



Strengthening
University-Industry
Partnerships

The dynamics of the Knowledge Square
will foster the universities of the future

2023-06-13

Torbjörn Lundh

Vice President Collaboration & Innovation
University of Gothenburg



Johan Blaus

Senior Advisor Collaboration and
Partnerships, KTH





KLOSSnet

National network for persons in HEI leadership
regarding strategic collaboration

(KLOSS = Knowledge and Learning about Strategic Collaboration)

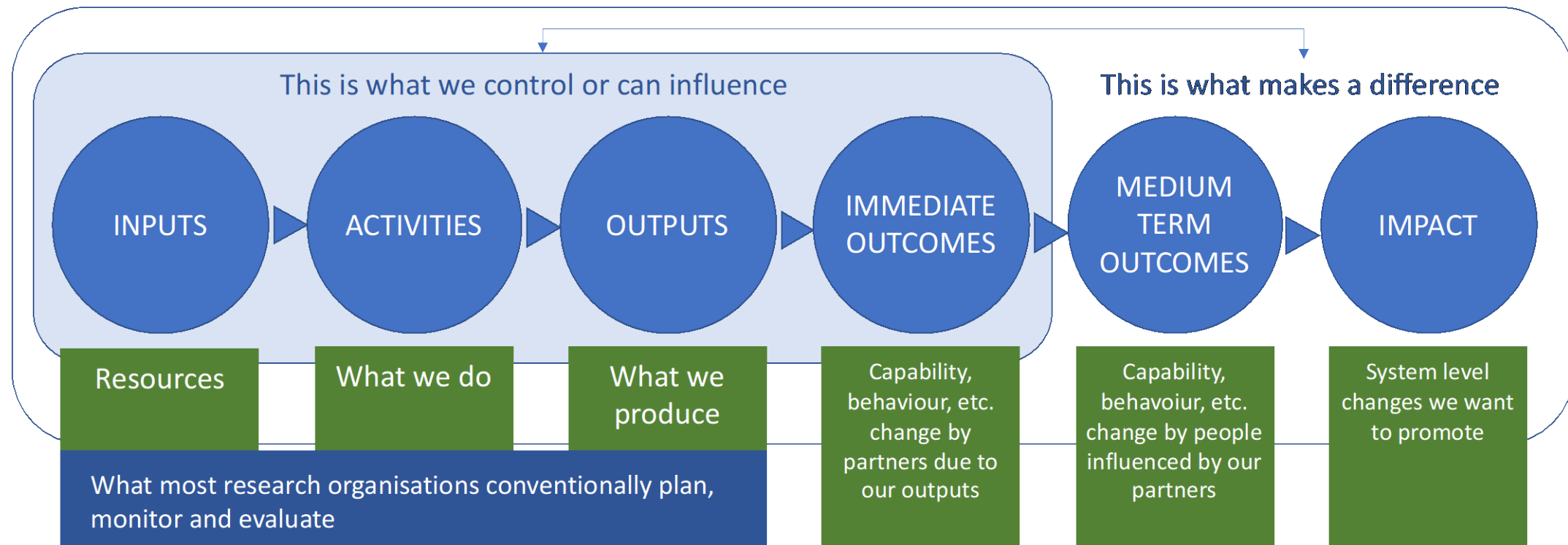


Impact management



Impact statement [purpose of research]

Participation: Who we need to reach across the various parts of the pathway to make a difference



From the Swedish law on higher education institutions:

Section § 2

As the accountable authority, the Government shall establish higher education institutions for the provision of:

courses and study programmes based on scholarship or artistic practice and on proven experience, and research and artistic research as well as development work.

*The mandate of higher education institutions shall include collaboration for **mutual exchanges** with the surrounding community, as well as ensuring that the knowledge and expertise found at the higher education **institution bring benefit to society.***

Collaboration with the surrounding community (“*samverkan*”) is a natural and mutually quality-driving part of working for a better world. At the University of Gothenburg, the task of collaborating with the surrounding community is done through mutually beneficial cooperation, knowledge sharing and exchanges with the rest of society.

From [The Swedish Higher Education Act](#) (1992:1434): “The mandate of higher education institutions shall include collaboration for mutual exchanges with the surrounding community, as well as ensuring that the knowledge and expertise found at the higher education institution bring benefit to society.”

Samverkan at the University of Gothenburg has its starting point in the so called “[Knowledge Square](#)”, where research, education, service to society and innovation are seen as mutually reinforcing starting points for the university's operations.

Striving for a better world above all means achieving sustainable development, as formulated in, among other things, the UN's Agenda 2030.

By collaboration we mean, among other things, contract research; contract education; joint projects in research, development and teaching; placements; collaboration with schools; and citizen science.

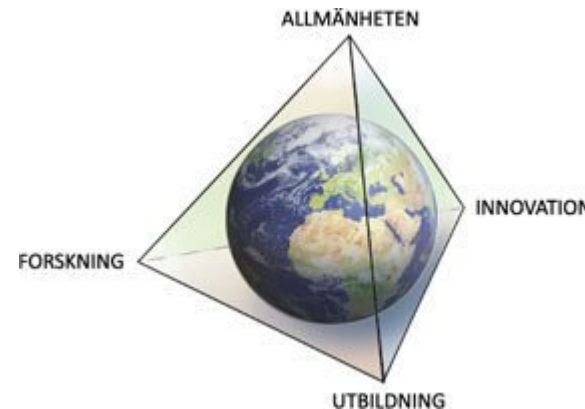
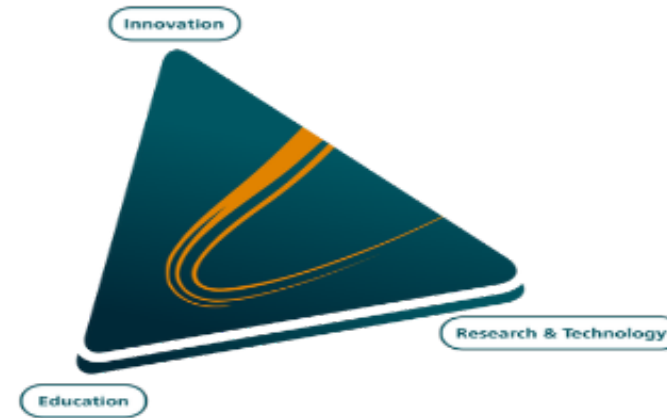
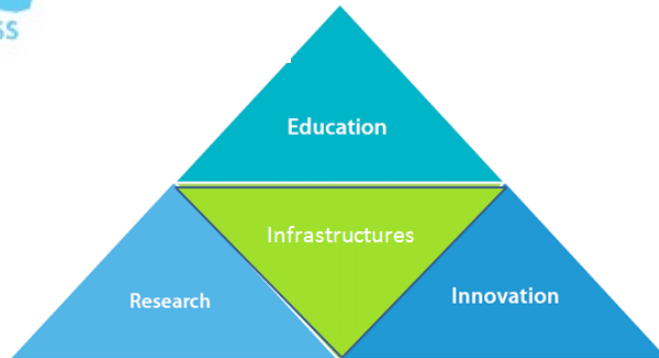
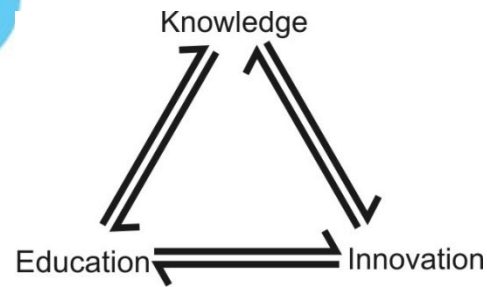
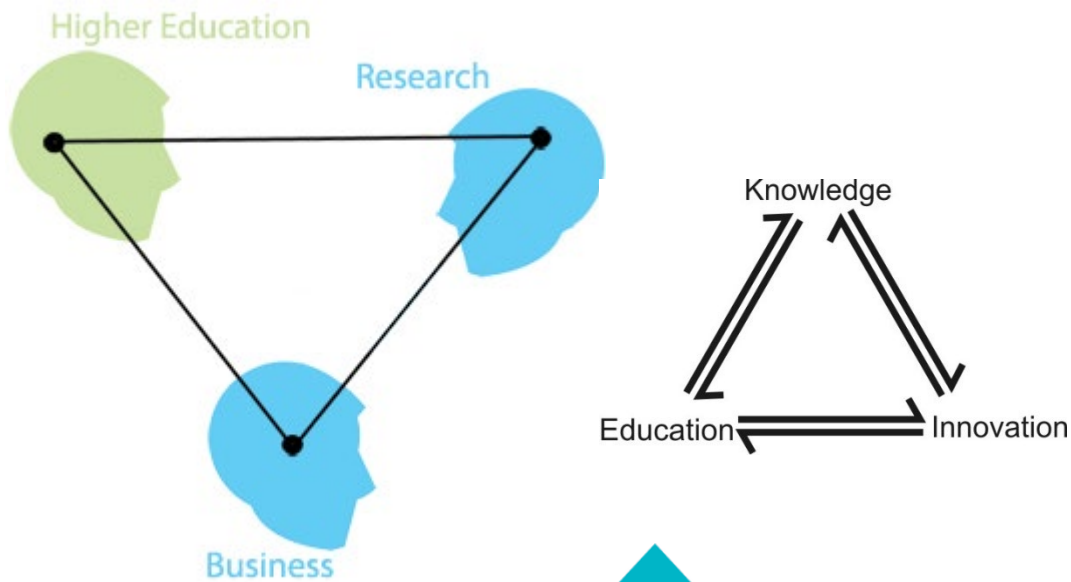
By mutually beneficial we mean, in a broad sense, working for scientifically-based decisions in society, and more specifically to contribute with innovations and innovative ideas and policy-influencing work, products or services.

