



# Sponge Cities & Mobility Analysis

Implementing digital transformation in cities for effective climate actions

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ARUP

# Risk and Impact of Rainfall on Cities



44%

*of all 'disaster events' have been flood related*

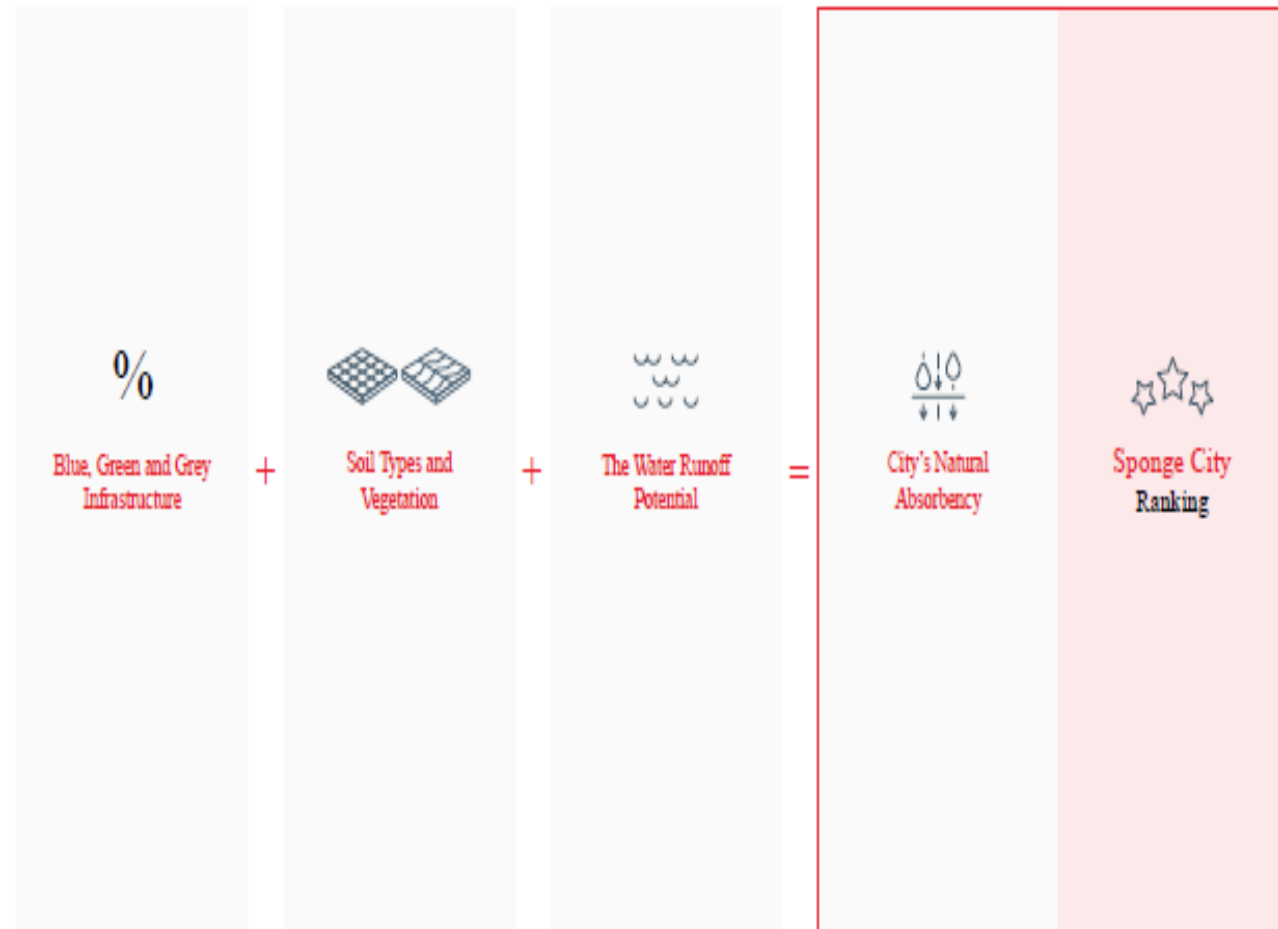
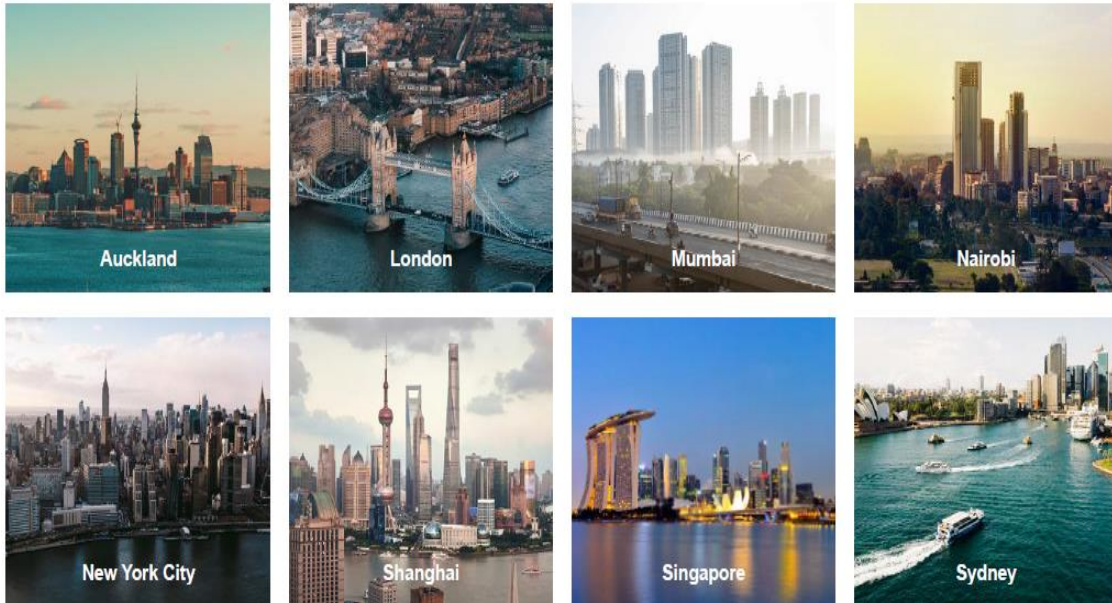
700m

*people live in places where maximum daily rainfall has increased*

4-5x

*increase in impact of direct flood damages if global warming reaches 4C*

# Sponge City Index



## Freiburg

Use of a digital twin to assess mobility needs



# Digital twin – virtual presentation of a city



# Digital: from data into actionable insights



AI / MACHINE LEARNING



COMPUTATIONAL ENGINEERING



WEB DEVELOPMENT



DATABASE & DATA ENGINEERING



GEOSPATIAL/GIS



SOFTWARE DEVELOPMENT



CODING & SCRIPTING



AUGMENTED/VIRTUAL REALITY



DATA ANALYSIS



BLOCKCHAIN



CLOUD ENGINEERING



UX/UI DESIGN



3D VISUALISATION



GENERATIVE DESIGN



DATA VISUALISATION

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