SPO Innovation lab

Evaluation of the ”Labb digitalisering” initiative and suggestions for further work

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CONTENT

This booklet is one of the outcomes of the project "Transitioning towards sustainable water and waste management" financed by FORMAS (2019-02037).

1.Aim, methodology and limits

AIM OF THE PROJECT

To understand current innovation culture and practices within SPO to provide input for Innovation labb future development in the context of public organisations capacity to support and drive sustainable transitions.

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LIMITS

Focusing only on Labb Digitalisering and not other innovation activities/initiatives within SPO.

Evaluation done before the end of the projects.

METHODOLOGY

Weekly meetings with Innovation Lab project manager;
Support in formulating the call for Lab Digitalisation;
Following/observing meetings;
Analysing the applications (12+11);
Interviews with unit managers (5+4);
2 Kick-offs with people who got financed;
Interviews with CEO and Innovation Lab steering group;
Analysed SPO strategy and business plan documents;
Reviewed innovation perspectives from different units (questions initiated from the new Strategy and Development Unit);
Discussion on possible KPIs for innovation with Organization Development Unit;
Discussion with HR about innovation culture.

2. Summary of findings: a partial perspective on Innovation at SPO

A SOLID GROUND

Innovation is already happening and not only within the innovation units;

Some *unit managers have a good understanding of and propensity for innovation;*

Some *units are aligned with strategic objective* of becoming one of the 10th most efficient VA and waste organizations;

Some units have already structured ways to work with ongoing improvements and innovation;

There are *existing innovation constellations* across units and with external actors;

Labb Digitalisering supported *both existing innovation efforts as well as new initiatives;*

Received *applications are well distributed across all the innovation process* (prestudies, testing and implementation projects are present) *and across the organization.*

WHAT CAN BE STRENGTHNED

Further development of an *internal understanding of and support to innovation* that considers the different preconditions and possibilities to work with innovation across units;

Strengthening *relationships between innovative and operational activities*: an effort towards creating more relationships and common efforts between innovation and operations units;

Further development of *collaborations with external actors*: some of the challenges SPO is up against depends on and are shared with other actors (municipalities, other waste and water organizations, other relevant organizations in public, private sector, civil society) as well.

3.Public sector innovation vs Private sector innovation

3.1 What is innovation?

Universal Public school system

Macintosh Plus

NYTT,
NYTTIGT,
NYTTIGJORT

(trans. new, useful and utilized)

(Association of Swedish Muncipalities and Regions, 2021)

Something new which is implemented and creates value

Universal vaccination programs

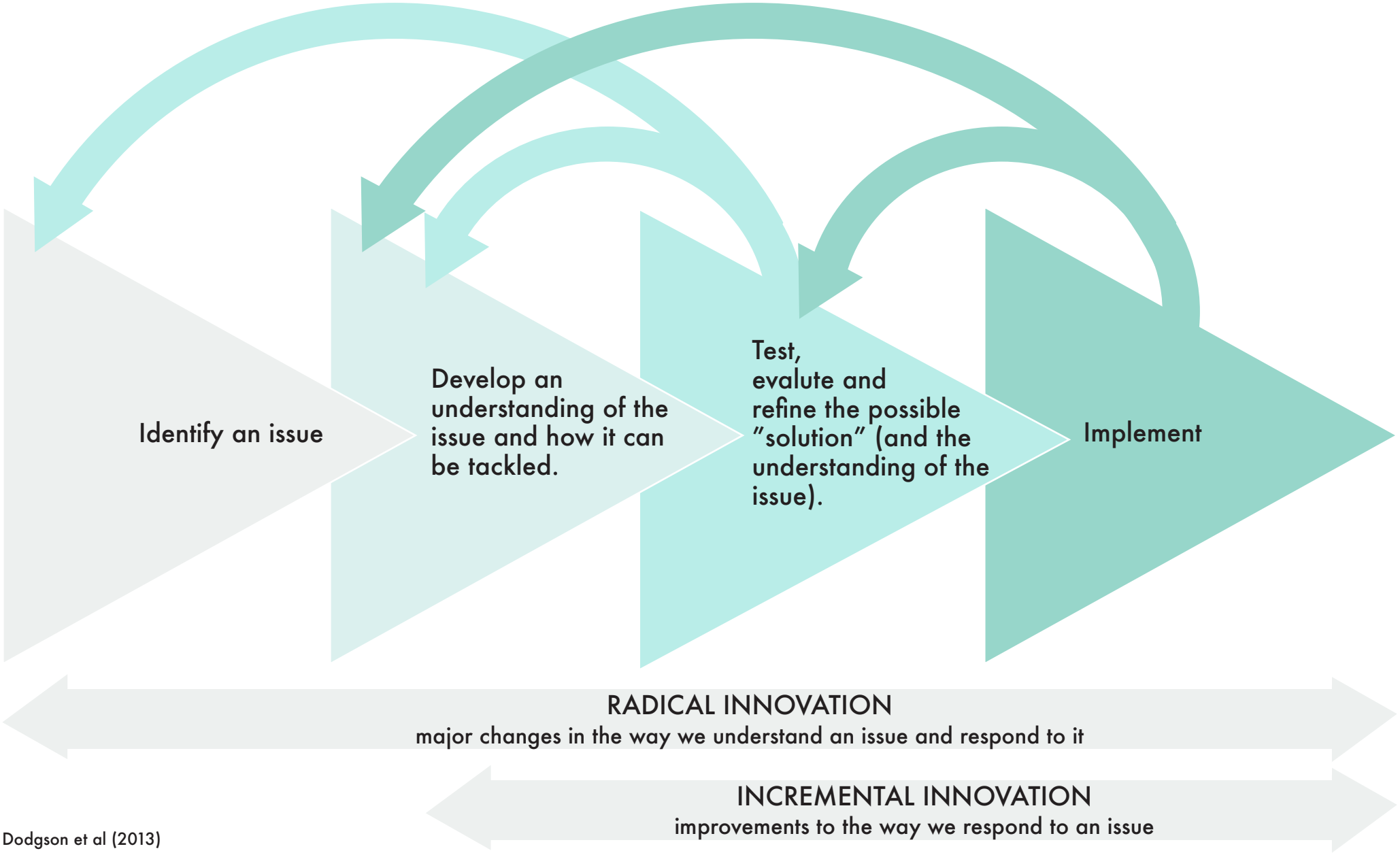
Roman acqueduct

3.2 Research, development and innovation

RESEARCH	DEVELOPMENT and INNOVATION	DEVELOPMENT VS INNOVATION
An exploration for the sake of knowing	The implementation of something new in the specific situation/context in which is placed (it can have inspiration from research but not necessarily)	Incremental vs radical change Little risk for failure vs Bigger risk for failure (but it is often a theoretical distinction difficult to trace in practice)

Dodgson, et al. (Eds.) (2013)

3.3 The innovation process



Dodgson et al (2013)

3.4 Innovation in the private vs in the public sector

INNOVATION IN THE PRIVATE SECTOR

Something new for the field that is created by one company and leads to niche market and/or potential profit.

WHY: Primarily Profit.

WHAT: Creating a new market or product (radical innovation) or being the leaders in an existing market (incremental innovation).

PUSH to INNOVATION: competition.

INNOVATION IN THE PUBLIC SECTOR

Something new for the field that is implemented in one or many organizations and creates value for citizens and/or the public good.

WHY: Direct value for citizens or for the public good

WHAT: Improving and changing current operations in one or more organizations (it could be radical or incremental, the key point is how it creates value for citizens/public good).

PUSH to INNOVATION: societal challenges and expectations from the public (including politicians).

Schön (1971), Parsons (2006), Olsen (2009), Mazzucato (2011), Dodgson et al.(2013), De Vries et al. (2016), Nählinder and Fogelberg Eriksson (2019).

3.5 Different pre-conditions for innovation

PRIVATE SECTOR

Goods and services which are **important** for the functioning of a society.

Innovation is an option.
Failure is less risky.

Macintosh Plus

Schön (1971), Parsons (2006), Olsen (2009), Mazzucato (2013), Dodgson et al.(2013), De Vries et al. (2016), Nählinder and Fogelberg Eriksson (2019).

PUBLIC SECTOR

Services which are **essential** for the functioning of a society.

Innovation is a necessity.
Failure is more risky.

Access to Clean Water

3.6 Different pre-conditions for innovation

PRIVATE SECTOR

Usually deals with **complicated** problems, that can be solved with specialized knowledge.

PUBLIC SECTOR

Usually deals with **complex** problems that require interaction of different kinds of knowledge,
ongoing learning and adaptation.

