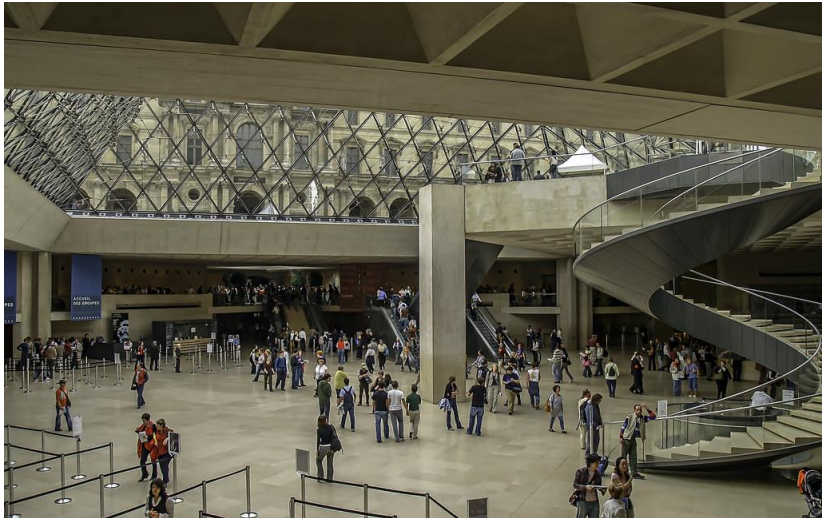
InteractionSeeds

Webinar on arts-science interactions to improve health and inclusion
Wednesday 16 April 2025 | 10:00-11:30 CET
Speaker: Yassamin Kouraichi- Dowel Innovation

OPENING

"Imagine a child entering a museum for the first time. The colors, the movement, the unexpected noises—it's overwhelming. Instead of curiosity, they feel anxiety."

For many neuroatypical children, museums can feel more like barriers than welcoming spaces.



Entrance of the Louvre Museums- photo credits: Tony Tomlin/Flickr

This is the challenge we wanted to address with 'Museums for All'—a project that rethinks cultural spaces through the lens of inclusivity, innovation, and design.

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WHY DOES IT MATTER?

Societal challenge

- 1 in 6 people have a neurodevelopmental disorder and only 8% are diagnosed

- Neuroatypical children (dyslexia, dyspraxia, ADHD, autism, etc.) face barriers in museums—from sensory overload to difficulties in following traditional learning formats.

- Cultural spaces often have a one-size-fits-all approach, unintentionally excluding these children.

➔Yet, museums have the power to spark creativity and learning for everyone—if we rethink their design.

Let's watch a video extract of a situation faced by a dyslexic child at school

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FINDING ACTIONABLE APPROACHES

Scientific challenge

An example of innovation in the field "O-KIDIA": As a **digital clinic for neurodevelopmental disorders**, O-KIDIA uses **AI-powered, multi-source data analysis** to build holistic, playful, and clinically validated tools that support **early diagnosis** and personalized therapeutic pathways for children and adolescents.

How science addresses inclusivity: Science offers deep insights into the sensory, emotional, and cognitive needs of neurodivergent individuals. When combined with **neuro inclusive design**, it **can inspire inclusive spaces that are both functional and empathetic.**

The challenge: Scientific knowledge on neurodevelopmental disorders is **growing**—but making it accessible and actionable for the non specialists remains complex.

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THE MUSEUMS FOR ALL PROJECT

Societal challenge

Scientific challenge

A multi-phase, interdisciplinary initiative bridging design, science, and art and cultural approcahes

The objective is to create synergies between diverse stakeholders by bringing them together to exchange ideas, share perspectives, and co-develop inclusive solutions.

For what?

- Put participants in the shoes of neuroatypical children
- Explore various scenography towards more inclusivity
- Engaging interactions with a broad audience on complex topic

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THE APPROACH: HOW TO BRIDGE RESEARCH AND INCLUSIVITY

1. **Raising Awareness** (*April 11, 2025*) – Training **48 space design students** through **VR simulations, expert-led sessions, and discussions with special education guidance counsellors.**

2. **Innovating through Co-Creation** (*April–May 2025*) – A **2.5-month design sprint**, where students develop **inclusive museum solutions**, guided by experts and real user needs.

