Final summary

Introduction to Service Science
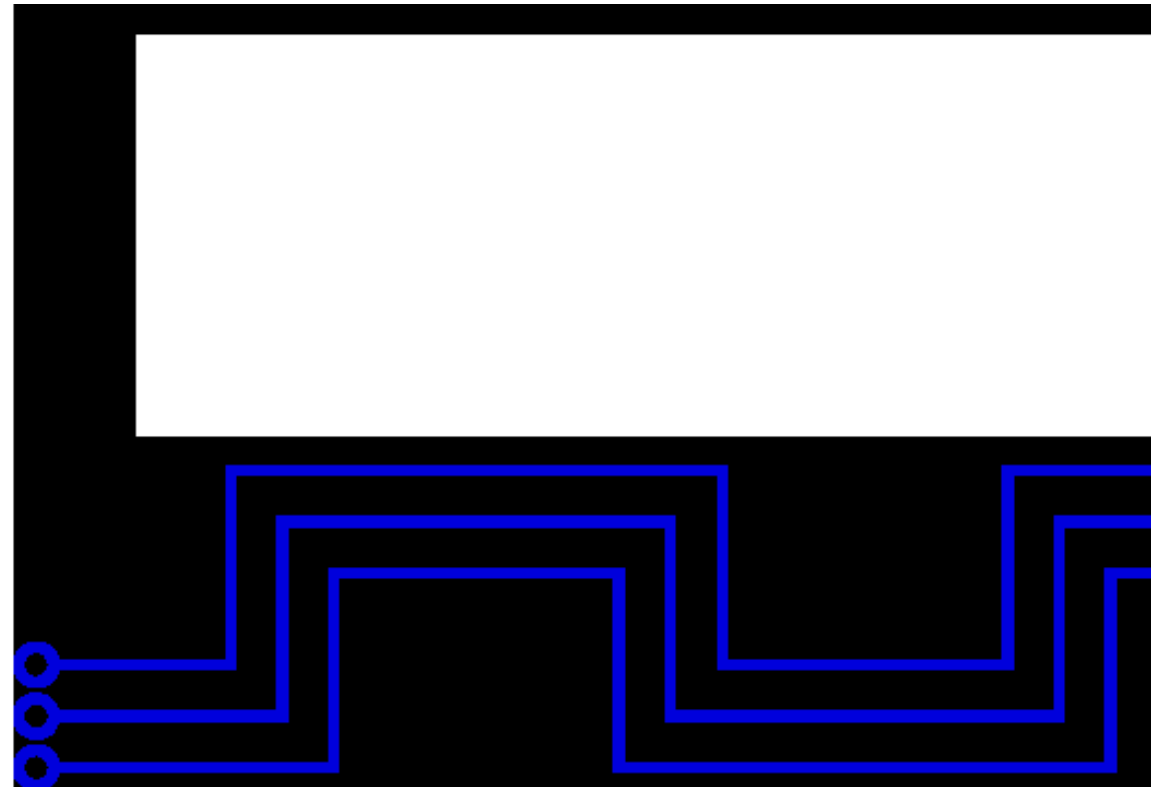
Main topics to remember

Service economy

Service Dominant Logic

Service system modelling

Service environment and service cooperation

Asymmetric information and its role in IT

Software as a Service

Basic of Diamond Path (4 diamonds)

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Service economy

- Product economy and basic consequences

- Development of service economy, why it is important

- Role of service in global economy

- Why everything is a service?

What is the Service Science?

Service Science means curricula, training, and research programs that are designed to teach individuals to apply scientific, engineering, and management disciplines that integrate elements of computer science, operation research, industrial engineering, business strategy, management sciences, and social and legal sciences, in order to encourage innovation in how organizations create value for customers and shareholders that could not be achieved through such disciplines working in isolation. (U.S. National Innovation Investment Act, 2007)

