

## Hinweise

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Performance by Lucie Strecker  
<https://vimeo.com/351072684>



From Societal Impact Strategy to  
Implementation and Execution

**Interactive workshop:**  
**Possibilities to enhance inter-**  
**disciplinary knowledge exchange**  
**with special regards to the arts**

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# WARM UP

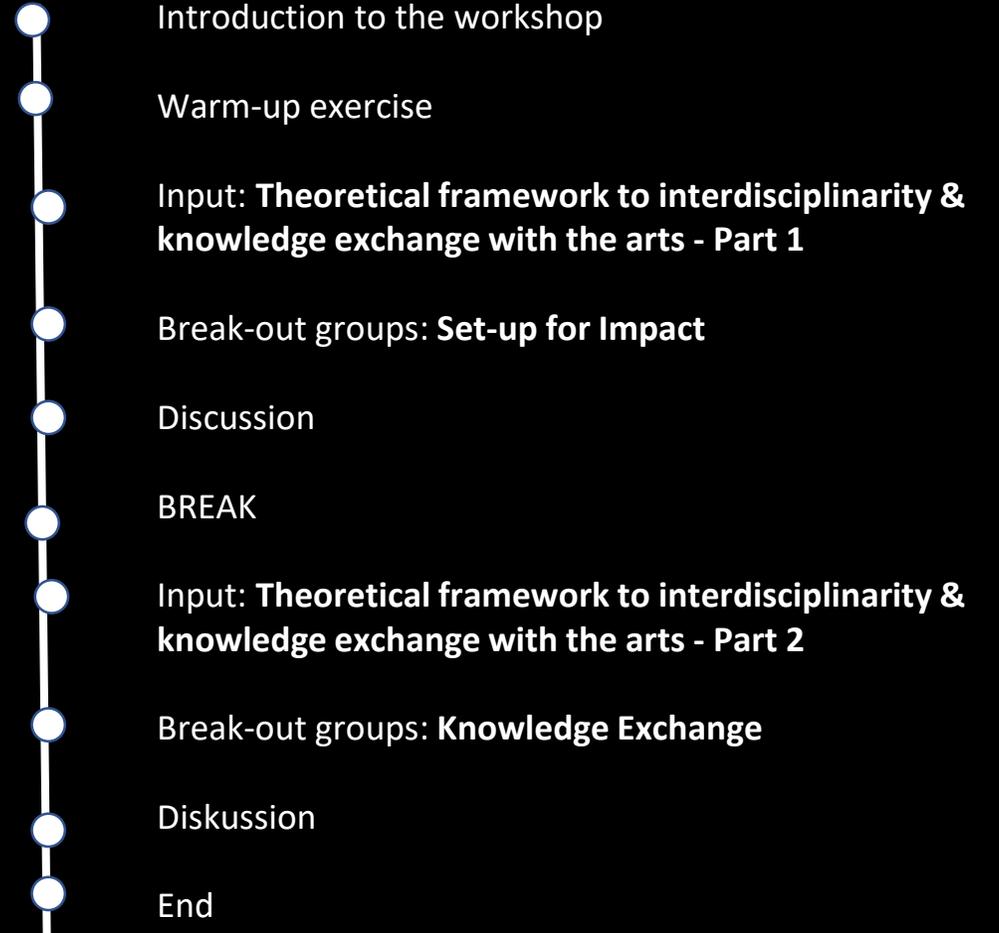
Pleased to meet you...

## Workshop agenda

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### Focus on...

- Theoretical frameworks and examples of interdisciplinary KE in the arts
- Break-out room discussions on how methods of KE and evaluation can be used to ensure and document impact
- Recommendations and conclusions with participant input



## Art & Science - History

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### PRACTICE

### THEORY

#### Renaissance

Polymath (Leonardo da Vinci)

#### Enlightenment

Alexander von Humboldt,  
Johann Wolfgang Goethe

#### 20th century

Cubism, Surrealism, Bauhaus

#### 1967 E.A.T.

Experiments in Art and  
Technology (e.g. Billy Klüver &  
Robert Rauschenberg;  
collaboration with the Bell  
Institute, later MIT)

#### 2000 Symbiotica A

by Oron Catts

#### Enlightenment & 19th century

Separation of the  
disciplines; Wilhelm  
Dilthey (1833-1911)

#### 1979 Bruno Latour & Steve Woolgar

'Laboratory Life. The  
Social Construction of  
Scientific Facts'

#### 21th century

STEM to STEAM

### ARTS

Visual arts, dance,  
music, film, design,  
literature, theater,  
fashion, etc.

