The Digital Education Plan of Catalonia

2020/2023

ERC-Dublin September 2023

Generalitat de Catalunya
**Departament d'Educació**

Presentation outline

- The Department of Education of Catalonia

- Personal introduction

- The Digital Education Plan of Catalonia

  Origin and target population

  Main goals

  Actions done

  The Digital plan in the near future

- Introduction to The Research Education Unit of the Department of Education

  History

  Functions

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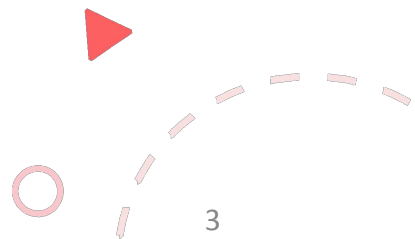
Introduction to Department of Education

Catalonia is an autonomous regional policy-maker of Spain, in charge of compulsory education for everyone between the ages of 6 and 16.

Although the system depends on the national Ministry of Education, Catalonia has **full educational competences** and its own educational policies.
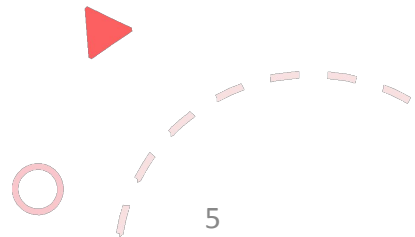
Introduction to Department of Education

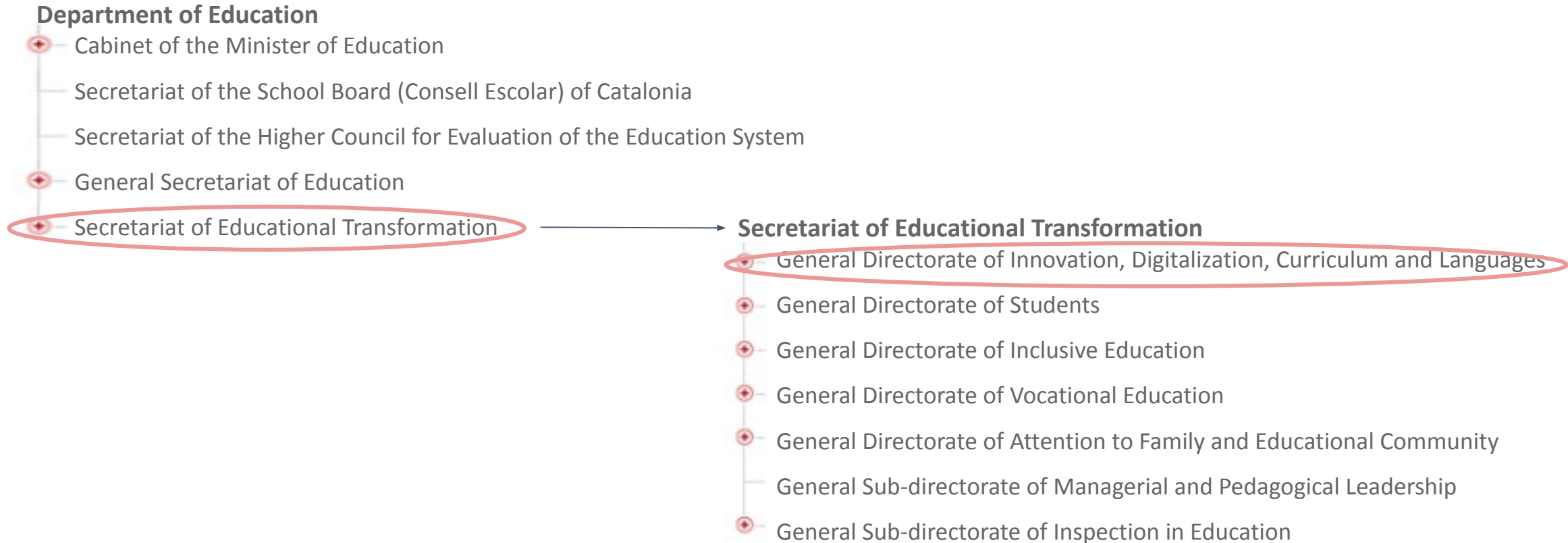## The Department of Education of Catalonia