By knowledge sharing, we mean an exchange between academia and the public, including in the form of participation in and organization of public activities such as festivals, fairs, performances and exhibitions or through the publication of popular science articles and books.

By exchange, we mean facilitating two-way mobility and making use of knowledge and experience from the rest of society, for example by co-opting teachers and researchers, inviting guest lecturers, organizing study visits, providing infrastructure or creating connections with alumni.

The rest of society encompasses everything outside the university/higher education arena, such as commerce and industry, cultural life, the public sector, the general public, the non-profit sector and various political arenas.

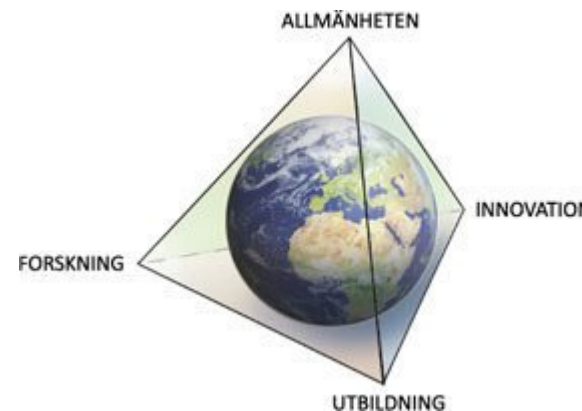
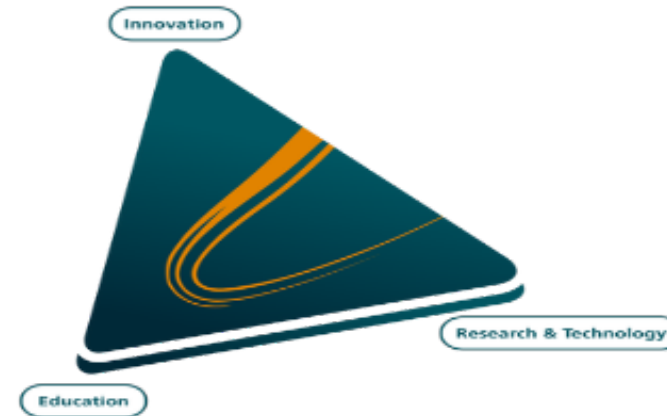
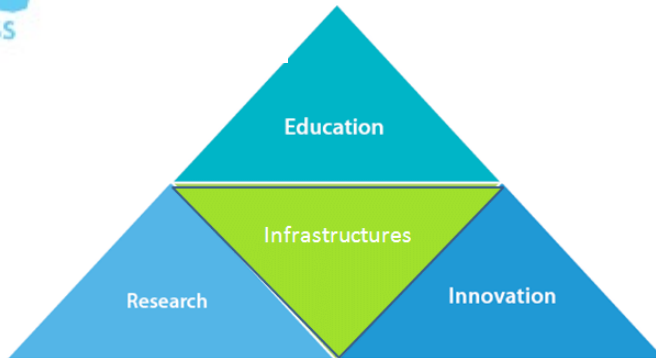
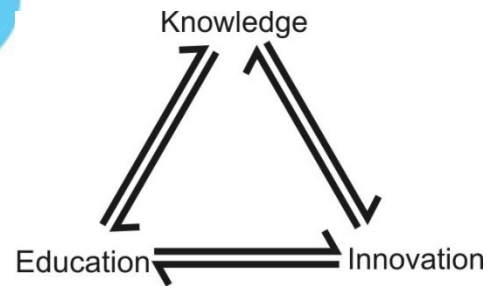
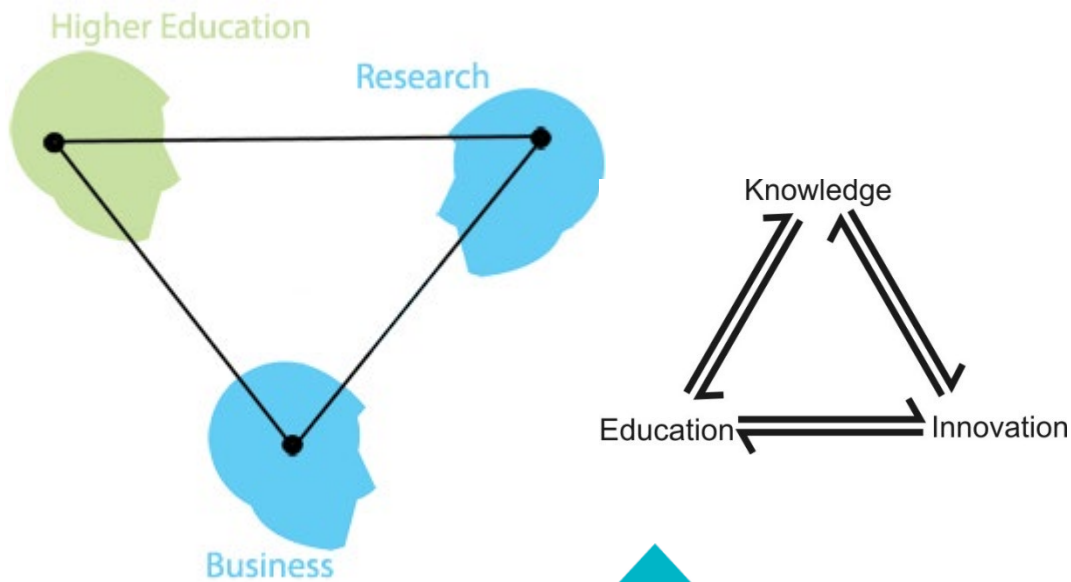
Knowledge triangle



Innovation

- Business
- Research & Technology
- Infrastructures
- Valorisation
- Start-ups
- Patents
- Products
- Services
- Open Innovation
- Data
- Software
- Models
- Methods
- Theories
- Algorithms
- Exhibitions
- Policy contributions
- Outreach
- Popular science
- Society
- Collaboration
- Commissioned research
- Commissioned education
- Events
- Debate