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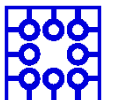
Multidisciplinarity
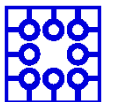
T – shape professionals
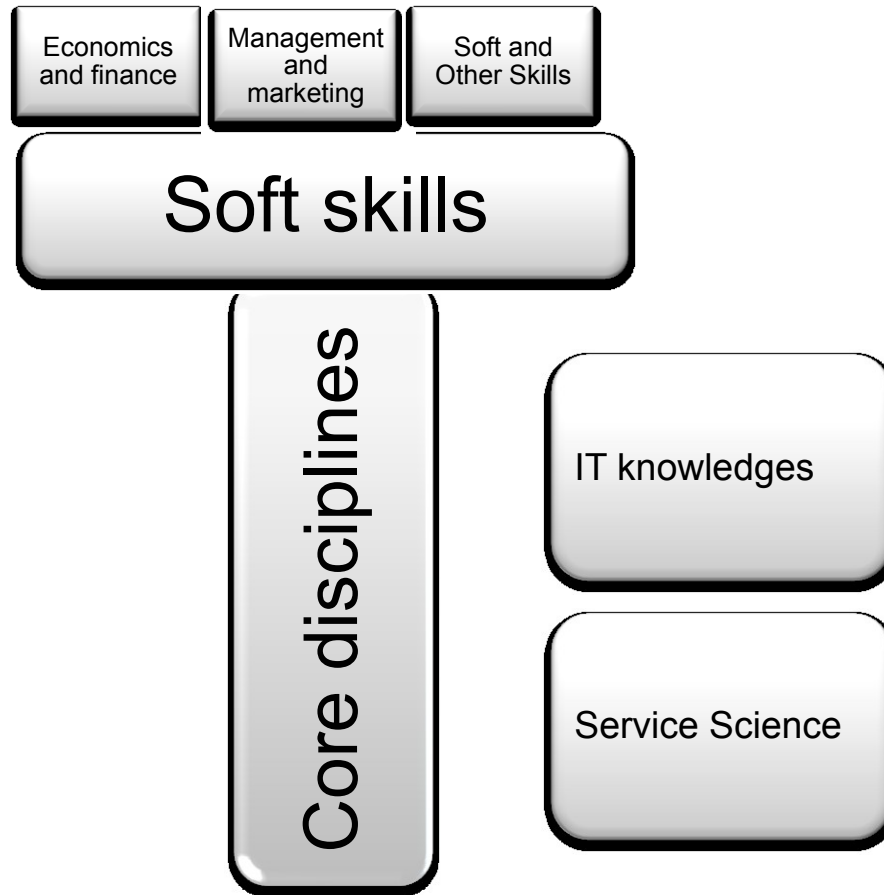
Service dominant logic

Product dominant logic and its paradigms

Service dominant logic basic paradigms

SDL advanced paradigms

What is value proposition?

Difference in the role of customer in PDL and SDL
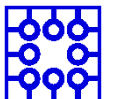
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Basic Service Economy Paradigms

Service is the fundamental basis of exchange

The customer is always a co-creator of the value

All social and economics actors are the resource integrators

Value is always uniquely and phenomenologically determined by the beneficiary

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Advanced SDL Paradigms

Indirect exchange masks the fundamental basis of exchange

Goods are distribution mechanism for service provision

Operant resources are the fundamental source of competitive advantage

All economies are service economies

The enterprise cannot deliver value, but only value proposition

A service-centered view is inherently customer oriented and relational

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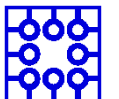
Value proposition

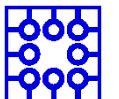The offer done by provider to the client

What the provider is able to do to increase beneficiary of the client

Based on

- Knowledge
- Information
- Similarities on the market

What we can do for what price

Must be formulated in the form understandable for the rervice receiver
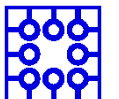
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Service system modelling

Basic entities and their roles

- Provider
- Client (Customer)
- Target

Relation among them

Mention and use principle

Role of time

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Mention - Use

Forms of relationship
value co-creation
value proposition
information sharing

Provider

Client

Mention

Forms of responsibility
P is responsible for
the actions with T

Mention/Use

Use

Forms of ownership
C is owner of T or
C needs an added
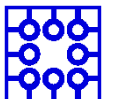value on T