### SCIENCE

Natural and social  
sciences, humanities,  
technological science,  
etc.

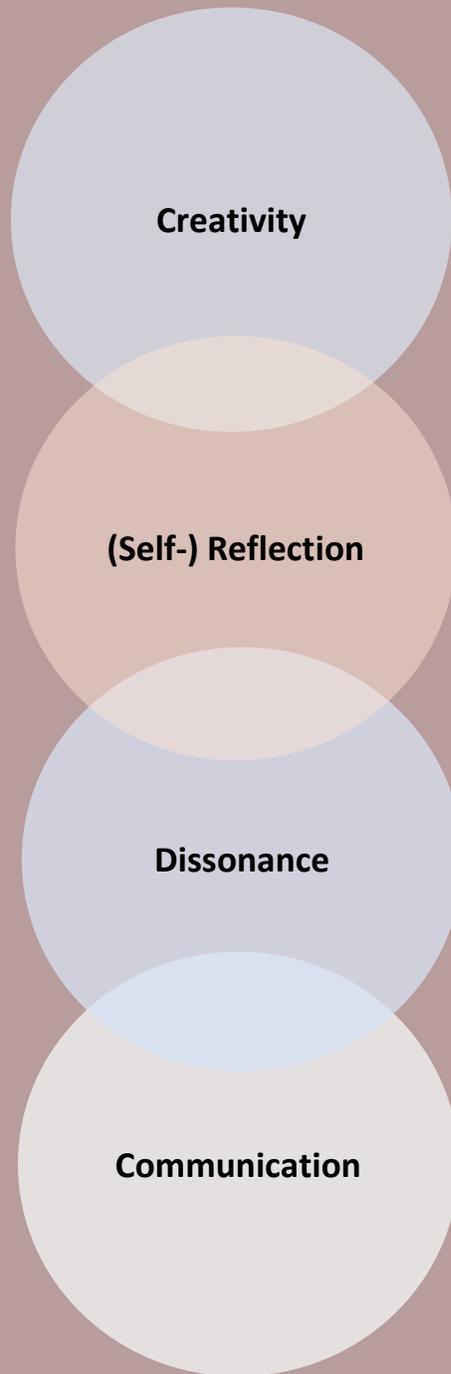
### Art & Science

Research projects,  
exchange formats  
(residencies), artistic  
research, science  
communications, etc.

**“I think one of the fundamental strengths of art is not only to raise awareness, but to really, really, really be critical of each material, each sociological constitution and each institutional challenge.”**

*Jens Hauser*

**Hybrid  
Encounters  
in the arts  
and sciences.  
A dialogue.**



**Schnugg, Claudia: Creating ArtScience Collaboration. Bringing Value to Organizations.**

- interdisciplinary collaboration  
e.g. mutual learning processes
- theory of contextualization  
e.g. ethical reflections, disciplinary assumptions
- theory of liminality  
e.g. unexpected results, enabling changes
- theory of social networks  
e.g. potential of new connections
- sense making  
e.g. allows for new ways of understanding
- aesthetics  
e.g. sensory perception as means of new insights
- communication  
e.g. outreach
- creativity theory  
e.g. fostering creativity and new perspectives

**Knowledge is being fragmented and isolated; art and science are treated as separate spheres that are more concerned with the development of their own discipline or sub-discipline than with the development of society.**

