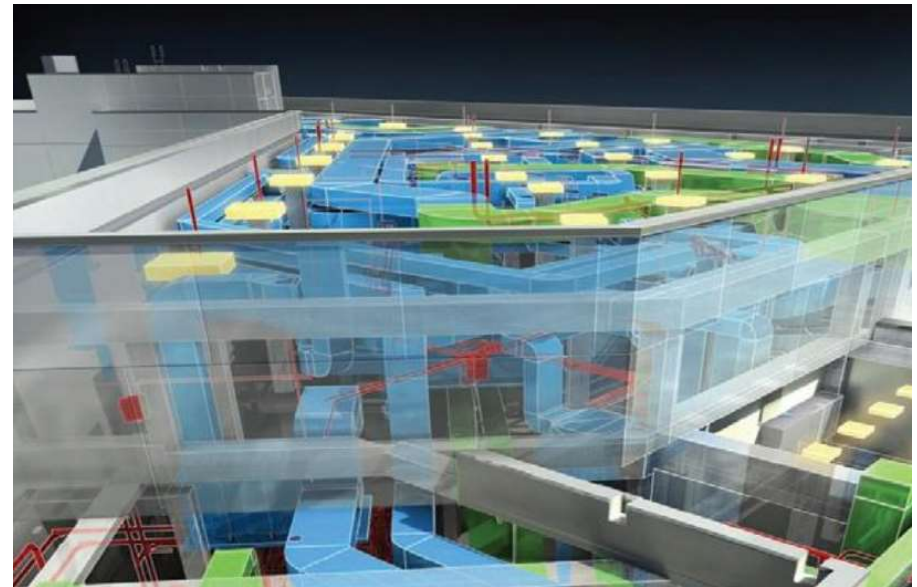




Concept of Building Information Modeling - BIM

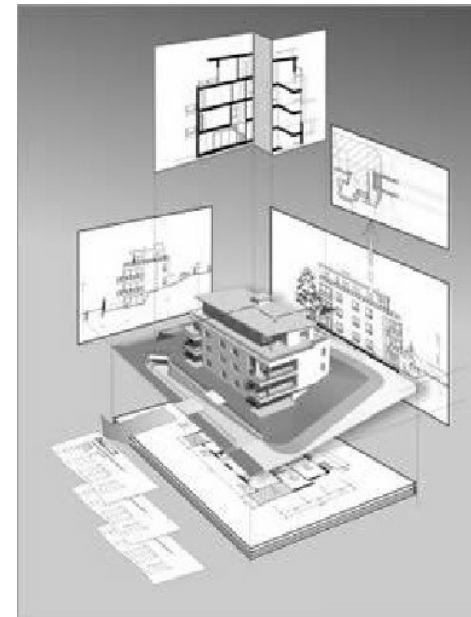
What is BIM?

- BIM is an intelligent and innovative process that uses digital 3D model-based technologies that provide architects, engineers and builders with insights and tools to more efficiently plan, design, build and manage buildings and infrastructure.



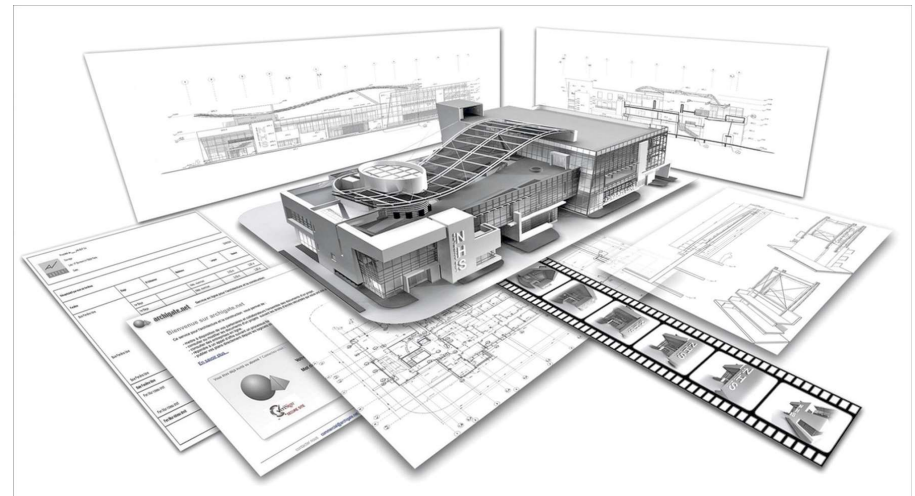
What is BIM?

