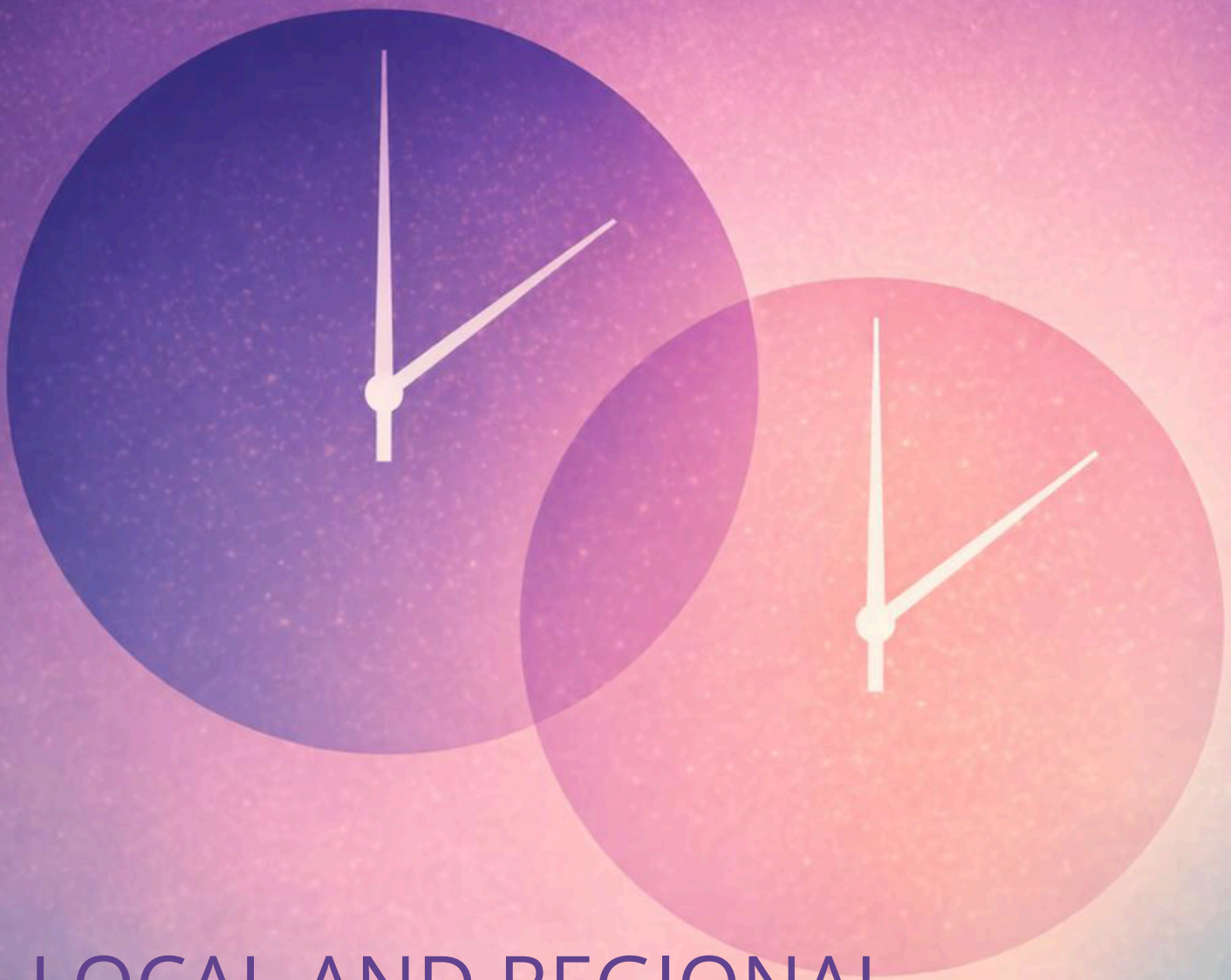

LOCAL AND REGIONAL **TIME** AGENDA

Topic 6

CHRONOCITIES FOR **SUSTAINABLE FUTURES**

Local and Regional Time Network

The **Local and Regional Time Agenda (LRTA)** is a pioneering compilation of time policies implemented by local and regional authorities around the world. It provides an updated compendium of time policies grouped by topic and practical recommendations on how to implement them.

