

# Financing Sustainable, Climate Neutral Cities – Funding mechanisms

16<sup>th</sup> November 2020

13:00-14:30 CET



# Welcome!

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There is no lack of sustainable, climate friendly and smart technologies, but there seems to be challenges to implement and upscale them in city structures. Could finance be a barrier?

- **November 2<sup>nd</sup>**: Selected cities shared their experiences, progress and challenges in developing a sustainable, climate neutral city; with a specific focus on the financing need and potential solutions
- **November 9<sup>th</sup>** : Different private financial institutions providing their perspectives picking up from the needs expressed in the previous workshop
- **Today**: Focus on tools and funding mechanisms to meet the financial needs of cities to become more sustainable
- We (SEI, Cleantech Scandinavia and SSE-SIR Misum) - Viable Cities' Finance project (2020-2022), funded by Viable Cities

# Our panelists today

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- **ALANUS VON RADECKI**  
Head of Competence Team Urban Governance Innovation at the Fraunhofer Morgenstadt Initiative
- **ISABELLA LONGO**  
Project Director (BIT Habitat) at Barcelona City Council
- **LIZA ROSE CIROLIA**  
Senior Researcher at the African Centre for Cities
- **MAYUR MUKATI**  
Senior Associate Sustainable Finance Solutions at Sustainalytics
- **WILL SIBIA**  
Founder at URBS

# Agenda

## **13:00 Introduction to the session**

- Astrid Nilsson, Research Associate at Stockholm Environment Institute

## **13:10 Presentations from guest speakers**

- Alanus Von Radecki on bringing together private and public partners for funding sustainable cities - Cologne
- Will Sibia on making a business case for clean technologies – New York and Istanbul
- Isabella Longo on the city as a grant giver - Barcelona
- Mayur Mukati on financing mechanisms and the role of external reviewers for sustainable finance in cities
- Liza Rose Cirolia on expanding beyond Europe and funding options from an African cities perspective

## **13:40 Q&A session between moderator and panellists**

## **14:00 Q&A session with the audience**

## **14:20 Concluding remarks**

# House rules

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- Use the Q&A chat function to post your questions for the Q&A session at 14:00 CET
- Please state your name and organization/country
- Be short and clear

**Recap from the  
previous sessions**

# Our panellists

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## THE CITY PERSPECTIVE

- **Gustaf Landahl**, Head of Department of Planning and the Environment, City of Stockholm;
- **Frans-Anton Vermast**; Senior Strategy Advisor Low Carbon and Connected Urban Planning, Amsterdam City
- **Bud Braughton**; Smart Columbus Project Manager
- **Serge De Gheldere**; Lead at Futureproofed & Klimaatzaak; Member of the Board and Executive Committee of Leuven2030

## THE PRIVATE FINANCIERS' PERSPECTIVE

- **Carl-Emil Lindholm**, Director, Infranode
- **Heimen Visser**, Fund Manager, PrimeVest Capital Partners
- **Helena Olin**, Head of Real Assets, AP2
- **Kristoffer Aanerud Nielsen**, Advisor, Climate & Sustainable Finance, SEB

# Discussion points from previous sessions

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## Overall:

- There are large investment are needed for cities to become climate neutral
- National legislation is needed to push the sustainable agenda at city level
- It's easier to ask for forgiveness instead of permission when it comes to implementing the sustainability agenda

## Different incentives and ways of working:

- *Current investments vs additionality*: LGs might focus on existing financing needs and existing costs vs. private financiers are looking for investment opportunities in new projects. However, private financiers could help LGs to find new revenue streams from investments by assessing future functionalities of assets
- *Return on investments gap*: LGs (especially AAA-rated ones) vs. private financiers (look for risk return)
- *Partnership and ownership*: LGs owning and controlling the assets / doing everything on their own vs. collaboration with private investors who can bring in new funding and expertise. Different cities have different levels of competency on these issues. Incentive needed for LGs to step into special purpose vehicle/ neutral entity facilitator that contracts all partners. Are LGs facilitator in scaling pilots or do they have another role?

## Probably uncontested points...:

- Need to embrace new technologies
- Declining and rural cities: help from bigger cities – solutions available for everyone
- Regulatory holiday for pilot projects?

