

# [Projects in production systems](https://assignbuster.com/projects-in-production-systems/)

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Introduction The projects in production systems can be categorized as low-tech, medium-tech, high-tech and super high-tech. Low-tech and medium-tech   
  
projects can be managed with a definite manner and with a low degree of flexibility.   
  
High-tech and super high-tech projects require special attention still they have greater   
  
risk and possibility of failure.   
  
As per the categorization of the projects, the risk of errors and failures go on   
  
increasing as we move from a low-tech to medium-tech, medium-tech to high-tech and   
  
from high-tech to super high-tech. This means that management of super high-tech   
  
projects is very much prone to errors and failures. This is mainly because of the new   
  
technology involved in such projects   
  
There are several mechanisms or tools for planning, organizing and managing   
  
different kinds of projects. The projects mainly differ on the technology front and the   
  
varying requirements from the customer. The greater degree of innovation in a high   
  
technology project increases the complexity..   
  
The production processes in Complex Products & System (CoPS) require   
  
innovations and advanced tools for project management. It is not possible to make perfect   
  
innovations because the required parameters of the product go on changing. This kind of   
  
situations lead to multiple modifications in the designs and production, creating   
  
difficulties in project management. The unawareness about the new technology makes the   
  
project management more complicated.   
  
The low-tech project requires to manage a predefined set of specifications, known   
  
outputs and existing technologies. In contrast to this the CoPS project has no standard \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
  
The terms high-tech/Super high-tech and CoPS are used synonymously.   
specifications and outputs are varying due to uncertainty of technology. Decision making   
  
and communication play a vital role in CoPS project management.   
  
Managers working over the CoPS shall always keep in mind that the project is   
  
going to move ahead only with errors and problems. They should be conversant of detecting   
  
problems at various stages, make firm decisions and maintain continuous communication at   
  
different levels for progressing the project. In totality the CoPS projects have two types of risks.   
  
The one is to not to meet the planned objectives completely and the other one is the unsuccessful   
  
termination of the project.   
  
Key Factors: Critical factors/dimensions are the one's which decide the level of   
  
complexity of the product. The availability of alternative system configuration & quantity   
  
involved creates difficulties in the management for the suppliers, integrators & users to come to a   
  
common opinion and innovation. The design & development based feedback loops of later stages   
  
to earlier stages of project reflect that a minor change in one stage may result into a larger change   
  
in other stage. In CoPS, user changes the requirement as they go on learning more about the   
  
product and systems, that's how user is directly associated in the management & initiates to   
  
develop innovations. For large CopS the competency of project management is out of the scope   
  
of a single company. The degree of complexity in CoPS strongly advocates the coordination   
  
among different companies involved in the project. The management in CoPS has to coordinate   
  
the variations in objectives, management structures & cultures of the companies working over   
  
the project. The project management shall identify the elements of project to be planned in such   
  
a way that it can remain in a change responding stage & some elements can be rigid. Reduction   
  
in hierarchy & bureaucracy can improve the project management of CoPS. Uncertainties can be   
  
dealt properly & appropriate actions on feedback can certainly improve the project management