GOLD VII
Multimedia Journal

Contribution to the 7th Global Report on Local Democracy and Decentralization (GOLD VII) on the **Economies of Equality and Care**

Using the time factor to improve cities well-being and caring societies

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> "Time is inseparable from a model of urban civilisation to be built. It is a core issue concerning all domains. Time organisation conditions all our different rights, especially the right to the city."[1]
>
> Edmond Hervé, former Mayor of Rennes

1. We have a problem with time

Worldwide, there is a concerning discomfort towards accessing a rare, scarce even, commodity central to the daily lives of a vast majority of people: time. Individually and collectively, we struggle to have "enough time" to deal with our realities; with a constant feeling that "there are not enough hours in our day" to do everything we want to do. Such distress is experienced at the individual level, no matter our gender, age, ethnicity, origin, or ability. But, if the issue we are raising is common to all, it cannot be only an individual problem. We do have a problem with time, and such a problem has a collective nature.

1.1. The Social Organisation of Time and Urban Time Policies

The way time is organised depends on a social contract — what we call the social use of time. It is according to it that our societies allocate different chores to each of the twenty-four hours in a day. In our current, globalized world and culture, such standardization is related to the ideal division of the day in three equal distributions, each devoted to eight hours of work, eight hours of sleep, and eight hours of rest — what we call the "eight-hour triangle".

This traditional division had its origin at the beginning of the Industrial Revolution, when workers' demands for a rational working time (see image 1) met those of utopian industrial planners, such as Robert Owen, during the central part of the 19th Century. Then, such a demand for rational working time was introduced in the different national legislations during the following century — with the

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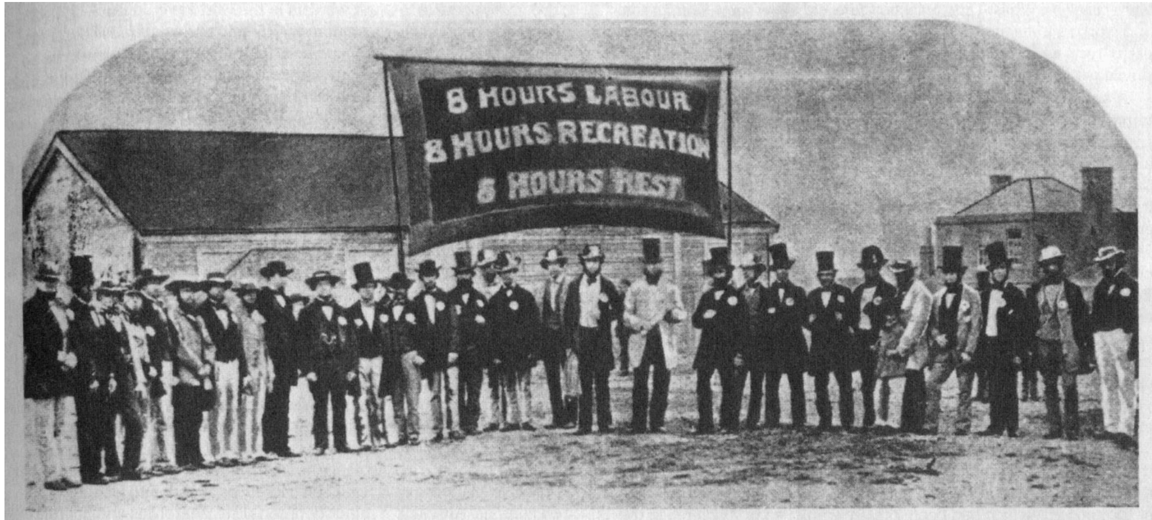
[1] Hervé, Edmond, *Temps des villes : rapport.* French Ministry for Employment and Solidarity, 2001. Own translation from the original: Le thème du temps est inséparable [...] d'un modèle de civilisation urbaine à construire. (p. 14) Transversal, il concerne tous les domaines [...] La maîtrise des temps conditionne nos différents droits et tout spécialement le droit à la ville. (p. 11)

International Labour Organisation (ILO) having its first Convention on the topic in 1919.[2]

Image 1: The "Eight-hour Pioneers" of Melbourne, Australia, in c. 1856.



Source: State Library Victoria. Available online at Tracking Down the Family, *Introduction of the Eight hour day.*

Working time was, therefore, central to the first time-organisation attempts, with everything else pivoting around it. And, as it was a male-dominated proposal, it did not take into account the other times required for maintaining the social reproduction of life, namely care —for oneself and others. Such activities were supposed to be carried out by women under the social values of the time, and on top of their other responsibilities.