# Presentations

# Dr.-Ing Alanus von Radecki

Head of Competence Team Urban  
Governance Innovation at the  
Fraunhofer Morgenstadt Initiative

# SMART CITY INVESTMENTS



**Dr.-Ing. Alanus von Radecki**

Head of Morgenstadt Market Shaping

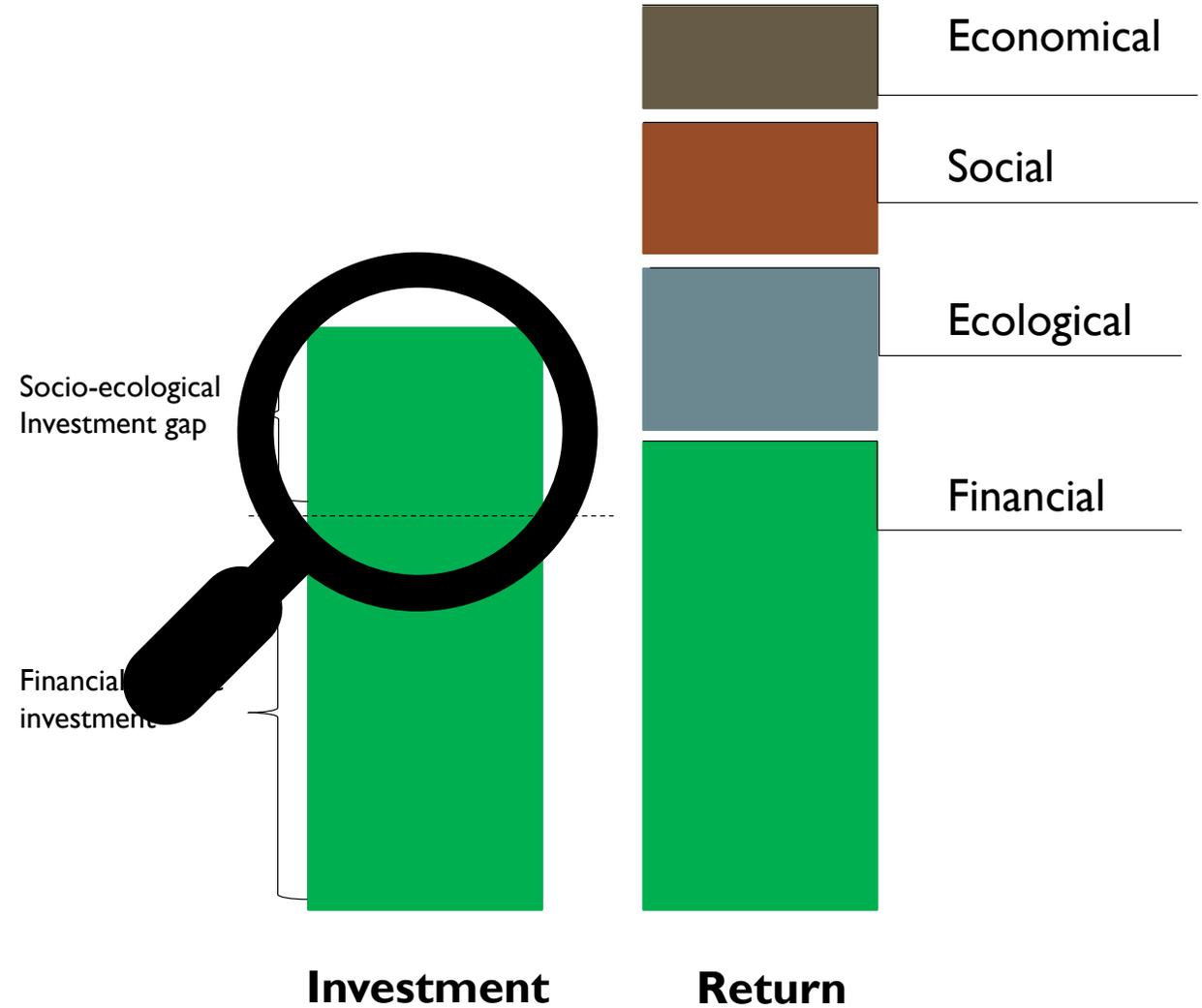
Senior Consultant – BABLE UG

[Alanus@bale-smartcities.eu](mailto:Alanus@bale-smartcities.eu)



- Investments in smart city solutions generate different types of return.
- From a mere finance & investment perspective most of them are not profitable.

