# Museum Monitoring

SMART IOT SOLUTION AT SCHÖNBRUNN PALACE

**SAVE 10% ANNUALY ON PRESERVATION**

## Addressing protection of heritage

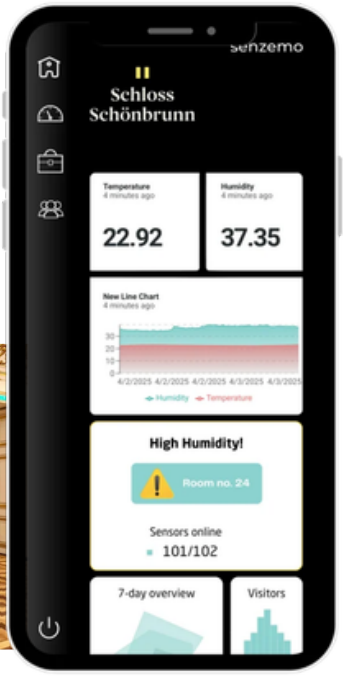
Schönbrunn Palace, like other historic sites, faces the challenge of protecting centuries-old architecture, art, and artifacts, where precise environmental control is vital to preserve priceless cultural heritage. Fluctuations in temperature and humidity can cause irreversible damage; cracking, mold growth, or material degradation.

Even small variations in microclimate conditions can accelerate deterioration. Without continuous data, conservators cannot react in time to prevent damage. Manual inspections are costly, inconsistent, and limited to specific points in time, leaving critical blind spots.

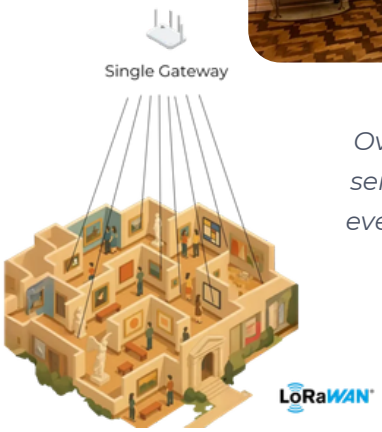
## Smart IoT Solution at Schönbrunn Palace

Strict heritage regulations prohibit invasive HVAC upgrades, leaving temperature and humidity control as a critical challenge.

. With relative-humidity swings of ±3.8 % and daily temperature drifts of 1.6 °C threatening delicate textiles, gilded frames, and manuscripts, curators previously relied on 300 hours of manual checks each year, while reactive heating and cooling wasted €9,500 annually.




A network consisting of more than 200 microclimate sensors (SMC30), was implemented to monitor temperature and humidity.




*Over 200 Senstick SMC30 were deployed. All sensors work on LoRaWAN connectivity that every 15min sends data to the gateway. Data is available for viewing on the Senzemo dashboard.*

BATTERY LIFE
**7+ yrs**

WIRELESS RANGE
**Up to 1km**


*Senstick Microclimate SMC30 sensor measures Temperature, Humidity and Air pressure.*

### EU QUALITY

Quality is the first focus of Senzemo. The sensors, aside from standing out by their design, are sourced and assembled in Slovenia, European Union, and produced using quality materials, which makes them much more reliable and precise.

| How it started | How it ended |
|---|---|
| Manual climate checks | Extended artifact lifetime |
| Risk of improper preservation | Fewer emergency interventions |
| High maintenance costs | 5–15% saved in annual preservation |