The project

In a city-builder game you do not win by reading the manual. You win by running a city: you lay the pipes, you fix what breaks, you plan the next district. This module works the same way. There are no written exams. Instead, from October to June, your group runs one real company on paper and writes its **digital transformation plan**, one chapter per unit.

This page is the rulebook of that project: how groups work, how to choose the company, what you hand in and when, and how each person is marked. Come back to it before every deliverable.

What you will learn

- Explain what the **digital transformation dossier** is and how the six deliverables build it
- Choose a company that will last a whole year of work
- Tell your **individual part** from the **group part**, and the four rotating roles
- Keep the **group log** and prepare for the **individual defence**
- Avoid the two traps that cost the most marks: facts without sources, and a member who disappears

What the project is

> The **digital transformation dossier** is the document where your group analyses one real company and plans how it should go digital. It grows by one chapter per unit and ends as a complete plan in June.

Each unit gives you one tool, and each deliverable applies that tool to **your** company:

D6 is not written from scratch: it integrates and improves D1 to D5. Every comment the teacher makes on an earlier deliverable is a free improvement for June.

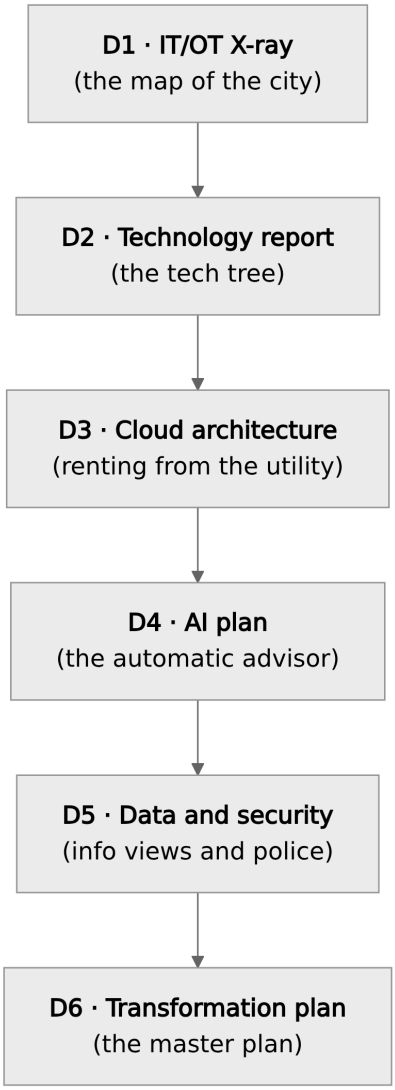
Why a cooperative project

Real software is built by teams, and real teams have two classic problems: the person who does everything, and the person who does nothing. The project is designed to avoid both.

> **Cooperative learning** is a way of working in groups where each member is responsible for a piece nobody else can do for them, and the group only succeeds if every piece fits.

Two ideas make it work:

Idea	What it means	How the project does it
Individual accountability	Your mark depends on your own work, and everyone can see what you did.	Each member owns and signs one section, defends it alone with the teacher, and the shared document's version history shows every change.



Idea	What it means	How the project does it
Positive interdependence	The group needs everyone's piece to finish.	The group part (introduction, summary table, conclusions) cannot be written until every section is in, and it must make them all talk about the same company.

Forming the group

- Groups of **3 or 4** people, formed in session 3, on **26 October 2026**.
- The **same group all year**, with the same company. Changing group is only possible with the teacher's agreement, for a serious reason.
- With **3 members**, the section marked "4th member" in each brief goes to the group part, and the Editor role merges into the Coordinator.

Choosing a good company

You will spend eight months on this company. Choose it well: a bad choice in October makes every deliverable harder.

Criterion	Why it matters	Quick test
It is real and still operating	Every fact must be found and cited.	It has a website, and it appears in the press or in an official register.
It has an **office side (IT)** and a **physical operation (OT)**	D1 needs both, and so does the rest of the year.	Can you name one machine, plant, vehicle or building system it runs?
There is **public information** about it	Without sources, everything becomes hypothesis.	Website with “about us”, annual report, news, job offers, public tenders.
Preferably from the Balearic Islands	Local sources (Ibestat, BOIB, local press) and cases you can visit.	Head office or main plant on the islands.
Not too tiny	A three-person shop has almost no IT or OT to analyse.	More than a handful of employees, or several sites.