# KEY CHALLENGE



# INVESTMENT GAP

- **Innovation** = higher risk = higher returns necessary
- **Connected** = more stakeholders = higher transaction costs
- **Systems lock-in** = Systems transformation is more costly than incremental investment

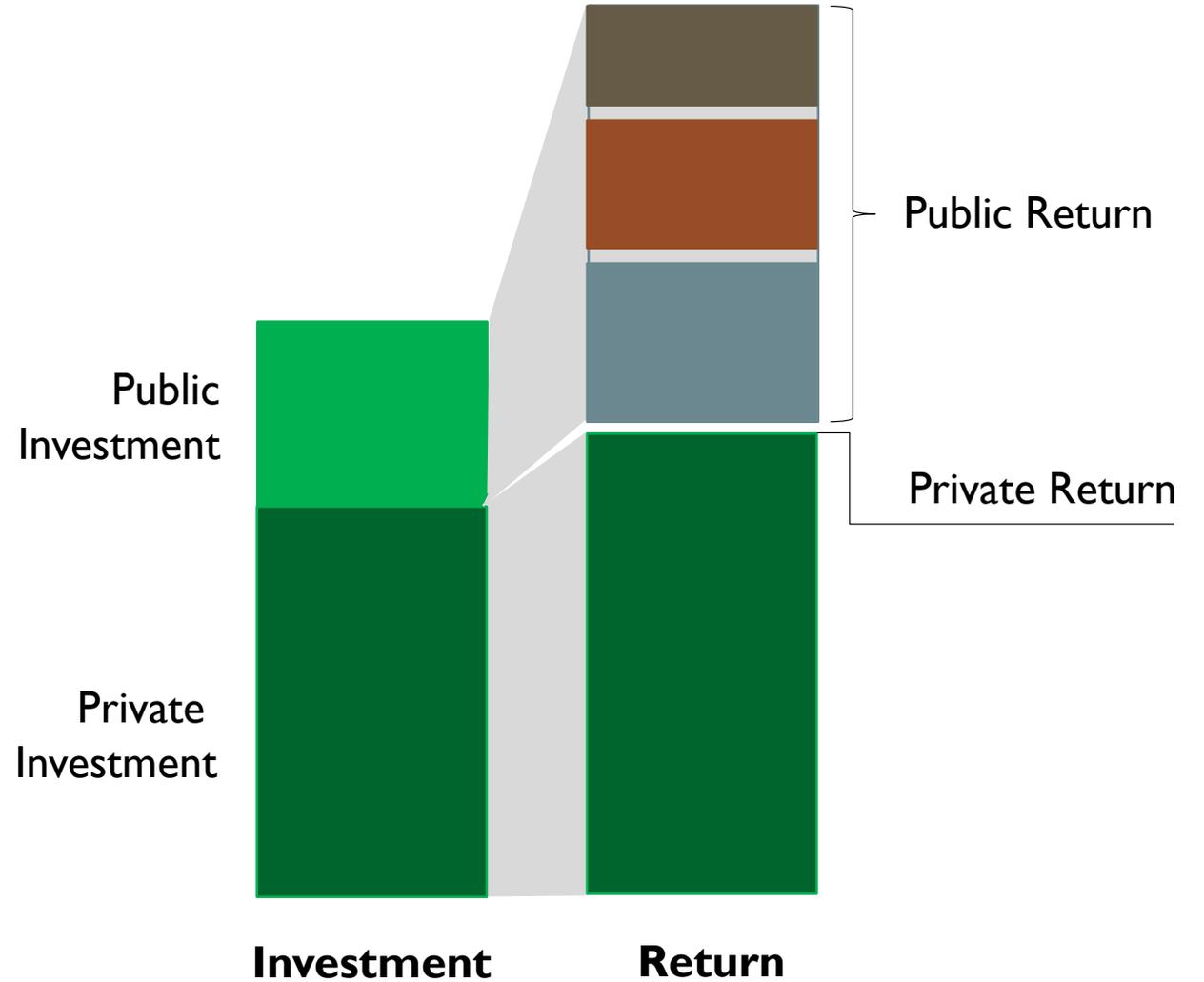


<https://www.bable-smartcities.eu>  
<https://www.bable-smartcities.eu/explore/solutions.html>

# EXAMPLES FOR SMART CITY SOLUTIONS

Unlocking significant private investments into sustainable urban development by de-risking & blending with public invest.

