# The evolving spectrum of financing options for smart city projects

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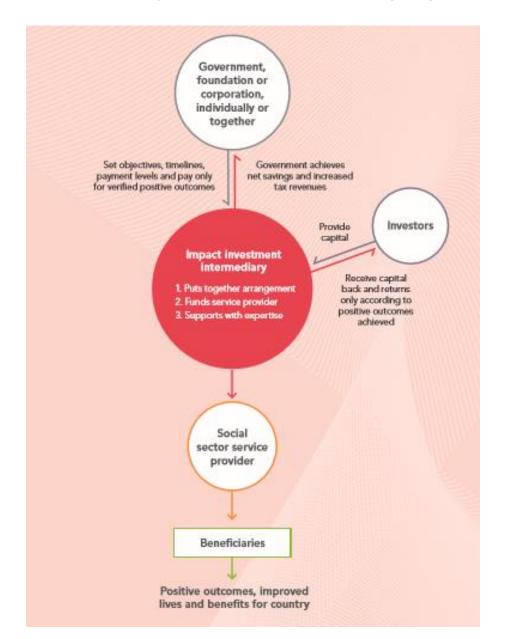


### Finance options available for smart city projects

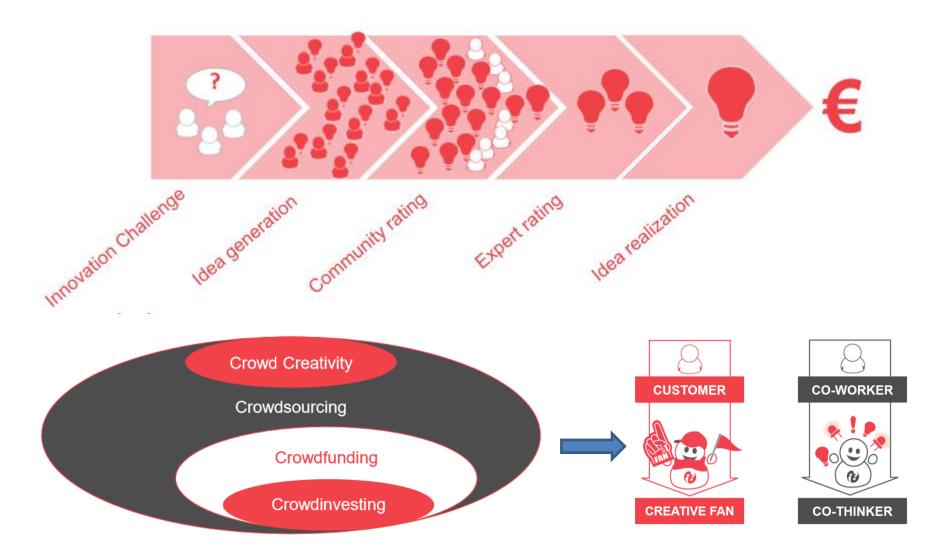


Figure II: 30 Municipal Finance Tools at a Glance
Source: Funding Smart Technologies, Arizona State University – modified by Cisco for New Business Models

