



## **“ENLIGHTENme”**

### **Innovative policies for improving citizen’s health and wellbeing addressing artificial lighting**

#### **H2020 Project Proposal in call SC1-BHC-29-2020**

A major, albeit underestimated, byproduct of urbanization is the exponential increase of human exposure to artificial light. Outdoor illumination, domestic lighting, light-emitting screens, various forms of light pollution, etc. entrain circadian clock. Most cities are focused on improving lighting services’ efficiency, reducing costs and emissions, and improving the quality of their urban nightscapes, but very few have started to consider lighting impacts on health and wellbeing. There is however scientific evidences on the pathogenic role of circadian rhythms disruption in predisposing to NCDs, affecting sleep, metabolism, immune function and many aspects of behavior and mood.

Through an open-online Urban Lighting and Health Atlas, ENLIGHTENme will collect and systematize existing data and good practices on urban lighting and will perform an accurate study on the correlations among health, wellbeing, lighting and socio-economic factors in 3 pilot cities (Amsterdam, Bologna and Tartu). In each a target district will be selected due to its exposure to artificial light and to reflect social inequalities. Through the establishment of Lighting Urban Labs within the district, citizens and stakeholders will co-create innovative Lighting Urban Plan measures and define the implementation of a smart outdoor lighting system and indoor lighting changes in a pilot area within the district. There, a population-based study on elderly – addressed as a vulnerable group particularly prone to suffer circadian misalignment – will allow to assess lighting-dependent risks on mental and health conditions and surveys involving the overall district population and users will assess the impacts of urban lighting on quality of life and wellbeing.

The results will allow to develop dedicated guidelines and recommendations for cities, along with a tool for better decision making on the impact of lighting on health and wellbeing, proposing innovative lighting policies, measures, technologies and interventions aiming at improving citizens’ health and wellbeing in cities.

Confirmed list of participants to date (subject to change)

<b>Participant N°</b>	<b>Participant Organization Name</b>	<b>Country</b>
1 (Coordinator)	Alma Mater Studiorum – Università di Bologna	Italy
2	Azienda Unità Sanitaria Locale di Bologna	Italy
3	Fondazione per l’innovazione Urbana	Italy
4	City of Tartu	Estonia
5	Tartu Ulikool	Estonia
6	City of Amsterdam	The Netherlands



7	Vrije Universiteit Amsterdam	The Netherlands
8	Gate 21	Denmark
9	CieloBuio - Coordinamento per la Protezione del Cielo Notturno	Italy
10	London School of Hygiene and Tropical Medicine Royal Charter	United Kingdom
11	London School of Economics and Political Science	United Kingdom
12	Uppsala Universitet	Sweden
13	TECNALIA Fundacion Tecnalia Research & Innovation	Spain
14	EURICE European Research and Project Office GMBH	Germany
15	ICLEI Europasekretariat GMBH	Germany
16	Health City Institute	Italy
17	Association LUCI - Lighting Urban Community International	France
18	Rensselaer Polytechnic Institute (RPI)	USA
19	University of Surrey	United Kingdom