3. **Showcasing Impact** (*June 20, 2025, Villa Arson*) – A **public event featuring a scientific conference facilitated by an artist , an interactive student exhibition, and VR experiences**, all designed to **challenge perceptions of accessibility.**

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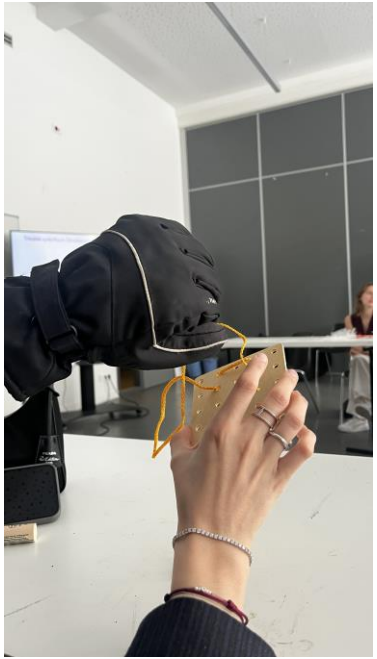
Objective 1: To raise awareness about the lived experiences and challenges of neurodivergent individuals

An Artistic and Experiential Approach:
Develop an **emotional connection** to neurodiversity through an immersive VR video—an **artistic medium** that offered a powerful, **first-person sensory perspective.**
This is complemented by immersive scenarios and **sensory activities,** deepening their understanding of **diverse perceptual worlds.**



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Example: Creating quiet spaces to manage sensory overload- Dublin City University « the 1st autism friendly university worldwide »

Objective 2: inspire more inclusive design practices.

Approach: Art as a Catalyst for Inclusive Design

Inspired by the Inclusive Design Challenge at the Royal College of Art, this phase invites 48 students to develop individual projects over five weeks—**blending creativity, science and societal engagement.**

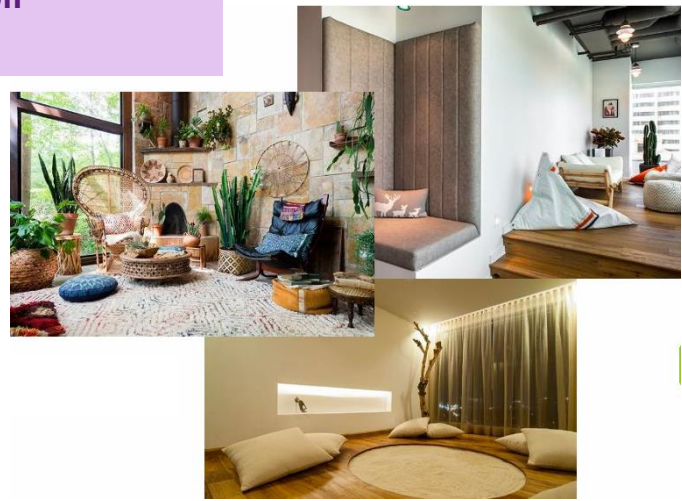
Real case study exhibition curated at Villa Arson

when it comes to space design for neuroatypical individuals, what should be taken into consideration is:

- Sound and light are the most important aspects
- Designs inspired by nature are widely appreciated
- Preferences vary according to individual sensory profile

Recommendations:

- Design neutral spaces with modular stimulation options
- Encourage variety, flexibility and user control



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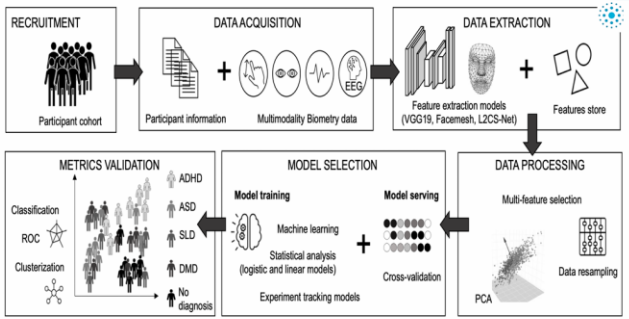
Objective 3: Introduce parents and children to new diagnosis protocol and technologies based on gamification.

Approach: Art-Facilitated Scientific Talk

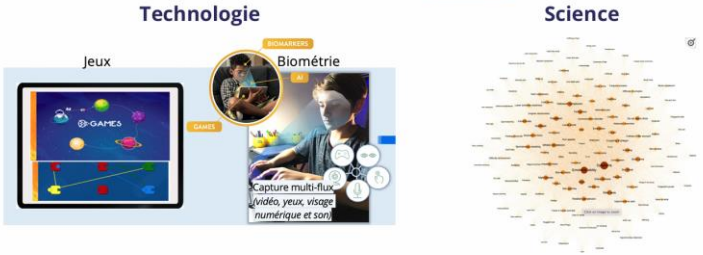
O-KIDIA will present a conference creatively guided by an artist, making complex ideas accessible and engaging.

Methodologie



O·KIDIA

Avoir la vision la plus large possible de l'état mentale de l'enfant en moins de temps possible



Example: An artist who paints during a scientific conference to convey information through painting and make the content accessible to the public.

Credits: Edgar Medina

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This project is not just about highlighting inclusive accessibility to museums..
It's about shifting perspectives!

