

Achieving sustainable remediation – a framework and guidance from the UK

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Sustainable Remediation Forum-UK

Steering Group Member

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China

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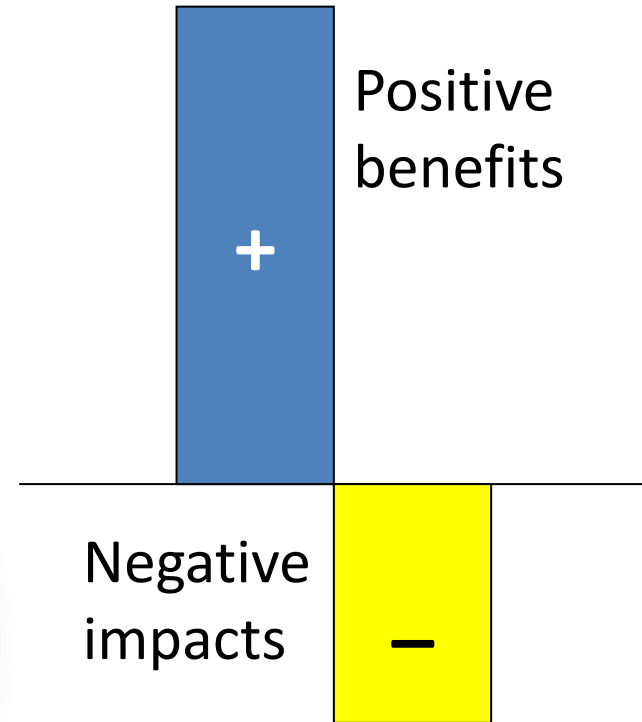
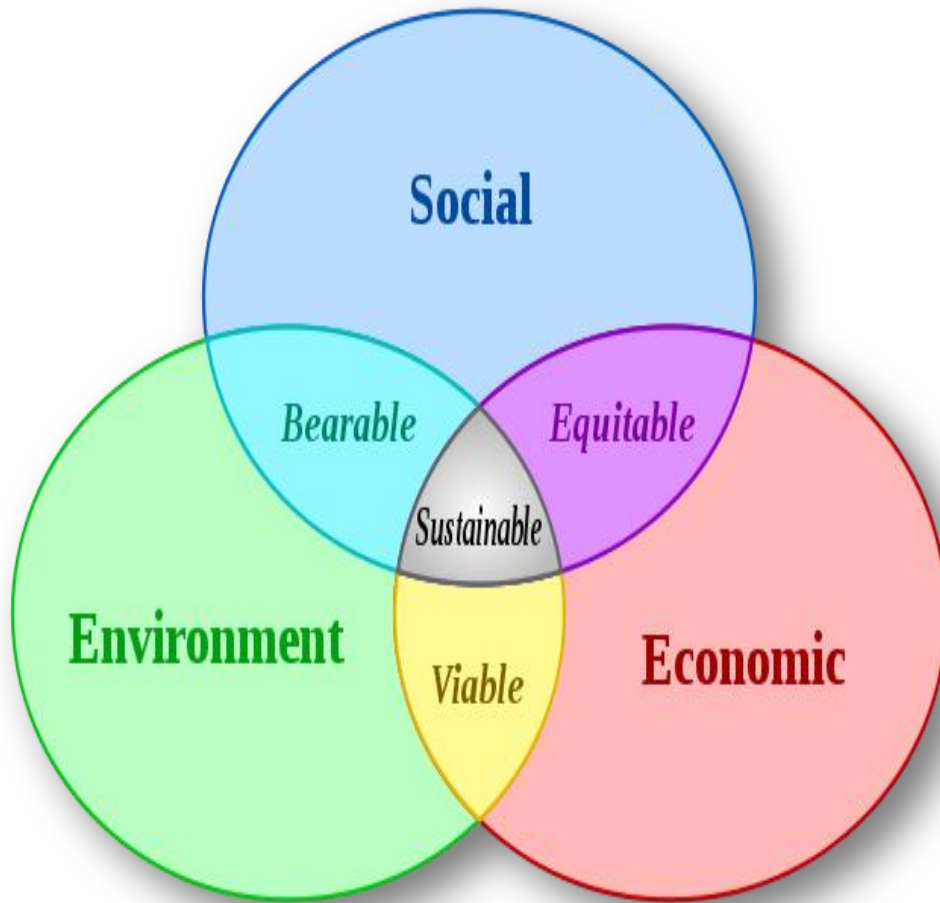
What is SuRF-UK?

