



C4FF Project and Innovation Update – August–September 2026

C4FF has continued to build momentum across its research, innovation and international collaboration portfolio during August and September 2026, with significant developments across the CSAMGuard+, FERIDE and Lean Optimal projects, alongside the successful acquisition of two new European projects.

CSAMGuard+: Expanding International Collaboration and Strengthening Child Safety Innovation

The CSAMGuard+ project continues to progress well following its successful commencement earlier this year. During August and September, C4FF has been actively working to expand the international consortium and is currently in discussions with new organisations from Portugal and Austria regarding their potential participation in the project.

These discussions are aimed at strengthening the project's European collaboration network and bringing additional expertise, capabilities and perspectives into the development and validation of the CSAMGuard+ solutions.

C4FF has also continued its engagement with the Internet Watch Foundation (IWF). The C4FF team recently held discussions with the IWF to explore opportunities for closer collaboration and access to relevant expertise and resources. As part of this developing relationship, C4FF is progressing towards becoming an IWF member, further strengthening its links with one of the UK's leading organisations working to combat online child sexual abuse material.

Another important development is the establishment of a dedicated CSAMGuard Special Interest Group (SIG) by C4FF. The SIG is intended to provide a platform for bringing together relevant stakeholders, researchers, technology organisations and practitioners to exchange knowledge, discuss emerging challenges and support collaboration around technologies for detecting and addressing CSAM.

C4FF has also established a dedicated website for the initiative:

ChildSafe Network – <https://childsafenetwork/>

The website will provide an online platform for sharing information about the initiative, its activities, research and future opportunities for collaboration.

The combination of the CSAMGuard+ project, C4FF's existing expertise and the developing ChildSafe Network provides a foundation for longer-term collaboration in the area of technology-enabled child protection.

FERIDE: Preparing for the Next Review Stage

The **FERIDE** project is also moving into an important stage of its implementation.

Following the successful first project review earlier in the year, the FERIDE team is now preparing for the next series of project reviews and technical discussions. C4FF is preparing



for the UK review meeting in October, where the progress of the UK activities and use case will be discussed in greater detail.

The consortium is also preparing for the ITEA review meeting scheduled for 15 October 2026. This will provide an opportunity for the international consortium to present progress, discuss technical developments and agree priorities for the next stage of the project.

During August and September, C4FF has continued working with the project partners on the development of the UK use case, technical requirements and the planned application of AI and data-driven approaches to soil carbon monitoring, cultivation optimisation and irrigation/fertilisation decision support.

The project continues to provide an important opportunity for C4FF to apply its expertise in AI, data analytics and decision-support technologies to the agricultural sector while developing new relationships with UK and international agricultural stakeholders.

Lean Optimal: Preparing for Project Kick-Off

C4FF is also preparing to officially commence the Lean Optimal project on 1 October 2026.

The project brings together C4FF, Brunel University London and Holtex, with the aim of investigating how AI-enabled technologies can support the identification and reduction of production inefficiencies, including scrap and rework.

Ahead of the official project start, the C4FF team has already held two pre-kick-off meetings with the project partners. These meetings have been used to clarify responsibilities, review the work plan, prepare the initial activities and ensure that the consortium is ready for the formal project commencement.

The official project kick-off meeting with the project's Monitoring Officer (MO) is scheduled for 1 October 2026.

The project will then move into its initial feasibility and technical development activities, with the partners working together to establish the requirements and architecture for an AI-assisted approach to detecting production drift and supporting operators in improving manufacturing performance.

Two New European Projects for C4FF

In addition to the progress across its existing portfolio, C4FF is pleased to announce two new European project successes.

The new projects extend C4FF's European research and innovation portfolio into areas closely aligned with its established expertise in maritime technology, immersive technologies, AI and digitalisation.

One of the new projects focuses on NAUTICARE, further strengthening C4FF's involvement in maritime innovation and the development of solutions for the future of the maritime sector.



The second project builds on C4FF's previous experience in VR Emergency @Sea, an area in which C4FF has already developed significant expertise through its work on immersive training and emergency-response applications for maritime environments.

These new projects represent an important continuation of C4FF's European innovation activities and provide opportunities to build on knowledge, partnerships and technologies developed through previous projects.

Continuing Growth Through European Collaboration

The developments during August and September demonstrate the breadth of C4FF's current research and innovation activities. From AI-based child protection and agricultural technology to manufacturing optimisation, maritime innovation and immersive VR, C4FF continues to work with universities, research organisations, companies and international partners to develop practical technology solutions addressing real-world challenges.

