

# Building an Infrastructure to enhance semantic interoperability

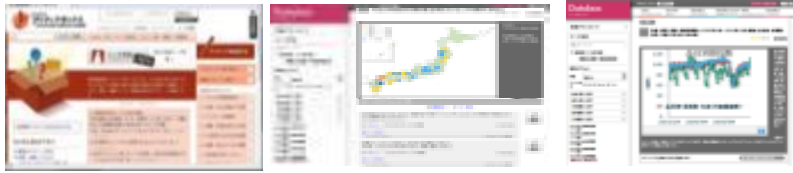
## JAPAN

Kenji Hiramoto, Chief Strategist, Cabinet Secretariat

(presenter) Shuichi Tashiro, General Manager of Information Promotion Agency

# Short History

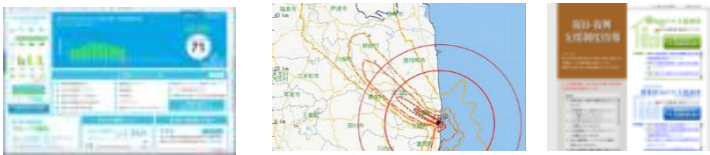
## Projects



2010.9 databox (opendata service)  
ideabox (open government)

## — Great East Japan Earthquake —

2011.4 Bigdata analysis for recovery  
2011.7 Energy conservation project(open data, API)



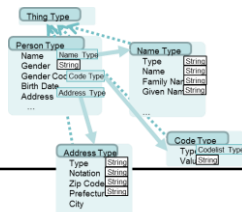
2012.1 Recovery and Reconstruction Support Program Database (open data, API)

2013.11 IMI pilot project started

2014.9 data.go.jp



2015.2 IMI core vocabulary



**IMI** Infrastructure for Multi-layer Interoperability

## Policy Papers

2010

2010.5 New IT Strategy

2011

2011.8 Principal for promoting eGovernment

2012

2012.7 Open government data strategy

2013

2013.6 Declaration to be the World's Most Advanced IT Nation

2014

2014.4 Action Plan for Open Government Infrastructure

2015

2015.6 Declaration to be the World's Most Advanced IT Nation, III

2016

# Infrastructure for Multilayer Interoperability (IMI)

"Infrastructure for Multilayer Interoperability" aims to enhance "semantic level" interoperability for various data by creating a reference dictionary of terms and as a result, serves as an infrastructure to facilitate cooperation between systems and use of open data.

**Core vocabulary / Data template**

Item No.	Item Name	Item Code	Item Description	Item Unit	Item Category	Item Status	Item Remark
1	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...
3	...	...	...	...	...	...	...
4	...	...	...	...	...	...	...
5	...	...	...	...	...	...	...
6	...	...	...	...	...	...	...
7	...	...	...	...	...	...	...
8	...	...	...	...	...	...	...
9	...	...	...	...	...	...	...
10	...	...	...	...	...	...	...



## System Interoperability



Establish cooperation between systems using Information Exchange Package.

- High-speed information linkage
- Improvement of efficiency of design



## Open Data

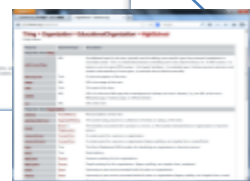


Identify semantics with vocabularies, and extract information from Information Exchange Package.

- Improvement of efficiency of service design
- Stable information linkage



## Search

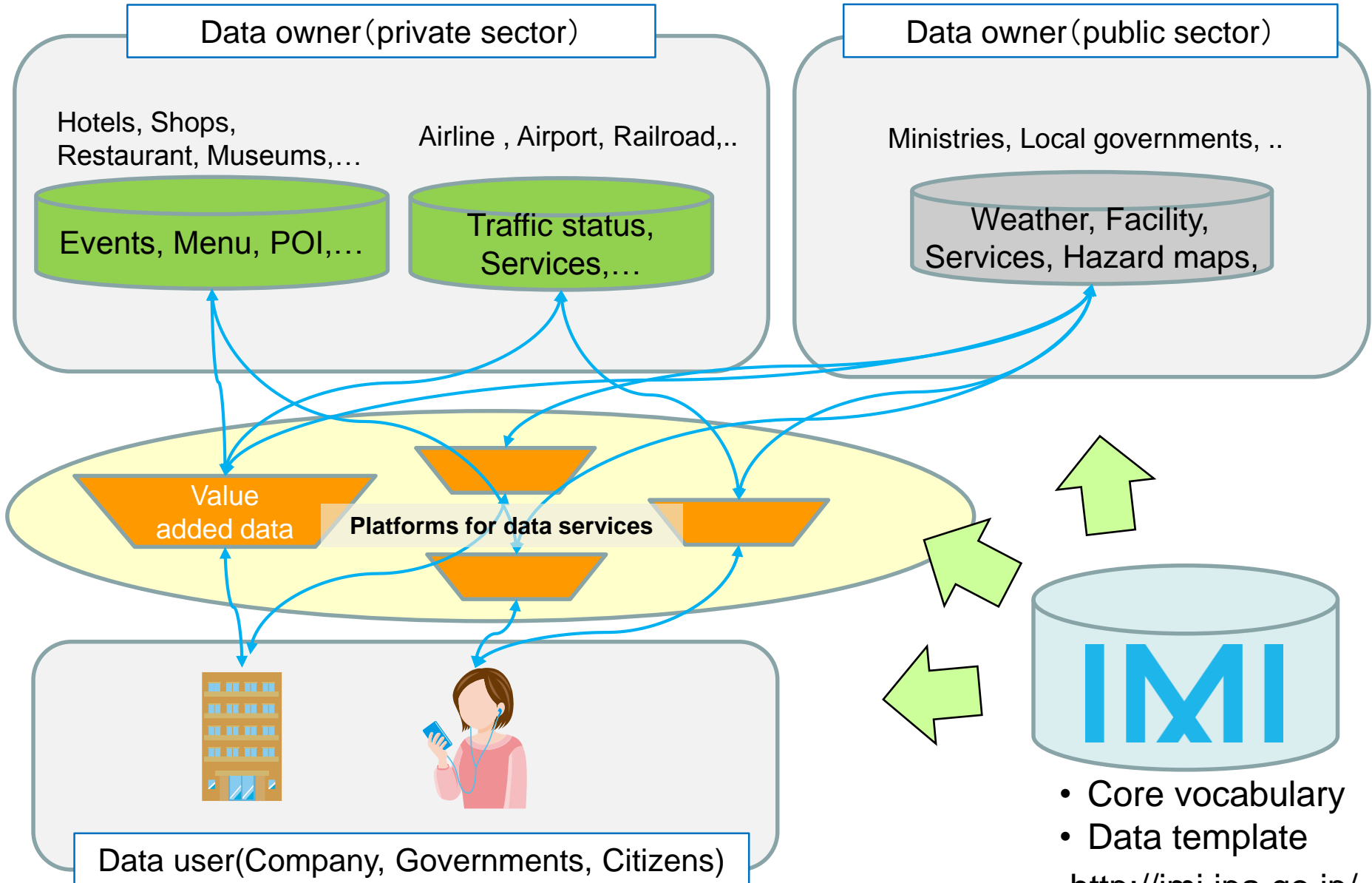


Perform efficient search by having relationship between vocabularies organized.

- Improvement of convenience of search
- Achievement of effective PR

Schema.org  
Structured data markup schema supported by major search engines.

# Example : Social / Economic impact in tourism



- Core vocabulary
  - Data template
- <http://imi.ipa.go.jp/>