Reality Capture for environmental insight, Resource Mapping, and Life Cycle Assessment

Artelia Group

Over **10,000** employees

Offices in **40+** countries

10 Business Units

Projects in **100** countries

100 % employee owned

Artelia Denmark

Over **1,400** employees

3 business areas
Buildings
Energy & Industry
Infrastructure

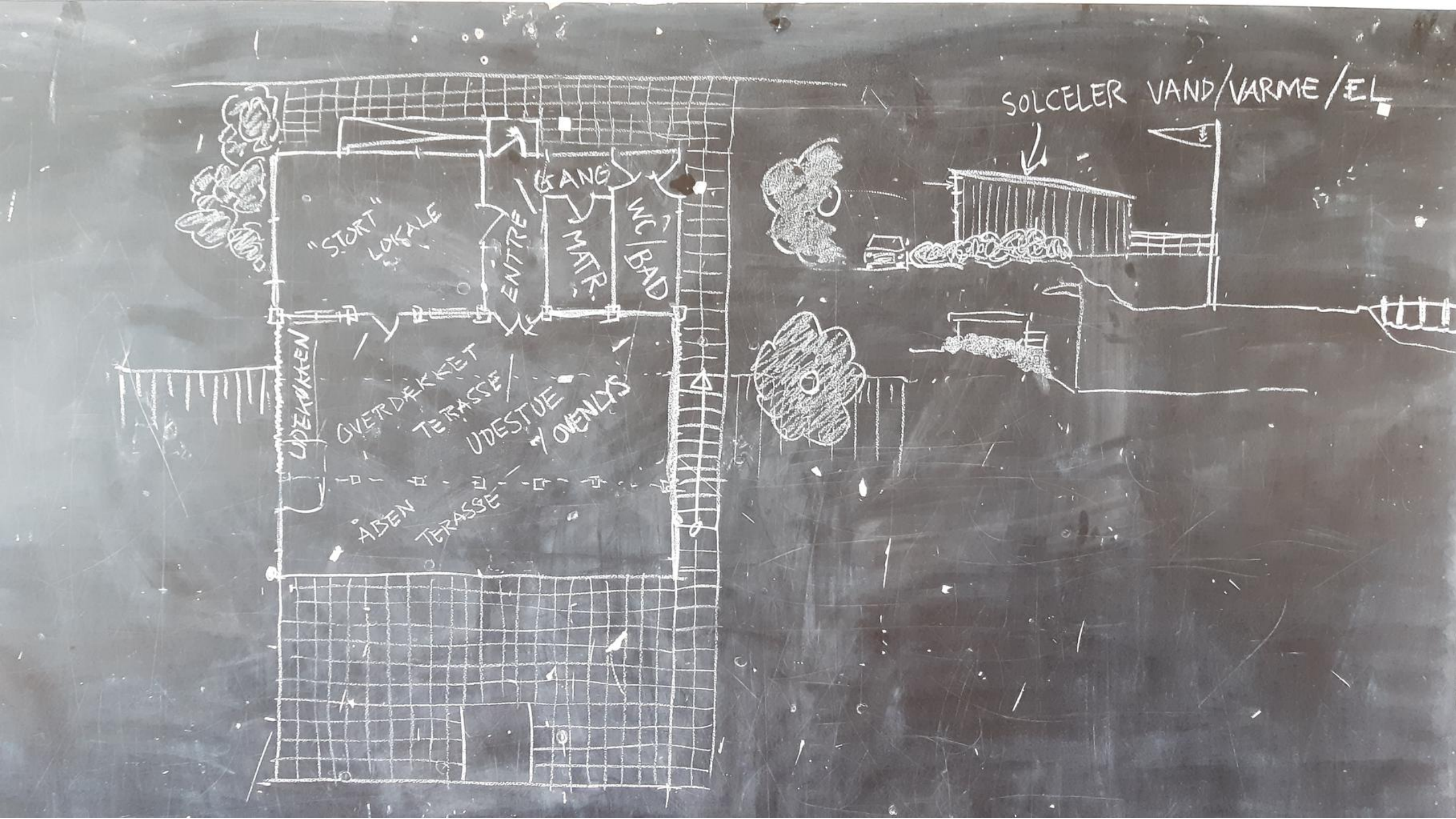
90+ years of experience

9 offices

11 divisions

Case Introduction – “The Sea Scouts' Cabin”

