



# Digital Innovations in the Urban Built Environment: A Competency Framework for City Managers

## Digital Cities for Change (DC<sup>2</sup>)

2022 DATA FOR POLICY CONFERENCE

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# DIGITAL CITIES FOR CHANGE (DC<sup>2</sup>)

## DATA

generation  
collection  
processing  
analysis

## GOVERNANCE

efficient  
equitable  
democratic  
trusted

## CITY

planning  
management  
services  
life

# OVERALL OBJECTIVE

**Governance:** achieving socially desirable outcomes efficiently (resources), effectively (quality) and democratically (trust).

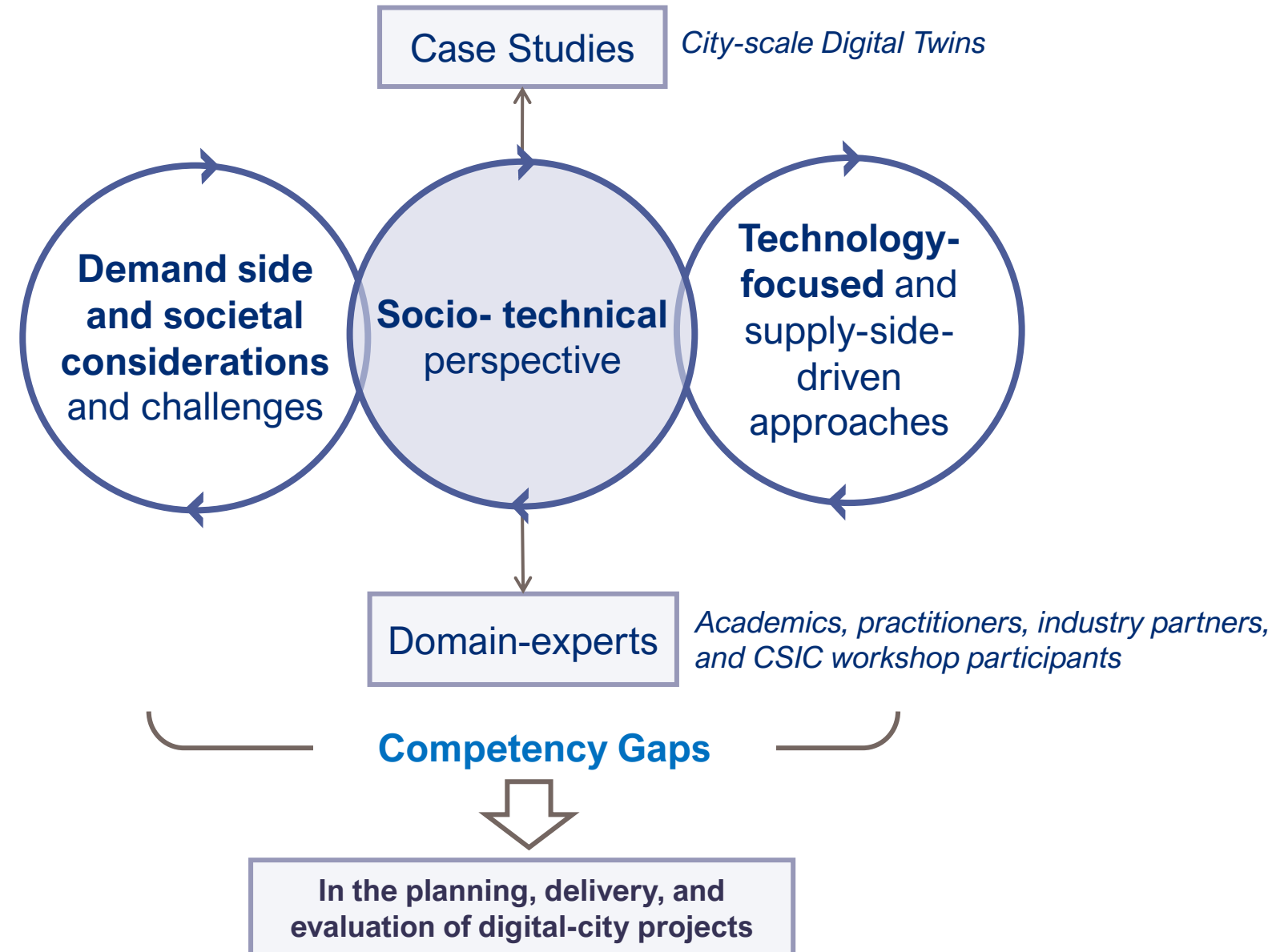
**Ethics:** anticipating, evaluating and managing societal impact

