

Building the runway for governance innovation to take off in Sierra Leone



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Comments are welcome

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Learning Series: Designing Governance Innovations in Resource-Constrained Settings

Introduction

In June 2021, the MIT Governance LAB (MIT GOV/LAB), through a grant from the Bill & Melinda Gates Foundation, started the first of three iterations of governance innovation projects in West Africa. In the first, we collaborated with Sierra Leone's Directorate of Science, Technology, and Innovation (DSTI) to co-design a governance innovation boot camp that offered design tools to civil servants to identify and pitch innovative solutions to a governance challenge. Two government teams ultimately received financial support and technical advice to develop their solutions.

In this Learning Case we ask: What sparks and sustains governance innovations in resource-constrained settings like Sierra Leone? What is the role of a reform-oriented organization within the government when it comes to innovating? How do government teams navigate the bottlenecks to innovation?

Collaborators: This research was undertaken with DSTI. The National Revenue Authority (NRA) and the Office of the Administrator and Registrar General (OARG) were selected as the implementing teams.

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The Governance Innovation Learning Cases:

Learning Cases at MIT GOV/LAB: The aim of the learning case series is to bring in voices from the field and the academy that we can listen to and learn from to improve our approach to practitioner-academic research collaborations and ultimately contribute to theory-building and change on the ground.

In international development, there is often pressure to report positive results and change. Yet there is no single pathway or easy fix for improving governance and, particularly, advancing tenets of transparency, accountability, and participation. Improved governance outcomes depend on us building robust evidence and learning from failures and false starts as well as successes.



Participants of the boot camp engage in design unorthodox design dynamics. Photo via: DSTI

Governance Innovation Learning Cases: At the MIT GOV/LAB Governance Innovation Initiative, our engagement with partners is driven by the need to learn together. We document every step of the governance innovation design process to understand the opportunities for and challenges and pathways to innovation in bureaucracies in the Global South. To do so, we work with reform-minded leadership who are interested in understanding the intricacies of governance innovation in their contexts.

We define **governance innovation** as a new solution to a complex problem in public services, products, or processes leading to a more accountable, responsive, and transparent relationship between citizens, government, and civil society.

The learning series “Designing Governance Innovations in Resource-Constrained Settings” includes:

- / **Executive Summary:** A compilation of the learning case series findings
- / **Case 1:** Building the runway for governance innovation to take off in Sierra Leone
- / **Case 2:** Who has the itch? Sparking governance innovations in the health sector in Nigeria
- / **Case 3:** The tradeoff between sparking and sustaining innovation
- / **Brief:** Building a minimum viable product with Lean Governance Innovation Design

We acknowledge that every context is different (city versus national government; innovation lab versus tax authority; etc.), and yet within those differences we found commonalities in the challenges of designing governance innovation.

Takeaways Summary

- / **After sparking innovation, build the runway for it to take off:** A boot camp approach proved essential to sparking innovation in government teams that were used to the status quo. It provided the spark to rethink what the cause of a problem was and how to address

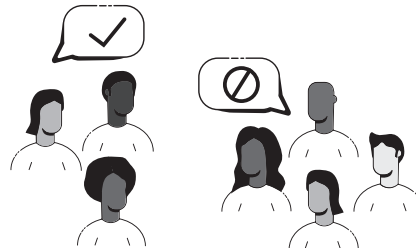
it. However, the procurement process, hiring relevant talent like coders, and having a space for civil servants to continue to iterate needs to be ready to go, much like a runway needs to be built and cleared for innovations to take off. Essentially, something between an incubator and an accelerator, often absent in government, that clears the hurdles of hiring the right talent, authorizing workshops, etc., needed to be built inside DSTI.

- / **To maintain the spark, fail and learn quickly:** DSTI showed us the importance of pivoting to maintain momentum when innovating in resource-constrained settings. For example, when pairing the government teams with software developers stalled the process, DSTI moved to a different sourcing mechanism to bring on the required talent to develop the solutions. These administrative bottlenecks often stifle innovation in systems that are not used to disruption. It's only those teams willing to creatively think about procedures and norms that are able to navigate the bureaucracy, carving paths to innovation for them and those who follow.
- / **Always within the annual work plan, never outside of it:** The teams' projects were never expected to be part of the official planning of the MDAs involved. As a result, the boot camp participants did not feel that working on the solutions beyond the boot camp would be rewarded or even encouraged, considering competing deadlines in their official work plans.
- / **Language alignment can make or break innovation:** What counts as a minimum viable product? Is it just a wireframe? Does it need to be on users' phones to be tested? What's a prototype? The definitions we decide to use when working with partners are crucial to understand what the expectations are. All of the stakeholders involved had different definitions and understandings of key words used, which in turn defined deliverables. These alternative interpretations changed expectations on delivery and outputs.

