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Report

INNOVATION CAPABILITY IN 102 SWEDISH PUBLIC AGENCIES

– what sets those that succeed apart, and what are the factors in their success?

Implement Consulting Group and researchers from the Integrated Product Development programme at KTH Royal Institute of Technology carried out a study of 102 Swedish public agencies funded by Vinnova. The findings provide fresh insights into the current situation and what distinguishes successful from unsuccessful agencies in their efforts to innovate. Although the data in the study relates to public agencies, the underlying framework for the work is also applicable to other sectors and industries.

Introduction to the study

Innovation can be defined as something new that is put into effect and creates value. Traditionally, innovation has been equated with new technologies and products, but in recent decades the term has been broadened to encompass everything from new services and business models, new work processes and ways of organising and managing to large-scale solutions to complex societal problems. This also means that the values generated by innovation are more than just financial and that the benefits are often only apparent at a much later stage.

In order to shed some light on this, Vinnova (the Swedish innovation agency) has funded this study of Swedish public agencies. It follows up the study undertaken in 2017 ("Innovation and renewal in 112 Swedish public agencies – what sets those that succeed apart, and what are the factors in their success?", available on the Vinnova and Implement Consulting Group websites). The studies were carried out by consultants from Implement Consulting Group (Roger Lundegård and Jonas Winqvist) and researchers at the KTH Royal Institute of Technology (Sofia Ritzén and Susanne Nilsson). The findings provide fresh insights into the current situation and what distinguishes successful from unsuccessful agencies in their efforts to innovate.

The study covers 102 Swedish public agencies, and the data relating to each agency results from a self-assessment, with each agency being asked to use a 6-point scale to indicate how well various statements applied to them. Vinnova contacted the Director-General (DG) of each agency, who was then asked to designate staff to respond to the questionnaire. Those selected needed to have a good strategic overview of the agency's overall approach and capacity for innovation work from an overall management perspective.
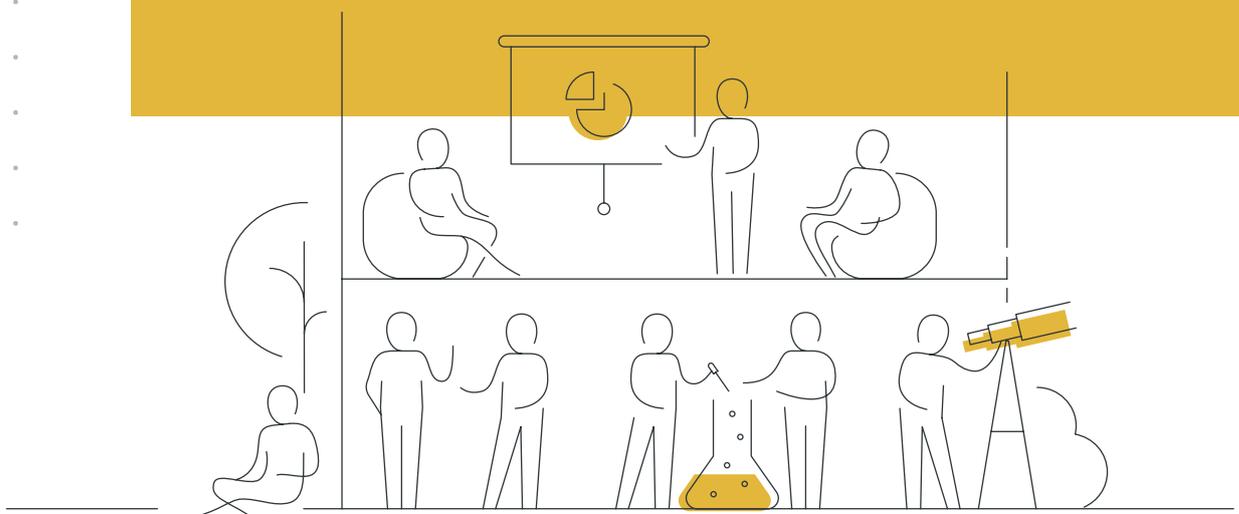
The following agencies were involved in the study:

- National Board for Consumer Disputes (ARN)
- Accountability Board for Animal Health and Welfare
- Swedish Public Employment Service
- Swedish Agency for Government Employers
- Swedish Work Environment Authority
- Swedish Companies Registration Office
- Swedish National Board of Housing, Building and Planning
- Swedish Crime Victim Authority
- Swedish Board of Student Finance (CSN)
- DIGG – Agency for Digital Government
- Judges Proposals Board
- Swedish Export Credit Agency (EKN)
- Swedish Economic Crime Authority
- Swedish National Financial Management Authority
- Swedish Energy Markets Inspectorate
- Swedish Energy Agency
- Swedish Ethical Review Authority
- Swedish Financial Supervisory Authority
- Swedish Fiscal Policy Council
- Swedish Defence Materiel Administration
- Formas research council for sustainable development
- Swedish Research Council for Health, Working Life and Welfare
- Swedish Fortifications Agency
- Swedish Armed Forces
- Swedish Social Insurance Agency
- Health and Social Care Inspectorate (IVO)
- Swedish Authority for Privacy Protection (IMY)
- Office of the Chancellor of Justice
- Swedish Gender Equality Agency
- Legal, Financial and Administrative Services Agency
- Swedish Chemicals Agency
- Karolinska Institutet
- National Board of Trade Sweden
- Swedish Competition Authority
- Swedish Arts Grants Committee
- Swedish Consumer Agency
- Swedish Prison and Probation Service
- Enforcement Authority
- Swedish Coast Guard
- Lantmäteriet (Swedish mapping, cadastral and land registration authority)
- Swedish Food Agency
- Swedish Migration Agency
- Family Law and Parental Support Authority
- Swedish Agency for Cultural Policy Analysis
- Swedish Press and Broadcasting Authority
- Swedish Agency for Accessible Media
- Swedish Agency for Youth and Civil Society
- Swedish Civil Contingencies Agency
- Swedish Environmental Protection Agency
- Nordic Africa Institute
- Board of Notaries
- Swedish Intellectual Property Office
- Swedish Pensions Agency
- Swedish Polar Research Secretariat
- Swedish Police
- Swedish Post and Telecom Authority
- Swedish Inspectorate of Auditors
- Swedish National Archives
- Swedish National Debt Office
- Swedish International Development Cooperation Agency
- Swedish Tax Agency
- Swedish Forest Agency
- Swedish Institute for Educational Research
- Swedish Meteorological and Hydrological Institute (SMHI)
- National Board of Health and Welfare
- National Agency for Special Needs Education and Schools
- Swedish Gambling Authority
- Swedish Agency for Health Technology Assessment and Assessment of Social Services
- National Property Board Sweden
- Swedish Geotechnical Institute
- Swedish Accident Investigation Authority
- Swedish National Board of Institutional Care
- Swedish Board of Agriculture
- Public Art Agency Sweden
- Swedish Arts Council
- Swedish Media Council
- Music Development and Heritage Sweden
- Swedish Schools Inspectorate
- Swedish National Agency for Education

- National Government Employee Pensions Board
- National Veterinary Institute
- Swedish National Road and Transport Research Institute
- Statistics Sweden
- Swedish Agency for Public Management
- Swedish Radiation Safety Authority
- Swedac (Sweden's national accreditation body)
- Swedish ESF Council
- Swedish Institute
- Geological Survey of Sweden
- Swedish Commission on Security and Integrity Protection
- Swedish Security Service
- Dental and Pharmaceutical Benefits Agency
- Swedish Agency for Growth Policy Analysis
- Swedish Agency for Economic and Regional Growth
- Transport Analysis
- Swedish Transport Administration
- Swedish Transport Agency
- Swedish Customs
- Swedish Higher Education Authority
- National Agency for Public Procurement
- Swedish Election Authority
- Ethics Review Appeals Board
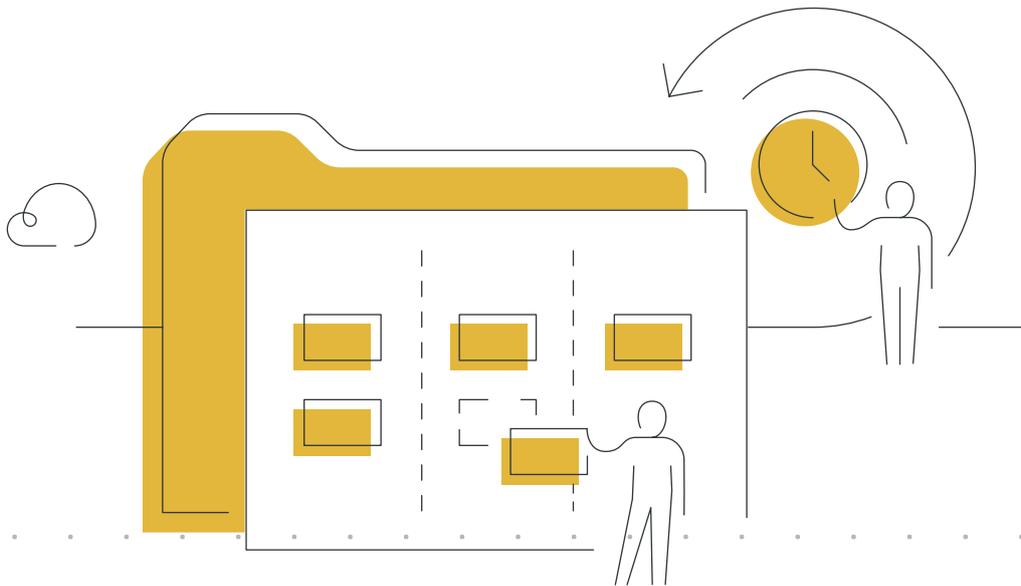
Vinnova's perspective on innovation in public agencies

The complexity of the societal challenges we face requires innovative and collaborative management. While challenges such as short-termism, a silo mentality and the dissemination of new solutions are well known, we note a growing interest in collaboration and a holistic approach to innovation work. When in 2017 we funded a project to measure the capacity for systematic innovation work in Sweden's public agencies, it became clear that the demand for knowledge about innovation was considerable. Swedish agencies needed to increase their understanding and knowledge in order to better support their own organisation's ability to innovate.

The findings and conclusions of this new follow-up study further strengthen our knowledge and understanding of the factors that contribute to innovative capacity in our agencies. They also give us a picture of the current situation and future ambitions for innovation and innovation work. The study identifies innovation in networks as important, and it is not surprising that the agencies identified as most innovative actively pursue collaboration with other agencies. We believe that governance and leadership are important factors in the success of agencies' work on innovation. The study also gives us a clear picture of the challenges ahead, such as the ability of agencies to find the right level of risk-taking and to monitor indicators for their innovation work.

As Sweden's innovation agency, we want public organisations to have the space and ability to experiment with designing new solutions for a sustainable society. It is high time that we focus on system-wide initiatives and address the structure of the public sector to enable it to drive the transition to a sustainable society. Our thanks go to the agencies that took part in the study and to KTH Royal Institute of Technology and Implement Consulting Group for carrying out the study and analysing the results. The picture of the circumstances and challenges that emerges here provides us with valuable knowledge to inform our future work.

Jakob Hellman, Unit Manager, Transformative public sector and civil society, Vinnova

Innovation in theory and practice – public agencies in particular

Innovation management

Innovation can be defined as something new that is put into effect and creates value. Traditionally, innovation has been equated with new technologies and products, but in recent decades the term has been broadened to encompass everything from new services and business models, new work processes and ways of organising and managing to large-scale solutions to complex societal problems. This also means that the values generated by innovation are more than just financial and that the benefits are often only apparent after a lengthy period has elapsed.

In order for an organisation or a network of organisations to be able to innovate, not just occasionally by chance but continuously over time, we need to put the right conditions in place and build innovative capacity. Research has shown that innovative capacity requires commitment and systematic efforts affecting all aspects of an organisation (Tidd and Bessant, 2020). Organisations therefore require strategies, structures, work processes and a culture and leadership that, in addition to enabling the day-to-day work, supports and stimulates innovation. Work on innovation differs from more administrative or repetitive work and from traditional development and continuous improvement where changes and results are often more predictable and incremental (Brown and Osborne, 2012). Instead, innovation work is characterised by a high degree of uncertainty, in terms of both the process and the outcome. Innovation often involves the coordination of a large number of different actors that change over time and a focus on creating solutions that are radically different from those of today. The more complex the challenge an organisation is dealing with, the higher the degree of uncertainty and thus the greater the need for coordination.

Research has shown that the following are needed in order to build innovative capacity in a business:

1. **A focus and a stated ambition in respect of innovation work, i.e. a management-initiated innovation strategy.** This is needed to clarify for staff in the organisation where/in which areas more innovative solutions are needed and why, in order to achieve the organisation's goals;

2. **An organised body of individuals dedicated to innovation work.** Individuals need to be able to act agilely within the organisation when new opportunities for innovation arise and also to work strategically and long-term on identifying innovations and putting them into effect;

3. **Work processes and methods that support coordination and collaboration.** This is needed to enable groups of very diverse individuals to collaborate internally and with other organisations with the aim of identifying, evaluating, selecting, implementing and creating benefits from new innovation opportunities;

4. **Development of innovation-friendly values and norms within the organisation.** This is needed to encourage experimentation, risk-taking, creativity, perseverance and continuous learning, not least from innovation activities and projects that do not go according to plan.

Innovation in public services – innovation in public agencies

Innovation in the public sector is high on the agenda of public sector management teams and politicians, and also of businesses, other community organisations and residents. Innovation is needed to tackle major societal challenges, such as transforming our energy system to make it less dependent on fossil fuels, caring for the increasing population of older people and reducing organised crime. These kinds of societal challenges also challenge established structures and ways of working in our agencies. Collaboration between the public sector and other stakeholders, such as businesses, residents and community organisations, has become a way of trying to identify more innovative ways of working and solving problems (Sørensen and Torfing, 2011; Torfing, 2019). The need to develop public sector activity to meet societal challenges is reflected in an increased interest among researchers in how to manage and structure public administration bodies so as to promote innovation (for an overview, see De Vries et al., 2016).

Knowledge about innovation and innovation management is largely based on studies in industrial companies (Godin, 2017), but studies conducted in the public sector suggest there are several similarities with methods for creating the conditions for innovation in the public sector too. For example, DeVries (2016) shows that, just as with commercial activity, one factor that features very strongly in the stimulation of all forms of innovation in the public sector is the organisational factor. This is also reflected in the study of Swedish agencies; we can see a clear link between how innovation work is organised and how successful it has been.

Research has shown that there are some factors that distinguish innovation in the public sector from commercial innovation. For example, leadership is much more important for innovative capacity than other factors promoting innovation (Lewis et al., 2018). In addition, encouragement to experiment with new ways of doing things combined with clear feedback from managers, not least to non-contributors, has been shown to increase motivation and the ability to innovate in teams in a public sector setting (Demircioglu and Audretsch, 2017). One of the underlying reasons given for this is the more traditional hierarchical structures typical of the public sector. In the study of Swedish agencies, we see how important it is that leaders understand what is needed for innovation work and that innovation is worked on strategically.

Other factors that distinguish the public sector from the commercial sector are extensive media attention and political aspects (e.g. Borins 2000). The public sector is much more exposed to scrutiny and public disclosure, which partially explains its cautious approach to anything new and untested. One consequence of this is that public sector organisations are greatly influenced by what other public actors do, i.e. they tend to want to imitate other organisations' structures and ways of working when implementing change. This can be seen as contrasting with commercial activity, where a business's aim is to identify what makes it unique. Several agencies highlight the difficulties and importance of developing the more trial-and-error approach that innovation requires.

Collaborative innovation and innovation networks have also increased in scope in the public sector, not least when they enable complex societal issues to be addressed and operational efficiency to be improved. However, less is known about how to collaborate with other organisations to provide a good basis for innovation than is known about how to stimulate innovation in individual organisations (Lopes and Farias, 2020).

It is clear from our study that innovation in networks is something that all agencies see as important, and the agencies that are identified as particularly innovative work very actively in this way. Research on collaboration focuses strongly on factors that encourage individuals to collaborate in the innovation process (Lopes and Farias, 2020). The use of platforms, innovation labs and social media is important. Similarly, the usefulness of the intended innovation or the perceived benefit has also been shown to be important in creating civic engagement (Torvinen and Ulkuniemi, 2016). A further factor is the importance of clearly defining the problems being addressed and the goals to be achieved (Baek and Kim, 2018). Leadership is very important for collaboration, particularly when it comes to coordinating and being bold enough to take risks, and also developing new skills while making the most of existing ones (Luu et al., 2018).

Information on how specific agencies develop their capacity for innovation is currently very sparse. In 2010, Sweden adopted the 'administrative policy goal' as a result of the Riksdag (Swedish Parliament) deciding that central government administration should not only be legally secure and efficient but should also be innovative and collaborative (OOS, 2020). The follow-up undertaken by the Swedish Agency for Public Management in 2020 (OOS, 2020) showed that the goal is broadly accepted in administration and policy and that the new values of innovation and collaboration have served as inspiration for agency managers in their work. However, few agencies have stated objectives or activities linked to achieving the administrative policy goal, which means that in practice these values have had a limited impact within their organisation. Our study also reveals major differences between agencies in terms of how integrated innovation is in their work, both as a concept and a practice. There are also differences between the agencies currently perceived as the most innovative. One challenge raised in the Swedish Agency for Public Management's follow-up is that the administrative policy goal is difficult to measure and monitor, as it does not describe an ideal situation. We also note that very few agencies monitor their innovation work or use indicators to check whether the initiatives they put in place have the desired effects. Furthermore, the broad approach means that it is up to each agency to interpret what the concepts mean and determine how a balance can be achieved between innovation and collaboration on the one hand and legal certainty and efficiency on the other. In our survey and in our interviews with the agencies, several agencies refer to the importance and also the difficulties of finding the right level of risk-taking when developing new solutions. In the Swedish Agency for Public Management's follow-up, the agencies express a pressing need for greater sharing of knowledge between them in order to help identify concrete measures and initiatives. This wish is also captured in our study, and, interestingly, the agencies identified as most innovative are all very proactive in terms of collaboration with other agencies, including around development and innovation.