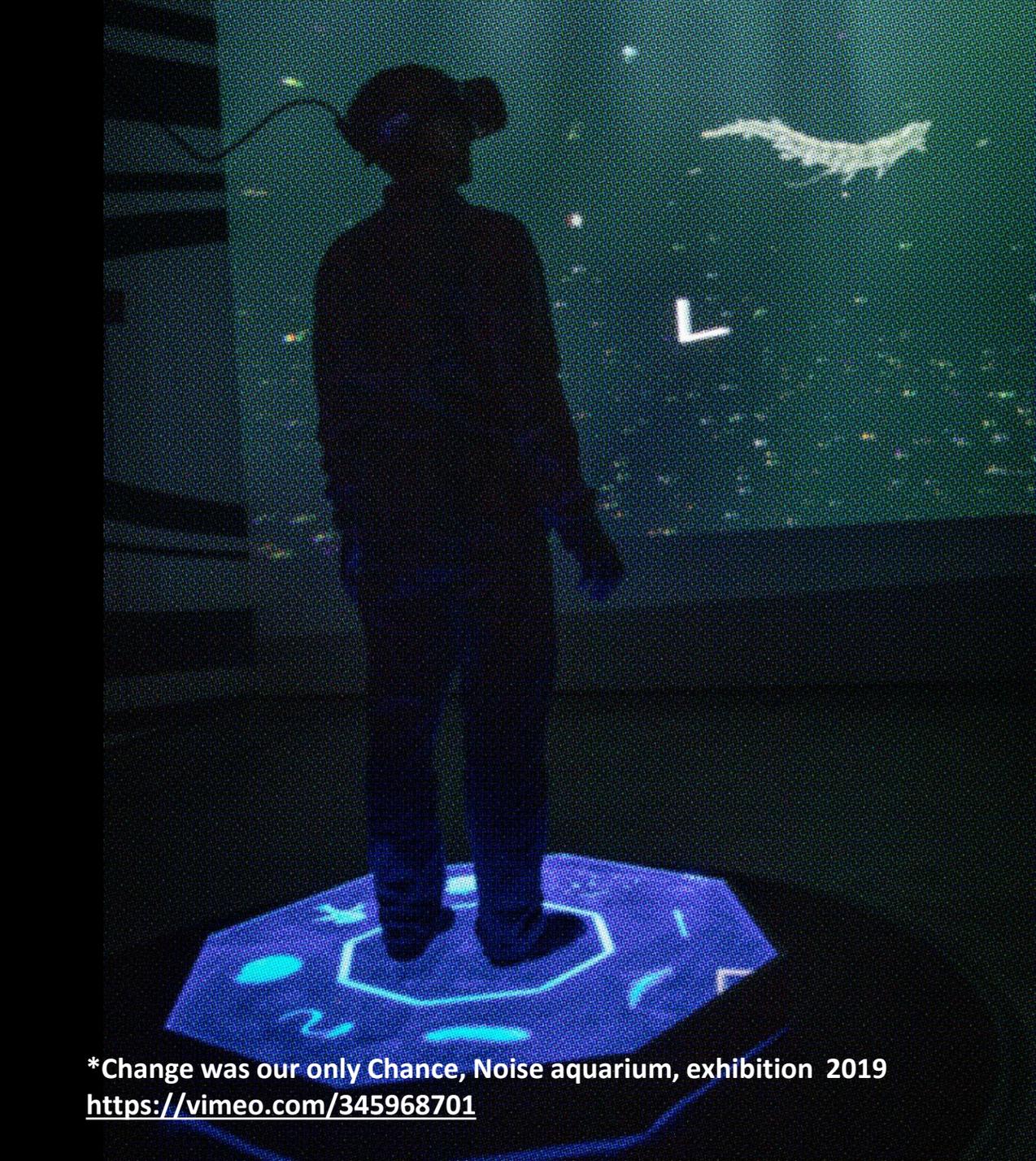
**Gerald Bast,  
Rektor Uni für angewandte Kunst**

**From Theory to Practice...**

## Art & Society - Towards Knowledge Exchange in Practice

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- generate awareness for the exchange between society, science and art
- a dialogue is being developed through art (with sciences and society)
- using sciences to gain inspiration and seeking contact (new technologies)
- inviting scientists to become an active part of artistic discourse
- opening up towards other disciplines to share artistic strategies
- setting up the demand for artistic research opportunities
- use art and their way of communication to connect to wider public



**\*Change was our only Chance, Noise aquarium, exhibition 2019**  
<https://vimeo.com/345968701>

## Art & Society - The Angewandte and AIL approach

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- other disciplines are invited to become part of the curriculum and interdisciplinary artistic research from the beginning
- Foundation of Angewandte Innovation Lab (AIL): creates a level above the curriculum, offering a safe space for practical and new work, discussions on eye level, and mediation of internal topics towards a public audience
- AIL reaches out to external collaborators of all fields connecting them with players within the university (Uninetz etc)
- create formats of communication through art to transfer knowledge



## Art & Science - Examples

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### Change was our only Chance:

- over 100 collaborators from all fields
- main goal: create outreach/impact to public
- generated tons of research
- exhibition as final product that works like a theatre play without actors



## Art & Science - Examples

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### In practice...

