

**tdPrax / tdAcademy**

**Transdisciplinary Concepts and Methods for Research  
and Higher Education**



# **Principles for (self-)evaluation in transdisciplinary research**

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## Overview

- Quality criteria (QC) for transdisciplinary research
- Evaluation procedures



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## Quality criteria in sciences – a starting point

»The criteria used for the evaluation shall only be of a kind that is inherent in the individual and in the collective praxis of research. That implies that the practical realities of scientific knowledge production should be the point of departure.«

Robert Salais, 2008

(Own translation)



## Quality criteria in td research – a starting point

"... the practical realities  
of scientific knowledge production ..."



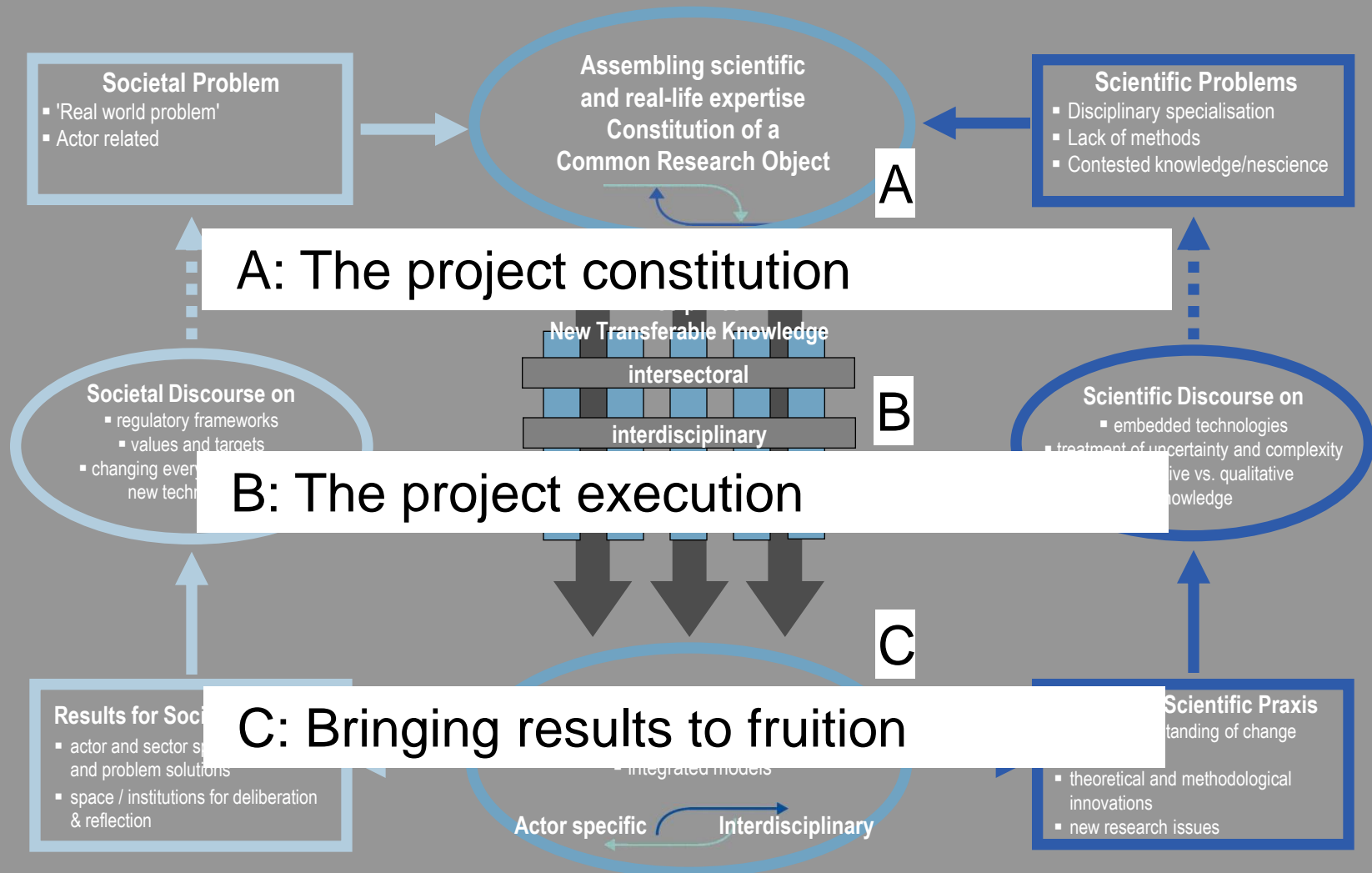
... in td research are coined by a  
well ordered and reflexive use of methods and instruments for

