

# EXOGRAPHER



A videogame based on particle physics


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*A platformer game  
exploring a mysterious world  
imbued with particle physics*

Take a picture...

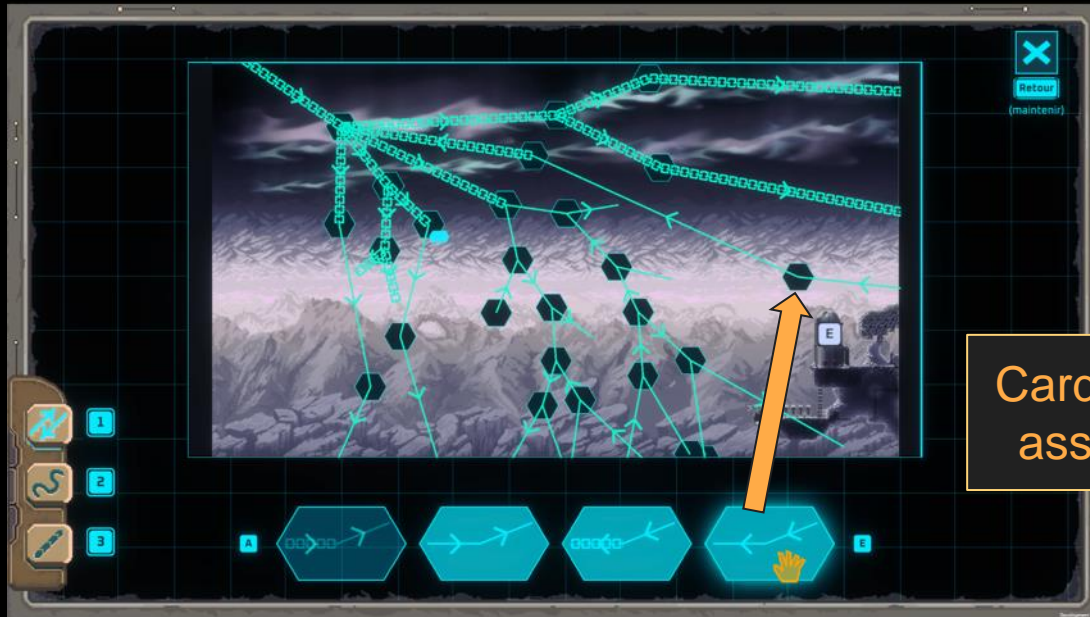


A night sky filled with colorful star trails in shades of red, orange, yellow, green, and blue. In the lower right foreground, a satellite dish is mounted on a blue, rocky platform. Next to it stands a small, pixelated figure of a person wearing a white space helmet and a blue suit. The background is a dark, deep blue sky.

Take a picture... to reveal the invisible!

# Goal #1 : Feynman diagrams

To bring non-expert players to manipulate basic (2D) diagrams, via pattern recognition puzzles, including special tools such as: missing energy, time flow or a zoom...



Card - Vertex  
association

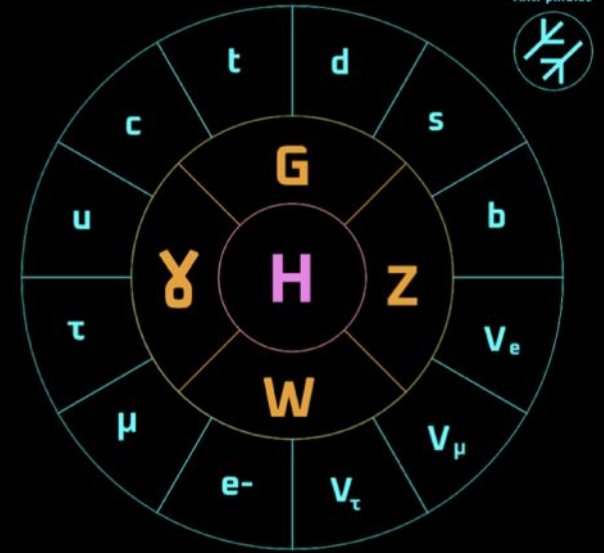
## Goal #2 : Particle zoology

In your rosette, collect 17 “pixules” corresponding to (real) elementary particles...