Knowledge triangle

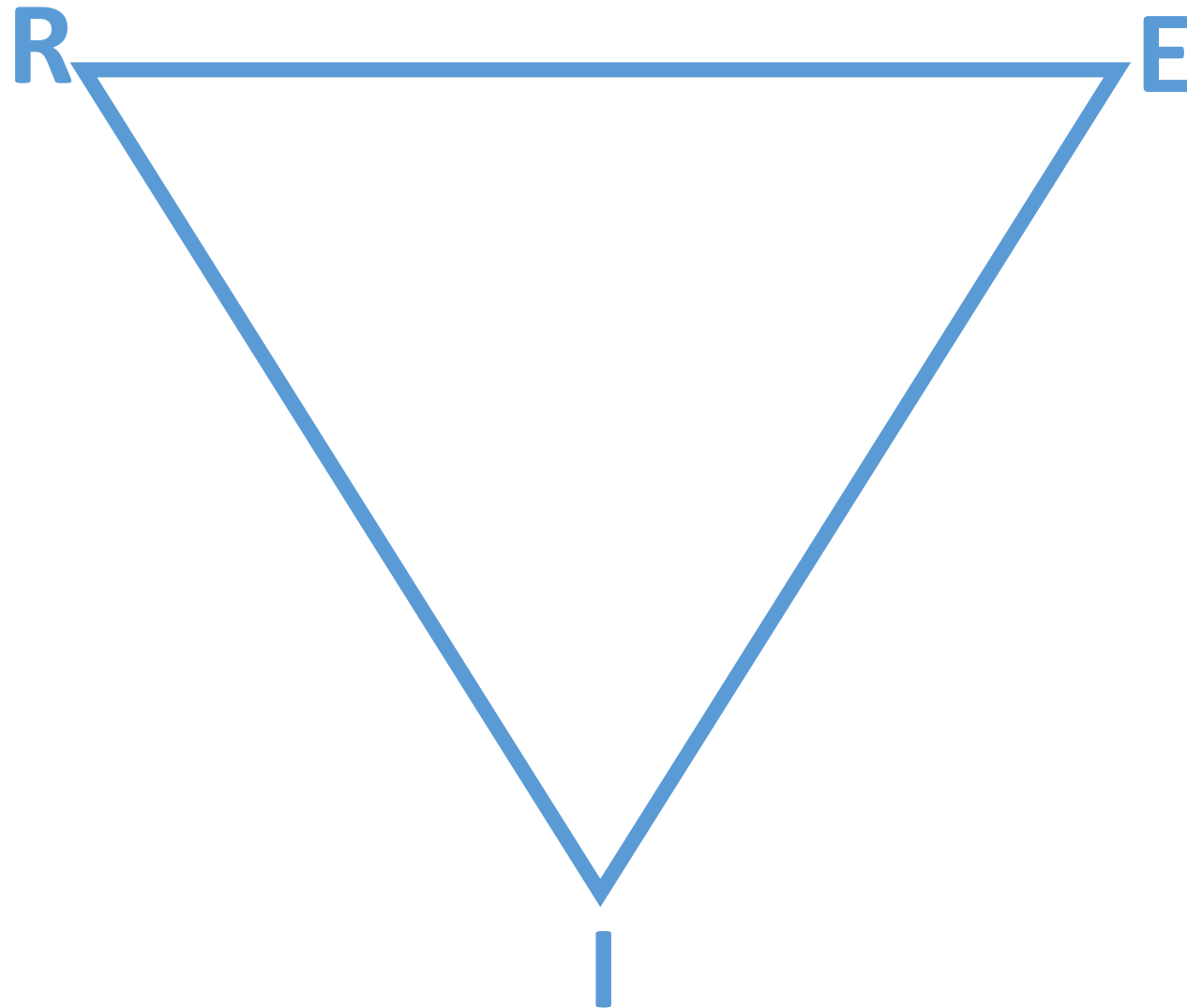


Innovation

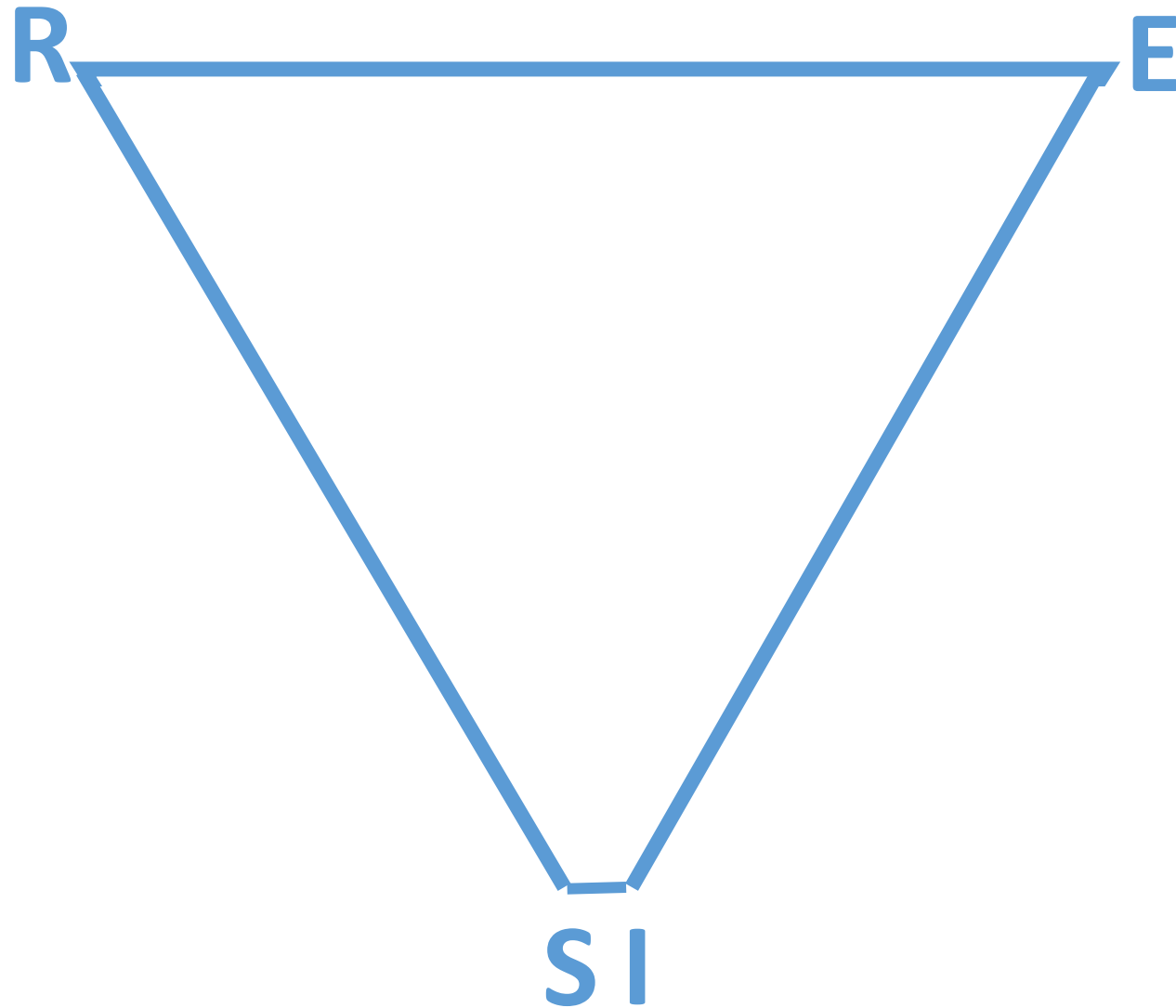
- Business
- Research & Technology
- Infrastructures
- Valorisation
- Start-ups
- Patents
- Products
- Services
- Open Innovation
- Data
- Software
- Models
- Methods
- Theories
- Algorithms

- Exhibitions
- Policy contributions
- Outreach
- Popular science
- Society
- Collaboration
- Commissioned research
- Commissioned education
- Events
- Debate

