

Building the future: How to implement new manufacturing facilities while keeping production running?

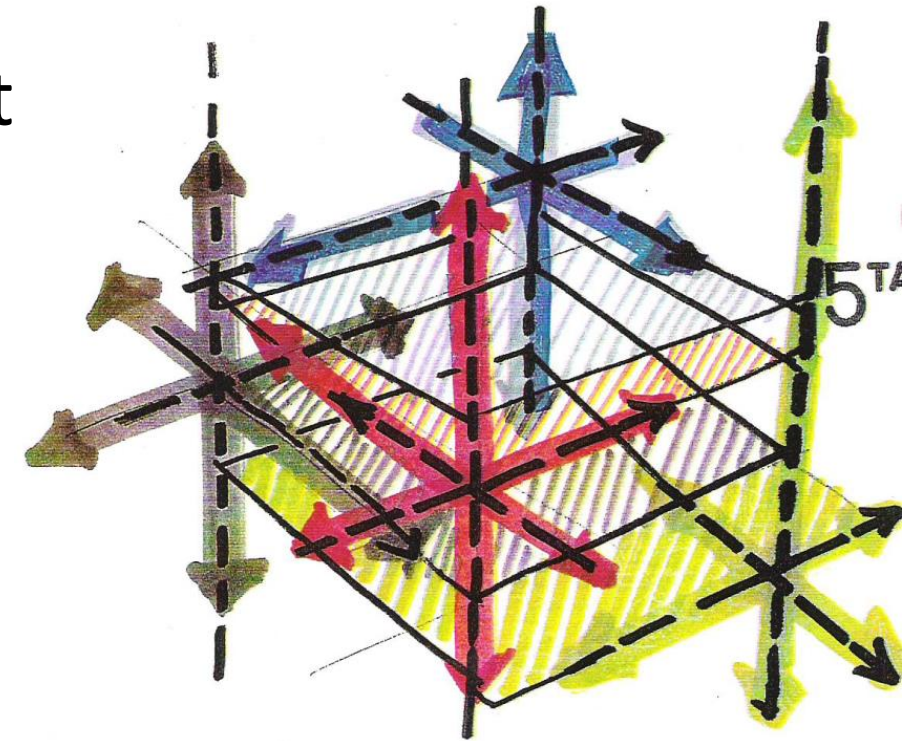
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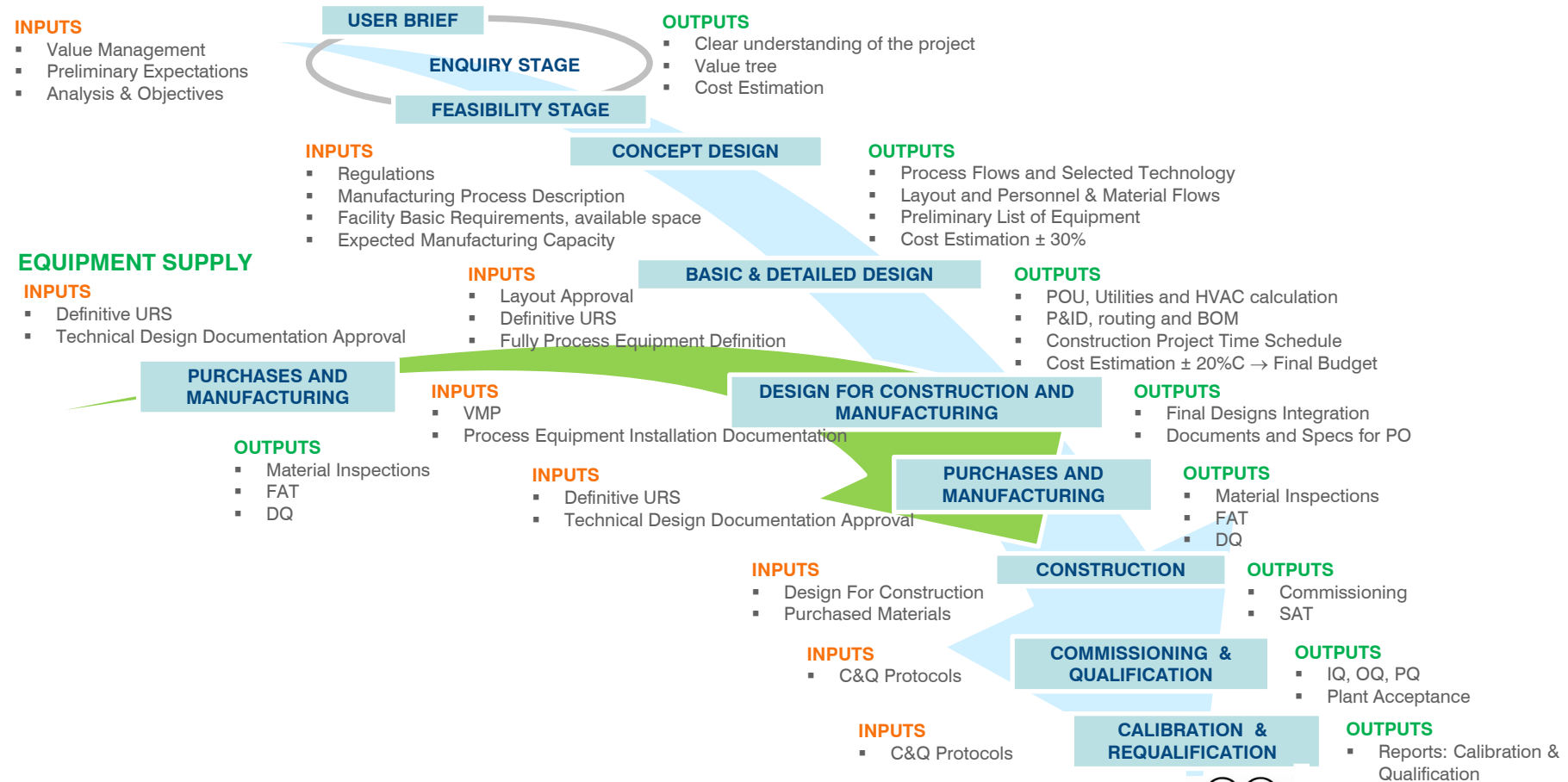