**Muon**

Very similar to the electron, just heavier. Its lifetime is relatively long for a pixule, about two microseconds. This longevity allows it to reach the ground, while it is created high in the atmosphere, by energetic cosmic rays. It is there, by the way, that Dirca discovered them. Totally unexpected, these muons showed up by surprise, revealing the existence of other pixules than the ones we are made of.



- Filling the rosette opens new levels
- Discovering bosons unlock power-ups



## 4 POWER-UPS



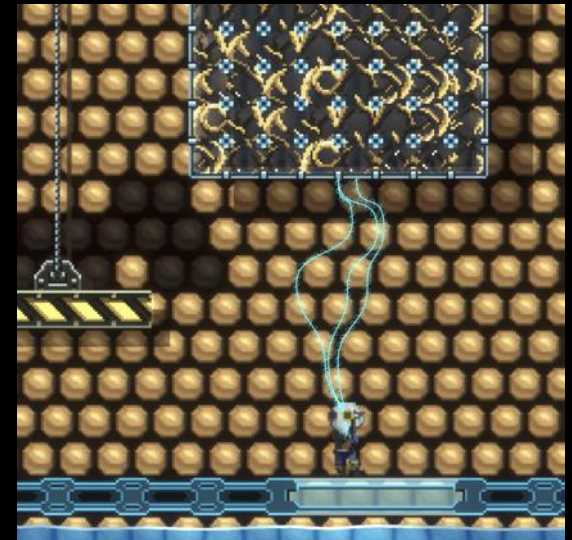
Photon sphere



Gluon boots



Wedic wave



Zediactal boxes

Four **skills** allow you to tame and overcome absurd substances

# A SCIENCE-INSPIRED WORLD BUILDING

Rucie



in game



# A SCIENCE-INSPIRED WORLD BUILDING

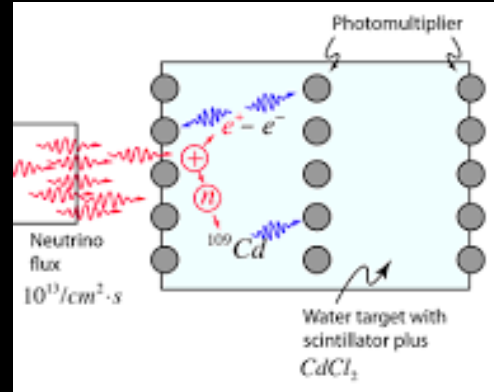
Rucie



in game



Kamiokande, Japan

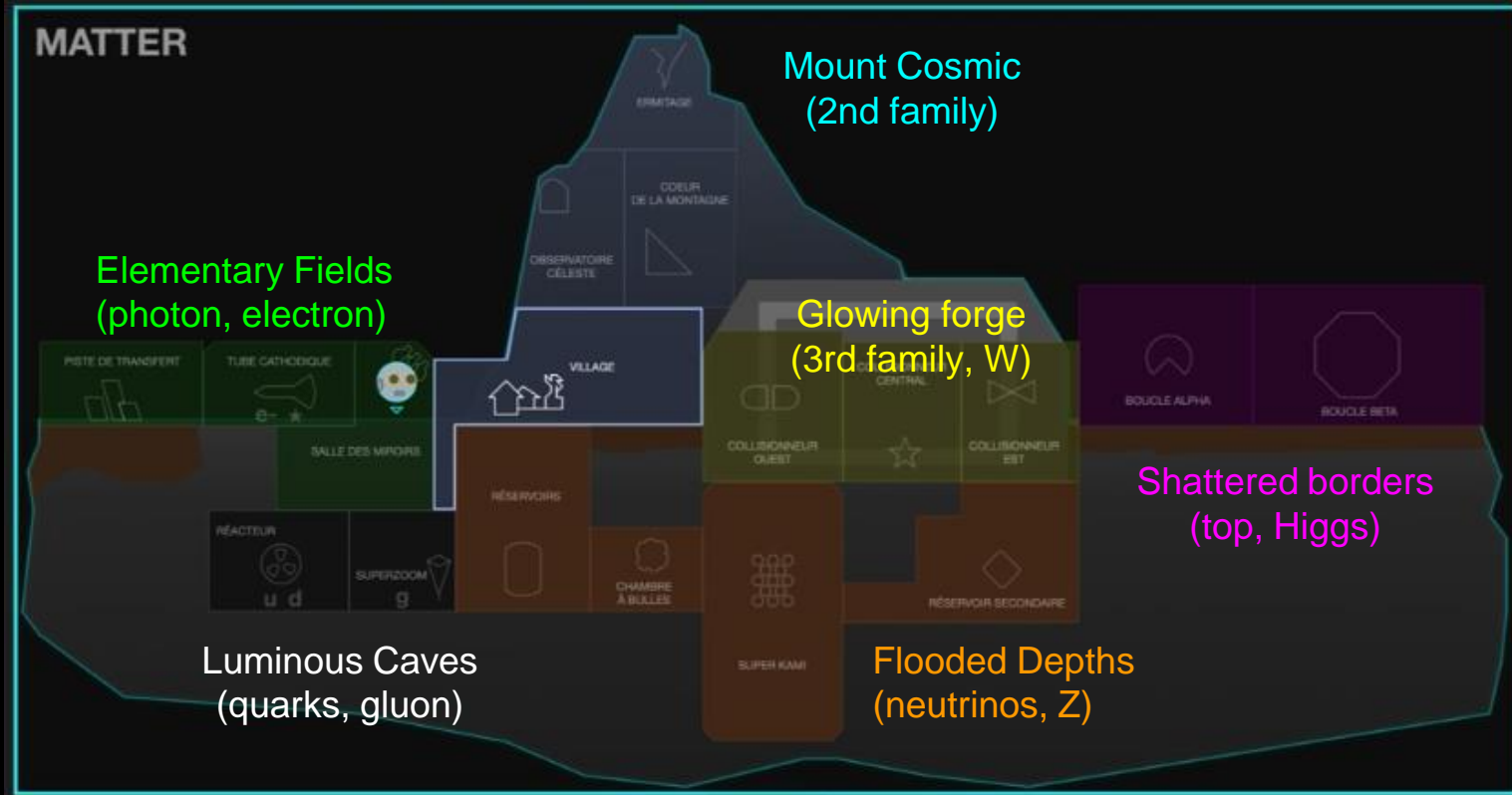


behind the scenes

(to be revealed in a wiki, reddit, discord, forum...)

