CORE SKILLS FOR SE **INNOVATION**

A beta model of skills to promote and enable innovation in public sector organisations.

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The Observatory of Public Sector Innovation collects and analyses examples and shared experiences of public sector innovation to provide practical advice to countries on how to make innovation work.

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BACKGROUND AND CONTEXT

To meet today's public policy challenges – continued fiscal pressures, rising public expectations, more complex public policy issues – there is a crucial need to increase the level of innovation in the public sector. There is a fundamental need to increase the level of innovation within the public sector of OECD countries and EU states if they are to meet the challenges of the 21st century, a need which has only been increased by the fiscal pressures placed on many states by the 2008-9 crisis.

At the OECD Observatory of Public Sector Innovation's November 2014 conference "Innovating the Public Sector: From Ideas to Impact" – a forum that brought together ministers, public sector leaders and innovators (both inside and outside the public sector) – four "calls to action" were presented that needed to be urgently addressed to promote and enable public sector innovation. The first of these calls is about the skills and capabilities of officials.

A specific focus on skills for innovation

The innovation framework developed by the OECD (Figure 1) puts people at the centre of an innovative organisation. The capacities and competencies of individual civil servants, the way they are organised in teams and structured in the public administration that will likely determine how effective the public sector is at being innovative.

Preliminary data from the OECD's 2016 survey of Strategic Human Resource Management practices in government (the SHRM Survey) indicates that innovation is among the highest priorities for HR reform across OECD countries. In 28 countries public sector innovation features in government-wide strategic objectives, many are developing learning and training programs for civil servants and civil service leaders, and almost half of responding countries include innovation-related concepts in their competency frameworks. However, in many cases, the inclusion of innovation in HRM policies and practices does not often extend beyond a passing reference and does not expand in detail the specific skills and capabilities needed.

While the OECD has done significant work on the institutions of government and rules and processes of governing, we still know comparatively little about the women and men who work within these structures, the skills and knowledge they use, and what motivates them to contribute. It is only now that the OECD has started to unpack the complex topic of skills and capabilities for public sector innovation – two particular projects in 2016 have supported this work: a review of innovation skills for the Chilean Laboratorio de Gobierno, and a work package in the grant from the European Commission's Horizon 2020 research framework programme to the OECD Observatory of Public Sector Innovation.

The four calls to action for governments at the OECD's 2014 conference "Innovating the Public Sector"

- 1. Focus on people Governments must invest in the capacity and capabilities of civil servants as the catalysts of innovation. This includes building the culture, incentives and norms to facilitate new ways of working.
- 2. Put knowledge to use Governments must facilitate the free flow of information, data and knowledge across the public sector and use it to respond creatively to new challenges and opportunities.
- 3. Working together Governments must advance new organisational structures and leverage partnerships to enhance approaches and tools, share risk and harness available information and resources for innovation.
- 4. Rethink the rules Government must ensure that internal rules and processes are balanced in their capacity to mitigate risks while protecting resources and enabling innovation.



At the May 2016 meetings of the OPSI National Contact Points (NCP) and the Working Party on Public Employment and Management (PEM) a joint session was held for delegates to both groups on the topic of "Innovation Skills and Competencies in the Public Sector". During the session the OECD Secretariat presented initial work on a framework for skills and competencies for public sector innovation, as well as an update on the initial work on the Chile Innovation Skills Review. This alpha prototype, developed in collaboration with Nesta, presented over 40 attributes associated with innovation skills and competencies grouped into five broad areas.

An interactive workshop was also included in the joint session for delegates to test the alpha prototype in small groups and provide feedback to the Secretariat on its utility. At the conclusion of the joint session it was agreed that "the Secretariat will work to develop the skills mapping into a more specific and practical tool which identifies specific skills needed for public managers to handle innovation projects". To achieve this, the Secretariat has refined the initial prototype into a beta-version model of skills for innovation, which is the substantive focus of this paper.

Alongside the beta model, and to support its development, the Secretariat commissioned Nesta to undertake research



Source: OECD (2015) The Innovation Imperative in the Public Sector: Setting an Agenda for Action

into the skills of innovators in government in the secondhalf of 2016. This research, the work to refine the model and other desk research have identified two broad groups of individuals in government that can be the focus of work on skills and capabilities for public sector innovation: "innovators coming into government" and "officials becoming innovators".

Many governments have made progress by bringing in external experts to set up new projects and inject new thinking – this comprises the first group outlined above, "innovators coming into government". The key issues here are how government can best utilise these people's skills, motivate them, continue their professional development and reward their successes.

However, just relying on bringing in external expertise is insufficient to deliver a systemic change in the culture of public sector institutions. To achieve the levels of innovation needed requires not just bringing in 'new blood' but also ensuring that existing public servants have the skills and capabilities to support innovative practices in government – or, as we title our second broad group, "officials becoming innovators".

Innovators coming into government

The research by conducted by Nesta for the Secretariat provides a detailed exploration of the skills of innovation specialists that have been brought into government from outside. The research used semi-structured interviews to explore the in-depth the specific skills, education and backgrounds of innovation specialists. A number of these interviews have been converted into eight "skills profiles" that provide a one-page overview of the skills and capabilities of innovators working in different innovation roles within the public sector. These skills profiles are included at pages 22-30.

Officials becoming innovators

In addition to the continued use of innovation specialists and external experts, government increasingly need to improve the skills and capabilities of existing staff. The Secretariat's work in this domain has been to refine the prototype framework of skills and competencies presented to the PEM and NCP meetings in May 2016 into a beta model that presents skills areas of "core skills" for public sector innovation.