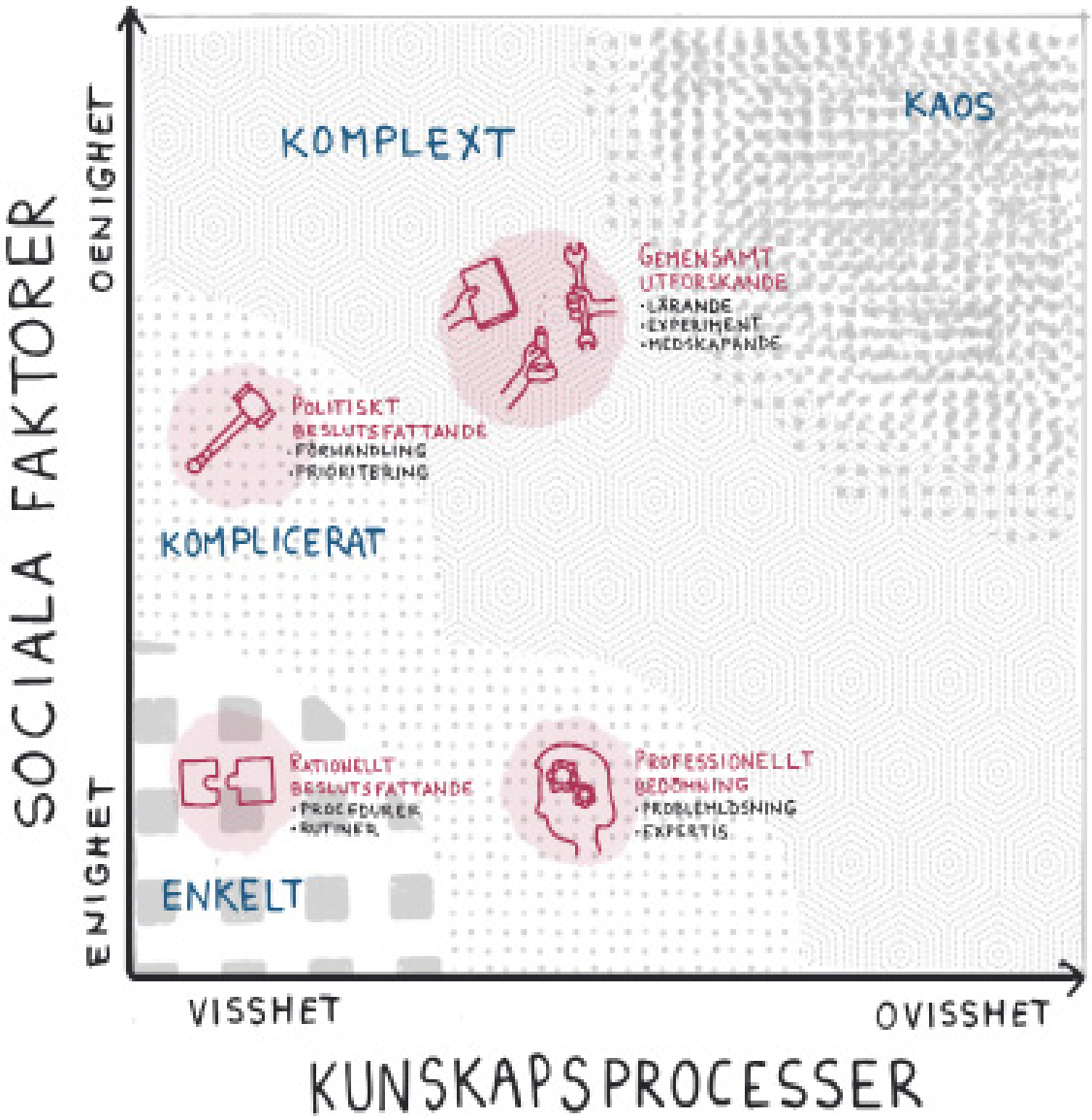
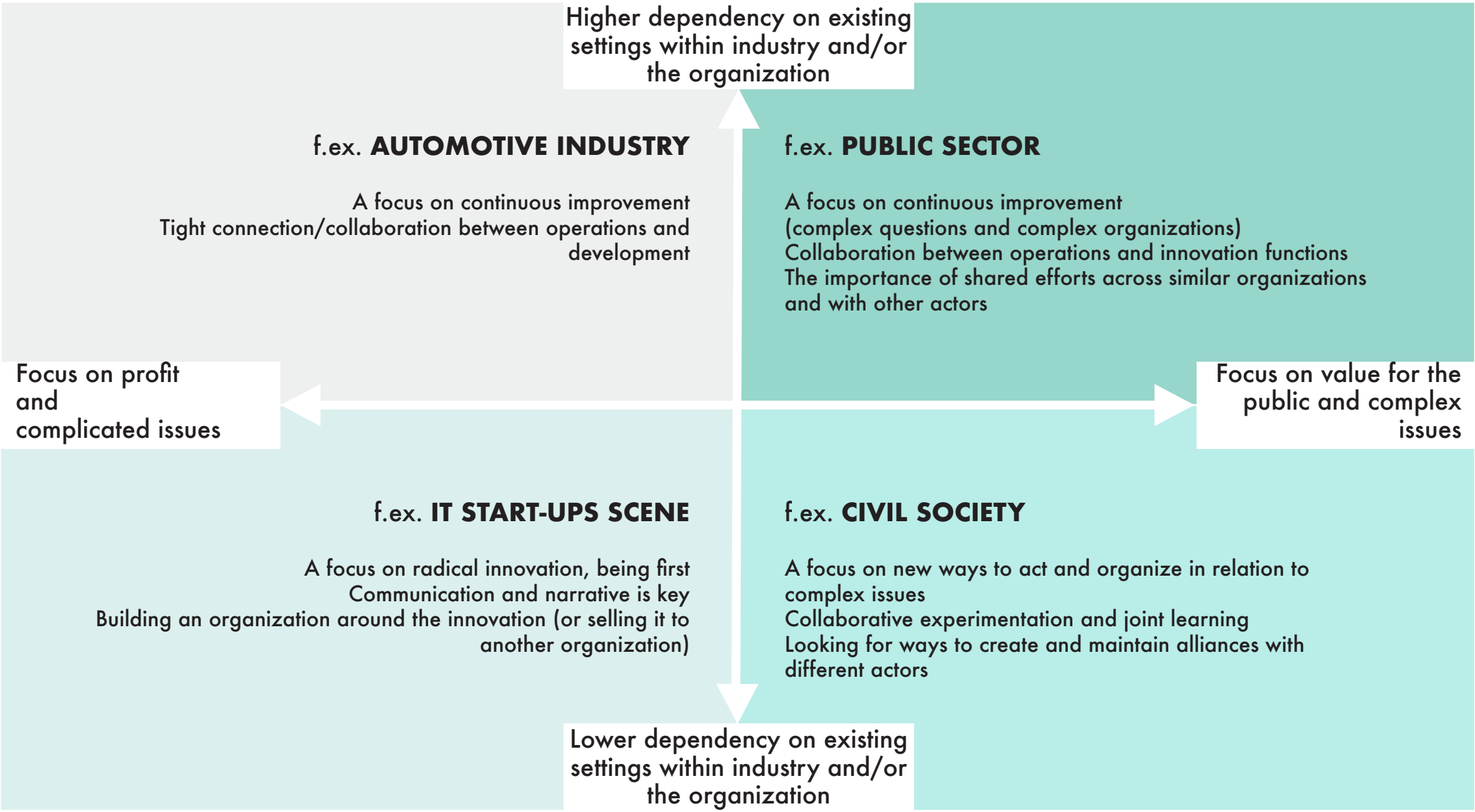


Image courtesy of: Heiti Ernits and Jackie Forzelius, inspired by Stacey (2002)

3.7 DIfferent forms and modes of innovation



Schön (1971), Parsons (2006), Olsen (2009), Mazzucato (2011)), Dodgson et al.(2013), De Vries et al. (2016), Nählinder and Fogelberg Eriksson (2019).

3.8 Recurrent challenges to innovation in the public sector

PUBLIC SECTOR IS USUALLY ORGANIZED TO MANAGE NOT TO INNOVATE

Highly specialized independent units, which make it difficult to drive collaborative efforts;

A focus on running current activities in the most efficient way, which means that there is lack of culture of, approaches and resources for exploration, reflection and learning among employees and managers;

Politicians often lack time, knowledge and resources to grasp the complexity of the issues they are administrating;

Citizens and other actors are seen as customers/users and not as possible collaborators to improve and develop public sector action.

