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Sustainable Cities Innovation Platform



Masters of the Environment University of Colorado **Boulder**



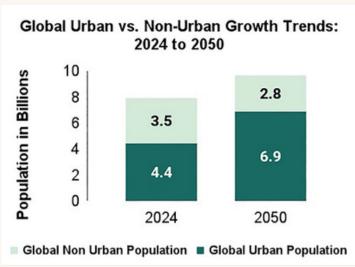
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Purpose & Context

Addressing the impact of cities will prove critical to achieving global sustainability. Despite occupying only 3% of land on Earth, cities account for 60-80% of global energy consumption and 75% of total carbon emissions.

By 2050, global urban populations will grow by 2.5 billion people – a 12% increase from populations today. For inhabitants across the world, cities represent the opportunity for improved education, employment, healthcare, social life, and culture. Without innovation and technological intervention, urban growth will only exacerbate the issues cities already face today, including: pollution, sprawl, water scarcity, and energy insecurity. This presents a tremendous need and opportunity to rethink and redesign the urban built environment, how people and goods move to and within cities, and how we power our population centers.

To address this potential crisis, our team collaborated with Boomtown to develop an Investment Thesis centered on how to enable innovation within urban. environments to enhance sustainability and decarbonize cities. This thesis will inform the development of a Sustainable Cities Innovation Platform (the Platform) that will identify and support early-stage companies capable of tackling the complex challenges of urban sustainability.



This project marks the inception of Boomtown's work to leverage its unique position as an innovation services and strategy firm to guide organizations making a positive impact on **United Nations Sustainable Development Goal #11**:

Sustainable Cities and Communities - to make cities and human settlements inclusive, safe, resilient, and sustainable.



Methods

In developing a framework for the Platform, our team took a holistic approach, researching pressing urban issues across all sectors and geographies, then analyzing potential solutions. This led to an initial nine categories considered. To narrow the Platform focus, we were challenged to prioritize areas with both the highest potential for innovation and those which will make a lasting, positive impact. We also identified five central goals for analyzing the impact of different technology solutions. This led to the selection of the Platform's three Key Innovation Areas:

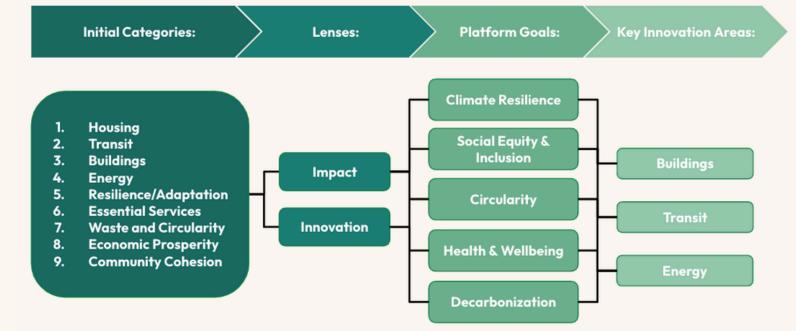








Taken together, these key focus areas address three fundamental questions when considering urban sustainability. First, how do we build our cities and construct the built environment? Next, how do we connect people and move goods to and within these cities? And finally, how do we power these cities efficiently and sustainably?



Outcomes

At the conclusion of our project, we recommended that Boomtown proceed with the development of a Sustainable Cities Innovation Platform. The urgent need for innovative technologies to address the negative impacts of rapid urbanization, combined with the opportunity presented by current investment trends offer substantial motivation. Further, available public funding, such as initiatives offered by the Inflation Reduction Act (IRA), and a plethora of Mission Drive Organizations (MDO's) with an urban focus highlight the economic opportunity. What's more, the Front Range region of Colorado would offer Boomtown an ideal geographic location to begin the Platform, given their community engagement and established relationships with influential local stakeholders.

Following our recommendation, Boomtown chose to allocate funding for a Phase II Capstone project in 2025. We anticipate the continuation of this work will ultimately contribute to creating urban spaces that not only accommodate growth but thrive because of it.

Deliverables

SUSTAINABLE CITIES INVESTMENT THESIS

We pitched an Investment Thesis to Boomtown in the form of a slide deck, emphasizing the business opportunity of pursuing investment into sustainable cities. The thesis showcased our research and professional engagement efforts, complete with a robust appendix.

SYSTEMS MAP OF SUSTAINABLE CITIES TECHNOLOGY

We developed a systems map to conceptualize our thought process when analyzing how specific technology solutions could address urban problems related to our three focus areas.

Link to map:



STAKEHOLDER DATABASE

We created a detailed database of relevant contacts for organizations and key stakeholders, who could potentially inform Platform strategy, serve as mentors to selected startups, or provide Platform funding.

Acknowledgements

Thank you Boomtown for facilitating an exceptional project. In particular, thank you Tripp (Boomtown point-of-contact) and William (MENV Advisor) for all your efforts in making this project a success. Thank you also to Toby, Cathy, Zach, Kristin, and all of our Boomtown colleagues for your insightful input and unwavering support.

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