



# **“ Smart City ” public policies : the key role of governance in public value creation**

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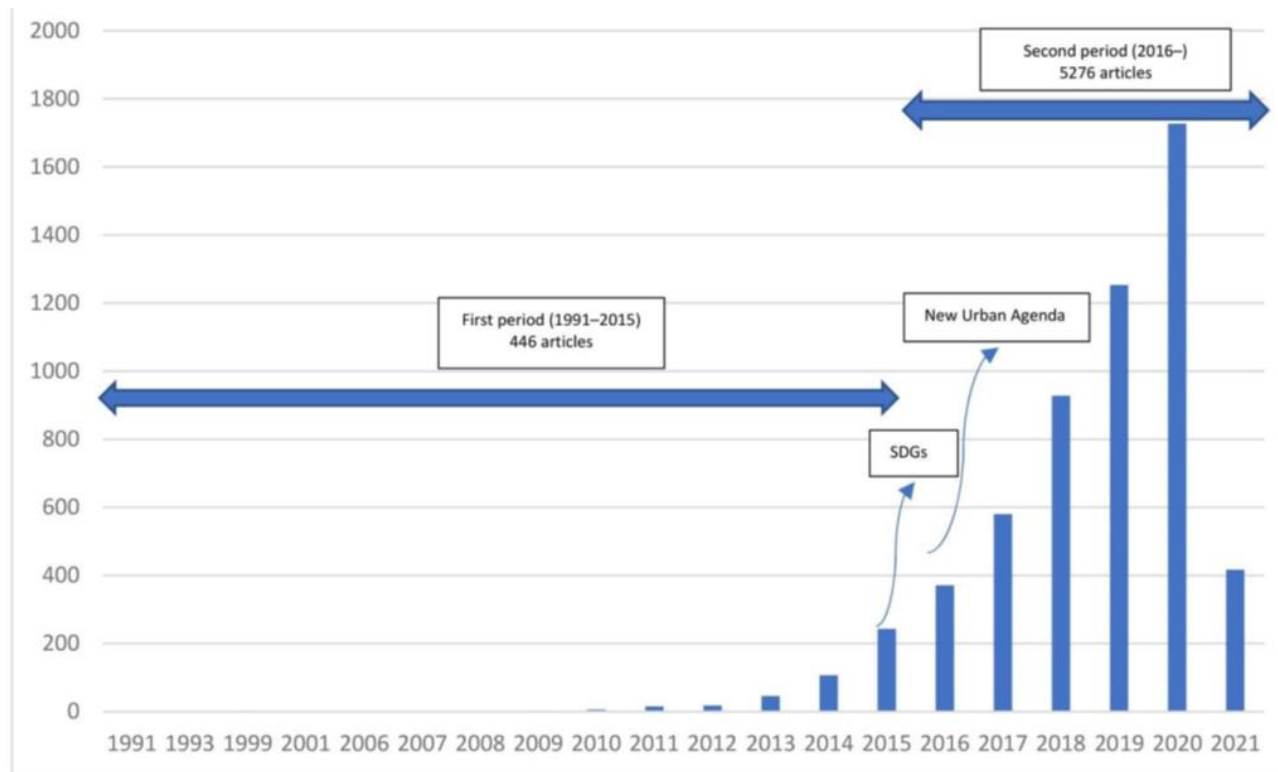
# « Smart City » public policies : the key role of governance in public value creation

**Pascal Frucquet – PhD Student in Management**

*under the supervision of David Carassus (Prof. IAE Pau-Bayonne),  
Didier Chabaud (Prof. IAE Paris-Sorbonne) and Pierre Marin (PhD in Management)*



- The « **Smart City** » concept has been spreading all around the world over the last fifteen years : the number of **academic publications** devoted to Smart City **has dramatically increased since 2015** across all disciplines (Sharifi and al. 2021, p.6)



Source : Sharifi et al. (2021)

- ❑ A **great diversity of definitions : more than 100 identified** in the literature (Ruhlandt 2018, p. 12-14 ; Lim and al. 2019, p. 10-12)
- ❑ Two **main common points** :
  - The positioning of **digital technologies and datas** at the service of all the **fields of activity and functions** of urban and territorial management
  - An **ambition to create multi-dimensional value** (Csukas and Szabo (2021))

Fig. 3: Characteristics and factors of a smart city

<b>SMART ECONOMY</b> (Competitiveness) <ul style="list-style-type: none"> <li>▪ Innovative spirit</li> <li>▪ Entrepreneurship</li> <li>▪ Economic image &amp; trademarks</li> <li>▪ Productivity</li> <li>▪ Flexibility of labour market</li> <li>▪ International embeddedness</li> <li>▪ <i>Ability to transform</i></li> </ul>	<b>SMART PEOPLE</b> (Social and Human Capital) <ul style="list-style-type: none"> <li>▪ Level of qualification</li> <li>▪ Affinity to life long learning</li> <li>▪ Social and ethnic plurality</li> <li>▪ Flexibility</li> <li>▪ Creativity</li> <li>▪ Cosmopolitanism/Open-mindedness</li> <li>▪ Participation in public life</li> </ul>
<b>SMART GOVERNANCE</b> (Participation) <ul style="list-style-type: none"> <li>▪ Participation in decision-making</li> <li>▪ Public and social services</li> <li>▪ Transparent governance</li> <li>▪ <i>Political strategies &amp; perspectives</i></li> </ul>	<b>SMART MOBILITY</b> (Transport and ICT) <ul style="list-style-type: none"> <li>▪ Local accessibility</li> <li>▪ (Inter-)national accessibility</li> <li>▪ Availability of ICT-infrastructure</li> <li>▪ Sustainable, innovative and safe transport systems</li> </ul>
<b>SMART ENVIRONMENT</b> (Natural resources) <ul style="list-style-type: none"> <li>▪ Attractivity of natural conditions</li> <li>▪ Pollution</li> <li>▪ Environmental protection</li> <li>▪ Sustainable resource management</li> </ul>	<b>SMART LIVING</b> (Quality of life) <ul style="list-style-type: none"> <li>▪ Cultural facilities</li> <li>▪ Health conditions</li> <li>▪ Individual safety</li> <li>▪ Housing quality</li> <li>▪ Education facilities</li> <li>▪ Touristic attractiveness</li> <li>▪ Social cohesion</li> </ul>