Create **public value** with **responsible digitalisation** in the **urban built environment**

**Technology:** data generation, processing, analysing, visualising, sharing, storing; applications

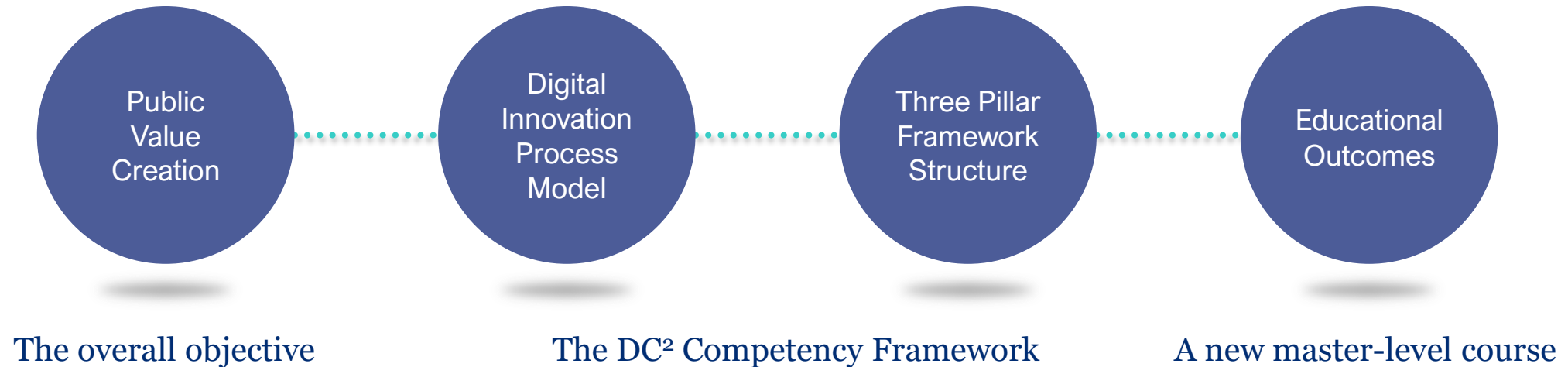
**Empirical focus:** built environment systems/sectors, interdependencies, impact on services and local economy