FINANCING  
APPROACH:  
PPP



# INVESTMENT METRICS

Investment needs and potential returns depend on a variety of local factors.

## Return Metrics

- Cost of operation
- Geography + Topography
- Occupancy rate
- Ticket prices
- Social & environmental impact



ELECTRIC BUS SYSTEM

## Investment Metrics

- Regulation
- Funding & support programs

- Technology (E-Buses)
- Infrastructure (e.g. charging stations)
- Upgrading (coaching, maintenance etc.)

# THANK YOU



**Dr.-Ing. Alanus von Radecki**

Head of Morgenstadt Market Shaping

Senior Consultant – BABLE UG

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# Will Sibia

Founder at URBS

# 01

URBS IS A TRUE SYSTEM INTEGRATOR  
THAT DELIVERS SOLUTIONS FOR  
REAL ESTATE AND INFRASTRUCTURE  
TO CREATE SUSTAINABLE  
SMART CITIES.

**urbs.**  
URBAN SYSTEMS



Commercial arm to Swedish industry's export platform

Leveraging proven Nordic technologies, systems and solutions

A credible partner for climate finance and impact investments

MAKING INVESTMENTS IN  
CLIMATE MITIGATION  
ATTRACTIVE, SECURE AND  
TRANSPARENT.

# WELCOME TO MANHATTAN!

For the US retrofit market, urbs would integrate its technology and insurance platform with the PACE program - a New York state program for providing long term-financing for energy efficient and renewable energy projects.