PUBLIC SECTOR INNOVATION HEAVILY RELIES ON IDEAS AND INSPIRATION FROM THE PRIVATE SECTOR

Risk of overlooking the complexity of public sector issues and the organizational and industry settings;

Risk of focusing on ideals which do not fit the reality of public sector;

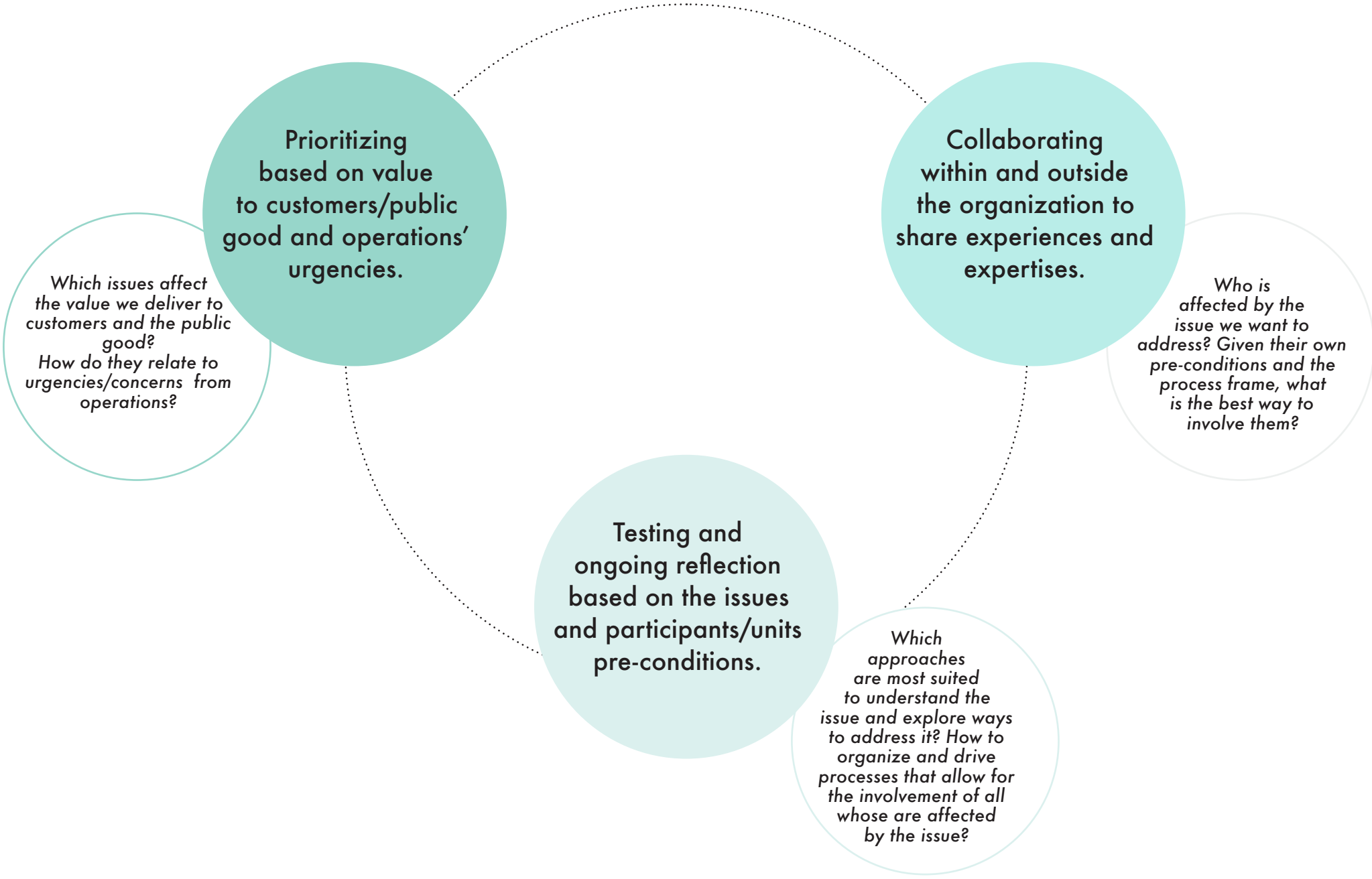
Lacking understandings of and approaches for innovation that are suited to public sector context.

Schön (1971), Parsons (2006), Olsen (2009), De Vries et al. (2016), Nählinder and Fogelberg Eriksson (2019), Seravalli (2021)

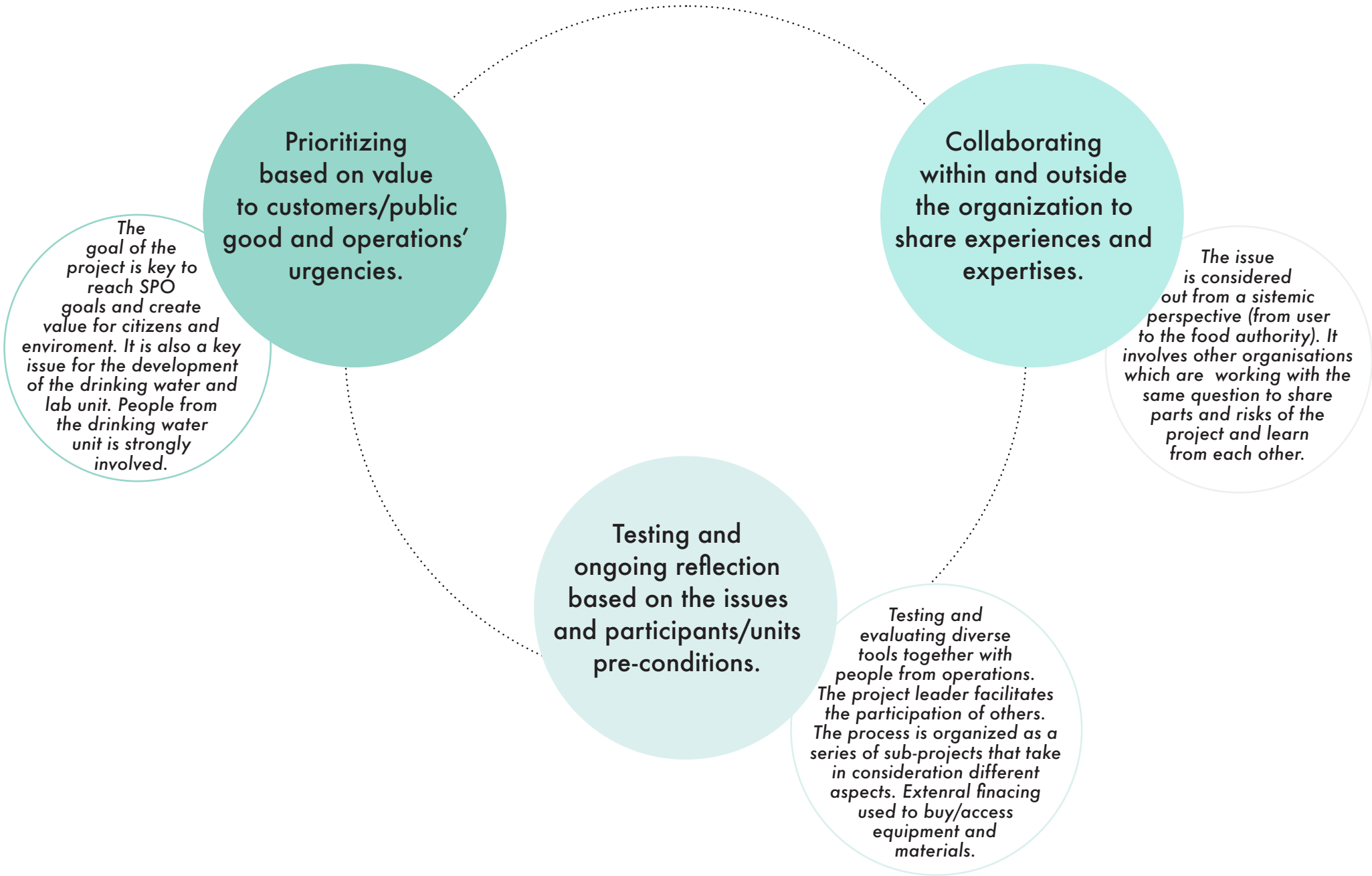
3.9 Summary: Innovation in the public sector

SOMETHING NEW THAT IS IMPLEMENTED IN ONE OR MORE ORGANIZATIONS AND THAT CREATES VALUE FOR CITIZENS AND/OR THE PUBLIC GOOD.	**IT REQUIRES:** ...prioritizing from the base of value to customers/public good and operational urgencies;. ... collaboration across units, across organizations and with the all society; ... experimenting and learning approaches that fit the issues and the organizational and/or industry context.	**BY:** ...creating space and time for employees and other actors (e.g. managers, citizens etc.etc.) to engage in innovation work (including implementation). ...by fostering legitimacy, mandate and understanding about public sector innovation among key actors (e.g.managers, employees, politicians, citizens etc.etc.)

