

# Unlocking Climate Finance for Cities 2017-2019 Strategy



# Executive Summary

More than **\$93 trillion** are needed in the next 15 years to set world economies on a low-carbon development path. Most of this funding must be spent on urban infrastructure given its contribution to anthropogenic emissions and the tremendous urbanization rates worldwide. Urgent action is needed as global city investment decisions **in the next 5 years** will determine whether the 2°C target is met or not.

Cities, however, suffer from a set of intricate barriers that hinder investments in low-carbon and resilient action. These barriers range from macro-level to micro-scale factors: from national policies, down to the low-competency of city financial and technical departments in structuring bankable projects. The urgent need for addressing access to finance for cities has been acknowledged by the global community in both developed and developing economies: the momentum towards empowering cities and regions is becoming stronger, further highlighted by the recent decision of the USA to pull-out from the Paris agreement and the ensuing nation-to-cities and states declarations.

Leveraging on its strengths and nature, Climate-KIC has the unique opportunity to make a meaningful contribution to accelerating city-level investments worldwide, starting in Europe. The Climate-KIC will do so by:

- 
- **Influencing** public and private policy makers in aligning investment plans with social and environmental outcomes
- 
- **Mobilizing** a community of investors and cities to direct more funds toward sustainable infrastructure
- 
- **Integrating** environmental analysis of infrastructure projects into the investment and monitoring process

Leveraging on its EU footprint, its public/private sectors convening power, and the flexibility of its mandate, LoCaL aims to address the city climate finance challenge through the delivery of **four strategic outcomes**:

- 
- Helping cities and investors to accurately know their emission levels
  - Standardization of impact assessment and project structuring practices
  - Creation of a visible pipeline of bankable projects
  - Mainstreaming financial mechanisms dedicated to fund low carbon action in cities

To deliver these outcomes, LoCaL will continue serving its community of innovators within the Innovation Framework. The current LoCaL project portfolio comprises potentially breakthrough initiatives, such as funding models for city-wide public building retrofit (with Paris), a matchmaking platform for cities and investors (Matchmaker), the definition of the first standard for low carbon cities aimed at enabling result-based finance, near real-time monitoring of city emissions through the use of mobile-phone signals to assess traffic flows in cities (with Telefonica and Nuremberg city).

# Contents

---

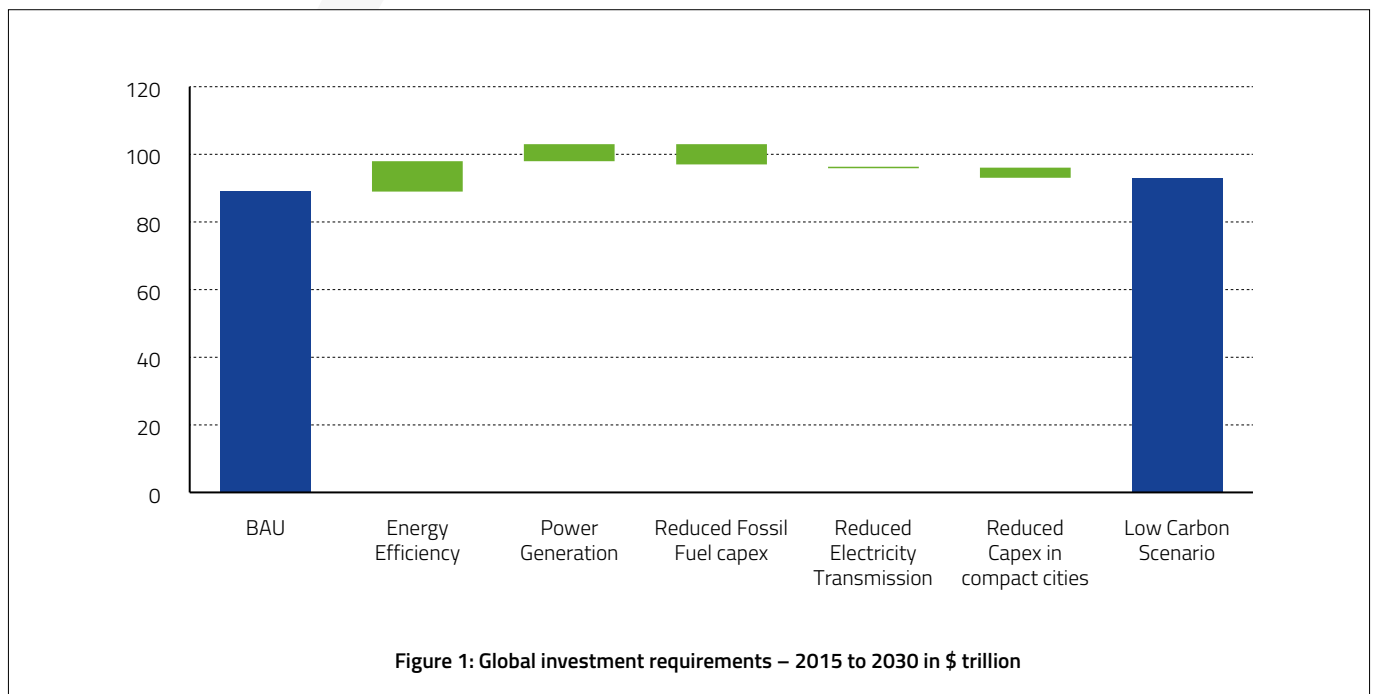
1. The City Climate Finance Challenge	4
1.1 Infrastructure investments needs are not met	4
1.2 Significant opportunities to unlock climate finance	5
1.3 Main barriers preventing low-carbon and resilient urban investments	6
1.4 The current city climate finance ecosystem and state of play	6
1.5 Unlocking climate finance for cities	7
<hr/>	
2. The Low Carbon City Lab flagship	8
2.1 LoCaL objectives	8
Figure 7: LoCaL Geographical footprint	9
<hr/>	
3. Synergising LoCaL within the Climate-KIC	11
3.1 LoCaL and Smart Sustainable Districts	11
3.2 LoCaL and Urban Transitions	11
3.3 LoCaL and Climate Risk Information (CRI)	11
3.4 LoCaL and Climate-KIC Education	11
<hr/>	
4. LoCaL ecosystem	12
4.1 LoCaL Ecosystem	12
<hr/>	
Endnotes	13

