Building Information Modelling (BIM) for End-of-Lifecycle in Building Stock 4.0

Arghavan Akbarieh, Norman Teferle
University of Luxembourg
Arghavan.akbarieh@uni.lu

ECON4SD
Eco-Construction for Sustainable Development
PhD Work-package: BIM for Sustainable Construction and De-construction

Sustainability  Digitalisation  Circularity

End-of-Lifecycle of Buildings

Design for Deconstruction (DfD)

Deconstruction

Material and Component Bank (M/C Bank)

Revit, Dynamo, Industry Foundation Classes (IFC), Linked Data, Blockchain

Key conclusions:
1. Interconnection of BIM and M/C Bank through deconstruction and DfD
2. BIM-based Deconstructable design
3. Adaptive conceptual Framework:
   a) Application of the Blockchain technology and Smart Contracts
   b) Business model