3.10 The three pillars of public sector innovation

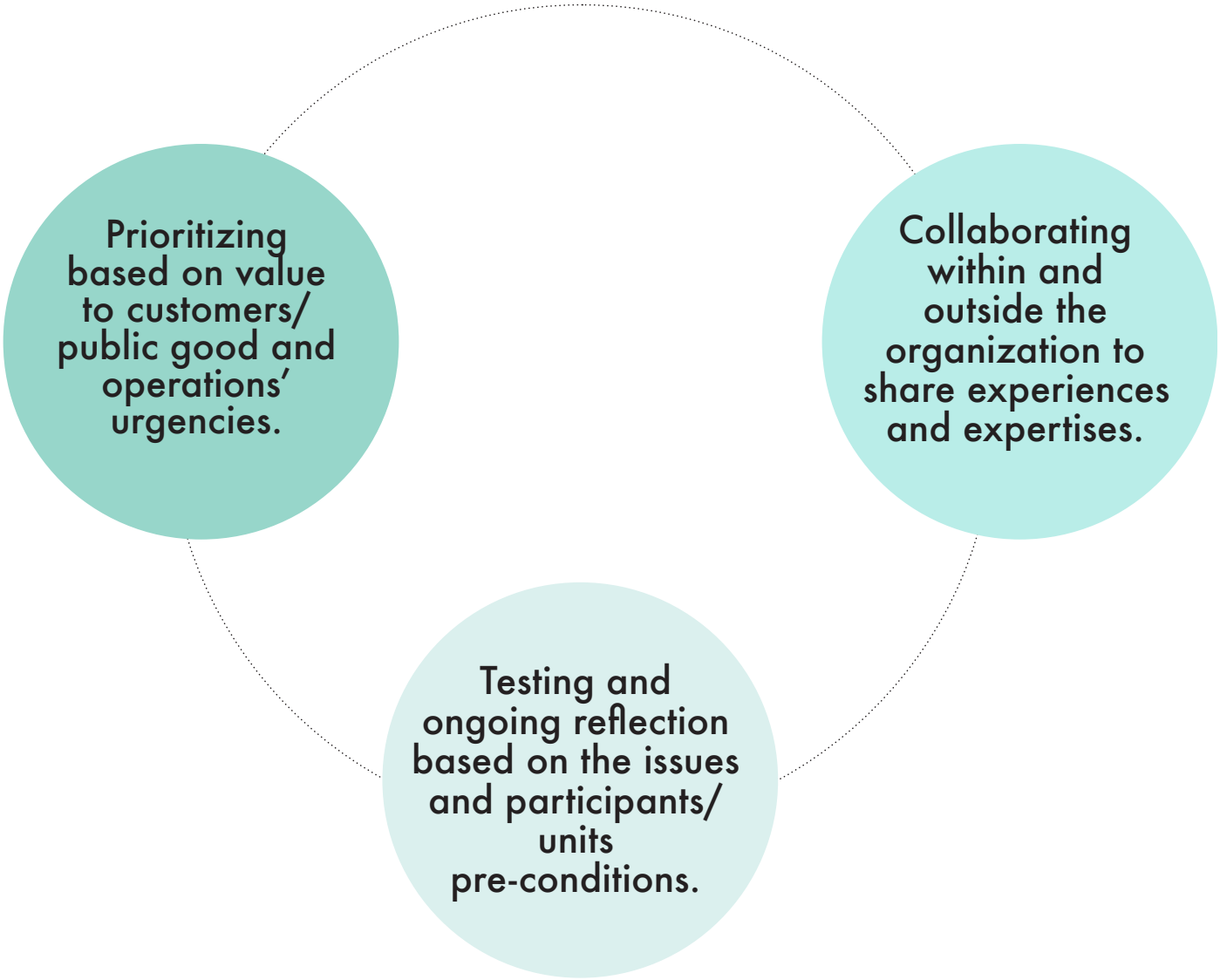


3.10 An example: online measuring of drinking water quality



4. Innovation at SPO through the lenses of Labb Digitalisering

4.1 Data based summary



Based on interviews with mid-managers, lab steering group, CEO, analysis of the applications and input to the new Strategy and Development unit from different units:

TESTING

The units that have been involved in Labb Digitalisering:

...present a culture of development and testing;

...have an understanding of innovation in relation to how it differs from development and the resources and support needed;

... have internal routines to work with development and/or innovation.

PRIORITIZATION

The strategic goals, which are embraced by the units, highlight customer value and the public good;

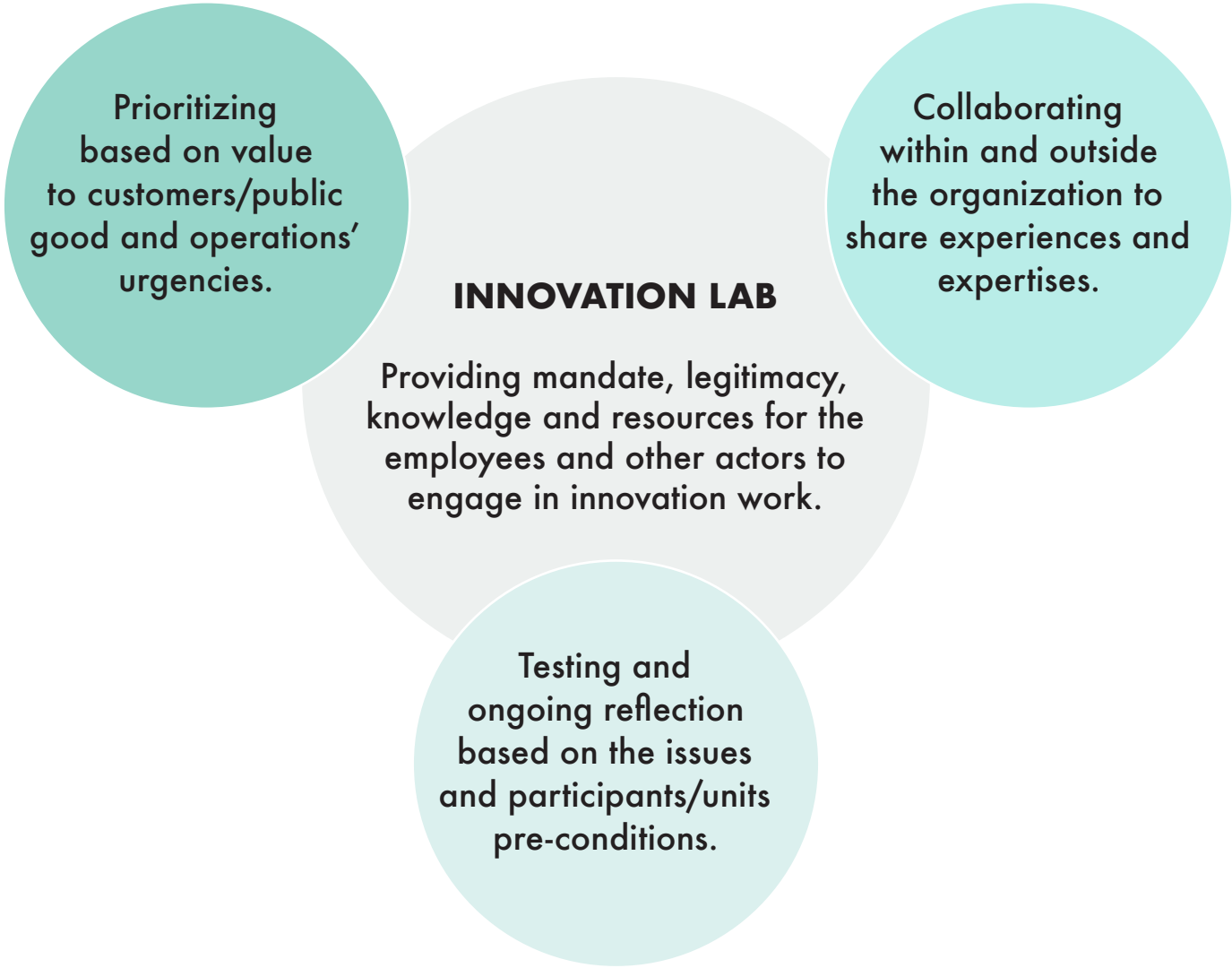
Units have very different preconditions and situations for working with development and/or innovation; however, this is not systematically shared across units.

