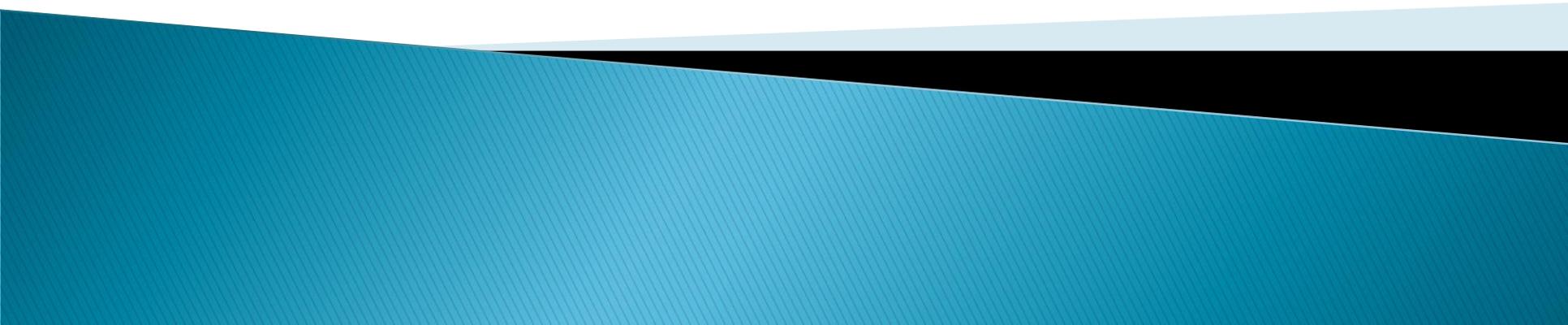
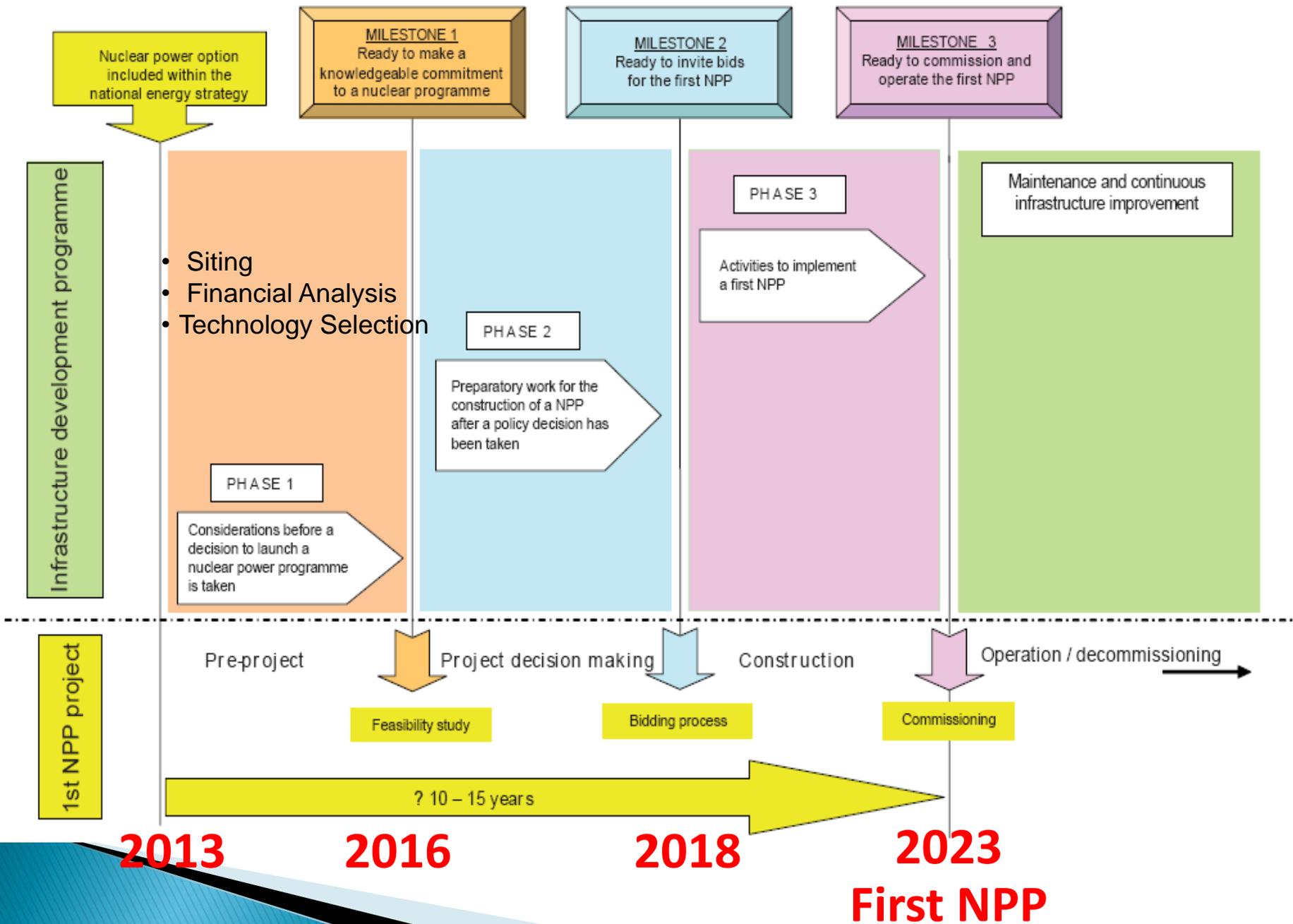


