Service environment

Introduction to Service Science
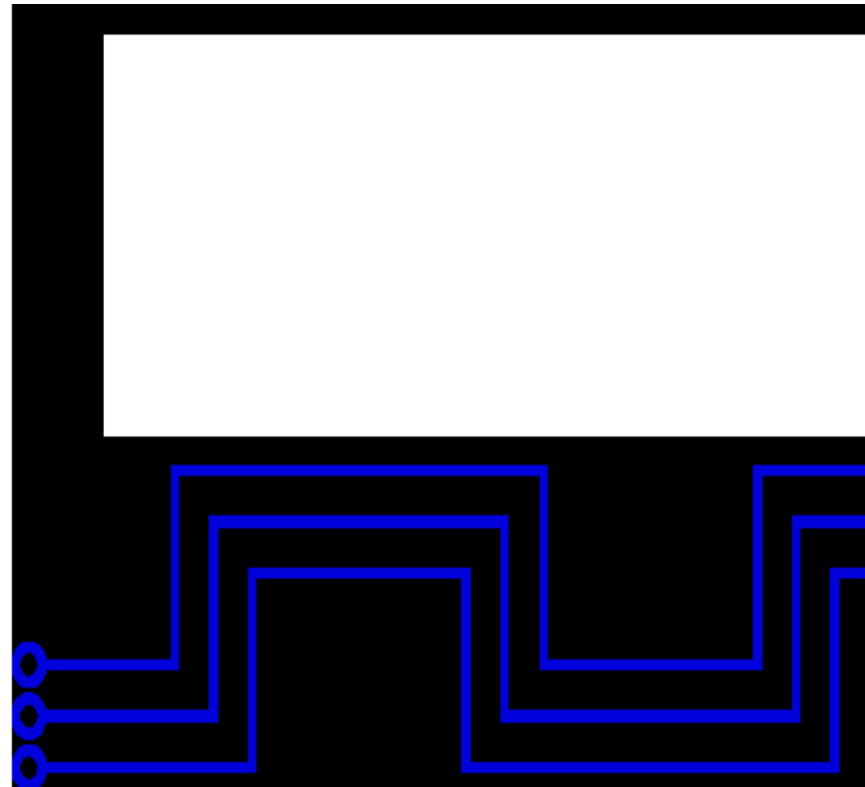
The elements of service system

Provider	Client	Target

Provider
- Individual
- Organization
- Any of previous combined with the technology and/or piece of environment
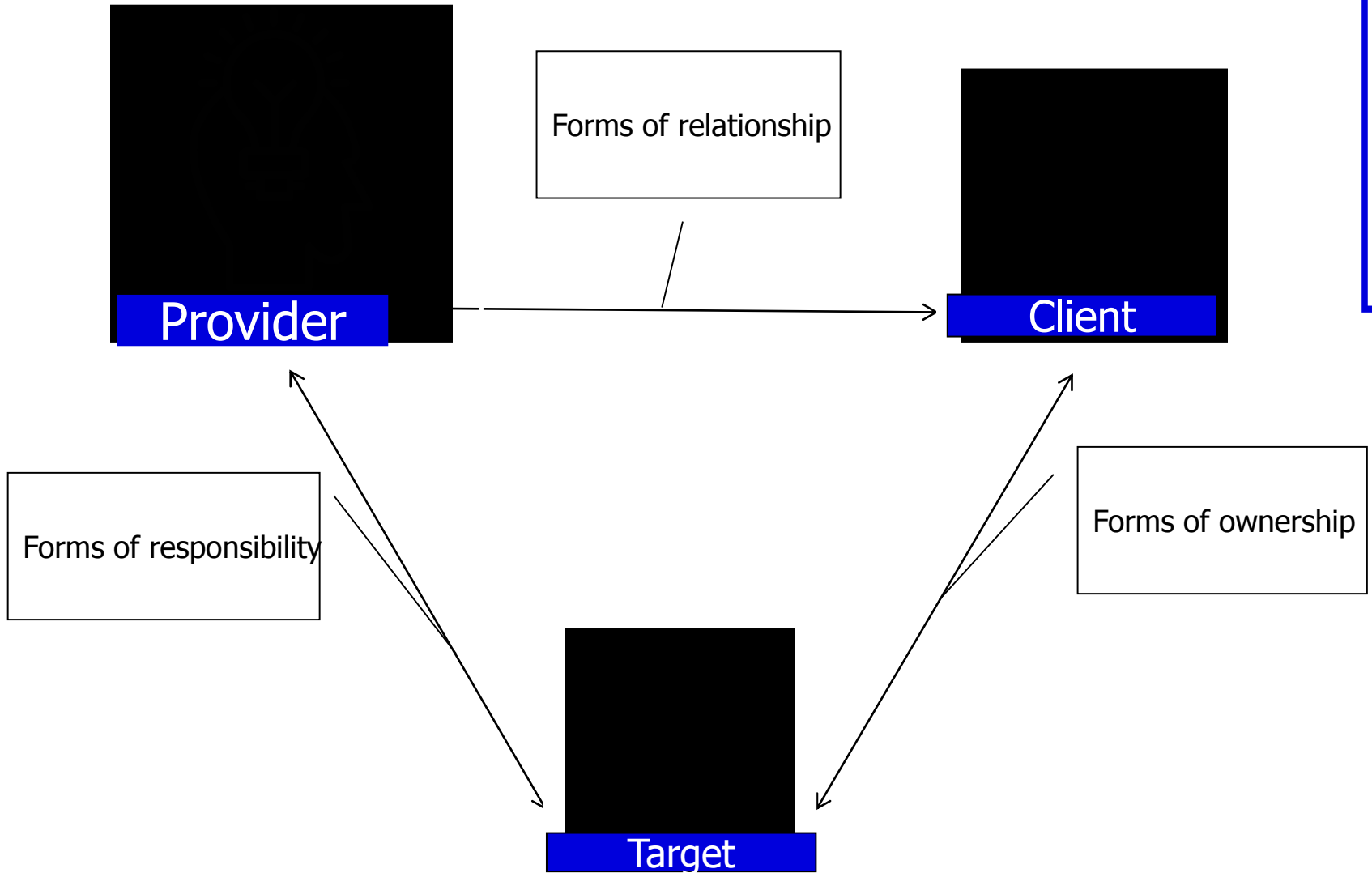- Technology that provider is responsible for