- knowledge integration
- social integration and integrative communication
- technical / organizational integration

➔ **Quality Criteria (QC) appropriate for Td**

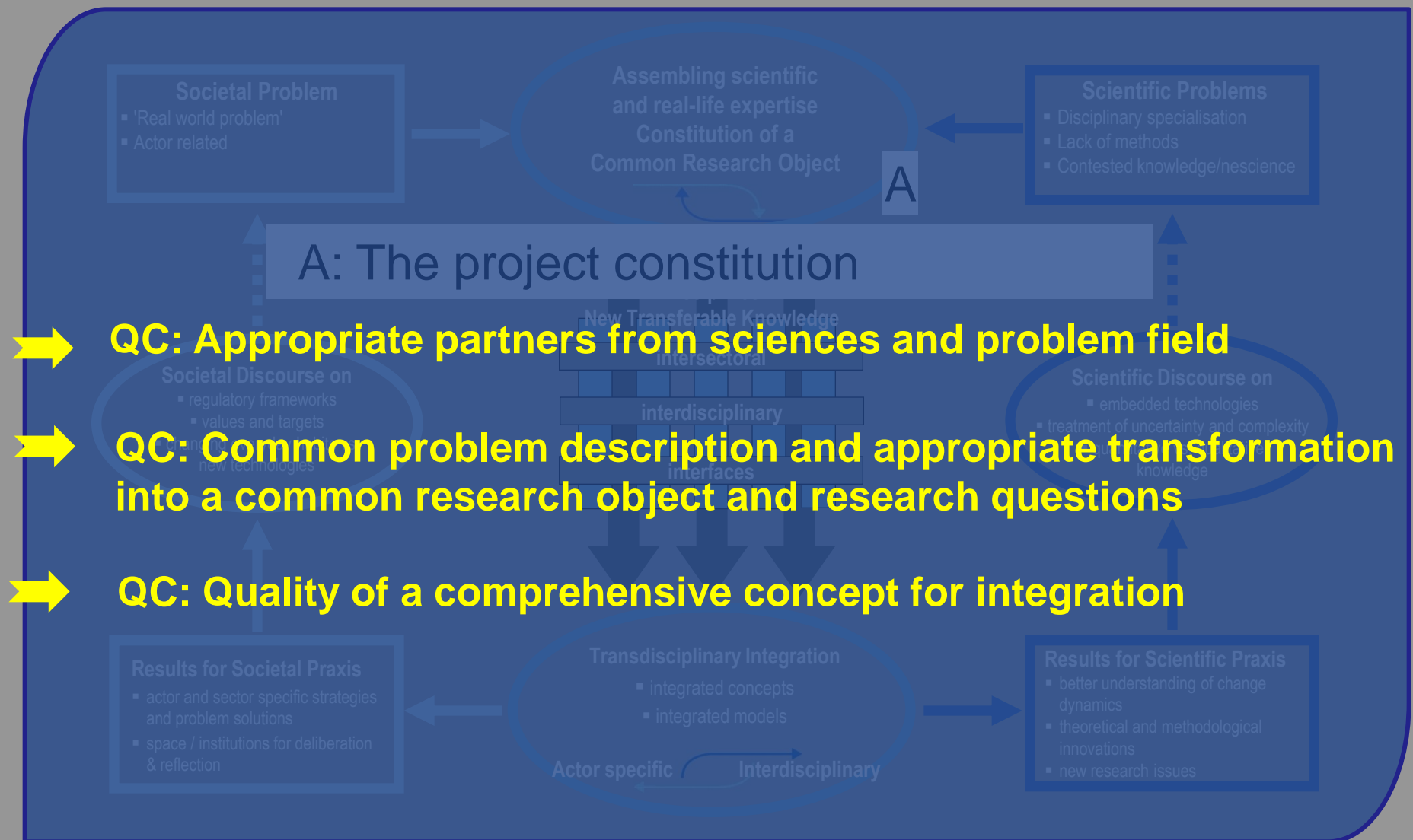


# The Reflexive Transdisciplinary Research Process – A Model



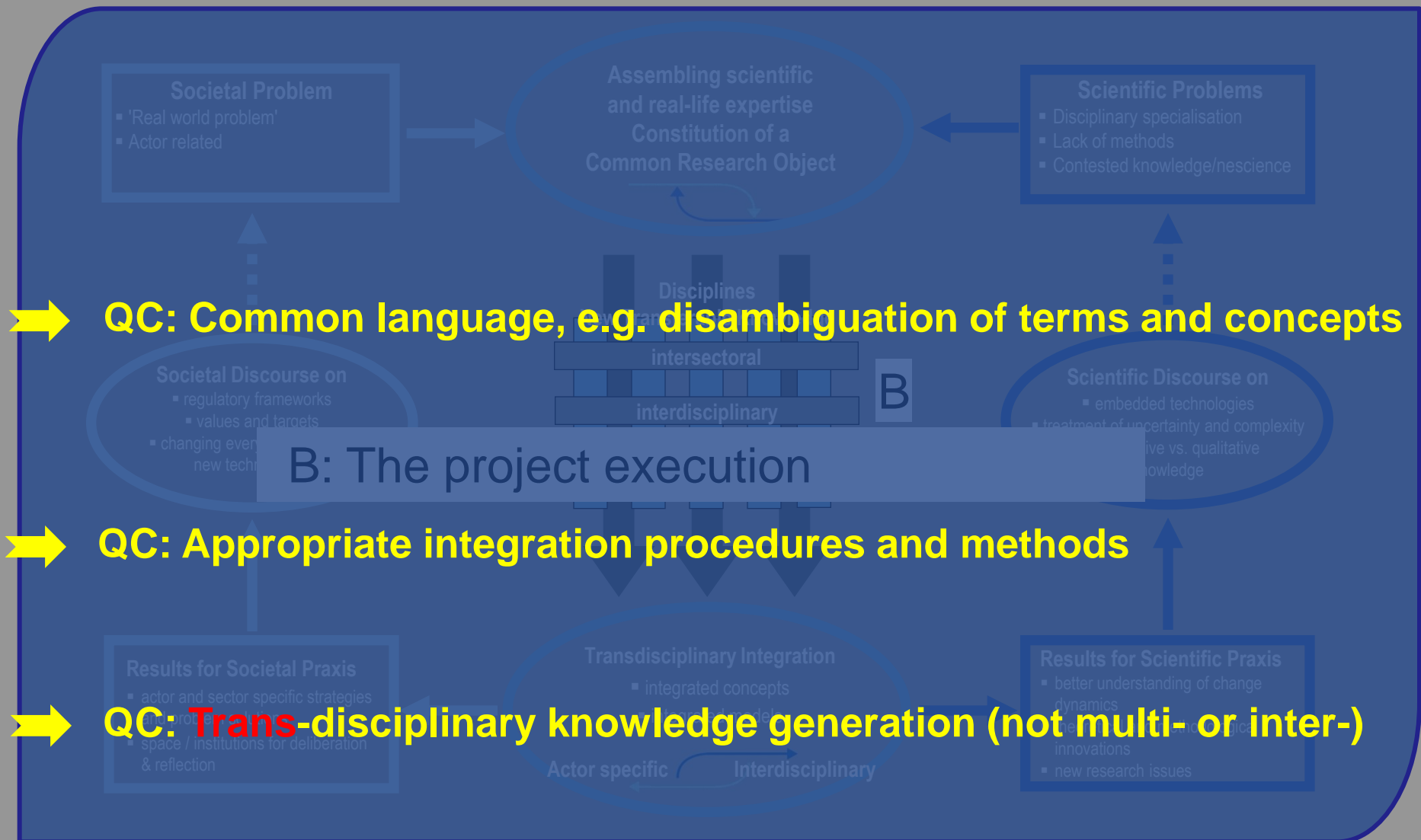


## Phase A: The Project constitution





## Phase B: The project execution – Co-producing Knowledge through Collaborative Research

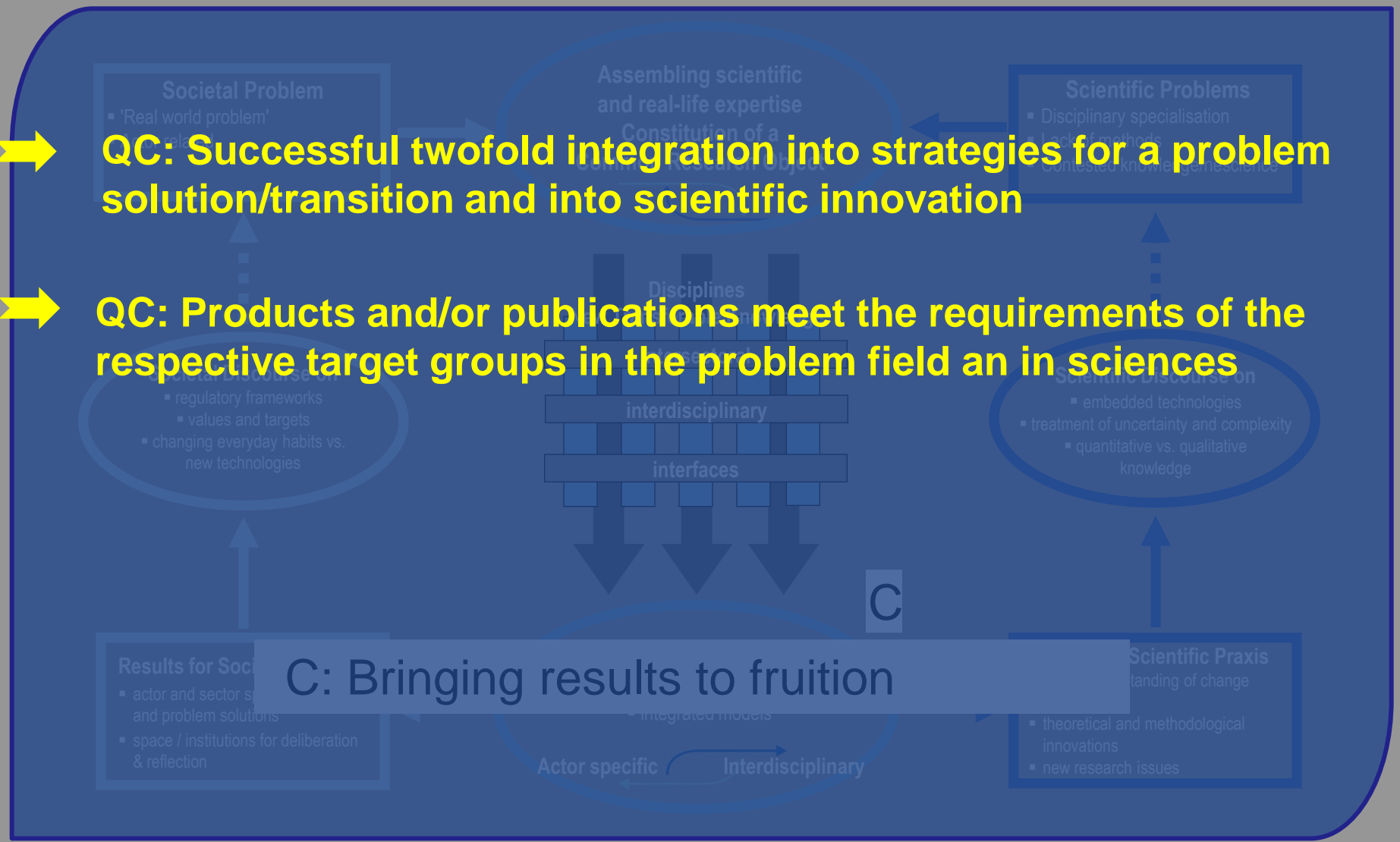




## Phase C: Bringing results to fruition – Integrating and Applying the Created Knowledge

→ **QC: Successful twofold integration into strategies for a problem solution/transition and into scientific innovation**

→ **QC: Products and/or publications meet the requirements of the respective target groups in the problem field and in sciences**