Nuclear Power Program Development in Poweria

GEN-ELEC





Site Selection Process

- ▶ Step1 : GEN-ELEC selects 3 potential sites
 1. Coastal area
 2. Plateau area
 3. Lake area
 - ▶ Step2: Conduct preliminary site selection process with scoring and ranking to get 2 candidate sites
 - ▶ Step3: Conduct detailed site survey and local community acceptance for final site selection,
- 

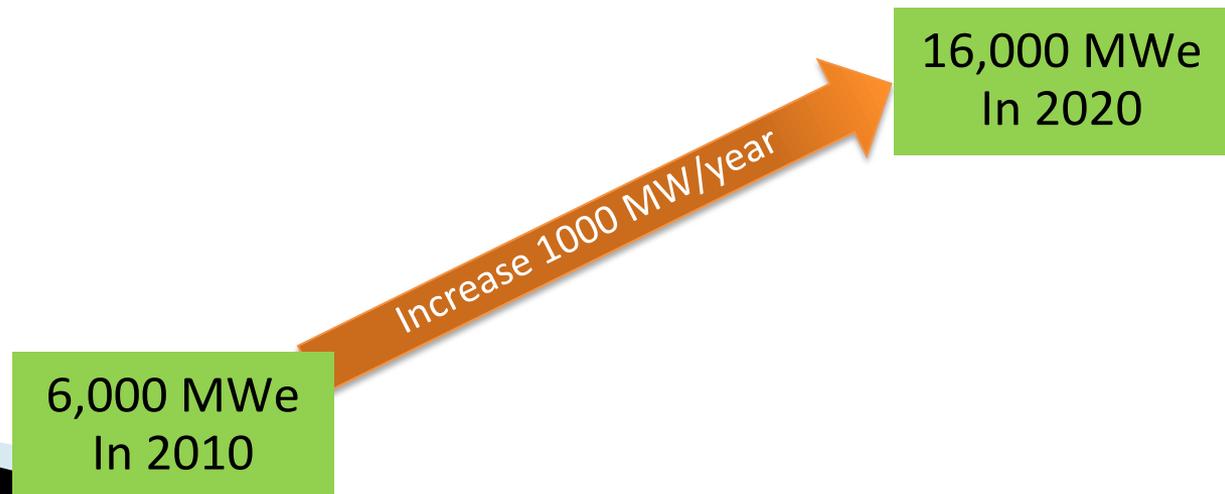


Site	Pro	Con
1.Coastal area	<ul style="list-style-type: none">-Need for Power-Good Transportation-Transmission line	<ul style="list-style-type: none">-High Population Density-Tourism Area
2.Plateau area	<ul style="list-style-type: none">-Need for Power-Low Population Density	<ul style="list-style-type: none">-Limited Road and Transportation-Seismic Area
3.Lake area	<ul style="list-style-type: none">- Short Transmission line-Need for Power-Low Population Density	<ul style="list-style-type: none">-Limited Road and Transportation-Seismic Area

Technology Selection

Technology	Pro	Con
1 Large Plant (1,700 MW)		<ul style="list-style-type: none">- not suitable for national grid capacity- Not Available
2 Large Plants (1000 MW)	<ul style="list-style-type: none">- Proven Technology	<ul style="list-style-type: none">- Short time for manpower buildup
6 SMR (300 MW)	<ul style="list-style-type: none">- Long time for Manpower buildup	<ul style="list-style-type: none">- Under Development

√



Key Elements in the Call for Tenders

Information provided by the owner

- Technical requirements and criteria including safety and security constraints
 - Site Characteristics
 - Scope of supply and services
 - National participation and technology transfer
 - Bid evaluation criteria
 - Draft contract: Terms and conditions
 - Commercial conditions
- 

