



软件工程
国家重点实验室(武汉大学)
STATE KEY LAB OF SOFTWARE ENGINEERING (WUHAN UNIVERSITY)

Discussion about MFI-8: Metamodel for Role and Goal Registration

Wang Jian, He Keqing,
He Yangfan, Wang Chong
SKLSE, Wuhan University, P.R. China
2009.8.21

Outline

- Background
- Content of MFI-8
- Future Work

Outline

- Background
- Content of MFI-8
- Future Work

What are Role and Goal?

- A role is abstract characterizations of organizational behaviours and responsibilities within specified organizational context.
 - Description of roles will be helpful in characterizing goals in a more complete and correct way.
- A goal is a descriptive statement of business intent of a user or an organization, and it can be viewed as an objective that the business system under consideration should achieve.

Motivation

- In the development of local and distributed information systems, roles and goals are two important factors.
 - Roles can be used to analyze the interaction between the stakeholders and the system to be built, and hence help to identify the objectives of the system.
 - Goals provide a way for describing business processes at a higher abstraction level.
 - Effective management of roles and goals contributes to reusing information resources with greater granularity.

Scope of ISO/IEC 19763-8

Scope

- This part of ISO/IEC 19763 specifies a metamodel for registering users' roles and goals in specific domains that can be used to describe users' intention.
- The metamodel that this part specifies is intended to promote the reuse of domain information resources with greater granularity.
- It does not specify the business model for the elements of business plans, which is the focus of BMM.

From resolution of Wuhan Meeting, September, 2008

ISO/IEC JTC1 SC32 resolution of MFI-8

Resolution WG 2 / 2: SC 32/WG 2 Project Subdivisions

↵	ISO/IEC 19763-8 Information technology – Metamodel Framework for Interoperability (MFI) – Part 8: Metamodel for Role and Goal Registration↵	Keqing He↵	*2↵
---	---	------------	-----

Related Work

- FOAF
- RM-ODP
- BMM
- KAOS
- Tropos

FOAF(Friend of a Friend)

- FOAF is a machine-readable ontology describing **persons**, their activities, and their **relationships** to other people and objects.
- FOAF allows groups of people to **truly open social networks** without the need for a centralised database, which is an important contribution to the linked information system known as the Web.



An Example

```
<rdf:RDF xmlns:foaf="http://xmlns.com/foaf/0.1/"
  xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
  xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#">
  <foaf:Person rdf:about="#jw">
    <foaf:name>Jimmy Wales</foaf:name>
    <foaf:mbox rdf:resource="mailto:jwales@bomis.com" />
    <foaf:homepage rdf:resource="http://www.jimmywales.com/" />
    <foaf:nick>Jimbo</foaf:nick>
    <foaf:depiction rdf:resource="http://www.jimmywales.com/aus_img_small.jpg" />
    <foaf:interest rdf:resource="http://www.wikimedia.org"
      rdfs:label="Wikipedia" />
    <foaf:knows>
      <foaf:Person>
        <foaf:name>Angela Beesley</foaf:name>
      </foaf:Person>
    </foaf:knows>
    <foaf:knows>
      <foaf:Person>
        <foaf:name>Rachel Marsden</foaf:name>
      </foaf:Person>
    </foaf:knows>
  </foaf:Person>
</rdf:RDF>
```

**Social Profile information
of an actor in RGPS**

An Application of FOAF-DOAC (Description Of A Career)

```
<foaf:Person>
  <foaf:name>Ramon Antonio Parada</foaf:name>
  <foaf:mbox rdf:resource="mailto:rap@ramonantonio.net" />
  <foaf:homepage rdf:resource="http://ramonantonio.net/" />

  <doac:experience>
    <doac:VolunterExperience>
      <doac:title>Website Mantainer</doac:title>
      <doac:organization>Equus Zebra</doac:organization>
      <doac:start-date>2000-06-15</doac:start-date>
      <doac:end-date>2000-06-15</doac:end-date>
    </doac:VolunterExperience>
  </doac:experience>

  <doac:education>
    <doac:Degree>
      <doac:title>Systems Engineer</doac:title>
      <doac:organization>University of a Corunha</doac:organization>
      <doac:start-date>2000-10-01</doac:start-date>
      <doac:end-date>2006-06-15</doac:end-date>
    </doac:Degree>
  </doac:education>

  <doac:skill>
    <doac:LanguageSkill>
      <doac:language>es</doac:language>
      <doac:reads rdf:resource="http://ramonantonio.net/doac/0.1/#nativelevel"/>
      <doac:writes rdf:resource="http://ramonantonio.net/doac/0.1/#nativelevel"/>
      <doac:speaks rdf:resource="http://ramonantonio.net/doac/0.1/#nativelevel"/>
    </doac:LanguageSkill>
  </doac:skill>

  <doac:skill>
    <doac:LanguageSkill>
      <doac:language>en</doac:language>

      <doac:reads rdf:resource="http://ramonantonio.net/doac/0.1/#highlevel"/>
      <doac:writes rdf:resource="http://ramonantonio.net/doac/0.1/#highlevel"/>
      <doac:speaks rdf:resource="http://ramonantonio.net/doac/0.1/#highlevel"/>
    </doac:LanguageSkill>
  </doac:skill>

</foaf:Person>
```