Time passed by, culture and values were transformed, and different needs demanded a new approach towards schedules and time use. They began to be measured during the 1960s and 1970s, on the occasion of household income surveys, and during the 1980s, in Italy, a new approach towards how time was to be organised began to be introduced as a policy issue.[3] However, it was not until the beginning of the 21st Century that some national provisions paved the way for local and regional governments to begin enacting what we understand as time policies: the Turco Law[4] (Italy) and the Aubry II Law[5] (France).

[2] International Labour Organization (ILO). *C001 - Hours of Work (Industry) Convention, 1919 (No. 1).* Adopted by the General Conference of the International Labour Organisation, Washington, 28 November 1919

[3] Torns et al., *Les polítiques del temps: un debat obert*, 11-13.

[4] Italy. Law no. 53 of March 8, 2000, *Disposizioni per il sostegno della maternità e della paternità, per il diritto alla cura e alla formazione e per il coordinamento dei tempi delle città."* Gazzetta Ufficiale della Repubblica Italiana, March 13, 2000.

[5] France. Law no. 2000-37 of January 19, 2000, *Loi relative à la réduction négociée du temps de travail.* Journal Officiel de la République Française, January 20, 2000

Urban life was directly affected by the organisation of daily schedules and hours. Provisions on how to better coordinate time use, especially concerning municipal services, began to be put forward, and policy programmes were conceived to better adapt urban rhythms with individual schedules one area at a time. However, the 21st Century has seen a surge in time demands that differ from the traditional eight-hour triangle — and we have, once again, a problem with time.

2. Effects of current time-use

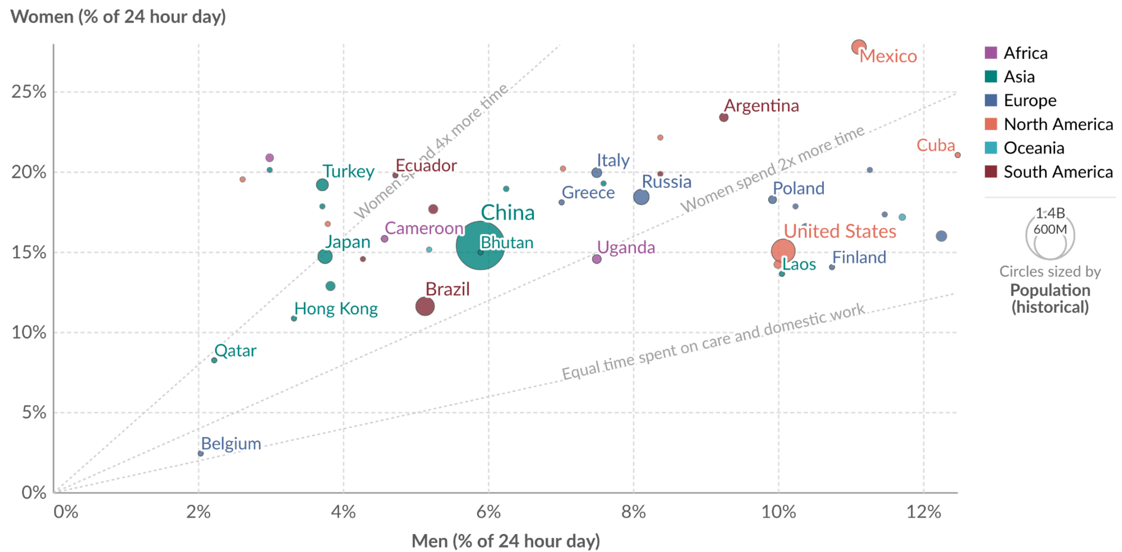
Time must be understood as a core issue, and a single change in how we organise any of our daily activities implies changing schedules for all the others. That is why the original eight-hour triangle is not enough to answer our modern needs. Our lives have changed drastically from those from two hundred years ago, and we need to find a new time balance that goes beyond an ideal, standardized, (male) industrial-worker view of the day. One centred on four different times — to work, to care, to rest, and for leisure—, all of which have a direct effect on human well-being.

2.1. Effects on equality

Although everyone has virtually twenty-four hours a day, how people organise time within a day is what we call discretionary time,[6] which changes according to social and cultural values. That is why we see a different time use between men and women, with the latter spending more time on care-oriented work (see image 2). Such work implies caring for children, but in ageing populations, it also implies caring for the elderly, as well as any other housework. And, even more significantly, when we analyse activities men and women do when caring for others, we see that the latter devote more time to the most intensive, demanding and monotonous activities —such as cooking, cleaning, etc—, while the former carries out more occasional and socially recognised activities —such as playing with children, repairing the house, etc.[7]

[6] Goodin et al. *Discretionary time. A new measure of freedom*, 34.
[7] Institut Català de les Dones (2024). *Les dones en el treball 2023*.

