

A metadata registry for Japanese construction field

LCDM Forum, Japan
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LCDM Forum, Japan

- LCDM Forum, Japan
 - Non-profit task force led by private companies
 - Construction industry, IT industry, and public sector members
- Goal
 - Deploy information infrastructure to construction IT field
 - Realize data sharing and system collaboration all through the construction life-cycle
- Schedule of LCDM Forum
 - 2 years : Feb 2005 – Jan 2007

*LCDM: Life Cycle Data Management

Main activities of LCDM Forum



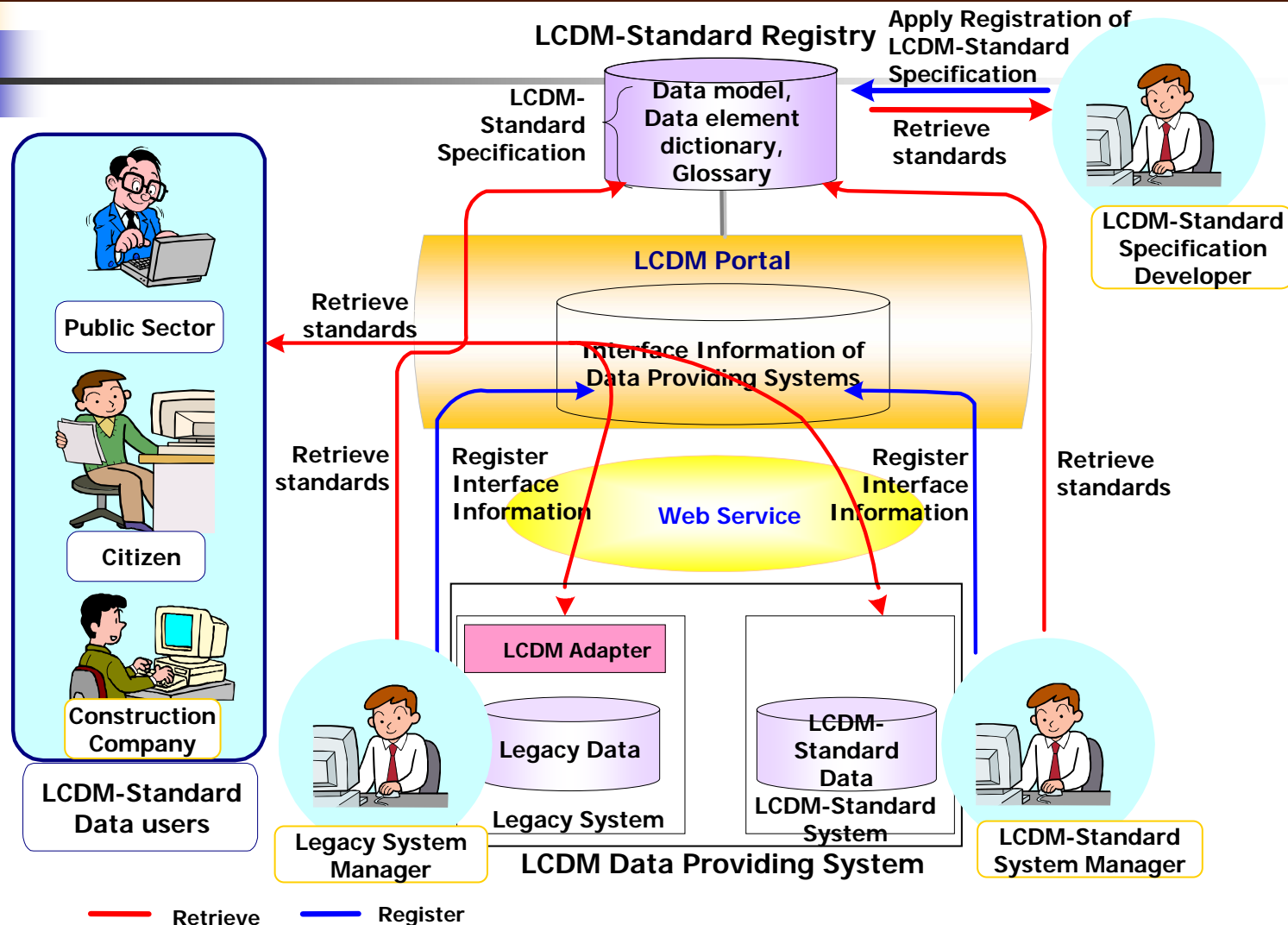
- Develop specification of LCDM information infrastructure on which information resources circulate.
- Create new business models and opportunities for construction industry
- Promote LCDM concept as information infrastructure
- Propose new standards to international standardization bodies in cooperation with task forces and organizations all over the world.

Goals of LCDM Forum



- Establish maintenance function of information standard
- Realize data management all through the lifecycle
- Leverage return of investment related to information technology
- Establish IT infrastructure for Japanese construction industry in order to expand their businesses toward East Asian market.