# Social impact bonds or "pay for success bonds"



# Crowdsourcing



Source: Innovation Service Network GmbH, Jeff Howe

### Crowdinvesting example



Investor

Capital

Investment

Investor

Zukunftsfonds

SMEs, public institutions, cities and communities

Returns of Energy Savings

http://www.baumzg.de/

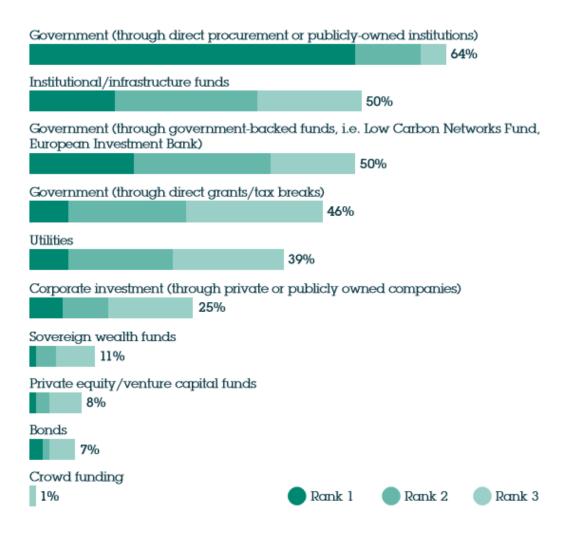
#### B.A.U.M. Zukunftsfonds - Germany

B.A.U.M. Zukunftsfonds is an innovative financing instrument that activates private capital to foster efficiency projects. In line with the acquisition of a cooperative share (100 euros), investors provide the B.A.U.M. Zukunftsfonds a loan for the remaining amount (min. 1,000 euros). Typically, the loan has a binding period of five years with an annual yield of 4 %. With this capital the B.A.U.M. Zukunftsfonds invests in energy-efficient facilities in SMEs, public institutions, cities and communities (summarised as end-users) such that the end-users save a certain amount of energy and pay less to the energy supplier. Throughout the term of the investment agreement the return of the energy savings is transferred to the

B.A.U.M. Zukunftsfonds, who passes it on to investors as the interest rate. Alternatively, a part of the cost savings may immediately be paid back to end-users as a kind of rent for the space necessary to install the efficiency enhancing technologies. Thereby, the end-users realise cost savings from the beginning. At the end of the contract, the end-users may buy the facilities for a symbolic value allowing them to continue profiting from the energy savings. There is no possibility of a subsequent contract. Instead, the B.A.U.M. Zukunftsfonds attempts to save as much energy as possible to get high returns for savings and then withdraw from the investment.

Source: BAUM Zukunftsfonds, Frauenhofer

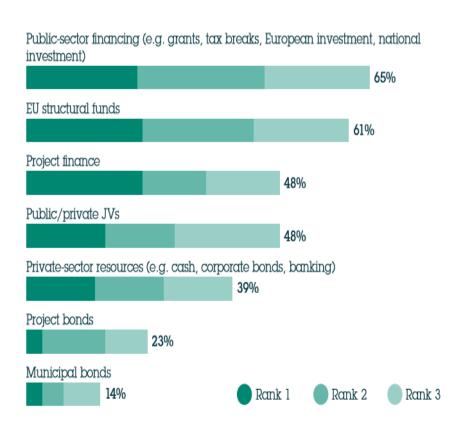
# Smart cities in Europe survey – respondents expectations Most likely source of investments in the next 3 yrs



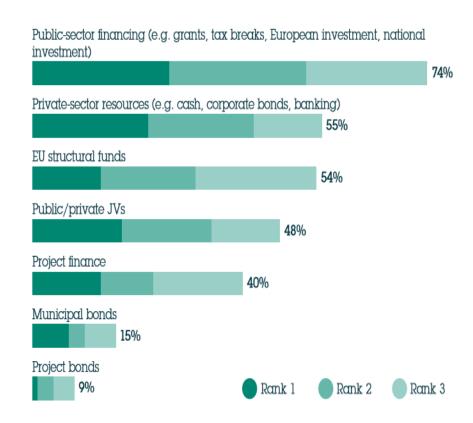
Source: Osborne Clarke

# Smart cities in Europe survey – respondents expectations Most effective financing sources for ...

# Investments in single large-scale infrastructure projects



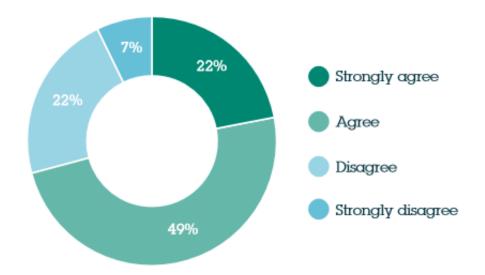
# Investments in roll-out of hunderds of thousands small smart city components



