

Call to Participation

For UNESCO National Commissions, Creative Cities focal points, and local partners committed to sustainable, culturally-rooted digital and AI-enhanced innovation.

SOPHIA

- *Cradle Cities for the UNESCO Creative Cities Network
A Topo-Sophical Intelligence Field*

Grounded in Place, Wisdom, and Relation

I. Mission and Values

SOPHIA invites cities to imagine a future where digital innovation is guided by wisdom, rooted in place, and animated by relationship. Rather than replicating technical infrastructures alone, SOPHIA encourages cities to cultivate meaningful digital twins enhanced, but not based on Artificial Intelligence, that reflect their cultural memory, civic imagination, and living heritage.

Digital twins are typically understood as virtual representations of physical infrastructure. However, in SOPHIA, they become **living knowledge fields**—participatory and symbolic ecosystems that integrate **cultural meanings, historical depth, ecological rhythms, and social memory**, supported where useful by **artificial intelligence (AI)** and digital technologies that are low-impact and ethically aligned.

SOPHIA responds to the urgent need for integrating frontline technologies with community knowledge, intergenerational memory, and ethical foresight. Inspired by the meaning of **Sophia** (wisdom), **Topos** (place), and **Logos** (relation, meaning), SOPHIA also includes **Materia**—the tangible, lived, and physical dimension of urban experience. Together, these elements form a **Topo-Sophical Intelligence Field** (TIF), where relational intelligence is not only symbolic or digital, but also rooted in the material realities of place and practice.

The mission of SOPHIA is to guide the development of **AI-enhanced** Digital Twins not merely as technical models, but as inclusive platforms for **urban care, cultural continuity, and ecological responsibility**.

II. Core Principles: SOPHIA Ethos and AI-Enhanced Digital Twin Design

SOPHIA affirms a regenerative intelligence grounded in *place, participation, memory, and ethics*. Aligned with UNESCO's vision of culture as a driver of sustainability, SOPHIA is rooted in:

- **Place-Based Intelligence** – understanding space through cultural memory, symbolic landscapes, and lived experiences;
- **Participatory Co-Creation** – ensuring inclusive dialogue and locally anchored innovation;
- **Intergenerational Wisdom** – integrating heritage knowledge and – where exists – indigenous ancestral insight into future visions;

- **Ecological and Ethical Responsibility** – ensuring that digital transformation, including AI-use, supports environmental integrity and human dignity;
- **Artistic and Creative Agency** – empowering local creators to shape both physical and AI-enhanced digital urban futures.

SOPHIA Digital Twins are not extractive simulations, but **living, co-created intelligence fields**. They are:

- **Analogue-First** – beginning with human narratives, ecological rhythms, and symbolic meaning—not raw data;
- **Knowledge-Intensive, Resource-Lean** – making selective, ethical use of artificial intelligence to support local insight, without heavy computation or invasive surveillance;
- **Ethically Co-Created** – developed with people and ecosystems, upholding dignity, rights of nature, cultural plurality, and transparent, participative processes;
- **Planet-Aware** – designed to minimize energy use, water consumption, and hardware waste, respecting planetary boundaries.

SOPHIA’s framework helps cities not only plan and simulate, but **listen, regenerate, and imagine**—ensuring AI and digital tools serve cultural well-being, rather than displacing it.

III. Strategic Objectives

1. **Designing Culturally-Rooted, AI-Enhanced Digital Twins**
Developing dynamic, AI-enhanced digital models of cities that reflect not only infrastructure and data, but also symbolic landscapes, natural and cultural heritage, cultural practices, and community values.
2. **Mapping Places: Nodes of Meaning and Identity**
Identifying key locations, rituals, practices, and historical layers that form the city’s unique “semantic landscape” through analogue, participatory processes that prioritize local narratives and intergenerational dialogue. These co-identified meanings then inform the structure and values of the AI-enhanced digital twin.
3. **Facilitating Participatory Urban Foresight**
Organizing community forums, artistic residencies, and civic labs to explore collective visions of the future—guided by local knowledge, analogue-first meaning identification, and AI-enhanced modelling tools that help visualize regenerative pathways.
4. **Valuing Living Heritage as a Source of Innovation**
Recognizing that craftsmanship, oral traditions, vernacular design, and everyday cultural expressions are active contributors to creativity, resilience, and sustainability—especially when integrated into the logic of AI-enhanced digital twins and wise urban design.
5. **Supporting Creative Ecosystems**
Linking AI-enhanced digital twin infrastructure with local cultural and creative industries—design, music, visual arts, food, crafts—to stimulate inclusive, place-based, inclusive economic development that respects planetary limits and nurtures community identity.

