

## CIE-UK Research Strategy (2020)

The aims of the CIE-UK research strategy are:

1. To show how questions of societal relevance are being addressed within lighting research. These are linked, where relevant, to the United Nations Sustainable Development Goals

(<https://sdgs.un.org/goals>).

SDG1: No poverty	SDG10: Reduced inequalities
SDG2: Zero hunger	SDG11: Sustainable cities and communities
SDG3: Good health and well-being	SDG12: Responsible consumption and production
SDG4: Quality education	SDG13: Climate action
SDG5: Gender equality	SDG14: Life below water
SDG6: Clean water and sanitation	SDG15: Life on land
SDG7: Affordable and clean energy	SDG16: Peace, justice and strong institutions
SDG8: Decent work and economic growth	SDG17: Partnerships for the goals
SDG9: Industry, innovation and infrastructure	

2. To prioritise that work by supporting the research of CIE-UK members. This might include support for applications for research funding or commercial R&D work, to be able to refer to the CIE-UK strategy to indicate that a proposed project/product is considered by CIE-UK to be of public benefit.

No.*	Societal challenge (SDG)	Examples of potential research
1	Reducing climate change (SDG11, SDG13)	<ul style="list-style-type: none"> <li>• Research about energy use, lamp efficacy, installed efficiency targets, the materials used in lamps and luminaires, and developments for re-use and recycling.</li> </ul>
2	Protecting the natural environment (SDG14, SDG15)	<ul style="list-style-type: none"> <li>• Research of externalities of lighting after dark such as disruption to wildlife at nights (e.g. bats and turtles)</li> </ul>
3	Promoting public health (SDG3)	<ul style="list-style-type: none"> <li>• Use and misuse of UV light for virus/bacterial control.</li> <li>• Daylight exposure for health</li> <li>• Supporting circadian regulation</li> </ul>
4	Improving the safety of road transport and the transition from motorised to active travel (SDG3, SDG9, SDG11)	<ul style="list-style-type: none"> <li>• Encourage active travel to reduce congestion, air pollution and fuel use. E.g. road lighting that encourages walking/cycling after dark; lighting that reduces risk of road traffic collisions after dark.</li> <li>• The benefits of road lighting in the age of autonomous vehicles.</li> </ul>
5	Supporting inclusivity (SDG5, SDG10)	<ul style="list-style-type: none"> <li>• Promote research and guidance that does not discriminate between people based on age, gender, mobility, visual impairment etc. Research would ensure that lighting recommendations did not disadvantage the elderly, e.g. by testing the effect of age and including elderly test participants in trials.</li> </ul>
6	Maintaining a sustainable food supply (SDG2)	<ul style="list-style-type: none"> <li>• Using lighting, including artificial lighting, for horticulture and agriculture</li> </ul>
7	Promoting reproducible science	<ul style="list-style-type: none"> <li>• Promote research of methods and measurement to promote research (and hence guidance) that is credible.</li> </ul>

(\*This is not intended to be a priority order)

(Updated 10/12/2020)