# 1. The City Climate Finance Challenge

## 1.1 Infrastructure investments needs are not met

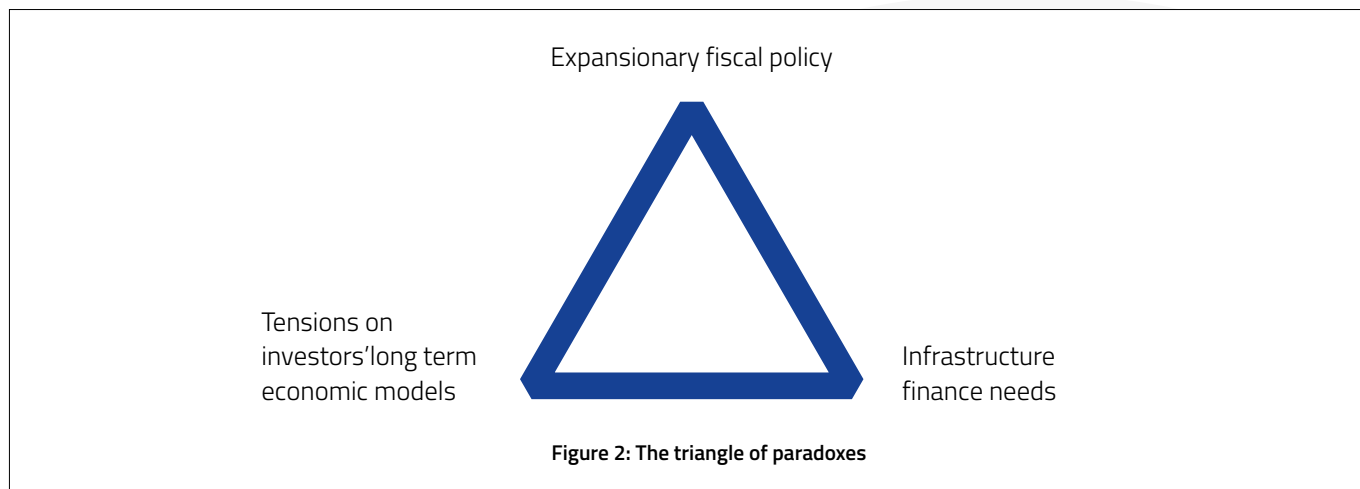
The New Climate Economy 2014 Report estimated the global investment needs for a low carbon economy to be \$93 trillion between 2015 and 2030. This figure does not take into account funding for increasing adaptation needs to the impacts of climate change. In parallel the total amount of climate finance worldwide was estimated to be in the range of \$340 to \$650 billion in 2014. Out of the total infrastructure investments made each year, a small fraction could be labelled as green, estimated between 7% to 13% in 2013.

The costs associated with adaptation to climate impacts have been widely debated, and are notoriously difficult to estimate. An initial study by the IPCC put global adaptation needs between \$70-100 billion from 2010-2050, but a recent 2016 UNEP report found these figures were likely to be an underestimate, with current adaptation needs 2-3 higher than global estimates. It estimated the costs of adaptation will be in the range of US\$140-300 billion per annum by 2030. With an estimated \$25 billion in adaptation related finance flows in 2014, this presents a challenge for scaling up adaptation finance by a factor of 6-13 times what is dedicated by today's standards.



## 1.2 Significant opportunities to unlock climate finance

A convergence of three global factors creates significant opportunities to direct the necessary funding towards a global low-carbon and resilient economy.



### 1. Expansionary fiscal policy

Following the financial crisis, central banks have been supporting accommodative monetary policies. People's Bank of China, the FED, the ECB and Bank of Japan have seen their balance sheet double from December 2004 and December 2015. Such policies have maintained historically low interest rates in major economies.

