次世代プロジェクト管理データ交換アーキテクチャ協議会

PROMIS Architecture

PROject Management Information exchange Services Architecture

PROMIS Project:
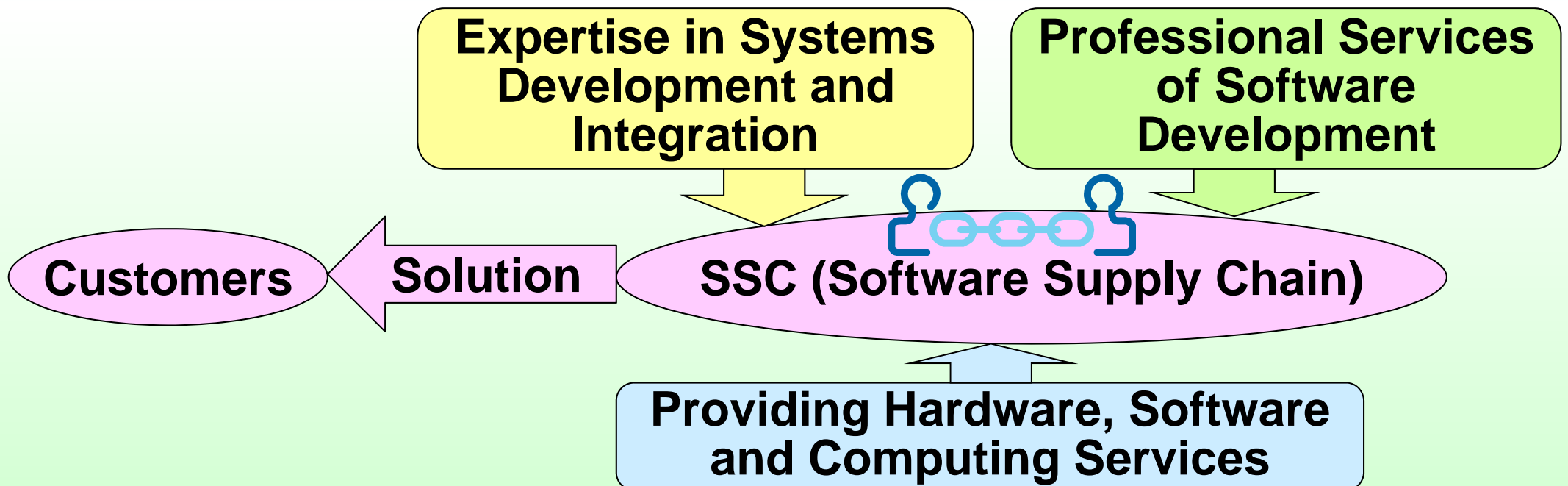# Mission, Strategy, Technology, and Collaboration with OSLC

Mikio Aoyama (Nanzan University),
Tsutomu Kamimura (IBM), Kazuo Yabuta, Hiroyuki Yoshida (Fujitsu),
Takashi Niwa(NTT DATA), Toshiya Chiba (Hitachi), Hiroshi Noto (NRI)

1

Mission of PROMIS
PROMIS Makes SSC(Software Supply Chain) Viable

☞ **SSC has been a common practice in Japan**

- **Up to some 1,000 people in a systems development over a SSC**
- **Project management is still a challenge**

☞ **PROMIS visualizes project along with SSC, and makes management smarter: real-time, responsive, and flexible**

Expertise in Systems Development and Integration	Professional Services of Software Development

Customers ← **Solution** ← **SSC (Software Supply Chain)**

Providing Hardware, Software and Computing Services

About PROMIS

☞ **Organization: Next-Generation Project Management Data Exchange Architecture Consortium**