Target

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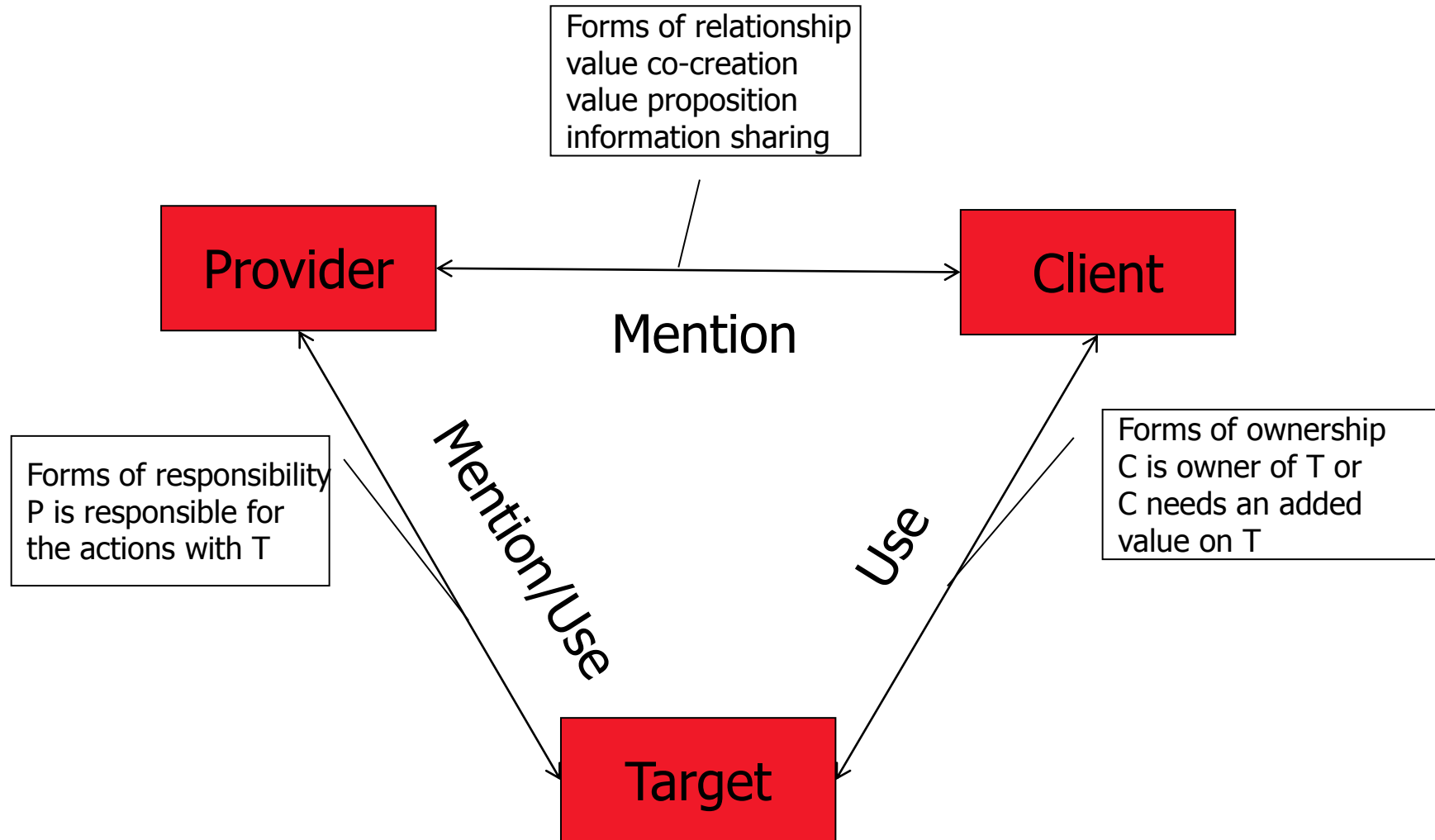
Service environment

How we build service environment

Basic features of the environment

Special cases of cooperation between service systems

- Cooperating service systems
- Dual service system

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Cooperation of service systems

Lets have some service system (S1) with provider, client and target defined

We say the system S1 cooperates with system S2 if

- Agent who plays the role of client in S1, plays role of provider in S2
- Agent who plays the role of provider in S1, plays role of client in S2
- Benefits for the client in S2 depends on benefits for the client in S1 (or vice-versa)
- The target is not same
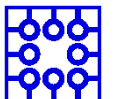
Dual service system

Lets have the prime service system S1

Lets have a second service system S2, where

- Agent who plays the role of client in S1, plays role of provider in S2
- Agent who plays the role of provider in S1, plays role of client in S2
- Benefits for the client in S2 depends on benefits for the client in S1 (or vice versa)
- Target is the same in S1 and S2 with the bidirectional value proposition