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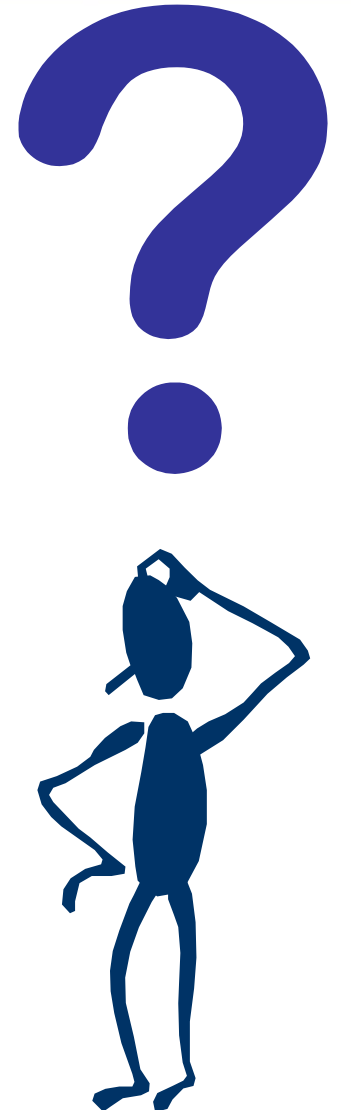
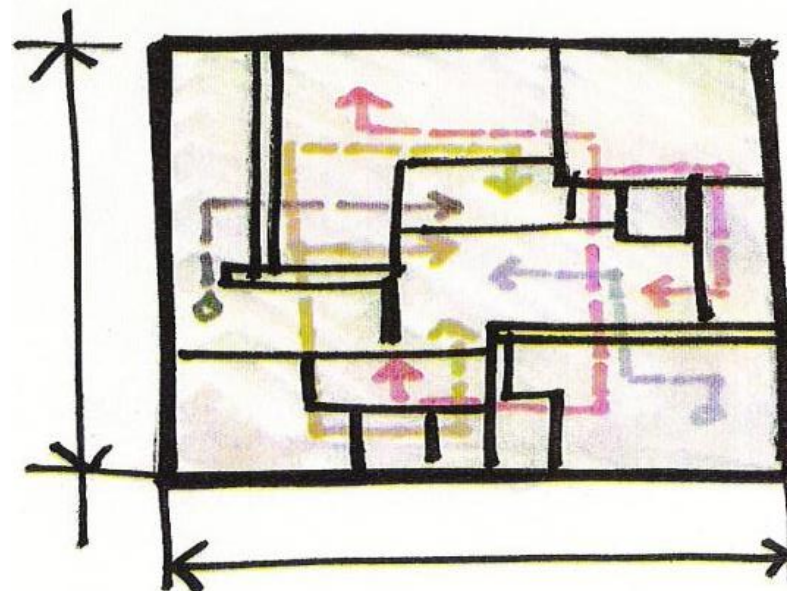
- Pharmaceutical plant enlargement Project
- Green Field vs Revamping
- Conceptual Design relevance
- Planning
- Case Study
- Conclusion