These six skills areas are not the only skills for public sector innovation, each innovation project and challenge will have its own particular needs. Nor will all public servants need to make use of or apply these skills in every aspect of their day-to-day job. Rather, these are six skills areas that with proper promotion/advocacy and development we believe can enable a wider adoption of innovation practices and thus an increased level of innovation. In fact, there are a number of other skills that are already covered in existing public sector competency frameworks that are relevant for innovation, such as collaboration, strategic thinking, political awareness, coaching.

Leadership and management for public sector innovation

Alongside specific skills that enable public sector innovation, our research has identified that mind-set,

attitudes and behaviours can be just as important as specific hard or soft skills in enabling innovation within the public sector. Beyond the focus of individual skills and capabilities many research participants and stakeholders have highlighted a number of other organisational factors that are also crucial for increasing levels of innovation in the public sector. In particular, leadership capability, organisational culture and corporate functions/systems (finance, HR, IT, legal) that are enablers of innovation not 'blockers'. While outside the scope of the skills model, these are important factors that need to be considered in operationalising/implementing the skills model and achieving higher levels of innovation in the public sector.

The exclusion of leadership and management capabilities from the beta skills model is neither an oversight nor because they are not important. In fact, the contrary applies, high quality leadership and management are crucial for the success of public sector innovation, particularly in motivating and engaging employees to deliver in difficult/complex circumstances.

However, over the course of the research and refinement a form or set of leadership and management capabilities have not emerged that are distinctly different from either an embodiment by leaders and managers of the skills outlined in the model or more 'standard' concepts of leadership and management that are already espoused in public sector competency frameworks (openness, honesty, trust, strategic thinking, staff development and capability building). In addition to traditional arguments about "transformational" and "transactional" leadership, it has been argued that "adaptive" and "pragmatic" leadership is needed for public sector innovation¹:

- Adaptive leadership aims to determine which public activities to maintain and which to adapt and transform. It then seeks to develop new practices by crafting and testing prototypes and by aligning people across an organisation in order to ensure effective execution and to facilitate the integration of new activities with old ones.
- Pragmatic leadership aims to transform the culture of public organisations in ways that enhance double loop learning and use existing tools to solve problems by changing established practices – including transformative learning that develops new metaphors and narratives that help frame what is difficult to comprehend, expand knowledge and toolboxes and change identities and roles.

 Sorenson, E. and J. Torfing (2015), "Enhancing Public Innovation through Collaboration, Leadership and New Public Governance", in Nicholls, A., J. Simon and M. Gabriel (eds), New Frontiers in Social Innovation Research, Palgrave Macmillan. A crucial role that leaders and managers need to play is to support and enable their team(s) to adopt more innovative approaches is to better manage the interface between their team(s) and the wider organisation that they operate in. While there is much similarity between any two organisations, each organisation has its own structure, culture and operating environment. What is needed of leaders and managers to support innovation in one organisation may be different from that in another.

For example, in one organisation leaders and managers may need to focus on helping to unblock procedural barriers put in place by corporate functions (finance, HR, IT, legal, etc.) that stymy innovation, while in another setting they may need to work to overcome silo-mentalities to enable two or more different teams to work together (either within the same organisation, or between organisations). In these two situations there is a strong element of mediation: defending the benefits of their team's approach while fostering a spirit of collaboration by pragmatically identifying ways forward that overcome the impasse.

Another important role of all leaders and managers in the civil service is to promote and advocate the work of their teams. In discussions with their own managers and political leaders or during budgeting and strategic work-planning negotiations, they need to communicate how the work of their teams is aligned with both organisational and wider cross-government priorities/strategies.

Similarly, when engaging with political leaders, senior officials need to be able to extol the virtues and benefits of new and different approaches and how innovation projects can deliver a government's political programme.

Alternatively, some political leaders are strong advocates of innovation in the public sector; in this case, senior officials need to ensure that, while maintaining political support, politicians are understand the high-level uncertainties and risks associated with individual projects.

In reality, the collective leadership of both government and public sector organisations is likely to include a mix of those who are enthusiastic supporters of innovation, those who support it less strongly or are neutral, and those who are sceptical of public sector innovation. As with traditional policy programmes, leaders and managers need to build alliances to provide cross-government support, using natural cheerleaders to bolster support and provide a network of advocates across government.

In all these situations the skills and capabilities required of leaders and managers have no particularly distinct "innovation" component. However, when leading or managing an innovation team it might require a stronger application of leadership and management competencies, because in doing something "innovative", and which is different from the usual way of doing things, they may encounter stronger resistance than when they are initiating or leading a more "traditional" project.

Interaction with existing models and frameworks of skills and competencies in the public sector

Many public sector institutions have their own skills and competency frameworks, which are used in a number of people management functions such as performance management, career development and recruitment. These frameworks may also be complemented or duplicated by frameworks from professional bodies (either internal or external bodies) that specialists are required to adhere to. As a result, some civil servants may find themselves beholden to several different frameworks of skills and competencies.

The beta model outlined in this paper is not meant to replace or duplicate existing frameworks but to complement them by providing a model of how skills for public sector innovation can be described. Officials in public institutions can then choose whether to integrate these innovation skills into existing frameworks, or as a standalone model.

SIX **CORE SKILLS FOR** PUBLIC SECTOR **INNOVATION**

The OECD's beta skills model for public sector innovation has been based around six "core" skills areas. Not all public servants will need to make use of or apply these skills in their day-to-day job. However, for a modern 21st-century public service, all officials should have at least some level of awareness these six areas in order to support increased levels of innovation in the public sector.