Department of Education

- Cabinet of the Minister of Education
- Secretariat of the School Board (Consell Escolar) of Catalonia
- Secretariat of the Higher Council for Evaluation of the Education System
- General Secretariat of Education
- Secretariat of Educational Transformation

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Secretariat of Educational Transformation
- General Directorate of Innovation, Digitalization, Curriculum and Languages
- General Directorate of Students
- General Directorate of Inclusive Education
- General Directorate of Vocational Education
- General Directorate of Attention to Family and Educational Community
- General Sub-directorate of Managerial and Pedagogical Leadership
- General Sub-directorate of Inspection in Education

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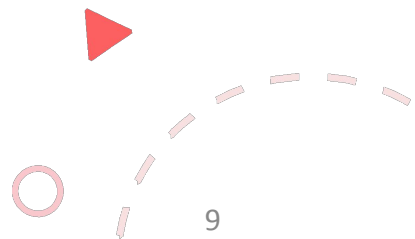**General Directorate of Innovation, Digitalization, Curriculum and Languages**

- General Sub-Directorate of Innovation and Training
- General Sub-Directorate of Research and Digital Culture
- General Sub-Directorate of Syllabus design
- General Sub-Directorate of Languages

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Introducing ourselves

General Directorate of Innovation, Digitalization, Curriculum and Languages of the Department of Education of Catalonia

BACKGROUND

Bachelor in Audiovisual Communication

Bachelor in Philology

PhD in Education and ICT

Inspector of Education (13 years)

Former Headmaster of secondary school and professor of Catalan and English

Researcher and collaborator at UOC

Specialist in the uses of ICT in Education, management and educative transformation, and assessment of equity in education

Jordi Serarols Boada
jordi.serarols@gencat.cat

DEPUTY DIRECTOR FOR RESEARCH AND DIGITAL CULTURE

Introducing ourselves

Montse Tortosa
montserrattortosa@gencat.cat

TECHNICAL ADVISOR (since sept. 2021)

EDUCATIONAL RESEARCH UNIT

BACKGROUND

Bachelor in Chemistry
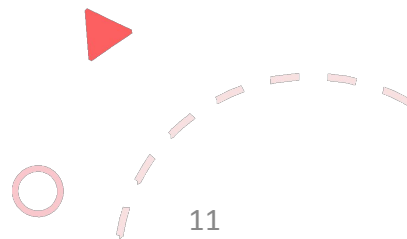
Bachelor in Biology

PhD in Chemistry

Professor at Secondary Education > 30 years

Associate professor (part-time) UPC, UAB (1990-2014)

Coordinator of EU projects

Scientix Ambassador

Researcher in Education, 20 years (didactics of Science)

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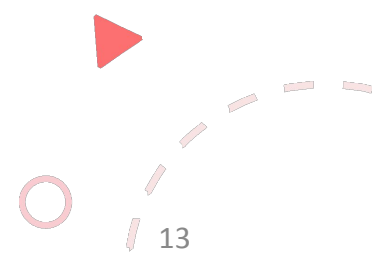
> History
>
> Functions
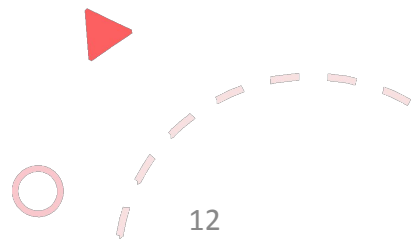
We live in a complex and changing world
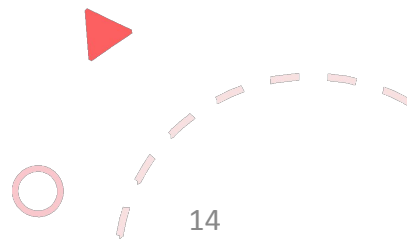
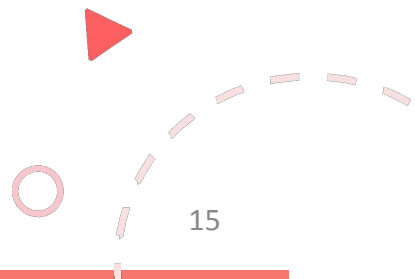Technology is increasingly present
in our lives

How do we learn?

To be stressed

➔ **Students** are **the main** focus of the plan.

