



open**SAP**

TOUCH IOT WITH SAP LEONARDO

PROTOTYPE CHALLENGE

CULTURAL HERITAGE GUARDIAN



Story

Tourism has become an increasingly complex phenomenon bringing economic benefits but also creating increasing challenges to the hosting communities. Excess and uncontrolled tourism activities can cause damages to the physical integrity of the cultural heritage as well as a risk to the visitors' safety.



Too often visitors show very little respect for the cultural heritage and the effort required for monitoring and keep control of the situation is becoming progressively unsustainable for many cities.

This IoT solution is aiming to monitor the physical condition of monuments and any other artifact like paintings or sculptures, to prevent vandalism as well as safety risks for the people, while ensuring a pleasant experience for the visitors.

This IoT solution, in addition to sensors, uses cameras equipped with artificial intelligence able to detect vandalism or safety risks due to overcrowding of the site or due to inappropriate behaviors of the visitors.



Dario

The Mayor of the City

“It is at the same time a great honor and a huge responsibility to drive a city with such extraordinary artistic heritage.”

About

- 42, married.
- I’m a politician, but my current role requires strong management skills.
- Very mobile, moving from building to building during the day
- I work closely with chief of the local police and Fire chiefs to control crime and establish programs that preserve the health and welfare

Responsibilities

- As mayor manages the day-to-day operations and long-term planning strategies of City government
- I am responsible for maintains safe streets by appointing and supervising the city's Director of Public Safety.
- I sign all commissions, licenses, and the permits granted by legislative authority.

Needs

- I don't have enough resources to ensure the to preserve the artistic heritage of the city.

Main Goals

- My main goal is to ensure the welfare of the inhabitants of the city, promoting the development and assuring the public safety.
- Every day I try to make my city becoming a better place where to live.

Pain Points

- Majority of visitors are respectful but there has been an increase among those who don't respect our cultural heritage
- I need to make sure the amazing artistic beauties of the city are by protected by pollution and vandalism



Point of View (PoV)

User + need + insight/why

Point of View

As a

Mayor of the City

I need a way to

Constantly monitor the artistic heritage of the city and the touristic flows

So to

preserve the physical integrity of the cultural heritage, to assure the safety and a pleasant stay to the visitors of the city.



UX Journey

ACTIONS	MINDSET	FEELING	TOUCH POINTS
<p>Holidays season, a large number of city visitors foreseen for today. And today there is also a demonstration!!</p> <p>let's have a planning session with the responsible for the safety of the city</p> <p>• Weather forecast says today we'll have 35 degrees Celsius.</p> <p>• Too many cars busses in the city pollution is growing rapidly</p> <p>• Just informed that is expected the presence of black blocs. • New meeting with the chief of the local police</p> <p>Difficult to know how is going, I will request an hourly update ...</p>	<p>• Not enough people for managing the situation today.</p> <p>Good, we have a robust plan for managing the today emergencies ...</p> <p>Will it be sufficient?</p> <p>• This will not help! With the hot temperatures people became crazy. • We need to control the artistic fountains ...</p> <p>• Should I block the busses outside the city to prevent pollution?</p> <p>We have to change the dislocation of the security ... some areas will stay uncovered</p> <p>Waiting for the next report</p>	<p>😊</p> <p>☹️</p>	<p>• Chief of the local Police • Responsible for the safety</p> <p>• Local Police</p> <p>Prefecture</p>



Prototype

This is the link to the prototype in BUILD:

https://standard.build.me/prototype-editors/api/public/v1/snapshots/e9ea1a3cc8a8e4c00e16b154/artifacts/latest/index.html#/launch_page

This is the link to the Study:

<https://standard.build.me/user-research/e9ea1a3cc8a8e4c00e16b154/participant/673ec202fc2409320e1fd5ab>

