

Right tree, right place...

... what does that mean?





Introduction:

- **Why?** – clear, well considered reasons for planting trees – **what are the objectives?**
- **Where?** – integrated design that ensures compatible longevity – **deliverability determined at planning stage**
- **How?** – best practice that embraces innovation and technology – **enforced through the planning system**
- **What?** – Sorry, not time today – see www.tdag.org.uk

Why?



Trees *in* Towns



R. J. Morling



Published:
1954



Trees in Towns, published 1954, extract:

‘Prospective developers, local authorities, town planners, statutory undertakers and others interested in the use and development of land are becoming increasingly aware of the presence and significance of trees’

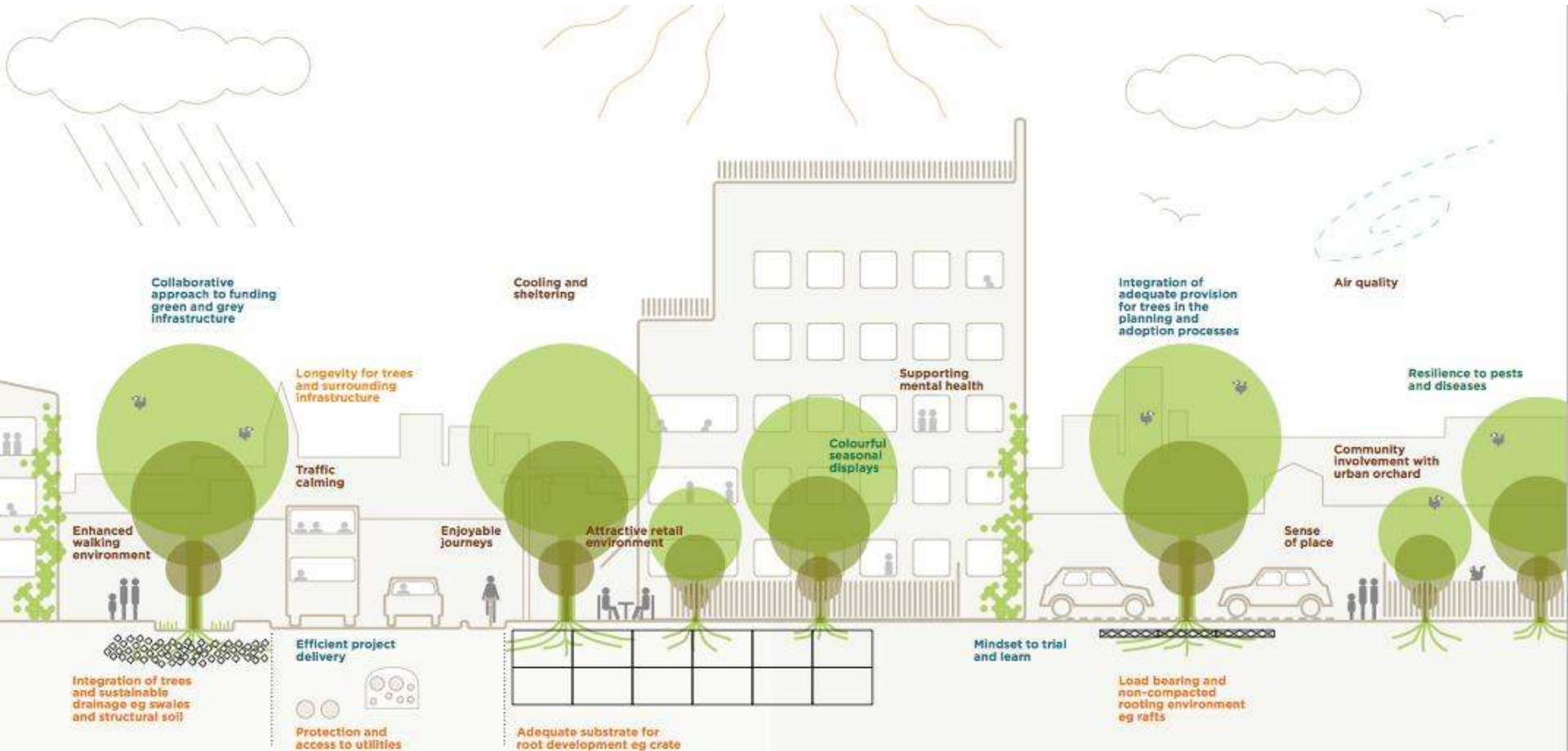
... and 60+ years on?







