INNOVATE 4 CITIES

Integrated Holistic Approach to Planning and Collaborative Governance for More Climate-Resilient Cities

12 October 2021 06h00 UTC (08h00 Paris; 14h00 Shanghai)

Lindsay Bremner, University of Westminster [UK]
Victoria Lawson, London Borough of Hounslow [UK]
Shuaib Lwasa, Makerere University, Uganda [UGANDA]
Francesco Musco, University IUAV of Venice [ITALY]
Barbara Norman, University of Canberra [AUSTRALIA]
Philip Rode, London School of Economics [UK]
Giulio Verdini, University of Westminster [UK]

Roudaina ALKHANI
University of Westminster [UK]
Planners 4 Climate Action

Integrated, Holistic Approach to Planning and Collaborative Governance for More Climate-Resilient Cities

Experiences from the London Lab

Dr. Roudaina Alkhani
Senior Lecturer in Planning and Urban Design
University of Westminster
London - United Kingdom

Starting point

- Climate change impacts and risks have become threatening in many regions to the sustainability and resilience of communities, natural areas, biodiversity and resources.
- Climate change mitigation and adaptations have often be seen as costly measures.
- However, I argue that climate mitigation and adaptation can turn into drivers for innovation and shared benefit in cities. They can become part of how we create new opportunities for urban areas and more resilient places.

Background

- Ph.d in Planning: Urban Regeneration & Harbourfront Planning and Management, DK.
- On-going climate research and article in 2020:

Article titled: Understanding Private-Sector Engagement in Sustainable Urban Development and Delivering the Climate Agenda in Northwestern Europe—A Case Study of London and Copenhagen. *Sustainability 2020*, 12(20), 8431; https://doi.org/10.3390/su12208431

The article aimed to understand the contribution of the private sector to closing the climate gaps. It explored policy, governance, and regulative frameworks for the private sector's involvement in urban development, sustainability, and climate efforts in two European cities; London and Copenhagen.

- Professional practice in local authority, government advisory and own practice.
- Teaching with a focus on sustainability and climate change, strategic planning, integrated and dynamic cities.

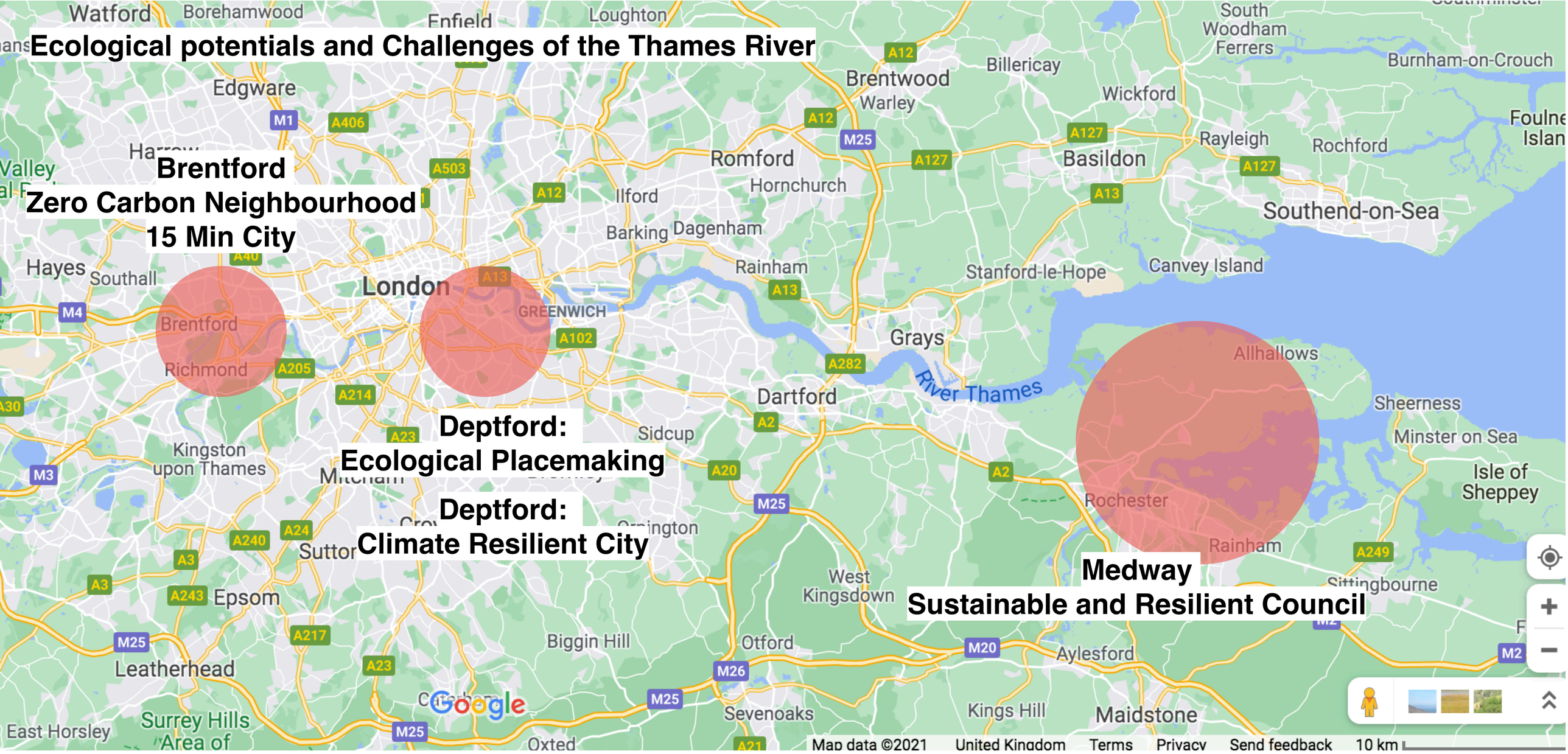
My earlier research highlighted the following challenges:

- Challenges related to current planning approaches: lack of holistic visions.
- Challenges and differences in city practices related to governance and regulatory frameworks generally, and in London.
- Gaps in our knowledge about the exact role that public and private actors and communities play and can play in managing climate change. Hereunder the lack of methods for defining their roles.
- Knowledge gap around the implications of climate change for the different sectors.
- Challenges related to current patterns of involvement of private and public actors in urban regeneration leading many times to disconnected cities and wasted opportunities.

