

Developing a Remediation and Sustainable Growth Assessment Tool

Presentation for National Brownfield Forum

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23 June 2022

Biodiversity Metric

**Environmental Benefits from
Nature Tool**

**Outdoor Recreation
Valuation Tool**

NATURE Tool

i-Tree Eco

**Benefits Estimation
Tool**

**Natural Environment Valuation
Online Tool**

‘What gets measured, gets managed’

Context

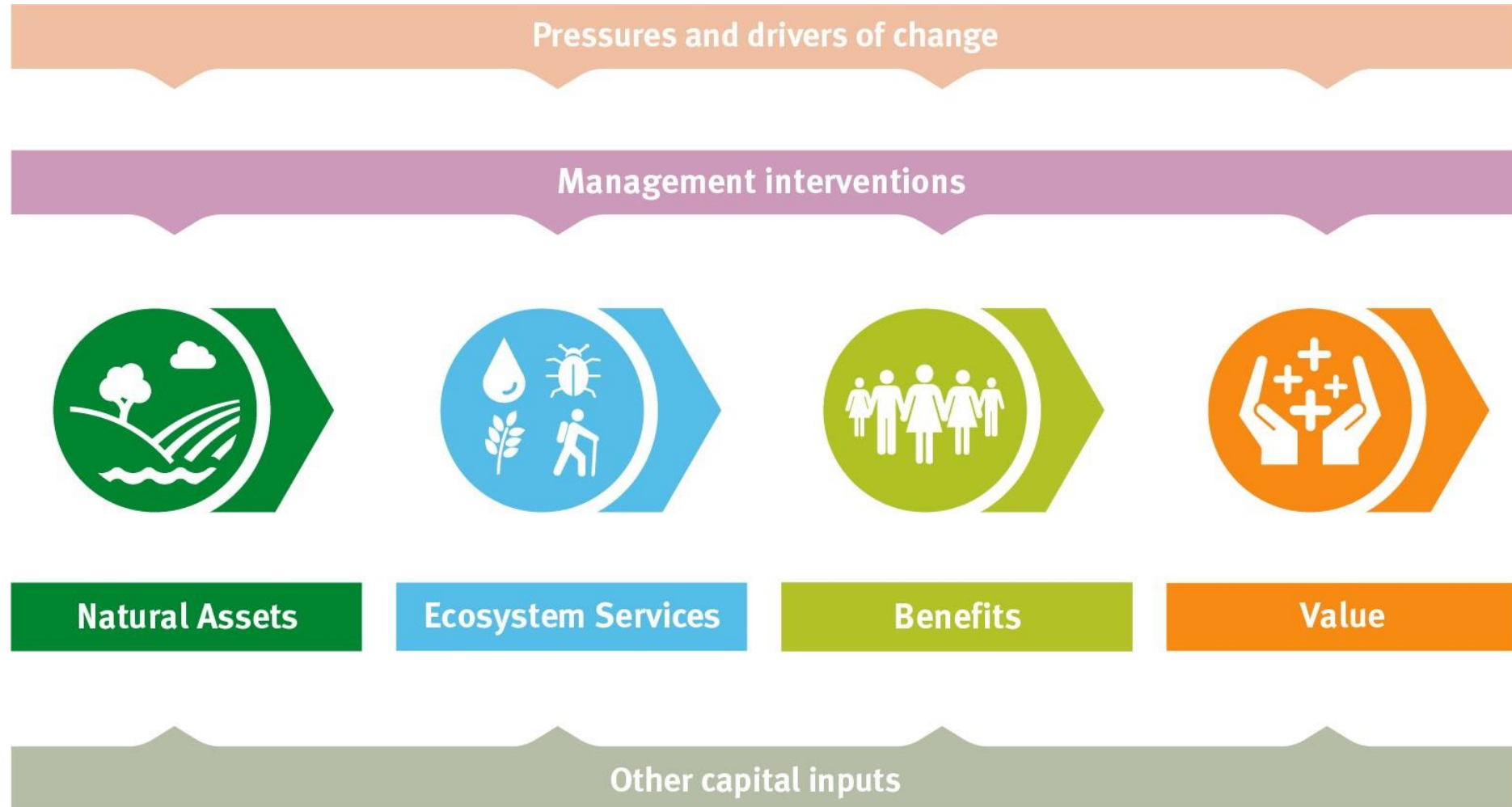
- The remediation of brownfield is vital to sustainable place-making and levelling up across the country. It provides an improved local environment that can unlock regeneration and the social, economic and ecological revitalisation of communities.
- The total benefits of remediation are not fully understood or utilised in decision making. As a result, sites can remain derelict for years and opportunities to optimise value from public and private investment are missed.
- We want to explore what is needed to mainstream an approach to valuing remediation that treats it more like an opportunity to maximise the benefits for people and nature, rather than simply a cost or liability.
- Initial step is to test the feasibility of developing a tool, incorporating a natural capital approach, that enables us and our partners to measure and communicate the social, economic and environmental value of remediating contaminated sites to optimise its planning, regulation, funding and delivery.



