

Case A – Climate Shelters and Urban Equity

Barcelona has established a network of *climate shelters* — public facilities such as schools, libraries, and community centres offering cool spaces during heatwaves. The network forms part of the city's *Climate Plan* and its adaptation strategy to rising summer temperatures.

Researchers at the **Barcelona Supercomputing Center (BSC)** used geospatial and census data to analyse whether these shelters are equally accessible to **vulnerable residents** — older people, low-income households, and migrant populations. The study combines high-resolution spatial modelling with mobility data to evaluate who can realistically reach a shelter within 5 or 10 minutes on foot.

Key insights

- 92 % of vulnerable residents live within a **10-minute walk** of a climate shelter — but only **46 % within 5 minutes**, which is the recommended safe walking distance in heat events.
- In **August**, when heat stress peaks, many shelters close because they are hosted in schools or municipal buildings with summer schedules. This reduces coverage to **about 75 %**.
- The **least covered districts** — **Sants-Montjuïc, Les Corts, Nou Barris, and Sant Andreu** — **are also those located further from the historic centre**, with lower densities of public facilities and older populations.
- By contrast, **Ciutat Vella**, one of the most socio-economically vulnerable districts, achieves full coverage thanks to its dense urban fabric and proximity to services.
- The study concludes that spatial proximity alone is insufficient: true accessibility requires considering **mobility limitations, temporal availability, and social factors** (e.g. awareness, trust, cultural adaptation).

Political challenge

The data show that the network is uneven and least effective when it is most needed. The **Mayor** must decide how to act — whether to **expand the network, ensure year-round opening, or redirect resources to vulnerable peripheral districts**. However, **available resources do not allow pursuing all three options simultaneously**, forcing the city to prioritise and justify its choices politically and publicly.

The decision is politically sensitive.

- The **Mayor's coalition draws much of its electoral support from central districts** (Eixample, Gràcia, Ciutat Vella), which already enjoy better coverage.
- **Peripheral districts** such as **Nou Barris and Sant Andreu**, where coverage is lowest, are strongholds of the **opposition** and have a higher proportion of low-income and elderly voters.
- **Neighbourhood associations and elderly people's organisations** have begun to call for equal access to cooling infrastructure, while a **private energy company** has offered sponsorship to pilot "cooling hubs" in libraries if the city co-finances operating costs.
- The **communication framing**—whether the measure is seen as *climate adaptation, social protection, or urban innovation*—could determine both public perception and political viability.

Your task

You are advising the Mayor of Barcelona. Prepare a 2-minute pitch to convince her to act on this data.

Guiding questions

1. Which focus should your proposal take — *expand the network*, *ensure year-round opening*, or *target vulnerable districts*?
2. How do electoral geography and actor interests affect your choice?
3. What is the most politically relevant message drawn from the evidence?
4. How can you frame the issue to emphasise fairness, health, and feasibility?
5. What concrete action would you recommend, and how would you justify it publicly?
6. What alliances or partnerships could you leverage (e.g. community groups, private sponsors)?