Client
- Individual
- Organization
- Any of previous combined with the technology and/or piece of environment
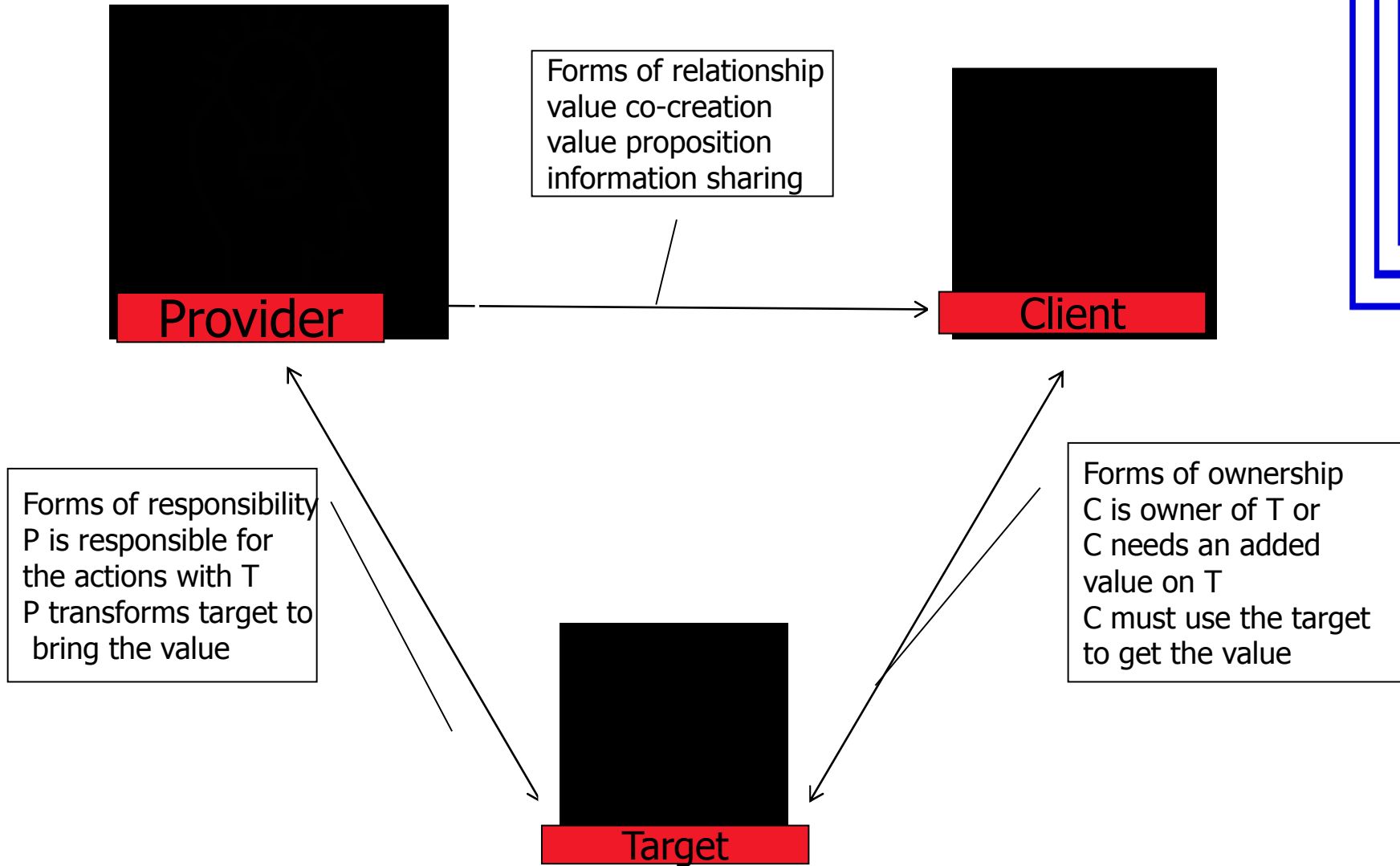- Portion of reality owned by Client

Target
- The reality to be transformed or operated on by Provider for sake of Client
- People, dimensions of business
- Dimensions of products, technology artefacts & environment
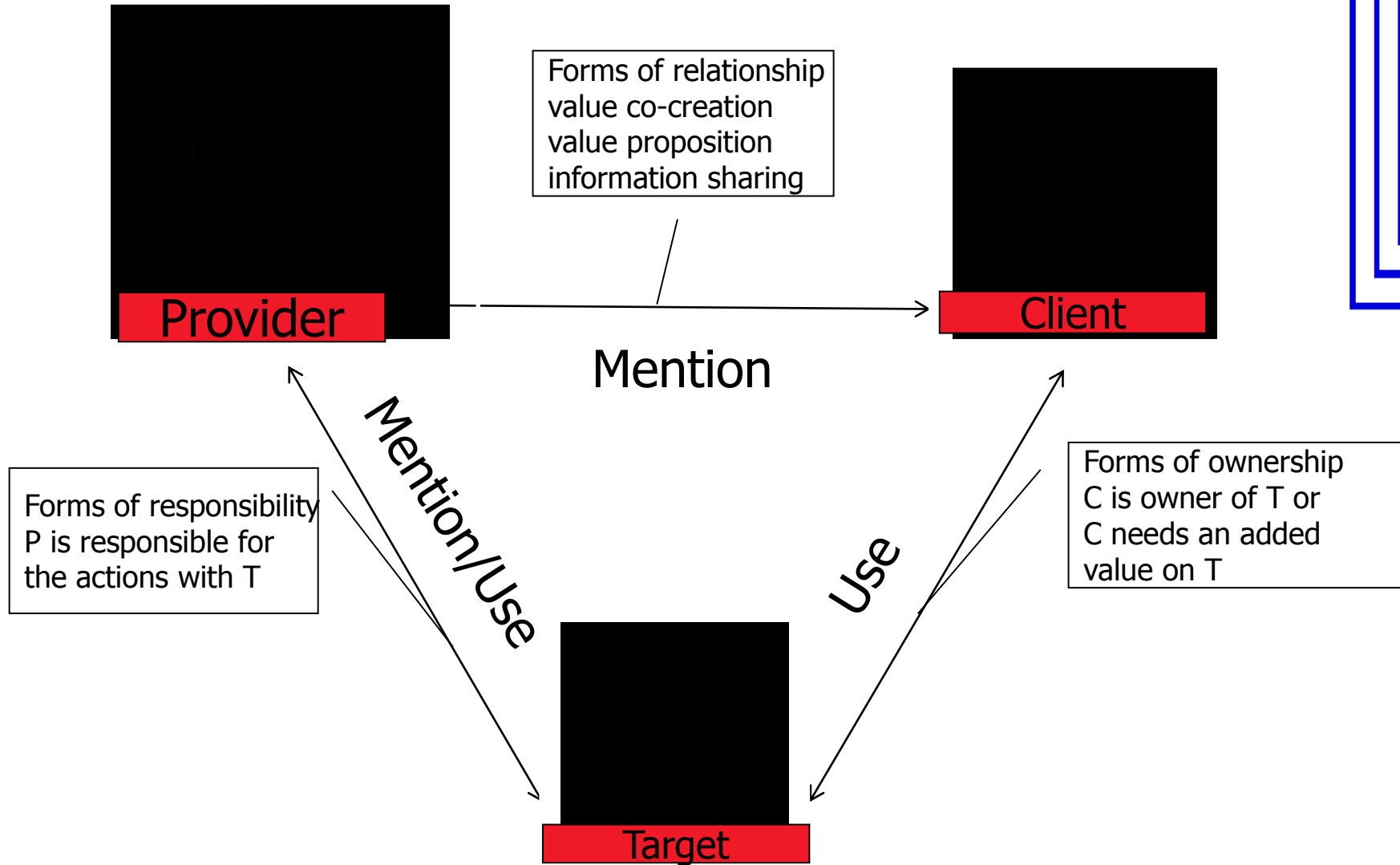- Information, codified knowledge

