

JORNADAS DE AGITACIÓN CIENTÍFICA | 12 y 13 de noviembre 2024,  
Sevilla

# De lo performativo a lo transformador: una experiencia desde S+T+ARTS in the City

S+T+ARTS  
in the City

Hac  
te  
Barcelona  
Hub of Art, Science  
and Technology

UOC  
Universitat  
Oberta  
de Catalunya

Generalitat de Catalunya  
Departament  
de Cultura



GOBIERNO  
DE ESPAÑA

MINISTERIO  
DE CIENCIA, INNOVACIÓN  
Y UNIVERSIDADES

FECYT  
INNOVACIÓN

S+T+ARTS



European  
Commission

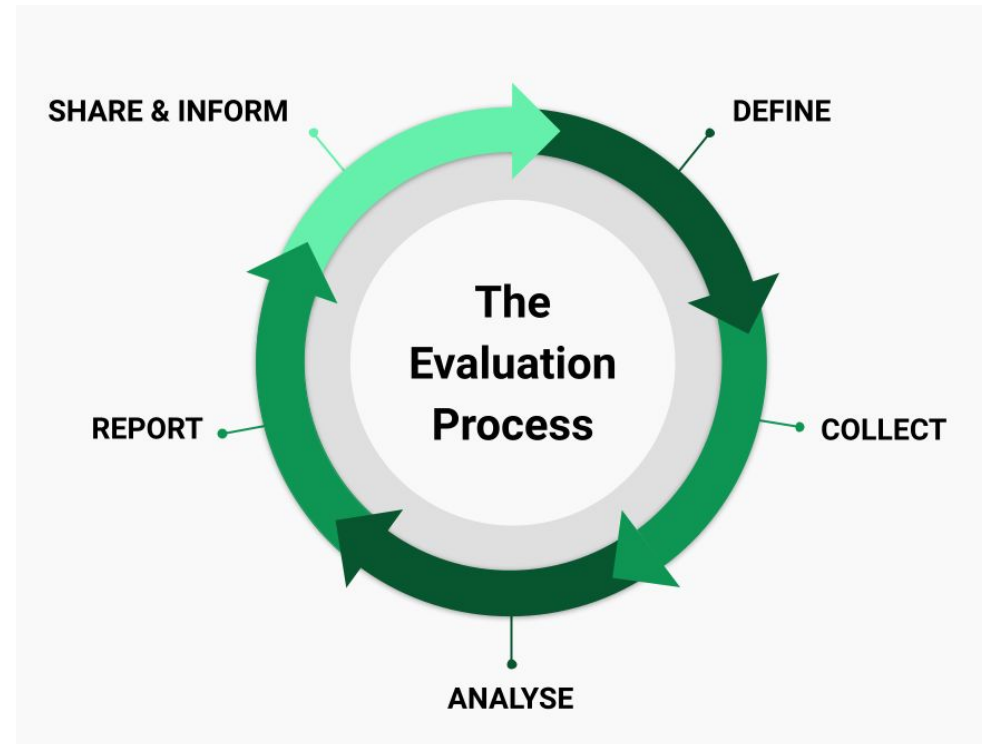
S+T+ARTS

+ General  
frame

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## + Structured Evaluation Criteria

The framework sets clear, structured criteria (goals objectives, and their contrasts) for assessing project outcomes, focusing on the interplay between artistic creativity, scientific innovation, and technological advancement.