Problem definition

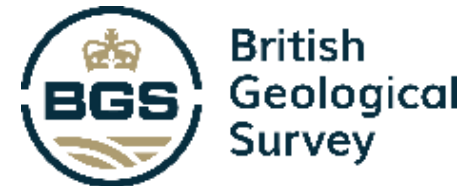
- Legacy of contamination posing risks to human health and water environment
- Funding pressures on our regulatory and advisory functions
- Remediation focused on high value sites and the minimum needed for approval
- Is remediation recognised in the natural capital approach?
- **The full value of remediation, and our role in it, is not recognised.
Limits our ability to influence decisions on funding, investment and policy.**

Natural capital approach



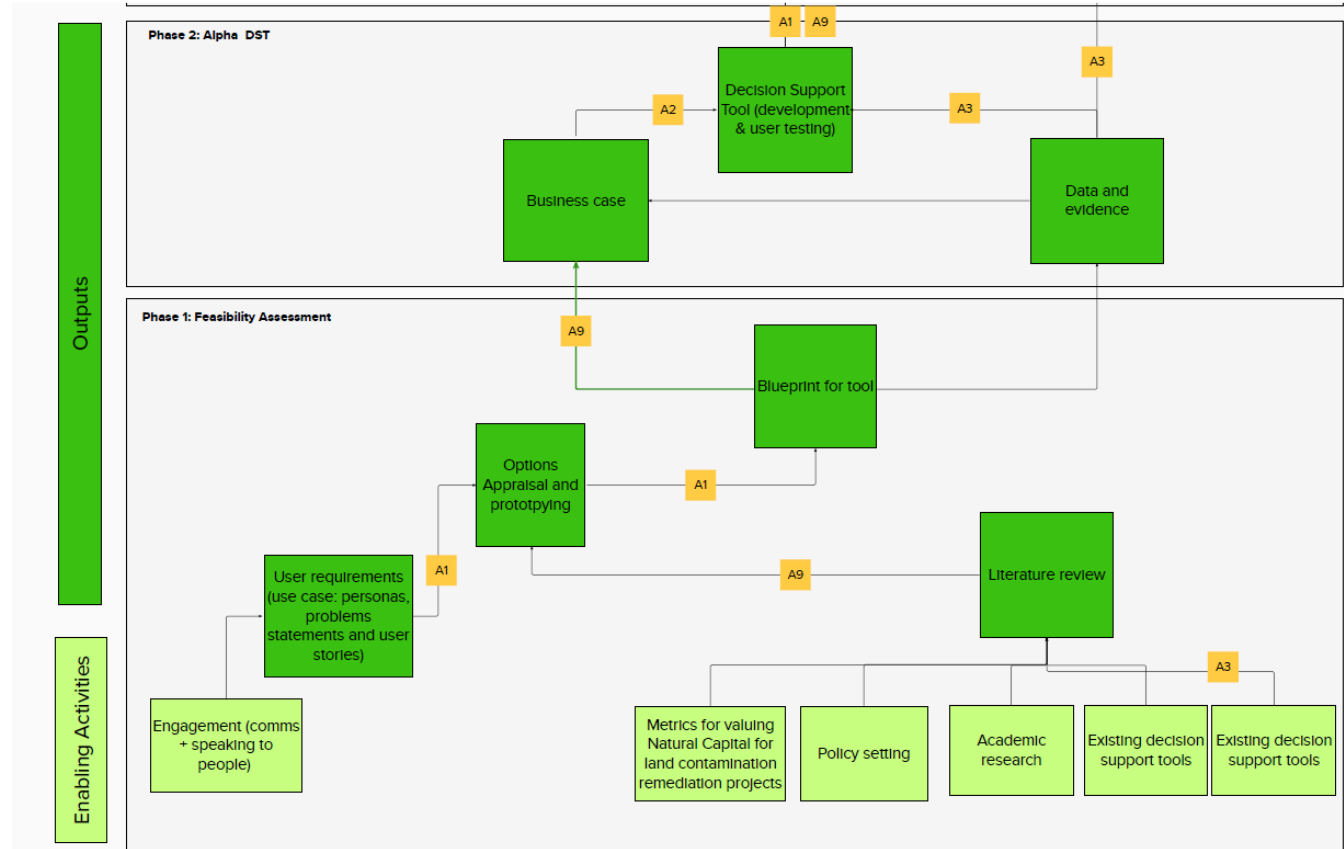
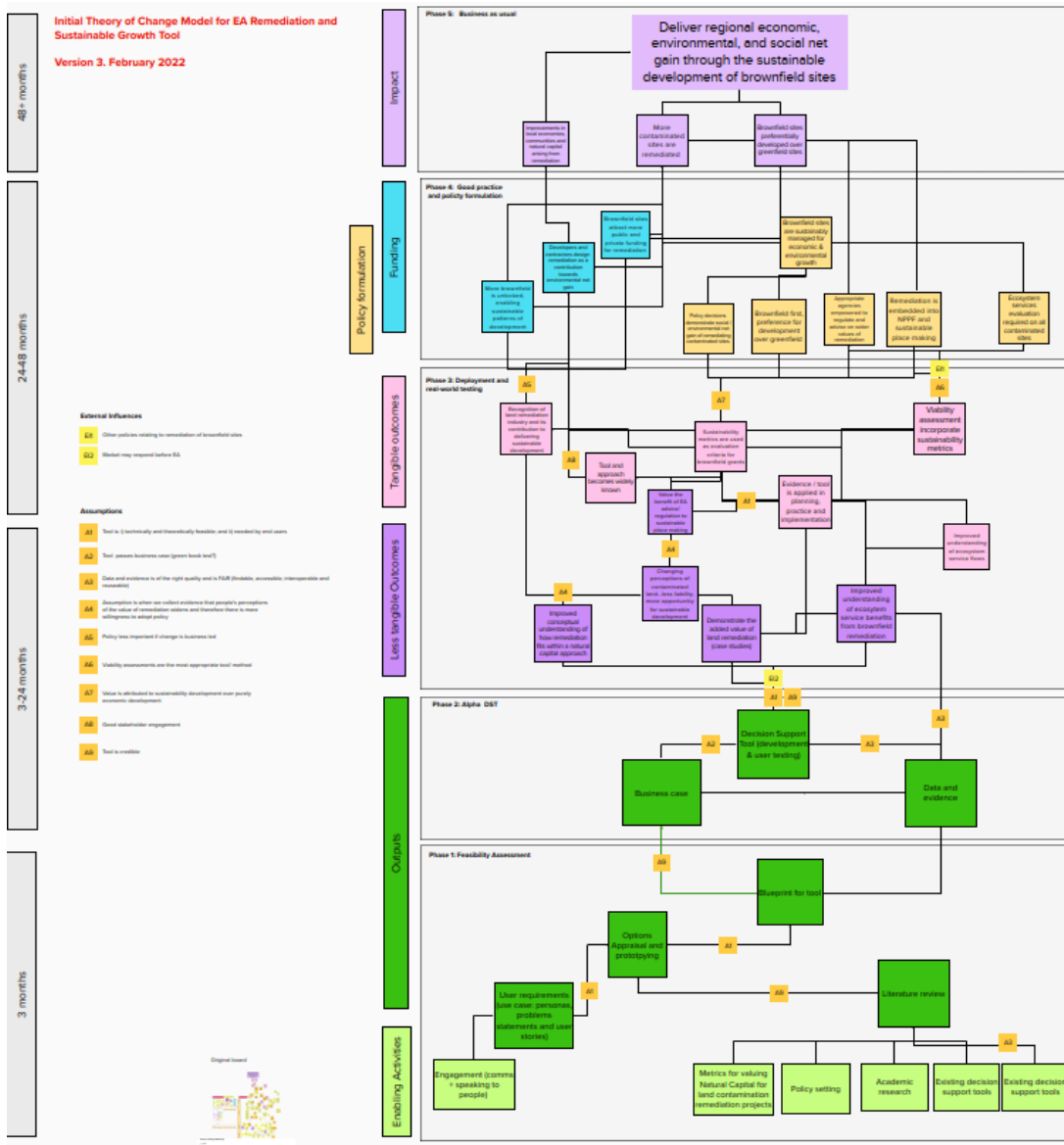
Project scope