➔ Students **will achieve digital competences** with digital competent **teachers** and digitally competent **schools**

➔ Important **collaboration with the curriculum unit**

➔ Important **networking of collaborators** and digital mentors for schools in the whole Catalan area

➔ **Assessment of the plan** during the process and assessment of impact
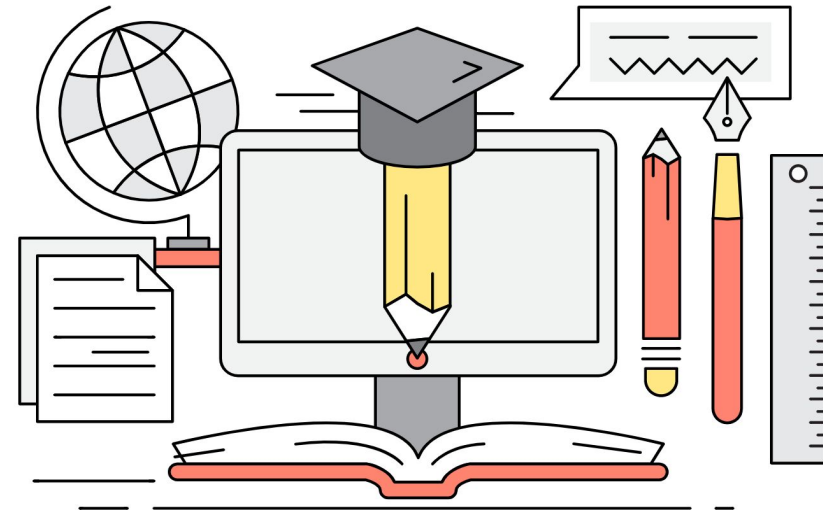
Digital Education Plan of Catalonia

The guidelines of institutions such as **UNESCO**, **OECD, and the European Commission**

demonstrate the need to enhance
digital competence

Digital competence becomes
a key factor for **citizenship**

from and through
the education system.

According to the European Union:

9 out of 10 future jobs will require digital skills.

44% of Europeans have no basic digital skills.

Less than 20% of ICT professionals are women.

More than 48,000 schools lack broadband connectivity.

Digital welfare is threatened by misinformation, cyberbullying, and lack of privacy.
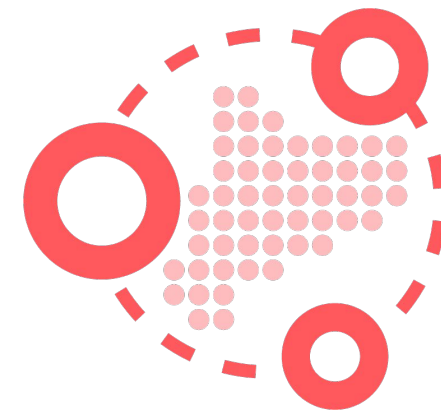
presents

To face the challenges
of our digital era

The Department of Education of
the government
of Catalonia

**The Digital Education
Plan of Catalonia**

Generalitat de Catalunya
Departament d'Educació

Pla
d'educació
digital de
Catalunya

The goals of
The Digital Education
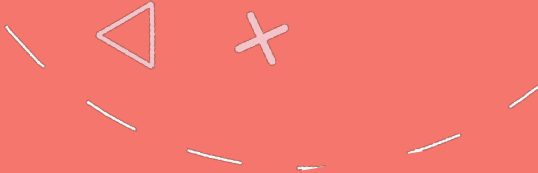# Plan of Catalonia

Digital competence
of citizens

Catalonia's leadership
in Technology

Digital competence
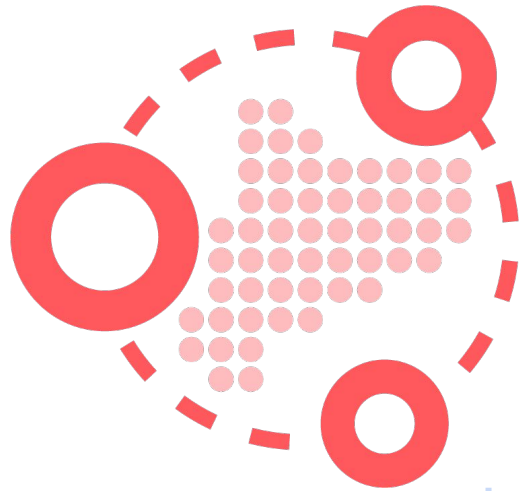of students, teachers
and schools

