

# GovTech Scenario

**.feel**

[www.feel.community](http://www.feel.community)

## Executive presentation

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Partnering with  **InnovUp**  
ITALIAN INNOVATION & STARTUP ECOSYSTEM

# Public Procurement for Innovation

## Dynamics of collaboration between startups and the public system in Italy

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7 JUNE 2023

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# Public Procurement for Innovation

1. INTRODUCTION
2. RESEARCH MODELS AND DESIGN
3. RESULT – Startups and PA
4. CONCLUSIONS
5. POLICY RECOMMENDATIONS
6. FUTURE RESEARCH
7. PARTICIPANTS AND THANKS

Full report (ITALIAN):  
<https://www.feel.community/scenari-govtech>

And includes other stakeholder (like enables and corporate) point of view and analysis, cases of public sector-startup collaboration, Govtech startup information, full methodological note, list of respondents and special thanks list.

# Public Procurement for Innovation

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## 1. Introduction

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## Feel

is the operational think tank that deals with open innovation and digital transformation for the public system.

## InnovUp

is the non-profit and super partes association that represents and unites the Italian innovation chain: startups, scaleups, innovative SMEs, innovation centers, incubators, accelerators, science and technology parks, professional firms, consulting companies and corporates.

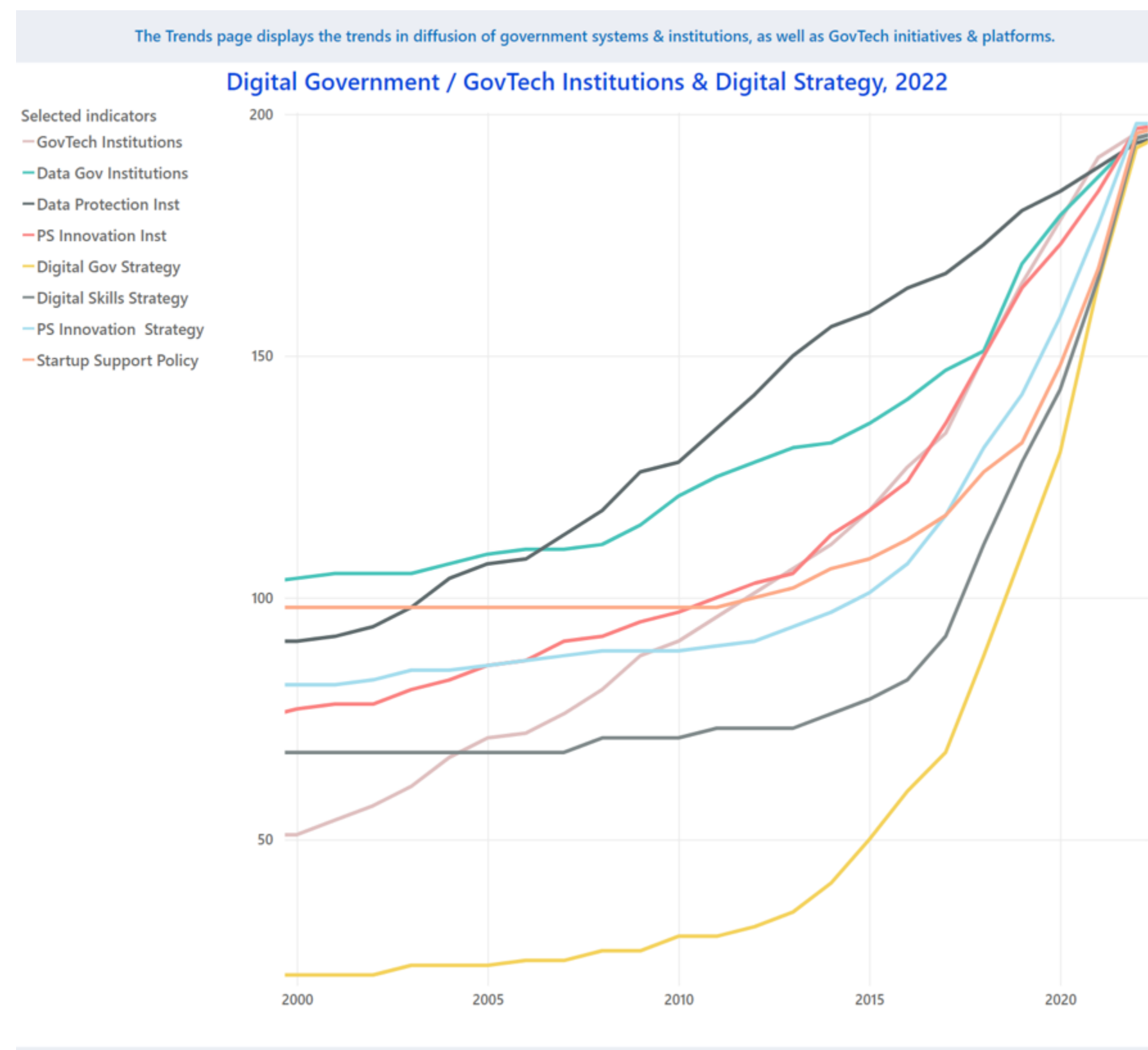
# .GovTech is a macrotrend



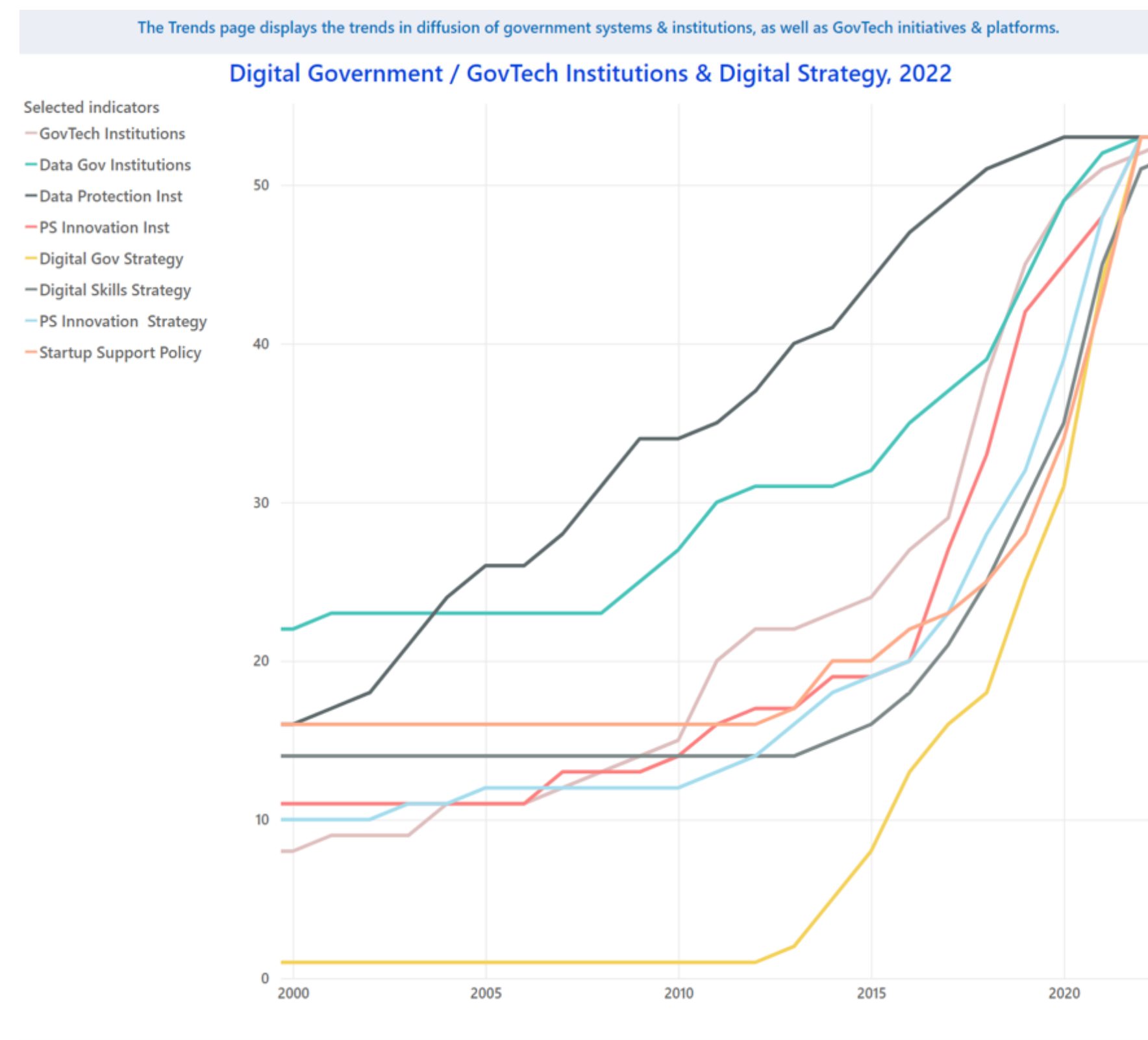
## GOVTECH

The adoption of innovative technologies by the Public Administration, through forms of public-private collaboration that allow to draw from an ecosystem of startups and innovative suppliers, in order to improve the provision of public services, citizen involvement and government information systems

