

Open Evaluation 2016, Vienna
25 November 2016

Programme evaluation and organisational development for transdisciplinary research

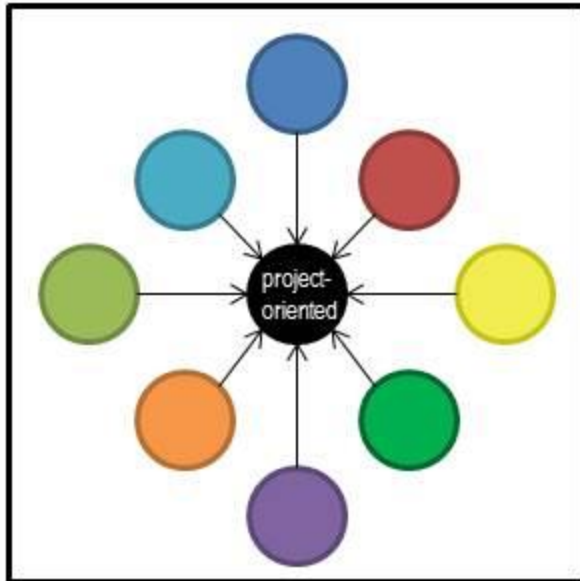
Go Yoshizawa (Osaka University)

Nika Ando (JST/RISTEX)

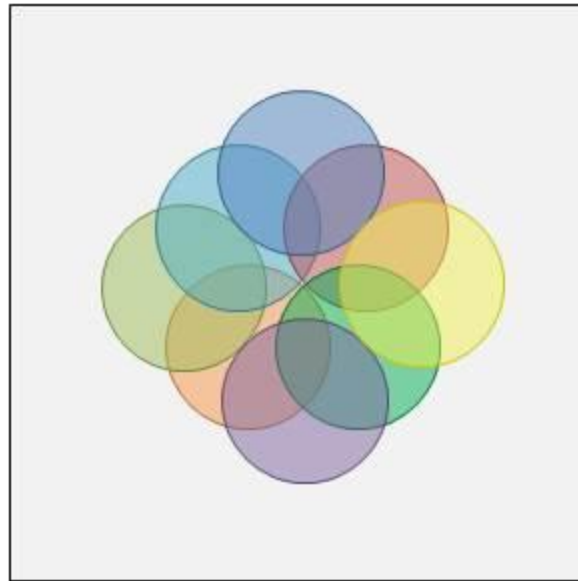
Keiichiro Tahara (Institute for Future Engineering)

Multi- → Inter- → Transdisciplinary

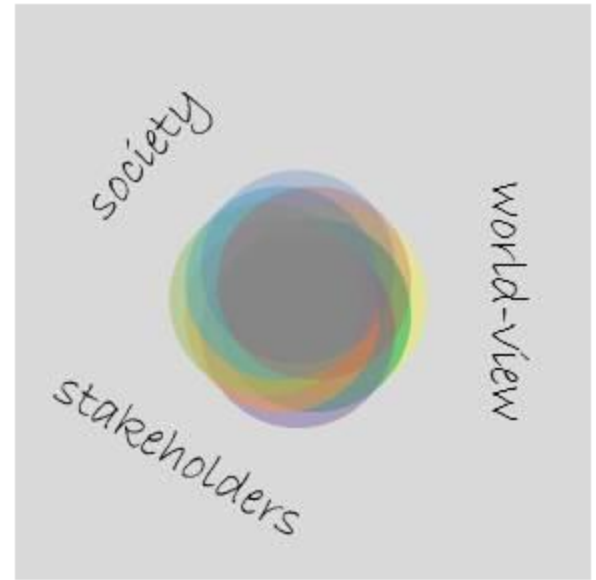
Multidisciplinary



Interdisciplinary



Transdisciplinary



- **Integration:** Separated → Integrated → "Become One"
- **Perspective:** ≥ 2 disciplinary → include stakeholders+
- **Team's Goals:** Project → Learning, New Ideas → Problem Oriented
- **Leadership:** Varied Leadership → Rotating Leadership?

Transdisciplinary research (TDR)

- Integrates knowledge in a systematic way and focuses on problem solving of the life-world (Alvargonzález 2011; Klein 2010)
- Makes the boundary between academia & society in knowledge generation more blurred (Pohl 2008; Mobjörk 2010)



Getting Involved

Communication Plan
Work Shadowing
Visiting Fellowships
Events

Getting Involved

Relu consults widely among stakeholder organisations in the formulation of the research programme. Relu is advised by a [Strategic Advisory Committee](#), and, stakeholder forums which bring together key stakeholders from the public, private and voluntary sectors to act as sounding boards on research programme and project development. Relu's food chain projects were informed by the [Food Chain Forum](#) from 2005-2008 and the [People and the Rural Environment Forum](#) from 2006-2009. Current stakeholder engagement includes the [Animal and Plant Disease Forum](#). [Stakeholder Engagement Plans](#) are in place with key stakeholders.

Projects are working with a wide range of organisations and social groups, some in an advisory capacity, others as consultees, informants or research partners.

Relu is funding [work shadowing](#) to introduce staff to the action-contexts in which their research may be used. Relu researchers are shadowing staff in a number of commercial organisations, voluntary bodies and public agencies.

The programme also funds [Visiting Fellowships](#) which enable policy makers and practitioners from the commercial, voluntary or public sector to visit a Relu research team or cluster of teams with a view to exploring the implications of the research for their work and to raising awareness of their interests among the researchers.

At their most radical, projects are sidestepping the conventional researcher/research subject divide to pursue an approach best described as the co-production of knowledge

Strategically important
knowledge areas

Innovativeness of specific
target groups

Cross-border
co-operation

Challenge-driven
Innovation

Challenge-Driven
Innovation

Partnership Programmes

EU and international
co-operation

Search for programme

Go to ...

Challenge-driven Innovation

Activities Updated: 4 January 2016

Vinnova is moving towards a challenge-driven strategy. The rationale for this shift is the globalisation of knowledge, technology and capital flows. This has enabled new sources and forms of competition and opened up new markets and opportunities for the creation and delivery of innovations.

To remain competitive, Swedish industry, like that in many other countries, has been forced to move up the value chain and embrace innovation, entrepreneurship and collaboration in new ways.

Moreover, Sweden is facing a number of social challenges that will have a strong impact on economic performance, such as an ageing population. At the same time, there is an increasing need to address global challenges like climate change, health, pollution, resource depletion etc. New, innovative approaches are urgently needed to meet these challenges.

In response to the above described conditions, Vinnova has decided to develop a new strategy that is more suited to address the new challenges and opportunities.

This challenge-driven strategy derives from the important social and societal challenges driving the development of innovations and bringing global market opportunities. In contrast to science and technology-led initiatives, Vinnova's strategies have the following characteristics:

- Addressing essential or critical needs in society and industry. These needs require users/ customers whose demand for solutions incentivises them to engage in developing and testing new solutions. Co-creation is a critical success factor.
- Promoting new, cross-sector collaborations to find solutions to the needs; solutions to social and societal challenges are rarely found in one traditional sector or a single research field. New collaboration patterns are emerging between actors in different value chains; for example 'green urban transportation' is being developed at the interface between energy, automotive engineering and ICT.
- Fostering systemic approaches which address different social subsystems, framework conditions, political, commercial, technological subsystems, etc.