Service system

Provider

Client

Target

Forms of relationship

Forms of responsibility

Forms of ownership

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Value proposition

Provider

Client

Target

Forms of relationship
value co-creation
value proposition
information sharing

Forms of responsibility
P is responsible for
the actions with T
P transforms target to
 bring the value

Forms of ownership
C is owner of T or
C needs an added
value on T
C must use the target
to get the value

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Mention - Use

Provider

Forms of relationship
value co-creation
value proposition
information sharing

Client

Mention

Mention/Use

Forms of responsibility
P is responsible for
the actions with T

Use

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

Target

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Mention - Use

Provider

Provider plans the actions on target based on the communication with client

Client

Mention

Mention/Use

Use

Client gets the value through usage of target

(value in use)

Target

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System complexity

Provider, Client or Target may contain one or more service systems

- Those service systems need to cooperate in some way
- The cooperation between those service systems is also service system
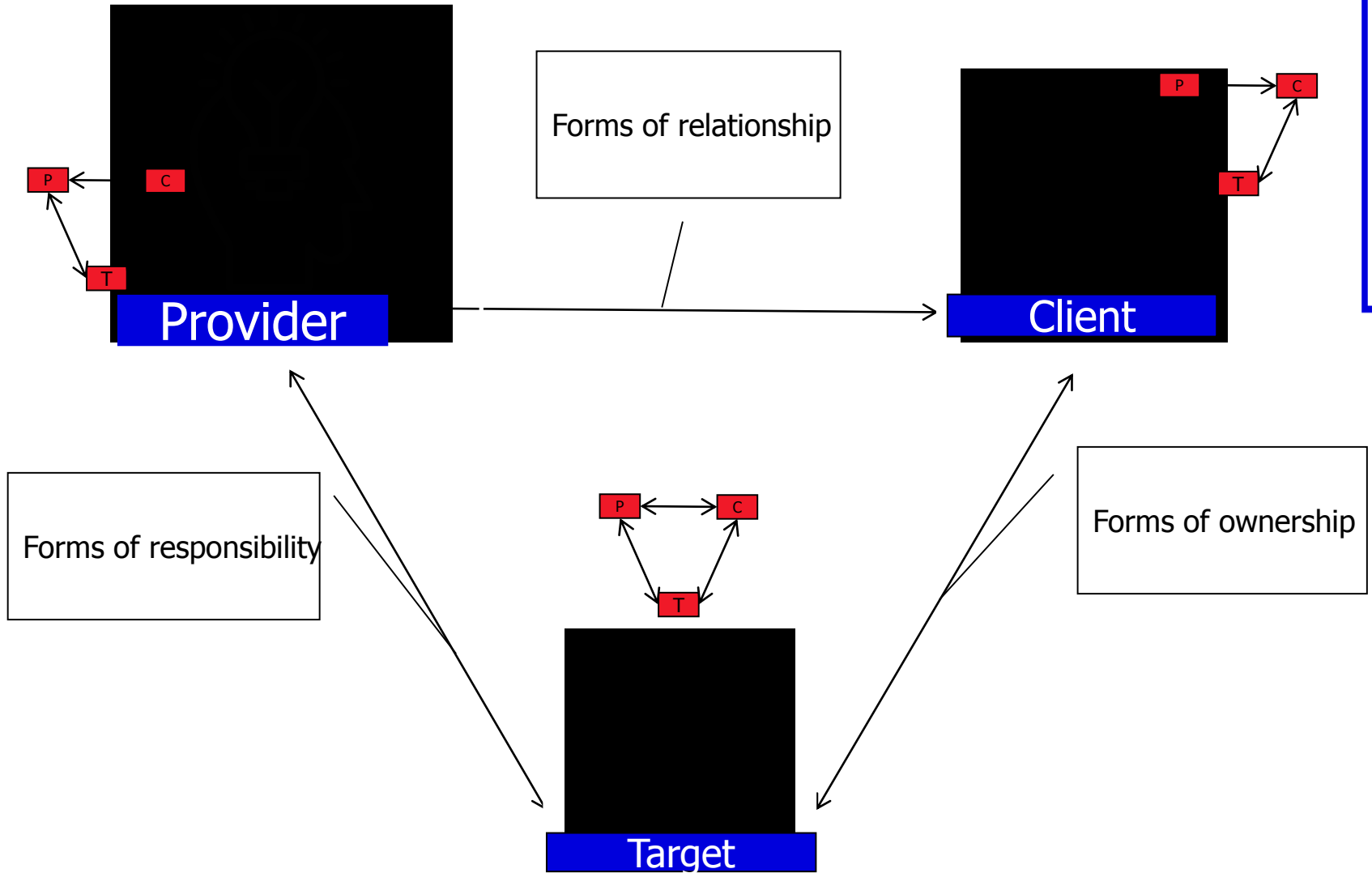
If they are not a simple person or technology

They can be organization, more complex entity etc.

- Technology with the community of developers

It must be organized in synergy

- Some services must be finish first, some in the specific order etc.