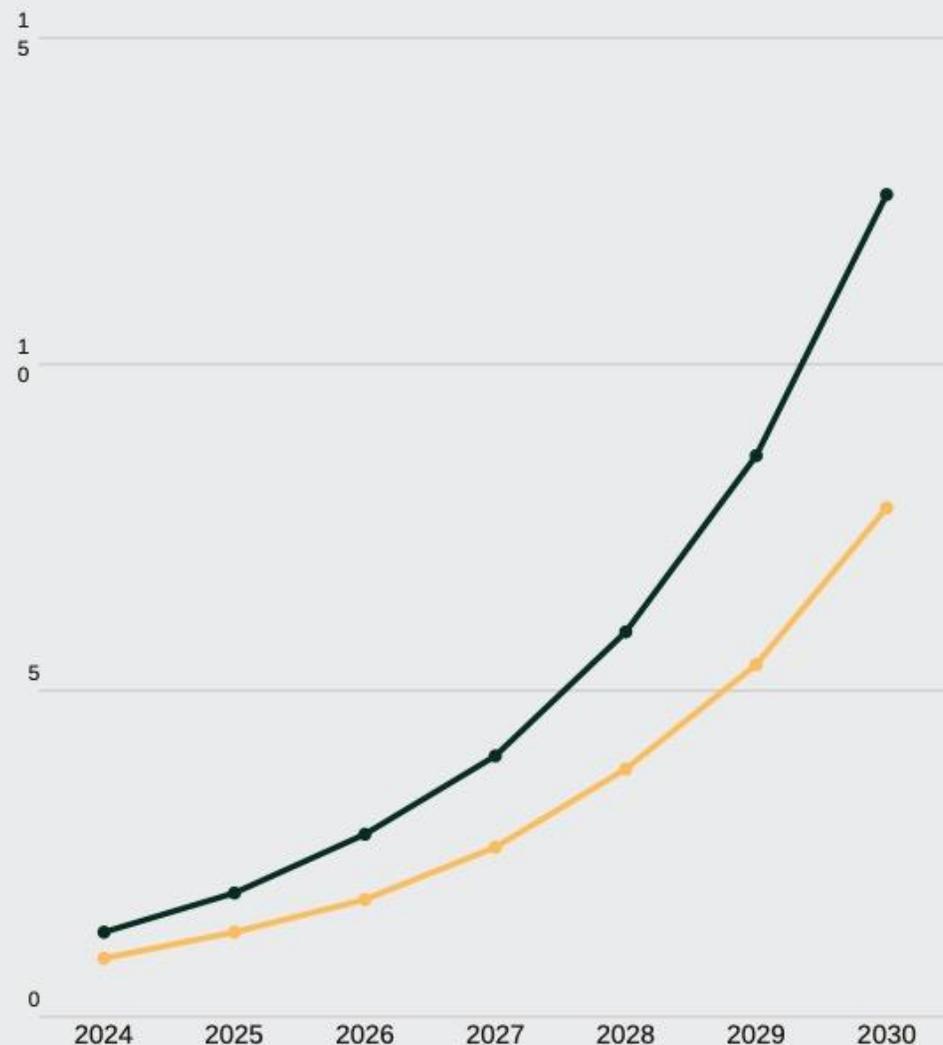


# 05

## Retrofit market (2024-2030)

The catalyst **LOCAL LAW 97**

- Up to 2.5 billion square feet will have to comply with the Local Law
- The Local law could generate as much as \$20 B in investment



Sources: Retrofit Market Analysis. Urban Green Council, June 19, 2019



## PACE program

### **lien**

PACE loans have senior lien priority to private loans. Future payments remain the obligation of the building owner, and transfer with a property to a new owner after it's sold

### **security**

PACE loans are secured by an interest in the property (like mortgages) and are paid as a charge on a building's tax bill

### **flexibility**

PACE debt is non-accelerating and repayment charges can be passed through to tenants on leases where appropriate.

07

ISTANBUL  
MEETING OF  
CULTURES



08

SETTING NEW  
STANDARDS FOR  
**SUSTAINABLE**  
**LIVING** AND URBAN  
DEVELOPMENT





TRANSFORMING INSTITUTIONS, MARKETS, AND SYSTEMS IS KEY TO FIGHTING THE CLIMATE CRISIS  
— AND IT'S HOW WE DO BUSINESS

10

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URBAN SYSTEMS

# Isabella Longo

**Project Director (BIT Habitat) at  
Barcelona City Council**

**BIT HABITAT – Barcelona Insitute of technology for the Habitat**

***Financing Sustainable, Climate Neutral Cities – Funding Mechanisms***  
**November 16<sup>th</sup> 13.00 – 14.30**

**The Proactive City's initiative to foster the local innovation ecosystem to find solutions for the challenges cities is facing in post-covid scenario.**

Isabella Longo  
Projects Director

[WEB// bithabitat.barcelona/es/](http://WEB// bithabitat.barcelona/es/)

## BIT HABITAT – Barcelona Insitute of technology for the Habitat

**BIT Habitat is a body from the Barcelona City Council** that aims to promote urban innovation in the city, in its **social, economic, urban and technological aspects**, in order to respond to the new urban challenges.

We promote initiatives aimed at creating a **more inclusive, safe, resilient and sustainable city**, and improving the quality of life of the people who live there, through collaboration between the **public, the university and research centres, the business community and the public sector**, with a marked international vocation.





## La ciutat proactiva

Barcelona: i ara?

+info: [bithabitat.barcelona](mailto:bithabitat.barcelona)  
#ciutatproactiva

### ABOUT

“**The Proactive City**” is a call for grants that aims to **promote urban innovation in an open, plural, and multidisciplinary way, supporting the development and implementation of projects that promote urban change with a quantifiable social return while aimed at achieving positive and measurable impacts** for Barcelona and its citizens.

It is necessary to find ways to equip our cities with new capabilities making them more resilient to possible crises, from a social, economic, environmental, and political point of view.

This is an invitation to the citizens to participate actively as a generator of proposals and solutions for real challenges.

We offer financial and technical support to the implementation of projects that have a real and measurable impact on achieving **more resilient, sustainable, inclusive, and safer cities**.