*World Bank Group 2020*

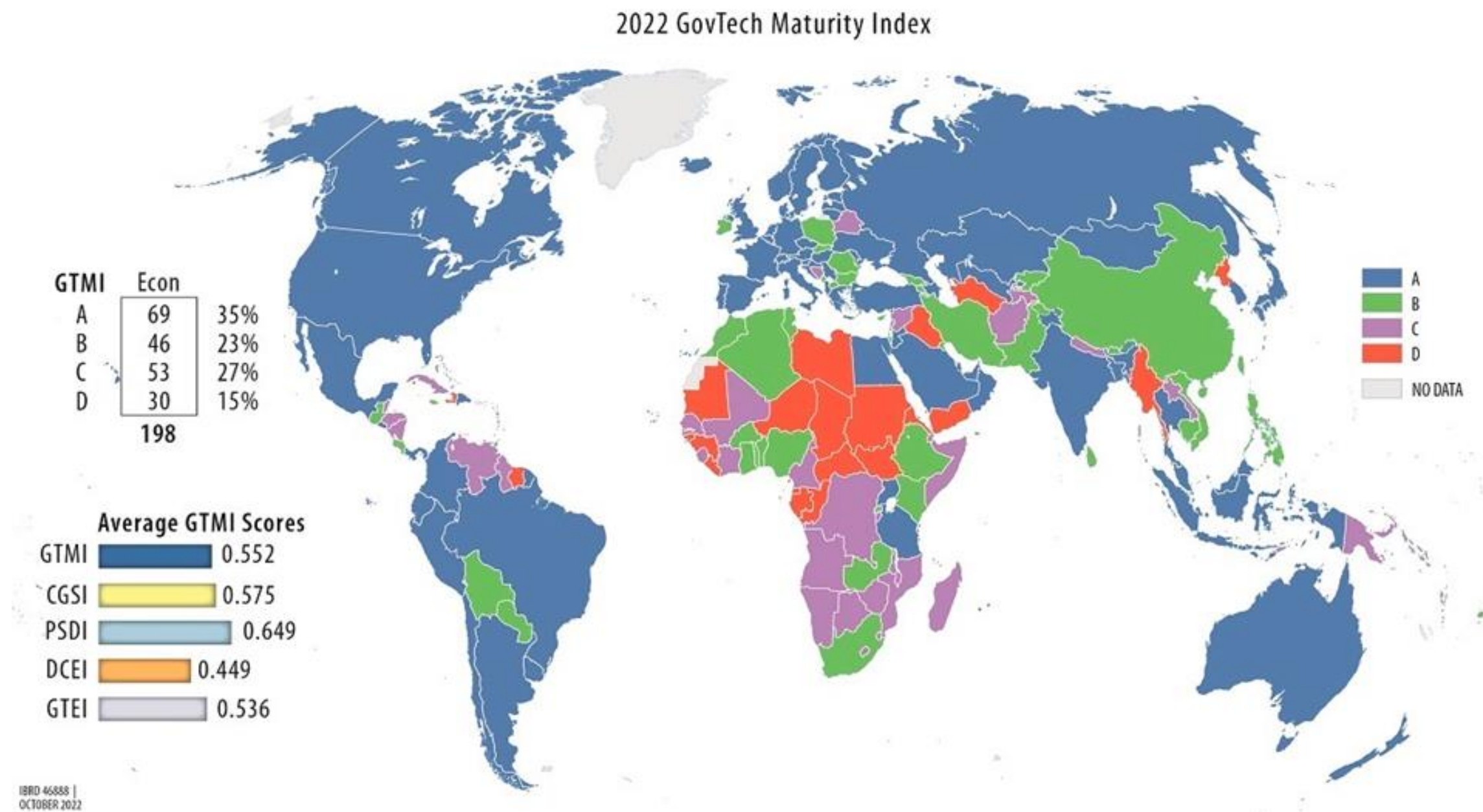


World

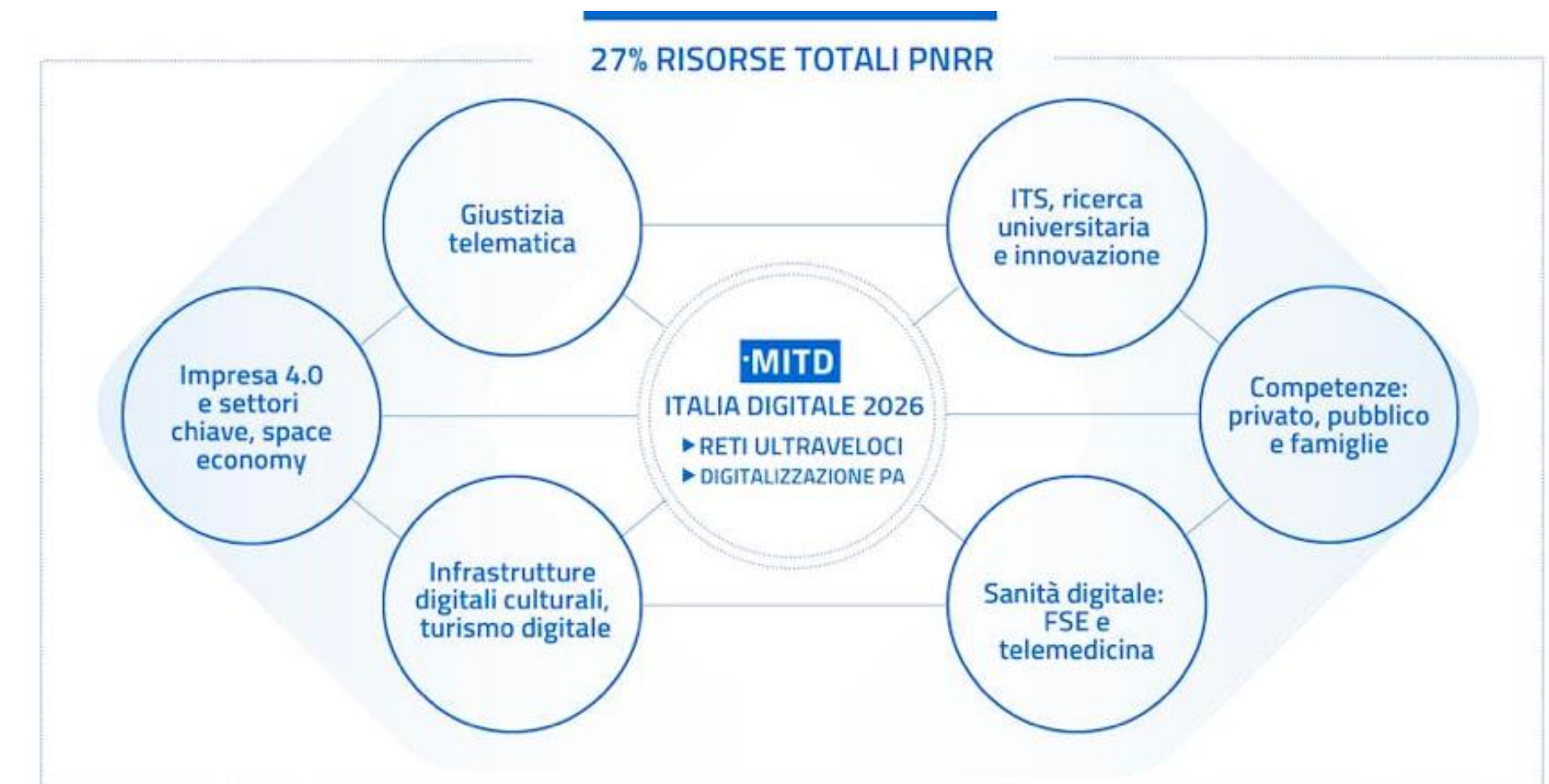


Europe & Asia centrale

# .And Italy?

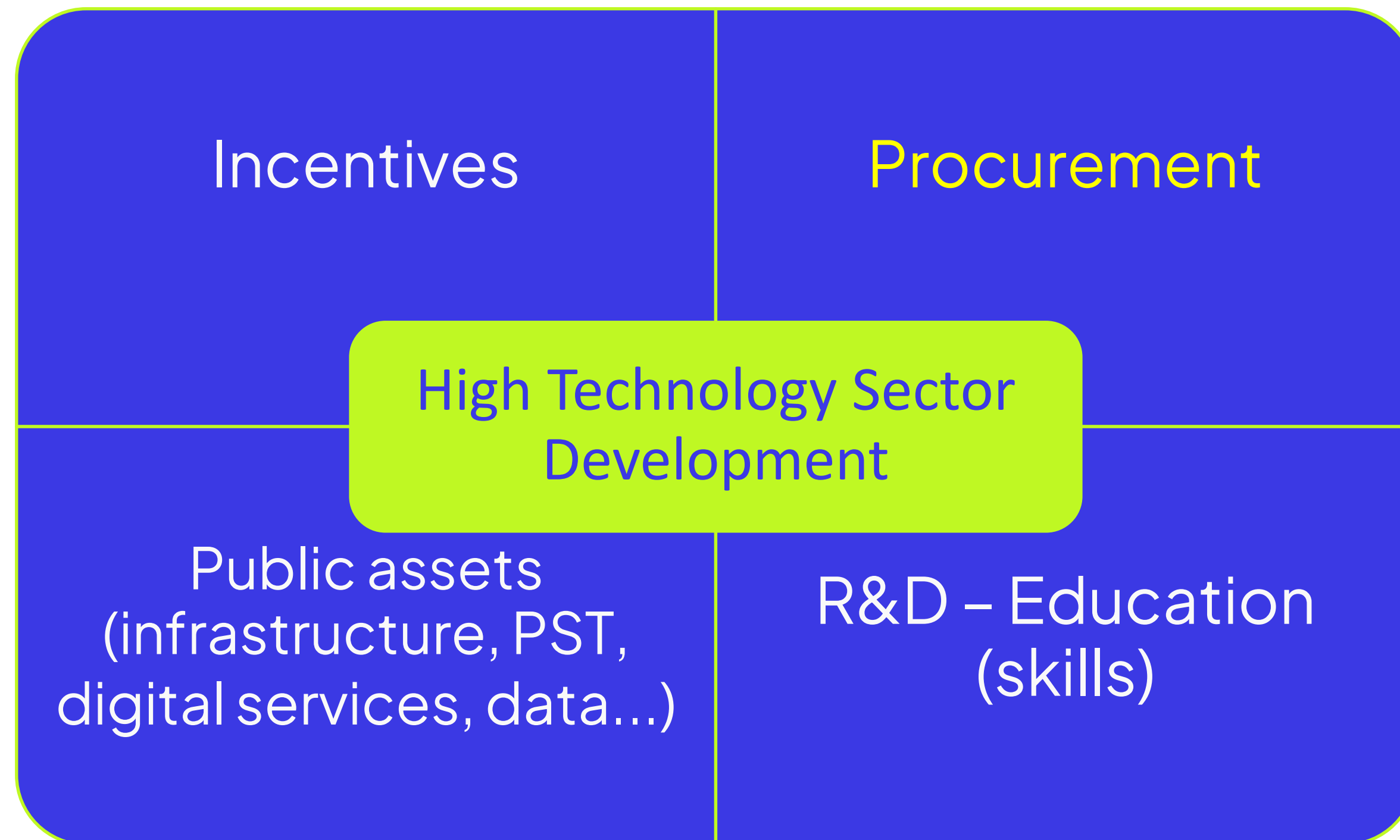


High scores in GovTech Maturity Index



27% PNRR (Next Generation EU) resources are dedicated to transformation, 6,74bil € for PA digitalization

# .GovTech is a lever for the development of a strategic sector



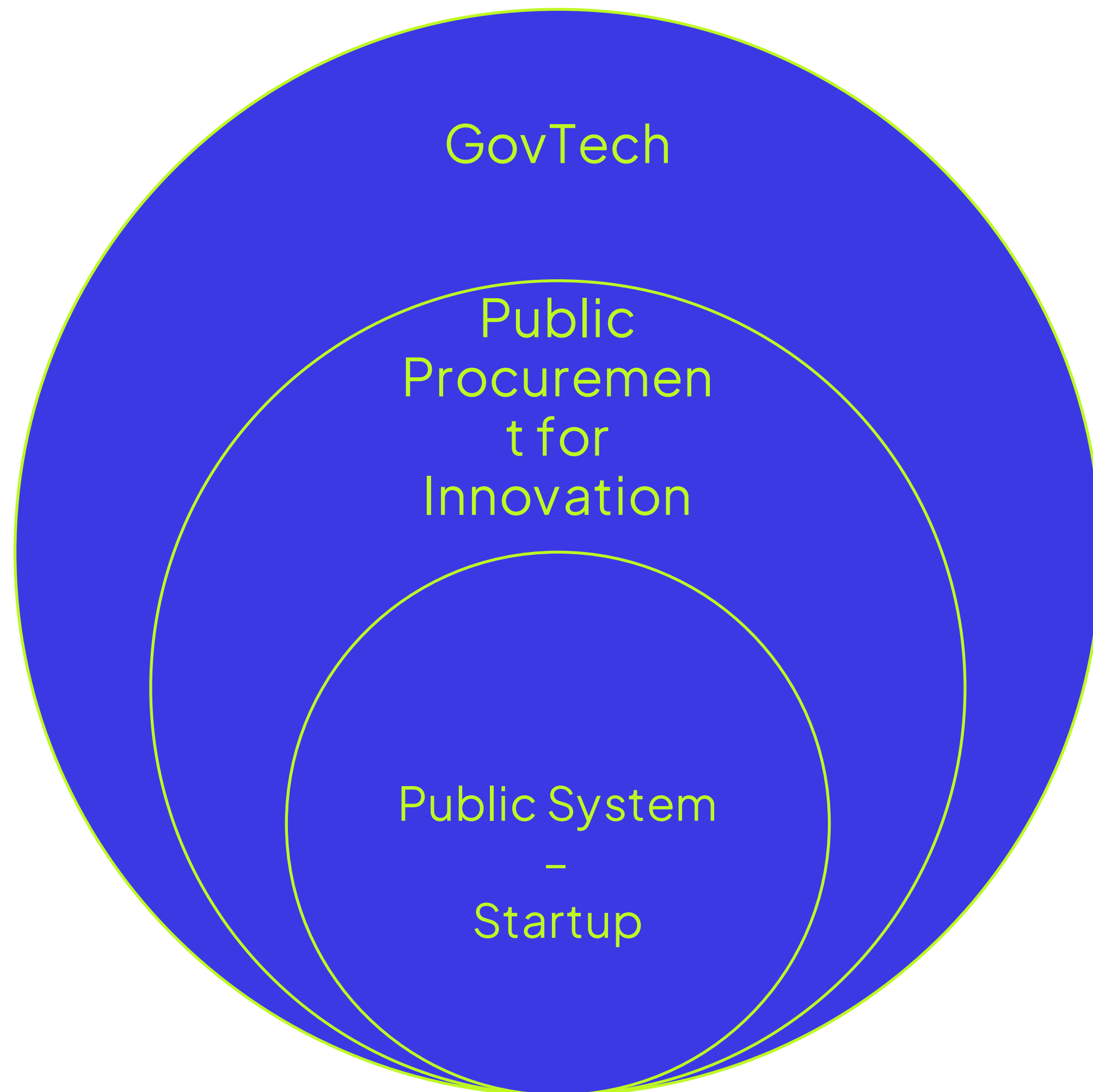
The local public market can be an important element for the stabilization and growth, even international, of startups.