### 2. Tension on investors' long term economic model

Institutional investor activities are strongly regulated and must deliver a certain performance on a significant share of their portfolio. The historically low, long-term interest rates, coupled with an ageing population in developed economies, has resulted in institutional investors' business model becoming increasingly strained.

### 3. Significant infrastructure investments needs

As described above, a low-carbon and resilient pathway requires significant investment. The scale is tremendous, as \$93 trillion represents more than the entire current stock of infrastructure.

The monetary stimuli implemented worldwide have not led to a return to pre-crisis investment levels, and long-term investors have expressed a high demand for infrastructure investment opportunities. Funding energy transitions can potentially address current pressing macroeconomic and financial issues, provided mechanisms to overcome the high deficits (and prudential laws, such as Maastricht agreements) from developed economies can be developed. Institutional investment in infrastructure is in the range of \$500 billion, and should the right conditions be put in place, it might become plausible to double or triple their investments in the next fifteen years.

### 1.2.1 The importance of cities

Cities will account for 70% of the future demand in infrastructure over the next 15 years. The window is very short: urban infrastructure investments made over the next five years will determine up to one-third of the remaining carbon budget we have under a 2°C scenario.

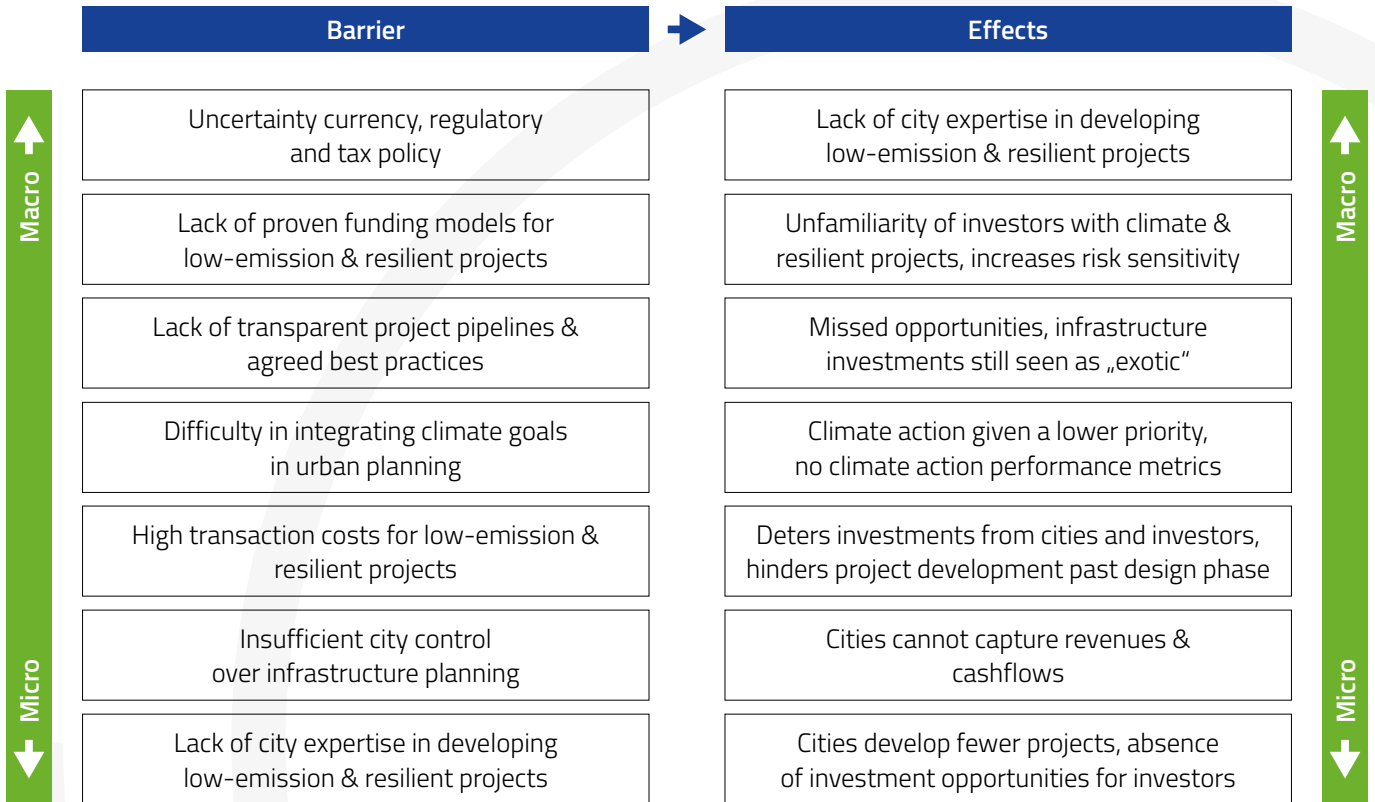
The Sustainable Development Goals (SDGs) have recognised cities' importance in defining our global future, with SDG 11 calling world leaders to: "Make cities and human settlements inclusive, safe, resilient and sustainable", putting them in at the forefront in the fight for climate change and sustainable development.