- Existing facilities are outdated: leaky, uninsulated, and undersized for the growing number of members.
- The Sea Scouts need functional space for boat repairs.
- An architectural proposal ensures proper demolition.
- Reality Capture used to document the existing structure.


SOLCELER VAND/VARME/EL
"STORT" LOKALE
ENTRE
GANG
MATR.
WC/BAD
UDEAFFALD
OVERDÆKKET TERRASSE
UDESTUE
OVENLYS
ÅBEN TERRASSE

Architectural Proposal – Vision for the New Sea Scouts' Cabin

The Environmental perspective

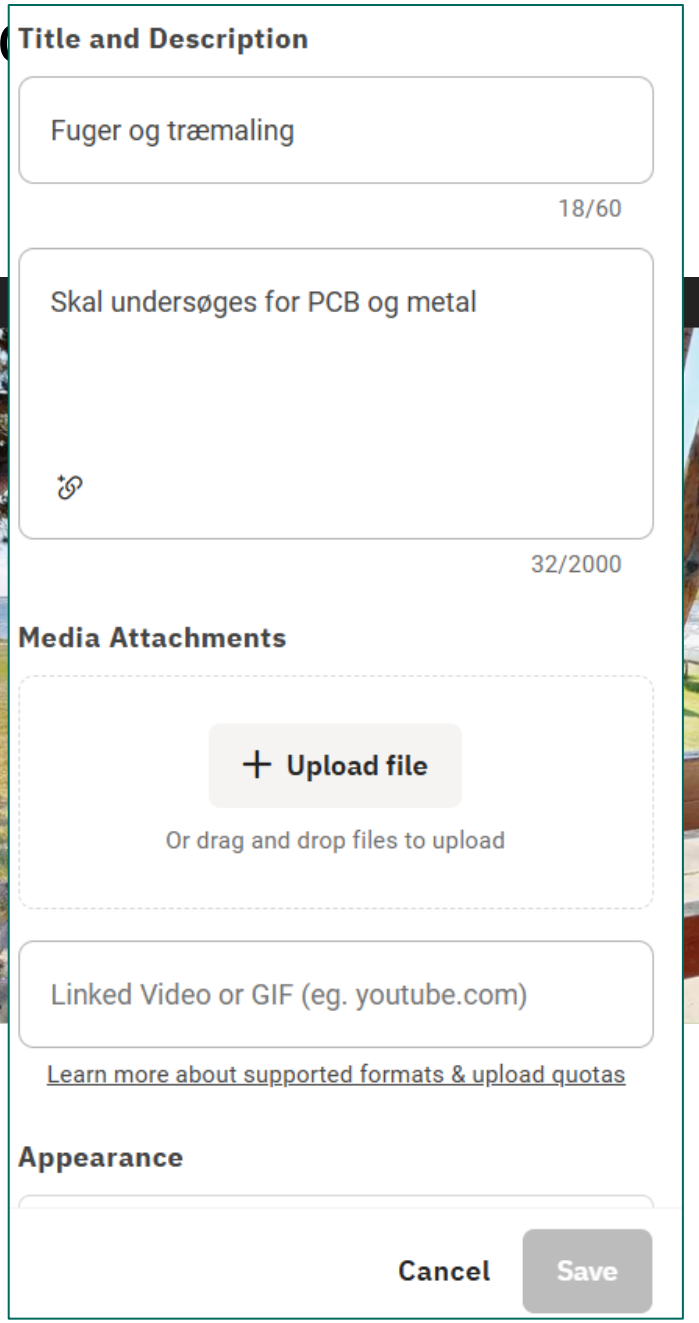
- New rules regarding environmental and ressource coordination in construction and demolishing
- Key focus:
  - Incineration → Reuse/recyling
  - Traceability of contaminated and hazardouz waste
- Important steps to ensure correct environmental handling:
  - Environmental screening
  - Ressource screening
  - Environmental mapping
  - Ressource mapping