- Iteration: incrementally and experimentally developing policies, products and services
- Data literacy: ensuring decisions are data-driven and that data isn't an after thought
- User centricity: public services should be focussed on solving and servicing user needs
- Curiosity: seeking out and trying new ideas or ways of working
- Storytelling: explaining change in a way that builds support
- Insurgency: challenging the status quo and working with unusual partners

For each of these six skills areas the model provides a matrix that decomposes the skill area into four elements of practice against three levels of capability.

The four elements of practice for each skill area break down the skill area into tangible components that relate to the real-world usage of innovation skills – e.g. "managing innovation projects" under iteration, "involving users in projects" within user centricity, and "challenging the status quo" in the insurgency skill area.

The three levels of capability represent an evolution that officials can adopt in terms of their understanding and adoption of skills for public sector innovation.

- The first level, *basic awareness*, is the first step in being able to utilise innovation skills and is about getting a general understanding of what each element practice is about and how it applies in a public sector context.
- The second level, *emerging capability*, leads on from having basic awareness to starting to use innovation skills. For each element of practice the model outlines how the skills can be applied in either an occasional fashion or in a "low intensity" manner, that allows officials to experiment with using them in a safe and/or controlled fashion.

 The third level, *regular practitioner*, shows how each element of practice can be adopted in a deeper and/or more systematic way. Adopting these (and related) practices in their day-to-day work will enable the vision of "officials becoming innovators" set out earlier in this paper.



ITERATION

Iteration is about the incremental and progressive development of a project. It is most commonly associated with modern software development practices where new features or updates to functionality are released when they are ready, rather than a "big bang" approach that releases a large number of new/updated features at the same time. Iteration skills aren't just about project management, using prototypes and conducting experiments can also be considered part of iterative practice.

Managing innovation projects

Iterative project management techniques (such as sprints or time-boxes, product backlogs or workflows, and retrospectives) where each stage builds on the preceding stage and there is greater opportunity to adapt and amend scope are well suited to delivering innovation projects. However, iterative project management techniques are not necessarily new to government – *Lean* and other continuous improvement methodologies have been used for many years in some governments to manage operational services.

Using prototypes to explore approaches

A prototype is an example of what something (a product, a service or system, a policy) might look like. Prototypes are can be used to demonstrate what something might look like, or to test whether something works. Prototypes can also be initial versions which are then incrementally refined and turn into the final product. They can be things you use only as internal "proof of concept" exercises, or things that you use with service users to test feasibility.

Taking risks, but not with time or money

Iterative approaches and project management methods can enable officials to try out things that may not work, initially at a small scale and then progressively increasingly the scale of the work. Using sand-boxes, prototypes and experiments allows officials to check step-by-step whether something is working and if not take action sooner rather than later.

Conducting tests and experiments

Innovation projects typically involve testing whether something works, and using the results of that testing to improve or refine work, or trying something else. Experiments are more robust and formal ways of testing whether something works, and by incorporating randomisation they can control for a range of potential factors that might otherwise influence the results. **Iteration** is about using incremental, often rapid, approaches in the development of a project, product or service while reducing risks. Developing prototypes, conducting tests and experiments can help identify the best solution.

	BASIC AWARENESS	EMERGING CAPABILITY	REGULAR PRACTITIONER
MANAGINGProjects should be segmented into clearly defined stages which are time limited and have manageable goals.	Understanding incremental development approaches, where each stage of a project builds on the one before it.	Making use of simple agile techniques such as time-boxes, retrospectives and product backlogs to manage workload.	Using formal iterative methodologies to deliver a project (e.g. Agile Project Management, Scrum, Kanban, Lean).
Models, sketches, mock- USING ups, sample versions of an approach can be used to explore its APPROCHES feasibility, and develop a project incrementally.	Understanding how prototypes can be used to bring abstract ideas to life, and provide a tangible example of how something might work in practice.	Developing simple prototypes that help you visualise a product or service, to identify potential difficulties. Using basic prototypes to explain or test out approaches with colleagues.	Developing prototypes that can be used with users/citizens to test feasibility. Refining and improving prototypes to explore the ability to scale-up a project or service, and identify potential issues.
CONDUCTING TESTS AND EXPERIMENTS Tests and experiments provide a robust way of evaluating whether an approach works.	Understanding how tests and experiments can examine what works and what does not work.	Ensuring projects include sufficient time and resources for testing and evaluation, across different stages of a project or service's lifecycle.	Using large-scale randomised tests to evaluate approaches such as A/B testing or randomised control trials to gain evidence about what works.
TAKING RISKS, BUT NOTIterative and incremental approaches allow you to limit risks associated with testing out approaches or methods you may not have used before.	Understanding how iterative project management approaches allows new ideas to be tested on a small scale before trying to implement more widely.	Using approaches such as sand-boxing, prototyping or piloting to create small- scale experiments of new ideas.	Use iterative project management methodologies to allow small-scale testing of a number of different approaches. Use experimental evaluation methods to assess which approach(es) to take forward.

DATA LITERACY

The world has been experiencing a data revolution in recent years, yet it is widely held that government is not making the best use of the data it produces or has access to. The nature of the data is also changing: there is an ever greater and increasing volume, velocity and variety of data available. Alongside traditional analytical professions (statisticians, economists, researchers) a new type of activity and occupation ('data science' and the 'data scientist') has emerged from individuals who are able to exploit these new forms of data.

As a result of the data revolution there is an inherent demand for a greater number of analysts and data scientists in government – that can be achieved through a mix of external hiring and retraining of existing staff. Simply increasing the number of data experts in government does not automatically mean that government will successfully exploit the opportunities of the data revolution. Nor can we expect that all public servants become professional-level data experts capable of developing algorithms to mine extremely large repositories of unstructured data.

