



INCUBATION FORUM FOR CIRCULAR ECONOMY IN EUROPEAN DEFENCE (IF CEED)

Since 1 October 2021, EDA has been managing the Incubation Forum for Circular Economy in European Defence (IF CEED) to apply the EU Green Deal's Circular Economy approach to the European defence sector based on a cooperative community involving EU Member States' Ministries of Defence (MoDs), European defence industry, research-and-technology-organisations (RTOs), financial institutions and academia. IF CEED is currently co-funded by the EU LIFE programme and the Italian Ministry of Defence.

After a successful first phase leading to the incubation of more than a dozen collaborative project ideas (see next page), the Forum is currently in its second phase of action ("IF CEED 2", 2023-2027). By applying circularity principles in European defence and combining both environmental and capability requirements, IF CEED 2 aims to enhance military operational efficiency and mitigate the defence sector's environmental footprint. Activities focus on:

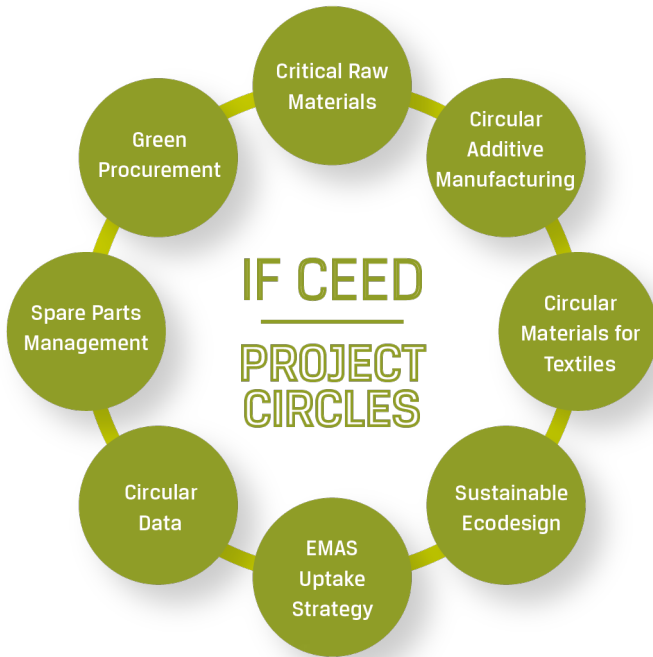
- Implementing and incubating new collaborative and transnational projects;
- enabling transnational innovative solutions and new business models;
- facilitating best practice sharing and implementation of solutions to mitigate the defence sector's environmental impact

IF CEED explained: What is circularity in Defence?

Circularity in defence refers to the integration of circular economy principles within the defence sector, emphasising sustainability and resource efficiency throughout the entire lifecycle of military equipment and operations. The circular economy model aims to minimise the use of finite resources, promote reuse and recycling as well as reducing the overall environmental footprint. **Embracing circularity principles in defence is a strategic move that not only contributes to environmental ownership but also strengthens the long-term effectiveness and efficiency of European defence capabilities.**

Structure

IF CEED is organised around thematic "Project Circles" [PCs]. A PC is a dedicated incubation group of experts from all stakeholders, meeting regularly to discuss and ideate circular solutions for defence



Key Actions

Under its second phase, IF CEED is focusing on:

IMPLEMENTATION - Identifying suitable funding sources and implementation mechanisms to move forward the projects previously incubated.

INCUBATION - Keeping up with innovative solutions and new needs by maintaining discussions and exchanges with stakeholders' experts to identify relevant topics and incubate additional collaborative project proposals.

DISSEMINATION - Sharing knowledge and best practices, e.g. via the IF CEED Annual General Conference and a designated knowledge platform, to support EDA's stakeholders in implementing circularity principles in defence.

Project Ideas

As part of the first phase of IF CEED (2021-2023) 15 project ideas were incubated by nearly 300 experts from 27 Ministries of Defence in Europe, other national or international public bodies, as well as defence-related industry, RTOs and universities:

- Mining critical raw materials (CRM) from end-of-life military devices;
- Sustainable replacement of hard chrome/chromates solutions with CRM free coatings;
- Circularity of titanium via Additive Manufacturing (AM);
- Energy-efficient polymer AM;
- Circular deployable AM;
- Military (smart) Textile waste recycling and valorisation;
- Recycling / re-use / recovery of high value fibers from soldier personal protective equipment;
- Development of smart modular protective clothing systems for military applications using safe-and-sustainable by design principles;
- Guidelines for Environmental evaluation in defence applications;
- EMAS Certification uptake at experimental test ranges;
- EMAS training course and monitoring;
- Green Procurement Training for Defence;
- Defence Green Procurement Knowledge Platform;
- Digital Product Passport for armour components;
- Circular management of spare parts from decommissioned assets.

Interested in joining?

If you have questions or want to express your interest in joining IF CEED Project Circle(s), please send an email to our functional mailbox: circular.economy@eda.europa.eu

> eda.europa.eu/ifceed