.

**Innovation in practice 8:** Music schools providing music lessons and organising online concerts through Zoom and online forums.

Image 2 also makes clear that, where innovations did not relate to working from home and consultation during the pandemic, digitisation and data-driven work are the main topics of recent government innovations. This refers both

to the digitisation of a wide range of work processes and services and to the interaction with citizens and businesses through various applications.

## SVB case: “Uncompromisingly taking the citizen’s perspective”

Simon Sibma (Chairman of the Board) and Rosanne Stotijn (Chief Change Officer).

*The innovation: the SVB, the organisation responsible for implementing the Dutch social insurances schemes, has developed and implemented an app enabling citizens who move to their country of origin to make an application through simple questions. Elaborating on this and from sheer necessity as a result of COVID-19 – as international mail facilities came to a standstill – the SVB developed the Upload app by means of which all citizens can upload their documents, and which is easy to use from abroad as well (as it can be used without the Dutch identity management platform DigiD).*

Traditionally, the SVB is focussed on reliability and controllability – a strong asset if you pay out 50 billion Euros a year. Thus, that has to remain in place. However, traditionally the SVB was carefully innovating too. To improve in this respect, the organisation needed an outboard motor.

### How does innovation work at the SVB?

A number of elements:

The organisation has an independent innovation lab, called [Novum](#), where fast experiments are being carried out. The starting point is: uncompromisingly taking the citizen’s and end user’s perspective.

Innovation has been reinforced through positioning, and forms part of regular work processes. This is the result of appointing a *Chief Change Officer* in the management board and of linking the innovation agenda to the organisation’s multiannual course. The full management team is being brought into action as an *Innovation Board*, making innovation part of policy.

Employees have been involved in the lab experiments from the start. They are eager to get to work with innovation, but they need the right support. While they can recognise bottlenecks at work by themselves, they must be supported in the step towards finding a solution. That takes time and scope for innovation.



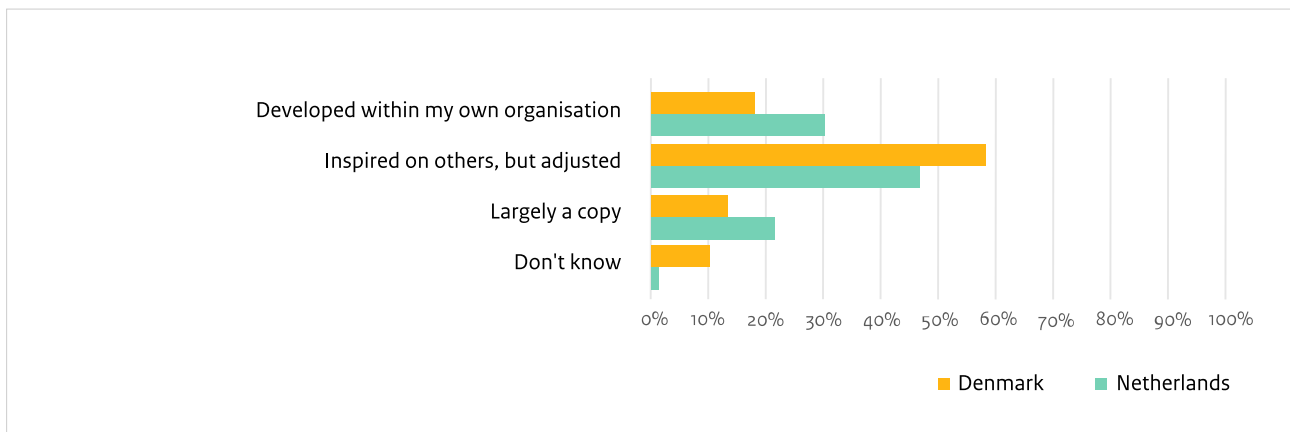
Photos: Simon Sibma and Rosanne Stotijn

## Developing independently or copying what works elsewhere?

Innovations can be developed and implemented entirely within the organisation. However, it's not for nothing that the saying "It's better to be a good copycat than a bad inventor" is frequently quoted in innovation circles. Strong examples of innovations in other organisations can serve to inspire one's own innovation, or they may even be copied entirely. After all, those are often innovations that have already proven themselves in practice. Copying them limits the risk that the innovation will turn out not to work in the end. However, practice also shows that innovations must always be embedded in the organisation's specific context. Therefore, copying something indiscriminately seldom works.

Figure 4 shows that innovations from other organisations are frequently copied. In nearly half the cases, the innovation is inspired on solutions that were implemented elsewhere but adjusted to their own organisation. In more than 20 percent of the cases, it even concerns a copy. In no less than 30 percent of the cases, respondents state that the innovation in their own organisation has been developed and implemented from scratch. That percentage is high compared to Denmark, where 18 percent of the respondents stated this was the case. Thus, according to the respondents, more is being independently developed and copied in the Netherlands than in Denmark, while the Danish innovations are more often inspired on innovations from elsewhere, which they adjust to their context before implementing them.

Figure 4. Own innovation, inspiration, or copy (n=313).



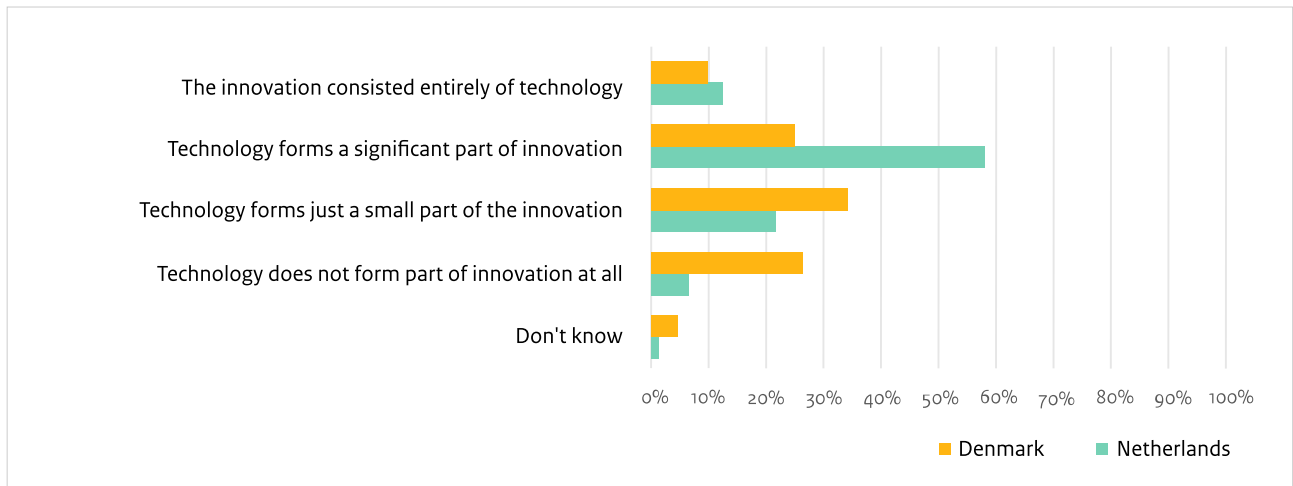
Source: Dutch Government Innovation Barometer 2021 and COI (2020).

## Technological content

Figure 5 shows that technology was an important part of the innovation in nearly 60 percent of the Dutch cases. In another 10 percent, the innovation even consisted entirely

of technology. In less than 30 percent of the cases in the Netherlands, technology formed only a small part of the innovation or no part at all.

Figure 5. Share of technology in the most recently implemented Innovation (n=313).

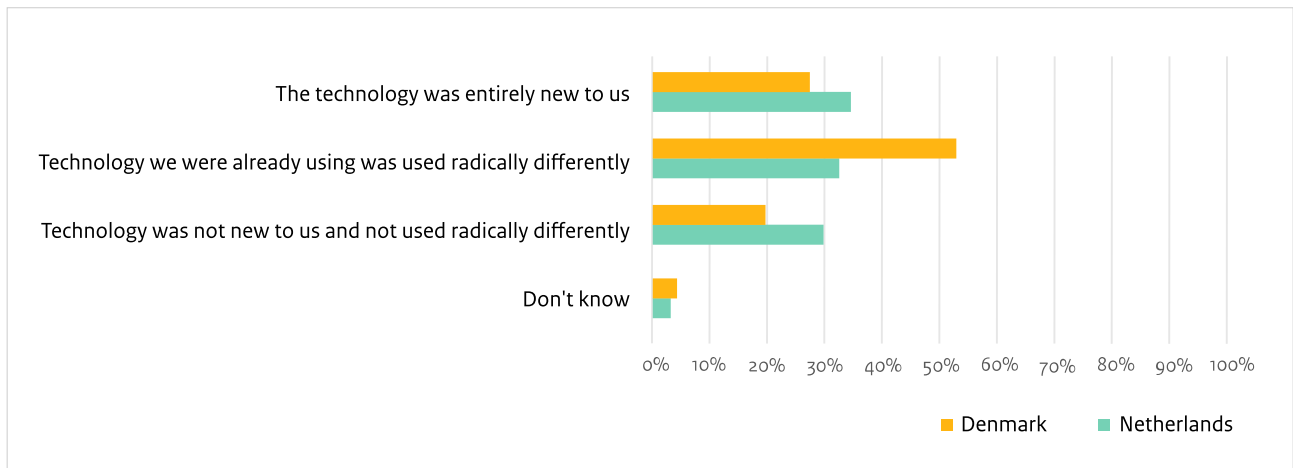


Source: Dutch Government Innovation Barometer 2021 and COI (2020).

In Denmark, the technological content of the innovations is considerably lower: in more than 60 percent Danish innovations did not consist of technology or did so for a small part only. This difference is not easy to explain beforehand: why is technology so much more often an important part of innovation in the Netherlands? One partial explanation may have to do with the measuring period: The Dutch survey took place later, namely, once the COVID-19 pandemic had taken a firm hold of society

and government. Most of the Danish survey had taken place before the COVID-19 pandemic broke out. There are signals that the pandemic has boosted the application and use of specific technological innovation (see elsewhere in this report). On the basis of the available data, the effect of the COVID-19 pandemic cannot be quantified. Future repeat surveys of innovation in government organisations in the various countries might shed more light on this.

Figure 6. Was the applied technology new to the organisation? (n=313).



Source: Dutch Government Innovation Barometer 2021 and COI (2020).

It becomes clear from Figure 6 that the implemented technology in Dutch organisations related in about equal measures to an entirely new technology, to a radically adjusted use of technology that had been used before, and to technology that was not at all new to the organisation.

Notably, Denmark has a larger share of organisations where a formerly used technology was deployed in the implementation of an innovation in a highly novel way. This difference cannot be explained on the basis of the available data either.

**Innovation in practice 9:** Fire brigade radar, a mathematical model/tool that can be used to calculate the highest risk of a fire in the next 8 hours, on the basis of historical, structured, and non-structured data. The control room then uses this data for the geographical distribution of vehicles, so that they will arrive at any fire faster.

**Innovation in practice 10:** Monitor to chart fluid youth networks and set the right priorities in the approach with the aid of data analysis. The development was accompanied by participatory scientific research. This is coupled to the systematic collection of anonymised 'street information' from aid workers, police, and neighbourhood institutions. Data analysis serves to identify and visualise the severity and impact of actors in a (youth) network. This coincides with the introduction of a new client tracking system (PGAx) for a personalised approach of crime and neighbourhood nuisance in which the social partners can likewise collaborate. The development was realised in collaboration with two other municipalities (with regional roles) and the safety house.

**Innovation in practice 11:** A public-private partnership between a water board and horticulturalists, which enables the latter with the aid of weather forecasts and a signalling system to store surplus rainwater in their reservoirs and have it available for irrigation in case of dry weather.

**Innovation in practice 12:** An environment monitor that combines factual data about environmental conditions with experience data. For example, take air quality and the experienced odour nuisance by citizens, or noise and the experienced noise pollution.

In addition to the sectoral classification used in this survey, the Ministry of BZK has clustered organisations that are active in the same policy area. An overview of both classifications can be found in Table 1 and Table 2 of the annex Accounting for the survey.

From an analysis of the technological content of the innovation and the extent to which the technology was new to the organisations, it is apparent that the technological content was relatively lower, and that new technology was less prominent, among overhead services<sup>7</sup>, policy departments and agencies, and among quasi-autonomous administrative bodies.