# SOCIO-TECHICAL PERSPECTIVE

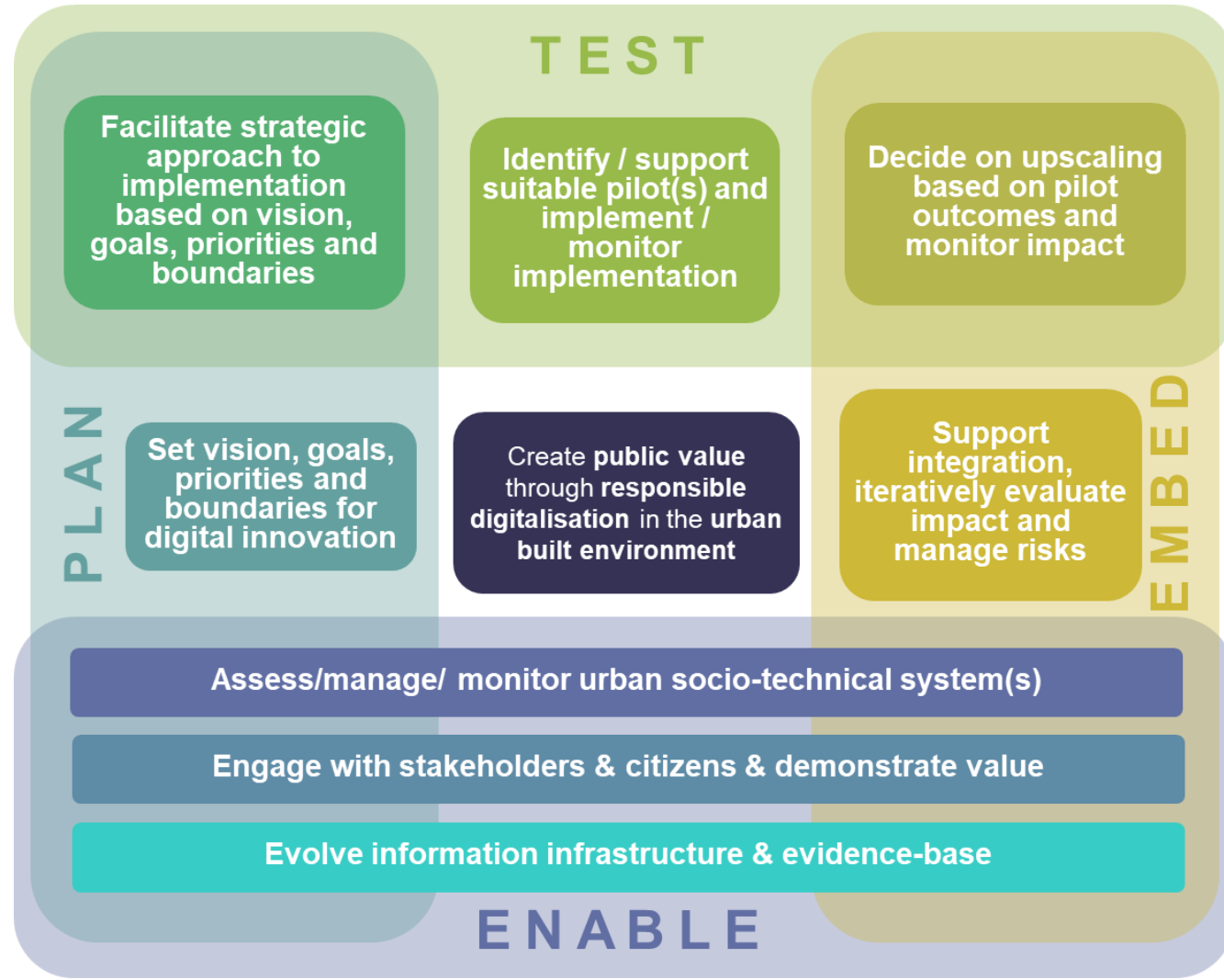


# HOW TO ADDRESS THE COMPETENCY GAPS?

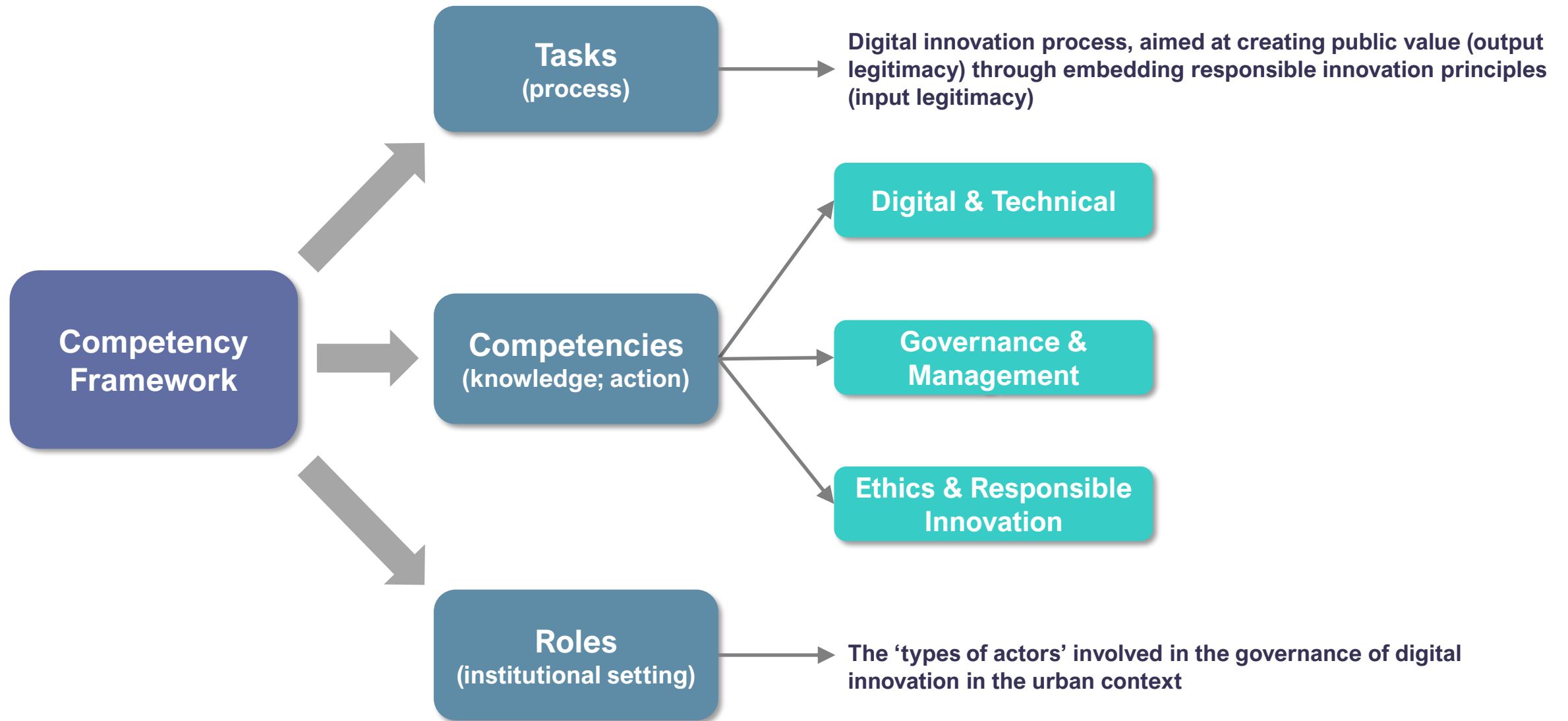
*Digitalisation in and of cities offers **new opportunities** for **urban built environment professionals** to **re-establish their roles** to foster **leadership** capacity with **social coherence** and **responsibility**.*