☞ **Technology: PROMIS(PROject Management Information exchange Services)**

☞ **Foundation: May 21, 2012**

☞ **Members**

- **Nanzan University,**
- **IBM Japan, Ltd.,**
- **Fujitsu Limited,**
- **NEC Corporation,**
- **NTT Data Corporation,**
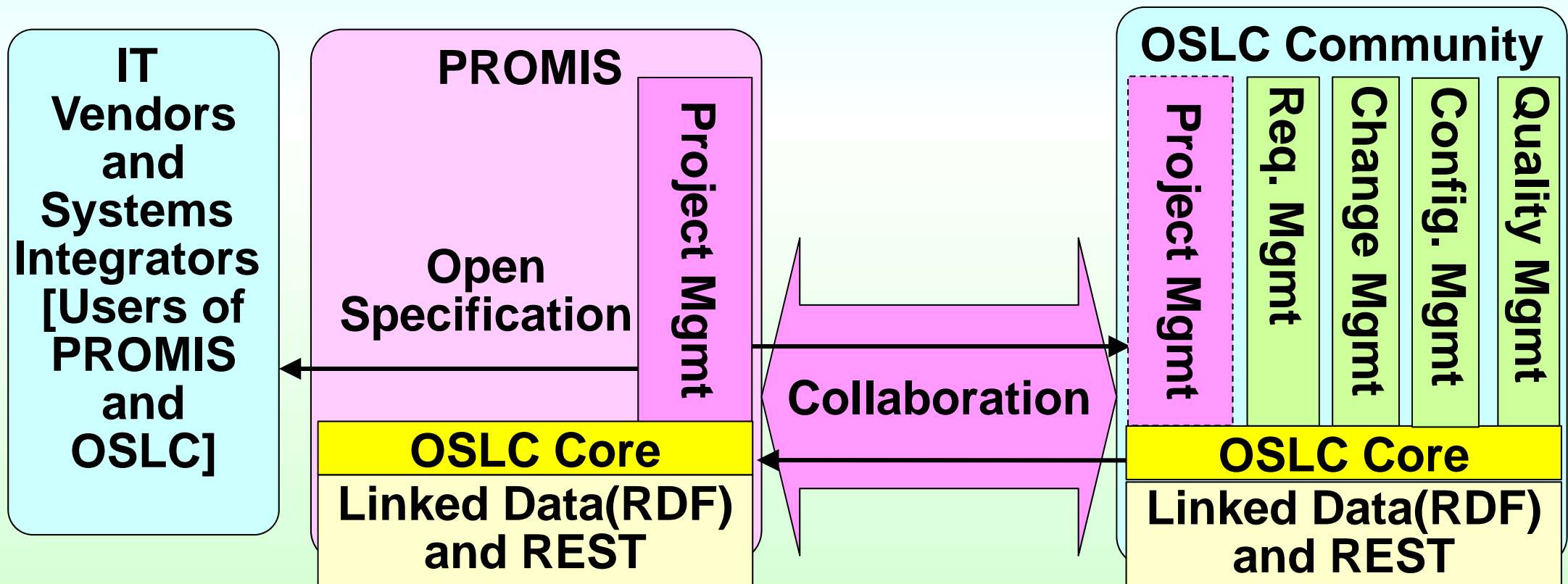- **Hitachi, Ltd., and**
- **Nomura Research Institute, Ltd**

A Scene of PROMIS Meeting at IBM Japan

OSLC and PROMIS

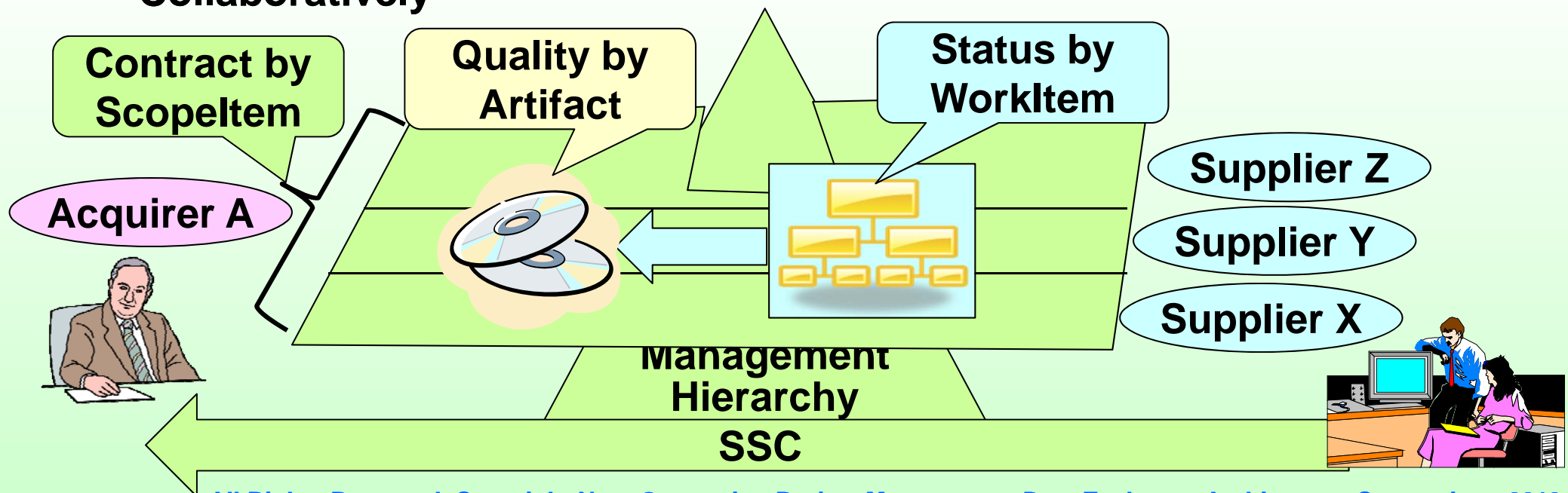☞ **Facilitating Collaboration by Collaboration**
☞ **PROMIS Platform is Implemented on Top of OSLC Core**