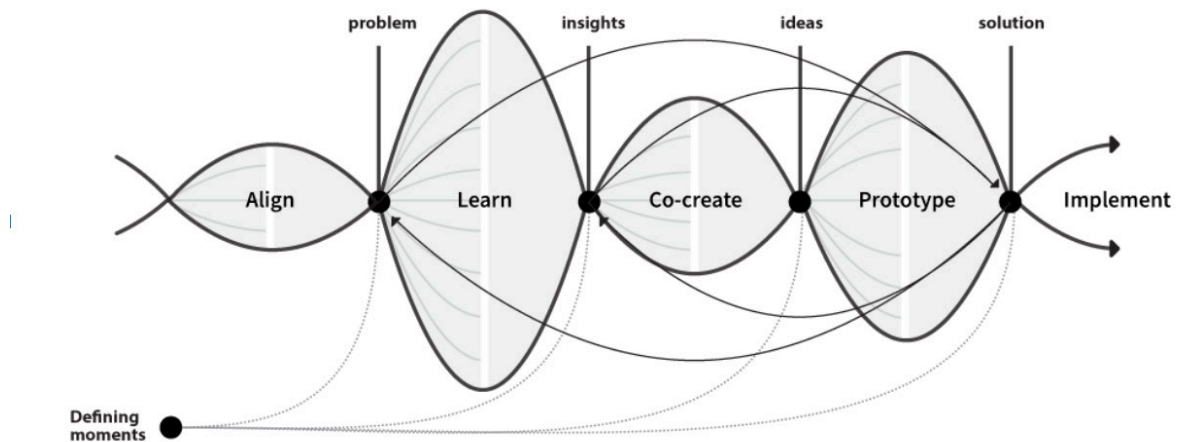
Background

Scoping the need for governance innovation

In mid-2021, the Directorate of Science Technology and Innovation (DSTI) and the MIT Governance Lab (MIT GOV/LAB), along with a local design facilitator, hosted and facilitated a



two-week governance innovation boot camp for government teams. It culminated in a series of challenge and solution pitches, where the MDAs competed for a prize that included financial support to develop the solutions. The boot camp was conceived as an alternative to hackathons and workshops focused on improving the relationships within government and between government and citizens. DSTI's mandate and positioning within the administration enabled us to work with a reform-minded organization with a wide reach across government offices unlike that of any other team in the country's government.



MIT GOV/LAB GOVERNANCE INNOVATION METHODOLOGY (Image 1)

A design team at MIT GOV/LAB developed a governance innovation curriculum, heavily grounded in design, with frameworks and concepts from the social and behavioral sciences. The curriculum starts at an alignment phase and ends with a solution that the government teams then implement (see Image 1 below).

Teams:

Through this competitive process, **the National Revenue Authority (NRA), Office of the Administrator and Registrar General (OARG), and the National Public Procurement Authority (NPPA)** were selected based on the immediacy and impact of the solutions pitched. Varied in output but similar in approach, their projects all sought to digitize and simplify processes so as to make the relationship between government, citizens, and civil society more accountable, responsive, and transparent. The (NPPA) was able to source their own funding for the project and continued on their own. **In this case, we focus on NRA and OARG.**

Partnerships:

DSTI provided technical advice, support, and project oversight as needed for a period of six months for the two selected solutions. At the same time, MIT GOV/LAB provided coordination support and research documentation. DSTI supported the piloting and prototyping process by creating a structured and organized approach to testing and experimentation. This involved setting clear goals and objectives for the pilot or prototype, as well as establishing a timeline and budget for the project. DSTI facilitated the management of a cross-functional group of stakeholders (OARG and NRA) in the piloting and prototyping process to ensure that different perspectives and expertises were represented.

