

# Our journey along the **Blue-Green** path to **Urban Flood Resilience**



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[bluegreencities.ac.uk](http://bluegreencities.ac.uk)  
[urbanfloodresilience.ac.uk](http://urbanfloodresilience.ac.uk)



Grants EP/K013661/1  
EP/P004180/1

# Our journey along the **Blue-Green** path to **Urban Flood Resilience**

A **Blue-Green** City

brings together **water management** and  
**green infrastructure** to recreate a more  
natural water cycle.... generating  
**economic, environmental, ecological,  
social and cultural benefits.**



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# Blue-Green Cities 2013-16



# Blue-Green Cities Research

Model Existing  
Flood Risk  
Management

Understand  
Citizens'  
Preferences

Evaluate  
Multiple Flood  
Risk Benefits

City Authority  
and Community  
Communications

Options for  
Hard/Soft  
Measures

Newcastle  
upon Tyne



# Newcastle helps lead the way in blue-green cities move to combat flood risk

15:30, 19 FEB 2016 | BY [TONY HENDERSON](#)

More water storage and greening spaces in Newcastle are the basis for the city conference pledge at the Life Science Centre

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Witherspoon Photography

Blue-Green Cities conference line up, left to right, Fula Ogunyoye, Haskoning DHV; David Wilkes, Arup; Marie Fallon, Environment Agency; Clare Rogers, Newcastle University; Richard Warneford, Northumbrian Water; Coun Ged Bell, Newcastle City Council

Blue and green could rival black and white as key colours in the Newcastle of the future.

18 March 2016

## THE BLUE-GREEN DECLARATION

WWT WATER & WASTEWATER TREATMENT

In partnership with:



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### Newcastle commits to Blue-Green Infrastructure plan

19/02/2016

Share: 15

Newcastle City Council has committed to implementing large scale blue-green infrastructure measures such as sustainable drainage, following research that showed the potential gains of the approach.



L-R: Fola Ogunyoye (Haskoning DHV), David Wilkes (Arup), Marie Fallon (Environment Agency), Clare Rogers (Newcastle University), Richard Warneford (Northumbrian Water), Cllr Ged Bell (Newcastle City Council).

The council has backed research from the Blue-Green Cities Consortium, led by the University of Nottingham, which found that increasing the amount of storage ponds, water channels, green roofs, green walls and green space (known as blue and green infrastructure) in Newcastle could make a significant contribution to reducing flood risk, as well as improving air quality and biodiversity.

It comes following estimates for the City Council which highlighted a £70m gap to keep flood risk on the Ouseburn and City Centre at current levels by 2030, accounting for growth, paving over open space.