4 RDF: Resource Description Framework, REST: REpresentational State Transfer
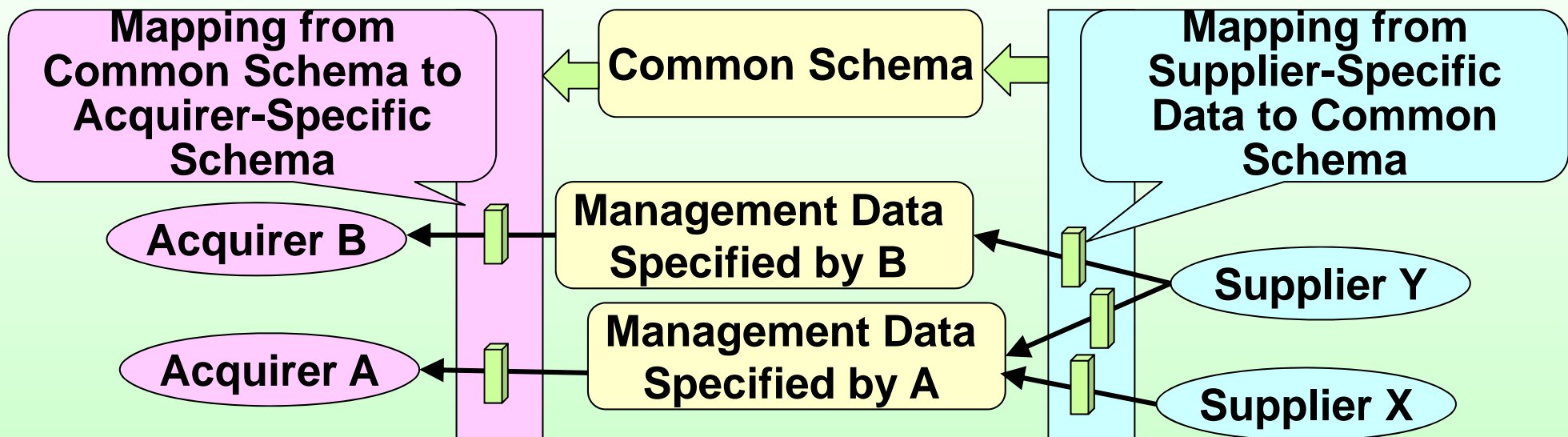
PROMIS Strategy
Collaborative Management

