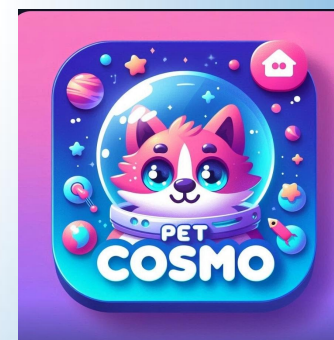


MOVERE 2.0 – Space-Enhanced Pet Therapy with COSMOPet



**FROM THE STARS TO THE HEART OF A
CHILD: COSMOPET IS SPACE
FOR EMOTIONAL HEALTH!**



*A Cassini Hackathon project by Movere 2.0 –
led by Tiziana Mori, Ph.D. and her Team-ITALY-
-challenge n.3 Mental health and well-being-
16-18 may Bologna*

Title & Problem Statement

“Why Kids Need COSMOpet: Environmental Risks Meet Pediatric Health”

🌳 Many children living in urbanized areas suffer from stress, anxiety, and cognitive overload due to the lack of green spaces and relaxation areas.

🧠 Studies show that limited exposure to nature leads to higher rates of hyperactivity, attention disorders, and emotional instability in children.



BULLET POINTS:

🌍 Environmental stress (pollution, heat, noise)

🧠 Impacts on concentration, anxiety, behavior

📱 Few scalable digital therapeutic tools

The Solution

“COSMOpet: Space & IoT Technologies Turned Into Pediatric Therapy”

MOVERE 2.0 introduces an AI-driven virtual pet therapy platform, integrating music therapy and nutrition guidance, powered by Copernicus and Galileo satellite data.



SATELLITE MAPPING

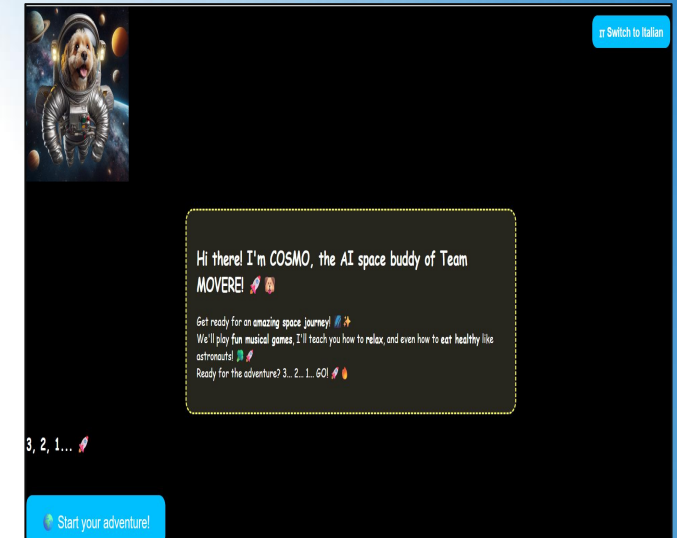
identifies urban areas with limited green space and high pollution levels.

GEOLOCATION TOOL

helps families find the nearest music therapy or pet therapy center.

AI-DRIVEN RECOMMENDATIONS

personalize wellness solutions for children in urban environments



Technology & Implementation

How It Works: COSMOPet System Architecture in action

SATELLITES + AI = PERSONALIZED URBAN WELLBEING

- ✓ Copernicus HR-VPP maps urban vegetation and pollution
- ✓ Sentinel-4* monitors NO₂, PM10, and urban heat islands
- ✓ AI correlates environmental stressors with therapy suggestions (IoT)

The COSMOPet prototype was tested in Milan

This page displays simulated Copernicus data (air quality, green spaces, and heat islands) to assess environmental stress conditions in an urban area, as described in the [README](#) and in the [methodology.md](#).

Example – Environmental Snapshot:

Location: Milan

NO₂ level: High

Green areas nearby: Low

Suggestion: Activate relaxing pet interaction + breathing game

(Function in alpha – simulation only)



How it works:

Input detected → Excessive noise, abrupt movement, elevated heart rate (if sensors are available).

Trigger → Stress threshold exceeded.

Output → The COSMOPet mascot gently and interactively invites the child to relax with calming suggestions.

If environmental stress is high, the COSMOPet mascot invites the child to slow down and engage in calming activities.



It seems like there's a bit of stress around. Shall we take a deep breath together

Listen to relaxing sounds

Do a breathing exercise

Take a break with COSMOPet

Market Opportunity & Target Audience

"From Pilot to Europe: Our Market & Measurable Impact"

Content:

Pilot: 10,000 children, 500 green zones mapped

Impact goals:

- ↓ inactivity by 30%
- ↓ anxiety scores
- ↓ healthcare costs by 20%

Scalable to other European cities via Copernicus + IoT

🎯 Target Audience	📊 Market Opportunity
👤 Children 6–12	8M children in Italy
🏫 Schools	€6.3B pediatric market
👨‍⚕️ Pediatricians	40M+ potential users EU
🏥 City health departments	Post-COVID demand ↑

Call to Action & Closing

“Pilot with us – We’re ready to launch”

✉ **Email:** movereinsalus.project@gmail.com

🔗 **Link:** <https://tizym.github.io/COSMOpet/>

🚀 **Pilot launched in Italy**

📦 **EU-ready, modular, open-source**

📁 *Further insights, code structure and modularity examples are available at our official GitHub repository:*

📖 *Technical documentation:* [Methodology](#) | [IoT Integration](#)
[DEMOchatbox](#)

ThankS!



Prof. Tiziana Mori, Team Leader of Movere 2.0 – Business Development, CEO, Management & EU Project Manager

Dr. Massimiliano Tronci, Lead Data Scientist & Legal Compliance

Dr. Roberto Diana, Health Marketing & Wellness Strategist

Dr. Monica Fadda, UX Designer for Gamification & Music Therapy