- **Research the feasibility to develop a tool to better enable the Environment Agency and its partners to measure and communicate the social, economic and environmental value of remediating contaminated sites**
- **Outputs:**
 - Theory of Change model
 - User requirements research
 - Literature Review
 - Design Sprint
 - Low fidelity prototype
 - Recommendations for next steps



Jacobs

Theory of Change Model



User requirements



Environment
Agency



Department
for Environment
Food & Rural Affairs

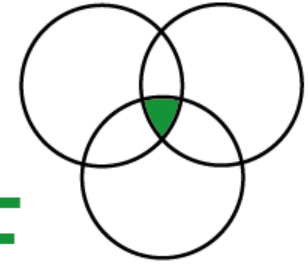
GMCA
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Homes
England

SuRF

SUSTAINABLE REMEDIATION FORUM UK
A CE AIRE Initiative



Key observations from the interviews:

- Several areas of perceived links between remediation and creating sustainable places
- Several potential case study sites were identified
- No interviewees were aware of any formal assessments of the links between remediation and creating sustainable place or a single tool or framework that assesses all aspects
- Tool would be useful in the early and strategic stages of planning and development
- **A tool or framework is required. Need to be simple to use and supported by policy/guidance.**

Rapid evidence review of the literature

- Research question: *Does the remediation of brownfield sites through planning and other mechanisms create net gain in social, economic and natural capital?"*

