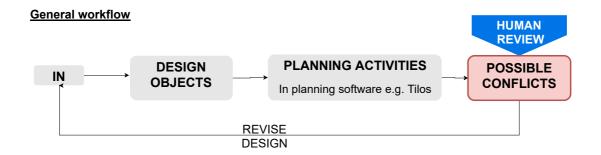
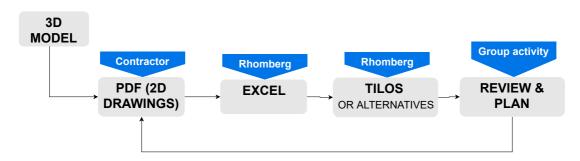
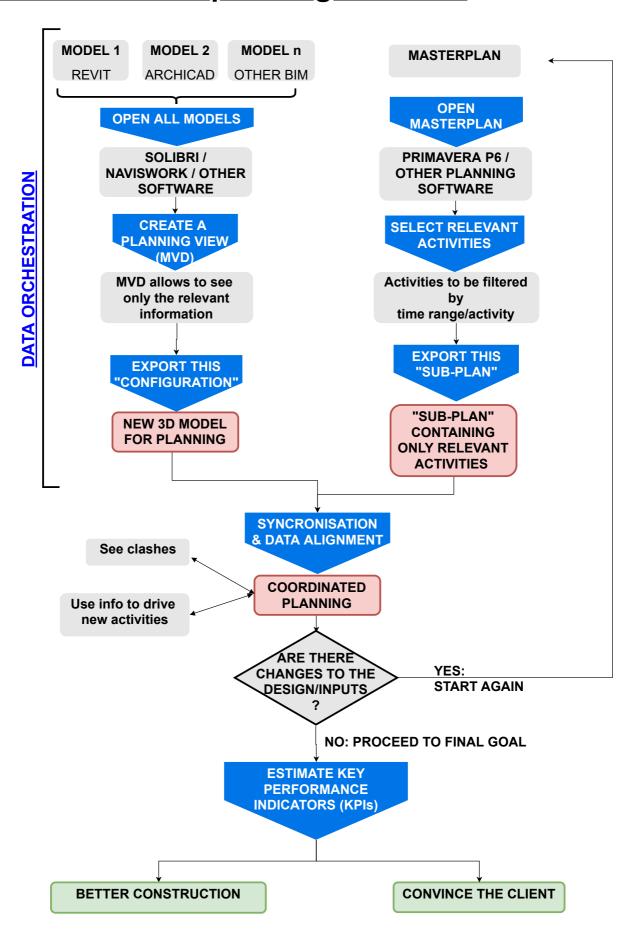
### Planner - Rhomberg