Source : Giffinger and al. (2007, p.12)

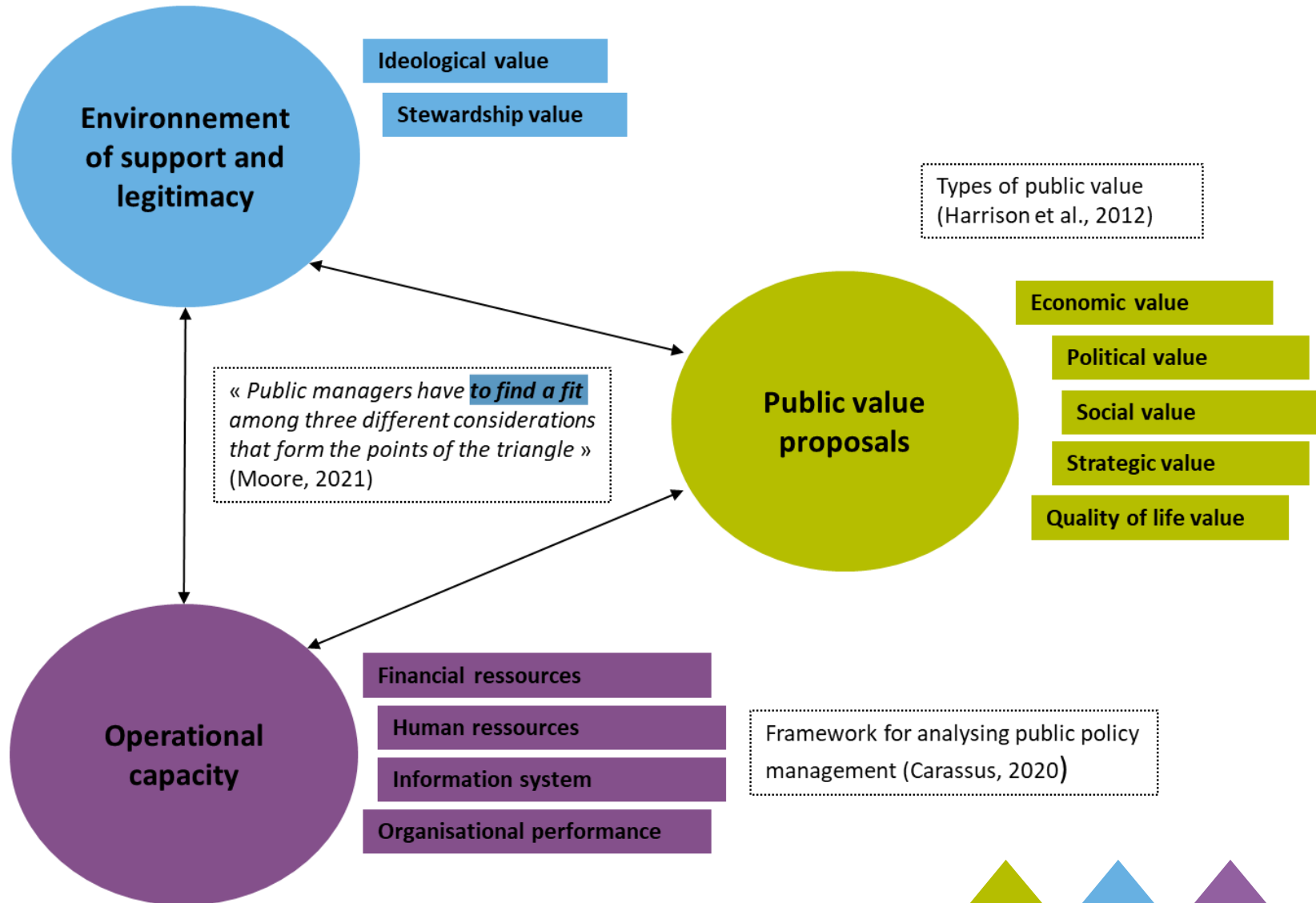
- ❑ The richness and the diversity of the **expected benefits** from Smart Cities led several authors, over the last 10 years, to invite researchers **to address the subject of Smart Cities from the point of view of public value theory** (Rodríguez Bolívar 2019)
- ❑ How can we define **public value** ?