The pace in which cities are expected to grow over the next ten years is tremendous. Over the period from 2010-2025, it is estimated that cities will grow by sixty-five million inhabitants per year, hosting two-thirds of the world population by 2050. Geographically, 90% of population growth will take place in Asia and Africa according to UN estimates. This extreme urban growth will drive demand for transport, water, housing and energy infrastructure. Past investment levels have not been high enough to support economic growth and development; adequate financing must be provided specifically to urban areas now. This will require addressing both investor and cities barriers and challenges, developing catalytic investment mechanisms which are adapted to their constraints.

### 1.3 Main barriers preventing low-carbon and resilient urban investments

There are a set of intricate barriers hindering city level investment. These barriers can derive from very different factors, from the macroeconomic to the locally-dependent.

Indeed, city creditworthiness can be impacted by country creditworthiness, national regulations, local authorities' competences in deal structuring ...



### 1.4 The current city climate finance ecosystem and state of play

Among the barriers to investments within cities, barriers emerging at the city-level are the most urgent to address. The Cities Climate Finance Leadership Alliance (CCFLA) is a UN-led initiative aiming at unlocking climate finance for cities. It is a coalition of more than 45 public and private organisations (MDBs, investors, NGOs, UN Agencies etc.).

The Climate-KIC is a CCFLA member and chaired the Working Group on Innovation Labs in 2016. The Climate-KIC also co-authored the first mapping of activities and initiatives from its members, giving a relevant snapshot of the current state of play of city climate finance worldwide.

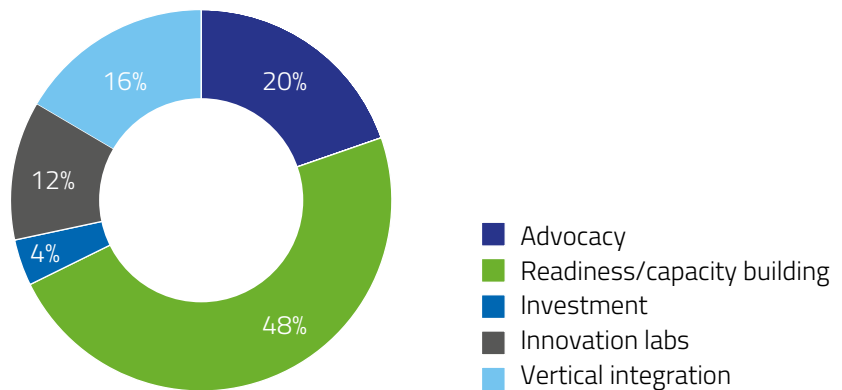


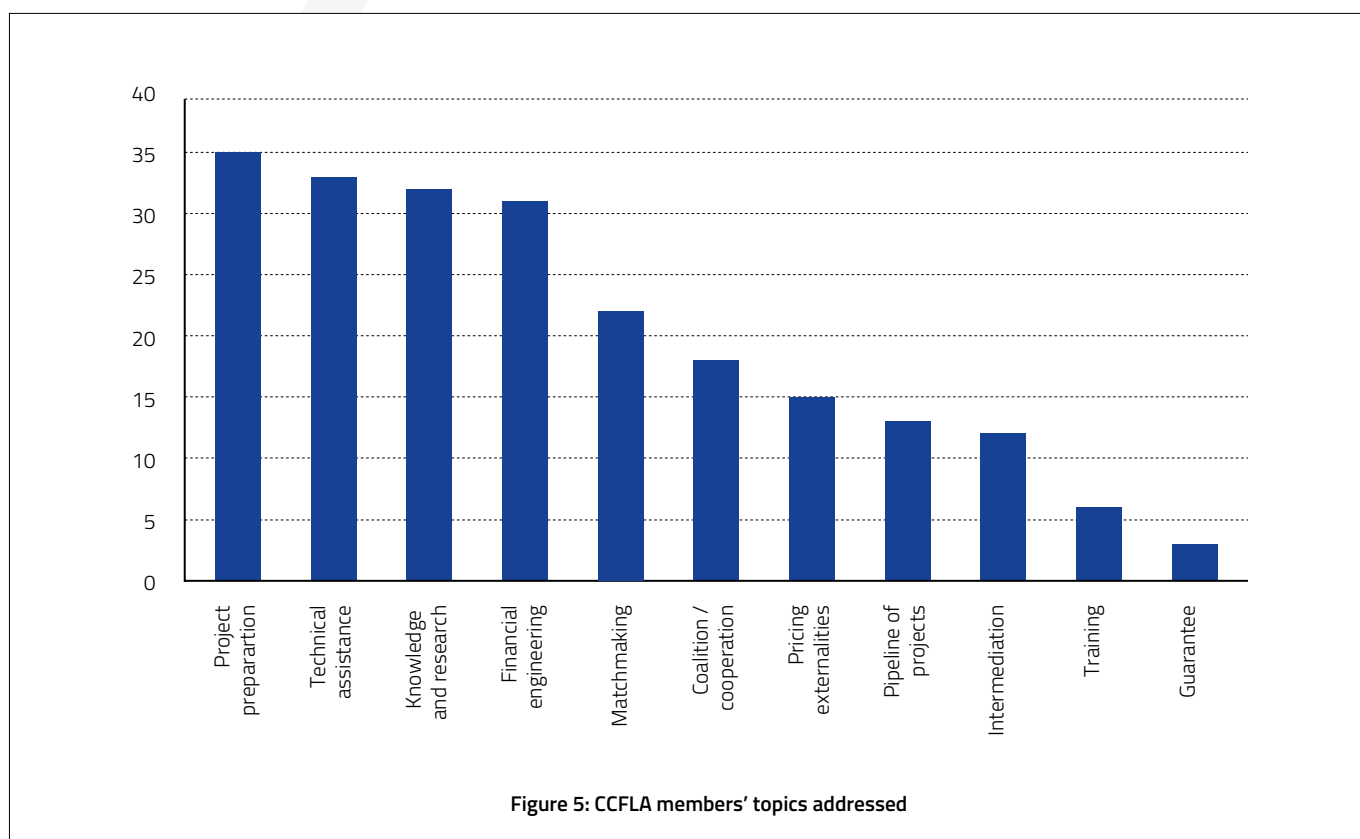
Figure 4: Typology of CCFLA members' initiatives