My research highlights the importance of the following:

- Promoting **integrated approaches** that aim at the integration of sector goals in urban areas and across different scales. Integration is crucial at all stages of design, construction/ implementation, and management.
- **Increasing collaboration** based on a clear understanding of the different contributions played by the public actors, private sector, communities and other organisations.
- The importance of expanding approaches from simple adaptations to include **holistic planning approaches** comprising urban areas. Area based approaches aiming at strengthening localities/places and anchoring climate measures/aims can be useful.
- The importance of **strengthening circular approaches**, and promoting new behaviours of organisations, groups and individuals.
- The need to **update regulatory framework** and collaboration forms.
- The importance of **data and smart approaches** to manage and monitor life-time impacts in the built mass and the urban areas generally.
- **City Leadership** to ensure synergies between actors and monitoring of impacts.

Through teaching activity, I have worked on the following:



11 SUSTAINABLE CITIES AND COMMUNITIES

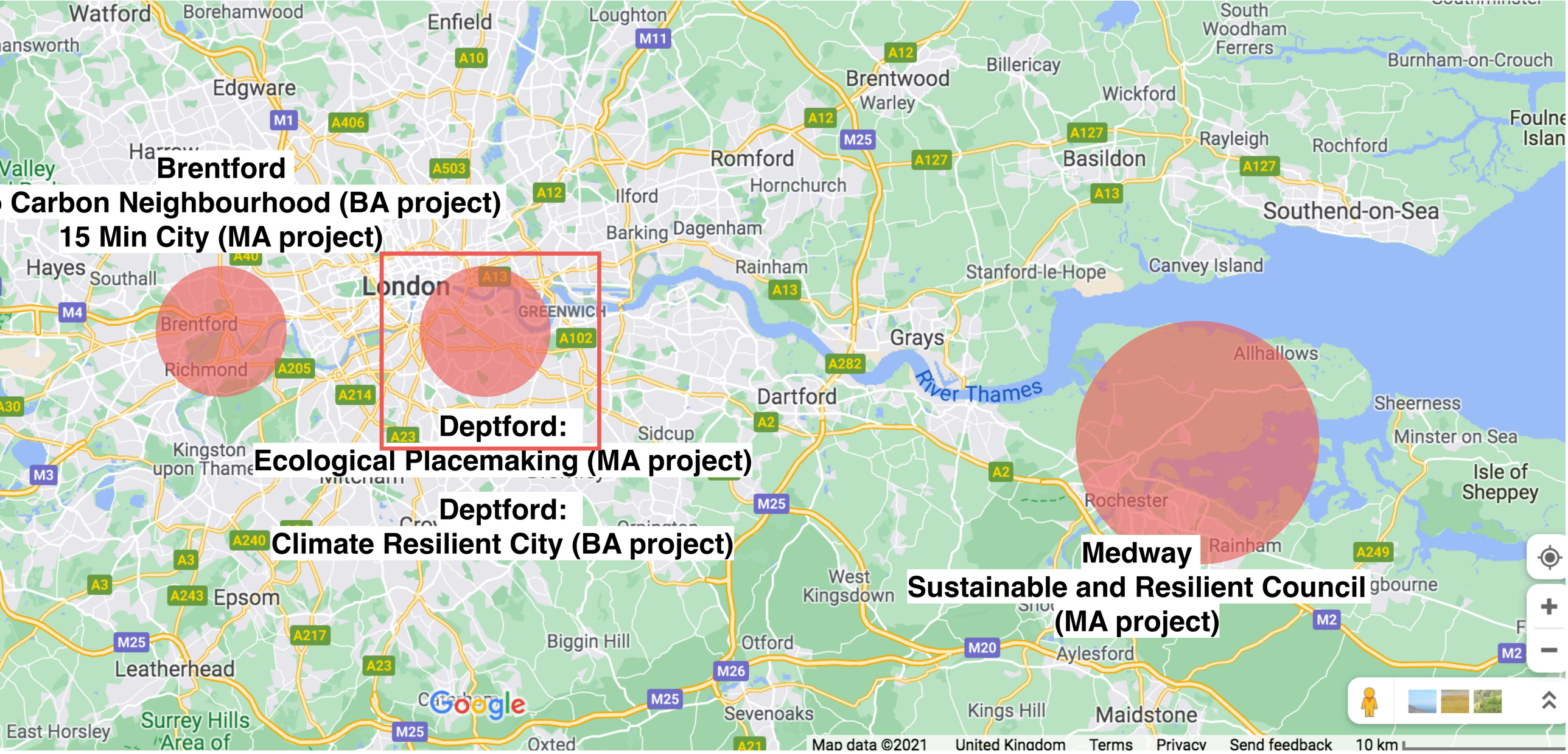
13 CLIMATE ACTION

P4CA

UN HABITAT FOR A BETTER URBAN FUTURE

GLOBAL COVENANT of MAYORS for CLIMATE & ENERGY

INNOVATE 4 CITIES



11 SUSTAINABLE CITIES AND COMMUNITIES

13 CLIMATE ACTION

P4CA

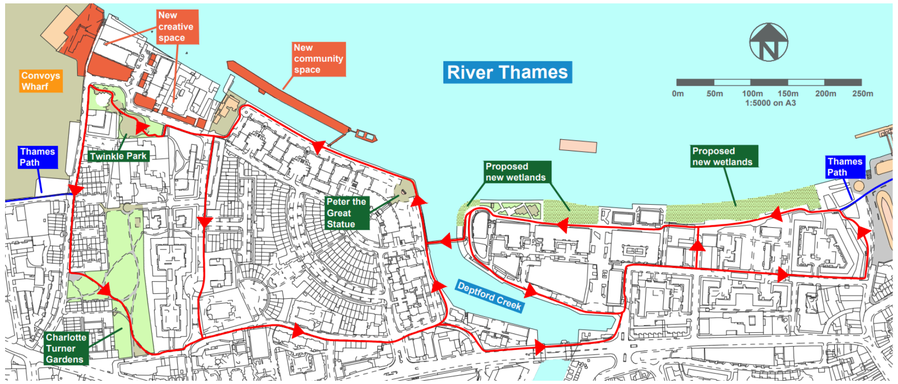
