Chrono@Work is proud to participate in the EU Horizon2020 Research Project "ENLIGHTENme": Exploring the Impact of Urban Lighting and Indoor Lighting on Health and Wellbeing, which started with a kick-off meeting on March 4th- 5th, 2021.

Interdisciplinary consortium of 22 partners will perform in-depth studies in three European cities to develop innovative, evidence-based policies to improve citizens' quality of life addressing indoor and outdoor lighting.

Groningen The Netherlands, 4th March 2021 – **While EU cities have worked on improving urban lighting services, this has mostly focussed on efficiency, reducing costs and lowering emissions. Yet, it has failed to consider the effect urban lighting may have on citizens' health and wellbeing. This will be the focus of the new research project ENLIGHTENme, a collaboration of 22 international partners from ten countries. Funded through the European Union's Horizon 2020 Research and Innovation Programme, the project will receive EUR 5 million over the next four years. ENLIGHTENme will be coordinated by the Alma Mater Studiorum - Università Di Bologna in Italy. Together with five other projects, ENLIGHTENme is part of the EU's new "Urban Health" cluster.**

With a growing world population and rising urbanisation comes an underestimated by-product: the increase of human exposure to electric light at night. This includes public outdoor illumination, the artificial sky glow created by highly urbanised areas, but also light exposure at the individual level, such as domestic lighting and light-emitting screens. Inappropriate and disruptive light exposure at night or too little light exposure during the day profoundly affects people's circadian rhythm, health and wellbeing. Especially older adults over 65 years of age are prone to be impacted, with consequences for epigenetics and metabolism, predisposition to diseases including cancer, neurodegeneration, and psychiatric disease. Knowledge about the health effects and guidance for adequate urban lighting strategies have the potential to substantially counteract these developments.

This is where ENLIGHTENme comes into play: Bringing together experts from different scientific fields and sectors such as urban development and health research, the ENLIGHTENme team aims to collect evidence about the impact outdoor and indoor lighting has on human health – especially in elderly people who are known to be particularly prone to suffer circadian misalignment. Moreover, ENLIGHTENme sets out to develop and test innovative solutions and policies that will offset health inequalities in European cities.

Tracing the correlations between health, wellbeing, lighting and socio-economic factors

"Central to the success of ENLIGHTENme is a transdisciplinary approach, combining strong expertise from various fields and thematic areas: clinical and biomedical sciences, ethics and Responsible Research & Innovation (RRI), data accessibility and interoperability, as well as social sciences and economics. Together we will shed light on a multitude of relevant aspects and correlations such as mental health, lighting design, urban design and planning, wellbeing and quality of life, and technology

development and application. The implementation of innovative lighting policies, whose cost-effectiveness and impact on health will be assessed by a population-based trial and qualitative fieldwork, will make it possible to evaluate the consequences of proposed solutions and decisions made in non-health sectors for public health and wellbeing", explains Prof. Simona Tondelli, Professor at the Department of Architecture at the Alma Mater Studiorum – Università Di Bologna and coordinator of the ENLIGHTENme consortium.

Through an open, online "Urban Lighting and Health Atlas", ENLIGHTENme will collect and systematise existing data and good practices on urban lighting and will perform an accurate study on the correlations between health, wellbeing, lighting and socio-economic factors. To this end, the project will conduct three in-depth studies in selected districts of Bologna (Italy), Amsterdam (The Netherlands) and Tartu (Estonia). By establishing an "Urban Lighting Lab" in each target district of the three cities, the ENLIGHTENme team aims to identify the widest range of relevant stakeholders including citizens and city officials to engage and educate them in lighting and health issues, and involve them in co-designing and assessing lighting innovations.

Based on their research findings, the ENLIGHTENme team ultimately aims to provide tools to support the decision-making process enabling the planning of healthy urban lighting policies, both outdoor and indoor, thus allowing to identify priorities in interventions according to inequalities and light exposure levels, to compare the impacts of different lighting scenarios and to define criteria and technical requirements to be adopted to ensure the integration of health and wellbeing in urban lighting policy plans.

Prof. Tondelli adds: "ENLIGHTENme will not only improve the health of citizens in urban areas on an individual level, it will also provide the evidence needed for policy making on improved urban health on a political level. Equally important is also the reduction of health inequalities through the inclusion of citizens normally not involved in the drafting of urban lighting plans."

The consortium comprises partner institutions from Denmark, Estonia, France, Germany, Italy, Spain, The Netherlands, the United Kingdom and the US. The project will officially kick off its activities with a first virtual meeting from 4 to 5 March 2021.

Chrono@Work will support the program by advising the team that will work on an intervention of changing indoor light in the homes of elderly participants and run the melatonin analysis of samples collected in the three participating cities in Europe.

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Project Key Facts

Full Name: ENLIGHTENme – Innovative policies for improving citizens' health and wellbeing addressing indoor and outdoor lighting
Start Date: 1 March 2021
Duration: 48 months
Budget: 5 Mio €
Coordinator: Alma Mater Studiorum - Università Di Bologna (UNIBO), Italy
Website: www.enlightenme-project.eu

Project Partners

Denmark
- Gate 21

Estonia
- Tartu City
- Tartu Ulikool

France
- Association Luci Lighting Urban Community International

Germany
- Eurice - European Research and Project Office Gmbh
- ICLEI European Secretariat Gmbh (Iclei Europasekretariat Gmbh)

Italy
- Alma Mater Studiorum - Università Di Bologna
- Azienda Unita' Sanitaria Locale Di Bologna
- Comune Di Bologna
- Fondazione per L'innovazione Urbana
- Health City Institute
- Neri Spa
- Oengineering Srl

Spain
- Fundación Tecnalia Research & Innovation

Sweden
- Uppsala Universitet

The Netherlands
- Chrono@Work Bv
- Gemeente Amsterdam
- Stichting Vu

United Kingdom
- London School of Economics and Political Science
- Lumie
- University of Surrey

USA
- Icahn School of Medicine at Mount Sinai

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