21st century opportunities and challenges



Enabling Sustainable integrated infrastructure (Sii)

Evolution of the GI sales pitch:



- Now backed up with a robust research evidence base and presented as a sound investment that will yield healthy returns i.e.
- Ecosystem Services
- Natural Capital
- Green Infrastructure
- Sustainable Development

Ensuring return on the investment:



- Initial investment sufficient to realise the return - (design specification)
- Invested with sufficient security to deliver against objectives - (planning process)
- Making the investment work in the current market - (planning enforcement + Sii)
- Monitoring growth of the investment – (revenue budgets to secure maintenance programmes)

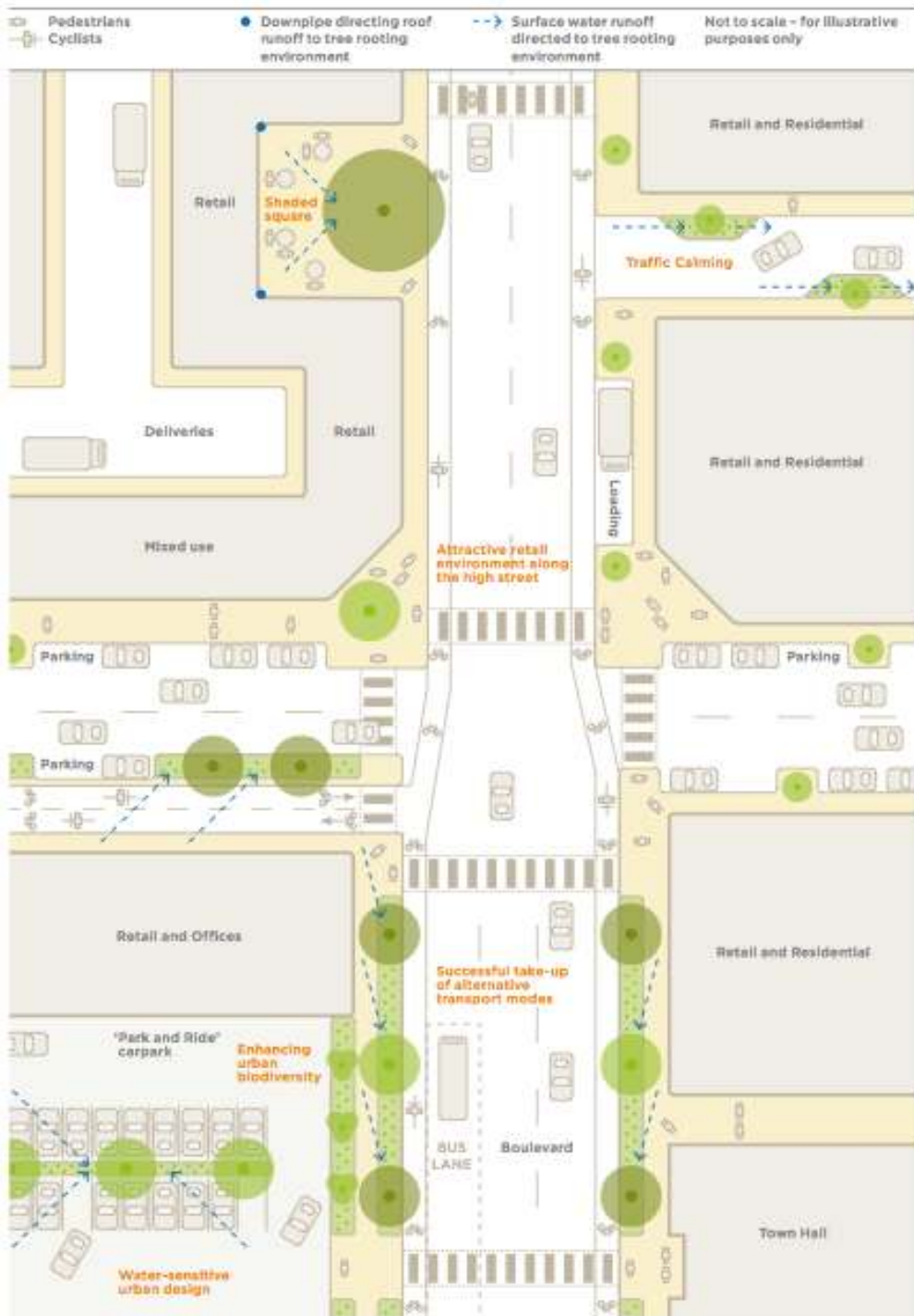
Where?

