

ESPRESSO -

A systemic Standardisation approach to Empower Smart cities and communities

Smart City solutions economic, financing and procurement models



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Important questions should drive the future vision and investment roadmap for Smart City development



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Business cases

Overview of business cases

Different ways to succeed...

...different ways to shape solutions.

R&D, test and sell the product

Some of the major cases of positive business models identified based their success on developing and testing a standard, technology, integrated solution in pilot projects and then selling it by replicating it entirely or partially.

Real estate-based

Smart City solutions are becoming an essential part of the development or the refurbishment of city areas. Business case is sustained by increased cost per square meter in property selling and leasing.

Public utility

Investments in Smart City solutions in some cases are not aimed at producing returns for the investors. These cases are often related to innovation in public services. Costs for the development and installation of Smart City solutions are therefore sustained by taxpayers.

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Definitions

Funding *Means by which the project's costs are repaid*

- *Property taxes*
- *Business taxes*
- *Municipal income tax*
- *Tolls and user charges*
- *Asset disposals*
- *Budget allocations received*
- *Grants received*

Financing *Time shifting of costs incurred*

- *Public sector banks*
- *Commercial banks*
- *Municipal or project bonds*
- *Pension fund private placement bonds*
- *Development banks/multilaterals*
- *Equity investment and infrastructure fund managers*
- *Leasing and vendor finance*

Innovative Procurement *Adopted to stimulate innovation from the demand side*

- *Pre-commercial procurement*
- *Preliminary market consultation*
- *Competitive dialogue;*
- *Competitive procedure with negotiation*
- *Innovation Partnership*

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Funding and financing

How Smart City solutions get funded?

Small-scale projects

- *Crowd funding*
- *Venture philanthropy*
- *EU/national funds*

Small scale projects find it difficult to access to main funding and financing sources:

- Limited awareness of what the financial market offers;
- Not very interesting to banks (too small to be relevant).

Medium-size projects

- *Venture capital*
- *EU/national funds*

Medium-size project, depending on the context and type of solution, can benefit from certain dedicated public support mechanisms, but mostly rely on venture capitalists to have their solutions financed.

Large-scale projects (real estate driven)

- *Bond financing*
- *Financial products provided by commercial banks*
- *EU/national funds*

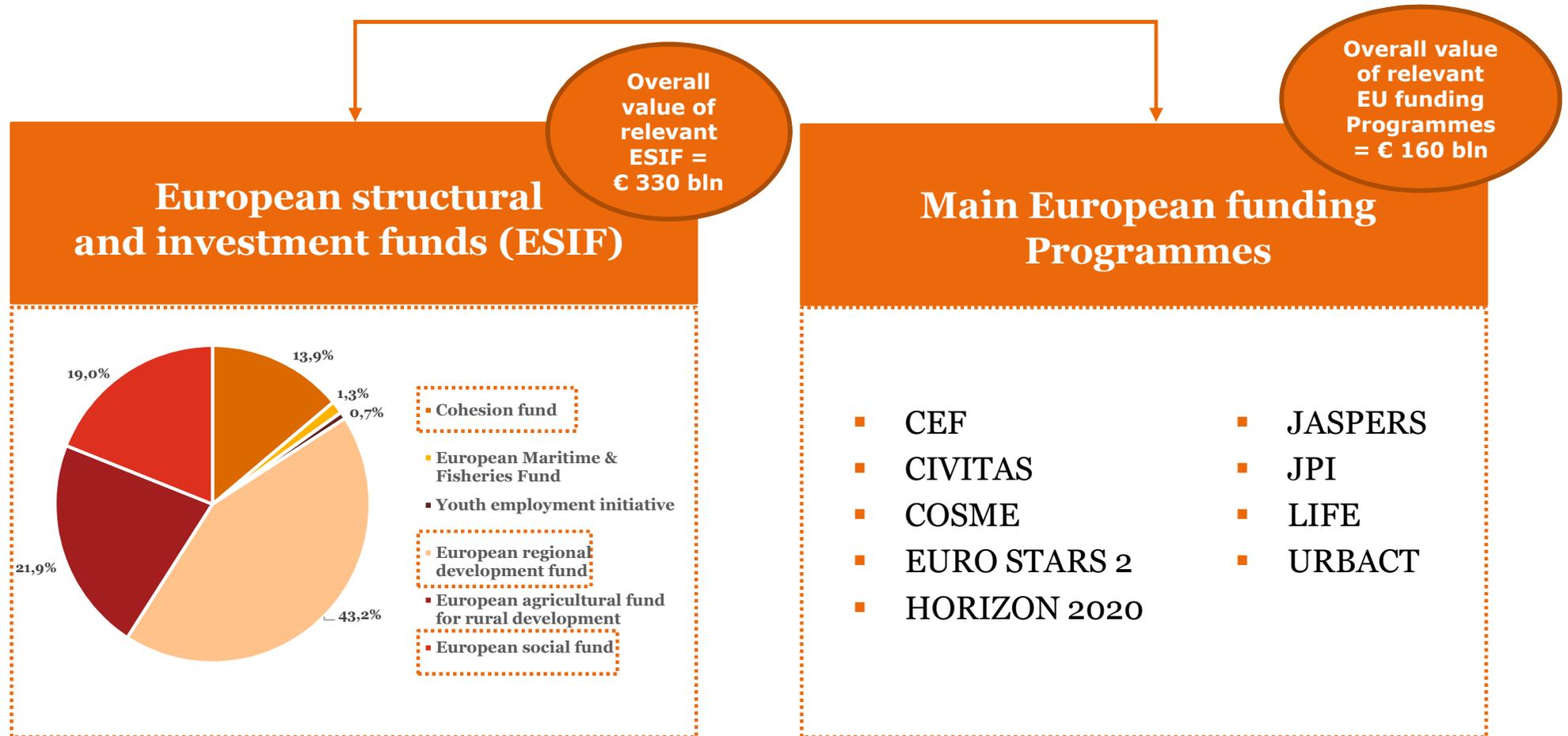
Large scale projects are those that find it easier to access to finance:

- Promoters know the market and of the range of products offered.
- May involve major companies which blend Smart City solutions into other businesses (real-estate).

Financial platforms may facilitate access to finance...

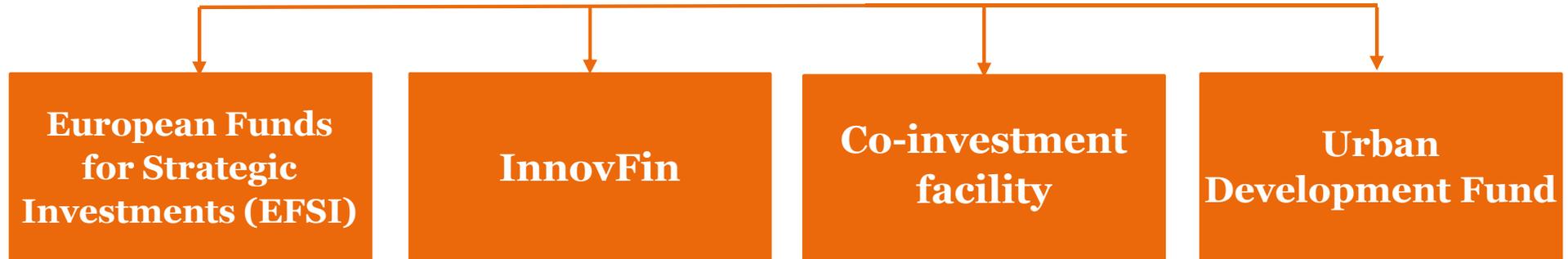
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Relevant Smart City funding options in the EU context