The plan is targeted at

3.810 educational establishments **115.565** teachers

1.597.801 students (with their families)

The objectives of the Digital Education Plan of Catalonia are:

Pla d'educació digital de Catalunya

5 Specific objective

Students.
Digitally competent

5 Specific objective
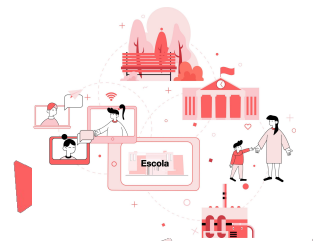
Teachers.
Digital teaching competence

3 Specific objective

Educational establishments
A country network

Digitally competent teachers

Teachers who are empowered and digitally competent to face numerous methodological challenges and respond to their pupils' needs

Specific objective 1.
Defining in-service teacher's training targeting achievement of educators digital competence.

Specific objective 2.
Design the mechanisms to assess the digital teaching
competence for working teachers.

Specific objective 3.
Establish a coordination framework with universities in order to ensure the accomplishment of digital competences in the initial teachers' training.

Specific objective 4.
Ensure the level of competence necessary to teach in the proceedings to incorporate new teachers.

Specific objective 5.
Promote the creation of digital content making sure it is competence-based, inclusive, and crosswise.
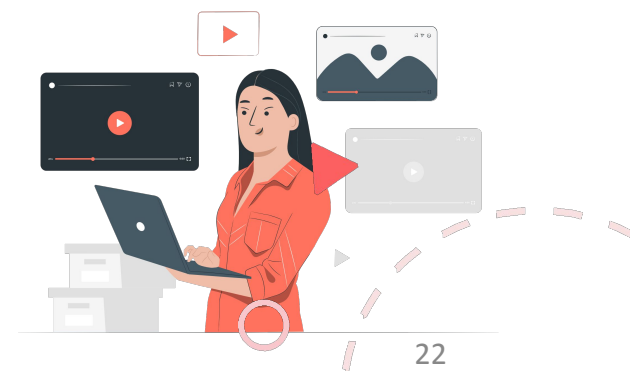
Digitally competent students

Digitally competent students that are protagonists of their own learning to achieve educational success

Specific objective 1.

Provide methodological and evaluation advice so that the achievement of digital competences could be assessed throughout the different levels of education.

Specific objective 2.

Provide methodology and systems of evaluation to support the achievement of digital competences, indifferent learning environments.

Specific objective 3.

Design tools to assess the achievement of the digital competences.

Specific objective 4.

Promote the creation of digital content, making sure it is competency-based, inclusive and cross-wise, and its inclusion to the teaching programs and agendas.

Specific objective 5.

Put a virtual environment at the teachers' disposal and make sure it allows creating and share digital content and teaching and learning techniques.

Digitally competent educational establishments

Educational establishments in transformation that respond to the challenges of digital and educational transformation from its leadership and in connection

Specific objective 1.

Sharing the Digital Strategy of the Educational Establishment with the school staff, the students, and the rest of the education community.

Specific objective 2.

Updating the model of territorial reference to be able to give advice and improve the level of digital competency in educational centres.

Specific objective 3.

To forge an innovation ecosystem that allows to connect the educational centres and the education community with the opportunities and needs of the social and business fabric in their more immediate context.

The plan is organized into:
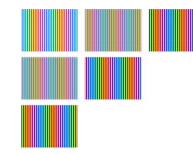
3
main objectives

3
strategic frameworks

13
Specifics objectives

25
lines of action

58
Actions

254,713 (20-22) + 16,000 (22-23) computers for students:
All students from 5th Primary education (10 y) to 4th ESO (16 y). All students with economical needs in postcompulsory (Batxillerat and Vocational studies)

44,357 MiFi devices for students

78,552 computers for teachers

1,738 educational establishments
with expanded WAN/optical fibre 23-24. In 24-25 all classrooms will be provided with an interactive digital board, robotic equipments and a suitcase to work with audiovisual equipment, all centres for special education will be provided with a special sensory classroom.

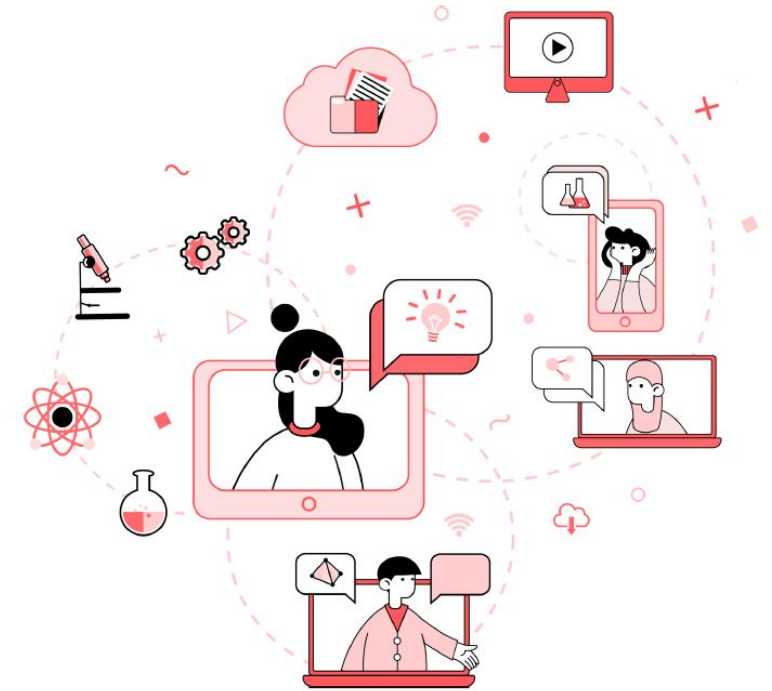**1,254 transformations of LAN/Wi-Fi** networks at educational establishments.

"Educa en digital"

Key actions

Teacher's training in digital competence

Competència digital docent del professorat de Catalunya

Generalitat de Catalunya

Update the document Teacher's Digital Competence in Catalonia (2018)

Support for schools with digital mentoring

Infrastructures

This transformation process implies the involvement of both the directorate / executive team and the teachers in the analysis of the education establishment's needs.

Phases	Definition	Challenge	Objectives
Phase 0 / emergency	Virtual learning environment	Achieving that, all educational establishments have a virtual learning environment (VLE)	
Phase 1 2020-2021	Equipment deployment	Digital divide	Specific objective 1
Phase 2 2021-2022	Student's digital identifier and Suite for education	Collaborative and integrated work among the services of the educational establishments	Specific objective 2 & 3
Phase 3 2022-2023	Advanced innovation	Traceability and AI at the service of educational success	Specific objective 4

Specific Objective 1.

To ensure that all students, teachers, and schools have the necessary digital infrastructures and equipment to guarantee the appropriate development of learning-teaching activities.

Specific objective 2.

To provide the educational center with the necessary telematics services and integrate them with the Information System of the Department for Education.

Specific objective 3.

To improve the educational establishment's web portal and promote communication channels with families.

Specific objective 4.

To initiate advanced innovation projects from the monitoring of data, in order to ensure everyone's educational success and to improve the education system.
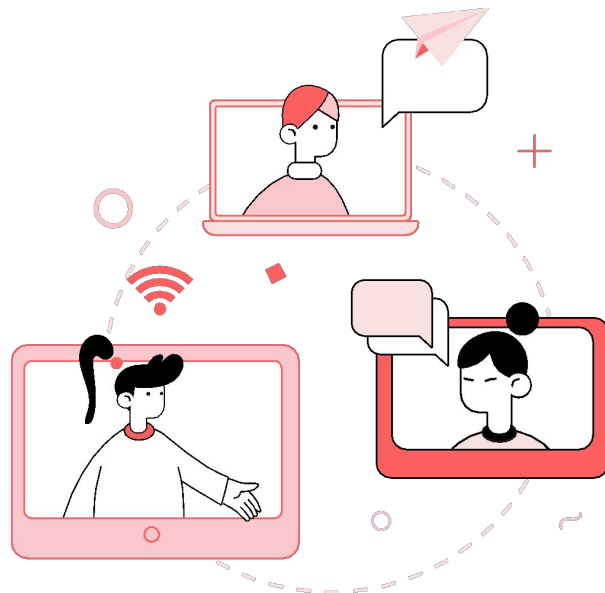
Milestones

