













Our mission

"Creating technologies to inspire and support environmental preservation"





Background

Feasibility research into a service that could combine Space Assets with Open Data and Crowdsourcing





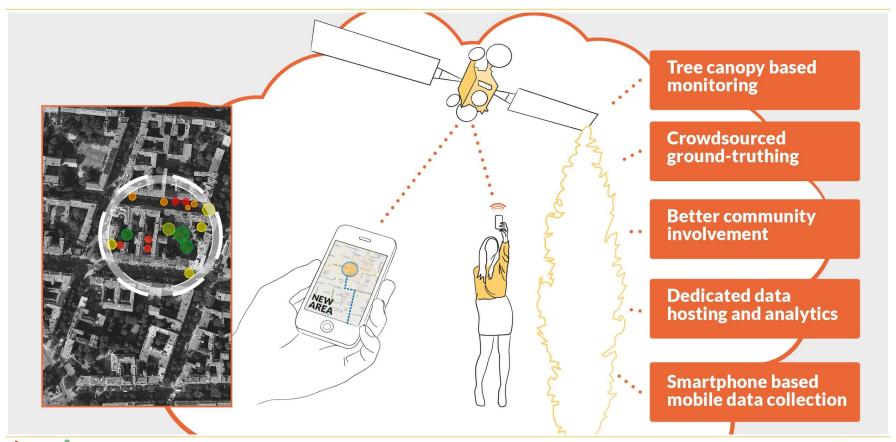








Background







Background

Research uncovered clear gaps in:

- Public engagement
- Wider stakeholder coordination







What is Curio?

An environmental software platform

A network that connects stakeholders

- visibility on the different approaches and projects that are taking place
- better cooperation between state, commercial, NGO and community
- support the exchange of expertise and services
- legacy to projects that have been carried out

Provides better information about local features

- Trees & plants; areas of habitat; special areas of conservation
- Ecosystem services from such features
- Social and cultural value of an area's natural environment
- Enable people to easily access educational resources relevant to their own local area







What is Curio? - Tiered approach

Satellite data analysis

- Informs policies, strategies, KPIs

Mapping data layers

- Information and analytics on specific features
- Area & infrastructure management

Additional educational and information resources

- Biodiversity and species information
- Ecosystem services

Human interaction

- Exchange information and expertise
- Collaborate on projects









Mayor of London's mission

Published a clear environment strategy that set out aims for:

- cleaner air
- reduced CO₂ and waste
- climate resilience
- more tranquil spaces and...

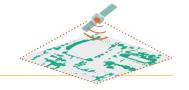
"for more than half of London's area to be green and for tree canopy cover to increase by ten per cent by 2050" **



 $^{**}https://www.london.gov.uk/sites/default/files/london_environment_strategy-_draft_for_public_consultation.pdf$







Needed an accurate measurement of existing urban forest cover and greenspace

- 25cm per pixel mapping of tree canopy cover using machine learning approach
- Can guide tree planting and policy across the whole of greater London
- General analysis of green infrastructure
 (GI) including how it has changed annually
- Data is available to be used by any agency local authorities, utilities and transport, researchers, landscape managers, NGOs, communities etc.

Tier 1: satellite analysis





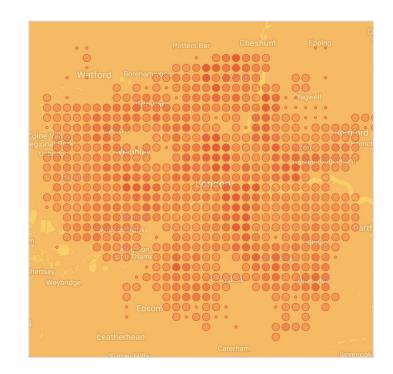




A more detailed view

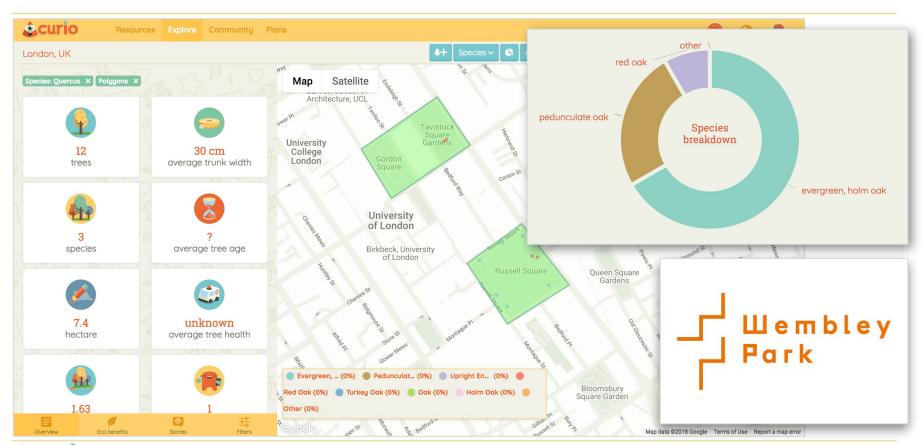
- Precise ground-level data on >700K plantings
- An inventory of plant stock for local managers
- Longitudinal data storage to support studies of environmental change
- Analytics tools to understand stock profile
- Planning and recording of operations at an individual tree level

