

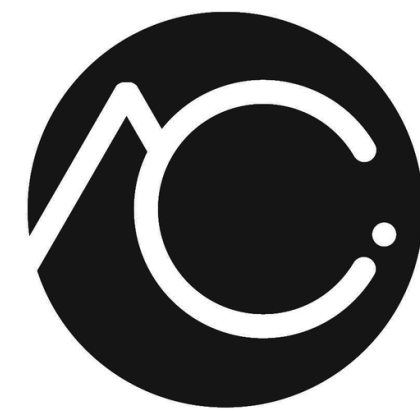
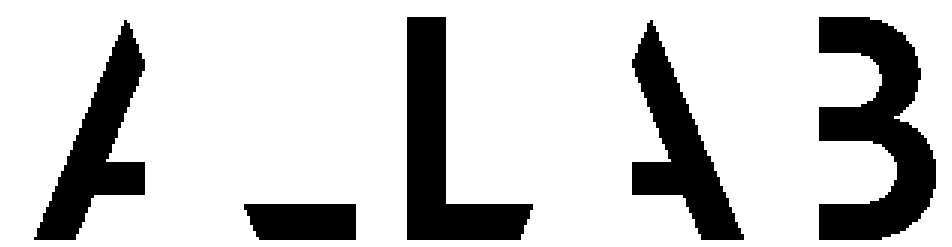
SECClass

Sustainability Enhanced

Construction Classification System

EEA Grants Portugal – Call #2 – Projects for the promotion of Circular Economy in Construction

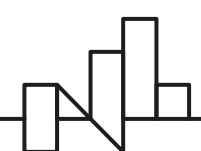
Partners



MARTA CAMPOS
ARQUITECTURA



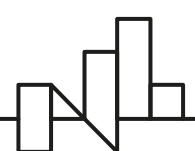
University of Minho
School of Engineering