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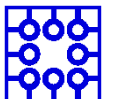
Service system environment
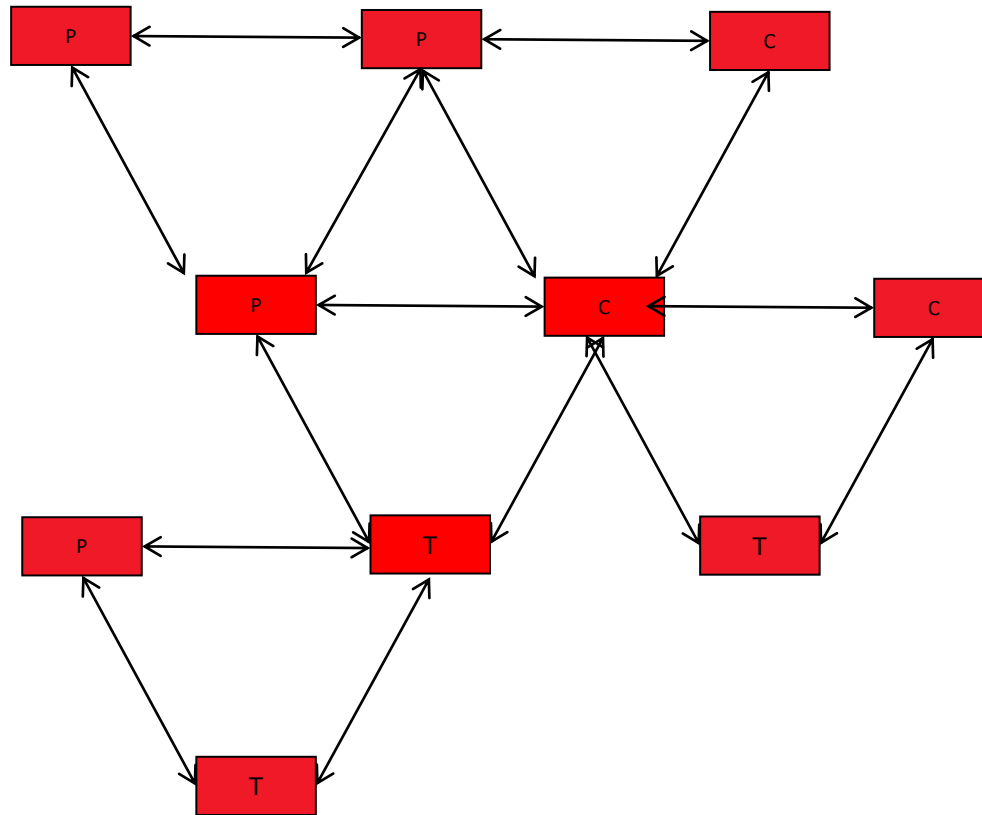
Asymmetric information

Definition and differences

Basic concepts and models

- Information about the price
- Information about the quality

Auction models

Moral hazard

Role of IT in the Framework of Asymmetric information

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Stigler's model

Seniors game

- Where to buy a particular good for the cheapest price

Assumptions

- The buyer knows all shops, where he can buy this product
- The buyer does not know the prices in the shops
- The buyer is willing to invest some costs to find the information about the cheapest price
- The amounts of those costs are limited

What do we do now to solve this problem?

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The searching costs

The valuation of the time, needed for the finding of the information

The costs for the searching must be same or less than expected profit

Conclusions

- The costs for the searching are individual
- The reduction of the problem to the price difference is wrong
  - The value is also important
- The analysis of the problem is too simple
- IT rapidly decline the searching costs

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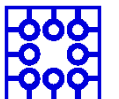
Quality of information

If you are buying some product or services, how you can be sure about its quality?

Guarantee

- Insurance for the product failure
- Impulse for the producer to improve the quality
- Has information value – indicator of the product quality
- Direct influence to the producer reputation
- Selecting (extended) guarantee can be used for the customer discrimination

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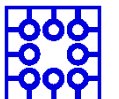
Moral hazard

a tendency to take undue risks because the costs are not borne by the party taking the risk

The customer is able to affect an event he is insured against, but the seller has no power to monitor or affect this event.

