

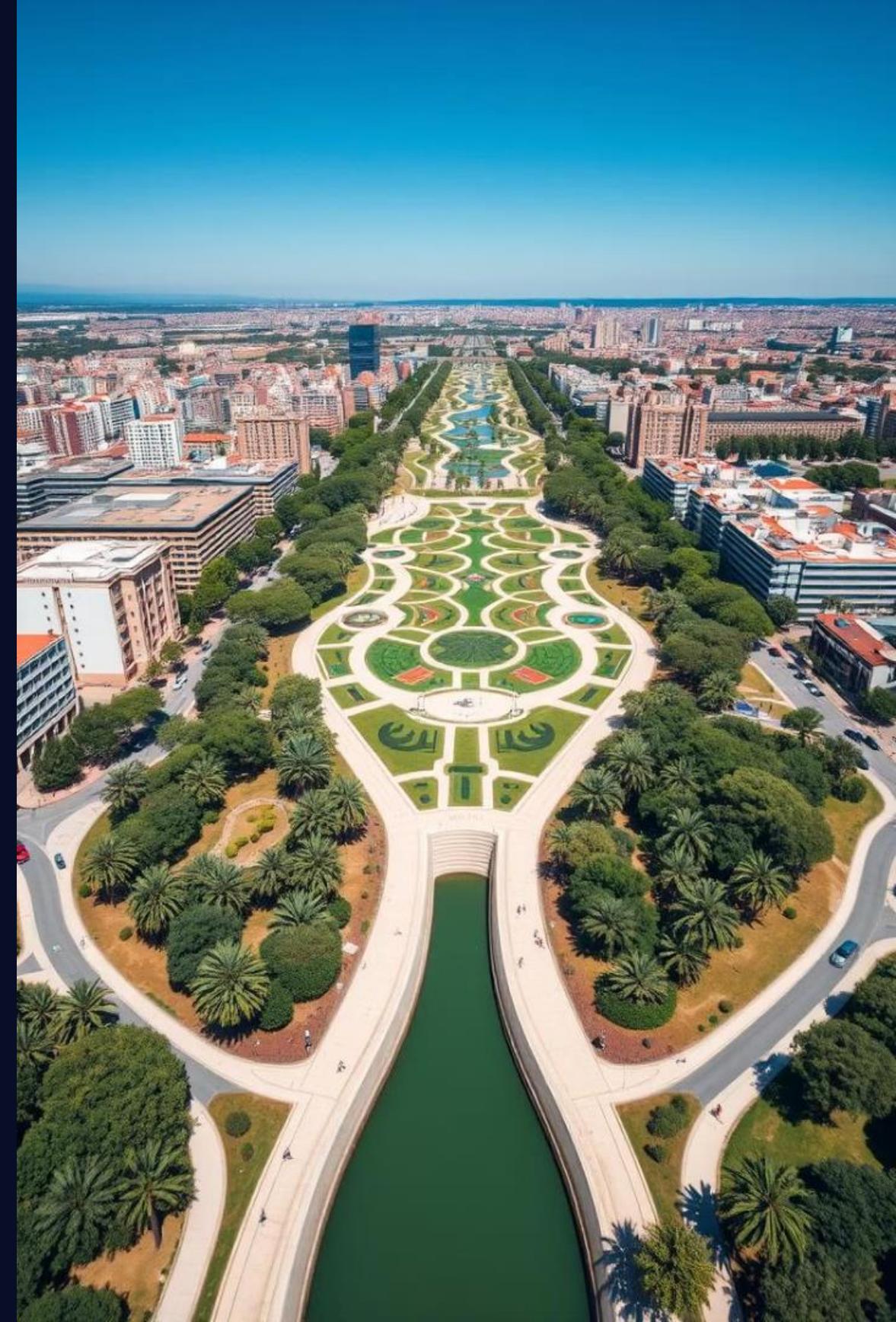
Turia River: An Environmental Study

1º BACH A



Two historic floods in Valencia

This project examines two devastating events. We'll analyze the Great Flood of 1957 and the recent DANA of 2024. Both events profoundly impacted the city of Valencia and its history.