- UK-based collaboration of industry, regulators, academics and consultants
- Established in 2007, following the lead of SuRF (US)
- Independent co-ordination by CL:AIRE
(www.claire.co.uk/surfuk)
- Secretariat has been funded by HCA, Shell and National Grid with additional in-kind support from industry
- **Aims**
 - A framework for assessing sustainable remediation that is effective, practical, regulatory acceptance
 - Review of sustainability indicators

Sustainable Development

- Sustainable development
 - ‘Development that meets the needs of the present without compromising the ability of future generations to meet their own needs’ (Report of the World Commission on Environment and Development 1987, the Brundtland report)
- Sustainable remediation
 - Application of the principles of sustainable development to remediation

Sustainable Development



...a net benefit

Regulatory Drivers

- European Directives
 - Waste Framework Directive
 - Hierarchy to promote sustainable waste management
 - Escalating taxation on disposal
 - Water Framework Directive
 - Preferred solution (to achieve good status) ... best balance of social, economic and environmental costs
 - Draft Soil Protection Framework
 - Deciding on remediation actions, Member States to consider ... social, economic and environmental impacts, cost-effectiveness and technical feasibility of the actions envisaged

Regulatory Drivers

- UK legislation
 - Planning regime
 - Underpins sustainable development
 - Draft national Planning Policy Framework
 - Environment Act 1995 requires environment agencies
 - To contribute to the goal of achieving sustainable development/have regard to social and economic needs
 - To take account of likely costs and benefits in considering how or whether to exercise statutory powers
 - Contaminated land regime
 - Test of reasonableness

SuRK-UK Outputs



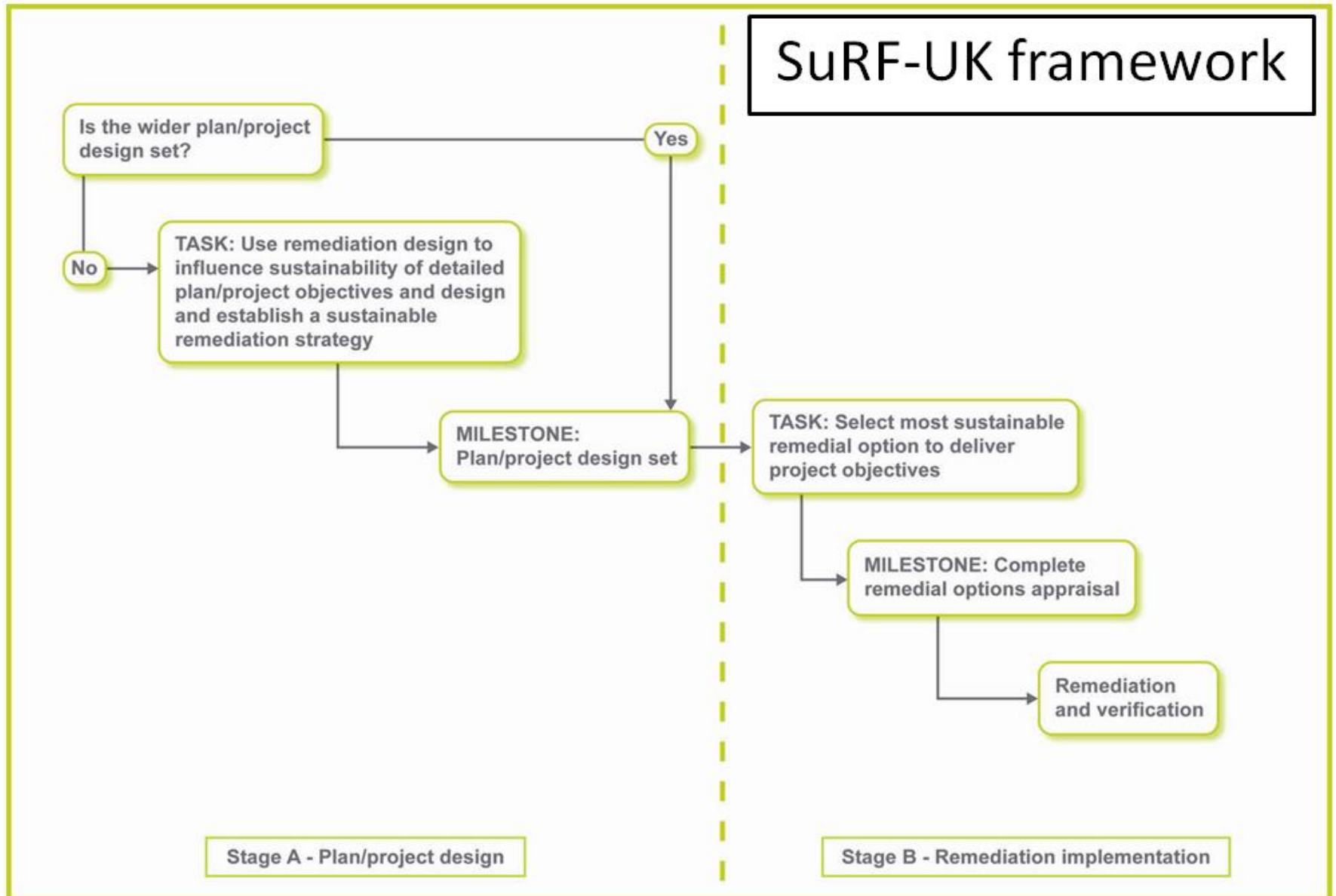
- Sustainable remediation
*‘the practice of demonstrating, in terms of **environmental, economic and social** indicators, that the benefit of undertaking remediation is greater than its impact and that the optimum remediation solution is selected through the use of a **balanced** decision-making process’*