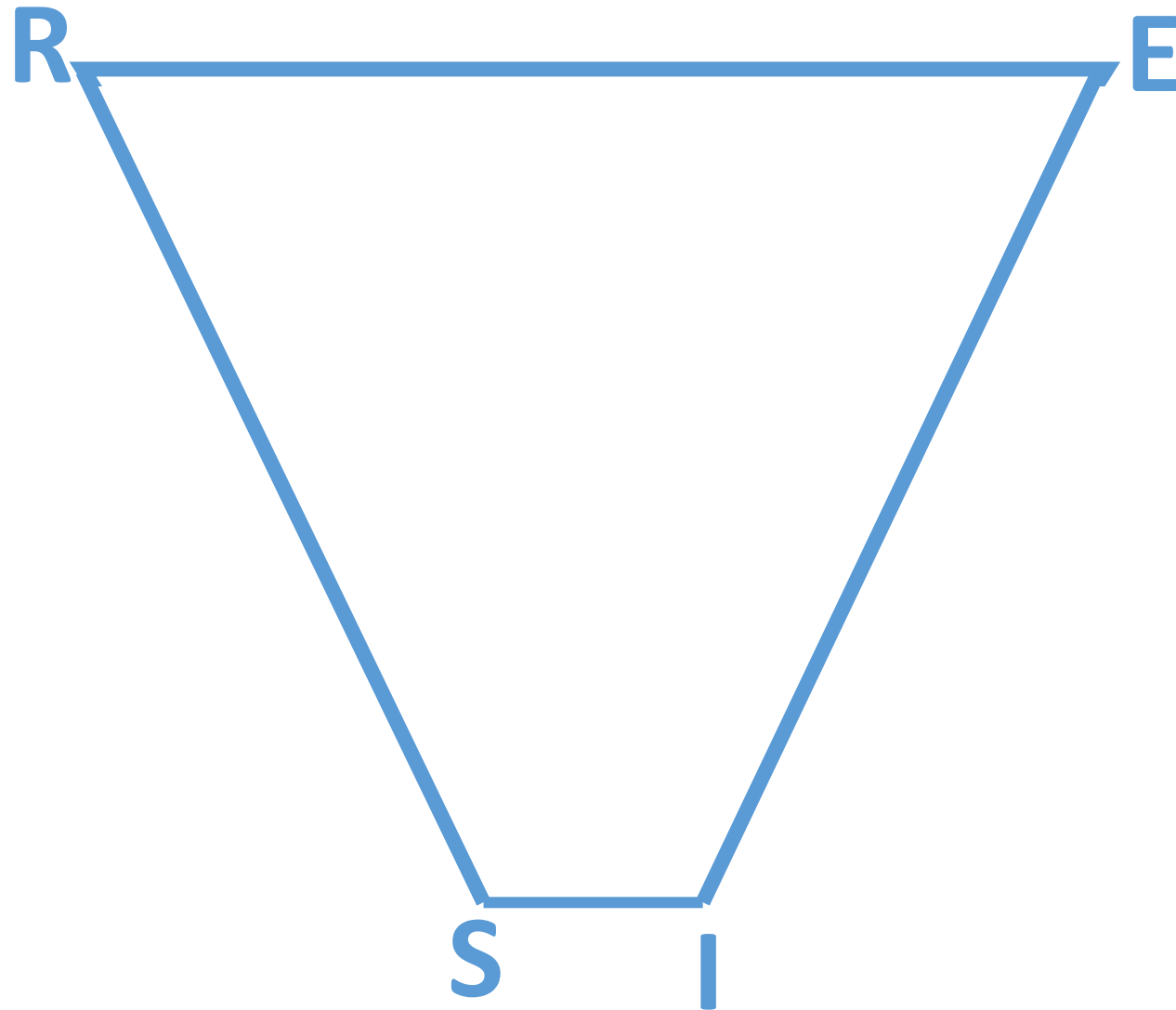
From the knowledge triangle, to the knowledge square



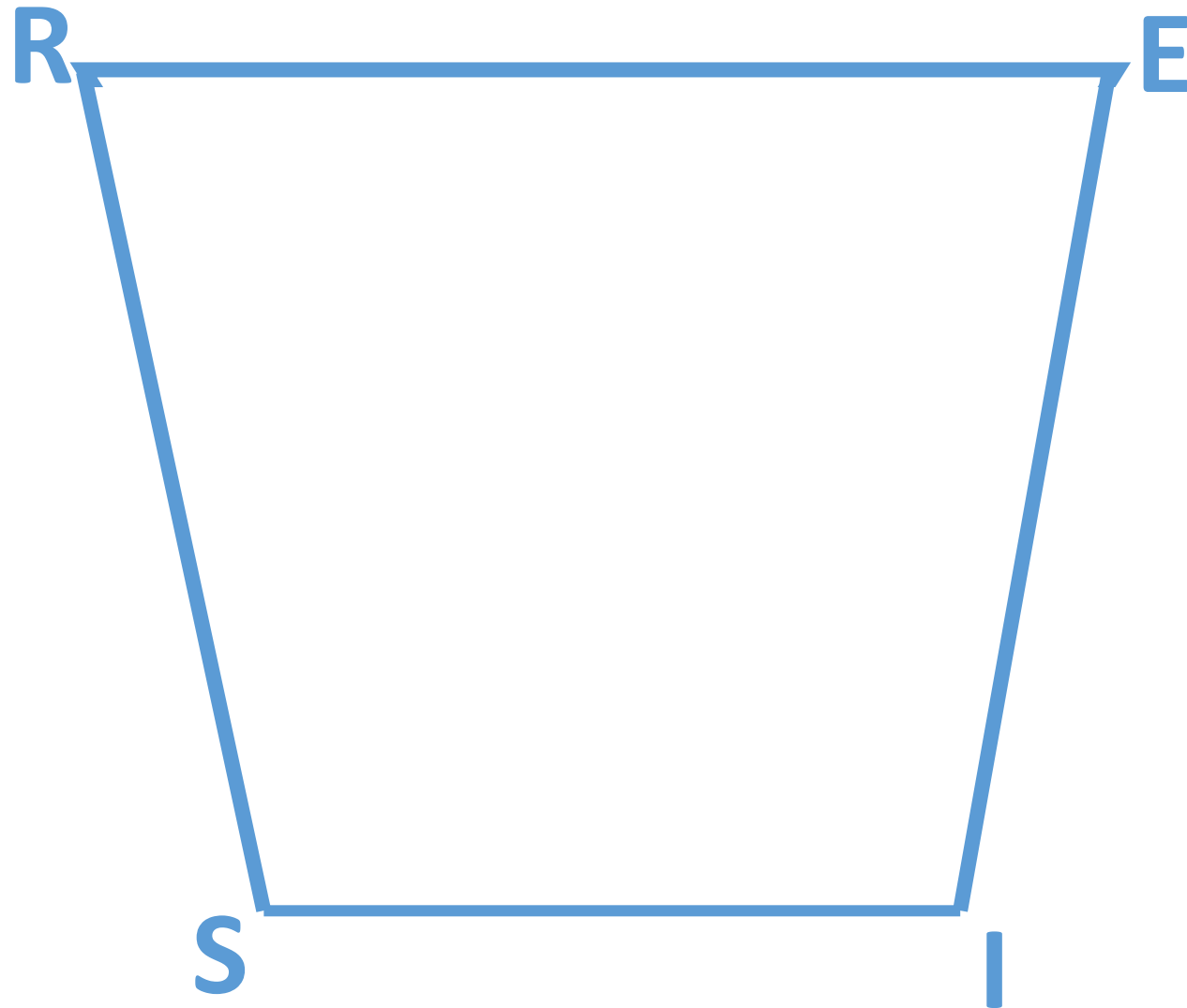
From the knowledge triangle, to the knowledge square



From the knowledge triangle, to the knowledge square



From the knowledge triangle, to the knowledge square



From the knowledge triangle, to the knowledge square



Links between EU GREEN Pillars



The higher education institutions are at the heart of the knowledge square (education, research, innovation, and service to society) and contribute to the realisation of the European Education Area, and to the deepening of the European Research Area.

The European Commission defines the Knowledge Square as a “*concept understood as the junction of four core domains: **education, research, innovation, and service to society** – Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on achieving the European Education Area by 2025*”.