*“A multi-dimensional **construct**, intended for **the community of citizens**, reflecting their **collectively expressed** and **politically mediated** preferences, not only produced through **outcomes** but also through **processes** that generate **trust** or **equity**.”(O’Flynn 2005 ; 2007)*

## ❑ The public value creation potential of Smart Cities

Csukas et Szabo (2021)		Harrison et al. (2012)	Jørgensen et Bozeman (2007)
Dimensions	Characteristics	Types of public value	Public values
Efficiency	<i>The superior performance of city systems, expressed in products, technologies and processes, and measurable with quantified parameters.</i>	Economic Strategic	Common good Public interest Robustness
Citizen (stakeholder) engagement	<i>Activities that are intended to involve non-elected citizens directly and their groups to the operation of city systems.</i>	Political Social Ideological Stewardship	Dialogue User democracy Citizen involvement Accountability
Quality of life	<i>Activities, directly providing better conditions for the citizens to pursue happiness in their daily life, considering their needs and experience in mind, resulting in wellbeing.</i>	Quality of life	Common good
Social inclusion and equality	<i>Activities, to realize social equality, providing better urban living conditions for all segments of the society, without discrimination.</i>	Social	Social cohesion Protection of minorities
Connectivity	<i>Activities to create information channels in-between humans and non-humans in order to interact with each other.</i>	Economic Social Strategic	Openness Responsiveness Listening to public opinion
Knowledge creation and sharing	<i>Activities that are supporting the accumulation and flow of local urban knowledge inbetween urban stakeholders, contributing to city intelligence.</i>	Economic Strategic	Cooperativeness
Cost reduction	<i>Activities that are specifically intended to replace or substitute an existing solution, to be operated in a less resource-intensive way.</i>	Economic Strategic	Productivity Parsimony
Scalability and transferability	<i>Activities that incorporate features, which makes them easy to extend, replicate and adapt in different contexts.</i>	Economic Strategic	Adaptability Innovation
Environmental impact	<i>Activities, with objectives related to contributing to environmental sustainability.</i>	Quality of life	Sustainability

## ❑ The « strategic triangle » (Moore, 1995)



- ❑ Among the great diversity of definitions **three dichotomies** (Komninos and Mora 2018) emerge from the review of the Smart City literature, **raising the question of governance**

***Technology-driven approach vs. Human-driven approach***

***Data-driven intelligence vs. Collective intelligence***

***Top-down planning vs. Bottom-up planning***

« **Governance** can be defined as **a process of coordination** of actors, social groups and institutions **to achieve goals** that are **discussed and defined collectively**. » (Le Galès, 2006)



- ❑ The literature on « **Smart Urban Governance** » has also experienced **a significant increase** over the last years (Allam and al. 2022)

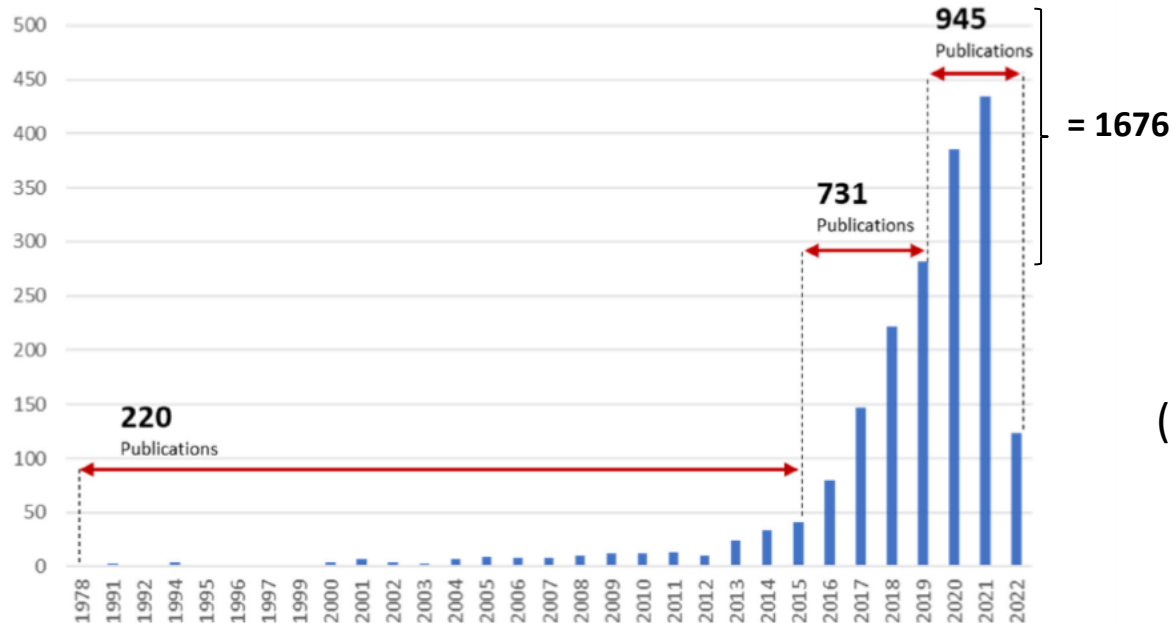


Figure 2. Number of publications on 'Smart Urban Governance' between 1978 and early 2022.

