



# INFO SESSION: STARTER PROJECTS FOR CIRCULARITY IN DEFENCE

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

## Agenda



1. Introduction to IF CEED
2. Objectives of the Call for Proposals
3. Expected Outcome
4. Expected Deliverables
5. Key Aspects of the Call
6. Eligibility Criteria
7. Exclusion Criteria
8. Awarding Criteria
9. Forms
10. Foreseen Timeline

**Followed by Q & A**

# 1. INTRODUCTION TO IF CEED



## AIM

Implement circularity principles in European Defence by:

- ▶ incubating collaborative project ideas;
- ▶ enabling transnational innovative solutions and revised business models.

Contribute to:

- ✓ EU Climate Change and Defence Roadmap
- ✓ Joint Communication on the climate and security nexus
- ✓ EU Green Deal

## WHOM FOR?

- ▶ Ministries of Defence (incl. NCPs/PoCs)
- ▶ Any pertinent EU / national / international body/organisation
- ▶ Academia
- ▶ Industry
- ▶ Research-and-Technology-Organisations
- ▶ Financial institutions

## HOW?

- ▶ Experts work within incubation groups called "**Project Circles**" (PCs)

Incubation Groups							
PC Critical Raw Materials	PC Circular Additive Manufacturing	PC Circular Materials for Textiles	PC Sustainable Ecodesign	PC EMAS Uptake Strategy	PC Green Procurement	PC Circular Data (+ ex WFD, 9.1.i)	PC Spare Parts Management

For anyone willing to **join a PC**, please email: [circular.economy@eda.europa.eu](mailto:circular.economy@eda.europa.eu)





# 1. INTRODUCTION TO IF CEED

## Outcome of IF CEED Phase 1: project ideas

For a full overview of project idea factsheets, please click here:

[Project Ideas \(europa.eu\)](https://projectideas.europa.eu)



[eda.europa.eu/ifceed](https://eda.europa.eu/ifceed)




**EUROPEAN DEFENCE AGENCY** Fact sheet  
www.eda.europa.eu

Incubation Forum for Circular Economy in European Defence (IF CEED)

**Project idea**

**Circularity of titanium using recycled source materials for Additive Manufacturing**



**Context**

The properties of titanium make it an ideal material for lightweight armoring in various applications. However, its scarcity and the need to source it from outside the European Union (EU) results in high prices and supply risks.

Titanium offers high ballistic protection for applications ranging from body armour and helmets to tanks and aircraft.

This material and to some finished products are sourced exclusively from other countries outside the EU (i.e., the U.S., Japan, Russia, China). Furthermore, recycling capacity is still mainly available outside the EU. Therefore, an EU circular approach would reduce the EU dependency on external sources for this Critical Raw Material, while reducing the environmental impact of extraction and transport. Moreover, titanium armour, especially when it comes to more

complex shaped components, is very expensive due to the very high price of the material and the amount of scrap generated by conventional production processes. As a result, armour manufacturers are falling back on materials that are specifically heavier and cheaper, i.e. steel.

Additive Manufacturing (AM), by using recycled materials, can reduce the consumption of imported first-use materials and the associated costs, as it allows near net-shape manufacturing (the resulting part is close to the final shape). The ability to source materials locally via recycling and elaboration of semi-finished products for AM would bring further economic benefits, associated with reducing the carbon footprint throughout the product life cycle.

To exploit this potential, secondary materials need to be qualified to allow their actual use in targeted applications.

**EUROPEAN DEFENCE AGENCY** Fact sheet  
www.eda.europa.eu

Incubation Forum for Circular Economy in European Defence (IF CEED)

**Project idea**

**Circular deployable Additive Manufacturing**



**Context**

Military assets for all armed forces (army, air force and navy) are potentially vulnerable in terms of operational readiness when spare parts are missing or cannot be provided in due time. Decentralised and on-demand manufacturing can fulfil the dual purpose to serve objectives of missions and reduce the footprint of the military.

Deployable Additive Manufacturing (AM) solutions can be suitable to enable the manufacturing of spare parts or provide expedient repairs on site. Indeed, they can bring the flexibility to produce on demand, individual products or provide tailored repair while meeting the requirements of operations.