Service system

Forms of relationship

Forms of responsibility

Forms of ownership

Provider

Client

Target

P   C

P   C

P   C

T

T

T

The time dimension

Selling a service means a lot of preliminary work

Sold product means success

Selling a service is the beginning

- Start of the service execution
- Preliminary work is about
  - Value proposition
  - Service modelling

Providing services means continual development

To stabilize the service system is necessary to continue with the cooperation

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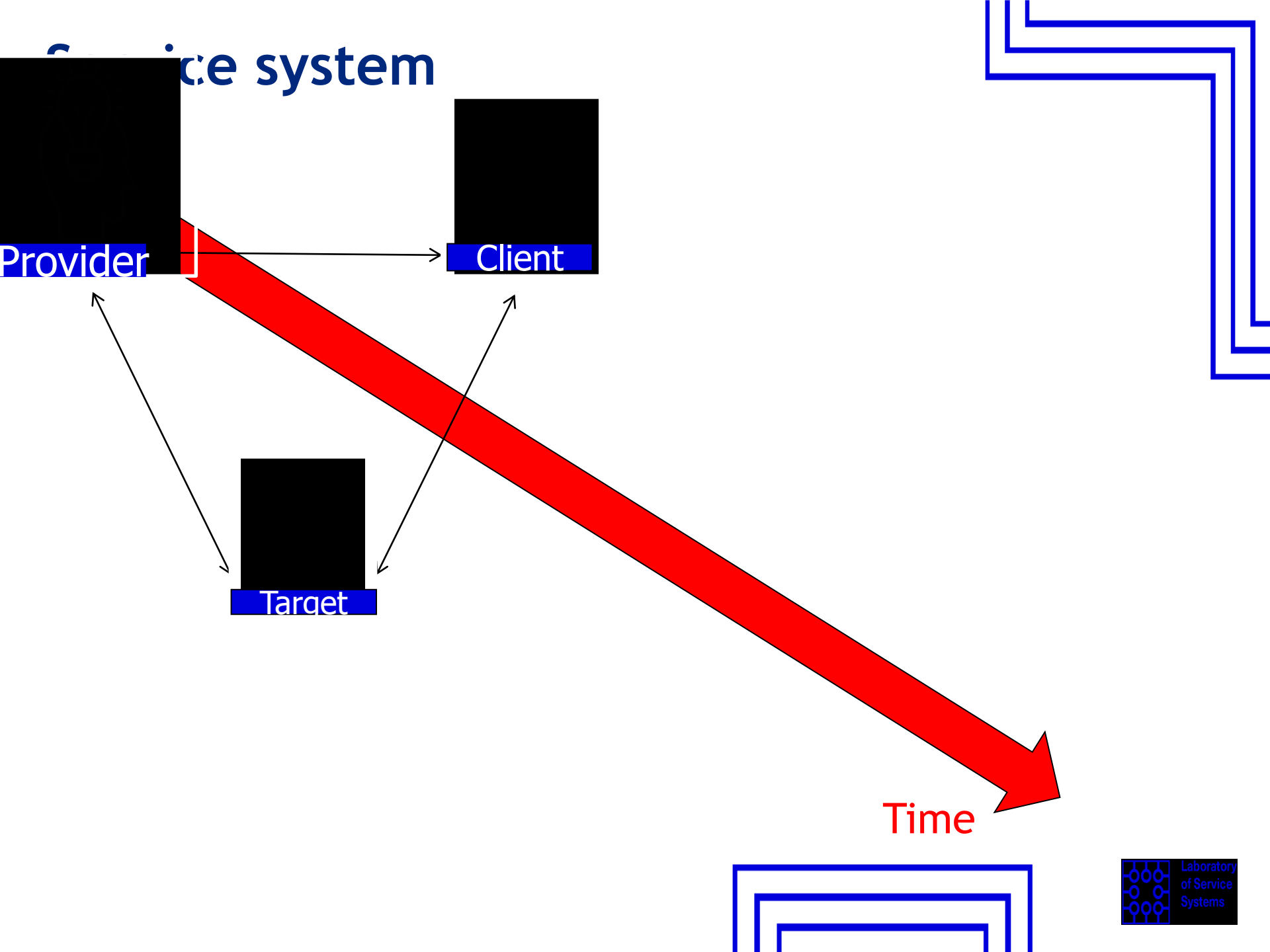
Service system

Provider

Client

Target

Time

Role of time

The roles of all elements are not changing during whole life cycle of the service system

Time period of existence of a service system is not a trivial one compared to actions performed within a service provision systems

The dividing of the time and planning of the life cycle are important for the relationship client - provider

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Example

Two companies

- Software developer EasySoft
- Telecommunication company Telecoco

Problem

- Telecoco want to have outsourced information system, developed by EasySoft

The service system is easily created

Is there any possibility (or need) to create other service system?

And if yes, are they related?

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Service system

| Provider – EasySoft | Client – Telecoco | Target – Information system |

Benefits are focused to the client

Easysoft uses its competencies to act for the sake of Telecoco

There is one more special relationship

- The payment is also service system
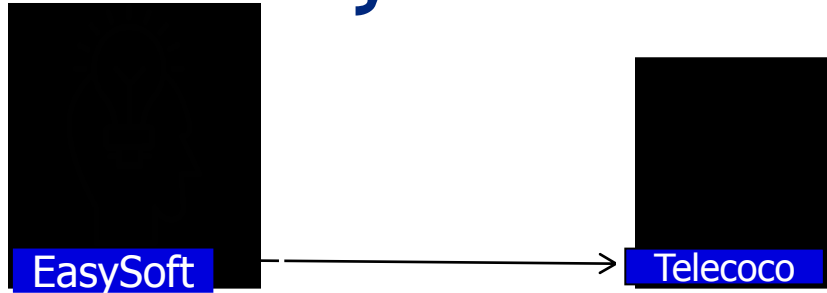
Service system

Provider
Telecoco

Client
EasySoft

Target
The bank account of EasySoft

The provider (Telecoco) acts on Target (send the payment) for the sake of EasySoft

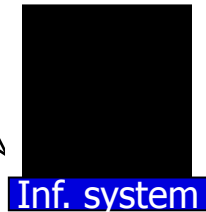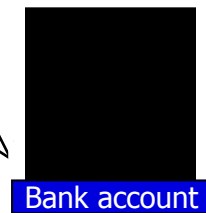This service system can not exists without the first service system

Service system

EasySoft → Telecoco

Secondary service system

Inf. system

Telecoco → EasySoft

Action based on value in prime SeS

Prime service system

Bank account

Prime service system

Primary created service system

The roles are distributed and do not change

Creation of this service system causes the creation of next service systems

We need to analyze

- The relationships between them
- The possibility of influence
- The causes of synergy