An efficient and effective public system in innovative purchases is an asset for the country that can favor the development of platforms that aspire to become international champions, and platforms are soft power and geopolitical levers.

NEXT GENERATION  
EU

*Italy 2030 - a leader in the production of tech and software?*

# .Study's scope and reasons



- Public purchases account for 14% of GDP in the EU (€2 trillion)
- Current topic (progress of PNRR projects, difficulties in procurement and skills in managing innovation in the PA, additional accounting controls)
- Considering the role of the public system as a market is essential to understand if there is an economic incentive for a GovTech ecosystem





A narrow  
observation  
point, on a wide  
panorama

# Public Procurement for Innovation

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## 2. Research models and design

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# .How the public system buys in Italy

The purchasing methods of the Public Administration in Italy are governed by the [Procurement Code](#) (Legislative Decree 50/2016, from 1st April 2023 replaced by Legislative Decree 36/2023), which is part of the European regulatory framework, and in particular, from 18 April 2016:

[Directive 2014/24/EU](#) on public procurement;

[Directive 2014/25/EU](#) on procurement by entities operating in the water, energy, transport and postal services sectors;

[Directive 2014/23/EU](#) on the award of concession contracts.

The new procurement code will enter into force on 1st July 2023.

- Direct assignments
- Open procedure
- Restricted procedure
- Competitive procedure with negotiation
- Negotiated procedure without notice's publication
- Competitive dialogue
- Innovation partnership
- Pre-commercial procurement
- E-procurement marketplace
- CONSIP tenders and other Central Purchasing Centres

# .Integrated elements of an exploratory study

Subject of investigation	Methodology
Contracts between the public system and innovative startups	Analysis of the contracts stipulated 2019 to 2022 between Startups / innovative SMEs and the public system.
Understanding of the GovTech context and traditional and innovative procurement in Italy	Desk research and in-depth interviews with experts
Opinions, attitudes and experiences of the ecosystem towards startups and PP4I	In-depth interviews with ecosystem players
Opinions, attitudes and experiences of innovative startups towards the public system as a market	Structured quantitative survey (self-administered CAWI) among Startups and Innovative SMEs

10.000  
PROCUREMENT  
CONTRACTS

31  
EXPERTS, INVESTORS,  
CENTRAL AND LOCAL PA  
OFFICIALS, CORPORATE

100  
STARTUP/SME  
(INNOVATIVE)

This research has an exploratory purpose and does not statistically represent a sample of the system's stakeholders. The results have the value of representation not representativeness. Their value and relevance is based on the quality, experience and diversification of cases and experts involved rather than on a statistical-probabilistic logic of sampling a universe that, among other things, would be large, rapidly changing and therefore difficult to map / photograph. These results should be considered as a starting point compared to what has happened so far and appreciated for the organicity, uniqueness, articulation of themes, points of view and sources of information.

# .Public System attractiveness as a market

## Economic materiality

- Relevance
- Available budgets
- Profitability

## Strategic

- Attractiveness
- Propensity for innovation
- Positive impact on corporate image

## Quality of interaction

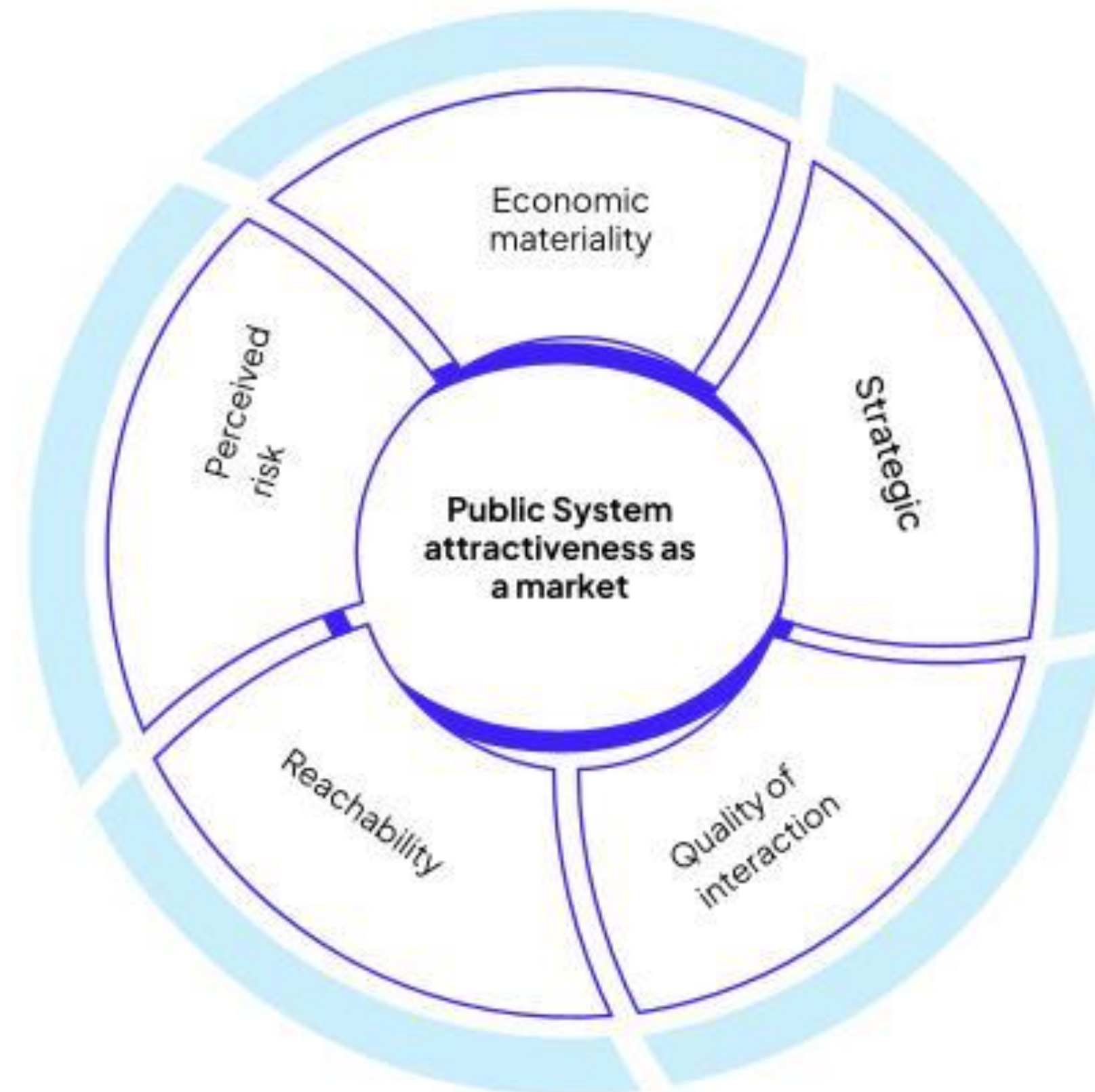
- Preparation in evaluations
- Competence in purchasing choices
- Certainty of procedure
- Transparency

## Reachability

- Easy access
- Ability to operate

## Perceived risk

- Riskiness
- Reliability in payments
- Confidence
- Certainty of payment time



Why does an entrepreneur choose to work with the public sector?

The more favorable these parameters are, the higher the attractiveness will be; The more problematic the combination of these elements, the less the incentive to start a business aimed at the public system will be.

# Public Procurement of Innovation

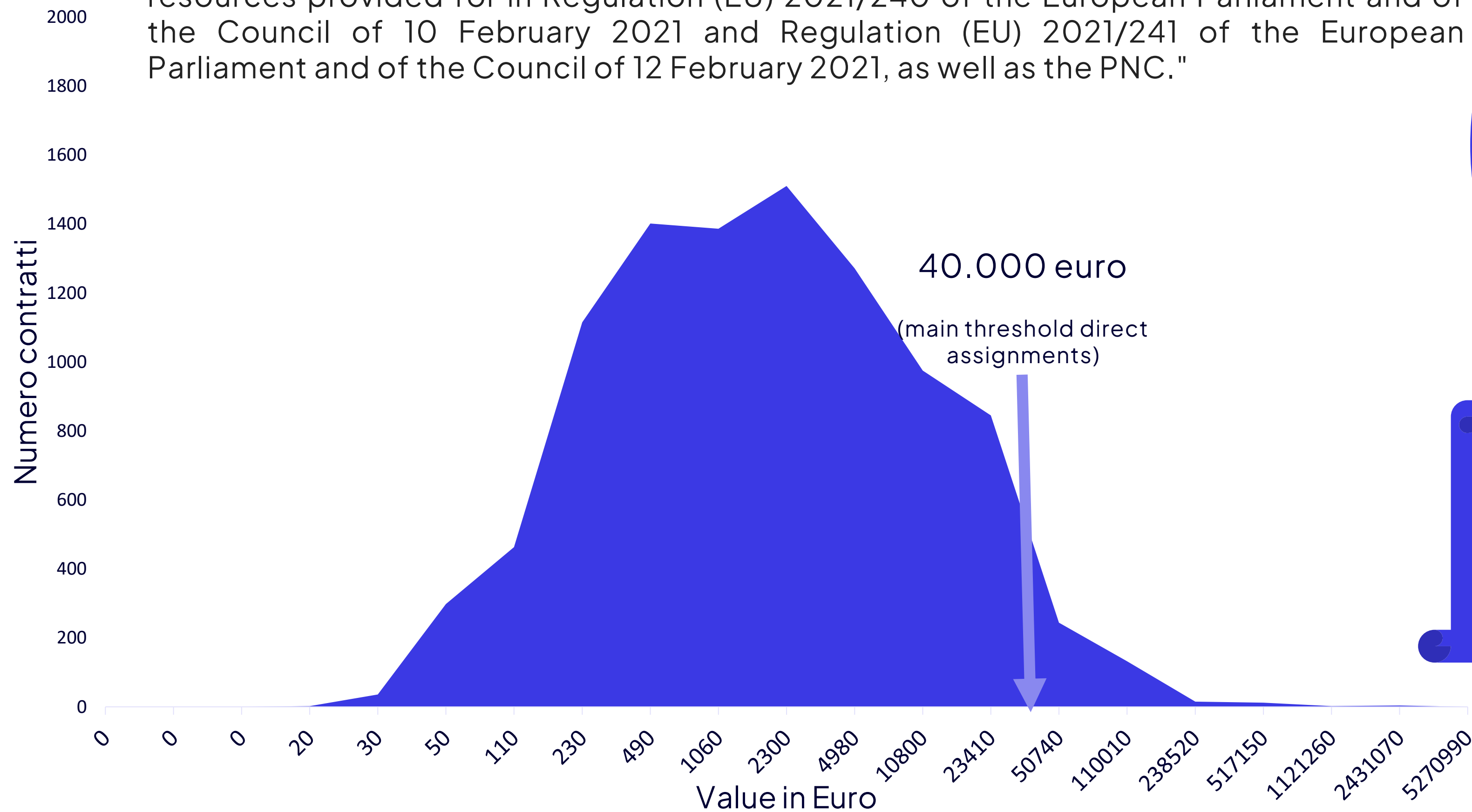
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## 3. Results

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# .Materiality of contracts awarded to innovative startups

The impact of the PNRR is visible: the most relevant tender indicates "The contract is related to a project and/or programm financed by European Union funds, [...] with the resources provided for in Regulation (EU) 2021/240 of the European Parliament and of the Council of 10 February 2021 and Regulation (EU) 2021/241 of the European Parliament and of the Council of 12 February 2021, as well as the PNC."