While AM allows to optimise the use of materials thanks to its specific freedom of design, deployable solutions are a way to reduce emissions linked to the transportation of spare parts needed to maintain the readiness of equipment.

Last but not least, coupling manufacturing with circular management of resources contributes to self-sufficiency of means by limiting the feedback needed to perform the required operations.

**Objectives**

The project idea "Circular Deployable Additive Manufacturing" aims at providing the required functions for on-site manufacturing, repair and circularity of materials via a holistic approach based on capability modules.

The specific objectives are to:

- Validate circularity of materials in the context of deployable AM use cases, for metals, polymers and composites.
- Develop/validate a deployable AM set-up incorporating recycling, engineering, manufacturing, post-processing and verification capabilities.

**EUROPEAN DEFENCE AGENCY** Fact sheet  
www.eda.europa.eu

Incubation Forum for Circular Economy in European Defence (IF CEED)

**Project idea**

**Military (smart) Textile Waste Recycling and Valorisation: Advanced Textiles for Defence**



**Context**

The textile industry is one of the most important economic sectors, but also one of those responsible for the largest generation of waste. In the military sector there is the additional problem that military uniforms cannot be reused by civilians. Considering that the military clothing are very technical products, the embedded value of materials is very high, making them an attractive business case for circularity.

There is an increasing concern about what to do with the huge amounts of military textile waste. Therefore, it is imperative to develop new strategies to overcome this problem using the most sustainable technologies and processes to foster a circular approach for military clothes and valorise the materials obtained from recycling.

This requires addressing the whole technological chain from sorting to the final product manufactured with secondary materials.

**Objectives**

This project idea aims at a full transformation of military textile waste into new military textile-based materials based on a A to Z approach.

The specific objectives are the following:


- Collect data on military textile volumes available for circular management.
- Develop technical steps for direct recycling of collected residues into new yarns for producing military textiles.

**EUROPEAN DEFENCE AGENCY** Fact sheet  
www.eda.europa.eu

Incubation Forum for Circular Economy in European Defence (IF CEED)

**Project idea**

**Circular management of Spare Parts from decommissioned assets**



**Context**

Extending the lifetime of capabilities and systems is a straightforward way to increase the operational availability while reducing the environmental impact of the military. Decommissioned assets hold a huge potential in this regard.

Decommissioning in the military domain means withdrawing military equipment from service. One reason for decommissioning is the increasing effort of maintenance, specifically when it comes to older devices: the costs for maintenance are no more in balance with the economically cost of operating the asset, as well as the fact that some parts are becoming obsolete and cannot be manufactured anymore.

Gaining high value spare parts from decommissioned military assets and sharing those among nations who are keeping operating the same assets will bring added value to all participants and is a very efficient way to save natural resources on the one hand side and to provide an operational advantage on the other hand side.

Creating ad-hoc processes and a marketplace for the reuse of such parts (either direct or after retrofit/remanufacturing), is needed to deliver on this potential. Where parts cannot be ultimately used anymore, re-design and materials substitution allowed by technologies like additive manufacturing will help closing the loop.

**Objectives**

The project idea aims at developing a legally and technically robust and systematic approach to retain maximum value for parts/materials originating from decommissioned assets.

**EUROPEAN DEFENCE AGENCY** Fact sheet  
www.eda.europa.eu

Incubation Forum for Circular Economy in European Defence (IF CEED)

**Project idea**

**Training on Green Procurement in Defence**



**Context**

The main objective of green procurement is to reduce the environmental impact of the sector, through actions taken both by the national defence procurement authorities and industry, and by facilitating the sector's implementation of the EU Green Deal and its strategies.

Within the work conducted under IF CEED, a clear need to enhance knowledge on the procurement of defence capability equipment and its components while applying green/circular principles has been identified.

Various training programs and courses on green procurement exist, but they focus on civilian market/products and are mostly based on EU Green Public Procurement (GPP) criteria. Trainings on GPP are also often organized at a national level and are not explicitly focusing on Defence.