COLLABORATION

There is an understanding that innovation and development efforts need to be coordinated but it is not always clear how and to which extent to collaborate.

5. What is the function of Labb Digitalisering?

5.1 Innovation labs: strengthening innovation capacity



Schöll et al. (2017);Tõnurist et al. (2017); Mc Gann et al.(2018); Seravallli (2021), Seravalli et al. (2021).

5.2 Labb digitalisering (LD) applications: innovation understanding

NYTT

Good overview of state-of-the-art within the branch;
Inspirations from other sectors.

NYTTIGT

Mostly internal challenges;
" One of 10th most efficient water and waste organization in EU".

NYTTIGJORT

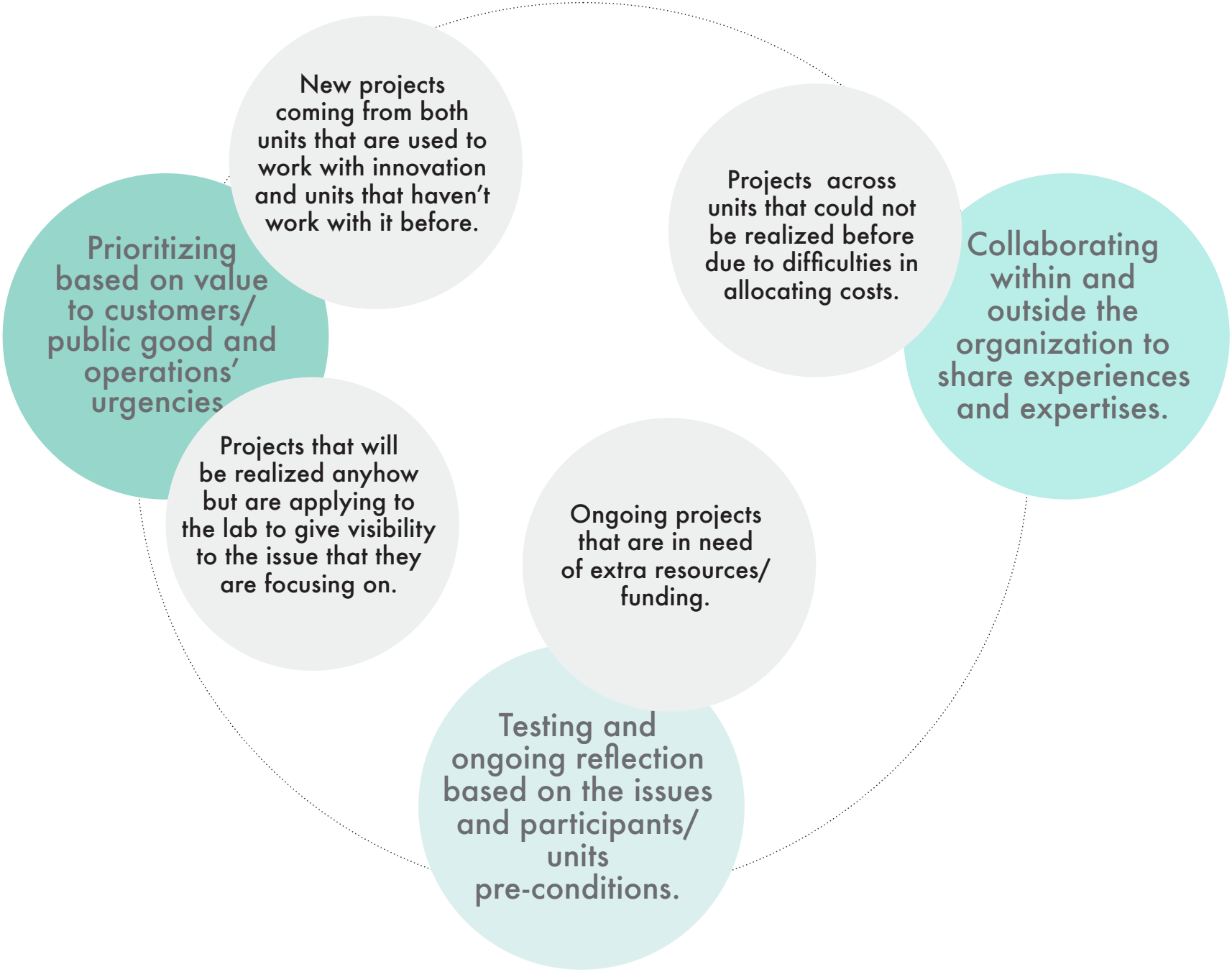
A strong focus on efficiency, but other values are represented as well

(POSSIBLE) OUTCOMES

New ways of working (17): Equipment for activities (5); Testing technologies/ procedures and or developing new ones (12); Services (3); Overview/knowledge input (3);

"It is not about developing high-end technological solutions, what we need is new ways of working" Unit head whose employee applied to LD.

5.3 Labb digitalisering (LD) applications: motivation for applying



5.4 The value of incremental innovation in the public sector

RADICAL INNOVATION

To identify major issues in relation to customers/public value and address them by developing new ways of working that demand major changes in current routines and organizational models.

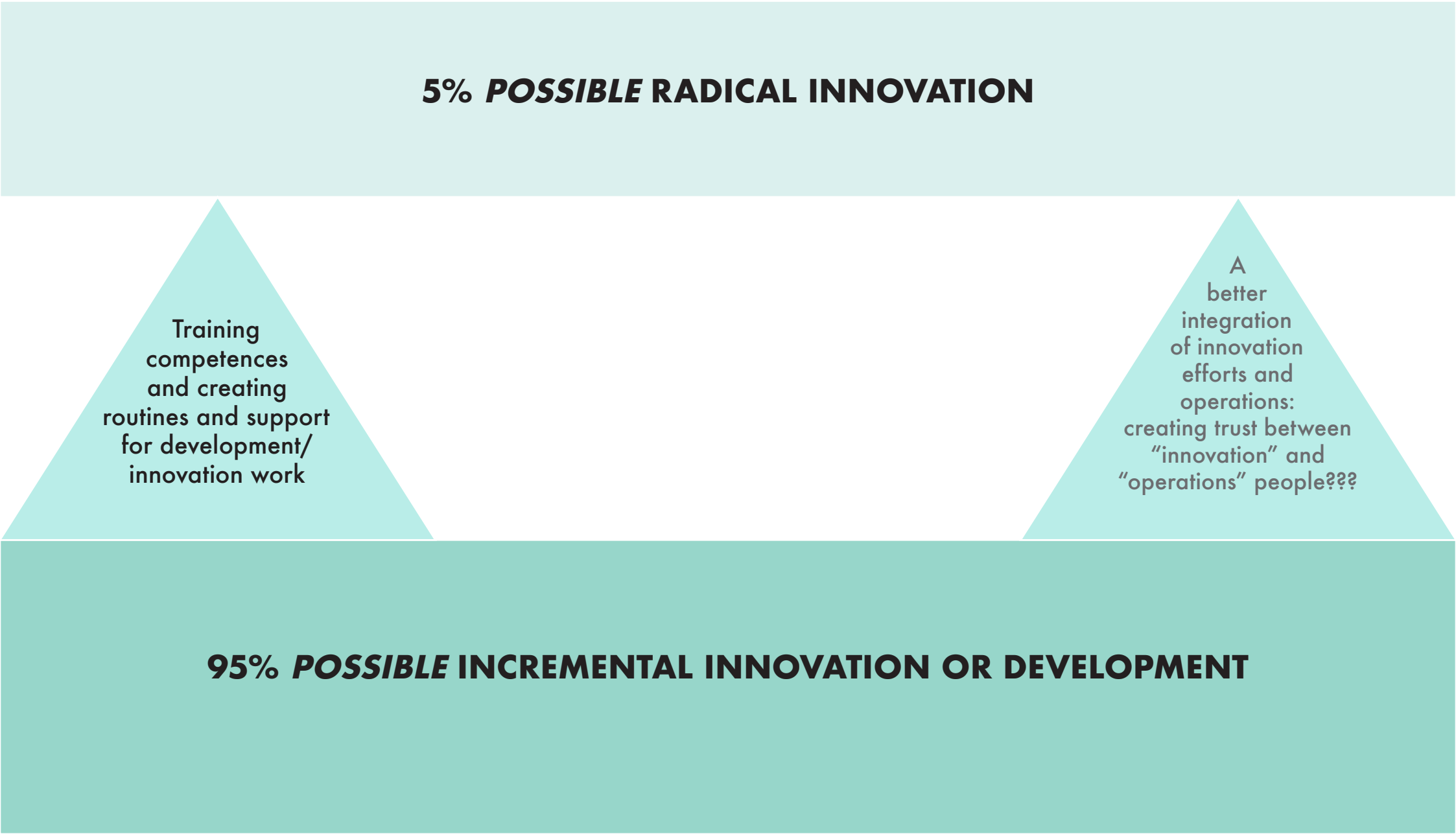
Training competences and creating routines and support for development/ innovation work