Building the future - Pharmaceutical plant enlargement Project

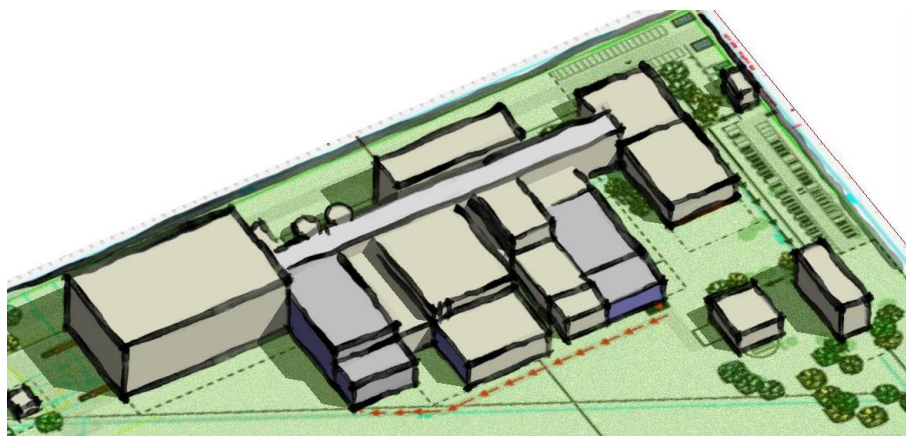


- Reasons for revamping:
 - Increase of units
 - New Products
 - More efficiency
 - Regulatory issues