- Insurance company do not know how you use your car
- ERP supplier has limited information about customers IT security

Double moral hazard

- Supplier gives only limited or minimal guarantee
- Customers information about product quality is limited
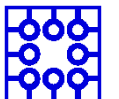
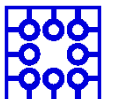# Auctions with independent value

Closed auctions

- The offers are given before

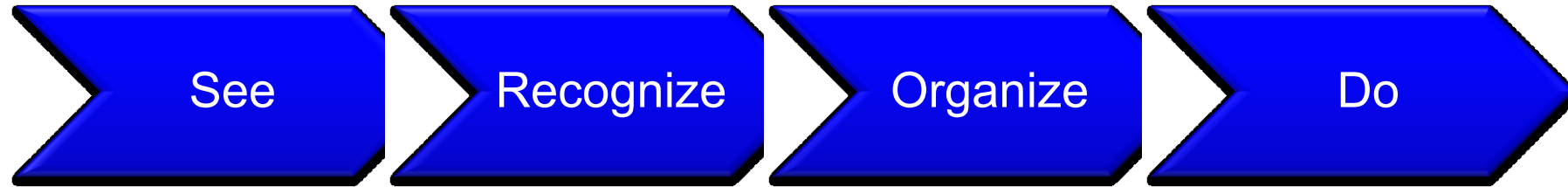## the first price auction

- The highest or the lowest price wins

The second price auction

- The highest and lowest offer are excluded
- The second highest or lowest offer wins

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Diamond-Path Framework
Overview

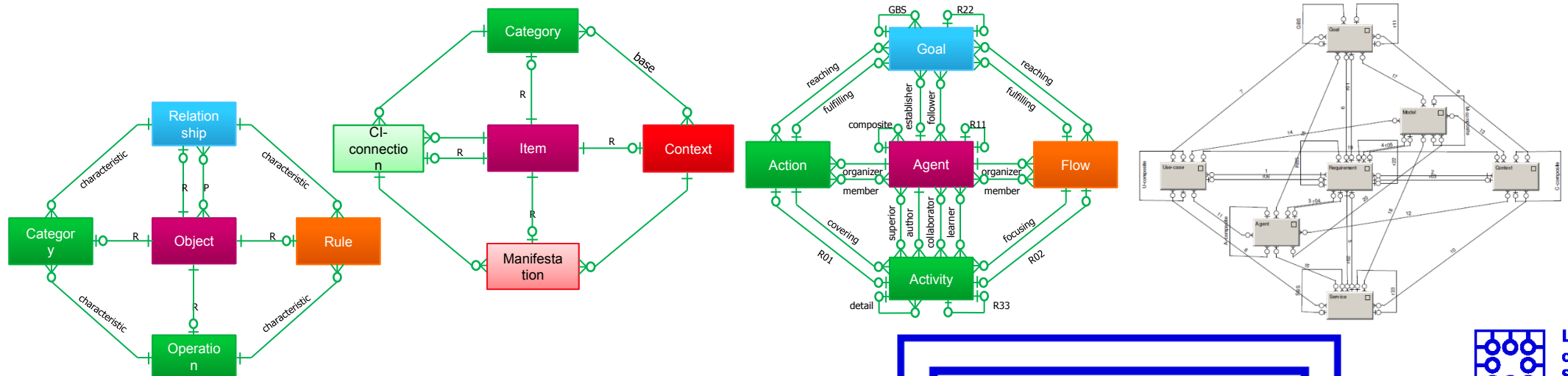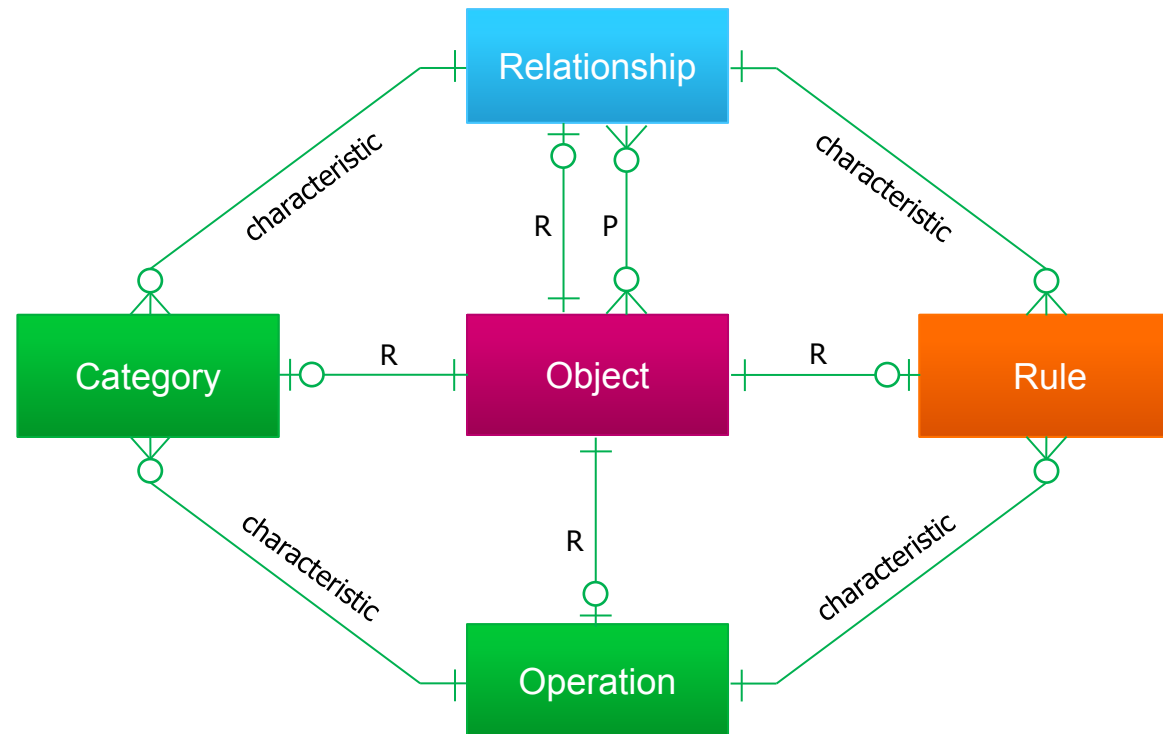| See	Recognize	Organize	Do
Attention Focussing	Cognitive Elements	Agent-Team Organization	Predictive Behaviour

