# Strategy in Action

## Case Study: University of Warwick

Built over three phases between the mid 1990s and 2002, the International Manufacturing Centre is part of the Warwick Manufacturing Group (WMG), an academic department of the University of Warwick and one of the world's leading research and education groups. The centre's impressive Engineering Hall showcases some of WMG's cutting edge research activities.

**Energy saving**

**69%**

**Running costs reduced per annum**

**£2,400**

**Light level increased**

**300 to 600 lux**

The hall is used by a team of expert technicians and engineers who work with students and business partners on projects to develop new products or improve processes. It has dedicated areas for a range of industrial processes, including laser welding and joining, metal processing, injection moulding and other machining.

### The Challenge

The university's Estates Department, in collaboration with WMG, undertook a review of the options for upgrading the lighting, with an important consideration being measurable energy and carbon savings in accordance with the Estates Office Engineering Design Standards and the 'low energy, low maintenance' strategy.

As an established supplier, Thorlux Lighting was asked to propose a new installation that would combine the necessary energy cost savings with a vastly improved quality of lighting in the building.

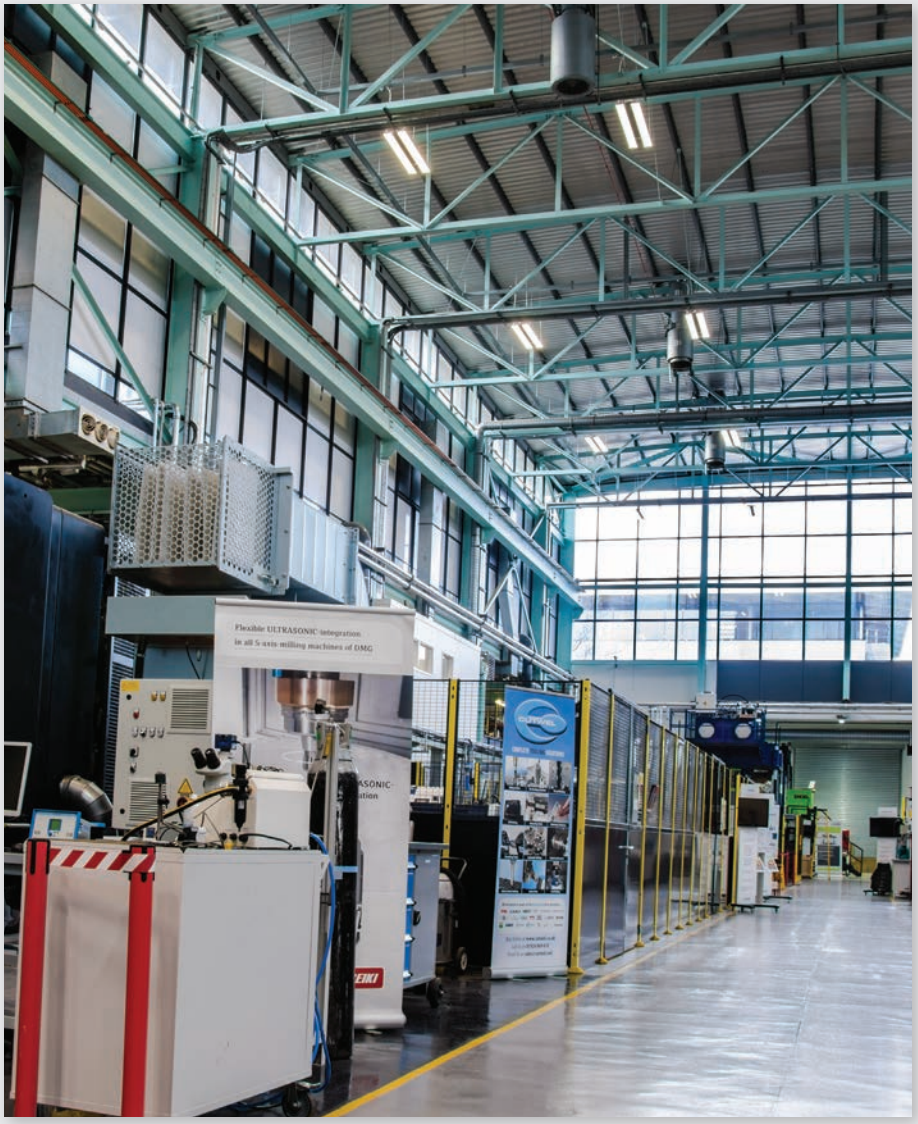
A lighting upgrade was required for the central section of the International Manufacturing Centre's Engineering Hall, a triple-height structure extending to 15m high over an area of approximately 1260m$^2$. The existing metal halide luminaires presented an opportunity to improve the original installation.

### The Solution

The Thorlux recommendation was based on installing the Thorlux SmartScan monitoring and management system, which incorporates Smart intelligent lighting control.

Thorlux SmartScan luminaires can deliver energy savings in excess of 70% compared with conventional technology. Integral sensors monitor ambient light and presence, control output to the correct level, dim and switch when there is sufficient daylight, and illuminate only when the area is occupied. The Engineering Hall has high-level glazed panels around all four walls, so the system is able to take advantage of considerable levels of natural light.

The luminaires, selected by the university in consultation with Thorlux, are from the company's Solow XLED range. Designed for use in high-level applications, these luminaires provide a high output, with each LED having an individual lens to ensure the most efficient distribution of light from the LED chip. This provides excellent optical performance, making significant improvements to illumination levels and uniformity of light.



**Luminaires used on this project:**

Solow XLED

Slim profile superior performance LED luminaires

**Systems and Services used on this project:**

SmartScan

Commissioning

"SmartScan has achieved all of our objectives and more. We have received excellent service from Thorlux Lighting, and the ongoing customer relationship is very supportive. They have met the expectations of all of the stakeholders – from the users of the hall to the environmental team, who are looking for payback over a five-year period. From the point of view of the engineers at the university's Estates Department, they have helped us to improve the lighting quality in one of our key buildings with a system that was easy to install and will be easy to maintain."

**Annette Ash**
Electrical Design Engineer at the University's Estates Department