Key Elements in the Call for Tenders

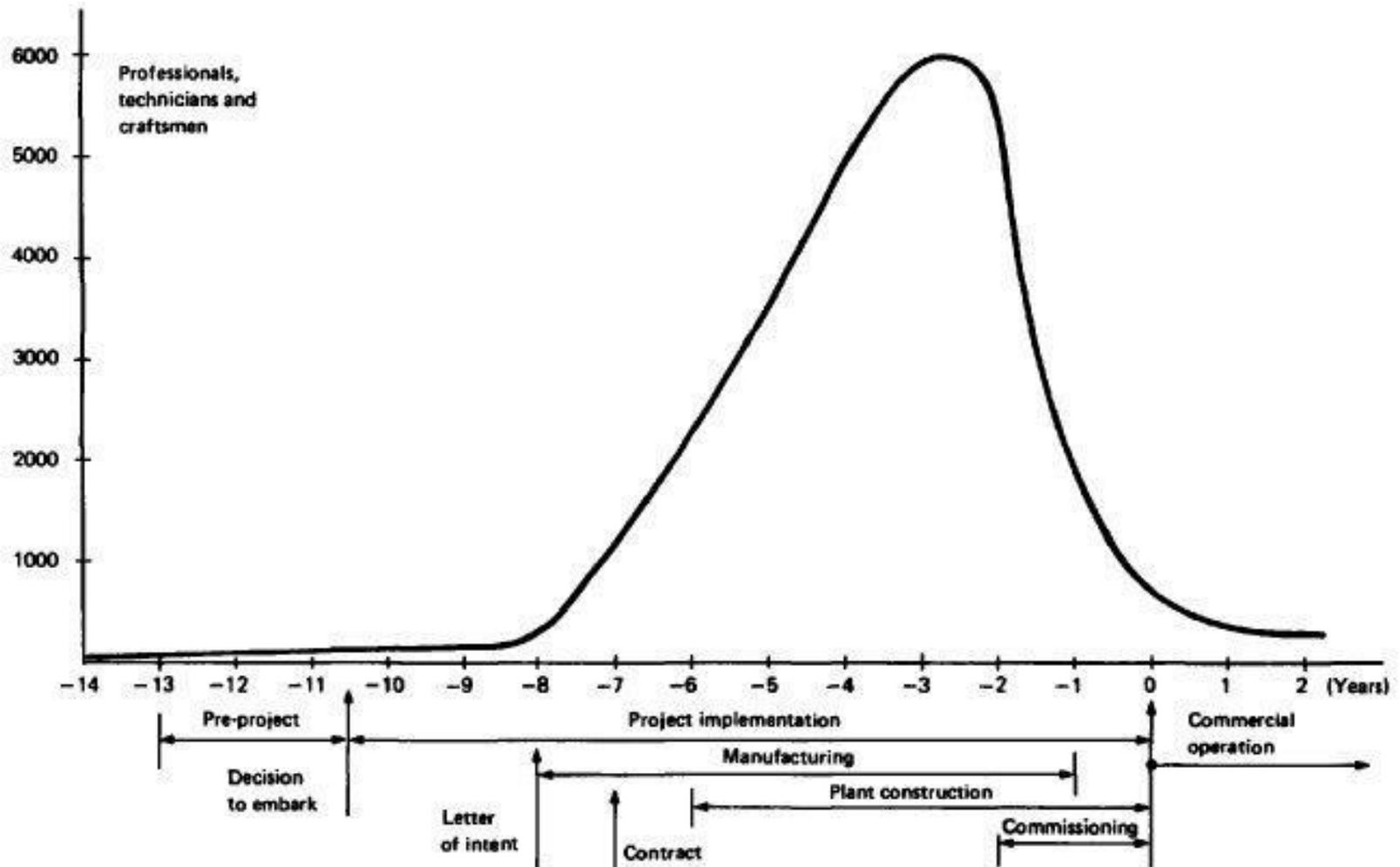
Information requested from the bidders

- General technical aspects
- Technical descriptions
- Scope of supply and services
- Alternatives and options
- Quality assurance programme/Management System
- Training
- Project schedule
- National participation and technology transfer
- Guarantees and warranties
- Deviations and exceptions
- Commercial conditions
- **Guarantee for fuel supply**