Recognise
opportunities
and create
demand

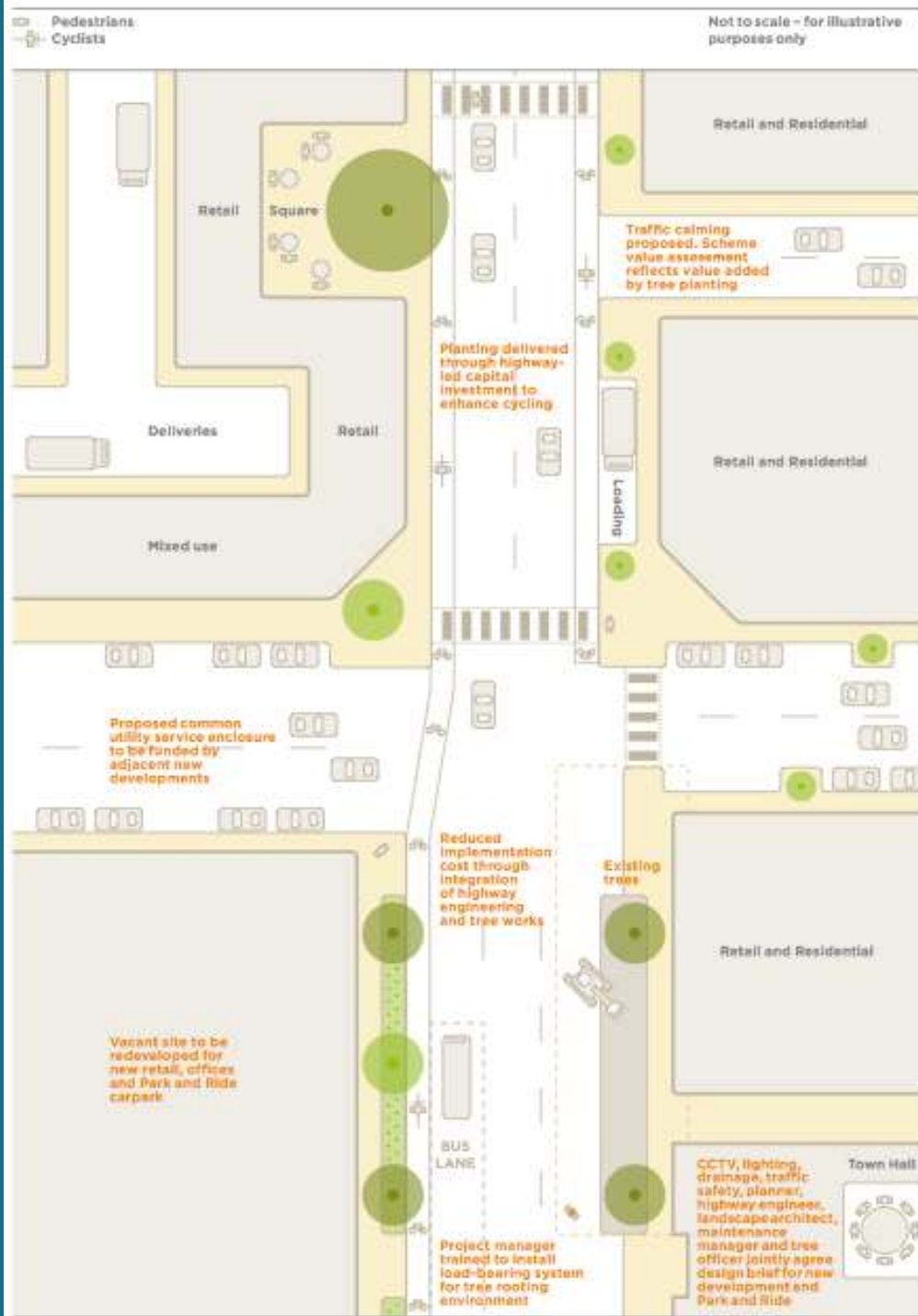
Torre Guinigi
Lucca



Designing with Trees



Collaborative Process



How?