Contact

Daniel Rencrantz

Read more

Challenge-driven
Innovation



National Institute of Environmental Health Sciences
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GO

Health & Education

Research

Funding Opportunities

Careers & Training

News

About NIEHS

Research

Funded by NIEHS Grants

Centers, Interagency
Collaborations, and ConsortiaSuperfund Research
Program

About SRP

2015 Strategic Planning

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History and Goals

Partnerships

Program Mandates

Community Engagement
and Research Translation

Events

Hazardous Substances
Detection and
Remediation Program

Materials for Grantees

Public Health Impacts

About SRP


Superfund Research Program

Since its inception in 1987, the SRP has applied a multidisciplinary approach to research focused on providing a solid foundation that environmental managers and risk assessors can draw upon to make sound decisions related to Superfund and other hazardous waste sites. We believe that research plays a crucial role in addressing challenges posed by environmental contamination, such as health risks, toxicity, exposure predictions, fate and transport, and the need for cost-effective treatments for hazardous waste sites found throughout the United States.

Today, the Program supports peer-reviewed research in university-based [Centers](#), encompassing collaborations at over 100 institutions. These Centers conduct interdisciplinary, multiproject research focused on one central theme. The SRP also provides funding for Small Business Innovation Research / Small Business Technology Transfer Research (SBIR/STTR) grants designed to foster the commercialization of relevant technologies, products, and devices, as well as funding for individual research grants to address specific issues that complement the multiproject center grants.

The SRP also has a strong training component, supporting many outstanding graduate students and postdoctoral researchers. Finally, the Program funds a variety of outreach efforts to facilitate the translation of the Program's research findings to the communities and organizations most concerned with hazardous



To learn more about the history of the program and its research successes, check out the [SRP commemorative booklet](#) .

[Mistra](#) /
 [Mistra](#) /
 [Mistra](#) /
 Managing Mistra programmes

About Mistra

> Managing Mistra programmes

Communication and user dialogue

Financial administration

Programme agreement

Programme organisation

Programme plan

FAQ

Staff

Board

How we work

Asset management

External associates

Operational strategy

Statutes for Mistra



From left: Kenneth Abrahamsson, Swedish Council for Working Life and Social Research (FAS); Sofia Rickberg, Mistra Arctic Futures; Jonas Edvardsson, E4 Mistra (Energy-efficient reduction of exhausts from vehicles); Lars Frenning, Mistra Innovation; Susanna Bruzell, MistraSWECIA (Mistra's Swedish research programme on Climate, Impacts and Adaptation); and Lars-Erik Liljelund, Mistra's CEO, on Mistra's Programme Directors' Conference at Högberga Gård in October 2012.

Published 30 June 2013

Managing Mistra programmes

Running a research programme under Mistra's aegis comprises a wide range of components that are all equally important. Collected here is information about

ACCUEIL

Le programme REPERE est une plate-forme de dialogue, de propositions et de projets explorant les voies de la participation des associations qui portent les enjeux environnementaux et du développement durable à la programmation de la recherche et aux activités de recherche.

Il contribue aux orientations stratégiques définies par la [Stratégie nationale de transition écologique vers un développement durable \(SNTÉ-DD\)](#) particulièrement à son axe 6 « **orienter la production de connaissances, la recherche et l'innovation vers la transition écologique** » et ses quatre priorités :

- Impliquer les parties prenantes dans l'orientation de la recherche
- Faciliter les démarches d'innovation avec tous les acteurs
- Associer les parties prenantes à une production efficace de données et de connaissances
- Faciliter et favoriser l'accès aux données et aux résultats scientifiques

Le programme REPERE vise à accompagner une réforme durable du pilotage de la recherche et de l'expertise en y intégrant la participation des associations.

[A LA UNE / ACTUALITÉS DU PROGRAMME](#)

Installation de la commission pluraliste REPERE

[A LA UNE / ACTUALITÉS DU PROGRAMME](#)

Colloque du programme REPERE : Transition écologique : quels partenariats entre recherche et société civile ?

[ACTUALITÉS DU PROGRAMME](#)

Publication de la synthèse du colloque REPERE 2014 "Transition écologique : quels partenariats entre recherche et société civile ?"

[A LA UNE / ACTUALITÉS DU PROGRAMME](#)

Parution de la note "Analyse transversale des projets de REPERE (AAP2) Esquisse de profils-types"

In this section

Research in the Creative Economy

> Knowledge Exchange and Partnerships

Follow-on Funding Scheme

Knowledge Transfer Partnerships

> KE Hubs for the Creative Economy

Knowledge Exchange with Policy Makers

Cultural Engagement Fund

Resources

Design Research

Home > Innovation > Knowledge Exchange and Partnerships > KE Hubs for the Creative Economy

KE Hubs for the Creative Economy

The Arts and Humanities Research Council (AHRC) has committed £16M (80% Full economic Costs (FeC)) during the period 2012 – 2016 to support four Knowledge Exchange Hubs for the Creative Economy.

Knowledge Exchange Hubs, working as consortia, connect excellent research in the arts and humanities with a range of creative and cultural organisations, large and small, across the UK, to accelerate growth and innovation, generate new and exciting knowledge exchange opportunities, foster entrepreneurial talent and contribute to the development of the UK's Creative Economy.

These are:



The Creative Exchange [\(Opens in a new window\)](#) led by Lancaster University in partnership with the University of Newcastle and the Royal College of Art.

Director: Professor Rachel Cooper

Email: r.cooper@lancaster.ac.uk

Tel: 01524 510871.



Design in Action [\(Opens in a new window\)](#) led by the University of Dundee in partnership with Edinburgh College of Art at the University of Edinburgh, The Glasgow School of Art, Gray's School of Art at the Robert Gordon University, University of Abertay and St Andrews University.

Director: Professor Georgina Follett

Email: g.i.p.follett@dundee.ac.uk

Tel: 01382 385202.