Diamond See

Road (street) - Objects and relationships

Name	Relationship	Name
Car	Is on	Road
Bus	Is on	Road
Bicycle	Is on	Road
Pedestrian way	Is on	Road
Driving lines	Are dividing	Road
All vehicles	Are using	Driving lines
Trafic on the road	contains	All vehicles
Trafic lights	Are managing	Trafic on the road

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Diamond Recognize
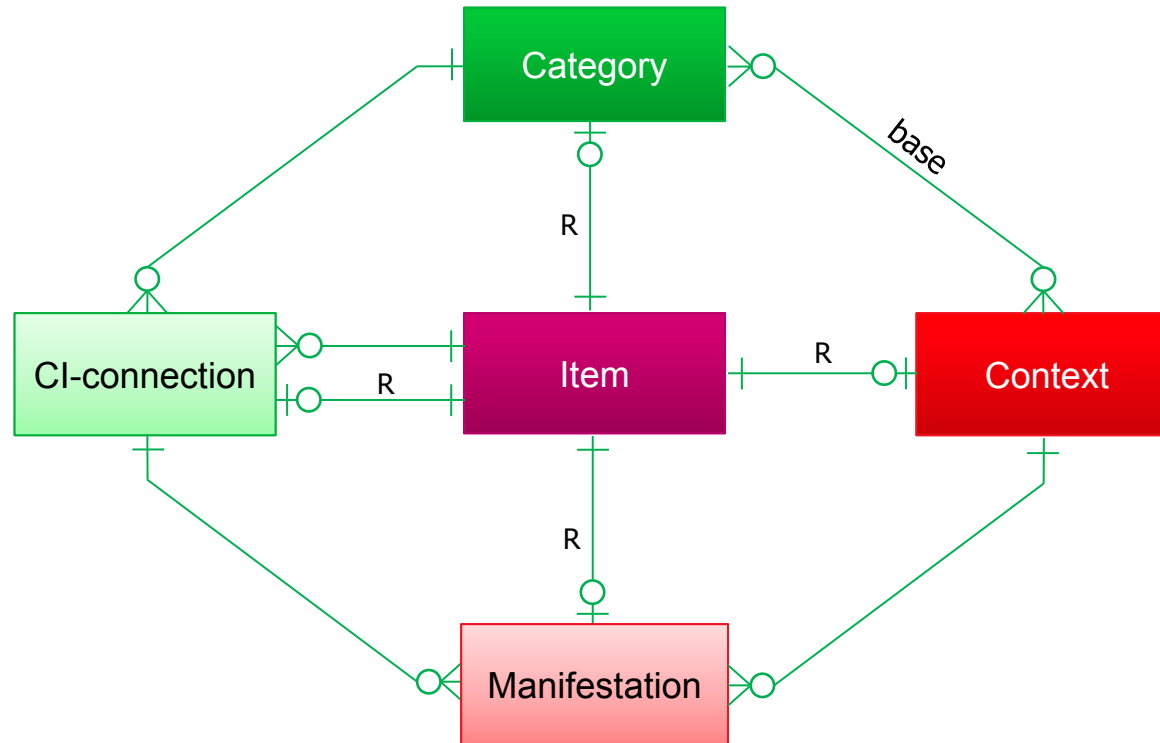
Example – bus manifestation