Financial Estimates

- ▶ 3,000 –4,000 \$/kWe
- ▶ 6–8 billion dollars for 2 units of 1,000 MW

Man power during the project

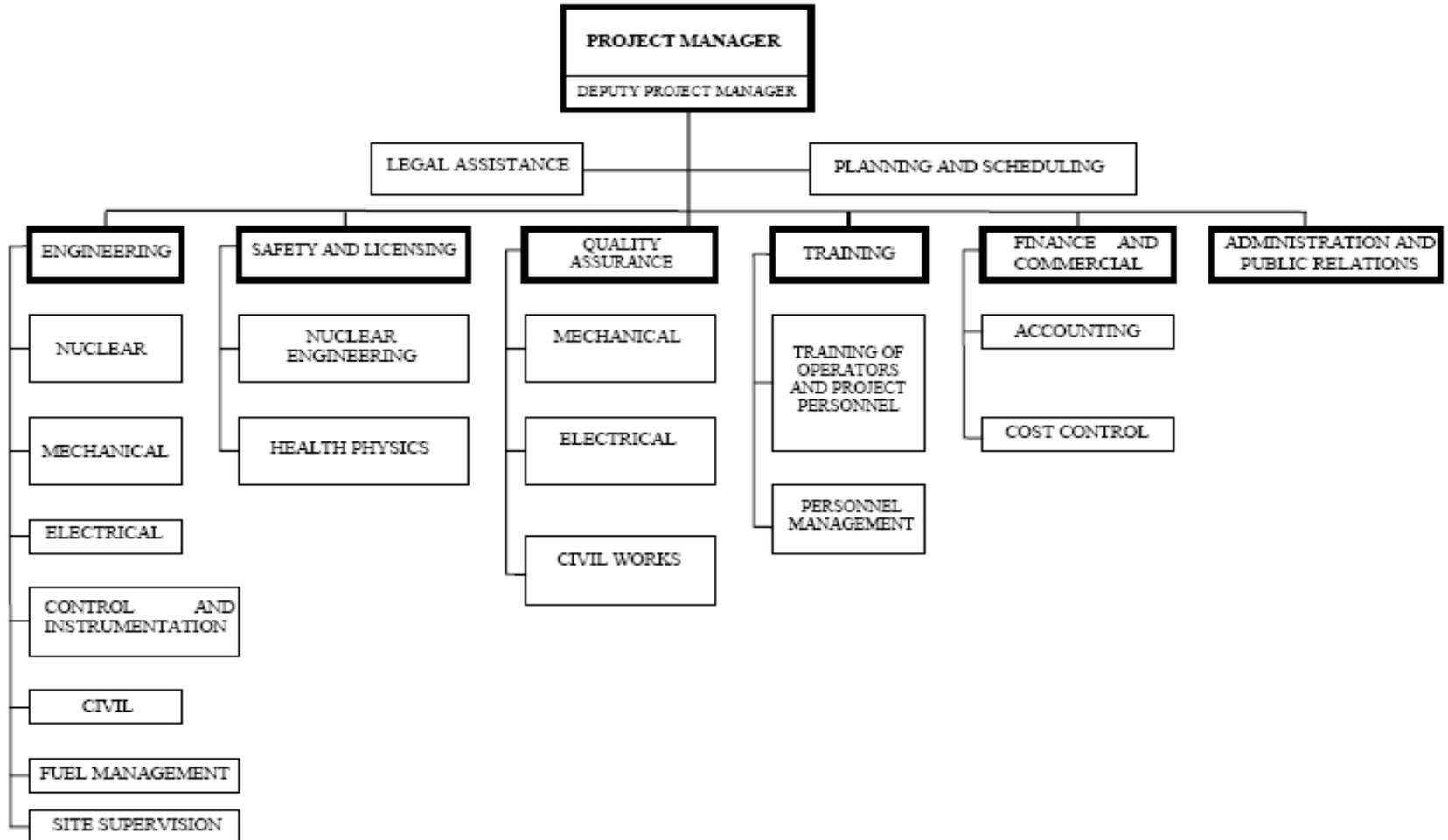


Man power during the phases

Division	During preparation (Phase 2)		During construction (Phase 3)		During commissioning (at Milestone 3)	
	Average	Maximum	Average	Maximum	Average	Maximum
Engineering	30	80	80	120	30	50
Planning and project control	10	20	10	20	10	20
Procurement	10	20	30	80	10	20
Material control and management	5	10	20	70	10	20
Construction Control and supervision	10	20	60	80	10	30
Commissioning	0	0	50	100	150	200
Finance and contracts control	10	20	20	30	10	20