UN HABITAT FOR A BETTER URBAN FUTURE

GLOBAL COVENANT of MAYORS for CLIMATE & ENERGY

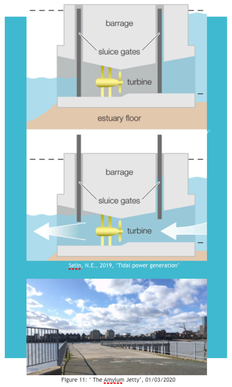
INNOVATE 4 CITIES

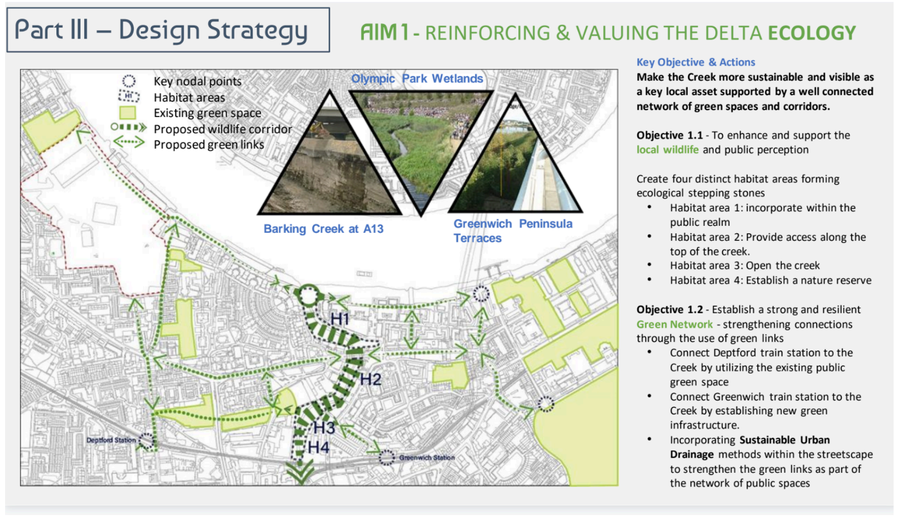
Deptford - Ecological Place-Making

Work with the students in the MA Module Public Realm, MA Urban Design. Tutors: Dr. Roudaina Alkhani, Principal Lecturer Bill Erickson and Dr Krystallia Kamvasinou



Paul Budgen, The Deptford Mile 2019
A resilient and socially sustainable strategy for Deptford Waterfront



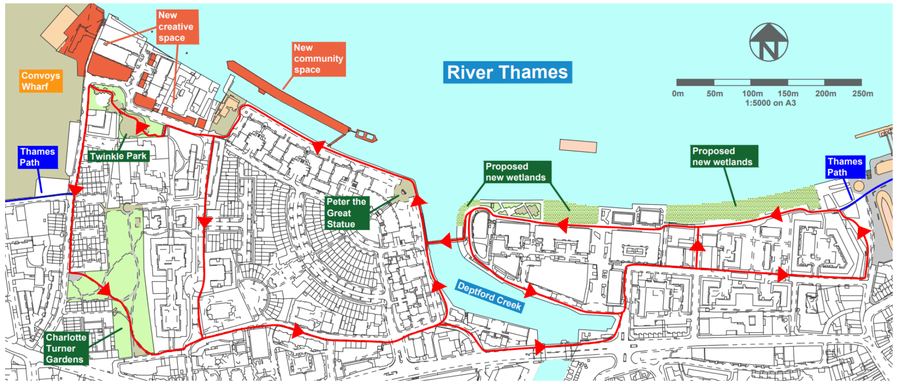


Cecile POullain, Yours Kherkashe, James Lawson, Emma Sharp, 2019
The Depyford Delta - Where the Creek meets the River

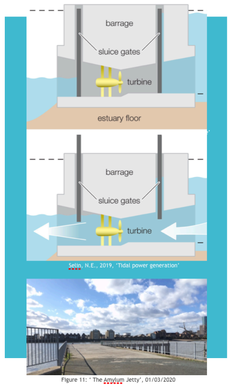
- Enhancing the public realm and connectivity generally through the inclusion of blue-green infrastructure.
- Strengthening the high-street and more connection to the waterfront.
- Creation of Wetland areas.
- Safeguarding lands for future flood management
- Decentralised energy generation from power of rising and falling tide.
- Enhancing sustainable mobility to link main railway station and all other areas and increase connectivity between new areas and existing areas.
- Promoting interest in ecology.
- Promoting a culture of co-making and co-growing. Youth hubs and pop-ups - entrepreneurialism.
- Providing creative spaces for local businesses
- Strengthening the digital realm.
- Eco-learning.
- Other issues, strengthening ecological cultural and historic significance, safety, community sharing, night time economy, etc.