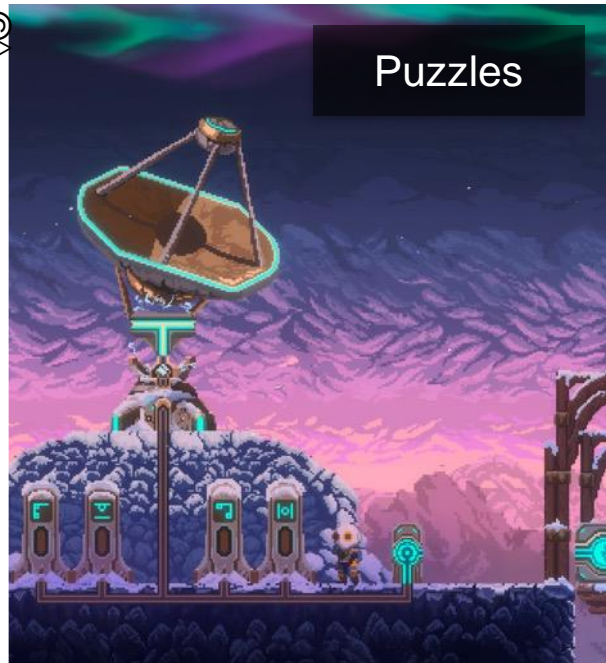
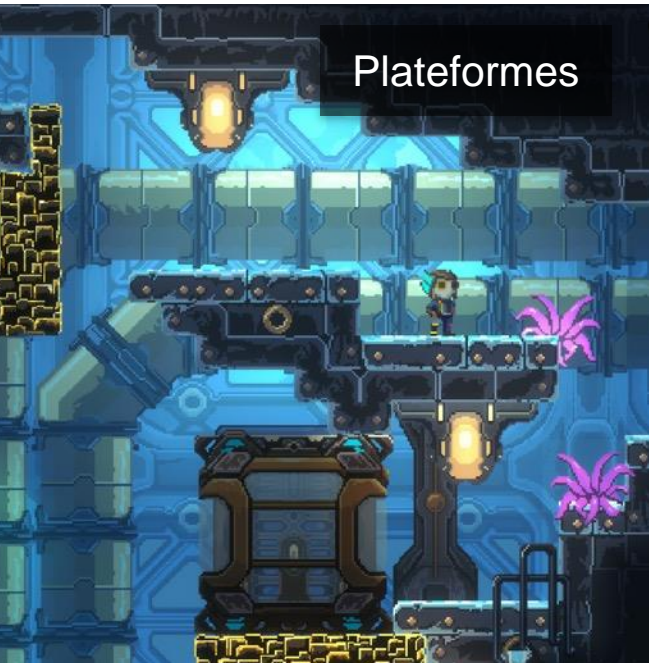
# WORLDMAP

20+ levels and 6 atmospheres to go back to the origin of the disaster and face the ultimate discovery



IN SHORT...

# Master goal: raise curiosity for particle physics



About **15 hours** of gameplay, surrounded by particles, for **~20 €**

# Exographer timeline



- 2019-23 : Conception within the Science & Videogame academic chair of École polytechnique (under Ubisoft patronage)
- Nov'23 : Shown at Paris Games Week (200+ players, excellent feedback)
- Nov'23 : Spin-off studio SciFunGames “Science for all, fun above all”
- Jan'24 : Deal with the Abylight publisher
- Fev'24 : Announced on Steam (wishlist started)
- Jun'24 : playable demo on Steam and discover photons and electrons
- Sep'24 : release on PC & Mac [[link](#)] & consoles (Switch, PlayStations, XBOX)

# The team



Raphaël

Narration  
Science



Thomas

Artistic  
director



Tony

Lead Dev



Catherine  
Producer

EXOGRAPHER

Priscilla & Arthur  
UX designers



Pierre-Alban  
Game Designer



Léonard  
Tech Art



G4F  
Sound design



Yann  
Composer

# Targeted audience = 12-35 yrs



**Target #1 (Fun)** : Frequent players, curious and eager for new experiences; they have played best-selling platformers (Fez, Braid, Owlboy, Celeste, Ori, Hollow Knight...)

**Target #2 (Sci)** : Players interested in science; prescribing parents; curious scientists; academics; they consume science on other media (Youtube, TikTok...)



# Exographer, lessons



- **Goal** : reach a **large audience** with no a priori interest → Video games
- Professional quality videogames **cost money** (human resources, with several high-level profiles needed)
- **Target** : **100 000+ players** (**9 languages** available already)
- Now that Exographer exists:
  - we can use it to popularize our science → **Spread it around you?!...**
  - we can discuss extra visuals / side levels based on your favourite experiment / physics case ?

CONTACT

Wanna know more?

Wanna play more?



[Exographer on Steam](#)



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<http://scifungames.com>







## OUR SOLUTION

# Videogames, the best popularization media?



Game  
mechanics



Engaging  
graphics



Large  
audience



Interactive  
experience

# TABLET & PICTURES

Guided by a **mysterious tablet** equipped with a **camera**,  
Unveil **encrypted clues** and repair **impressive machines**



# WORLD

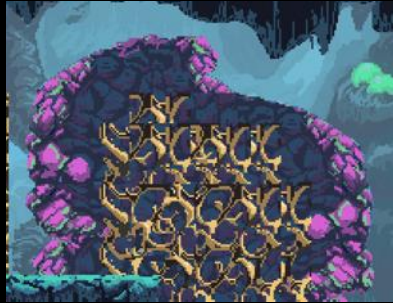
Discover a familiar environment yet strangely corrupted:

Four absurd substances have swamped the world

Each is an obstacle that you will learn to overcome



ROCK



FLORA



TAR



FOG

# EXOGRAPHER'S PILLARS

## A mysterious world

Full of intriguing machines  
unveiling fascinating  
phenomena



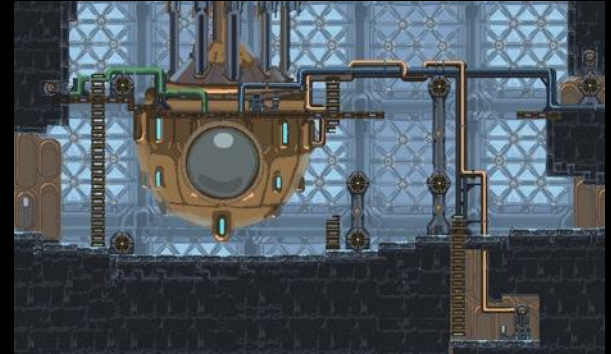
## A pure platformer game

Engaging and guiding  
players through original  
mechanics



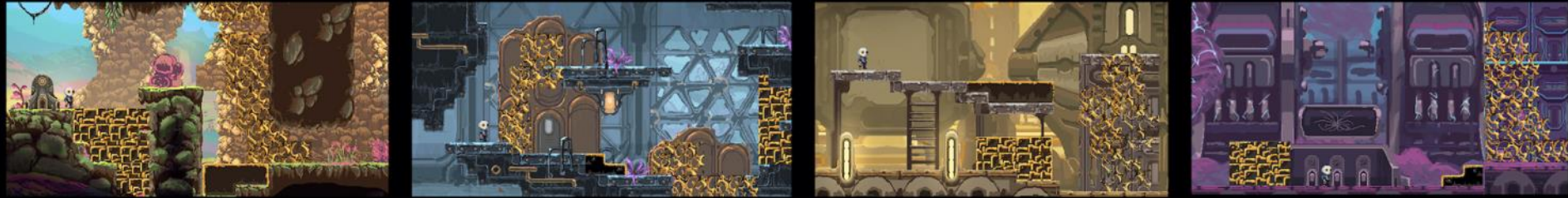
## A scientific background

Echoing from world  
building to puzzle design



# A DUAL-PHASE EXPERIENCE

Explore a **disconcerting universe** and break its mystery...



Understand its **core elements** to track the chronology of a disaster...