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7 Overhead is defined as management and functions, which support and indirectly contribute to the main purpose and include, but are not limited to, human resources, training and development, salaries, IT, auditing, marketing, legal, accounting/credit control and communications.



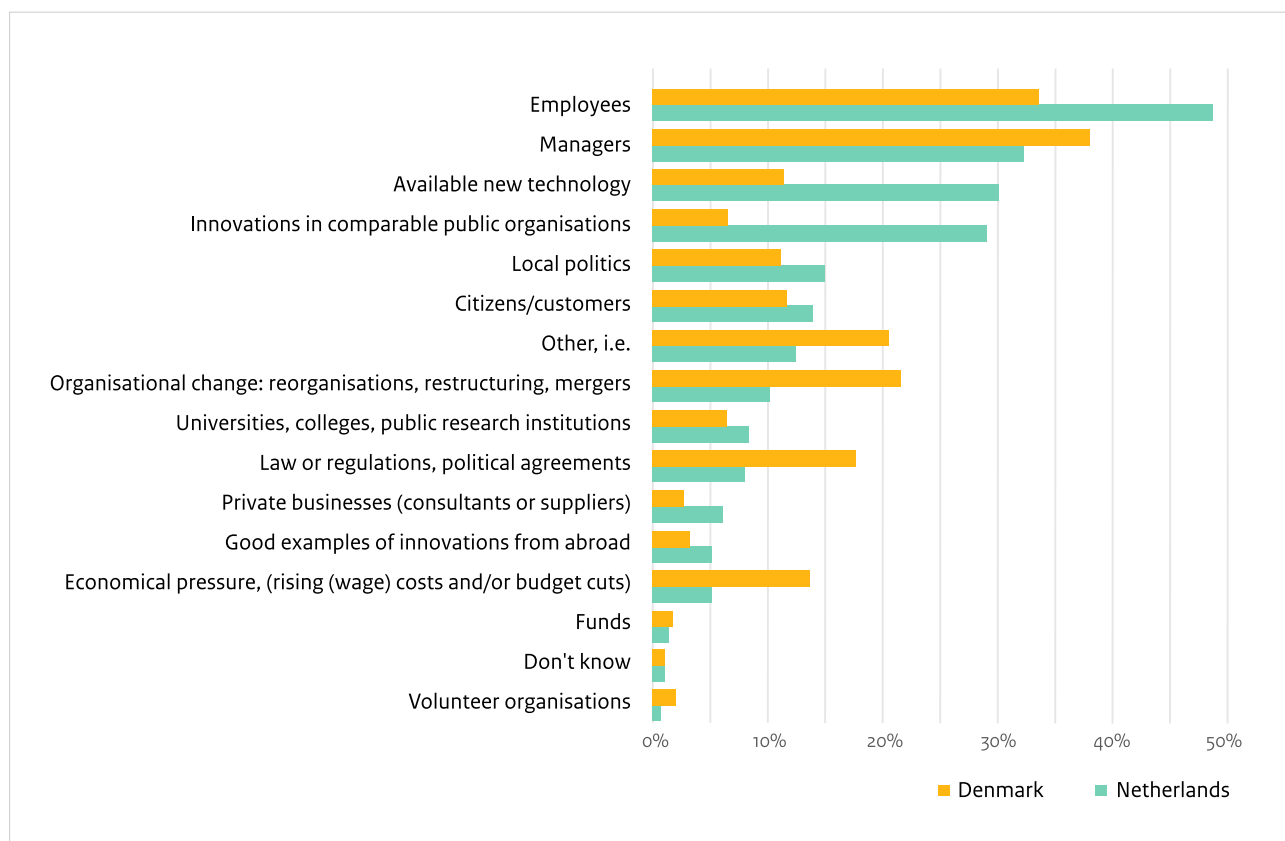
In clusters such as infrastructure and industrial estates, labour and social, and water management, technology played a bigger role (more technology and new to the organisation). The culture cluster leaps out since it shows a highly technological content, but this concerns technology that had been used before.

### How did the innovation come about?

We have previously seen how often innovation takes place, which types of innovations are concerned, how

broad the spectrum is, whether the innovation was really new or a copy, and to what extent technology plays a role in the innovation. All this provides an answer to a first basic question, namely the one about the nature of implemented innovations. It is now relevant to find out more about the way innovations come about. Where did the initiative for the innovation come from, who had the knowledge, did it include collaboration with others? These insights may be helpful in the search for cues to enhance the innovative strength of organisations.

Figure 7. Reasons for implementing innovations (n=313).



Source: Dutch Government Innovation Barometer 2021.

In Dutch government organisations, the initiative for the innovation often originated among their own employees (see Figure 7 above). In nearly half the cases, it was their own employees who took the initiative to implement improvements. In a further 30-plus percent of all cases, it was the managers who initiated the innovations. The importance of the role the employees play, whether they are managers or not, must not be underestimated. While innovation used to be primarily a task for experts,

sometimes clustered in special units and sometimes even employed outside of the organisation, recent decades have witnessed a development towards innovation carried out in the primary process by and together with employees. Thus, the place within the organisation where the innovation takes place has also shifted. Innovation activities do still take place in separate units to some extent, for example in data labs. However, parallel efforts are being made to engage primary process employees in

those innovation activities. The cases that can be found in this report bear witness to that. Multi-disciplinary teams have become the norm; from the start, knowledge about the execution of the primary organisational activities is essential to the innovation process.

Further key innovation incentives are the availability of new technology and good innovation examples from other organisations, within the sector itself or beyond. It is primarily employees and/or managers who see the possibilities of new technology or spot innovations in other organisations. Therefore, the response categories in this question overlap to some extent.

**Innovation in practice 13:** Deploying drones (in real time or using photography) for inspections and monitoring tasks in rural areas and the built environment, but also in case of crises or incidents, such as fires (when deployment of (extinguishing) robots may be in order), or to count the game population, e.g., wild boars.

**Innovation in practice 14:** Investment in innovative vehicle that uses less fuel (CO<sub>2</sub> reduction): lighter materials, lighter engines, lighter driveline.

**Innovation in practice 15:** Innovative treatment of wastewater and extraction of raw materials and energy from wastewater and silt.

The respondents make far less frequent mentions of any other reasons to engage in innovation: for example, the political environment and citizens were a reason stated by no more than about 15 percent. The same is evident in Denmark, where citizens or clients occasioned innovation in only about 11 percent of the cases.

In the comparison between the Netherlands and Denmark in Figure 7, a number of other things catch the eye. In the Netherlands, employees drive innovation more often than in Denmark (49 and 34 percent respectively), the possibilities of new technology are an incentive to innovation more often than in Denmark (30 and 12 percent respectively), as are innovations in other public organisations (29 and 7 percent respectively).

In Denmark, however, reorganisations are reasons for the innovation far more often than in the Netherlands (22 and 10 percent respectively), as are laws and regulations (18 and 8 percent respectively) and as is economical pressure (14 and 5 percent respectively).

In innovation literature, economical pressure is often mentioned as a key motive for innovating products and services, for producing them more cheaply cost-efficiently and for improving marketing and communications. Thus, competition between businesses results in innovation, or in any case: in applying innovation. According to Menno Spaan, the notion that innovations are primarily developed in the market sector should be reviewed: many innovations are developed with public funding and then applied privately. According to Spaan, the very ambition to look beyond financial profit and the desire to create public value make public organisations a sound innovation environment.<sup>8</sup>

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<sup>8</sup> Menno Spaan, *From containment to free flow*, Warden Press, 2019.

In public administration, organisations do not compete (or hardly). Thus, the innovation incentive that arises from competition is missing. High and/or rising wage costs and shrinking budgets as a result of economising could be incentives to innovation. Nevertheless, they are hardly ever mentioned in the survey; according to the respondents in the Netherlands, they occasioned innovation in only 5 percent of all cases. Reorganisation and restructuring, and laws and regulations likewise seldom result in implementing innovations. *It looks as if innovations in the Netherlands are mainly driven by internal factors, i.e., opportunities that arise (new technology, inspiring examples elsewhere), whereas in Denmark they are at least partly driven by external factors as well (such as reorganisations, budget cuts, politics, and legislation).*

In Figure 4, we could see that wholly or partially copying strong examples from outside of the organisation is an important way for government organisations to innovate. Those strong examples are mainly sought and found in their own country, as innovations from abroad play a modest role in both Denmark and the Netherlands.

In Figure 7, the COVID-19 pandemic is missing as an incentive for innovation. Still, in some cases, the application of innovations can actually be traced back to the pandemic. The Economist<sup>9</sup> optimistically refers to the end of “the great stagnation” (post-millennium weakening growth figures). This optimism is partly based on the unprecedented levels of investments in computers, software and in research and development that the United States witnessed in 2020. The optimism also due to the fast adoption of technologies, both by citizens and businesses, as a result of the very restrictions imposed by the pandemic: video phoning, making online purchases, digital payments, online medical treatments, and industrial automation. The innovation case of the Joint Scheme Veluwe IJssel Environment Agency (see text box below) is a fine example of the pandemic as an accelerator.

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9 <https://www.economist.com/leaders/2021/01/16/why-a-dawn-of-technological-optimism-is-breaking>

## OVIJ case “If there is no room for failure, you will never achieve innovation”

Menno van Dam, managing director of Joint Scheme Veluwe IJssel Environment Agency (OVIJ)

*The innovation: clever monitoring of businesses by digitally unlocking data. Formerly, OVIJ supervisors would visit businesses to monitor whether they complied with the provisions of their permit. They would then enter figures and reports into the OVIJ management system. Nowadays, the environment agency monitors by unlocking data flows digitally in consultation with the businesses. For example, data about energy use, about the amount of waste that was collected, or procurement data. Currently, the seven environment agencies in Gelderland are working on the development of a joint data lab to improve the way they maintain overall supervision.*

Traditionally inspections are focussed on monitoring and enforcing, which involves a culture of accuracy and legitimacy. The people who fit in with that culture are not naturally focussed on innovation. In order to bring about innovation a consulting division has been set up within OVIJ, where 6 to 8 people are entirely free to think about innovation. The management board names topics, such as circularity or sustainability. The result may be setting up a washable diaper system or promoting solar panels on company rooftops. That is not a certainty at the start. The commissioning parties – the aldermen of the municipalities involved – must also be willing to go along with the topics. And if things go wrong, you must communicate really clearly about that. It is part of the innovation process.

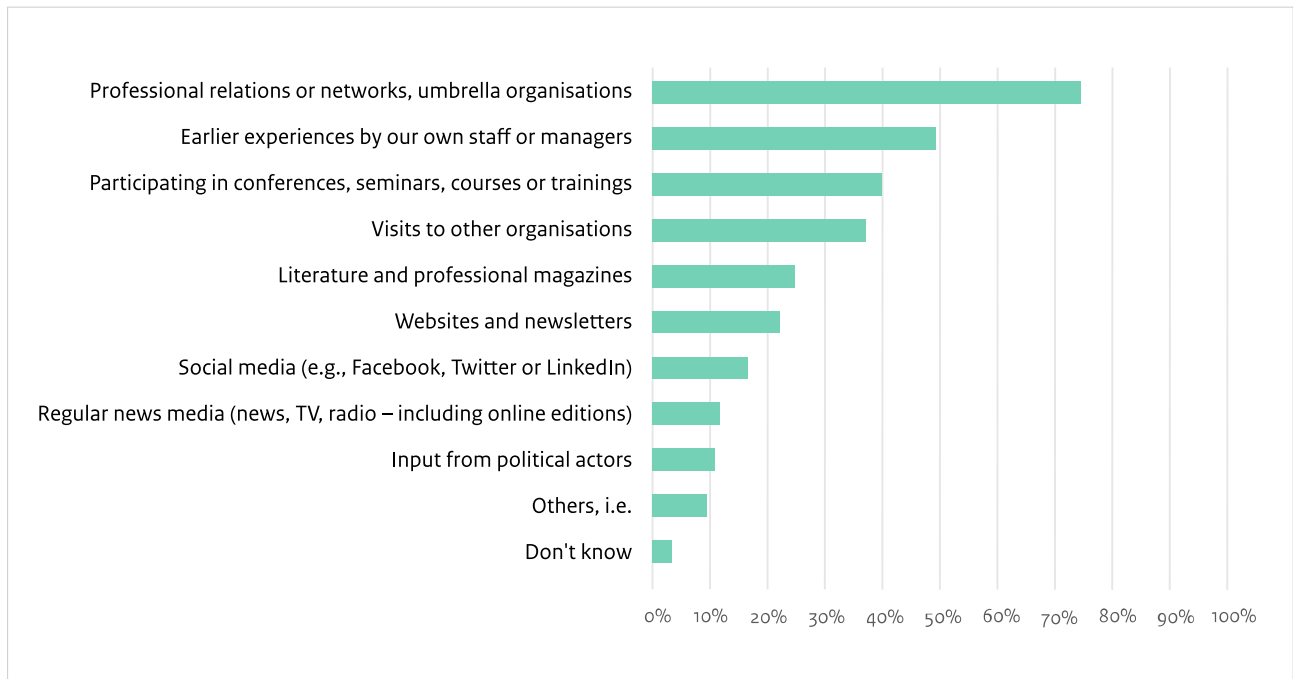
Corona was an *accelerator* of development towards digital supervision. The supervisors were less able to do their work in the traditional way; the creative minds from the consulting division thought along about alternative types of supervision.

