



Department for  
Business, Energy  
& Industrial Strategy

# DC Intelligence Ltd

Industrial Heat Recovery Support (IHRS)  
Programme Case Study

November 2021

## Context

DCI offer a wide range of technology and innovation solutions. They sought to eliminate waste heat produced by the electronics in their building in Cambridge – from computer equipment to AC units – and recover it for better use.

## How IHRS supported the project

A feasibility study was undertaken to prove the viability of the project, looking primarily at reusing recovered heat and creating significant energy reductions across the business. We now have a full demonstrable solution that can be scaled to support large scale heat recovery and re-use, as well as energy reductions.

Without the financial support of IHRS, especially given the impacts of the Covid-19 pandemic and Brexit, it is unlikely the business could have supported the project under such challenging circumstances.

## Benefits and added value

The project demonstrated that energy consumption for heating and hot water could be reduced by 65% are achievable. What's more, we settled on a viable water-cooling system for our computers, with the heat generated able to be re-used to provide hot water and heating to our building.

A liquid-cooled Data Centre could be up to 50% smaller when compared to its air-cooled equivalent, effectively halving our building's carbon footprint. The lowering of our footprint overall helps us achieve of our environmental and sustainability goals and, if deployed at scale, we believe this will be the biggest contributor to our goal of 'net-zero'.

## Lessons learned

With such positive results from the feasibility and preliminary engineering phases, we would like to continue the engineering work.

We've identified that adding more nodes and expanding the heat recovery/reuse systems would continue to reduce our carbon footprint and energy costs, and help build a scalable and commercially viable solution that could increase revenues through helping others adopt heat recovery.

To progress, we will be seeking for additional funding to support these activities.

**“Data Centres are predicted to consume up to 36% of the global electricity supply by 2030. Providers need to adopt ways of meeting the global compute demands without impacting the environment... More sustainable solutions must be widely adopted across the industry.”**

Steve Pass, CIO – DC Intelligence Ltd.



Heat recovery pilot system

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