TDR Evaluation

- Theoretical and empirical discussions (Wickson, Carew & Russell 2006; Walter et al. 2007; Garner et al. 2013; Belcher et al. 2016)
- A **dual challenge** for public research funding agencies
 - Demand for measuring and evaluating research performance
 - Wellbeing of research cultures and academic systems
- Constructive evaluation (Klein 2008), productive interactions approach (Spaapen & van Drooge 2011)
- Early stakeholder involvement in evaluation affects the utilisation of evaluation results (Teirlinck et al. 2013) and it makes evaluation more responsive and synergistic for policy learning (Abma 2004)



**RISTEX: A funding agency for
transdisciplinary research**

- Founded in 2001 following the Budapest Declaration of the World Conference on Science in 1999
“Science in Society and Science for Society”
- **Mission**: Creating social and public values through funding R&D which aims at finding solution of social problems
- More than 200 projects funded since 2001

Identifying social problems

- Horizon scanning of social issues
- Setting R&D focus areas through workshop and interviews with stakeholders

Conducting R&D

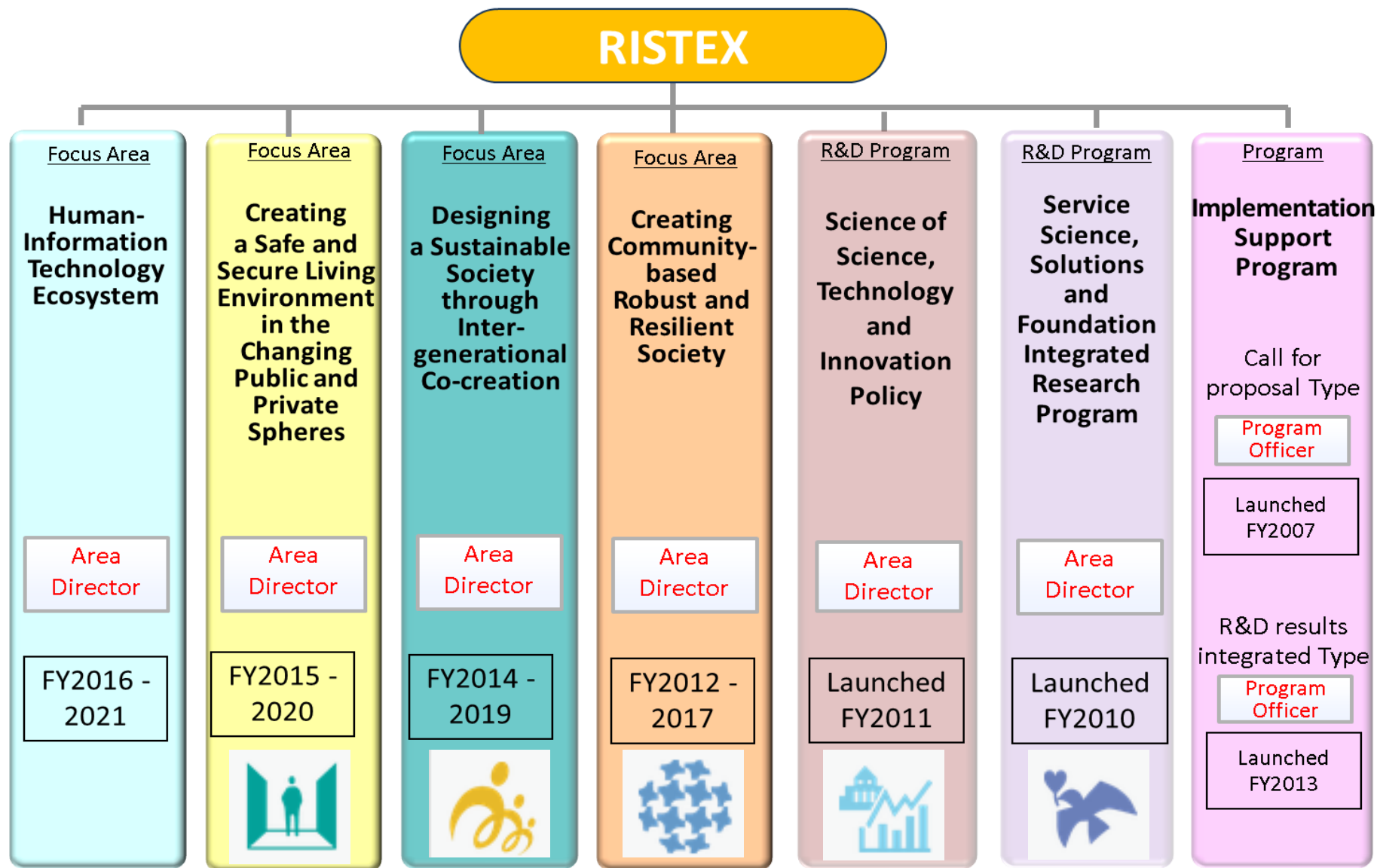
- Problem-oriented R&D
- Transdisciplinary approach
- Hands-on R&D management style by Area Director and Area Advisors

Social embedding of R&D outcome

- Supporting programmes for implementation of created models and/or methodology in society



R&D Areas & Programmes (FY2016)



Knowledge in Intermediaries

Intermediaries in Innovation Studies

- Intermediaries (Watkins & Horley 1986; Seaton & Cordey-Hayes 1993; Callon 1994; Shohert & Prevezer 1996)
- Third parties (Mantel & Rosegger 1987)
- Brokers (Aldrich & von Glinow 1993)
- Intermediary agencies (Braun 1993)
- Consultants as bridge builders (Bessant & Rush 1995)
- Intermediary firms (Stankiewicz 1995)
- Bricoleurs (Turpin et al. 1996)
- Superstructure organizations (Lynn et al. 1996)
- Knowledge brokers (Hargadon 1998)
- Intermediary level bodies (Van der Meulen & Rip 1998)
- Innovation intermediaries (Howells 1999)
- Regional institutions (McEvily & Zaheer 1999)
- Boundary organizations (Guston 1999; Cash 2001)
- Knowledge intermediaries (Millar & Choi 2003)



What are Intermediaries?

1. Knowledge flow

between knowledge producers and knowledge users (market or society)
(knowledge transfer and exchange)

2. Monetary flow

between funders and beneficiaries
(resource allocation)

3. Intervention level

between policy makers and project teams
(programme level)



Working Definitions

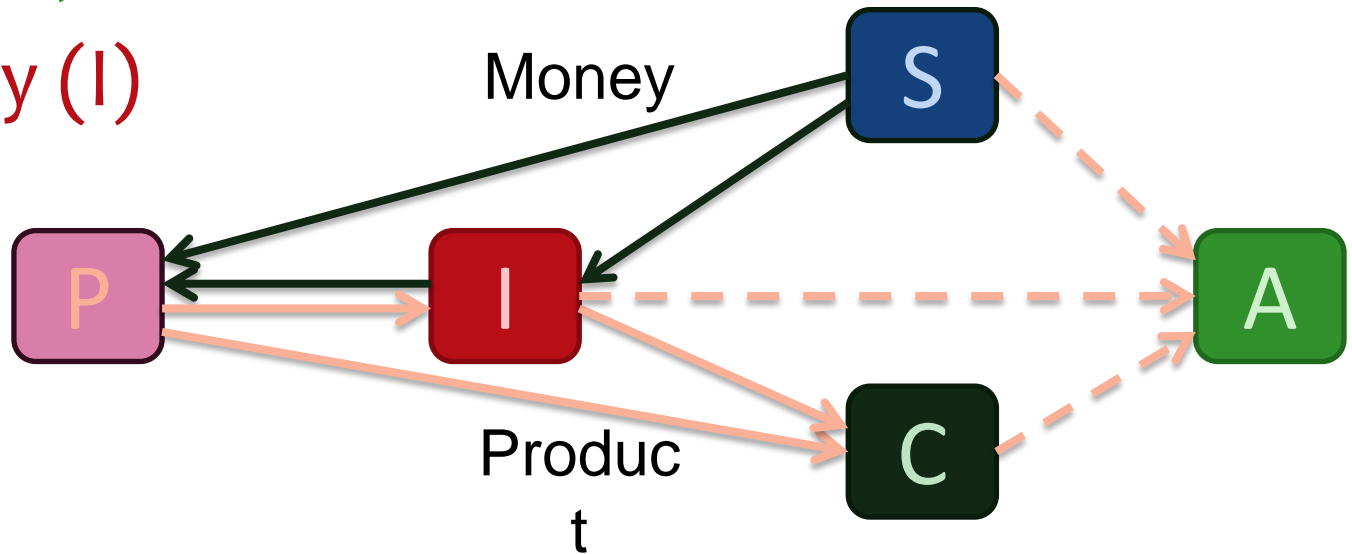
Producer (P)