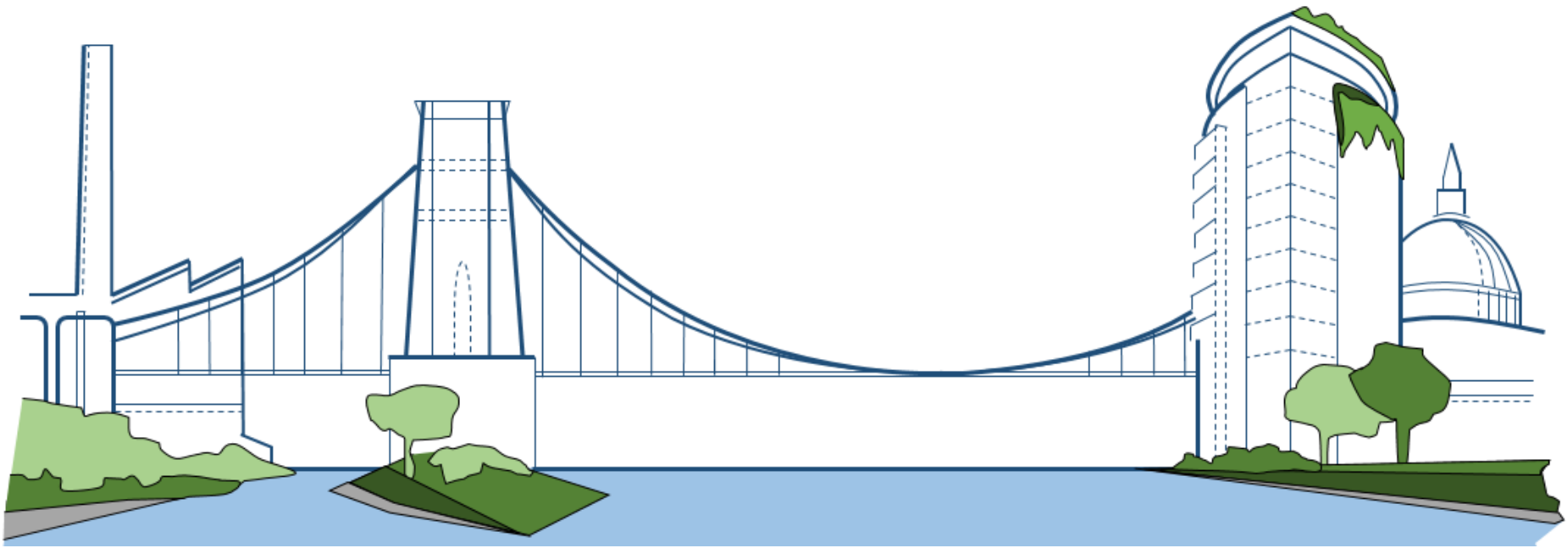
#### MOST READ

UU and Severn Trent team up for non-domestic retail market

Newcastle commits to Blue-Green Infrastructure plan

Putting the focus on phosphorus

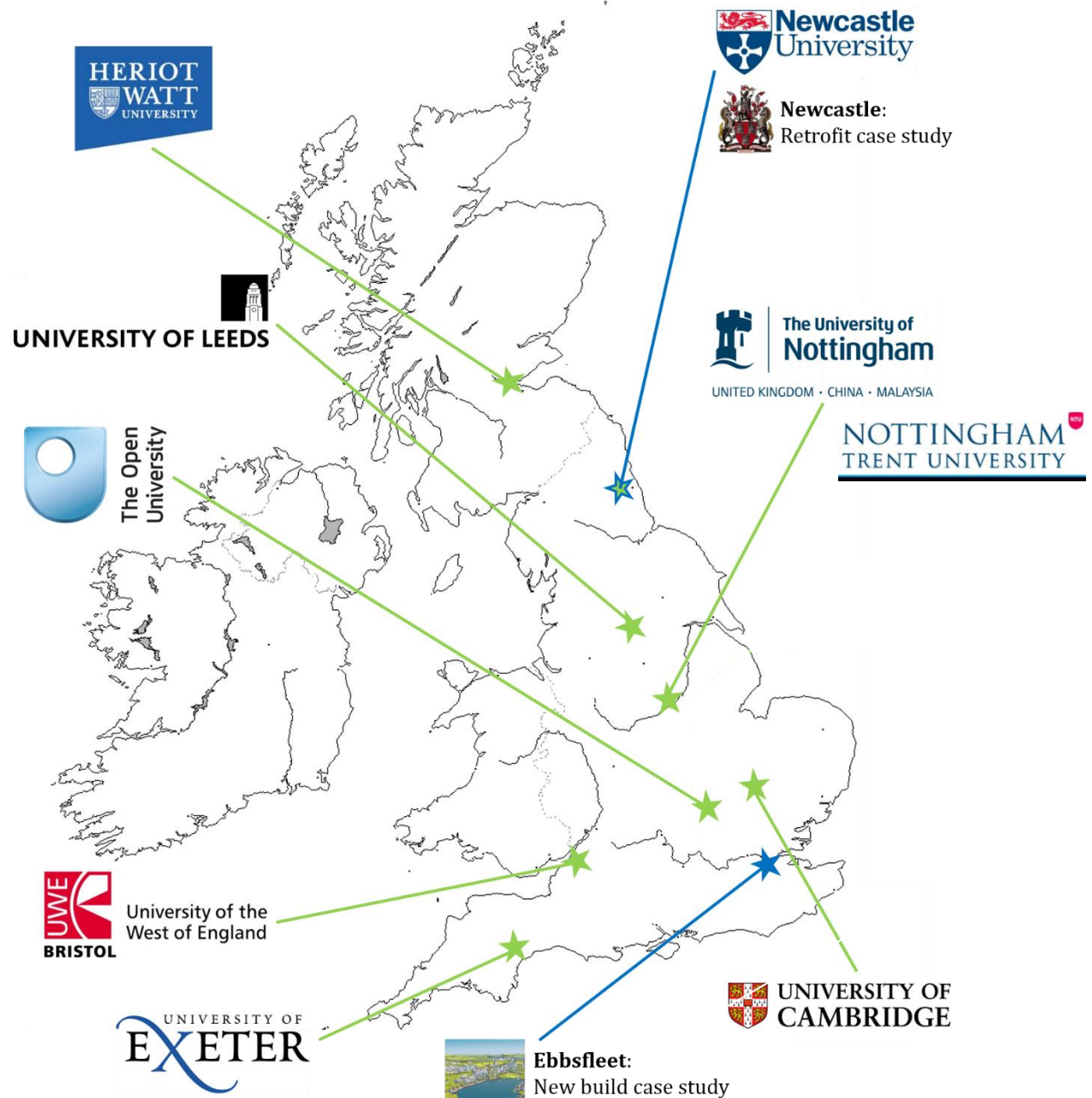
# Achieving Urban Flood Resilience in an Uncertain Future



[www.urbanfloodresilience.ac.uk](http://www.urbanfloodresilience.ac.uk)

 Urban Flood Resilience @BlueGreenCities

# Urban Flood Resilience 2016-2020






# Urban Flood Resilience


a city's capacity to maintain future flood risk at acceptable levels by:

- 1. preventing deaths and injuries**
- 2. minimising damage and disruption during floods**
- 3. recovering quickly after a flood**
- 4. ensuring social equity in flood management**
- 5. protecting the city's cultural identity and economic vitality.**



# Urban Flood Resilience Research Themes

- 
- **Engineering Design** of the integrated Blue/Green and Grey (**B/G+G**) treatment trains that support resilient management of both water quantity and quality

- 
- **Development** of flood and water management assets that function inter-operably with other urban systems: inc. transport, energy, land-use and natural systems

- 
- **Planning** that puts UFRM at the heart of urban planning & focuses on interfaces between planners, developers, engineers and *beneficiary communities*



# The **Blue-Green** path to **Urban Flood Resilience** is made possible by:

