

# Pile Re-use Task Group

The aim of the task group is to create a guide and webinar, to help FPS members improve this area of sustainability. We recommend the guide and webinar follow a what, why, how, measure approach to improving each area of sustainability. This means answering the following questions:

The aim of this working group is to improve knowledge and encourage further uptake in regard to the re-use of piles for future projects

## 1 What?

*What is the definition of pile Re-use and how does this relate to the circular economy?*

*Examples include:*

*Understanding the barriers preventing pile re-use and attitudes towards them from an insurers, clients, Engineers and piling contractors perspective.*

*Review the RuFus guide recommendations. Are any of the requirements / initiatives not being undertaken by the FPS members. If not then why not?*

*Do clients feel like they are "held at gunpoint" by those who installed the previous foundations charging extortionate fees to re-warrant?*

*What are the implications for FPS members if pile re-use were to become prevalent in the industry?*

## 2 Why?

*Piles are designed to high factors of safety. Why can't they be re-used? Is this a commercial and risk based decision rather than a purely financial decision?*

*Do we understand the heave effects well enough as a building is unloaded? What are the potential impacts on the piles?*

## 3 How?

*Explore what current best practice is within the industry to enable pile re-use.*

*E.g. improved records & databases, The use of novel techniques such as Hollow piles allowing inspection, re-use and extension,*

### 3.1 Short-term best practices

- 'Quick wins' or efficiency savings with short payback periods

### 3.2 Medium-term best practices

- Improvements with longer payback periods or processes

### 3.3 Long-term best practices

- Improvements with no payback period, or require significant investment / changes to current practices
- All long-term best practices should be necessary to reach a fully circular (or spiral) economy

## 4 Measure

*What metrics should geotechnical companies use to measure / set targets for the re-use of piles?*

## 5 Key outputs

- What are the recommendations for what can be done during a buildings occupancy to increase the chances/likelihood of pile re-use?
  - What areas of research could be explored to increase knowledge
  - What are the current best practice measures for assessing pile integrity / concrete durability to enable pile re-use
  - Guidance on "low risk" potential reuse and what they may be. E.g. Highly reinforced and over-designed piles, the re-use of underream piles
  - How can we "design in" monitoring of new piled foundations in order to give greater certainty and likelihood for pile re-use in the future
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- An FPS or FPS-EFFC webinar, introducing the pile re-use challenges, best practice to be adopted and recommendations for improvement in the industry.