However, we should aspire that all public servants are "data literate", that is that they can appreciate the value and importance of data, are able to work with data experts, and that data and analysis are not an "after thought" as they too often have been in the past.

Using data to make decisions

Evidence based policy has been a long-held mantra of government, the data revolution provides new opportunities to ensure that information, evidence and data are used to drive decision making not opinions, assumptions, hunches and guesses.

Data-driven public services

Moving beyond incorporating data into decision-making, collecting and recording data needs to take place throughout a public service, not just recording the interim and final outcomes of a user's interaction but also metadata the captures the nature and quality of user experience. Regular data feeds can also be designed to provide alerts about potential/emerging issues.

Working with data specialists

Analysts and data scientists shouldn't just be consulted when an official thinks "we need data", instead they should be part of project teams and fully involved throughout the life and delivery of a project.

Explaining data and results

Meanwhile, data experts in government, in addition to having strong technical skills that they regularly update, also have to be able to communicate effectively with nonexperts about the results of their data projects and how to develop systems that collect good data.



Data literacy means that, wherever possible, decisions should be based on data not hunches or guesses. Data isn't just for 'geeks', non-specialists must understand its importance.

	BASIC AWARENESS	EMERGING CAPABILITY	P	REGULAR PRACTITIONER
USING DATA TO MAKE DECISIONS DECISIONS DECISIONS DECISIONS	ind based on data and evidence	ositions not evidence to make de Understanding the limitation ut the pieces of data because of	ecisions. better picture about a part ns of particular Using regular feeds of their quality, identify emerging patterns	ticular situation. f information to s, and deal with
Using data to m DATA-DRIVEN services is just a PUBLIC important for th SERVICES sector as the pr sector.	s particular point in time – instea e public being (or has the potential to l	d at a ad data is be) t any	vice delivery. can collect large v out the final Using methods such as pre- data about the or machine learning to ir	olumes of data. dictive analytics mprove delivery
A strong relatio between data sp and non-specia WITH DATA SPECIALISTS being used at th time to make th decision.	becialists ists can c data le right ldentifying existing data special working in your topic area: und what data and information the and what it can and cannot te	derstanding or evaluation stage	t the inception direct or virtual te ges. Developing a collaborat cient time and rather than the traditi nalyse data. supplier relation	team (either as eam members). tive relationship
EXPLAINING DATA AND RESULTS Being able to ef with non-specia about data and results of analys important as co and analysing th	lists naturally comfortable with num the data as others. Communicating is is just themes from results and simpl llecting knows" about methodology ar	.Using a variety of methodsg keyand information to life for rle "need-to-(both visual and verbal methods)	non-specialists illustrate how the data yo ethods, static results it can generate	ou hold and the

USER CENTRICITY

The idea of involving citizens in developing public services is not new, and "customer focus" has been mantra of management consultancies for decades. However, the arrival of the digital government agenda, and the subsequent bottom-up development of new online services has placed the idea of "user needs" at the focal point of both policy making and service design – in both the US and the UK, user needs are the first principle of government guidelines for developing digital public services.

Solving user needs

Being user centred is about finding out what users need to do and designing a policy/service that meets those needs, rather than what government assumes/thinks those needs are. All public servants should consider whether their project, policy or service is meeting user needs, and that user needs will change over time. While secondary sources such as existing evidence/analysis, talking to employees that work with users or organisations that deliver services to users, it is important to include primary research with users when identifying, and validating, user needs – qualitative and ethnographic methods (e.g. in-depth interviews and observation) are particularly useful for identifying needs.

Focusing on users at every step

Projects must have sufficient resources and time allocated for discovering and analysing user needs, and incorporating regular opportunities through the life of a project to undertake research/testing with users to check what is being developed or implement is meeting the needs of the users.

Considering how users think and act

Users are diverse, no two users are the same, when developing services it is important to make sure it is easy for users to do what they need to do. Human centred design principles allow us to think about how people interact with systems and processes, while behavioural science can help us to analyse the way people think and respond to different situations. It is also important to think about those with different and particular needs (e.g. those with a disability), when developing digital services it is important to consider those whether there users and you need to develop alternative approaches for.

Involving users in projects

To develop effective user centred services and policies, officials must adopt participative approaches that involve users throughout the life of the project. This may be as simple as undertaking user research at different stages (to identify needs; test prototypes, alpha, beta, and live versions) through to deep participatory exercises such as the co-production of a policy or service which aims to foster a sense of joint ownership of the exercise between officials and users.

User centricity is about having services and policies that are designed to solve user needs, with users considered at every stage of the process so that they will say "I would do that again".

