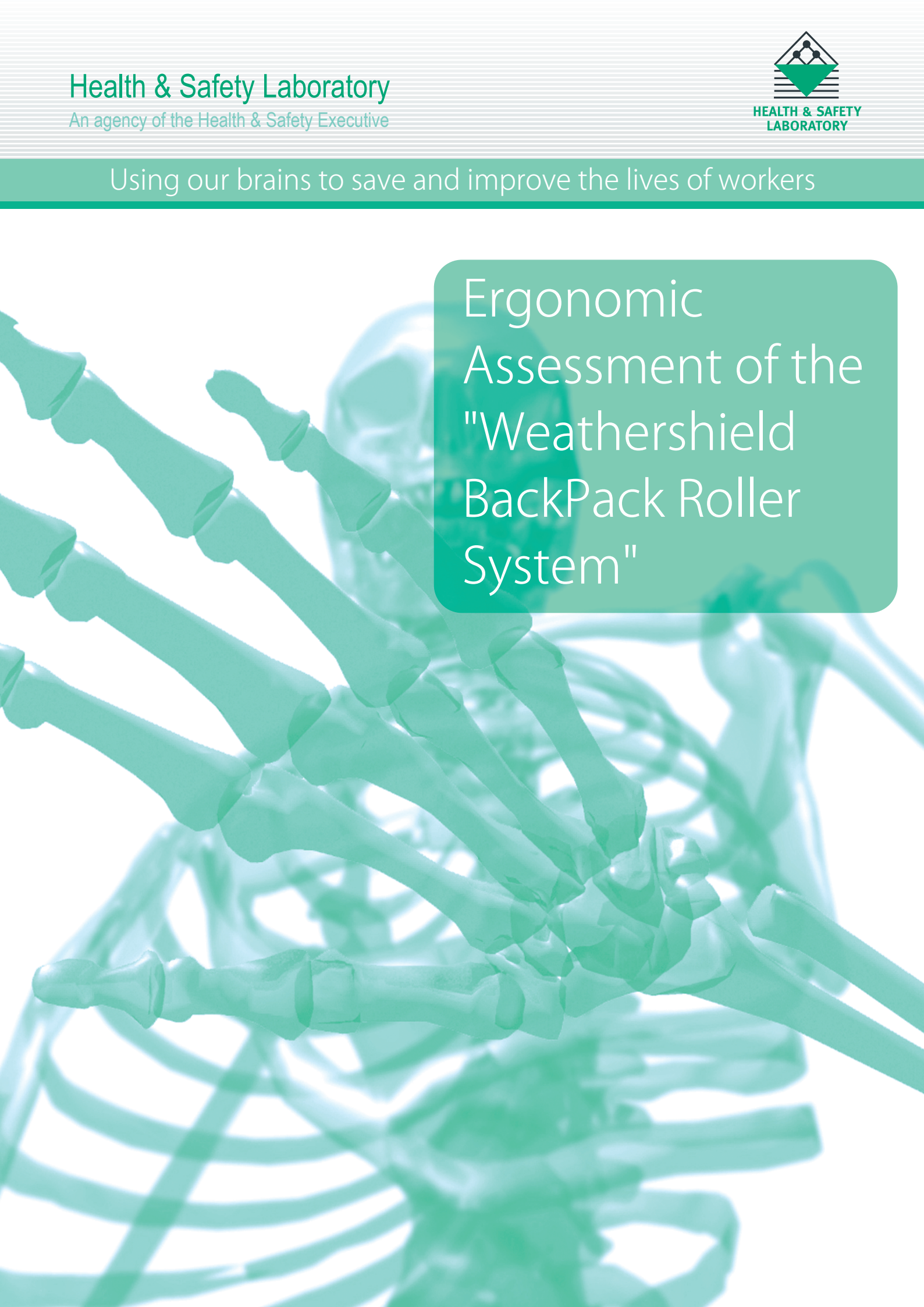




Using our brains to save and improve the lives of workers

A semi-transparent, light green human skeleton is visible in the background, showing the ribcage, spine, and arms. The skeleton is rendered in a simple, clean style.

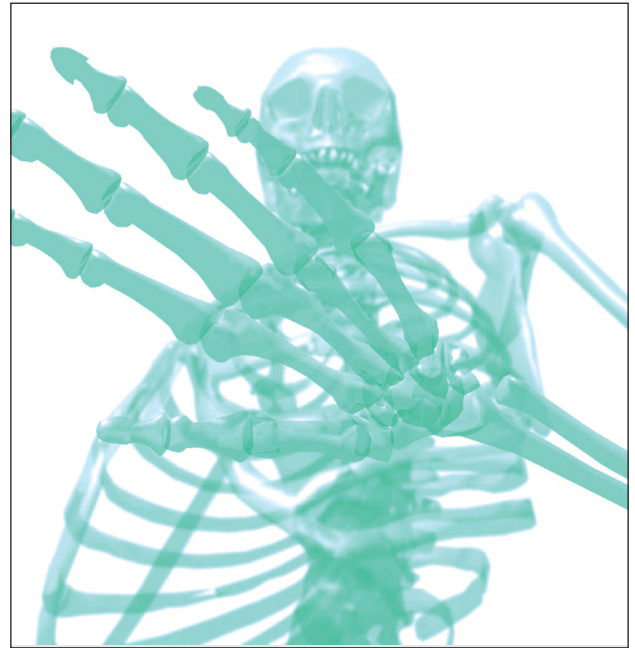
Ergonomic Assessment of the "Weathershield BackPack Roller System"

The Client

ICI Paints AkzoNobel, the world's largest paints and coatings company. With 60,000 employees based in more than 80 countries the company are passionate about introducing new ideas and developing sustainable answers for their customers and convenient solutions for their consumers.

The Problem

Consumer research conducted by ICI Paints AkzoNobel indicated that consumers wanted a product that made painting faster and easier. By launching Dulux PaintPod Roller System, this addressed these needs for interior painting by providing a powered roller with self-cleaning functionality. However, developing a product for exterior use had different requirements such as the need to be battery operated and the ability to be used whilst on a ladder. It was concluded that the product needed to be based on carrying the paint on your back so the 'BackPack Roller System' was developed. Weight would clearly be an issue, especially since the product would be used whilst on a ladder. Consumer testing of the product, undertaken on a ladder, showed that there were no significant barriers to developing the product further. As development and testing progressed, ICI Paints AkzoNobel decided an expert opinion on the ergonomics of the product would be useful and contacted HSL.



What we did

HSL carried out a laboratory based ergonomics appraisal of the product and its instructions. This involved 'fitting trials' on a number of individuals to assess the adjustment range and general fit of the product at the extremes of the population in terms of size. The individuals also carried out a simulated paint application task which included reading the instructions, setting up, putting on the rucksack, climbing a ladder, simulated painting, descending the ladder, refilling, cleaning and preparation for storage. Different clothing ensembles, one light, one heavy and the use of gloves were also included in the trials.

Outcome/Benefits

The HSL ergonomics appraisal confirmed that there were no major ergonomic issues with the product. The work also provided useful recommendations for improving both the product and the clarity of the "instructions for use" as well as increasing confidence in the product, particularly with ICI Paints AkzoNobel's key customers.

"Implementing recommendations from the work carried out by HSL has provided us with a better product for our consumers. We could not have hoped for a better outcome."

Laura Knight, Innovation Manager, ICI Paints AkzoNobel