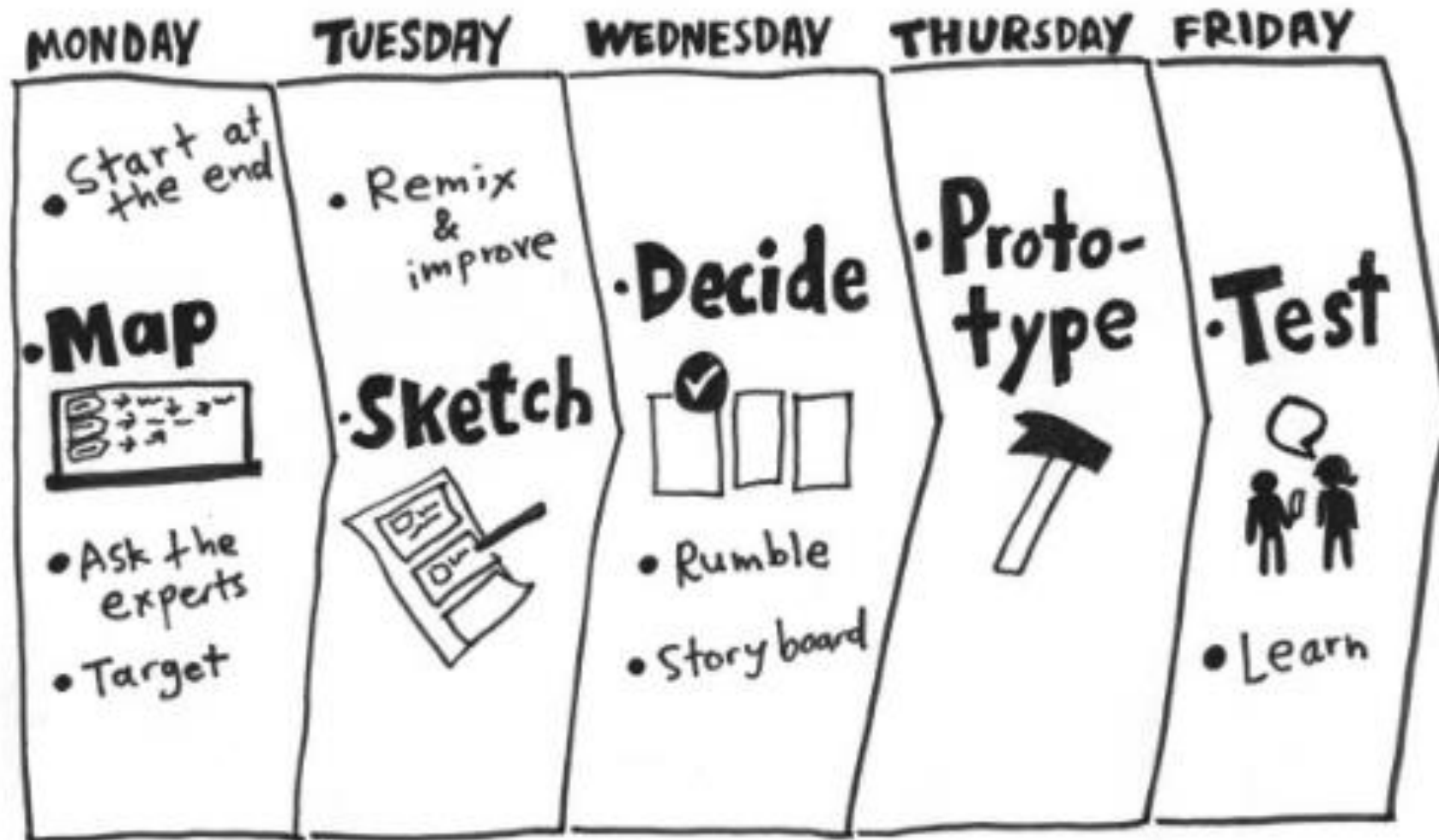
Key findings

- 'Living evidence' base created (spreadsheets and online Mendeley bibliography).
- Links between remediation/ redevelopment and sustainable development exist.
- There is a strong policy framework that is currently undergoing change which could be influenced by this and further work.
- Guidance, frameworks, indicators and tools exist which could inform distinct components of a tool.
- An EMMIE evaluation should be applied to the grey literature (more complex in the absence of abstracts).
- Current UK case studies needed to measure benefits of remediation.
- A range of authoritative data sources exist, these need to be mapped and evaluated for the most relevant indicators.
- There is no 'one size fits all' framework, tool or indicator set available.