Key Principles

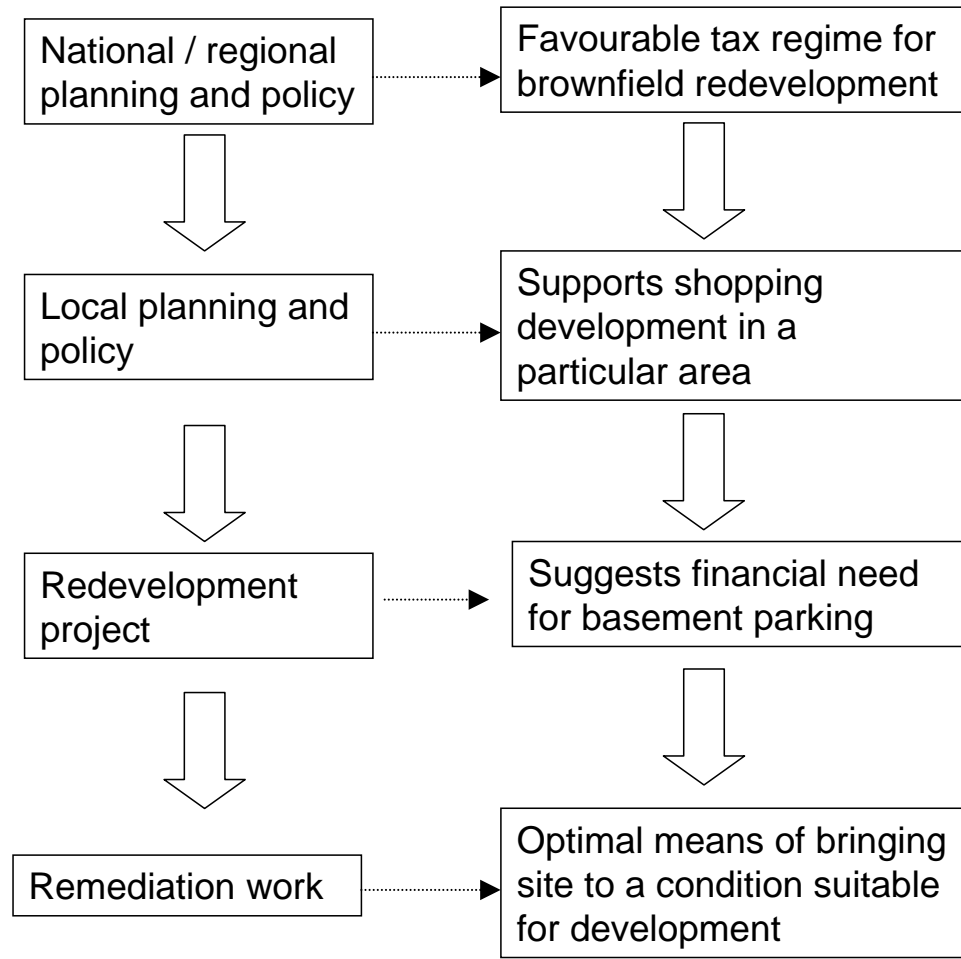
- Protection of human health and the environment
- Safe working practices (for workers & local communities)
- Consistent, clear and reproducible decision-making
- Record keeping and transparent reporting (including assumptions & uncertainties)
- Good governance and stakeholder involvement
- Sound science

Sustainability Management

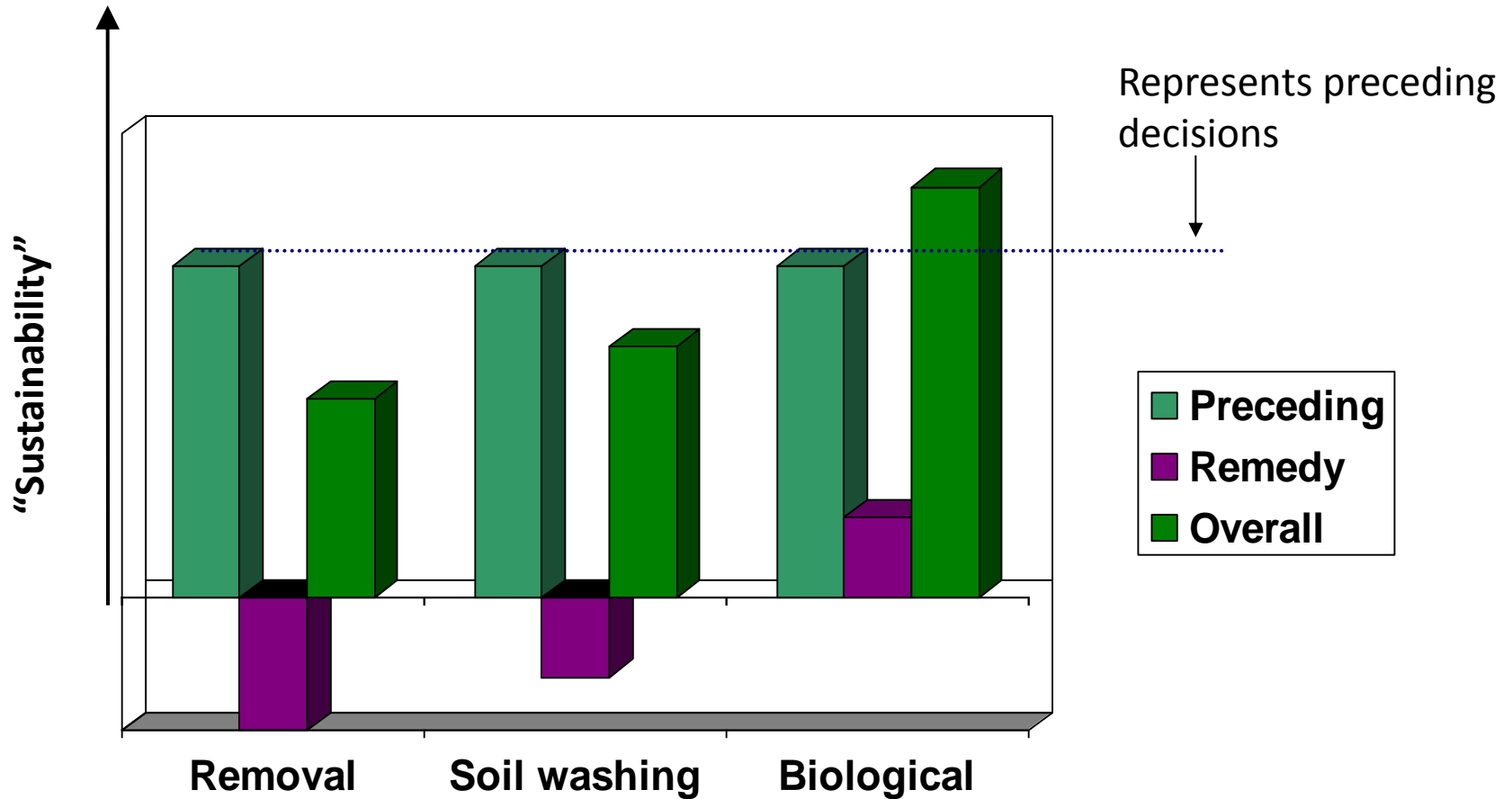
SuRF-UK Framework



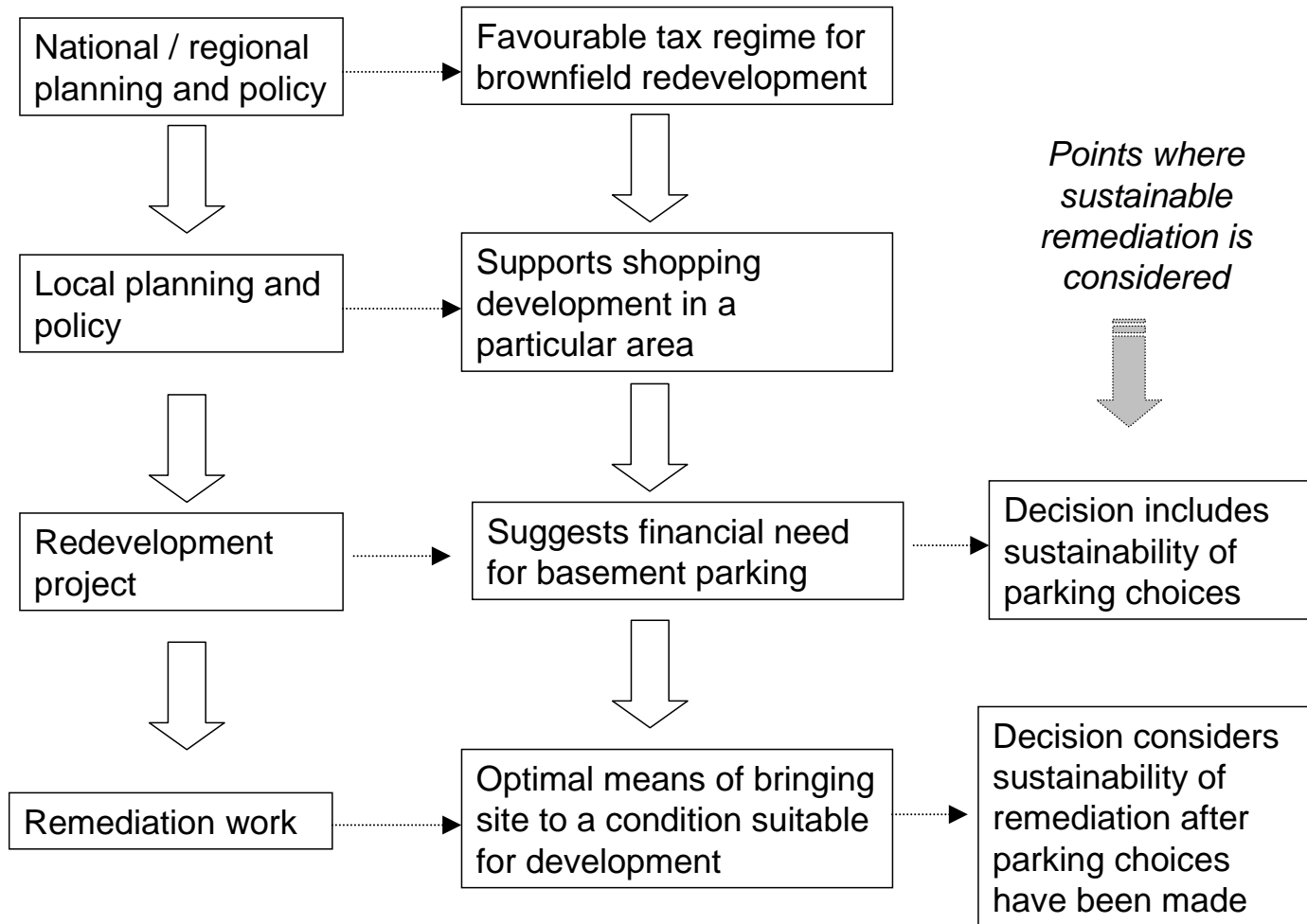
Thinking about sustainable remediation at the point of the remedy selection



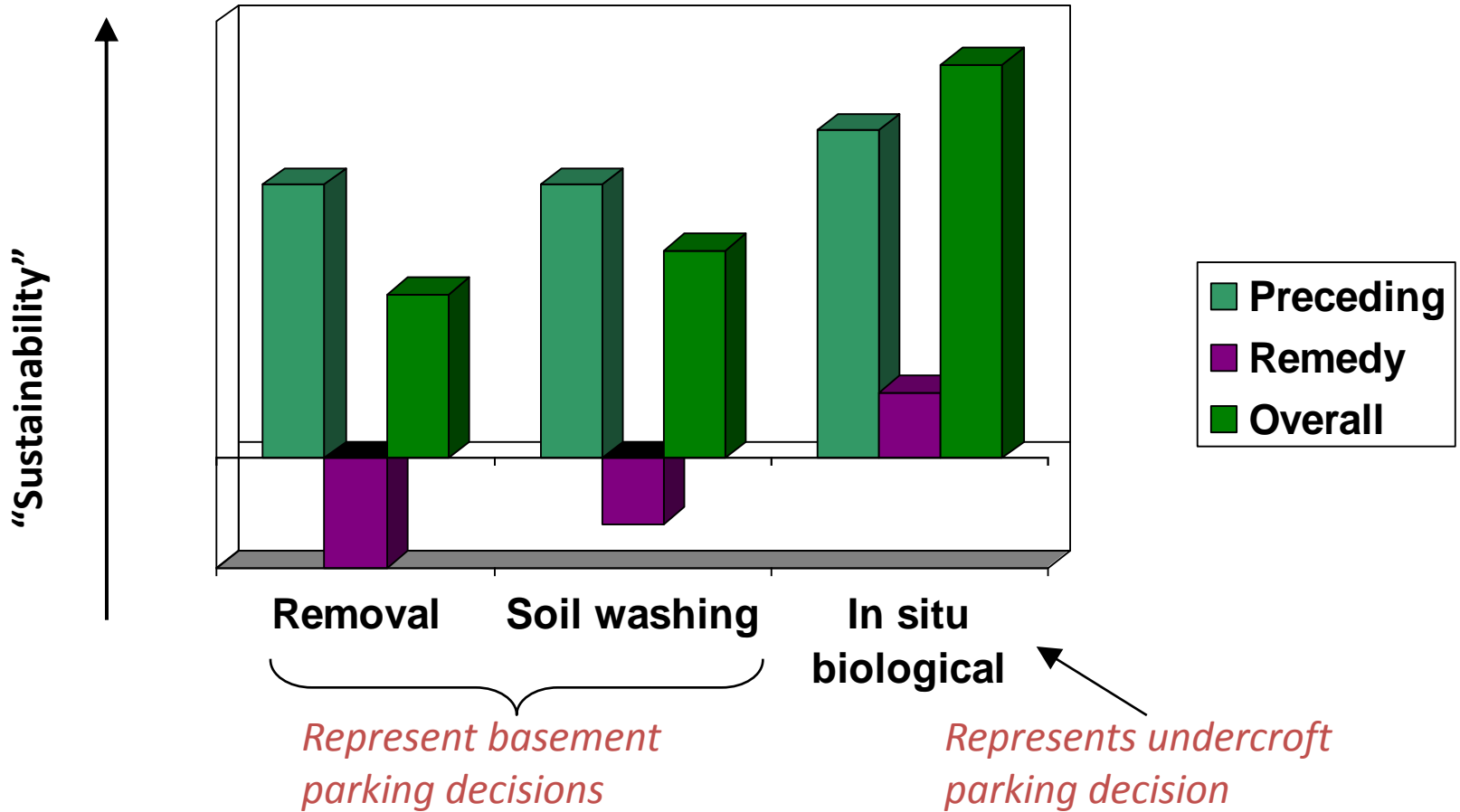
So the sustainability of remediation is a function of preceding decisions as well as remedy selection