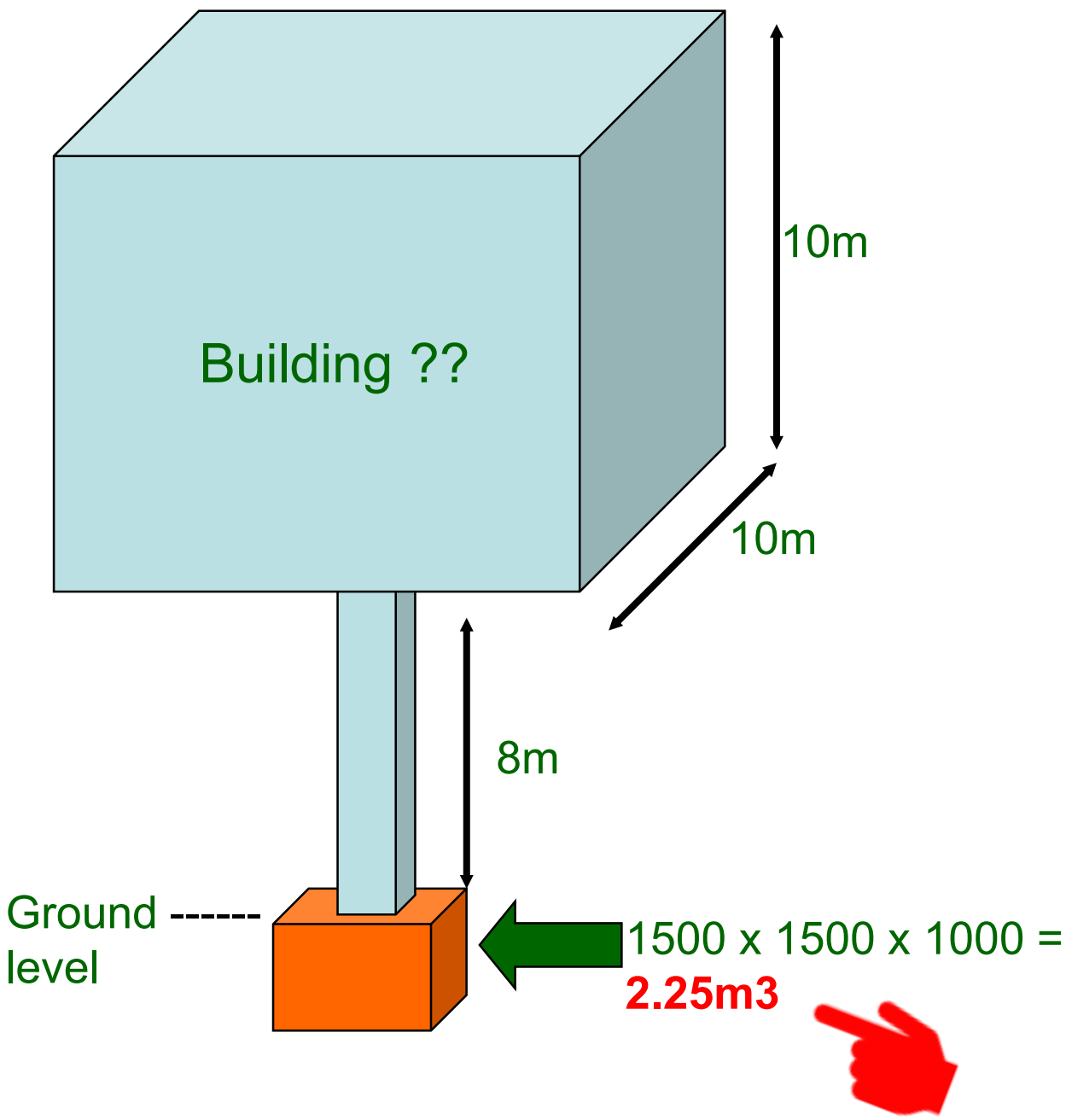
Can we replicate soft landscape conditions in the urban realm?



Too frequently this is the norm for the tree pit spec.







Building ??