[1 1]		BASIC AWARENESS	EMERGING CAPABILITY	REGULAR PRACTITIONER
SOLVING USER NEEDS	Public services are delivered for the benefit of citizens. Modern public services should respond to clearly identified needs.	Understanding that the needs of users must be researched and gathered from users themselves. Government must not assume it knows what users really need.	Ensuring sufficient time is devoted to conducting user research to gather, analyse, validate and prioritise user needs. Testing services with users to assess how well they meet the needs of users.	Using a range of research methods (questionnaires, in-depth interviews, workshops, ethnographic observation) to obtain insights about users. Regularly testing, re-validating, and identifying new user needs throughout the development and delivery of a project.
ON USERS	Users and their needs must be considered at every stage of a project, not just at the beginning and the end.	The user should always be at the centre of a project team's thinking. Users shouldn't just be considered when generating ideas and launching a product or service – but throughout the design and development of products and services.	Regularly refer back to the identified user needs and assess a project's current progress to see if needs are being met. Identify opportunities to demonstrate or test our ideas and interim versions of services with users.	Ensure every stage of a project includes user testing or makes use of "user advocates" (team members who role play a use) to analyse whether user needs are being met, or how to meet them.
	People don't always behave in the way we expect. Using human centred design principles and behavioural science can result in better policy and services.	Understanding that by designing policy and public services around how human beings think and interact will make it easier for them to use a product or service and thus for government achieve desired policy outcomes.	Identifying, analysing and deconstructing "user journeys" to consider users pass from step to step in using a service. Working with relevant partners to ensure users with particular needs (e.g. accessibility/mobility needs) can use a service or have alternative options.	Working with specialists in user experience/interface design to develop systems that are human-centred. Working with specialists in behavioural science to use psychological and sociological techniques to deliver public policy outcomes (e.g. "nudge").
USERS IN	Working with "real" users ensures that project teams can better understand user needs and their situation.	Like a game of "Chinese whispers" every time someone other than a user explains or passes on information about a users need a bit of that information is missed out. The user is always the best source.	Get involved in user research and testing, sit in on or conduct interviews, workshops or observation. Use a variety of methods to record and display the results of user research (images, written notes from users, videos).	Use participatory approaches to design, develop, test and implement projects that involves users directly in the production and decision-making, resulting in co-ownership of the output.

CURIOSITY

Innovation in the public sector is about introducing new and improved products, services, ways of working to deliver better outcomes for citizens and improved operational efficiency. Therefore, curiosity and thinking creatively are part of the essential life blood of innovation – they are the action of finding out new things. Many people will say "I'm not creative", but everybody has the capacity and ability to be creative.

Seeking out new ideas

Having curiosity can be as simple as getting feedback from stakeholders and users about how something is currently working, what they would suggest you do differently. Using workshops and challenges can provide structured ways to sources new ideas, while crowd-sourcing and text-mining can provide large volumes of information that you can sift for patterns and trends.

Reframing problems and solutions

Everybody has their own way of thinking about a situation or problem, and everybody has their own ideas about how to solve it. Reframing techniques allow to think about a problem from a different perspective or to challenge default assumptions – for example, asking questions such as "how would X go about this?" or "what if we did/did not have to do Y?".

Adapting approaches

Curiosity is also about finding out how other people do a similar job or deliver a similar service to see if they do it differently; moving beyond those who are similar, one can look at other examples of success, work out why that way of working is successful and trying to adapt that approach/their own approach to duplicate that success.

Continuously learning

An important part of being curious and creative is adopting a mindset of continuously learning – being able to absorb and use new ideas, identifying your own limitations and learning more about them. New knowledge is being produced all the time, some of it may challenge our existing thinking and force us to "unlearn" things we already know or do. **Curiosity** and creative thinking help identify new ideas, new ways of working and new approaches. It may mean something brand new or adapting someone else's approach.

		BASIC AWARENESS	EMERGING CAPABILITY	REGULAR PRACTITIONER
SEEKING OUT NEW IDEAS	Innovation is about invention, creating new things, and doing things differently.	Understanding that the current way of working is just one of many possible approaches, and that each approach has its own advantages and limitations.	Proactively seeking out feedback from a wide range of users and sources and analysing that feedback for ideas. Talking to colleagues, stakeholders and users about potential opportunities for improvement – what ideas do they have?	Facilitating creative workshops to discover and explore new ideas and approaches. Using challenges, awards and prizes to encourage people to think differently. Using large-scale methods such as crowd- sourcing and text mining to gain insight.
REFRAMING PROBLEMS AND SITUATIONS	There is no right way to approach a problem or situation, and investigate a problem from only one angle can hide issues and opportunities.	Understanding and appreciating that people have different perspectives on a topic, problem or situation as a result of their background, experience and knowledge.	Identifying different actors and stakeholders that are involved in or influence a situation. Deconstructing their position to understand how and why they might think about the situation in a different way from yourself.	Using tools such as vignettes and personas to exemplify how different people think about a situation. Using role-playing games to enable people to think about a situation from a different perspective.
ADAPTING APPROACHES	Many teams have similar objectives, but they rarely have the same approach to meeting those goals.	Understanding that there is no single way of doing things, while systems and public services are often standardised for operational efficiency other organisations can have a different approach.	Engaging with teams/managers who do the same work as you – finding out what they do and how they do it, identifying what is different about their approach.	Seeking out organisations from different organisations, sectors, locations/countries who have similar objectives or goals to analyse their approach. Asking others to "peer review" your approach and identify alternative options based on their practice.
CONTINUOUSLY LEARNING	Knowledge is being produced and practices are evolving at an ever increasing rate.	Understanding that in a constantly changing world knowledge and practice are no longer fixed, there is always something new happening somewhere.	Being open to new ideas and thinking no matter where it comes from, actively considering the possibilities and opportunities new ideas present. Assessing the limitations of your own knowledge and practice and finding opportunities to learn more.	Actively reflecting on what lessons you have learnt and using that to question your assumptions and current practices. "Un-learning" previously acquired knowledge, practices and ways of thinking that are no longer applicable or relevant.

STORYTELLING

Stories have been a part of human culture since the dawn of language. Storytelling can be used by leaders and others within organisations in a number of ways: to explain who you are, to teach lessons, to outline the future, and to inspire action in others. Change in the public sector is no longer about moving from static state A to static state B, instead change is a constant companion – changing operating environments, changing expectations, changing user needs.