Image 2: Time women and men spent on unpaid care and domestic work, 2022.



Source: UN Statistics Division and UN Women, as cited by "Our World in Data". Available at: https://ourworldindata.org/grapher/time-spent-in-domestic-work-female-vs-male

But the effects of the lack of equal time use go far beyond the already worrying sexual division of care work. With men and women working both at the regular paid work, but women assuming mostly unpaid care work, time poverty is becoming a real issue for accessing well-being.

We understand **time poverty** as the available time a person has after deducting time dedicated to paid work, unpaid care work, studies, and personal care —which includes eating, sleeping, etc.[8] As an example, it can be measured to 170 minutes, affecting 20% of the population and up to 35% of women with care responsibilities.[9] But the problem can be seen globally: in Latin America, time poverty affects 49% of the Argentinian population, 55% of Chileans, 40% of Mexicans, and 27% of Uruguayans.[10] Or, even, it can explain some differences in terms of the rural-urban divide: in Turkey, there are 46.7% of urban time poor, as opposed to 41.7% of rural time poor.[11] And, in all cases, the more time dedicated to any of the activities used to calculate time poverty will increment its impact on equality. Therefore, as women tend to have a greater share of care time, they are experiencing time poverty the most.

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[8] European Parliament, 2025.

[9] Vega Rapún *et al*, *The multidimensionality of poverty: Time poverty in Spain*, 22.

[10] Enghel, *Shedding light on hidden deprivations: time-income poverty and public policies in Latin America. Lessons from the LIMTIP experiences*, 37.

[11] Zacharias *et al.*, *Time Deficits and Poverty: The Levy Institute Measure of Time and Consumption Poverty for Turkey*, 53.

2.2. Effects on climate adaptation and mitigation

The temporal dimension of the urban environment creates a disruption between planetary boundaries and human rhythms. Acceleration tied to urban lifestyles creates a discordance in natural regeneration processes, such as hydrological cycles or nutrient flows. When cities —and intense agricultural exploitations— look for higher consumption of water or land, it affects such cycles.

For instance, concrete-based infrastructures that allow urban lifestyle and dynamics create impermeable surfaces, which truncates water infiltration rates and alters the whole water regeneration process, putting an end to a renewable resource. Such a contradiction destabilises most of the other natural rhythms as well, as it is the case nitrogen's or phosphorus' — key to soil resilience.[12] There is, therefore, a big difference on the short time demanded by current urban rhythms and longer times needed for nature conservation and restoration.

But, beyond the —maybe philosophical— dimension that sustain urban lifestyles, we can see a dependence on energy-intense consumption in most tasks, with mobility representing the most structurally entrenched example. Beyond the time one devotes to a task, there is also a compulsory time implied in going to or from the location where such a task is performed. Such times, in modern urban lifestyles, are frequently associated with the speed needed to cover distances, especially in big metropolises.

In the case of Europe, its commuters spend 9 hours and 35 minutes per week travelling, which translates to 1 hour and 55 minutes per day — and 65% of this travel time is spent in cars.[13] However, no matter the region, there is a constant of approximately 1 hour, or 1 hour and 30 minutes in megacities, as the maximum commute time that individuals are willing to tolerate.[14] They are an integral part of metropolitan everyday life, primarily based on car dependence for journeys from the peripheries to city centres. Despite this infrastructure dominance, however, 58% of Europeans are dissatisfied with the fluidity of traffic during rush hour.[15]

Interestingly, such temporal tolerance threshold extends beyond mobility, creating the need to look for time savers in other areas of life: rushed citizens increasingly opt for disposable goods —it grew 21% from 2002 to 2022 in the

[12] Morán et al., Tiempo para la vida: Una reflexión contextualizada en la ciudad sostenible, 35-37.
[13] European Mobilities Observatory, The expectations of Europeans in terms of mobility.
[14] Lesteven, *Behavioral Responses to Traffic Congestion - Findings from Paris, São Paulo and Mumbai*, 121-138.
[15] European Mobilities Observatory, op. cit.

European Union—[16] to "save time", eroding both temporal and ecological budgets.Thus, how cities manage the impact of mobility schedules, especially during peak hours, is a rising concern — not only due to the high impact on climate change mitigation, but also because of the constant search for urban inhabitants' well-being.

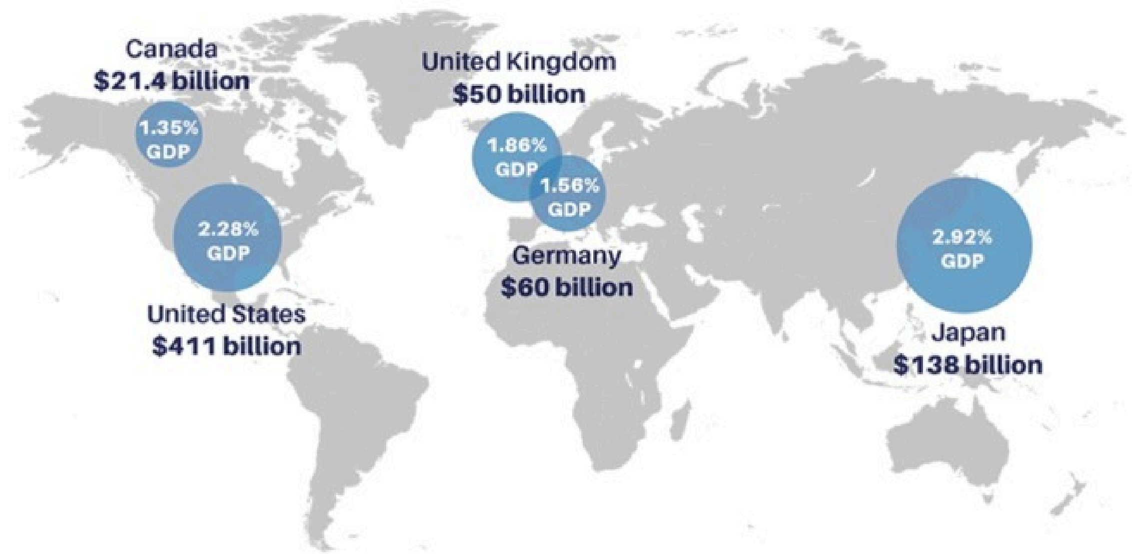
2.3. Effects on public health

We understand **circadian rhythms** as how our bodies regulate their natural functions following external signals, such as natural light. The disruption of these rhythms may cause a wide range of physical and mental health issues, often a consequence of contemporary urban lifestyles: we spend up to 90% of our time indoors, subject to nearly constant exposure to artificial light and screen-blue light.[17] Among the issues disrupting circadian rhythms, we can find cardiovascular diseases, increased cancer risk, obesity, and various behavioural and anxiety disorders.[18]

But the most concerning effect linked to our current social organisation of time is global, structural sleep deprivation. Not only affects our physical and mental health — it also increases the risk of occupational accidents, stress-related illnesses, and cognitive impairments such as difficulty in decision-making, lack of concentration, and reduced creativity.[19] Due to all these effects, sleep deprivation can be linked to an annual economic loss, impacting directly national GDP (see image 3).

[16] European Environment Agency, Product lifespans — monitoring trends in Europe.
[17] European Commission, *Health Effects of Artificial Light. Scientific Committee on New and Emerging Health Challenges*.
[18] Hall *et al. The 2017 Nobel Prize in physiology or medicine.*
[19] Hafner, Marco *et al*. *Why Sleep Matters-The Economic Costs of Insufficient Sleep: A Cross-Country Comparative Analysis*.

Image 3: Economic Costs of Insufficient Sleep Across Five OECD Countries, 2017.



Source: Hafner, Marco *et al. Why Sleep Matters-The Economic Costs of Insufficient Sleep: A Cross-Country Comparative Analysis*. Rand Health Q. 2017 Jan 1;6(4):11. PMID: 28983434; PMCID: PMC5627640.

2.4. Effects on productivity

Indeed, time use plays a crucial role in shaping productivity and economic performance. Economic shifts, such as the rise of the service economy, digitization, and globalization, have diversified and individualized time organisation. These changes have driven the transition to 24-hour economies, particularly in urban areas, where consumption patterns increasingly extend beyond traditional working hours.[20]

This has led to a bifurcation in working hours: some workers face excessively long work weeks, by over 48 hours —disproportionately affecting men—, while others work reduced or part-time hours, less than 35 hours — impacting mostly women. Additionally, flexible work models and 24/7 availability demands are replacing the standard work week. Moreover, the widespread adoption of digitalization and remote work has further blurred the boundaries between personal and professional life.[21] However, it should be noted that working longer hours does not necessarily lead to increased productivity, but quite the opposite. Worldwide, studies have shown that working more than 55 hours per week increases the risk

[20] Time Use Initiative, *Estudio de fundamentación para la Ley de los Usos del Tiempo y Racionalización Horaria*, 16.
[21] Golden, *The Effects of Working Time on Productivity and Firm Performance*, 9-10.