Readiness and advocacy are the most common initiatives listed by the 2016 report, highlighting the current weaknesses of investment frameworks and subnational authorities' capabilities in developing, and attracting, funding for mitigation and adaptation projects.

The main actors currently working on cities climate finance are multilateral and development banks, local government networks, and NGOs. The private sector is still lagging behind, although long-term investors and insurers (Cardif, Allianz, Citi, etc.) are starting to get involved in innovation projects.

Innovation and momentum are prominent within the eighty initiatives of CCFLA members, despite few of them involving local and regional financial institutions. Local and subnational financial products that are specifically dedicated to local authorities are still lacking. LoCaL itself appears as one of the initiatives gathering most CCFLA members through its different projects.

Significant support to local and subnational governments must be provided to enable them to generate a pipeline of bankable projects, yet the national, or even transnational in the case of the EU, level cannot be overlooked. Increasing integration between the subnational and national levels in both climate planning and investment strategies remains a priority. Notably, de-risking instruments and co-benefit pricing and assessment are absent for the initiatives listed among the CCFLA community.



## 1.5 Unlocking climate finance for cities

There is global momentum towards cities in the fight against climate change. Demographic factors will drive an unprecedented growth in demand for infrastructure in the coming years, while macroeconomic factors hinder the necessary investments in urban transitions.

Given the usual project preparation share of costs within infrastructure investments (2-5%), and assuming that 70% of infrastructure investments will be made in cities, **means that between \$ 86 and \$ 217 billion will be spent every year on urban project preparation and financial intermediation alone, representing a crucial challenge to address and a significant business opportunity in the next fifteen years.**

# 2. The Low Carbon City Lab flagship

## 2.1 LoCaL objectives

LoCaL aims to reduce emissions and increase resilience globally by unlocking investments in climate-smart action at the city level and by developing assessment tools to support investors and cities in their climate objectives. Adopting a value chain approach, LoCaL will make a meaningful contribution to the urban investment gap by:

- Empowering cities by giving them competences to design their own climate policies, structure their projects, and access relevant sources of funding;
- Accelerating urban deal flow generation through catalytic mechanisms, enabling the sourcing of a pipeline of bankable projects that have a demonstrated and accurately measured impact in emission reductions and resilience;
- Sourcing, testing and scaling financial innovations in an urban context that will allow a shift of existing and new capital towards green urban infrastructure;
- Bridging the finance and data world in an urban context, enabling cities and investors to make sure they are, and stay, on track by developing the best standards and impact assessment solutions.

### 2.1.1 LoCaL Strategy: Influence – Mobilize – Integrate

In line with the Climate-KIC and Decision Metrics and Finance Theme strategy, LoCaL has the potential to make a meaningful contribution to unlocking climate finance in sustainable urban infrastructure. Leveraging on Climate-KIC partnership strengths, and given the current barriers to

investment in cities, LoCaL aims to influence relevant stakeholders, mobilize cities and investors, and accelerate the integration of environmental data into the investment in, and management of, sustainable urban infrastructure.

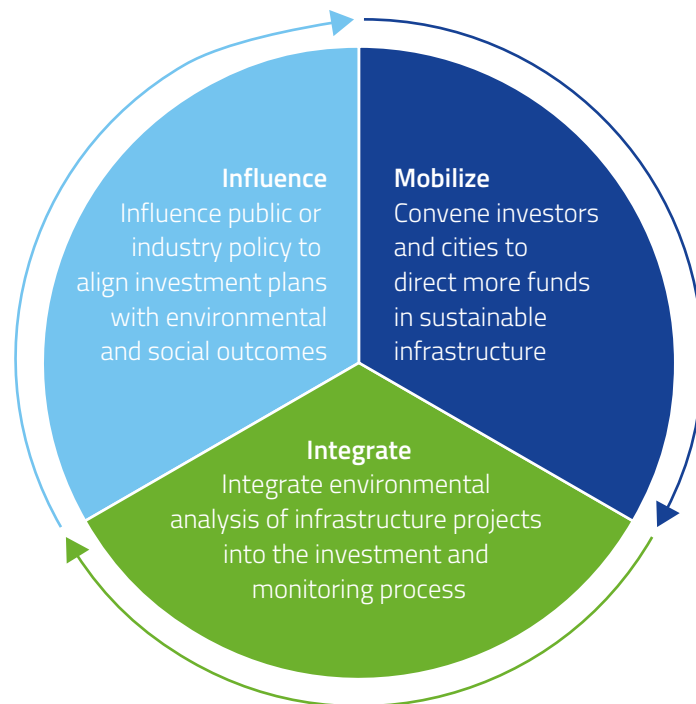


Figure 6: LoCaL positioning strategy



The LoCaL overall strategy can be organised around three main axes:

**Mobilize**

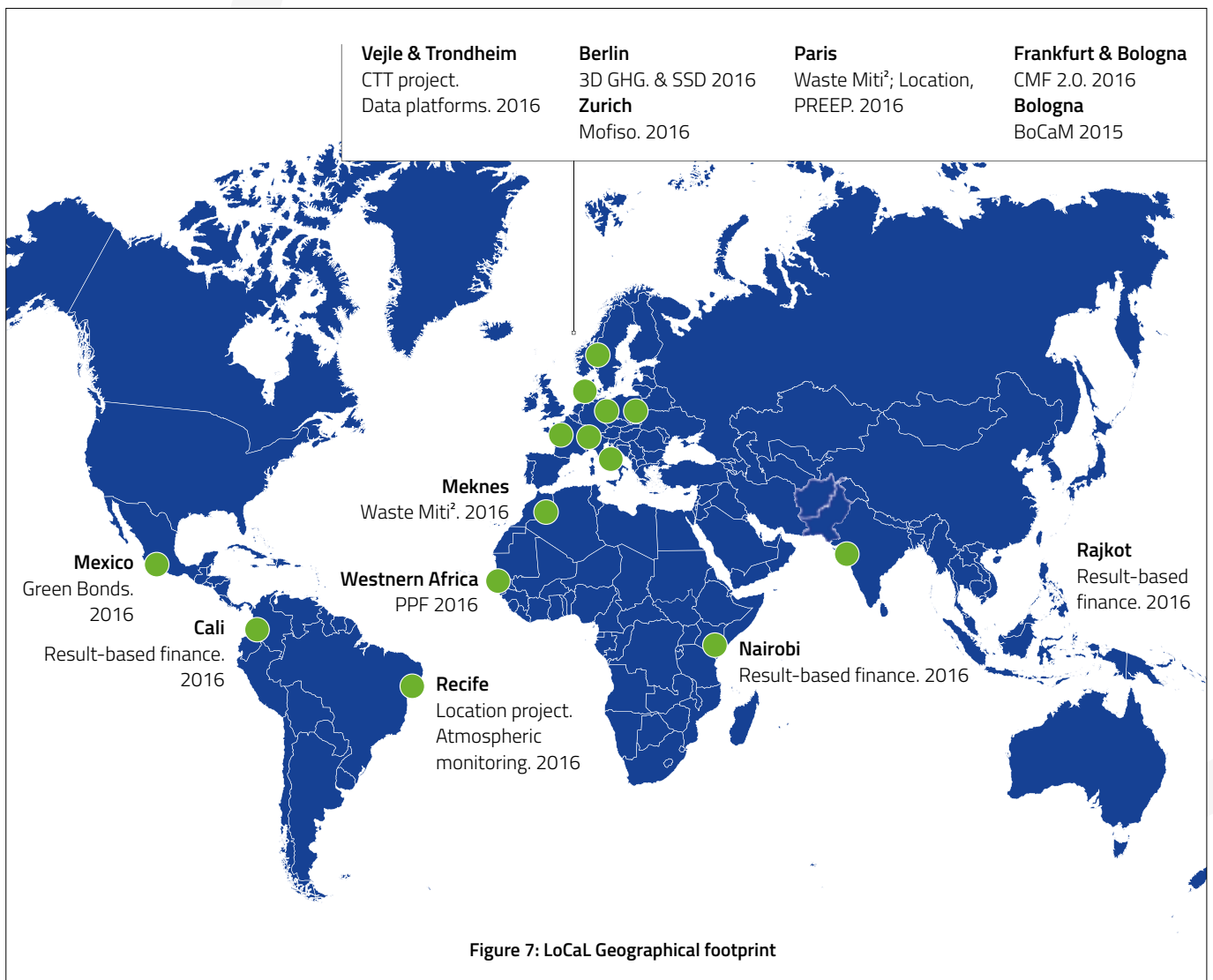
LoCaL will convene cities, investors, and solution providers, as well as other conveners, to increase the amounts of finance flowing into sustainable urban infrastructure. There is a need to bridge the current walls between cities and investors, favouring information and knowledge sharing. The Climate-KIC, as a partnership-based organisation, is ideally placed to spark and implement industry-wide mobilisation, starting from its European roots. A successful mobilisation of relevant stakeholders will require increased involvement from the financial industry, within LoCaL and the Climate-KIC more generally, while the relation with existing city networks active within LoCaL or outside the partnership will need to be deepened.

**Integrate**

LoCaL will facilitate the integration of urban relevant climate impact data into the day-to-day practices of the financial industry and subnational authorities. There is a need to develop mechanisms to integrate climate impact assessments within city and investment decision making processes, and to address the current high level of uncertainty and complexity. Climate-KIC has already successfully supported similar activities in other sectors and industries that can be synergised with LoCaL planned activities (e.g. SSD, Climpax, CRI).

**Influence**

Leveraging on previous activities and projects, LoCaL will contribute to unlocking climate action at the city level by accelerating the standardization of impact assessments and project design practices. This will require a successful mobilization of infrastructure investors, cities and solution providers on one hand, as well as standard organizations and conveners on the other.



## 2.1.2 Theory of change

Based on barriers to low carbon and resilient investment analysis and on our positioning strategy, LoCaL will actively pursue the generation of four strategic outcomes. Over time, the nature and number of outcomes targeted, as well as the level of efforts and positioning strategy, will be revised.

The main expected outcomes are:

1. Give cities; utilities and investors actionable information about their current emissions levels;
2. Standardise both urban action impact assessment and project design practices;

3. Create, scale and make visible a pipeline of bankable city projects;
4. Provide cities and investors with financial mechanisms to support low carbon and resilient action.

LoCaL creates impact by triggering low carbon and resilient action in cities and unlocking investments on actions that have a demonstrated climate impact. Empowering cities in understanding their current emission levels, designing and structuring relevant actions, and, finally, accessing funding sources, LoCaL will strengthen and accelerate the current shift towards subnational authorities in the fight against climate change.

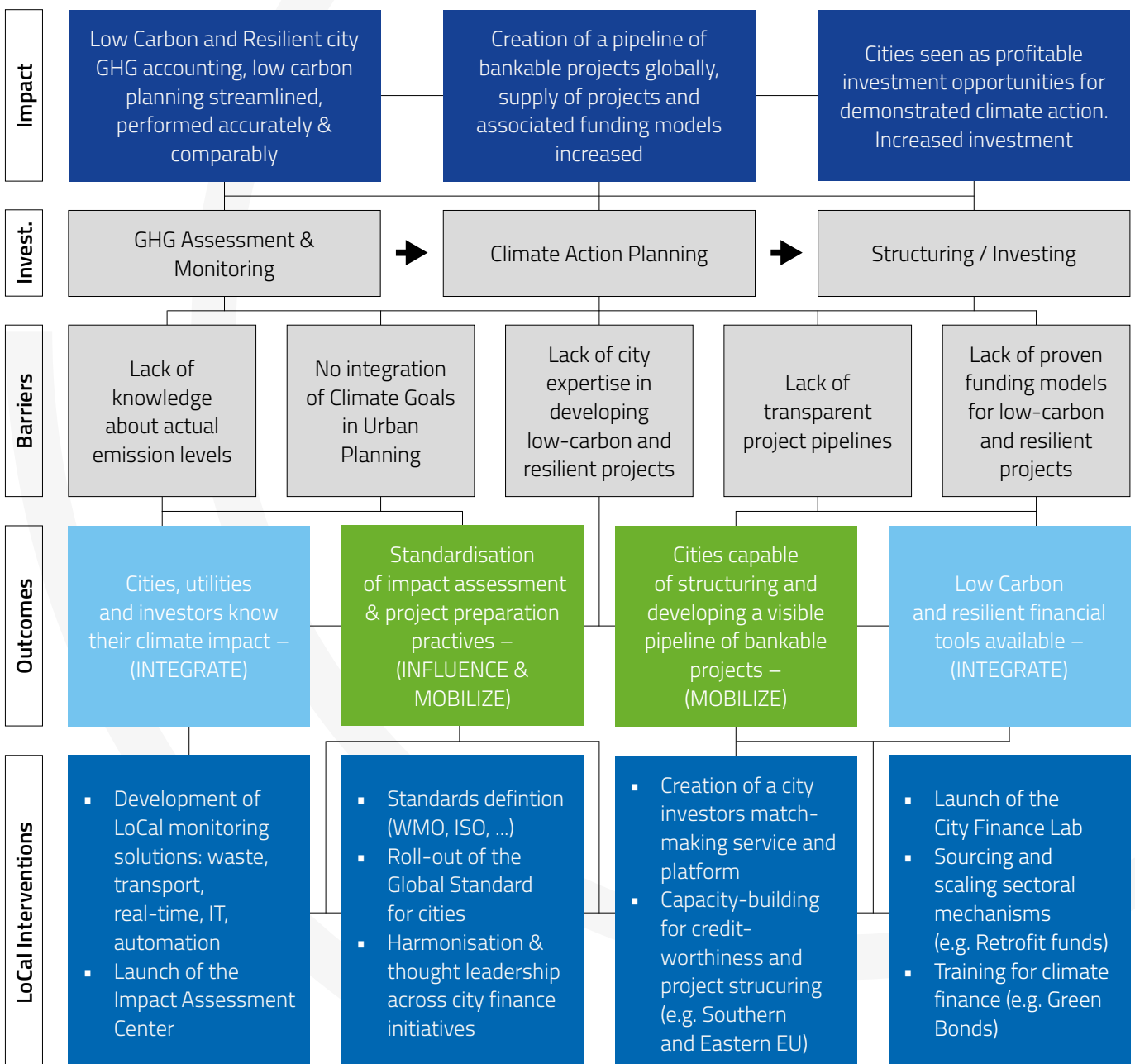


Figure 8: LoCaL Theory of Change

# 3. Synergising LoCaL within the Climate-KIC

The sections on synergies with UT and SSD have been realised in collaboration with relevant Climate-KIC teams.

