

# EIT Climate-KIC

## City Transformation in Time

### Enablers of Change Framework

#### 1.0 Introduction

We know that really prosperous, inclusive and climate-resilient urban communities can only be attained from today by city communities moving at pace to initiate, create, assemble and scale/replicate complex initiatives that systemically address:

- Equitable access to adequate housing
- Zero-emission mobility service systems
- Growing fair, vibrant and sustainable local economies
- Urban food production and nutrient recycling
- Nature-based infrastructure and ecosystem regeneration
- Deep building retrofitting and zero energy new builds
- Clean energy and water supplies for all
- Equitable access to healthcare, education and employment
- Circular material resource loops
- Healthy, vibrant, creative and accessible public spaces

Incremental steps are off the table. We also know this work is hard and prone to incremental progress, failure or nothing happening at all. All the opposite of going far enough, fast enough.

We have drawn our collective experience of what makes this work so challenging into a framework of the key ingredients that we believe need to be assembled for any community to be successful in undertaking ‘transformation in time’. We are calling these ‘enablers of change’.<sup>1</sup>

At a summary level we describe four key areas:



The enablers of change in cities are primarily elements of social systems and mostly require social innovation to change. They underpin a robust process of change, and then the more technical work ultimately needed (see also the tree metaphor in appendix 1 as another way of framing this logic).

**We should increasingly integrate the enablers of change framework into the design of collaborations, projects and programmes with cities, because we see this as:**

1. **The way to have greatest impact** in helping city communities to embark on a faster journey of systemic and transformative change, whatever ‘technical’ things they want to work on
2. **The largest ‘market gap’** in the support currently available to cities in Europe and globally
3. **A clear niche for Climate-KIC** to leverage our unique knowledge community to distil out the experience and learnings needed to help cities in a meaningful way across the enabler of change areas. This remains very hard for actors in the sustainable cities space, and **we can make it possible**.

The current version of the Enablers of Change Framework is further explained in this paper.

This version is absolutely a work in progress that is offered up for testing, feedback and further co-creation and refinement during 2019.

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<sup>1</sup> On their flip-side they can equally be barriers to change.

## 2.0 Enablers of Change Framework

The enablers of change framework is aimed at capturing in a structured way the key elements that make up an essential foundation for any transformative actions a city community is trying to bring about

At a summary level we describe four key areas:

- Collaborative Communities
- Smarter Systems
- Enabling Economies
- Municipal Momentum

In the second layer of the framework, each of these four areas is broken into three more detailed areas. This gives us an overall framework made up of 12 key enablers of change, as shown in the below diagram and explained in the following table:



12 Key Enablers of Change structure

| Summary Area                     | Enabler                         | Description   |
|----------------------------------|---------------------------------|---|
| <b>Collaborative Communities</b> | Citizen Co-Creation             | Stimulating active and sustained community participation and ownership of strategies, change processes and indicators for evaluating progress.  |
|                                  | Alliances and Partnerships      | Establishing and maintaining the alliance and partnership structures needed to create and sustain the social space for systemic change  |
|                                  | Collective Management           | Turning co-creation into co-ownership and management structures for the long-term that embed priorities of equity and inclusiveness.  |
| <b>Enabling Economies</b>        | Business Models                 | Developing locally appropriate business models that remove barriers to change, enable successful project delivery, and maximise the benefits to the community and drive equity and prosperity long-term   |
|                                  | Capital Alignment               | Aligning and aggregating assets, capital needs and operating resources across multiple capital partners at a platform level, leading to standardisation and scale.  |
|                                  | Market Structures               | Each community/city needs to shape the local economic context/market to enable scaling of change activities over time.  |
| <b>Municipal Momentum</b>        | Active Democracy                | Using active democracy tools to supplement traditional local government processes with more real-time and collective decision making and governance   |
|                                  | Catalytic Policy & Procurement  | Planning, policy and public procurement strategies to accelerate innovative actions, replicate and scale proven interventions, influence necessary behaviour changes, reduce risk for capital partners and ensure transparency.   |
|                                  | Municipalities Tuned for Change | Organising municipalities to nimbly drive transformative action in their community and prioritise positive change over stagnation that is (wrongly) seen as low-risk.   |
| <b>Smarter Systems</b>           | Governance of Data              | Governance of data in commons requires a citizen-centric approach where data is self-controlled and available for broader communal use, with appropriate outcomes for privacy protection and value distribution. This enables the trust needed for useful data sharing. |
|                                  | Interoperability                | Open and interoperable data systems ensures efficient sharing and use of data across the community  |
|                                  | Smart Applications              | Applications use available data to generate insights into urban systems and chart optimal strategies and actions. This helps both decision makers and citizens in their daily lives and planning for the future.  |

A current mapping of the key elements linked to each enabler is further outlined in section 4.