Overview of LCDM system(1of2)



Overview of LCDM system (2of2)



LCDM Registry

- Standards are made public in Registry. New standards must be made based on registered ones, harmonizing with them.
- Registration of standards is under loose control to a certain degree.

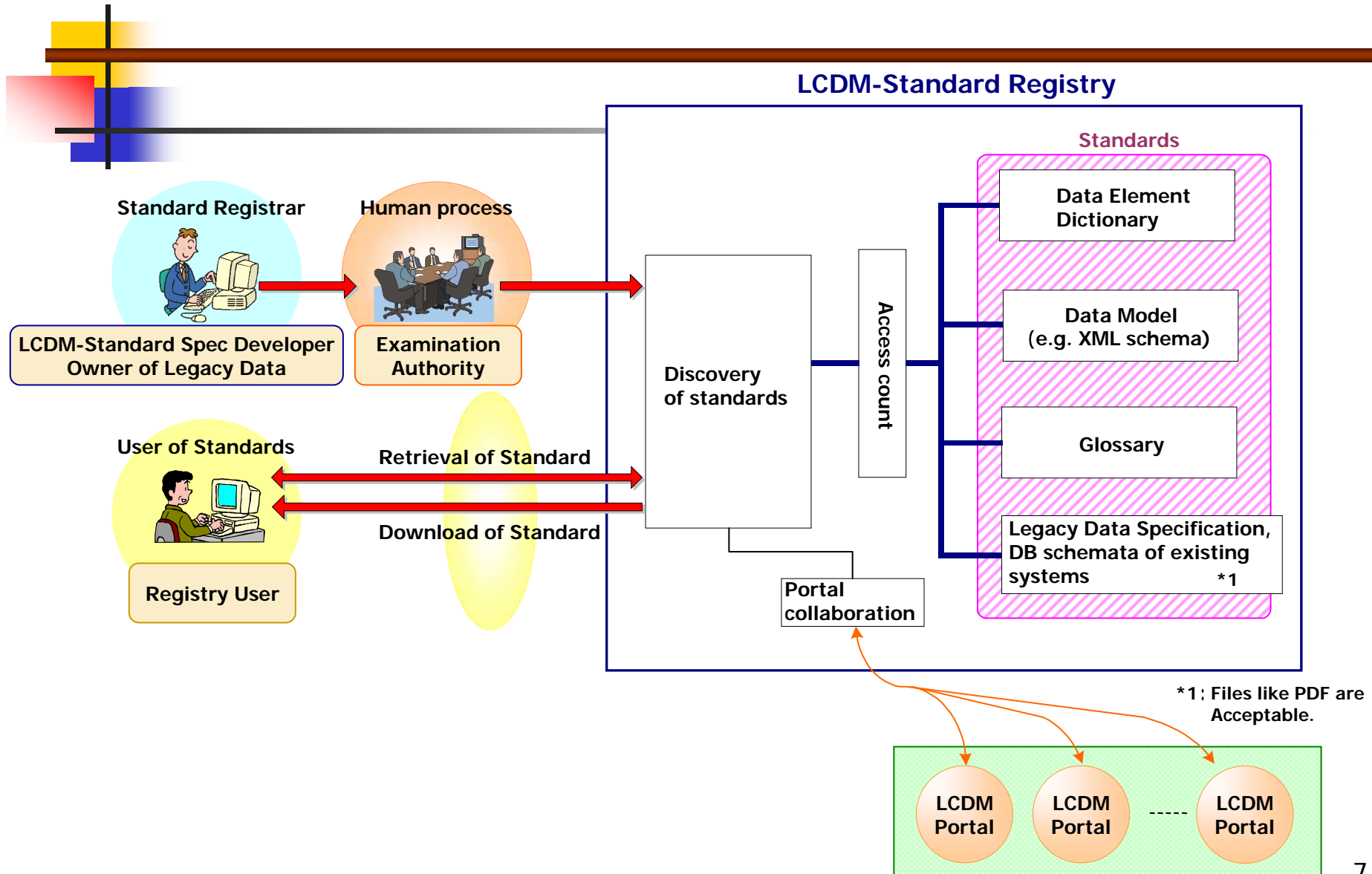
LCDM Portal

- Users access Portal to retrieve and acquire the data they need.
- Data providers register information related to the data they provide (Interface Information) to Portal.

LCDM Data Providing System

- Application developers refer to the standards registered in Registry when they develop new systems.
- Data in DB of legacy systems (non-standard) are transformed into LCDM-Standard data with Adapter. Legacy systems do not need to be rebuild.