**Social Profile information
of an actor in RGPS**

DOAC is a vocabulary to descriptive professional capabilities of a worker. Business people can search the internet to find a worker that fits their requirements and be as easy as any search in Google.

Other applications:
Facebook, Twitter, etc

Enterprise View in RM-ODP

OPEN IT The enterprise specification

- Specifies the roles played by an IT system in its organisational environment
- An object model of a social/commercial organisation in terms of:
 - *enterprise objects*
 - *communities (of enterprise objects)*
 - objectives
 - behaviour
 - roles (fulfilled by *enterprise objects* in a *community*)
 - processes (meeting *objectives*)
 - Policy
 - ...



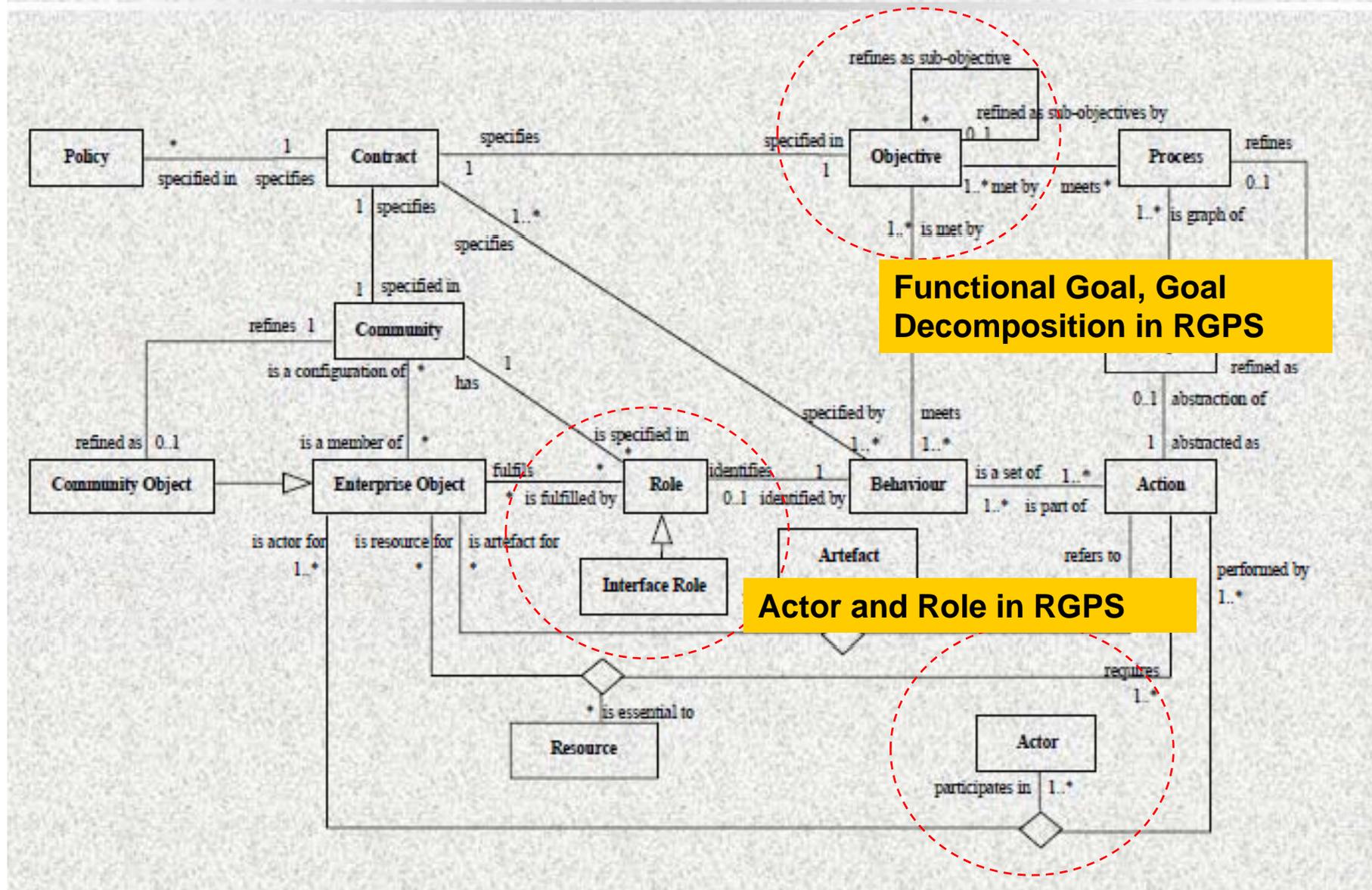
OMG MDA Users SIG, 14 April 2005 Copyright Open-IT Limited 2005 - Slide 7