- BIM is a process of programming, creating, building and managing data from the very beginning of a project, using technologies based on digital 3D modeling connected to a database that covers the entire life cycle of a building or infrastructure.



What is BIM?

- BIM integrates physical, environmental, commercial and functional data and all their components, parts and systems and is therefore based on a multidisciplinary approach and collaboration between different professional groups involved in construction.

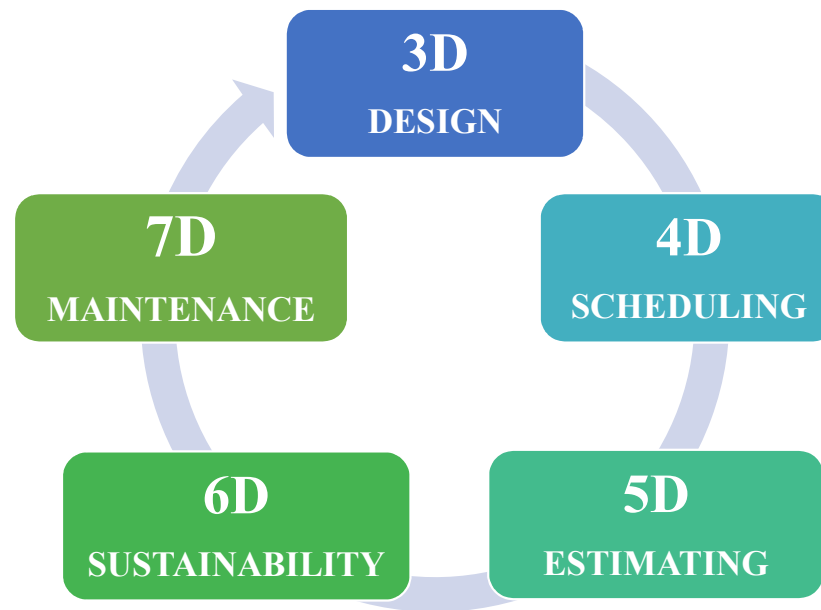


BIM Models

- The digital information about the future physical and functional characteristics of buildings can be virtually changed, adjusted and modeled, in order to adjust the actual situation, correct deficiencies and collisions, increase the energy performance.

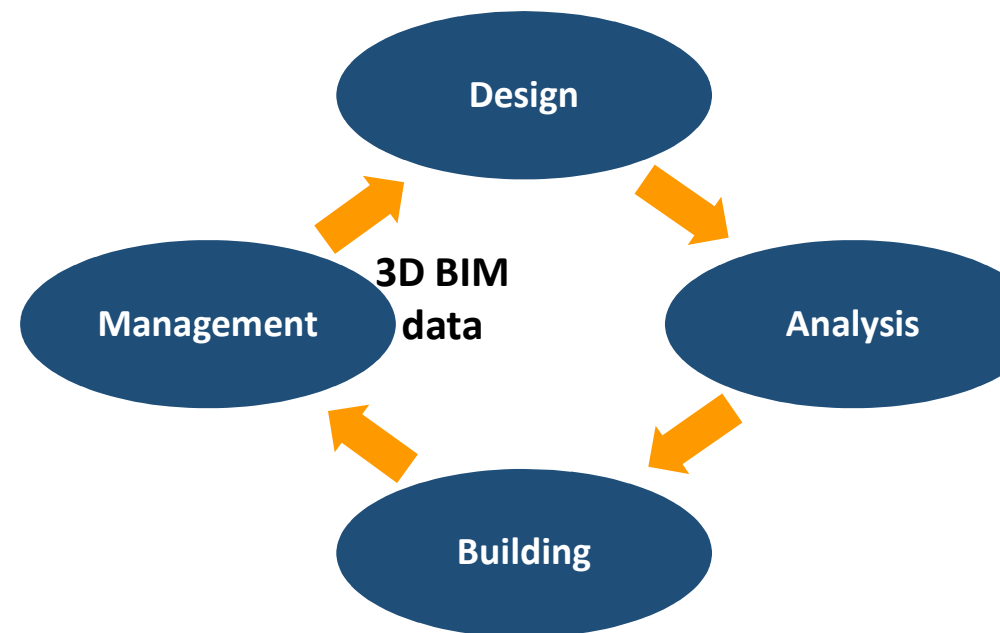


Multidimensional concept



BIM Characteristics

- BIM uses a shared database of information about a given building **throughout the life cycle of the building**, accessible to all users and involved parties is based on a multidisciplinary approach and is the basis for decision-making from the initial concept (project) to the demolition process.



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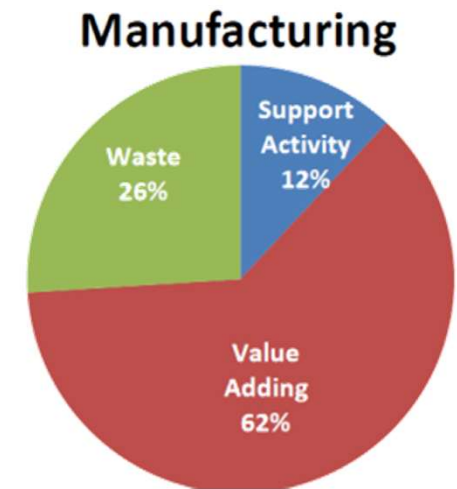
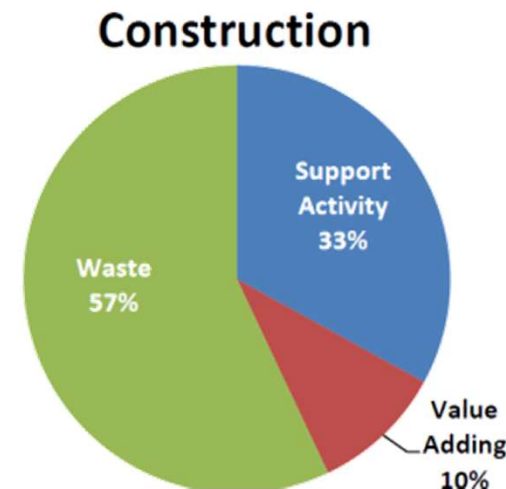


Benefit of BIM - Sustainability

- Imminent transformation towards a SUSTAINABLE FUTURE
- Buildings consume a large part of the total resources. Reduced use of resources (reduction of energy consumption), as well as their reallocation and selection of renewable sources or recycled materials is the main driver towards the implementation of BIM.

Benefit of BIM – decreasing losses during construction

- Estimates are that as much as 57% of the financial resources used in construction do not contribute with added value - which represents a direct loss.



Benefit of BIM – decreasing losses during construction

More than **60%** of the large capital projects exceed the budgets and break the implementation deadline.



30% of the total work is "rework".



55% of maintenance work requires rework.



Benefit of BIM – decreasing losses during construction

- BIM can help with:

Avoiding and reducing documentation errors

61%

Reducing rework of the same work

36%

Reducing cost of construction

30%

Reducing construction duration

22%

Fewer requests for changes/corrections

17%

EU Public Procurement Directive

BIM



Article 22

Rules applicable to communication

the European Union

L 94/107

requests to participate are preserved. They shall examine the content of tenders and requests to participate only after the time limit set for submitting them has expired.

4. For public works contracts and design contests, Member States may require the use of specific electronic tools, such as of building information electronic modelling tools or similar. In such cases, the contracting authorities shall offer alternative



Thank you
for the attention