#### Aims are rather vague

- harness the knowledge, methods and approaches of the different disciplines
- gain new insights and broaden the understanding of the subject
- produce innovative outcomes

#### Challenges are plentiful

- different time scales
- lack of time for the - time intensive - exchange
- difficulties in merging the knowledge and findings
- ...

#### Outcomes are not ground-breaking

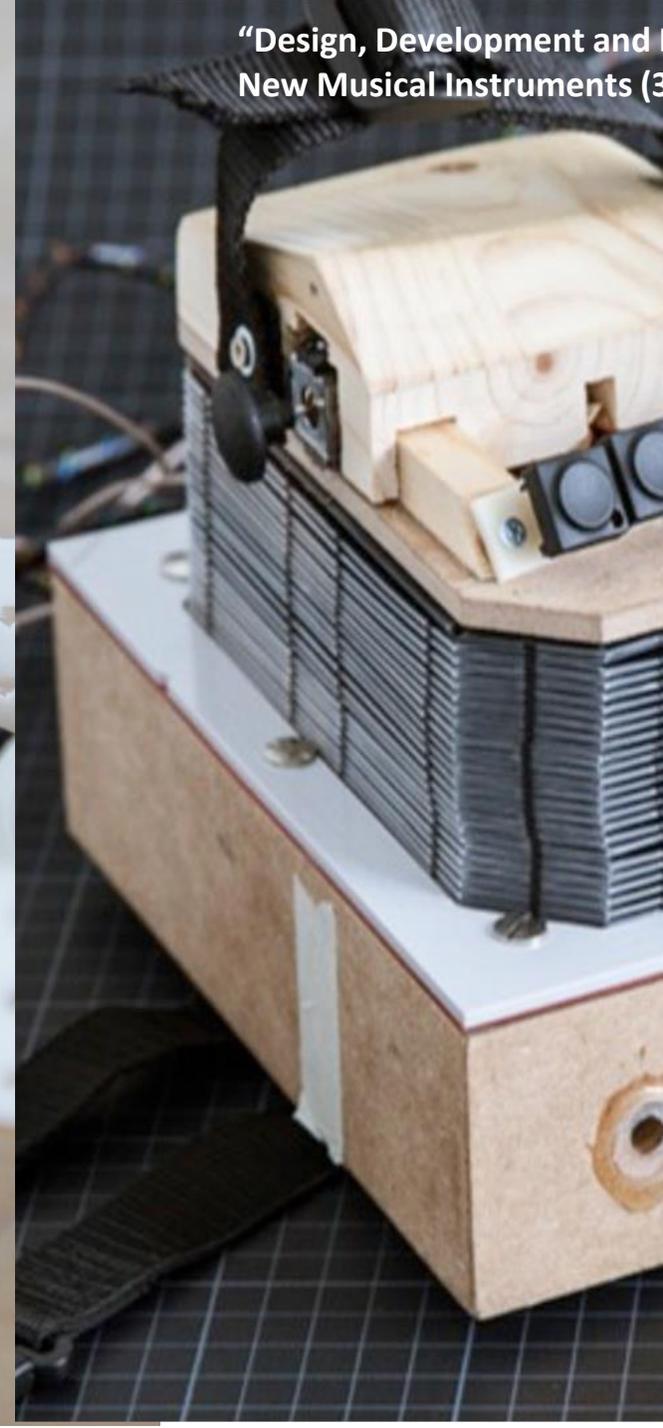
- rather mono-disciplinary
- not much appreciation of the collaborative process

#### Impact is achieved but not captured

- (disciplinary) self-awareness / level of reflection
- (transdisciplinary) communication skills
- mainly individual level



“Rethinking Prototyping”



“Design, Development and  
New Musical Instruments (3”

# Set-up for IMPACT

## Breakout Groups

Picture the beginning of your collaboration: how would you set up parameters for a project evaluation with a focus on society (group 1), the organisation (group 2), science (group 3), arts (group 4)?

Long Term - Short term - Milestones - Sustainability

BREAK

(video as entertainment...)

**The problem, though, is that the very venture of trying to link these two spheres of human creativity is often regarded by advocates as intrinsically worthy, so that Sciart risks being received like a school play: it is the effort, not the execution, that matters.**

Ball, Philip. 2017. #postARTandSCIENCE: a symposium at the Wellcome Collection. In *Interdisciplinary Science Reviews* 42(4): 395-398.