Source : Allan and al. (2022, p. 8)

« fragmentation »  
« conceptual swamp »  
(Meijer and Bolívar 2016)

« **Our current academic understanding of the management and governance of smart cities falls short** since the literature is rather polarized and is dominated by success stories and best practices. For this reason, **there is a need for a research-based understanding of the management and governance of smart cities.** » (Grossi, 2020)

*Context*

*Research  
Question*

*Research  
Framework*

*Methodology*

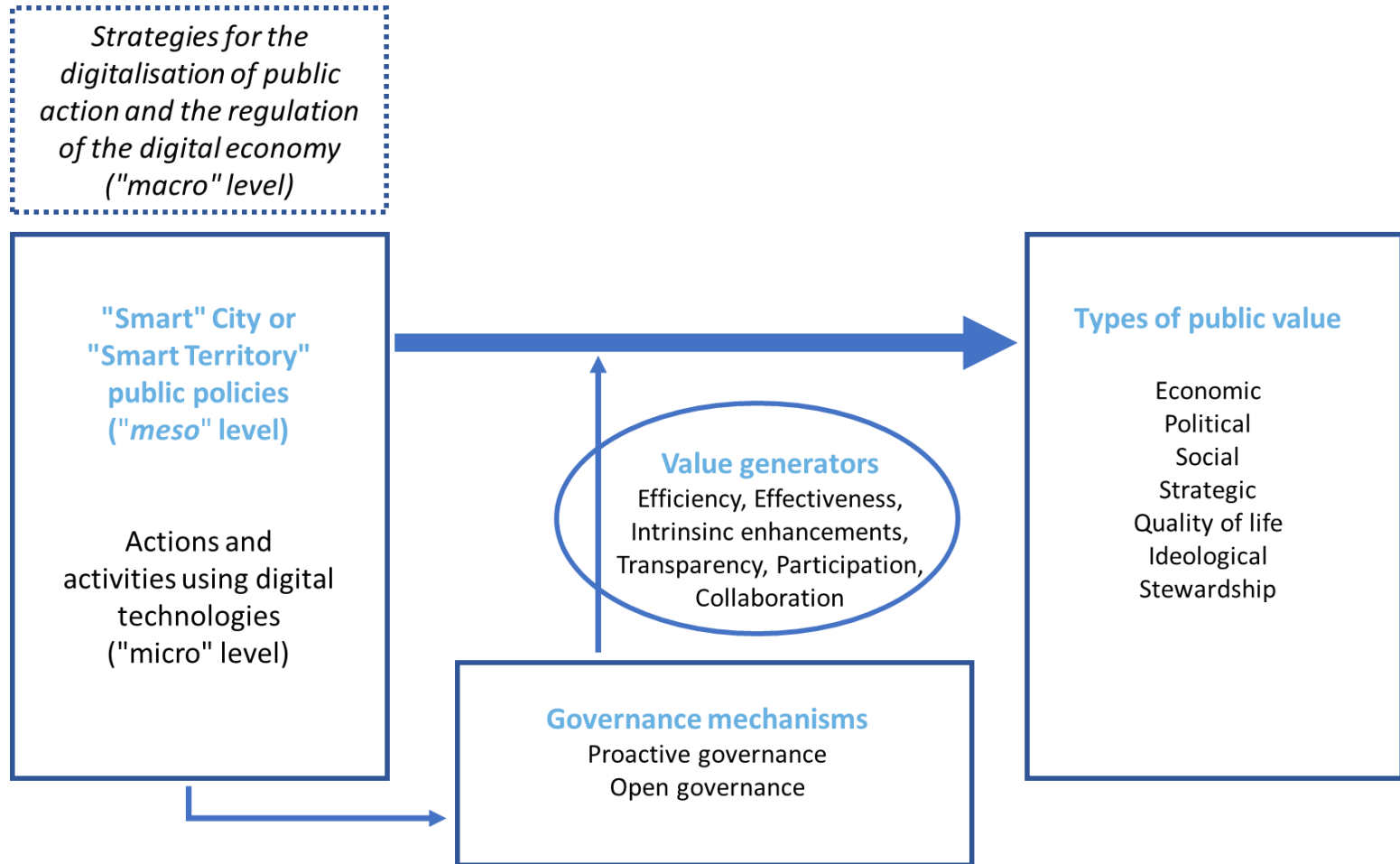
*Results*

