

Innovation Project — Vocational Training

IDEPTTECH

Intelligent automation & digital tools for graphic pre-production
and technology management through AI & programming

IES Josep M. Llompart

IES Politècnic

AMPO&COLOR

EU Co-funded · FSE+

THE PROBLEM

Why does this project exist?



Manual, repetitive processes

Graphic pre-production still relies heavily on manual tasks with limited automation, increasing error risk and wasting resources.



Gap between education & industry

Industry already works with intelligent systems, but training programmes haven't kept pace.



AI as an opportunity

Generative AI lets students build scripts without advanced coding — transforming them into solution creators.



Need for hybrid profiles

Market demands professionals who combine graphic arts expertise with technical and digital skills.

THE PROJECT

What is IDEPTTECH?

A collaborative project that brings together **Graphic Arts** and **IT** to build real digital tools — solving actual workflow problems in graphic pre-production.

Python scripting

Generative AI

Digital imposition

Web micro-apps

Graphic Arts provides

Real production problems, quality criteria, and use cases from the industry.

IT provides

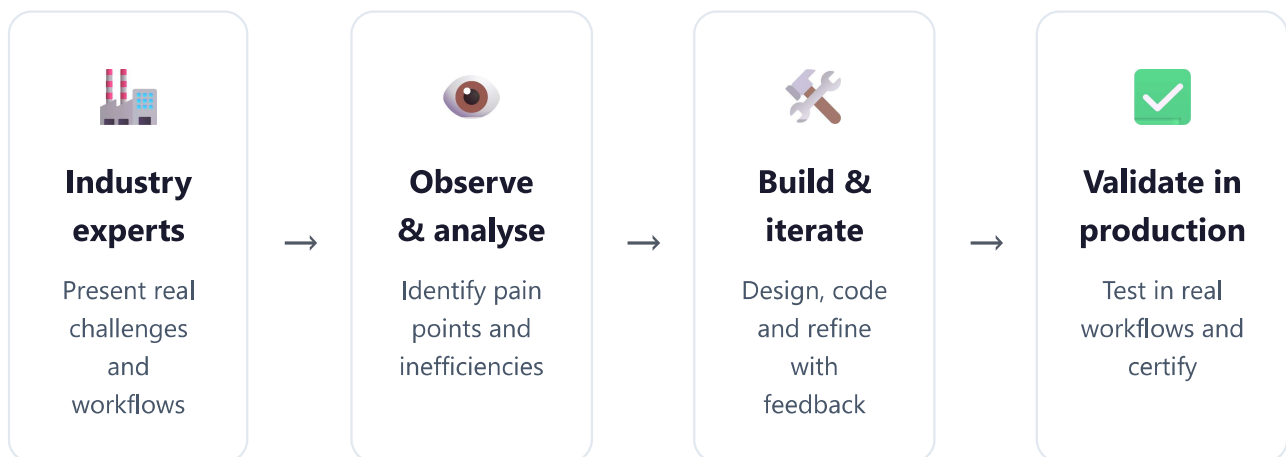
Technical support and development guidance for building digital solutions.

AMPO&COLOR provides

Industry validation, real-world testing, and professional certification.

LEARNING METHODOLOGY

Learning by **doing** — shadowing in action



Students move from **software users** to **solution creators**, working on real problems with real feedback from the industry.

PARTICIPANTS

Who is involved?

EDUCATIONAL CENTRE

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Digital Pre-press (17) · Graphic Printing (14) · Design & Publishing (27)

Graphic Arts

EDUCATIONAL CENTRE

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Microcomputer Systems & Networks (30 students)

Information Technology

INDUSTRY PARTNER

AMPO&COLOR

Professional graphic company providing real-world use cases and industry validation.

Industry mentor

~90

students

4–5

teachers

2+1

schools+company

PROJECT ROADMAP

5 activities across 6 months

JAN – FEB

Diagnosis

Map pain points, gather industry input

FEB – MAR

Scripts & tools

Develop 8–12 Python scripts + imposition engine

MAR – APR

Web micro-app

Flask app integrating all tools

APR – MAY

Validation

Real-world testing, industry sign-off

MAY – JUN

Dissemination

Open Git repo, workshops, presentations

DELIVERABLES

What students will build



Python scripts

8–12 automation scripts:
margin checks,
resolution, ICC profiles,
fonts



Imposition engine

Modular Python motor
for digital imposition



Web micro-app

Flask app for file
validation and
automation



Open repository

Public Git repo for other schools to adopt

All tools are modular — they can be adapted by other vocational families

IMPACT

Expected outcomes

**40–
60%**

reduction
in manual
pre-
production
time

8–12

operational
Python
scripts
deployed

~90

students
trained in
AI &
automation

1

live web application for validation

All outcomes published as open documentation for any school or company

BEYOND THE PROJECT

Transferable to other fields

The modular design means tools can travel to other vocational families — far beyond graphic arts.

Administration

Document processing, compliance checks

Commerce & Marketing

Catalogue creation, label review

Audiovisual

File management, format control

Health & Services

Report generation, document automation

IDEPTECH · 2025–2026

From students to **solution** **builders.**

A project where real industry problems meet real student solutions — building the hybrid, technology-ready professionals that the graphic and digital sector needs.

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