A better integration of innovation efforts and operations: creating trust between "innovation" and "operations" people;

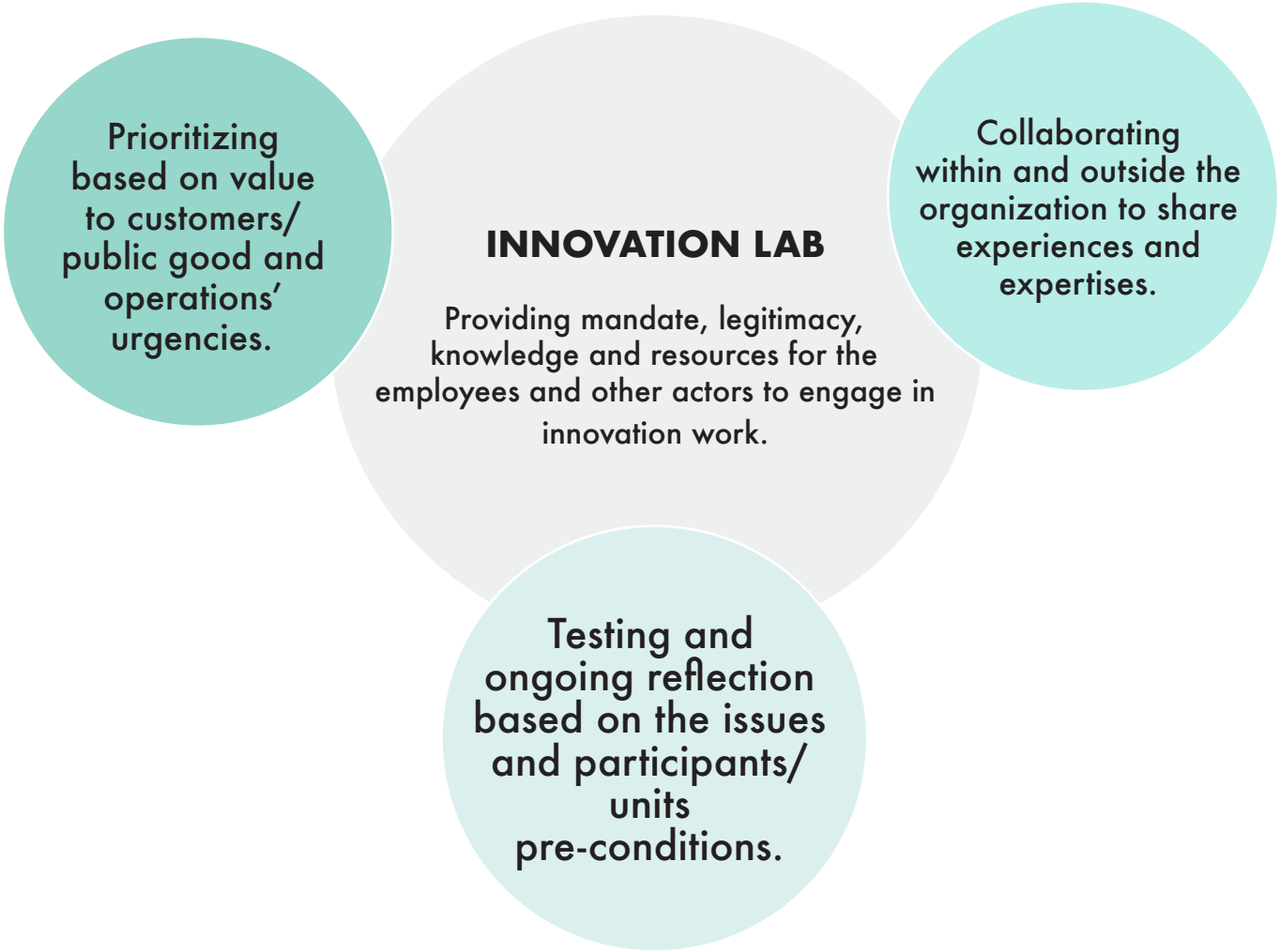
INCREMENTAL INNOVATION OR DEVELOPMENT

To continuously identify problems/opportunities within current ways of working and respond them in collaboration with other actors.

5.5 LD applications distribution



5.6 Data based summary



Based on interviews, analysis of applications, observations of meetings and activities:

TESTING
The lab supported new as well as existing innovation efforts across VASYD;
"Bottom-up" application process.

PRIORITIZATION
The lab engaged both development and operations units;
Unit managers active involvement in the process (considering units' priorities and units' preconditions);
Shared prioritization was addressed ad-hoc case by case with lack of reference to shared and pre-established prioritization processes for cross-collaboration and learning.

COLLABORATION
The lab provided mandate, legitimacy, and resources to act within and across units.
The lab strengthens collaborations and sharing of information and knowledge across units (also through the process of selecting applications);
Unclear to which extent collaborations in the projects are new or existing ones.

5.7 Labb Digitalisering, current support a detailed overview

	Good as it is	Good and potential development	Areas for further development
Prioritizing based on value to customers/public good and operations' urgencies.	Used by applicants to support existing projects/activities and to resolve problems of budget allocation; Some applications handed in by operations units.	The evaluation group sorted out some priorities and provided input on units conditions; Ad-hoc support during application processes;	A bottom-up (employee generated) innovation strategy/ prioritization; A bottom-up and shared definition of innovation at VASYD;
Collaborating within and outside the organization to share experiences and expertises.	Financing to projects across units; Evaluation group: providing/ enhancing exchanges across projects.	Support an "innovation community" across VASYD (evaluation group, people who applied, unit managers); Favouring collaborations; Merging of different projects during evaluation.	Integration of different kinds of knowledge (internally and with other similar agencies and/or other actors); Support collaborative applications;
Testing and ongoing reflection based on the issues and participants/units pre-conditions.	Financing for testing; Financing to address unforeseen happenings in existing projects/ activities;	Financing pre-studies.	Low level of engagement at the kick-off: developing different formats for training innovation skills; Ongoing support to projects; Support to projects that didn't get financed; Favouring learning across units.

6. Formal and informal innovation leadership

6.1 Formal innovation leadership

FRONT LINE MANAGERS
Key in implementation- employee engagement, identification of priorities, mobilization of competencies, internal and external collaborations.

POLITICIANS
Final decision makers, represent the public, set general direction and limits for innovation(mandate).

Prioritizing based on value to customers/public good and operations' urgencies.

Collaborating within and outside the organization to share experiences and expertises.

INNOVATION LAB

Providing mandate, legitimacy, knowledge and resources for the employees and other actors to engage in innovation work.