The support for innovation is vast, partly because aldermen and municipal councils notice that the innovation comes about in a joint scheme. The costs are borne together, while the results are available to all.



Respondents were also asked where they first heard about the innovation that had since been implemented. That knowledge (Figure 8) turns out to be based mainly on the experiences their own staff (employees and managers) gain in their network, during conferences, courses, and trainings, and by visiting other organisations. This impression is comparable to the way Danish respondents come into contact with new applications.

Figure 8. Where did the knowledge about applications come from (channels) (n=313).



Source: Dutch Government Innovation Barometer 2021.

During the development and implementation of innovations, Dutch organisations collaborate with others to a large degree. Only 7 percent of the organisations states they have not collaborated with other organisations or organisational units. Most frequently, in nearly half the cases, they collaborate with private parties, with consultants or suppliers (Figure 9). Almost equally

frequently, they collaborate with other government organisations from their own sector and in more than a third of the cases, they work with government organisations from other sectors. Foreign partners and volunteer organisations play a limited role in collaboration.

Figure 9. Collaboration during development and/or implementation (n=313).



Source: Dutch Government Innovation Barometer 2021.

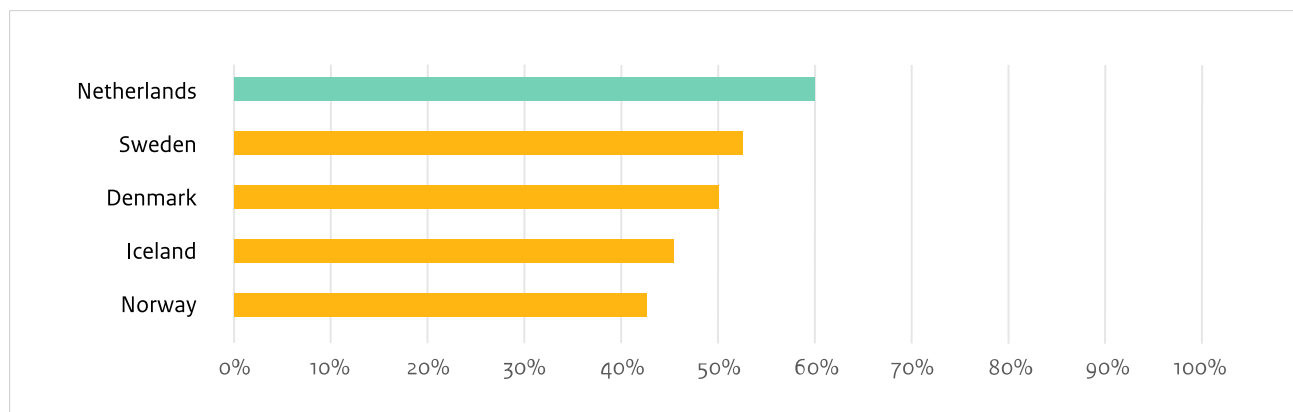
One interesting difference in comparison to Denmark is that in the most recent Danish survey, a far greater proportion of the organisations states they have not collaborated with others: 31 percent in Denmark, 7 percent in the Netherlands. Moreover, Danish organisations collaborate far less with private businesses: 18 percent in Denmark, 48 percent in the Netherlands. Lastly, in the Netherlands, organisations collaborate with foreign partners more than in Denmark: 9 and 2 percent respectively. These differences in collaboration may be explained by the cultural-historical development of the Netherlands, a trade nation with a large civil society and a long history of public-private partnerships (e.g., the establishment of the Dutch East India Company in 1602). Nowadays, government and businesses particularly cooperate closely in the fields of infrastructure construction, maintenance, and exploitation, and in development aid. The formerly mentioned commitment to consensus and support may likewise contribute to the willingness among Dutch government organisations to collaborate.

Collaboration takes place in all stages (phases) of the innovation process. Most collaboration takes place in the phases of developing, adjusting, and implementing the innovative application, slightly less frequently in the initial phase (the analysis phase) or in delivering an end product service or concept that was developed elsewhere. As the width of the innovation effort (the innovation spectrum) increases, collaboration with other parties in the analysis phase (beginning) and at the end of the process increases.

We saw before that the incentive for innovation in the Dutch organisations hardly ever originates with private parties (Figure 7). However, once the innovation is under way and needs to be further developed, consultants and suppliers play a large role.

Collaboration between parties means that good examples implemented by others are adopted, particularly through the employee and manager networks (Figures 7, 8, and 9). To bring this interaction about, the knowledge about their own innovative practice must obviously be made available to other organisations.

Figure 10. Actively spreading information about the innovation (n=313).

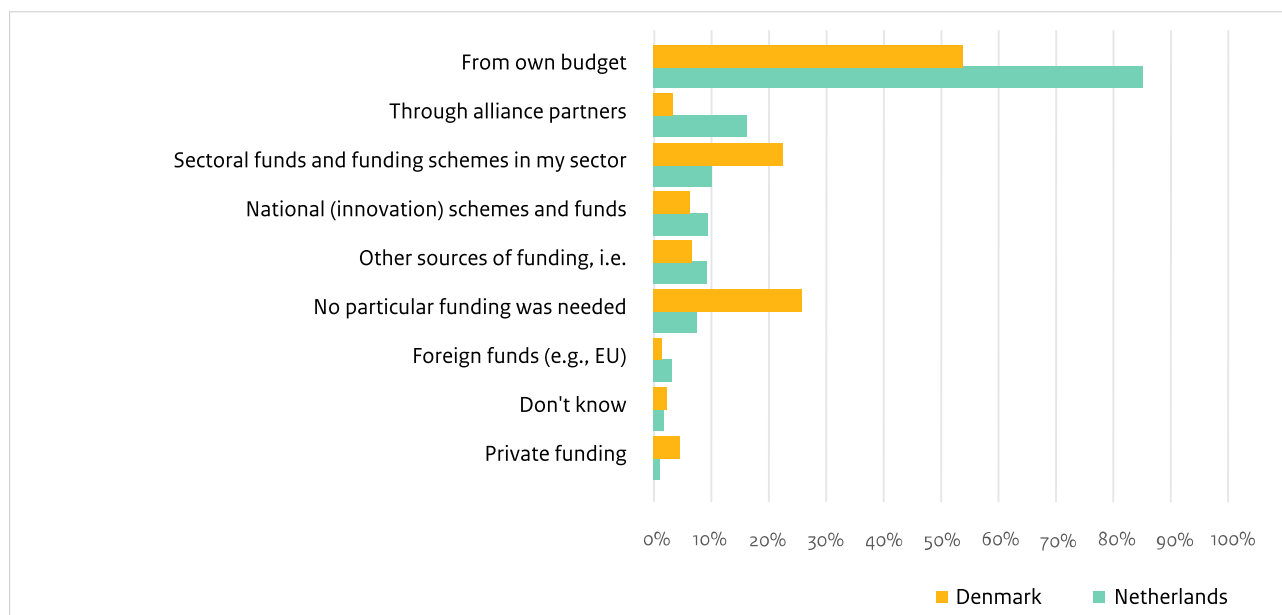


Source: Dutch Government Innovation Barometer 2021 and COI (2019).

Figure 10 shows that 60 percent van de Dutch government organisations engages in sharing knowledge to some extent. From an international perspective, this is quite a considerable score. One example of such active knowledge sharing can be found in the social domain

of the municipality of Utrecht, where the organisation's management philosophy and innovations are presented to fellow-municipalities and other interested parties by means of newsletters, workshops, and interviews (see page 34).

Figure 11. Funding innovation in Denmark and the Netherlands.



Source: Dutch Government Innovation Barometer 2021 and COI (2020).

Innovations are mostly funded out of the organisations' own budget (Figure 11); more often in the Netherlands (85 percent) than in Denmark (54 percent). Other funding sources are collaborating partners, sectoral funds, and national innovation schemes. In Denmark, organisations appeal to sectoral funds far more often, or they state that no specific funding was needed.

Large organisations (500 employees and over) often use national and sectoral funds and schemes than medium-large (100-250 employees) and small government organisations (fewer than 100 employees) to fund their innovations. This applies to organisations that are active across the innovation spectrum. Product and service innovations are financed by funds, schemes, and collaboration partners more often than process and interaction innovations are.

The respondents of the participation organisations were also asked about the adopted innovation strategy. The answers to that question are presented in Figure 12. In the text, the various strategies are indicated by means of single keywords. Text box 1 gives a somewhat more extensive description of the strategies.

#### Text box 1. Innovation strategies

##### Strategy

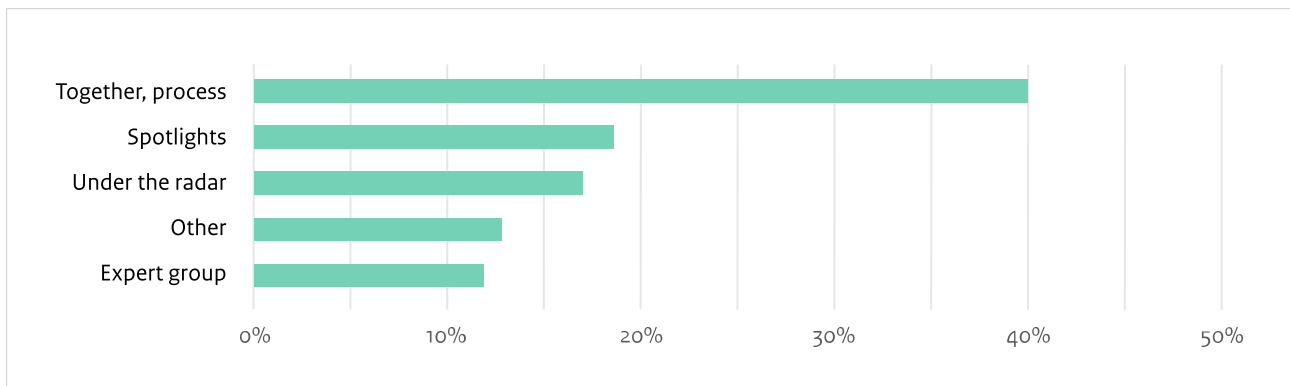
This survey distinguishes four innovation strategies, in keeping with Menno Spaan's use of them in *From containment to free flow* (see also above):

- Together, process: bringing about a new application in collaboration with all stakeholders, while the organisation officially focusses on the process;
- In the spotlight: developing a new application in public, generating political-administrative attention;
- Under the radar: trying out a new application 'under the radar' without too much involvement from those responsible for policy and bringing it further;
- Expert group: having a group of (hands-on) experts develop the new application, screened from others, and allowing them to come forward only once they have made considerable headway.

It is clear that developing a new application in collaboration with all stakeholders, while the organisation officially focusses on the process (together, process) is the strategy that is being adopted most: this was the case in 40 percent of the organisations. 19 percent of the organisations opted for the strategy to develop the new application ‘in the spotlights’, generating

political-administrative attention. In 17 percent of the organisations, innovations were tried out ‘under the radar’, without too much involvement from those responsible for policy. In slightly over 10 percent of all cases, a group of (hands-on) experts (‘expert group’) was working screened from others and only came forward once they had made considerable headway with the innovation.