But what about if sustainable remediation thinking started before remedy selection?



An early influence can improve sustainability (and cost)

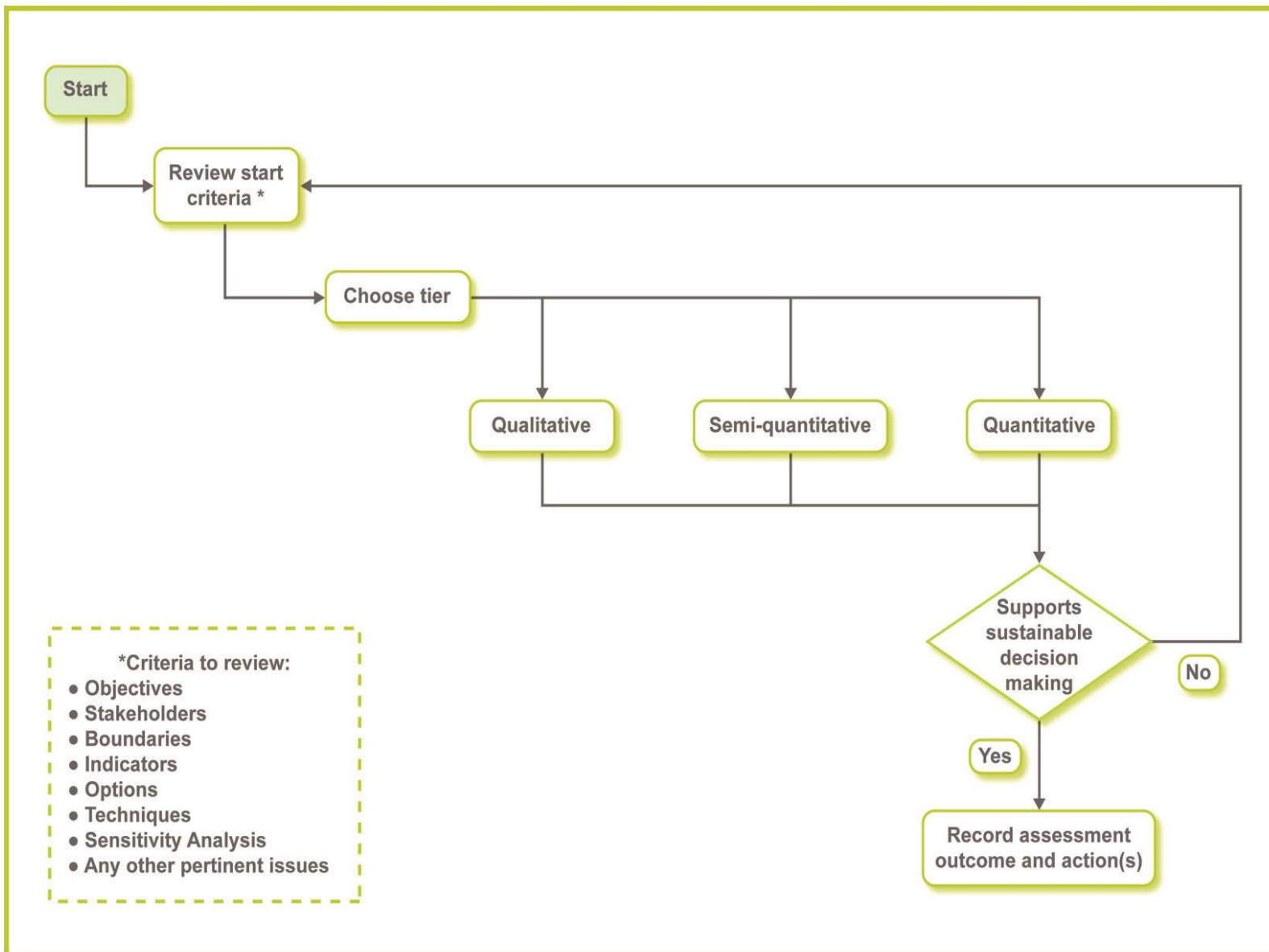


Sustainability Assessment

Stages in a sustainability assessment

- Agreeing objectives
 - What decision is the sustainability assessment going to inform?
 - What **is being** compared and why
- Agreeing which stakeholders to engage with
 - Those who significantly affect, or are affected by, the decision
 - Reviewing objectives accordingly
- Determining boundaries (e.g. project scope: spatial, temporal, lifecycle)
- Agreeing what sustainability is (which indicators to apply)
- Agreeing how these indicators will be assessed (the method or tool) and an overall “picture” of sustainability derived
- Executing the comparison
- Interpreting findings and carrying out sensitivity analyses

A Tiered Approach



Indicator Sets

Environment	Social	Economic
Emissions to Air	Human health & safety	Direct economic costs & benefits
Soil and ground conditions	Ethics & equity	Indirect economic costs & benefits
Groundwater & surface water	Neighbourhoods & locality	Employment & employment capital
Ecology	Communities & community involvement	Induced economic costs & benefits
Natural resources & waste	Uncertainty & evidence	Project lifespan & flexibility

Resources

- Framework document
- Review of Indicators report
- Annex 1 SuRF-UK indicator set
- Frequently Asked Questions
- Case Study template
- Workshop presentations
- Webinars/podcasts
- www.claire.co.uk/surfuk

Lessons Learned

- Definitions objectives, scope and meanings must be clear to all parties – a common understanding
- Boundaries – what is the system, how deep do we go?
- Need for clear descriptions of “indicators”
- Potential for “double-counting”
- Start simple, assessment should be proportionate to project scale and sensitivity
- Transparency and clarity in reporting