### Recommendations:

- Define the impact area (content-wise and on which level it should be achieved)
- Consider the fitting formats to gain the impact wanted
- Set up adequate impact measurements and tools
- ...

### Formats of knowledge exchange:

- (artist) residencies
- artistic interventions
- (maker) labs
- exhibitions
- research
- teaching
- events

## Art & Science - Evaluation methods

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Methods can be mixed - if the aim is clear... →

**But: how are the results of the different methods integrated and knowledge transferred?**

**TABLE 1:** Comparison of arts-based methods with quantitative and qualitative methods (Leavy 2015, p. 294).

QUANTITATIVE	QUALITATIVE	ARTS-BASED
■ numbers	■ words	■ stories, images, sounds, scenes, other sensory inputs
■ data discovery	■ data collection	■ data or content generation
■ measurement	■ meaning	■ evocation
■ tabulating	■ writing	■ (re)presentation
■ value neutrality	■ value non-neutrality	■ political/emancipatory consciousness
■ reliability	■ process	■ authenticity
■ validity	■ interpretation	■ truthfulness
■ proof	■ proof	■ compelling/moving/aesthetic power
■ generalizability	■ transferability	■ resonance
■ disciplinarity	■ interdisciplinarity	■ transdisciplinarity

“Comparison of arts-based methods with quantitative and qualitative methods” (Leavy 2015, p. 294). in: Harald Heinrichs: Sustainability Science with Ozzy Osbourne, Julia Roberts and Ai Weiwei. The Potential of Arts-Based Research for Sustainable Development | GAIA 27/1(2018): 132 –137 |



## CONVERGING ART | SCIENCE | TECHNOLOGY



### In theory\*...

Impact of the learnings and results can be distinguished in three fields:

- inspiration
- insights and/or
- opportunities for innovation.

Moreover, the collaborations might envision to have impact on different levels (depending on the questions and kind of partnership addressed):

- individual,
- organisations and
- societal level

\*Source: <https://www.starts.eu/agenda/start-collaboration-toolkit-launch/detail/>

