unica4eu

A unique **European** vision for **Artificial Intelligence** to fight **Childhood Cancer**

Our Mission

UNICA4EU is a **EU-funded initiative** with a clear goal: map the current **landscape of Artificial Intelligence (AI)** applications for **Childhood Cancer** to understand how AI can help **improve care pathways** in the EU.

A **one-stop portal** to host and curate **resources** and **insights** on Childhood Cancer and liaise future **opportunities** to expand the reach and uptake of clinical AI applications

Why Childhood Cancer?

Childhood Cancer represents the **leading cause of death from disease** for children and teenagers in Europe. Many pediatric cancers are proving to have a genetically distinct component from their adult counterparts, demonstrating the need for childhood-specific genomic studies, datasets and therapeutic strategies

35,000
children diagnosed
per year

100+
different cancer
types

500,000
young survivors
in the EU

The Challenge

Every healthcare interaction generates precious, highly sensitive data. The **patient pathway** in Childhood Cancer (from diagnosis to treatment and all the way to survivorship) is extremely **complex** and **individualized– why?**

Childhood Cancer is a **rare disease**

Data silos are the norm: data is **scarce** & **fragmented**

Privacy, transparency & robustness are critical

Data sharing & interoperability are lacking

Our vision

Artificial Intelligence to improve cancer care

We are creating an **interoperable** and **distributed EU ecosystem** for action on Pediatric Cancer that will provide **top quality**, **evidence-based AI services** to accelerate an **early diagnosis**, **prognosis**, **treatment** and **care** of children with cancer

Exploring **multidisciplinary standards** of **care** supported by AI	Building an **AI framework** for Childhood Cancer	Expanding our **community, reach** & **visibility**

Our pillars

Shining a light on Childhood Cancer

A unique access point

The gateway to a brand new European Pediatric Cancer Ecosystem for developing and upscaling the application of AI solutions on Childhood Cancer

Unlocking the potential of AI

A set of bespoke use cases, best practices and guidelines for secure AI interventions in the prevention, diagnosis and treatment of Childhood Cancer

One community

A strong, diverse community to share knowledge, nurture collaboration and harmonize clinical and technical perspectives in pediatric cancer pathways

A new European ecosystem for Childhood Cancer

Europe's Cancer Plan and the Helping Children with Cancer initiative are committed to ensuring that children have access to rapid and optimal **cancer detection, diagnosis, treatment and care** throughout Europe. This ambition will be realized through an extensive **network of cancer centres** to extend and complement the European Reference Networks for Paediatric Cancer

Europe's Cancer Beating Plan

Aims to prevent cancer and ensure that cancer patients, survivors, their families and carers can enjoy a high quality of life, promoting digitalisation, research and innovation as key drivers

The Helping Children with Cancer Initiative

Ensures that children have access to rapid and optimal detection, diagnosis, treatment and care by supporting training and sharing of best practices and standards

Meet the Team

We are **15 partners** from **8 European countries**! We bring together world-class medical/research institutions for pediatric oncology, AI/ML experts and bioinformaticians, several reference networks for Childhood Cancer in the EU and top-level skills in community building and impact creation.

Visit us at **unica4.eu**