The coming months will be particularly active, with the Lean Optimal kick-off on 1 October, the FERIDE ITEA review on 15 October, continued development of CSAMGuard+ and the ChildSafe Network, and the mobilisation of the two newly awarded European projects.

C4FF looks forward to continuing to develop these partnerships and sharing further updates as the projects progress.

Working with Schools and Universities

The work with universities and schools are continuing. By the standards of the Science Fair/STEM competition, which took place on 22nd April 2026, observed by Professor Ziarati who acted as a judge at the event, at Earlsdon Primary School, the quality of these projects has improved immensely.

Professor Reza was very impressed by the projects that was presented to him and the other judges on the day. Congratulations to Earlsdon Primary School and their science team on such an excellent achievement. They should all be extremely proud of what they have accomplished.



The Head Mistress and Deputy Heads of Earlsdon Primary and two of the Science Fair/STEM Competition Judges

OPTIMISM Final conference

The project OPTIMISM final conference took place on 27-28 May 2026 at UPC in Barcelona. A very successful conference attended by some 60 participants. Two final papers on OPTIMISM project were also presented at the MT'26 Conference. This was the penultimate dissemination activities for seek feedback on the OPTIMISM Training Programme and on the methodology and arguments used in its design and means of delivery.



Professor German de Malo Rodriguez presenting the agenda for the Final Conference and partner meetings and the intended papers for presentation at the MT'26 conference



Professor Reza Ziarati presenting the key aspects of the OPTIMISM and the first paper at the MT'26 Conference. He was presented with a Certificate by the session Chair Clàudia Barahona-Fuentes.



Some of the participants at the MT'26 Conference



The presentation of a certificate to the second author of the OPTIMISM Papers, Professor German de Melo Rodriguez by Clàudia Barahona-Fuentes



The OPTIMISM partners' Dinner event, celebrating the success of the OPTIMISM Project and the papers presented at the MT'26 Conference. From the right Professor Reza Ziarati, Mrs Ziarati, Aris Chronopolous from IDEC, Professor Juan Moreno (Dean, UPC), Mrs Moreno, Capt. Heikki (Crescat Oy), Chief Mate Alexander (MUS), Amir Lazempour and Vanessa Makar from C4FF, Mrs Rodriguez and the last but by no means least, OPTIMISM front runner, Professor German de Malo Rodriguez.



The time for some relaxation – Professor Reza Ziarati and his wife, Zena, enjoying the hospitality of the UPC, sailing around the Barcelona Bays.

Barford Project – Meeting of SIG Particulate Matter in University college London

Dr Malcolm Eyekyn and Professor Reza Ziarati delivered presentations at the February 2026 meeting of the Special Interest Group (SIG) on Particulate Matter, jointly organised by the Universities of Leicester and Nottingham. Their presentations highlighted the latest findings from the project, explained the rationale for preparing the subsequent technical report and research paper, and presented the results of the most recent investigations, including smoke tests conducted to better understand pollutant dispersion patterns.



Left Photo above shows Professor Reza Ziarati, Chair of C4FF and chair of IMarEST Midlands Branch presenting his team's finding a University College London, the right photo shows Dr Malcolm Eykyn giving participants at the SIG on PM Filtration Flows workshop the issues concerning establishing a quarry at Barford, Warwickshire.

IMarEST Midlands Branch Event and Lectures

C4FF participated in several IMarEST events and lectures during 2026. On 16 May 2026, a lecture and panel discussion on Air Quality and Marine Pollution was held at the Holiday Inn, Kenilworth. It is hoped that this will be the first in a series of events and lectures aimed at encouraging the IMO and the United Nations to consider monitoring a wider range of pollutants in confined and enclosed spaces aboard ships.

The event was followed by a series of afternoon presentations in support of the Barford community. These presentations drew upon the expertise of IMarEST members in assessing air quality in and around both a proposed quarry site and an operational quarry. The photographs below show Professor Amin Al-Habaibeh presenting research undertaken by his team at Nottingham Trent University (NTU).

Professor Amin Al-Habaibeh and Professor Stephen Benjamin presenting their work during the Barford Project session.



Professor Amin Al-Habaibeh and Professor Stephen Benjamin presenting their work at the Barford Project session.

The workshop sessions provided a valuable opportunity to exchange perspectives on the impact of pollution on both local communities and occupational environments. The



discussions highlighted the importance of collaborative approaches to addressing environmental challenges and improving air quality monitoring practices.