Challenge:

The teams focused on several sub-challenges to address through solutions developed through the boot camp:

The National Revenue Authority:

- / To digitize the manual and paper-based process of accessing tax systems.
- / To make relevant tax laws, regulations, and policies, and some relevant documents like Harmonized System Codes, accessible.
- / To make tax rates accessible to citizens.

The Office of the Administrator and Registrar General:

- / To reduce the time in registering and retrieving accurate and authentic land records and incidental agreements.
- / To increase trust in the land registry and contribute to a significant reduction of disputes in the land and property division of the courts.
- / To track the origin of land documents.

Work and the delays:

For the next few months, the teams faced challenges, starting with the lack of internal capacity to develop the solution. While MIT GOV/LAB provided the tools to identify challenges and solutions during the boot camp, DSTI managed the pace of the project by managing the awarded funds and disbursing only when expected outputs were delivered.

Delays in finding the right talent:

Unexpectedly, hiring talent to support the solution development in-house took months and delayed the projects so much that momentum stalled, and DSTI had to push the teams to hire as quickly as possible. There were two main reasons for this: it can take months to cut through the red tape to hire talent, and it's very difficult to find available local talent with the right experience and skills. In a context where there are so many competing demands, the two projects stalled when they were perceived as just another long-term project. We wanted to understand how the teams would react when they faced bottlenecks to innovation. It was interesting to see DSTI come to the rescue as an outside organization.

In the case of NRA, DSTI pushed for a single competitive procurement process where they got to select the provider, instead of waiting for NRA to complete their lengthy bidding process. Technovate SL, a local development firm, was selected to build the minimum viable product for NRA.

Due to challenges and delays with the bidding process to procure services of a provider on behalf of OARG, the parties agreed to carry out a sole sourcing exercise, and Afro Technology and Logistics was selected. There was a clear intention from the outset to hire local developers. This delayed things more, since the right developers were difficult to find in a limited talent pool. However, working with a local tech firm meant that hopefully in the future, more local talent could be leveraged to innovate — a strategic decision by DSTI.

Changes in management and DSTI's resilience:

Two more unexpected events delayed the process: the pandemic and the tragic death of one of the team leads. Most of the process we review here took place during the pandemic, which involved readjusting to hybrid forms of work and balancing competing demands for a government that was prioritizing public health. It also meant that some of the participants in the boot camp were reassigned to other departments and/or ministries. Nevertheless, DSTI adjusted and

continued to push for the solutions to be developed. It showed us that the unwavering mission of a team like DSTI was one of the main factors why, despite expected and unexpected challenges, innovation could have a pathway in a resource-constrained setting. A lot will go wrong when trying to innovate in resource-constrained settings, but setting that expectation for us and our partners allowed us to be persistent, a key characteristic of entrepreneurial teams.

The above changes resulted in a period of instability where the DSTI team, MIT GOV/LAB, and the government teams reshuffled their staff. On the DSTI side, most of the project managers left to study at prestigious institutions months into DSTI's support of the government teams. At MIT GOV/LAB, the team that had produced the boot camp content and coordinated and managed relationships moved on to other career opportunities. A new team came in just as the unexpected events mentioned above were unfolding, further delaying the project and decreasing momentum. It made for an interesting exploration of what happens when a completely different team tries to take over a curriculum they've never taught with government teams they've never worked with. Trust had to be reestablished between both DSTI's temporary consultant assigned to the transition and the selected teams, as well as between the new MIT GOV/LAB team and DSTI. As soon as it was possible, the new MIT GOV/LAB team traveled to Freetown, the capital of Sierra Leone, to spend time understanding the context and the progress made so far in the project.

Through this experience, we also learned the value of talent in the public sector and how difficult it is for public sector innovation teams to retain that talent. Either because exceptional staff like DSTI's left to obtain new skills, or because a profile of someone with the capacity to work in challenging settings with a unique skill set seems to always be in high demand in other industries.

Solutions:

The products of both OARG and NRA seek to increase access to information for multiple end users, delivering greater accountability and increased transparency. The NRA project includes a focus on simplifying an integrated tax portal that has easy access to tax system information, automating a component of the existing manual processes. For the OARG project, the scope was much broader and required developers to build a general records management tool that could be integrated with existing solutions to create a user-friendly search and verification system.