Agree your choice with the teacher in session 3, so that no two groups take the same company.

Some real Balearic companies with both sides, as a starting point. The IT and OT columns are what a company of that kind **usually** has: until you find a source, treat them as hypotheses.

Company	Sector	Typical IT side	Typical OT side	Start here
EMAYA (Palma, owned by the city council)	Water, sewage, waste collection, street cleaning	Customer billing, incident reports, fleet planning	Water treatment plants, pumping stations, pipe network, collection lorries	emaya.es
Quely (Inca, family company, biscuits since 1853)	Food industry	Orders from supermarkets, ERP, export	Mixers, ovens, packaging lines	quely.es
Coinga (Alaior, Menorca: Cooperativa Insular Ganadera de Menorca, 1966)	Dairy: Mahón-Menorca cheese, milk, kefir	Cooperative members, sales, traceability	Milk collection from the farms, dairy plant, curing rooms	coinga.com
Bodegues José L. Ferrer (Binissalem)	Wine	Online shop, distribution, visits	Vineyards, fermentation tanks, bottling	vinosferrer.com
Ports de Balears (Autoritat Portuària de Balears: Palma, Alcúdia, Maó, Eivissa, La Savina)	Ports and logistics	Port services management, ship and passenger records	Berths, cranes, access control, lighting and port security	portsdebalears.com
A **hotel chain** based in Palma, such as RIU, Iberostar or Meliá	Tourism	Bookings, reception (PMS), loyalty, revenue	Air conditioning, laundry, kitchens, pools, building management	Each chain’s corporate website

The six deliverables

Each deliverable is one PDF per group, handed in on **Google Classroom** by **23:59** on the due date. The full brief of each one (sections, rubric, checklist) is on its own page.

Deliverable	RA	What it contains	Due	Defence
D1 · IT/OT X-ray	RA1	The company, its departments and IT systems; the OT side with	Sun 08/11/2026	S9 · 21/12/2026

Deliverable	RA	What it contains	Due	Defence
		the automation pyramid; one IT–OT connection; the end-to-end flow and its advantages		
D2 · Technology report	RA2	The enabling technologies applied to the company: characteristics, areas, products and services, new markets, sustainability, plant and business, IT/OT improvements	Mon 21/12/2026	S9 · 21/12/2026
D3 · Cloud architecture	RA3	Service and deployment models for the company's systems, cloud functions, a real cost estimate with a pricing calculator, edge/fog/mist for the plant, sovereignty; the dossier published as a static website on GitHub Pages	Mon 08/02/2027	S14 · 08/02/2027
D4 · AI plan	RA4	Processes to automate with AI, the data needed and a profitability estimate, AI in the sector, languages and tools, a working demo in the browser, the AI Act risk level of each proposal	Mon 22/03/2027	S19 · 22/03/2027
D5 · Data and security	RA5	Data inventory and lifecycle, a small data-science pipeline on a real open dataset, cloud storage and backups, a passive security audit of the company's public website, which of RGPD, LOPDGDD and NIS2 apply	Mon 03/05/2027	S24 · 03/05/2027
D6 · Transformation plan	RA6	The integrated dossier (objectives, areas, fit, technologies, security gaps, data, integration, people, documented roadmap) and a 10-minute group slot (7 min presenting, 3 min questions) where every member presents their own part	Dossier Sun 06/06/2027 · presentation Mon 07/06/2027	The presentation itself

D1 and D2 are defended together, in the workshop of 21 December. The full timetable is in the Calendar.

Individual part and group part

	Individual part	Group part
What	One **section** of the deliverable, owned and signed by one member. The sections are listed in each brief.	The common pieces: introduction, the summary table or diagram that joins all sections, conclusions, sources list, format and spelling, coherence.
Who	You alone. You choose a **different section** in each deliverable, so by June you have done every kind of work.	Everyone, coordinated by the roles.
Weight in the deliverable	**60%**: your section 40% + your defence 20%	**40%**, the same mark for every member

	Individual part	Group part
What ruins it	A section copied, unsourced, or that you cannot explain in the defence	Four sections that describe four different companies, or contradict each other

The four rotating roles

On top of your section, you have one **role** in each deliverable. Roles rotate: nobody is Coordinator twice in a row.

