

Green Infrastructure

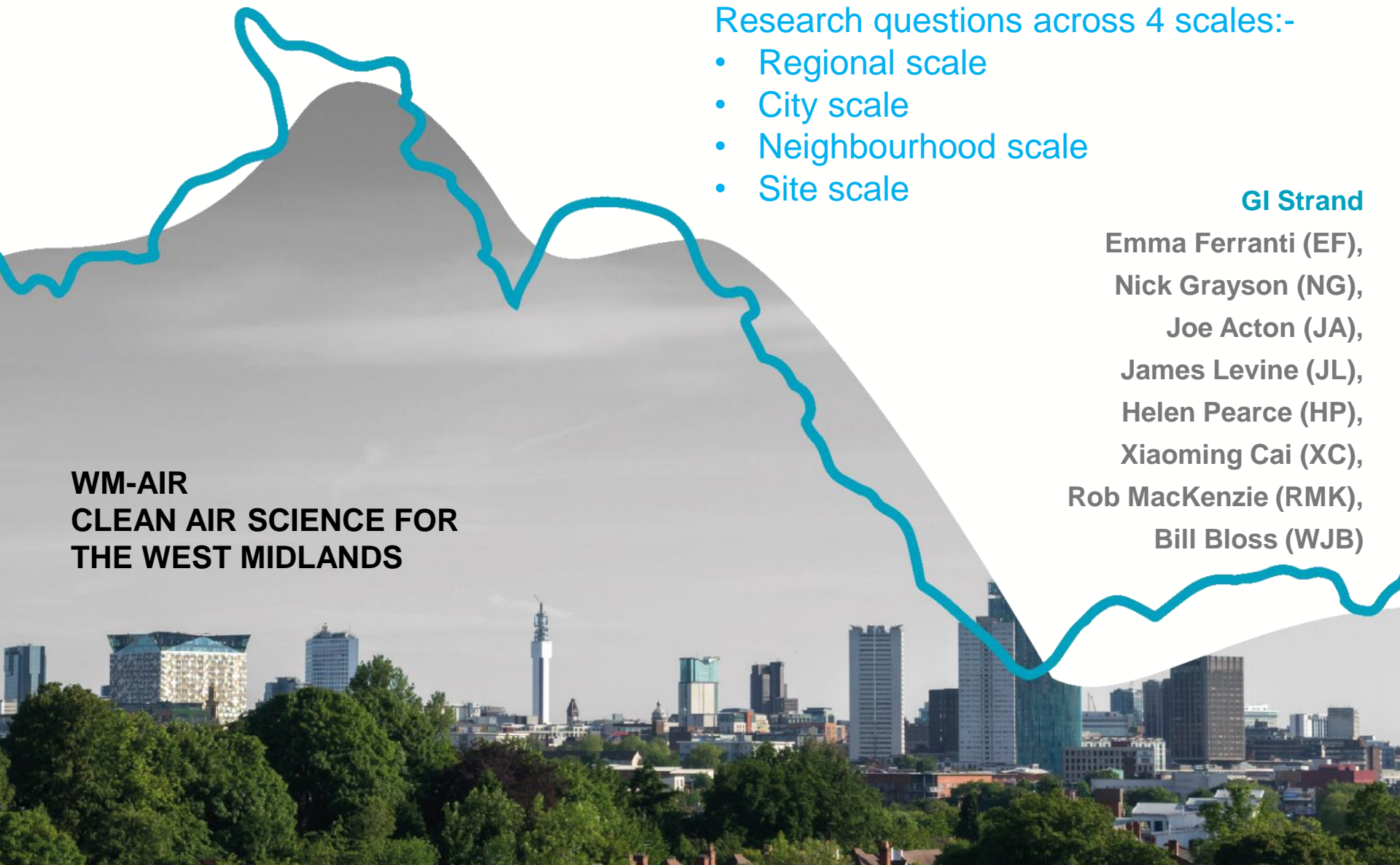
Research questions across 4 scales:-

- Regional scale
- City scale
- Neighbourhood scale
- Site scale

GI Strand

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WM-AIR
CLEAN AIR SCIENCE FOR
THE WEST MIDLANDS



Regional scale activities:-

- **The Virtual Forest (WMCA)**
 - **GI strand team advising** on future tree planting at scale programme to consider air quality impact; in conjunction with regional Wildlife Trusts to align with 30 year Nature Recovery Plans;
- **West Midlands National Park (WMNP)**
 - The WMNP has now been approved and adopted as a guiding concept vision for the region;
 - **GI strand team sharing regional AQ data** to help inform the developing plans for this totally new National Park.

Connect to vehicular emissions and modelling strands to assess secondary pollution: NO_x : VOCs (anthro- + biogenic) \rightarrow O_3 , SOA

City scale activities:-

- **Guide to Air Quality in Developments**

- step-by-step guide with WM-Air stakeholders to implement better outcomes for air quality through the development process;

Micro-scale
dispersion and
deposition

Diagnose existing micro-scale emissions for developments from emissions strand – then think about how to improve.

How best to take cold start and idling into account?

- **Birmingham wide green infrastructure assessment testing national Defra tools**

- Under the Future Parks Accelerator, *Naturally Birmingham* programme the 2 Defra tools are being live tested and their national guidance co-created.
- **GI strand team influencing** the air quality component of both National GI Standard and EcoMetric Tools; and both sets of national guidance.

Neighbourhood scale activities:-

- **Neighbourhood Environmental Justice Audit Tool development**
 - Via Future Parks Accelerator, *Naturally Birmingham*, City tracks the impact the global challenges of the declared climate emergency, the ecological emergency and the health emergency- of the coronavirus (Covid-19) pandemic, at the neighbourhood scale.
 - **GI strand advising** on the air quality and green infrastructure component;
- The **GI strand** are now **liaising** closely with the WM-Air Health strand over potential extension of the health assessment tool.

Site scale activities:-

- **HS2 Interchange GI4AQ analysis**
 - **GI strand working with the team at HS2** using the Interchange site to help develop a generic guidance standard with the HS2 team; (Covid-19 has impacted planned field trials).
- **Birmingham 2022 Games**
 - **GI strand now engaged with B2022 team** reviewing the air quality implications for the Games venues; starting with the revised athletes village on the University of Birmingham campus;
- **Post Covid plans to work with school sites**
 - **GI strand in discussion** with schools in the region - air quality mitigation experiments employing green infrastructure along established principles, **R.E.P.: Reduce, Extend, Protect**