Quality management	5	10	10	20	5	10
Industrial safety	1	2	2	5	1	2
Fire protection	1	2	5	10	1	2
Nuclear safety, licensing and compliance	5	10	10	20	10	20
Human resources	2	3	2	5	2	3
Training	2	5	5	10	15	20
Security and physical protection	1	5	10	30	30	40
Operators per unit	0	0	0	0	50	80
Total	92	207	314	600	344	537

(Note: The table is for staff in the owner/operator organization. The number of employees from the vendor or subcontractors who were involved in construction and commissioning is not included.)

Organizational structure



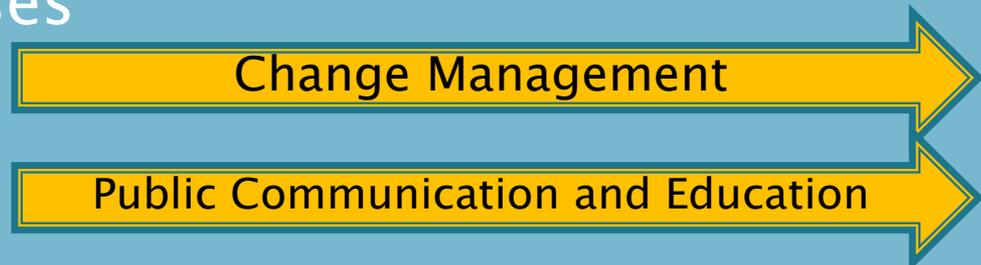
Integrated Management System from Pre-Project to commissioning