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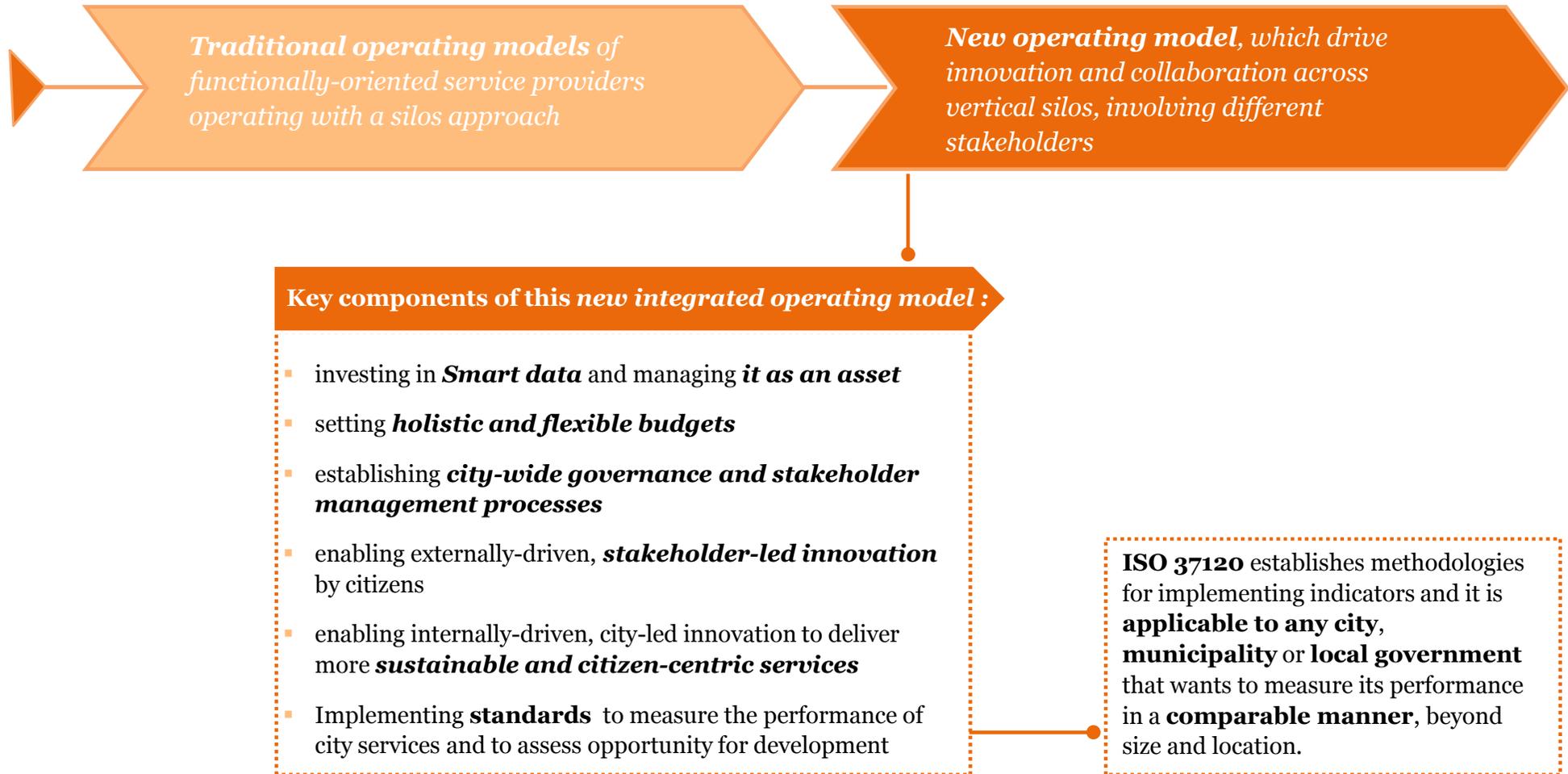
Main public financing options for Smart City projects in the EU context



| | European Funds for Strategic Investments (EFSI) | InnovFin | Co-investment facility | Urban Development Fund |
|-------|---|---|---|--|
| Scope | <p>Joint initiative launched by the EIB in cooperation with the EC. The aim is to provide options for projects with a higher risk profile that could have a positive impact on the European economy.</p> | <p>Joint initiative launched by the EIB in cooperation with the EC. Its aim is to improve the access to capital for innovative businesses in Europe. A special focus is placed on firms operating in the R&I field, but also public entities and universities.</p> | <p>Form of financing model consisting of different financial instruments that translate part of the resources made available via ESIF into financial products such as loans, guarantees and equity. Launched to provide funds to start-ups and SMEs.</p> | <p>The UDF supports sustainable urban projects in public transport, energy efficiency or regeneration of urban areas. Total investment per project, as a mix of public & private resources, can amount up to €20 million, taking the form of a loan managed by a financial intermediary.</p> |

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Sustainable financing for Smart City projects



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Innovative approaches to procurement

Overview of the different approaches

- ***Preliminary market consultation*** aims to gather information from the market and inform potential suppliers about future procurement opportunities.
- ***Pre-Commercial Procurement*** can be defined as the procurement of research and development of new innovative solutions before they are commercially available.
- ***Competitive dialogue*** enables to award a contract to suppliers, for services or works following a dialogue with selected participants, who have submitted an offer.
- ***Competitive procedure with negotiations*** enables to procure products, services or works including elements of adaptation, design or innovation, which necessarily requires negotiation.
- ***Innovation Partnership*** consists of researching, developing and procuring new products and services on a commercial scale.

Innovation platforms are tools that public authorities adopt to facilitate their procurement procedures based on innovation partnership models.

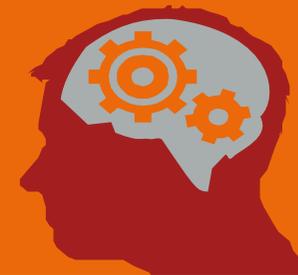
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Lessons learned

cases of success

- Clear presence of a **Smart City vision**, which contextualises the deployment of a specific solution within a general smart framework.
- **Cooperation** among institutions, administrations and private entities.
- A level of **involvement of the final users** commensurate to the incentives these receive. Not just as users, but also as planners, and co-creators.

Respond to the **needs of the society**



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Thank you for your attention!



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