Role	What you do	You have done it well if…
Coordinator	Splits the sections, sets internal deadlines, writes the group log and hands in the PDF.	The PDF is on Classroom before 23:59 and every member knew what to do.
Source checker	Opens every link and checks every fact has a working, reliable source, and that hypotheses are labelled.	No claim about the company is left without a source or a “hypothesis” label.
Technician	Leads the hands-on IT part: the pricing calculator, the GitHub Pages site, the demo, the data analysis, the passive audit.	The practical part works and the others can repeat it.
Editor	Format, spelling, one voice, the same names for the same things.	It reads like one document, not four.

With 3 members, the Coordinator also does the Editor’s job.

The group log

> The **group log** (*acta de grup*) is a short table at the end of every deliverable that records who owned which section, who had which role, and what the group decided.

It protects you: if something goes wrong, the log and the version history show who did what. Copy these two tables into your shared document and fill them in.

Who did what

Member	Section owned	Role	What I did (one line)	Signature
		Coordinator		
		Source checker		
		Technician		
		Editor		

What we decided

Date	Decision	Why	Who was there

The individual defence

> The **individual defence** is a short one-to-one conversation with the teacher about your own section of the deliverable.

It takes place in the workshop sessions (S9, S14, S19 and S24). While the groups work, the teacher calls each student for **2 to 3 minutes**. No paper, no computer: just a conversation.

- **Two questions about your own section.** "Why did you choose this technology?" "Where did you find this number?" "What would happen if...?"
- **One question about another member's section**, to check the group really integrated its work.

If you wrote your section yourself, you will find it easy. It is not a trap: it is the reason nobody can sign a section somebody else wrote. In D6 the defence is your own part of the group presentation and your answers to the questions.

How each person is marked

Part of the RA mark	Weight	What it is
Deliverable	**70%**	**Individual 60%**: your own section 40% + your individual defence 20%. **Group 40%**: integration, coherence, sources, format, group log.
Class activities	**30%**	The practical activity of each session, handed in on Classroom. Many of them feed a section of the next deliverable.

Every RA needs at least a 5. The worked examples, the recovery and the rules for late work are on Learning outcomes.

Sources and hypotheses

Everything you state as a **fact** about your company must be **found and cited**: the company's website, its annual report, the press, Ibestat, the BOIB. What you cannot find, you may still propose, but you label it.

> A **hypothesis** is a claim you believe is reasonable but have not been able to check. You write it as such: "*Hypothesis:* the plant probably uses a SCADA to supervise its ovens."

Write this	Not this
Coinga is a cooperative founded in 1966 (Coinga, *website*, consulted 26/10/2026).	Coinga is a big company with many workers.
Hypothesis: the curing rooms have temperature and humidity sensors connected to a PLC.	The curing rooms use Siemens PLCs. (Where does it say so?)

The sources we use most, and a short guide to citing them, are on Resources.

Rules that apply to every deliverable

No generative AI

Generative AI is **not allowed** in assessed work unless the teacher authorises it for a specific activity. A section written with unauthorised AI, or copied, scores **0**. The defence makes this easy to spot: you cannot explain a text you did not write.

Passive only

> The security tasks only *look* at what the company's public website already shows to any visitor: securityheaders.com, Mozilla HTTP Observatory, the browser's DevTools, the cookie banner, the privacy policy. Never scan, probe ports or try to log in to a real company's systems. It can be a crime, and it scores 0.

If a member does not work

It happens. The project is built so that it does not sink the others:

- The **individual part** (60% of every deliverable) is yours alone. A member who does not write their section gets a low mark **in their section**, not in yours.
- The **group part** suffers if a section is missing. So **tell the teacher early**, the same week, not on the deadline. The teacher can then redistribute the work or adapt the group part.
- Write it in the **group log**. Together with the version history of the shared document, it shows who did what.

Key takeaways

- The project is a **digital transformation dossier** of one real company, built in **six deliverables**, one per unit; D6 integrates the other five.
- **Cooperative learning**: everyone owns one **section** (individual part) and the group joins them (group part); the four **roles** rotate in every deliverable.
- Each deliverable is **70%** of its RA: **individual 60%** (section 40% + defence 20%) and **group 40%**; class activities are the other **30%**.
- In every workshop session you have a 2–3 minute **individual defence** of your own section.
- Facts about the company need a **source**; what you cannot find is labelled **hypothesis**.
- No generative AI unless authorised, security tasks **passive only**, and if a member does not work, tell the teacher early.

Ready to start? The first chapter of your dossier begins in Unit 1.