## Conclusion on QC

»Yet perhaps the real challenge is to allow different indicators to flourish in an open market for evaluation, to create a market democracy of different measures and to demonopolise the citation industry.«

Michael Power, 2008



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## Procedures

### Summative Evaluation

- is focussed to a  
»benefit of some *external* audience« (Scriven 1991).



**Inspection** instead of **introspection**

**Low level of learning (for both sides)**



## Procedures

### Formative Evaluation

Michael Scriven (1991):

- »Formative Evaluation is [...] typically conducted during the development or improvement of a program or product (or person, and so on) and is conducted, often more than once, for the in-house staff of the program

with the intent to improve ...«



## Procedures

### Formative Evaluation

learning process »... with the intent to improve.«



Discursive process between  
evaluators and those being evaluated

### Discursive Evaluation



## Procedures

Formative Evaluation

Discursive Evaluation

Which are the evaluators,  
we need for a common learning process?



## Procedures

### Formative Evaluation

### Discursive Evaluation

### Expert Review

- Peers from the inter-/transdisciplinary field
- Peers from the participating disciplines (experienced in id)
- Experts for transdisciplinarity
- Experts in Science Studies
- Experts from supporting fields (if applicable; e.g. governance studies)
- Experts from the problem field



## Conclusion

### The transdisciplinary "thought collective"

- describes and agrees on quality criteria for the own research field
- takes care about discursive and formative evaluation procedures
- consults appropriate experts for an expert review



**Strengthening the transdisciplinary approach**