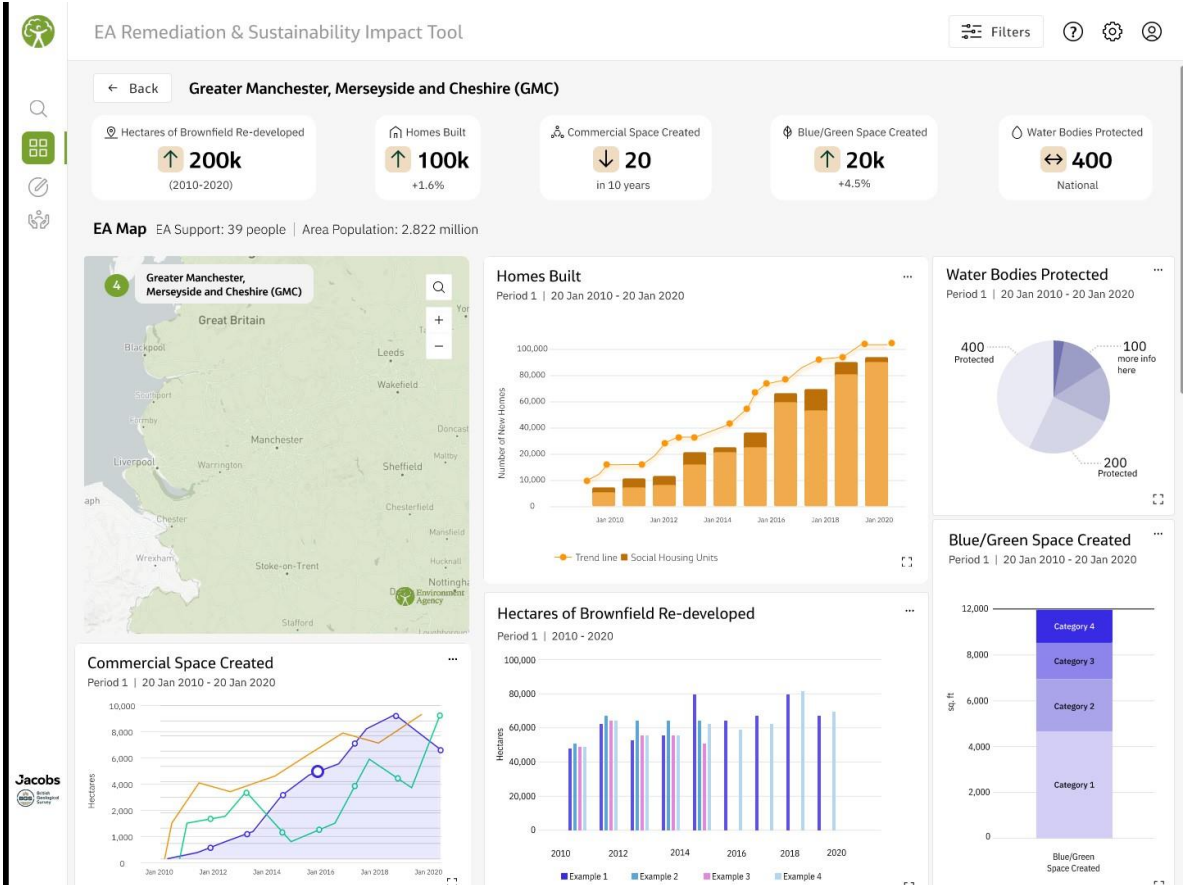
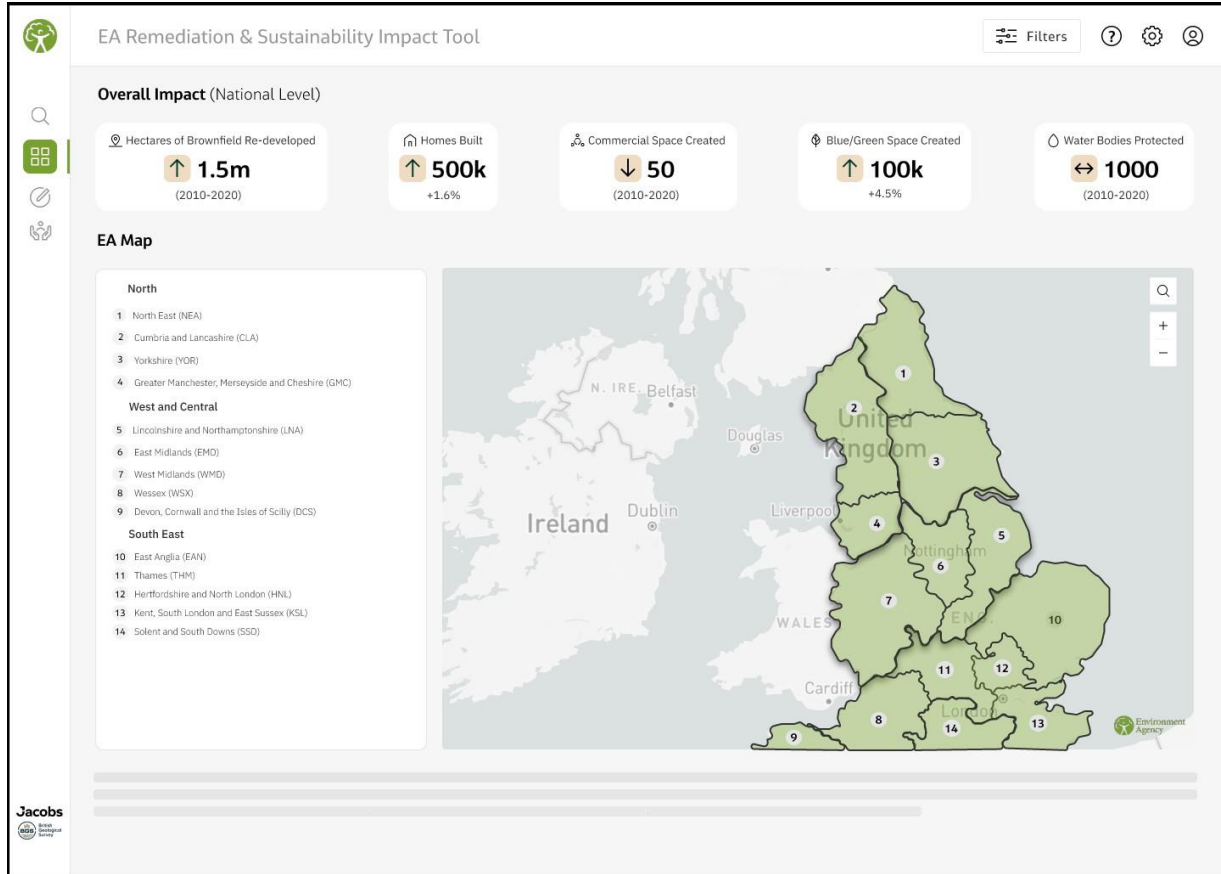
Existing decision support tools