R
G
P

Enterprise language

- **Role:** e.g. service provider, service user, resource manager, agent, artefact
- **Policy:** security, safety, objectives, contracts, codes of practice
- **Resource:** accounting
- **Community:** configuration of objects with **Functional Goal in RGPS** (contract)
- **Enterprise actions:**
 - incur an obligation
 - fulfil an obligation
 - waive an obligation
 - acquire permission
 - be forbidden**Nonfunctional Goal in RGPS**
- **OO flavour for alignment with computational viewpoint**
 - Enterprise specification determines the purpose, scope and policies for a system, which consists of roles and policies with respect to the reference point.

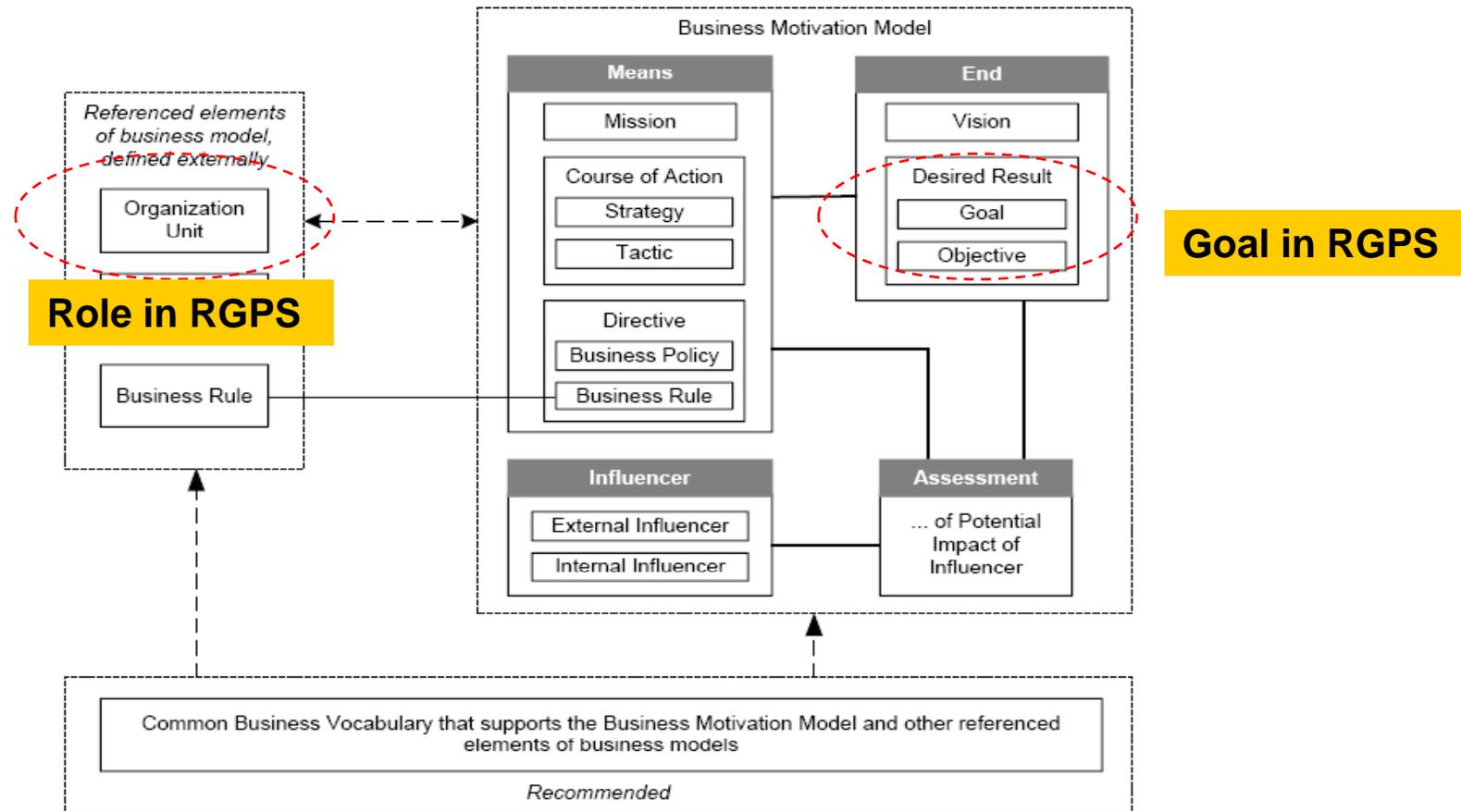
Enterprise metamodel (excerpt)



