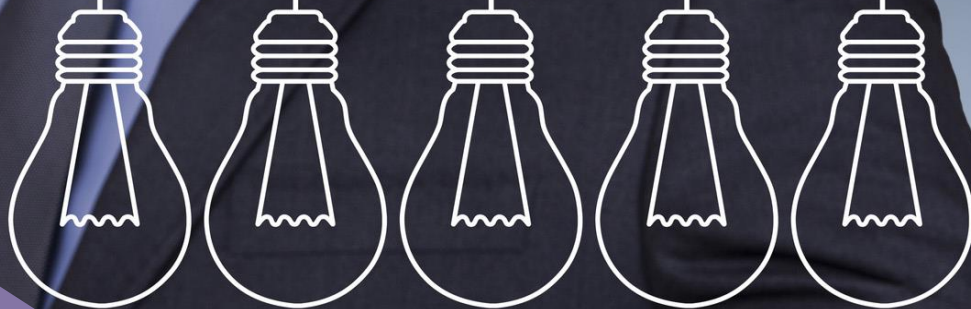


22 April 2021 10:00-12:20 CET

SPARCS Business Models & Financing Mechanism Webinar



Meeting etiquette

- ▶ Turn off your camera
- ▶ Turn off your microphone
- ▶ Choose setting ‘active speaker view’ for a better meeting experience (Top right of your screen)
- ▶ You can ask questions during the session.

Please go on www.slido.com and use the event code #891651 or scan the QR CODE



The Agenda

- ▶ 10h-10h45 : Results on the tools enabling the Lighthouse Cities and the Fellow Cities when drafting cities' investment plans by providing a stepped methodology
- ▶ 10h45-11h00 : Break
- ▶ 11h40-11h50: Break
- ▶ 11h-11h40 : Parallel sessions :
 - ▶ Innovative funding scheme customized for the Lighthouse Cities and the possible scalability of the model, based of the application of the EPC scheme
 - ▶ Co-design of innovative business model canvas and creation of adaptable emerging business models
- ▶ 11h40-11h50 : Break
- ▶ 11h50-12h20: Results of the parallel sessions and closing remarks

“Those who act first and fastest will also be the ones who grasp the opportunities from the ecological transition. [...] But public finances alone will not be enough. We need to tap into private investment by putting green and sustainable financing at the heart of our investment chain and financial system.”

President Ursula von der Leyen, Political Guidelines, 16 July 2019

~~**WHERE WILL THE MONEY COME FROM?**~~

HOW WILL THE MONEY BE CATCHED?

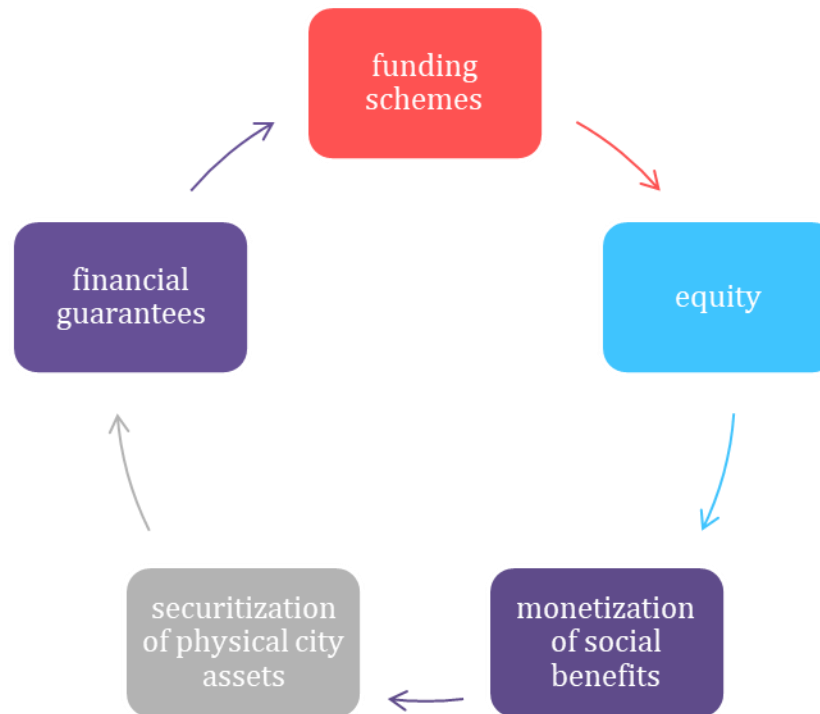
***Qualcosa doveva cambiare perché
tutto restasse come prima***

