



## ADEPT Buckinghamshire Live Labs Programme Composite Lighting Columns

### Key statistics

The trial involves the replacement of 170 metal lighting columns with composite material equivalents.



### Overview of trial

#### *Timeline and progress*

Installation of lighting columns commenced in January 2022 and all 170 columns were installed by May 2022.

#### *Successes*

The design of the composite lighting column is modular. This means that:

- delivery to site can be done with large vans reducing the need for heavy goods vehicles
- the installation work can be done from a cherry picker meaning there is no need for a crane (Hiab).

By reducing the need for heavy goods vehicles, there will be an added benefit by reducing the CO2 emitted by these vehicles.



### *Lessons*

We identified a number of lessons to be taken forward for future implementation, including:

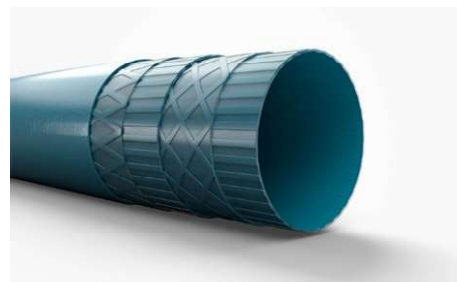
- Ensure the design of composite lighting columns, including the installation method, focuses on achieving the overall objectives of reducing the cost of installation, maintenance and the cost of carbon.
- The design and supply of the lighting columns was undertaken by a non-traditional lighting column supplier. The lighting column supplied has a number of design issues that resulted in longer installation times, and additional street furniture being required. In future it is recommended that either a supplier with a proven track record of lighting column is contracted or a new supplier is partnered with a designer with experience in the lighting field.
- Products made from recycled material may not be suitable for recycling at the end of their life, for example the composite column cannot be recycled to make future products but is instead burnt as fuel at the end of its lifecycle.

## Business case

### *Benefits*

The Composite Lighting trial has the potential to help Buckinghamshire Council achieve the following objectives:

- **Innovation** – Producing a solution that means lighting columns are distributed in modular form that can be used to support environmental monitoring and communications technology.
- **Reduction in CO2 associated with transportation** – by reducing the need for heavy goods vehicles in transporting good to site.
- **Improving the health and safety of contractors** - by making equipment easier to manually handle.



### *Costs*

Trial costs:

- **Estimated £760k.**
- **Supply and installation of 170 sites is approximately £544k**



## Next Steps

*All recommendations and next steps are subject to business case being proven and approval from the Project Board*

- Engage with suppliers to inform and monitor product developments.