**8.85**  
**%**  
STARTUP – AT  
LEAST ONE  
CONTRACT

Average value  
**13.244 €**

CA **4,6**  
BILLIONS € IN  
RTI  
(E.G. CONSIP  
CLOUD AND  
DIGITAL  
HEALTH)

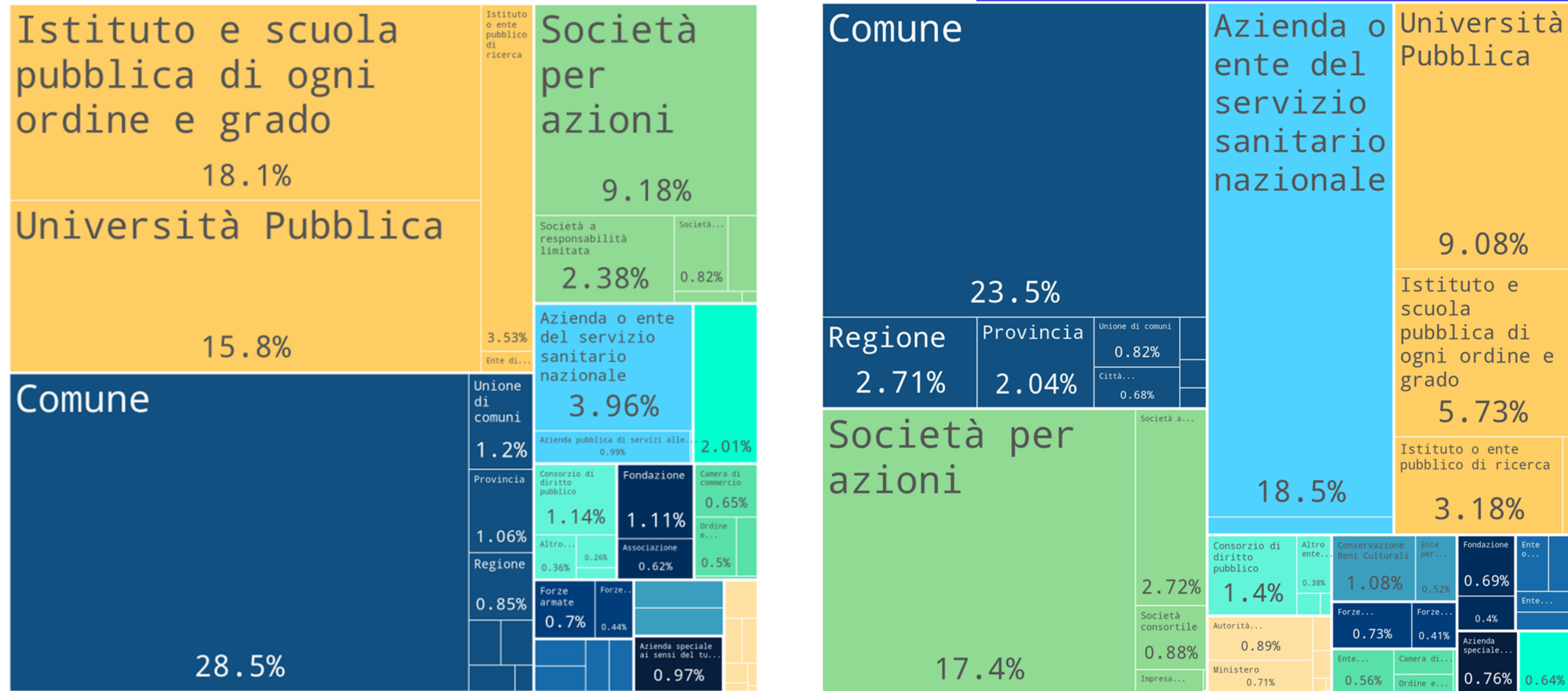
CA **54**  
€ MILLION  
WITHOUT  
RTI

The SpazioDati ContrattiPubblici.org platform integrates all the information available on public procurement in Italy, starting from what the individual Italian contracting authorities and ANAC publish in accordance with current legislation on transparency and anti-corruption. Thanks to this dataset, it was possible to analyze the contracts awarded to innovative startups. Innovative companies registered in January 2023 were considered.

# .Fragmented contracting authorities, municipalities and the "bigger spenders"

Considering the number of contracts **schools and universities** made, the most important buyer is made up of, then come the municipalities; both, numerically very consistent entities. It is, therefore, many **separated and fragmented purchases**

Considering the value of the **contracts**, the municipalities have a greater share and then **the investee companies**, the latter make contracts of greater amounts, third place on the "podium" the companies of the national health service.



**What does the PA buy from innovative startups?**

- IT services
- Innovative architectural services
- Education and training services
- Software packages
- Business services (legal, marketing services)





## Startup: 100 structured interviews (web) + 6 in-depth interview

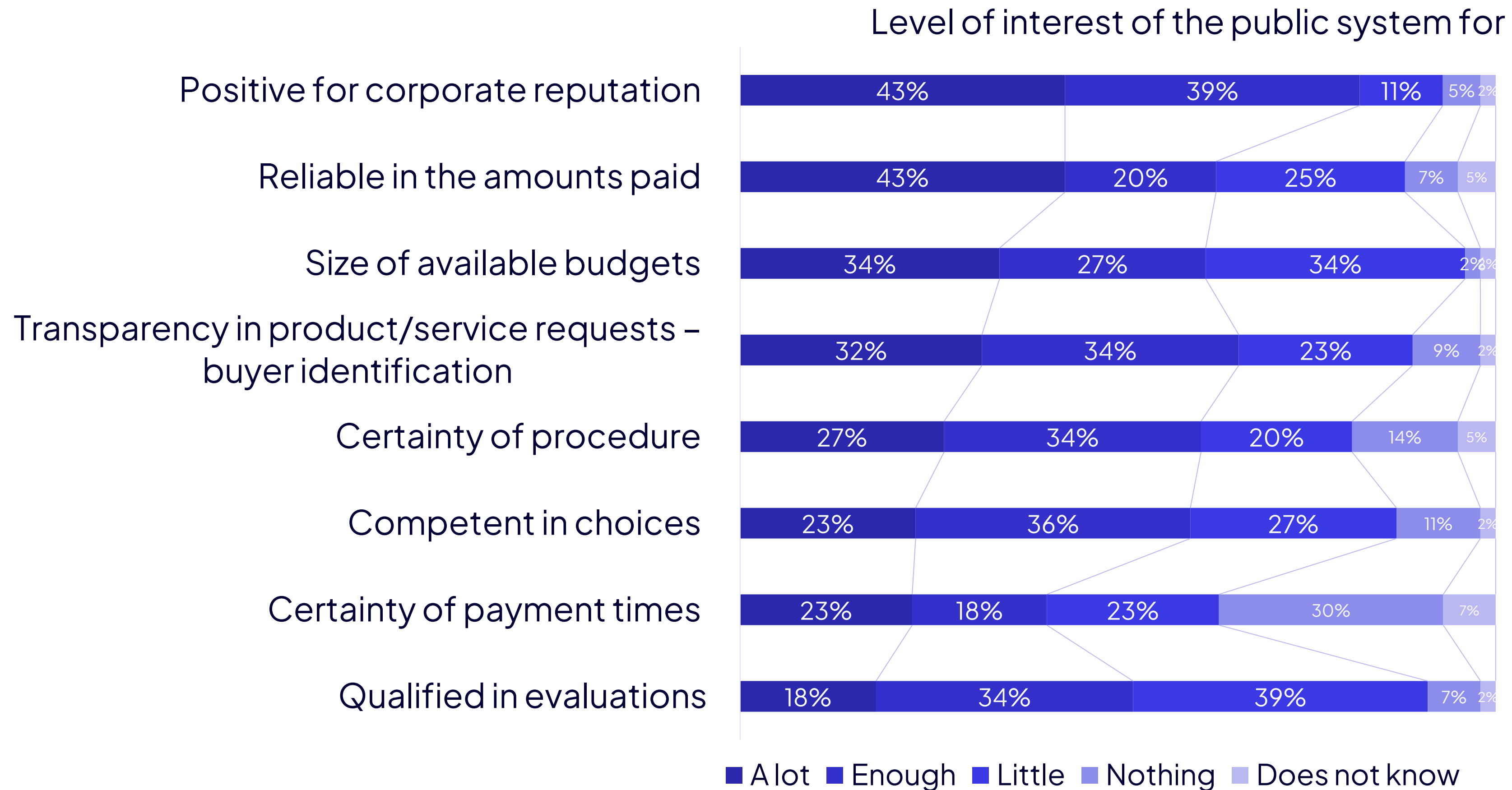
The startups interviewed are small and young companies, mostly small-cap:

- 45% are under 3 years old
- half invoice less than 250k €
- Few raised capital from third-party sources, mostly in a pre-seed/seed internship.

Most see the *public system* as a potential market, but it *is not the only nor the main one for more than half*.

The reference technologies are very varied with a slightly higher concentration in the *health-tech and edu-tech sectors*.