10m

10m

8m

Ground level

$1500 \times 1500 \times 1000 = 2.25m^3$

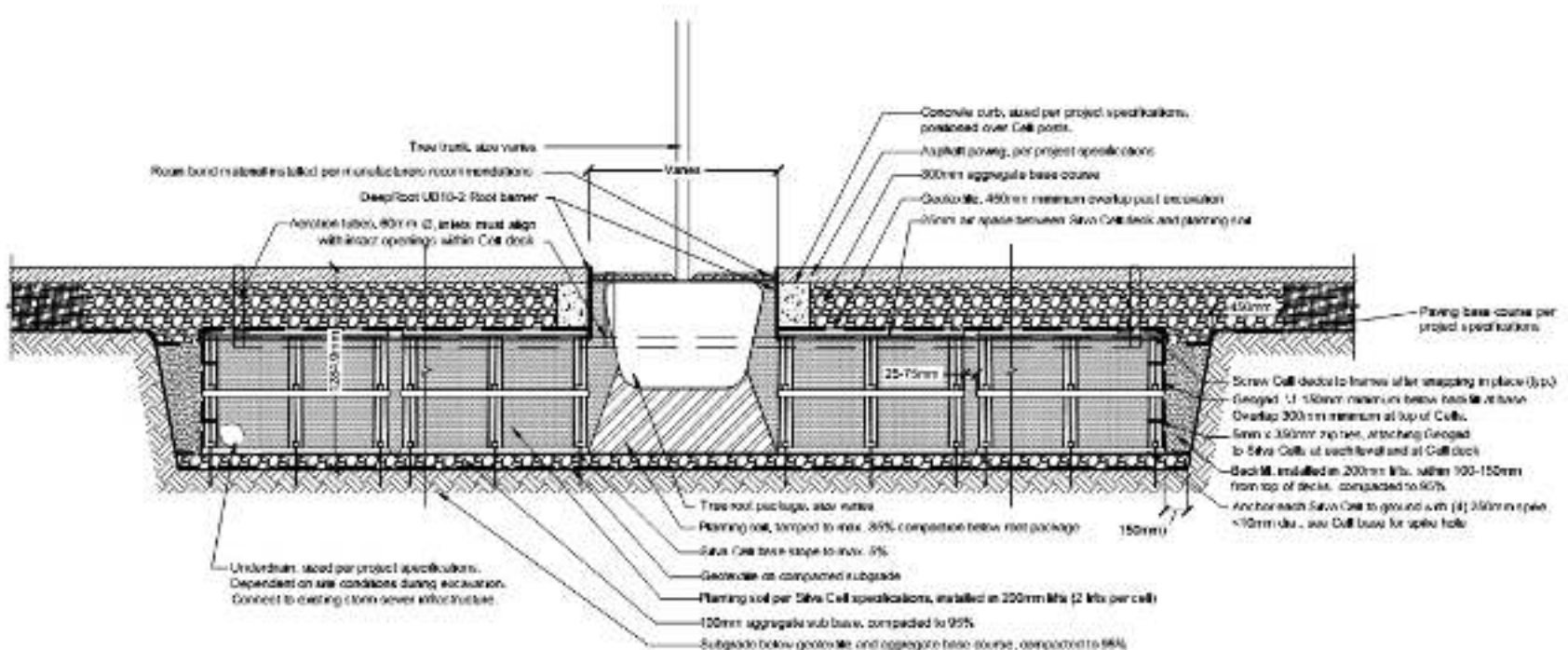


Recognising opportunities



Car parks offer large areas of urban open space

Utilise innovation to enable solutions to modern day constraints



Bespoke design below ground maximises future compatibility

Gully Pots as Hotspots of Urban Diffuse Pollution

Report of Key Findings from the Gully Pot Project



Key findings:

- Gully pot pollutant concentrations were variable within and between pollutant types.
- Zinc, Copper and PAH concentrations were high, exceeding environmental quality standards for the dissolved phase and guideline values for the sediment-bound phase.
- Other more common pollutants, including biochemical oxygen demand, nutrients and faecal indicator organisms were generally low.
- Pollutant fingerprinting revealed that PAHs were derived from a mix of combustion and non-combustion sources, whilst Zn originated predominantly from tyre wear.
- Loadings for Zn, Hydrocarbons and road-salt derived constituents exceeded $10 \text{ kg/km}^2/\text{y}$, and are likely to make a significant contribution to urban runoff loads when compared to SAGIS model outputs for the River Irwell and River Medlock.
- There were complex spatial patterns in pollutant levels, although hotspots were associated with high vehicular traffic (train station approaches, bus interchanges, major arterial routes, and approaches to car parks) and legacy soil contamination.
- Areas of existing green infrastructure in the city were generally associated with lower levels of Zinc and Hydrocarbons in both dissolved and sediment-bound phases.