### 3.0 What the Framework Will Help With

We can align to the enablers of change framework both learnings from city communities' experience and a fundamental part of what we offer through our guidance, training and advisory services. Indeed, we must if we want to provide services aimed at unlocking systems innovation. This will be an important supplement to more technical support to cities relating to buildings, energy, circular economy systems, nature-based solutions, mobility etc.

The framework should guide a research and learning programme to generate and grow the knowledge sitting behind our city systems innovation services. Our community still has a lot of work to do to build up the knowledge assets that are needed to underpin really effective advisory and learning services to cities, but we are also best places to accelerate this from existing knowledge and connections.

Within each area of the framework we need to:

- Develop and compile cases linked to the framework from credible examples of transformation work in cities
- Bring together experts into communities-of-practice that we work with to harness the world's-best knowledge and experience relevant to each area
- Align these communities-of-practice around a 'manifesto' setting out what is critical for cities to get right/work on in the respective enabling area
- Gather a toolbox of the elements in each that cities can use, turned into digestible written guidance materials. These should be linked to cases, approaches and the experience of others.
- Develop learning opportunities building on the guidance materials
- Develop an advisory service based on the wider knowledge sitting behind the guidance materials, and a community of expert practitioners able to deliver these services
- Develop a wider network for ongoing exchange and learning
- Keep evolving the framework based on learnings from doing all of the above

This will require a significant investment of community building, research, learning and knowledge resources.

The following section provides more detail on how we envisage this building up around each enabler.



### Collaborative Communities

| Enabler                           | Enabler Description  | Elements  |
|-----------------------------------|--|---|
| <b>Citizen Co-Creation</b>        | Stimulating active and sustained community participation and ownership of strategies, change processes and indicators for evaluating progress. | <ul style="list-style-type: none"> <li>• Collaborative Co-Design processes</li> <li>• Community Progress/Indicator Frameworks</li> <li>• Asset Mapping</li> <li>• Sensemaking techniques</li> <li>• Open engagement places</li> <li>• Inclusive innovation processes</li> <li>• Collective realtime decision-making linking to adaptive democracy under 'Municipal Momentum'</li> </ul> |
| <b>Alliances and Partnerships</b> | Establishing and maintaining the alliance and partnership structures needed to create and sustain the social space for systemic change         | <ul style="list-style-type: none"> <li>• Building effective community partnership models</li> <li>• Formalising partnership agreements</li> <li>• City-Business alliances</li> <li>• Collaborative project development and delivery structures</li> </ul>   |
| <b>Collective Management</b>      | Turning co-creation into co-ownership and management structures for the long-term that embed priorities of equity and inclusiveness.           | <ul style="list-style-type: none"> <li>• Community Co-operatives</li> <li>• Community Asset Management</li> <li>• Equity-based governance models</li> <li>• Community Shares</li> <li>• Community-owned business models linking to 'Enabling Economies' area</li> </ul>   |

### Enabling Economies

| Enabler                  | Enabler Description   | Elements  |
|--------------------------|---|---|
| <b>Business Models</b>   | Developing locally appropriate business models that remove barriers to change, enable successful project delivery, and maximise the benefits to the community and drive equity and prosperity long-term | <ul style="list-style-type: none"> <li>• Community Co-operatives</li> <li>• Community/City-owned utilities</li> <li>• Community Land Trusts</li> <li>• Social Enterprises</li> <li>• Green Businesses</li> <li>• Public/Community/'Private' Partnerships</li> </ul>   |
| <b>Capital Alignment</b> | Aligning and aggregating assets, capital needs and operating resources across multiple capital partners at a platform level, leading to standardisation and scale.                                      | <ul style="list-style-type: none"> <li>• Land Value Capture</li> <li>• Community Shares</li> <li>• Pooled investor structures</li> <li>• Green Bonds</li> <li>• Community Currencies</li> <li>• Community Investment Funds</li> <li>• Public capital from the community</li> <li>• Municipal investment and asset leverage</li> <li>• Senior Government Investment</li> </ul> |

|                          |  |  |
|--------------------------|--|--|
| <b>Market Structures</b> | Each community/city needs to shape the local economic context/market to enable scaling of change activities over time. | <ul style="list-style-type: none"> <li>• Social Markets</li> <li>• Workforce development</li> <li>• Solution providers and business development</li> <li>• Local Banking and regional capital institutions</li> <li>• Taxes</li> <li>• Market shaping policy and regulation</li> <li>• Community currencies</li> </ul> |
|--------------------------|--|--|