☞ **Management across the Organizational Boundaries**

☞ **Just a Contract is Not Enough**

　☝ **Failure of One Supplier May Cause a Break of the Entire SSC**

☞ **Win-Win Approach: Collaborative Managing along with SSC**

　☝ **Share the *Triple* Management Information at an Appropriate Level**

　☝ **ScopeItem, WorkItem, Artifact**

　☝ **Agile Feedback: Predict "Bad Smell" and Solve the Problems Collaboratively**

Contract by ScopeItem

Quality by Artifact

Status by WorkItem

Acquirer A

Supplier Z

Supplier Y

Supplier X

Management Hierarchy

SSC

PROMIS Technology
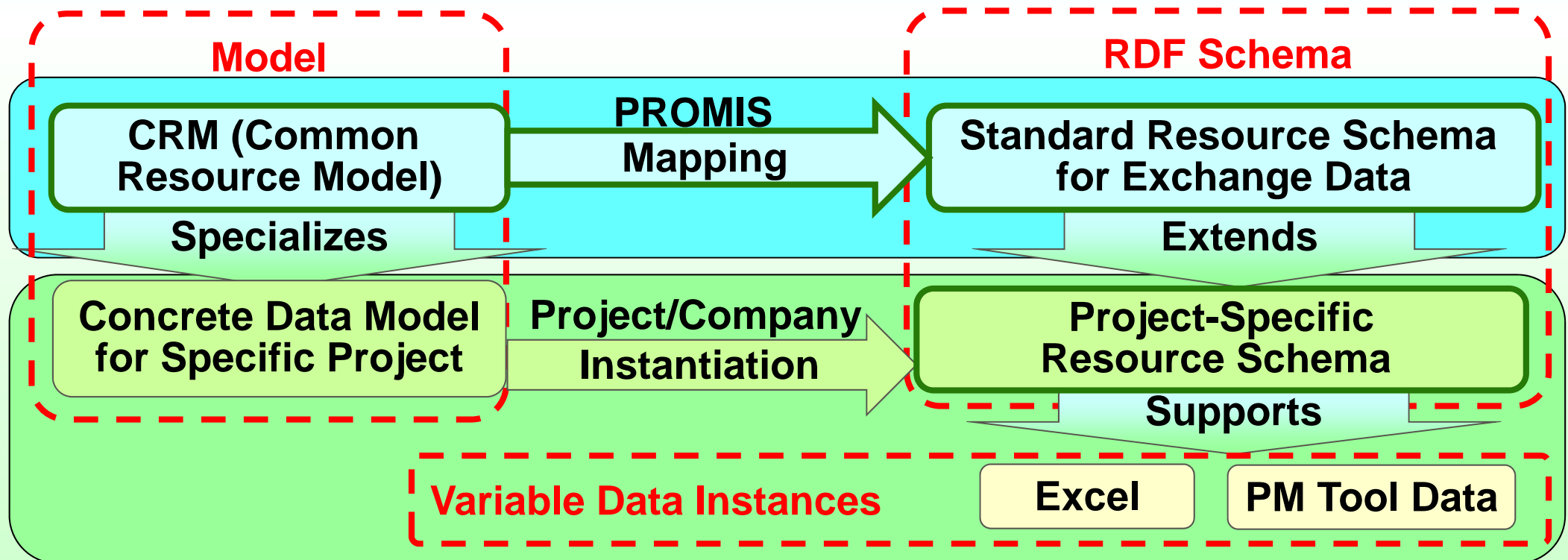# PROMIS Modeling Framework and Platform

☞ **Enabling to Exchanging Management Data of Different Schema**

- ☝ **Pattern 1: Multiple Suppliers (X, Y) have to provide a data in the schema of Acquirer (A)**

- ☝ **Pattern 2: A Single Supplier (Y) has to provide data to multiple different schemas of different Acquirers (A, B)**

☞ **Define Common RDF Schema to Exchange Data, and Provide Mappers to Map between Project Specific Data and Common RDF Schema**

Mapping from Common Schema to Acquirer-Specific Schema

Common Schema

Mapping from Supplier-Specific Data to Common Schema

Acquirer B

Management Data Specified by B

Supplier Y

Acquirer A

Management Data Specified by A

Supplier X

6

PROMIS Technology
PROMIS Modeling Framework

☞ **Taming variability of management across SSC**

☞ **Common Schema for Global Data Exchange across Project**

- ☞ **CRM(Common Resource Model): Schema for Project Management**
- ☞ **Standard Resource Schema: Mapping CRM to RDF**