Management Processes

Key Processes

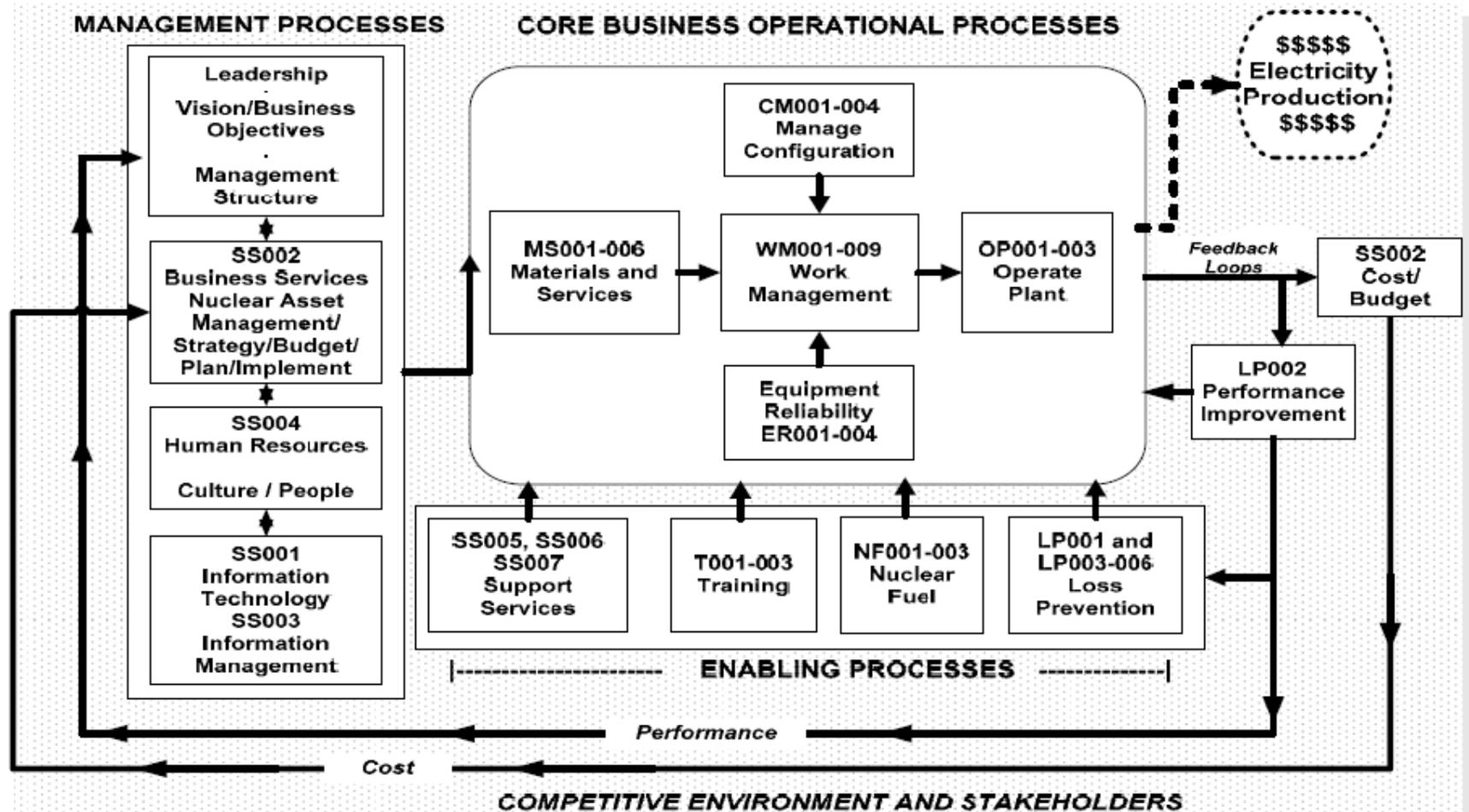


Supporting Processes



Integrated Management System for NPP operation start with commissioning phase

STANDARD NUCLEAR PERFORMANCE MODEL (SNPM) - AN EXECUTIVE VIEW



**Thank you
for your attention**