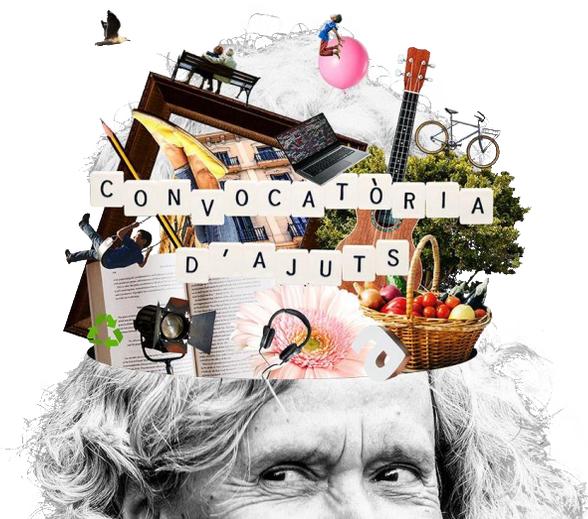
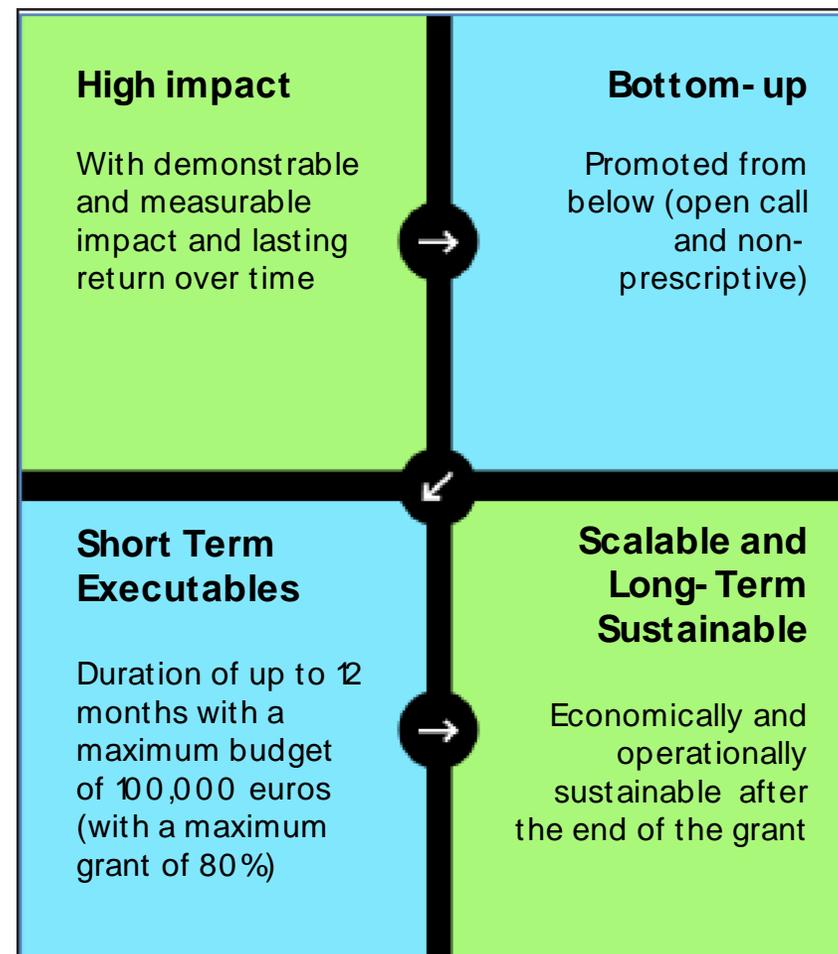


## La ciutat proactiva Barcelona: i ara?

+info: [bithabitat.barcelona](https://bithabitat.barcelona)  
#ciutatproactiva

### What did we look for?

*The Proactive City* wants to find real solutions to the challenges facing our city in the immediate future.





