



Malaysia

Country Report

**Oil and Gas Database
Management**

April 1-3, 2009





The Legislative Framework of the Malaysian Petroleum Industry

Relationship between the Government, PETRONAS and PSC Contractors



PDA



PSC



Key Features

- Rights to explore, develop and produce petroleum resources in Malaysia is vested upon PETRONAS

- Adopt the Production Sharing Contracts (PSC) system
- Stipulates contractual period, management of operations, recovery of costs, division of profit, obligations of parties, etc.

Objectives

- Ensure orderly exploration, development and production of Nation's petroleum resources
- Ensure sustainability of the petroleum industry in Malaysia
- Adds value to the petroleum resources
- Encourage local participation in the petroleum industry

- Promotes investment in exploration, development and production of petroleum resources in Malaysia
- Ensure maximum benefit to the nation



PETRONAS was formed in 1974 to:

- Attract foreign investors in petroleum sector.
- Formulate policies, plans and strategies in the management of the national petroleum resources.
- Promote reserves addition, cost-effective technology and quality management of the petroleum resources.
- Strategically managing the production sharing contracts.

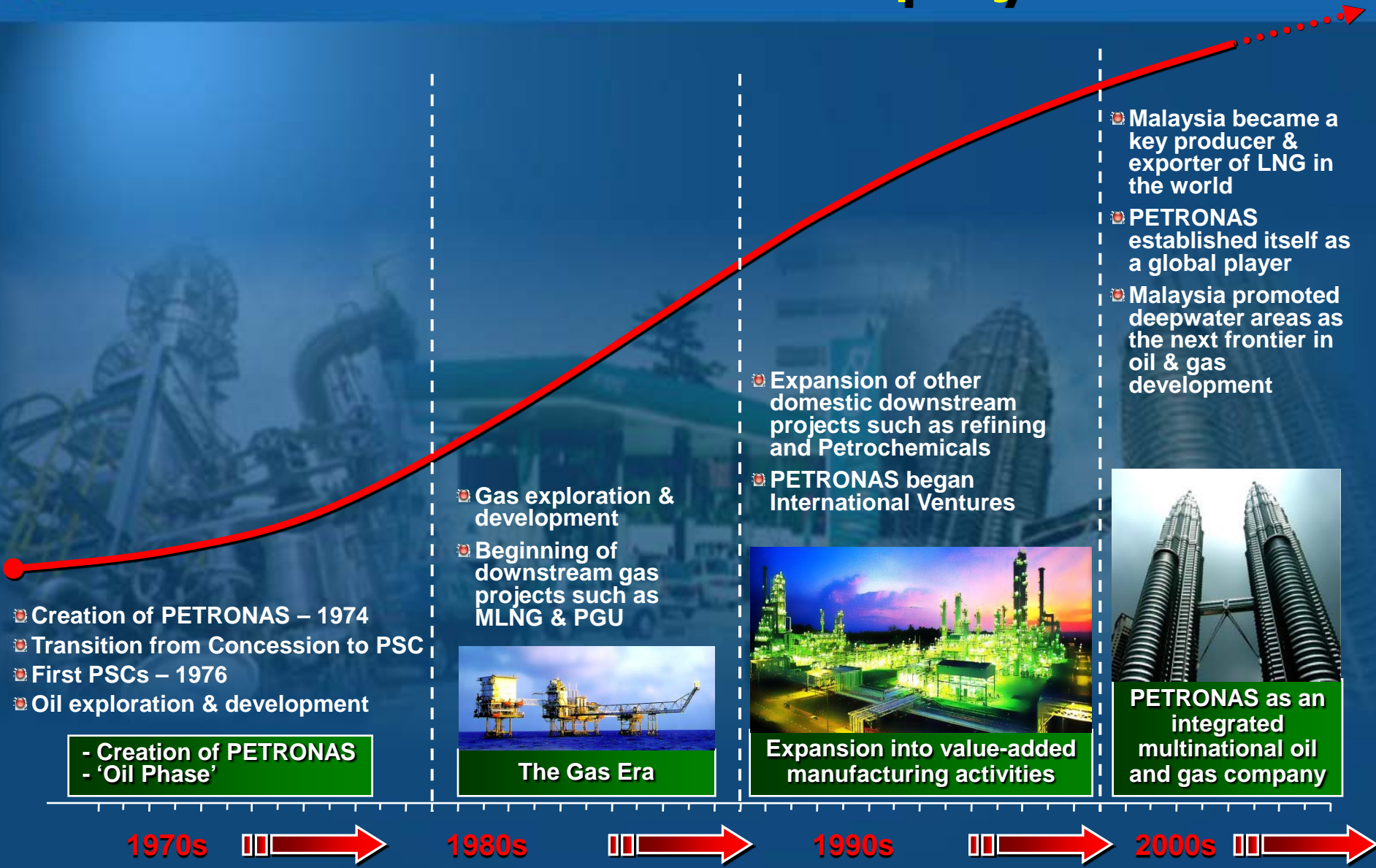


Petroleum Development Act 1974 (PDA)

- An Act to provide for exploration and exploitation of petroleum whether onshore or offshore by a corporation, named PETRONAS.
 - Has vested in PETRONAS the entire ownership in, and the exclusive rights, powers, liberties and privileges of exploring, exploiting, winning and obtaining petroleum, whether onshore or offshore of Malaysia.
 - In return for the ownership and vesting of the rights, powers, liberties and privileges, PETRONAS shall make cash payments to the Federal Government and the relevant State Governments.
- An Act to control the carrying on of downstream activities and development relating to petroleum and its products.
- An Act to provide for the establishment of a Corporation under the Companies Act 1965.
 - Has given creation to PETRONAS and the powers to operate as a business corporation.

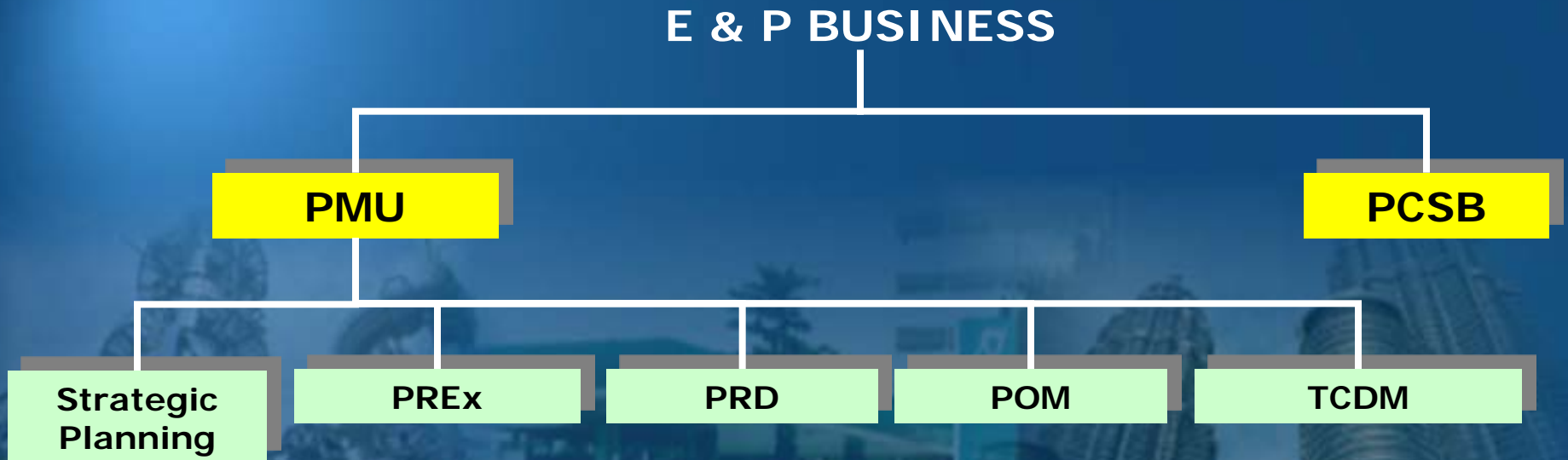


PETRONAS Evolves Over Three Decades into a Multinational Company





PETRONAS in Malaysian Upstream – How do We Organise...