Functional Goal, Goal Decomposition in RGPS

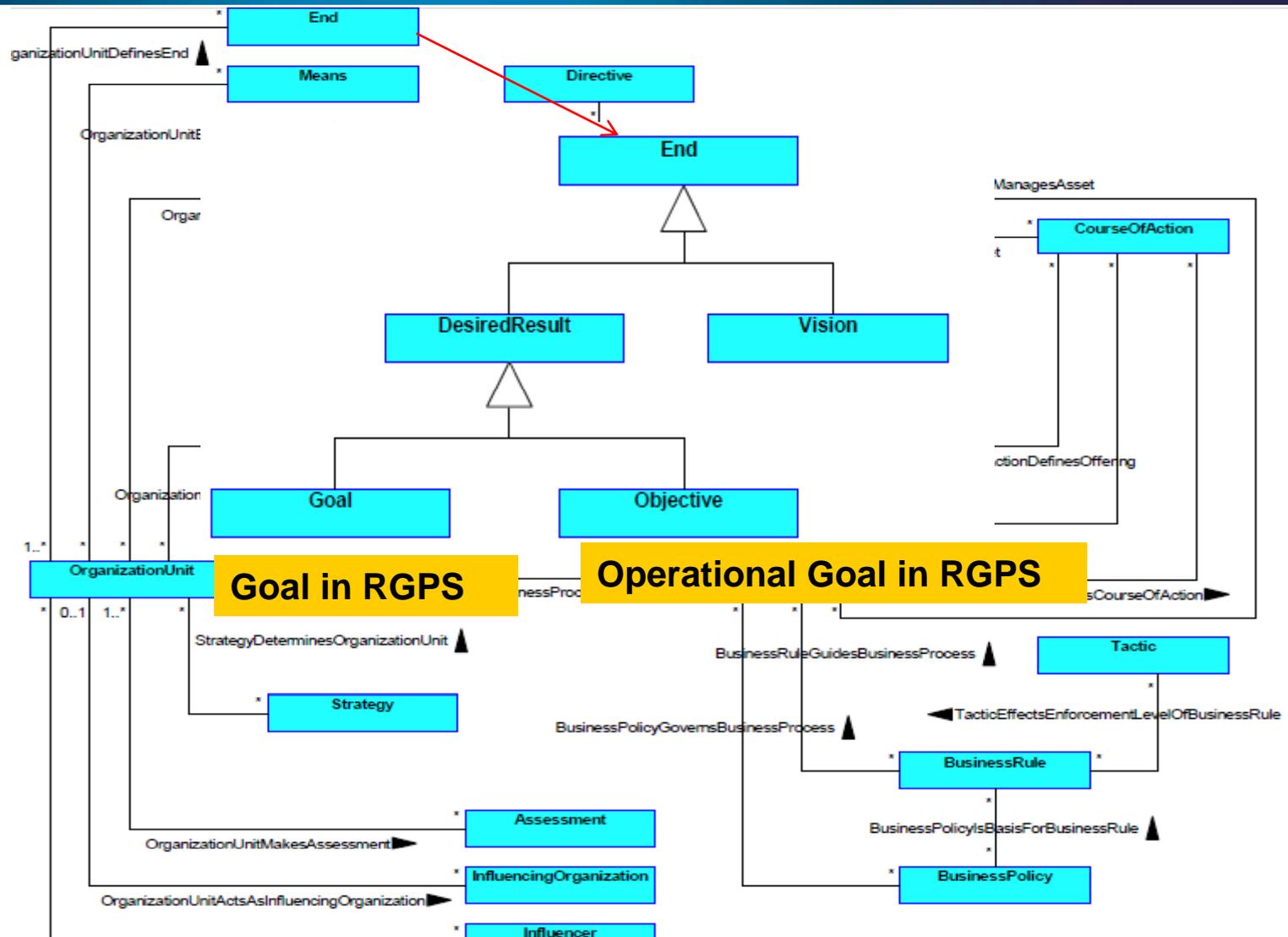
Actor and Role in RGPS

BMM (Business Motivation Model)