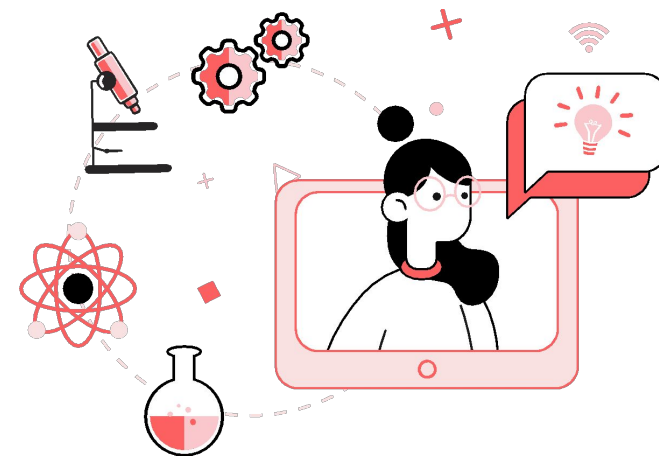|	Milestones of the Digital Education Plan of Catalonia 2020-2023	2020-2021	2021-2022	2022-2023
M1	Publication of **methodological, evaluation and digital** content guidelines to work on from each field, and in a transversal way for each level of all educational stages, with inclusive and equitable criteria.	■	Revision	Revision
M2	Design and implementation of monitoring mechanisms and instruments for evaluating the digital competence of students.		■	
M3	**Creation of digital content (guidelines and criteria, models, and resources) and creation of guidelines for incorporation into the teaching programmes.**	■	Update	Update
M4	Creation of spaces for the co-creation of digital contents.	■		
M5	Training, dinamisation, and networking of teachers and centres for the collective creation of high-quality digital content.		■	■
M6	Creation of training itineraries for training and accreditation of the digital competence of teachers in 3 levels: basic, medium, and advanced, as well as the design of a self-diagnosis tool.	■		
M7	**Teacher training in digital competence.**	■	■	■
M8	Concretion and consensus of the competence criteria for teaching and management training, from the field of digital competence.	■	Update	Update
M9	Beginning of the process for the design and implementation of the teacher portfolios.		■	
M10	Planning of the process of recognition of digital competence for teachers.		■	
M11	Launching of the evaluation process for recognising the digital competence for teachers.			■
M12	To agree on the mechanism for the accreditation of digital competence in the initial and ongoing training of teaching staff.	■		
M13	Establishment of the calendar for the entry into force of merit and/or requirement of the digital competence for teachers in the access competitive governmental examinations in the different areas of work in the educational system.	■		
M14	Establishment of the digital strategy as a framework of reference for the digital culture of educational centres and the improvement of the digital competence of students, teachers and educational centres.	■		
M15	Redefinition of functions and implementation of the new territorial digital consulting structure.		■	
M16	Creation of alliances with territorial actors to promote the achievement of the Digital Education Plan of Catalonia and its connection with the environment and the ecosystem of innovation.	■	■	■
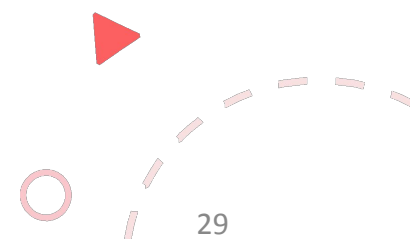
Expected Results

A system that does not leave any student behind

Teachers' professional development

A qualified public education system aligned with the innovation and economic growth in Catalonia
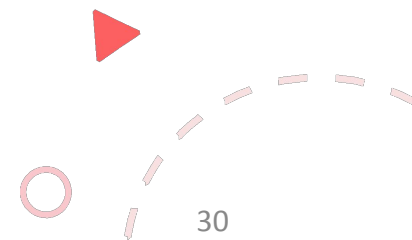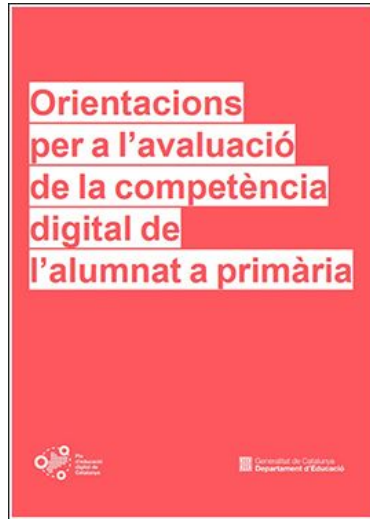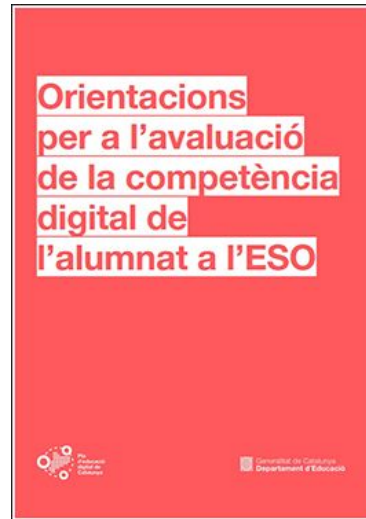
Methodological guidelines