Figure 12. Innovation strategy (n=313).



Source: Dutch Government Innovation Barometer 2021

The distribution across the various innovation strategies that have been observed in response to Figure 12 fits in with earlier findings in this report. The prominent role employees and managers play in the innovation process, combined with the high level of collaboration, explain the

great emphasis on the first-mentioned (together, process) strategy. Later on in this report, we will discuss a number of other, frequently stated conditions for innovation, such as providing scope, that likewise fit in with this process strategy.

**Innovation in practice 16:** A recreation board (responsible for the execution of the tourist recreation infrastructure) no longer restricts the development of cycle and walking networks to its own professionals behind the drawing board: the residents of municipalities themselves (be they village boards, landowners or residents) point out the most attractive routes and places in their municipalities, resulting in the development of a high-quality (experience) network that is unique and surprising both for the residents themselves and for tourists.

### Factors hindering or promoting the implementation of innovations

Towards the end of the survey, respondents were presented with some fifteen factors they could score to indicate whether they had had a (significantly) hindering, a neutral or a (significantly) promoting effect. The results can be found in Figure 13.

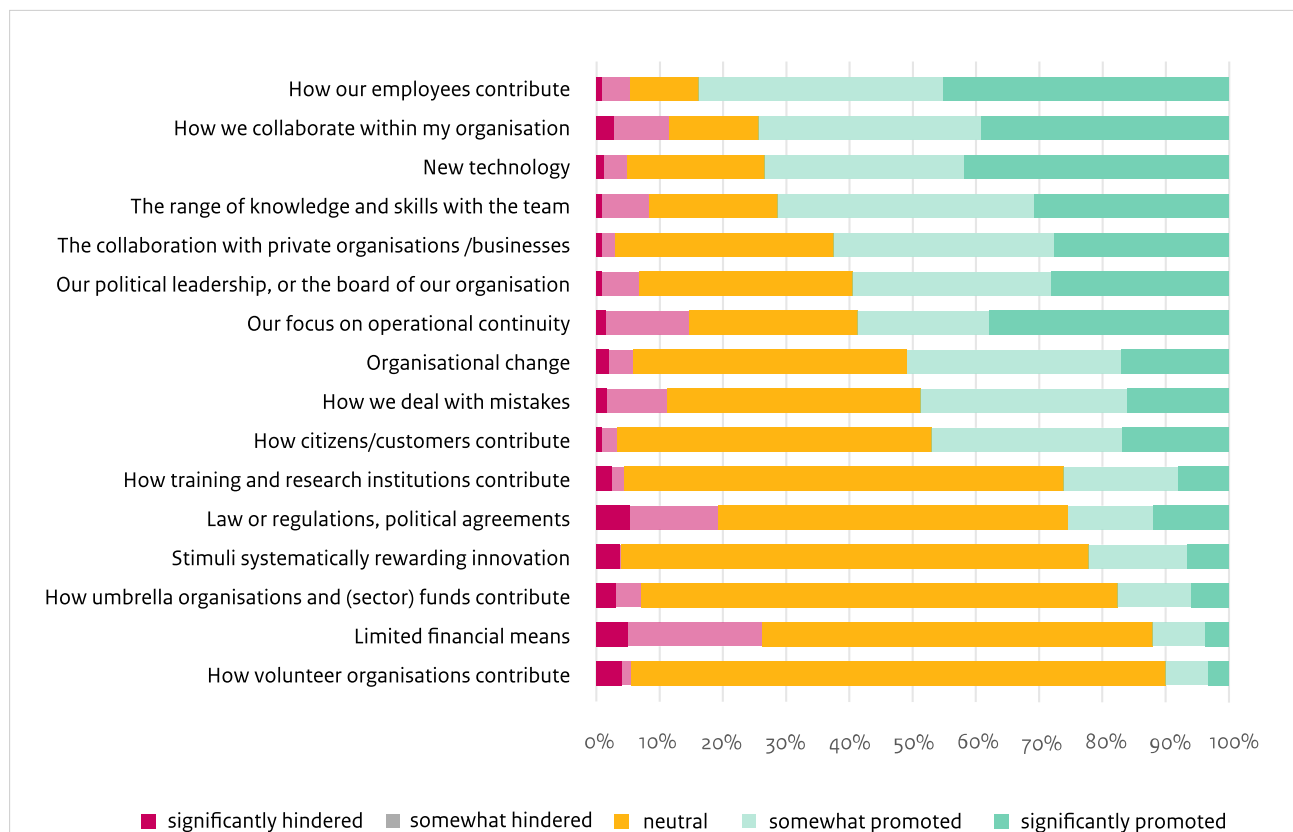
This figure confirms many of the insights that came up in this analysis before. The organisations’ own employees are crucially important to the success of innovations, thanks to their contribution and the wide range of knowledge and skills within teams. With regard to the latter element, one may think, for example, of the multidisciplinary teams where employees who know about innovation and/or technology work closely together with employees from the



primary process of the organisation in order to improve products, services, processes and/or the interaction with clients. Here, too, the importance of collaboration becomes evident, both within the organisations and with other organisations in the private and public sectors. The availability of new technology is a stimulating factor, as is political leadership and/or administrative management. The factors that were seen to be hindering innovation

were limited financial means, laws & regulations, and a strong focus on operational continuity. Factors that are considered to be relatively unimportant – put differently: of which many respondents stated they were neither hindering or promoting – were the role played by volunteers and their organisations, of umbrella organisations and funds, innovation incentives in the system, and the role played by research institutions.

Figure 13. Factors that hinder & promote innovation (most recently implemented innovation) (n=313).



Source: Dutch Government Innovation Barometer 2021.

It becomes clear from the comparison to the findings from the Danish survey (see also Figure 17 in Annex 2: Background data) that in Denmark, laws and regulations, limited financial means and the contribution made by citizens, clients and volunteer organisations more often have a stimulating effect.

In the Netherlands, the possibilities of new technology, collaboration with private organisations and the role of political leadership or the management of the organisation were more often seen as providing a (strong) incentive.

## 4. Innovation results

So far, this survey has focussed mainly on the nature of innovations and the innovation process. It has become evident that government organisations are highly innovative, and that the Netherlands is definitely not lagging behind in that respect. The innovation spectrum is broad: many organisations implement innovations that comprise products, services, processes and/or the interaction with citizens and clients. Many innovations are adopted from others, the innovations have high technological content, and the contribution made by employees and the collaboration within and outside of the organisation each play a key role.

An important follow-up question concerns the effect that the implementation of the innovation has. Has public value been created in the areas we outlined in the introduction? Enhancing the efficiency, quality and employee satisfaction was named, as were increased

citizen or client engagement, and achieving political objectives. For each of the five elements, respondents were asked whether these results were achieved as a consequence of applying the innovation.

Figure 14. Which results did the organisation achieve through the innovation, in the Netherlands and Denmark.



Source: Dutch Government Innovation Barometer 2021 and COI (2020).

As can be seen in Figure 14, in nearly two thirds of the cases, the respondents state that the efficiency has been enhanced as a result of the innovation. This means that the same results are achieved with fewer means (65 percent). Improved quality is named in nearly as many cases (60 percent).

In 42 percent of the cases, employees are more satisfied. Moreover, quite a few respondents name achieving political objectives (38 percent) and more citizen influence (29 percent). At the question whether other public values have been realised, a limited number of respondents made use of the possibilities to describe them, naming increased transparency, and especially keeping up service provision during the COVID-19 pandemic.

The same figure also shows the results of the Danish survey. In Denmark, the pattern somewhat resembles the Dutch outcomes, although improved quality scores slightly higher in Denmark, while enhanced efficiency scores a lot lower. This difference may also explain the observation regarding Figure 11 that Dutch government organisations bear (all) innovation costs much more often than Danish government organisations do: in the Netherlands, the investment has apparently been earned back in a fair number of cases by enhanced efficiency (lowering costs).

Statistical analyses have been carried for three of the result areas – quality, efficiency, and employee satisfaction – to work out with which characteristics of innovation and the innovation process these results may be connected. It becomes clear from these analyses – see Text box 2 – that there are a number of statistically significant connections between innovation characteristics and

the results they have achieved.<sup>10</sup> These analyses do not yield any unambiguous, powerful causal relationship between characteristics and results, only (slight) statistical correlations. Thus, conclusions may only be drawn with some restraint.

The analyses bear out the already existing impression that product innovations mainly go hand in hand with improving quality, while process innovations go together with enhanced efficiency. Also, we saw the return of a number of elements that came up earlier in this report: positive results go together with employees contributing to the innovation (quality), with copying innovations that had already been applied elsewhere (quality and efficiency), with management taking the lead (efficiency, employee satisfaction), with collaboration within the organisation and innovation in response to reorganisation (employee satisfaction).

#### Text box 2. Explanatory analyses regarding enhancement of quality, efficiency, and employee satisfaction

There is a relationship between product innovations and quality improvement. The same goes for the innovation spectrum: the broader the innovation spectrum, the more often an increase of quality applied. If respondents stated that the innovation was an adjusted copy of an innovation developed elsewhere and if the contribution made by employees during the innovation process was mentioned, a quality improvement was in order more frequently. A negative relationship was observed in case of purely technological innovations and innovations aimed at enhancing the interaction or communication.

It makes sense that innovation or vast improvement of products results in the improved quality from the last section; otherwise, the organisation would not implement the innovation in practice. It makes equal sense that it becomes apparent from the analyses that innovation of the processes goes hand in hand with enhanced efficiency. Improved production methods result in more production at the same cost (inputs) or equal production at lower cost (inputs). A positive relationship was also observed with regard to focussing on operational continuity. The stronger the focus on operational continuity, the greater the potential for efficiency profit. Then, there were two more factors that bear a positive relation to enhanced efficiency: if the initiative for the innovation came from the manager and if it concerned an innovation that had been implemented elsewhere before.

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10 They concern logistic regressions (stepwise, backward) with Adj R<sup>2</sup>=,275 (quality), Adj R<sup>2</sup>=,323 (efficiency) and Adj R<sup>2</sup>=,213 (employee satisfaction).

A negative relationship was observed if the initiative for the innovation originated from the political environment and if the innovation was funded from the organisation's own budget. Conversely, that last element can also be phrased as follows: if the innovation was funded from external sources, it more often coincided with enhanced efficiency.

The third public value that was analysed concerned enhanced employee satisfaction as a result of the implementation of the innovation. To start with, that satisfaction is related to the innovation climate, an aspect the next section will discuss in greater detail. A high level of collaboration within the organisation has a positive effect, while employees were also satisfied more often if the innovation came about as a result of a reorganisation and if the management board took the initiative to innovate. With respect to employee satisfaction, and to enhancing efficiency, this result was likewise achieved less often if innovations had been politically initiated. Funnily enough, there is also a negative relationship with having enough time for innovation: if that is the case, enhanced employee satisfaction applies less often.

Political control of innovations does not always turn out to have the desired effect in terms of efficiency or employee satisfaction. It is likely that politically initiated innovations only work under specific circumstances, for example if the objective that must be achieved likewise has a specific political character, and if the innovation revolves around that. The importance of embedding innovations becomes apparent from the observation that if innovations are purely technological, they do not result in improved quality quite as often.

What is remarkable in these analyses is that both sector and the size of the organisation are (statistically) insignificant in explaining the results of innovations. In the next section of this report, we shall make clear that the variation in innovation capacity within sectors are greater than the differences between sectors. The institutional framework of organisations – the laws and regulations, the way they are funded, the political and administrative environment – is the same for all organisations in a sector.