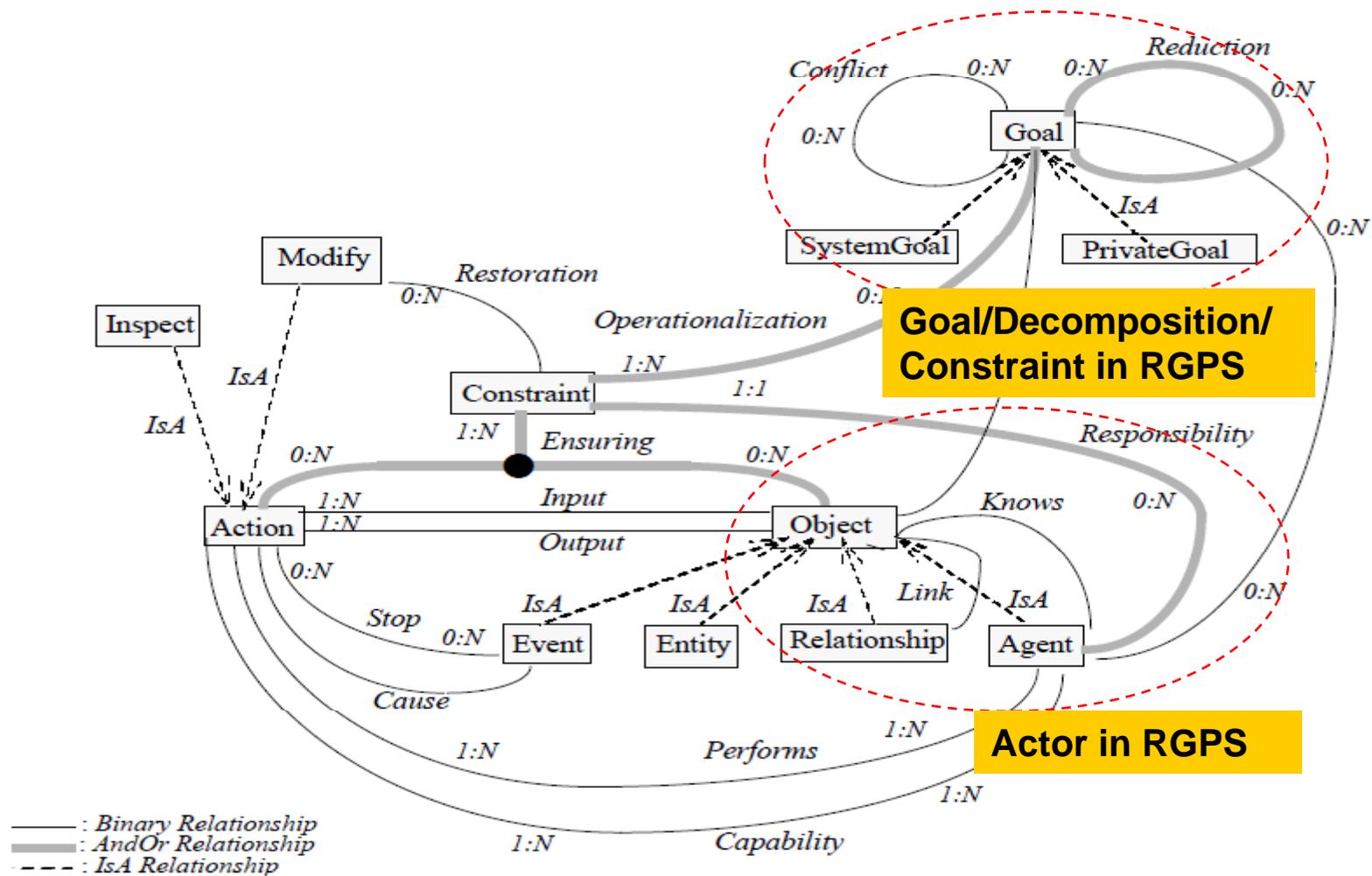


- OMG's BMM is developed from a business perspective
 - To develop a business model for the elements of the business plans before system design is begun.