Source: Osborne Clarke

# Smart cities in Europe survey - respondents beliefs Are PPPs the most efficient way to fund smart infrastructure?

• 71% of respondents believe this is likely to be the case



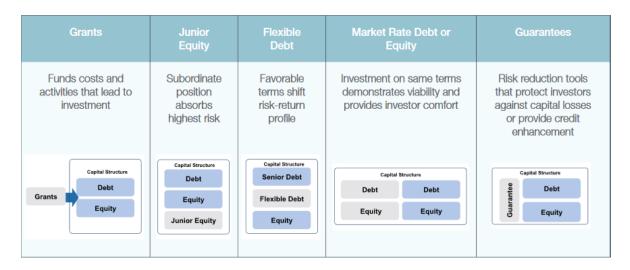
- Project finance can attract private investmens but it is challenging
- New funding models needed to create adequate risk-return proposition
- Whatever the financing structure used, collaboration is vital

Source: Osborne Clarke

#### "New" funding model – blended finance

#### **Definition:**

Use of development finance and philanthropic money to attract private capital



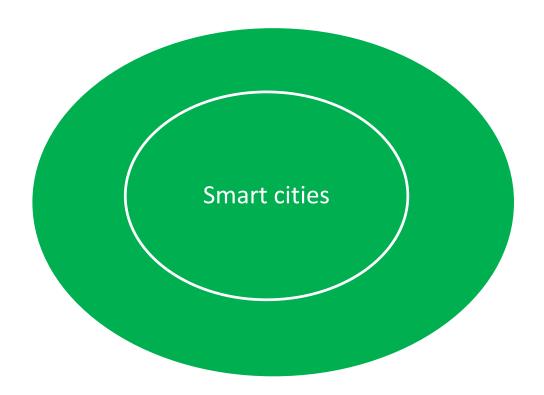
How best to deploy this public funding to increase private investments

- 1. Allocate risks between public and private finance carefully
- 2. Expand investors' risk appetite
- 3. Combine projects to crowd in international institutional money
- 4. Crowd in local finance, leverage local savings
- 5. Simplify project preparation

#### **Economic fundamentals more important than financial structuring**

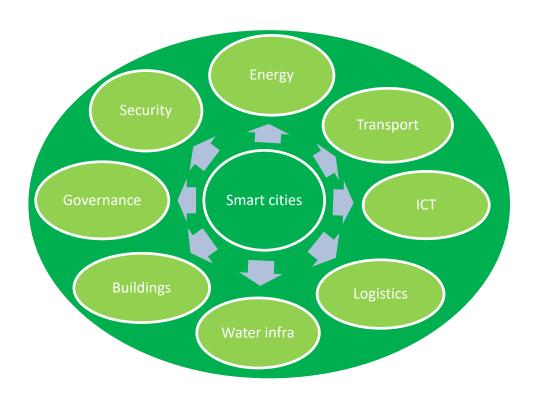
Source: OECD, IFC

How best to bring the different investors together?