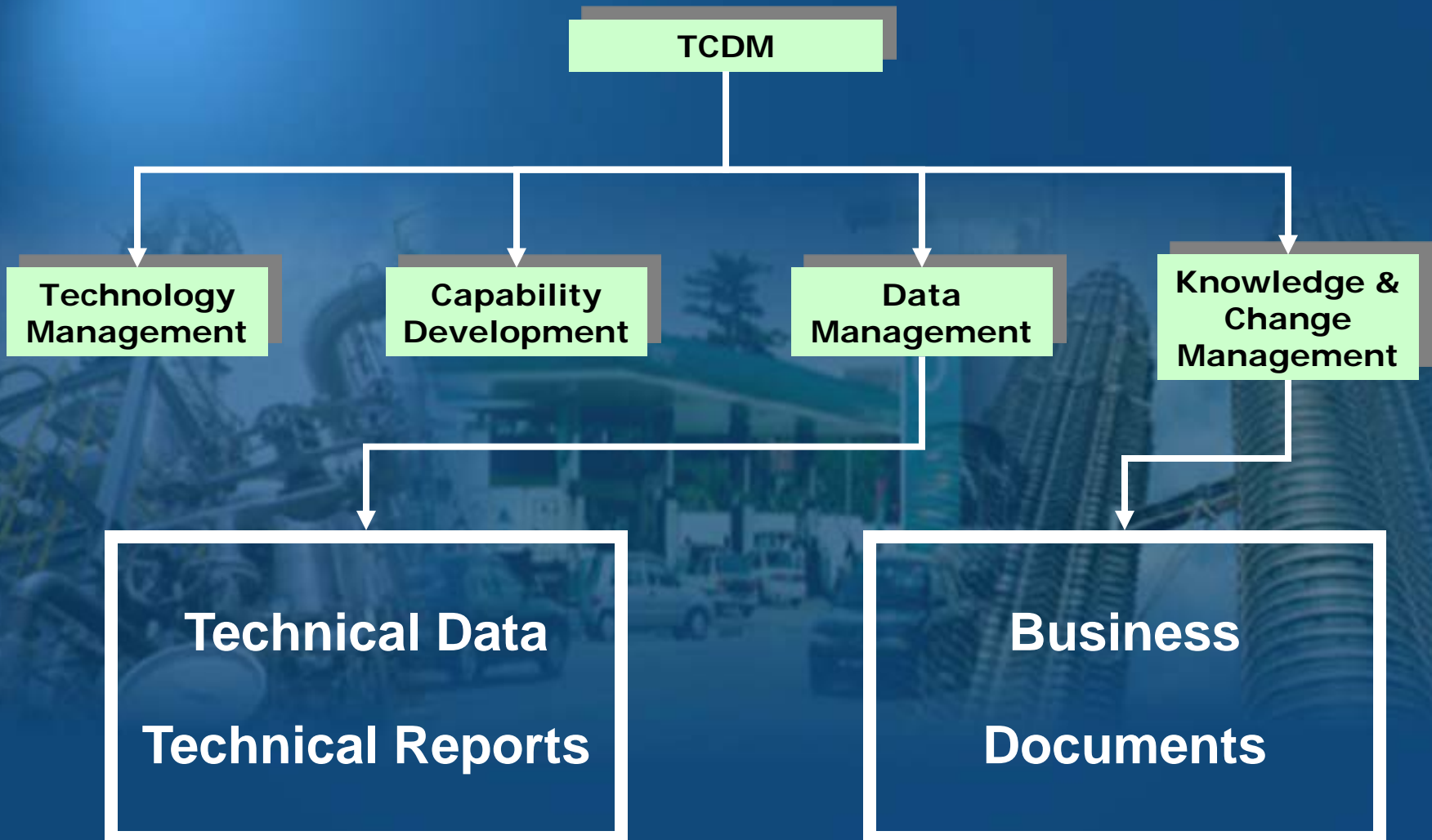


PMU – Petroleum Management Unit

PCSB – Petronas Carigali Sdn. Bhd



Document and Data Management





Technical Data & Documents: Process Flow

PS Contractors

Submit technical data and reports

PETRONAS Staff

Extract documents

Request thru System



Data Management