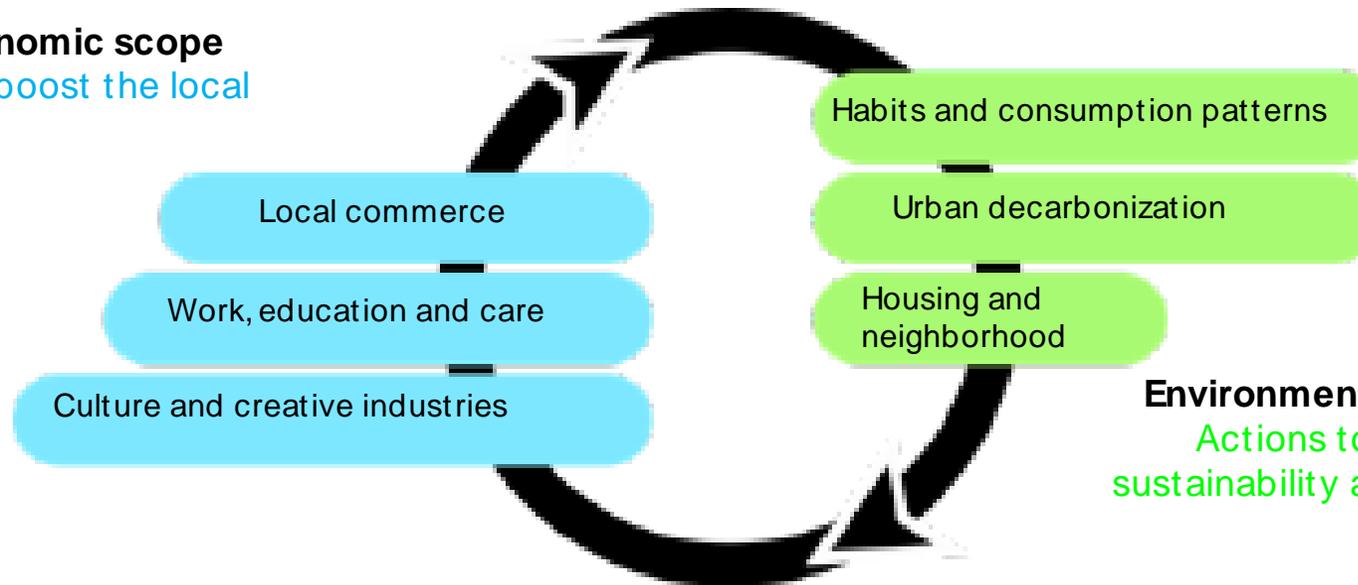
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## Solutions to urban challenges

To contribute to solving two urban challenges associated with different areas that have been particularly affected:

**Socio-economic scope**  
Actions to boost the local economy



**Environmental scope**  
Actions to improve sustainability and urban resilience





## La ciutat proactiva

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[#ciutatproactiva](https://twitter.com/ciutatproactiva)

### Examples of some contestant projects

A **network of collaboration** between construction and architectural studios, for the **deconstruction and demolition waste streams**.

**Decentralized** management of **municipal organic waste** through **electromechanical composting**

**Microprojects with groups of women** in a situation of exclusion in the **Raval** district

An **open data web space** to **analyze impacts on the environment for small local businesses**.

A **participatory platform** for the collective reuse of the roofs of Barcelona.

**Crowdfunding** development for the **audiovisual sector**.

A **free mobile app** to strengthen social ties between neighbours and local establishments.

Digital **market of independent producers** for consumers and hospitality

Green Makers. **Open Urban Sustainability Laboratory**.



# Thanks!

Isabella Longo  
Projects Director

[WEB// bithabitat.barcelona/es/](http://bithabitat.barcelona/es/)