S+T+ARTS

+ General  
frame

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## + Multi-Method Approach

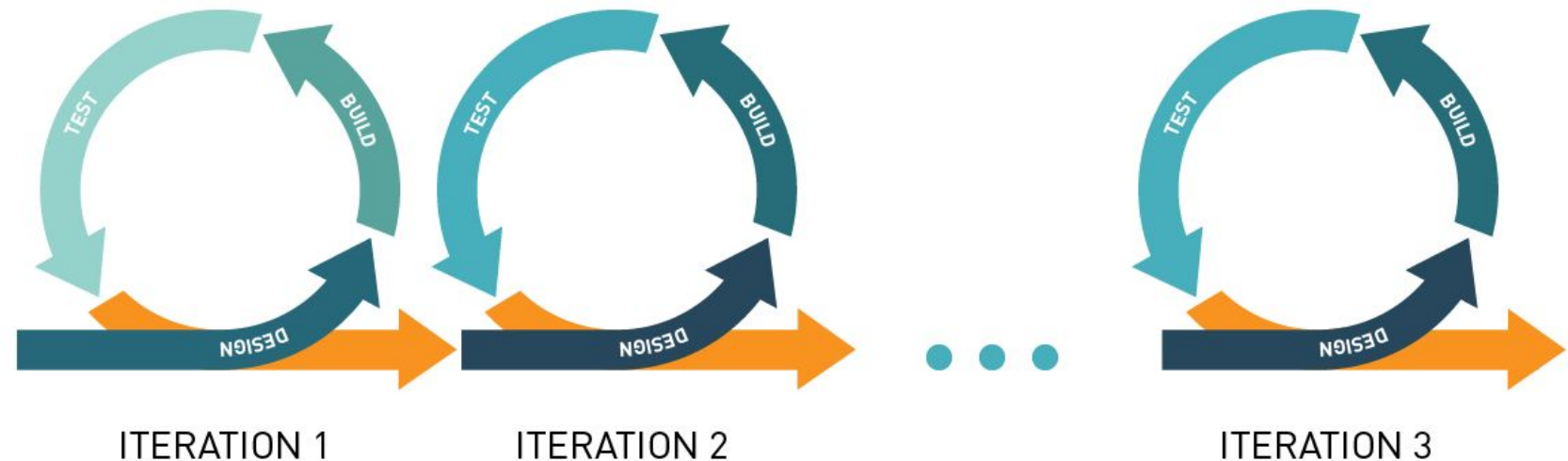
Multi-method evaluation strategy, combining qualitative and quantitative tools such as surveys, interviews, and impact assessments to capture the full scope of project impacts





### + Iterative Assessment Processes

Iterative assessment process, where ongoing feedback and reflection are integrated at multiple stages. This ensures continuous improvement, adaptability, and refinement of both the projects and their evaluation methodologies over time.



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+ General  
frame

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## + Practical recommendations

*Some common mistakes to avoid*

- **Underestimating Evaluation Time and Resources:** Allocate sufficient time and resources for the evaluation process, recognizing that thorough assessments require careful planning and execution.
- **Lack of Clear Objectives:** Ensure that your project has well-defined goals and outcomes to guide the impact evaluation process effectively.
- **Inadequate Stakeholder Engagement:** Involve all relevant stakeholders from the beginning to gather diverse perspectives and foster ownership of the project's outcomes.
- **Neglecting Data Collection:** Establish a robust plan for data collection early on, utilizing both qualitative and quantitative methods to capture the project's full impact.

# CONTEXTO GENERAL

S+T+ARTS



## CONTEXTO GENERAL

### ¿Qué hemos analizado?

11 residencias artísticas en colaboración con centros científicos, tecnológicos o académicos que se han desarrollado en el marco del proyecto S+T+ARTS in the City.





**Reto 10:** Diseñando los Robots del Futuro

**Proyecto:** Somoure

**Artista:** Mónica Rikić

**Centro asociado:** Institut de Robòtica i Informàtica Industrial (IRI, CSIC-UPC)

**Innovation Catalyst:** Anna Pinotti (HacTe)

**Local Expert Group**



1 - REFLECTION  
PHASE

2 - DEVELOPMENT  
PHASE

3 - EVALUATION  
PHASE

4 - PRODUCTION PHASE

5 - EXHIBITION PHASE



MONTH 1  
OCTOBER 2023

MONTH 2-4  
NOVEMBER 2023 -  
JANUARY 2024

MONTH 5  
FEBRUARY 2024

MONTH 6-9  
MARCH - JUNE 2024

MONTH 9-14  
JUNE - NOVEMBER 2024

Including meetings with the innovation catalyst, the host institution and the Local Expert Group (LEGs). Studio / Lab visits can also be planned upon relevance.

Including public intermediary presentation(s) of the concept by the artist

Development of the artwork/prototype  
Regular consultations with the innovation catalyst, the LEG and research institutions.  
Final meeting with the LEG is planned at the end of this phase

The final artwork/prototype is showcased in one or more exhibitions such as SONAR+D, Ars Electronica Festival and I love Tomorrow Festival.