Overall, we conclude that there is a considerable need for greater understanding of how to create the conditions for innovation within the public sector, not least amongst public agencies that are required to be extremely efficient in their use of resources and fulfil their role in helping to develop a more sustainable society.

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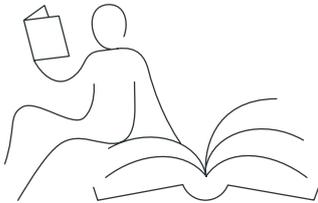
Framework for reviewing and analysing innovative capacity

Many are keen to see strong innovative capacity at an organisational level, and over the years we have seen this achieved by a number of organisations. It may be tempting to look at organisations that are considered innovative, e.g. Apple, Google, Amazon etc., try to identify their success factors and then transfer them into your own organisation. This is often a mistake, as these success stories exist in a context which may be different from that of other organisations and so the success factors cannot simply be duplicated.

Although innovative capacity can be identified as a separate characteristic in its own right, it arises from a series of interacting factors operating in a broader perspective that reinforce each other and create the right context – a "systemic approach". Rather than highlighting individual success stories and shining examples of innovative agencies, we have chosen to capture a picture of a number of agencies (102) and compare them with each other in order to identify similarities and differences. This then creates learning and recommendations that can be more easily recognised and applied within individual agencies to enhance their innovative capacity. To complement the 102 agencies in the study, we also highlight the three agencies identified by other agencies as being particularly innovative, describing them in more qualitative terms and including their advice on successful innovation work.

The framework used in this study is based on current research in the field as well as proven experience and includes five different areas, each of which contains different themes that describe them in more detail:

- Innovation strategy
- Organisation
- Value network
- Projects
- Outcomes

Innovation strategy – purpose, objectives and focus of innovation work

Value network – how the agency connects and interacts with its external environment in order to drive innovation

Innovation platform

Organisation – the agency's internal structure and context for driving innovation effectively

Projects – how to run innovation projects systematically and methodically

Outcomes – outcomes from innovation work
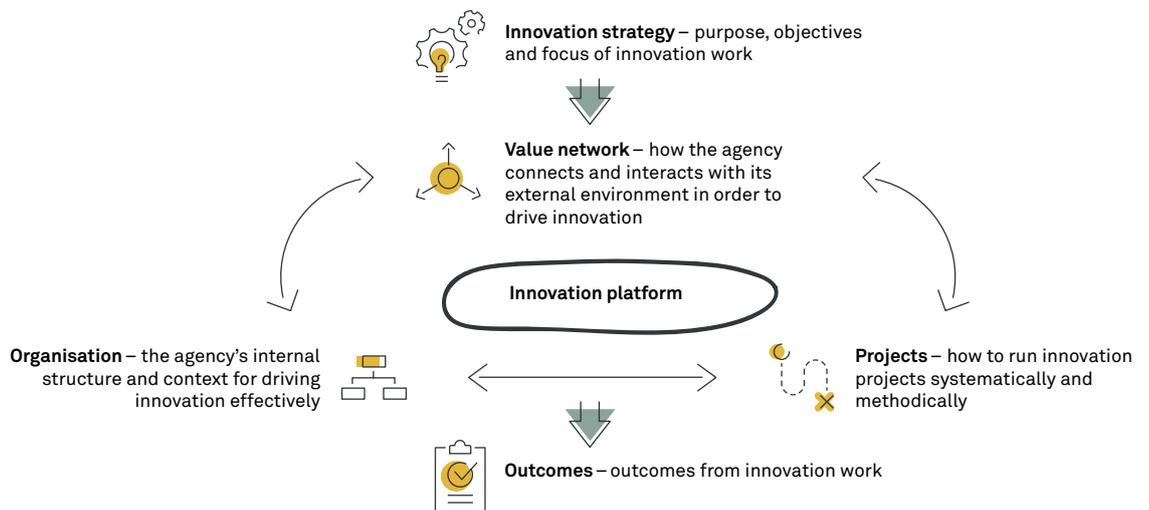
The innovation strategy describes the overall purpose, objectives and focus of the innovation work and answers questions such as:

- **Why?** – why the agency should work on innovation and not simply deliver what it is already delivering
- **Where?** – the areas that should be the focus of innovation work
- **How?** – ways in which innovation should add value

To implement the strategy, an innovation platform needs to be put in place to drive innovation work, consisting of three different areas, i.e. organisation, value network and projects.

Organisation describes the agency's internal structure and conditions for driving innovation effectively, e.g. organisational structure, roles and responsibilities, resources, skills and culture. This focuses on the complement to the regular line organisation that is used to drive innovation work.

Value network describes how the agency is connected to and interacts with other actors in its external environment to pursue innovation jointly in a network. This highlights a key area that is often a major source of innovation and an important prerequisite for effective innovation work.

Projects describes the conditions that are in place for running concrete innovation projects systematically and methodically, end to end using the individual organisation's own resources and in collaboration with external parties in value networks. These three areas – organisation, value network and projects – form the overall innovation platform and together create the right conditions for effective innovation.

Outcomes is the final area and relates to the outcomes of the innovation work, in terms of both the areas where outcomes are achieved and the way in which they are achieved.

In order to describe the situation in these areas within each agency, a number of questions were formulated that together constituted the self-assessment questionnaire. These were largely based on those used in the 2017 study, with additional questions added to both broaden and deepen the evidence base and understanding. 2019 saw the launch of the indicative ISO standard for innovation management, ISO 56002:2019. To ensure compatibility between the questions in this study and the ISO standard, a separate exercise was undertaken to compare the content of the ISO standard and the questions in the questionnaire. It was concluded that the questions in the questionnaire covered the 24 "key elements" contained in the ISO standard and there was thus compatibility. In conjunction with this, a reconciliation and calibration exercise was also carried out involving three additional researchers working at the KTH Royal Institute of Technology (Mats Magnusson, Ingrid Kihlander and Magnus Karlsson). Our view is that the framework on which this study is based goes a step further than the current ISO standard, as it goes into greater detail. This, combined with evidence from 102 agencies, provides a solid foundation for building new knowledge.

Recommendations for using the findings of the study

There is considerable value in the findings of the study for those agencies that choose to absorb the material and translate it into practice in their own organisation. Firstly, there is now a solid platform for organisational development and decision-making based on research, the ISO standard, concrete evidence from agencies and proven experience. This platform consists of the framework and the various issues that build an organisation's innovative capacity. Policy makers can study the framework to identify areas that need to be addressed and how innovative capacity can be built up. An organisation can then use the framework to assess its own maturity in respect of different areas and issues and go on to identify areas that need strengthening. A maturity analysis conducted by individual organisations with their own staff will create a shared picture of the current situation. The organisation can then identify priority areas and produce an action plan to strengthen innovative capacity.

One key to success is to see this as a long-term development initiative and a new, future "way of being" as an organisation. It is not a quick fix that can be accomplished in a few months; innovation must be addressed in a systemic and systematic way. In addition, innovation should not be seen as "something else" alongside regular duties, but should be pursued as an integral part of, and with, the line organisation. All organisations, whether private or public, operate in an increasingly dynamic and uncertain environment, putting greater pressure on them to adapt and future-proof their activity. This in turn requires strong innovative capacity. Although agencies differ greatly in size and mission, the fundamental factors that build innovative capacity are generic for all types of organisation.

Overall level of maturity

Level in the maturity model

Agencies were asked to assess the overall maturity of their total innovative capacity. The model used was Implement Consulting's modified version of the Capability Maturity Model Integration programme and the model set out in the ISO standard, and included five levels:

E – Proactive	The innovation platform is part of the organisation's DNA – innovation work is proactively developed and implemented in an optimised way that contributes to the organisation's development and strategic goals
D – Active	Formats for innovation work have been established – innovation work is becoming standardised and carried out in a more uniform way
C – Aware	Formats for innovation work have begun to be established – positive experiences and practices are beginning to be shared between innovation projects for increased learning and impact
B – Reactive	A need for increased innovation capacity has been identified – innovation is implemented in the form of separate phenomena with limited impact on the organisation as a whole
A – Passive	Innovation is not one of the organisation's themes – its focus is primarily on delivering on the current remit in the existing way

The agencies indicated their level of maturity (scale A <=> E) in innovation work from three perspectives:

- where they were three years ago
- where they are today
- where they would like to be in three years' time

The results from the 102 agencies showed that, three years ago, most of them were at level A–C with a mean score of 2.0, which corresponds to level B – Reactive. The assessment of the agencies' current maturity level shows that, on average, most have increased their maturity level from 2.0 (B – Reactive) to 2.8, which corresponds to level C – Aware, and that there is quite a clear normal distribution around this mean score. In addition, the overall level of ambition is high, with the agencies aiming for an average of 4.2 in 3 years' time (D – Active). Interestingly, however, a full 48% of the study population aspires to be at the highest level, E – Proactive.

Where do you feel your agency ...

Number of agencies per category

Average*

... was 3 years ago?

Category		Number	%
E – Proactive		4	4%
D – Active		0	0%
C – Aware		22	22%
B – Reactive		45	44%
A – Passive		31	30%
Total		102	100%

2.0 — B – Reactive

... is today?

Category		Number	%
E – Proactive		4	4%
D – Active		18	18%
C – Aware		40	39%
B – Reactive		32	31%
A – Passive		8	8%
Total		102	100%

2.8 — C – Aware

... desired/ planned position in 3 years' time

Category		Number	%
E – Proactive		49	48%
D – Active		30	29%
C – Aware		17	17%
B – Reactive		2	2%
A – Passive		4	4%
Total		102	100%

4.2 — D – Active
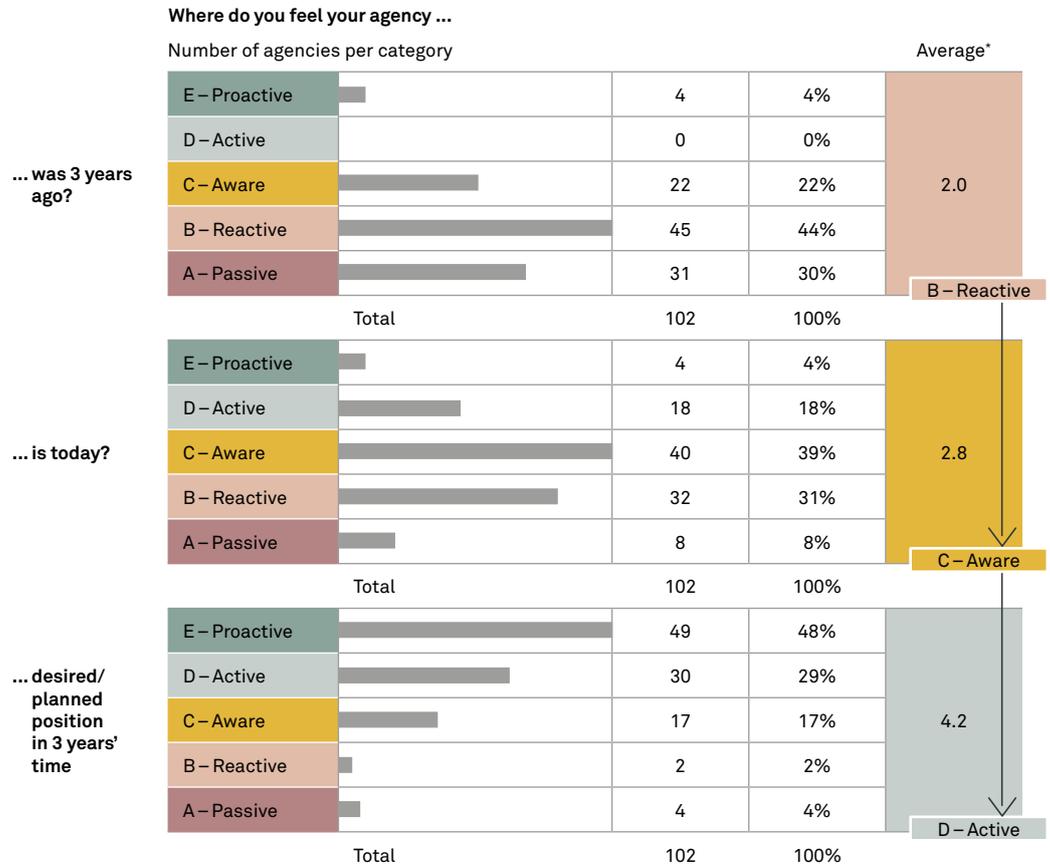
* The mean score for the population as a whole is calculated on the basis of "A – passive" <=> 1 and "E – Proactive" <=> 5

Agencies' prioritisation of areas that need to be strengthened to reach their desired level of maturity in three years' time

To find out how the agencies intended to achieve their goal in three years' time, agencies were asked to rank the five different areas of the framework (innovation strategy, organisation, value network, projects and outcomes) according to how important (relatively speaking) it was for the agency to address them in order to achieve their goal. The analysis of the population as a whole (102) did not give a clear indication of which areas of the framework were generally most important for strengthening an agency's innovative capacity. The results are relatively widely distributed, with different agencies seeing different areas as important for them specifically in their current situation. This resulted in a relatively similar mean score for the five different areas, with a range of 2.4 <=> 3.3.

Agencies' ranking of areas that need strengthening in order for them to achieve their respective goals

Innovation strategy

5 – Greatest need		16	16%
4		9	9%
3	2.4	17	17%
2	Mean score	22	22%
1 – Least need		38	37%
	Total	102	100%

Organisation

5 – Greatest need		8	8%
4		28	27%
3	2.8	21	21%
2	Mean score	29	28%
1 – Least need		16	16%
	Total	102	100%

Projects

5 – Greatest need		22	22%
4		19	19%
3	3.2	33	32%
2	Mean score	18	18%
1 – Least need		10	10%
	Total	102	100%

Value network

5 – Greatest need		24	24%
4		27	26%
3	3.2	16	16%
2	Mean score	15	15%
1 – Least need		20	20%
	Total	102	100%

Outcomes

5 – Greatest need		32	31%
4		19	19%
3	3.3	15	15%
2	Mean score	18	18%
1 – Least need		18	18%
	Total	102	100%

In order to examine whether there was a difference between agencies in their prioritisation of the five different areas of the framework depending on whether the agency was currently at a higher level of maturity (D or E) or a lower level (A, B or C), the same analysis was carried out for these two groups of agencies. The resulting data shows a clearer picture for those with a higher maturity level (D or E), where strategy is seen as less important and where the ability to run concrete projects and to achieve outcomes is seen as the most important aspect to strengthen. Here, the foundations are already in place (innovation strategy, organisation and value network) and it is a matter of using them to realise the full useful potential of innovation work. Although it is possible to discern a certain difference between the agencies' priorities for the five different areas of the framework, the overall picture is that different agencies face different situations and have different needs and feel that they have different needs and priorities for different areas of the framework.

Agencies' ranking of areas that need strengthening in order for them to achieve their respective goals

| A – Passive |
| B – Reactive |
| C – Aware |

Prioritisation of agencies at maturity levels A, B and C

| D – Active |
| E – Proactive |

Prioritisation of agencies at maturity levels D and E

Innovation strategy (A, B, C)

	%
5 – Greatest need	18%
4	10%
3	16%
2	20%
1 – Least need	36%

Mean score: 2.5

Innovation strategy (D, E)

	%
5 – Greatest need	9%
4	5%
3	18%
2	27%
1 – Least need	41%

Mean score: 2.1

Organisation (A, B, C)

	%
5 – Greatest need	9%
4	28%
3	21%
2	25%
1 – Least need	18%

Mean score: 2.9

Organisation (D, E)

	%
5 – Greatest need	5%
4	27%
3	18%
2	41%
1 – Least need	9%

Mean score: 2.8

Value network (A, B, C)

	%
5 – Greatest need	28%
4	26%
3	15%
2	13%
1 – Least need	19%

Mean score: 3.3

Value network (D, E)

	%
5 – Greatest need	9%
4	27%
3	18%
2	23%
1 – Least need	23%

Mean score: 2.8

Projects (A, B, C)

	%
5 – Greatest need	21%
4	18%
3	33%
2	21%
1 – Least need	8%

Mean score: 3.2

Projects (D, E)

	%
5 – Greatest need	23%
4	23%
3	32%
2	5%
1 – Least need	18%

Mean score: 3.3

Outcomes (A, B, C)

	%
5 – Greatest need	25%
4	19%
3	15%
2	21%
1 – Least need	20%

Mean score: 3.1

Outcomes (D, E)

	%
5 – Greatest need	55%
4	18%
3	14%
2	5%
1 – Least need	9%

Mean score: 4.0

The innovation strategy is an important starting point when establishing a platform to drive innovation work

In addition to more detailed questions in each area of the framework (innovation strategy, organisation, value network, projects and outcomes), agencies were asked to rate their maturity (on a scale of 1 to 6) for each area as a whole. Data for the whole population show a correlation between those agencies that have a well-developed innovation strategy and a well-developed innovation platform, i.e. organisation, value network and projects as a whole. The maturity of the agencies in respect of the innovation platform as a whole was calculated as the mean of the maturity in respect of each separate part of the platform, i.e. organisation, value networks and projects. The matrix below shows the data for the agencies' overall maturity level (1 <=> 6) based on the following two dimensions:

• Innovation strategy
• Innovation platform

For the following questions in the survey, the maturity level (1 <=> 6) was arrived at by asking the agencies to rate how true a statement describing a "good situation" was for their own organisation on a 6-point scale where 1 was "Not true at all" and 6 was "Fully true".

