

IMPACT ON SOCIETY



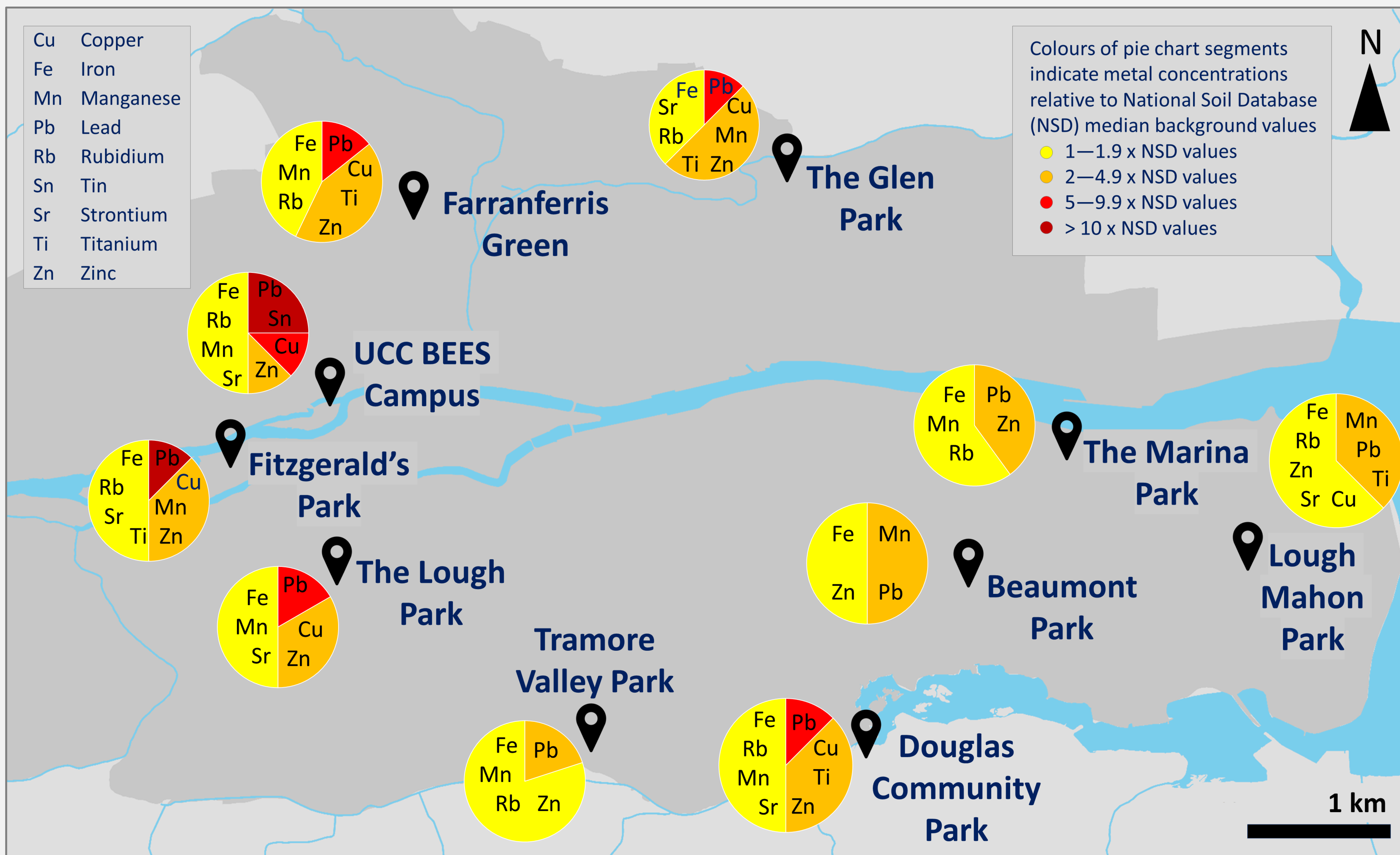
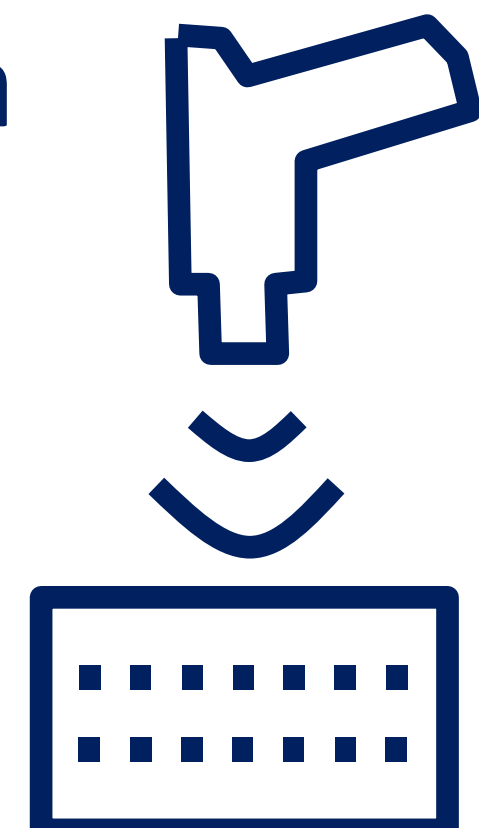
Parks and urban green areas offer valuable amenities to towns and cities.

Previous European topsoil surveys (FOREGS and LUCAS) predict the presence of heavy metals in the topsoil of Irish soils (As, Cd, Cr, Cu, Hg, Pb, Zn, Sb, Co and Ni).

METHODS

Triplicate analysis with the Handheld X-ray fluorescence analysers as a faster and cheaper alternative to the industry standard (ICP-MS).

- ✓ 10 parks in Cork city
- ✓ 15 sample sites per park
- ✓ 1,350 individual XRF readings



KEY RESULTS

Result 1: All sites exceed Irish background levels (NSD) for 4 – 8 metals.

Result 2: Lead (Pb), Iron (Fe), Manganese (Mn) and Zinc (Zn) exceed the Irish background levels (NSD) at all sites.

Result 3: Metal concentrations are systematically higher at city centre relative to suburban sites.

HOW IS THIS RESEARCH “MAKING A DIFFERENCE”?

Urban soils lack regulation: there is currently no EU law/regulation and no Irish law/regulation that sets out thresholds for urban soil contamination. This **research informs local city and county councils, the GSI and DECC** on the status of urban soils in Cork city and helps inform future policy.