

# From Brownfields to Innovation Districts: A comprehensive approach to sustainability

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## Background

- Deindustrialisation has left tangible traces on the territorial geography; some of the areas where once vital industries used to thrive have been replaced by brown-fields (Bartsch & Collaton, 1997).
- A Brown-field is “any land which has previously been used or developed and is not currently fully in use, although it may be partially occupied or utilized. It may also be vacant, derelict or contaminated.” (Alker et al., 2000)
- A wide consensus exists on revitalising the stagnant economy in these distressed property markets, while restoring the environmental equilibrium, and ensuring social justice (Dernbach, 1998; Ruthl, 1998).
- Nowadays, cities are promoting innovation as a new urban and economic redevelopment strategy while exploiting local assets (MAPSLED, 2017).
- The “re-imagined urban areas” model of innovation district is aimed at transforming, physically and economically, historic waterfronts and de-industrialised areas, charting a new path of innovative growth (Clark & Moonen, 2015).

## Motivation

To put the body of knowledge forward on the nexus between brown-field regeneration and innovation, by analysing the capability of the newly conceived “re-imagined urban areas” model to achieve the objectives of sustainable brown-field redevelopment.

# Methodology

## SUSTAINABILITY OBJECTIVES



### ENVIRONMENT

- To minimise the use of resources
- To minimise pollution
- To protect biodiversity and the natural environment



### SOCIETY

- To provide adequate local services and facilities to serve the development
- To provide housing to meet local needs
- To integrate the development within the locality
- To provide high quality, liveable developments
- To conserve local culture and heritage, if appropriate

### ECONOMY

- To enable businesses to be efficient and competitive
- To support local economic diversity
- To provide employment opportunities

## Case Study

### Boston Innovation District, US

- Launched in 2010 by Mayor Thomas M. Menino
- 1,000 acres
- Five sub-districts
- Main features of the vision:
  - Industry-Agnostic;
  - Cluster;
  - Experimental;
  - City as Host.

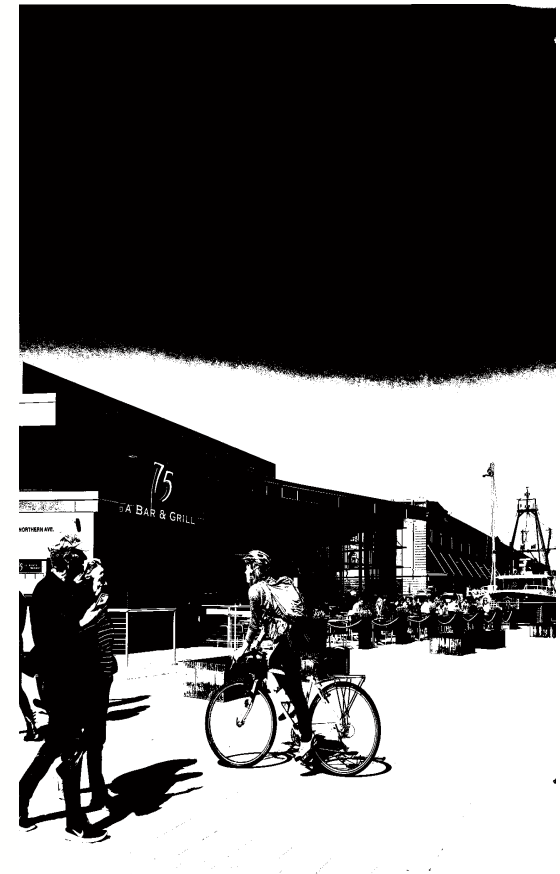


## Case Study



### ENVIRONMENT

- All large-scale projects meet high LEED certification standards.
- Infrastructure encourage people to walk and cycle.
- Direct access to public transportation.
- Open and green spaces connect with pathways to the waterfront.

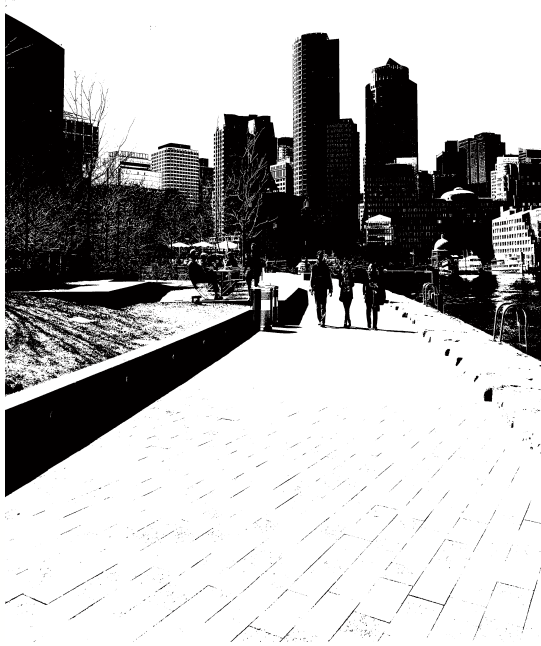


## Case Study



### SOCIETY

- Diverse and dense complement of offices, retail, residences and entertainment uses.
- Presence of cultural and civic institutions.
- Numbers of experimental event landscape.
- Convenient MBTA connections.
- The local culture and heritage related to the historic harbour have been preserved.



## Case Study



### ECONOMY

- 24-hour neighbourhood providing a place for business expansion.
- More than 5,000 new jobs have been created since 2010.
- Over 200 startups set up in the area.
- Wide array of established companies and small enterprises maximises job opportunities.

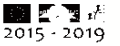


## Results

- Innovation was able to physically and economically revitalise the underused South Boston Waterfront, creating an attractive place and a vibrant ecosystem for wide-ranging business expansions and job opportunities maximisation.
- It provided adequate facilities and local services to meet individuals' needs - thanks also to a fruitful collaboration with the community, fostering social capital development and contributing to residents well-being.
- Regardless of the massive intervention, a particular attention to the use of resources and pollution minimisation has been paid, together with a thoughtful protection of the harbour as a shared natural resource.

## Conclusions

- Innovation and knowledge represent drivers to overcome the declining or stagnant economic growth affecting regions and cities.
- Several cities (e.g. Boston) undertake urban planning initiatives, coupled with innovation policies, reshaping both their geographies and economies with the purpose of supporting knowledge dynamics and boosting competitiveness.
- This emerging trend is commonly translated in the creation of the growing number of innovation districts.
- The “re-imagined urban areas” model of innovation district can be considered an effective urban regeneration strategy targeting distressed areas, given its capability to turn an underutilised property into an economic and environmental asset that yields dividends for the entire region.



# Thank you!

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