Using narratives

Stories communicate facts, opinions, and emotions by relaying the experiences of key actors and stakeholders. This situational approach to communication can help audiences better comprehend key messages. Stories should be "living documents" that adapt to focus on an audience's priorities and as projects progress. Stories don't just have to talk about the past and the present but can be a useful way to engage people in talking about the (possible) future.

Telling user stories

By incorporating 'user stories' that set out the current user experience when interacting with a service and/or the future experience that users will have as a result of the changes officials can help others empathise with users and better understand user needs.

Working multiple media and methods

Stories don't just have to be verbal constructions, images and graphics can provide useful metaphors or ways to help bring key messages to life. Videos allow ways for the voices of others to be part of the story you are telling. Interactive methods can enable your audience to build their own journey through your narrative, or to contribute their own stories to it.

Teaching lessons

Sharing experience is a crucial component to public sector innovation. By telling the story of your own innovation projects you can share lesson about what you found worked and didn't work, so that others can learn from your own experience.

Storytelling is about communicating in an ever changing world, telling the "story" of change helps build support and engage people by talking about the past, present and possible futures

		BASIC AWARENESS	EMERGING CAPABILITY	REGULAR PRACTITIONER
USING NARRATIVES	Stories are a natural way in which people share information and pass on knowledge.	Understanding that stories communicate facts, opinions and situations by relaying experiences, making it easier for audiences to comprehend key messages.	Identifying key actors and stakeholder (your 'characters') and constructing a story outlines their experiences and motivations. Ensure your story not just covers what has happened and is happening, but also what will happen to key characters in the future.	Stories are not static artefacts, they must be progressed as situations develop. Stories should adapted for each audience, and accommodate alternative viewpoints. When talking about the future, stories can help explore uncertainties and possibilities.
TELLING USER STORIES	Stories can be a powerful and effective way of expressing user needs and priorities	User stories are a way of communicating the way a user or groups of users experience a policy or service, they enable officials to empathise with the user and understand their needs.	Developing a story that follows the journey of typical user, identifying what they find easy and difficult to do. Using the perspectives and experiences of service users and citizens to outline and explain the rationale for changes	Telling the stories of actual users enhances the authenticity of the overall message, by contributing their "real" voice and views.Combining stories from a number of users to give a holistic picture, identifying common challenges and particular needs.
WITH MULTIPLE MEDIA AND	Different people absorb information in different ways, using a variety of methods helps spread your message as far as possible.	Understanding that metaphors and imagery are powerful devices in stories that can help explain complex ideas or situations.	Testing and refining drafts of your story with others to identify the best way to communicate key messages. Incorporating visual elements (images, charts, graphics, videos, animations) into your story to provide context or salience.	Using interactive tools/methods to create a "story book" that allows audiences to navigate through the story and focus on parts that are the most relevant for them. Enabling audiences and users to contribute their own content or stories.
	Public sector innovation is driven by exchanging knowledge and practice. Stories can be a useful device for sharing your experiences.	Sharing experiences is an important element of public sector innovation, by sharing your experiences you help ensure people don't have to learn the same lessons over and over.	Conducting retrospectives at important stages of project to identify lessons that can be learnt from the experience so far. Conducting "show and tell" sessions with colleagues to share information and experiences about a particular project.	Using a range of methods to broadcast your stories and lessons – e.g. blogs/social media, seminars and conferences. Acting as a mentor or coach to other public servants, using lessons from your experience to help them in their practice.

INSURGENCY

Innovators in government are sometimes seen as internal 'insurgents' or 'rebels', working to change the usual way of doing things. If curiosity is the part of the lifeblood of innovation that is how we identify new things, then insurgency is about making those new things happen. Public servants are often typecast risk averse – and often with good reason if they are a prison officer or regulate nuclear power plants – however, the number of situations where an official must not doing something because of a risk of direct harm to citizens or national security is relatively small.

Challenging the status quo

Insurgents challenge the status quo and don't accept "it's always been done this way" or "if it's not broke don't fix it" as a defence against change. Innovation often pushes up against or even goes beyond existing boundaries and limits to do things differently.

Trying things out that might not work

Giving officials the freedom to try alternative ways of doing things, including things that may not work, can provide opportunities to find new ways of working that otherwise might remain hidden. When something we try new and it doesn't work, this isn't a "failure" but a learning opportunity to find out why it didn't work and somebody isn't to blame for it not working out.

Building alliances

Working alone rarely solves problems, particularly in the public sector. The challenges faced by public services demand increased and deeper collaboration between and across organisations. Forging alliances among both internal and external partners can create support and demand for change by amplifying the message.

Working with unusual partners

Innovation can also be the by-product of working with unusual or unexpected partners, developing new synergies that can lead to the identification of approaches that may not have been discovered.

X

Insurgency means challenging the status quo and the usual way of doing things, it means working with new and different partners to gain new insights or deliver projects.

