Unit 9.
Project Management

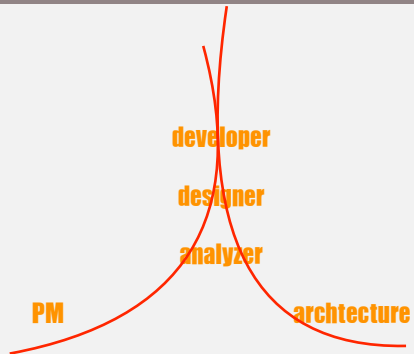developer

designer

analyzer
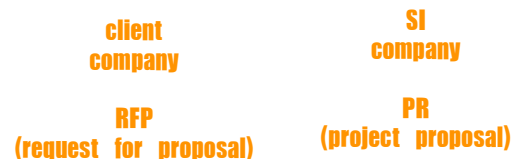
PM   archtecture

What is Project Management?

- **The discipline of initiating, planning, executing, controlling, and closing the work of a team to achieve specific goals and meet specific success criteria. [Wikipedia 2016]**

- **Process for Project Management**

  시작하고,
  계획하고,
  실행하고,
  통솔하는
  그 모든작업이 〉〉PM!

  - **Initiating**

  - **Planning** 스케쥴, 예산, 위험부담을 어떻게 쳐리할 것인지

  - **Execution**

  - **Monitoring and Controlling**

  - **Closing**

client
company

SI
company

RFP
(request for proposal)

PR
(project proposal)

Good Project Manager

- **Takes ownership of the whole project.**

- **Be proactive not reactive.**

- **Adequately plans the project**

- **Is Authoritative**

- **Is Decisive**

- **Is a Good Communicator**

- **Manages by data and facts, not uniformed optimism**

- **Has sound Judgement**

- **Is a Motivator**

- **Is Diplomatic**

- **Can Delegate**

Initiating and Planning

- **Create Project Management Plan (PMP).**
  >>예산, 예상, 등에 관한 모든내용을 여기에 씀

- **Be clear of scope and objectives.**
  PM은 항상 시작하기에 앞서서 정확한 scope를 알아야 한다.