Introduction

The Turia river flows through the city of Valencia before emptying into the Mediterranean Sea. During history, it has been the main reason of big floods, including the catastrophic 1957 flood, which destroyed Valencia and led to the start of the "Plan Sur" to change the direction of its course. More recently, the 2024 "DANA" once again tested the city's ability to manage extreme rainfall, raising awareness of the territory's vulnerability to intense weather events.

Nowadays, the diverted riverbed is the well known "Jardín del Turia", one of the main landmarks of the city.

The flood of 1957

CAUSES

Persistent torrential rains in the Turia basin. This caused a massive increase in the river's flow.

CONSEQUENCES

The city was flooded under meters of water. Many people died, infrastructure and homes were destroyed.





Impact

- October 14th, the Turia river's overflow, disrupted the city:
 - 81 deaths and a big amount of injured people
 - 5 metres of water height
 - Economic damages
 - Imposed the need of a reconstruction plan
- This led into the idea of the government to make arrangements to the security of the city.



The government response: Plan Sur

After the flood, the Franco's government decided to implement measures in order to prevent future catastrophes.

The most important one, the engineering project called "Plan Sur", based on:

1

River Diversion

They decided to change the flow of the river to the south of the city.

2

New Riverbed

A new channel was built to prevent future flooding in the urban center.

3

The "old" Turia

The old riverbed turned into a garden, "El Jardín del Turia".

"El Jardín del Turia"

After Plan sur, the old riverbed turned into a dry area, which made the government wonder what to do.

Finally, in the 80s and 90s, an urban green park was designed and called "El Jardín del Turia", becoming one of the biggest green spaces of Spain.

It has become the green lung of Valencia and a big reference of sustainable urbanism to other cities.

The Turia Gardens proves that a catastrophe can lead to a positive transformation for the city.



"El Jardín del Turia"



Leisure

Space to practice sports, walk and enjoy nature (9 km long).



Nature

Green spaces with various species of plants and trees.



Culture

It contains "Palau de la Música" and "La Ciudad de las Artes y las Ciencias".





The DANA of 2024

In October of 2024, Valencia experienced possibly one of the worst weather phenomenon in his history, caused by a combination of numerous climate changes:

1. High Temperatures of the Mediterranean sea.
2. Intense rains.
3. Many floodable areas.



October 23rd

initial reports of the "AEMET" that a weather phenomenon could affect the mediterranean coast

October 28th

Lessons are suspended due to this big threat

October 29th

Critic Day: The government announce the maximum level of alert, but it was so late

October 30th

Carry out rescue and assistance work in the most affected areas

October 31st

The Spanish government send additional resources for recovery and assistance to those affected