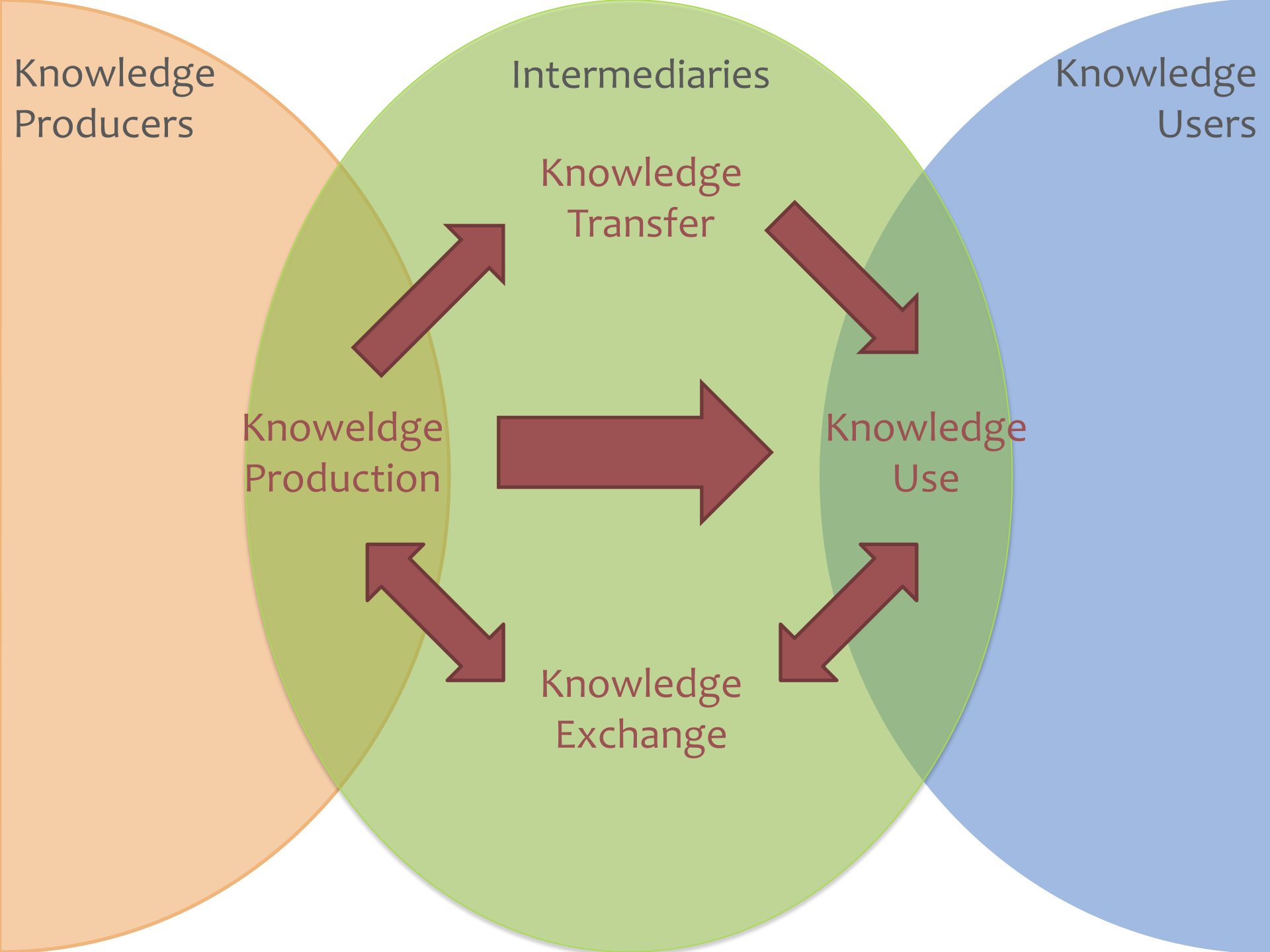
Sponsor (S)

Client (C)

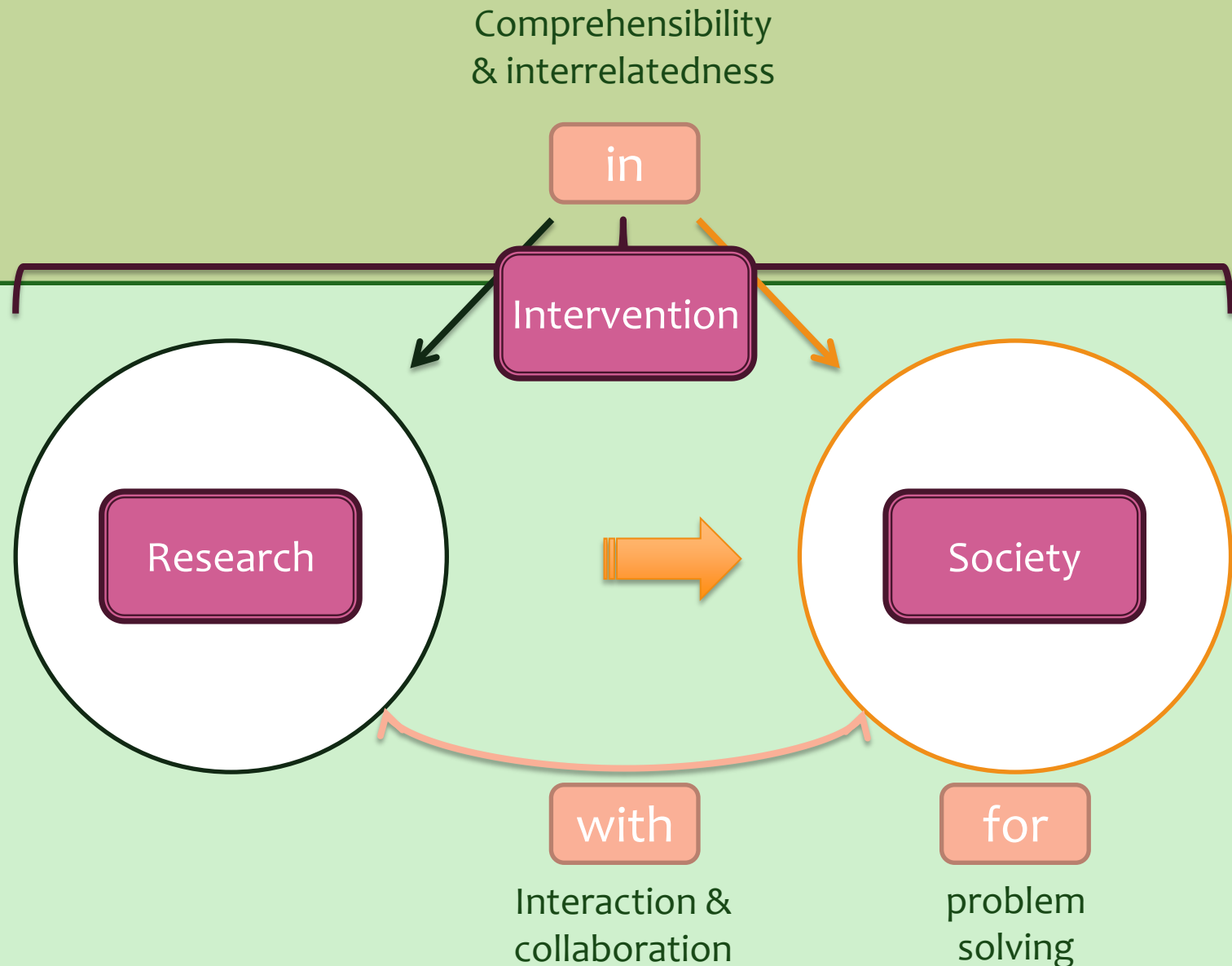
Addressee (A)

