



Digital Educational Laboratories (DEL)

Executive Summary

Directorate-General for Education

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A. Preamble

In alignment with the Digital Education Action Plan – Resetting Education and Training for the Digital Age (2021-2027), and having as the main goal to empower Portugal to address the challenges and changes that emerge from a global digital transition, a Digital Transition Action Plan (DTP) is being implemented. Overall it foresees, in the Education area, the establishment of a Digitisation Programme for Schools, integrating various dimensions (Council of Ministers Resolution no. 30/2020).

The deployment of this Programme, which is an alignment between national digital priorities and the policies and funding sources of the European Union, aims at promoting digital skills and the digitalisation of schools, and contemplates three action axes:

- ▶ The supply of individual equipment and the guarantee of free mobile connectivity to all pupils and teachers;
- ▶ A major focus on building the digital training of teachers, at national level, by offering the appropriate type of professional training to suit each teacher's level of digital skills;
- ▶ The access to quality digital educational resources and collaborative tools for digital environments, which foster innovation in the teaching and learning process.

Within this framework and funded by the Recovery and Resilience Plan (RRP), the installation of **Digital Education Laboratories (DEL)** in schools with the 2nd and 3rd cycles of basic education and secondary education is set up.

The DEL equipment includes specialized devices to support learning that aim to provide teachers and students with access to/use of technological resources and equipment, in close articulation with the development of curricular and/or extracurricular activities.

B. Digital Education Laboratories (DEL)

The setting up of Digital Education Laboratories (DEL) is expected to support schools in the integration of digital technologies in the teaching and learning process.

This project is framed by the C20 Component of the Recovery and Resilience Plan (RRP) and aims at promoting not only educational and pedagogical innovation but also the development of digital skills, as well as the recovery of learning, within the scope of the Plan 21|23 Escola+, Axis "Teaching and Learning", domain +Educational Resources, on the specific action "Recovering with the Digital".

With the support of the DEL resources and equipment, students are expected to carry out practical activities, research and organise information, model, manipulate variables, perform experiments, analyse results, automate processes, create artefacts and solutions, among others, enhancing their learning experience and develop their skills.

To support these pedagogical dynamics, several scenarios/learning guides among other materials, applicable to various disciplinary and interdisciplinary contexts, will be made available to schools so that teachers can, from these examples, create/adapt their own scenarios and then implement them with their students.

C. DEL Project organisation

With the aim of meeting the more specific needs of the schools each School was given access to additional information in order to best choose the most appropriate DELs.

The schools must make sure that all the physical and human resources conditions are in place to guarantee that the DEL operates to its full potential.

- ▶ Schools must provide a space to host the DEL equipment. This space may or may not be unique but needs to have the technical and organisational conditions to allow students and teachers to use it properly and safely.
- ▶ The DEL space/spaces should, preferably, be permanent and be clearly marked on the school's floor plan.
- ▶ These dedicated spaces should also be prepared to accommodate the placement of signs advertising co-funding and to enable to present proof of installation and use of the DELs, by means of photographic and/or video records.

The DEL Coordinator

In order to guarantee the proper DEL management, a Coordinator should be appointed by each school. He/she will be responsible for receiving, checking, and installing all the equipment delivered to the school and for making the educational use of this equipment profitable, as well as ensuring the applicable procedures regarding guarantee with the suppliers.

- ▶ The DEL Coordinator will be the contact person with the General Secretary for Education and Science (SGEC) and the Directorate General for Education (DGE).

Additionally, each school should set up a working team responsible for the curricular integration of DELs, including representatives of the various departmental groups.

D. Different types of DEL: detailed information

Three types of DEL

The DEL equipment to be distributed to schools is grouped into three types:

- ▶ **DEL 1:** Common Equipment + Programming and Robotics Area + STEM Area.
- ▶ **DEL 2:** Common Equipment + Programming and Robotics Area + Arts and Multimedia Area.
- ▶ **DEL 3:** Common Equipment + STEM Area + Arts and Multimedia Area.

Each School was given the possibility of selecting the type(s) of DEL of its preference, according to its needs and the priorities of its Educational Project.

The DEL equipment was allocated according to the quantity previously stipulated and established in the RRP, in a total of 1300 DELs, distributed according to the ratio of students of each school, estimating the installation, on average, of one LED for each group of 500 students.

E. Next steps

With the aim of introducing and disseminating the DEL project to schools and interested parties dedicated activities will be held.

Learning scenarios/guides applicable to various disciplinary and interdisciplinary contexts for the use of the equipment available in the DELs will soon be made available to teachers.