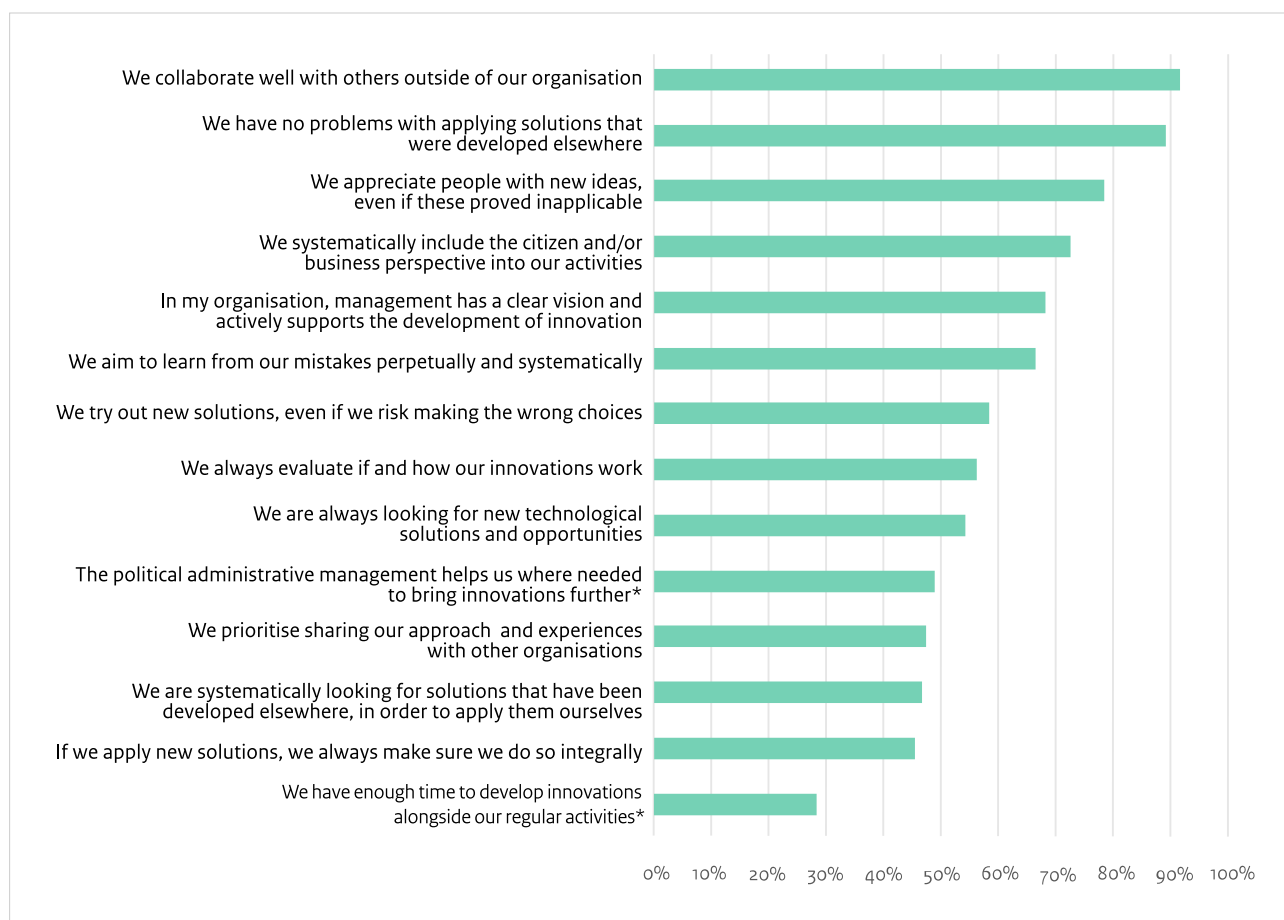
Thus, the former means that the differences in innovation capacity are caused to a greater extent by differences on organisational level than by the joint institutional framework.

Individual organisations have little influence on the institutional framework in which they work, but they do have far more influence on what happens in their own organisation. You can therefore draw the conclusion that most of the action to improve innovation should be taken at the organisational level. We will elaborate on this subject in the following sections.

## 5. The innovation climate within the government

So far, the majority of the findings related to organisations that implemented at least one innovation in the measuring period. We have presented all the participants with statements about the innovation climate within their government organisation, regardless of the question whether they actually implemented innovations or not. Figure 15 shows the results.

Figure 15. Statements about innovative climate (% [totally] agree), (n=366).



Source: Dutch Government Innovation Barometer 2021.

\* The marked items have not been included into the scale for statistical reasons, they are discussed elsewhere in this report.

The figure shows that the large majority of organisations (allegedly) collaborate well with other organisations, and that they have no problems with applying solutions that have been developed elsewhere.

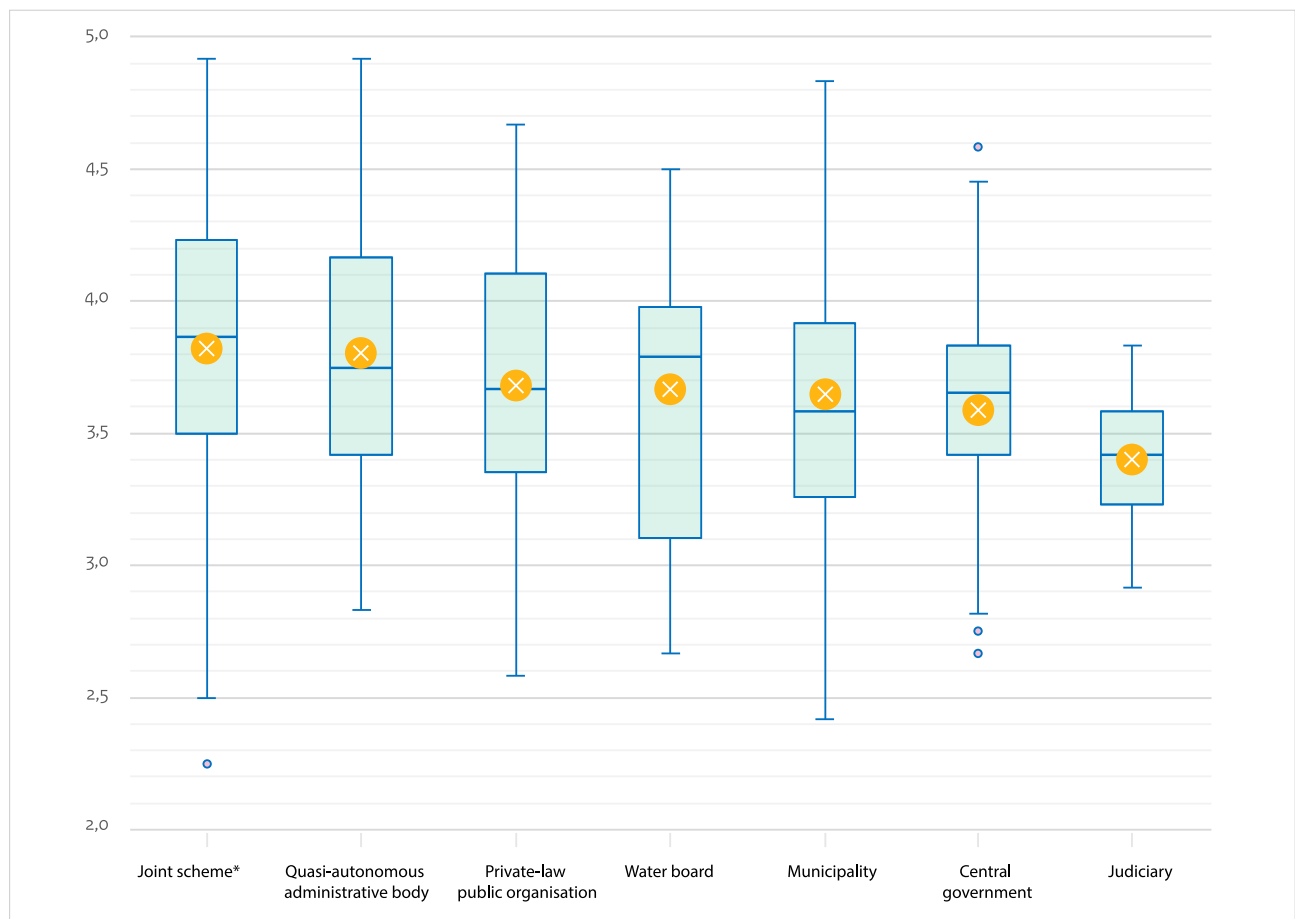
Moreover, more than three quarters state that people with new ideas are appreciated, and that the citizen and/or business perspective is systematically included in the activities. Approximately two thirds of the respondents state that the organisation strives to learn from its mistakes.

It becomes clear from factor analysis<sup>11</sup> that the statements are highly interconnected and can be combined into a measurement scale that expresses the innovation climate in organisations in one number. This scale runs from 1 (low) to 5 (high) and has an average value of 3,7.

The innovation climate varies greatly among organisations: some organisations have a strong innovation climate, while others have an unfavourable, limited innovation climate. An analysis of the distribution shows that the largest group is in the middle; they are scoring neither high nor low. All in all, the scale scores distribution is, statistically speaking, fairly normal.<sup>12</sup>

Figure 16 presents a box plot relating to the innovation climate within government sectors. This figure is suitable for visualising variations. The values are expressed in quartiles per sector, i.e., on top, the area with the 25 percent highest scoring organisations (line), below that, the area with the second highest scoring 25 percent (box), below that again, the area with the second lowest scoring 25 percent (box) and far below the area with the lowest scoring 25 percent (line)). The average for each sector is indicated by means of an X, while extreme outliers are shown as small circles.

Figure 16. Innovative climate per sector, all organisations (quartiles, average, outliers) (n=366).



Source: Dutch Government Innovation Barometer 2021.

11 Factor analysis is a statistical technique that can be used to find out if statements are interconnected and contain one or more 'underlying' dimensions. Such appears to be the case here, and there is one (latent) variable measuring the *innovative climate*.

12 A normal distribution is a distribution in accordance with the statistical expectations. According to these expectations just about any distribution of a population will follow the same pattern.

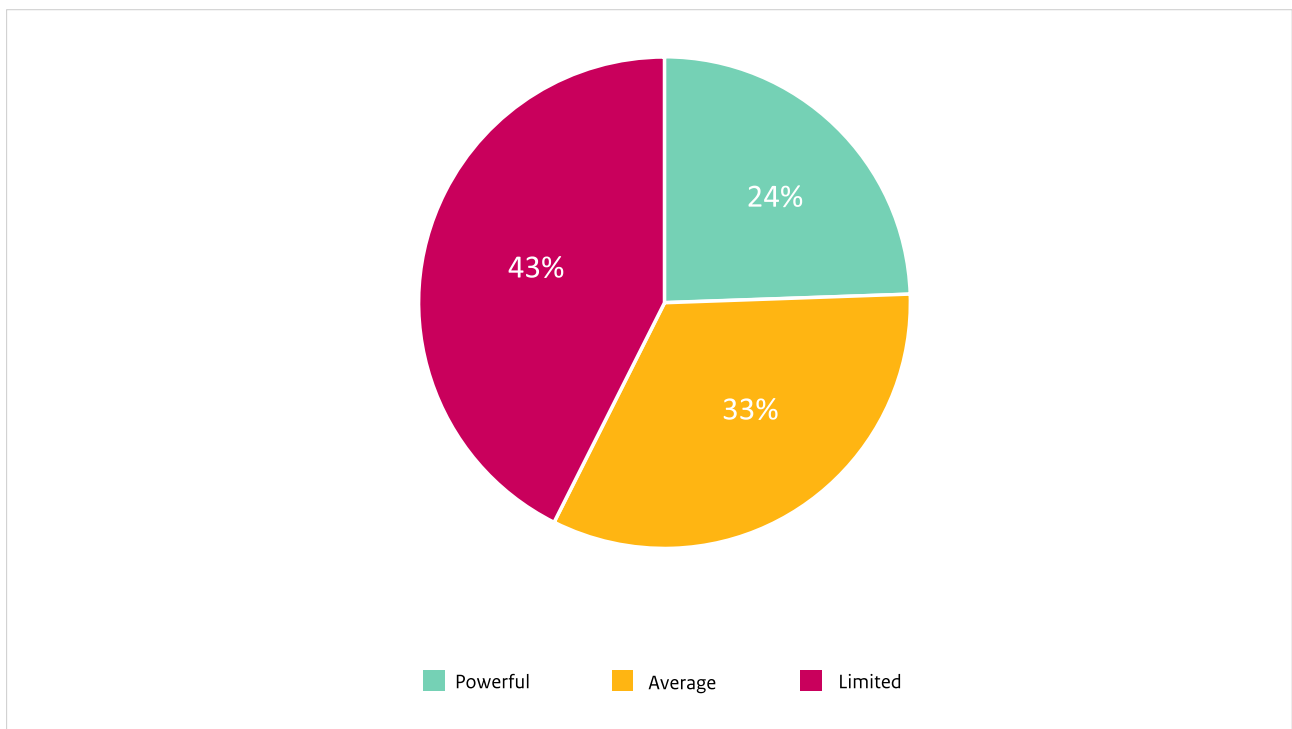
The figure reveals that, on average, the sector scores do not differ all that widely. The joint schemes and quasi-autonomous administrative bodies have high scores, while Central government and the Judiciary scores are a bit lower. However, if we consider the distribution within the sectors, far greater differences become evident. The highest scoring joint scheme has an innovation climate that comes close to the maximum of 5 points, the lowest scoring joint scheme has a much lower score for the innovation climate (2.25).