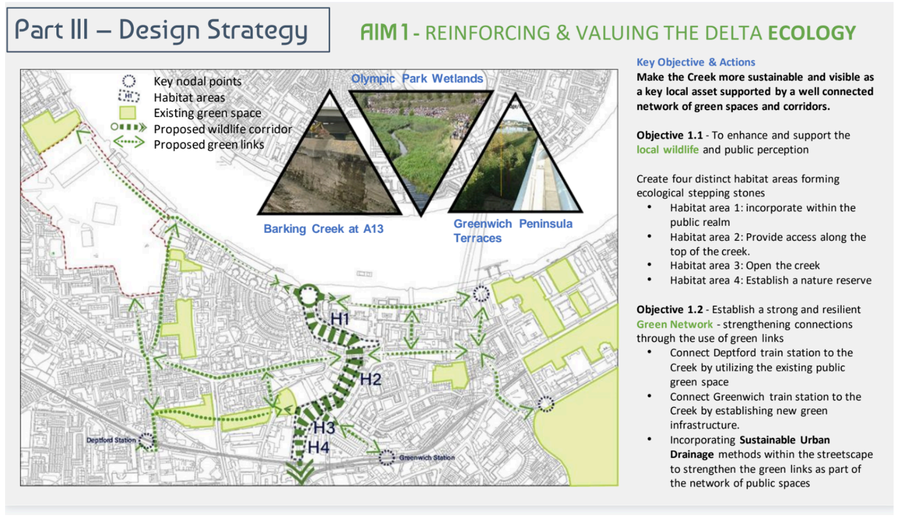
Deptford - Ecological Place-Making

Work with the students in the MA Module Public Realm, MA Urban Design. Tutors: Dr. Roudaina Alkhani, Principal Lecturer Bill Erickson and Dr Krystallia Kamvasinou



Paul Budgen, The Deptford Mile 2019
A resilient and socially sustainable strategy for Deptford Waterfront





Cecile POullain, Yours Kherkashe, James Lawson, Emma Sharp, 2019
The Depyford Delta - Where the Creek meets the River

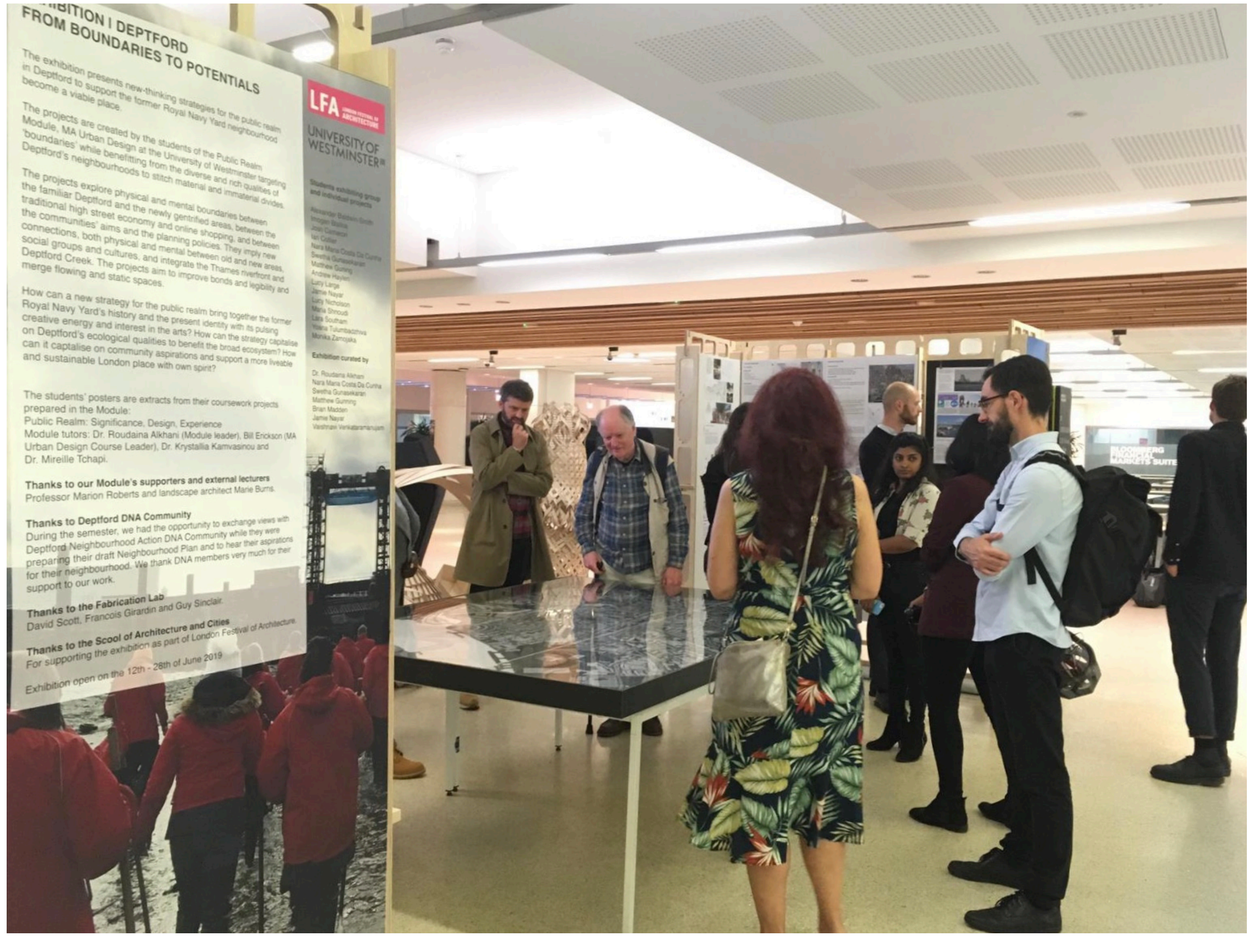
Collaboration with Deptford Communities at the occasion of their Neighbourhood Plan.

The work also involved:

- Developing Implementation plans proposing different stakeholders' and community engagement.
- Developing funding plans for the different proposals.
- Assessing impacts and opportunities of scaling up.

