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TOURISMO Final Conference

Data-driven solutions for smart crowd flow management.

Visitor counting with sensors and AI at tourism hotspots.

9th of June 2026

Valletta, Malta

How cities are using thermal cameras and IoT sensors paired with AI to improve tourism flows efficiency and management: TOURISMO Florence pilot and beyond
Franca Fauci, Foundation for Research and Innovation

Why Cities Need Smarter Tourism Management

➤ Economic Catalyst

Tourism drives growth, employment, and urban attractiveness across Europe

➤ Urban Pressure

Escalating visitor density strains public spaces, mobility networks, and resident communities

➤ The Data Gap

Traditional decision-making often relies on fragmented or delayed data



The contemporary challenge is no longer attracting more visitors, but sustainably managing, anticipating, and balancing tourism flows



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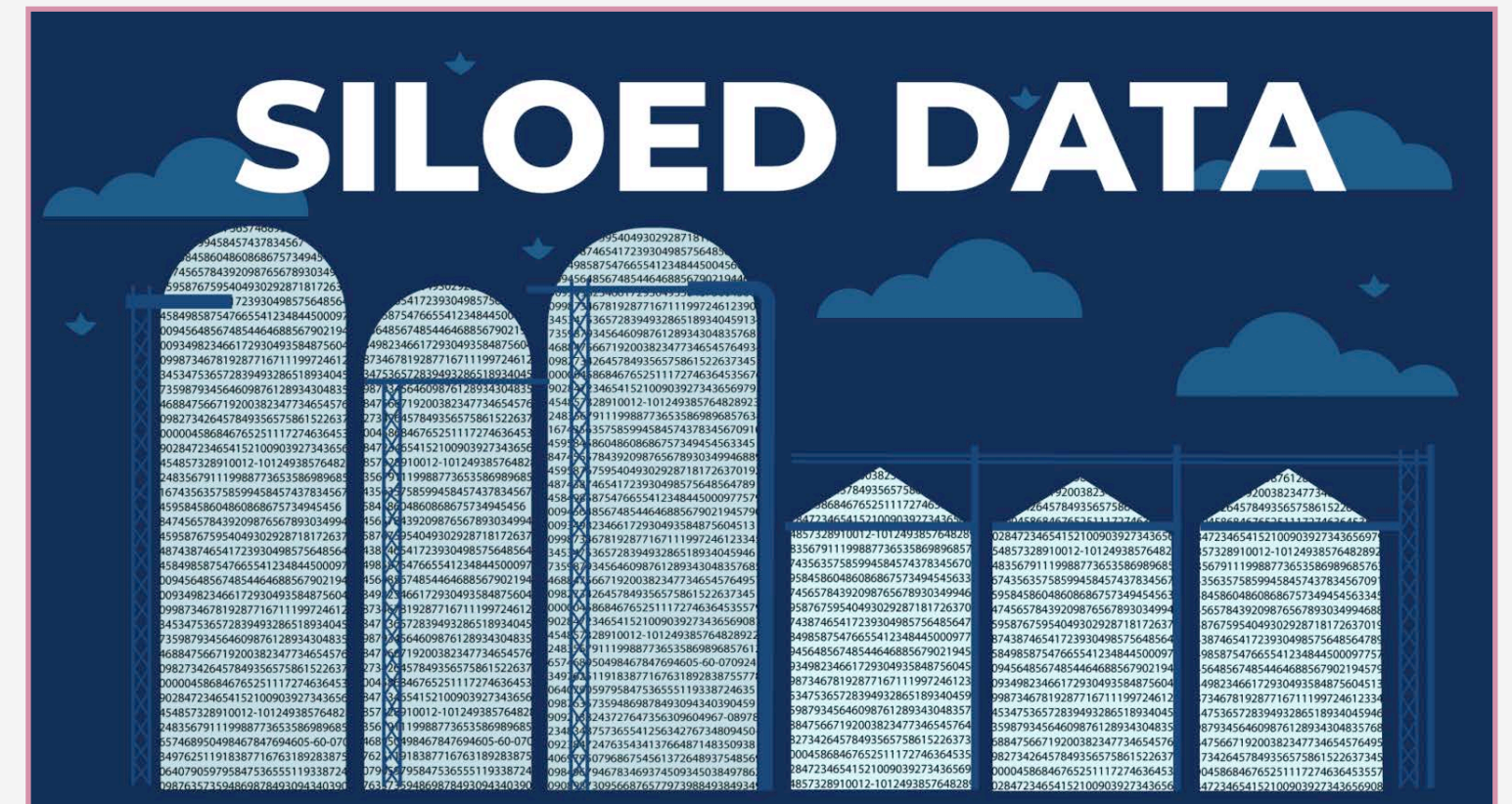
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The European Challenge: Why Flow Management Is Difficult

➤ **Overtourism**
Structural pressure on the delicate fabric of historic city centres

➤ **Fragmented Data**
Critical data remain scattered across isolated systems and stakeholders

➤ **Reactive Strategies**
Municipalities often mitigate congestion only after it has occurred



To transition from reactive to proactive governance, European cities require integrated, real-time, and predictive insights



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TOURISMO at a Glance

➤ Framework

An innovative initiative funded by the Interreg Euro-MED Programme dedicated to sustainable destination management

➤ Transnational Consortium

10 partners from 7 European countries uniting development agencies, public institutions, research centres, and foundations

➤ Core Mechanism

Deploying cutting-edge digital tools and AI models to monitor visitor dynamics across 8 pilot sites



TOURISMO translates advanced digital capabilities into scalable, transferable frameworks for European urban centres



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The Florence Pilot: A Living Laboratory

➤ **Institutional Synergy**
Formalised via a Memorandum of Understanding (August 2025)



Municipality of Florence



DISIT Lab, University of Florence



Foundation for Research and Innovation

➤ **Advanced Monitoring**
Deploying edge-computing thermal cameras and IoT sensors for anonymous flow tracking

➤ **Sentiment Integration**
Coupling physical crowd metrics with QR-code based visitor feedback for qualitative insights



The Florence pilot demonstrates how cross-sector collaboration converts raw sensor data into actionable urban intelligence



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Why It Matters Beyond Florence

➤ **Scalable Framework**

Designed as a modular and replicable model for diverse European urban environments

➤ **Methodological Transferability**

Tailored to adapt to varying city sizes, governance structures, and tourism intensities

➤ **Evidence-Based Governance**

Demonstrates how merging multi-source data feeds supports long-term strategic policy

The core value of TOURISMO lies in its scalability: solutions validated in Florence today will empower sustainable tourism across Europe tomorrow



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Key Lessons Learned

➤ Demand-Driven Innovation

Technological deployment must directly align with concrete policy and governance needs

➤ Ecosystem Collaboration

Multi-stakeholder synergy is essential to transform data into actionable knowledge

➤ Actionable Awareness

Combining data sources strengthens evidence-based decision-making

➤ Pilot Environments

Living laboratories enable testing, continuous learning, and iterative adaptation

➤ Dual Readiness

Successful transferability requires technical architecture and institutional alignment



Effective tourism governance needs a continuous bridge between real-time data, shared urban awareness, and policy-making processes



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From Urban Challenges to Data-Driven Solutions

Policy Context

We have covered the strategic challenges and the Florence pilot approach

The Tech Layer

We have moved from the general strategy to the enabling digital tools

What is Next

A deep dive into the technical architecture, AI models, and data integration

Speaker Transition

Handover to Professor Paolo Nesi, DISIT Lab, University of Florence



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Making
the **Mediterranean**
Green Transition
happen