of work-related accidents and even cardiovascular deaths.[22] In Asia, the phenomenon of karoshi,[23] or death from overwork, is a rising concern. Furthermore, research indicates that working longer than 10 hours a day, especially over long periods of time, is not beneficial for workers' health[24] and, therefore, for their productivity. Notably, working in rational schedules, especially in the case reduced working weeks, can increase worker productivity by 20 to 40%.[25]

3. The right to time and time policies

As seen, the current social organisation of time or the way time is used has direct effects in essentially all areas of our lives. Therefore, there is a need to implement measures to change such a reality, and **time policies are the tool for it.** Such comprehensive public provisions seek to coordinate the rhythms of work, care, public and private services, and urban schedules with the holistic needs of human beings, be they individuals, families, or communities. These policies recognize time as a critical resource and fundamental factor in urban design, aiming to strategically harmonize temporal dimensions of city life to create more efficient, equitable, and human-centred urban environments that can adapt to the complex and evolving temporal needs of their residents.

They can be understood as a second generation of welfare policies, as they are to be implemented holistically, taking into consideration the multidimensionality of well-being. As opposed to the first generation of welfare policies, which worked only sectorally and were preoccupied with direct, material reality, time policies offer the possibility to look at adding post-material well-being to the equation.[26]

Time policies take into consideration how time poverty complements the measurement of —frequently, income-based— well-being. On that note, we see that time is required to achieve the minimum consumption and well-being implicit in official poverty lines. By adjusting income-based poverty measures to consider both income and available time for necessary household activities and personal care, we can obtain a more in-depth understanding of poverty.[27]

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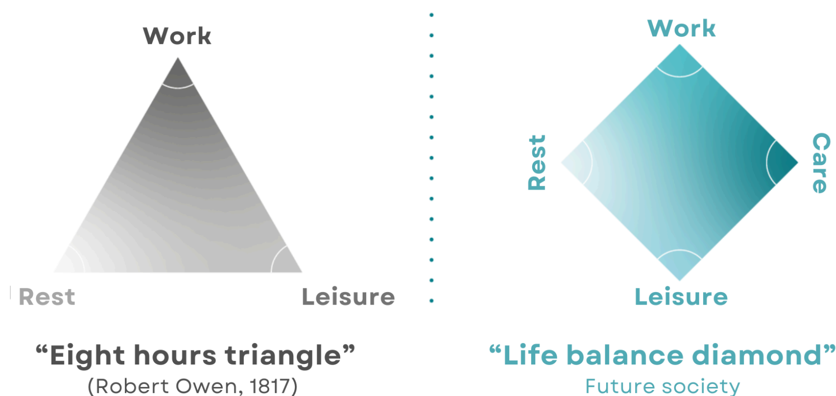
[22] Pega, Frank et al. Global, regional, and national burdens of ischemic heart disease and stroke attributable to exposure to long working hours for 194 countries, 2000–2016: A systematic analysis from the WHO/ILO Joint Estimates of the Work-related Burden of Disease and Injury.
[23] ILO, Case Study: Karoshi: Death from overwork.
[24] Caruso et al. Overtime and Extended Work Shifts: Recent Findings on Illnesses, Injuries, and Health Behaviors, 5.
[25] WEF, Four-day work week trial in Spain leads to healthier workers, less pollution.
[26] Mückenberger, *Local time policies in Europe*.
[27] Enghel, *op. cit.*, 13-22.

Using Chile as an example, it is estimated that a typical household requires a minimum of 47 hours per week (about 6 hours and 40 minutes daily) for activities such as grocery shopping, paying bills, cleaning, cooking, childcare, school runs, and laundry, among others. In a single-adult household, this person would be responsible for all these tasks. When calculating time deficit, if a person works full-time (40 hours per week) and spends 4 hours commuting, they would face a time deficit of 23 hours per week. This means they would need an additional 23 hours weekly to meet the minimum consumption levels implicit in the poverty line. Such a time deficit can reflect various deprivations in domestic production (poor quality meals, dirty clothes, lack of household hygiene) and care time (insufficient time for medical check-ups, sports or arts activities, homework assistance, or play time with children).[28]

Therefore, we can define the **right to time** as the recognition of people's fundamental need for an appropriate balance between time dedicated to work, care, rest, and leisure. This emerging civic right grants individuals the autonomy to decide on such distribution, considering it an essential element for well-being and quality of life. It expands upon the traditional concept of the "8-hour triangle" by introducing the "life-balance diamond" which incorporates a fourth dimension representing time dedicated to unpaid domestic and care work (see image 4). This new framework aims at rethinking established schedules and time allocation among these four elements, acknowledging that the current social organization of time has direct effects on essentially all areas of our lives.