Intermediary (I)

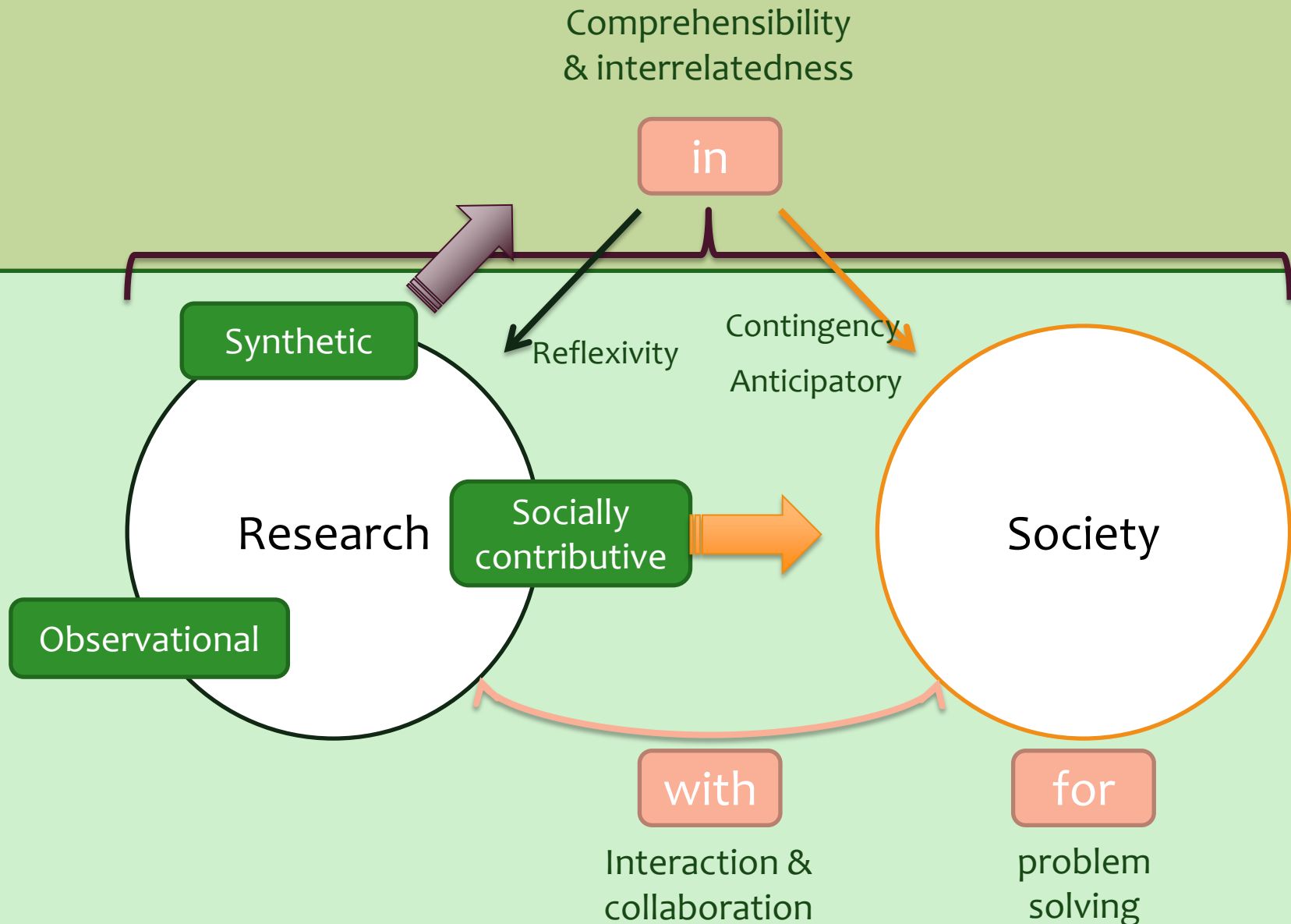




Knowledge for TDR ('socio-technology')



Knowledge for TDR ('socio-technology')



Type of Knowledge and Actors for TDR

Type of knowledge	Researchers	Practitioners
Observational	Observe society and nature to provide generalised knowledge; have interest and responsibility in establishing and maintaining academic discipline	Observe society and nature to grasp regional needs and social problems; advocate for solving the problems identified from local knowledge
Synthetic	Formulate a methodological and institutional model for problem solving; have interest and responsibility in co-production of knowledge with wider stakeholders	(Personally) hold design thinking and network to depict problem environment and solution paths; have interest in problem solving and manage stakeholders
Socially contributive	Offer knowledge originated at themselves and adjusted through interaction with society; commit to society and nature for their social responsibility	Provide a solution to the given problem by action based on tacit knowledge coming from their own experience and idea



Organisational Diagnosis for RISTEX

Environment

Local Env.