The Agenda is coordinated by the **Local and Regional Time Network**, the international alliance of cities, metropolises, and regions aimed at promoting the right to time where people need it most. It is the main forum to exchange and promote implementable time policies that are already changing daily life for more than 90 million people in Europe, Asia, and the Americas.

More information:
https://timeuse.barcelona/local-and-regional-time-network/

The **Time4All 2.0** project is a two-year initiative (2025-2026) that includes a series of exchanges and workshops in partner cities. Its main objective is to raise awareness about time policies and promote a balanced and sustainable use of daily time, engaging citizens and cities in discussions on the right to time. The project targets 1,800 participants, focusing on young people and women, who are disproportionately affected by time poverty.

Funded by the European Union through the EACEA Agency (European Education and Culture Executive Agency), Time4All 2.0 seeks to explore the value of time organisation while developing policies that enhance health, equality, productivity, sustainability, and civic participation. The project is part of the Citizens, Equality, Rights and Values (CERV) programme and builds upon the achievements of its predecessor, Time4All project, implemented in 2023-2024.

The project is led by the city of Bergamo and Time Use Initiative (TUI), the international organisation promoting time policies and the right to time, which currently runs the Network's secretariat.

More information:

https://timeuse.barcelona/time-networks/time4all-2-0/

This project has received funds from the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Education and Culture Executive Agency (EACEA). Neither the European Union nor the granting authority can be held responsible for them.

Co-funded by the European Union

CHRONOLEADERSHIP
Designing Time Architecture for Chronocities

Camilla Kring
PhD, Founder of **Super Navigators & B-Society**

In the industrial era, time was designed for machine. In the knowledge era, time must be redesigned for human biology.

For decades, cities, workplaces, and institutions have operated on standardized schedules—fixed starting times, synchronized routines, and uniform expectations of performance. This model was efficient when value was created by machines. Today, however, **more than 90%** of value is created by people through knowledge, creativity, and collaboration. Yet, we have modernised everything except time.

Research in chronobiology shows that humans are not biologically equal across the day. We are born with different circadian rhythms, our internal biological clocks, that determine when we sleep, focus, and perform at our best. **Around 30%** of the population are early chronotypes, **30%** are intermediate, and **40%** are late chronotypes. Still, most of society is structured around early schedules. The result is a systemic mismatch between biological time and social time.

More than 80% of people live in conflict with their circadian rhythm, often waking up with an alarm clock and starting the day at a biological disadvantage. This is not a matter of comfort. It is a matter of performance, health, and long-term sustainability. If chronobiology provides the science, and chronocity provides the vision, then chronoleadership provides the missing capability: the ability to design time.

Chronoleadership as Time Architecture

Chronoleadership is the practice of designing time architecture based on human biology. A chronocity is a territory designed to respect human and natural rhythms. It

aligns public policies—such as lighting, working hours, mobility, and urban planning—with the biological needs of its citizens. Policies alone do not create chronocities. They must be translated into daily rhythms.

Time is not only structured through regulation. It is structured through everyday decisions: when meetings are scheduled, when services operate, when schools begin, and when people are expected to perform. These decisions are made—and reinforced—through leadership.

Chronoleadership shifts the focus from "*how many hours people work*" to "*when people work best*." This shift is critical for cities aiming to become chronosensitive. Working hours, for example, shape traffic patterns, energy consumption, sleep quality, and family life. Standardised schedules concentrate activity into narrow time windows, creating congestion, stress, and inefficiency. By contrast, more differentiated and rhythm-sensitive time structures distribute activity more evenly across the day—reducing pressure on infrastructure and improving overall wellbeing.