***Something had to change for
everything to remain the same***

Burt Lancaster acts as don Fabrizio Corbera, Prince of Salina in “Il Gattopardo”
movie by Luchino Visconti 1963, based on the novel by Giuseppe Tomasi di
Lampedusa 1958

”The overall goal of SPARCs is to demonstrate, and validate, the technical and **socio-economic viability**, and impacts, of scalable, innovative solutions for planning, deploying and rolling out smart and integrated energy systems as an efficient mean for the urban transition into a citizen centred zero carbon ecosystem, enabling a high quality of life.

The 7 SPARCs cities will promote the replication of the urban energy transition widely in Europe, by demonstrating the measurable evidence of the benefits of these integrated solutions, on a large scale, for developing blocks of buildings and districts into active energy ecosystems and **pioneering business models tailored on interactions between the citizen, building and the urban energy systems”**.



Business Models and Financing Mechanisms for Wide Uptake of Smart City solutions:

{ Overall structure }

2
harmonized
compendious

1- a KPIs list with the most relevant one, duly explained and **index-linked to the optimal range**

2 - a short described basic dictionary dashboard

Visit our website and download the report



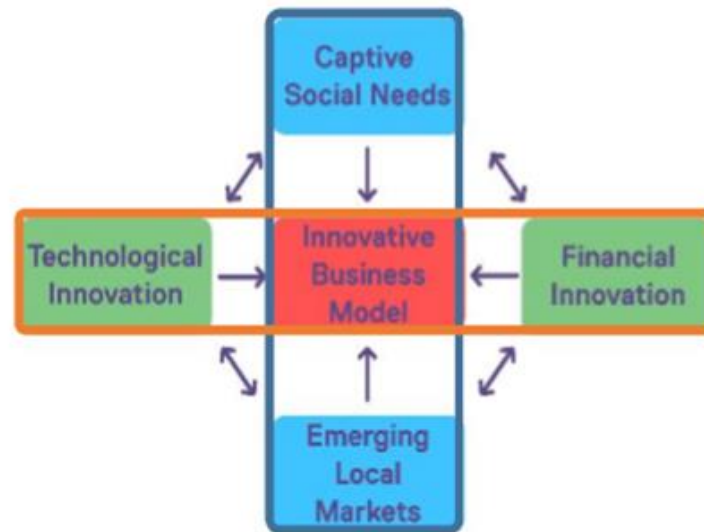
<https://www.sparcs.info/about/deliverables/d701-business-models-and-financing-mechanisms-wide-uptake-smart-city-solutions>

3
active tools

1 - the methodology adopted to co-design innovative and sustainable business model canvas