# MARCO METODOLÓGICO

S+T+ARTS

# MARCO METODOLÓGICO

**+ Aproximación multi-método:** ha combinado la recolección de datos cuantitativos y cualitativos a través de:

- + Hojas de cálculo
- + Entrevistas
- + Diarios de campo
- + Focus Group

**+ Proceso de evaluación iterativo:** recogiendo datos en diferentes momentos del proyecto. Evaluación como espacio de experimentación, adaptación y mejora.



# MODELO ANALÍTICO

3 DESCRIPTORES		
Dimensiones	Aspectos	Perspectivas
+ Colaboración interdisciplinar	+ Percepciones	+ Artistas
+ Innovación y creatividad	+ Acciones y condiciones	+ Científicxs
+ Proceso de residencia	+ Legado	+ Innovation Catalyst
+ Participación y difusión		
+ Sostenibilidad a largo plazo		

# PREGUNTAS DE INVESTIGACIÓN

- + **La dinámica de la colaboración interdisciplinar:**
  - ¿Qué acciones y condiciones se han implementado para promover la colaboración interdisciplinar?
  - ¿Cómo colaboran e intercambian conocimientos los distintos agentes?
  - ¿Qué efectos han tenido las residencias en los investigadores y artistas que han participado en ellas?
  
- + **Un ecosistema de conocimiento para la creatividad y la innovación:**
  - ¿Qué acciones se han desarrollado para crear un ecosistema que fomente la creatividad y la innovación?
  - ¿Cuál ha sido el papel de los catalizadores de la innovación?
  
- + **Difusión, implicación de la comunidad e impacto duradero:**
  - ¿Cómo se ha implicado a la comunidad y fomentado la participación del público?
  - ¿Cómo ha contribuido el proyecto S+T+ARTS a la relación ACTS dentro del programa de residencias?

# **ANÁLISIS: PRINCIPALES RESULTADOS**

**S+T+ARTS**



S+T+ARTS



Project: Archeon Memory Farm  
Artists: Where Dogs Run  
Host: Kersnikova / STARTS in the City 2024

1.

**COLABORAR  
ES MÁS QUE  
COOPERAR**

# COLABORAR ES MÁS QUE COOPERAR

ARTIST: “Like the scientists are really helpful, really nice. I mean, they have always been nice, but they actually really like helping us in the sense of **developing something together**. I think to add to that, yeah, I think the science organisation that we collaborated with, they've been really generous from day one. So like, **being on site**, yeah, we weren't just partnered with like, one department in a way, we were really, they were really open for us to speak into a lot of departments”.

SCIENTIST: “I am always fascinated by the way artists think. I am a scientist and I simply do not have the same world view. **Their world view and their questions broaden my worldview, open new doors and give me a different perspective**. Of course I will continue to work with artists”.

SCIENTIST: “One of the reasons for working with artists is **to get inspired and to think about certain ideas or concepts in a different way**. Artists typically think in a different way than we scientists do. So by connecting them, you open this new potential insight”.