Receive & QC Data

Catalogue Data

Load data into specific databases

Archive tape / physical data at warehouse

EDMS

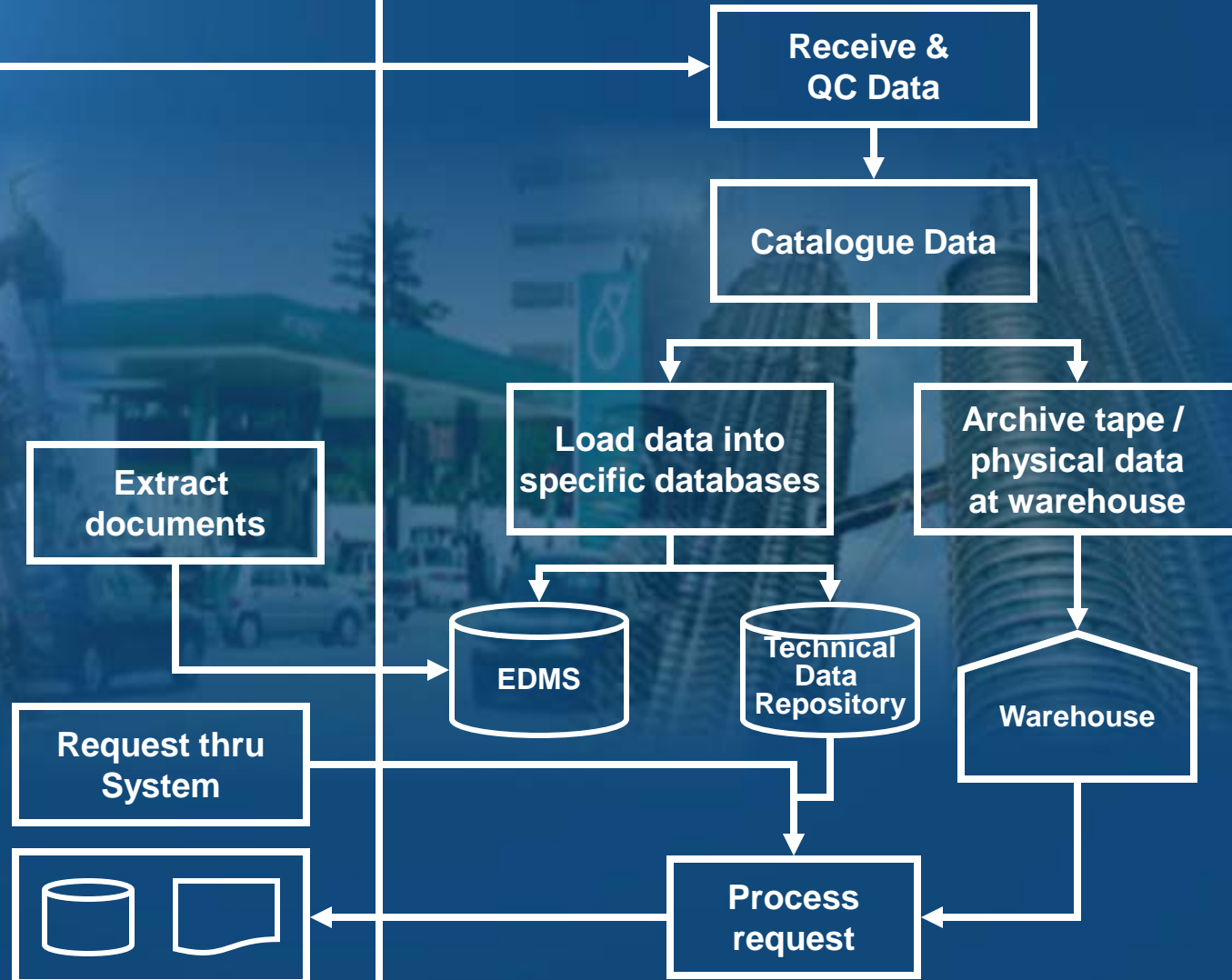
Technical Data Repository

Warehouse

Process request

Systems Used

Logdb
Prosource
eSearch
EDMS
Express
GIS



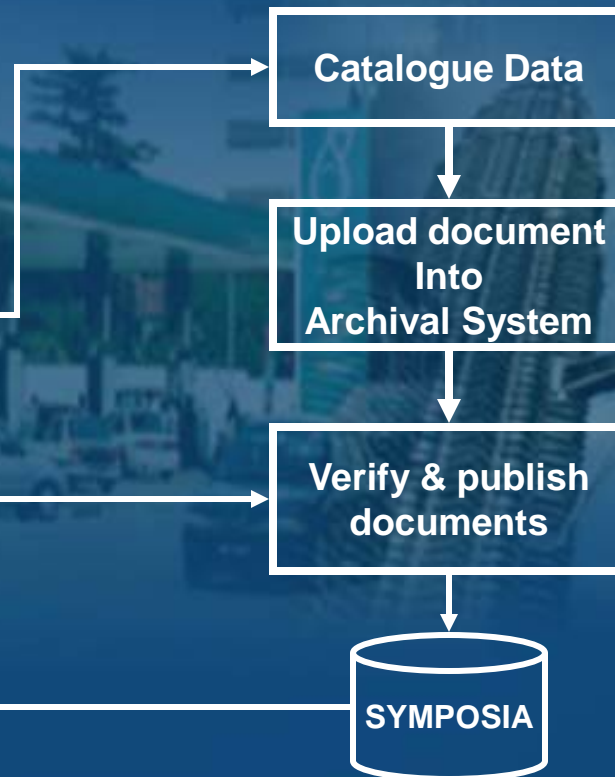


Business Documents: Process Flow

PMU Staff



Knowledge & Change Management



Systems Used

SYMPOSIA
Sharepoint



Taxonomy / Structure

Technical

- Technical Documents
 - By country
 - By areas
- Technical E&P Data
 - Data types (Seismic, Logs, Engineering drawings, etc)
 - By country
 - By areas / blocks