#### <u>Typical workflow with data types, software and stakeholders</u>

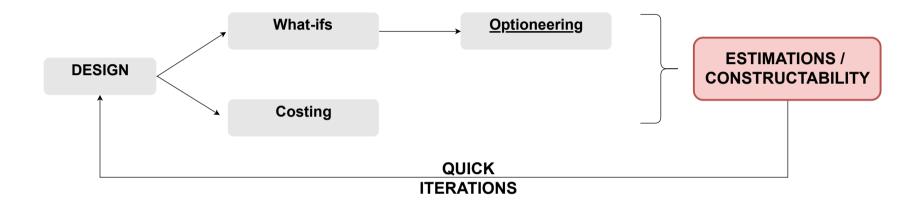


## Planner - detailed planning workflow



## Observations on the current planning workflow

#### **PLANNER REQUIRED WORKFLOW**

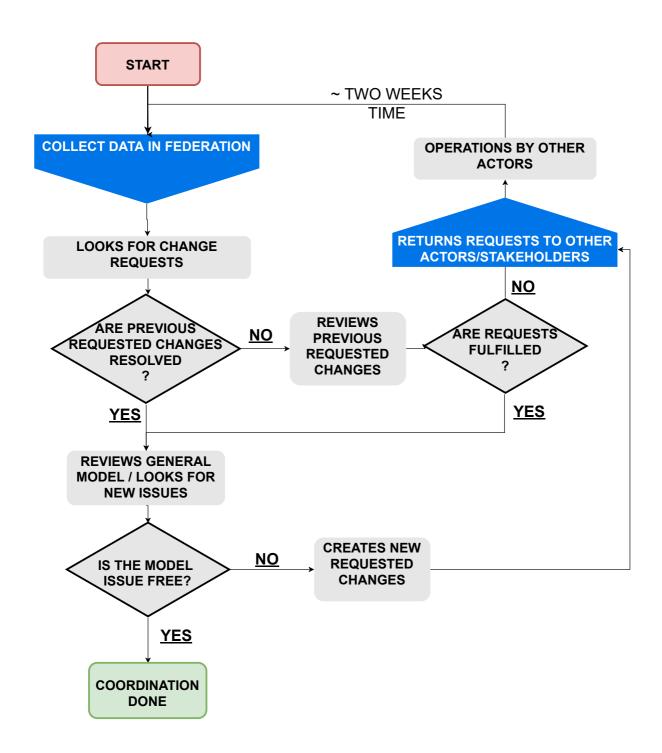


### **REALITY:**

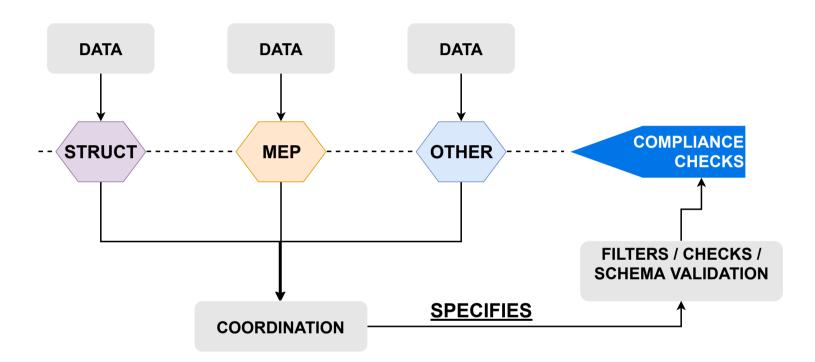
- The "DATA ORCHESTRATION" phase is incredibly laborious and takes a long time to do.
- There is no quick/live feedback loop to respond to design changes.
- · What-if scenarios are too laborious to make.
- You often lose a lot of information regarding the organisation and arrangement of the files themselves because the whole process is confusing.