To help students become digitally competent, we focus on these methodological guidelines:

Use of digital technologies in childhood

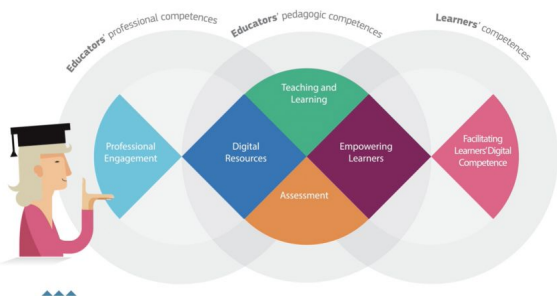Guidelines for evaluation of the digital competence of students in primary schools

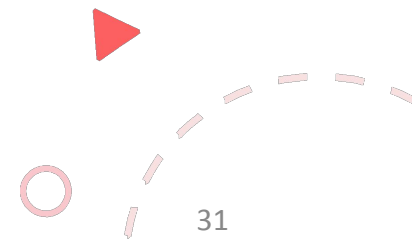Guidelines for evaluation of the digital competence of students in secondary schools

Digital competences of students in primary schools
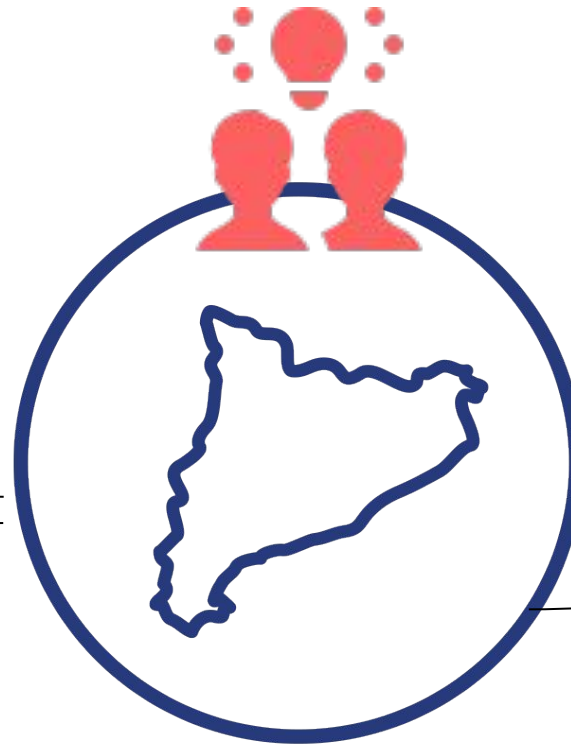
Digital competences of students in secondary schools

DigcomEdu

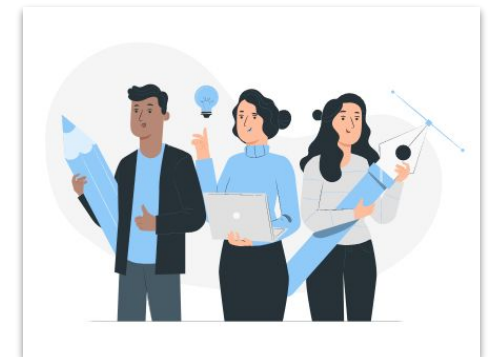# Mentoring: investment in digital mentors