Salford research project

Potential to manage stormwater runoff quality and quantity with green infrastructure

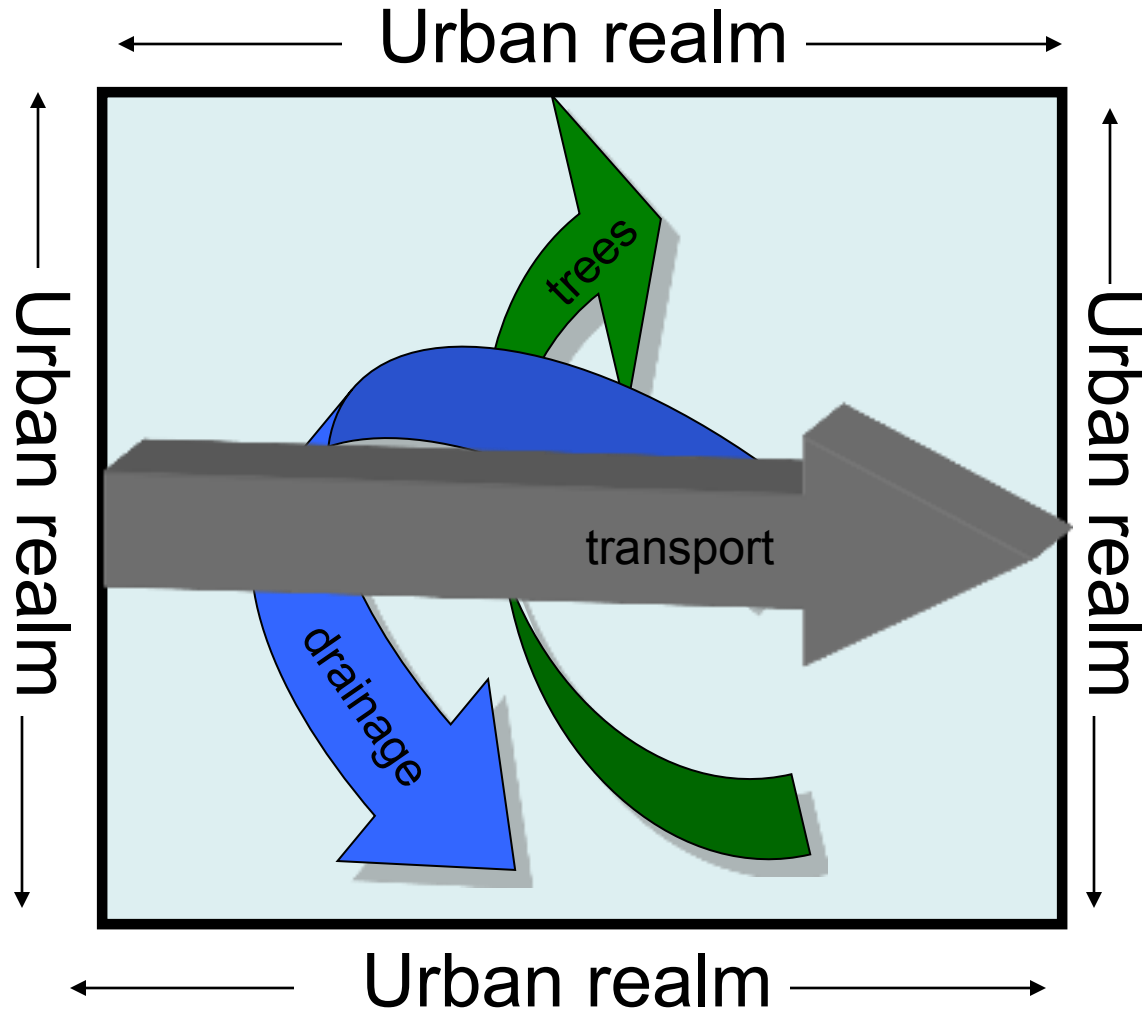
Partners include:

- Red Rose Community Forest
- Salford Borough Council
- The Environment Agency
- Manchester University
- United Utilities Group plc!