Operation of LCDM Registry(1of2)



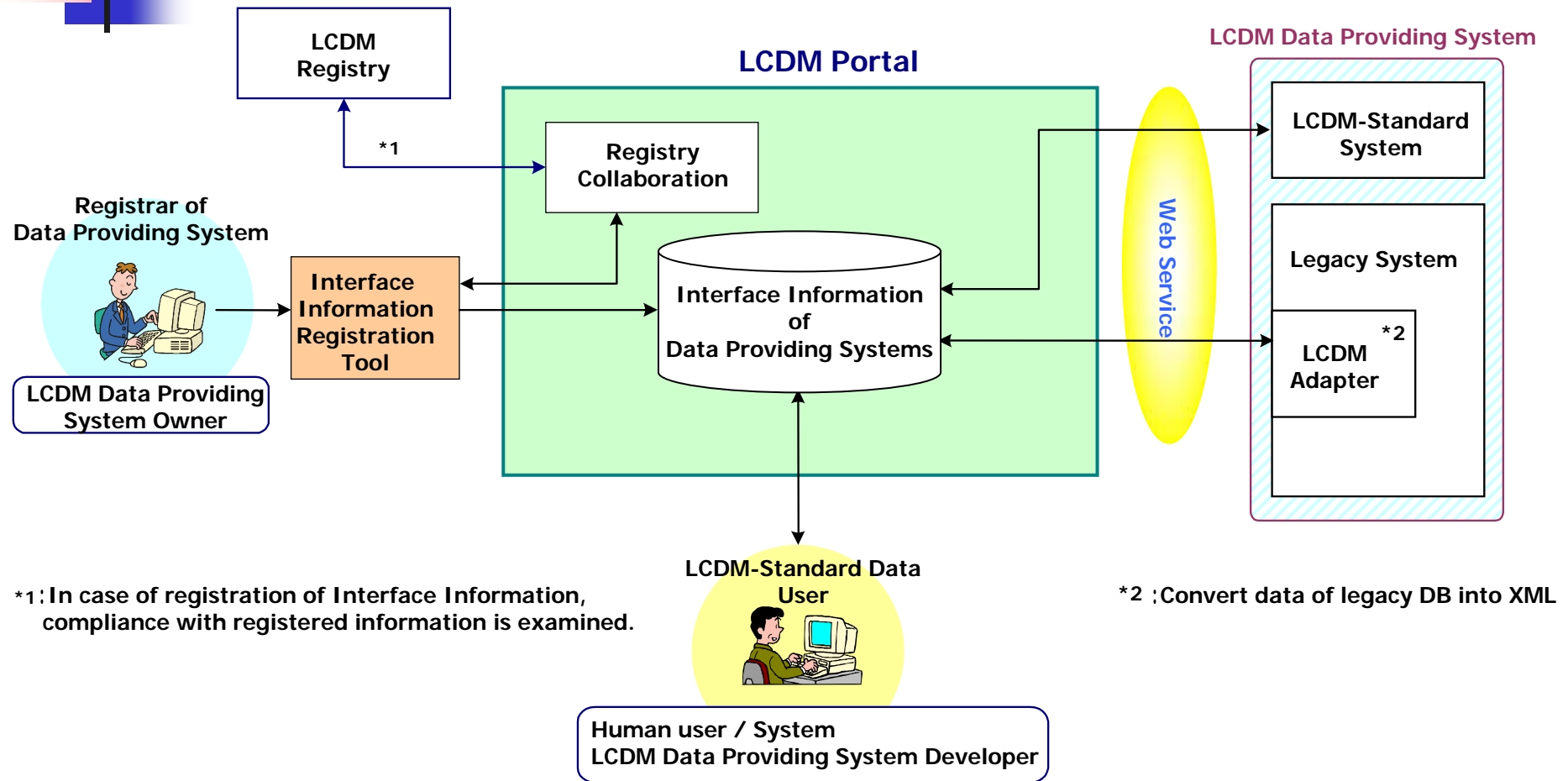
Operation of LCDM Registry(2of2)



■ **Raison d'être of LCDM Registry**

- (1) Make visible who, what, and where about data standards.
 - (2) Re-use registered prior standards to develop new ones efficiently.
- One LCDM-Standard Registry in construction field for the time being
- Registration to LCDM Registry goes through human examination process by Examination Authority.
- Registry accepts not only XML-based standards, but also DB schemata of legacy systems.
- Registry accepts not only re-usable(machine-readable) format, but also human-readable format like PDF.
- Registry accepts multiple standards in the same area.
- Registry users can see how often each standard is referred to, promoting de facto standard.

Operation of LCDM Portal(1of2)



Operation of LCDM Portal(2of2)



■ Raison d'être of LCDM Portal

- (1) Administer what kind of data that portal can deliver and where they locate.
 - (2) Collaborate Registry when Data Providing Systems are registered to Portal, checking if they are based on registered standards.
- In the future, system collaboration through services will be realized based on SOA (Service-Oriented Architecture).
 - Interface Information Registration Tool is used to register Data Providing Systems to Portals.

Organization chart of LCDM Forum