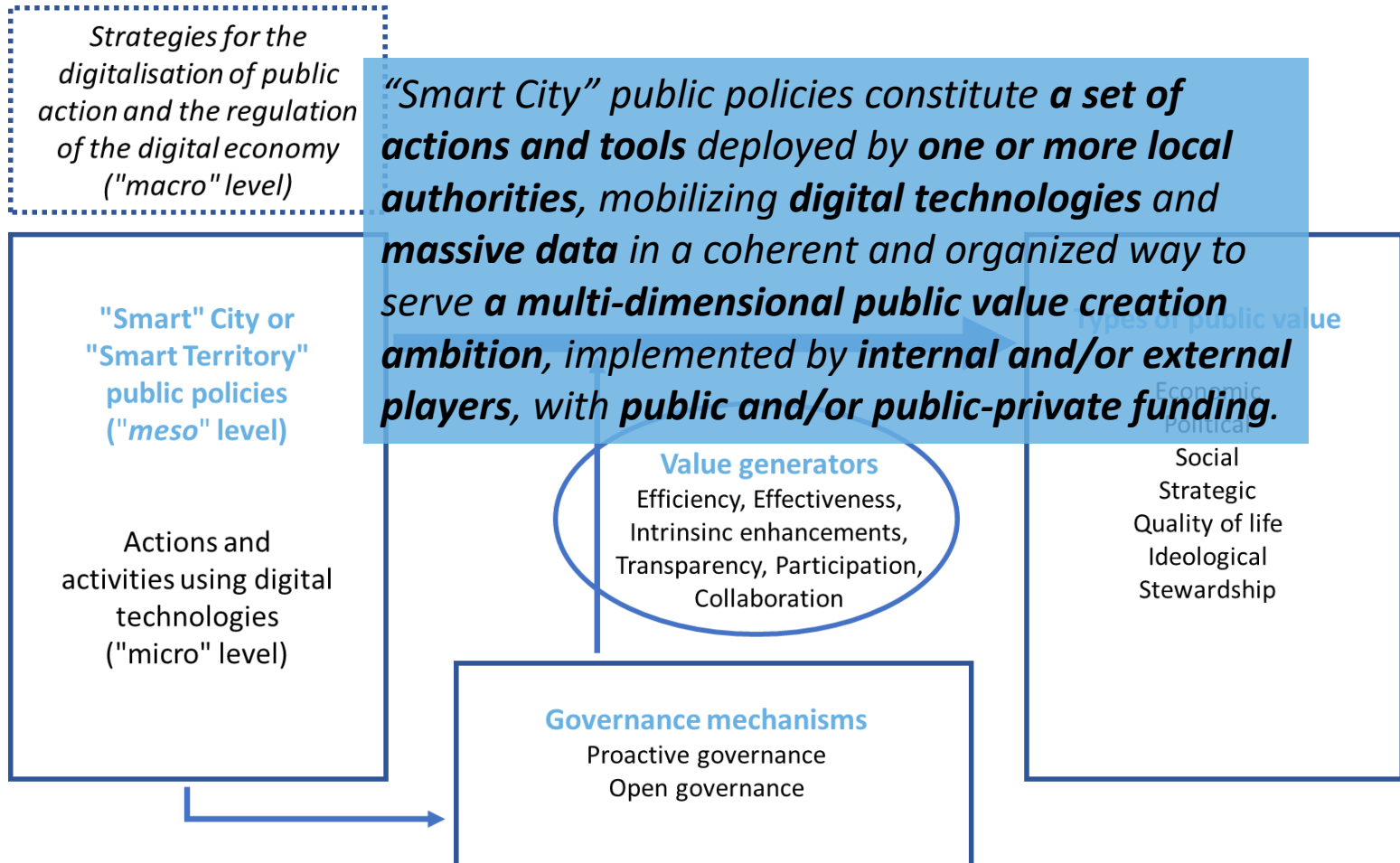
*Conclusion*

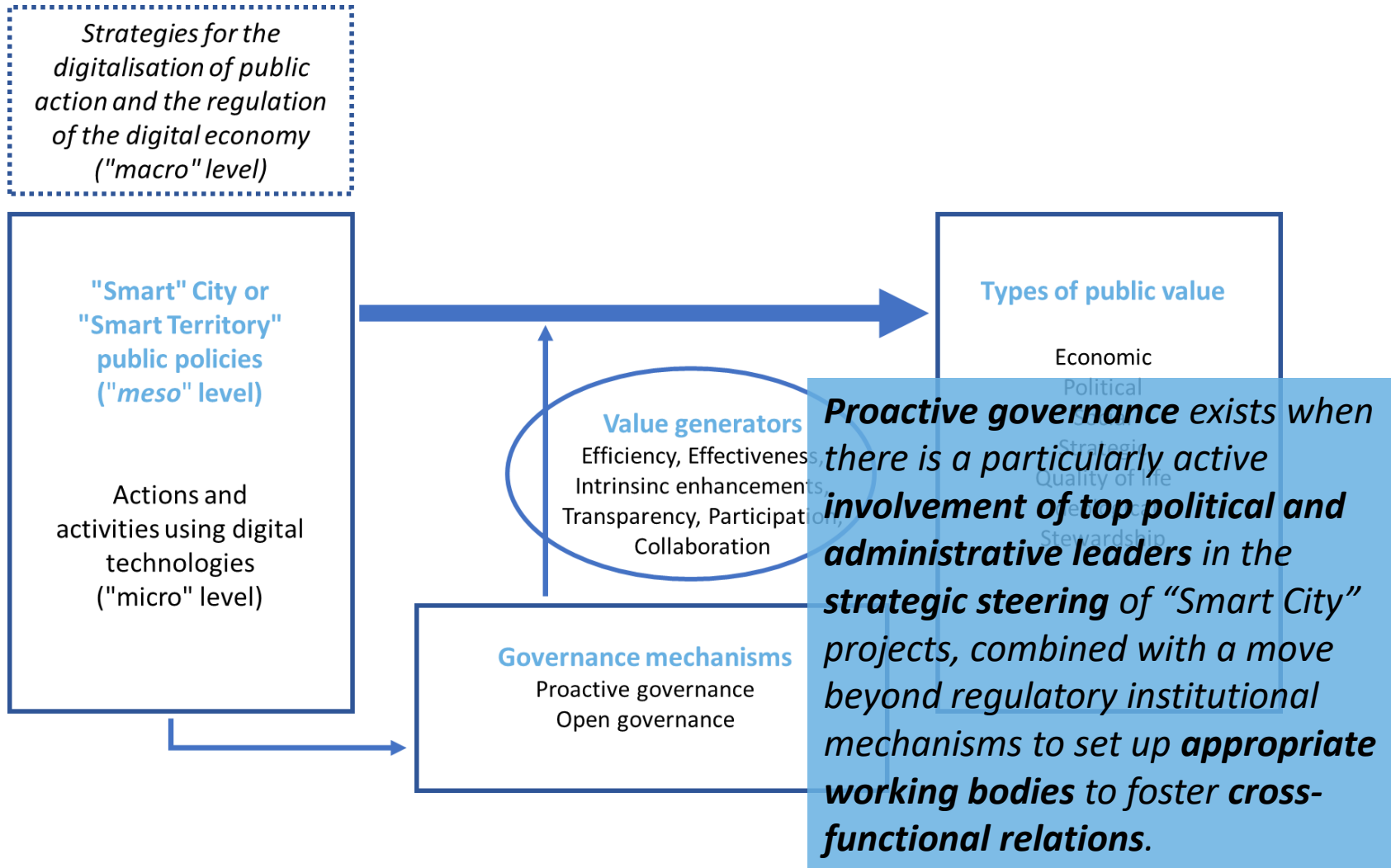


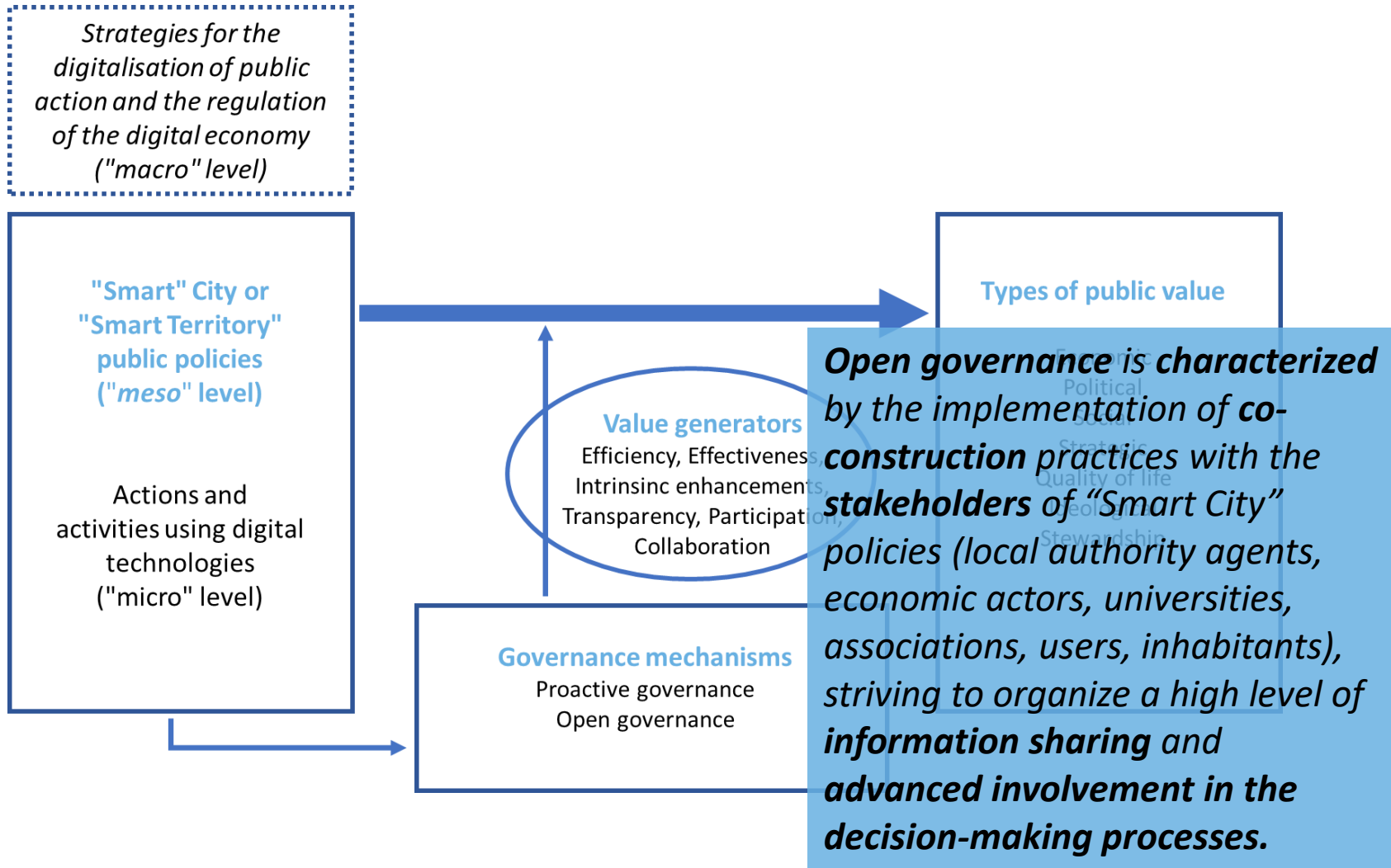
Research Question :

**What kind of governance practices should be developed to drive “Smart City” public policies that create public value ?**



