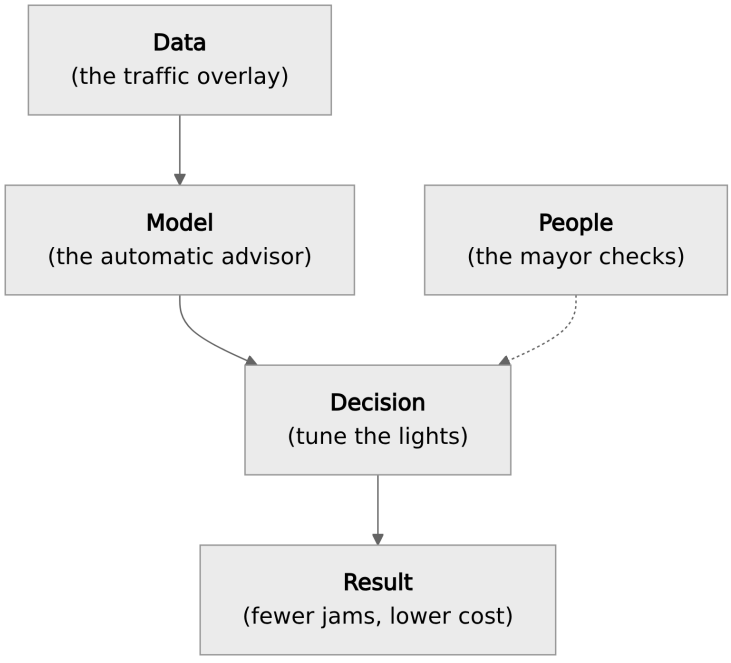
Unit 4 · Artificial intelligence

In a city-builder game such as *Cities: Skylines*, there comes a point where you stop changing every traffic light by hand. You switch on an **automatic advisor**: it watches the traffic overlay, learns when the jams happen and tunes the lights by itself. It is not magic and it is not always right. It is only as good as the data it watches, it costs money to run, and somebody still has to check what it does. That advisor is **artificial intelligence**. In this unit you train one in your browser, test a generative AI critically, calculate whether an AI project pays for itself, and find out what AI is really made of, and what it changes in your own future job.

What you will learn

- Explain what **AI**, **machine learning** and **deep learning** are, and avoid the trap of calling everything automatic "AI"
- Train an image classifier in the browser and explain why it fails
- Use a **generative AI** critically: check its answers against sources and spot **hallucinations**
- Classify AI uses by the risk levels of the European **AI Act**
- Find real AI uses in Balearic companies and estimate, in a spreadsheet, whether an AI project is **profitable**
- Name the languages and tools AI is built with, and describe how AI is changing software development

The model is the part everybody talks about. This unit is just as much about the other boxes: where the data come from, who checks the decision, and whether the result is worth the cost.



Lessons

#	Lesson	What it covers
1	What is AI	AI, machine learning and deep learning; training and inference; your first model with Teachable Machine
2	Generative AI and responsible use	Large language models, hallucinations, rules for responsible use and the risk levels of the AI Act
3	Automation and profitability	Rules vs AI, automating vs optimising, a real Balearic case, and a profitability spreadsheet
4	Sectors, languages and software	Which sectors use AI most (Eurostat), the languages behind real AI projects on GitHub, AI in software development
5	Deliverable 4 · AI plan	What you hand in, who writes what, how it is assessed, the defence