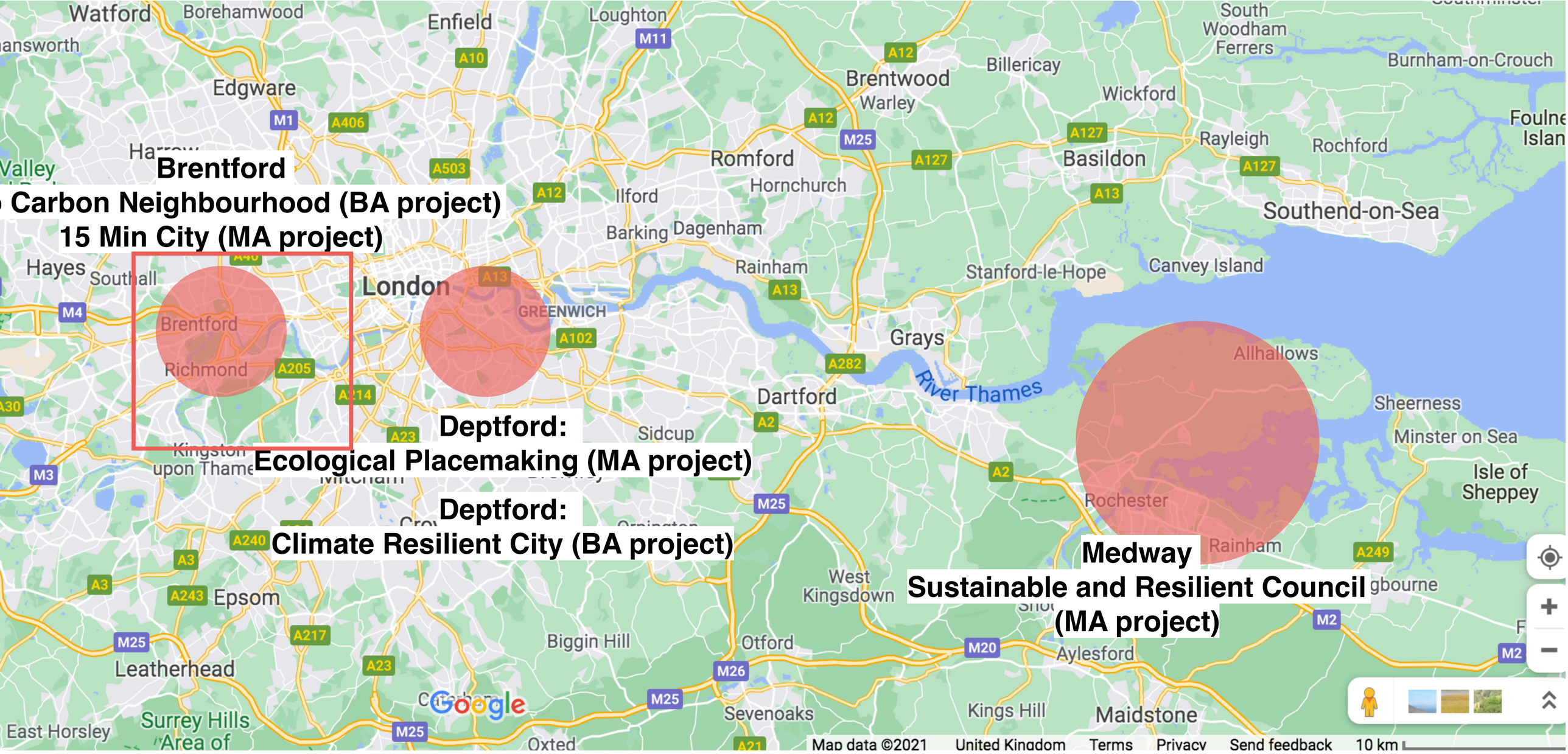
Deptford - Ecological Place-Making

Work with the students in the MA Module Public Realm, MA Urban Design. Tutors: Dr. Roudaina Alkhani, Principal Lecturer Bill Erickson and Dr Krystallia Kamvasinou