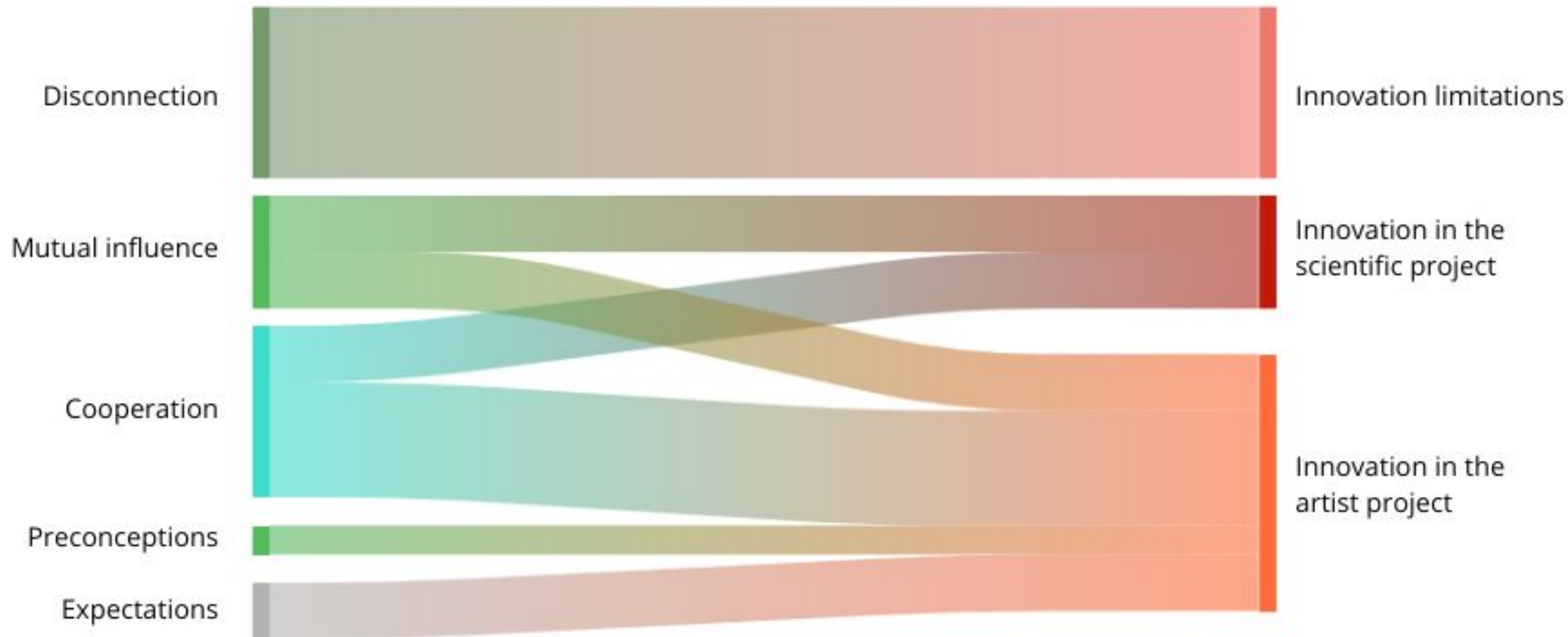


## Colaboración interdisciplinar por Perspectivas






### Innovación y creatividad por Perspectivas



## Colaboración interdisciplinar por Innovación y Creatividad



**COLABORAR  
ES MÁS QUE  
COOPERAR**

IC: “The artistic project has not been opened up enough at this point which **led to a feeling of not developing a collaborative project at all**”.

SCIENTIST: “In this case it's a black box, I mean. **We do not know what is happening, we explain many things, many meetings, but there is no feedback back**, and well, we invest time that we do not know exactly where it goes, that I do not know exactly if all artists work like this, and they... I mean, they're picking up things, they're formulating the result in their head, and then they show it to you at the end”.

ARTIST: “The main challenge of working with scientists and technologists lies in **bridging the gap between disciplines and navigating differing perspectives and methodologies**. As an artist, I often approach problems from a creative and intuitive standpoint, while scientists and technologists typically rely on empirical evidence and systematic inquiry”.





2.

**PROCESO  
VS.  
RESULTADO**

Project: THE SOLAR SHARE: An Edible Solar Currency  
Artist: DISNOVATION.ORG  
Host: HACTE / S+T+ARTS IN THE CITY 2024

**PROCESO vs.  
RESULTADO:**

**CONVOCATORIA  
ABIERTA**

SCIENTIST “**The way it's designed is they come with a project, you select it, they do it. And then we try to discuss things, but new things can't happen** the way it is designed now, very little new can happen. A lot of new things probably happen within the artist when they conceive the project”.

IC “One thing to think about is **to what extent are calls to projects conditioning the whole process**, the whole research and production process. The idea is that projects evolve in collaboration with scientific or technological centres or professionals, but **when projects are so closed or are very well defined, we are dealing with some difficulties on opening them up during the process**”.

PROCESO vs.  
RESULTADO:  
TEMPORALIDAD

ARTIST: “Well, I would have liked to have finished longer. I would have liked to have... expanded the time parameter, because it allows you to think about the gaps in between as you're doing. I mean, **I was encouraged quite quickly to get into a production phase.** Specifically around the questions all the time, “what are you doing?”, “What are you making?” Rather than “what are you thinking?”

ARTIST: “This is a production project and residency. The grant is already very clearly specified.(...) So that means we have to complete the project to a point where it's fully functioning for audience engagement and it works. (...) That is not possible, **it's not possible to do interdisciplinary research within the time frame and delivery for an outcome.** But there's a very clear tension to me between delivering a product and collaboration and sharing ideas and developing things together and knowledge exchange”.