Each cell in the matrix below shows the percentage of the 102 agencies that were at each maturity level for the two dimensions, e.g. 12% of the agencies were at maturity level 4 for both innovation strategy and innovation platform. Although the data show some dispersion, a distinct cluster can be seen along the diagonal of the matrix, with a high percentage of agencies having a maturity level of between 2–4 in both dimensions. However, the analysis supports the hypothesis that a clear strategy for innovation work creates a better context for developing the organisation, value network and projects so that they support innovation work effectively.

Relationship between those that have a good innovation strategy and have a well-developed innovation platform
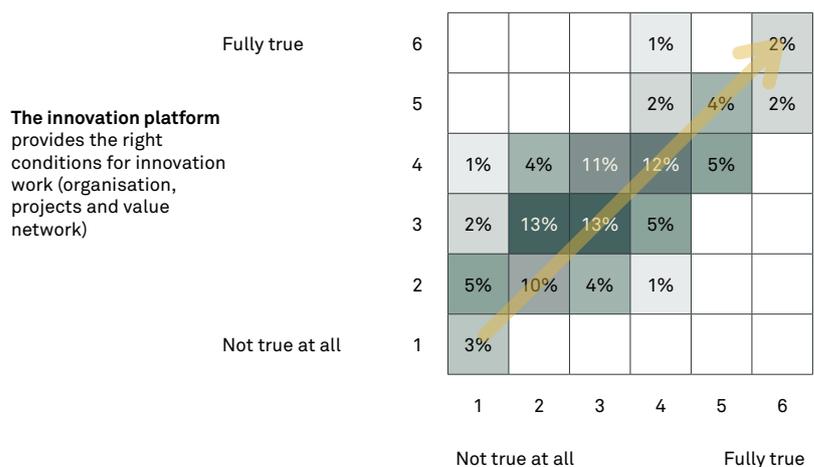
		1	2	3	4	5	6
Fully true	6				1%		2%
	5				2%	4%	2%
	4	1%	4%	11%	12%	5%	
	3	2%	13%	13%	5%		
	2	5%	10%	4%	1%		
Not true at all	1	3%					

The innovation platform provides the right conditions for innovation work (organisation, projects and value network)

Not true at all — Fully true

Note: The numbers in the matrix show what percentage of the 102 agencies are at each position

The innovation strategy provides the right conditions for innovation work

The innovation platform is a central pillar and creates the necessary conditions for outcomes to be achieved from the innovation work

We saw earlier that, according to the data, agencies that have an innovation strategy in place are more likely to also have an innovation platform in place (organisation, value network and projects).

Similar data analysis was also undertaken to examine how agencies with a higher level of maturity in respect of the innovation platform (organisation, value networks and projects) succeeded in generating innovation outcomes compared to agencies with a lower level of maturity in respect of the innovation platform. The matrix below shows the data for the agencies' overall maturity level (1 <=> 6) based on the following two dimensions:

- Innovation platform
- Outcomes from innovation work

Although there is some dispersion in the data, a distinct cluster can be seen, with a large proportion of agencies lying along the diagonal in both dimensions; for example, 21% of agencies have a maturity level of 4 for both dimensions. The analysis clearly supports the hypothesis that a solid innovation platform creates the conditions for generating positive outcomes from innovation work. An organisation's success in innovation is not a matter of chance but the result of systematic efforts to create the conditions necessary to drive effective innovation work.

The relationship between those that have a solid platform for innovation work and are successful at generating outcomes
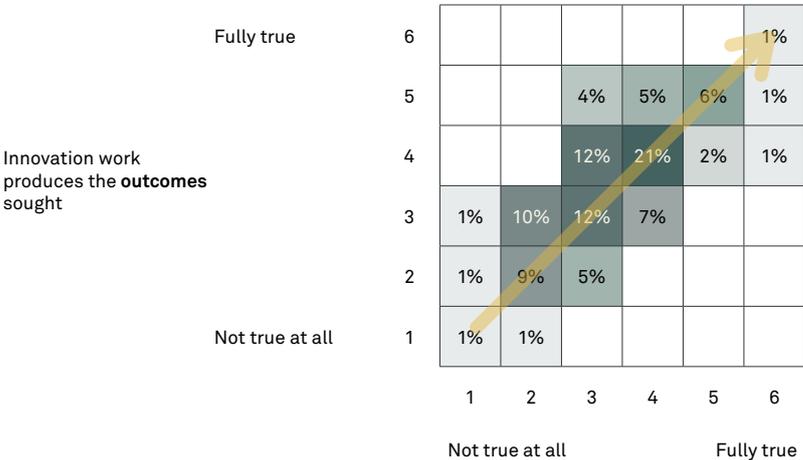
		1	2	3	4	5	6
Fully true	6						1%
	5			4%	5%	6%	1%
Innovation work produces the **outcomes** sought	4			12%	21%	2%	1%
	3	1%	10%	12%	7%		
	2	1%	9%	5%			
Not true at all	1	1%	1%				

Not true at all   Fully true

Note: The numbers in the matrix show what percentage of the 102 agencies are at each position

The innovation platform provides the right conditions for innovation work (organisation, projects and value network)

Summary of the maturity of the agencies in each of the framework areas

The summary of how the 102 agencies rate their maturity for the five different areas of the model, i.e. innovation strategy, organisation, value network, projects and results, shows an interesting variation, with the mean score varying between 3.0 and 3.5 on the 6-point scale where 1: "Not at all true" <=> 6: "Fully true". It is also interesting to note how only a relatively small percentage of agencies are on either of the outer edges of the scale, at 1 or 6.

Percentage of agencies that have assessed their maturity level (1 <=> 6) within each area

		Mean score
1) Innovation strategy and focus	4% 10% 21% 27% 27% 11%	3.0
2) Organisation, resources and management	1% 12% 30% 32% 20% 5%	3.3
3) Innovation projects and working methods	5% 19% 27% 21% 25% 3%	3.5
4) Value network and external relationships	4% 15% 22% 29% 25% 6%	3.3
5) Outcomes and benefit realisation	2% 16% 35% 29% 15% 3%	3.5

- Fully true (6)
- Mainly true (5)
- True to some extent (4)
- Not true to some extent (3)
- Mainly not true (2)
- Not true at all (1)

Basis of categorisation of agencies for more detailed analysis

A closer analysis of the agencies' assessment of their ability to generate outcomes from innovation work revealed an interesting and almost perfect normal distribution with a mean score in the middle of the scale. Fifty four agencies (53%) said they were more successful at innovation (4, 5 or 6 on the maturity scale) and 48 agencies (47%) said they were less successful (1, 2 or 3).

The population's normal distribution around the middle of the scale, i.e. 3 and 4, relating to how well they are able to generate outcomes from innovation work is in line with the previous assessment of the agencies' overall maturity level (A – Passive <=> E – Proactive), where there is also a normal distribution around the mean score of the middle level C – Aware.

Basis for division of agencies into two groups – more successful innovators and less successful innovators

Fully true (6)	6		2	2%				Yes (54 agencies) The agencies that are more successful innovators
	5		16	16%	54	53%	"YES, successful"	
	4		36	35%				
	3		30	29%				No (48 agencies) The agencies that are less successful innovators
	2		15	15%	48	47%	"NO, not successful"	
Not true at all (1)	1		3	3%				
		Total	102	100%				

To provide a basis for a more detailed analysis of the agencies, the entire population of 102 agencies was divided into two categories, i.e. one of more successful innovators and one of less successful innovators so as to study any differences or similarities between them. This breakdown and basis for the analysis are the same as were used in the 2017 study of the innovative capacity of public agencies (Lundegård et al., 2017).

To facilitate a comparison of the results from the two categories of agencies, the 6-point scale for input data (1: not at all true 6: fully true) was converted into a 3-point scale (1 and 2 => "Not true", 3 and 4 => "Neutral" and 5 and 6 => "True").

Innovation strategy and focus

This chapter focuses on the factors underlying the maturity level of the innovation strategy, analysing differences and similarities between the two categories of agencies, i.e. those that are more successful innovators and those that are less successful.

Both groups of agencies exhibit the same/similar basic motivating factors for driving innovation, the three most important of which are:

• meeting new customer needs
• streamlining processes
• increasing use of new technologies

It is interesting to note that these represent both external focus and impetus (new needs) and internal needs (processes).

The drivers of our work on innovation are:

	More successful agencies			Less successful agencies		
...meeting demands for increased sustainability	37%	44%	19%	15%	40%	46%
...meeting the new needs of our external customers/clients/residents	80%	19%	2%	63%	35%	2%
...changing what we deliver as an agency	37%	41%	22%	23%	54%	23%
...increasing preparedness	19%	57%	24%	23%	46%	31%
...creating new constellations of actors	19%	57%	24%	15%	46%	40%
...increasing capacity for control and enforcement	22%	46%	31%	25%	35%	40%
...increasing service and accessibility	56%	41%	4%	52%	40%	8%
...motivating employees	39%	52%	9%	44%	46%	10%
...streamlining processes	80%	17%	4%	63%	33%	4%
...increasing the use of new technologies (e.g. digitalisation)	78%	19%	4%	57%	38%	4%

■ True
■ Neutral
■ Not true

The data show that far from all agencies have innovation written into their appropriation directions, i.e. a statement that innovation is part of the agency's activity. It is interesting to note the difference between those that are more successful innovators (31%) and those that are less successful (4%). Overall, those that are more successful innovators have a clearer focus in the different areas of the strategy, i.e:

- having objectives
- overall purpose and aim (why?)
- focus of innovation work (where?)
- the value innovation should create (how?)

Hierarchical organisations drive the agenda they are set up for. If it is stated or laid down that an agency should merely focus on delivering benefits in defined/existing areas in the most efficient way, it will continue to do this, and anything else that gets in its way, such as innovation, will be obstructed. If innovation is not clearly described in strategic documents and communicated by the management team responsible for it, innovation work will be unsuccessful. One success factor is when innovation and the strategy for innovation are seen as a means to fulfilling the organisation's operational strategy and where the strategy for innovation is developed in symbiosis with the strategy for the organisation's "core" activity. Agencies and other organisations need to be able to negotiate the "ambidextrousness" with which they must manage their organisation and innovate in parallel.

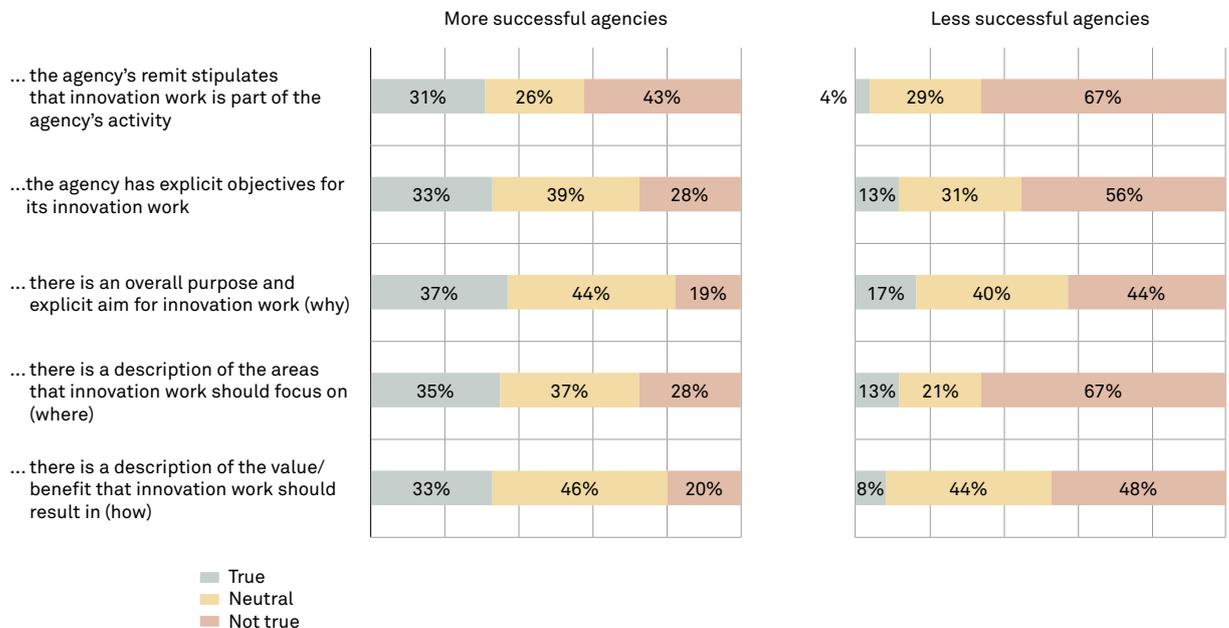Although the data show that there are clear differences between the two categories of agencies, it is clear that the majority of agencies have some way to go before reaching a higher level of maturity.

Innovation work at our agency is characterised by the following: (1 of 2)

	More successful agencies			Less successful agencies		
…the agency's remit stipulates that innovation work is part of the agency's activity	31%	26%	43%	4%	29%	67%
…the agency has explicit objectives for its innovation work	33%	39%	28%	13%	31%	56%
…there is an overall purpose and explicit aim for innovation work (why)	37%	44%	19%	17%	40%	44%
…there is a description of the areas that innovation work should focus on (where)	35%	37%	28%	13%	21%	67%
…there is a description of the value/benefit that innovation work should result in (how)	33%	46%	20%	8%	44%	48%

■ True
■ Neutral
■ Not true

To complement the more general elements of the strategy, such as 'Why?' and 'Where?', agencies also need guidelines on how to undertake their work on innovation. Even if there is willingness and ambition in relation to innovation, it does not happen by itself. The data again show a clear difference between the two categories of agencies, with the most successful more likely to have a clear description of the skills needed and how innovation work should be organised and managed.

2019 saw the publication of the indicative ISO standard for innovation management, ISO 56002. It is interesting to note that the agencies generally have a very low level of awareness of it and draw little inspiration from it in their management of innovation.

Innovation work at our agency is characterised by the following: (2 of 2)

	More successful agencies	Less successful agencies
... there is a description of the capabilities (e.g. skills, resources and working methods) required for innovation work	15% / 39% / 46%	2% / 29% / 69%
...there is a description of how innovation work should be structured, led and managed	30% / 28% / 43%	8% / 25% / 67%
... our agency has a holistic approach to working with innovation	20% / 44% / 35%	4% / 21% / 75%
... there is an awareness of the new guidance standard for innovation management (ISO-56002)	2% / 13% / 85%	4% / 8% / 88%
... our approach to innovation is inspired by the guidance standard for innovation management (ISO-56002)	2% / 11% / 87%	6% / 94%

■ True
■ Neutral
■ Not true

In terms of the agencies' innovation focus, there is a fairly similar distribution between both groups, with the greatest focus on:

- what the agency delivers, and
- internal improvement processes

To what extent is the agency's innovation work about:

	More successful agencies	Less successful agencies
… an internal improvement process?	True 56% / Neutral 39% / Not true 6%	True 50% / Neutral 31% / Not true 19%
… what the agency delivers?	True 80% / Neutral 19% / Not true 2%	True 50% / Neutral 40% / Not true 10%
… encouraging innovation to be carried out by other actors (e.g. in research and innovation projects)?	True 39% / Neutral 41% / Not true 20%	True 19% / Neutral 21% / Not true 60%
… funding innovation to be carried out by other actors (e.g. research and innovation projects)?	True 24% / Neutral 19% / Not true 57%	True 13% / Neutral 13% / Not true 75%
… influencing societal development through collaboration with others (nationally/internationally)?	True 46% / Neutral 41% / Not true 13%	True 31% / Neutral 35% / Not true 33%

■ True
■ Neutral
■ Not true

In terms of the agencies' assessment of maturity in regard to an innovation strategy overall, there is a clear difference between the two groups, with 24% of the most successful innovators stating that they have an innovation strategy in place, whereas only 2% of those that are less successful innovators state that they have one. Similarly, a greater proportion (56%) of those that are less successful say that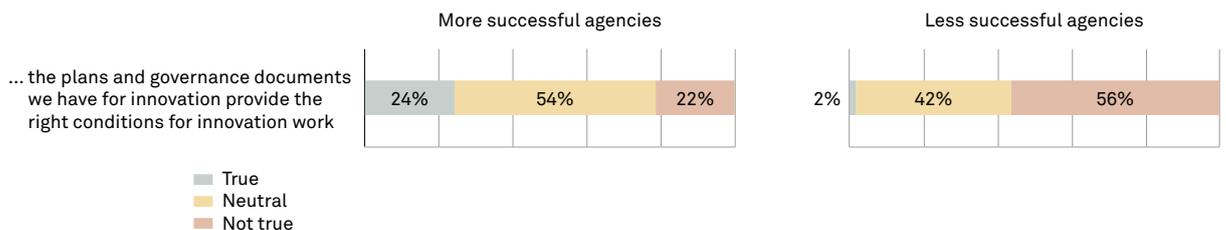 there is no innovation strategy in place. Although there is a clear difference between the two groups, there is still clear potential for development among those that are more successful innovators.