**Objectives**

The project idea addresses the need to effectively and efficiently increase knowledge, awareness, and skills of defence procurement experts in the area of green procurement through the development and implementation of training activities.

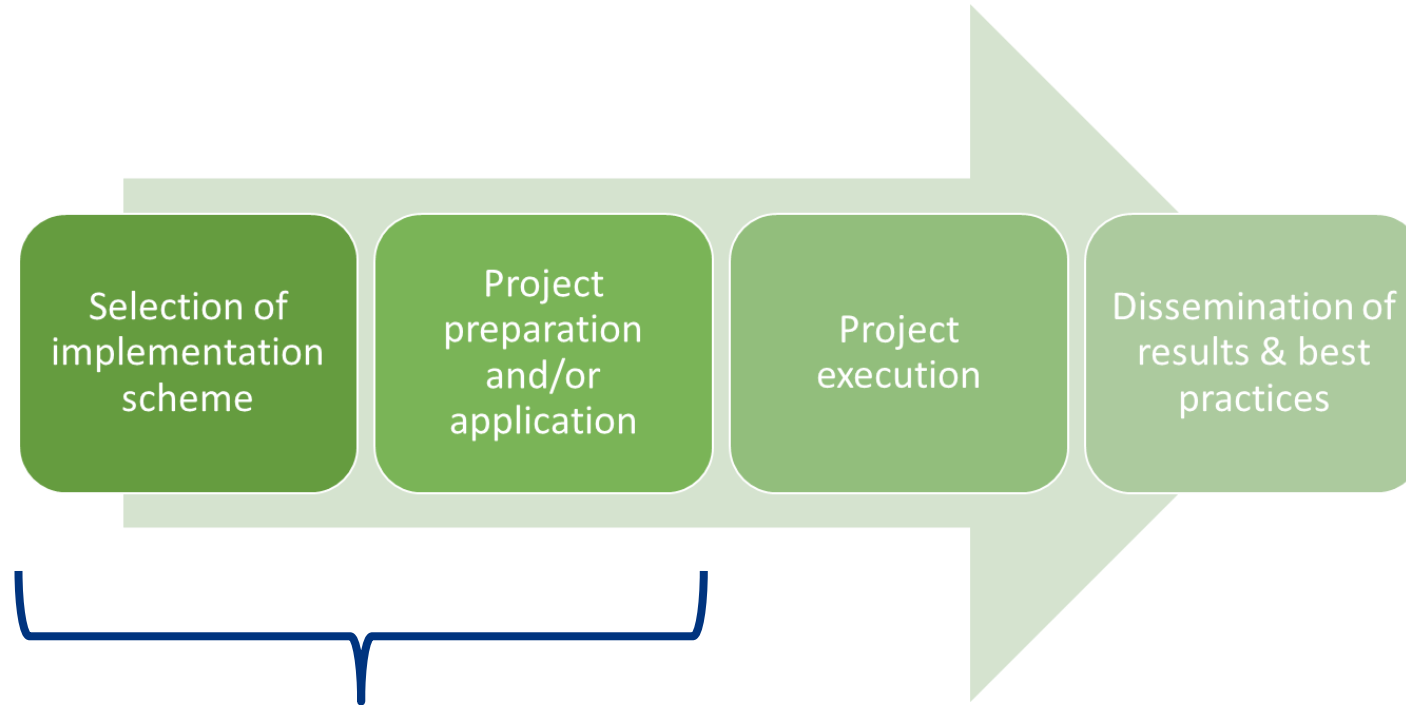
Due to the variety of stakeholders involved in Green Procurement (GP), it is unlikely that a single course/curriculum will be sufficient to effect change in defence sector organisations. For this reason, development of three separate courses on GP for the defence sector is recommended:

- Course 1: GP Strategy for the Defence Sector** (targeted at senior defence-sector managers and specialists)
- Course 2: GP Implementation in Defence** (targeted personnel directly involved in procurement and contract management)

# 1. INTRODUCTION TO IF CEED



Current phase: implementation of the project ideas.