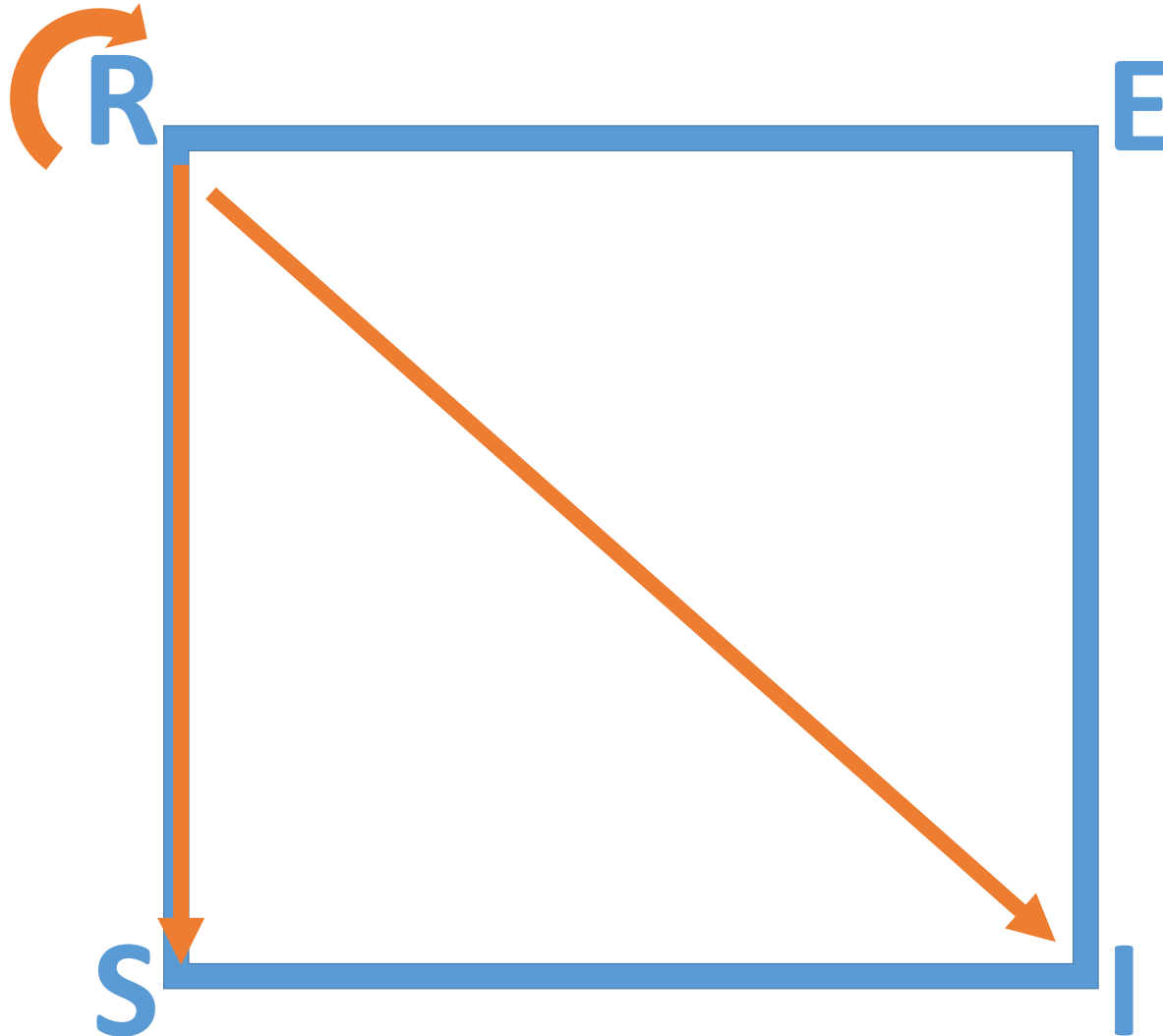
[https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021XG0610\(02\)#ntr5-C_2021221EN.01001401-E0005](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021XG0610(02)#ntr5-C_2021221EN.01001401-E0005)

From CoARA

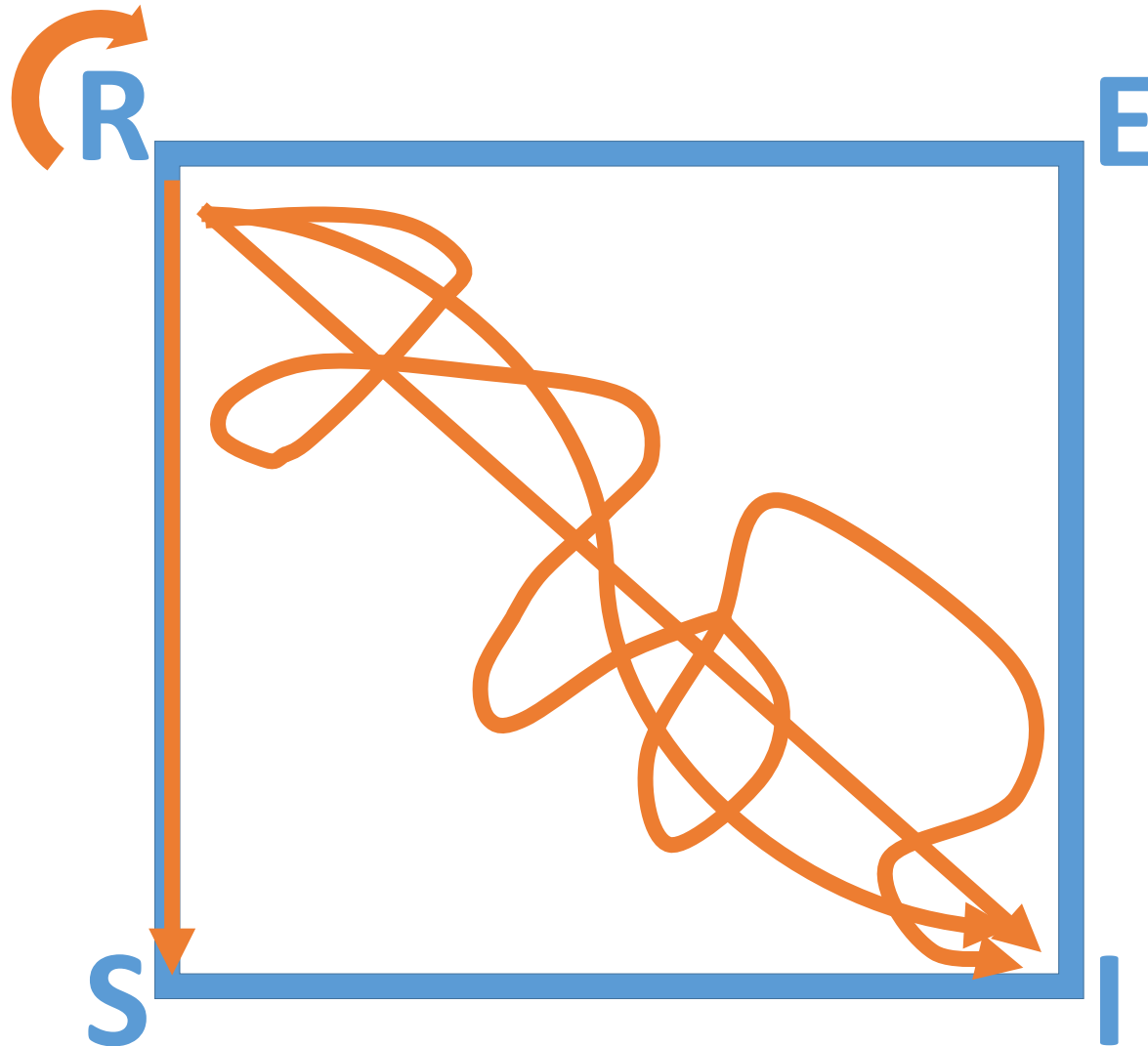
”Recognise the contributions that advance knowledge and the (potential) impact of research results. Impact of research results implies effects of a scientific, technological, economic and/or societal nature that may develop in the short, medium or long-term, and that vary according to disciplines and research types (e.g. basic and frontier research vs. applied research).”

“Impact of research results implies effects of a scientific, technological, economic and/or societal nature...”

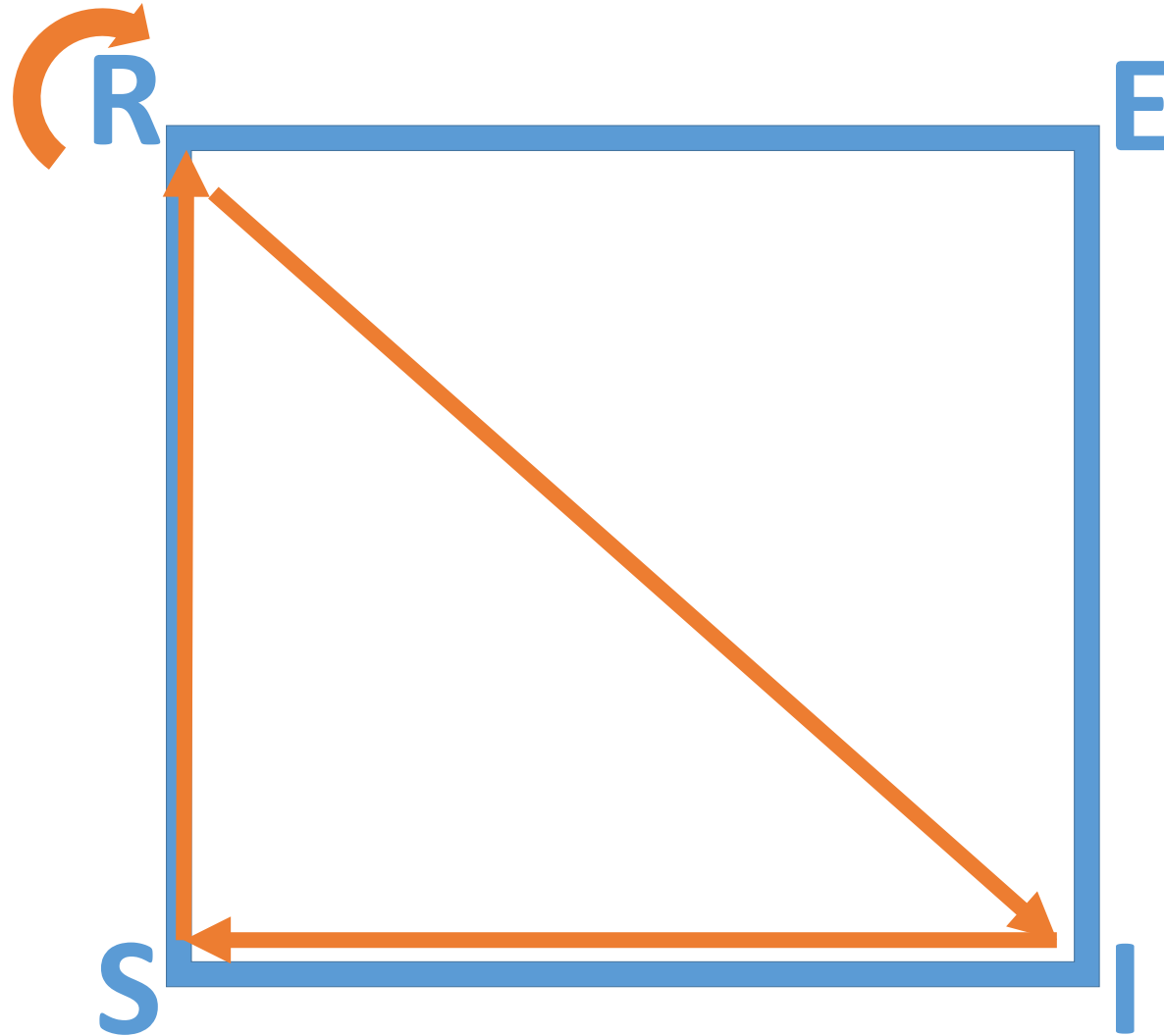
“Impact of research results implies effects of a scientific, technological, economic and/or societal nature...”