As a whole/in summary, …

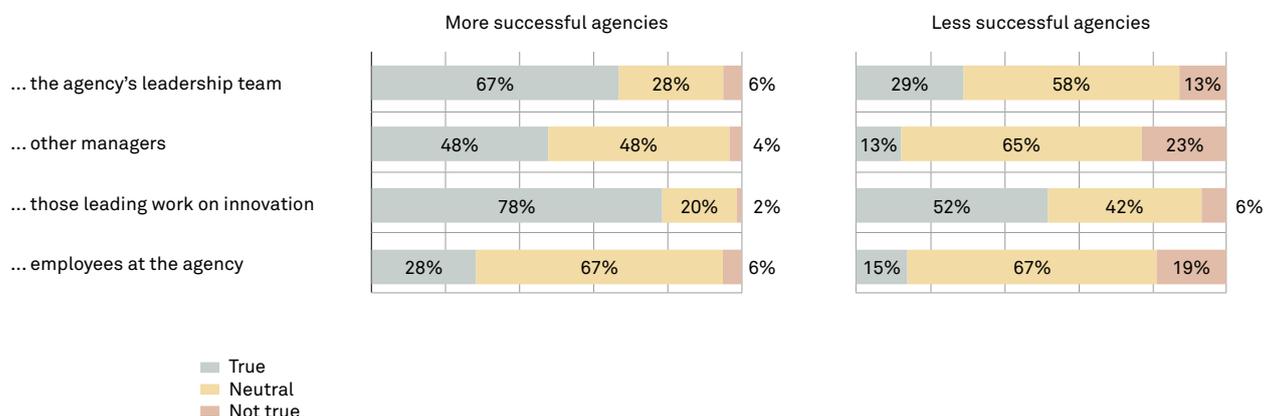|	More successful agencies	Less successful agencies
… the plans and governance documents we have for innovation provide the right conditions for innovation work	True 24% / Neutral 54% / Not true 22%	True 2% / Neutral 42% / Not true 56%

■ True
■ Neutral
■ Not true

Organisation, resources and management

This chapter focuses on the factors underlying the maturity level of the organisation, resources and management relating to the innovation work, analysing differences and similarities between the two categories of agencies, i.e. those that are more successful innovators and those that are less successful.

In terms of understanding the importance of innovation work, there is a clear difference between the two groups, with the understanding of the agency's management team and other managers the most prominent difference. This is in line with our experience, whereby the management team and other managers can either act as a brake or drive innovation forward depending on their skills and attitude towards innovation. Alongside a strategy for innovation, the understanding and consensus of managers is one of the most critical success factors. This means new expertise is needed around how to organise and lead innovation and renewal from a holistic and cross-functional perspective, which can sometimes be different from leading and managing in one's own organisational unit within the hierarchy with a focus on effective delivery of the existing remit.
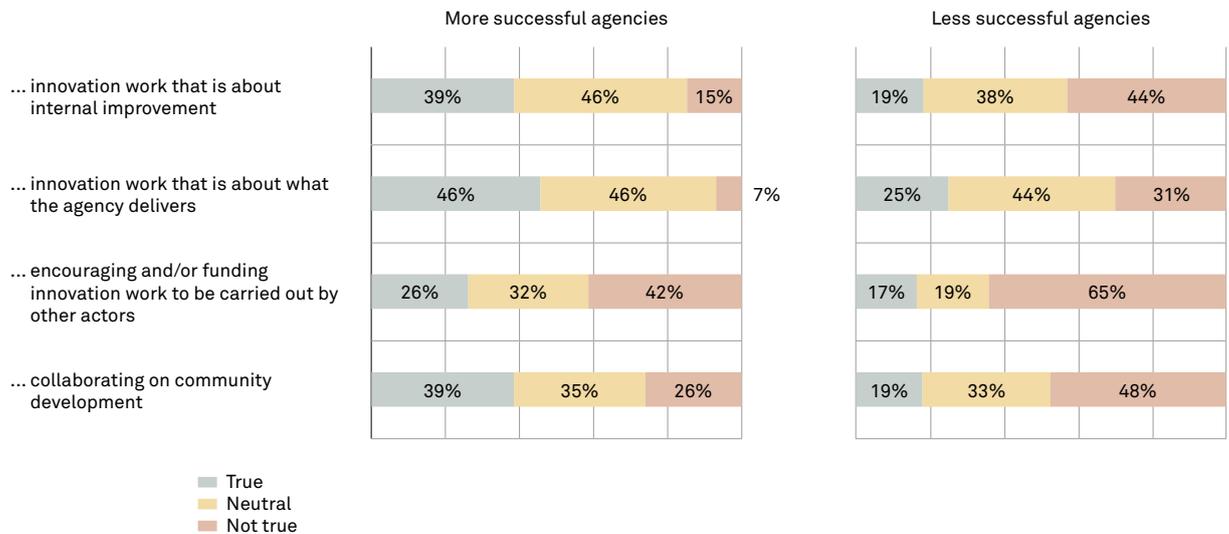
It is also interesting to note how the general understanding of employees within the organisation is considered to be at a relatively low level. On the other hand, the whole organisation does/should not usually work on innovation; it is normally sufficient for there to be a critical mass for this, with other staff focussing on daily delivery within the framework of the organisation's remit.

In my view, the following have a good understanding of the importance of innovation work at our agency:

	More successful agencies			Less successful agencies		
... the agency's leadership team	67%	28%	6%	29%	58%	13%
... other managers	48%	48%	4%	13%	65%	23%
... those leading work on innovation	78%	20%	2%	52%	42%	6%
... employees at the agency	28%	67%	6%	15%	67%	19%

- True
- Neutral
- Not true

The next theme in the area of organisation is the extent to which resources are allocated to pursuing innovation work. For both categories of agencies, the area considered to have most resources allocated to it is innovation work relating to what the agency delivers. Overall, there is a clear difference between the groups, with agencies that are more successful innovators allocating to a greater extent specific resources (money/time) to innovation work in all areas.

The agency has specific resources (money/time) allocated to:

	More successful agencies			Less successful agencies		
... innovation work that is about internal improvement	39%	46%	15%	19%	38%	44%
... innovation work that is about what the agency delivers	46%	46%	7%	25%	44%	31%
... encouraging and/or funding innovation work to be carried out by other actors	26%	32%	42%	17%	19%	65%
... collaborating on community development	39%	35%	26%	19%	33%	48%

■ True
■ Neutral
■ Not true

The data also show a clear difference between the two groups of agencies in terms of management and governance through:
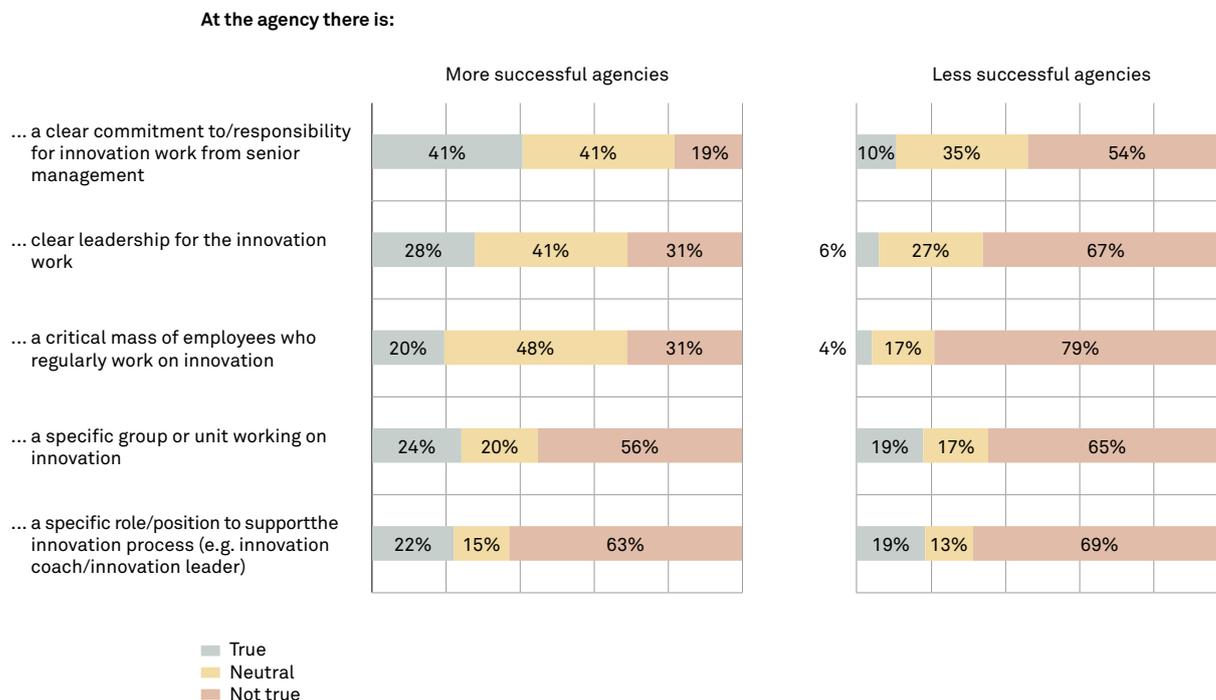
• clear commitment to/responsibility for innovation work from senior management at the agency, and
• clear leadership for the innovation work

The higher level of commitment and responsibility on the part of the agency's management team correlates with the previous question relating to management's understanding of the importance of innovation work for the group of agencies that are the most successful innovators.

Senior management's commitment to and responsibility for innovation work is crucial to the success of an organisation's efforts to innovate. Compared to other organisations/ businesses, public agencies have clear, strong, hierarchical line management. This provides the stability and security in the exercise of official authority that society needs. While there are examples from the business world where staff in an organisation have worked on innovation projects without the consent of management – known as "skunk works" – this is less likely to happen in the agencies. Work on innovation must therefore be sanctioned and supported by management. This success factor is clearly demonstrated in the data.

There is also a clear difference in respect of whether or not there is a critical mass of staff working regularly on innovation, with 20% of the more successful innovators stating that this is the case compared to 4% of the less successful agencies. There are also clear differences between the two groups regarding the proportion of agencies for which this is not true.

Interestingly, there does not seem to be the same difference in respect of whether there is a specific group working on innovation or roles that support innovation work, such as an innovation coach or innovation leader. This was a pattern that also emerged in the 2017 comparative study of public agencies' innovative capacity.

At the agency there is:

	More successful agencies	Less successful agencies
… a clear commitment to/responsibility for innovation work from senior management	41% | 41% | 19%	10% | 35% | 54%
… clear leadership for the innovation work	28% | 41% | 31%	6% | 27% | 67%
… a critical mass of employees who regularly work on innovation	20% | 48% | 31%	4% | 17% | 79%
… a specific group or unit working on innovation	24% | 20% | 56%	19% | 17% | 65%
… a specific role/position to support the innovation process (e.g. innovation coach/innovation leader)	22% | 15% | 63%	19% | 13% | 69%

■ True
■ Neutral
■ Not true

In order to get a picture of how the agencies have chosen to organise their innovation work, five different organisational scenarios (A–E) were created, with the agencies asked to indicate which scenario best describes the way they organise and progress their innovation work.

- A: Centralised – disconnected
- B: Local – disconnected
- C: Local – collaborative
- D: Centralised and local – collaborative
- E: Centralised, local and external – collaborative

A: Centralised – disconnected means that the innovation work is run centrally by a separate R&I unit/department with little involvement of other units/departments within the organisation. This option is used only by a small proportion of agencies, with the highest incidence in agencies that are less successful innovators.

B: Local – disconnected means that work on innovation is decentralised, taking place within different units/departments of the agency with little coordination between them. This option is the one most used by the less successful agencies (36%).

C: Local – collaborative, means that work on innovation is decentralised but partly coordinated, with different units/departments within the agency collaborating when necessary. This option is the one most used by the more successful agencies (54%).

D: Centralised and local – collaborative means that innovation work is driven centrally by an R&I unit/department that involves different units/departments within the agency as necessary. This option is used to a more limited extent by those that are more successful innovators (12%) and those that are less successful (9%).

E: Centralised, local and external – collaborative means that the innovation work is driven centrally by an R&I unit/department that involves different units/departments within the agency as well as external parties (suppliers, customers, clients) as necessary. This option is the second most common among the agencies that are more successful innovators (27%).

The main conclusion is that the disconnected options (A and B) are not a good way forward, as they are not used by those that are more successful innovators and B is used to the greatest extent by those that are less successful at innovation. In these disconnected options, innovation is pursued in isolation, either within a central R&I unit or in decentralised, disconnected units in the organisation.

The most important success factor here seems to be a coordinated approach, where different units in the different parts of the organisation work on innovation together. This collaboration can be either decentralised, involving local units, or involve more central coordination and support from a central R&I unit internally and external actors to varying degrees.

Our approach to driving innovation within the agency is best characterised as follows:
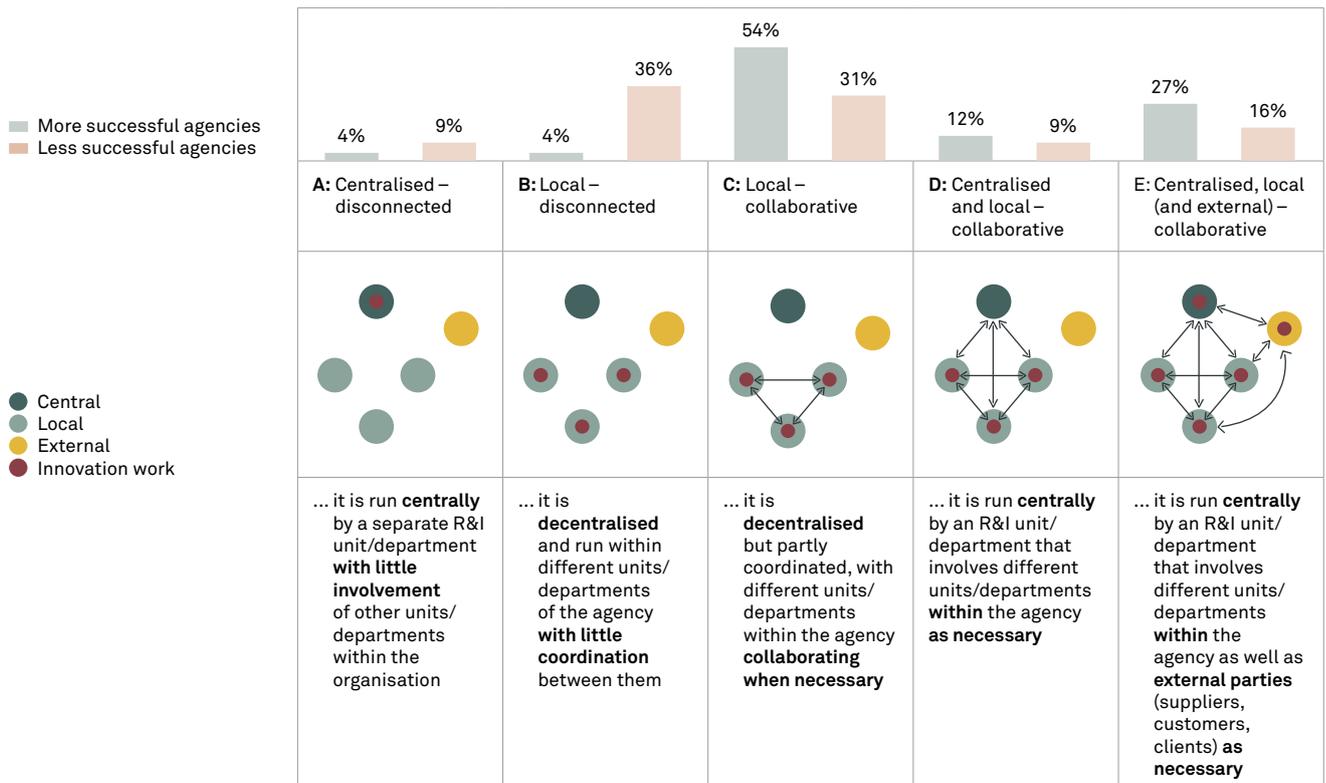
Note: The extent to which management is centralised in the context of collaboration with external partners (E) may vary, with some agencies having stronger coordination and others taking a slightly more decentralised approach.

Agencies' assessments of the factors that prevent them from being successful innovators generally show that those that are less successful innovators are more likely to consider themselves as being affected by these factors than those that are more successful innovators. The factors seen as most problematic for both categories of agencies:

• lack of financial resources, and
• lack of time

These are seen as most serious for those that are more successful innovators (33% & 33%) and those that are less successful innovators (52% & 63%). Other factors that hinder those that are less successful innovators are:

• lack of systematic approach and processes in innovation work (38%)
• short-term planning horizon (29%)

Factors preventing us from being successful in our innovation work are:

	More successful agencies			Less successful agencies		
	True	Neutral	Not true	True	Neutral	Not true
… a lack of understanding of our clients'/customers' needs	7%	24%	69%	2%	33%	65%
… a lack of clearly defined operational processes at the agency	2%	35%	63%	13%	42%	46%
… the absence of a systematic approach and processes for the innovation work	9%	44%	46%	38%	31%	31%
… a lack of collaboration aimed at creating shared value with other agencies		32%	68%	6%	48%	46%
… a lack of collaboration with external parties (not public agencies)		36%	64%	4%	33%	63%
… a lack of involvement of clients/customers	4%	41%	56%	10%	42%	48%
… a lack of financial resources	33%	35%	31%	52%	21%	27%
… a lack of time	33%	52%	15%	63%	17%	21%
… a lack of individuals with the right skills and commitment	15%	44%	41%	21%	52%	27%
… lack of support from management	4%	17%	80%	17%	33%	50%
… lack of incentives for employees	9%	33%	57%	15%	48%	38%
… uncertainty as to whether users would use a new service	4%	22%	74%	6%	31%	63%
… regulatory requirements	11%	37%	52%	23%	42%	35%
… a planning horizon at the agency that is too short term	13%	31%	56%	29%	33%	38%

Legend:
- True
- Neutral
- Not true

An organisation can create the right environment for innovation work through more structural avenues such as strategies, organisation, resources, etc. Despite this, the most important component is still the human being. If the people in the organisation are unable, unwilling or afraid to engage in innovation work, everything else is just an empty structure.