Image 4: The 8-hour triangle and the life-balance diamond.



Source: Own elaboration.

[28] Enghel, ibid., 22.

By recognizing the importance of unpaid care work and advocating for a more balanced approach to time management, the right to time aims to address broader societal issues such as gender inequality, sustainability, and overall community well-being. Local and regional governments are at the forefront of searching this new level of welfare policies. This is because they are uniquely positioned to understand and respond to the specific time-use needs of their communities, bridging the gap between national frameworks and the lived realities of individuals.

Or, as expressed in these same pages,[29] when local governments lead the process of integrating a new generation of essential rights, they can rethink the social contract that they have with local inhabitants. That is what time policies require, and the right to time is about — as part of the development of the **right to the city**.

Many local and regional governments are already joining efforts to explore this dimension of welfare policies: the Local and Regional Governments Time Network has more than thirty committed governments from all over the world who are exchanging and creating knowledge on the field of time-use policies. They use a case-study approach and look at how to change realities by diagnosing common problems. On their common time agenda for now have already discussed how to implement policies that improve inhabitants' well-being in care, urban resilience, civic participation, and nighttime.

However, subnational governments cannot implement such policies alone. Although they do not necessarily need to wait for national governments to consider time use as an axis in their policy, it may be fruitful to have a framework for multi-level collaboration. Time is something experienced by everyone, and time distress affects almost all sectors of society, so it always has the potential to be a subject that brings together opposing poles in the institutional battle.

It is precisely from this collaborative point of view that time policies can be further impulsed. Local and regional governments are the better level to implement such policies because they directly affect daily life more easily, but national governments can promote them beyond local willingness. They are able to do so when legal and financial frameworks are set — Parliaments in Italy and France were the examples that initiated time policies during the early 2000s, and the

[29] UCLG, *Pathways to urban and territorial equality. Addressing inequalities through local transformation strategies*, 440.

current Time Use Law that is currently being debated in Spain can do the same in the country.

National governments can even put the issue on the agenda, even if the level of competence varies drastically from country to country. Kazakhstan currently is publicly debating how to better approach its chronobiologically correct time zone — which can drive the public debate to consider whether social organisation of time is the better one to grant an equal time balance to all its citizens. And it is then that local governments can drive the debate, paving the way on how to better provide services answering to their inhabitant's needs.

But there are other leverages beyond governmental will — and that is time-use data and research. Time policies are the perfect case for **evidence-based public policies**, as there is a tool existing in virtually all countries in the world that allows their production and evaluation: **time-use surveys**. Such questionnaires are normally commissioned by national statistics institutes, but can also be locally or internationally done — as shown by Buenos Aires or the UN Women. They measure how people spend their time, individually and during the whole day. Local governments can use such data to identify segmented needs by gender, age, care dependencies, and other social dimensions. Then, time policies can be designed to influence a particular time use, and afterwards can be evaluated in the new wave of the time-use survey.

4. The solution to the time-use puzzle

At the beginning of this piece, we mentioned how the social organisation of time was dependent on a social contract — with each of the daily activities playing its role in organising a specific part of the day. Therefore, time use can be understood as a system in itself, which creates the need to implement time as a core policy. That means changing **time use is like solving a puzzle**: every element can affect the other in unforeseen ways.

For example, reducing working time may affect the schedules of municipal services, such as schools. At the same time, that may impact mobility and their frequency, and of course how inhabitants use their time off — within a city and outside it. Not to speak about how the sexual division of care work may influence who benefits from a reduced working week the most — with women tending to use free time for care work as opposed to men using their free time as labour.

When implementing time policies, therefore, it should be considered what needs they aim to answer, but most importantly they should be followed up with other, complementary policies that aim to create the time balance a local government is aiming for.

We will look at specific case studies in a follow-up article, but let us mention some transformative time policies that a city council could implement, briefly describing their aims and relating them with how they align with building caring cities. They can be provided with a service-based focus towards city inhabitants, or they can be included as internal practices within the municipal structure.