Exhibition under London Festival of Architecture

From Boundaries to potentials
By Roudaina Alkhani and the MA students



11 SUSTAINABLE CITIES AND COMMUNITIES

13 CLIMATE ACTION

P4CA

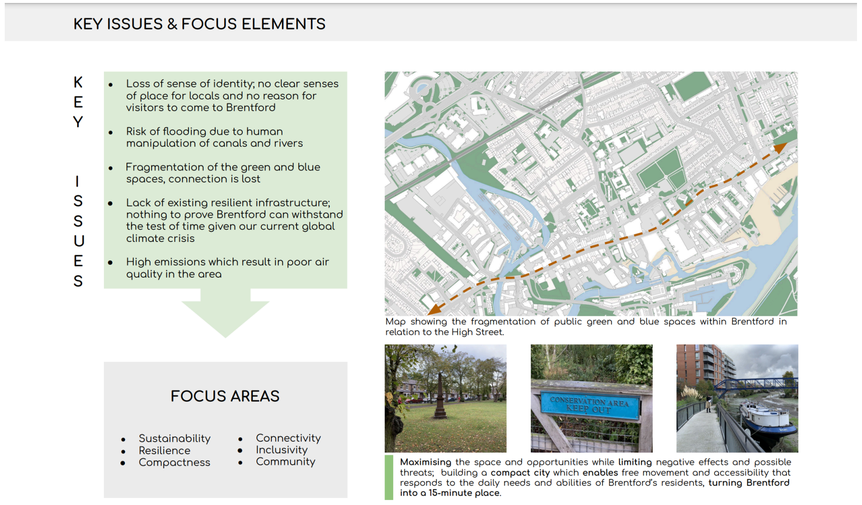
UN HABITAT FOR A BETTER URBAN FUTURE

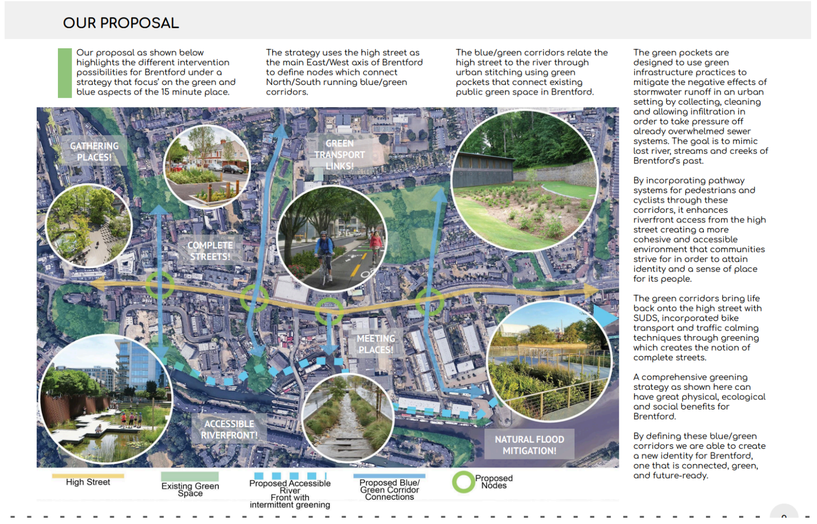
GLOBAL COVENANT of MAYORS for CLIMATE & ENERGY

INNOVATE 4 CITIES

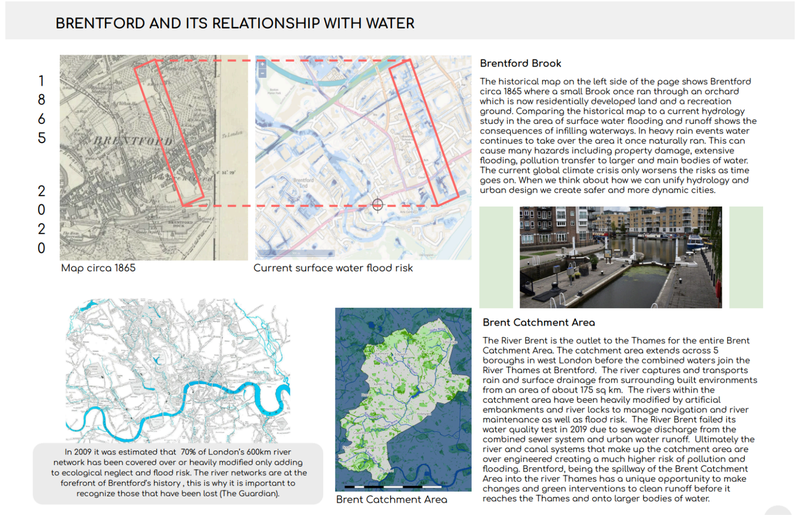
Brentford - The 15 Min Place

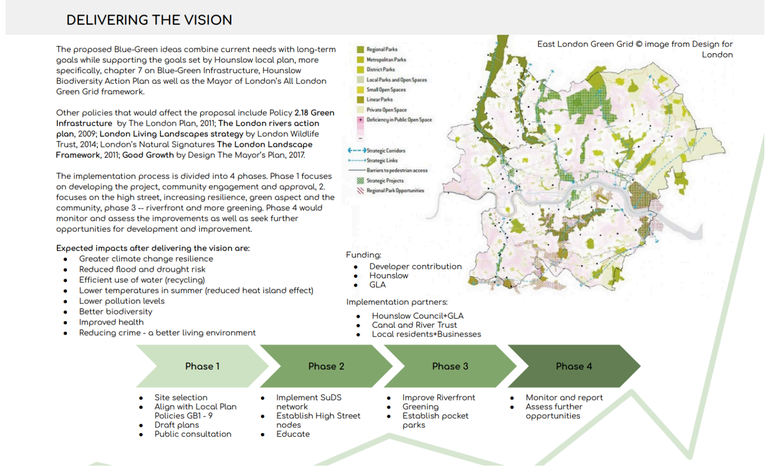
Work with the students in the MA Module Dynamic City, MA Urban Design. Tutors: DR. Roudaina Alkhani and Principal Lecturer Bill Erickson