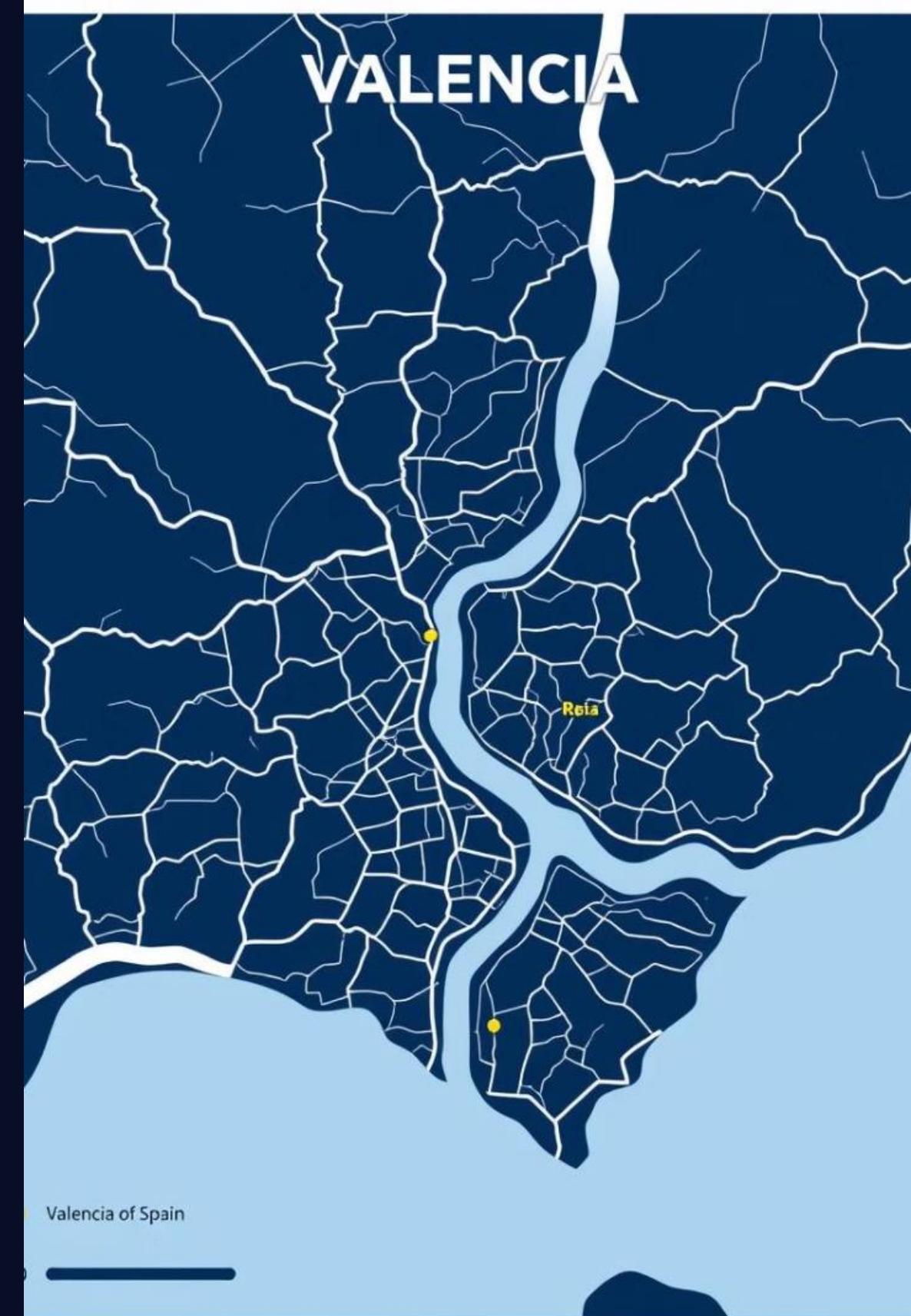
Plan Sur in 2024 DANA

Efficiency and Prevention

The river diversion made in 1957 fulfilled its function of protecting the urban center, even though other areas were affected.-

Learnings

The importance of planning and prevention in the face of extreme weather events.



Climate change concerns

1

Increase of extreme weather events
Due to higher temperature of the seas and oceans