- **Starter grants are part of the implementation strategy.**

## 2. OBJECTIVES OF THE CALL FOR PROPOSALS (SECTION 2.1 / CHAPTER 3)



The call for proposals has the objective to select “Starter Projects” aimed at developing **Proofs of Concepts - or similar tangible results -** in line with the scope of the IF CEED project ideas.

“Starter projects” must bring a substantiated progress beyond the state of the art via technological progress, novel character of the use case addressed and/or development of new tools (including but not limited to IT applications and training material).

- **Indicative duration of the action under (each) grant agreement: 12 months.**
  - ❖ Proposals for a duration exceeding 15 months will not be considered.

24.ISE.CP.140 - Proofs of concept aimed at enhancing circularity in defence applications (europa.eu)

# 3. EXPECTED OUTCOME

## (SECTION 2.1)



- **Tangible results** expected from “starter projects” **include but are not limited to:**
  - **Parts and/or products and/or representative samples** with recycled content and associated technical information on processes and testing (e.g. for critical raw materials, additive manufacturing, textiles);
  - **IT application or low-level prototype** (e.g. for design, spare parts management, secure transmission of information);
  - Application of IT tools or organisational processes to **military use cases**;
  - **Training** programme and/or pilot course.
  
- This must be accompanied by specific reports and a public summary.

## 4. EXPECTED DELIVERABLES



The following deliverables are expected to be submitted in digital format during the implementation of the grant agreements:

1. periodic (quarterly) reports on the execution of the starter projects, summarising the tasks executed, main results, tasks foreseen for the next quarter, information on potential issues in the execution;
2. a final report detailing the results, deliverables of the starter project as well as a description of the proposed way ahead (next steps, exploitation, dissemination);
3. a public summary of the project and its results, in the form of a presentation (5-10 slides).



# 5. KEY ASPECTS OF THE CALL

(CHAPTERS 3, 4)



Duration of the action	12 months A duration of 12 months is considered adequate to meet the objectives of the call for proposals. Proposals for a duration exceeding 15 months will not be considered.
Budget per project	EUR 75 000 to 300 000
Co-financing rate	Max. 95 %
Number of projects to be funded	Up to 5 projects
Applicants	Small Consortium (min. 2 applicants from 2 eligible countries)

# 6. ELIGIBILITY CRITERIA

## (CHAPTER 7)



- **Legal persons established in one of the EU Member States.**
  - Applicable to the coordinator, all co-applicants, as well as affiliated entities.
- **The proposal must be submitted by a consortium composed of at least two (2) entities, from at least two eligible countries.**

# 7. EXCLUSION CRITERIA

## (CHAPTER 8)



### ➤ Exclusion from participation

- Exclusion criteria are specified in the standard **Declaration of Honour (A4 Form)** of this call and apply to all applicants **and all affiliated entities**

### ➤ Exclusion from award

- have misrepresented the information required by EDA as a condition of participation in the grant award procedure or fail to supply this information upon request by EDA ;
- were previously involved in the preparation of the call for proposal documents where this entails a distortion of competition that cannot be remedied otherwise;
- are a Restricted Person and fall under the scope of subject to EU Restrictive Measures in the list published at [www.sancitonsmap.eu](http://www.sancitonsmap.eu). In case of discrepancies between 'sancitonsmap.eu' and the restrictive measures published in Official Journal of the EU, the latter prevails.

# 8. AWARDING CRITERIA (1/4)

## (CHAPTER 10)



### ➤ **Criterion 1. Relevance and viability of the proposed approach (25 points)**

Sub-divided in:

#### ➤ **Sub-criterion 1.1: Relevance of the proposal to the objectives of the call and aspects of circularity in defence (5 points)**

○ This sub-criterion will assess:

- how the proposed activities match in detail with the specific objectives of one or several project ideas;
- the relevance of the proposal to the military context
- the extent to which the proposal relates to the different aspects of circularity (ecodesign, extension of lifetime, recycling, use of recycled content, repair/retrofit/remanufacturing, training).