Tier 2: day-to-day data











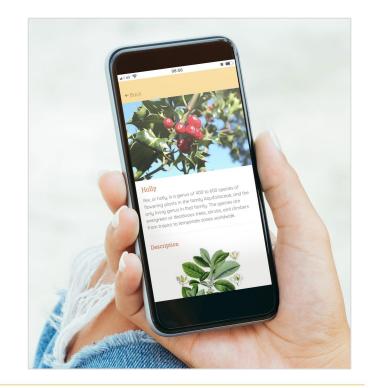




Unlocking the hidden value of data

- Connect data points to libraries of additional information
- Process the data to extract further information on ecosystem services
- Use the data to execute projects that benefit local communities
- Encourage people to contribute their own data

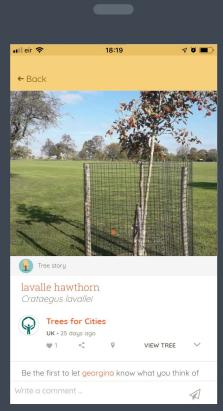
Tier 3 - rich resources



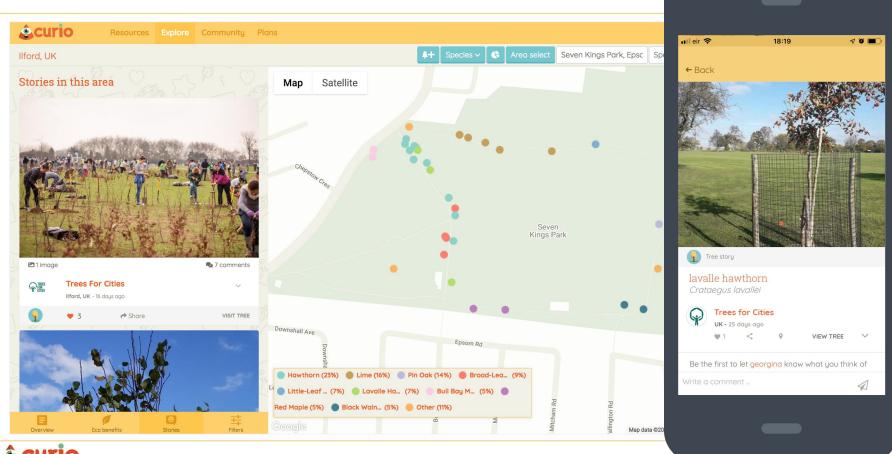
















Enabling exchanges of expertise and collaboration on projects

- Stories structure for information similar to social media posts - supports dialogue
- People can connect with each other or with organisations and get notified on activities by particular groups or in particular regions
- Community experts to answer questions
- Integrates with social media channels for promoting activities more widely

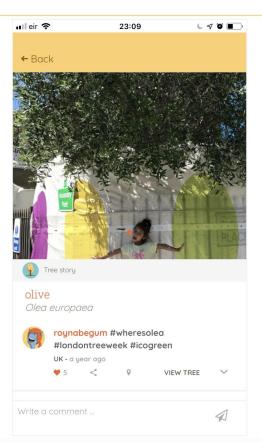
Tier 4 - interactions















Working with Enniscorthy Tidy Towns

Worked with local schools and community groups

 Curio used to map local habitat and Tidy Town's activities

Began to create an inventory of the area's trees







Working with Enniscorthy Tidy Towns



trees recorded



species identified



local people mapped a tree



local people directly involved



14.4%*

tree canopy

(±1.11% error - tree canopy is the area of tree foliage as % of total ground area)



CO₂ stored
(±0.33% error - the amount of carbon dioxide stored in the region's trees at a rate of approx. 144t per year)





Curio and the SDGs

- Educate greater numbers of people about the composition of their local, natural environment
- Improve habitat and biodiversity monitoring and management



Connect and engage more stakeholders in the domain to improve cooperation













Twitter: @curioxyz www.curio.xyz

Thanks