September 2021
124

20 coordinators

September 2022
+103

227 Digital mentors
20 coordinators + 207 mentoring schools in the field
Mean 12 schools/mentor
Main Objective:
To accompany centres to write its digital plan
The main goal is not to provide equipment to schools, but measures of accompaniment: guides, mentors, conferences, seminars, training, projects with schools
Timing
During 22-23 all schools have own digital plan
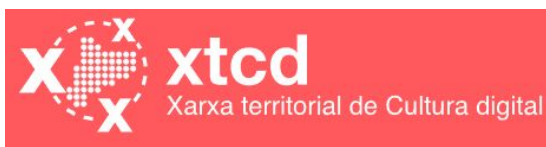23-24 and 24-25 mentors have maintenance role

Projects and resources

PENSAMENT COMPUTACIONAL
Programació i robòtica

STEAMcat

STEM a l'espai

pla mòbils.edu

mSchools

Famílies Digitals

xtcd
Xarxa territorial de Cultura digital

Teaching courses

alexandria

KUDI
Àrea de Cultura Digital

Resources

EDU365.CAT

Toolbox

.XTEC

.XTECMERLÍ
Catàleg de recursos educatius

Transmedia

MHM Mobile History Map
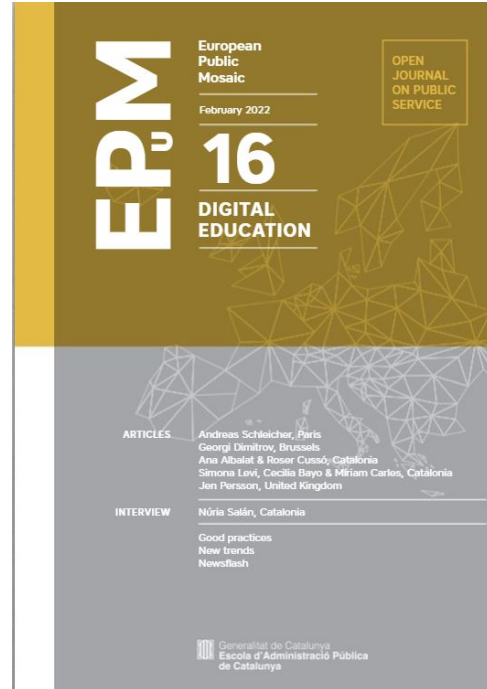
CANAL DE REPORTERS

**Projecte Focus**

starting 2023

More information:

Digital Education Plan of Catalonia

EPUM 16

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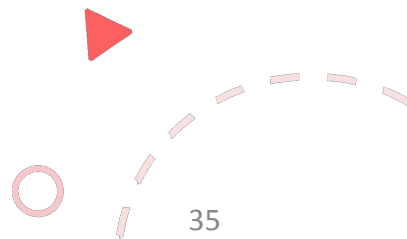
The Research Education Unit of the Department of Education

History

- **2018** established
- **2019-2020.** Pandemic. Activities of transference for teachers (Claustre Obert)
- **2020-2022**: Preparation of 1st Strategic Plan (Diagnose)
- **2022-23:** Number of staff 6

The Research Education Unit of the Department of Education

Its functions are to:

a) **Design research plans** in priority educational topics and **develop them** with universities and other research institutions.

b) Establish mechanisms for ongoing **collaboration with the future Agency of Assessment and prospective in Education of Catalonia,** and nourish it with scientific evidences from research to take educational decisions.

c) **Establish contacts** and exchange networks with **relevant international institutions** in the field of educational research and evidence-based assessment.

d) Suggest proposals of assessment of the impact of programmes, projects and Departmental actions

e) Measure **innovation** and to establish a culture of **assessment**, sustained on the decisions taken in politics that are based in educational research, in collaboration with the units in charge to enhance innovation.

f) **Identify innovations** in the different areas of the educational system and build metrics to know the relationship between innovation and its impact in educational results

g) Elaborate **reports with relevant results** of researches and its application in education.

h) **Disseminate** and transfer **results from researches to the educational system** and elaborate improvement plans for implementation.

i) Design specific strategies and measures of **transference to classroom practice, school organization, educational leadership and management.**

j) **Transfer** knowledge, strategies, techniques and tools of evaluation of public policies to the responsible and to the units of the Department of Education.

k) **Collaborate** with other public administrations, universities, companies and entities **in projects of research, evaluation and transference.**

l) Formalize **agreements for the transfer of knowledge on educational research** with universities and other research entities.

m) **Participate in research projects** on digital technology and teaching-learning processes, in collaboration with teachers, universities, companies and other institutions.

n) Any other task that is assigned to it related to the preceding functions.

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Thank you for your attention!