In [Annex 2](#): Background data, a similar figure has been included (Figure 18) containing the distribution per thematic cluster. It makes clear that the clusters of culture, environment agencies, quasi-autonomous administrative bodies, labour & social and infrastructure and industrial estates have relatively high scores. However, the distribution within these clusters by far exceeds the distribution between clusters.

The wide distribution within the sectors explains why the sector variable in the statistical analysis in the section above did not present a statistically significant correlation with the innovation results. Therefore, the explanation for the differences in created public value (quality, efficiency, satisfaction) must be sought elsewhere.

With the aid of yet another statistical technique (cluster analysis), organisations have been grouped according to their innovation climate. Organisations within a group are more similar to each other than to organisations from the other groups. Figure 17 shows that about a quarter of the organisations has a strong innovation climate: the organisations score higher than 4. There is a middle group (33 percent) that scores between 3.6 and 4.0 on innovation climate. Lastly, there is a large group of organisations (43 percent) with a relatively low score, below 3.6, pointing at a relatively limited or unfavourable innovation climate.

Figure 17. Three groups of organisations based on innovative climate score (n=366).

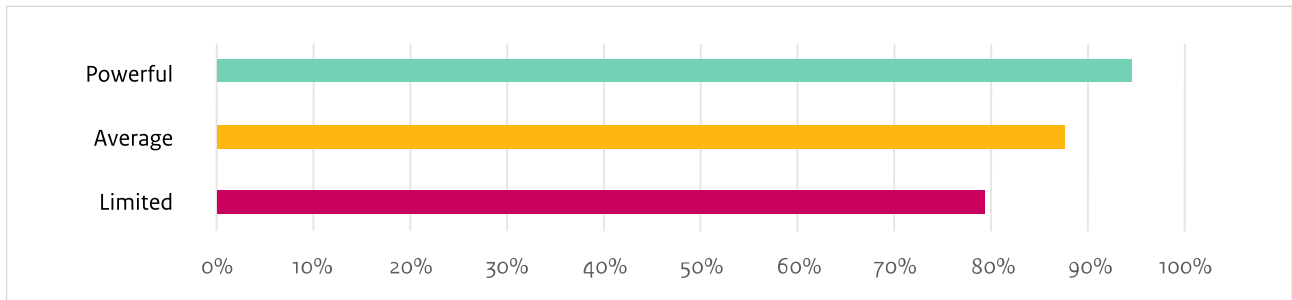


Source: Dutch Government Innovation Barometer 2021.

To illustrate how decisive the innovation climate is, we will re-present a number of variables below that we came

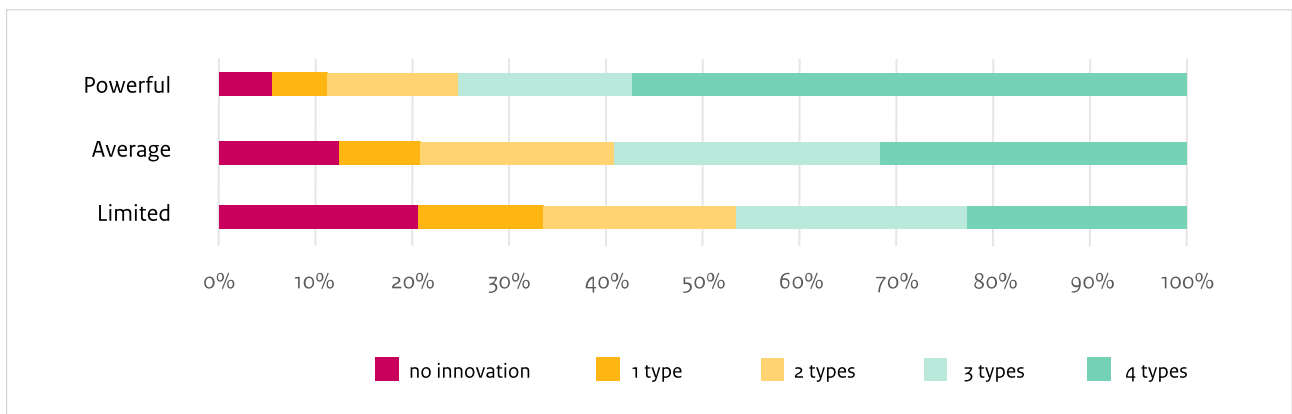
across before, now broken down according to innovation climate (powerful, average, limited).

Figure 18. Innovation frequency by innovative climate (n=366).



Source: Dutch Government Innovation Barometer 2021.

Figure 19. Innovation spectrum by innovative climate (n=366).



Source: Dutch Government Innovation Barometer 2021.

Figures 18 and 19 make clear that organisations with a powerful innovation climate innovate more frequently than organisations with an average innovation climate, which in turn innovate more than organisations with a limited innovation climate. Also, the innovation spectrum of organisations with a powerful innovation climate is clearly broader than among organisations with an average or limited innovation climate. Out of the organisations with a powerful innovation climate, a vast majority innovates across the entire innovation spectrum (products, services, processes, interaction). These organisations are engaged in innovation with far greater intensity than organisations with a less powerful innovation climate: they innovate integrally rather than limiting themselves to a single part.

In earlier sections, we saw that respondents mentioned various success and failure factors to explain whether innovations were implemented effectively, or not. The most frequently mentioned success factors were the employees (their contributions, the range of knowledge and skills within teams), the collaboration within and outside of the organisation, the application of new technology and the role played by the political or administrative leadership of the organisation. In Figure 20, we have listed how the success factors mentioned by the respondents differ by innovation climate.



Figure 20. Success factors by innovative climate (%) (n=313).



Source: Dutch Government Innovation Barometer 2021.

It is clear that organisations with a powerful innovation climate have better overall scores than organisations with an average innovation climate, which in turn score better than organisations with a limited innovation climate. The differences don't vary much across all success factors. Take, for example, the contribution made by volunteers. The largest difference can be found in the way organisations handle mistakes: in organisations with a powerful innovation climate, this is mentioned 43 percent points more often than in organisations with a limited innovation climate.

The way an organisation deals with mistakes is a recurring theme both in innovation literature, in networks in which innovative organisations collaborate, and in the interviews held on behalf of this survey. Innovation is a process of exploration and experimentation in which making mistakes is not only inevitable, but even desirable, since the learning experiences it entails are vital in order to take the next step.

Innovation programmes that lay down beforehand what will be done and according to what method seldom yield the desired results. In their 10 insights about innovation Ernst & Young phrased it as follows: *“Speed and failure together increase positive churn in the learning process. The best way to experiment is to fail fast, fail cheap and fail often.”*<sup>13</sup>

The room allowed for mistakes in the innovation process may sometimes be at odds with the political environment in which elected representatives monitor policy. Agreed deadlines, cost estimates and concrete results impede the innovation process that is characterised by creativity and room for failure. Judging members of government and administrators on mistakes (in innovation programmes) disregards the underlying objective that the very mistakes that are being made can actually be a further step towards the realisation of public value.

13 <https://www.economist.com/node/21561098>

Obviously, this does not mean that all mistakes can be declared valuable contributions to the learning process. In his column in the Dutch daily newspaper NRC, journalist Ben Tichelaar recently distinguished between simple failure, complex failure, and intelligent failure, analogous

to Amy Edmondson (more about this author below). In the innovation process the latter type of failure is concerned, “... purposeful failure while we explore new territory”.

## Utrecht case: “Start small, learn big.”

Gerbrich Kuperus and Pieter in 't Hout are working in the social domain of the municipality of Utrecht.

*The innovation: the ‘Huishoudboekje’ (housekeeping book) a provision of the municipality of Utrecht that gives residents financial stability on a voluntary basis by channelling their income and part of their expenses (fixed charges such as rent/mortgage, energy, water, healthcare insurance, et cetera) through a bank account under the surveillance of the municipality. An experiment using Blockchain revealed that technology did not adequately guarantee privacy. That is why the ‘housekeeping book’ was realised in a different way. The essence of the innovation is that the back office has been automated as much as possible, leaving more time for what really matters: interactions with citizens.*

The management philosophy in the social domain has been essential for the success of the project, as was the way the innovation took place. The trigger for the new management philosophy, by now known as the ‘Utrecht approach’, was the decentralisation of the social domain in 2015. Steering towards values is the crux: consistent aid and support close to home that is geared to what residents can do for themselves and what they need.

Room for innovation is part of that approach.

The innovative approach in the Utrecht social domain is essentially working by experiment. It means that the objective must be clear and urgent – helping clients by solving a specific problem – but that the innovation process is started without knowing exactly where it ends. Kuperus calls this, ‘Starting small, learning big’.

Collaborating with others is essential: in the social domain, the municipality is never the only stakeholder. The SVB, the Employee Insurance Agency UWV, the Tax Authority and a housing corporation, an energy company and an insurance company were also involved in developing the provision. Effective collaboration is conditional on clarity of the purpose and a personal connection with the partners. Only then is it possible to transcend the interests of one’s own organisation. The collaboration follows the above-mentioned innovation approach: no steering committee insisting on a predetermined project approach, but instead a control group that contributes ideas and inspires at the right moments.

Accounting for the policy and innovations must go into what has been achieved for clients, rather than the question whether certain targets have been met (X percent fewer expenses on Y) or about an innovation project that may or may not be successful.

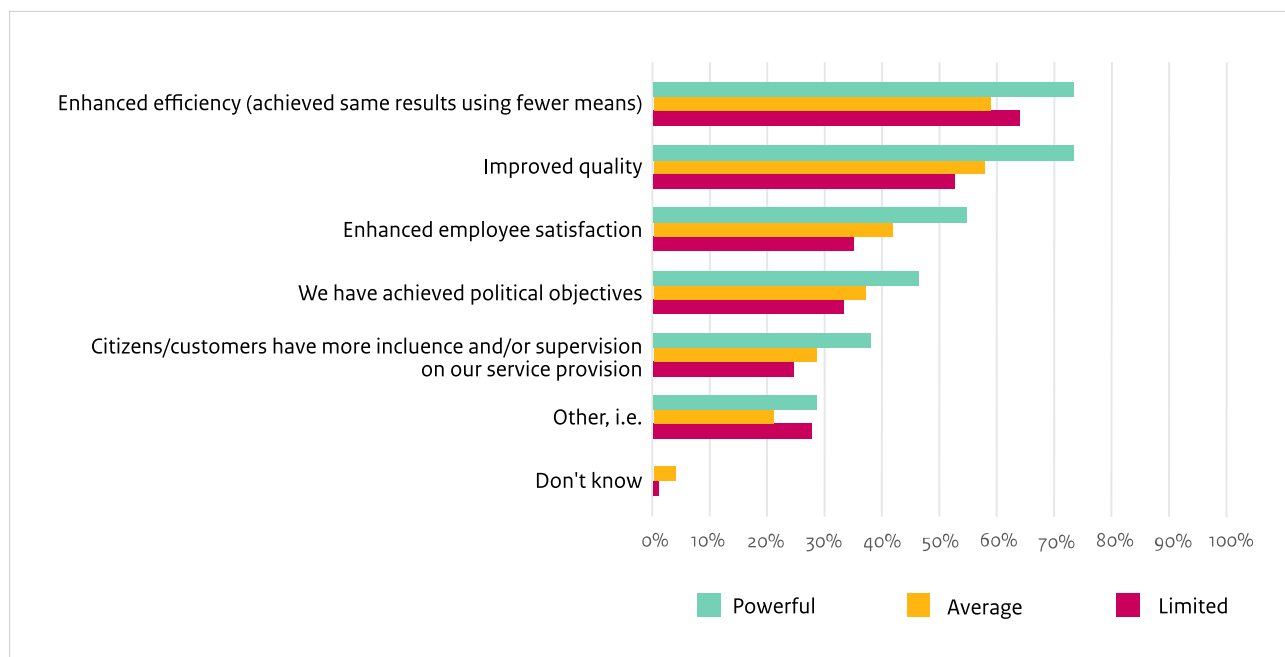
Organisations that are somewhat further removed from direct politics often perform better on innovation. This fact is partly due to the room that keeping such distance provides. We are referring, among others, to cultural institutions, environment agencies, quasi- autonomous administrative bodies, joint schemes, as well as organisations from domains such as labour and social, infrastructure and industrial estates, and safety regions (see [Annex 2](#): Figure 27).