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

Service system

| P1=C2 | | C1=P2 | | P2=C1 | | C2=P1 |

| T1 | Action based on value | T2 |
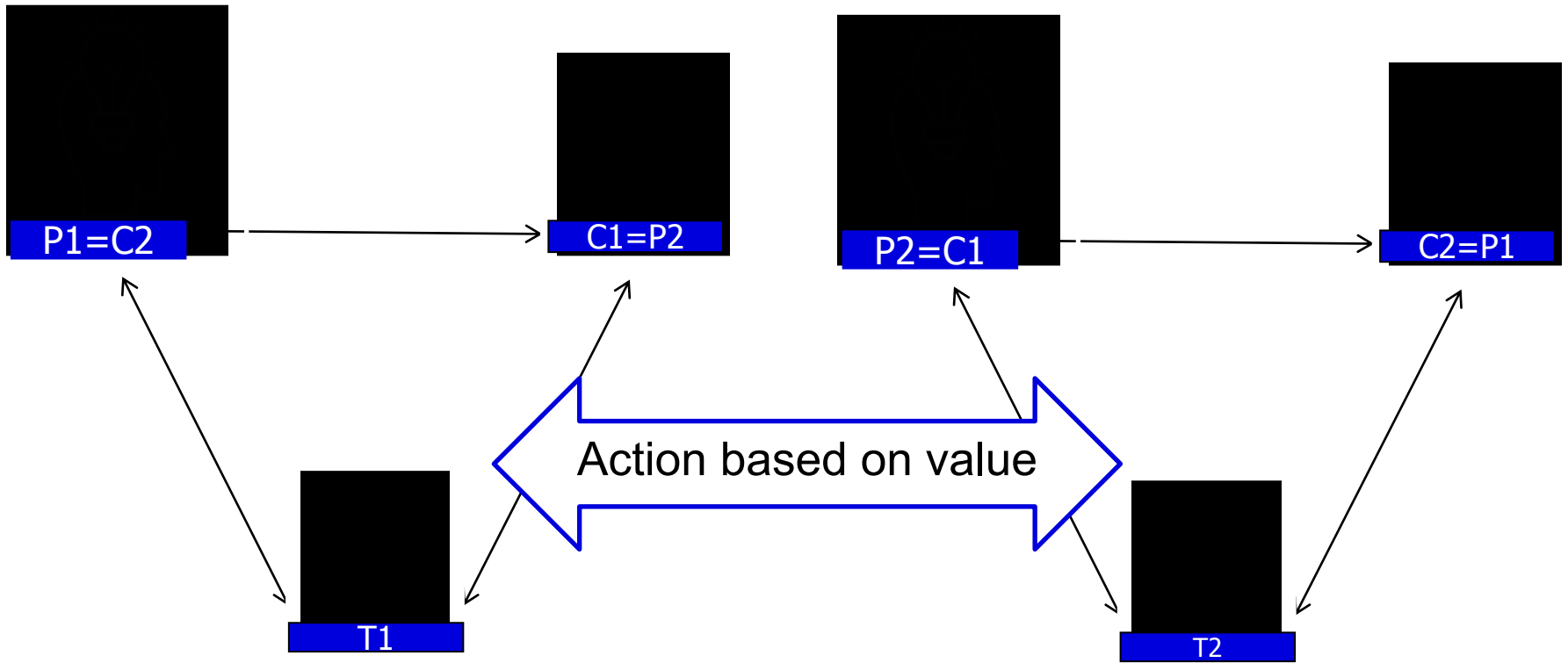
Example of cooperation – internships on FI

Client

- A business partner
- Wants to have properly educated students

Provider

- Faculty of informatics
- Has abilities to educate the students

Target – study programs with internships

- Provides the students

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Cooperating service system

Internships projects

- For the successful study program faculty needs
  - Practice – an internships with quality emphasis
  - Mandatory for every student enrolled in the program

Client

- Faculty of informatics
- Demand the internships positions for the students

Provider

- The company
- Offers the positions for the students

Cooperating service system

The target

- The study programs
- Students are „only" the products of the study program

Faculty wants to improve the study program

- Through the internships
- Using the feedback from the partners

In this case the target is the same in both cooperating service systems
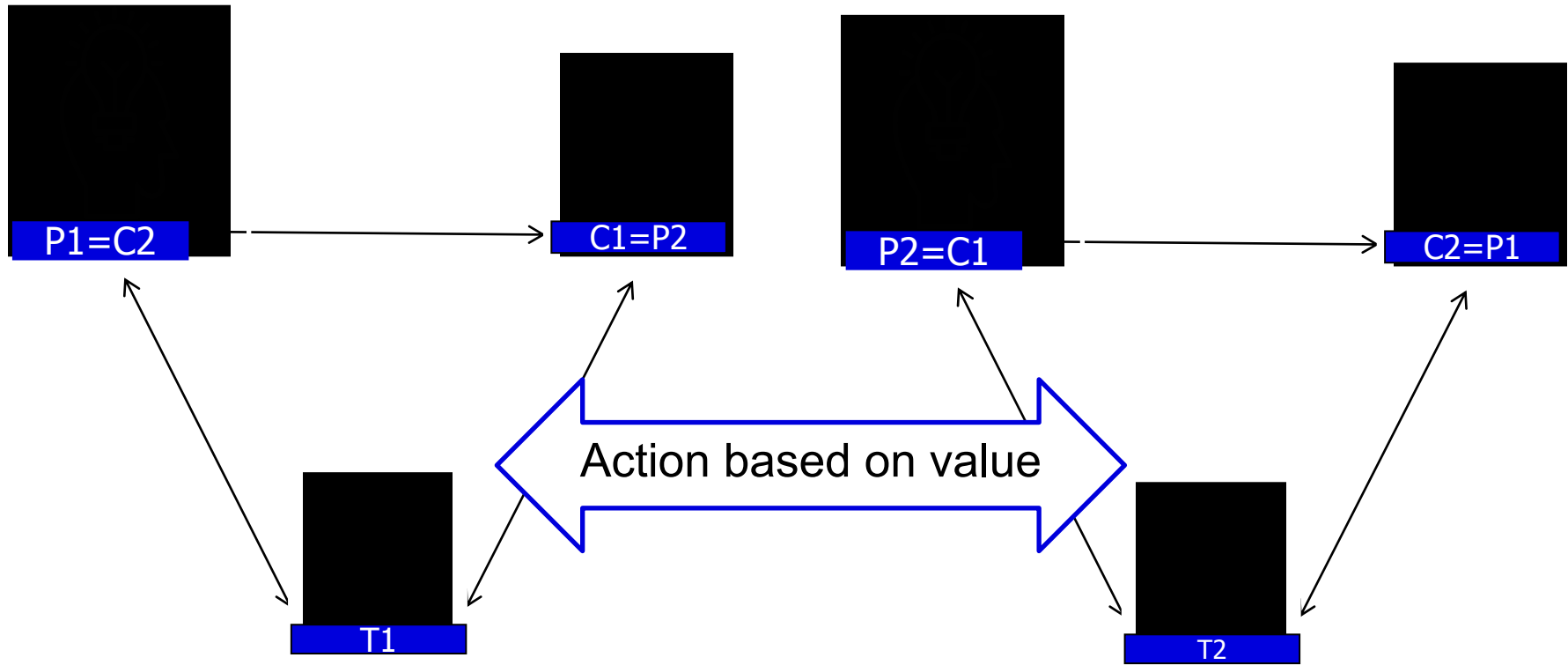
Dual service system

