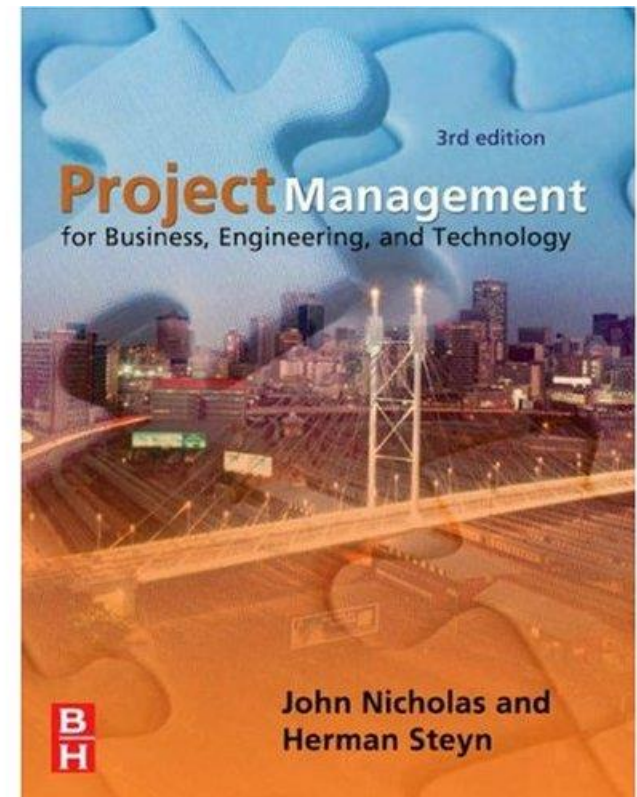# Chapter 14
Project Roles, Responsibility, and Authority

Project Management for Business, Engineering, and Technology

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The Project Manager

- Competencies of the project manager

- Project manager's authority and sources of influence

The Project Manager

Role

The Project Manager

Job Responsibilities

The Project Manager

Domain Competency

- Two case study examples

Case 13-2 Pinhole Optics Case

Question: Why give responsibility for product development to a Manager of New Products (PM)?
Why *not* give it to the functional managers?

Case 14-2 Nuwave Products Case

Question: Who should manage the project?

Choosing a Project Manager
Pinhole Optics Case

- Okay for functional managers to serve as project manager when

    - the project resides *solely* in one area

    - and requires little cross-functional cooperation

Pinhole Optics Case

- **Problems with FM serving as PM on new product development (NPD)**
  - Projects are cross-functional
  - Narrow perspective; bias toward own functional area
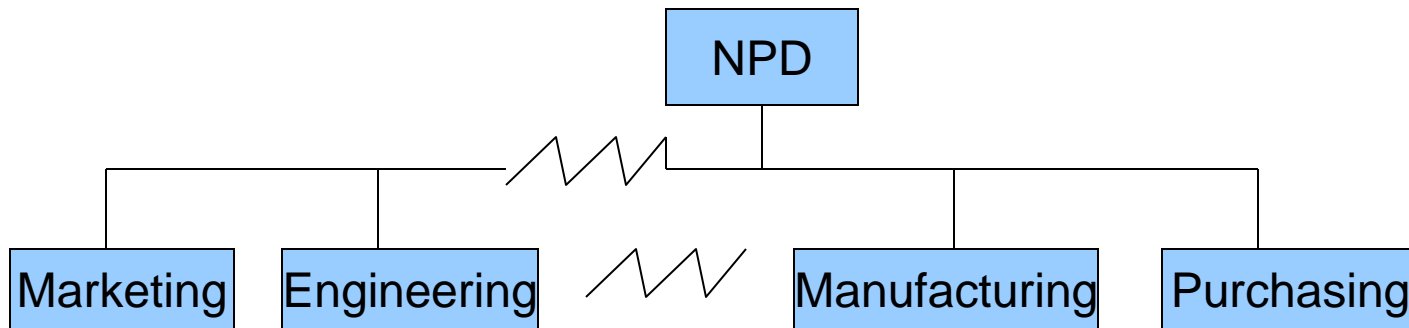
  - Insufficient "domain competency"
  - Lack of time (department gets priority over projects)
  - Lack of cooperation from other managers

Pinhole Optics Case

- ## Where to get PM?