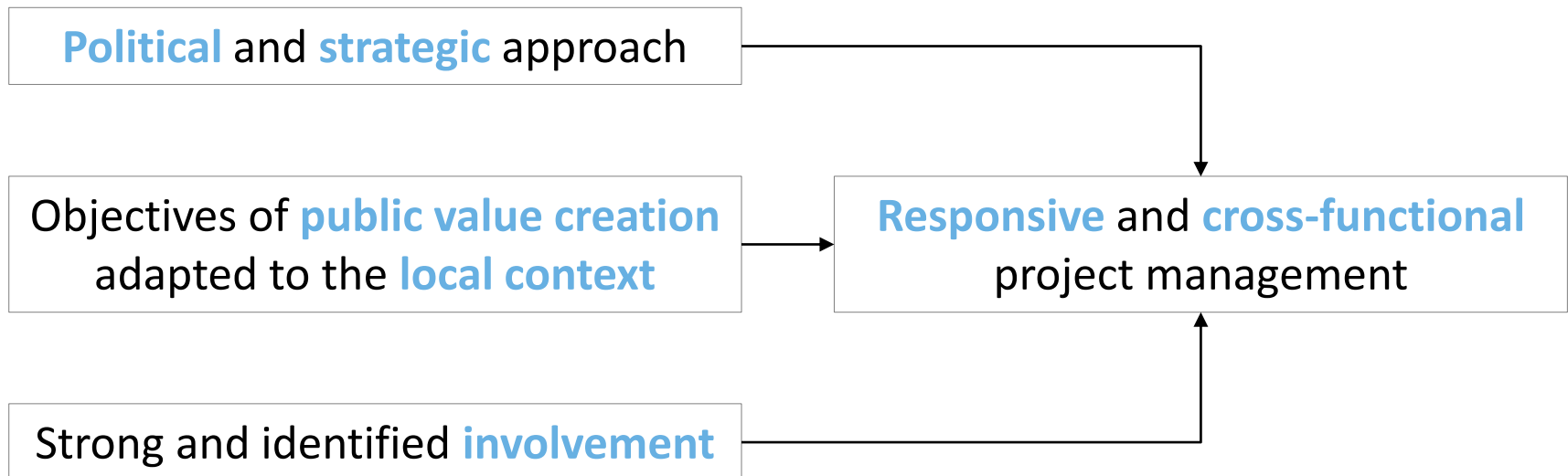






- ❑ An ambition to study the development of « **Smart City** » or « **Smart Territory** » projects by French local authorities :
  - Around **200** in 2021 (Data Publica & KPMG 2021, p.17)
  - A matter of concern for French authorities : Belot (2017), Oural & al. (2018) and an ongoing increase with several **calls for projects**
  - In the daily life of French local authorities, these policies represent a particularly elaborated form of digital transformation of local public action
  - A growing **interest of French management academics**
- ❑ A **longitudinal exploratory qualitative** study over the period 2021-2023 with a selection of **3 case studies** among French local authorities engaged in « Smart City » or « Smart Territory » public policies
- ❑ Almost **50 semi-structured interviews** + **participant observations** with political and administrative leaders, heads of departments, project managers, etc.

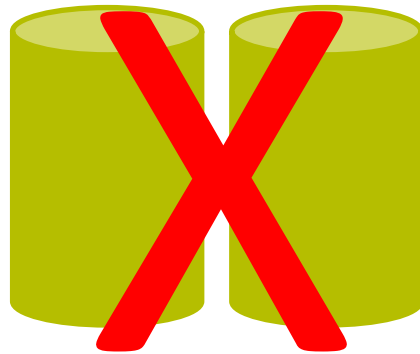
## ❑ Result n°1 : the key role of political and administrative leaders



*“We were talking about **strong steering** : **political steering is at the highest level, administrative steering is at the highest level**. So, in the COPIL, we have the Mayor-President, the two vice-presidents, myself, not necessarily the other DGMs. I meet with the General Management CODIR from time to time, depending on what's going on and what I need to do. **The COPIL thus includes players from other departments, as required.**”*  
(Deputy General Manager in charge of the “Smart Territory” project)



- ❑ **Result n°2** : Major challenges around the **transformation of organizations** and the **mobilization of local authority teams** in order **to develop a dynamic of internal and external openness**



*“So it's both **a general culture of "how do we use the data"** and “what do we do with it to optimize the Smart City?”; but alongside that, above all, “How do we instill, how do we spread the word internally **so that everyone has the reflexes to share data?**”*

(Deputy Mayor in charge of the “Smart City” policy)

Organizations in **silos**  
« **Data attachment** »

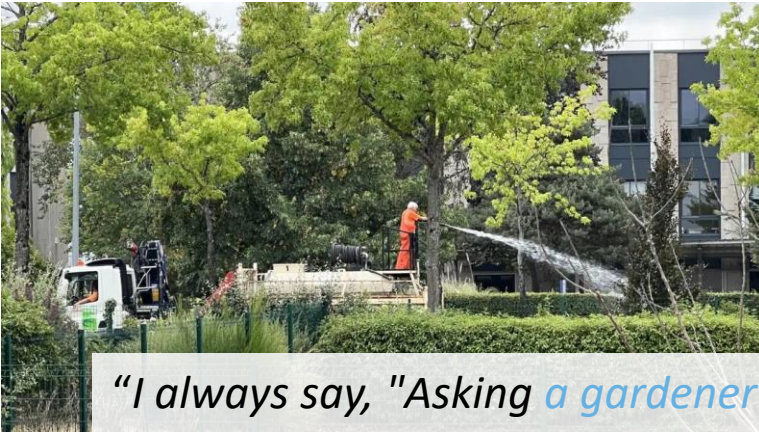


« **Data detachment** »  
(Courmont 2019, 2021)



« **Re-attachment** » through  
**service platforms** providing  
**new uses** and contributing to  
**public value creation**

❑ **Result n°3 :** The need **to renew the human resources management policy** and **to support the transformation of professions**



*"I always say, "Asking **a gardener** to manage his watering with something other than a spanner but with a telephone is **not the same job at all**". So that's what's happening. **For the manager, it is the same**. What we're asking him to do is carry out real water monitoring, to ensure that the plants perform well and to assess the results. So **we're asking him to do something else**."*

(Deputy General Manager in charge of Ecological transition and Urban planning)

- ❑ **Result n°4** : The development of **co-creation practices** (economic development, sustainable IT, new services, co-evaluation, **digital twins**, etc.)