4.1. Time policies towards inhabitants

- **Rush hour alleviation**: Implementing graduated scheduling and incentive systems to distribute peak-hour demand enhances quality of life, reduces stress, and supports environmental sustainability. This policy contributes to caring societies by easing urban mobility pressures and lowering emissions during peak hours. Good practices: Rennes ("Hyper-Point"), Dubai (" Traffic Flow Plan").
- **Care time visualisation**: This policy directly supports social equity by valuing unpaid care work and integrating it into economic policies. It aligns with caring societies by ensuring caregivers' needs are met through accessible services. Good practices: Bogotá ("Care Blocks"), Montevideo ("Communal Laundry").
- **Proximity urbanism:** Developing urban areas with essential services within short distances promotes community cohesion, reduces stress from long commutes, and enhances local economies. It relates with the creation of caring societies by improving quality of life and fostering sustainable communities. Good practices: Paris ("15-Minute City"), Ciudad de México ("Utopías").
- **Urban lighting adaptation**: Optimizing urban lighting improves safety and resource efficiency, fostering inclusivity and security in public spaces. Some approaches may include as well respect to natural life forms living in urban green areas, as well as their rhythms. This initiative aligns with caring societies by addressing safety concerns for vulnerable groups while balancing ecological goals with human needs. Good practice: Strasbourg ("Dark Sections").

- **Circadian wellness policy**: By promoting policies that respect circadian rhythms in work, education, and healthcare settings, this approach improves public health outcomes and reduces stress-related illnesses. It contributes to caring societies by aligning environments with biological rhythms, potentially mitigating risks of metabolic disorders and enhancing overall well-being. Good practice: Bad Kissingen ("ChronoCity")
- **Chronobiological education:** Adjusting school schedules to match students' biological rhythms promotes equity in education by accommodating diverse chronotypes. This policy supports caring societies by reducing academic disparities linked to misaligned schedules, with studies showing that later school start times improve mood, performance, and retention rates. Good practices: New Orleans, Baltimore ("ExpandED Schools").

4.2. Time policies as the basis for an integrated municipal action

- **Time-use surveys**: Conducting systematic and regular time-use surveys enables evidence-based decisions that reflect diverse societal needs. This practice contributes to caring societies by ensuring equitable distribution of time-related resources and informing policies that address varied temporal needs across territorial sample demographics. Good practice: Buenos Aires ("Time-use Survey").
- **Time Office:** Introducing a department in charge of coordinating time policies across all governance sectors ensures coherent and effective temporal governance. It is frequently led by a Time Chief Officer, a high-level official who oversees and coordinates such policies. This approach supports caring societies by fostering inclusivity and efficiency in addressing varied temporal needs across different social groups with a cross-cutting perspective. Good practices: Bolzano ("Office for Time and Statistics"), Lille ("Time Office").
- **Night Mayor:** This policy ensures access to essential services during non-standard hours, supporting workers in night shifts and promoting safety. It contributes to caring societies by addressing the needs of those active at night and ensuring night users' needs —frequently, non-normative or youth groups— are met. Good practices: London ("Night Czar"), Amsterdam ("Night Mayor").

- **Time-use plan:** Comprehensive time-use legislation and multi-stakeholder agreements create a balanced, efficient, and equitable temporal framework for society. This approach promotes caring societies by harmonizing work-life balance across demographics and ensuring fair access to time resources. Good practice: Barcelona ("Time Agreement").

5. Conclusion

The social organisation of time profoundly impacts our daily lives, affecting equality, climate adaptation, public health, and productivity. As our societies evolve beyond the traditional "eight-hour triangle," we face new challenges in balancing work, care, rest, and leisure. More importantly, the phenomenon of time poverty arises as the perfect indicator for those people not managing to tackle all spheres of daily life: they lack a minimum of 2 hours and 30 minutes for themselves after deducting the time used for work, care, and to satisfy bodily functions.

Time policies offer a promising solution to these challenges, representing a second generation of welfare policies that address the multidimensional nature of well-being. Therefore, the need for a **new time balance** arises, and the concept of the "life balance diamond" enters into force — which proposes how to balance work, care, rest, and leisure. The right to time, allocating time for everyone, is therefore a new civic right local and regional governments can further develop.

The Local and Regional Governments Time Network exemplifies this effort, fostering knowledge exchange and policy development across the globe. However, effective implementation of time policies requires collaboration across all levels of government. While local authorities are best positioned to enact changes that directly impact daily life, national governments play a crucial role in establishing legal and financial frameworks. By leveraging time-use surveys and embracing evidence-based policymaking, governments can design targeted interventions that address the specific needs of their communities.

Ultimately, solving the time-use imbalance demands putting time policies as core policies in municipal governance, recognizing that changes in one area of time use can have far-reaching effects across society. This has the potential to operate in different areas, benefiting directly all inhabitants' well-being.

6. Bibliography

Caruso, Claire C. et al. Overtime and Extended Work Shifts: Recent Findings on Illnesses, Injuries, and Health Behaviors. U. S. Department of Health and Human Services. Centers for Disease Control and Prevention. National Institute for Occupational Safety and Health, 2004.

Enghel, Mariana (coord.), *Shedding light on hidden deprivations: time-income poverty and public policies in Latin America. Lessons from the LIMTIP experiences*. United Nations Development Programme, 2017.