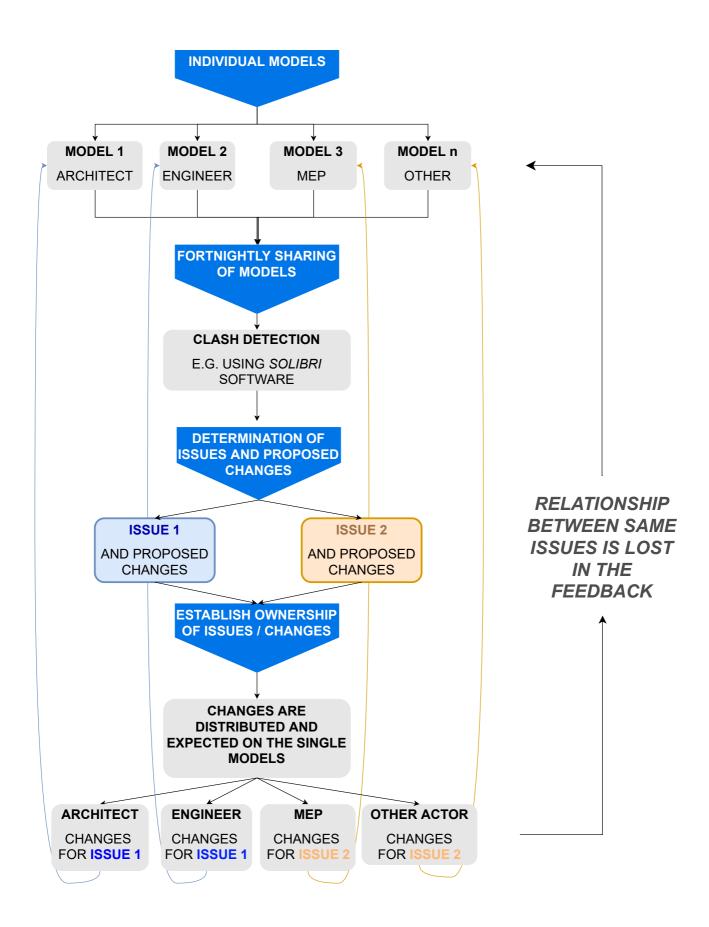
## **Design manager/coordinator**



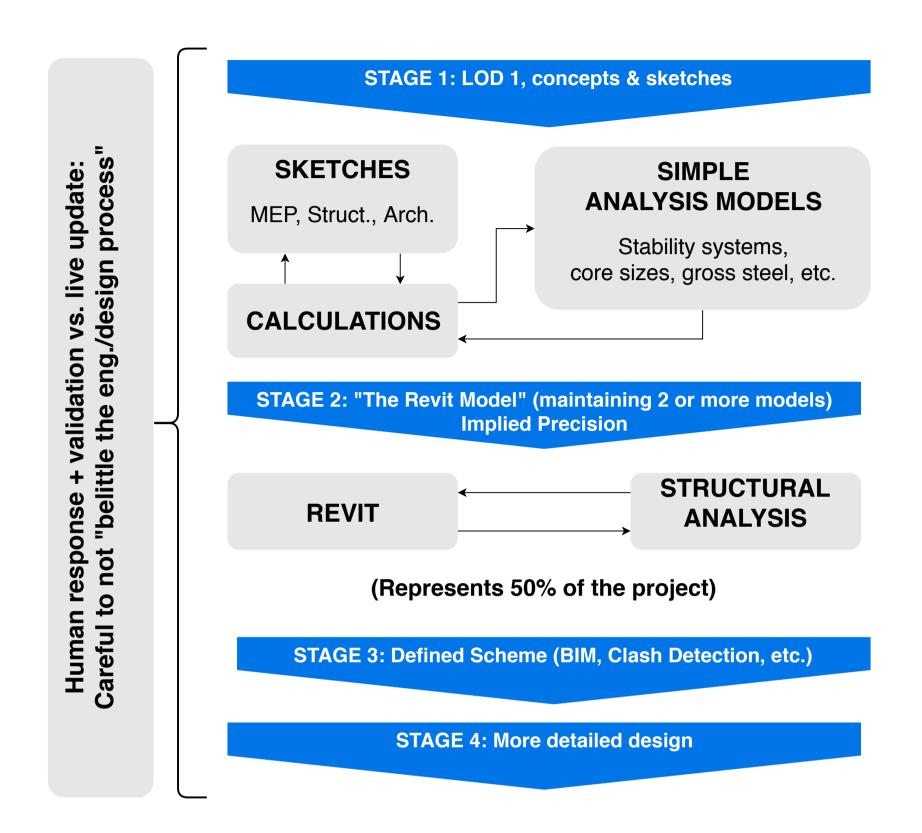
## **Validation**



