



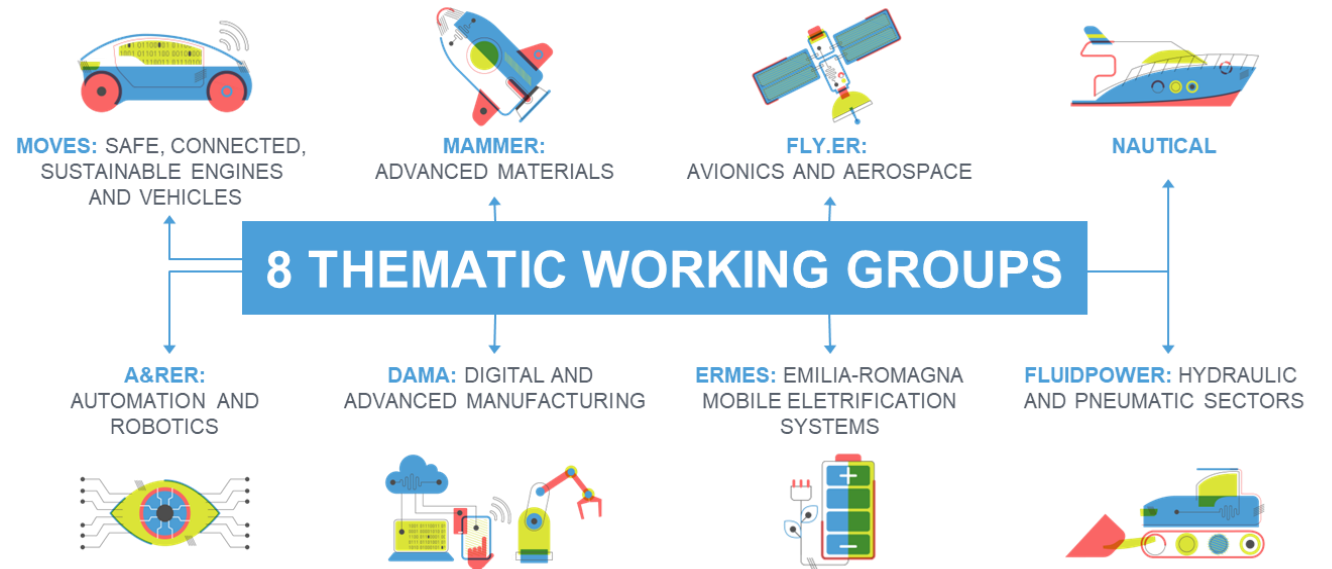
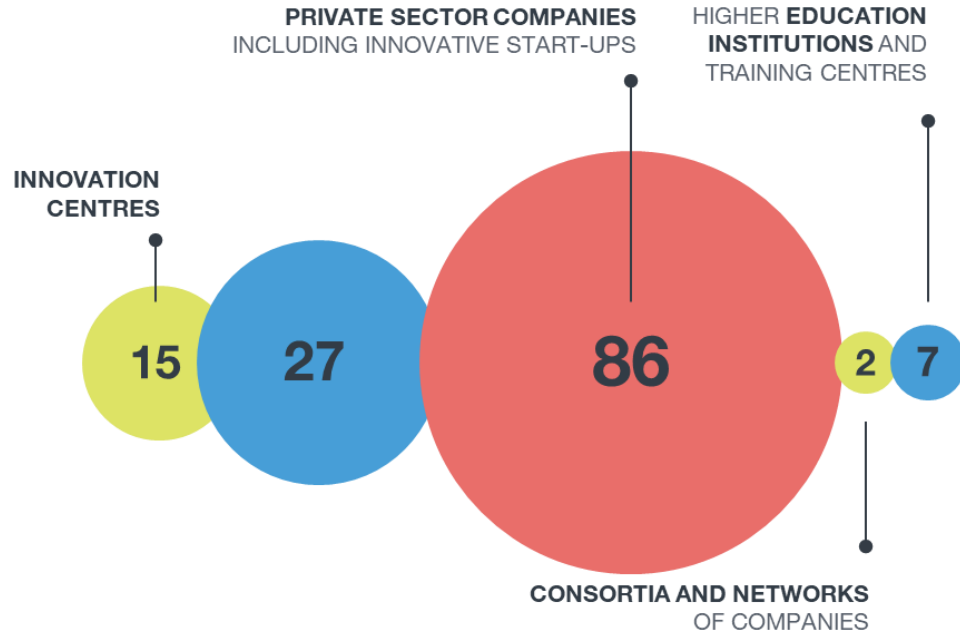
Presentazione seconda Open Call