Examples - Students' works





Project by Daniel Johnson, Elina Mieme, Barbara Morrison Wise, 2020

Indepth Context appraisal.
SWOT analysis
Strategic Vision

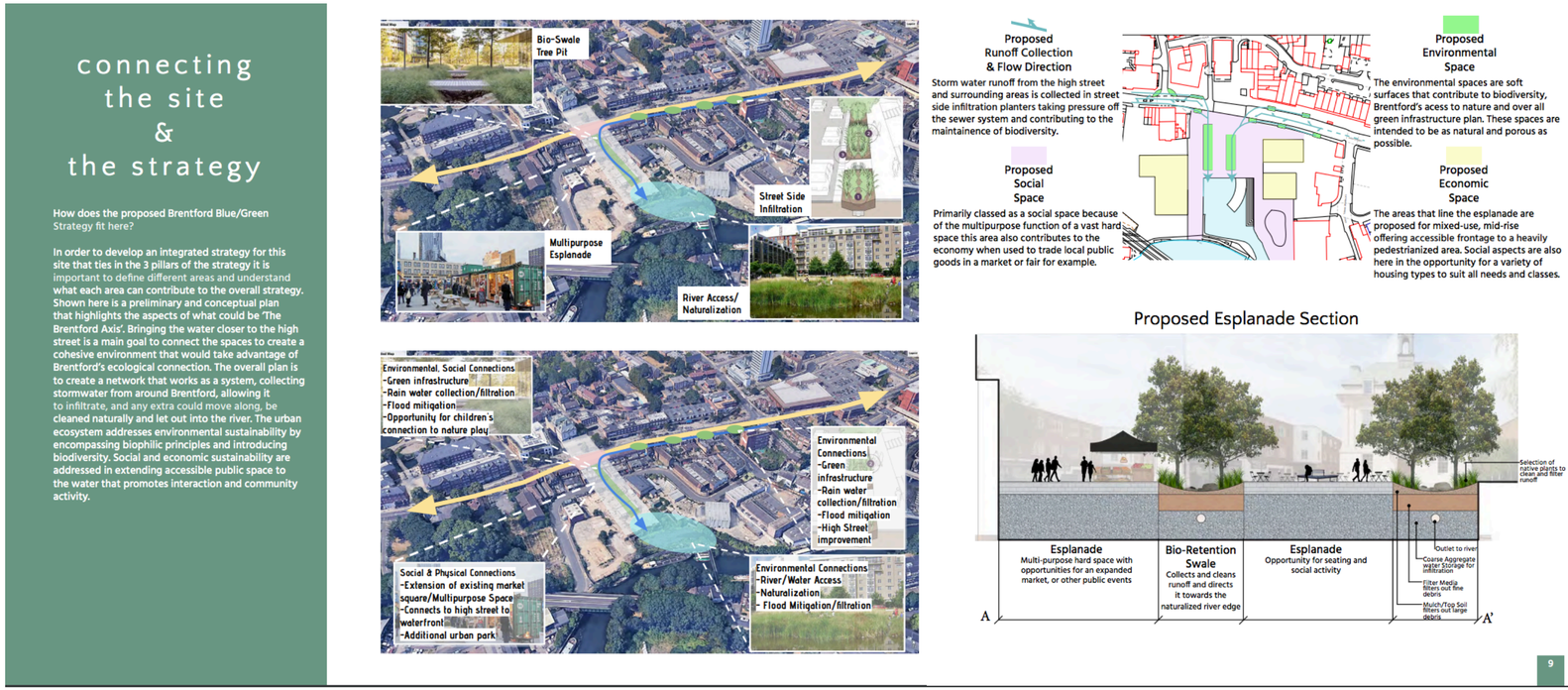
Ecology, climate and health are important drivers of Place-making

Public realm
social hubs
High-street health
Connectivity

Brentford - The 15 Min Place

Work with the students in the MA Module Dynamic City, MA Urban Design. Tutors: Dr. Roudaina Alkhani and Principal Lecturer Bill Erickson in collaboration with the London Borough of Hounslow under their Green Recovery

Max Jones, Rachael Lishman, Tomo Namozi, 2020



Daniel Johnson, 2020

Examples - Students' works

P4CA

INNOVATE 4 CITIES

Brentford - The 0-Carbon Neighbourhood

BA Designing Cities/Year 3. Module taught by Dr. Roudaina Alkhani and Robin Crompton
in collaboration with the London Borough of Hounslow under their Green Recovery

UNIVERSITY OF WESTMINSTER
Dan Sefton 11

1. Fluid, inclusive, zero emission transport

a. Without hold ups as a network
b. Accessible active transport, even for residents that typically couldn't use existing active infrastructure (children, elderly, disabled)
c. Greenhouse-gas-free solution

2. Creation, enhancement, and connection of green and public spaces, in and out of the ward, by breaking barriers

a. Physical Barriers created by hard infrastructure and social barriers rooted in mobility and economic deprivation.

3. Cater for night-time activity and strengthen its carbon neutral services

a. Through safe active travel

Key Objectives

UNIVERSITY OF WESTMINSTER
Dan Sefton 12

Why Active Transport?

Walking, cycling, scootering, running and kayaking are examples of active modes of transport, forms of transport 'relying on human power for propulsion' (Interreg, 2019). Alongside obvious health benefits, the list of other cycling benefits is compelling:

Why Cycling?

- Faster than a private car for most journeys in London
- Extends the range of the zero carbon, 15-minute city
- Enjoyable: teaches a new skill and builds hobby-based (interest) communities
- A good quality bicycle, servicing and equipment costs less than a year's commuting from zone 4 to zone 4 or 3
  - o Adult Brentford to Chiswick annual Travelcard: **£1080**.
  - o Cycle Costs: Trek fx 2 2021: £460. Evans cycle gold service: £115. Riding kit and lights: £300. Total: **£875** (Evans Cycles, 2020)
- A more pleasant urban environment
  - o Less cars on roads meaning less air, noise and visual pollution and less chance of pedestrian-car collisions
  - Entirely inclusive, through adapted bicycles, off-road routes and learning opportunities
- Large economic benefit, through €500 billion of global positive externalities (Fig. 12.1) (financial benefits to third parties) (European Cyclists' Federation, 2018) Nearly 80% of UK residents want to see more segregated cycle routes (Cyclist, 2017)
- Provides a zero carbon alternative for small deliveries, through cargo bikes.

Benefit	Estimated Value (billion euros)
CO2 emissions savings	0.6 - 5.6
Reduction of air pollution	0.435
Reduction of noise pollution	0.3
Fuel savings	4.0
Longer and healthier lives	73
Less sickness absence at the workplace	5
Bicycle market	13.2
Cycle tourism	44
Easing of road congestion	6.8
Saving on construction and maintenance costs for road infrastructure for motorised vehicles	2.9
Total annual benefits	150 - 155 bn euros

Fig. 12.1. Positive Externalities of active transport (European Cyclists' Federation, 2018)

Why Brentford?