# HOW TO OVERCOME THE BOUNDARIES ?

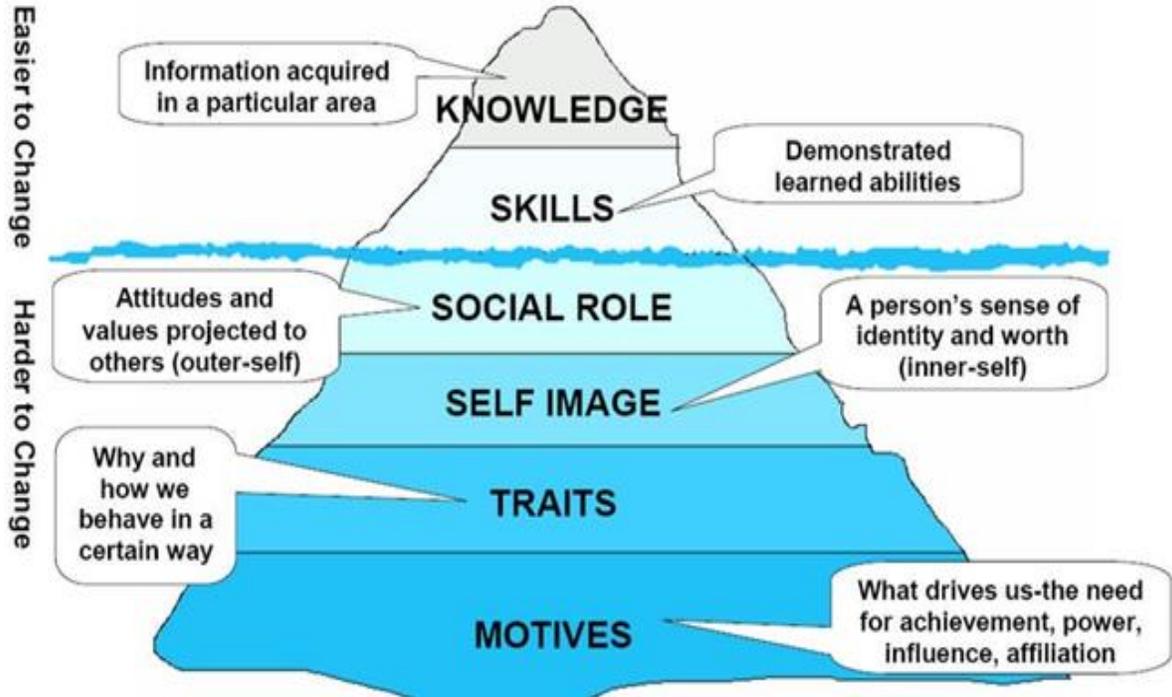
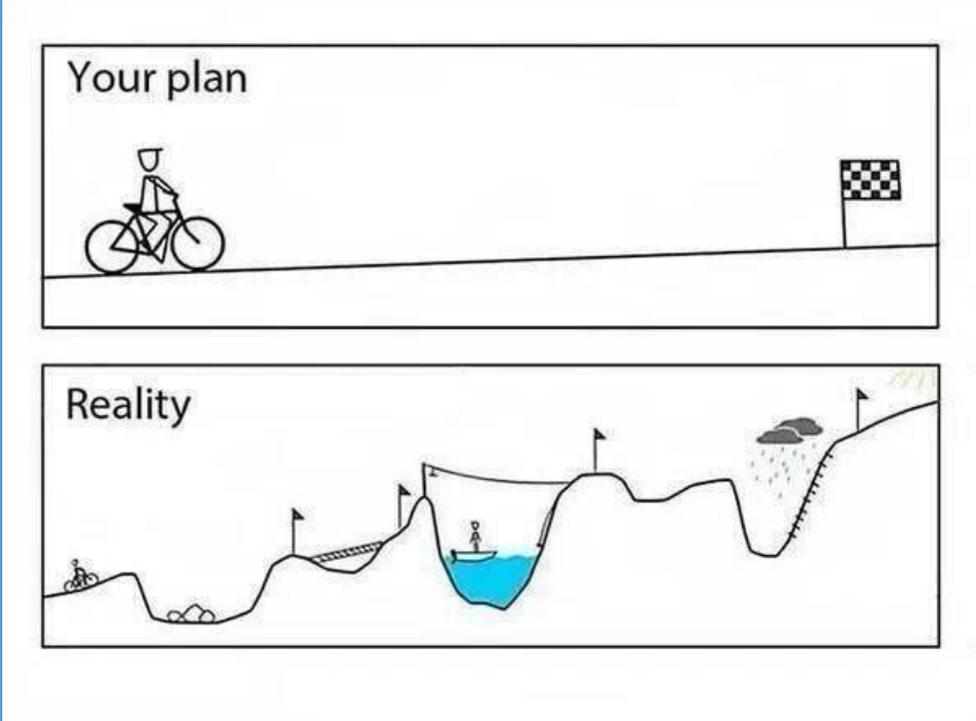
## Boundary Object

Boundary objects occupy an intermediary space between imagination and reality and between the present and future. Since interdisciplinary work is not possible without boundary objects the method offers a tangible point of interaction with actors in the arts.

\*See for an example of an exercise around boundary objects a recent blog post on <https://www.shapeid.eu/preparing-for-productive-inter-and-transdisciplinary-research-involving-the-arts/> .

# KNOWLEDGE EXCHANGE (KE)

How to facilitate knowledge transfer between the close collaborators? How to secure KE on a wider range (public)?