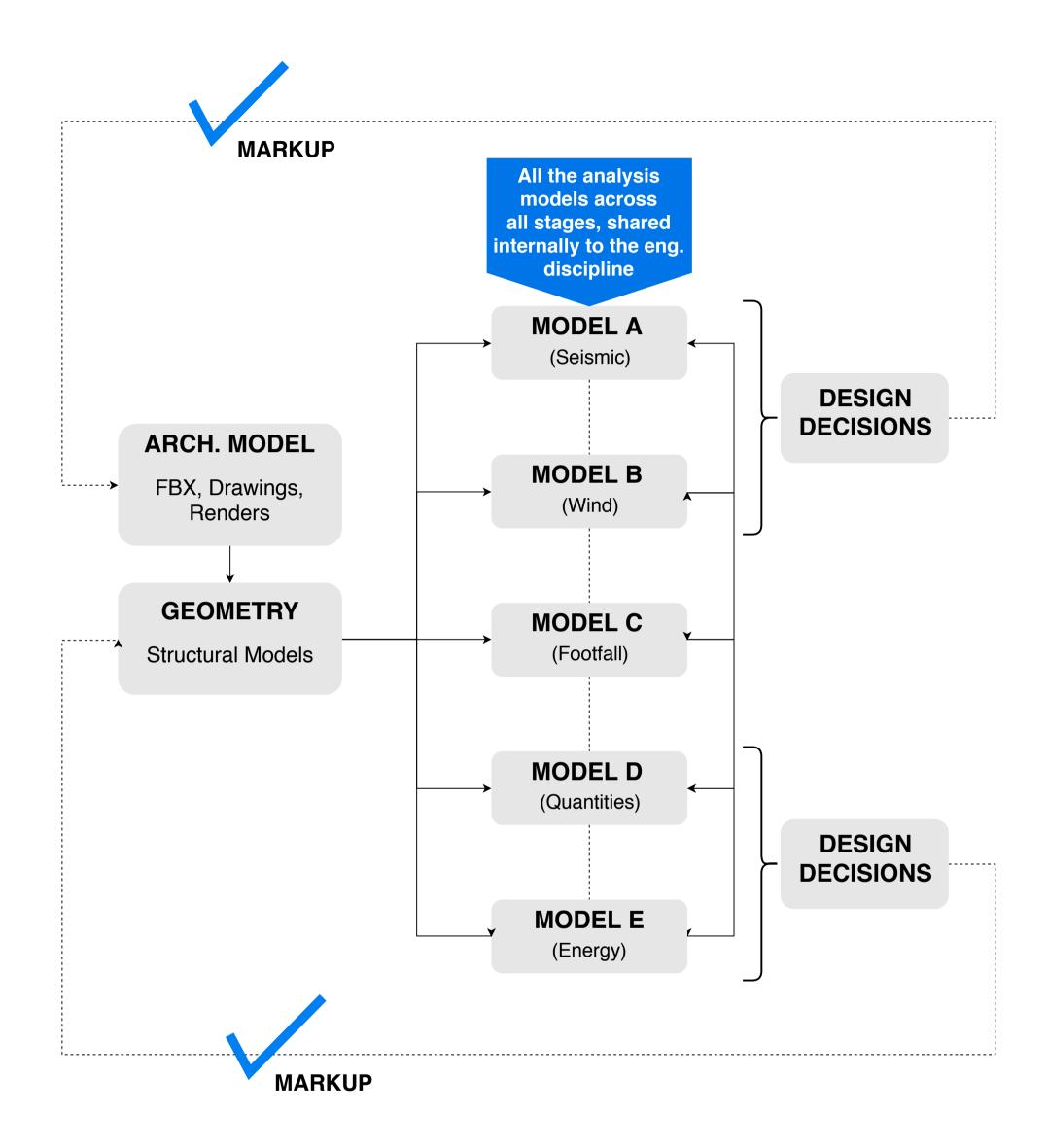
## **Information manager**



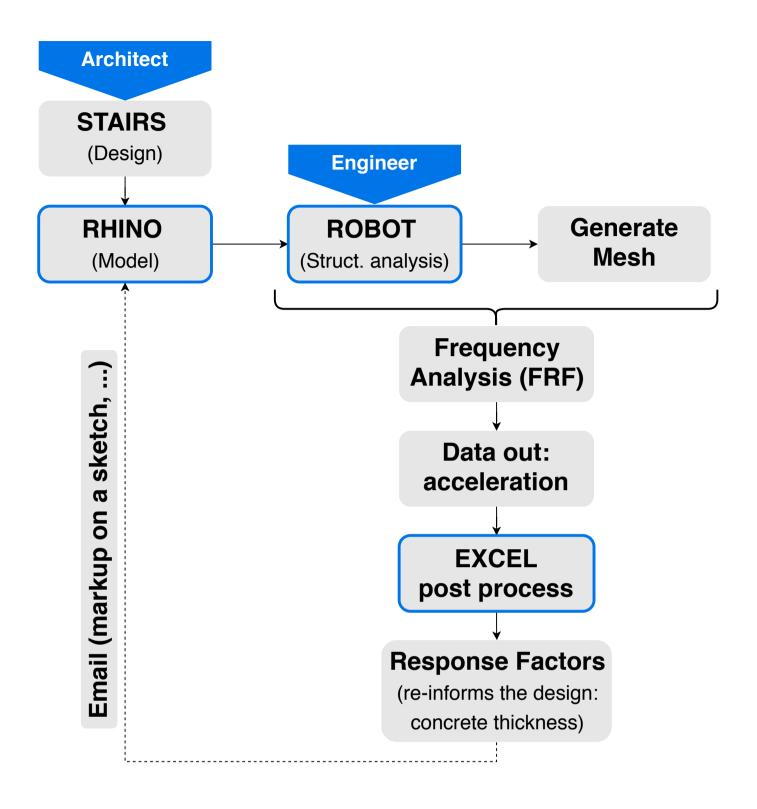
# Conception stages in engineering practice