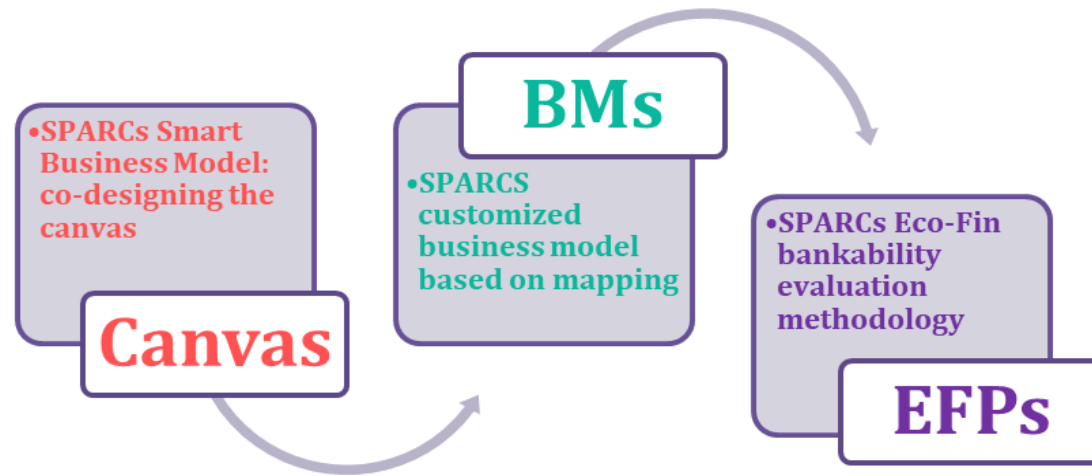
2 - a validated software-based methodology for project financing and bankability evaluation

3 - an innovative funding scheme customized for the two lighthouses and the possible scalability of the model, based on the exploitation of the EPC



		Domanis									
		Governance	Building	District Heating system	Energy Infrastructure	Public lighting	Mobility	Big Data	IoT	P2P Blockchain	Urban Data Platform
KPIs for the value proposition identification											
Underlying Mechanism	<i>understand whether exists assets upon which it is possible to cover against risks not related to finance</i>										
Value proposition	<i>understand the assets offered to customers and the market positioning</i>										
Infrastructure	<i>understand the key actors, the key activities and the key resources</i>										
Funding model	<i>understand the funding sources and if the equity/debt blending composition</i>										
Demand side	<i>understand the customers and the catchment area</i>										
Financial model	<i>understand the operative revenues stream generation</i>										

		<i>Business Model</i>	<i>Description</i>	<i>Reference</i>
Domain	<i>Governance</i>			
	<i>Building</i>			
	<i>District Heating system</i>			
	<i>Energy Infrastructure</i>			
	<i>Mobility</i>			
	<i>Big Data</i>			
	<i>IoT</i>			
	<i>P2P - Blockchain</i>			
	<i>Urban Data Platform</i>			



Project Financing and Bankability evaluation: Business Planning through Business Modelling

Clarified the business model, it should be milestone to draft an Economic Feasibility Project defining among a set of solutions **those with the best cost-benefit ratio for the collectively compared to pre-determined specific needs to be satisfied and the services to be provided.**

As such, we use a **certified project financing software** deployed by Bocconi University of Milan <https://www.atenait.it/> that verifies the feasibility of the PED.

It **evaluates the capability of a project to self-finance and therefore by reducing the investment coverage to a minimum.** Thus, to enable the predictive analysis of investments and the reliability of the economic and financial assumptions in order to guarantee the public and private partnership and of all the subjects participating in the initiative.

As such, the bankability concept is enlarged and the process allows a project to be evaluated by the financial community as an independent entity, compared to the promoter, for its ability to generate cash flows (**it stands alone**).

1 - Main Information

Operating Management	Value
Revenues	2.093.752
Dismissal	0
Expenses	-764.315
CapEx	-3.919.884
Major Maintenance	0
Financial Expenses	0
Taxes	-132.292
Total Previous Debt	0
Outstanding - NOT Depreciable	1

Financing	%	Value
Self-financing	2,001	129.787
LSGG	49,225	3.192.124
Equity	2,313	150.000
Senior	7,644	495.723
Bridge Loan	25,517	1.654.747
VAT Loan	13,298	862.374
NWC Loan	0,000	0
Sh. Loan	0,000	0

Profits & Losses	Value
EBITDA	1.329.437
EBIT	564.327
EBT	459.512
Net Profit	327.220
Dividends	327.220