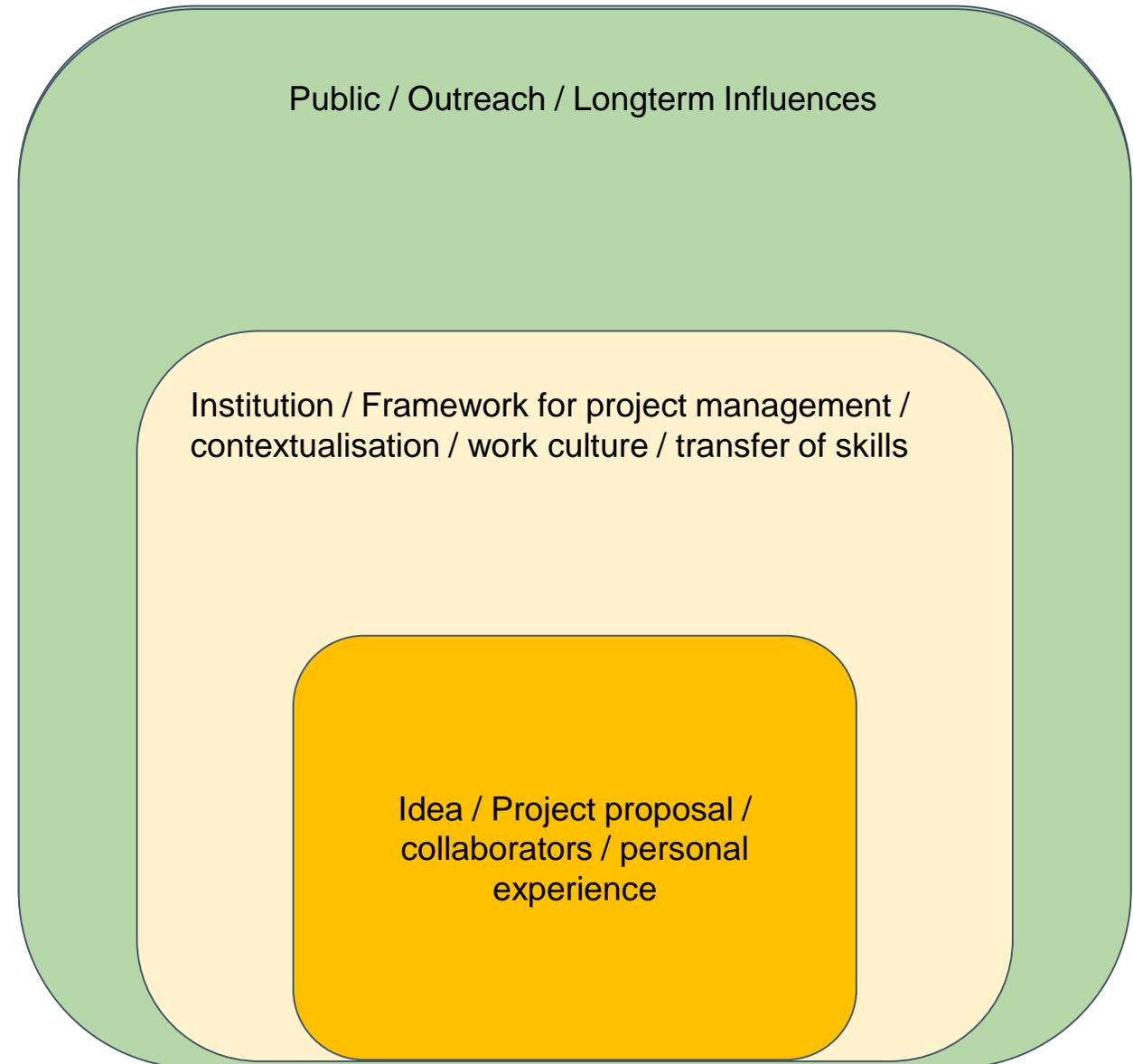


### UniNetz:

- collaboration of nearly all Austrian universities to generate report on SGD recommendations for Austrian government
- Angewandte only art university with task to help transfer knowledge of report to wider public
- difficulties in including the arts on both sides
- second phase will follow

### Sustainability Hub:

- Initiative of Ludwig Boltzmann Institute
- interdisciplinary board working on laying grounds for Call
- Goals: project application open for everyone, setting up a basis that allows maximum impact for initiatives as well as for projects



# Thank you!

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## Reading

**Schnugg, Claudia** (2019): *Creating Artscience Collaboration. Bringing Value to Organizations*. Basingstoke: Palgrave Macmillan.

**Horstmann, Nina** (forthcoming - also in English, 2021): *Kunst und Wissenschaft* In: Schmohl, Tobias / Philipp, Thorsten (eds.): *Handbuch Transdisziplinäre Didaktik*, Bielefeld: transcript Verlag

**Horstmann, Nina** und Christina **Landbrecht** (2019). *Hybrid Encounters in the arts and sciences. A dialogue*. Download: <https://www.hybrid-plattform.org/services/publikationen>.

**Vesna, Victoria** (April 2019): *Toward a Third Culture*. Researchgate.

**Schnugg, Claudia** (2019): *An Organizational Perspective on ArtScience Collaboration: Opportunities and Challenges of Platforms to Collaborate with Artists*.

**Terkessidis, Mark** (2010): *Interkultur*. Suhrkamp.

## Further resources:

<https://www.starts.eu/resources/>

<https://vimeo.com/user34364055>