Over the years, research has been conducted on how organisational culture and team dynamics affect the extent to which people are happy, willing, able and have sufficient energy to contribute effectively to innovation work. One factor that has been highlighted is the importance of psychological security, where people need to have peace of mind and feel that they are in a supportive collaborative environment. This is an important dimension of an organisation's culture, but psychological security alone does not create an innovative climate; it must be complemented by challenge. In cultures with a high level of support, this, combined with a high level of challenge, creates a dynamic and innovative culture.
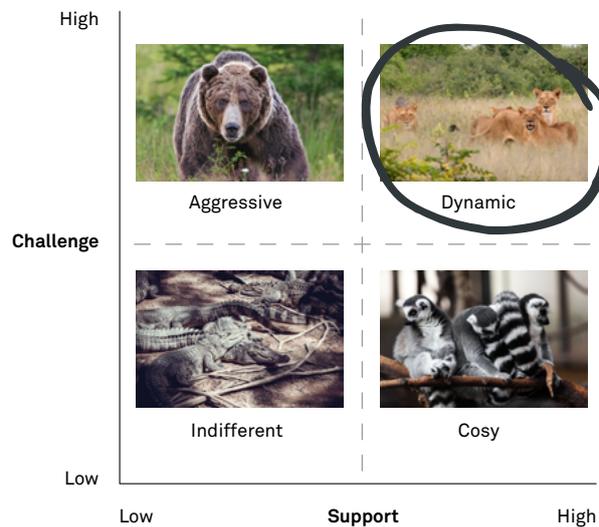
These two main dimensions of an innovative culture – challenge and support – have been further elaborated by Gary P. Pisano in 'The Hard Truth About Innovative Cultures', *Harvard Business Review*, Jan. – Feb. 2019, which emphasises how the two dimensions reinforce each other and act together to drive an innovative culture.
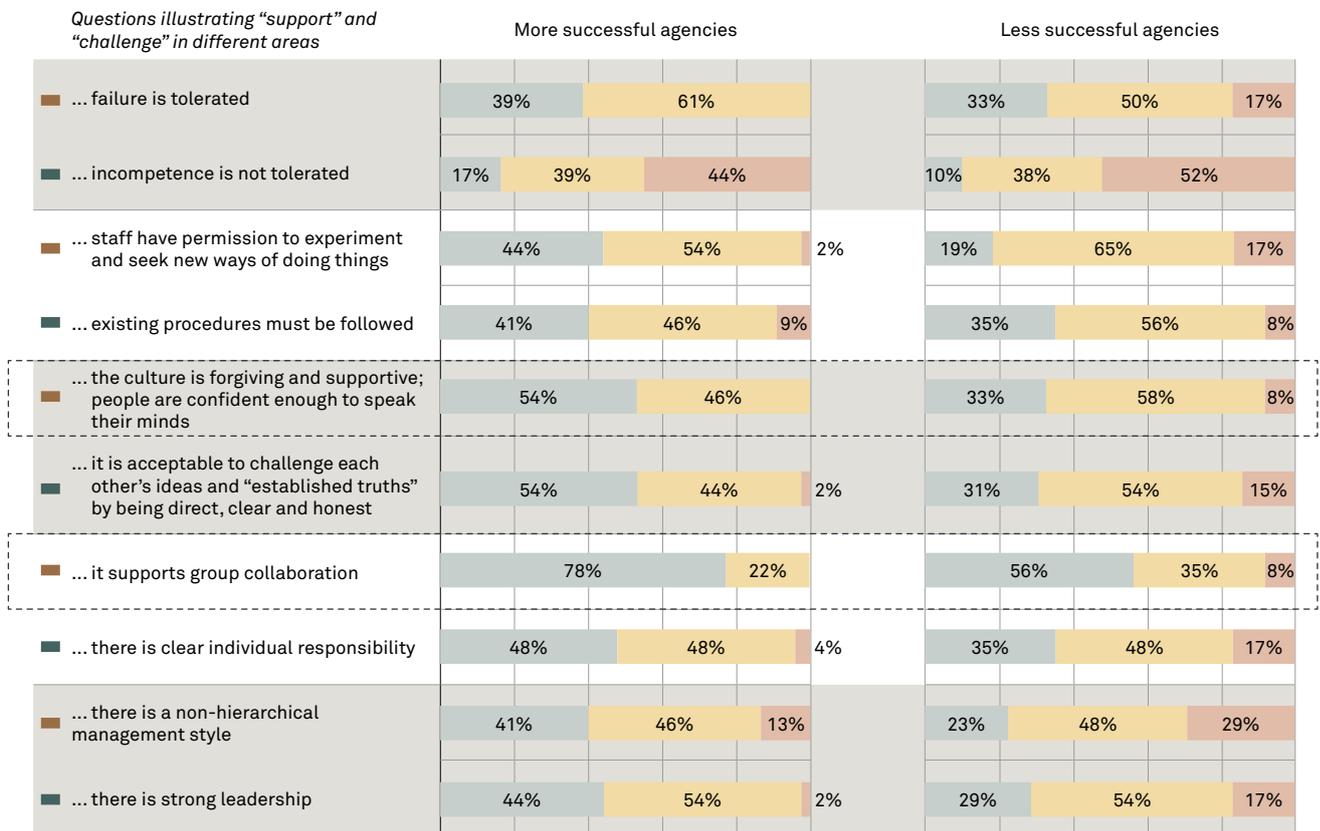
Challenge		Support
Incompetence is not tolerated	⟷	Failure is tolerated
Must follow clear procedures	⟷	Permission to experiment
Directness, honesty and clarity	⟷	Confident enough to say anything
Individual responsibility	⟷	Group collaboration
Strong leadership	⟷	Non-hierarchical

This model was used as a basis for gathering the agencies' views on the collaborative environment at their agency. The data show some difference between those that are more successful innovators and those that are less successful, with those that are more successful having slightly clearer outcomes in all areas in terms of both challenge and support. There is a more prominent, clearer culture across the board, with the strongest indicators being that

• "the collaborative environment supports group collaboration"
• "the culture is forgiving and supportive; people feel confident enough to speak their minds".

It was also found that the most successful have a greater balance between each group of characteristics for challenge and support e.g. "Must follow clear procedures" <=> "Allowed to experiment", where the most successful have a balance in three groups of characteristics while the least successful had a balance in one of these groups.

In my view, our agency's collaborative climate is characterised as follows: (1 of 2)
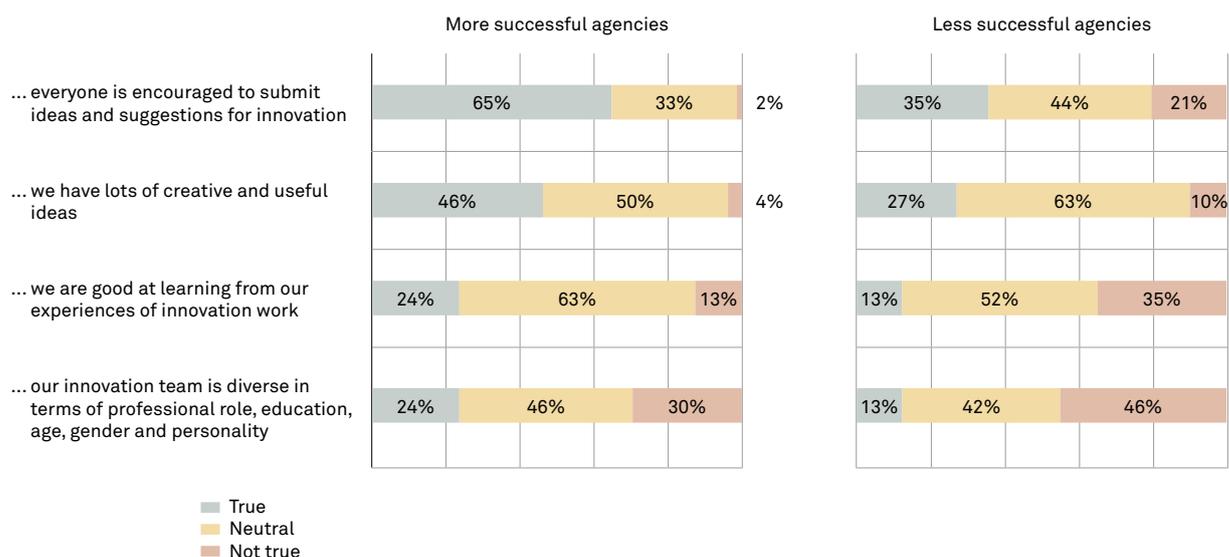
Questions illustrating "support" and "challenge" in different areas	More successful agencies				Less successful agencies		
... failure is tolerated	39%	61%			33%	50%	17%
... incompetence is not tolerated	17%	39%	44%		10%	38%	52%
... staff have permission to experiment and seek new ways of doing things	44%	54%	2%		19%	65%	17%
... existing procedures must be followed	41%	46%	9%		35%	56%	8%
... the culture is forgiving and supportive; people are confident enough to speak their minds	54%	46%			33%	58%	8%
... it is acceptable to challenge each other's ideas and "established truths" by being direct, clear and honest	54%	44%	2%		31%	54%	15%
... it supports group collaboration	78%	22%			56%	35%	8%
... there is clear individual responsibility	48%	48%	4%		35%	48%	17%
... there is a non-hierarchical management style	41%	46%	13%		23%	48%	29%
... there is strong leadership	44%	54%	2%		29%	54%	17%

■ Questions related to the degree of "support" in the culture
■ Questions related to the degree of "challenge" in the culture

■ True
■ Neutral
■ Not true

Those that are more successful innovators also focus much more on encouraging everyone to put forward their ideas and suggestions for innovation (65%) than those that are less successful (35%). As a result, those that are more successful have a great number of creative and useful ideas (46%) while for those that are less successful the figure is 27%.

Overall, learning from innovation work is an area in which there is scope for improvement, with only 24% of the most successful innovators feeling that their organisation is good at this. Learning from experience is a key and important part of creating the conditions in the organisation for innovative capacity.

In my view, our agency's collaborative climate is characterised as follows: (2 of 2)

More successful agencies | Less successful agencies

	More successful agencies	Less successful agencies
…everyone is encouraged to submit ideas and suggestions for innovation	65% / 33% / 2%	35% / 44% / 21%
…we have lots of creative and useful ideas	46% / 50% / 4%	27% / 63% / 10%
…we are good at learning from our experiences of innovation work	24% / 63% / 13%	13% / 52% / 35%
…our innovation team is diverse in terms of professional role, education, age, gender and personality	24% / 46% / 30%	13% / 42% / 46%

■ True
■ Neutral
■ Not true

We highlighted earlier in this report the importance of driving innovation in a joined-up way, with collaboration between different units within the organisation. A major obstacle to effective innovation work is where an organisation is run too hierarchically and top-down, with different organisational units functioning as independent silos. To create the right conditions and prevent silo behaviour, organisations can work on clarifying and streamlining the cross-functional processes that capture holistic value creation and collaboration between different organisational units. The data show that the agencies that are more successful innovators are more likely (33%) to have

• clearly communicated cross-functional areas/processes that describe how the organisation creates value

than those that are less successful (17%). In addition, those that are more successful are more likely (31%) to have

• a clear owner for each cross-functional area/process with a mandate and authority
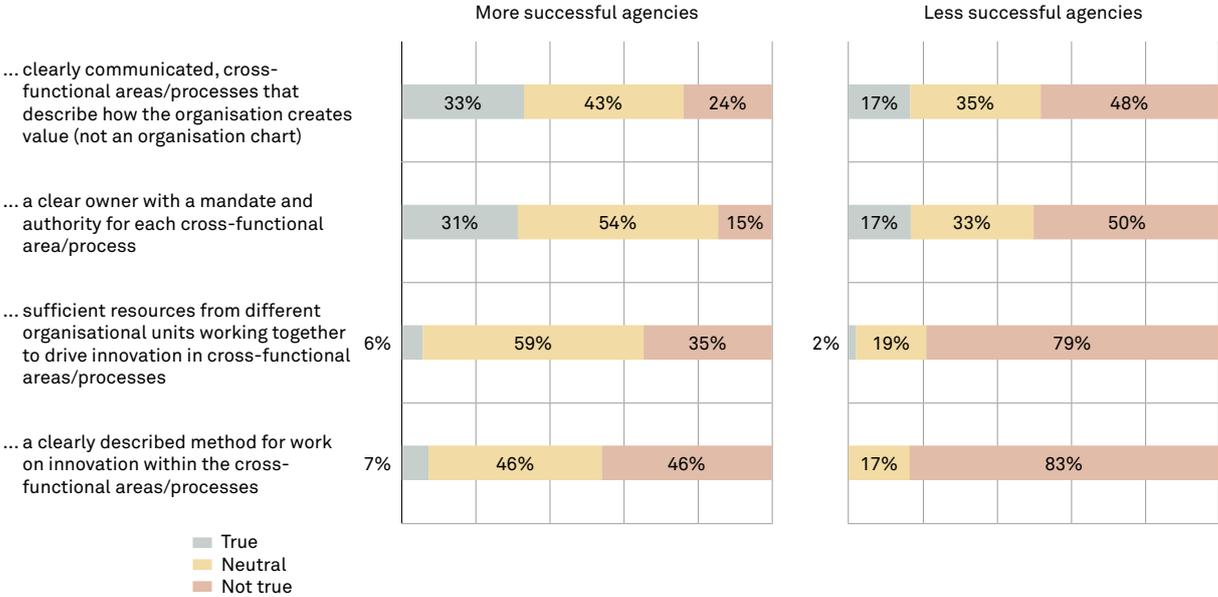
than those that are less successful (17%).

Although those that are more successful innovators have a higher level of maturity, it is remarkable that only 33% of these agencies have their processes in place given that the value of cross-functionality and processes has been acknowledged for 20 years and successfully implemented in many organisations. The position in terms of resources and working methods for driving innovation work in cross-functional processes is even worse:

• sufficient resources from different organisational units working together to drive innovation work in cross-functional areas/processes

• a clearly described method for work on innovation within the cross-functional areas/processes

Here, only 6–7% of the most successful innovators consider the above to be in place. There is thus great scope for improvement here and low-hanging fruit that can generate substantial benefits for agencies in terms of both innovation and operational efficiency.
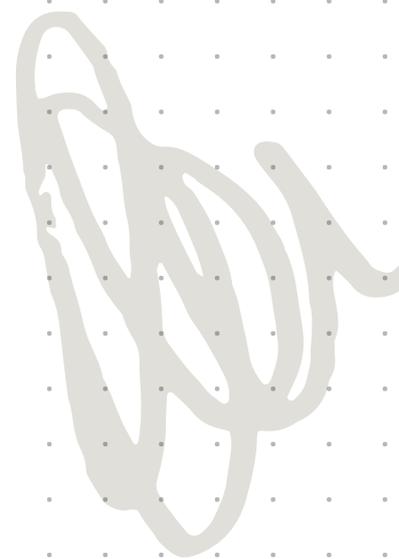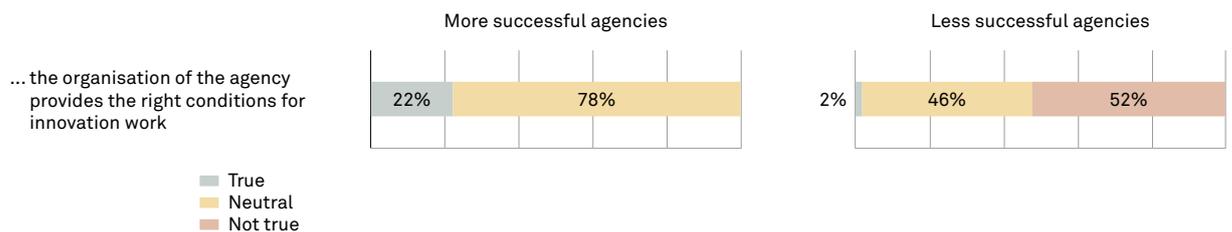
In terms of organisation the agency has:

	More successful agencies			Less successful agencies		
... clearly communicated, cross-functional areas/processes that describe how the organisation creates value (not an organisation chart)	33%	43%	24%	17%	35%	48%
... a clear owner with a mandate and authority for each cross-functional area/process	31%	54%	15%	17%	33%	50%
... sufficient resources from different organisational units working together to drive innovation in cross-functional areas/processes	6%	59%	35%	2% / 19%		79%
... a clearly described method for work on innovation within the cross-functional areas/processes	7%	46%	46%	17%		83%

■ True
■ Neutral
■ Not true

Looking at agencies' assessment of the organisational perspective as a whole, where

• the organisation provides the right conditions for innovation work,

22% of those that are the most successful innovators say this is true compared to only 2% of those that are less successful in innovation. It is also interesting to note that 52% of the less successful innovators do not believe that the organisation is providing the necessary conditions.

Although there is a clear difference between the two groupings of agencies, there is considerable potential for improvement whereby agencies complement the regular line organisation by putting in place what is needed to support innovation and renewal.

As a whole/in summary, ...