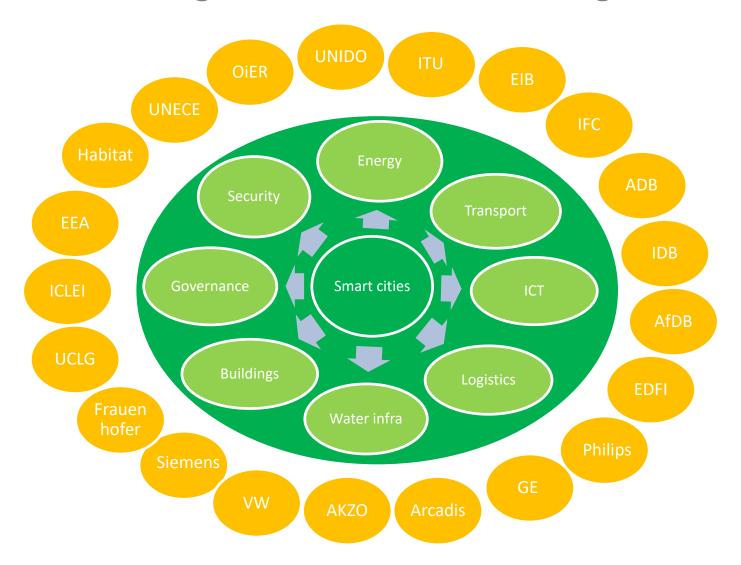


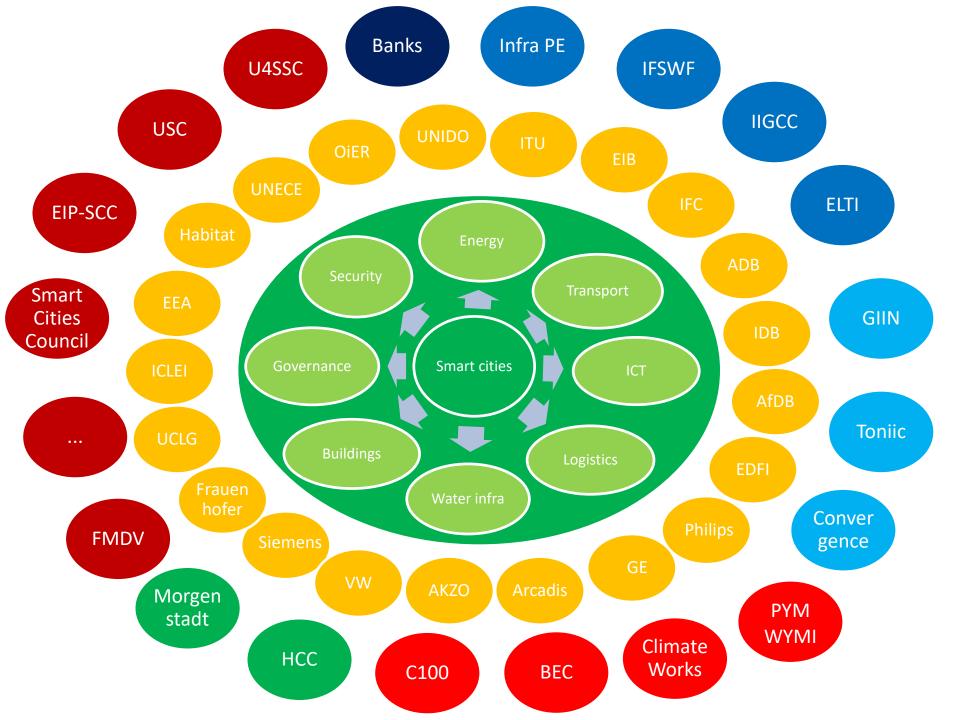
Tool: Create a model of the players in the smart city finance eco-system