Illustrative Example – Mapping the Wisdom of a Historic Market Square

In the SOPHIA model, a historic market square is not merely a geographic location—it becomes a digital commons, enriched by the voices of local elders, youth, and artisans. SOPHIA does not simply record spatial data; it captures the symbolic meanings, trade rituals, seasonal practices, and intergenerational memories that shape the identity of the place.

In a UNESCO Creative City, such a market square could be selected as a focal point within the city's AI-enhanced Digital Twin. Rather than limiting its representation to physical infrastructure, SOPHIA would engage the community through workshops, interviews, and creative processes to co-create a digital layer that reflects the square's deeper cultural significance. Narratives of ancestral trade, customary gatherings, and evolving practices would be woven into the model.

This enriched semantic landscape can then help urban planners and cultural actors reimagine the market square not as a static public space, but as a living cultural hub—supporting both cultural continuity and inclusive economic activity. With new AI-enhanced tools and participatory digital platforms, this transformation can be guided in ways that honour analogue-first community meaning while enabling regenerative, future-oriented urban innovation—benefiting both local communities and visitors by deepening their connection to place, story, and experience.

IV. Heritage and Creative Intelligence for Urban Transformation

In the SOPHIA model, heritage is not a passive archive but a generative force. **Tangible heritage** (both the built and the natural environment, as well as cultural goods) and **intangible heritage** (rituals, crafts, social practices, etc.) both feed into the city's creative metabolism. SOPHIA proposes a fusion of analogue and digital knowledge systems, where heritage inspires innovation, and innovation safeguards heritage.

This synergy creates a new kind of urban intelligence: one that honours memory while anticipating and accompanying transformation.

V. Who Is SOPHIA for?

SOPHIA invites all stakeholders committed to building future-ready, culturally vibrant, and ethically aware wise cities. Educators, artisans, urban planners, youth, artists, local authorities, researchers, faith-based and Indigenous communities, civic organizations, as well as economic and financial actors, service-providers all have a place in this shared process.

SOPHIA is particularly aligned with:

- UNESCO Creative Cities
- UNESCO Recommendation on the Ethics of AI

- UNESCO Recommendation on the Historic Urban Landscape
- 1972, 2003, 2005 Conventions
- Cities already developing Digital Twins
- Cultural institutions, universities, research and development centres and innovation hubs
- Municipalities aiming for human-centred smart transformation

A Global Template, Locally Grounded

SOPHIA can be adopted and adapted by cities worldwide seeking to harmonize technological progress with cultural continuity and community values. It provides a bridge between digital innovation and human dignity—a way to ensure that smart cities of the future remain wise.

VI. Strategic Vision

Why Now?

This initiative coincides with:

- The 20th anniversary of the UNESCO Convention on the Protection and Promotion of the Diversity of Cultural Expressions (2005)
- MONDIACULT 2025, Barcelona
- Increasing global calls for human-centred AI governance especially in the public sphere
- The recognition of cities as laboratories of ethical, creative, and sustainable transformation

VI. Next Steps and Invitation

We propose launching SOPHIA at the UNESCO Creative Cities Network Conference in Enghien-les-Bains (23-24 June, 2025), through a dedicated session and roundtable. Participating cities would be invited to co-design the initiative and engage in a one-year collaborative pilot phase, which may be supported by partnerships.

Consultation with UNESCO, the host city, National Commissions and Creative cities is under way.

SOPHIA invites UNESCO Creative Cities, National Commissions, and their local partners to co-create this living initiative.

Let us form a **pilot network of 18 Creative Cities**, three from each UNESCO region, to pioneer this model. These cities would commit to:

1. Mapping their semantic landscapes (key places, stories, traditions)
2. Hosting civic labs, artistic residencies, and participatory foresight processes
3. Contributing to a collective digital charter on ethical, place-based AI for cities
4. Sharing methodologies, tools, and experiences in a mutual learning ecosystem

Cities are invited to:

- Nominate pilot sites for SOPHIA-aligned digital twin development;
- Join collaborative circles to co-develop guiding methodologies;
- Share traditional knowledge, cultural data, and urban visions for inclusion;
- Explore partnership opportunities through UNESCO and other frameworks.

For expressions of interest or further dialogue, please contact Gábor Soós, PhD, SOPHIA Coordination Circle: gabor.soos@unesco.hu, Secretary-General, Hungarian National Commission for UNESCO

Intellectual and Conceptual Integrity Notice

SOPHIA is a vision for regenerative digital and urban futures that aligns with UNESCO's values of cultural diversity, sustainability, and intergenerational justice. SOPHIA is grounded in and constitutes an application of TOLMA© – Topo-Logos-Materia, A Topo-Sophical Intelligence Field developed and authored by Gábor Soós, PhD.

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TOLMA is a living field where place, memory, and meaning meet to cultivate intelligence with care. Welcome to this Field, my Fellow Human Being.

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