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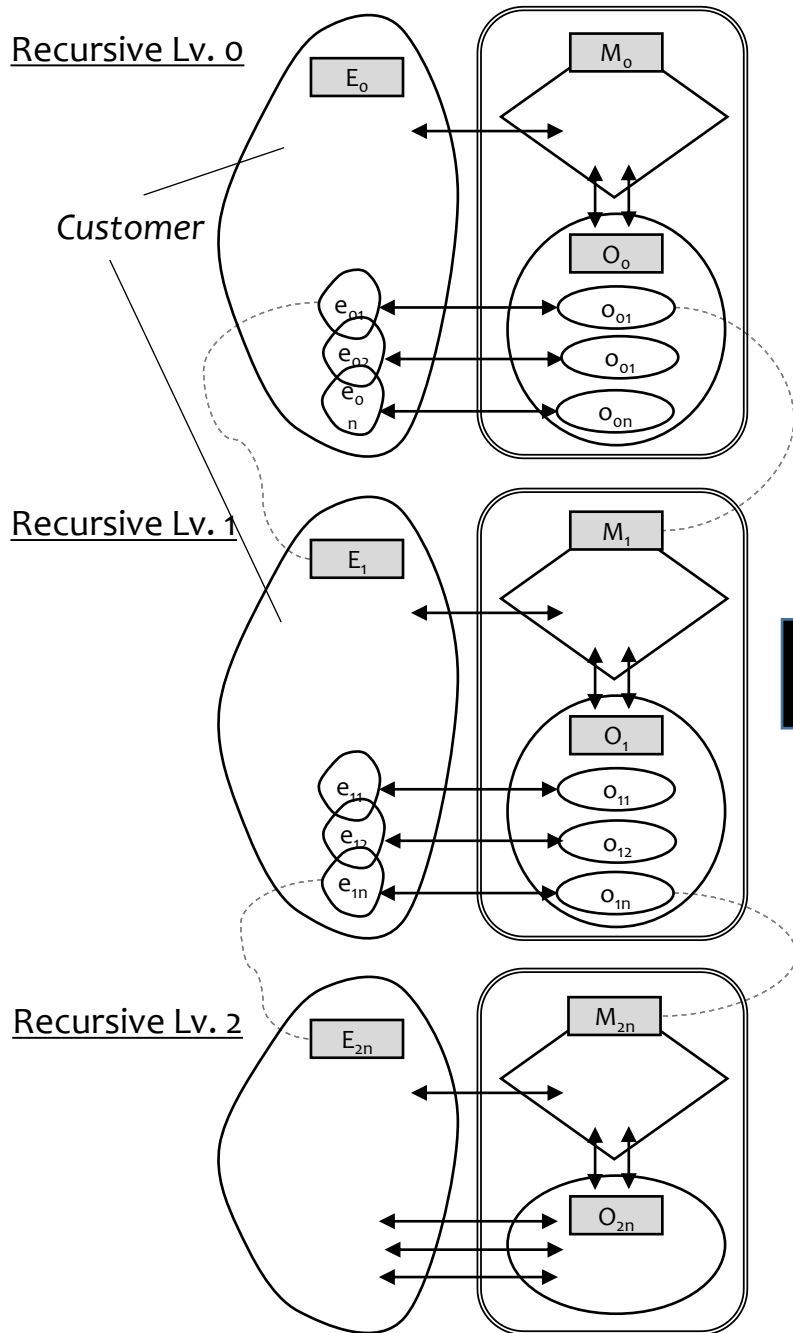
Recursive Level 0