➢ Standardized demolitionplan

Scanning the Old to Shape the New

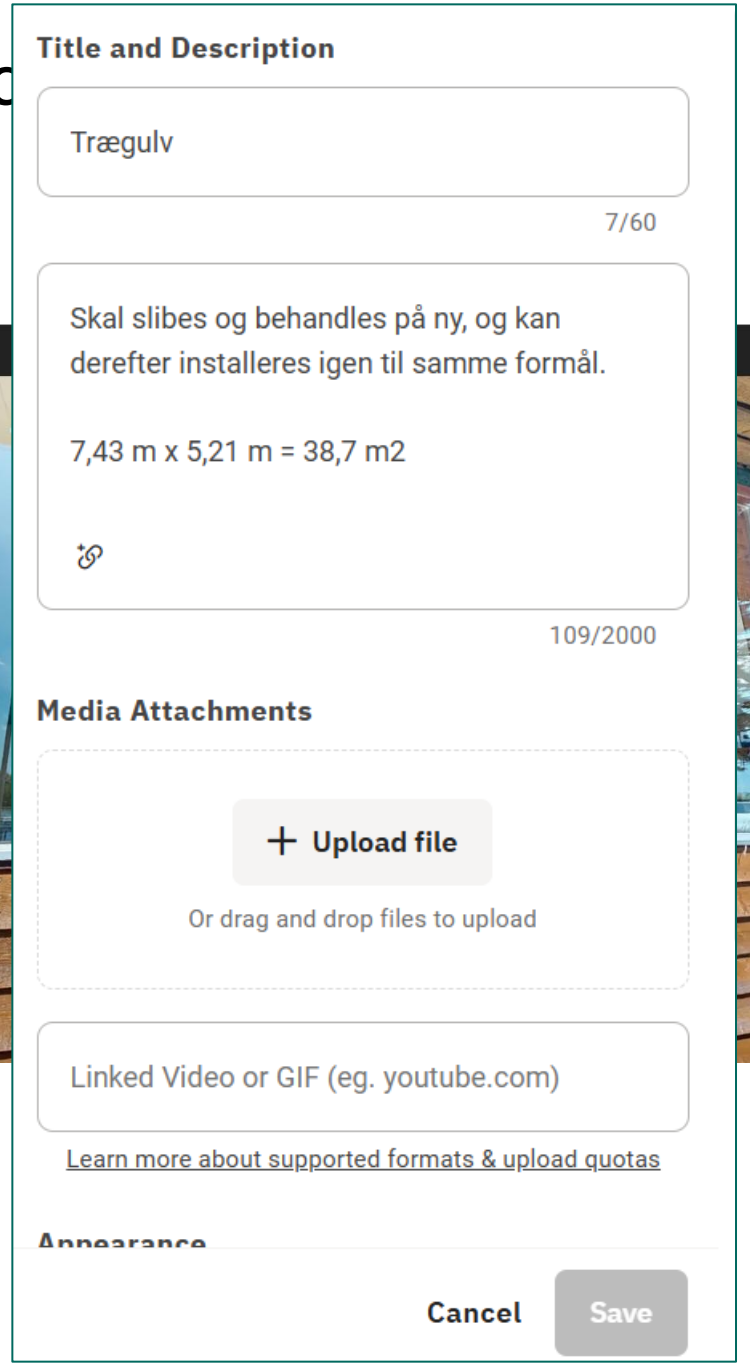
The model in practice/ How we use the re