Participants keep track of their insights towards a solution to the challenge proposed, on worksheets prepared by the boot camp team. Photo via: DSTI

TAX CALCULATOR PORTAL (NRA)

In line with the project scope, the contracted team designed and built a tax calculator portal.

Website: <https://portal.nra.gov.sl/>

Key features:

- / Tax calculators for:
 - Pay as You Earn tax
 - Withholding tax
 - Goods and Services tax
 - Personal Income tax
 - Residual Income tax
- / Access to key documentation
- / Access and housing for direct links to other essential NRA services, e.g., the issuing of a Taxpayer Identification Number
- / Backend access to usage data and traffic website



Participants engage in research at specific MDAs.
Photo via: DSTI

LAND REGISTRATION INFORMATION MANAGEMENT SYSTEM (OARG)

For this project, the contracted team designed a wireframe of an information management system with an SMS extension to check records. The team is using the wireframe to understand how to change the internal processes that currently serve citizens in the land records registry.

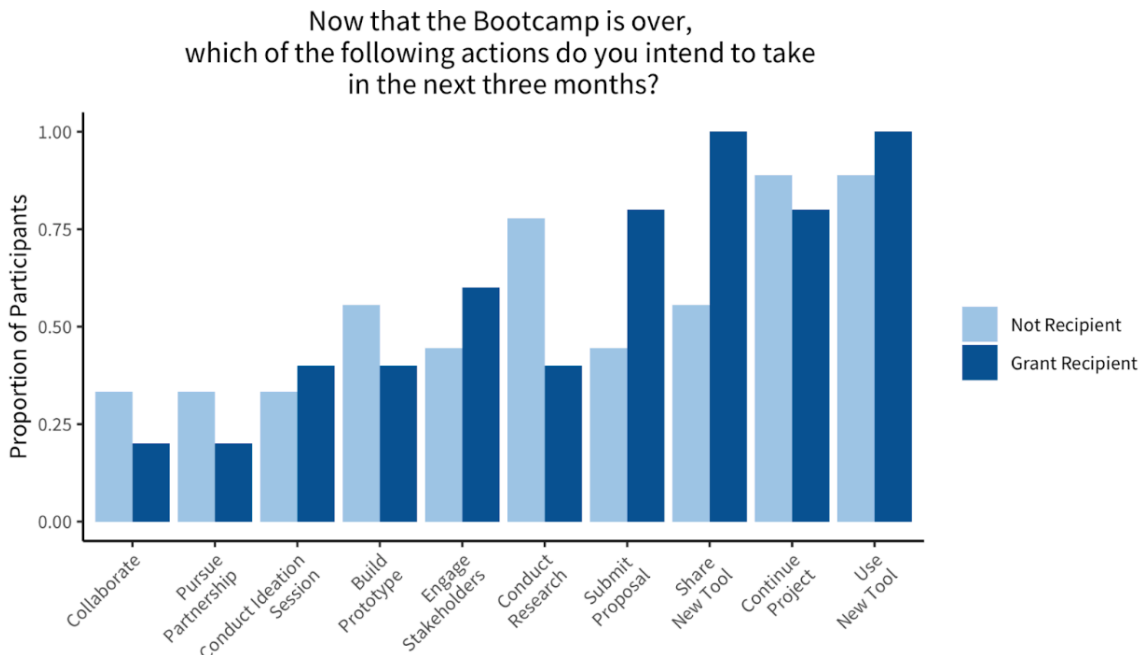
Wireframe Website: <https://oarg.atlsl.com>

What we learned

Spark innovation through a boot camp, but clear the runway for innovation to takeoff

One of the most challenging aspects of this project was toeing the line between working as a partner with the government versus enabling the government to produce the solutions on their own after acquiring the boot camp curriculum. From the outset, the boot camp was a component of a challenge approach to soliciting ideas for solutions to problems inside the government. It was meant to provide the fuel to spark innovations that the government would develop and deploy with minimal input from MIT GOV/LAB or DSTI, with the latter supporting NRA and OARG by providing technical advice and project oversight as needed.

Although DSTI tried to strengthen planning and project management within the project, deadlines were often not met by the NRA and OARG teams. Unless DSTI was pressuring the teams, things like the hiring of talent would stall. As a result, initial timelines and then revised timelines were not adhered to. Further delays in securing data from the IT units of the partner organization, and in particular OARG, resulted in the minimum viable product¹ not having all the functionality desired at the start and putting reliance on mock data rather than actuals. In other words, we all saw the blueprints, but the projects stalled despite guidance from DSTI on how to proceed with the blueprints.