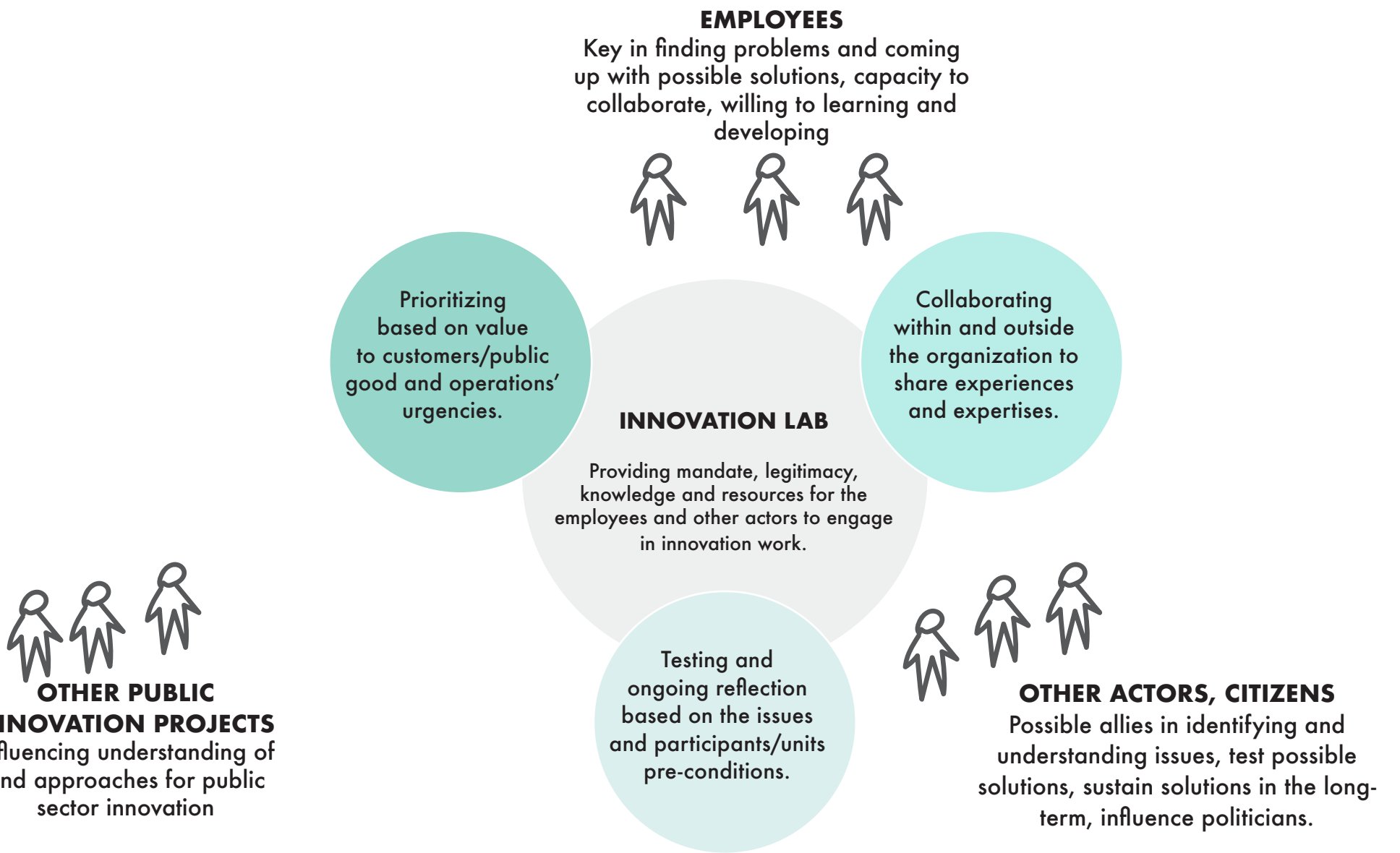
Testing and ongoing reflection based on the issues and participants/units pre-conditions.

CEO
Reports to politicians and the public, contact with other organizations, promotes vision and strategy internally and externally.

BOARD/HEADS OF DEPARTMENT
Gatekeepers for resources and advocate for resources needed strategically for implementation, internal/external collaborations

Schöll et al. (2017), Witmer(2021), Witmer et al. (2022)

6.2 Informal innovation leadership



Schöll et al. (2017), Witmer (2021), Witmer et al. (2022)

6.3 LD: both formal and informal innovation leadership

FORMAL LEADERSHIP

A strong group of middle managers in development, operations and support functions;

Mid-managers have a good "practical" understanding of what innovation is but there is a lack of shared understandings/ definitions (f.ex. radical vs incremental innovation);

Board/Heads of departments agreed upon a shared financing initiative for innovation;

CEO valuing innovation;

The research project lacked time to engage with politicians.

INFORMAL LEADERSHIP

Employees as informal leaders:

Good distribution of application between development, operations and support units.

Evaluation group as ambassadors for the labs, helped in reaching out new people, helped in sorting out priorities overlappings etc. etc.

Some development engineers engaged in promoting innovation among colleagues from other units.

Engagement with different external organizations, applications focusing on citizens/customers (but as final users).

6.4 Mid-managers: strong interest and involvement with LD

"I want to be involved in innovation work because it is important for my units goals"

THE ROLE OF THE MID MANAGERS

"I need to be involved because I have the responsibility to ensure that my co-workers have a good working situation (arbetsmiljöansvar)"

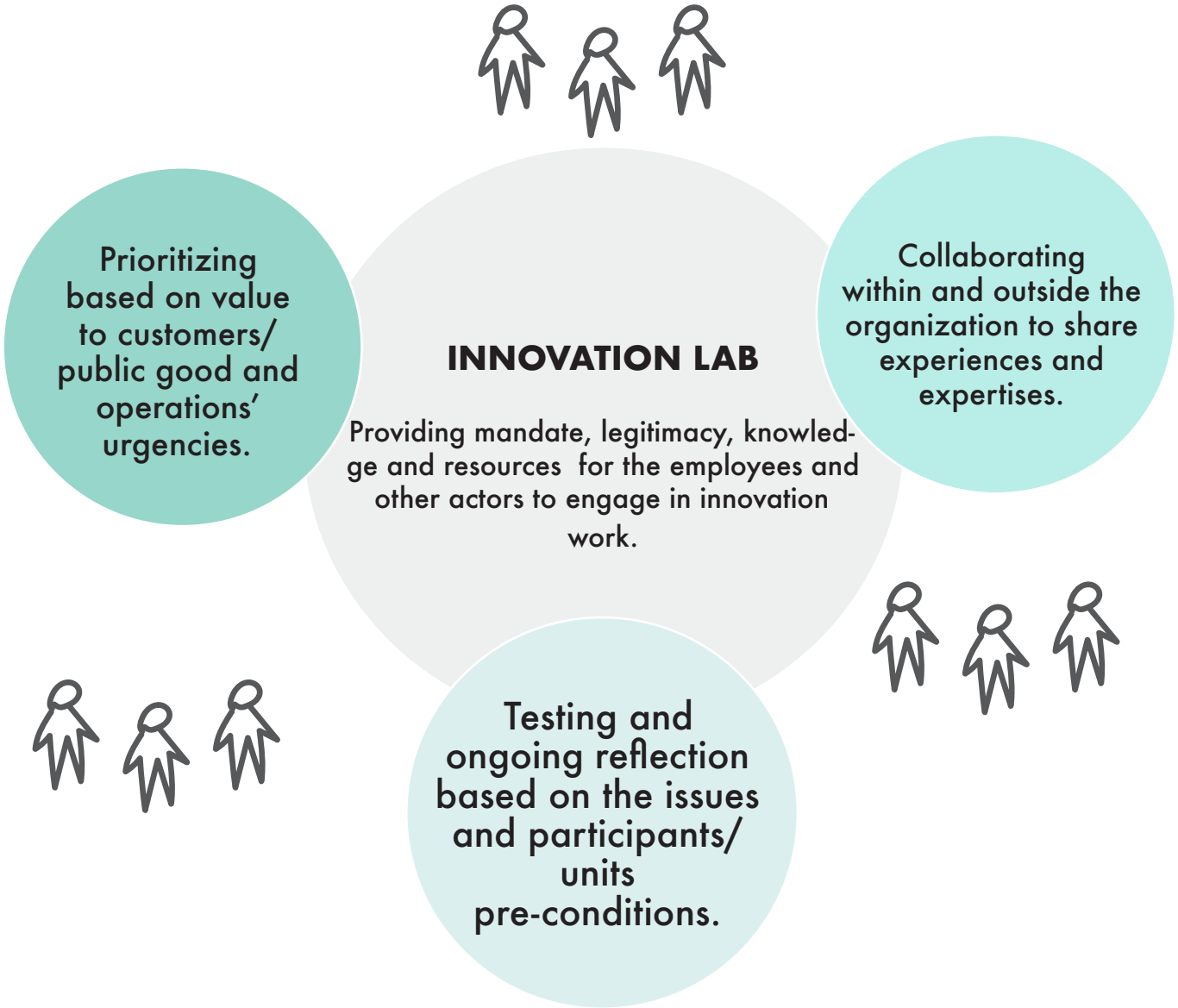
"It is better to have a shared pot rather than small resources within units"

SHARED RESOURCES OR RESOURCES IN THE UNIT BUDGET?