If we look back at the findings in Figure 20, we can see that the adaptation of new technology is another area where organisations with a powerful innovation climate score much better compared to organisations with a far less innovation-friendly culture. Likewise, the collaboration within and outside of the organisation, and the management stand out in this respect.

The message in this section is clear: from the perspective of innovation, the organisational climate is vital. Lastly, this also becomes clear with regard to the innovation results.

Differentiated according to innovation climate, the differences between realised public values are abundantly clear (Figure 21). Overall, the organisations with a powerful innovation climate present a more favourable picture than the organisations with a limited innovation climate. Particularly in the areas of quality improvement and employee satisfaction, the differences are considerable: organisations with a powerful innovation climate score 20 percent points better in those areas than the ones with a limited innovation climate.

Figure 21. Results of innovation(s), by innovative climate (n=313).



Source: Dutch Government Innovation Barometer 2021.

### The parallels between innovation climate and work climate

While analysing the findings of the Dutch Government Innovation Barometer 2021, the parallel with the outcomes of the WERKonderzoek 2019 work survey by the Ministry of the Interior and Kingdom Relations thrust itself upon us.<sup>14</sup>

14 Core report WERKonderzoek 2019 (Dutch only), ICTU, The Hague, 2020 (<https://kennisopenbaarbestuur.nl/rapporten-publicaties/kernrapport-werkonderzoek-2019/>).

It becomes clear from both the Dutch Government Innovation Barometer 2021 and the WERKonderzoek 2019 survey that the organisation climate plays an essential role in the results achieved within and by organisations. The WERKonderzoek survey makes clear that the organisational culture may hinder optimum performance. Lack of room for the professional (regulatory pressure, focus on procedures), lack of clarity about organisational focus (mission drive), a lack of openness, a feeling of insecurity about making mistakes, weak collaboration, insufficient learning ability and external orientation are the relevant factors in that respect.

Building on Edmonson’s work<sup>15</sup>, we have developed a typology of organisations on the basis of two statements from the WERKonderzoek survey about the work climate. The two statements relate to psychological safety and to learning and performance standards, and run as follows:

- “Making mistakes and discussing them is safe in my organisation”, and
- “In my organisation, we are encouraged to improve continuously”.

On the basis of these statements, four organisation types could be distinguished, i.e.:

1. Organisations in the *apathy zone*: there is low psychological safety, and a low performance standard;
2. Organisations in the *comfort zone*: there is high psychological safety but a low performance standard.
3. Organisations in the *fear zone*: there is low psychological safety but a high performance standard.
4. Organisations in the *learning and performance zone*: the work climate is characterised by high psychological safety combined with a strong incentive to improve.

The latter type is known as the *Fearless Organisation*, which is also the title of Edmonson’s book.

Figure 22. Difference in team performance by type of work climate.



Source: WERKonderzoek 2019 survey (Dutch Ministry of the Interior and Kingdom Relations).

15 Amy Edmondson, *The Fearless Organization*, John Wiley and Sons, December 2018.

Employees from organisations in the learning and performance zone present higher scores on all aspects of team performance than the other types of organisations, as can be seen in Figure. Employees in this organisation type state less often that time and money are being wasted (efficiency). They state more often that the set targets are being met and that projects are successfully completed (effectiveness), that no laws or regulations are being violated, and that stakeholders are being treated fairly (legitimacy). Organisations in the fear zone score lower on all aspects of team performance than any other organisation type.

Further analyses on the basis of the WERKonderzoek 2019 survey show that in organisations in the learning and performance zone, employees have higher scores on satisfaction with their job, the team, and the organisation, on enthusiasm, and on engagement. Conversely, in organisations in the fear zone, employees score lower on all these aspects than employees in learning and performance zone organisations. Employee engagement and enthusiasm thrive in a culture pivoting around openness, and come under pressure in traditional bureaucratic, closed organisations. In short: a sound work climate goes hand in hand with better performance and with satisfied and committed employees.

The similarities between the outcomes of the WERKonderzoek 2019 survey and the Dutch Government Innovation Barometer 2021 are obvious. The organisation climate determines the results, whether they relate to successfully implementing innovations, team performance or carrying out the task the organisation has been set. Apart from the room for the employees, including room for errors and learning orientation, collaboration, adopting good examples from others and the role played by the organisational management are crucial.

## 6. Findings and recommendations

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### Findings

For the Dutch Government Innovation Barometer 2021, representatives of nine (government) sectors completed an extensive questionnaire about the innovations implemented in 2019 and 2020. In this report, we have analysed how those innovations came about and what the results were.

A first conclusion is that Dutch government organisations innovate frequently (86% of the organisations participating in the survey) and this involves a broad spectrum of innovations: often the innovation of products, services, processes and/or interaction with citizens is combined. Some organisations develop innovations by themselves, while many copy from others. Innovations have a high technological content. Key elements in the innovation process are the contributions made by employees, and collaboration within and outside of the organisation.

Innovations are often initiated by the organisation's own staff (employees and managers) because they recognise the possibilities of new technologies or spot successful innovations in other organisations. Environmental factors, such as laws and regulations, budget cuts or increasing costs, are seldom named as incentives for innovation. Knowledge about innovations often comes from employees, and organisations collaborate with private parties and government organisations – particularly in the implementation phase. The vast majority of the institutions (85 percent) funded the innovation themselves.

In two thirds of the cases, the innovation has resulted in enhanced efficiency, while nearly as many cases resulted in improved quality, followed by employee satisfaction, and achieving political objectives.

### International comparison

In our analysis, we have frequently included the findings from similar surveys in a number of Scandinavian countries. Compared to the countries in question, the Netherlands is doing well, for example, where innovation frequency and knowledge sharing are concerned. The most detailed comparison was made with Denmark, resulting in an interesting pattern of similarities and differences. In Denmark, innovations more often come about as a result of external incentives (laws and regulations, restructurings, budget cuts), while in the Netherlands the reason is much more often that organisations themselves spot opportunities (new technology, successful innovations in other organisations). In Denmark, organisations frequently work with others, in the Netherlands, that is (almost) invariably the case. In the Netherlands, innovations are funded by the organisations themselves more often than in Denmark. Moreover, Dutch innovations more often have a (key) technological component. As to results, the emphasis in Denmark is more on improving quality, while in the Netherlands enhancing efficiency plays a relatively larger role than it does in Denmark.

In short, one might say that Dutch government organisations innovate mostly because they spot opportunities, and particularly to enhance efficiency. In Denmark, there is more external pressure to innovate, and innovations result in improved quality slightly more often.

## Considerations regarding successful innovation

There is no simple recipe for innovation: developing and implementing new applications is a complex process that goes hand in hand with failure. In this survey, we have seen that the innovative potential of organisations varies widely. That variation likewise occurs among organisations that are comparable, for example, with respect to task (sector) and size. As a result, successful innovation depends mainly on factors within the organisation, and to a lesser extent on external circumstances. The organisational climate is decisive: organisations with a powerful innovation climate innovate more frequently, more broadly and more successfully.

According to the respondents in this survey, the most important contribution to successful innovation is made by employees. Employees initiate innovation, investing their knowledge and networks. Variety in the knowledge and skills within teams is crucial. Orientation on the possibilities that new technologies bring along and on innovation in other organisations is indispensable. Apart from the contribution made by employees, success is conditional on collaboration: this concerns both collaboration within the organisations – for example between innovation experts and employees from the primary process – and collaboration with other organisations, particularly with private businesses. The political administrative leadership is another success factor: a vision on the course the organisation is following is vital in order to decide on the innovation strategy and create the circumstances within the organisation that promote innovation.

The main difference between organisations boasting a powerful innovation climate and organisations with a limited innovation climate is the way they handle mistakes. The necessity to provide room for failure and learn from it is a recurring element in the analysis of the data, the interviews that were held and the descriptions of implemented innovations. Partly on the basis of this observation, this report makes the connection with the results of the WERKonderzoek 2019 survey: organisational performance is determined to a high degree by a work climate that puts psychological safety and continuous learning and improving first. We have seen this also applies to performance with regard to innovations and the public values they create.

On the basis of this report, we can conclude that there are many opportunities for government organisations to create public values by means of innovation, as is happening in Dutch practice to a large extent. It has become clear that successful innovation requires a consistent and organisation-wide approach. Integral innovation is rewarding. Nevertheless, it is also worthwhile to invest in separate functions. Investing in a safe learning climate is crucial. Management and politics must provide room for innovative experiments and accept they may fail.

Moreover, it has become clear that organisations are frequently inspired by good practices in their own country, but that little is being done with good practices from abroad. They deserve more attention, as it is obvious that much can be learned that way, too.

# Annex 1: Accounting for the survey

For the benefit of the survey, we have collected 1.374 names of organisations, ultimately accountable managers across nine sectors and corresponding e-mail addresses from various sources. In the spring of 2021, we sent out invitations to take part in the survey, and if necessary, sent up to two e-mail reminders (survey duration: February through May 2021). The response to the survey amounts to nearly 27 percent, i.e., more than a quarter of the population. The response varied per sector, the High Councils of State (4 out of 6 respondents), water boards and quasi-autonomous administrative bodies responded above-average.

The response among municipalities and central government was below-average. Whereas only individual organisations were approached in other sectors, organisational units of municipalities and central government were also invited to take part in the survey. They concerned the municipal services of the 15 largest municipalities and management boards and overhead departments of ministries. Individual organisations are not represented in a recognisable way. Due to the small number of respondents, the results from the High Councils of State and the provinces sectors are not presented separately either.

Table 1. Population and response by sector

	Sent	Completed	Response
Municipalities	435	85	19.5%
Joint schemes	353	110	31.2%
High Councils of State	6	4	66.7%
Private-law public organisations	97	26	26.8%
Provinces	12	3	25.0%
Judiciary (judicial authority and prosecution)	41	14	34.1%
Central government (Ministries)	331	76	23.0%
Water boards	21	12	57.1%
Quasi-autonomous administrative bodies	78	36	46.2%
<b>Total</b>	<b>1374</b>	<b>366</b>	<b>26,6%</b>

Source: Dutch Government Innovation Barometer 2021.

The questionnaire consisted of a number of segments. To start with, the participants were asked how large the organisation was in terms of employee numbers, followed by a set of questions about the impact of the COVID-19 pandemic on work progress and the facilities to work from home. Subsequently, organisations that stated they had implemented innovation(s) in the survey period (2019 and 2020), were presented with a set of questions about the most recently implemented innovation.

At the end of the questionnaire, we asked all organisations questions about, among others, the organisational culture – i.e., including the organisations that stated they had not implemented any innovations. A PDF version of the (Dutch-language) questionnaire can be found online.<sup>16</sup>

<sup>16</sup> See: [Vragenlijst Innovatie Barometer 2021](#). Please note; this questionnaire is online temporarily but will go offline eventually. For further information, please use the e-mail address that has been included in the colophon.