Public trasport

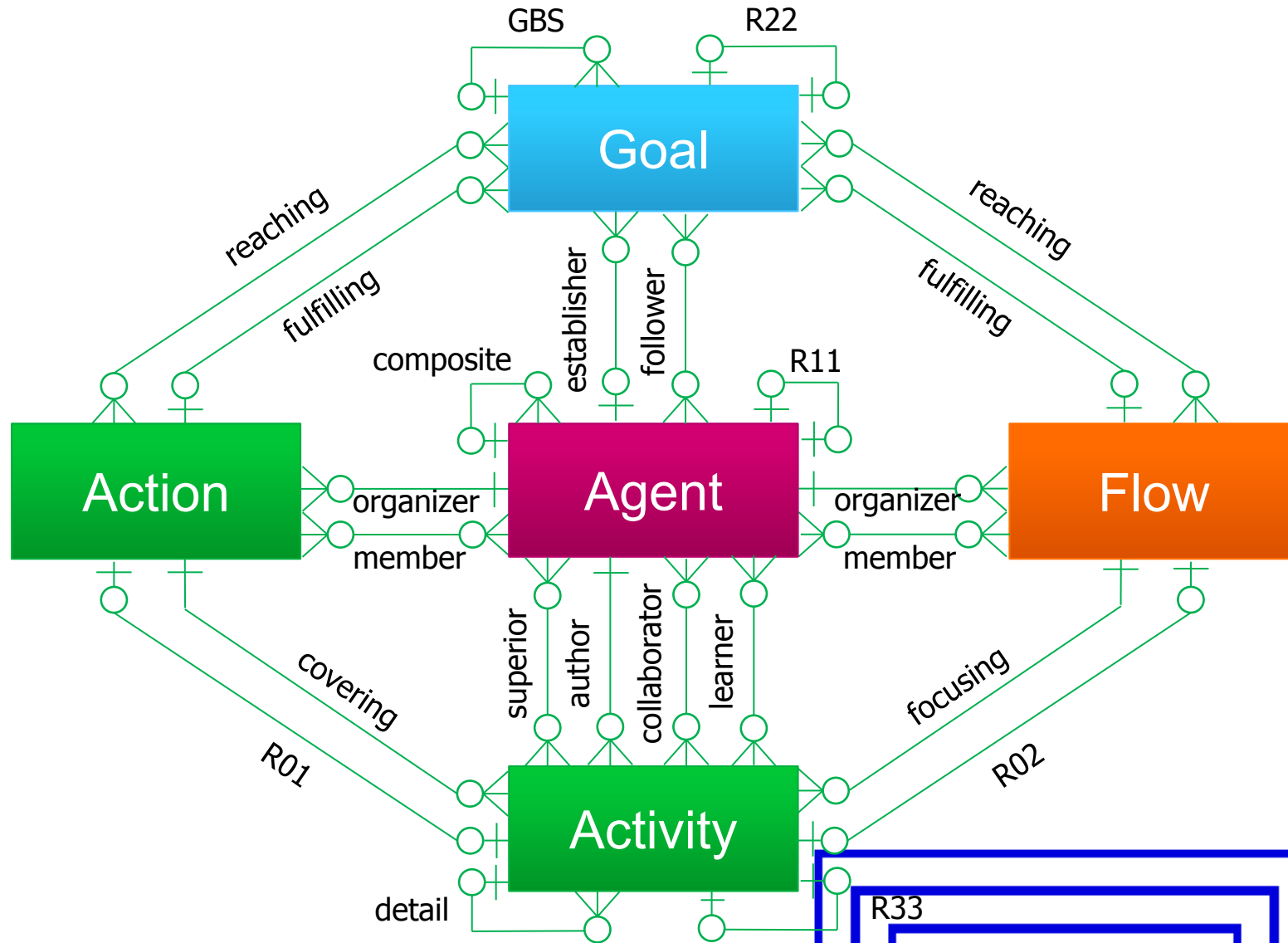- How it is organized
- What services they can provide?

