

Managing thermal energy in industrial laundries



Executive Summary:

Managing thermal energy in industrial laundries

The Industrial Laundry Thermal Energy industry challenge was delivered through Innovate UK Business Connect's Innovation Exchange (iX) programme in partnership with the Textile Services Association (TSA). The challenge was designed to address a critical issue facing the laundry sector: reducing energy consumption, improving operational efficiency and supporting industry-wide sustainability ambitions. Faced with increasing energy costs and pressure to decarbonise, industrial laundries required innovative solutions that could deliver measurable operational and environmental benefits.

Through the iX programme, Innovate UK Business Connect connected laundry operators and industry stakeholders with innovative solution providers capable of tackling real-world thermal energy challenges. The structured challenge process enabled organisations to access new technologies and expertise that they may not otherwise have discovered through traditional industry networks. The TSA described the process as an efficient and valuable way of bringing relevant innovators and challenge holders together while encouraging knowledge exchange across the wider sector.

The challenge attracted a strong field of innovators offering a range of practical and emerging technologies. Following a competitive pitching process, solution providers including Steamology and Inzonex were selected to engage directly with challenge holders and demonstrate the potential impact of their technologies. The process provided challenge holders with access to innovative approaches for managing thermal energy while offering SMEs the opportunity to validate their solutions against genuine market needs.

For participating laundries, the challenge delivered valuable insights into new technologies capable of reducing energy waste and improving operational performance. Royal Jersey Laundry progressed with a thermal insulation project covering boilers, pipework and associated equipment, while Clean Linen Services reported gaining access to ideas and technologies that would not typically be visible through day-to-day operations. The challenge also strengthened confidence in innovation as a practical mechanism for delivering measurable sustainability and efficiency improvements.

The impact on solution providers was equally significant. Steamology reported increased awareness of its technology, stronger industry connections and accelerated progress towards commercial deployment. The challenge also helped the company better understand customer requirements and identify opportunities for future collaborations and pilot projects.

For Inzonex, the challenge proved transformational. Through direct engagement with Royal Jersey Laundry and subsequent exposure at the TSA Summit, the company secured six site assessment agreements within a month of presenting its solution. The experience also helped reposition the business from an insulation manufacturer to a broader industrial decarbonisation partner, creating opportunities for expansion beyond the laundry sector and supporting the development of new tools to help organisations model energy savings and emissions reductions.

Overall, the challenge demonstrated how Innovation Exchange can accelerate innovation adoption by connecting challenge holders with solution providers in a structured, collaborative environment. The programme delivered benefits for both industry and innovators, resulting in new partnerships, tangible energy-saving solutions, commercial opportunities for SMEs and increased awareness of sustainability-focused technologies. Most importantly, it highlighted the value of cross-sector collaboration in solving complex industrial challenges and supporting the UK's wider net-zero and innovation ambitions.

Key Outcomes

- Connected industrial laundry operators with innovative solution providers through a structured challenge process.
- Identified practical solutions to reduce thermal energy losses and improve sustainability performance.
- Enabled Royal Jersey Laundry and other operators to explore and implement new energy-efficiency technologies.
- Accelerated market access and commercial growth opportunities for SMEs including Steamology and Inzonex.
- Generated new industry partnerships, knowledge-sharing opportunities and future innovation collaborations.
- Demonstrated how Innovation Exchange can support both decarbonisation objectives and business growth through innovation-led problem solving.



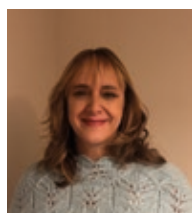
Case Study: Managing Thermal Energy in Industrial Laundries

Background

The UK laundry sector is under increasing pressure to reduce energy consumption, lower carbon emissions and improve operational efficiency, while continuing to deliver high-quality services to customers. Rising energy costs and growing sustainability requirements are driving the need for practical, commercially viable solutions that can help industrial laundries remain competitive and resilient.

Innovate UK Business Connect's Innovation Exchange programme was called upon to address this challenge. Knowledge Transfer Manager, Jacky Cope, worked with Managing Director of the Textile Services Association (TSA), Emma Kiviniemi Wilson, to launch a challenge focused on managing thermal energy in industrial laundries. The challenge was designed to connect laundry operators with innovative solution providers capable of reducing energy waste, improving sustainability and supporting long-term operational resilience.