As seen in the above chart showing which actions participants intended to take in the next three months, it's notable that most participants said they'd continue the project after the boot camp and use the learnings from the curriculum. However, innovation cannot run on inspiration alone. In this particular case, the oxygen needed to continue to light that spark was developers and product managers, whom DSTI procured months later. By then, the solutions were practically outsourced with minimal input from the original teams. Going forward, we decided to approach the next iteration of this project, in Ekiti state, Nigeria, as an accelerator, where a coaching approach with a local developer and design partner would address these challenges.

Should we have known that we needed to build a runway for the pitched solutions to take off?:

We made several assumptions in the design of the boot camp. The first was that the boot camp and subsequent support from DSTI would serve as an incubator, and that this would be enough for governments to house those solutions, pilot them, and eventually scale them. This is how incubators operate: an idea is incubated in a physical space with access to legal services, mentorship, and knowledge, like design sessions. Teams then produce a pitch, raise funds, and go on to build the product they pitched. This is not the case in resource-constrained settings. By the time solutions are pitched, the team is not 100 percent focused on building the product. It's competing, as in the case of OARG and NRA, with several other pressing priorities. That's the benefit of an organization like DSTI if it can serve as a government incubator and accelerator: it is able to prioritize and dedicate a joint MDA and DSTI team to develop a solution. In essence, DSTI could have served as the runway for the solution to takeoff.

Course-correcting is essential to maintaining the spark: NRA and OARG found it challenging to move quickly, as the delays in hiring talent seemed normal. But DSTI was able to push enough to learn what the missing components were that were stalling innovation. As an outside-insider, DSTI was able to question the delays, push for different approaches, and eventually find a different pathway. For example, as previously mentioned, DSTI sole-sourced a local tech provider.

In contrast, NRA and OARG had been going through the traditional bidding path, which was stalling innovation.

Language can make or break innovation: All of the stakeholders involved had different definitions and understandings of key words used, which in turn defined deliverables. For example, one of the partners defined digitization as using a scanner to turn paper records into a PDF. Another one of the service providers understood “user testing” as being something they did in-house, as opposed to using focus groups of end users and beneficiaries. In short, due to the variation in digital literacy among stakeholders, DSTI often acted as a “translator” of sorts, taking internationally accepted definitions and reframing them in more accessible language for other local stakeholders. These alternative interpretations changed expectations on delivery and outputs. In order to ensure a certain standard and uniformity in delivery, extra time and resources were spent during the project to ensure all partners worked towards the same goal.

Set up innovation to succeed by allowing disruption from inside government plans: This project was started based on an initiative from a high-profile minister and MIT GOV/LAB. The project had a clear and noble vision but was not officially absorbed into the Ministries, Departments, and Agencies’ (MDA) workload and as such was not part of the Annual Work Plan. As a result, none of the deliverables nor assessed success criteria identified by the minister himself or MIT GOV/LAB were agreed to by the lead line ministry involved for the MDA. Partner MDAs said that **although they were personally passionate about this initiative, they would not be judged by it on their Annual Work Plans.**



Part of the design process is consultations in Freetown. Photo via: DSTI

Funding setup: Although we think innovation should happen from the inside, our setup for funding these teams was partly external, as it was managed by DSTI. At the pitch event, MIT GOV/LAB provided \$30,000 in support to two winning solutions. We weren't sure which team would be more likely to advance their solutions with the funding, so DSTI decided to split the funds in two, based on the progress they had seen. We wanted the organization with the innovation expertise, DSTI, to disburse funding as a process of identifying progress towards innovation. This presented a series of challenges. Specifically, MDAs were not responsible for holding and disbursing funds. The challenging economic situation, along with a combination of low civil servant salaries and a strong donor dependency, led to this initiative becoming increasingly challenging to deploy and maintain for DSTI. No direct financial incentive meant many stakeholders within the MDAs lost enthusiasm over time and made it clear that they were not being paid to support this project.