- Sustainable Brownfields Redevelopment (SBR) (Wedding and Crawford-Brown, 2007)
 - Sustainable Choice Of Remediation (SCORE) (Rosén et al., 2015)
 - Timbre Brownfield Prioritization Tool (TBPT) (Pizzol et al., 2016)
 - GIS-based tool (Burinskiene et al., 2017)
 - SIPRIUS+ (Laprise and Rey, 2019)
 - GIS-based Timbre, BGR_calc, PFAS
 - Cost-benefit analysis: B£ST, ORVAL, Social Value Calculator
 - Community Impact Tool
 - Ecosystems Knowledge Network
- **No 'one size fits all' and no existing tool that completely fits the brief**

Design Sprint



Low fidelity prototype for a tool



What did the team find?

- There is a need and demand for a tool
- It's technically feasible
- The perception of contaminated land could shift from constraint to opportunity.
- Related areas e.g. natural capital and net gain are rapidly evolving policy-driven fields that any tool needs to expand on
- There are many different use cases for a tool but there is a need to focus in on funding and policy

Recommendations

- Continue to keep the **Theory of Change** model live and use it to engage with internal Environment Agency and external stakeholders
- Develop the **Business Case** to develop the tool based on the work of this feasibility phase
- Progress and maintain the literature review as a **'living evidence' base**
- Widen **stakeholder engagement**
- Create **case studies**
- Refine an **indicator set** for the tool and map available **data**
- **Develop a tool**

Our next steps

- Reflecting on outputs and recommendations
- Comms and engagement
- Seeking further views and partnership
- Business Case development
- Exploring some of the policy questions generated

Questions

- What are the barriers to recognising remediation's contribution to environmental net gain?
- Is there a need for a tool, method or framework to better measure the benefits of remediation for creating sustainable places?

Thank you

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If you think you've got ideas or a good case study for exploring the wider benefits of remediation – please get in touch