	More successful agencies	Less successful agencies
... the organisation of the agency provides the right conditions for innovation work	22% True / 78% Neutral	2% True / 46% Neutral / 52% Not true

True
Neutral
Not true

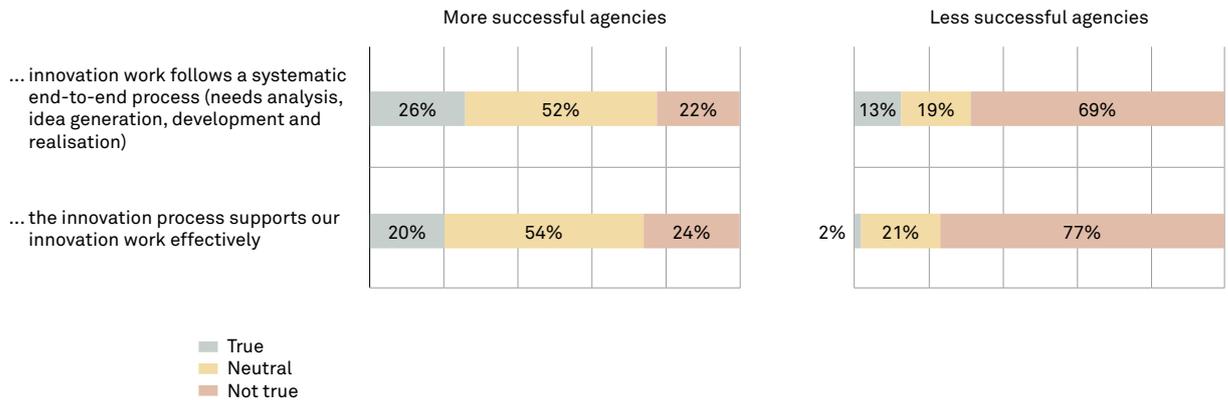# Innovation projects and working methods

This chapter focuses on the factors underlying the maturity levels for innovation projects and working methods, analysing differences and similarities between the two categories of agencies, i.e. those that are more successful innovators and those that are less successful.

The agencies that are more successful innovators are more likely to say that

- innovation is driven by a systematic end-to-end process, and that
- the process supports their work on innovation effectively

than those that are not successful innovators. It is also interesting to note how clear the difference is between the groups in terms of the extent to which the agencies feel these conditions are not in place, with 69% and 77% of those less successful at innovation feeling they are not in place. While there are clear differences, there is potential for improvement here too, even among those most successful at innovation.

Within the agency:

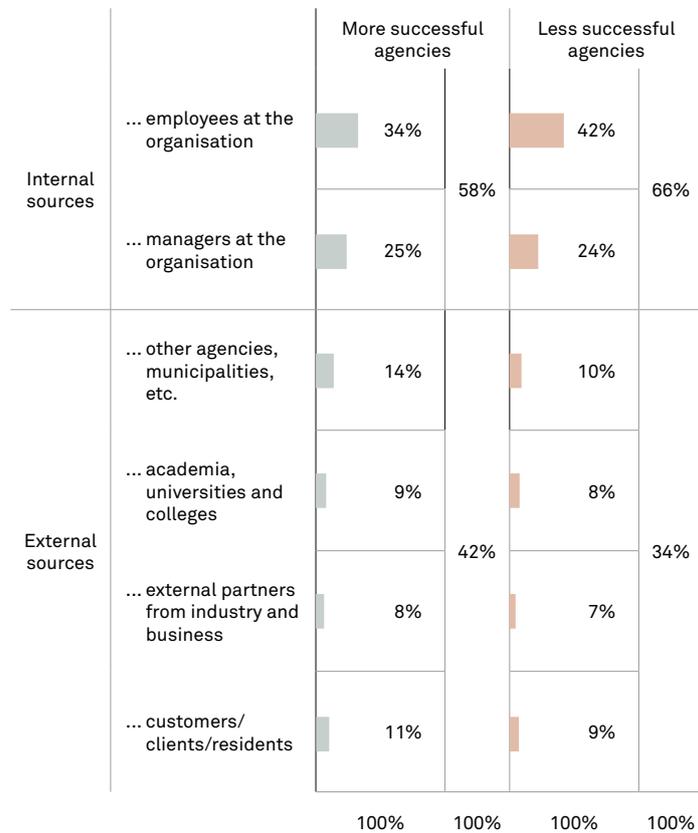|	More successful agencies			Less successful agencies		
... innovation work follows a systematic end-to-end process (needs analysis, idea generation, development and realisation)	26%	52%	22%	13%	19%	69%
... the innovation process supports our innovation work effectively	20%	54%	24%	2%	21%	77%

- True
- Neutral
- Not true

The agencies' assessment of the extent to which they have specific working methods/practices for running innovation projects in their different phases shows clear differences between the two different groups of agencies. Those that are more successful innovators show a clearer/ higher level of maturity with working methods and practices in place. Similarly, it can be clearly seen that those less successful at innovation do not have these in place. It is interesting to highlight how "structures" such as working methods can stimulate innovation that may be thought to work best in "free flow" mode. Experience shows that structured working increases the collective ability of a group to innovate together.

There are specific approaches/methods within the agency:

	More successful agencies			Less successful agencies		
... to understand the needs of clients/customers/residents/contractors	39%	46%	15%	21%	58%	21%
... to understand trends and/or new technologies	28%	57%	15%	10%	67%	23%
... to stimulate creativity	13%	63%	24%	8%	52%	40%
... to capture ideas	22%	59%	19%	19%	42%	40%
... to develop and test ideas	24%	54%	22%	8%	44%	48%
... to choose which ideas/projects we allocate resources to	37%	50%	13%	15%	46%	40%
... to collaborate with customers/clients/residents in our innovation work	28%	50%	22%	13%	25%	63%
... to create the right conditions for implementation and benefit realisation	28%	48%	26%	13%	40%	48%
... to raise the profile of our services or what we deliver	39%	56%	6%	21%	42%	38%
... to systematically evaluate new or improved services once they are in use	19%	56%	26%	4%	58%	38%

■ True
■ Neutral
■ Not true

The two groups of agencies show a similar profile in terms of where new ideas for innovation projects come from. There is some difference, however, with those that are more successful innovators having a greater flow of input from external sources such as other public agencies, academia, the business world or clients.
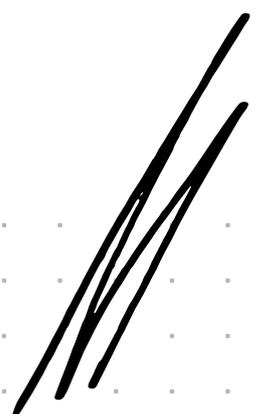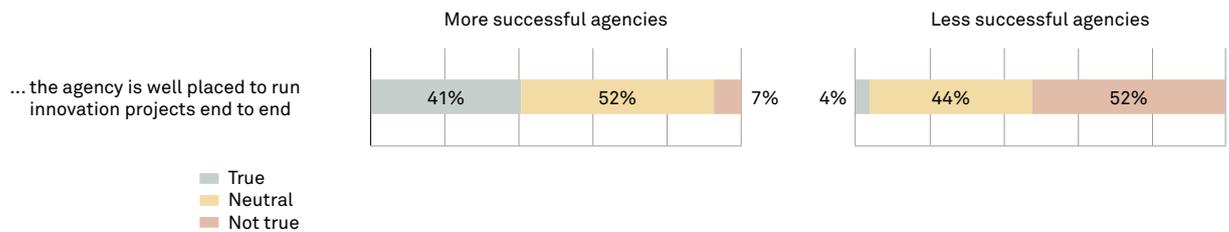
New ideas for innovation projects come from
(agencies' mean score in each category):

		More successful agencies		Less successful agencies	
Internal sources	… employees at the organisation	34%		42%	
	… managers at the organisation	25%	58%	24%	66%
External sources	… other agencies, municipalities, etc.	14%		10%	
	… academia, universities and colleges	9%		8%	
	… external partners from industry and business	8%	42%	7%	34%
	… customers/ clients/residents	11%		9%	
		100%	100%	100%	100%

The agencies' assessment of overall maturity in terms of whether they are well positioned to deliver innovation projects end to end reveals a clear difference between those that are more successful innovators and those that are less successful.

Of those that are more successful innovators, 41% agree that this is the case compared to 4% of those that are less successful. Similarly, 52% of those that are less successful at innovation say that this is not the case compared to 7% of those that are more successful at innovation.

As a whole/in summary, ...

	More successful agencies	Less successful agencies
... the agency is well placed to run innovation projects end to end	41% / 52% / 7%	4% / 44% / 52%

- ☐ True
- ☐ Neutral
- ☐ Not true

Value network and external relations

This chapter focuses on the factors underlying the maturity levels of value networks and external relations, analysing differences and similarities between the two categories of agencies, i.e. those that are more successful innovators and those that are less successful.

More and more organisations recognise the need to involve external actors in their innovation work to complement their own organisation's skills and resources. In the study, the concept of value networks has been used to illustrate the external context that an agency engages with in its work on innovation. It is sometimes referred to as an "innovation ecosystem". In our definition, innovation ecosystem is the term used for anything in the agency's external environment that can be used for innovation work. The term "value network" refers to the subset of the "innovation ecosystem" (other agencies, universities, companies) that the agency works with on innovation in practice.

Those agencies that are more successful innovators have a clearer profile and a higher level of maturity in respect of the extent to which external actors are involved in innovation work. Similarly, the agencies that are less successful innovators indicate a lack of involvement of external actors. It is interesting to note that other public agencies are key partners in the innovation work undertaken by those agencies that are more successful innovators.

The agency involves the following in its innovation work:

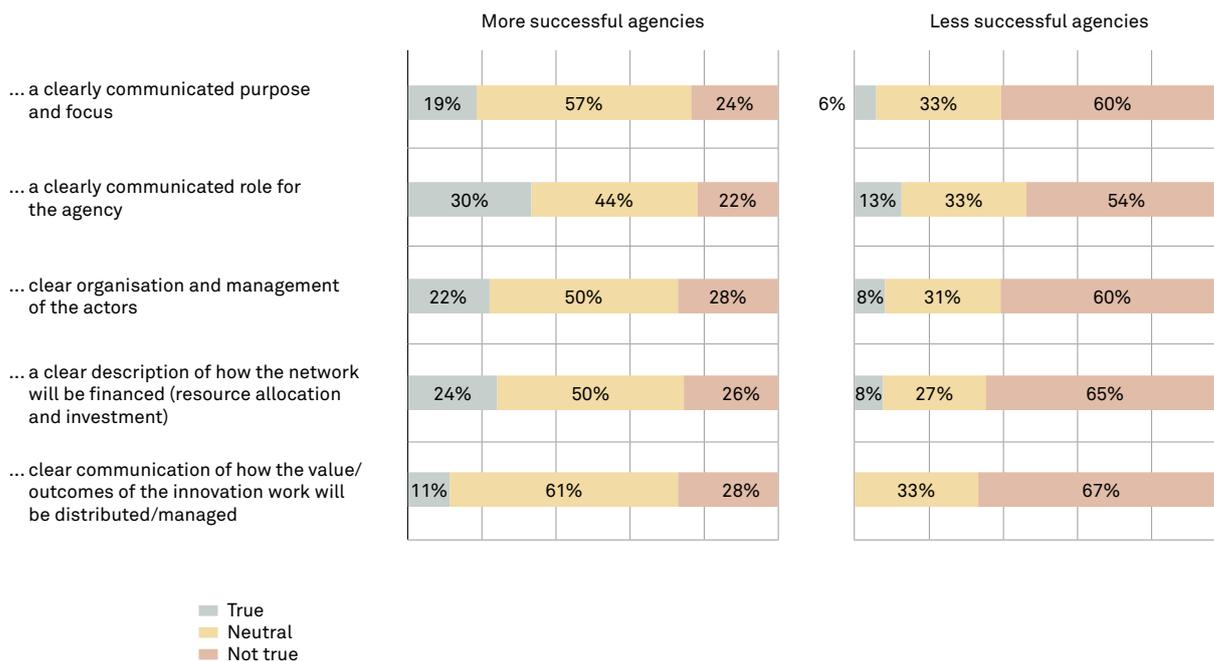|	More successful agencies			Less successful agencies		
… other agencies	True 56%	Neutral 33%	Not true 11%	True 19%	Neutral 48%	Not true 33%
… academia, universities and colleges	30%	50%	20%	19%	31%	50%
… external partners from industry and business	33%	39%	28%	15%	29%	56%
… customers/clients/residents	22%	57%	20%	19%	42%	40%

Legend:
- True
- Neutral
- Not true
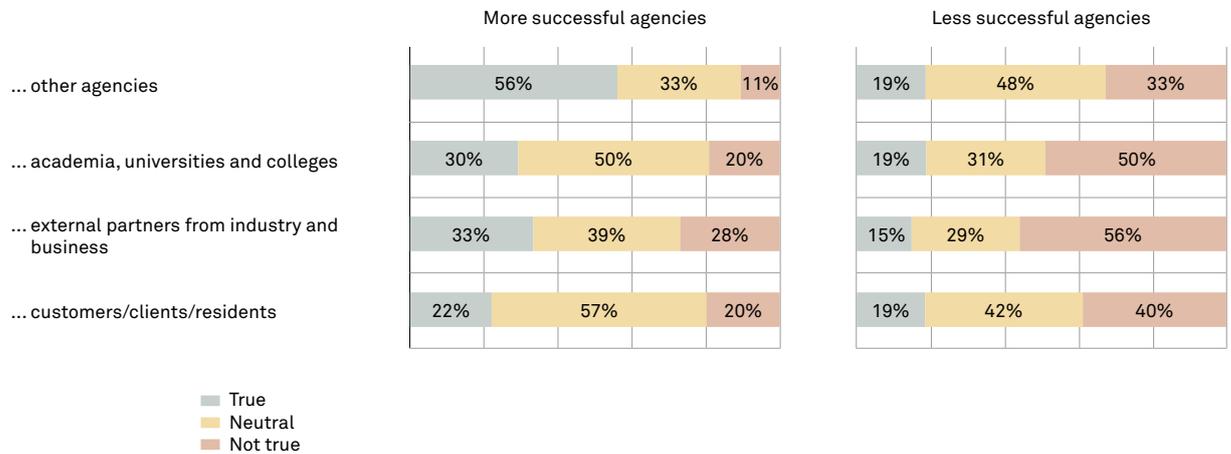
While there are clear advantages to opening up and involving external actors in an agency's innovation work, these "organisational gaps" need to be structured and managed so that external actors can interact effectively with the agency and with each other. A value network can be shaped and described with the following perspectives in mind:

- the purpose and focus of the collaboration in the value network as a whole
- the role of the individual agency in the value network, e.g. financing, coordinating or actively contributing
- the model for organising and managing the actors (e.g. centralised, decentralised or distributed)
- a description of how the network will be financed (resource allocation and investment)
- a description of how the value/outcomes of the innovation work will be distributed/managed

The data show that the agencies that are more successful innovators generally have higher levels of maturity in these areas than those that are less successful innovators. Conversely, there are clear indications that those that are less successful are more likely to feel that they do not have this maturity in their own agency. Although the maturity level is higher among the more successful innovators, the overall maturity level of the agencies as a whole is low in this group, where there is significant potential for improvement.

Our innovation activities in external value networks has:

	More successful agencies			Less successful agencies		
...a clearly communicated purpose and focus	19%	57%	24%	6%	33%	60%
...a clearly communicated role for the agency	30%	44%	22%	13%	33%	54%
...clear organisation and management of the actors	22%	50%	28%	8%	31%	60%
...a clear description of how the network will be financed (resource allocation and investment)	24%	50%	26%	8%	27%	65%
...clear communication of how the value/outcomes of the innovation work will be distributed/managed	11%	61%	28%		33%	67%

■ True
■ Neutral
■ Not true

The agencies' assessment of overall maturity in terms of whether there is good external collaboration that creates the right conditions for innovation work reveals a difference between those that are more successful innovators and those that are less successful. Of those that are more successful innovators, 30% agree that this is the case compared to 6% of those that are less successful. Similarly, 46% of those that are less successful innovators do not feel this is the case compared to 17% of those that are more successful.

While there is a clear difference between the two groupings of agencies, there is also considerable potential for improvement in those agencies that are more successful innovators in terms of providing greater clarity on how to interact with external actors in the organisational gaps. In our experience, this is one of the key issues for agencies to address in the future, particularly in view of the cross-community challenges that agencies will need to work on in various areas in the future. Solutions will only be found through collaboration between different agencies and actors.

As a whole/in summary, ...

	More successful agencies	Less successful agencies
... our agency engages in external collaboration that creates the right conditions for innovation work	30% 54% 17%	6% 48% 46%

- ■ True
- ■ Neutral
- ■ Not true
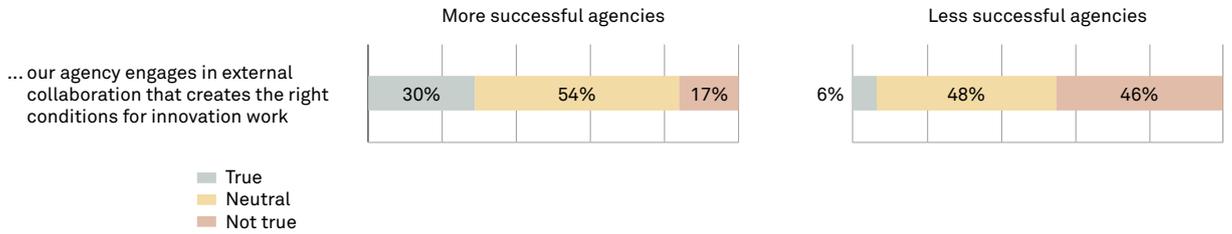
Outcomes and benefit realisation

This chapter focuses on the factors that illustrate how innovation work produces outcomes and benefits, analysing differences and similarities between the two categories of agencies, i.e. those that are more successful innovators and those that are less successful.

It can also be seen that both categories of agencies have the same main focus in terms of the areas in which innovation work produces outcomes, i.e:

• learning and knowledge building
• ability to provide a service/accessibility
• new products and services delivered by the agency

It is interesting to note that agencies that are more successful innovators have a clearer profile, demonstrating a higher success rate in generating outcomes from innovation work in all areas.