- The objective is to achieve a **balanced** decision
- This is a stakeholder led process
- Subjectivity vs objectivity

SuRF-UK Current work

1. Develop and publish case studies
2. Develop guidance on generic 'best management practices'
3. Develop guidance for assessors on good practice for Tier 1 (qualitative) sustainability appraisals
4. Webinar

Summary – SuRF-UK

- A framework for assessing the sustainability of remediation is available in the UK
- Supported by all UK environmental regulators
- Development and road testing assisted by focussed workshops
- Indicators sets developed and defined
 - But need to be populated (metrics)
- Supports **balanced** decision-making

Internationally

- Many international networks and initiatives on sustainable remediation: Europe, Americas, Australia, China, ISO?
 - E.g. see [www.cluin.org/issues/default.focus/sec/Global Efforts to Advance Remediation at Contaminated Sites/cat/Overview/#2](http://www.cluin.org/issues/default.focus/sec/Global+Efforts+to+Advance+Remediation+at+Contaminated+Sites/cat/Overview/#2)
- Two key EU FP7 projects:
 - Greenland – “gentle remediation” - www.greenland-project.eu
 - HOMBRE – sustainable regeneration of brownfields, www.zerobrownfields.eu

SuRF-UK – China?

- ISSAS initiative already inked to international platform for “SuRFs”
- SuRF-UK happy to “share”, has done so already with SURF, SuRF-Australia, NICOLE etc
- SuRF-UK interested to collaborate on case studies
- SuRF-UK interested in technical exchanges
- Joint working / secondments – can we find funding?

SuRF-UK Steering Group

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 - Richard Boyle[#], Homes & Communities Agency
 - Nicola Harries, CL:AIRE
 - Alison Hukin, Environment Agency
 - Naomi Regan[#], National Grid
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 - Former members:
 - Frank Evans, National Grid
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