2

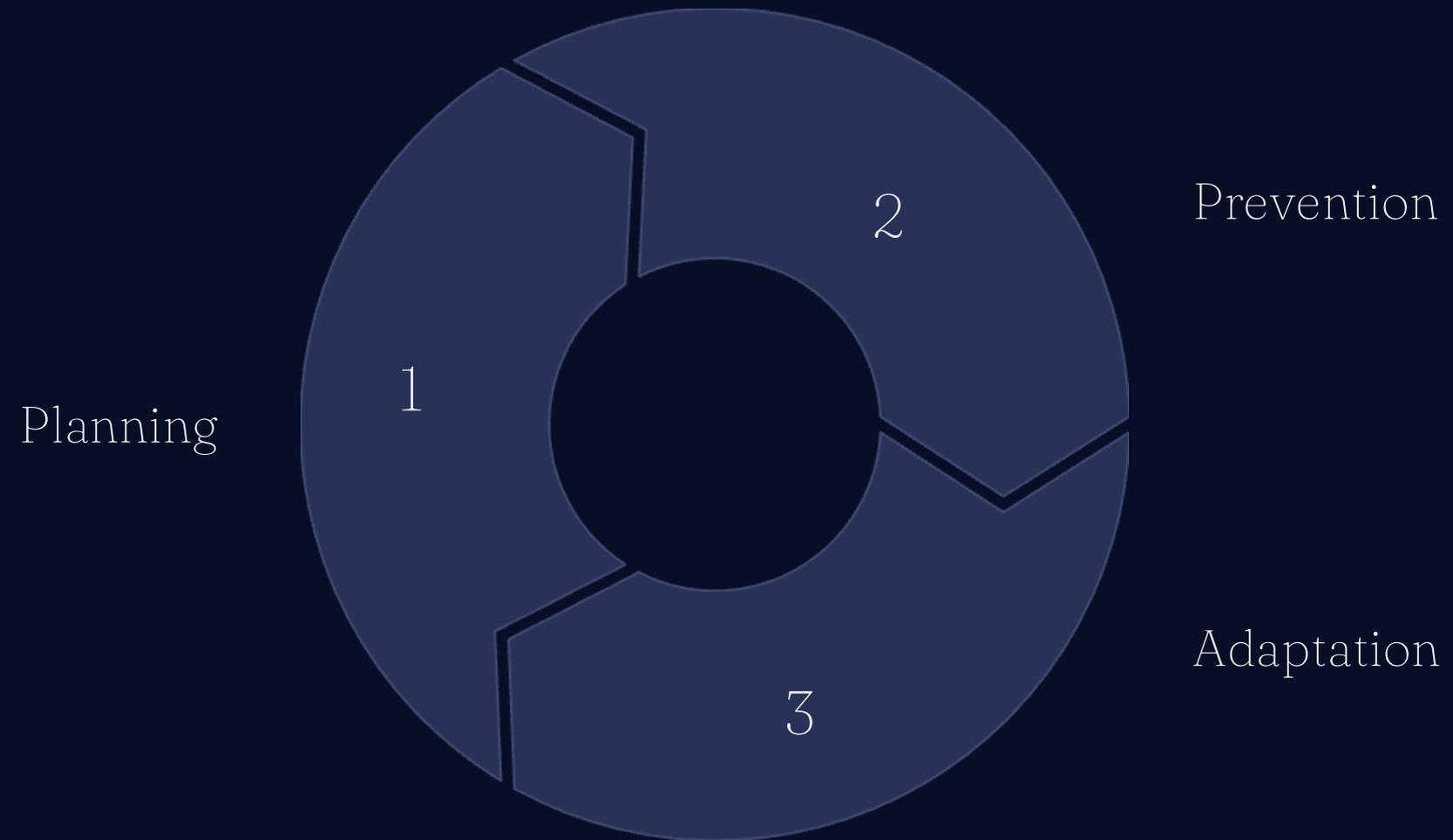
Need for adaptation
Greater investment in drainage infrastructure and early warning systems is required.