# COMPETENCY FRAMEWORK

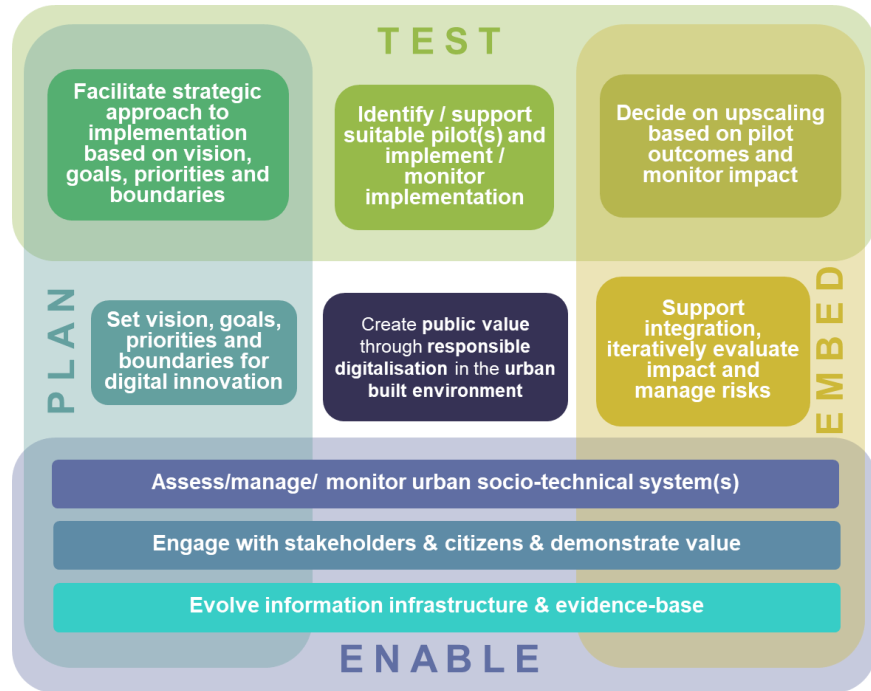


# COMPETENCY FRAMEWORK



THREE PILLAR FRAMEWORK STRUCTURE

# COMPETENCY FRAMEWORK

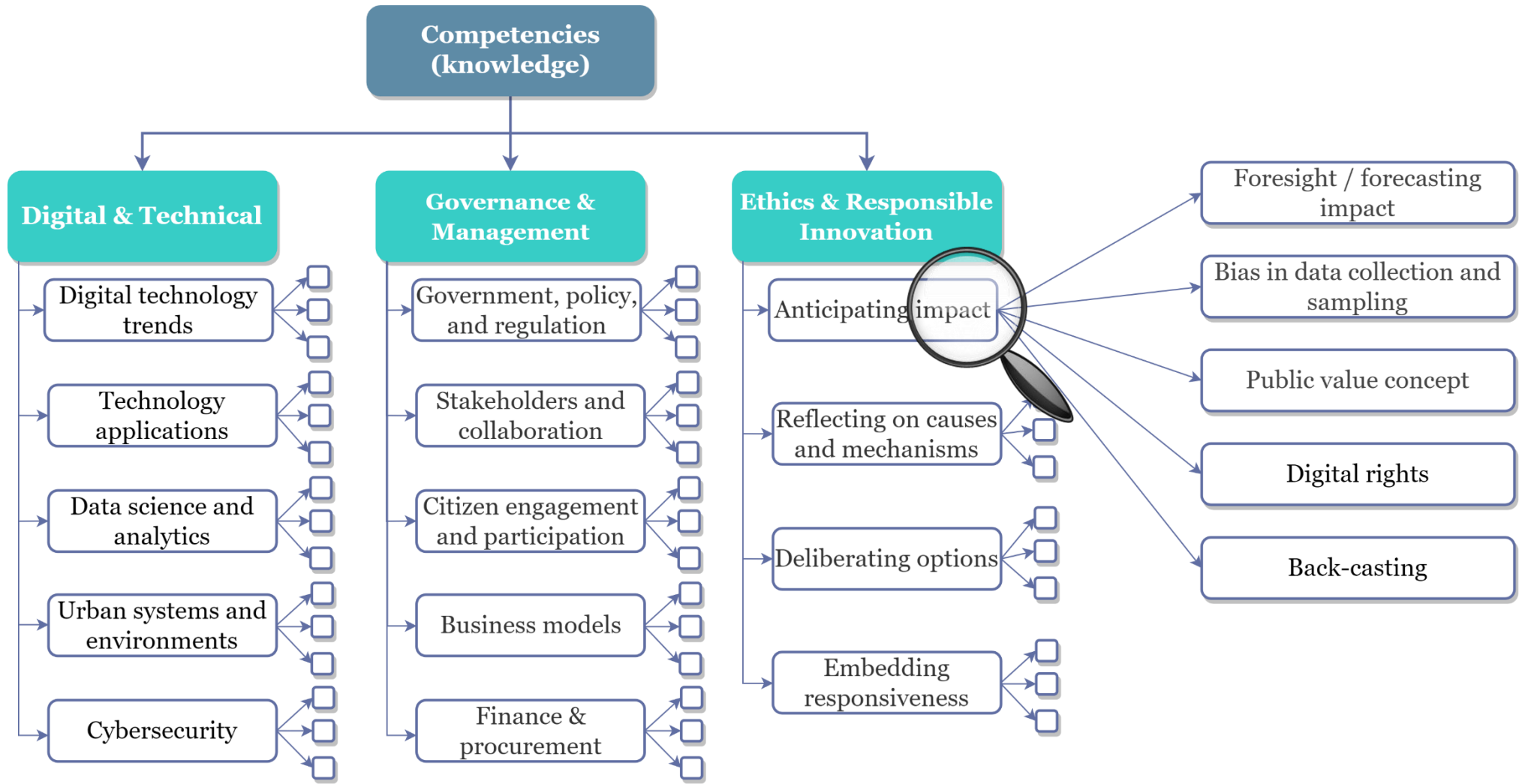


Plan	Test	Embed
<b>Analysing causes, factors and effects</b>	<b>Testing causes, factors and effects</b>	<b>Evaluating causes, factors and effects</b>
Analysing the mechanisms (causes, factors, effects) of public value creation	Testing the mechanisms (causes, factors, effects) of public value creation	Reflecting on the mechanisms (causes, factors, effects) of public value creation
<b>Framing problems</b>	<b>Framing pilot experiments</b>	<b>Evaluating experiments and collecting learnings</b>
Framing societal needs to identify public value(s) and opportunities for public value creation	Framing pilot experiment(s) based on public value goals and priorities	Assessing and deliberating on the 'real-world' public-value-creation potential of experiments as instances of digital innovation
<b>Setting requirements and boundaries</b>	<b>Setting requirements and boundaries for pilot experiments</b>	<b>Assessing context and requirements for city-wide digital innovation</b>
Identify the scope of digital innovation based on potential harm to public value(s)	Identify the scope of pilot experimentation based on potential harm to public value(s)	Take responsive action to embed / reframe / terminate digital innovation based on public value creation potential
<b>Framing objectives and solution options</b>	<b>Experimenting</b>	<b>Implementing decision on city-wide digital innovation</b>
Align goals and priorities for public value creation through digital innovation	Implement pilot experiments, prototyping	Implementing the embedding / reframing / termination of digital innovation
<b>Creating incentives for participation and collaboration</b>	<b>Facilitating participation and collaboration for delivery</b>	<b>Evaluating and maintaining / redesigning innovation ecosystem</b>
Engaging diverse publics and creating incentives for deliberation and co-creation	Engaging stakeholders and managing participation and collaboration for delivery	Iterative design of inclusive and collaborative mechanisms for implementation and democratic oversight
<b>Communicating digital innovation in urban policy, management and services</b>	<b>Communicating process and results of experimentation</b>	
Translating and communicating innovation outputs into public value outcomes	Communicating the experimentation process and translating pilot outputs into public value outcomes	

TASKS (PROCESS)