  - ❑ Hire outsider with experience in NPD and industry knowledge

  - ❑ "Groom" PMs internally

Nuwave Products Case

- Who should manage project?
  - Typical suggestions: Roberta, Noware Company
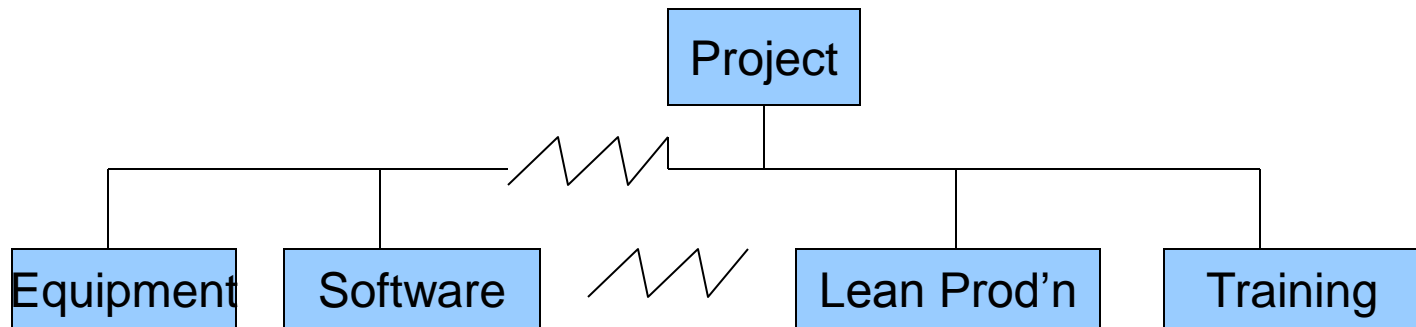
Nuwave Products Case

- Roberta as PM
  - Pros: Is a good manufacturing engineer with much company experience.

Nuwave Products Case

- ## Roberta as PM
  - ❑ Cons: Current project is larger than anything she has managed before.
  - ❑ Involves software, training, and lean production (the required "domain competency" exceeds manufacturing).
    - she has no experience in any of these areas

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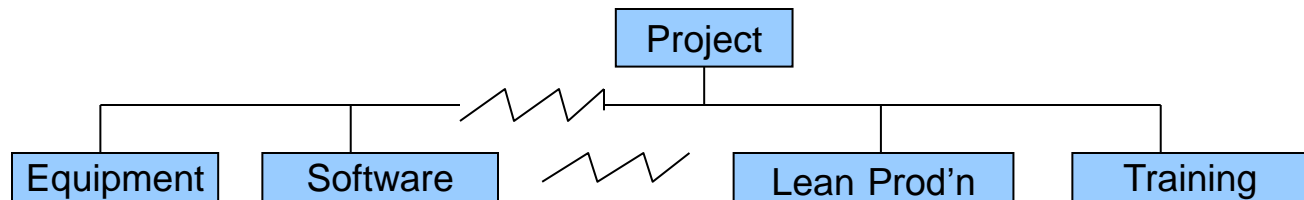
Nuwave Products Case

Noware Company as PM

❑ Pro: Experienced in project management.

Nuwave Products Case

❑ Cons: Does PM experience go beyond software?