The agency's innovation work results in:

	More successful agencies			Less successful agencies		
… greater ability to pursue control and enforcement	28%	37%	35%	17%	38%	46%
… greater ability to provide a service/accessibility	67%	30%	4%	29%	46%	25%
… new products and services delivered by the agency	54%	26%	20%	31%	44%	25%
… new organisational structures, working methods or procedures	39%	54%	7%	21%	46%	33%
… new perspectives and challenging of accepted truths	43%	52%	6%	25%	42%	33%
… new policies (new ways of thinking or procedures)	48%	43%	9%	17%	54%	29%
… new forms of collaboration/new constellations of actors	43%	46%	11%	13%	56%	31%
… new products and services for other actors	20%	43%	37%	13%	27%	60%
… learning and knowledge building	69%	28%	4%	35%	48%	17%

■ True
■ Neutral
■ Not true

The following section illustrates the extent to which the agencies undertake the appropriate measurement and monitoring of their innovation work in different phases of the innovation process:

- investment/resources invested in innovation work (input)
- innovation activities (throughput)
- innovation outcomes (output)
- effects of the innovation work (impact)

The data show that agencies that are more successful innovators are more likely to indicate that this activity is in place in the agency than those that are less successful. Similarly, a higher proportion of agencies that are less successful innovators indicate that it is not in place.

Although there is a difference between the two groups of agencies, the overall level of maturity is low, with considerable potential for improvement in the measurement and monitoring of the innovation process. The maturity rate for monitoring also shows that the agencies perform worst in the final step of the innovation process, i.e. the value that the innovation work creates in practice.

We undertake appropriate measurement and monitoring of:

	More successful agencies			Less successful agencies		
... investment/resources invested in innovation work	15%	52%	33%		27%	69%
... innovation activities	22%	46%	31%		35%	55%
... innovation outcomes	13%	63%	24%		33%	67%
... impact of the innovation work	9%	63%	28%		27%	73%

- ▨ True
- ▨ Neutral
- ▨ Not true
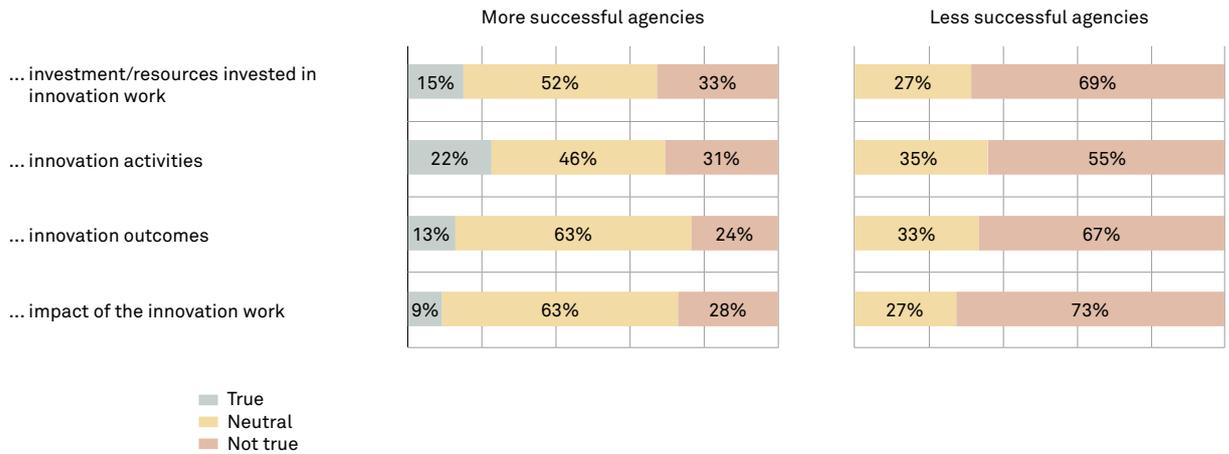
In order to clarify the outcomes created through innovation work, the agencies were asked to assess the way in which the outcomes emerge, i.e

- **internal** outcomes within the agency <=> **external** outcomes e.g. for customers/clients
- **small** incremental outcomes <=> **significant**/substantial outcomes

The data show some difference between the groups, with those that are more successful innovators having a slightly greater impact in these areas than those that are less successful innovators. Small incremental improvements feature most prominently in both internal and external outcomes. This applies to both groups of agencies.

The internal outcomes of the innovation work, e.g. new organisational structures, working methods or procedures, are mainly:

	More successful agencies	Less successful agencies
	True	Neutral	Not true		True	Neutral	Not true
... internal results – small incremental improvements	52%	44%	4%	42%	44%	15%
... internal results – significant improvements	17%	59%	24%	4%	33%	63%
... external results – small incremental improvements	39%	50%	11%	31%	54%	15%
... external results – significant improvements	19%	63%	19%	6%	44%	50%

■ True
■ Neutral
■ Not true

The definition of innovation is 1) something new, 2) that is put into effect and 3) that creates value. In order to identify their maturity, the agencies were asked to assess how well they were able to deliver internal and external outcomes in terms of:

1. producing/developing new solutions

2. implementing/applying new solutions

3. realising the benefits of new solutions implemented/applied

There is a clear difference between the two groups in terms of their ability to generate tangible outcomes through innovation work, with those that are more successful innovators having a much more distinct profile across all three stages for both internal and external outcomes. Similarly, agencies that are less successful innovators are more likely to indicate that they do not have this ability in their agency.

It is interesting to note that the level of maturity decreases for both groups as the three stages progress, in that, relatively speaking, they feel they are least capable of realising the benefits of new solutions implemented/applied. Although there is a clear difference between the two groups of agencies, there is still significant potential for improvement for agencies in terms of generally strengthening the three steps of the innovation process.

In innovation work focusing on external outcomes (e.g. new products, services and forms of collaboration), we generally succeed in addressing new challenges/opportunities by:

Internal outcomes	More successful agencies			Less successful agencies		
... 1) developing new solutions (internal outcomes)	43%	56%	2%	17%	65%	19%
... 2) implementing/applying new solutions (internal outcomes)	35%	61%	4%	6%	69%	25%
... 3) realising the benefits of new solutions that are implemented/ applied (internal outcomes)	30%	63%	7%	8%	58%	33%
... 1) developing new solutions (external outcomes)	39%	59%	2%	15%	56%	29%
... 2) implementing/applying new solutions (external outcomes)	33%	63%	4%	6%	60%	33%
... 3) realising the benefits of new solutions that are implemented/ applied (external outcomes)	24%	69%	7%	4%	50%	46%

External results

- ⬛ True
- ⬛ Neutral
- ⬛ Not true

In innovation work, there is no "best way" whereby something works better in terms of small incremental innovations or more significant radical innovations; both types of innovation exist and may be desirable in different situations. Agencies that are more successful innovators are more likely to report that they achieve a good balance between the types than those that are less successful.

We achieve a good balance when implementing small incremental improvements and significant improvements in terms of:

	More successful agencies			Less successful agencies		
...the internal outcomes of the innovation work (organisation/working methods)	26%	72%	2%	8%	54%	38%
...the external outcomes of the innovation work (products/services)	28%	61%	11%	8%	52%	40%

- True (grey)
- Neutral (yellow)
- Not true (orange)
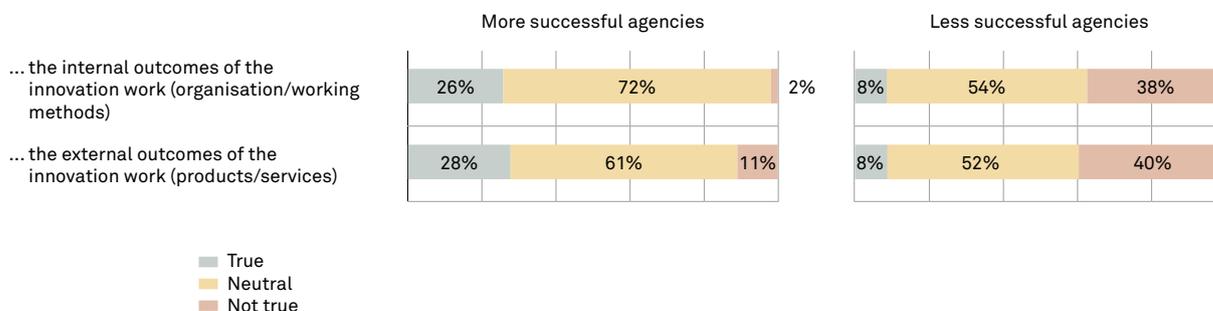
To identify the recipe for successful innovation work more precisely, a more detailed analysis was carried out regarding benefit realisation in innovation work by comparing the agencies' positions in respect of 'significant' and 'small incremental' improvements. The matrix below shows the percentage of agencies in each position, e.g. 15% of agencies are at level 3 for significant improvements and level 5 for small incremental improvements.

The compilation shows that, overall, the agencies' results are spread in the matrix, with a principal cluster of 61% of agencies focusing on small incremental improvements. To provide further detail for the analysis, the matrix was divided into four quadrants, referred to here as

- Balanced innovators
- Developers
- Radical innovators
- Managers

Balanced innovators (34% of agencies) focus on both significant and small incremental innovations. Developers (45% of agencies) primarily focus on small incremental innovations but not on significant innovations. Radical innovators (10% of agencies) are those that primarily focus on significant innovations but not on small incremental innovations. Managers (11%) are those with a low level of focus in both dimensions.

When comparing how successful these four different categories of agencies are at innovating, it appears that balanced innovators, i.e. those with a strong focus on both significant and small incremental innovations, are the most successful innovators.

One important conclusion from this might be that agencies with a high level of maturity in terms of their innovation strategy and the three areas of the innovation platform, i.e. organisation, value network and projects, have the ability to drive innovation work that produces both significant and small incremental innovations so that their innovation work produces the desired outcomes.

The agencies' strategy for benefit realisation – small incremental innovations ⟨=⟩ significant innovations

As a whole, our innovation work produces the desired outcomes

Main cluster (61%)

Radical innovators (10%)

Balanced innovators (34%)

	1	2	3	4	5	6
Fully true 6		1%				
5			3%	4%	2%	
4	1%	2%	3%	13%	13%	3%
3		1%	4%	6%	15%	1%
2			3%	5%	10%	1%
Not true at all 1	2%		1%	2%	3%	3%

The outcomes of innovation work are mainly **significant** improvements

Not true at all — Fully true

The outcomes of innovation work are mainly **small incremental** improvements

Managers (11%)

Developers (45%)

* *the % figures indicate the proportion of the 102 agencies in each category*

	True	Neutral	Not true
Balanced innovators (34%)	31%	63%	6%
Developers (45%)	11%	67%	22%
Radical innovators (10%)	10%	80%	10%
Managers (11%)	9%	45%	45%

Legend:
- True
- Neutral
- Not true

The most innovative agencies

To be able to show examples of best practice and obtain in-depth descriptions of how agencies pursue innovation work in real life, we supplemented the questionnaires in the study with a number of qualitative interviews within three agencies. The three agencies selected were the ones that stood out in the survey as the most innovative on the basis of other agencies' assessments. The survey asked respondents to indicate which three agencies they considered to be the most innovative. The findings showed that 51 agencies were nominated, but some agencies were clearly marked out as top candidates and a long line of agencies received just one or two votes. The list of the top 10 is in order of rank:

• Swedish Tax Agency
• Swedish Social Insurance Agency
• Lantmäteriet (Swedish mapping, cadastral and land registration authority)
• Swedish Public Employment Service
• Swedish Agency for Economic and Regional Growth
• Swedish Pensions Agency
• Vinnova
• Swedish Companies Registration Office
• Swedish Environmental Protection Agency
• DIGG – Agency for Digital Government

However, the Swedish Tax Agency was the agency that stood out the most and received most votes (29%), followed by the Swedish Social Insurance Agency (8%) and Lantmäteriet (8%). The respondents' reasons for nominating the three most innovative agencies were as follows:

Swedish Tax Agency
What they did
• *Digitalised and simplified services for residents*
• *Better customer service and shorter lead times*
• *Services/benefits are cascaded right down to the customer*
• *New approaches to civic services with the taxpayer at the centre*
• *From feared tax collector to well-liked and trusted public service agency*

How they did it
• *Continuous, innovative solutions*
• *Good structure for identifying customer needs and translating them quickly into digital customer solutions*
• *Big ambitions but realistic actions; getting things into production*
• *A deliberate, assertive and sustained commitment to innovation*
• *A well-documented journey of change*
• *A DG that pushes hard*
• *Has an effective innovation team*
• *Highly visible and happy to share their knowledge*
• *Allocate time and resources to different skills*
• *Work systematically to make innovation part of their core activity*

Swedish Social Insurance Agency

What they did
- *New approaches to civic services*
- *Simplified contact with residents*
- *Has developed its services and listened to customers' needs*
- *High degree of digitalisation; new e-services*

How they did it
- *Has successfully made the transition to digital services*
- *Their digitalisation journey*
- *Lots of innovative, useful ideas*

Lantmäteriet (Swedish mapping, cadastral and land registration authority)

What they did
- *Continuous improvement of services with the customer in focus*
- *Explore and implement lots of new services*
- *Good digital services*
- *Digital solutions in an ecosystem perspective*

How they did it
- *Exemplary work with new technologies*
- *Brave enough to experiment and try new technologies*
- *Enquiring and innovative*
- *Old agency gone high-tech*
- *Creative new approach to open data and making the most of the data you have*
- *They work sustainably and systematically on innovation*
- *Think broadly and effectively about innovation within the agency's remit*
- *Collaboration and visibility*

With these agencies, interviews were carried out with the DG and staff leading the innovation team, and also with one additional person with valuable insight into the agency's innovation work. Details for each agency are given below. We used an interview guide that focused broadly on the background and purpose of innovation work, how the agency has gone about enhancing its innovative capacity, how it views innovation in value networks and, finally, the interviewees' recommendations for other agencies.

Lantmäteriet (Swedish mapping, cadastral and land registration authority)

Two people at Lantmäteriet were interviewed: Susanne Ås Sivborg (DG) and Owe Brinnen (acting Innovation Team Leader).

Lantmäteriet has been focusing for a decade on the particular value that innovation work has for them. They separate innovation from other activity, although they also feel that there is innovation underway throughout the organisation. Innovation involves developing something new that is also then put into effect. For some years now, the agency has had an innovation unit tasked with initiating and leading projects that have a high degree of novelty and a long-term time frame and are separate from the agreed development portfolio. Even if innovation projects deviate from the development portfolio, they must be in line with the agency's strategies.
There must also be scope for projects to fail, even if there is a precautionary principle in place owing to the fact that they are a government agency. Before launching an innovation project, the agency may undertake small-scale feasibility studies, which investigate opportunities and obstacles and are strongly exploratory in nature.

The agency's innovation unit consists of six employees and they carry out a number of activities directed at the rest of the organisation in order to generate innovation projects and outcomes. Ideas and suggestions for innovation projects come from employees, especially during the agency's "Innovation Day". All ideas and projects are communicated openly via the agency's intranet. Decisions as to which projects will have actual resources allocated to them are made by the innovation council, which is made up of representatives from all the agency's various areas of activity. The council also collects ideas and suggestions for exploratory activities and innovation projects, and ideas can be channelled to the council by other units. Employees involved in innovation projects are drawn from the agency's regular staff team and the projects are also often seen as an attractive option. Examples of innovation projects include the development of a chatbot, using AI to capture handwritten documents and mountain top recognition. It is clear from the interviews with Lantmäteriet that the innovation unit has well-developed links with other units and sections within the agency and a well-established focus on more radical and inventive innovation projects.

The focus of innovation projects is clearly expressed within Lantmäteriet, and both the DG and the acting head of the innovation unit say that proposals and ideas must relate to the agency's remit and focus on the benefits to society and the value that is created for residents. At the same time, Lantmäteriet needs to follow developments in relevant technology and anticipate how they might be used to further develop their services. In recent years, digitalisation has had a major impact on work on innovation at the agency, and opportunities that digital technologies bring should be addressed through the agency's innovation work.

Lantmäteriet faces several challenges in its innovation work. Freeing up critical resources for innovation projects can be a challenge, as certain key people are often needed for regular operations. Other frequently recurring challenges are current legislation and when the technology or the functionality of digital technologies prove too immature. When work on innovation is prevented by these obstacles, the agency tries to benefit from the learning that arises, and it then also needs to consider whether the solutions are so important that they should continue to be pursued or whether they should keep an option open to act on it a later date. Lantmäteriet has been, and still is, involved in several national networks with the aim of sharing experiences and getting inspiration and insight into how it can manage and organise innovation. The agency sees collaborating and pursuing specific projects or issues with other

actors as an important part of its work. Collaboration with other agencies is seen as self-evident, and innovation in networks of different actors is becoming increasingly important.

Swedish Tax Agency

Four people were interviewed at the Swedish Tax Agency: Katrin Westling Palm (DG), Christina Henryson (CFO) and Mattias Langeström and Fredrik Ivarsson (innovation team). The Agency's innovation work and approach to innovation is the result of continuous operational development over a period of twenty years. Innovation work has been strongly driven by IT development within the Agency, which has been, and still is, extensive. In addition, the Agency has developed a strong customer-centric approach over time, which has also influenced its approach to innovation. More recently, innovation work has moved beyond IT development and there has been a clear shift in focus from technological development to service design. Innovation for the Agency is now primarily about creating new things, exploring possibilities and solutions and developing approaches and attitudes to enable it to innovate in its work. In terms of organisation, the Agency launched an innovation team in 2017. After a couple of years of loose working arrangements, innovation was given a clearer structure from 2019 onwards.