## 3.1 LoCaL and Smart Sustainable Districts

The Smart Sustainable Districts programme encourages cities to bring together consortia of local municipalities, policymakers, utilities, private developers, innovation experts, sustainability specialists and citizen groups to collaborate on district systems projects. Drawing on the wider Climate KIC network and knowledge base, SSD offers cities mentoring, advice, solutions brokering and access to expert services to help realise sustainable district developments.

The typical outcomes for cities participating in the Smart Sustainable Districts programme include clear implementation strategies and project plans. The SSD programme offers an important pipeline of project opportunities that can be closely linked with the implementation support on offer through the LoCaL programme. The overall SSD offer to districts will be greatly strengthened by integrating LoCaL's project development, financing and impact assessment support for cities working to turn project opportunities into bankable projects. Achieving this integration between the two flagship programmes will be a priority for 2017-18.

## 3.2 LoCaL and Urban Transitions

Collaborations with the Urban Transition Theme will be implemented this year, leveraging on UT/LoCaL existing and new pool of projects. These joint activities can include:

- Identification of city-wide funding mechanisms for solutions developed and promoted or relevant to the Urban Transitions; e.g. leasing models for electric cars, or large scale retrofit activities. The SSD team will find the technical solutions for a district while the DMF team will find ways to fund them when affordability gaps appears to be a major barrier.
- A City finance roadshow with Climate-KIC UK & Ireland cities, currently under preparation;
- Climate summit with Copenhagen Municipality, with LoCaL will strive to support the city officials by sourcing the right investors and solution providers to assist city officials in structuring investment-ready projects.

## 3.3 LoCaL and Climate Risk Information (CRI)

LoCaL will start addressing adaptation funding from 2017 onwards. Leveraging on the CRI community, LoCaL will strive to integrate climate risk information into its financial mechanisms (e.g. impact assessment tools for green bonds). A joint ideation workshop has been organised for the 22nd of June convening both LoCaL and CRI partners.

## 3.4 LoCaL and Climate-KIC Education

LoCaL Training & Capacity Building offer aims to leverage strongly on the educational assets developed by Climate-KIC Education. Collaboration has already started through the development of online training modules (on Green Bonds and Result-based finance).

# 4. LoCaL ecosystem

## 4.1 LoCaL Ecosystem

More than 30 Climate-KIC partners have been involved in LoCaL projects since its launch in 2015, with a good mix of public and private organisations. However, the finance industry remains to be included into the partnership, as well as large public infrastructure developers and funders.



Figure 9: LoCaL key partners

# Endnotes

---

<sup>i</sup> NCE, November 2014, Technical Note on Infrastructure Investment needs of a low-carbon scenario

---

<sup>ii</sup> 1. UNFCCC SCF (2014) Biennial Assessment and Overview of Climate Finance Flows, United Nations Framework Convention on Climate Change Standing Committee on Finance.

---

<sup>iii</sup> Canfin/Grandjean; UNFCCC Standing Committee on Finance, 2014

---

<sup>iv</sup> IPCC (2014) Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Core Writing Team, Pachauri, R.K., and Meyer, L.A., (eds). Geneva: IPCC.

---

<sup>v</sup> UNEP 2016. The Adaptation Finance Gap Report 2016. United Nations Environment Programme (UNEP), Nairobi, Kenya

---

<sup>vi</sup> Buchner, B., Trabacchi, C., Mazza, F., Abramskiehn, D., and Wang, D. (2015). The Global Landscape of Climate Finance: A CPI Report. Climate Policy Initiative. Venice, Italy.

---

<sup>vii</sup> Canfin/Grandjean, 2015

---

<sup>viii</sup> Brookings 2015  
<https://www.brookings.edu/wp-content/uploads/2016/07/07-sustainable-development-infrastructure-v2.pdf>

---

<sup>ix</sup> Ibid. Brookings 2015

---

<sup>x</sup> Keeping Cities Green: Avoiding Carbon Lock-in due to Urban Development, SEI 2015

---

<sup>xi</sup> CCFLA The State of City Climate Finance 2015

---

<sup>xii</sup> LoCaL – CDP.  
Barriers to private sector investments into urban climate mitigation projects

---

<sup>xiii</sup> LoCaL & CCFLA – Localizing climate finance: mapping gaps and opportunities, designing solutions – Nov 2016

---

<sup>xiv</sup> Ibid. CCFLA – Nov 2016

---

<sup>xv</sup> Ibid. CCFLA – Nov 2016