- Brentford already has a strong off-street cycling offer
  - o Gunnersbury Park, Osterley Park and Boston Manor Park all provide moderate length perimeter paths
- Traffic calming measures are already in place to protect cyclists
- Dense nodes of employment on borders of parks
  - o This allows for off-street, active commuting directly into offices
- 4 bike shops in the ward, including a cluster to the south of the high street
- The High street has potential for adaptation (Fig. 12.2)

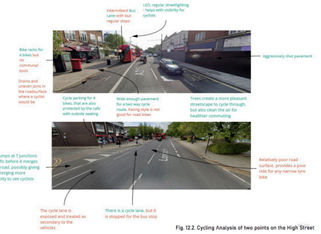


Fig. 12.2. Cycling Analysis of two points on the High Street

UNIVERSITY OF WESTMINSTER
Dan Sefton 20

Linking Strategic Locations

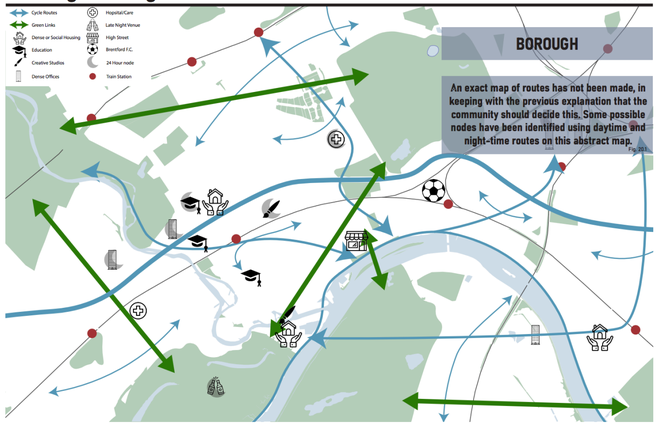
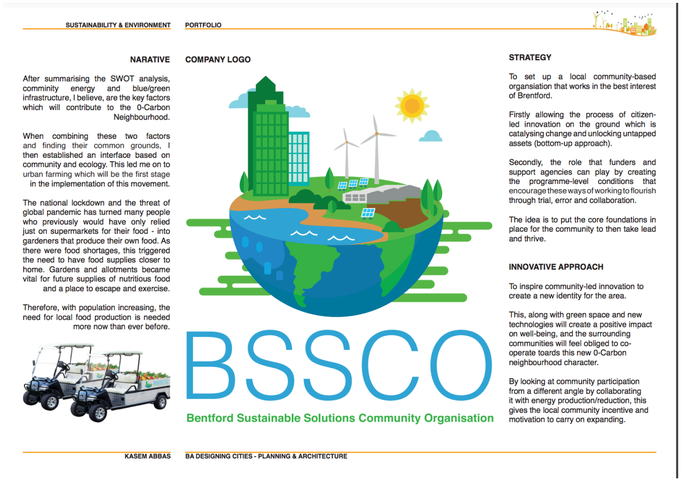
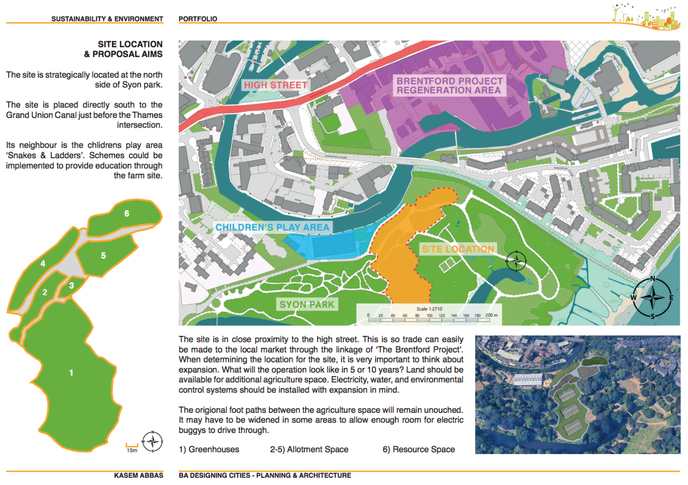
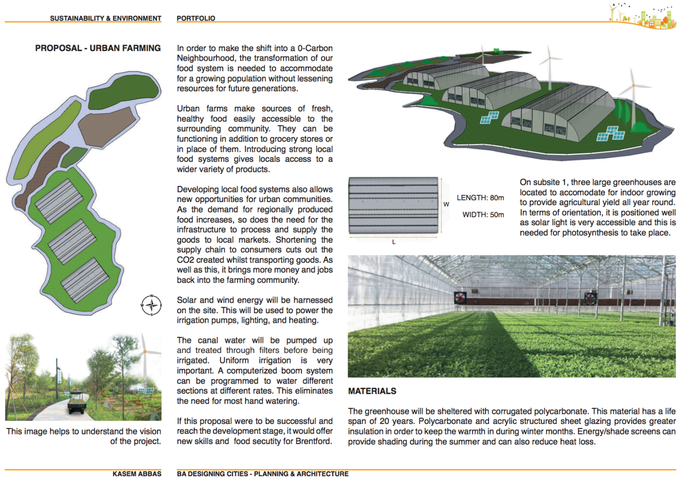


Fig. 20.1.

Examples - Students' works







Brentford - The 0-Carbon Neighbourhood

BA Designing Cities/Year 3. Module taught by Dr. Roudaina Alkhani and Robin Crompton
in collaboration with the London Borough of Hounslow under their Green Recovery

Key subjects

Climate adaptations
0-Carbon Neighbourhood
Public realm quality
Green-blue infrastructure, including green walls, roofs, urban farming, green links
Active travel, Safe travel
Connectivity
Community engagement in innovation, including energy production
Circular economy
Cycling and heritage routes
Tourism
Community projects and community/school education around ecology
Ecology hubs, community green hubs
High Street
Pop-ups, jobs, entrepreneurialism
Missing: Retrofitting of buildings

Conclusions and reflections

- There is a great opportunity to address climate gaps through an integrated approach to planning and governance while benefiting communities. More evidence-based approach should be developed.
- It is important to clarify potential opportunities to address climate resilience in urban areas through an area-based approach.
- More in-depth understanding of climate gaps is needed.
- Need for indicators to assess performance and impacts and smart tools to monitor complex impacts in urban interventions
- Challenges (incl. financial) to implementation and scaling up across boundaries. Need to establish proper and adaptable data records acknowledged at the city and national levels
- Need for holistic pilot examples that can show case the benefit and prompt a bottom up change of policy and planning approaches.