☞ **Project-Specific Schema for Data Exchange in a Project**

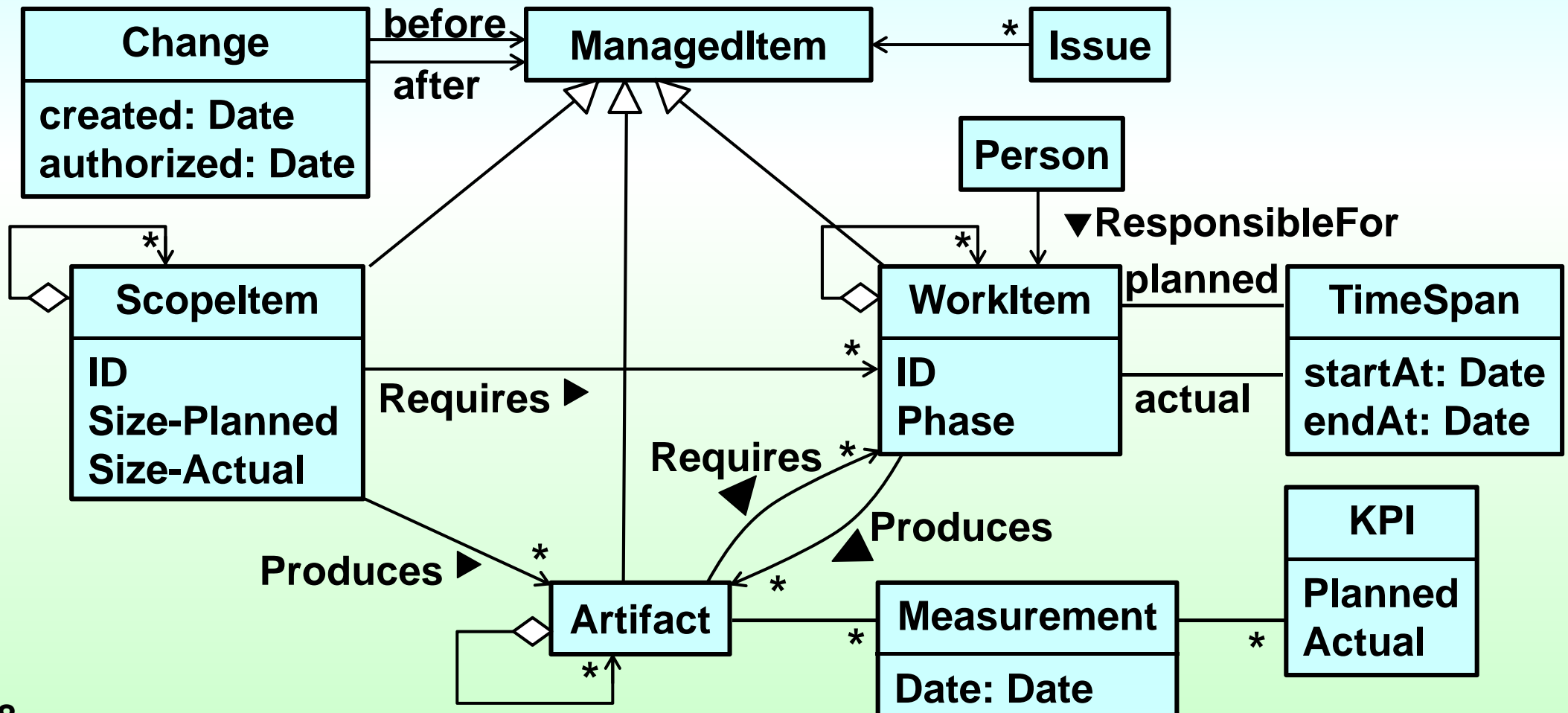- ☞ **Project-Specific Resource Schema supports data exchange across tools**

Model   **RDF Schema**

| CRM (Common Resource Model) | → **PROMIS Mapping** → | Standard Resource Schema for Exchange Data |

Specializes   **Extends**

| Concrete Data Model for Specific Project | **Project/Company Instantiation** → | Project-Specific Resource Schema |