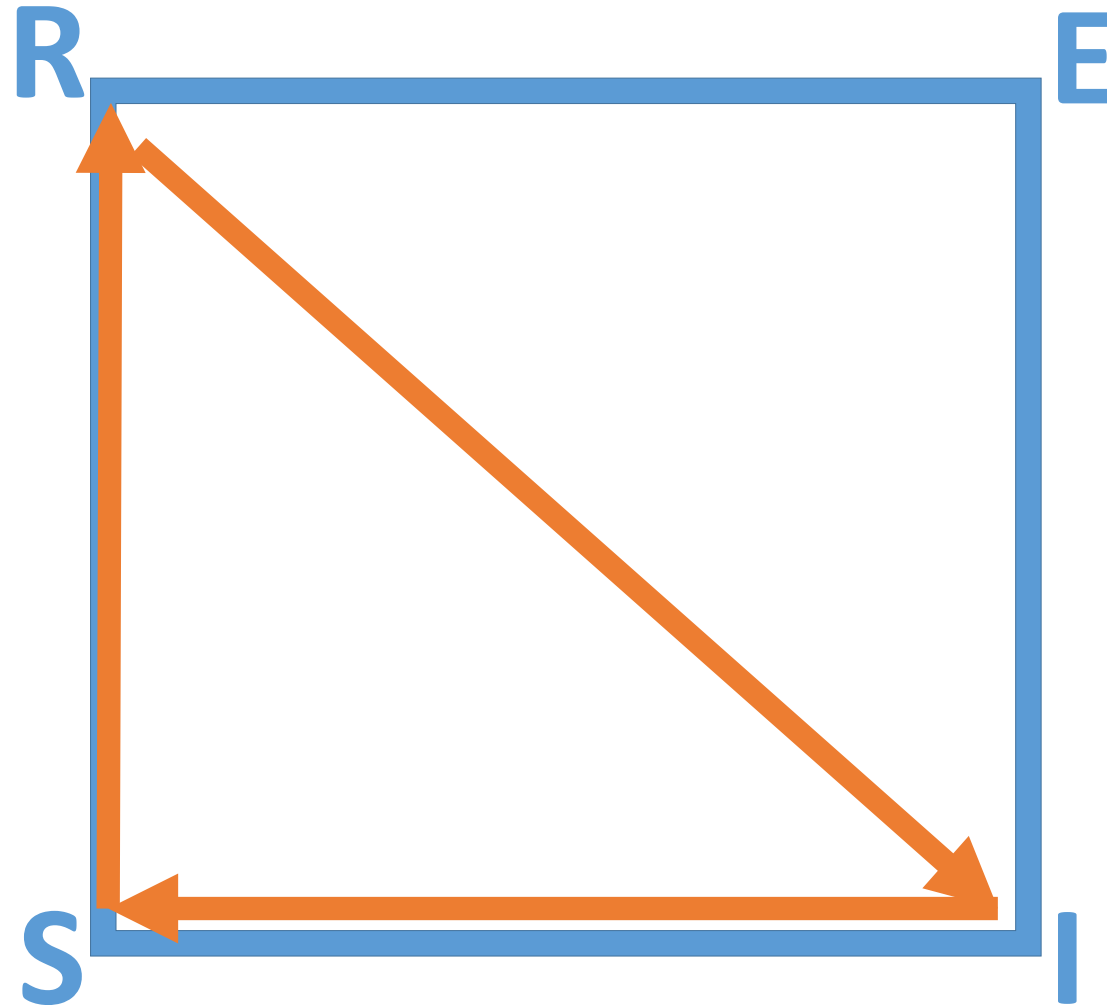
“... in the short, medium or long-term, and that vary according to disciplines and research types (e.g. basic and frontier research vs. applied research).”