  ■ Project involves training, lean production, and manufacturing hardware ("domain competency" goes beyond software)
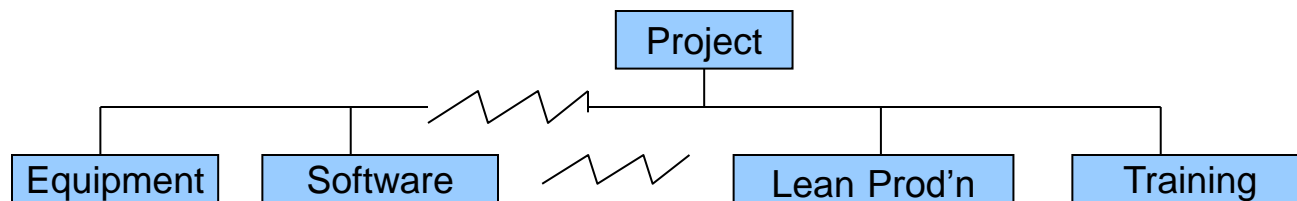

  ■ Potential bias: as a contractor for a portion of the project, can Noware remain impartial and give due attention to all areas of the project?

Nuwave Products Case

Alternative to Roberta and Noware Company:

- Hire outsider as PM and project integrator

  - Reports to Nuwave management.

  - Role is to oversee and integrate *all* areas of the project—software, hardware, training, and lean production to accomplish project goals.

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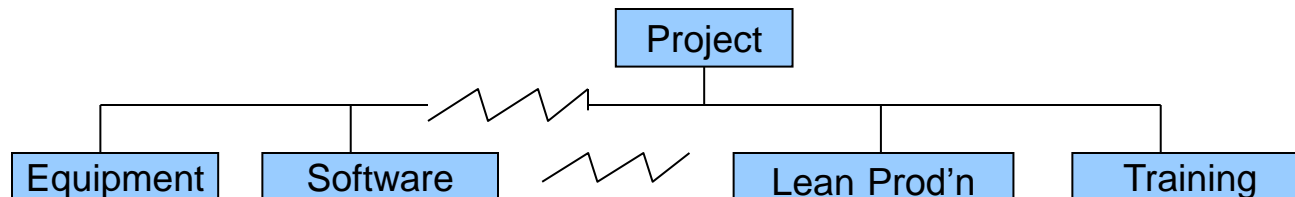
Lesson:
Technical Competency of the PM

Lesson: Technical Competency

The PM should have

- The experience, background, and perspective that spans the entire project, i.e., "*domain competency*"
  - The requisite domain competency is determined by the project *scope*

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Lesson: Technical Competency of the PM

- Project manager must be able to
  - Understand all phases and aspects of project
  - Understand the problems/issues
  - Communicate effectively with everyone
  - Maintain an unbiased outlook in the interest of project goals
  - Make informed decisions about everything within the project scope

Lesson: Technical Competency of the PM

- PM is not necessarily the expert in any particular area of the project—others are better

- But for the *overall* project, the PM *is* the expert!

Project Manager's Authority to Manage the Project

- PM typically has little/no legal authority:
  - Project team is temporary
  - PM exists outside traditional hierarchy
  - PM "borrows" resources

- "Project Authority"
  - PM makes decisions about project targets, expenditures, schedules, etc., but cannot give people orders

PM Authority vs. Responsibility

Responsibility for project goals ———————— High

Authority to give orders ———————— Low

PM Authority vs. Responsibility

Responsibility for project goals _____ High

PM's "authority gap"

