ARPHYMEDES PLUS: WHEN EDUCATION BECOMES INTERACTIVE AND INCLUSIVE

We live in an increasingly science-driven society, a continuous evolution and combination of unprecedented **opportunities** and the need to give clear **direction** to these technological and scientific developments.

Shouldn't directing the technological and innovative tools that are gradually becoming available to us, towards a **vision** of a more **collaborative** and **sustainable** society, inclusive and equitable in its recognition of diversity, be a priority and desirable function?

Concerning issues of inclusion in educational spaces, the **ARphymedes Plus project** embraces the attempt to respect the needs or requirements of all, designing and organising learning environments and activities in such a way as to allow everyone to participate in classroom life and learning, in the most active, autonomous and useful way possible.

By inclusive education we mean the **access of all students** to full participation in learning, supported by reasonable adjustments and teaching strategies tailored to meet their individual needs.

Talking about education for all and therefore inclusive education means ensuring that every student feels valued and respected, and can enjoy a genuine sense of belonging.

Making **educational environments** inclusive means making every effort to eliminate all possible obstacles and difficulties, such as discrimination based on gender, sexual orientation, ethnicity, wealth, disability, language, migration, religion or other beliefs.

But also exclusion due to lack of means, distance from school buildings, lack of technological tools.

The COVID-19 pandemic has only **amplified** the gap and had its **disproportionate** impact on students with disabilities, raising the urgent need to adapt personalised learning plans, methods and tools.

There are in fact **many difficulties** in educational environments, including the scarcity of teaching materials for teachers within the educational landscape, obsolete and overly theoretical curricula, inadequate technological equipment, low motivation of **teachers**, there is also a decline in students' preference for science subjects such as **physics**, perceived as excessively complicated and heavy for their course of study.

THE PURPOSE OF THE PROJECT: How will Multimedia support inclusiveness?

Questioning the **role of technologies** within the educational dimension could be significant for new experiments and devising new interactions, connections that can disrupt and at the same time enhance existing models.

Giving further support to what already works and **exploring** new points of contact and compatibility between the **new digital technologies** and more 'traditional' approaches, in order to realise new combinations and synergies, so as to support didactics and the educational pathway as a whole.

It is within this reflection that the Arphymedes Plus project fits in, enabling an educational context and renewed in its methods and tools, and shows how it is possible to pursue the attempt to make the digital fresh and organic, integrating it into a traditionally analogue context, such as that of education, and enriching it with new possibilities, new ways of interaction.

In particular**, ARphymedes Plus** will be a means of achieving equality and dignity for all students, so that all students can express their potential and talents, adapting outcomes to the needs of students with special educational needs and teachers, and guiding learning scenarios in contexts of diversity.

Recognising that the needs of pupils with **special educational needs** are at the heart of the project, ARphymedes Plus aims to enable these students to **fully participate** in physics lessons through the telling of historical discoveries and innovations. In realising a more inclusive and **interactive learning environment**, the project aims to develop a teaching tool to integrate and take into account the special educational needs of a broad spectrum of pupils in primary schools. A crucial combination that will enhance the **educational experience** through the integration of media, apps and augmented reality (AR) in the classroom.

Would you like to know how we will act on these issues?

The project is managed by organisations with different characteristics and fields of specialisation, here are the **6 partners** from **4 European countries**: Univerzita Sv. Cyrila a Metoda v Travne (Slovakia) UNIVERZA V LJUBLJANI (Slovenia) VITECO (Italy) DIADRASIS (Greece) Osnovna sola Orehek Kranj (Slovenia) Základná škola Postupimská 37 v Košiciach (Slovakia)

In the ARphymedes Plus project we will develop an **educational toolkit** that will use innovative methods for presenting content through a **Multimedia version** with different tools available to students (**ebooks**), supplemented by augmented reality. This will seek to enrich the experience by adding **new levels of engagement** for **students** and **teachers** with **special educational needs**, providing a range of customisation features and removing the barrier of **accessibility** to an experience-based learning process.

It is essential to imagine a more **inclusive** and **innovative** education by taking action and sowing the **seeds** of new learning experiences.