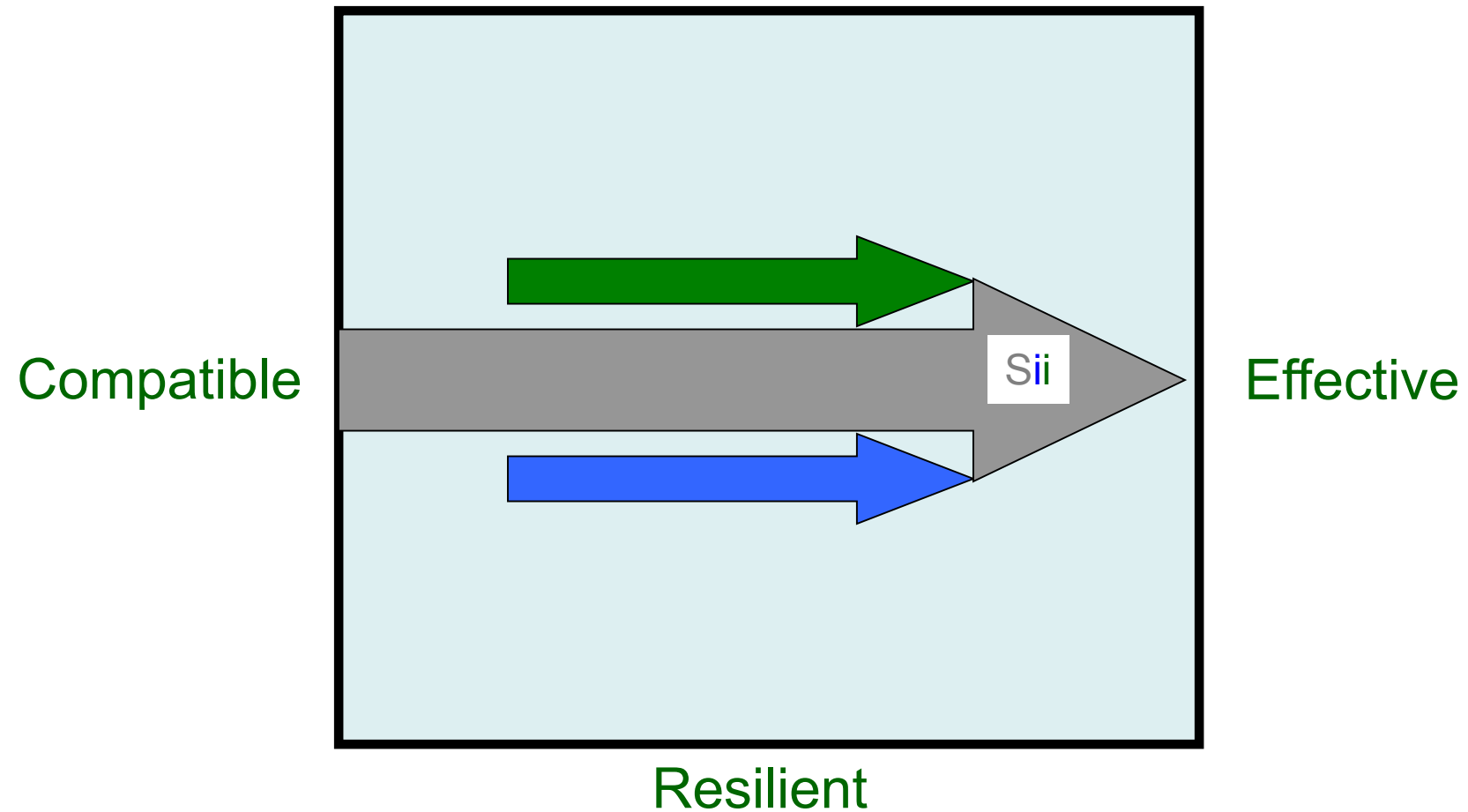


Sept
2016



**0.5% of the UK grey infrastructure budget
= 141% increase of our green infrastructure
budget**

Sustainable **integrated** infrastructure - Sii





Look beyond the
tree pit...

Sii – The Future

Consulting with Trees

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