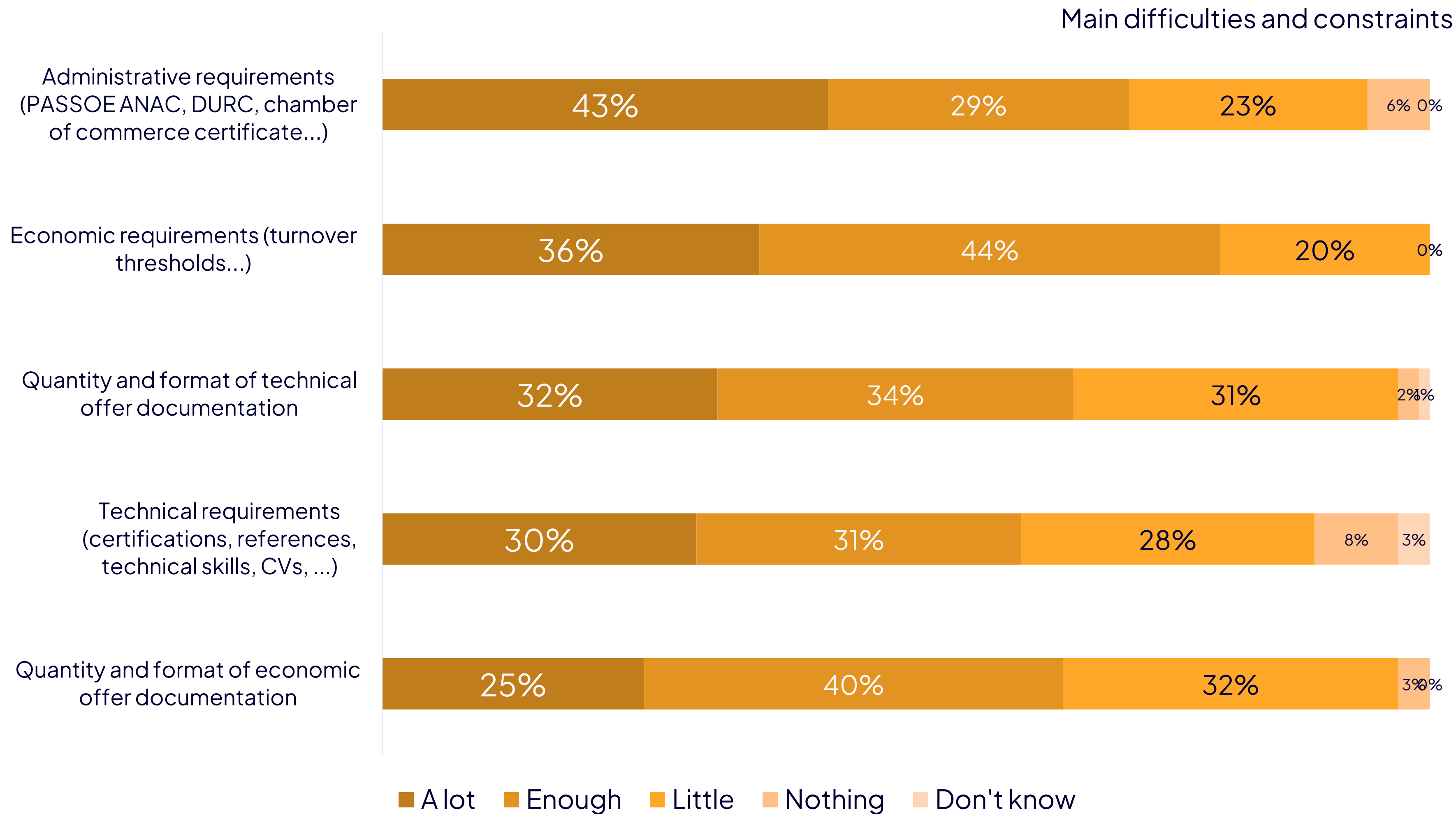
# .Public System: good reputation, gap on skills and payment times



"It's hard to agree on the workflow; the PA has its own "non-process" to manage the activity. The complexity of the organization and internal governance levels makes it difficult to configure the platform and other context activities."  
(STARTUP)

"The biggest problem is not the know-how because they have it internally, but the interaction with the organization. The project times [and therefore the effort to deliver it, ED] are longer."  
(STARTUP)

# .Multiple technical difficulties in accessing – most recurrent and easiest – more annoying

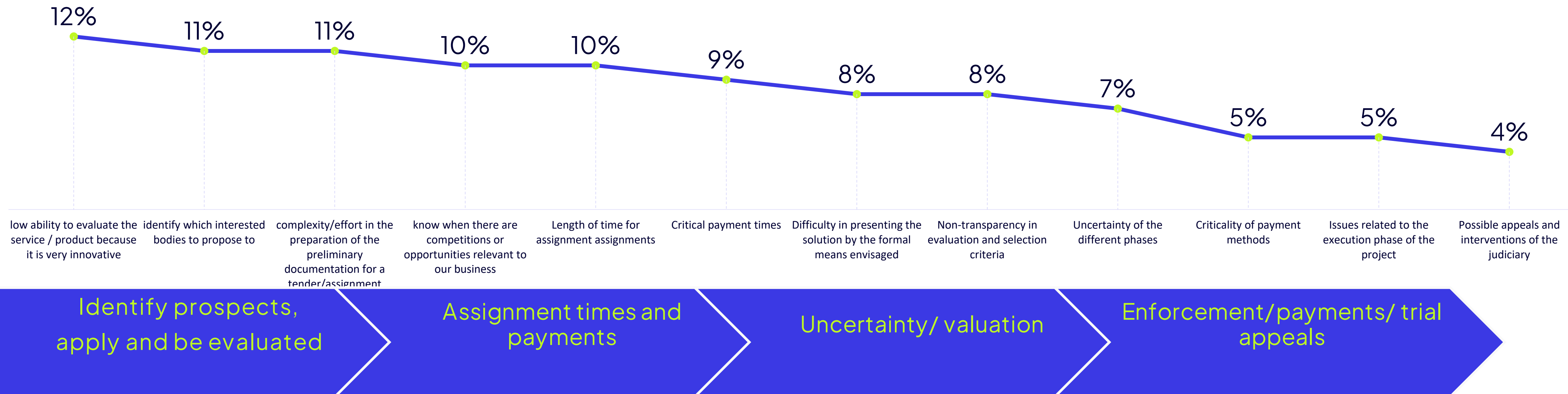


"There are recurring and objective problems such as the low quality of digital platforms through which to interact. In addition to being poorly functional, they freeze, or work only with one browser but not with all. We need to put our hands on the quality of non-performing infrastructures".  
(STARTUP)

"The diversification of portals in the health sector on a regional basis multiplies the differences, the fragmentation." (STARTUP)

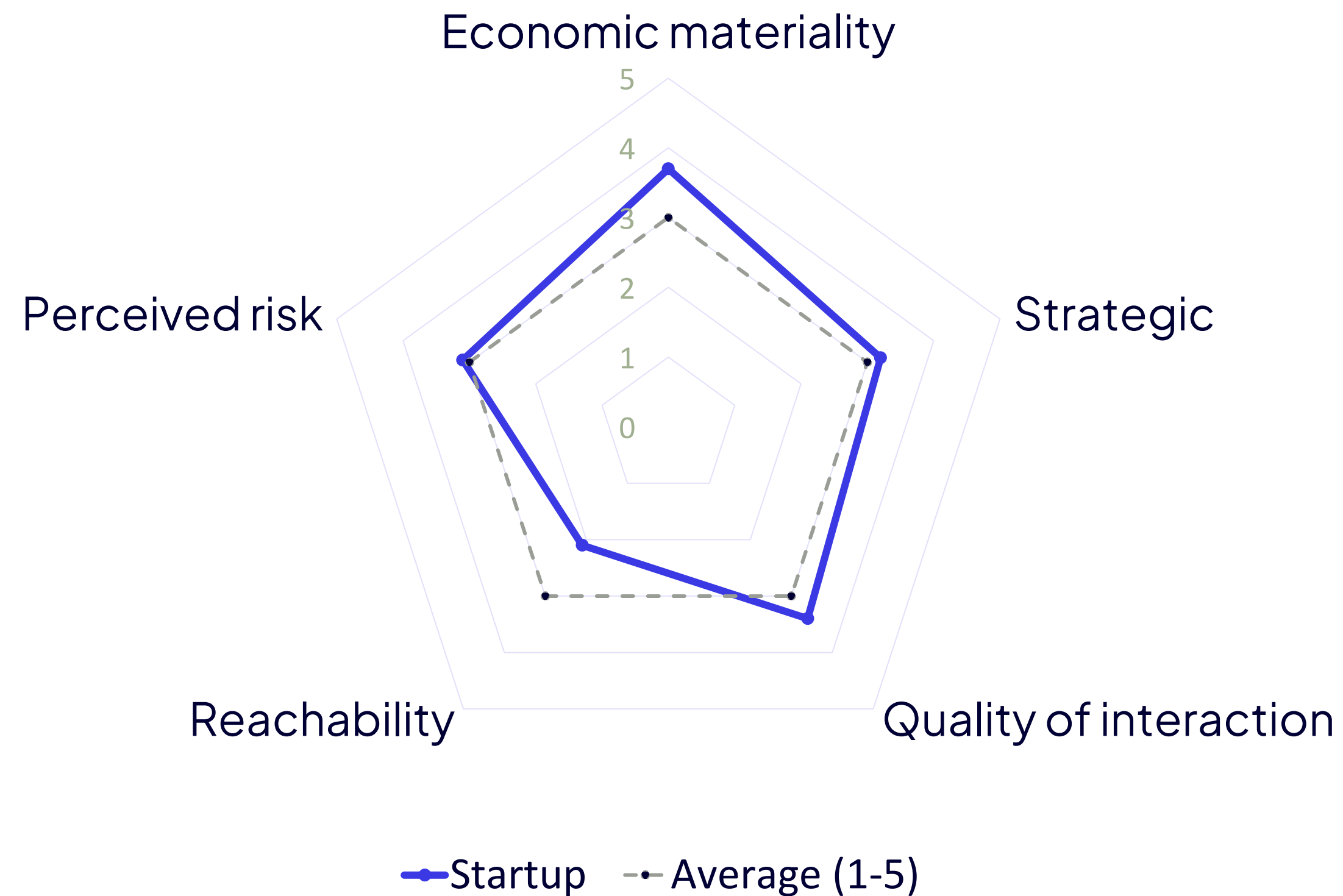
# .Main problems and risks at the beginning and at the basics of the engagement

"A recurring problem falls into the area of manageriality. Investee companies are often more agile and enterprising at an early stage. Then they become elusive: multiple meetings where it is not possible to explain the need, the goal, the path. These meetings are attended by many people whose role and contribution is neither clear nor aligned, often without defining who the decision-maker is. These meetings, which cost us time and effort, are no longer followed up, without explaining the reason." (STARTUP)



# .Public System: strategic customer, attractive budgets, positive interactions, but risky and difficult to reach

Attractiveness of the public system  
as a market (scale 1-5)



"The most important and critical element is the timing of the procedure, the interlocution for approval has uncertain times that make it difficult to plan" (STARTUP)

"Municipalities are struggling to evaluate the legal possibility of authorizing our solution because they are not up to date on the latest regulations" (STARTUP)

"They want to transform the product-the service to frame it in the classifier schemes, in the formal grids, in the procedures".  
(STARTUP)



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## Public administration: 25 in-depth video interviews

The perspective of the PA was investigated through in-depth interviews of at least 30 minutes with 14 entities, following a predefined interview grid, but with ample room for flexibility with respect to the specificities of the institutions (specific cases, experiences, type of interlocutor - more technical or more political).

Local authorities (small municipalities, capital municipalities), second-level bodies and central authorities participated.