The mission of the innovation team is to support the entire organisation in its work on innovation and to improve the organisation's innovative capacity. The team consists of seven people and reports to the Agency's CFO. The aim of the team's work is both to develop ways of working and approaches to innovation and to support the development of innovative ideas, i.e. it has both a process and an outcomes perspective. There is a stronger focus on generating new ideas and exploring opportunities than on generating actual outcomes, as ideas can be taken up in later or parallel developmental projects. The innovation work does not apply the same established and agile-inspired methodology as the agency's developmental work but is more inspired by design methodology, with the explicit aim of exploring possibilities. Dedicated resources are allocated to innovation and innovation projects are set up to involve people from the regular staff team. Innovation projects have both a signalling value in that they emphasise the importance of rethinking and exploring opportunities and a direct purpose in creating new solutions and new services. The Agency has positive experience to bring to bear of innovation projects successfully solving problems in departments in a short period of time with the support of specific methodology and dedicated resources. A particular success factor has been exploring a problem from the customer's perspective.

One challenge for the innovation team is to challenge the Agency's staff to set aside their tendency to demand predictability. In addition, it is felt particularly important that the team works on identifying the actual problem rather than rushing for a solution. The Agency also stresses the importance of creating the right environment for the enthusiasts in the organisation, i.e. the individuals who can both see the opportunities and bring in new approaches to identifying problems and how to solve them. Existing legislation and regulations can sometimes be an obstacle to innovation work at the Agency, as they can put a stop to proposals for certain solutions and services. However, it is felt that identifying these types of boundaries is useful and, as with Lantmäteriet, the issue is whether an idea should continue to be considered with a view to a possible proposal for a rule change. Other challenges relate to data management and security, which are always a priority. Learning is an important element in these cases too. The Agency's work on innovation increasingly involves collaboration with other agencies, and networks of different actors are increasingly considered key to solving societal problems and to developing the services that are part of their Government remit. The Agency has launched specific initiatives in relation to other agencies in recent years, partly in relation to its innovation work and the sharing of experience with other agencies.

Swedish Social Insurance Agency

Two people were interviewed at the Swedish Social Insurance Agency: Nils Öberg (DG) and Antonio Molin (Innovation Centre).

The Agency has a developmental culture owing to the fact that it has long had to find solutions to tough challenges, so there has been a significant requirement for innovation and problem-solving. This has mainly involved IT and the development of new digital services and systems. The Agency's developmental work is strongly associated with the IT department, as digitalisation has placed great demands on development while providing considerable opportunities. Sweden is well ahead of other countries in this respect. Digitalisation has brought about a major improvement in the efficiency of the Agency's services, and it is in this context that they have been recognised for having found creative solutions. The ability to create new solutions and move through important stages of development is strongly linked to the unique characteristics of individual employees.

The term innovation is used sparingly at the Agency, which does not mean that renewal and development are not important and central to its activity. The primary objective of public agencies is to ensure a service is available to society at all hours of the day and night, and they therefore need to focus on fulfilling their core remit. Taking risks and making radical changes, which is what innovation work is associated with, is therefore not perceived as feasible in a public agency in the same way as it is in the private sector. Continuous developmental work is ongoing, aimed at both streamlining and ensuring the accuracy of financial transactions between residents and the state, and there is still considerable potential for developing the Agency's systems to manage this.

There is no explicit strategy for innovation work at the agency, but innovation happens partly through the developmental work carried out by the IT department and partly because each department is required to develop its own activity. Enormous strength comes from the Agency's strong developmental culture and the size of the IT department (with about 1,200 employees it is one of Sweden's largest), in the shape of technically competent and knowledgeable employees. There is also an affirmative leadership team that encourages staff to develop new solutions. There is no department or unit responsible for innovation at the Agency, but there is a service called the Innovation Centre whose task is to facilitate and fund innovation projects. One outcome of the Innovation Centre's work is capacity building in terms of how to identify and solve problems in an exploratory way, with design methodology an important component. As with other agencies, the Agency comes up against obstacles relating to legal and regulatory limits that can make certain changes difficult or impossible.

The Agency makes it clear that collaboration and networking are very important for the organisation. Social security, the Agency's core remit, has important dependent relationships with other agencies and organisations, and the Agency is dependent on others assuming their responsibilities. Inter-agency cooperation is vital and there is no latitude for agencies to protect their own resources; they must all be willing to contribute to dealing with inefficiencies and solving societal problems. The Agency works proactively to develop new areas of cooperation and considers it a natural part of its work to pursue issues that are not only its own concern but also help address complex societal challenges that require interaction between several different parties.

Summarising reflections from the three agencies

Innovation work can differ from agency to agency and still be very successful. Success very much comes down to the unique skills of employees and managers and tapping into the potential of their skills and ability to identify and solve problems. To fully harness this potential, agencies need to take a systematic approach, and the right conditions need to be in place in terms of both organisational structure and culture. The agencies considered by survey respondents to be pioneers in innovation are likely to be so because they are working proactively to develop their role in society and the value they generate for residents. They are also high profile in that they work with something that many agencies face as both an opportunity and a challenge, i.e., appropriate use of new digital technologies, and they are visible in cross-agency networking around innovation.

The agencies interviewed view innovation in different ways; some have their own, different, definition, others do not use innovation as a concept but include innovation and forward-looking development in other concepts. However, for agencies tackling innovation and innovation capacity from the ground up, it is probably important that they have their own dialogue about what this means and entails. Creating something new and implementing and creating value from it is the definition to which the theory relates and it is also the basis on which the questions in the survey have been asked.

Another issue where we also see different models is the organisation of specific work on innovation. Having a dedicated innovation team is a common way of organising work on innovation that extends beyond the agencies interviewed here and often yields positive experiences. One strength of this approach can often be that an innovation team can undertake long-term work on organisational culture and has access to specific resources to help develop working methods and methodologies for innovation work. A team can also lead specific innovation projects that can deliver more radical innovation outcomes by allocating time for key skills, applying innovation methods and employing a longer time frame than in regular developmental work. Being involved in innovation projects is also often an attractive prospect, and working in an exploratory way becomes both a reward and a way to develop skills. One similarity between the agencies we have interviewed is that leadership in an organisation is very important for innovation work. Several interviewees report the importance of having the support of management for their work, and it is clear how different solutions are based on different principles and structures stemming from the agency's leadership team. It is very important to choose a model for more exploratory and long-term innovation work that is linked to established structures and cultures, and this should always be taken into consideration in organisational changes. Equally important, innovation work needs to be consistent with the agency's remit, within its area of activity and integrated with its strategies. A further similarity is that it is clear to the agencies that innovation in collaboration with other actors in society is increasingly important and that networking and collaboration are vital for addressing a range of challenges in societal development.

Summary and recommendations

Summary

In order to collect data to explain and understand the underlying mechanisms that influence an organisation's innovative capacity, we used the well-tried framework developed in the 2017 study of the innovation capacity of public agencies. The framework is based on five main areas:

- Innovation strategy
- Organisation
- Value network
- Projects
- Outcomes

The innovation strategy is the starting point for innovation work and describes the overall purpose, ambition and objectives of the work. The strategy gives rise to the guidelines and conditions required to design the innovation platform, i.e. the three areas (organisation, value network, projects) that create the basis on which innovation work will be run. The survey data show a clear correlation whereby agencies with a clear innovation strategy are more successful at establishing an innovation platform that provides good conditions for innovation work.

The innovation platform in which the three areas (organisation, value network, projects) interact creates the environment necessary for generating outcomes from the innovation work. The data show a clear correlation whereby agencies with an established innovation platform are more likely to generate innovation outcomes.

The models used to map the overall maturity level of the agencies' overall innovative capacity were Implement Consulting's modified version of the Capability Maturity Model Integration programme and the model specified in the ISO standard, which comprises five levels:

- A – Passive
- B – Reactive
- C – Aware
- D – Active
- E – Proactive

The agencies indicated their level of maturity in innovation work from three perspectives:

- where they were three years ago
- where they are today
- where they would like to be in three years' time

The results from the 102 agencies showed that, three years ago, most of them were at level A–C with a mean score of 2.0, which corresponds to level B – Reactive. Assessment of the current maturity level shows that, on average, most have increased their maturity level from 2.0 (B – Reactive) to 2.8, which corresponds to level C – Aware, and that there is a clear normal distribution around this mean score.
In addition, the overall level of ambition is high, with the agencies aiming for an average score of 4.2 in 3 years' time (D – Active). Interestingly, however, a full 48% of the study population aspires to be at the highest level, E – Proactive. The data show that agencies are generally on a developmental journey, moving from a lower level of maturity three years ago towards a future goal of higher innovative capacity in three years' time.

Data showed that 54 agencies (53%) said they were more successful innovators (4, 5 or 6 on the maturity scale) and 48 agencies (47%) said they were less successful (1, 2 or 3). Given this result, the agencies were divided into two categories, one group of more successful innovators and another group of those who were less successful. This categorisation was then used as a basis for analysing the differences and similarities between them, based on the other, more detailed questions, so as to get more focused information on the five areas of the framework:
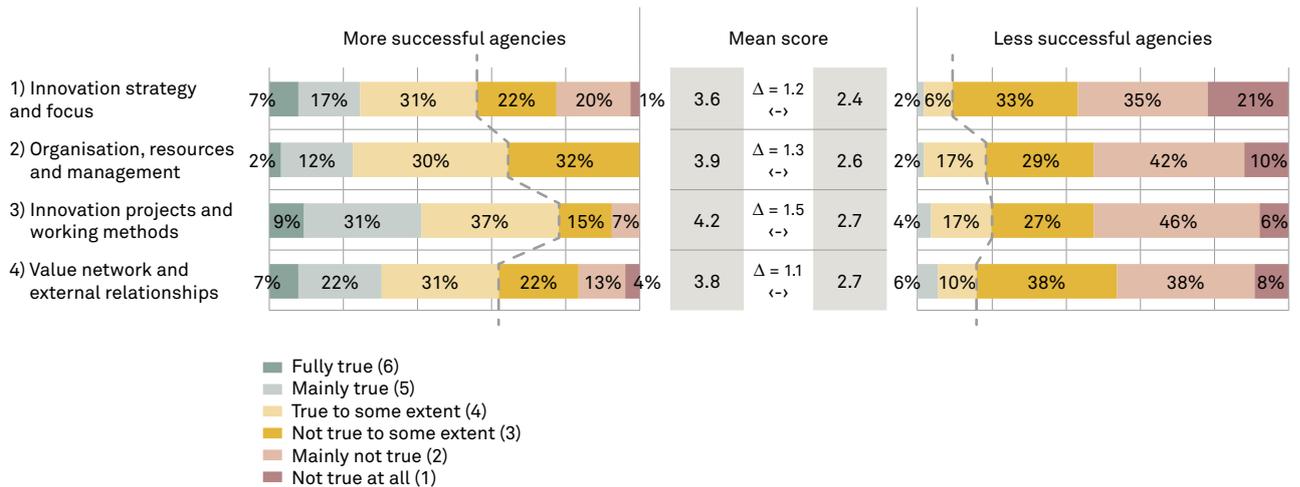
• Innovation strategy
• Organisation
• Value network
• Projects
• Outcomes

The overall data showed a clear difference between the two groups, with the more successful innovators generally showing a higher level of maturity, indicated through their agreement with the statement describing "the desirable situation" in different questions in each area of the framework. Similarly, the less successful innovators indicated that the statement did not apply and that the specific "desirable situation" was not in place in their agency.

In an analysis of the agencies' assessment of maturity in terms of innovation strategy, organisation, value network and projects based on the two groups (more successful innovators and less successful innovators), a clear picture emerges as to how the groups differ from each other.

Those that are more successful innovators have a generally higher level of maturity in all areas than those that are less successful. The difference in the mean score for each area ranges from 1.1 to 1.5. The greatest difference in mean score (1.5) is in the extent to which processes, methods and ways of working are in place for running concrete innovation projects.

	More successful agencies							Mean score			Less successful agencies					
1) Innovation strategy and focus	7%	17%	31%	22%	20%	1%		3.6	Δ = 1.2 ‹–›	2.4	2% 6%	33%	35%	21%		
2) Organisation, resources and management	2%	12%	30%	32%				3.9	Δ = 1.3 ‹–›	2.6	2% 17%	29%	42%	10%		
3) Innovation projects and working methods	9%	31%	37%	15%	7%			4.2	Δ = 1.5 ‹–›	2.7	4% 17%	27%	46%	6%		
4) Value network and external relationships	7%	22%	31%	22%	13%	4%		3.8	Δ = 1.1 ‹–›	2.7	6% 10%	38%	38%	8%		

- ■ Fully true (6)
- ■ Mainly true (5)
- ■ True to some extent (4)
- ■ Not true to some extent (3)
- ■ Mainly not true (2)
- ■ Not true at all (1)

To add further detail to the analysis, the most successful section of the population (5 and 6 on the scale, 18 agencies) was compared with the least successful section (1 and 2 on the scale, also 18 agencies). A comparison of their maturity in different areas highlighted the following as the areas where they differed most (2 or higher) and which can therefore be considered the most likely success factors.

Innovation strategy
- The agency's remit stipulates that innovation work is part of the agency's activity
- The agency has explicit objectives for its innovation work
- The agency has a holistic approach to working with innovation
- The plans and governance documents we have for innovation provide the right conditions for innovation work

Organisation
- There is a good understanding of the importance of innovation work among the agency's management team and other managers
- There is a clear commitment to/responsibility for innovation work from senior management at the agency
- The agency has a long-term approach to innovation work
- There is a clearly described working method for work on innovation within the cross-functional areas/processes

Projects
- The innovation process supports our work on innovation effectively

Value network
- For our innovation activity in external value networks, there is a clear description of how the network is to be financed (resource allocation and investments)

Recommendations

A strong ability to drive innovation is a positive driver that all organisations can benefit from. Anything that is not being developed is in the process of being phased out, and all organisations, public agencies and businesses must work actively to future-proof their activities and ensure efficient delivery of the right products/services to customers and clients. In addition to delivering on their remit here and now, organisations also have to work on managing and renewing their activities. Creating the right conditions for innovative capacity in the organisation enables this to happen. Innovation and innovative capacity cannot/should not be seen as something separate but should be an integral part of the organisation's "way of being". It is not a "project" but a natural function of an organisation to drive and develop its activity in the long term.

In order to strengthen innovative capacity, knowledge and good practice should be drawn from research, studies such as this one, and practical experiences in the public sector and business world. The framework presented in this report has been based on a range of proven research findings and practical experience calibrated using the ISO standard for innovation management. The framework has also been validated through its use in two national surveys (2017 and 2021) and in specific change projects run by public agencies and companies.

A developmental journey to strengthen innovation within an organisation should be based on a well-established framework, as presented in this report. This is partly to ensure the right issues are addressed and partly to enable agencies to share the experiences and success factors generated by the empirical data. A first step would be a comprehensive baseline survey of the agency's current situation involving different people (both managers and employees) from different parts of the organisation. The survey could/should be based on the issues presented in this report. A comprehensive survey and a strategic discussion will provide the basis for a dialogue on how people view the situation. Without a common picture of the current situation, the strategic platform for a change initiative like this cannot be created.

The results of a broad survey of the organisation can then be compared with other agencies to create reference points and greater clarity. Based on the current situation and the organisation's overall aims, objectives are then defined for various issues in the different areas of the framework, i.e: Innovation strategy, organisation, value network, projects and outcomes. Drawing on the overall objectives and any gaps in relation to the current situation, the areas to be addressed are then prioritised to form the basis of an action plan.

As with other successful change programmes, this should also be predicated on an active management team and broad involvement within the organisation, with cross-functional teams of employees and managers actively participating in the development of the objectives and action plan. To guard against failure, resources and skills should also be secured to act as a catalyst and drive the work, and to provide support and recommendations to those working on the development of the organisation. The starting point for the systematic development of innovative capacity often emerges from within the organisation. It is important to harness the drive and initiative of forward-thinking and committed employees and managers to bring about the radical change that the organisation needs. To be successful, the change itself should also be implemented with the right level of ambition, taking various steps at a time and then evaluating, learning and correcting. This is a journey without an end goal where the journey is the goal itself, a journey towards a new "way of being" in an organisation so as to innovate how we work on innovation.

During the interviews with the three agencies deemed the most innovative, we asked what advice they would give to other agencies working with innovation on the basis of their own experiences. There is a general awareness that agencies vary a great deal both in size and in their remit and therefore in their circumstances, and it is therefore difficult to give general advice. All need to start from the recommendations above and interpret them as they see fit. However, we would like to conclude with what our synthesis of practice shows are important points to take on board for successful, forward-looking innovation work:

- *In the early stages, agencies need to apply trial and error, and getting the message out about the importance of innovation work is just as important as the actual outcomes.*

- *Innovation work affects many aspects of an organisation and an innovation platform contains the key elements. It needs a decision-making process and dedicated resources.*

- *A key part of innovation is trial and error – you have to be bold.*

- *Management support is key to success in innovation work.*

- *Ambassadors and enthusiasts are important in the development of an agency's innovation work.*

- *Risk-taking and failure must be addressed – there is an important balance between not taking greater risks than the agency can justify and being brave enough to try things out.*

- *Innovation work needs to take place in an environment of freedom and flexibility, albeit within a clear framework.*
Freedom is needed for the development of processes and culture and structure is needed for credibility and impact within the organisation.

- *Do not underestimate the importance of talking to others (e.g. agencies) and sharing experiences of innovation work.*
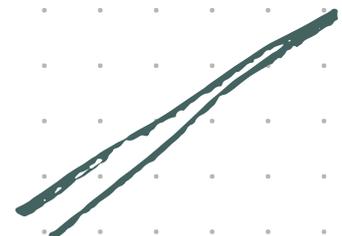
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