"Having to apply to a shared pot means that you have to be more ambitious and develop a better project proposal"

7. The Lab moving forward

7.1 Current situation and suggestions for further work



SUGGESTIONS FOR FURTHER WORK:

1. Support shared and bottom-up innovation efforts

2. Enhance innovation skills among SPO employees and managers (with focus on learning and collaboration).

3. Develop a shared understanding/definition of innovation at SPO and how it is measured.

7.2 Possible activities for moving forward

	SMALL	MEDIUM	LARGE
Support shared and bottom-up innovation efforts (not only financing but also connecting people)	Mapping innovation needs of each unit and look for overlapping needs to prioritize possible lab focuses; Matchmaking events before applications (with a focus on formulating shared problems but also possible ideas to test); Dedicated financing for efforts across units; Support function to help in formulating applications; "Emergency" money: when a project goes wrong and/or unforseen events or opportunities surface; Develop an external reference group that can help the lab with themes, matchmaking etc.etc.	Develop an internal reference group (with key people who is engaged with innovation across units) to discuss questions about focus of the lab but also innovation barriers and opportunities; Ad-hoc support for employees to find external collaborators: f.ex.events with relevant external people/actors for matchmaking/identifying shared issues; Work with mapping and formulating a bottom-up innovation strategy with involvement of all units at VASYD, but special focus on units working with operations and customers (see f.ex. the development group at the waste dept. which collects,analyzes and prioritizes different possible innovation priorities/ needs for the department).	Employee advisory committee: a representative for each unit to be involved in lab management and activities (deciding themes and formats, events before applications, evaluating proposals, kickoffs); Follow up and document financed projects and other relevant innovation projects to develop different possible models of innovation at VASYD (possibly as a collaborative effort together with those who are driving/ are involved the projects); Involve citizens and external actors in lab activities: it could both about identify needs/ questions to focus on but also engage them in experimentation and learning.

7.3 Possible activities for moving forward

	SMALL	MEDIUM	LARGE
Enhance innovation skills among SPO employees and managers (with focus on learning and collaboration)	Dedicated financing for projects in different innovation phases (prestudy, testing and implementing); Problem formulation and Idea generation events before applications; Events with people working with innovation in the public sector targeting all employees but with a special focus on managers; Follow up those who didn't get financed, look for other forms of support (competences, network etc. etc.); Workshops before applications deadline focusing on learning and collaborative approaches (possibly involving both internal innovation experts and external ones).	Create an expert innovation pool within VASYD, that people can contact in relation to different possible project issues (both topics and processes); Colleague-to-colleague learning network for managers to discuss innovation management questions; Colleague-to-colleague training / support events during the process (kick-off/half a way check/final evaluation-moving forward).	Develop a innovation system support that provides support in relation to: connecting within VASYD; connecting outside VASYD; driving processes (collaboration, learning, experimentation) and financing. Ask each unit to have an innovation person to be part of lab management (f.ex. prioritizing themes) and lab activities (f.ex. evaluating proposals); Colleague-to-colleague learning network to discuss questions about innovation; Leadership training in public sector innovation for managers (for example through SKR and/or online innovation learning program by Uppsala and Helsinborg cities).

7.4 Possible activities for moving forward

	SMALL	MEDIUM	LARGE
Develop a shared understanding of innovation at SPO and how it is measured.	Document and spread information about the projects that received financing and how they further developed (focus on: opportunities and hinders met along the way, different forms of and ways of working with innovation).	Involve lab participants and other innovation informal leaders in a process to define innovation at VASYD with a focus on including different possible forms of innovation and processes. Develop an ambassador group with representatives from different departments/units that can help spread innovation definition (specific to public sector) and its different forms. Involve politicians in a discussion/forum about innovation and environmental and societal challenges related to water and waste (i.e. why do we need innovation at VASYD?) Work on themes about the "what" (f.ex. new ways of working for creating a sustainable society) rather than "how" (f.ex. digitalization). Themes need to be collaboratively decided and bottom-up grounded.	Develop and test a way to define and measure innovation by involving representatives from all departments/ units. Event/Network about innovation within water and waste management involving other agencies, and relevant actors. When there is a solid understanding of different forms and ways of working with innovation the lab could work without specific themes but just calls for innovation.

APPENDIX/BONUS: suggestions for possible KPIs

PROCESSES

Collaborative, bottom-up based innovation processes

KPI 1:Number of innovation projects across units;

KPI 2:Number of innovation projects with external collaborations;

KPI 3:Number of innovation projects that include people from operations.

KPI 4: Number of innovation projects initiated from/by operations.

OUTCOMES

New ways of working within VASYD and between VASYD and external actors.

KPI 5: Number of new procedures and techniques tested within operations and/or across units and with other partners.

KPI 6: Number of tested procedures and techniques which are implemented

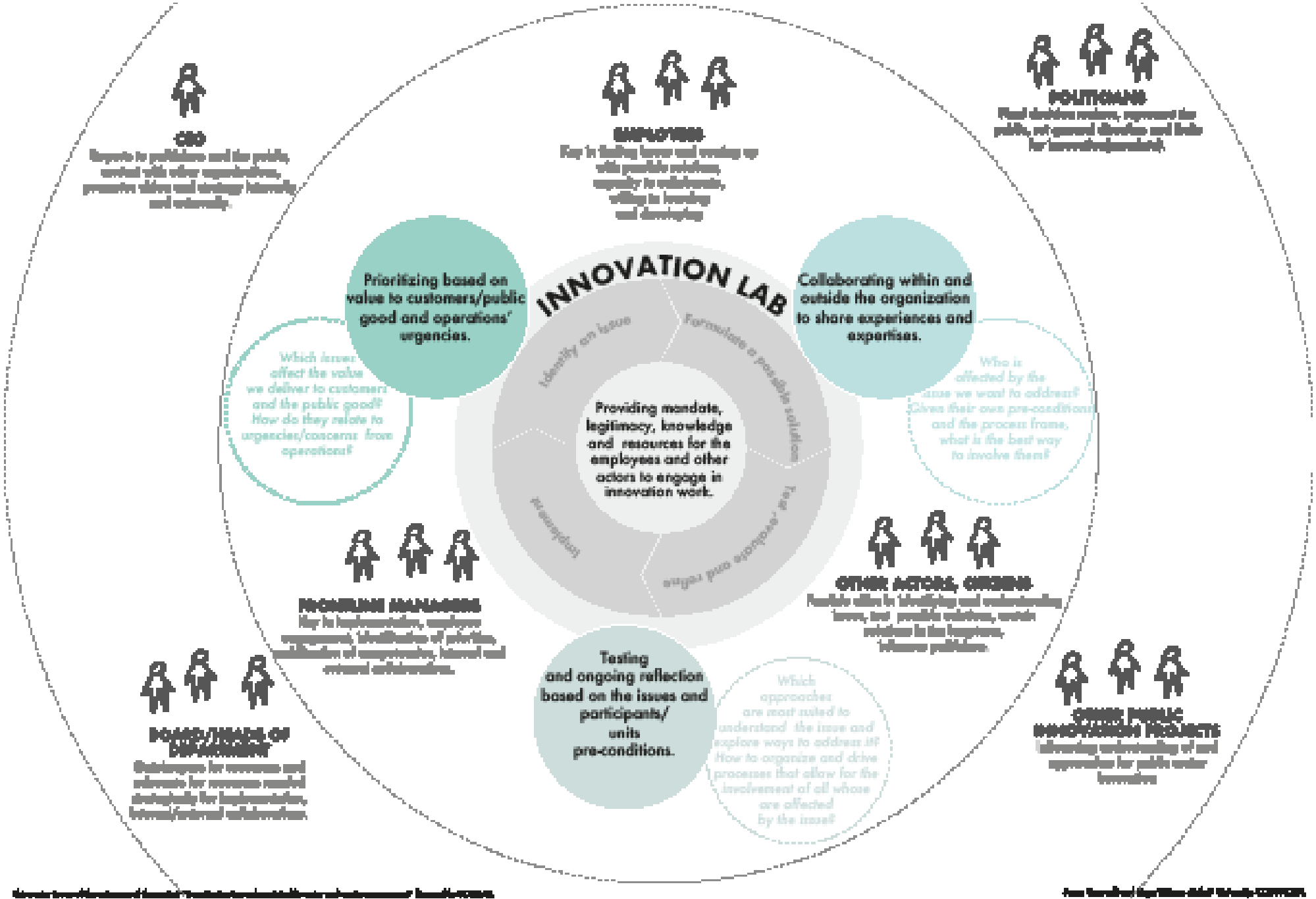
EFFECTS

"Developing mindset for innovation, new ways to understand the organization to meet future neeeds.Active leadership. New competences and understandings in the organization. Follow and initiate research. Apply new methods and techniques"
(SPO, businessplan 2019-2030)

KPI 7: Regular surveys (1 per y.) and/or medarbetare samtal focusing on innovation capacity among co-workers (particularly skills related to creativity and problem solving, collaboration).

KPI8: Checking units yearly activities and budget to evaluate support from managers and structure. Look for activities/allocations about: problem identification (minimum) and solving, collaboration within/across units and with external actors, bottom-up initiatives.

APPENDIX/BONUS: Poster



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