IC: “**I think this residency period might be too short if you expect them to interact, develop like each other and then produce an artwork.** So maybe in that case it's more focused on the research itself than the outcome. But in our case, because they already had some connections and lines of work established with scientists, it was a bit easier to begin”.

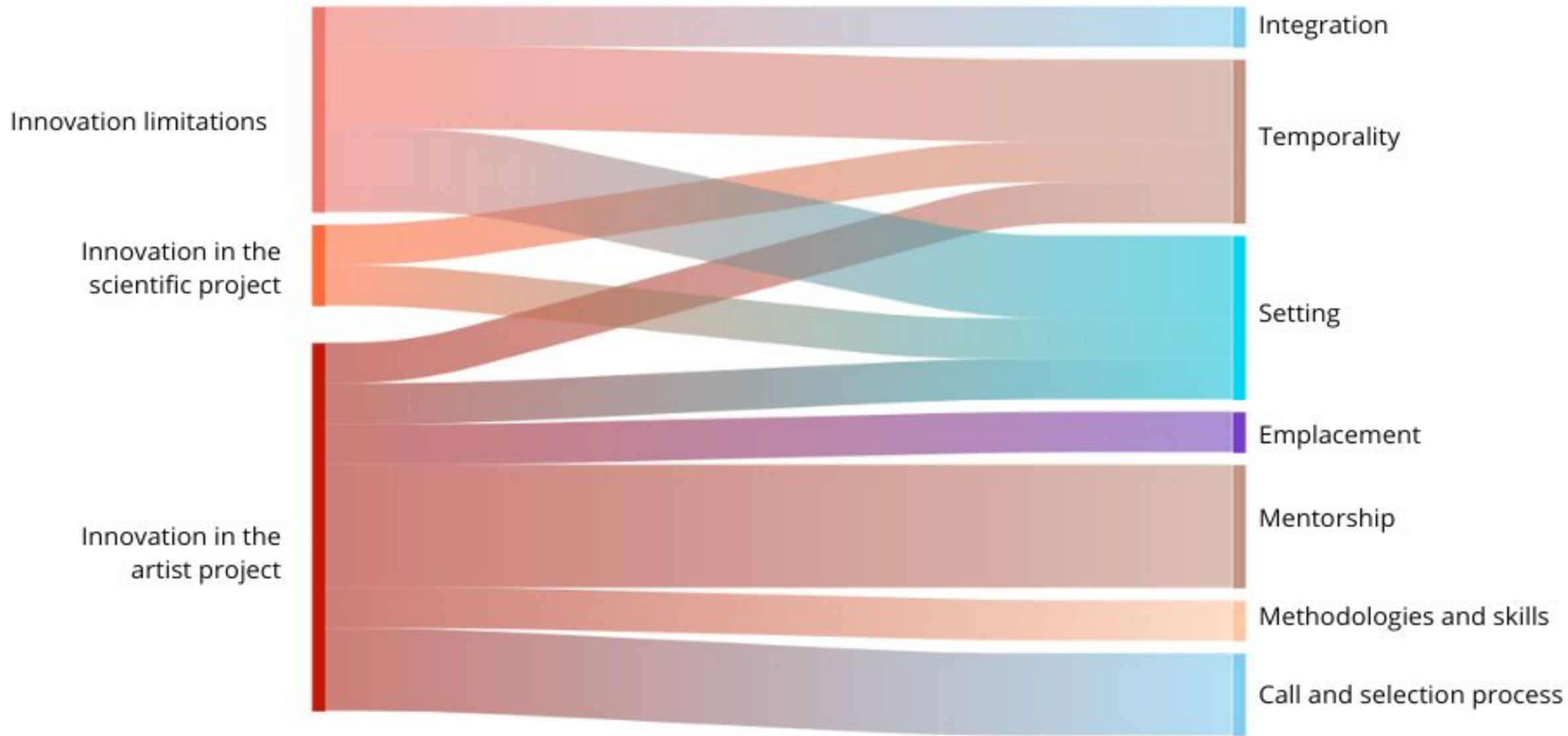


PROCESO vs.  
RESULTADO:

ENTORNO E  
INTEGRACIÓN

ARTIST: “In this sense, we were really lucky **to have a place where we can work in the needed conditions**. So, this was really special to have this opportunity. It also changes up the process really well, considering how complicated it is”

SCIENTIST “Even before proposing the challenge we were prepared to have one space for them to come here. She said, I am not able to meet with them every single day, but they can come here. They can install something here. And I think **basically become part of the group**”.