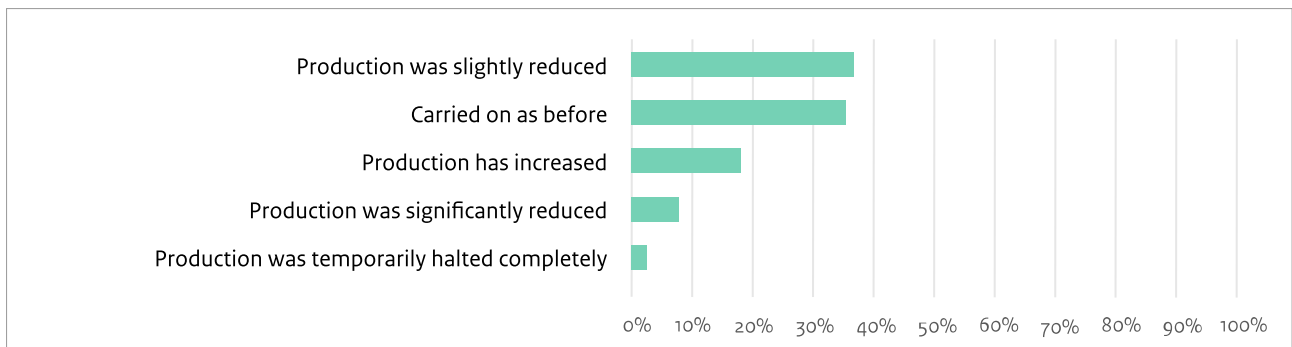
Table 2. Thematic clustering of organisations

Row labels	Number of organisations
Municipalities and municipal units	90
Quasi-autonomous administrative bodies	34
central government, implementation	32
Culture (particularly decentralised)	30
Central government, policy units	29
Other (decentralised)	24
Labour and Social (decentralised)	19
Water management (water boards and other water-related organisations)	18
Central government, overhead units	15
judiciary (Judicial Authority and Prosecution)	14
Infra and Industrial estates (decentralised)	14
Safety regions	11
Environment agency	11
(Inter-)Municipal Health Service	9
Tax Authorities (decentralised)	6
Shared Service Centre (decentralised)	6
High Councils of State	4
<b>Total</b>	<b>366</b>

Source: Dutch Ministry of the Interior and Kingdom Relations (2021).

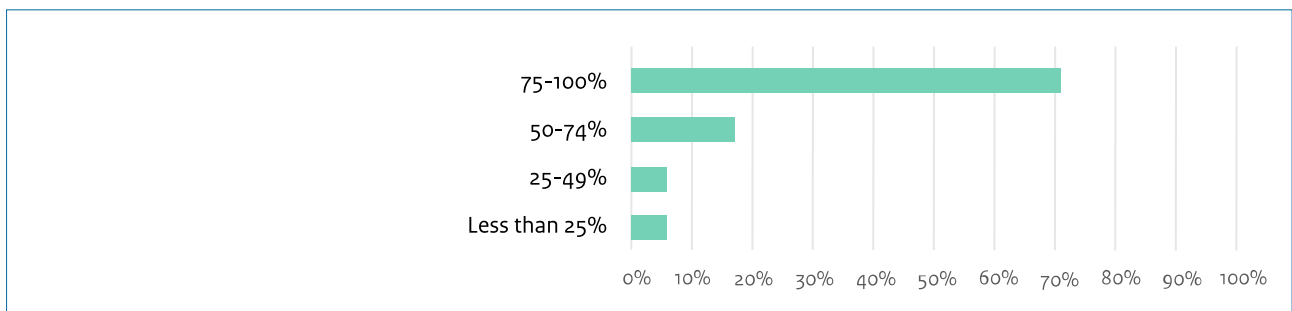
## Annex 2: Background data

Figure 23. Impact of the pandemic on the production of goods and services, (n=366).



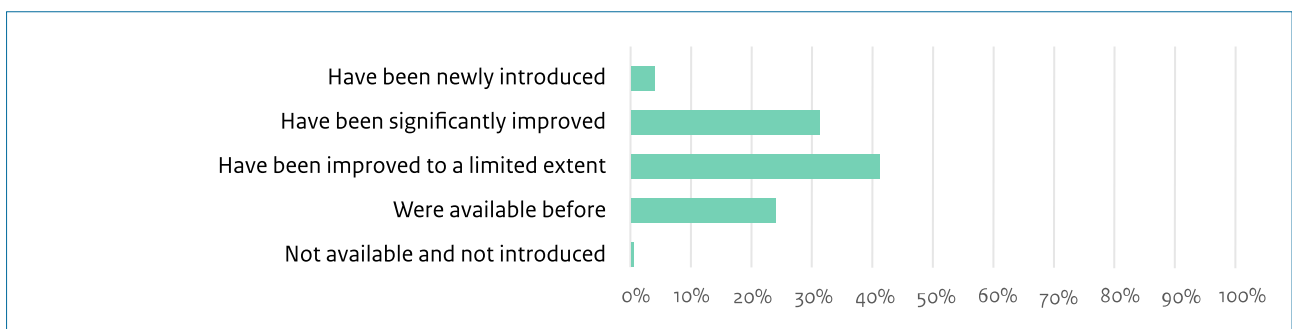
Source: Dutch Government Innovation Barometer 2021.

Figure 24. Share of employees working from home at the peak of the pandemic, (n=366).



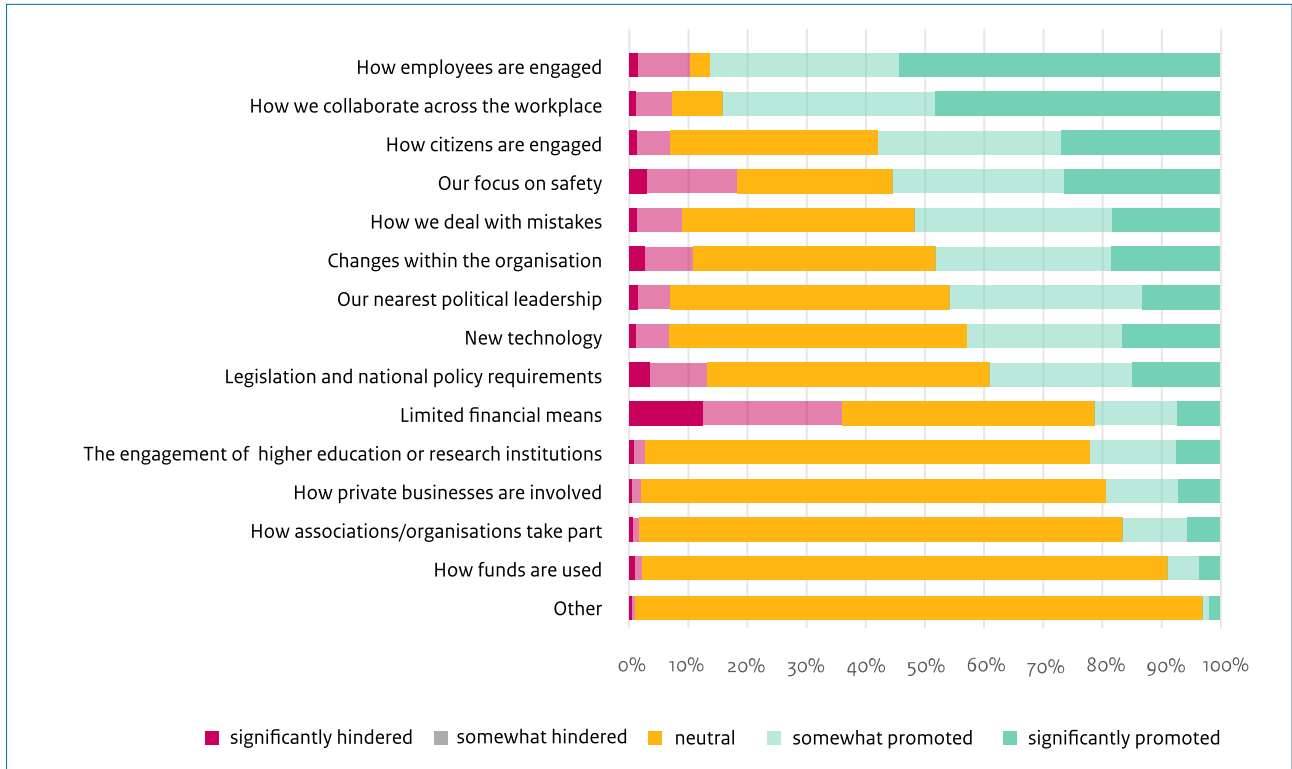
Source: Dutch Government Innovation Barometer 2021.

Figure 25. Availability of facilities for working from home, (n=366).



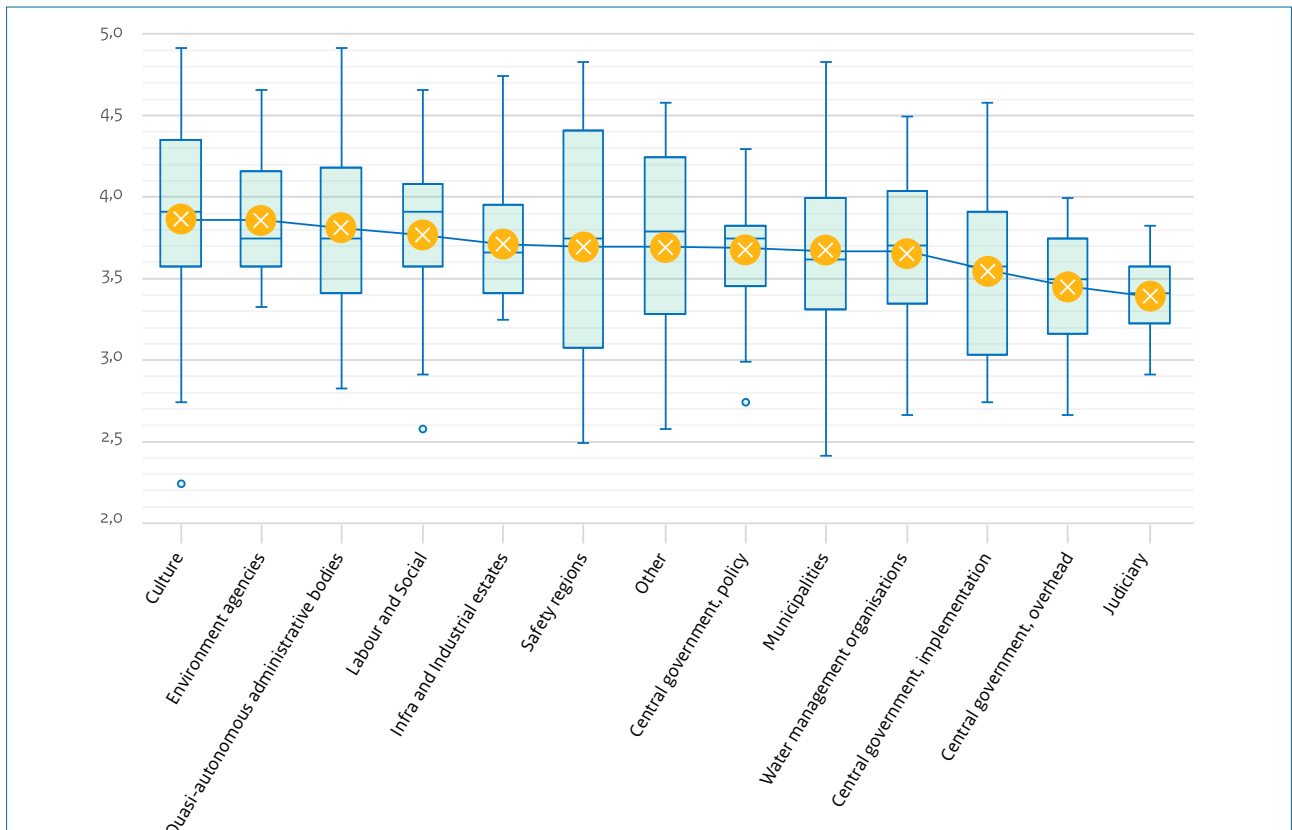
Source: Dutch Government Innovation Barometer 2021.

Figure 26. Successes and failures of innovations, Denmark.



Source: Dutch Government Innovation Barometer 2021.

Figure 27. Innovative climate per thematic cluster, all organisations (quartiles, average, outliers) (n=366).



Source: Dutch Government Innovation Barometer 2021.

# COLOPHON

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