Let's have the prime service system S1

Let's 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

Dual service system

P1=C2 → C1=P2

P2=C1 → C2=P1

Action based on value

T1

T2

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Systems
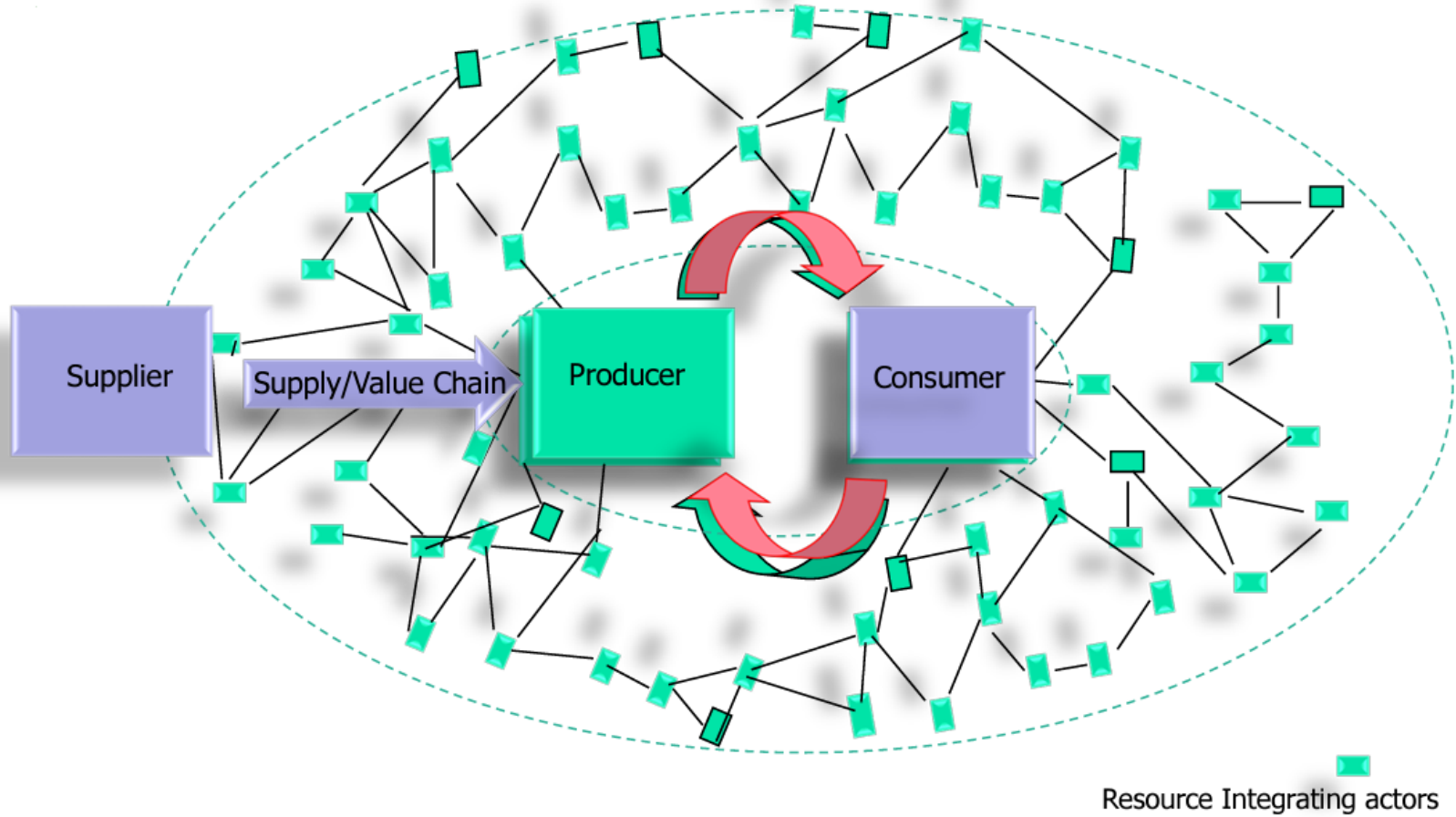
Service system environment

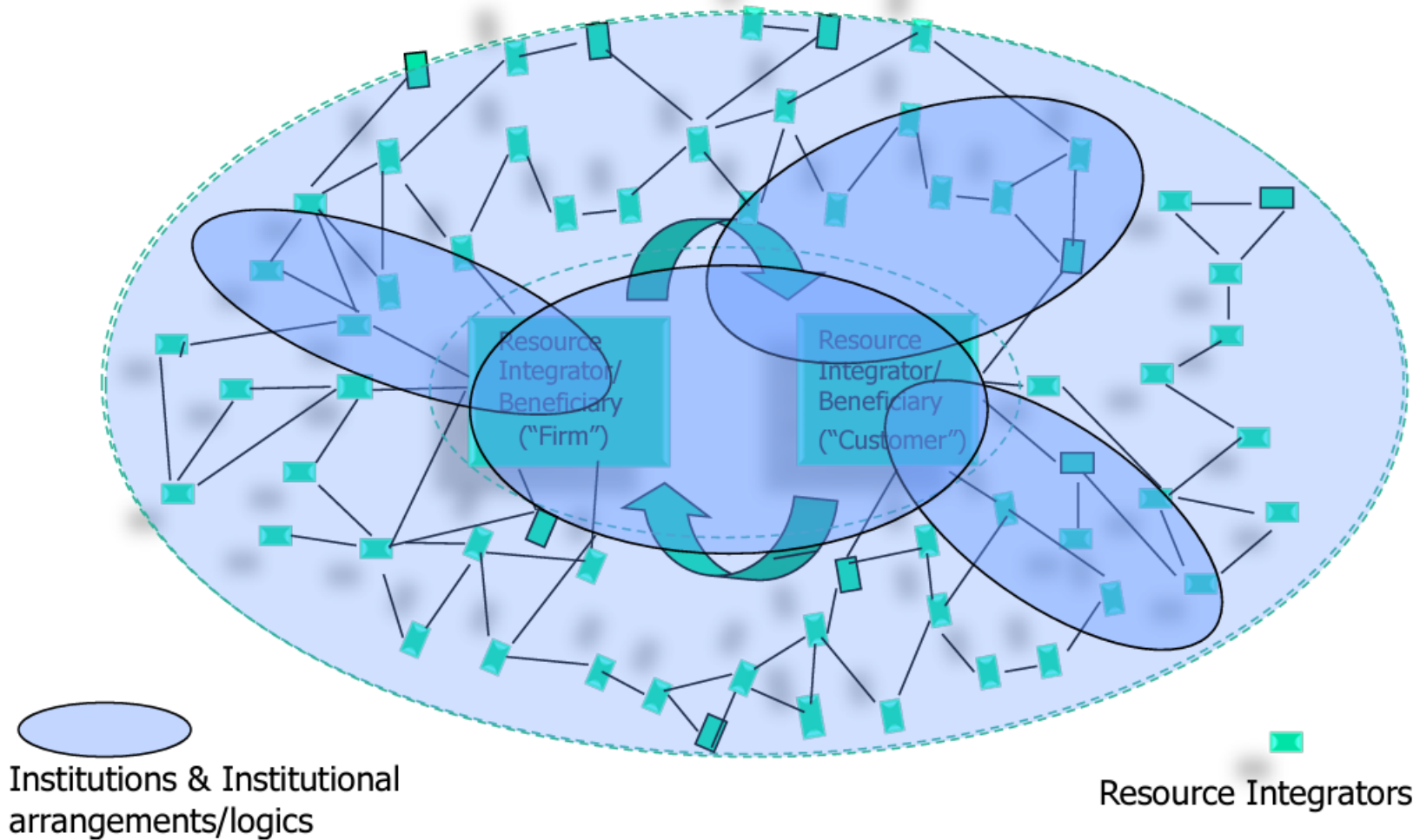Are there any other possibilities of the cooperation?