  work breakdown structure

- **Establish clear statement of what is to be done (WBS).**

- **Establish Risks to be Managed.**

- **Establish Costs and Durations.**

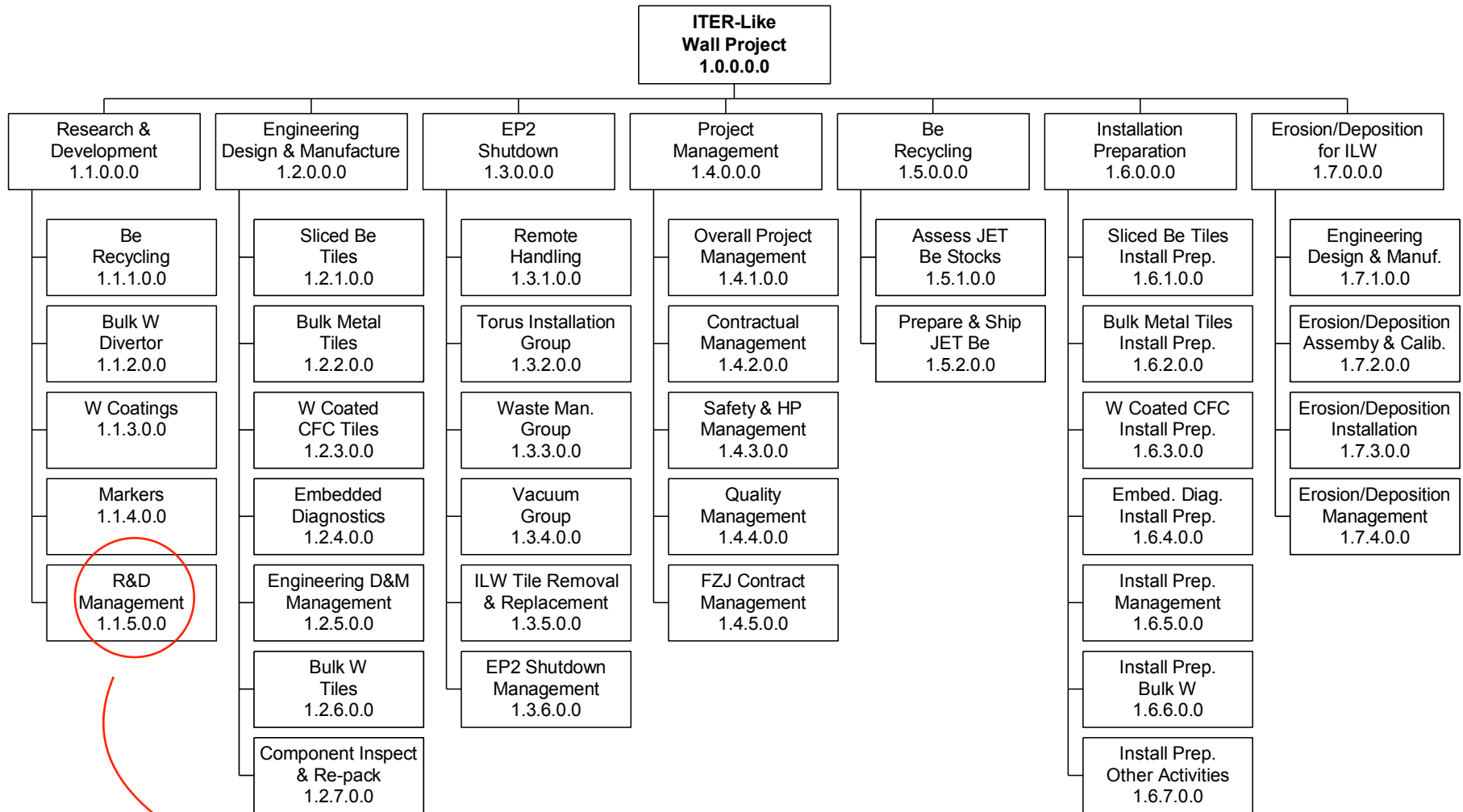- **Establish Resources Required.**

Work Breakdown Structure (WBS)

- **A hierarchical decomposition of the total scope of work to be carried out by the project team to accomplish the project objectives and create the required deliverables. [PMBOK 5]**

  산출물이라고 생각하면 됨

- **A deliverable-oriented decomposition of a project into smaller and manageable components.**

- **WBS allows hierarchical build-up of costs and schedule.**

- **WBS facilitates effective management of the project.**

- **Lowest Level of WBS is the Work Package (WP)**
  - **WP allows assignment of responsibilities.**

  예산정의, 예상확인 등등 대부분의 일이 책에서 정의하고 있음

Work Breakdown Structure (WBS)

ITER-Like Wall Project 1.0.0.0.0

Research & Development 1.1.0.0.0
- Be Recycling 1.1.1.0.0
- Bulk W Divertor 1.1.2.0.0
- W Coatings 1.1.3.0.0
- Markers 1.1.4.0.0
- R&D Management 1.1.5.0.0

Engineering Design & Manufacture 1.2.0.0.0
- Sliced Be Tiles 1.2.1.0.0
- Bulk Metal Tiles 1.2.2.0.0
- W Coated CFC Tiles 1.2.3.0.0
- Embedded Diagnostics 1.2.4.0.0
- Engineering D&M Management 1.2.5.0.0
- Bulk W Tiles 1.2.6.0.0
- Component Inspect & Re-pack 1.2.7.0.0

EP2 Shutdown 1.3.0.0.0
- Remote Handling 1.3.1.0.0
- Torus Installation Group 1.3.2.0.0
- Waste Man. Group 1.3.3.0.0
- Vacuum Group 1.3.4.0.0
- ILW Tile Removal & Replacement 1.3.5.0.0
- EP2 Shutdown Management 1.3.6.0.0

Project Management 1.4.0.0.0
- Overall Project Management 1.4.1.0.0
- Contractual Management 1.4.2.0.0
- Safety & HP Management 1.4.3.0.0
- Quality Management 1.4.4.0.0
- FZJ Contract Management 1.4.5.0.0

Be Recycling 1.5.0.0.0
- Assess JET Be Stocks 1.5.1.0.0
- Prepare & Ship JET Be 1.5.2.0.0

Installation Preparation 1.6.0.0.0
- Sliced Be Tiles Install Prep. 1.6.1.0.0
- Bulk Metal Tiles Install Prep. 1.6.2.0.0
- W Coated CFC Install Prep. 1.6.3.0.0
- Embed. Diag. Install Prep. 1.6.4.0.0
- Install Prep. Management 1.6.5.0.0
- Install Prep. Bulk W 1.6.6.0.0
- Install Prep. Other Activities 1.6.7.0.0

Erosion/Deposition for ILW 1.7.0.0.0
- Engineering Design & Manuf. 1.7.1.0.0
- Erosion/Deposition Assemby & Calib. 1.7.2.0.0
- Erosion/Deposition Installation 1.7.3.0.0
- Erosion/Deposition Management 1.7.4.0.0

The Four P's

- **People**
  - **The most important element of a successful project**

- **Product**
  - **The <u>software</u> to be built**   항상 좋은 퀄리티의 프로젝트를 유지해야 한다.

- **Process**
  - **The set of framework activities and software engineering tasks to get the job done**

- **Project**
  - **All work required to make the product a reality**

People – Stakeholder (1)

이해당사자

● **A person, group of people, or organization having a vested interest in the target system.**

● **Typical Stakeholders**

- **Sponsor**
- **Funding Body**
- **Customer**   customer와 end user는 보통 다르다
  〉〉같은경우가 없는것은 아니다.
- **Suppliers**
- **End User**
- **Maintenance Team**
- **Neighbours/Community/Shareholders**

People – Stakeholder (2)

- **Managing Stakeholders**
  - Identify Stakeholders.
  - Assess needs.
  - Define actions.
  - Establish communication channels.
  - Gather feedback.
  - Monitor and review.

Agile Teams

- **Team members must have trust in one another.**

- **The distribution of skills must be appropriate to the problem.**

- **Mavericks may have to be excluded from the team, if team cohesiveness is to be maintained.**

- **Team is "self-organizing"**
  - **An adaptive team structure**
  - **Uses elements of Constantine's random, open, and synchronous paradigms**
  - **Significant autonomy**

The Process

- **Once a process framework has been established**
  - **Consider project characteristics**
  - **Determine the degree of rigor required**
  - **Define a task set for each software engineering activity**
    - Task set =
      - Software engineering tasks
      - Work products
      - Quality assurance points
      - Milestones

Thank You !