Supports

Variable Data Instances   Excel   PM Tool Data

7

PROMIS Technology
Common Resource Model

☞ **Model by Extensive Review of Real Project Data from Members**

- **ScopeItem: Unit of Contract of Development**
- **WorkItem: Unit of Work, e.g. Phase, Process, and Activity**
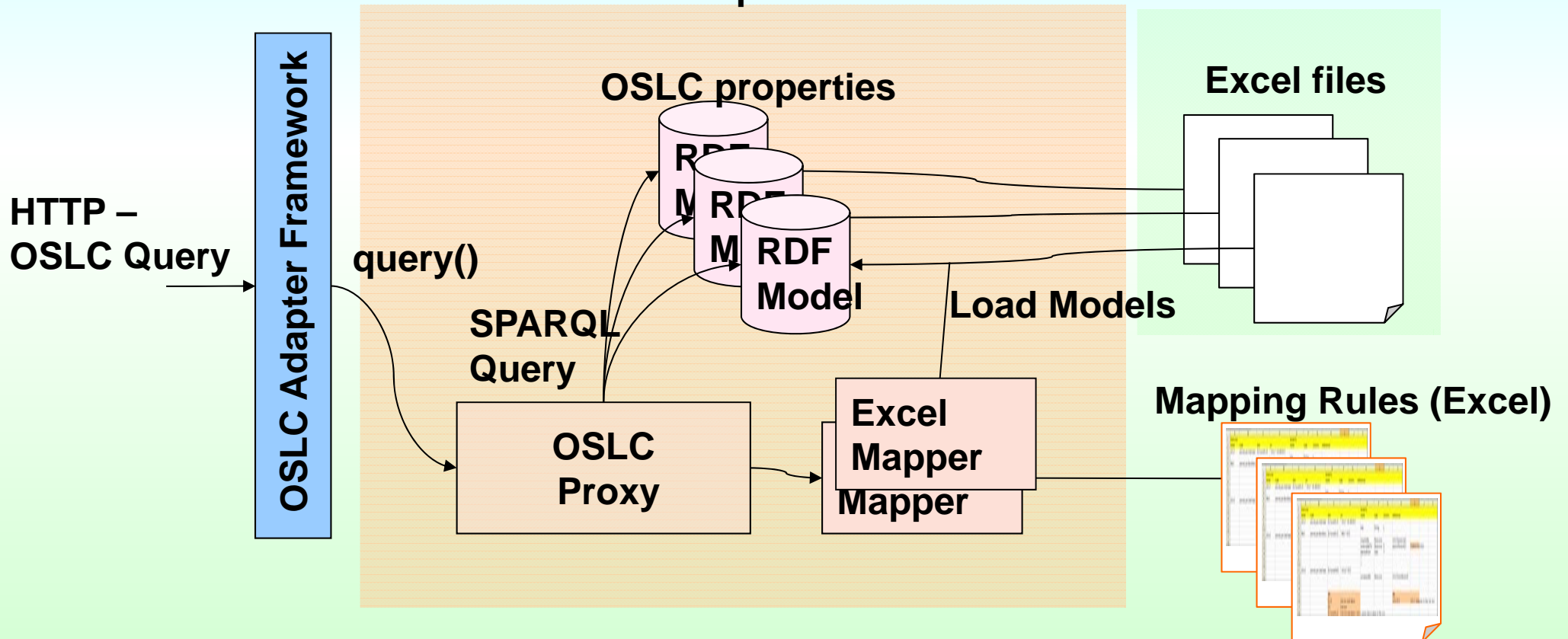- **Artifact: Unit of Outcome Produced from WorkItem**

PROMIS Technology
PROMIS Platform

☞ **Support to Intensive Use of Excel Data**

To Be Revised

PROMIS Adapter for Excel

OSLC Adapter Framework

HTTP – OSLC Query

query()

OSLC properties

RDF Model

RDF Model

RDF Model

Excel files

SPARQL Query

Load Models

OSLC Proxy

Excel Mapper Mapper

Mapping Rules (Excel)

Experiences and Feedbacks

☞ **TBA**

Future Roadmap of PROMIS

☞**TBA**

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PROMIS Architecture

PROject Management Information exchange Services Architecture

Jun. 5th (Wed) 1:45-2:45 pm
SSC-1131
PROMIS Project: Toward a Flexible
Network of Vendors in Software
Supply Chains with a Standard of
Project Management Information

Thank You for Your Attentions !

PROMIS Consortium

**Nanzan University, IBM Japan, Ltd.
Fujitsu Limited, NEC Corporation, NTT Data Corporation
Hitachi, Ltd., and Nomura Research Institute, Ltd**

12