		BASIC AWARENESS	EMERGING CAPABILITY	REGULAR PRACTITIONER
THE STATUS	Innovation is about doing something new and there are often many voices that resist doing things differently.	Understanding that "it's always been done this way" is not an acceptable defence for poor service performance or quality. Meanwhile, alternative approaches should not be dismissed because of a "if it's not broken don't fix it" mentality.	Approaching untested/unusual approaches or ways of working with an openness to trying them out. Using evidence and logic to robustly challenge existing approaches, or to promote alternative options.	Identifying existing boundaries and limitations and finding ways to overcome them or work-around them without breaking the law or causing people harm.
TYING OUT THINGS THAT MIGHT NOT WORK	Public services need to "fail fast", identifying more quickly and earlier when something isn't working and why.	Understanding and accepting that when trying something new there is a possibility it might not work. This should not be viewed as "failure" but an opportunity to learn more – identifying what does and does not work.	Developing testing and piloting routines to try out and demonstrate new ideas and approaches on a small scale. Ensuring the right data is being captured and analysed in a timely fashion to provide feedback about project progress.	Giving teams the opportunity to do new things and providing support to them to overcome the fear of failure. Developing business cases and working with corporate functions to explain the potential opportunities of innovation.
BUILDING ALLIANCES FOR CHANGE	The challenges faced by the public sector today demands greater and deeper collaboration.	Trying to innovate in the public sector on your own can be a lonely and impossible challenge, collaboration with others can improve your chances of success and the provide a safe space to explore ideas and ask questions.	Identifying and convincing potential allies to support your vision, highlighting the benefits for them. Developing a vision, narrative and message that all stakeholders involved in the project share and jointly own.	Working with external stakeholders and advocacy groups to amplify your message and agenda for change. Sharing people and resources (through virtual teams or agreements) to enable joint ownership and delivery of a project.
UNUSUAL	Working with people you might not ordinarily consider could result new synergies and approaches.	People who are very different from you or who work on something very different, is no reason not to work with them, they may have valuable insights and practices that you haven't thought of.	Working across boundaries within and between organisations to identify new contacts and partners in the public sector. Respecting that people have different backgrounds and perspectives, what is 'unusual' to you may be 'normal' for them.	Leveraging your existing networks to find new partnerships – who do your stakeholders work with that you don't. Proactively engaging with unusual partners, identifying the benefits to them of working with you.

PROFILING THE SKILLS OF GOVERNMENT **INNOVATORS**

To develop our model of core skills for public sector innovation, with the help of <u>Nesta</u> we have interviewed public officials leading innovation teams and labs from a variety of OECD countries. The purpose of these interviews was to better understand the skills and competencies officials in the public sector deem critical to their job, and to explore the relationship between these roles and public sector innovation.

In particular, Nesta's work focussed on interviewing two key groups of innovation specialists, data-led and design-led innovators, for their particular innovation methods and approaches in changing the practice of government, and for their ability to provide capabilities not always found in more traditional civil service roles. The results of these interviews have been used to produce 8 "skills profiles", which provide a summary of the skills, competencies and backgrounds of a number of the different interviewees that have been involved in the research to generate the model of core skills for public sector innovation.



- 1. Profile Role: All profiles are categorised by the role they have within the public sector.
- 2. Quote: This quote has been pulled from the participant interview, often a key point made by the participant.
- 3. Key Duties: These cover what the main duties and responsibilities were for the role.
- 4. Added value demonstrated in practice: how the participants believed their skills support innovation in the public sector
- 5. Competencies: competencies described by the participants, which they believed supported innovation to occur in their practice.
- 6. Broader competency grouping: initial grouping of individual competencies (5) into common themes.
- 7. Abilities and Motivations: learned skills, techniques and expertise, as well as the motivations described by the participant.
- 8. Experiences and Inspirations: education, learning, life events and previous work experiences of the participant.

PROFILE A: DESIGN LEADER

Role in Government: Lab Director: Central Government



PROFILE B: DESIGN-LED PROJECT MANAGER

Role in Government: Lab Account Director: Central Government



ADDED VALUE DEMONSTRATED IN PRACTICE

PROFILE C: DESIGN METHODS LEAD

Role in Government: Strategic Designer in the Innovation Lab: Central Government

"Co-creation doesn't improve the quality of ideas, it improves the ownership of them."

KEY DUTIES:

- Designing a lab to support the government to be more innovative
- Developing a strategy for the lab, including making the decisions around what projects to undertake, what skills are required in the team, what ecosystems the lab should be involved in, and which public investments (open challenges) it should consider
- Allocating the design resources under the strategy, delineate the project pipeline, and hire the team

Changing approach Profile C champions a move away from the traditional approach of using evidenced based public policy (where justifications are built for existing ideas) and replaces it with an action research approach goes into the field to understand what the problem actually is, and what ideas should be worked on.

ADDED VALUE DEMONSTRATED IN PRACTICE

Changing communication

Classic civil servants produce minutes, reports and uninspiring Power-Points; a design background helps introduce new engaging stories using multi-media to not only draw people in, but generate a shared understanding by communicating effectively and inclusively.

Prototype. Prototype. Prototype.

One of the main differences from a traditional civil servant approach to a design-led one is the use of prototypes. Prototypes allow validation of an idea, to learn from it, or to have it fail quickly in order to move on to the next one without wasting unnecessary time and resources.



Workshops

Profile C believes in having

co-design workshops as

sian workshops brina

standard practice. Co-de-

together a wide range of

stakeholders to develop a

shared understanding of

the different perspectives

of what innovation should

what a lab should do. These

inclusive conversations are

be in government and

vital to get people on

board.