Authority to give orders _____ Low

Project Manager Sources of Influence

Upper management
Functional managers

Customers
Users

Competence
Reputation

Charisma
Interpersonal skills
Leadership

Alliances
Reciprocity

Internal team
members
Suppliers

External
stakeholders
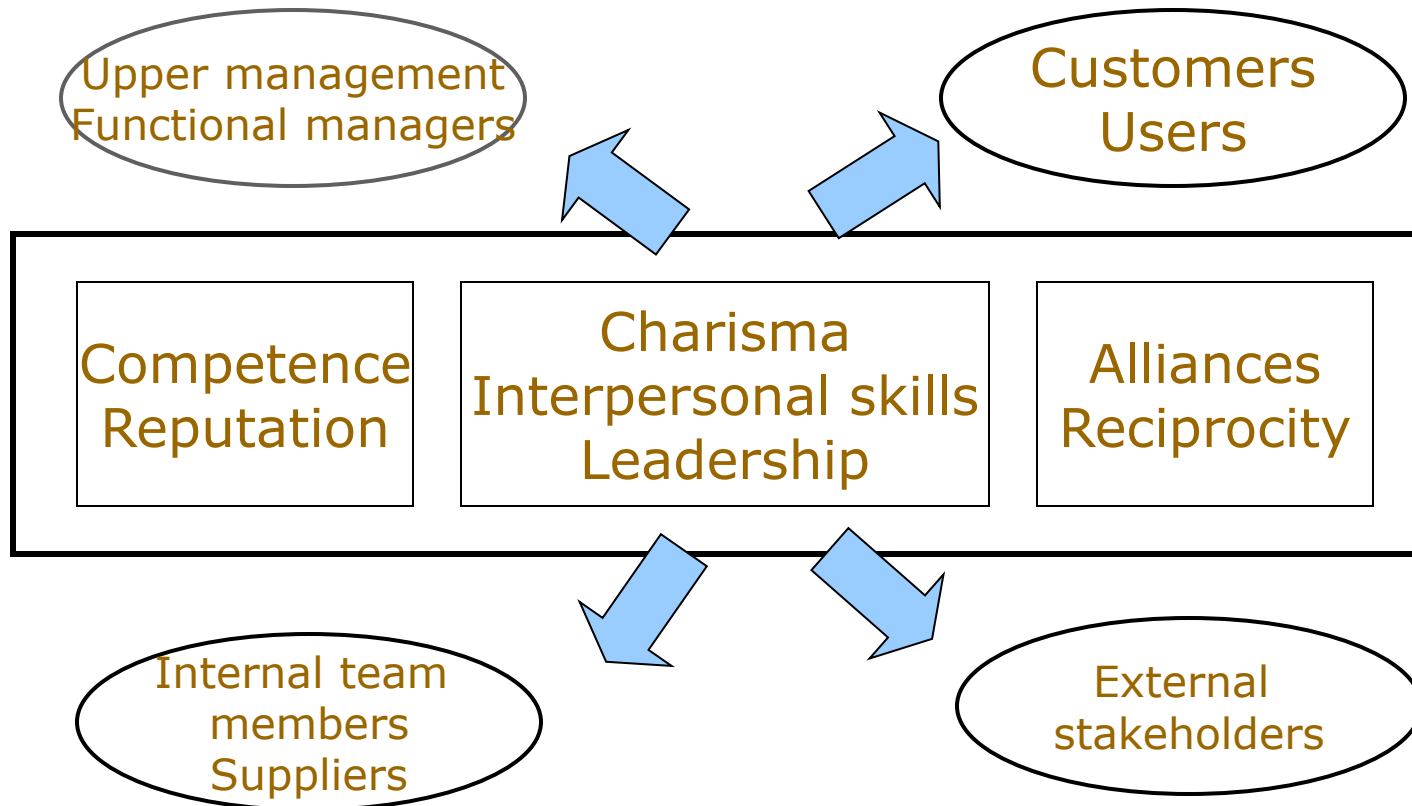
Skills of the Project Manager

- Behavioral skills

  - Active listener, strong interpersonal and team building skills, readily gives credit and praise to others

- Business and communication skills

  - Understanding of business principles (finance, accounting, marketing, HR, contracting, purchasing) and how the particular business/industry works

  - Good writing and speaking skills

- Personal features

  - Flexible, confident, persuasive, decisive, generalist outlook, organized, disciplined.

  - Willing to work long hours!