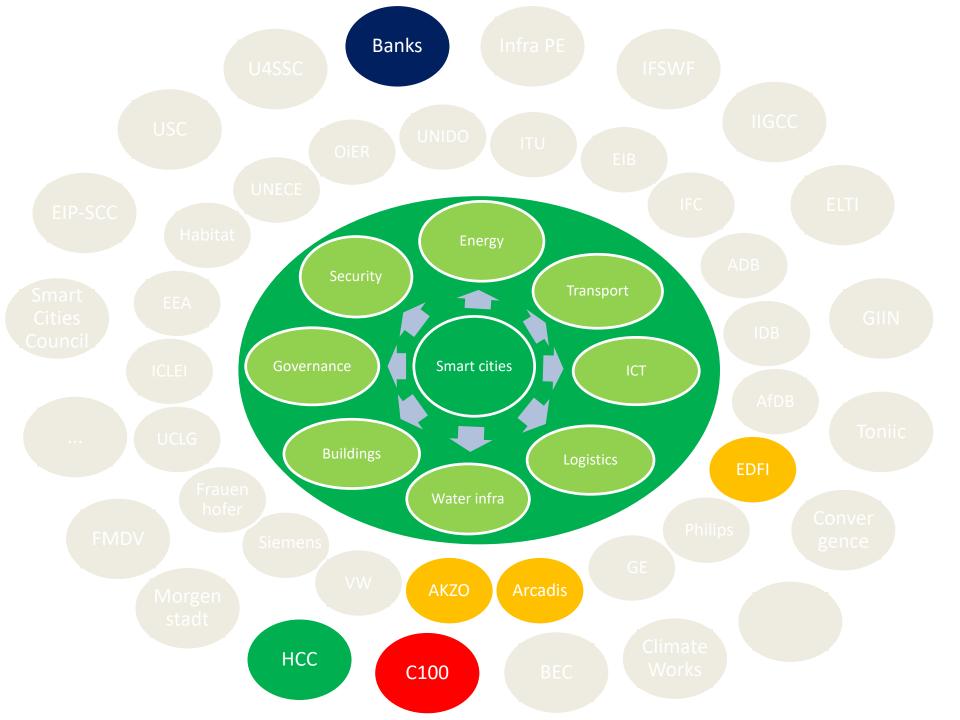
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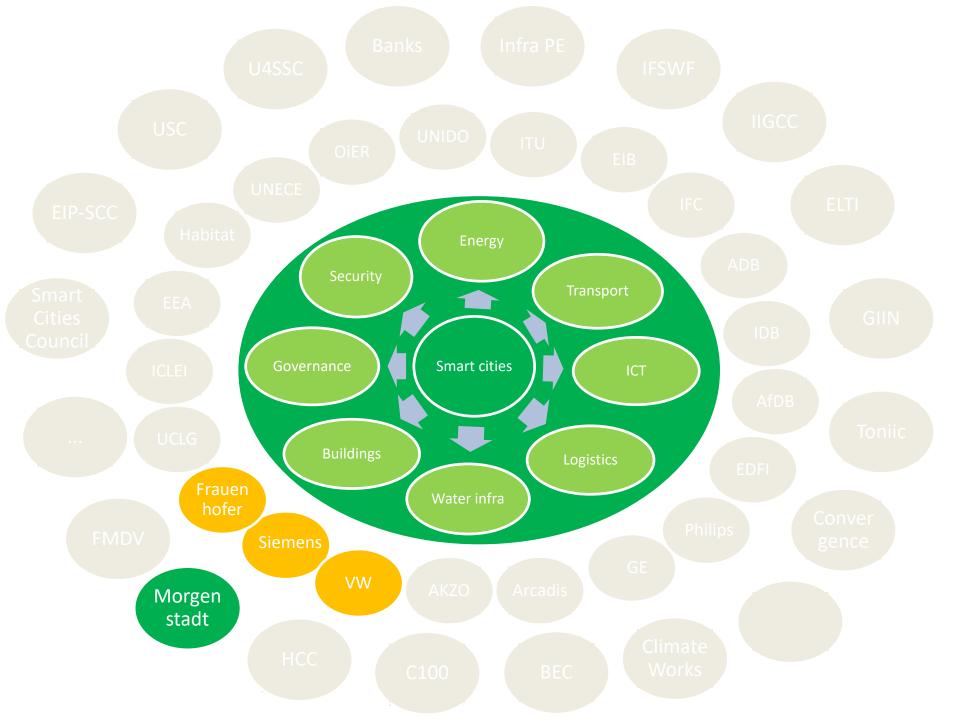


### How best to bring the different investors together?

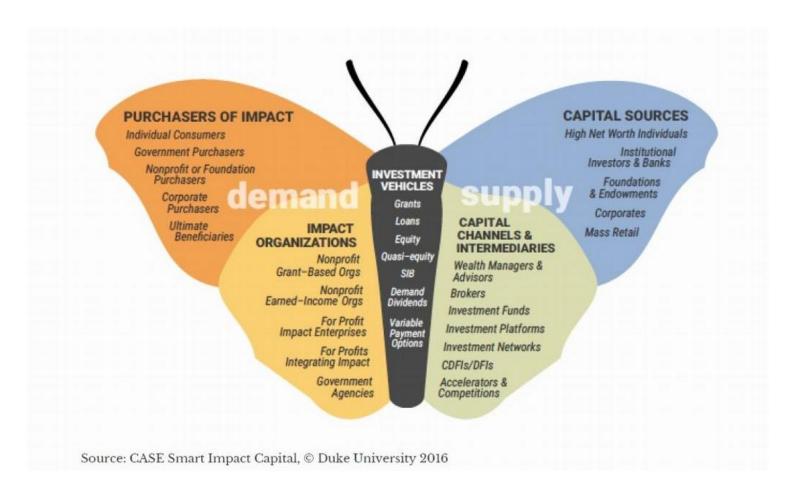








### The caterpillar has turned into a butterfly ready to fly



Building relationships and partnerships will lead to successful collaborations