Many thanks to the organisers, speakers, and participants for their valuable contributions and engaging discussions. Special thanks are extended to Professor Amin Al-Habaibeh, Professor Stephen Benjamin, Professor Lakhvir Singh, and his team for their contributions, dedication, and excellent organisation of the event.

One of the research team's journal papers can be accessed here:

<https://lnkd.in/esmuXkJb>

Events such as these demonstrate the importance of bringing together diverse expertise to address environmental challenges and develop practical, evidence-based solutions for a healthier and more sustainable future.

New Projects

The Centre for Factories of the Future (C4FF) has reached several important milestones across UK and European innovation programmes, reflecting its growing role in applied AI, safety-critical systems, and sustainable industrial technologies.

CSAMGuard+

CSAMGuard+ addresses the growing challenge of detecting and preventing the spread of Child Sexual Abuse Material across digital platforms. The project focuses on developing an AI-driven, privacy-compliant solution capable of operating across encrypted, private, and public digital environments. The system combines content analysis, metadata intelligence, behavioural modelling, and biometric recognition to support real-time detection while respecting legal and ethical constraints.

The consortium brings together research organisations, technology providers, regulators, NGOs, and law enforcement bodies, ensuring that the solution is grounded in operational reality and aligned with international child protection frameworks.

FERIDE

A second Eureka Clusters project involving C4FF, FERIDE (FERTigation Irrigation DEcisive Farming), has been started.

FERIDE responds to increasing pressures on agriculture from water scarcity, rising input costs, and climate uncertainty. The project focuses on precision irrigation and precision fertigation, using real-time environmental data to optimise water and nutrient delivery. The goal is to improve crop productivity, reduce resource waste, and lower energy and fertiliser use while supporting sustainable farming practices.

The project establishes a European-scale collaboration between farmers, agronomists, technology providers, and researchers to support data-driven decision making in agriculture.



Lean Optimal: Feasibility Study Under Development

Alongside funded projects, C4FF is progressing Lean Optimal, a feasibility study exploring whether small and medium-sized manufacturers can reduce waste, rework, and excess energy use using simple, affordable predictive tools based on existing shop-floor data.

Lean Optimal focuses on early detection of process drift using routine production and machine data, without requiring new sensors or complex system integration. A key element of the study is understanding how operators and supervisors respond to early warnings and recommendations, ensuring that any future solution fits real shop-floor practices. Lean Optimal is currently at feasibility stage and is not yet funded.

Looking Ahead

These developments highlight C4FF's continued focus on applied research with real industrial and societal impact. From agentic AI in manufacturing, to digital child safety, precision agriculture, and SME sustainability, C4FF is strengthening its position as a delivery-focused partner across UK and European innovation programmes.

Further updates will be shared as these projects move forward.

CyberSEA Project Confirms Readiness for Platform Testing Phase

CyberSEA Project Meeting 4 was held at Berlin School of Business and Innovation GmbH, located at Karl Marx Strasse 97–99, Berlin.

The meeting brought together project partners to review overall progress and confirm readiness for the next phase of implementation. Discussions focused on the technical development of the CyberSEA learning platform, coordination across partner countries, and alignment with the project's objectives on strengthening maritime cybersecurity skills and awareness.

A key outcome of the meeting was agreement to commence testing of the CyberSEA learning platform and hub from 1 February 2026. Testing will take place across multiple partner countries, including Sweden, Greece, Spain, Germany, Slovenia, Finland, Romania, and Poland.

This testing phase will enable structured validation of the platform, systematic collection of user feedback, and targeted refinements to ensure the learning environment meets the needs of maritime stakeholders. The process will support the wider CyberSEA goal of building practical, scalable cybersecurity capacity within the maritime sector.

Further updates will be shared as the platform moves through testing and refinement stages.



OPTIMISM Project Advances Toward Final Conference

The OPTIMISM project continues to progress toward its final phase, following the M5 Partner Meeting in Finland, hosted by CRESCAT. The meeting focused on a full review of project activities and outputs, confirming delivery status across all work packages and agreeing plans for the final dissemination phase. Partners also aligned on the structure and content of the final conference.

Looking ahead, the M6 Partner Meeting and Final Conference will take place in May in Barcelona, hosted by Universitat Politècnica de Catalunya. This event will mark the formal conclusion of the project, with dissemination of all results and consolidated feedback gathered from target groups across the maritime sector. The conference will serve as the main platform for sharing project outcomes with industry, training providers, regulators, and academic stakeholders.