Core Project Team

- Works directly on project

- "Reports" to the PM

- Includes contractors/subcontractors

Roles in the Project Team

- Members of the project office; might include
  - *project engineer* (systems engineer or systems designer)
  - *contract administrator*
  - *project controller*
  - *project accountant*
  - *customer liaison*
  - *production coordinator*
  - *customer liaison*
  - *production coordinator*
  - *field manager* or *site manager*
  - *quality assurance supervisor*
  - *representatives* from participating functional departments and subcontractors

Roles in the Project Team

- Functional managers

  - Often, retain the same authority and responsibility as in non-project environments

- Functional leaders

  - liaison between the project manager and the functional manager

- Work package supervisors

  - reports to the functional leader

Roles Outside the Project Team

- **Manager of Projects/ PMO Director**
  - directs and evaluates the activities of all project managers.
  - ensures projects are consistent with organizat objectives and resources
  - allocates resources and resolves priority conflicts
  - assist with PM policies
- **Top management**
- **Project supporters**
- **Other stakeholders**
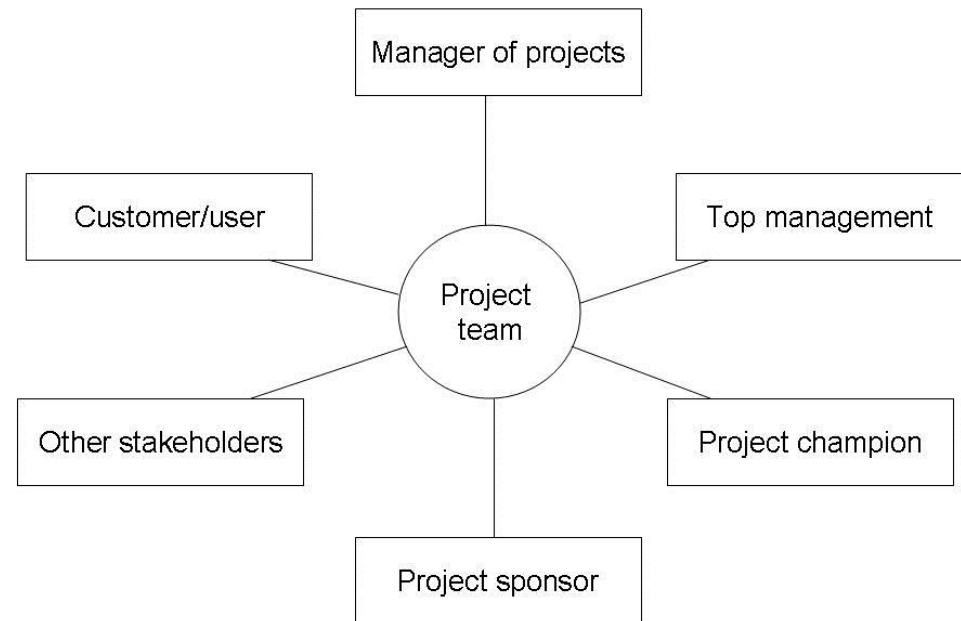
Project Supporters

- Provide support, sponsorship, or cooperation
- Inside or outside the project organization
- Enables project survival
  - **Project sponsor**
    - Provides financial, organizational, or political backing
  - **Champion**
    - rallies support for project, technology, or end-item
- Includes agencies/organizations that grant permits, licenses, and other forms of permission

Other Project Stakeholders

Stakeholder is

- Anyone who is
  - "influential in"
  - "interested in"
  - or "affected by" the project

- Anyone who
  - provides technical expertise, labor, or material
  - provides sponsorship and support
  - wants, needs, or supports the project
  - opposes or tries to obstruct the project

Other Project Stakeholders

- *Includes*
  - Customer/client
  - Personal interest groups
  - Public interest groups

- All are important; their contributions, support, or resistance affect project outcomes