# CHARACTER

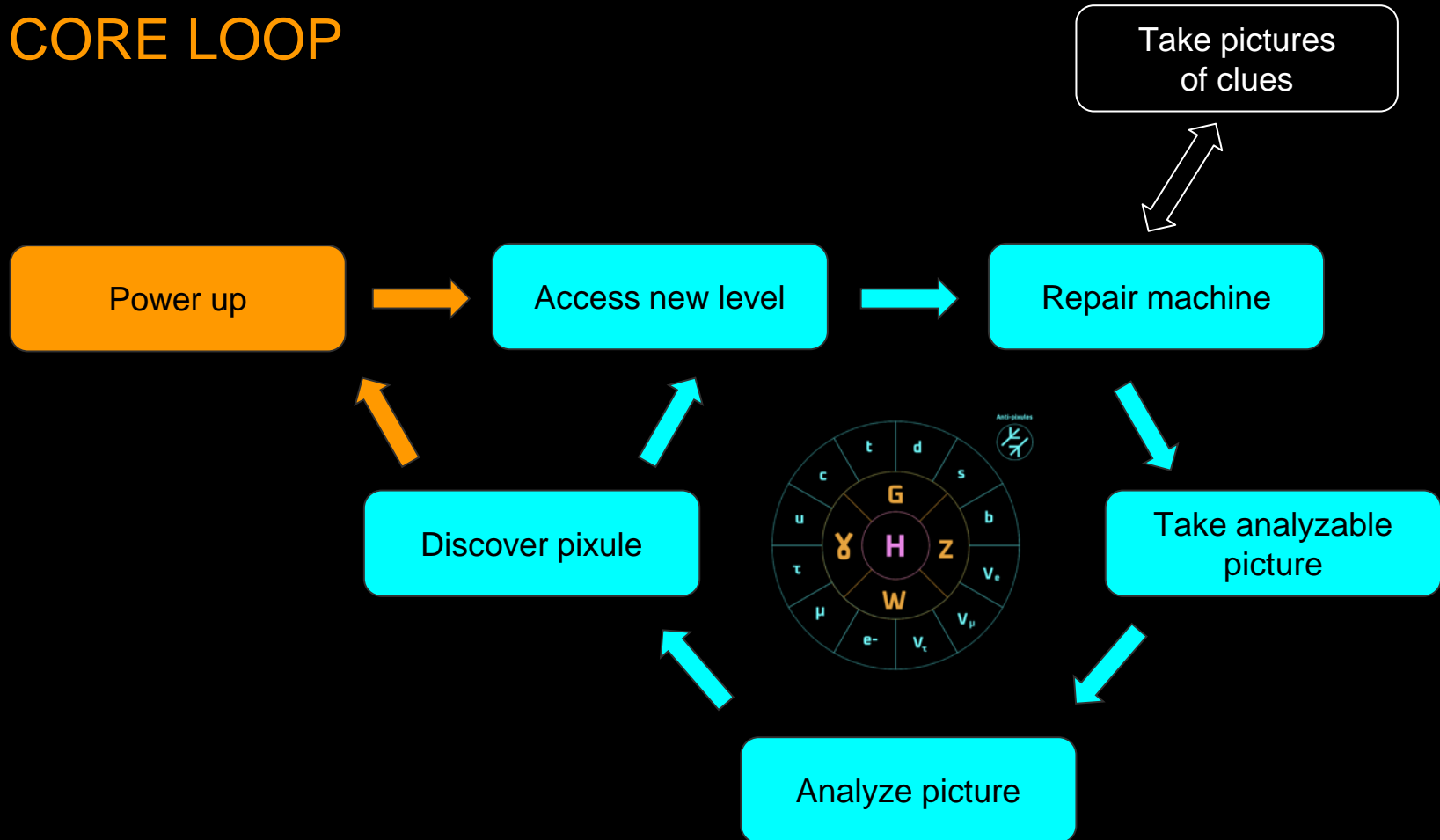
Embodiment Inl, an explorer teleported for a **rescue mission** on a strange planetoid, with no possible return



Character equipment and progression



# CORE LOOP





# A CENTRAL FEATURE = TAKING PICTURE

Reveal new particles  
and their tracks



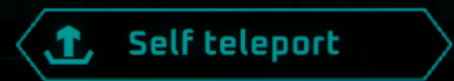
Decypher all the clues  
left by the Natitans...



Help solving puzzles



... providing as many  
check points



Provide a unique game save point



## IN SHORT

*Live an amazing encounter with science,  
making particle physics intriguing,  
wonderful and tameable through a pure  
puzzle / platformer game*

## OUR MISSION

# Reconnecting audiences

27%

of young people\* doubt  
that humans are the  
fruit of evolution  
(IFOP, 2023)

95%

of young people\*  
play video games  
(SELL, 2020)

200G\$

annual worldwide  
revenue from video  
games, the leading  
medium

→ Using video games to democratize science

\* French statistics, same tendencies worldwide

OUR FOUNDER

# Raphaël Granier de Cassagnac

- **Ubisoft's** trust to hold the Science & Video Games academic chair @ **Polytechnique** (2019-2023)
- **Sci** = physicist at CERN & **Fun** = Game studio co-founder, writer (3 novels, 12 short stories, 4 universe-books, 2 movie projects...)



Science for all

Fun above all



The first videogame studio dedicated to science popularization

THANKS FOR YOUR ATTENTION



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