The challenge reflected a wider ambition to accelerate innovation adoption across the laundry sector while creating opportunities for businesses to engage with technologies they might not otherwise discover through traditional routes.



Jacky Cope, iX Knowledge Transfer Manager, explains: "Industrial laundries are critical businesses serving healthcare, hospitality and industry, yet many face significant challenges around energy use and sustainability. Through Innovation

Exchange, we were able to connect the sector with innovative businesses that could help uncover practical solutions, accelerate decarbonisation and create lasting value for operators."

The challenge

The challenge focused on identifying innovative approaches to reducing thermal energy losses within industrial laundry operations. Laundry facilities consume significant amounts of energy through boilers, steam generation systems and heat-intensive processes, making energy efficiency a key priority for the sector.

Traditionally, organisations seeking solutions would source innovations through existing networks, industry events and independent research activities. However, this can be highly time-consuming and may limit exposure to new and emerging technologies. The iX process offered a more structured approach, bringing relevant innovators and challenge holders together through a facilitated programme.

According to the TSA: "We found the iX process very useful and well organised. The most valuable part was the opportunity to engage directly with innovative companies from different sectors and explore new solutions in a focused and collaborative environment."

The challenge attracted a strong range of applicants offering both practical and novel approaches to energy management.



As Emma Kiviniemi Wilson reflected: "The calibre of the companies was strong, especially for a first-time process. There was a good mix of innovative and practical solutions relevant to laundries, including technologies we had explored years ago which may now work better, alongside completely new ideas we may not otherwise have considered."

The TSA also found considerable value in the efficiency of the approach. “iX has been a much more efficient use of time by bringing relevant companies and solutions together in one structured process, and it has also been brilliant to share these innovations and learnings with the wider TSA membership.”

Throughout the process, participating laundries, including Clean Linen Services and Royal Jersey Laundry, were able to engage directly with solution providers and assess technologies that could help them address operational and sustainability challenges.

Challenge outcomes

Following the challenge launch, shortlisted innovators participated in the iX pitch process, presenting their solutions directly to challenge holders and industry stakeholders. The process created a structured environment for evaluating technologies against real business needs while accelerating conversations that might otherwise take months to establish.

The outcome was the selection of promising solutions, including technologies from Matt Candy’s company Steamology and Dmytro Aheiev’s company Inzonex. These solutions demonstrated clear potential to reduce energy losses and support wider decarbonisation ambitions within the laundry sector.

Challenge holders reported significant value from participating in the programme.



Chris Bell, Director of Safety & Sustainability at Clean Linen Services, said: “My involvement in the Innovate UK Business Connect Innovation Exchange (iX) Challenge has been a really valuable experience for

myself and Clean Linen Services.

It gave me a much better understanding of how structured innovation programmes can bring together businesses, researchers, and solution providers to tackle real operational and sustainability challenges.”

“Through the process, I was able to explore new ideas and technologies that we wouldn’t typically have visibility of day-to-day, particularly around energy efficiency and improving operational performance.”

**Chris Bell,
Director of Safety & Sustainability
at Clean Linen Services**

For Royal Jersey Laundry, the challenge led directly to the implementation of a thermal insulation project across boilers, pipework, valves and equipment. The company highlighted the value of Innovate UK Business Connect’s role in connecting it with the right expertise.

“This project is a perfect example of what can be achieved when great partners come together. A huge thank you to Innovate UK Business Connect for connecting us with the right expertise and supporting this innovation journey.”

The challenge also generated broader industry engagement, including knowledge sharing through the TSA network and opportunities to showcase successful projects to the wider sector.

Challenge impact

Steamology

For Steamology, the challenge created direct access to potential customers and industry stakeholders that would otherwise have been difficult to reach. The company highlighted how the programme accelerated commercial development and market understanding.

“iX has accelerated the awareness of our technology, our understanding of the market and led to a number of ‘Adjacent Possibility’ conversations for other markets.”

Steamology also reported improved understanding of customer requirements and pilot opportunities saying iX definitely accelerated the company’s progress to market. The business experienced wider benefits too through increased visibility, stronger industry connections and opportunities for future collaborative projects.



As Matt Candy summarised: “iX provides innovators a streamlined shortcut to meeting motivated innovation ‘Early adopters’ in the real-world marketplace.”