#### ➤ **Sub-criterion 1.2: Viability, rationality and innovativeness of the proposed methodology (20 points)**

○ This sub-criterion will assess:

- The soundness of the overall intervention logic (Concept and methodology);
- The robustness of the baseline of the project in terms of state-of-the-art, already existing solutions;
- The innovative character of the proposal, in terms of technological progress, novel character of the use case addressed and/or development of new tools.
- The realistic character of quantitative targets set out the project from a technical perspective (e.g. % of recycled content in (semi)product, mechanical performance, reduction of use of hazardous substances, number of people trained).

# 8. AWARDING CRITERIA (2/4)

## (CHAPTER 10)



### ➤ **Criterion 2. Impact of the proposed activities (25 points)**

Sub-divided in:

#### ➤ **Sub-criterion 2.1: Expected impact, respectively 5 and 10 years after the project (20 points)**

- This sub-criterion will assess both the expected impact resulting from the action and the robustness of the underlying assumptions regarding:
  - environmental gains and mitigation of environmental effects
  - military operational benefits
  - business impact and size of the marketby providing for example quantitative measures or other indicators.

#### ➤ **Sub-criterion 2.2: Credibility and effectiveness of the measures for the exploitation of project results (5 points)**

- This sub-criterion will assess the credibility of measures for the exploitation of project results, including but not limited to:
  - up-scale by public or private actors or through mobilising larger investments or financial resources;
  - replication in the same or other sectors or places.



# 8. AWARDING CRITERIA (3/4)

## (CHAPTER 10)



### ➤ **Criterion 3. Implementation, coherence and effectiveness of the work plan (30 points)**

Sub-divided in:

#### ➤ **Sub-criterion 3.1: Feasibility of the work plan (25 points)**

- This sub-criterion will assess the coherence and appropriateness of the activities for achieving the proposed outcomes by assessing:
  - work breakdown and schedule management
  - deliverables
  - milestones

#### ➤ **Sub-criterion 3.2: Quality of the proposed risk management (5 points)**

- This sub-criterion will assess the Identification of risks and mitigation measures applied to the work foreseen in the proposal.

## 8. AWARDING CRITERIA (4/4) (CHAPTER 10)



### ➤ **Criterion 4. 4. Quality of the resources deployed in relation to the objectives envisaged (20 points)**

Sub-divided in:

#### ➤ **Sub-criterion 4.1: Composition of the project team (10 points)**

- in terms of expertise, skills and responsibilities and appropriateness of the management structure es

#### ➤ **Sub-criterion 4.2: Appropriateness and transparency of the budget and resources and their consistency with the work plan (10 points)**



**If a total score lower than 60 of 100 points or a score lower than 50% for any of the four criteria is obtained, the proposal will not be evaluated further and will be rejected.**

# 9. FORMS



In Annex I:

- **A1. Consortium composition**
- **A2. Coordinator**
- **A3. Co-applicant profile (NB: 1 per legal entity)**
- **A4. Declaration of Honour**

*Annex II → Explanations on financial capacity check*

In Annex III:

- **B1. Technical proposal**
- **B2. Operational capacity**

In Annex IV:

- **C1. Estimated budget**

*Annex V → Draft Grant Agreement*

# 10. FORESEEN TIMELINE

## (CHAPTER 3)



	Stages	Date/time or indicative period
a)	Publication of the call	17 October 2024
b)	Deadline for request for clarifications	8 November 2024
c)	Publication of the clarifications	12 November 2024
d)	Deadline for submitting applications	18 November 2024 17:00 CET
e)	Evaluation period	November - December 2024 (indicative)
f)	Information to applicants on the outcome of the evaluation	January 2025 (indicative)
g)	<b>Signature of the grant agreement</b>	<b>March 2025 (indicative)</b>

In case of questions please contact: [Grant@eda.europa.eu](mailto:Grant@eda.europa.eu)

To submit your proposal please send it to: [24.ISE.CP.140@eda.europa.eu](mailto:24.ISE.CP.140@eda.europa.eu)





*IF (we)  
'CEED',  
we harvest!*

Time for  
Q&A

MANY THANKS FOR YOUR ATTENTION

*For questions or expression of interests,  
email: [circular.economy@eda.europa.eu](mailto:circular.economy@eda.europa.eu)*