What to do if

- Client or Provider in one service system plays the role of of the Client, Provider or Target in other service systems?
- If the value proposition or the benefits depends on other related service system?
- Company is able to pay only if its customers will pay

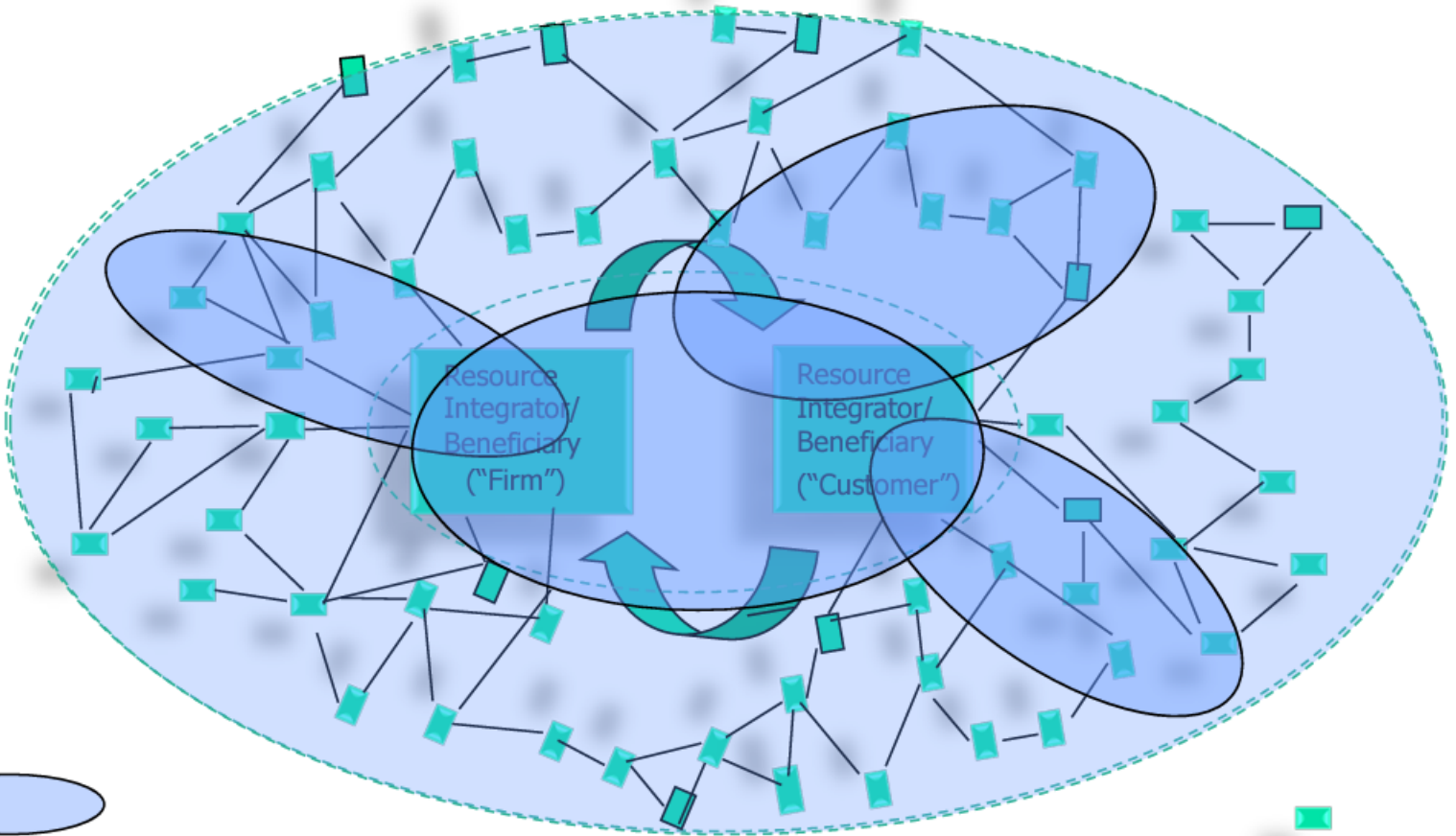Value proposition can be set properly only if we know all related inputs

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Micro exchange

Supplier — Supply/Value Chain — Producer — Consumer

Resource Integrating actors

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Exchange within service ecosystems

Institutions & Institutional arrangements/logics

Resource Integrators

Resource Integrator/ Beneficiary ("Firm")

Resource Integrator/ Beneficiary ("Customer")

S. Vargo: Service-Dominant Logic: Foundations and futures, 2018, presentation on Research seminar at Karlstad University

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Exchange within service ecosystems

Resource Integrator/ Beneficiary ("Firm")