Recursive Level 1

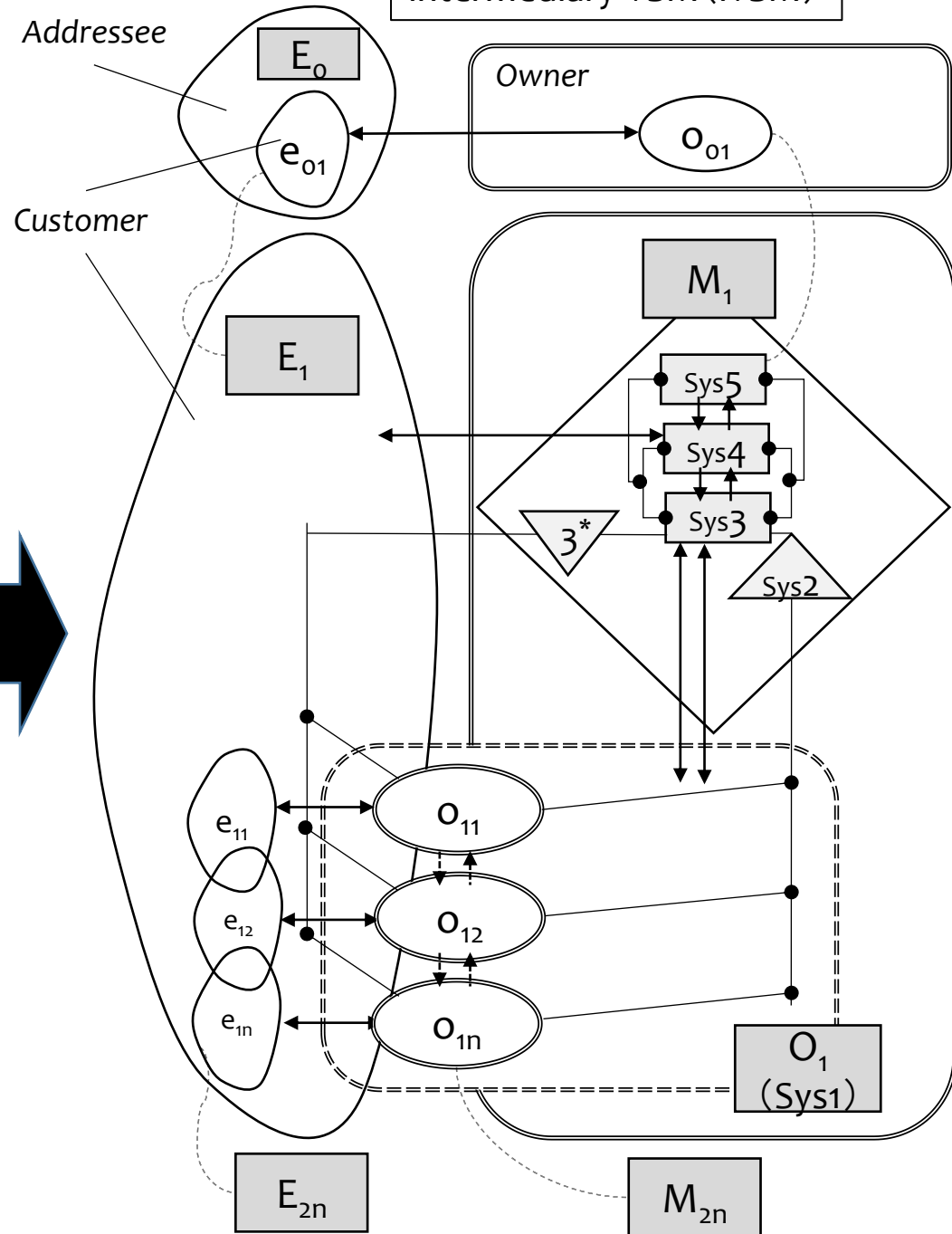
Recursive Level 2

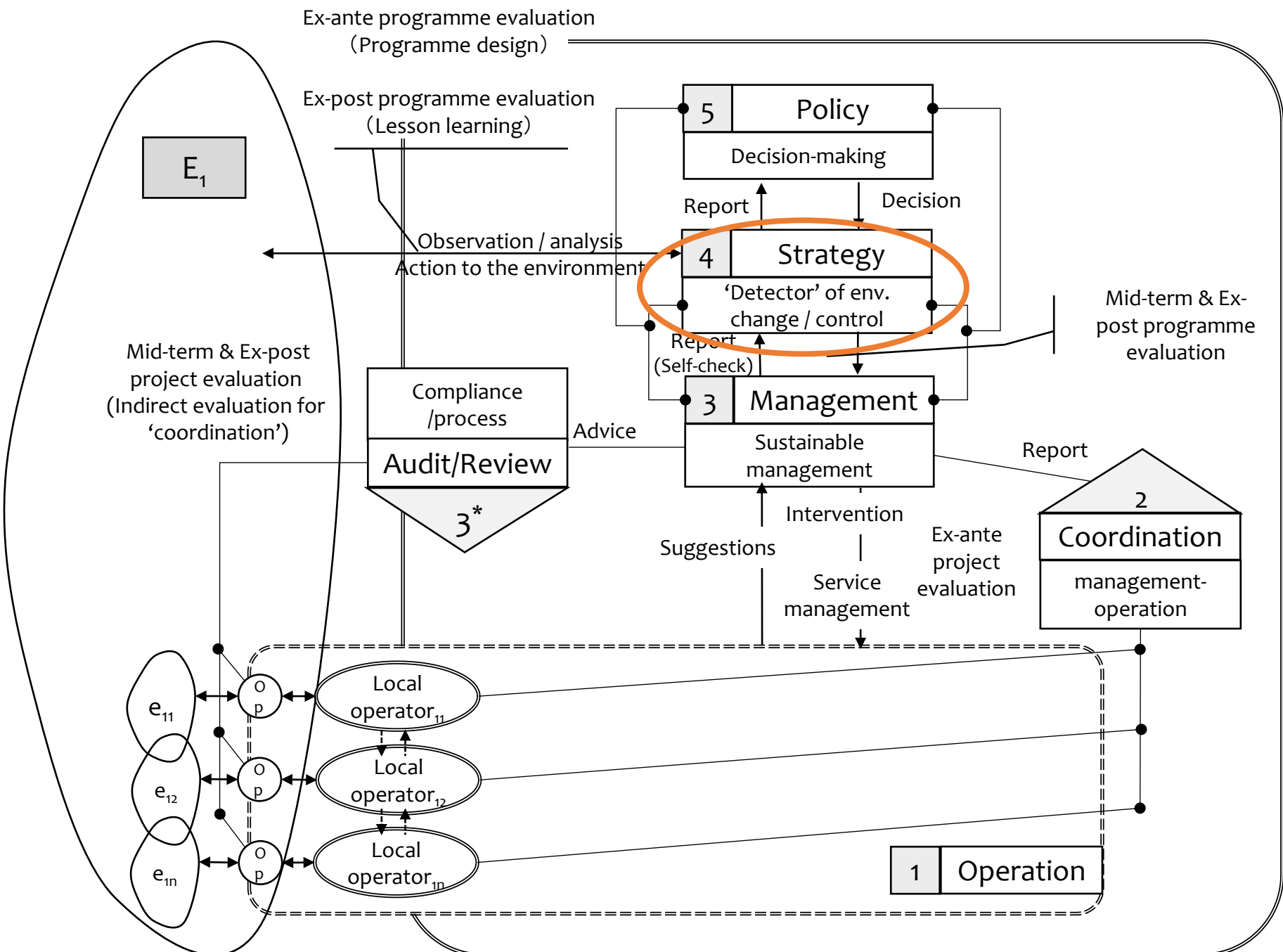
Beer (1972, 1979, 1981, 1985)

Standard VSM



intermediary VSM (iVSM)





Review for Organisational Reform

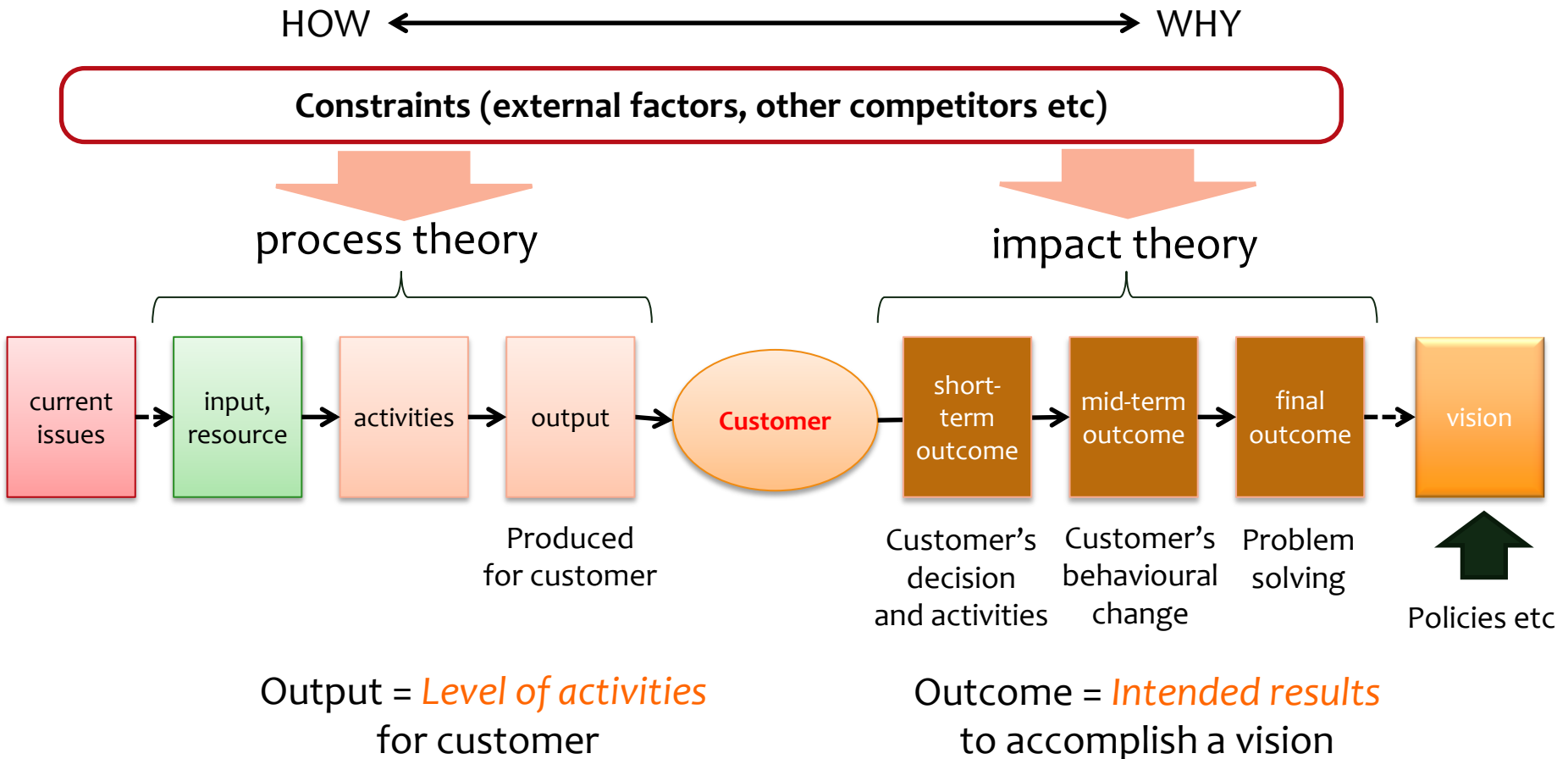
- RISTEX (2013a)
 1. Linking between scientific knowledge and local knowledge
 2. Developing responsible experts
 3. Drawing lessons from small societal challenges
 4. Building trust-responsiveness between actors
- RISTEX (2013b)
 1. Improving in-house analytical functions
 2. Developing programme structures highlighting a story about problem solving
 3. Reforming the evaluation system



