

Essentials of project management

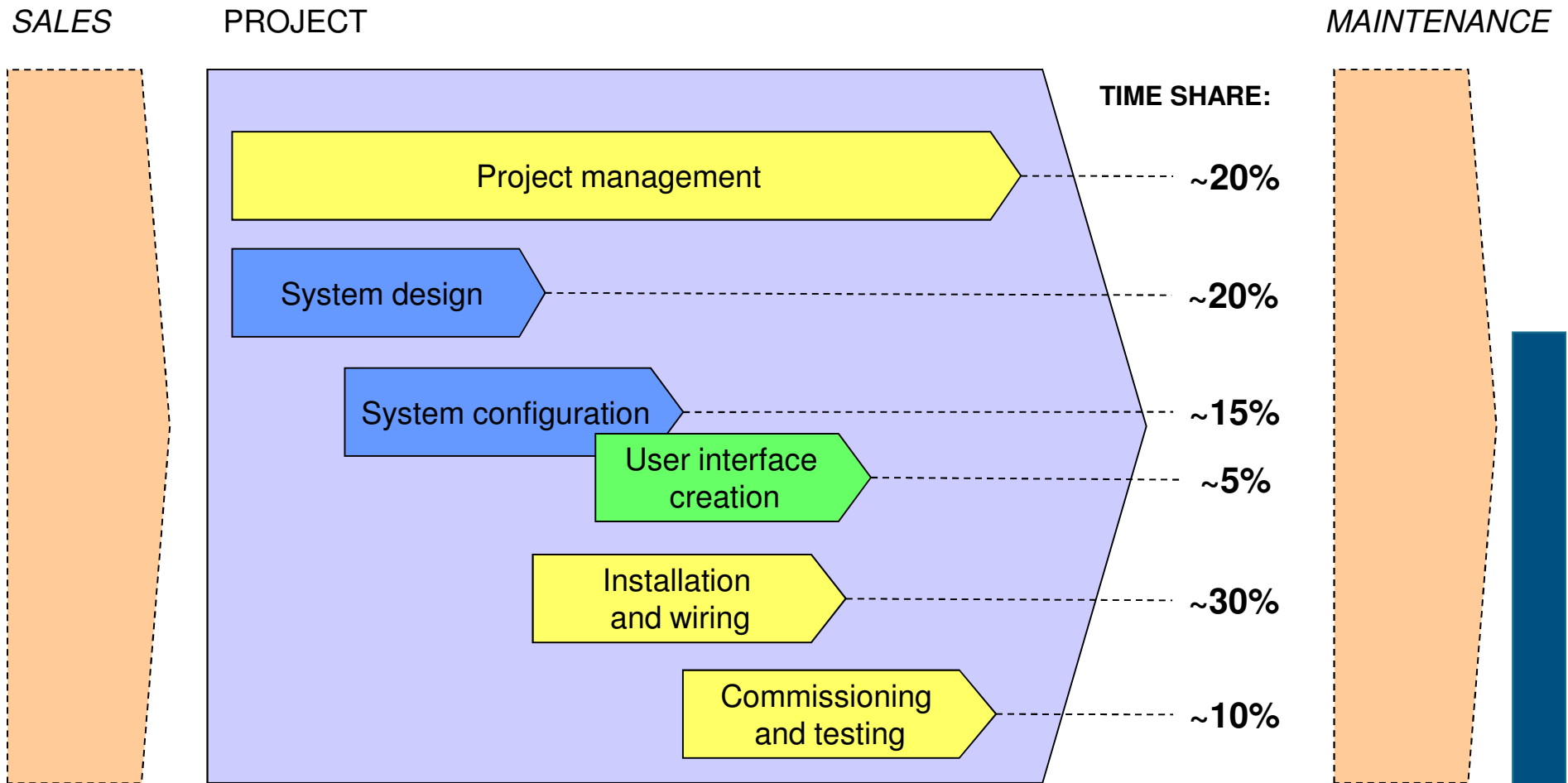
Lecture 6

Targets of Lecture

- Introduction to project management
 - Understanding the target process in typical projects
 - Required tools in each phase of the project
 - Key requirements for a successful project
- Duration: 1 hour



Typical project tasks



Typical project tasks, detailed

- Shop Drawings
- Data Point Schedules
- (Valve selection & ordering)
- Network design
- Cabling
- I/O points to modules/controllers
- Cabinet layouts
- Internal connections of cabinets
- Module/controller configurations
- Cabinet build-up & installation
- Field device connections
- Module/controller commissioning & testing
- COBA UI creation
- COBA server installation
- COBA testing & final fixing



System design

- Design documents: Layout pictures
 - Electrical, air-conditioning and piping, automation, security, etc
- Functional description
- Network design
- Automation cabinet design
 - Layout picture (needed for producing automation cabinets)
 - Internal connections (needed for producing automation cabinets)
- Device design
 - Field devices
 - Valve selection
 - I/O-point allocation to modules/controllers
- Cabling design
 - Cable list
 - Connections between cabinet and distribution box (needed at the site)
 - Field device connections



System configuration

- Lonix automation system:
 - Configuration of system and I/O functionality (PCT)
 - LON network database (NL220)
 - LON network bindings (CSV-file) (PCT)
- Lonix security system:
 - Configuration of door and intruder alarm functionality (PCT)
 - Door group, schedule and access right definitions (PCT)
- COBA user interface for automation and security
 - User interface modeling (COBA Editor)
 - Graphical drawing for user interface (COBA Editor)



Installation

- Cabinets
 - Manufacturing of the cabinets
 - Installing modules/controllers, relays etc to cabinets according to design documents
- Wiring
 - Wiring cables according to cable list
- Installation
 - Installing field devices (sensors, actuators, switches etc)
- Coupling
 - Coupling of field devices according to cabling design documents



Commissioning and testing

- Testing of all I/O points
 - Documented in the Testing table (PCT)
- Setting the setpoints and other settings
- System tuning



Customer training

- Creation of user documents
 - SCADA system instruction
 - Maintenance instructions for field devices
- Hands-on training for users



Important in project management

- Characteristics of a good project manager
 - Technical competence (automation)
 - General knowledge about building management and security systems
 - Understanding of HVAC processes
 - Knowledge about LonWorks technology
 - Other favorable characteristics
 - Diligence and preciseness
 - Ability to make decisions as the project requires
 - Ability to learn from earlier mistakes
- Challenges
 - Doing things only once in the right way
 - Avoiding unnecessary complexity
 - Keeping the project continuously moving into right direction
 - Effective coordination of tasks between everybody involved in the project
 - Keeping the ultimate target in mind instead of only small details
- Important routines
 - Regular supervision work (weekly/monthly visit to site)
 - Regular working routines (meetings, discussions, e-mails, documents)