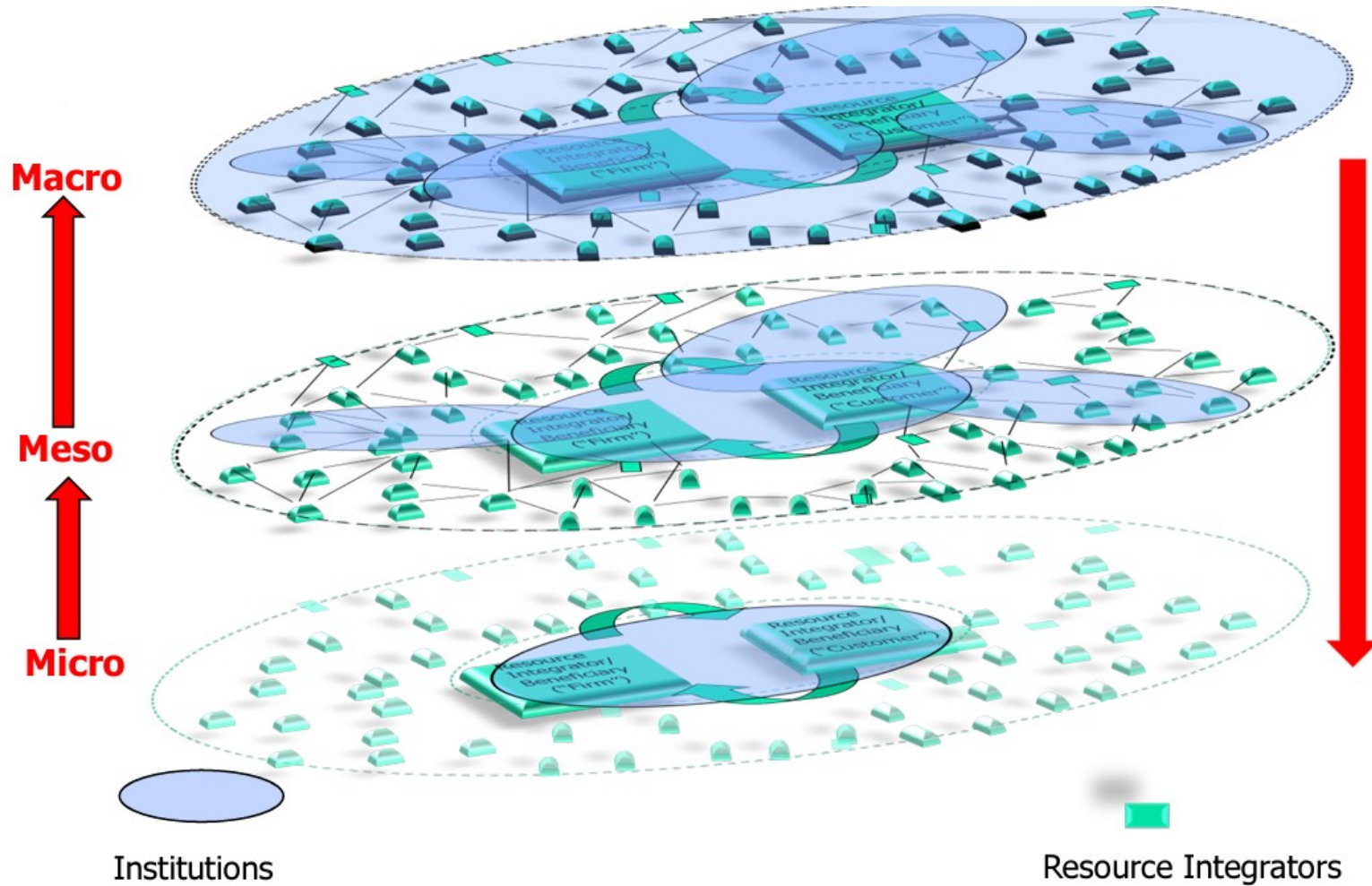Resource Integrator/ Beneficiary ("Customer")

Institutions & Institutional arrangements/logics

Resource Integrators
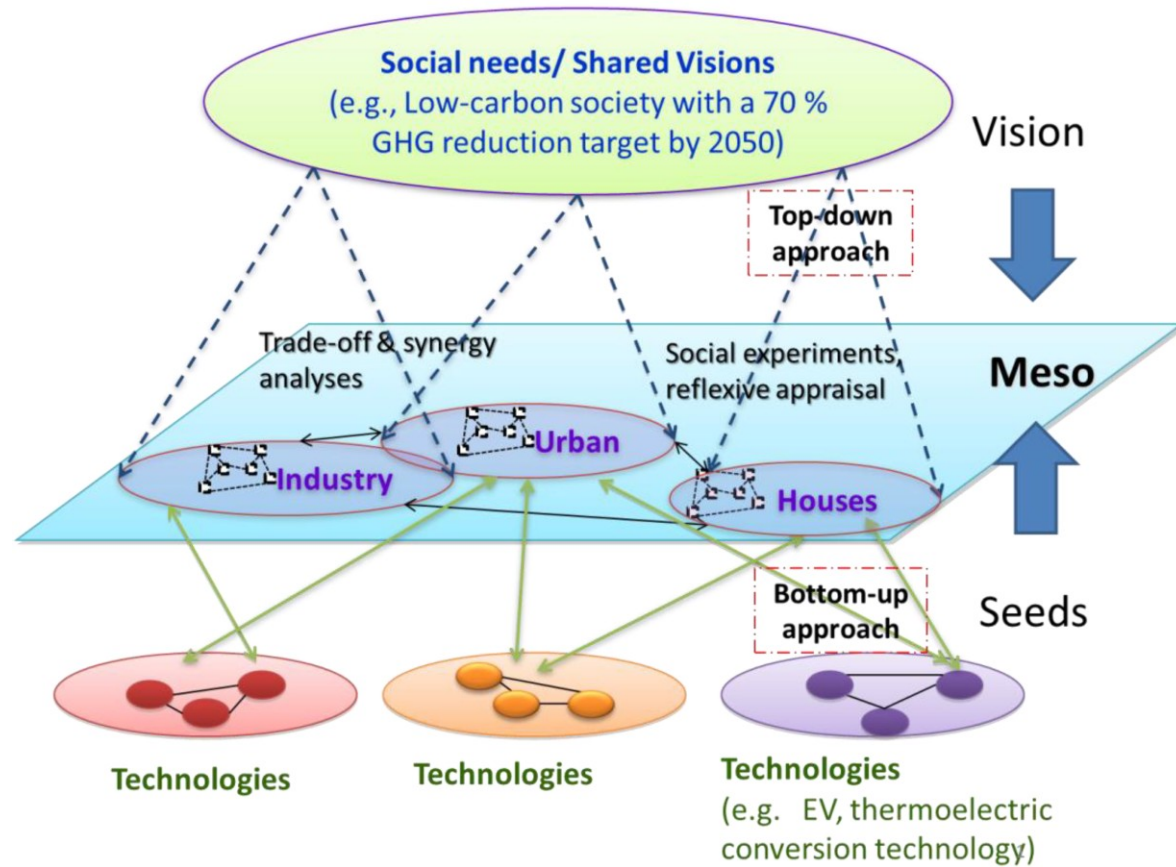
S. Vargo: Service-Dominant Logic: Foundations and futures, 2018, presentation on Research seminar at Karlstad University

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Structuration of service ecosystems

S. Vargo: Service-Dominant Logic: Foundations and futures, 2018, presentation on Research seminar at Karlstad University

Service system environment

Hara, K.; Uwasu, M.; Kobayashi, H.; Kurimoto, S.; Yamanaka, S.; Shimoda, Y.; Umeda, Y. Enhancing Meso Level Research in Sustainability Science—Challenges and Research Needs. *Sustainability* **2012**, *4*, 1833-1847. https://doi.org/10.3390/su4081833

Service system environment

During negotiations must be explored not only the target, but also all important relation

Cooperating service system

Dual service system