Project Manager and Stakeholders

- Most stakeholders are ignorant of each other

- They usually don't care about who the others are, or what their interests are

- PM is only person in project who knows all important stakeholders

  - PM should identify all key project stakeholders

  - PM should seek their effort, support, inputs, and commitment to project

Role of PM: Identify Key Stakeholders

Fill in blanks on project "stakeholder map," below

Project Core Team

Project manager: _____

Core project team: _____

_____

_____

Functional groups	**Contractors/Suppliers**
For each:	**For each:**
Manager _____	**Manager** _____
Contacts _____	**Contacts** _____
_____	_____
Members on project _____	**Members on project** _____
_____	_____

Identify Stakeholders

Project Supporters

Project sponsor _____

Project champion _____

Agencies/Organizations:

  For each:

                Contact person _____

Identify Stakeholders

Other Key Stakeholders

Interest Groups (Private/Public)
    For each:
        Leader   _____
        Contacts _____
                  _____
                  _____

Customer
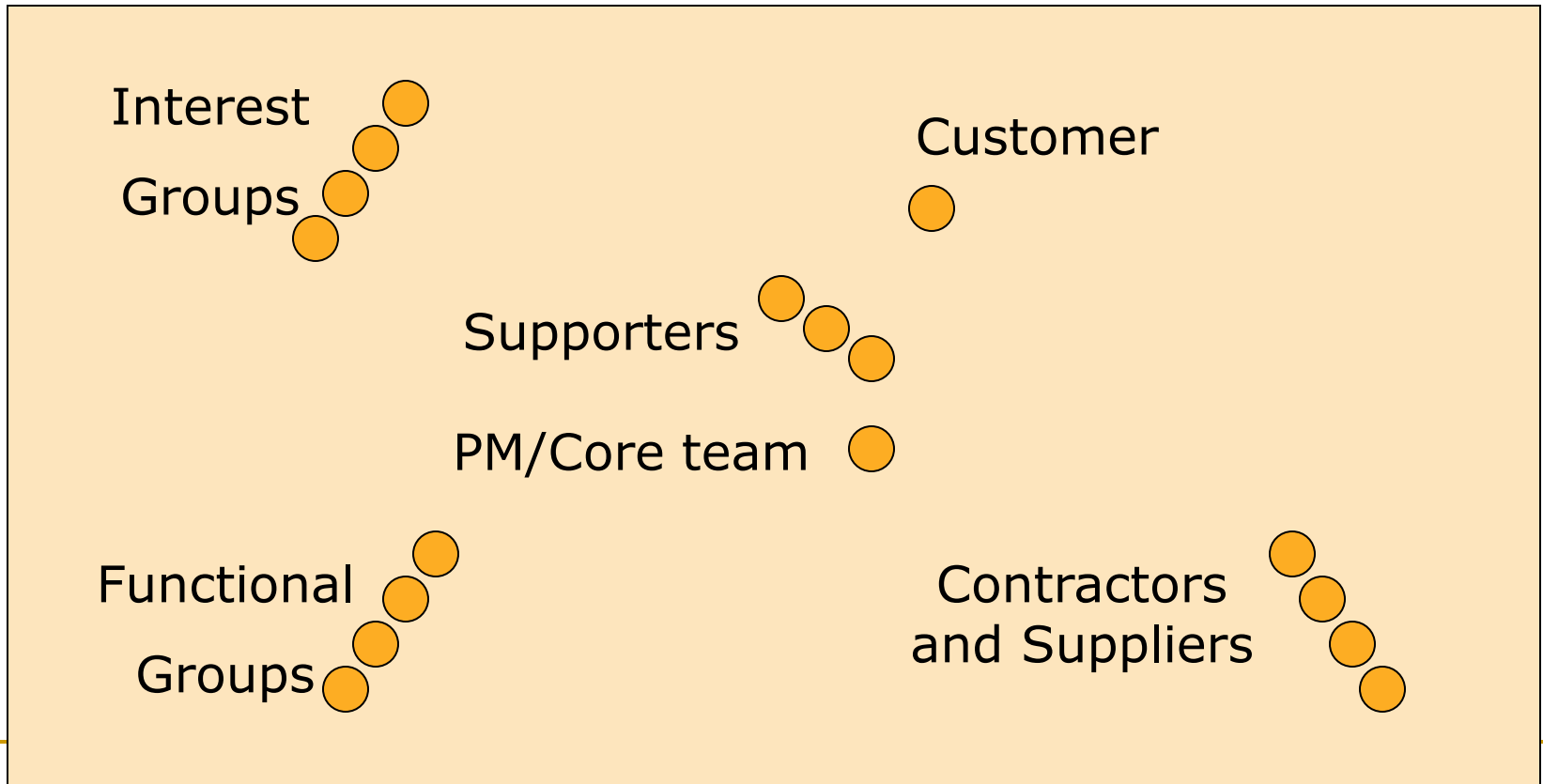   Leader   _____
    Contacts _____
    Users   _____
              _____
              _____