**Innovación y Creatividad por los indicadores de Proceso de Residencia**



3.  
**ECOSISTEMAS  
ABIERTOS  
DE  
CONOCIMIENTO**

Project: In The Belly  
Artist: Futurefarmers (Amy Franceschini & Lode Vranken)  
Host: GLUON / S+T+ARTS IN THE CITY 2024



**ECOSISTEMAS  
ABIERTOS DE  
CONOCIMIENTO:**

**INNOVATION  
CATALYST Y LEG's**

ARTIST: "Our engagement with this diverse group of practitioners has shaped the project seminally. **We have been moved by our expert's input and critical questions.** The residency provides the support to test this idea out and gain the visibility and trust needed for the project to go on".

SCIENTIST: **The Innovation Catalyst did a very good job making the bridge between us and doing exercises with both of with the research team and with the artists to get to know each other.** I think she has a specific special talent for that. Also, she's interested in that, the connection between arts and science. So she was very good to work with and she helped a lot.

**ECOSISTEMAS  
ABIERTOS DE  
CONOCIMIENTO:  
CIUDADANÍA Y  
COMUNIDADES**

ARTIST: “That has been, in many ways, the best learning that I've ever had. But **meeting such diverse different voices who are working on different but really similar things has also been really amazing.** One of the things that **we're trying to do with the artwork is trying to link these civic organisations together**”.

SCIENTIST: There was just one other thing that I wanted to mention about these collaborations between science and art. Sometimes it's also about spreading a message. A lot of the research which happens also has ethical questions, ethical concerns, and sometimes **art is a way of opening societal debate.** I think that that's also an important aspect which should not be underestimated. With art you can communicate in a more open way to blow other public and sometimes make topics which are controversial to discuss more and accessible.

## CONCLUSIONES Y RETOS

1. Fomentar la apertura de los procesos.
2. Abrir los resultados y flexibilizar las temporalidades.
3. Formar y reforzar la figura de facilitación de procesos, y también capacitar a investigadores y artistas.
4. Promover la innovación social y abierta.
6. Relación con las instituciones y financiación.



# DE LOS KPI A LOS KTI

S+T+ARTS

## RETOS PARA LA DEFINICIÓN DE LOS KTI

1. La limitación de los datos cuantitativos para captar los matices de las interacciones complejas.
2. Evaluación de los impactos a largo plazo.
3. El concepto de transformación está estrechamente relacionado con el de ecosistema de innovación.
4. La medición de los procesos de creatividad e innovación.
5. La medición de los procesos de investigación transdisciplinar se enfrenta con frecuencia a retos relacionados con aspectos intangibles e impredecibles.





Alfred Eisenstaedt, Kids Reaction to a street puppet show Paris 1963



# INDICADORES CUALITATIVOS

Dimension	Indicator	Sub-indicator
Interdisciplinary collaboration	Collaborative Dynamics	Cooperation
		Disconnection
		Transformations
		Mutual Influence
	Mindset and Methods	Experience
		Expectations
Preconceptions		
Innovation and Creativity	Innovation in the Artistic Project	
	Innovation in Scientific Research	
	Innovation Limitations	

# INDICADORES CUALITATIVOS

Residency process	Challenge Relevance	Call and selection Process
		Challenge Definition
		Challenge Adequacy
	Residence Performance	Integration
		Setting
		Funding
		Temporality
		Emplacement
	Accompaniment	Mediation
		Mentorship
Methodologies		

# INDICADORES CUALITATIVOS

Public engagement	Exhibitions	
	Community Participation	
Long-term sustainability	Legacy of the Interdisciplinary Collaboration	Ongoing and/or Future Collaborations
		Future Engagements with STA
		Changes in Mutual Perception
	Legacy of the Innovation Process	Outcome
		Acceleration
		Community Impact
	Legacy of the Residency Process	Future Developments in Artistic and Scientific projects
	Learnings	Setbacks
		Good Practices
		Actionable Insights