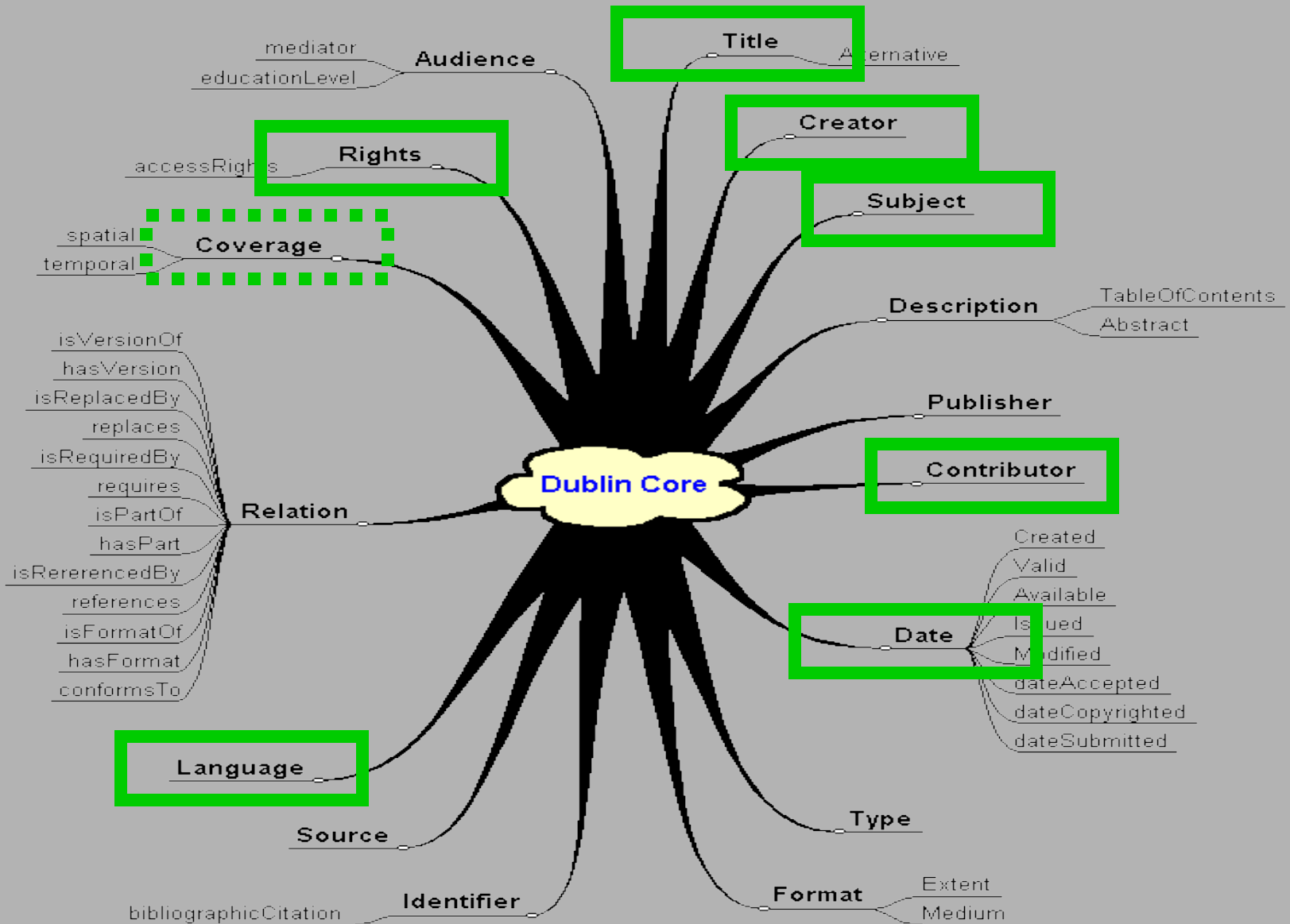
Business

- Multiple taxonomies
 - By Departments
 - By Sections
 - Common folders



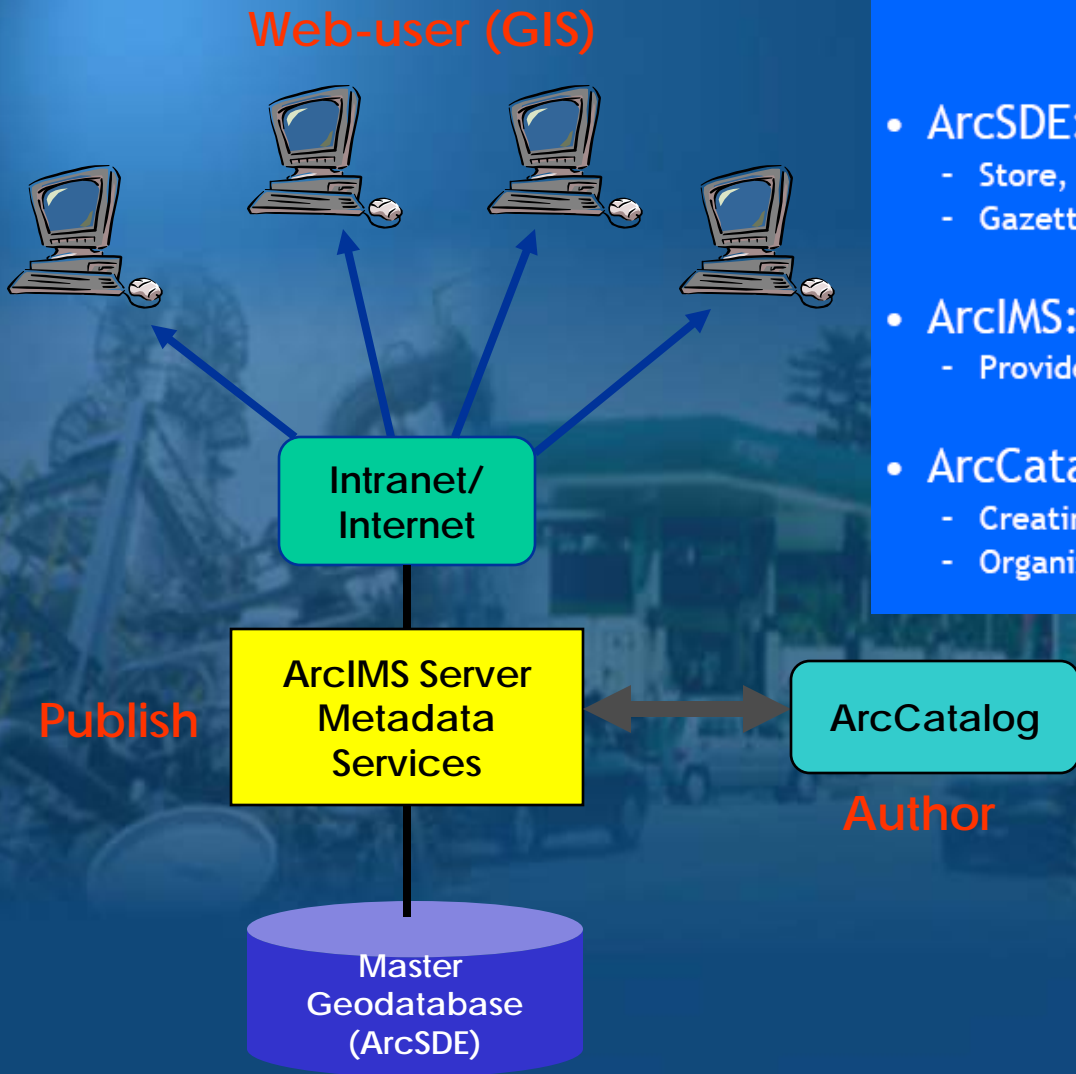
Metadata Standard: Dublin Core Metadata

Adopt Selected Simple DC





Technical Documents: GIS Metadata

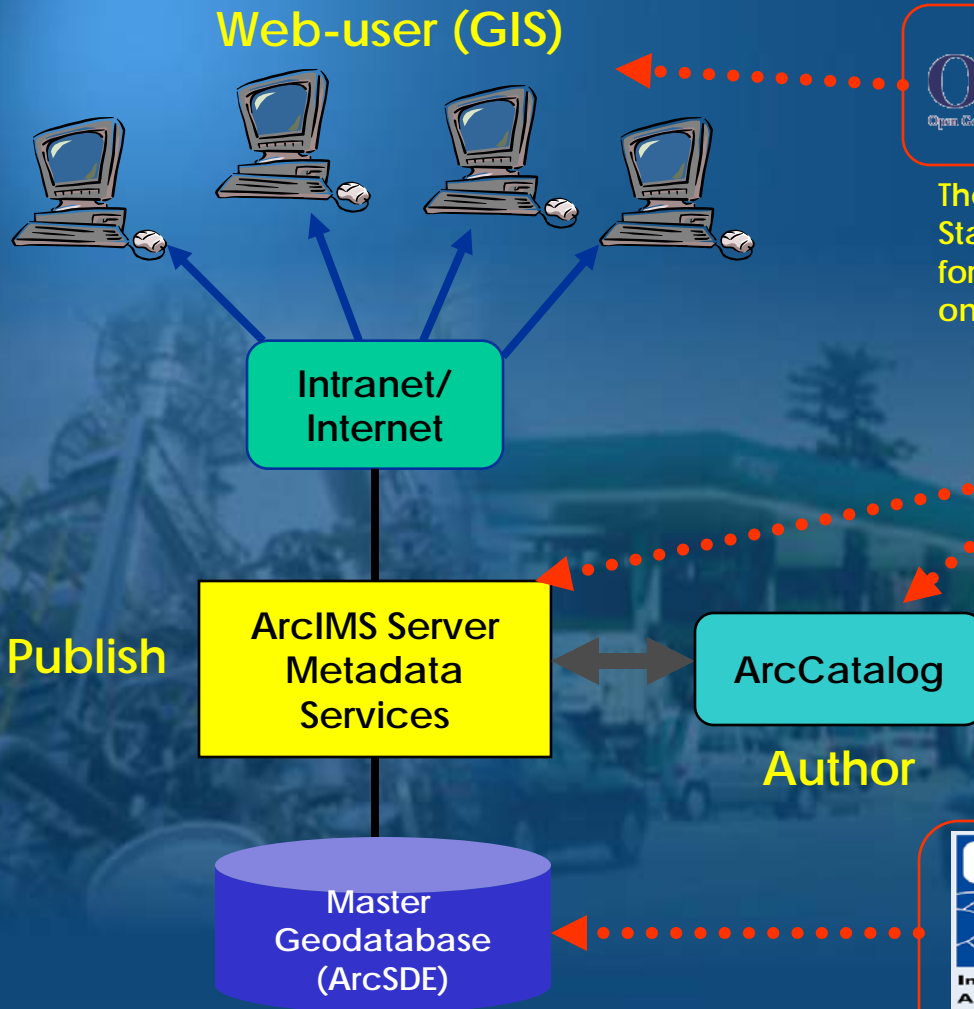


Components:

- **ArcSDE:**
 - Store, Search, Index, Retrieve metadata documents
 - Gazetteer repository
- **ArcIMS:**
 - Provides online client/server interaction
- **ArcCatalog:**
 - Creating, Editing, Publishing metadata
 - Organizing, Managing published metadata



Technical Documents: GIS Metadata



Open geospatial Consortium (OGC)
Standards for web and catalogue services

The OpenGIS® Web Map Service Interface Standard (WMS) provides a simple HTTP interface for requesting geo-registered map images from one or more distributed geospatial databases.



ISO standards for GIS metadata (ISO19115)

ISO 19115:2003 defines the schema required for describing geographic information and services. It provides information about the identification, the extent, the quality, the spatial and temporal schema, spatial reference, and distribution of digital geographic data



OGP-Surveying & Positioning Committee standards for coordinate reference system definition and transformations

Ensure accuracy & reliability coordinate systems/parameters of the data inside Geodatabase



Challenges

Technical

- Lack of manpower (data specialist)
- Untimely data availability

Business

- Staff working culture & discipline
 - From C-Drive to Centralized Platform
 - Documents are cluttered and disorganized
- Lack of manpower to carry out system roll-out
- Difficult to establish effective master taxonomy



Future Plans

- To review and integrate our business process to enable effective communication with users
- To review and integrate technical and business documents seamlessly



Recommendations

- CCOP to form a committee responsible in benchmarking, establishing and maintaining a standard metadata and data dictionary to be used or referred by member countries.
- The acquired knowledge from this CCOP workshop will be made available and shared among staff member countries through knowledge sharing event



Questions & Answer Session

