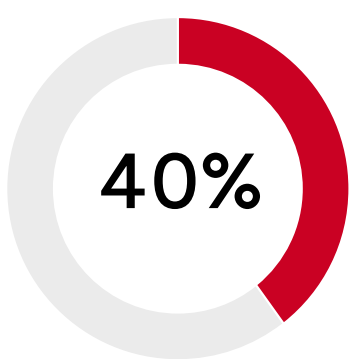


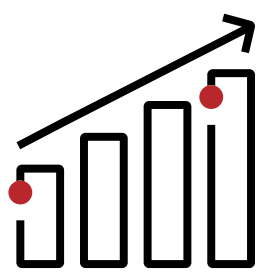
Fire safety: Protecting the built environment for a decarbonized future



Explore buildings' critical role in global decarbonization efforts.



of global energy-related emissions and half of all extracted materials can be attributed to the built environment.¹



Demand for green buildings is expanding, driven by regulatory frameworks, consumer demand and environmental considerations.



The decarbonized built environment will be a powerful agent of change – but also home to new fire safety, interoperability and data protection challenges.

Risks:

- Compliance with evolving regulations
- Shift toward sustainable materials
- Integration with new technologies
- Consumer behavior changes
- Balancing sustainability with safety

Opportunities:

- Reductions in greenhouse gas emissions
- Energy-efficiency increases
- Innovations in sustainable materials
- Integration of smart technologies
- Market demand for green certifications

Up to
50%
of building emissions could be reduced by 2030 if sustainable practices are aggressively implemented.²

Energy-efficient technologies and practices in buildings can lead to energy savings of up to

30%-50%³

Sustainable buildings can reduce vulnerability to climate change impacts and lower recovery costs by up to

40%

by incorporating resilient design principles.

As we move toward this imagined future, fire safety remains at the core of maintaining built environment safety.

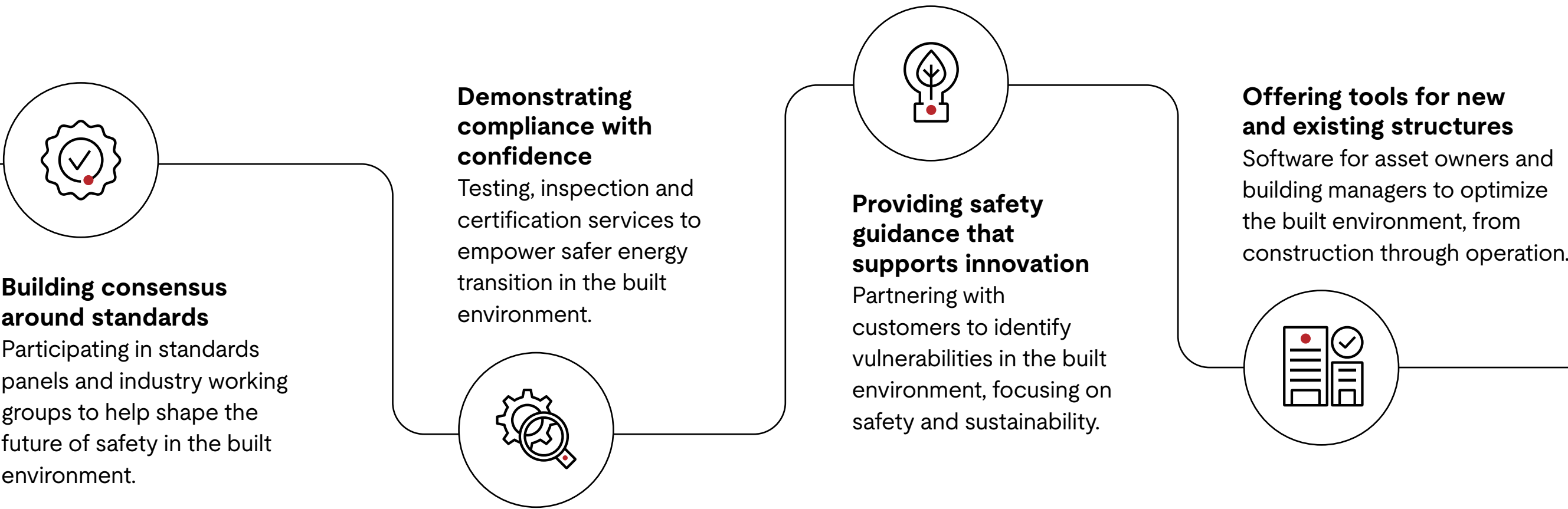
A holistic fire safety strategy is key for a sustainable built environment. By integrating fire safety considerations into sustainable design practices, we can create safer, more resilient and healthier spaces for current and future generations.

Key building blocks of a holistic fire protection strategy:



Modernizing the built environment requires centering safety, whether a facility adds technology such as microgrids, electric vehicle (EV) charging infrastructure or integrated PV systems. Selecting and using building materials and fire protection systems with sustainable attributes can also help the built environment achieve these goals. In addition, preventing building fires and enhancing fire protection are important to companies' overall sustainability efforts. Our experts help asset owners and building managers understand and identify safety risks through testing, inspection and certification services for electrification technology.

UL Solutions supports built environment decarbonization efforts by:



¹ WorldGBC outlines key positions on sustainable building policies for successful outcomes for COP29. World Green Building Council, October 31, 2024, <https://worldgbc.org>.
² Net zero roadmap: A global pathway to keep the 1.5 °C goal in reach, International Energy Agency, 2024, <https://www.iea.org>.
³ Energy efficiency trends in residential and commercial buildings, U.S. Department of Energy, 2023, <https://www.energy.gov>.