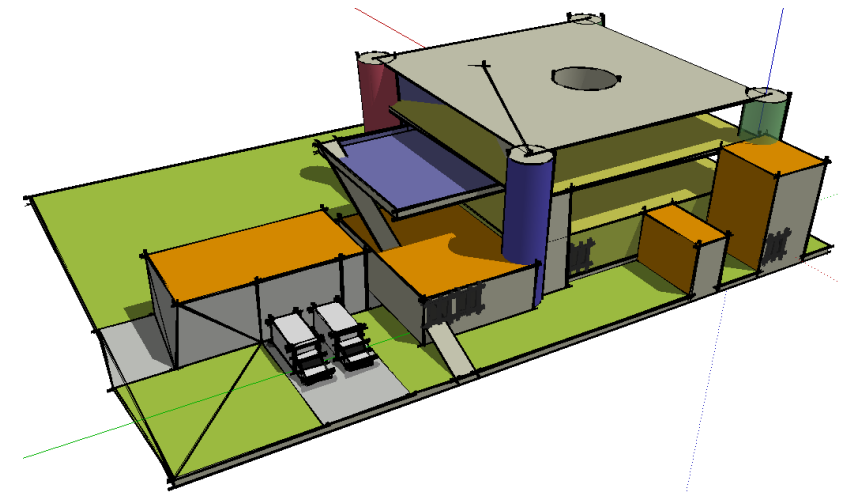
Greenfield

- New area
- No production
- Few restrictions
- Time is not an issue

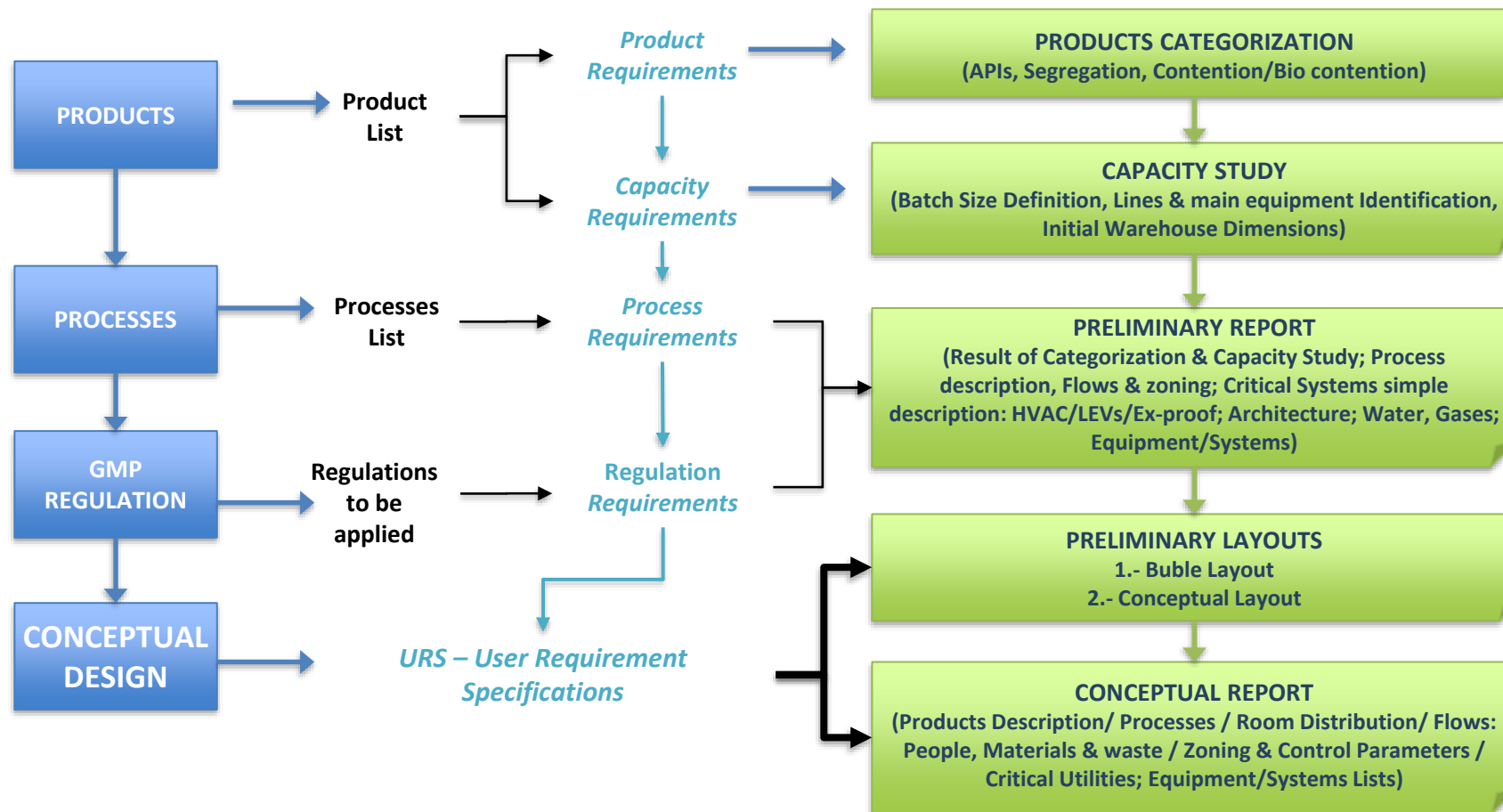


Revamping

- Existing facility
- Production cannot stop
- Reuse of equipment/utilities??
- Time constraint



BASIC PROJECT DESIGN FLOW CHART




- Plan, plan & then plan again
- Detailed time Schedule considering enough resources (outside/internal)
- Data Collection: Confirmation of real data on the field: Interferences when 3D design is done
- Prepare a utility gap assessment
- Concept design to consider accesses
- Develop complete Engineering for each phase with BOQ (go section by section in each phase)
- Skilled Project manager
- Material being stocked before use

- Move work to previous steps as much as possible:
 - Licenses
 - Commissioning
 - C&Q
 - leveraging
 - QA documents (SOP, training,...)
- Preassembled skids & racks
- Modularity