In this sense, chronoleadership is not only a workplace issue. It is an urban and societal design principle.

The Hidden Bias in Time Systems

Modern societies are built on what can be described as chrononormativity—the assumption that there is one "normal" way to organise time. Typically, that means early start times, fixed schedules, and synchronised routines. This creates a form of invisible inequality—one built into time itself: people who perform best in the morning are often perceived as more committed or productive, while those who peak later in the day are disadvantaged despite delivering equal or higher value. This early-riser bias is embedded in education systems, labour markets, and cultural norms.

Chronodiversity is not a deviation. It is a biological reality. When systems ignore this diversity, they do not create neutrality—they create structural disadvantage.

From Chronodiversity to Chronoinclusion

Chronoleadership builds on three interconnected principles, which challenge the assumption that everyone should perform at the same time of day.:

- **Chronodiversity:** humans differ in their biological rhythms
- **Chronoequity:** these differences should be treated fairly
- **Chronoinclusion:** systems must be designed to accommodate them

These principles also redefine flexibility. Flexibility is often framed as an individual benefit—something employees can negotiate. Chronoinclusion reframes it as a structural responsibility.

In chronoinclusive systems, performance is measured by outcomes rather than presence. Collaboration is designed around overlapping energy windows. Time autonomy becomes a prerequisite for wellbeing, creativity, and sustainable performance. This shift moves time from a personal preference to a design parameter.

A New Time Architecture for Sustainable Futures

For centuries, societies have been organised around external clocks—church bells, factory shifts, school timetables. These systems were designed to synchronise people for efficiency and control. Today, we face a different challenge.

We must design systems that synchronise with human biology, not override it. Chronoleadership represents a shift from standardisation to synchronisation—from imposing time to aligning with it.

For cities, this shift has far-reaching implications. It can improve sleep and public health, reduce energy consumption, ease urban congestion, and create more liveable environments. It can also unlock human potential by allowing people to contribute at their best, rather than at a fixed time.

A Chronocity in 2050

In 2050, cities are no longer organised around a single clock. Time has become a matter of equity. Societies have come to recognise that designing systems around

one standard rhythm created invisible inequality—favouring early chronotypes while systematically disadvantaging others. What was once considered "normal working hours" is now understood as a structural bias.

Looking back, it seems almost incomprehensible: that entire education systems were built on early start times; that children were woken against their biological rhythm; that performance was measured by presence rather than timing. We thought we had inclusive systems. In reality, we had systems that worked best for a minority.

Performance is no longer evaluated independently of when it takes place. Schools, workplaces, and public institutions are designed around biological rhythms, allowing people to contribute when their cognitive and physical capacities are at their peak. Adolescents start school later in the morning. Exams are scheduled in alignment with chronotypes. Work is organised around overlapping energy windows rather than fixed hours.

Chronodiversity is not accommodated—it is designed for

Cities themselves have changed. Rush hour has largely disappeared, replaced by more distributed patterns of activity. Energy consumption is smoother. Transport systems are less congested. Urban life flows across time rather than compressing into narrow peaks. Healthcare systems have also adapted. Treatment, prevention, and recovery are increasingly synchronised with circadian rhythms, recognising that timing can be as important as dosage.

When cities align time with human biology, they unlock something more than efficiency. They unlock energy, health, learning, and a society designed for how humans actually function.

In the past, we standardised time. The future belongs to those who design it.

Dr. Camilla Kring is a leading expert in applied chronobiology and a global pioneer in chronodiversity, chronoinclusion, and chronoleadership. She was named to the Thinkers50 Radar Class of 2026 for her work connecting circadian science with leadership and the future of work. For more than two decades she has advised organisations across 17 countries on how biological rhythms influence performance, wellbeing, and collaboration.