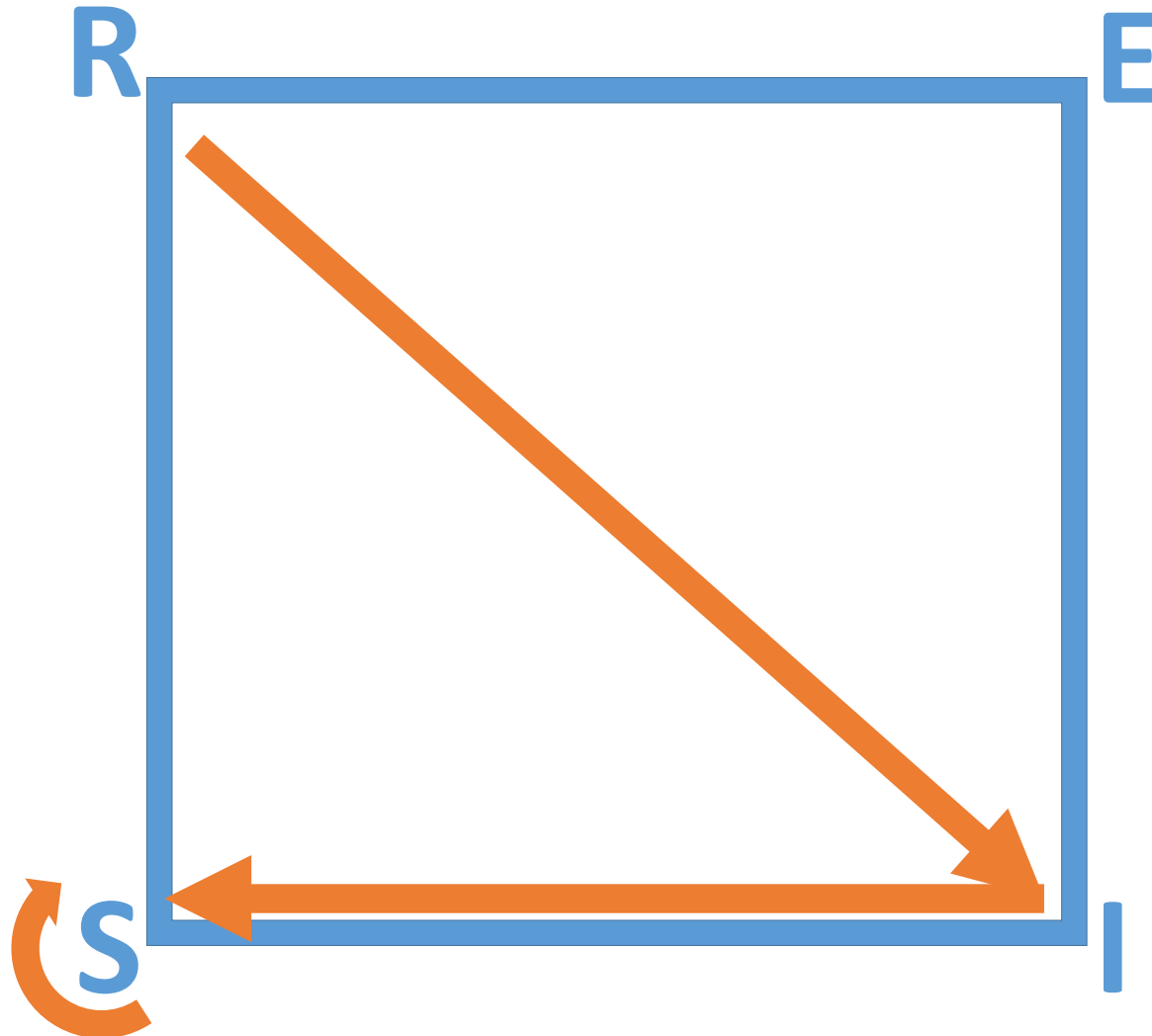
Basic research example



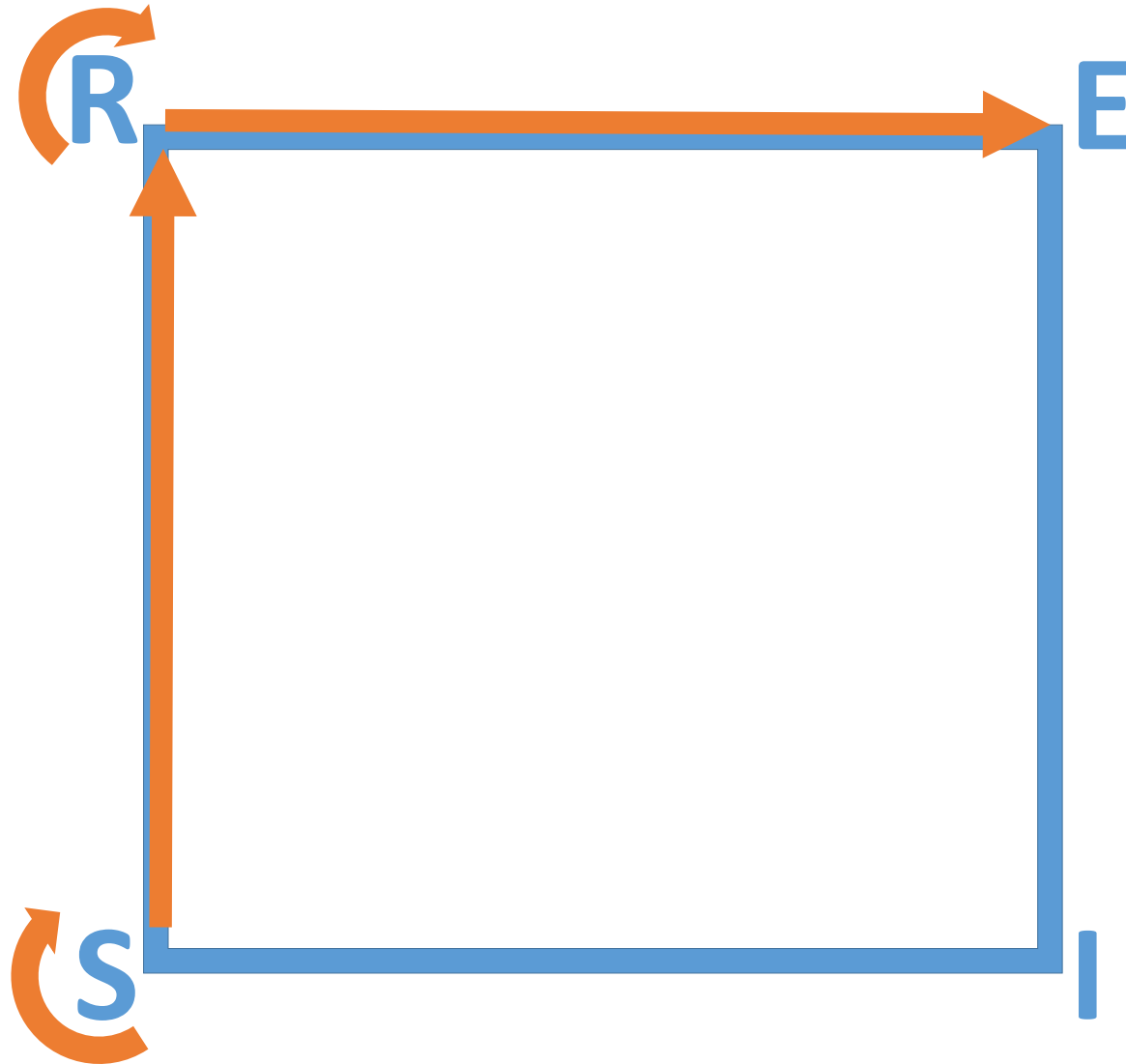
Basic research example



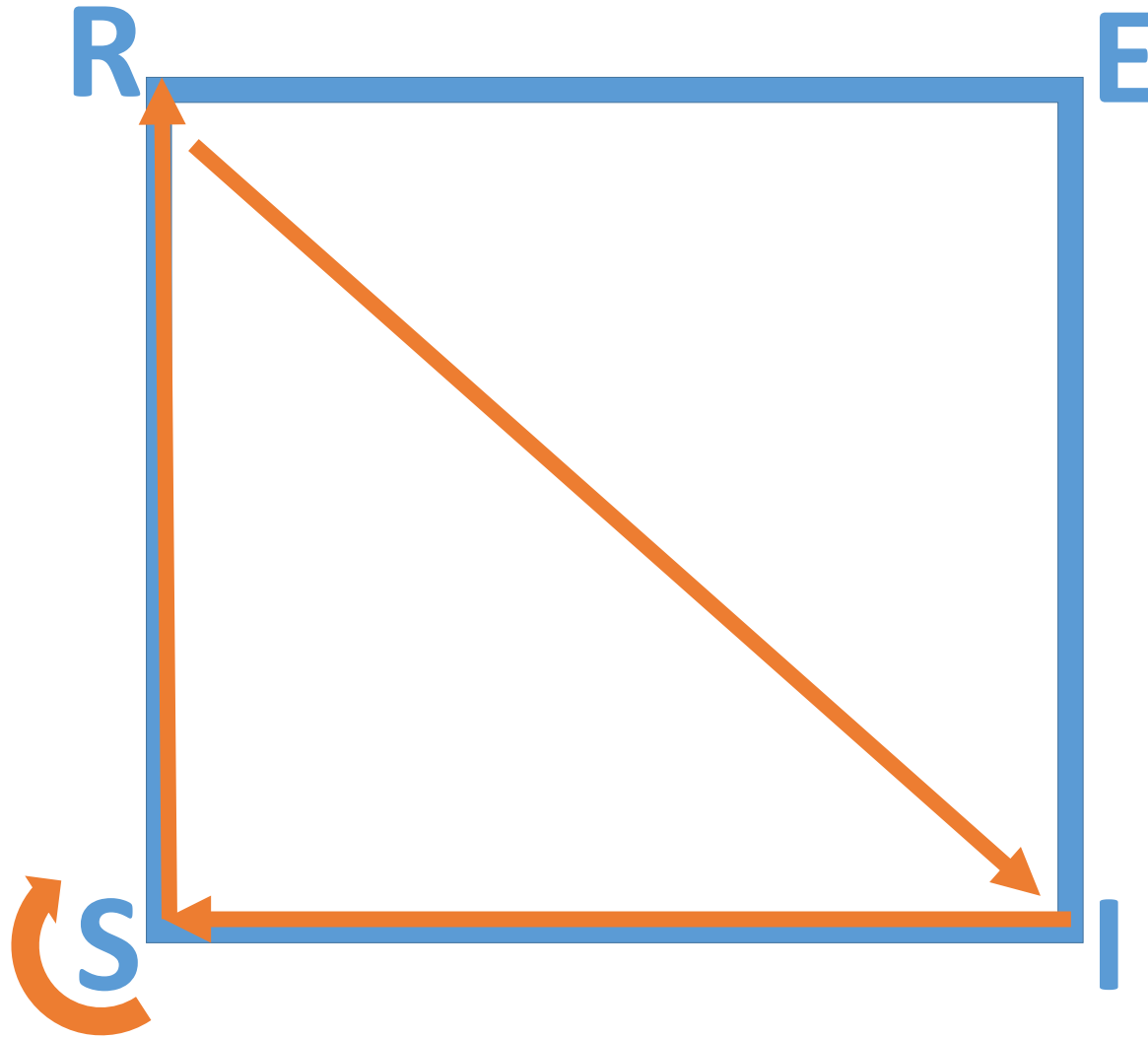
Basic research example

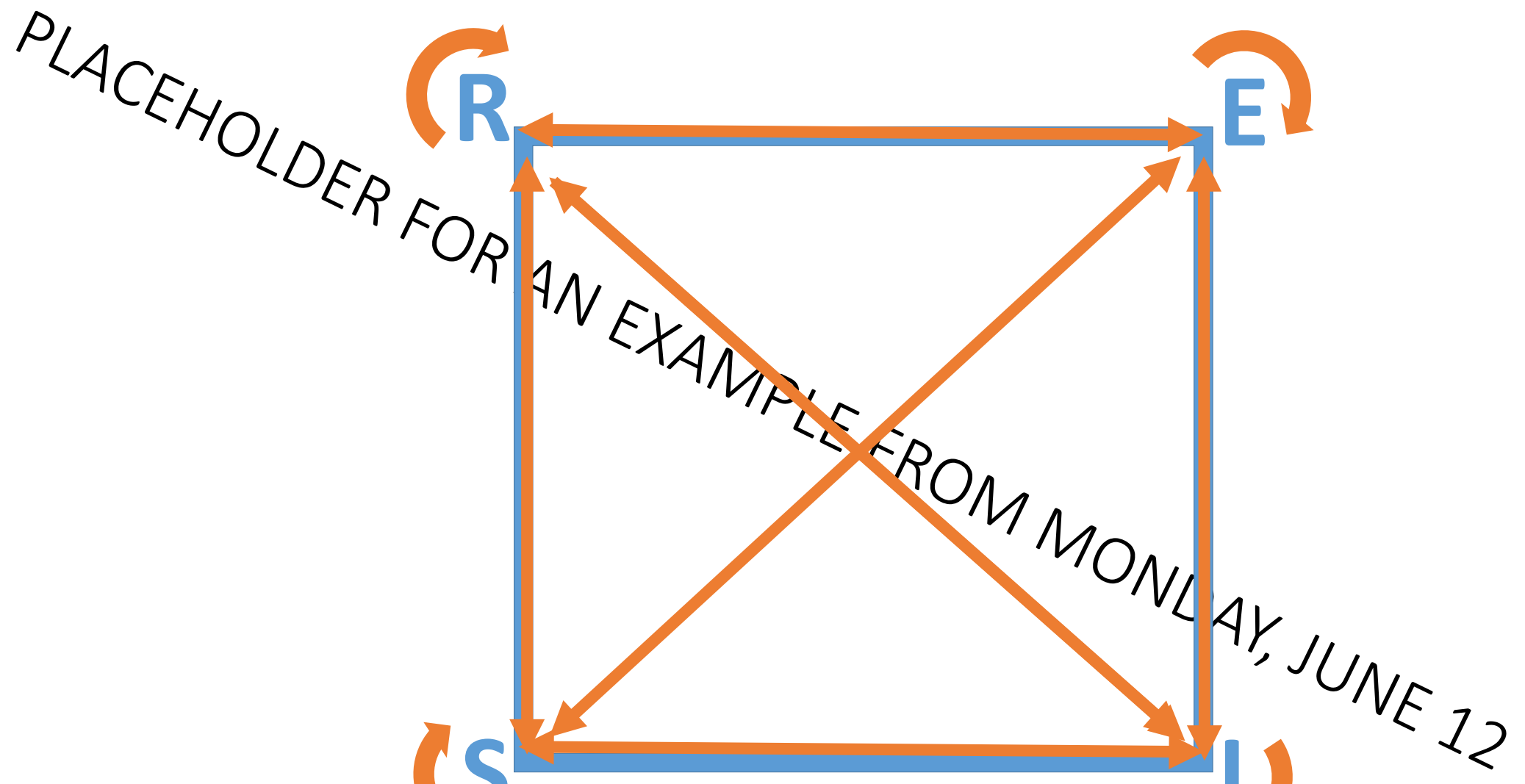


Basic research example

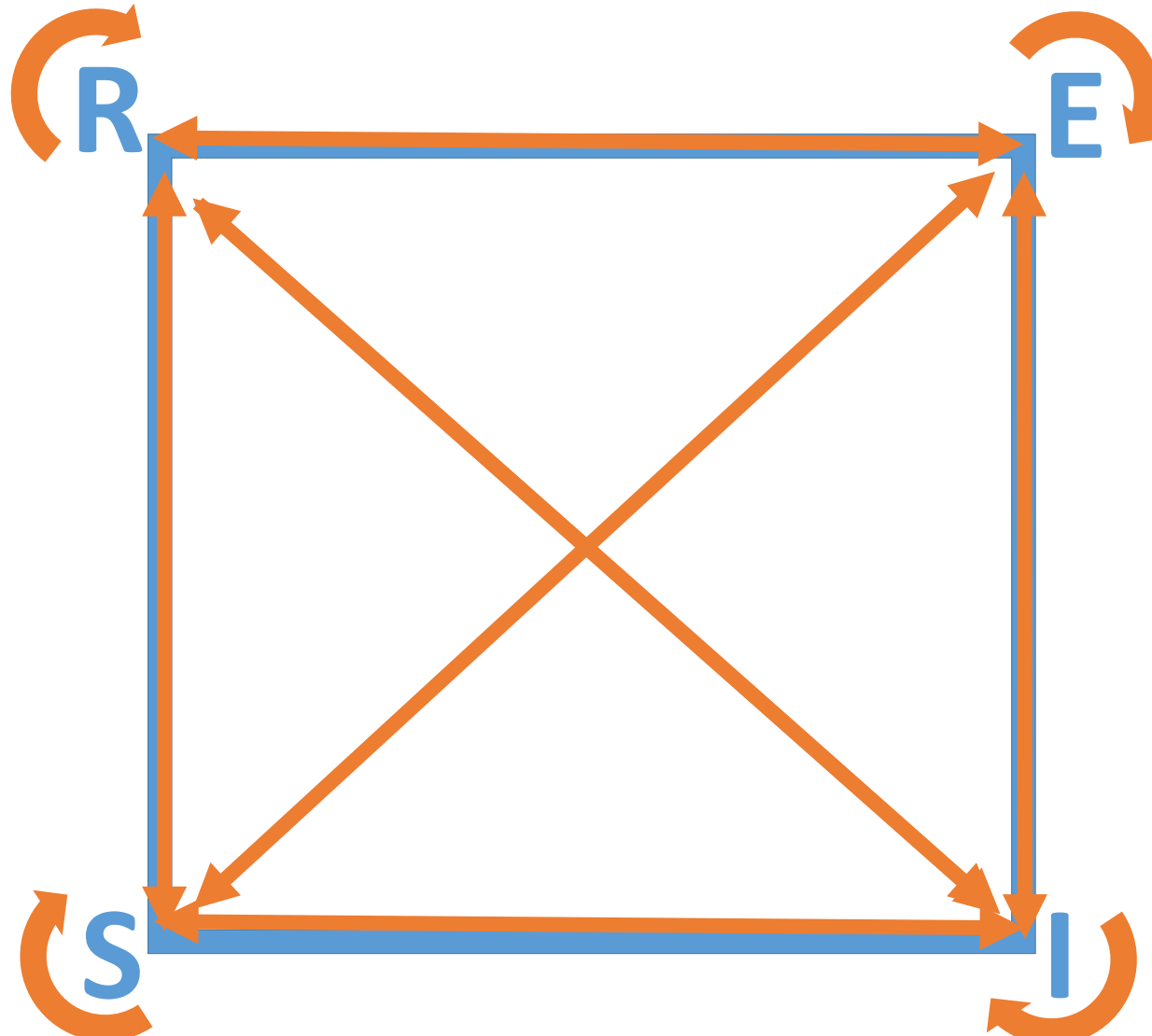


Applied research example





Our CONJECTURE: Those universities that create dynamic flow in all (16) directions will flourish in the future



Some questions.....

- Which bidirectional exchanges are most challenging to imagine? Why?
- Give an example of a reason why a direction would be blocked. What would that imply, for long and short time scales, for the higher education institution?
- What advantages would a higher education institution have with high exchange between all pairs? What possible disadvantages?