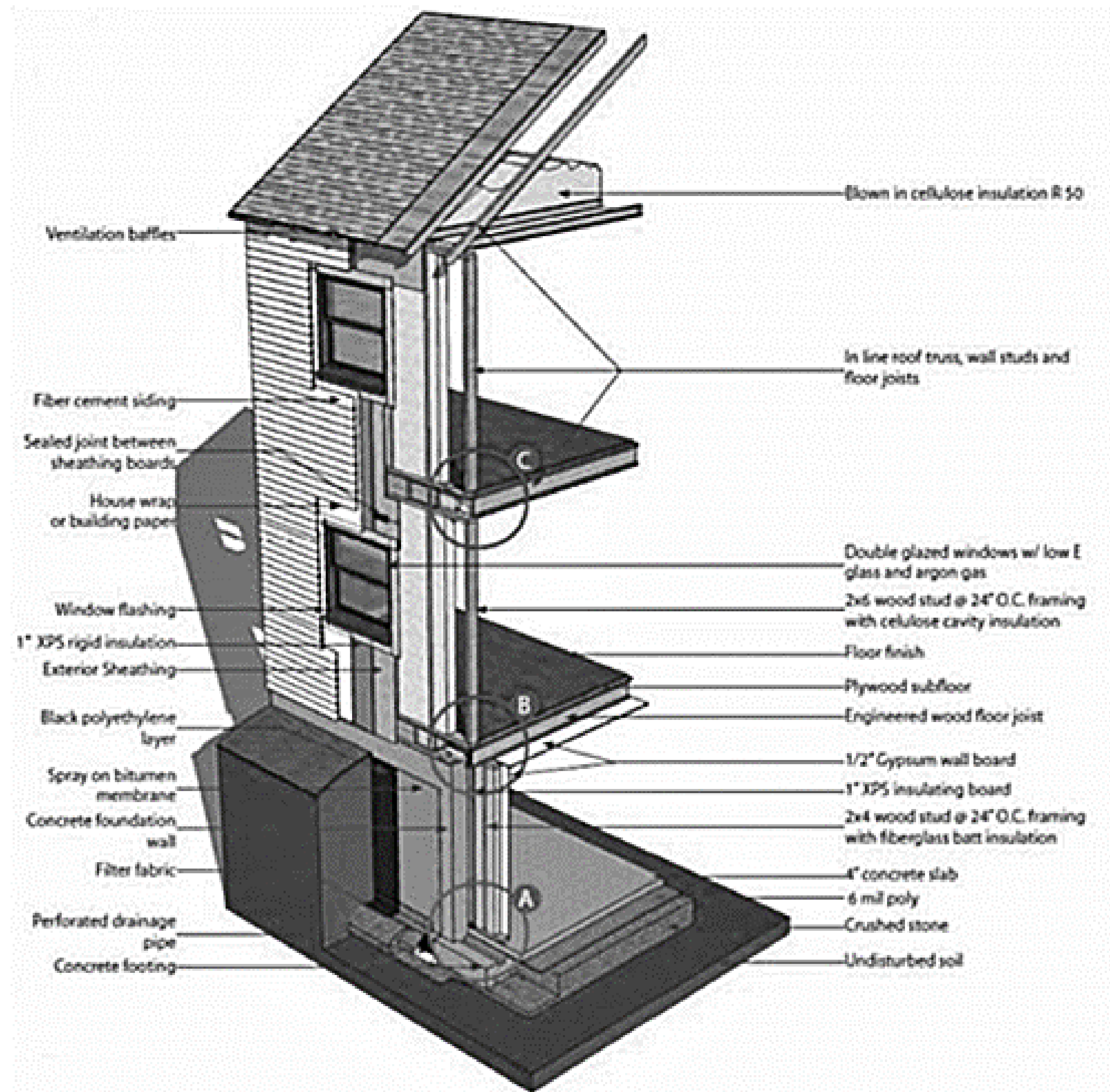
The Problem

- Construction accounts for 10% of GDP but 50% of energy and raw material consumption
- Fragmentation of the production cycle - design, construction, management, demolition - renders collaboration and sustainable and well-informed choices difficult
- Construction is being transformed by BIM - Building Information Modeling
- But communication between BIM models in design and construction is difficult

Material selection and the accurate accounting of impacts is difficult

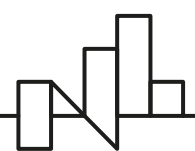


SECClasS Goals

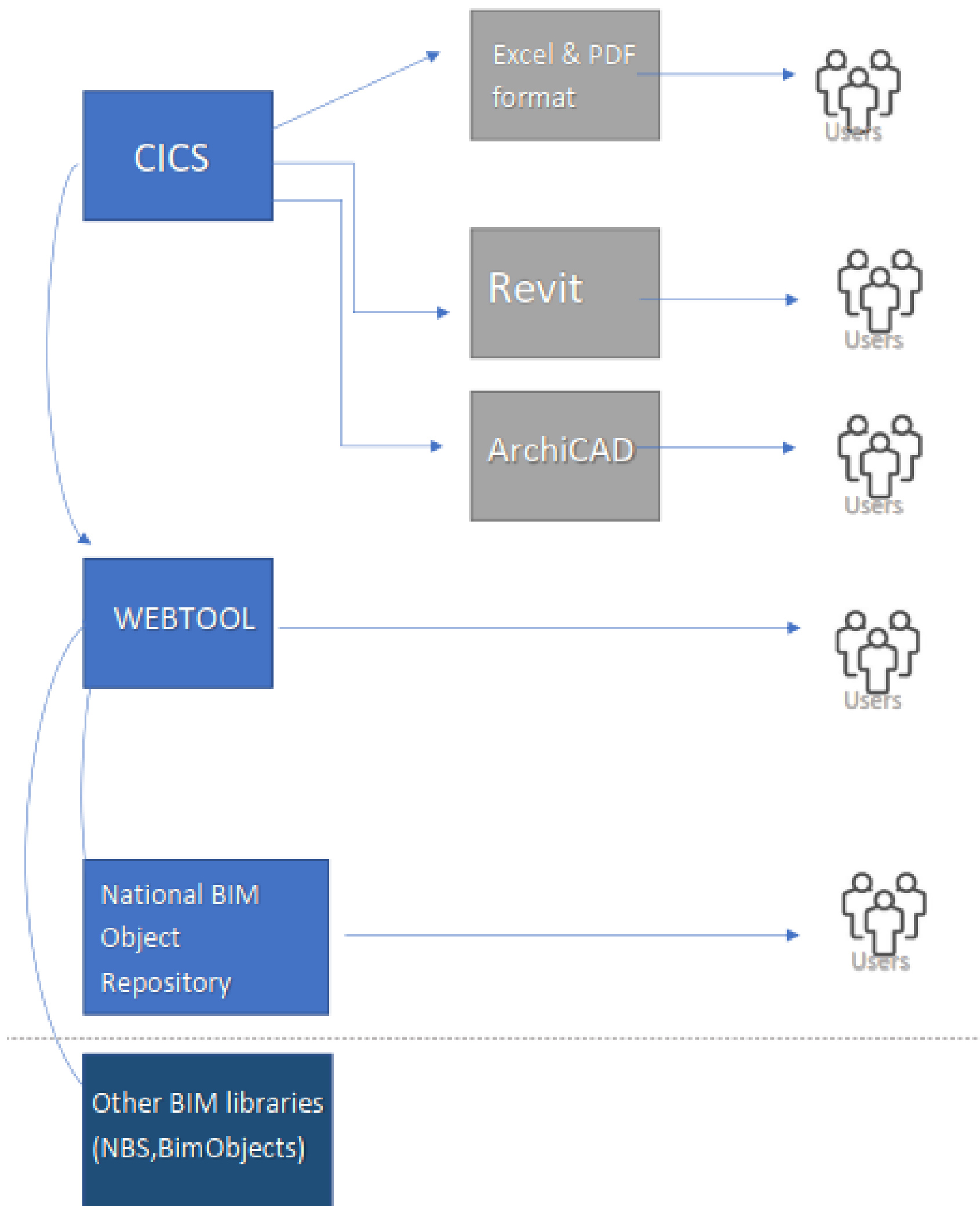


Reduce construction and demolition waste through digital tools for selecting and managing materials and elements with less environmental impact:

- Unify terminology (a door is always a door)
- Facilitate communication and collaboration
- Improve the selection of materials and components
- Assess buildings impacts throughout the life cycle



Solution: Classification System + Smart BIM Objects + Online Tool

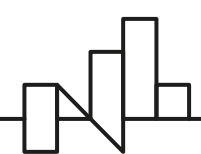


National classification system that will allow advanced BIM uses

- Based on traditional classification systems
- With a sustainability component: environmental impacts, reuse, recycling

BIM Object Library and Manual, with traditional and sustainability components

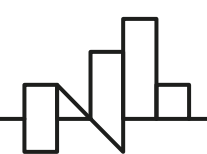
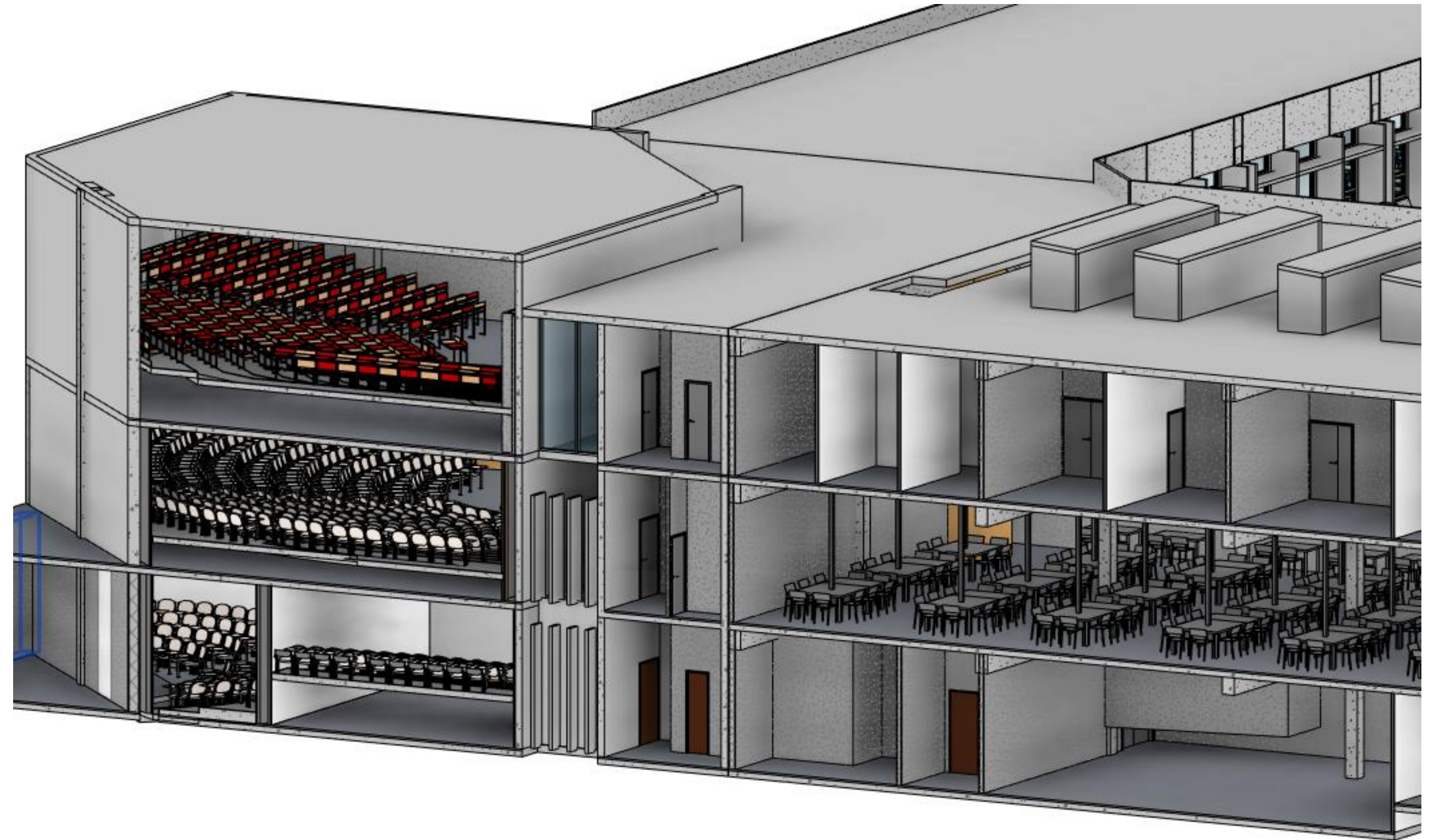
Online platform with Artificial Intelligence tools that learn from users



Expected impact

A system that:

- Supports construction budgeting and building management
- Assists in making sustainable design decisions
- Raises awareness of the choice of more sustainable materials and components
- Facilitates energy and sustainability analyzes



Iceland 
Liechtenstein
Norway grants

Thank you!

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