PROFILE D: METHODS EXPERT - DELIVERY

Role in Government: User Researcher/Service Designer: Central Government



ADDED VALUE DEMONSTRATED IN PRACTICE

PROFILE E: METHODS EXPERT - EDUCATOR

Role in Government: Lab Director: Central Government



ADDED VALUE DEMONSTRATED IN PRACTICE

April 2017

PROFILE F: DATA BUSINESS LEADER

Role in Government: Director of Performance and Accountability

"The focus isn't on data, but on how the	ADDED VALUE DEMONSTRATED IN PRACTICE				
applications of data analysis creates value - what is the value proposition"	Improving efficiency	Modelling and Machine Learning	Meaningful application	Strategic direction	
 KEY DUTIES: Using data to set goals, plan next steps and create results Performing analytics in projects and working as an intelligence agency to provide different departments with key insights to enable them to work in a more anticipatory way Understanding how we use data to create value for citizens Hiring staff and staff development Overseeing external relations and partnership management Verbal communication and presenting the work Promoting productive and innovative culture Trouble shooting (internal and external) 	By 'teaching' the computer to carry out certain tasks it has freed up time for people to focus on other things. It also increases the credibility of the work as it can be reproduced and the backup data is always there to support outcomes or directions.	Machine Learning Moving away from Excel and into program development, in order to use more sophisticated forms of data analysis and enabling you to tailor programmes for your specific needs. This was used, for example, to find optimal placement locations for ambulances, to reach call outs more quickly.	The training approach employed by Profile F is purposely not focused on data analysis, but instead on how the application of data analysis can create value, i.e. understanding what the value proposition is - and developing resources that support this activity.	The ability to reach your long and short term goals, by employing the right people to help you realise them. This requires understanding the different data (and non data) roles, and what they have the capacity to deliver on each project, as well as being able to identify the skills existing staff need to develop.	
Strategic pro- manage	sed on Strategic Or	rk culture approach ganising Intrepreneur	Effective and appropriate delegation Strategic Organisationa	Combine qualitative & quantitative analysis I Storytelling Organising	
	comes action coll rototyping Action research	aboration ship Service User centred design design	action intelligence Workshop Self design motivated	collaboration Making a Future difference Minded	
	asters in Public Administration gree in Philosophy and litical Science ork experience in a Think Tank, rrounding urban politics and licy	• Working with cohe fellowships in Civic network - learning community of pracessing skill DEVELOPMENT	c Analytics · Ex y from Ca	spired by mentor in first job perienced aftermath of Hurricane atrina, the lack of public response as a big motivation.	

PROFILE G: DATA BUSINESS DEVELOPER

Role in Government: Director of Performance and Accountability: City Government



April 2017

PROFILE H: METHODS EXPERT - DELIVER

Role in Government: Data analyst embedded in social work team



April 2017

EXPLORING ATTITUDES TO AND **EXPERIENCES** OF USING INNOVATION SKILLS IN AN ORGANISATION

Throughout our interviews and workshops to gather information on the topic of skills for public sector innovation, participants have referenced various barriers to making use of innovation skills, be they institutional issues (such rules and procedures), culture and leadership, or their own personal reluctance to use these skills. Therefore, providing a model of innovation skills, and highlighting the profiles of a selection of innovators will not in itself result in a wider adoption of innovation skills.

As a result, the OECD has developed a prototype workshop format that organisations can use to familiarise staff with the skills model, explore concerns, motivations, barriers and enablers. This workshop format has been initially tested with public sector officials who attended an OECD-led session at the Brazilian government's public sector innovation week in September 2016.

The workshop format provides a structured way for organisations to explore the various issues and opportunities presented by each of the six core skills for public sector innovation. The completed activity sheets and outputs from group discussions then act as a resource to inform further thinking and activity on implementing innovation skills.



The workshop is organised around two activity sheets, the first will look at participants own views and experiences about innovation skills, while the second identifies enablers and barriers within the organisation.

The workshop should be set up for a group of 4 to 6 participants to discuss one of the six skills areas - you should have at least three groups so that you can discuss a range of innovation skills.

The workshop should begin with a short introductory presentation that provides an overview of all six of the core skills.

The first activity sheet has two parts:

- A 'temperature check' activity where participants rate where how well they think they understand the skill, how well they think their colleagues understand it, and how ready their organisation is to make use of the skill in its usual way of doing things.
- Four guestions for discussion to extract participants' own views and experiences of the particular innovation skill. The first two questions cover where the skill is currently being used and where else it could be used, to identify practice and potential opportunities. The second two questions ask about participants' feelings to identify what they like about the particular skillset and what worries them about using it.

User centred

Being user centred isn't just about doing some testing at the very end of the development process. It's about making sure that everything you do is focussed on solving or servicing user needs, and that users are considered at every stage of the process. We need to research user needs to find out what it is that the users of public services actually need to do, not what we think they need to do.

The way we design and develop services needs to refle beople use and interact with systems and interfaces. W make it easy for users to do what they need to do. Use say "I will do that again" not "I never want to do that a	le must ers should			
	Very much	What we like about using this skillset is	What worries us about using this skillset is	
How much do you think colleagues in your ministry or agency understand what being user centred means? Not at all	Very much			

We are currently using

this skillset for ...

We could also be using

this skillset for ...

After feedback from each group and a discussion about issues and topics raised the workshop moves on to the second activity sheet.

The second activity sheet is organised around three different colleague personas, so that participants can explore issues associated with putting innovation skills into practice:

- First, a colleague that doesn't think using innovation skills is necessary – participants should identify what arguments this type of person might put forward about why we don't need to use these skills.
- Second, a colleague that is interested in using innovation skills but is worried about using them – participants should consider what this person's manager might say to them to encourage them to use innovation skills.
- Third, a colleague that has tried to use these innovation skills but run into difficulties. For this colleague, participants will do two things, first identify what barriers might this colleague run into if they were in your organisation, secondly what enablers/quick-wins could be suggested to overcome these barriers.

A second round of group feedback and discussion can allow participants to identify common themes and issues specific to particular skills.



http://oe.cd/opsi

The Observatory of Public Sector Innovation collects and analyses examples and shared experiences of public sector innovation to provide practical advice to countries on how to make innovation work.

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