# . The challenge of innovation on the PA agenda

From the interviews conducted emerges

A high awareness of how **pervasive, continuous and relevant innovation** has become also in the PA and in its own business

The concreteness of various **organizational and procedural challenges**

The trade-off between **innovation risks and the need for results**

Criticality of a current phase of **extraordinary availability of resources to be spent in a short time**

Startups are considered one of the levers, with a very differentiated weight depending on the institution

The central role of **leadership**

"Thanks to the strong innovative and research environment, the municipal administration can make use of research institutions and start-ups to experiment with innovative solutions not present on the market (collaboration agreements, etc.) also through European projects."  
(PA)

"The subjects involved may vary: you can interact with consolidated players on the market as well as with new realities / innovative start-ups. A particularly important theme at this time is user centricity and how to adapt services to this paradigm."  
(PA)

# .Difficulties of the PA: skills, project management, scaling

## Perceived difficulties

Lack of **skills** in the PA **to evaluate** the goodness of frontier technological solutions

Lack of **skills** in the PA **to manage** innovation projects

Difficulty in **assessing the technical capacity** of the startup to implement the solution

**Gap between prototype solutions and large-scale roll-outs**, exacerbated by the low organizational capacity of the startup and sometimes also of the PA

Finally, the onerous nature of **internal times and procedures** to be fulfilled

"The difficulty of dialogue between PA and startup is not so much in the procedures as, instead, in the technical elements. Unfortunately, there are not enough resources in the PA free from the management of ordinary and current funded projects to be dedicated to following innovative programs proposed by startups."

(PA)

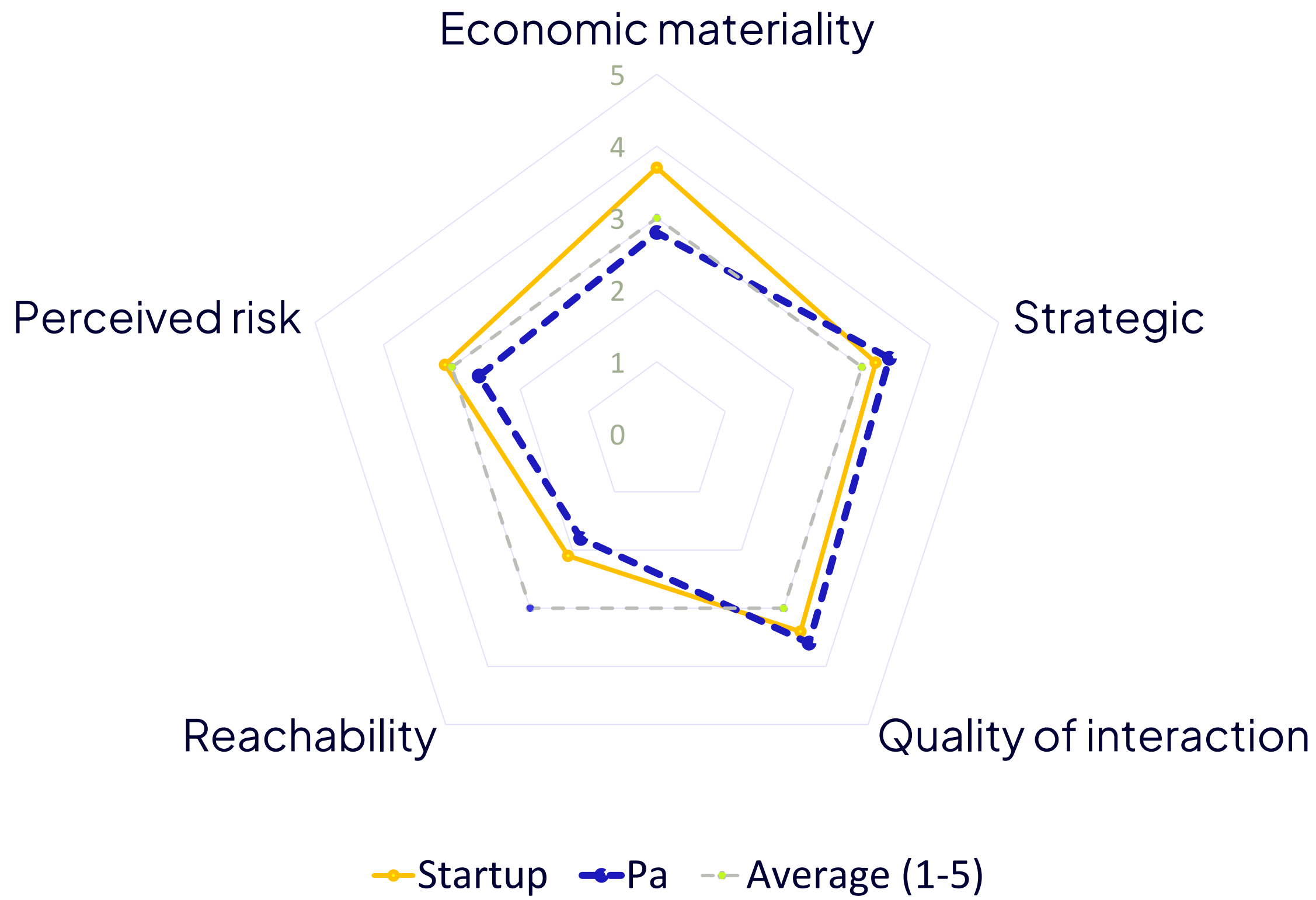
«The reporting, especially of European funds, requires a truly significant amount of time and effort, often to the detriment of that dedicated to the actual realization of the project.»

(PA)



. The PA feels "unreachable" for startups, although able to interact and strategic for their development; Low risk.

Attractiveness of the public system as a market (scale 1-5)



The PA has a vision of itself as a market for startups similar to that of potential innovation providers.

Hence the push to find "outsourced or intermediated" modes of interaction.

PA and Startup would mutually benefit by improvements.



## Enablers: 3 in-depth video interviews

The perspective of the enablers was investigated through in-depth interviews of at least 30 minutes with 3 entities, following a predefined interview grid, but with ample room for flexibility with respect to the specificities of the institutions (specific cases, experiences, type of interlocutor - more technical or more political).

Investors and Accelerators participated. Due to their size and strategic importance, we also listened to two large corporations of the public system.



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## Public system collaboration - startup

# .Innovation strategies



CITTA' DI TORINO

City Lab for  
continuous  
listening



Stage & gate  
process with POC  
and tender  
procedure



A department  
dedicated to  
innovation, research  
and startups



Innovation at the  
center, startups to  
explore the frontier



Open innovation as  
a leader in the PA



Tailor-made open  
innovation  
processes



CAMERA DI  
COMMERCIO  
MILANO

Intermediated and  
outsourced innovation  
Procurement

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# .PA and startups: trends in the diversity of approaches

## Local authorities

- Prevailing perception of the role of policy designers and providers of **programs to support entrepreneurship**
- Startups as a lever for innovation come second
- **Cities** play a central role in the creation of local **GovTech ecosystems**, as protagonists or promoters of multi-stakeholder collaboration schemes

## Central bodies

- Startups are a lever to **explore frontier niches**
- The bodies responsible for innovation for the public system have a **greater maturity in the relationship** with startups and are often the subjects to whom the scouting and validation of innovative solutions by other bodies is "delegated"

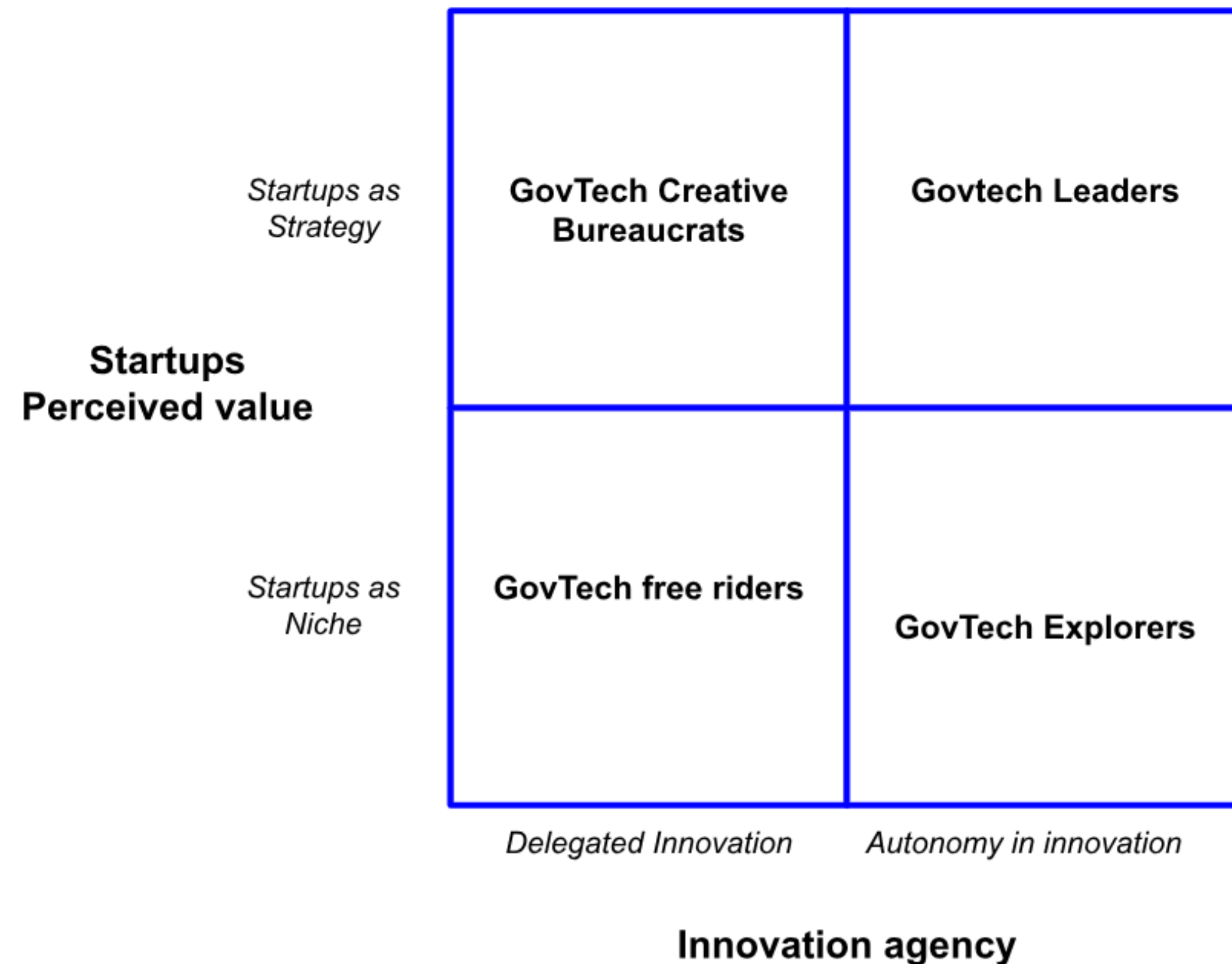
# Public Procurement for Innovation

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## 4. Conclusions

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# .Archetypes of collaboration between the public system and Startups