Crowding percentage of the site estimated by AI based on camera images

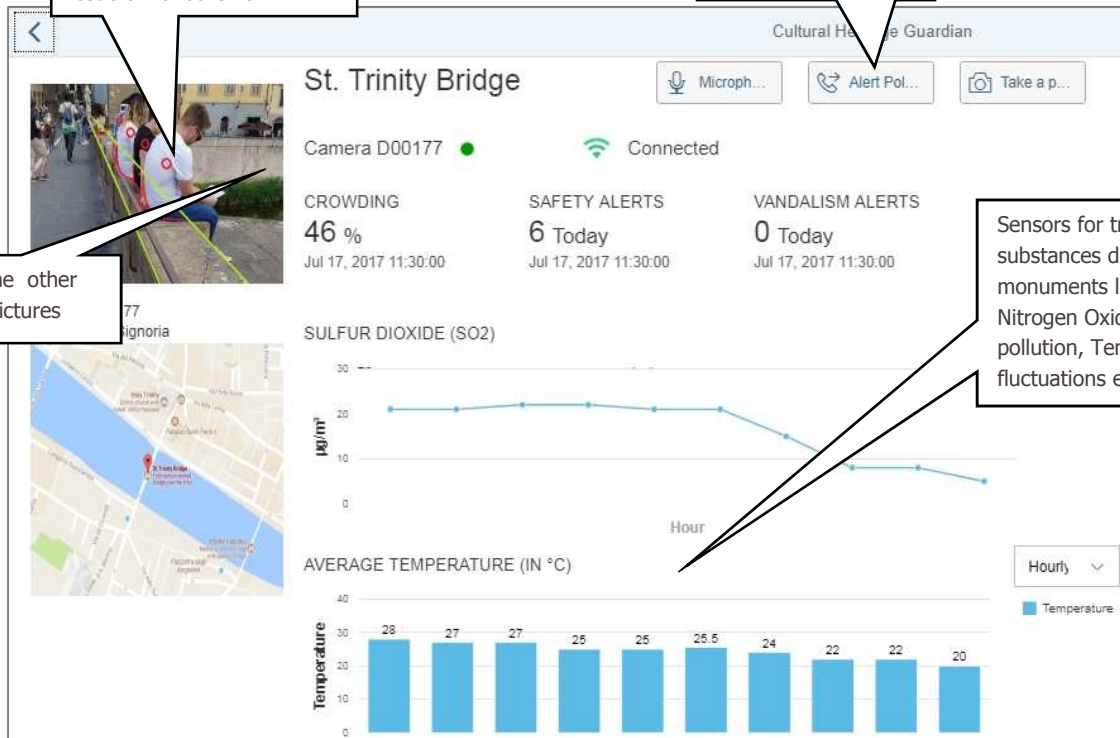


Camera picture elaborated by AI for detecting safety issue or vandalisms

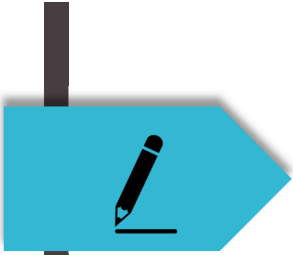
Safety alert or vandalism alerts

Action buttons

Scroll to the other cameras pictures



Sensors for tracking any kind of substances dangerous for the monuments like Sulfur dioxide, Nitrogen Oxides, Particulate air pollution, Temperature fluctuations etc.



The screenshot shows a mobile application interface with several callouts:

- Microph...:** A callout box pointing to a microphone icon with the text: "Using the tool the operator will be able to contact the visitors".
- Alert Pol...:** A callout box pointing to a telephone icon with the text: "Button to alert the Local Police".
- Take a p...:** A callout box pointing to a camera icon with the text: "Button for taking a picture".
- Take a picture dialog:** A central dialog box titled "Take a picture" containing a camera icon and two buttons: "Take a Picture" (blue) and "Cancel" (red). A callout box points to the dialog with the text: "Taking a picture".
- Picture taken:** A dark blue notification box at the bottom of the screen with the text: "Picture taken".

The background interface includes a header with "AFETT ALERTS" and "VANDALIS", a date "Today", a time "17, 2017 11:30:0", a temperature gauge, a bar chart with values like 25, 25, 25.5, 24, and a "Temperature" label.