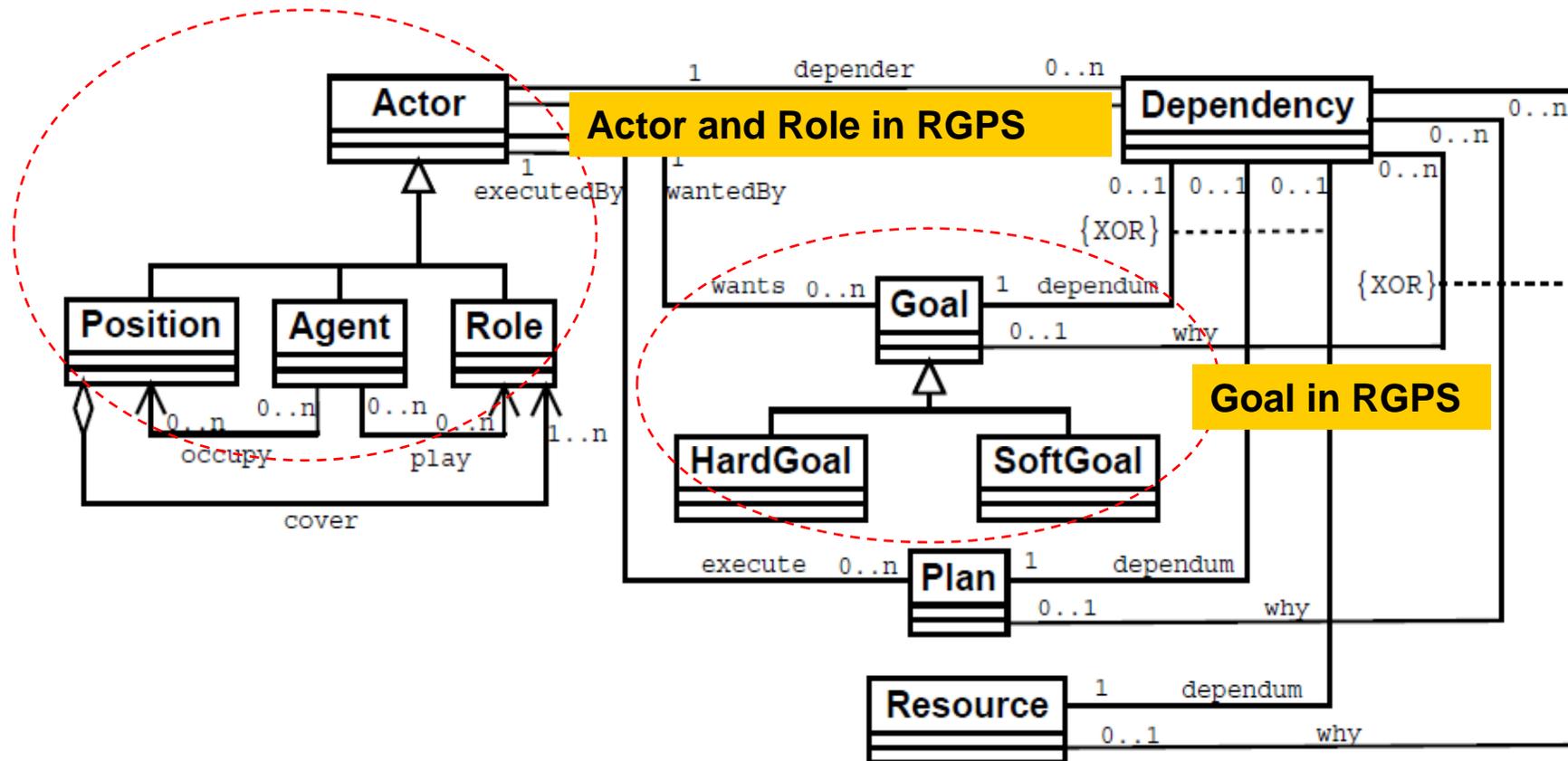
Metamodel of BMM



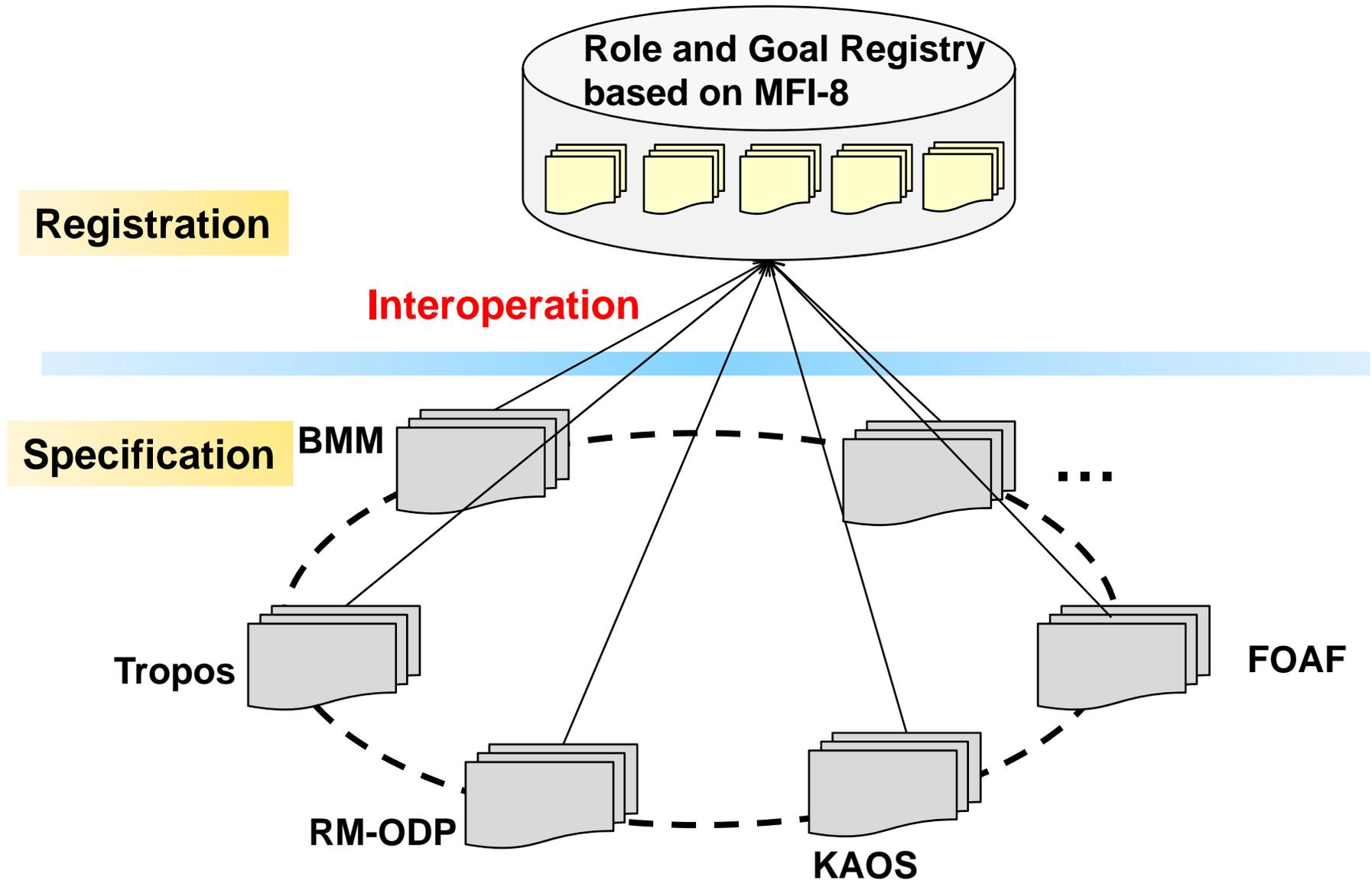