### Municipal Momentum

| Enabler                                   | Enabler Description   | Elements  |
|---|---|---|
| <b>Active Democracy</b>                   | Using active democracy tools to supplement traditional local government processes with more real-time and collective decision making and governance   | <ul style="list-style-type: none"> <li>• Citizen Assemblies</li> <li>• Digital Democracy tools</li> <li>• Equity mapping</li> </ul>   |
| <b>Catalytic Policy &amp; Procurement</b> | Planning, policy and public procurement strategies to accelerate innovative actions, replicate and scale proven interventions, influence necessary behaviour changes, reduce risk for capital partners and ensure transparency. | <ul style="list-style-type: none"> <li>• Planning and policy-making processes, with substantive time allowed for in-depth inquiry, exploration of tangible outcomes, and understanding the changes necessary for progress</li> <li>• Strategic public procurement processes and policies that enable action</li> <li>• Opt-out, not in models that invert the current ‘tragedy of the commons’ dynamics of uncoordinated market-aligned actors</li> <li>• Harnessing the power of policies enacted by regional, central and EU government</li> <li>• Transparency in performance measurement</li> </ul> |
| <b>Municipalities Tuned for Change</b>    | Organising municipalities to nimbly drive transformative action in their community and prioritise positive change over stagnation that is (wrongly) seen as low-risk.   | <ul style="list-style-type: none"> <li>• Municipal leadership that is visionary, enabling, and actively supportive</li> <li>• Municipal project development teams</li> <li>• Transparent and inspiring communication across the community</li> <li>• Municipalities organised functionally to innovate and work horizontally, with strong performance management protocols and a culture of change management</li> <li>• Effective municipal partnerships with other layers of government</li> </ul>  |

### Smarter Systems

| Enabler | Enabler Description | Elements |
|---------|---------------------|----------|
|---------|---------------------|----------|

|                    |   |  |
|--------------------|---|--|
| Governance of Data | Governance of data in commons requires a citizen-centric approach where data is self-controlled and available for broader communal use, with appropriate outcomes for privacy protection and value distribution. This enables the trust needed for useful data sharing. | <ul style="list-style-type: none"> <li>• Transparency Guidelines</li> <li>• City ICT Knowledge</li> <li>• Data Commons Structures</li> <li>• Data Supported Decision making</li> <li>• Data Province</li> <li>• Participatory decisions through data</li> <li>• Data Procurement Innovation</li> </ul> |
| Interoperability   | Open and interoperable data systems ensures efficient sharing and use of data across the community  | <ul style="list-style-type: none"> <li>• Sensor Standards</li> <li>• Unified open Standards</li> <li>• Key Data Performance indicators</li> <li>• Cyber Security for City Data</li> </ul>  |
| Smart Applications | Applications use available data to generate insights into urban systems and chart optimal strategies and actions. This helps both decision makers and citizens in their daily lives and planning for the future.  | <ul style="list-style-type: none"> <li>• AI</li> <li>• Applications</li> <li>• System Scenario Models</li> <li>• Real-time optimisation</li> <li>• Visualisation</li> </ul>  |

## 4.1 Appendix 1

### The Story of the ‘Sustainable City Tree’

We can use the following metaphor/story of a tree to describe how the different parts of a holistic urban renewal process need to come together. This can be a useful way of breaking the complexity down, given the dependence of the fruit-producing canopy on the nutrient gathering roots and trunk structure.



The upper parts of the tree represent the following:

- The goal is to deliver tangible benefits for the whole community - the fruits of the tree. The rest are ‘means’ to this ‘ends’.
- The fruits grow on the smaller outer branches, which are the actions that lead to change and the fruits that benefit the community.
- Solution providers are the leaves that help each action branch to flourish and energise the overall tree system. They are essential but cannot perform a useful role in isolation.
- The smaller branches of action are supported by the larger branches that represent the typical areas where cities need to act. These can be framed in different ways but are essentially common to any city as outlined above.

The trunk holds up the branches and is the processes and structures that a city community uses to deliver action over a sustained period of time (e.g. 10-20 years). If these are solid, the tree can support more healthy branches (actions) and fruit (impacts) at once, which is what cities need to do. The parallel is that different varieties of apple can be grafted onto a healthy tree trunk and root stock over time.

Like any tree, we tend to focus on what we can see above the ground. But it is the root and soil system beneath the surface that will define whether the tree will flourish and produce healthy fruit. It is also where the most upfront effort and investment of effort is needed if the ‘above ground’ system is to flourish in the long-term, and the hardest to regenerate if a tree is planted in hard ground. In this story the key parts under the ground are:

- The roots, which are the key **enablers of change** in cities, so this is what we have to focus on nurturing. These are primarily social systems and require social innovation to change.
- The local community as the essential healthy soil system in which the tree is rooted, and to which the fruits fall back to nurture and nourish
- A web of mycelium linking trees in a forest/orchard together into a healthy ecosystem. This can be Climate-KIC and a wider community of support organisations and experts helping city communities to undertake transformative change.

We believe that for cities to really be on the mission towards prosperous, inclusive, carbon neutral and resilient communities in the next 1-2 decades, city communities need to be tackling their whole ‘tree’ at once, and in particular investing in the social innovation to nurture their soils and roots systems.