Programme evaluation at RISTEX

Programme Evaluation

To refine a programme by clarifying the logic structure of the evaluation subject (i.e. **theory, story**) and estimating intended results (**outcome**) as well as effectiveness and efficacy of the **process**



Steering and Evaluation Committee (SEC)

- Eight experts to conduct evaluation of R&D programmes and organisational management
- Developed a new format for mid-term and ex-post programme evaluation
- Tried to reform the evaluation system and make mid-term evaluation more relevant and effective
 - Informal meeting with programme governance board at the early stage for information exchange and consultation for programme development
- Formative, interactive and constructive



Evaluation Format

1. Problems subject to the programme and **a story about problem solving**
2. Programme management and activities (process)
3. Progress to the goal (outcome)
4. Output additionality (relevance)
5. Recommendations to RISTEX

Cf.

- story-based evaluation using logic models (McLaughlin 1999)
- qualitative case studies (Costantino & Greene 2003)
- success stories (Dart & Davies 2003)



Organisational Development

Organisational Implications

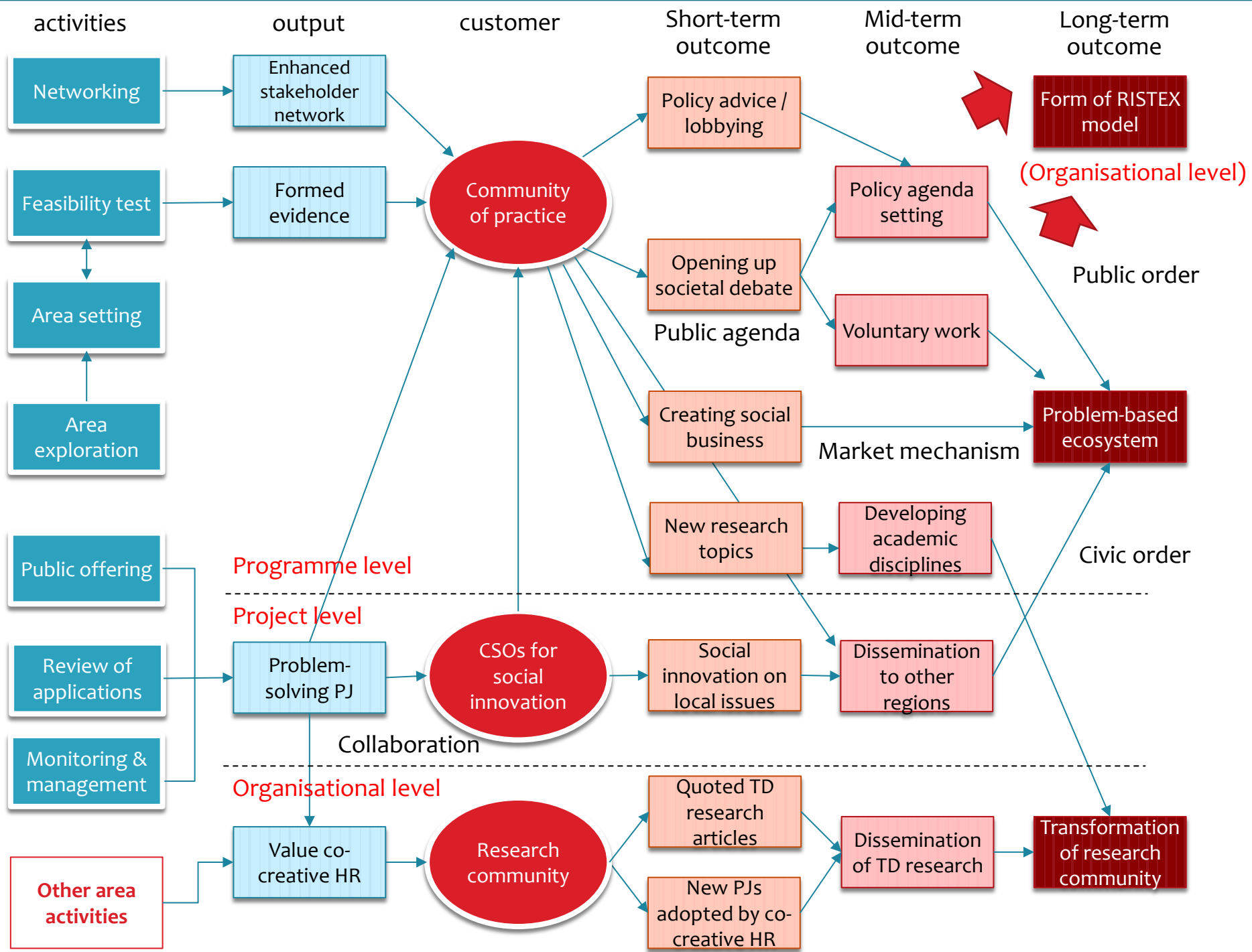
- Consistency within and between individual programmes that bring a shared vision through the story may improve organisational evaluation capacity (Cousins et al. 2014) and organisational development (McClintock 2004)
- TDR requires a long-term commitment over 5-10 years (Roux et al. 2010), which raises issues on participatory evaluation and management
- Challenges
 1. Responsible reform of the R&I ecosystem
 2. Intervention to the governmental policy arena



SEC's Recommendations to RISTEX (2016)

1. Implementing programme outcome into the society
2. Effective story-based programme design
3. Human resource development for programme design, management and evaluation





Conclusion

- Difficulty of evaluation on TDR and social innovation
- The reform of programme evaluation requires organisational development by broadening out evaluation with wider participants (cf. Ely, Van Zwanenberg & Stirling 2014) and reflexively arranging knowledge and actors