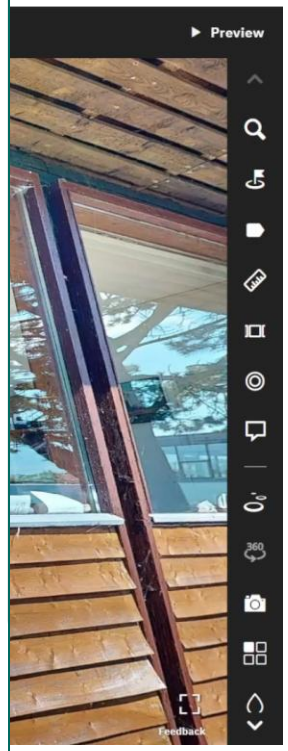
- Streamlined and structured workflow in the field
  - Easier preparation for further inspections
  - Easy to acces in the field



The model in practice/ How we use the rec

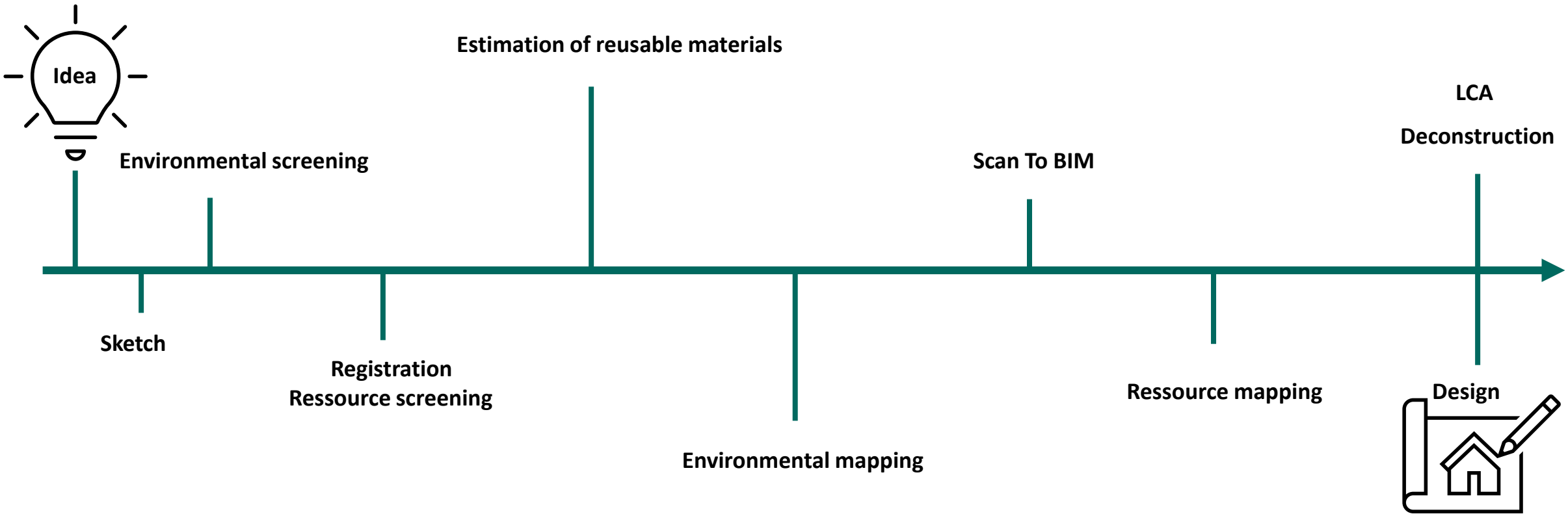
- Estimation of reusable materiales
  - Wood cladding
  - Windows
  - Wooden flooring





Scan To BIM

Workflow plan



Benefits

- Quick registration
  - *Saves time and ressources*
- Accurate Measurement
  - *Easier to transfer into design softwares*
  - *Fewer re-visits on site*
- Can be used in the further design work
- Easier cross-disciplinary coordination
  - *Fewer clashes between disciplines*