Metamodel of KAOS



Metamodel of Tropos



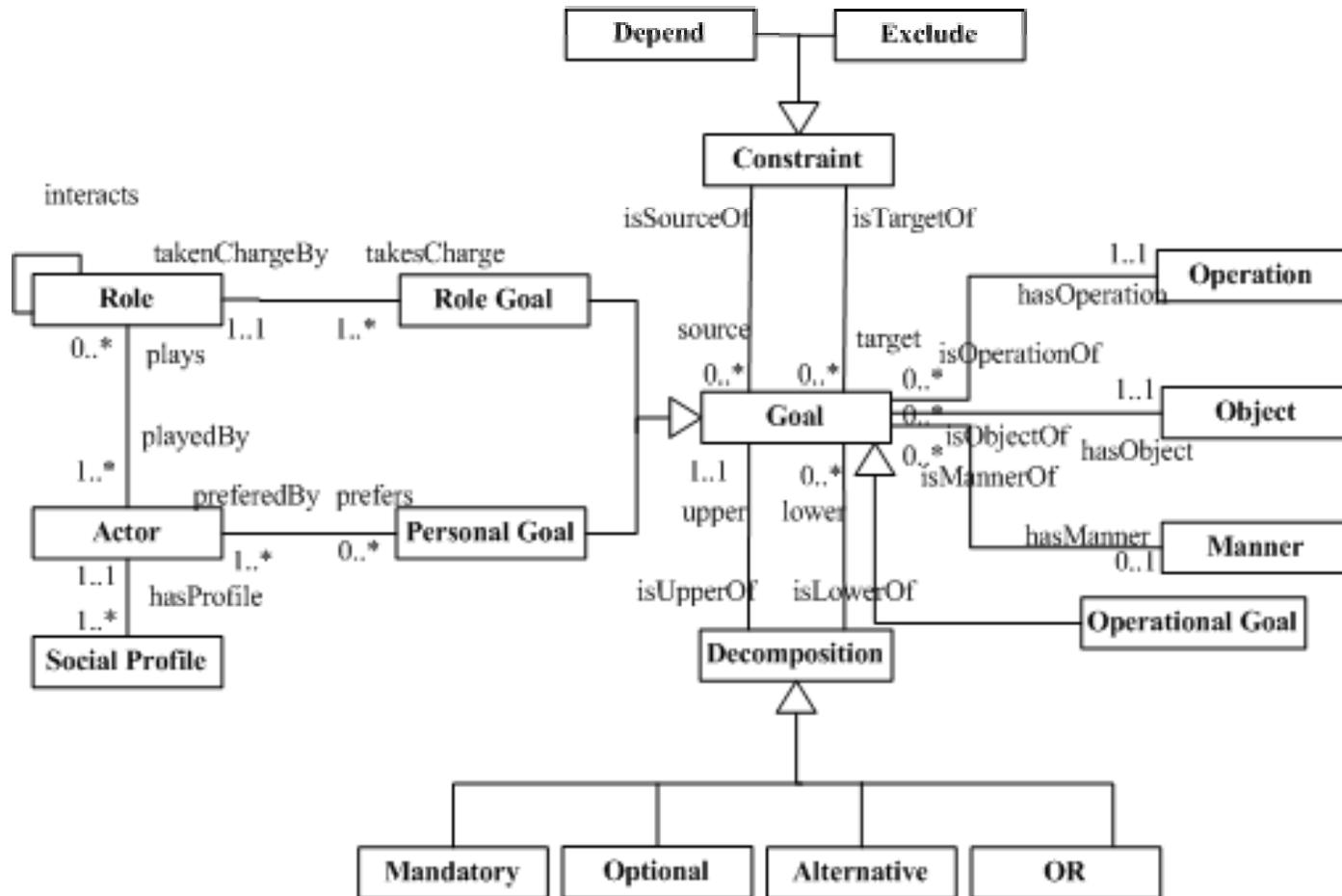
Why MFI-8 is Necessary?