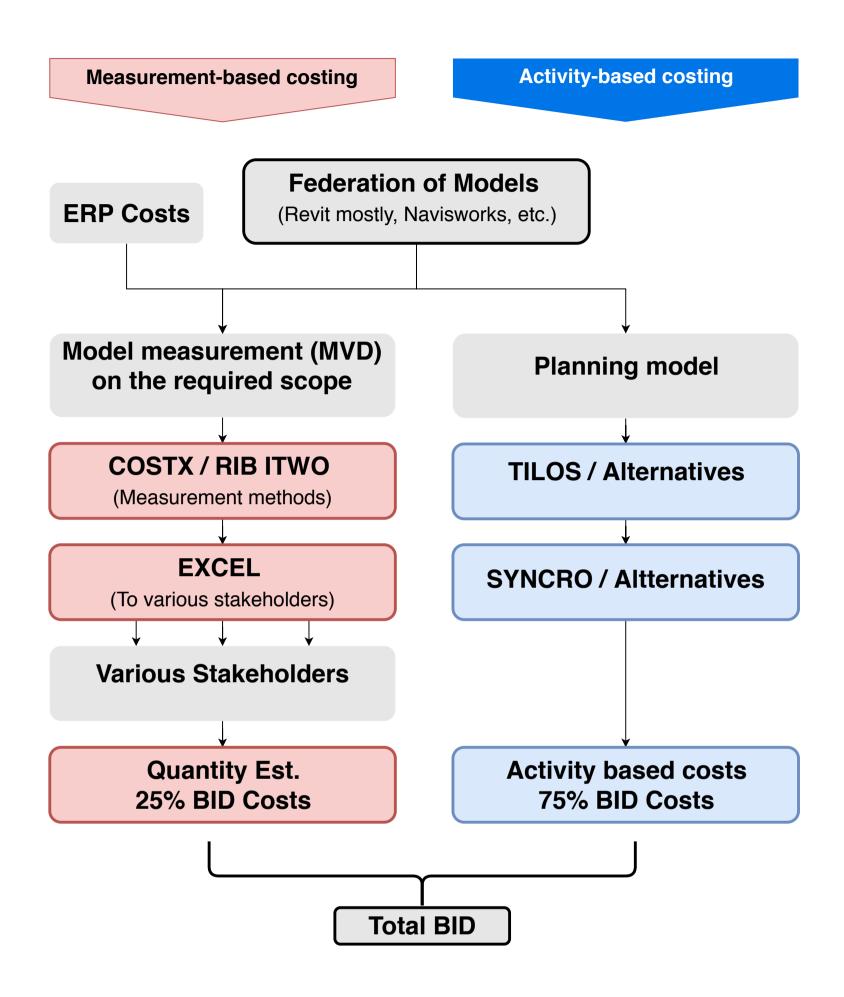
# Multi-modelling process in eng. practice



# Modelling case study (arch./eng.)



# **Costing**



# Field operative