European Commission. *Health Effects of Artificial Light. Scientific Committee on New and Emerging Health Challenges*. Health Scientific Committee, 2012: https://ec.europa.eu/health/scientific_committees/emerging/docs/scenihr_o_035.pdf

European Environment Agency. Product lifespans — monitoring trends in Europe, Web report no. 16/2024: https://www.eea.europa.eu/en/analysis/publications/product-lifespans-monitoring-trends?activeTab=6397c084-2e5f-4545-a873-f99323d40846

European Mobilities Observatory. *The expectations of Europeans in terms of mobility*. Ipsos and Boston Consulting Group, 2017.

European Parliament. *Report on Women's Poverty in Europe (2021/2170(INI))*. Rapporteur: Lina Gálvez Muñoz. Committee on Women's Rights and Gender Equality. June 24, 2022. Accessed January 27, 2025. https://www.europarl.europa.eu/doceo/document/A-9-2022-0194_EN.html

Pega, Frank et al. Global, regional, and national burdens of ischemic heart disease and stroke attributable to exposure to long working hours for 194 countries, 2000–2016: A systematic analysis from the WHO/ILO Joint Estimates of the Work-related Burden of Disease and Injury, Environment International, vol. 154, 2021: https://doi.org/10.1016/j.envint.2021.106595

Golden, Lonnie. *The Effects of Working Time on Productivity and Firm Performance, Research Synthesis Paper*. International Labor Organization (ILO) Conditions of Work and Employment Series No. 33, Conditions of Work and Employment Branch, 2012, Available at SSRN: https://ssrn.com/abstract=2149325

Goodin, Robert E; Rice, James Mahmud; Parpo, Antti & Eriksson, Lina. *Discretionary Time. A New Measure of Freedom*. Cambridge University Press, 2008.

Hafner, Marco et al. *Why Sleep Matters-The Economic Costs of Insufficient Sleep: A Cross-Country Comparative Analysis*. Rand Health Q. 2017 Jan 1;6(4):11. PMID: 28983434; PMCID: PMC5627640.

Hall, Jeffrey C.; Rosbash, Michael; & Young, Michael W. *The 2017 nobel prize in physiology or medicine*. Noble Prize Foundation, 2020: https://www.nobelprize.org/prizes/medicine/2017/press-release

ILO. Case Study: Karoshi: Death from overwork. International Labour Organization, 2013: https://www.ilo.org/publications/case-study-karoshi-death-overwork

Institut Català de les Dones. *Les dones en el treball 2023*. Catalan Ministry for Equality and Feminisms [Departament d'Igualtat i Feminismes], 2024

Lesteven, Gaele. *Behavioral Responses to Traffic Congestion - Findings from Paris, São Paulo and Mumbai*. RA 2014, 2014, Paris, France. p.121–138, 10.1002/9781119307822.ch9 . hal-01416760

Morán, Charo; Pariente, Helena; Herro, Yayo. Tiempo para la vida: Una reflexión contextualizada en la ciudad sostenible. Barcelona City Council [Ajuntament de Barcelona], 2022.

Mückenberger, Ulrich. Local time policies in Europe. Time & Society, 20(2), 241-273, 2011: https://doi.org/10.1177/0961463X11405579

Time Use Initiative, *Estudio de fundamentación para la Ley de los Usos del Tiempo y Racionalización Horaria*. Marta Juqué (coord.), 2023.

Torns, Teresa, Borràs, Vicent, Moreno, Sara & Recio, Carolina. *Les polítiques del temps: un debat obert.* Barcelona City Council: Department for New Time Use at the City [Regidoria per Nous Usos del Temps a la Ciutat], 2006.

UCLG, GOLD VI. *Pathways to urban and territorial equality. Addressing inequalities through local transformation strategies*. United Cities and Local Governments, October 2022: https://gold.uclg.org/sites/default/files/field-document/211222_uclg-gold-vi_en_report_for_web.pdf

Vega Rapún, Margarita; Domínguez Serrano, Mónica & Gálvez Muñoz, Lina. *The multidimensionality of poverty: Time poverty in Spain*. Journal of Time Use Research, 2021, 15(1), 18-33.

Zacharias, Ajit, Thomas Masterson, & Emel Memiş. *Time Deficits and Poverty: The Levy Institute Measure of Time and Consumption Poverty for Turkey*. United Nations Development Programme, January 2014.

WEF. Four-day work week trial in Spain leads to healthier workers, less pollution. World Economic Forum, Forum Agenda. Douglas Broom, 2023: https://www.weforum.org/stories/2023/10/surprising-benefits-four-day-week/