- Start with new vs existing
- Agree with Health Authorities steps and requests
- Foresee the unforeseen
- Plan B: outsourcing backup, 3 or more shifts,

		Implementation Master Plan	
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COMPANY

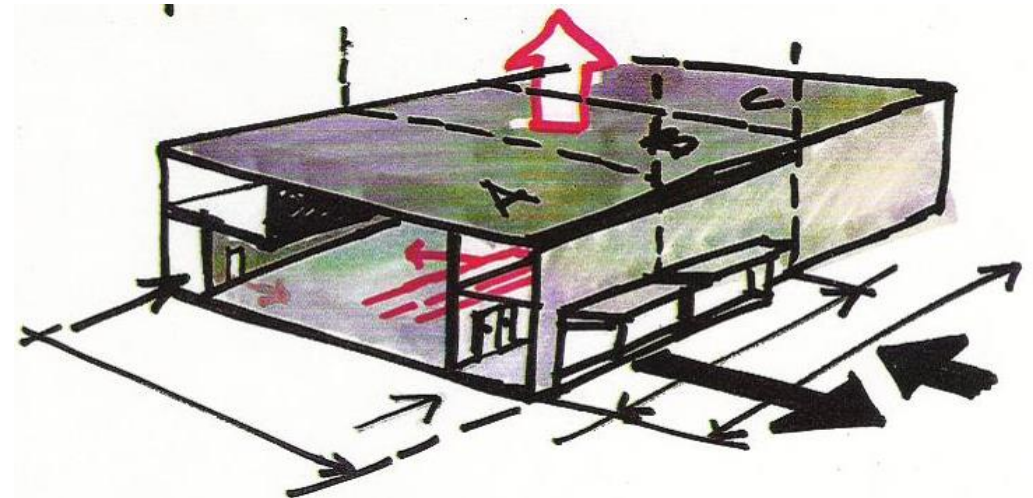
Implementation Master Plan

FACILITY REVAMPING PROJECT

2 Cases:

- Existing facility (OSD)

- Important to develop each phase and detail what must be done and the time it will take
- Develop the final lay out and logical phases to reach it



2 Cases:

- New Project??

- Same approach can be used in a new project that is developed in phases
- It will be simpler than the real revamping

- Key for a smooth project is planning
- Confirm initial data and advance tasks
- Develop Engineering for each phase
- Do not forget regulatory strategy

- Develop a plan B Just in case

Questions????



Thanks a lot

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