Road

- Traffic problems
- Lines reserved for buses
- How fast they are

Travel agency

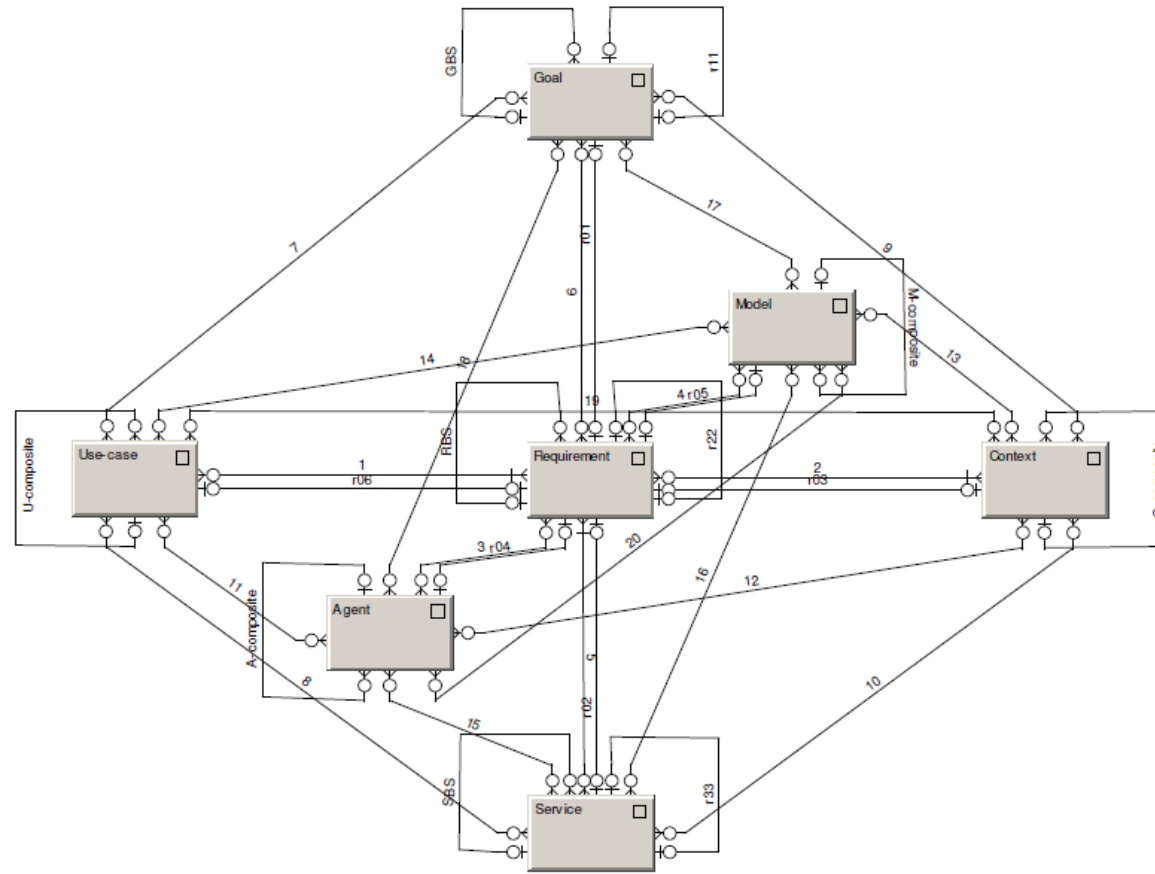- How fast can they go?
- How they are equipped?

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Diamond Organize

Agents

Agent	Public transport	Road
Citizen	Customer	Pedestrian Driver Biker
Emplyee	Driver of public transport Inspector	Policeman Fire man Emergency

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Diamond Do

Realization

Context	Requirement					
Healthy run of the citizen	To find optimal road					
Race of the moto bikers	To find optimal road					
Emergency service	To find optimal road					

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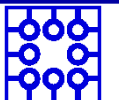
Simple case studies

Smart City

Contextual analysis of a Smart City

Data

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