2 - Eco. Fin. Equilibrium

Time Assumptions	Date
Work Start	01/08/2019
Operation Start	01/10/2021
Repayment Start	01/10/2021
Senior Debt Real Deadline	31/07/2034
Senior Debt Required Deadline	31/07/2034
Operation End	31/07/2034

Cash	Date	Value
Total Before Dividends		468.459
Total		141.239
Annual floor	31/08/2021	0
Annual cap	30/11/2033	167.772

3 - Return

NPV	Value
NPV Operation before Taxes ^(NMF+FT)	381.598
NPV Operation after Taxes ^(NMF+FT)	238.617
NPV Equity before Taxes ^(E)	198.326
NPV Equity after Taxes ^(E)	117.236

PBP	Date
PBP Operation before Taxes ^(NMF+FT)	28/02/2029
PBP Operation after Taxes ^(NMF+FT)	30/09/2030
PBP Equity before Taxes ^(E)	30/11/2024
PBP Equity after Taxes ^(E)	30/04/2027

IRR	Yearly %
IRR Operation before Taxes ^(NMF+FT)	8,664
IRR to Operation after Taxes ^(NMF+FT)	6,379
WACC ^{standard}	2,296
IRR Equity before Taxes ^(E)	50,079
IRR Equity after Taxes ^(E)	23,534
Cost of Equity	7,860
Growth Rate (%)	NC

4 - Bankability

DSCR	Value	
Average	1,684	
Annual floor	31/12/2021	0,809

Senior DSCR	Value	
Average	4,166	
Annual floor	31/12/2033	1,793

LLCR	Value	
Average	1,952	
Annual floor	31/12/2021	1,404

Senior LLCR	Value	
Average	2,163	
Annual floor	31/12/2032	1,937

Legend

WACC = Weighted Average Cost of Capital: weighted average between cost of equity and cost of debt after taxes.
 Formula: $(\text{Cost of Equity} * \text{Equity} / (\text{Debt} + \text{Equity})) + ((\text{Interest Rate} * (1 - \text{Taxes})) * \text{Debt} / (\text{Debt} + \text{Equity}))$

Cost of Equity = Sum of risk-free rate and factor between equity market risk premium and beta index.
 Formula: $\text{Risk Free Rate} + (\text{Index } \beta * \text{Equity Market Risk Premium})$

EQ = Equity
 E+SL = Equity + Shareholder Loan
 NMF+FT = Not Main Facilities + Figurative Taxes
 CFC+AT = Capitalized Financial Charges + Actual Taxes

PBP = Pay Back Period
 TV = Terminal Value
 EV = Enterprise Value

Funding Scheme for Espoo and Leipzig

- A deep analysis of **“what if”** an Urban Authority, even a non-institutional aggregator of project developments, **collects funds before** starting the implementation phase (time 0), it discloses an **higher cost of the “funding product”** due to the static time required to start-up the process and the amortization.
- On the other end, the operational requirement leveraging money for Positive Energy District implementation is referred to the **“as is”** of the **energy consumption** compared to record in the balance sheet the subsequent **energy savings** during the OpEx phase.

The optimal solution seems to be a **two-steps funding process**:

- At the beginning, **attracting funds during** the implementation phase by short/medium-term financial products, through the credit channels (both traditional and unconventional).
- Later, when the amortization period starts, it could be possible to **securitize the EPC** contract by long-term financial products. This is possible considering PEDs as energy-centric projects.



<https://www.sparcs.info/>

  @SPARCSeu

Angelo Giordano, CiviESCO

SPARCs Business Ecosystem Leader

Angelo.Giordano@civiesco.it



Stadt Leipzig



CÂMARA MUNICIPAL DA MAIA



KLADNO



ΔΗΜΟΣ ΚΗΦΙΣΙΑΣ



SIEMENS



CITYCON



ADVEN



Wohnen & Service Leipzig GmbH



CENERO



UNIVERSITÄT LEIPZIG



Sociedade Portuguesa de Inovação



中国三铁



CiviESCO



Break until 11h00