## PERCEIVED VALUE IN STARTUPS

Startup as a strategy - Startup as a niche

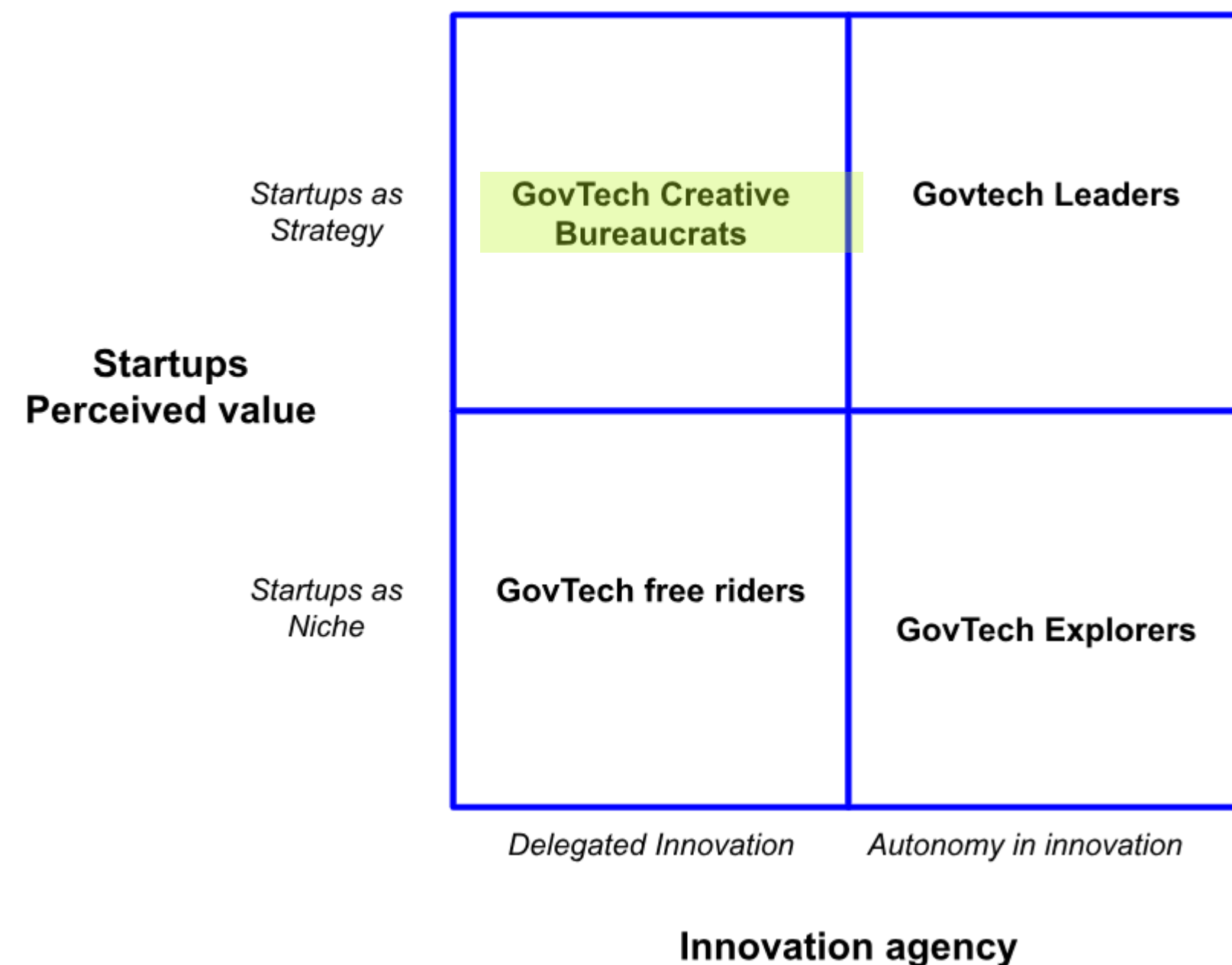
The vertical axis describes attitudes and perceptions of value, reliability, technical capacity and trust in startup companies, compared to startups, in relation to traditional suppliers.

## INNOVATION AGENCY

Delegated innovation - Autonomy in innovation

Agency is the ability to act autonomously (Emirbayer & Mische 1998; Ahrne 1990). With innovation agency we mean the ability to act autonomously

# Profiles: GovTech Creative Bureaucrats

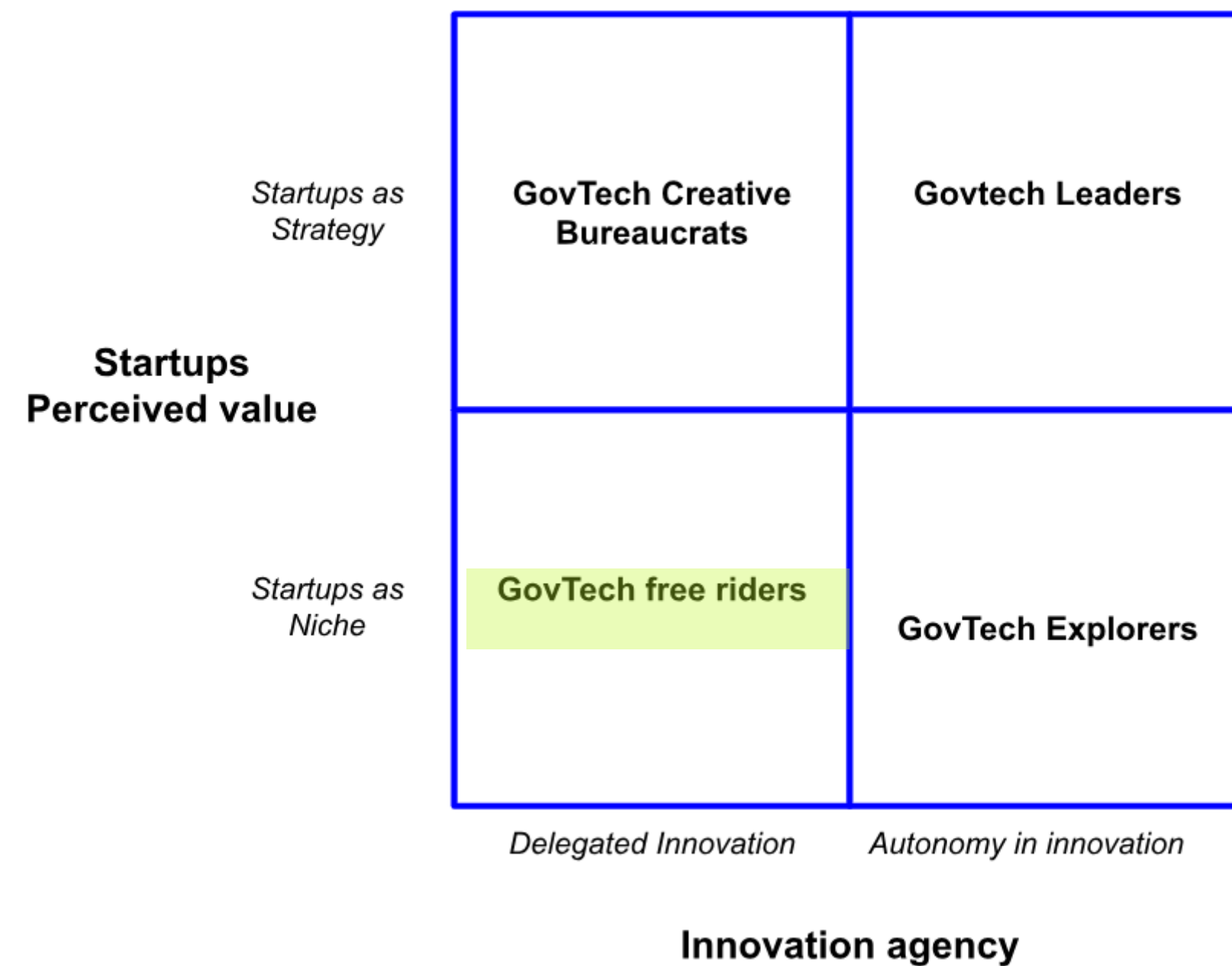


## KEY FEATURES

- Limited economic and technical resources
- Startup great opportunity, also recognize intrinsic value;
- "they would like but cannot";
- Intermediaries (ecosystem enablers, investee companies, ...) to meet startups and experiments;
- They are looking for ways to GovTech leadership.



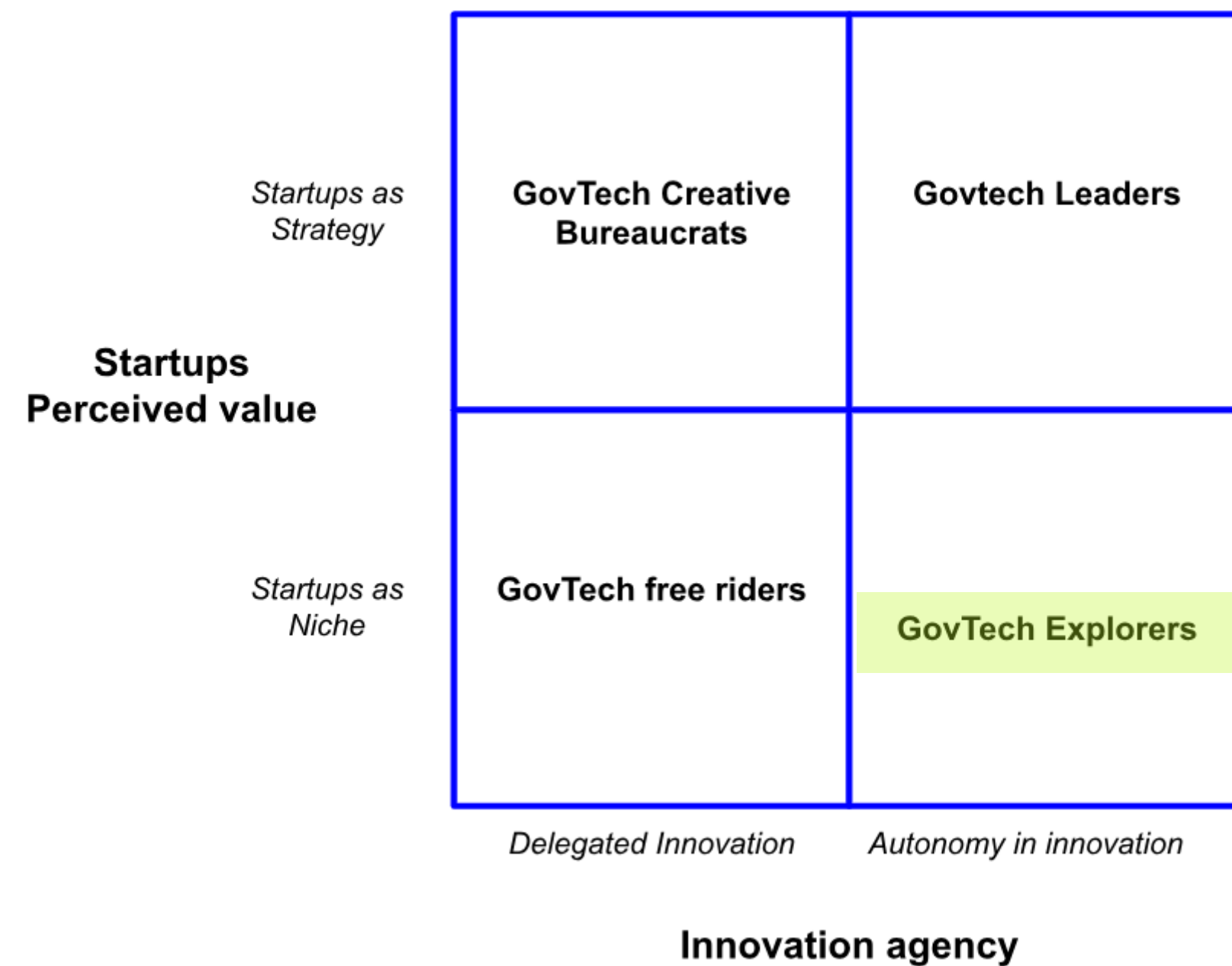
# Profiles: GovTech Free rider



## KEY FEATURES

- They delegate research/proposal of innovative solutions to purchasing centers, market intermediaries, or suppliers;
- Indirectly benefit from GovTech
- They minimize the risks and costs of dealing with startups.