# Mayur Mukati

Senior Associate Sustainable  
Finance Solutions at Sustainalytics

# Liza Rose Cirolia

Senior Researcher at the African  
Centre for Cities



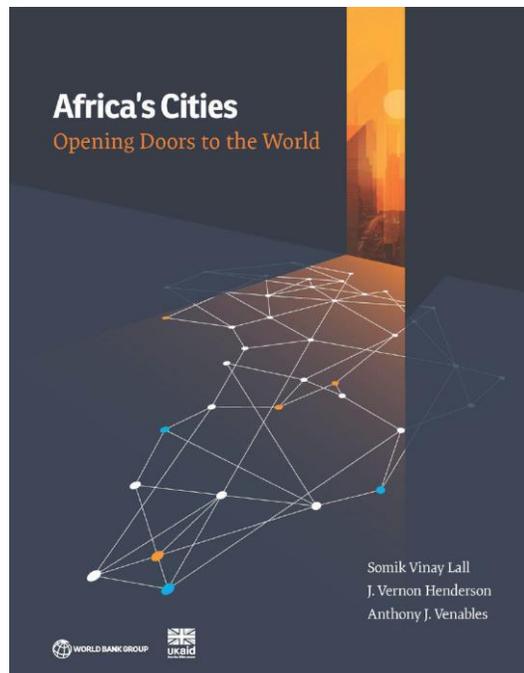
## Financing African Cities

A continent of hope and possibility



March 2015

African cities as investment frontiers



## *Into Africa* The continent's Cities of Opportunity



[www.pwc.com](http://www.pwc.com)



### **African cities are believed to have:**

- Having 'hidden' investment opportunities (hidden to who?)
- Exciting untapped markets (enabled by a supposedly growing consumer class)
- High potential yields (to match the unknown or poorly documented risks)

### **Investors are looking for:**

- Packageable projects (that meet investor demands)
- Financial rewards/projected yields that match risks (this means high)



The narrative

## Nairobi Upper Hill redevelopment



Kigali convention centre



Nairobi Tata City new town



What is fundable?



Is this the sort of investment African cities really need?

There is no precedent for the scale and nature of African urban growth.

And there is a rapidly changing technological landscape.

So what do African cities 'need'?



The question

## Investment that:

- Focusses on the urban **infrastructures that sustain everyday life** (not just the global economy or the rich).
- Respond to the '**hybridity**' of urban infrastructure networks and service delivery systems (most people don't access services from a conventional network).
- Are job producing and **labour intensive** (we need jobs if people are going to be paying for services).
- Value creating along the **full supply chain** (so simply important Chinese solar panels isn't going to cut it).
- Reduces the drain on scarce resources by considering **circular economies** (even rich Africans are not the ones over consuming natural resources, however, there is still scope to leapfrog to technologies that rehabilitate, rather than extract)



The imperative

## Investment in the 'right type' of infrastructure is hard b/c:

- Local governments are weak and under supported. Infrastructural responsibilities are fragmented and diverse (decentralization, privatization, and corporatization have fractured urban autonomy).
- Diffuse infrastructure networks do not lend themselves easily to centralized decision making or packaging (investors want one big project, not a million small ones).
- The projects with the highest overall benefit do not have high returns (for example, sanitation has a million benefits, reducing costs for health etc. But.....)



The challenge

## So what needs to be done??:

- Find ways to use investments to bring together urban actors. *How can investment projects consolidate, rather than fracture urban governance in African cities?*
- Find ways to invest in alternative modes of infrastructure and service provision that do not simply swap conventional for green, but are truly more adaptive, responsive, and bottom up. *How can new technologies help aggregate and track diverse and distributed service delivery systems?*
- Find new ways to value investments and account for risks. This means considering value and risk more widely. *Who does value accrue to and how can these actors help shape and manage risks?*



The way fwd



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**THANK YOU**

[www.africancentreforcities.net](http://www.africancentreforcities.net)



**Today's panelists**  
**key points**

# Concluding remarks

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- Sustainable financing: includes green and social -> metrics for measuring social impact important; and focus on social necessary (not only investments but also thinking longer term about job creation and value chains of these investments). Not one coherent impact investment framework for investing in cities available (including direct and secondary impacts)
- Public procurement: LGs have quite substantial budgets; is an instrument to channel investment – aside from bonds or loans or grants
- Partnerships: not a lot of cities ready to pull together large partnerships for the investment scale needed
- Creditworthiness of cities: not all LGs are AAA – could pull investment needs together in a special purpose vehicle, back-up by public banks

## Next sessions

Right after this: **The business case for sustainable cities finance**

More info: <https://smartcityscandinavia.com/>

An aerial photograph of a residential neighborhood during autumn. The scene is dominated by numerous trees with bright yellow and orange foliage, interspersed among multi-story brick and stone buildings. The streets are visible, winding through the blocks, with some cars parked along the sides. The overall atmosphere is warm and scenic, capturing the peak of fall colors.

Thank you!