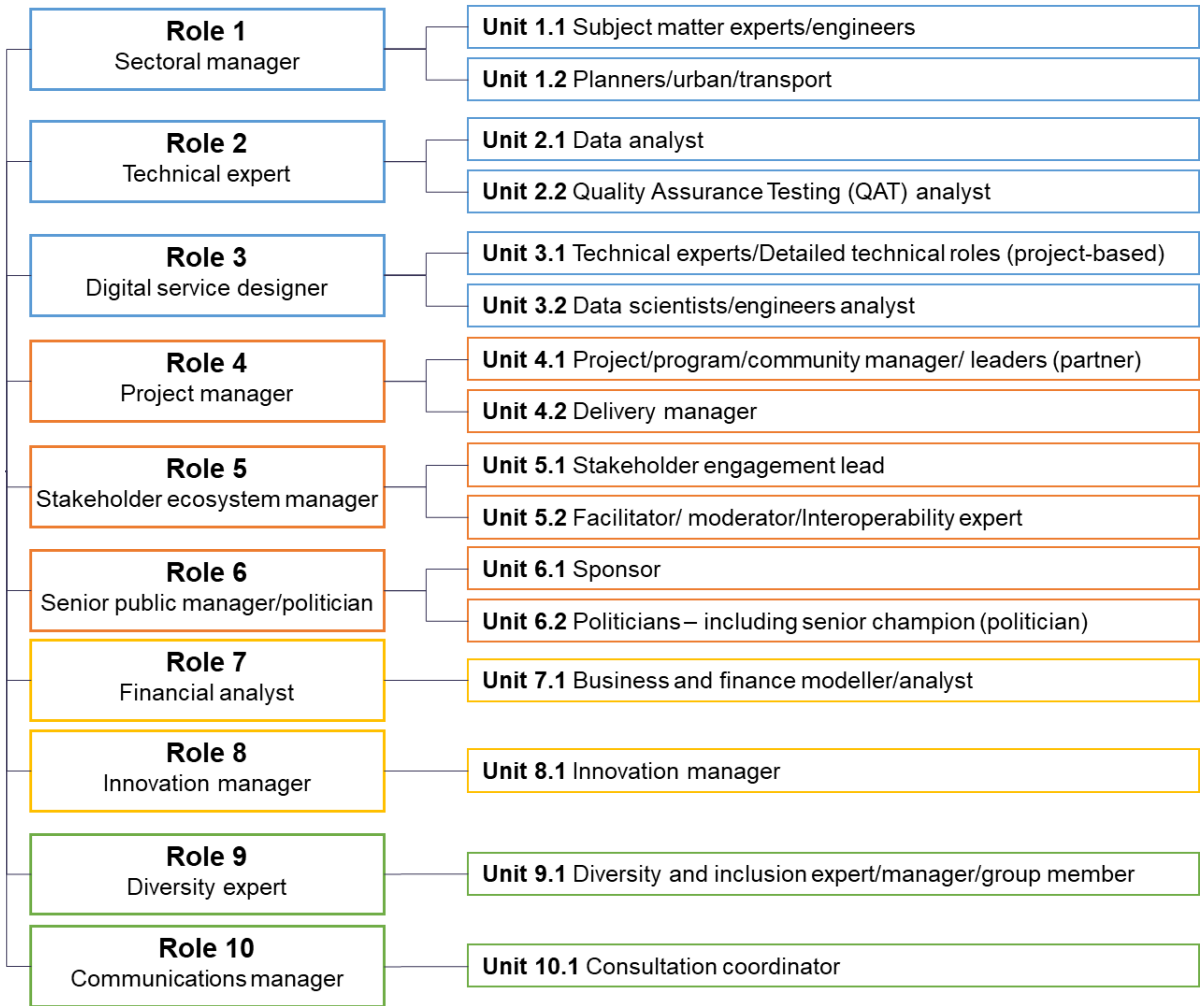


# COMPETENCY FRAMEWORK



COMPETENCIES

# COMPETENCY FRAMEWORK



## “Roles” in collaborative innovation:

- **Sponsor** (politics/authority)
- **Catalyst** (identifying opportunities)
- **Champion** (bringing people in, keeping momentum)
- **Implementer** (implementing projects and specialist tasks)

# FUTURE STEPS

## Postgraduate Educational offering: Leading Urban Digital Innovation for Public Value (LUDIP)

Public value leadership



- ✓ City managers and urban planners
- ✓ Built environment professionals
- ✓ Local government and public sector consultants and advisors



## Competency Framework refinement and validation using multiple international case studies

Discover new ways of thinking to  
tackle **cross-cutting urban  
challenges** and **improve outcomes**  
in urban **environments**



# PROJECT TEAM

## Research Team



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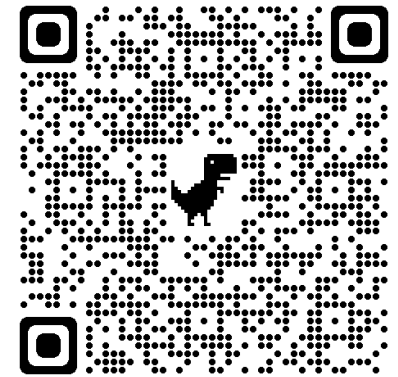


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Scan for more information:





Thank you

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