In spite of the head of the MDA constantly reassuring DSTI that there was buy-in and ownership, contradictory behaviors were observed. Thereafter, DSTI constantly sought to find ways to incentivize the local MDA to attempt to increase motivation of MDA staff. Additionally, DSTI sought to incentivize the MDA by detailing the potential of said project with regards to expansion in scope and financing. To do this, MDA staff were informed regularly of the success criteria and how to achieve the desired outcomes.

Reflections for practitioners and their partners: If we knew what we know now, what would we have done differently?

It's often the least visible administrative details that hinder innovation, but an external team can bring perspective to unstick innovation. When problems have less visibility, fewer people know the cause of the bottleneck, thereby centralizing decision making. Case in point, both NRA and OARG needed to hire the right local talent to move the solutions forward. Because few people knew what was holding back the development of the solution, it eventually lost attention as it competed with other projects. DSTI, on the other hand, with an outsider approach to innovation, was not content with the status quo and was able to devise alternative pathways. **In fact, pathways to innovation in the public sector are not about having better ideas in the ideation phase of design or having more sophisticated tech. It's about clearing the runway for innovation to take off.**

Based on this experience, that means putting the right team in place from the start to create in-house capacity and not creating a barrier when the next challenge comes along. Essentially, how do you reduce the time for hiring local talent and find reliable pipelines of developers in a context where that skillset is in short supply?

If we were to design this project again knowing what we now know, we would integrate an incubator-accelerator model based inside DSTI. We now know that a boot camp was useful to spark innovation, but we also know that momentum is key for that spark to continue and eventually light the flame that will sustain innovation in a context where resources (time, funding, capacity, talent, basic infrastructure like consistent internet) are so stretched. While an incubator catalyzes ideas through technical support and guidance so that they can be turned into a pilot, an accelerator speeds up a pilot or a tested solution into something

that can scale. For the kind of project we designed in Sierra Leone, an incubator-accelerator would be more appropriate. We should have incubated the idea and then supported it through to its scale up, as long as the pilot proves that it's feasible, viable, desirable, and ethical for the market.

We would design a place to iterate on the solutions with technical support and a runway to test those solutions following the incubator phase. In this case, a runway in the form of an accelerator would save time to iterate on the NRA and OARG solutions with proper controlled experiments. This would ideally provide a value proposition to the government in reduced time and cost for both citizens and government. Indeed, this is what we attempted in the next iteration of this project in Ekiti state, Nigeria. The findings of that case can be found in the respective Learning Case in this series.

On top of an accelerator, as a lab, we would add a researcher to observe and document the whole process on the ground, while also co-managing the facilitation process with the government. It's unorthodox partnerships with government that can often lead to innovation². We'd align with the partners on terminology, specifically drawing up documents together on what the expectations are in terms of what the outputs mean to everyone.

Likewise, we'd think about the incentives of civil servants to carry projects to implementation. In this case, we understood later that by not including the projects' potential results in the annual plans of the MDAs from the outset, civil servants who were enthusiastic about the projects had to work extra time for no reward on something that may not work.

Finally, we would also set up benchmarks for the continued improvement of the solutions that were meant to address specific problems. That is, any team presenting a solution to a governance problem should be able to provide a current state versus desired state in terms of reduced waste of time and/or money. For example, while the NRA project proposed the calculator to avoid people having to ask in-person about the calculations of their taxes, it did not set benchmarks by which it measured success of the pilot for scale up. This information is often key to persuading leadership to support further investments in solutions that may not yield immediate results. It also allows us to understand innovations like the NRA tax calculator from the perspective of governance. How is the tax service currently perceived by citizens and frontline workers in the tax service? How is NRA attempting to change that and by when? What is NRA measuring against to determine success as a governance innovation?

Without this, innovation runs out of oxygen, and that fire sparked during the boot camp quickly dies, leaving only the ashes of what could have been, returning civil servants to the status quo.

References

1. A minimum viable product (MVP) is a version of the product that has enough features for designers and users to provide feedback. A wireframe is a great MVP for resource-constrained settings as it doesn't require a lot of resources.
2. See more about Insurgency in public sector innovation. OECD, OPSI Core Skills for Public Sector Innovation, 2017. P.20 "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." https://www.oecd.org/media/oecdorg/satellitesites/opsi/contents/files/OECD_OPSI-core_skills_for_public_sector_innovation-201704.pdf