Inzonex

For Inzonex, the challenge became a catalyst for significant business growth and market validation. Founder Dmytro Aheiev described the value of the programme succinctly, saying: “Cold outreach gets you meetings; iX gave us an industry.”

The company secured an opportunity to pitch directly to Royal Jersey Laundry, where its modular insulation solution demonstrated measurable benefits, including energy savings, reduced CO₂ emissions, lower boiler room temperatures and improved safety through the elimination of burn risks for maintenance staff.

Following the project, Inzonex was invited to present at the TSA Summit, providing access to key decision-makers across the UK laundry sector. The result was rapid commercial traction within the following month with six site assessment agreements across the UK.

Perhaps most importantly, the challenge transformed the way the company positioned itself in the market.



As Dmytro Aheiev explained: “iX reframed how we think about our own business. We entered as an insulation manufacturer. We left as an industrial decarbonisation partner.”

The company has since expanded its offering beyond the laundry industry, developing new tools and services designed to help organisations identify energy-saving opportunities and support broader net-zero ambitions.

Conclusion

The “Managing Thermal Energy in an Industrial Laundry” challenge demonstrated how Innovation Exchange can accelerate the adoption of innovation by bringing motivated challenge holders together with solution providers in a structured and efficient process. Through new collaborations, practical deployments and commercial opportunities, the challenge delivered benefits for both the laundry sector and the innovators involved.

Emma Kiviniemi Wilson concluded:

“It has been brilliant to work alongside Innovate UK Business Connect throughout this process and to connect with such a diverse range of companies across different sectors. Bringing together fresh ideas, expertise, and collaboration in this way is what drives meaningful innovation forward.”

**Emma Kiviniemi Wilson,
Managing Director of the Textile
Services Association (TSA)**

Key Insights: Managing Thermal Energy in Industrial Laundries

1. Innovation Exchange significantly reduces the time and effort needed to find suitable solutions

The Textile Services Association (TSA) highlighted that sourcing innovations through traditional networks, events and research can be time-consuming. The iX process streamlined this activity by bringing relevant innovators and challenge holders together through a structured programme, making it easier to identify and assess applicable solutions.

2. Cross-sector innovation uncovers solutions that industries may not find independently

The challenge exposed laundry operators to a diverse range of technologies and businesses, including solutions they had not previously considered. This broadened thinking around sustainability and operational efficiency and created opportunities for new collaborations.

3. The pitch process creates meaningful connections between innovators and customers

For solution providers, the ability to pitch directly to challenge holders accelerated access to real customers, real problems and genuine commercial opportunities. Both Steamology and Inzonex reported that the process shortened sales cycles and provided valuable market insights.

4. The challenge generated tangible operational and sustainability benefits

The selected solutions focused on reducing thermal energy losses, improving energy efficiency and supporting decarbonisation. Royal Jersey Laundry implemented thermal insulation upgrades across boilers, pipework and equipment, demonstrating how innovation can be translated into practical business improvements.



5. Innovation Exchange delivers value beyond immediate challenge outcomes

Participants reported wider benefits including:

- Increased awareness of emerging technologies
- Knowledge sharing across the sector
- New collaborative relationships
- Stronger innovation networks
- Opportunities for future funded projects and pilots

6. The programme accelerates commercial growth for SMEs

Steamology reported increased market awareness, stronger industry connections and accelerated progress to market. Inzonex secured follow-on opportunities after the challenge, including presenting at the TSA Summit and gaining six site assessment agreements within a month of showcasing its solution.

7. Industry engagement can reshape business strategy

One of the strongest outcomes came from Inzonex, which reported that the challenge helped reposition the business from an insulation manufacturer to an industrial decarbonisation partner. This demonstrates how engagement with challenge holders can provide valuable market intelligence and influence future growth strategies.

8. Collaboration is a critical driver of innovation adoption

Across all participants, a recurring theme was the value of bringing together challenge holders, solution providers, industry bodies and Innovate UK Business Connect. The challenge demonstrated that meaningful innovation is often the result of collaboration, shared learning and open engagement rather than organisations working in isolation.

Headline Takeaway

The “Managing Thermal Energy in Industrial Laundries” challenge shows how Innovation Exchange can accelerate the adoption of innovation by connecting challenge holders with solution providers, creating measurable sustainability benefits for industry while simultaneously helping SMEs validate, refine and scale their innovations.