Impacts we are aiming to achieve	**Raise public awareness** of neuropsychological disorders, helping communities better understand the experiences of neuroatypical children.
	Support families by involving them in **testing new diagnostic protocols developed by O-KIDIA,** ensuring that solutions are built around real needs.
	Train the next generation of space designers and scenographers to embrace **inclusive design** as a standard, not an afterthought.
	Encourage museums to **rethink their spaces,** making them not only accessible but welcoming and **enriching for neuroatypical children.**

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WHAT'S NEXT?

- Development of a local taskforce composed of museums, space designers and « users » to deepen the work on museums inclusivity
- Engagement of a cohort for O-KIDIA, to deepen their research on the development of tools to assess neurodevelopmental disorders

Presentation proposal accepted at Eighteenth International Conference on the Inclusive Museum

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Thanks!

CONTACT US

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Phase 1

Training workshop with the space design students and teachers

Objective: To raise awareness among first-year “Space Design” students and faculty about the lived experiences and challenges of neurodivergent individuals, and to inspire more inclusive design practices.

An Artistic and Experiential Approach:

Students developed an **emotional connection** to neurodiversity through an immersive VR video—an **artistic medium** that offered a powerful, **first-person sensory perspective.** This was complemented by immersive scenarios and **sensory activities** led by the counsellors, deepening their understanding of **diverse perceptual worlds.**

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Phase 2 Inclusive space design challenge- projects' 2 months' sprint

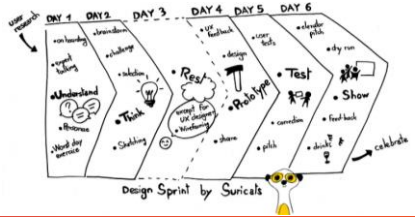
Art as a Catalyst for Inclusive Design

Inspired by the Inclusive Design Challenge at the Royal College of Art, this phase invites 48 students to develop individual projects over five weeks—**blending creativity, science and societal engagement.**

Regular feedback sessions, guided by the special education counsellors from POP 06, ensure each project remains both **artistically strong and inclusive in its approach.**

Exhibition as Artistic Outcome

Five projects will be selected for a **final exhibition co-curated with Villa Arson,** where **thoughtful scenography** will highlight the **intersection of artistic expression and inclusive spatial design.**



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Phase 3 Big public event (20 June)

The public event at Villa Arson will celebrate the intersection of art, science, and inclusive design.

- **Art-Facilitated Scientific Talk:** O-KIDIA will present a conference creatively guided by an artist, making complex ideas accessible and engaging.
- **Immersive VR Experience:** Visitors will step into a multisensory simulation, offering an artistic glimpse into the perceptual world of Dyslexia.
- **Exhibition – Inclusive Space Design Challenge:** Museums Edition: Five student projects will be presented to a jury of cultural and civic leaders, as part of the larger "Becoming Ocean" exhibition—blending inclusive space design with artistic expression.
- **Inclusive Cocktail:** A closing moment for exchange among artists, students, experts, families, and associations.

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HOW SCIENCE COULD HELP ADDRESS THIS CHALLENGE?

Scientific challenge

One of the scientific challenges linked to the topic

- Role of research and science
- The new technologies and protocols
- The role of O-KIDIA in this project and their needs to engage with the public

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Scientific Challenge: Making Research Accessible and Actionable

While there is a growing body of research on neurodevelopmental disorders, **translating this knowledge into practical tools and accessible experiences remains a challenge.** This is not due to a lack of willingness, but rather to the **complexity of the science**, the **gap between researchers and practitioners**, and the **limited opportunities for direct engagement with the public.**

 Studies in science communication consistently show that even highly relevant scientific advances can remain **underutilized** if they are not translated into **tangible, user-friendly formats** (National Academies of Sciences, 2017). This is especially true in fields like cognitive neuroscience or developmental psychology, where findings are often dense and technical.

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How Science Can Bridge the Gap

- Science plays a vital role in **understanding the specific cognitive, emotional, and sensory needs** of neuroatypical individuals.
- When communicated effectively, scientific insights can directly inform **inclusive spatial design, museum programming, and public awareness strategies.**
- Tools like **virtual reality**, developed in collaboration with research teams, allow for **empathic immersion**, helping non-specialists—like students and museum staff—grasp the lived experiences of neurodivergent individuals.

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Museums for all: impact and continuation

Presentation proposal accepted at Eighteenth International Conference on the Inclusive Museum

Impacts from artistic collaboration:

- Put participants in the shoes of neuroatypical children
- Explore various scenography towards more inclusivity
- Engaging interactions with a broad audience on complex topic

Artistic collaboration addressed how to:

- Propose concrete solutions to enhance the experience of all museums' visitors
- Support cocreation by connecting researchers and "users"
- Raise awareness on non-neurotypical children and their difficulties in museums
- Connect design students with topic experts and citizens

Continuation:

- Development of a local taskforce composed of museums, space designers and « users » to deepen the work on museums inclusivity
- Engagement of a cohort for O-KIDIA, to deepen their research on the development of tools to assess neurodevelopmental disorders

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