*"Our ambition is to turn the digital twin into an urban collaborative platform creating social links and economic value through various material, knowledge and space exchanges on a neighbourhood scale".*

(Deputy General Manager in charge of the "Smart City" policy)



*"The digital twin has three objectives : decision-making aid for elected representatives, work support for services, information and consultation tool for residents."*

(Deputy Mayor in charge of the "Smart City" policy)

- ❑ **Result n°5** : There is a **phasing** between **proactive governance** and **open governance**, with consequences on the types of public value created

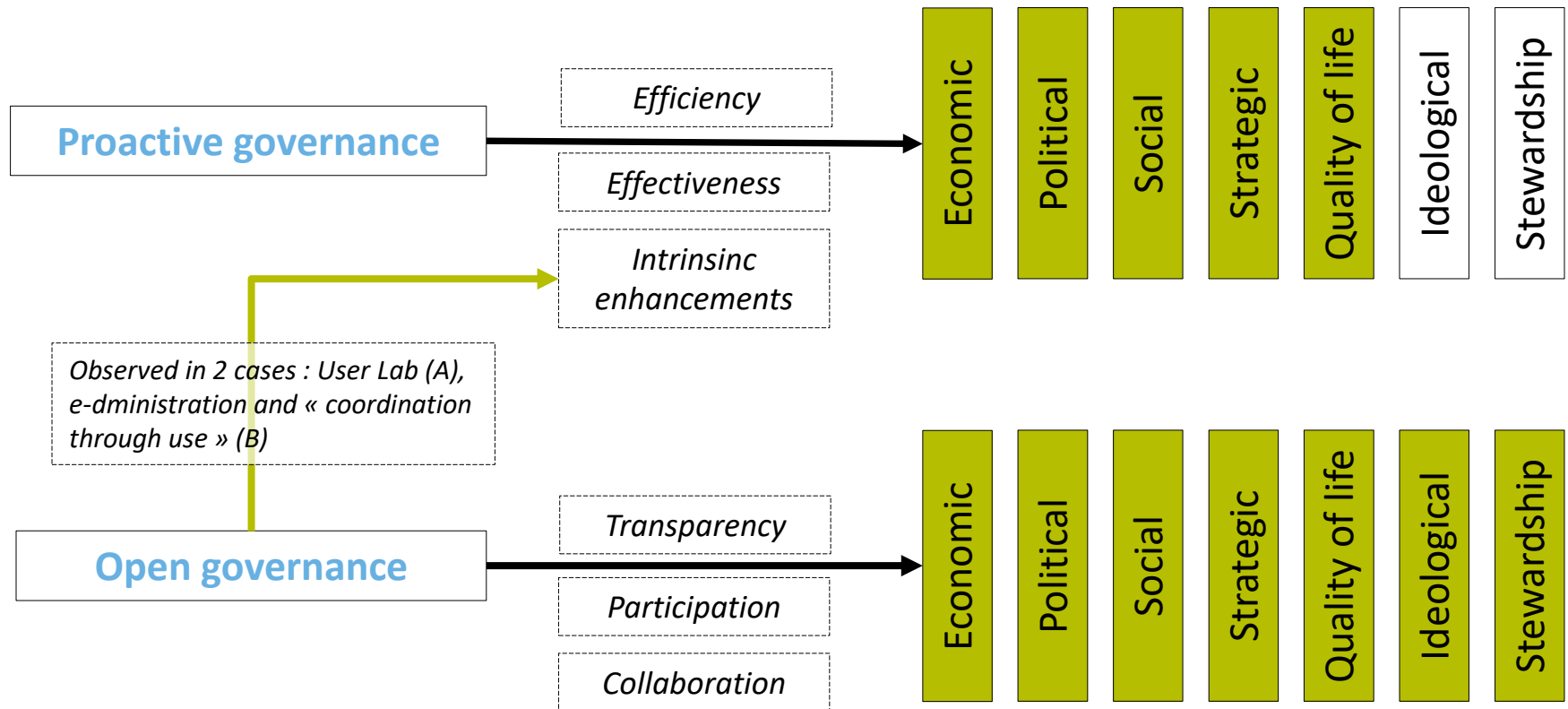
**Technological** prerequisites

**Organizational** and  
**Cultural** changes

**Institutional** conditions

Strain on **ressources**

❑ **Result n°6 : Open governance offers greater potential for creating public value than proactive governance**



❑ To create public value, “Smart City” public policies need :

- To be formalized as **public policies in their own right**, as well as the other public policies led by local authorities
- To question the **objectives of public creation** and not only the technological solutions to be implemented
- To identify the **resources** to be mobilized, the **partners** to work with, and the **KPI** to evaluate their achievement
- To **combine proactive and open governance**
- To be careful to **provide open governance with appropriate resources from the very beginning of the projects** to fully create public value by **synergies** with **stakeholders** and **inhabitants** of the territory

**Thank you for your attention**

**Contact :**

Pascal Frucquet

[pfrucquet@univ-pau.fr](mailto:pfrucquet@univ-pau.fr)



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