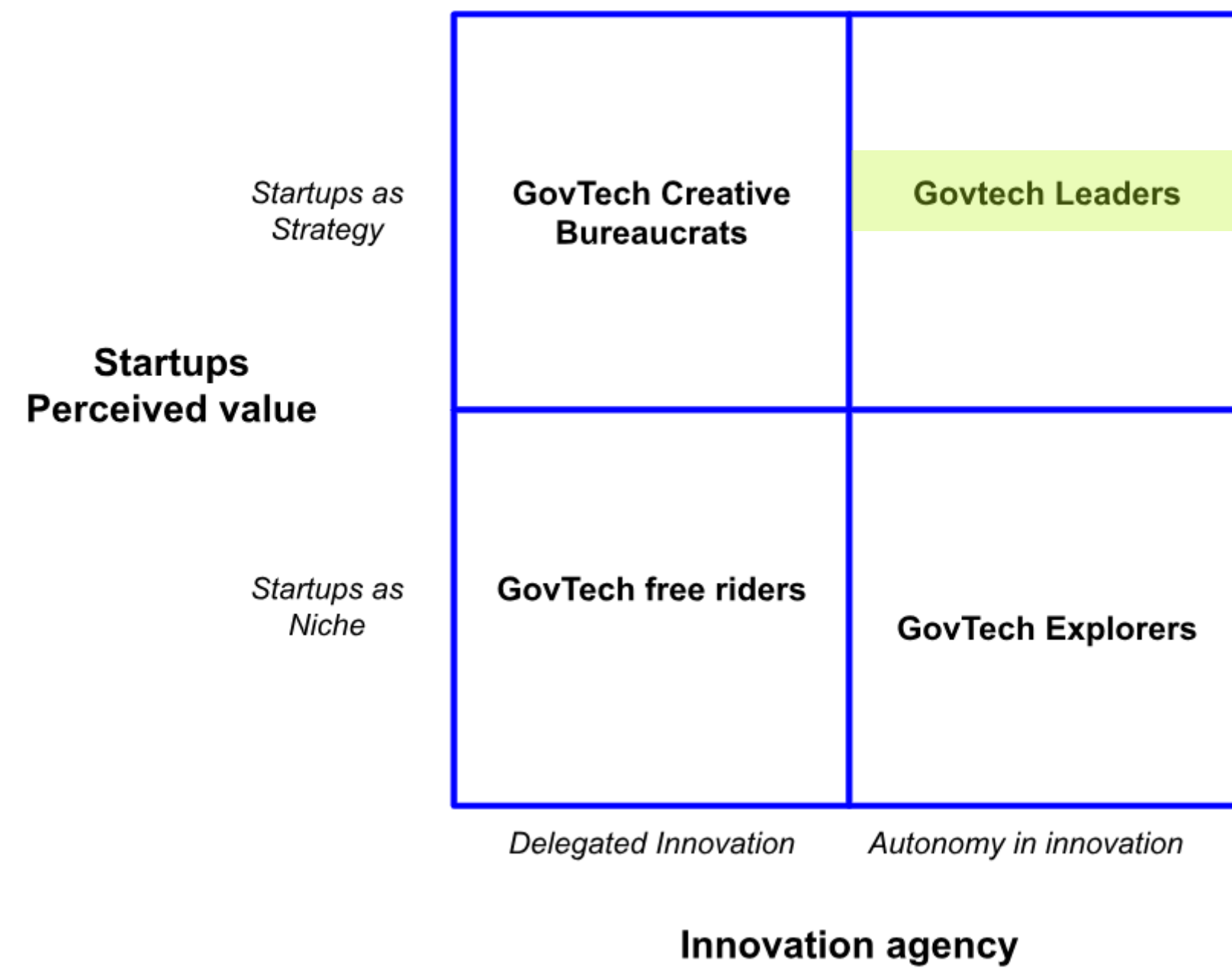
# Profiles: GovTech Explorers



## KEY FEATURES

- Interested in exploring the border;
- Startups not at the center of their strategy (average resources, controlled risks, uncertain return);
- Small direct assignments to experiment
- They stimulate structured suppliers to include startups in RTI.

# Profiles: Leader del GovTech



## KEY FEATURES

- Appropriate economic resources and skills;
- They network internationally with enablers and ecosystem brokers;
- They indicate the direction;
- Promote open innovation programs;
- They adopt a mix of procurement methods;
- Codified a formal strategy (processes and governance);
- Often "delegated" by others to drive innovation for them.

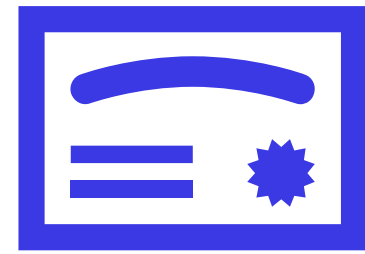
# Public Procurement for Innovation

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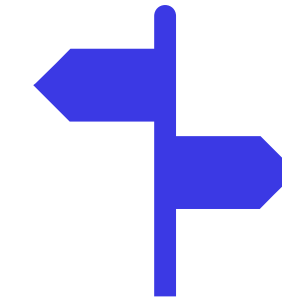
## 5. Policy recommendations

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# . Policy proposals to support the development of GovTech



Capacity building actions on a scale to a critical mass of public officials, especially qualified contracting stations, focused on innovation and collaboration models with startups



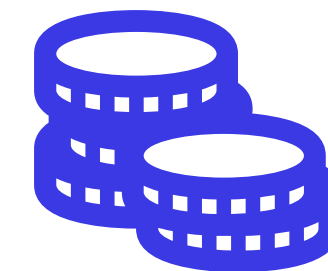
Simplifying access to the public market (transparency of demand, methods of engagement, document effort, digitalization of processes in "once only" logic)



Increase horizontal co-ordination actions

as organizational logic, with market access criteria and "extended" licenses to operate with interoperable information systems

systematization and sharing of problems and solutions between administrations



Enable the development of a capital market that explicitly supports GovTech startups

# Public Procurement for Innovation

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## 6. Future research

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# .feel's research agenda

## GovTech demand

The GovTech ecosystem is based on the presence of a significant demand for frontier technological innovation from the public system. It is therefore necessary that the **issues are on policy maker's agenda**, that there is adequate endowment of resources, devices, awareness and skills to be able to act. The aim of this research track is to **understand the demand for innovation by the public system in Italy**.

## GovTech Radar

With the aim of concretely supporting public decision-makers and stakeholders in reading the opportunities offered by the GovTech context, this research track intends to map the **GovTech offer accessible from Italy**.

## The GovTech rainforest

This line of research aims to provide **concrete tools for policy makers** to create an ecosystem in which GovTech can thrive. The most vibrant innovative ecosystems in the world are similar to a rainforest (Hwang & Horowitz 2012), where the diversity and coexistence of supply and demand that share a rich context of enablers, make **possible the development of a relational culture that favors innovation**.

# Public Procurement for Innovation

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## 7. Participants and thanks

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# .Research participants and thanks

## PA:

Comune Firenze  
Comune Malnate (VA)  
Comune Milano  
Comune Torino  
Comune Trento  
Regione Campania  
Regione Puglia  
Regione Toscana  
Inail  
Unibicocca  
Camera di Commercio di  
Milano  
Infocamere

## Corporate:

CDP Spa  
Eni Spa  
  
Startup:  
Acus  
Bipart  
Findyourdocto  
r  
Scuter  
To be  
WelFin

## Experts:

Orrick – international lawfirm  
Spaziodati

## Enablers

Digital Magics – Business incubator  
P101 – VC  
Rainmakers – Startup studio and venture accelerator

## Special thanks to:

012 factory-Graziella Portia, Almacube-Nicole Monti, ART-ER-Silvia Falciasecca, Bio4Dreams-Marco Gili, Bioindustry Park-Samantha Balma, Bocconi4Innovation-Ferruccio Martinelli, BP Cube-Enrico Battistelli, Camera di Commercio Bergamo-Giancarlo Merisio, Camera di Commercio Milano-Doris Ciliberti, Cariplo Factory-Riccardo Porro, Collège des Ingénieurs (CDI)-Piera Della Porta, ComoNEXt-Stefano Soliano, Comune di Milano-Layla Pavone, Confindustria Udine-Cristina Mattiussi, Crédit Agricole-Leonardo Del Mecio, Digital Hub-Antonio Procopio, Digital Magics-Alberto Fioravanti, Djungle-Alessandro Nasi, Dpixel-Stefano Azzalin, Elevator Hub-Matteo Pozzi, Entopan Innovation-Paola Ciccio, Environment Park-Davide Damosso, FILSE-Maria Nives Riggio, Fondazione Giacomo Brodolini-Fabio Sgaragli, Fondazione Golinelli-Antonio Danieli, Fondazione Ricerca & Imprenditorialità-Giovanni Maria Volpato, Fondazione UniMi-Roberto Tiezzi, Friuli Innovazione-Filippo Bianco, G2 Startups-Roberta Gilardi, Galileo Visionary District-Alessio Zini, Geo Smart Campus-Guido Fabbri, Giffoni Innovation Hub-Luca Tesauro, I3P - Innovative Companies Incubator of Politecnico Torino-Giuseppe Scellato, IC 406-Patrizio Altieri, Impact Hub Bari-Diego Antonacci, Impact Hub Milano-Marco Nannini, Impact Hub Trentino-Paolo Campagnano, Incubatore Campano-Pasquale Brancaccio, Industrio Ventures-Gabriele Paglialonga, Innesta-Tino Cutugno, Intesa Sanpaolo Innovation Center-Luca Pagetti, Istituto Italiano di Tecnologia-Matteo Bonfanti, Kilometro Rosso-Salvatore Majorana, Lazio Innova-Michela Giacobbi, Le Village by CA-Ermanno Manghi, Make a cube-Ilaria Pais, Marzotto Venture-Roberto Guida, MUG - Magazzini Generativi-Vittoria San Pietro, Noi Techpark-Iris Critelli, OGR Torino-Chiara Capotondi, Openzone-Federica Destro, Parco 3A-Luciano Concezzi, Parco Scientifico e Tecnologico della Sicilia-Giuseppe Scuderi, Peekaboo-Paolo Napolitano, PI Campus-Silvio Gulizia, Plug and Play-Andrea Zorretto, Polihub-Enrico Deluchi, Polo Tecnologico Alto Adriatico-Enrico Pusceddu, Polo Tecnologico di Navacchio-Andrea Di Benedetto, RedZone by SAES-Andrea Conte, Romagna Tech-Dario Monti, Sardegna Ricerche-Andrea Duranti, Seedble-Edoardo Marcis, Seedup-Alberto Celentano, SEI Ventures-Vincenzo Vitale, Sellalab-Stefano Azzalin, Simbiosi Tech-Vincenzo della Monica, Socialfare-Laura Orestano, Sogei-Andrea Isidori, Sogei-Cosimo del Plato, Sogei-Luca Gravante, Step Tech Park-Loredana Reniero, Tecnopolis PST-Annamaria Annicchiarico, The Hive-Giorgio Guidi, The Qube-Vanessa Coppola, Toscana Life Sciences-Francesco Senatore, Trentino Innovation Hub-Marco Senigalliesi, Trentino Sviluppo-Michele Tosi, Unicredit Startlab-Giusy Stanziola, Venisia-Claudio Colombo, Wylab-Vittoria Gozzi

Full report (ITALIAN):

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includes other stakeholder (like enables and corporate) point of view and analysis, cases of public sector-startup collaboration, Govtech startup information, full methodological note, list of respondents and special thanks list.

For further info, contact the co-founders:

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