Identify Stakeholders

- Create map to suit project
- Draw lines between parties to show relationships

Case 14-3: The Big Dig: Boston's CA/T Project

Boston's Big Dig

Boston's Big Dig

Big Dig Stakeholders

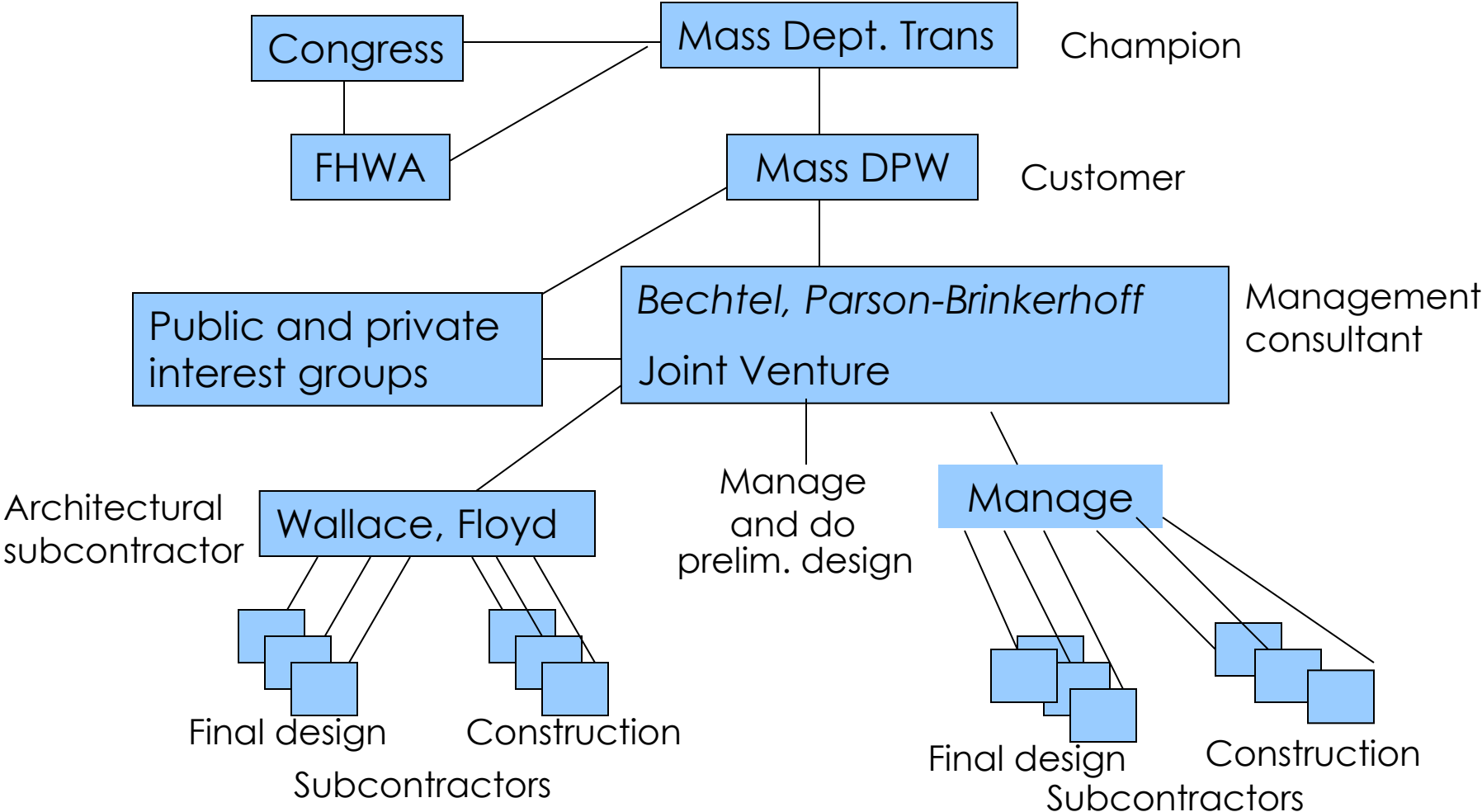| Who?	Why Important?
■ Congress	$ funding; political allies
■ FHWA	$ funding; regulations
■ EPA	regulations
■ MDT	regulations
■ MDPW	regulations
■ Joint Venture (B/PB)	$ profits; prestige