3

Human responsibility
Human activity contributes to global warming and alters weather patterns



Learnings

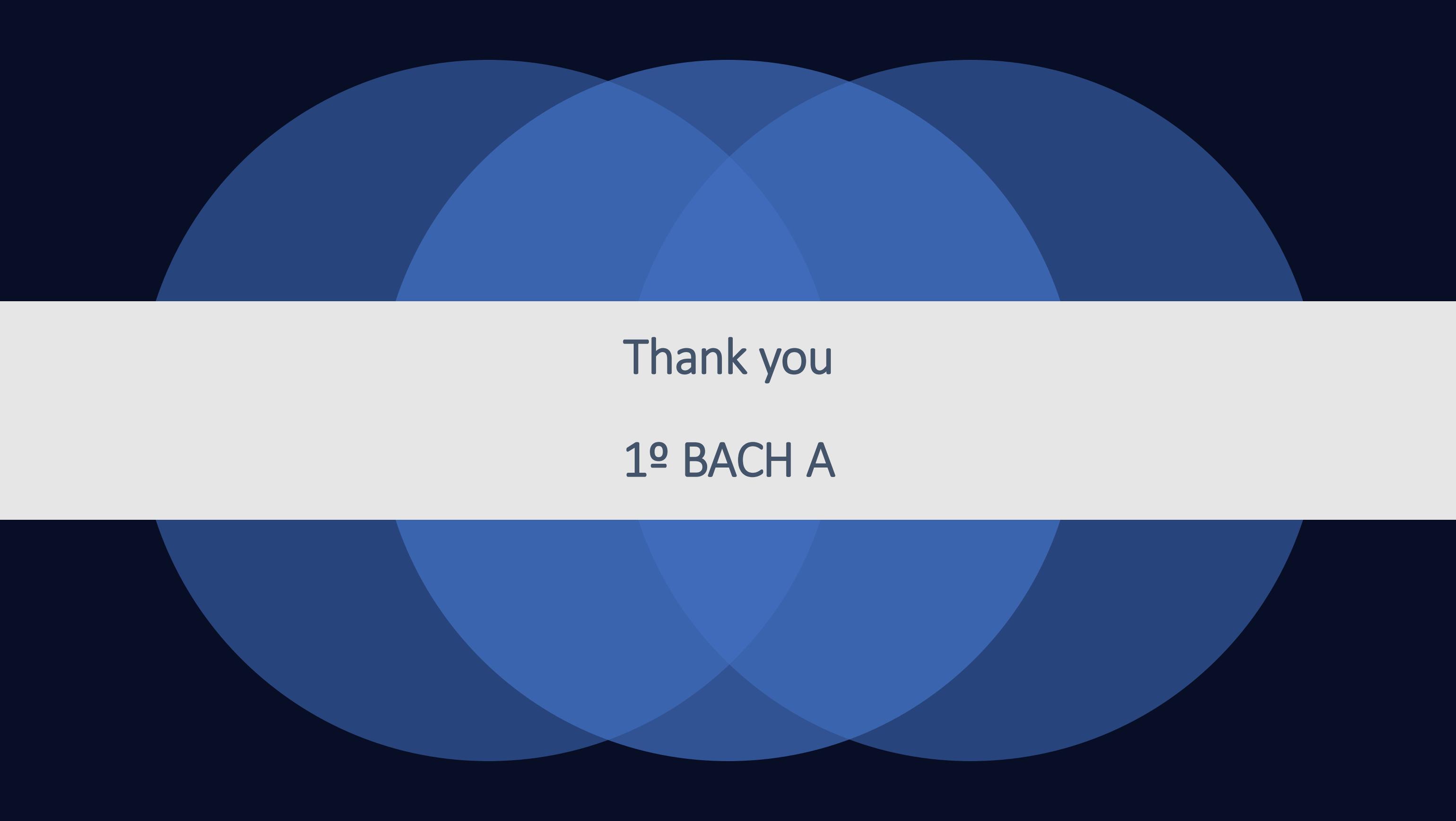


The flooding of the Turia River has taught Valencia the importance of urban planning. Prevention is essential to minimizing the risks of natural disasters. Adaptation to climate change is essential. These lessons continue to guide the city.



Conclusion

- The 1957 flood was a turning point. The Plan Sur transformed the city. The 2024 DANA proved the effectiveness of the measures adopted. Valencia continues to learn to live with the Turia River. The city is resilient to climate events.

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Thank you

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