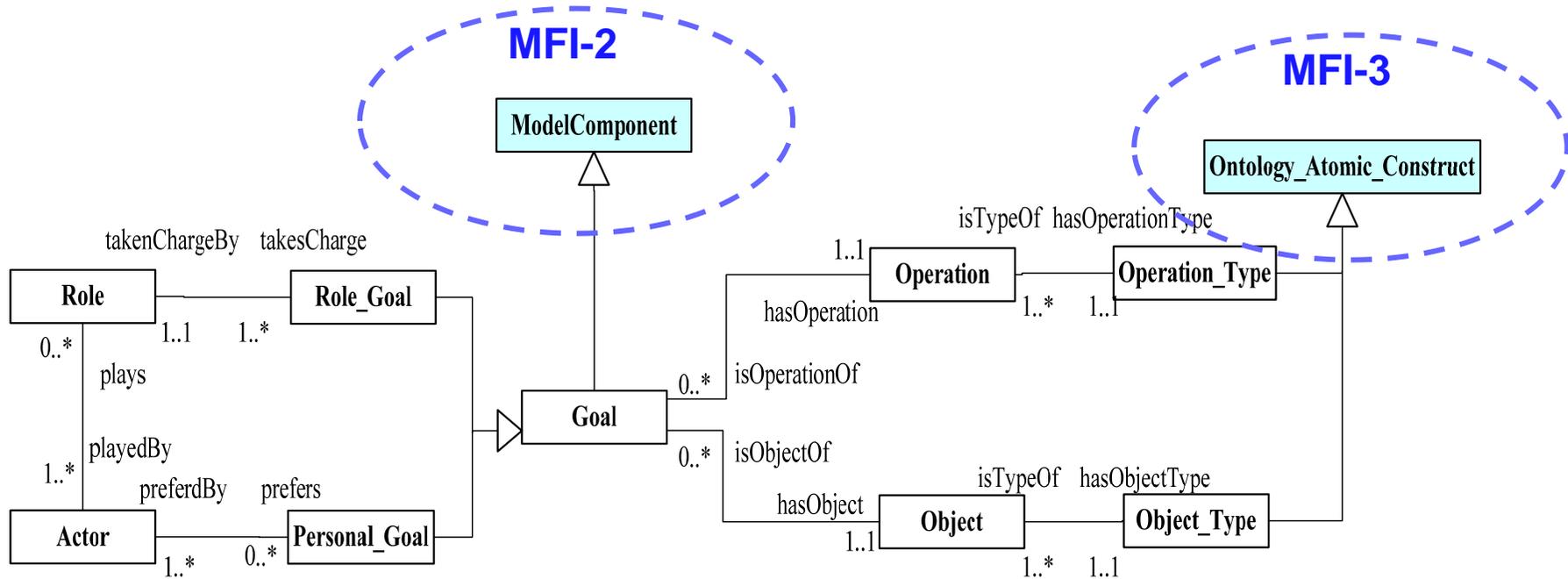
Outline

- Background
- Content of MFI-8
- Future Work

Metamodel of MFI role and goal registration



Relationship with Other Parts in MFI



Outline

- Background
- Content of MFI-8
- Future Work

Future Work

■ Summary

- MFI-8 will provide a generic framework for registering descriptive information of roles and goals;
- It aims to promote the reuse of information resources with greater granularity.

■ Future work

- Refinement of the metamodel
- Harmonization with the other standards

Thank you!