Big Dig Stakeholders

- Interest groups:
  - Residents
  - Businesses
  - Labor/trade unions
  - Local environmental groups
  - National environmental groups
    - Sierra Club
  - Civic groups
  - Religious congregations
  - Commuters

Big Dig Stakeholders

Congress — Mass Dept. Trans — Champion

FHWA — Mass DPW — Customer

Public and private interest groups

Bechtel, Parson-Brinkerhoff Joint Venture — Management consultant

Architectural subcontractor — Wallace, Floyd

Manage and do prelim. design

Manage

Final design — Construction
Subcontractors

Final design — Construction
Subcontractors

Project Managers at CAT

- ## Contractor (Joint Venture)

  - Tad Weigle, program manager

    - Experience: VP of Bechtel's Chicago office; executive director, N.E. Illinois Regional Trans Auth.; operations officer, Washington, D.C. Regional Trans System; Harvard

    - Experienced in government, finance, and management of operating systems

Project Managers at CAT (cont'd)

- ## Contractor (cont'd)

  - ### Jerry Riggsbee, program manager

    - Experience: 18 yrs as PM for Bechtel in airport/canal construction; 7 yrs with independent contractor; U of Cal, Berkeley, engineering

Project Managers at CAT (cont'd)

- ## Contractor (cont'd)

  - Jeff Brunetti, program manager of preliminary design

    - Experience: Construction manager for Bechtel in Saudi Arabia; engineer. Comfortable with projects shaped by public participation and environmental law.

Project Managers at CAT (cont'd)

- ## Customer (State of Mass.)

  - ### Peter Zuk, project director

    - Experience: deputy attorney general for State of Mass.; good record of establishing working relationships with contractors.

    - Reportedly good at handling messy (political-organizational) issues.

Project Managers at CAT (cont'd)

- ## Customer (cont'd)

  - William Flynn, deputy project director

    - Experience: US Army Lt. General over 6000-man Tank and Automotive Command; West Point graduate.

    - Handles engineering matters; leave "politics" to Zuk.

Key Points

- Large projects have many stakeholders

  - Some support; some oppose

- Role of PM

  - Identify stakeholders and their interests

  - Work with stakeholders

  - Try to accommodate their interests to successfully complete project

Key Points (cont'd)

- PMs must be sensitive to stakeholders' interests and to conflicts they cause

- PM background/experience influences ability to identify stakeholders, know their interests, and work with them