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101005435



CLUST-ER MECH – AUTOMOTIVE & MANUFACTURING



About AMULET



- AMULET builds upon the framework of the INNOSUP-01 programme for H2020, which aims to develop new cross-sectoral industrial value chains by fostering the collaboration & integration of SMEs through the active participation of clusters.
- The ultimate goal of AMULET is to significantly **contribute to CO₂ emissions reduction** in the EU by **boosting the role of SMEs**.
- New lightweight value chains are going to be created by fostering the use and penetration of **3 types of materials** in **4 targeted sectors**

The 3 types of materials



polymer-based
composites



ceramic matrix
composites



light metal alloys

The 4 targeted sectors



building



aerospace &
aeronautics



energy



automotive

Partnership



FRANCE



ITALY



UNIVERSITY OF TECHNOLOGY
IN THE EUROPEAN CAPITAL OF CULTURE
CHEMNITZ

GERMANY



South West Hungarian
ENGINEERING CLUSTER

HUNGARY



POLAND



ITALY



SPAIN



AUTOKLASTR

CZECH
REPUBLIC



BELGIUM



FundingBox

POLAND



Norwegian University of
Science and Technology

NORWAY



SPAIN



SLOVENIA



About AMULET



Three types of activities will be implemented to foster innovation in SMEs.

FINANCIAL SUPPORT



**THEMATIC CHALLENGE
COMPETITIONS**

NON FINANCIAL SUPPORT



**TECHNICAL TRAINING
SUPPORT**



**BUSINESS TO BUSINESS
COACHING**



THEMATIC CHALLENGE COMPETITIONS



1st Open Call - Results



Industrial Challenges



The ultimate goal of AMULET is to significantly contribute to CO2 emissions reduction in the EU by boosting the role of SMEs.

In order to consolidate new lightweight industrial value chains in



BUILDING



**AEROSPACE &
AERONAUTICS**

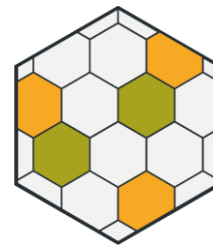


ENERGY



AUTOMOTIVE

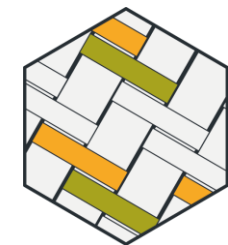
AMULET will identify current sectoral challenges per type of advanced material



**LIGHT METAL
ALLOYS**



**CERAMIC MATRIX
COMPOSITES**










**POLYMER-BASED
COMPOSITES**

Industrial Challenges – 2° Open Call



[Consult the list of challenges](#)

		Fiber-reinforced polymers	Ceramic matrix composites	Light metal alloys
Aerospace & Aeronautics		 8	 2	 2
Energy		5	2	2
Automotive		6	1	2
Building		1	2	1

2nd Open Call

- **SME consortia** consisting of **2 or 3 SMEs**
- Funding instrument includes a **lump-sum grant of up to 120,000€ per project (60k€ per SME)**
- **Up to 7 SME consortia** will complete the full program (all 3 stages)
- Duration of the **full program 15 months**
- The proposals aiming to reach **Technology Readiness Level (TRL) 7, starting from TRL 4-5.**
- Applications should **address (exactly) one of the Open Challenges**





Thematic competitions



2nd Open Call:

10th of January – 22nd of March


APPLICATIONS

-  3 online matchmaking events
-  Open: 10th January – 22nd March 2023
-  36 challenges
-  Aprox. 36 solutions invited to the Jury Day online

FEASIBILITY STUDY

-  Up to 25 consortia move forward to submit a feasibility study
-  Duration: 4 months
-  10 pages
-  €23,000 (per consortia)

DEMONSTRATION

-  Up to 7 consortia move forward to demonstrate their solutions
-  Duration: 9 months
-  €80,000 (per consortia)

FOLLOW UP SUPPORT FOR INNOVATION

-  A more customized and tailored educational program will be made available to the best up to 7 SME consortia
-  Duration: 2 months
-  €17,000 (per consortia)

Stage 1

Feasibility study

- **Output: Proof of concept** - detailed plan for demonstration (Stage 2) and exploitation (Stage 3) as well as the updated project-specific technical and business indicators (document <10 pages)
- **Activities:**
 - preliminary analyses to develop the solution,
 - solution description,
 - market analysis and impact,
 - organisational structure (e.g. requirements, resources needed),
 - preparation of timeline and financial projections.

Stage 2

Demonstration

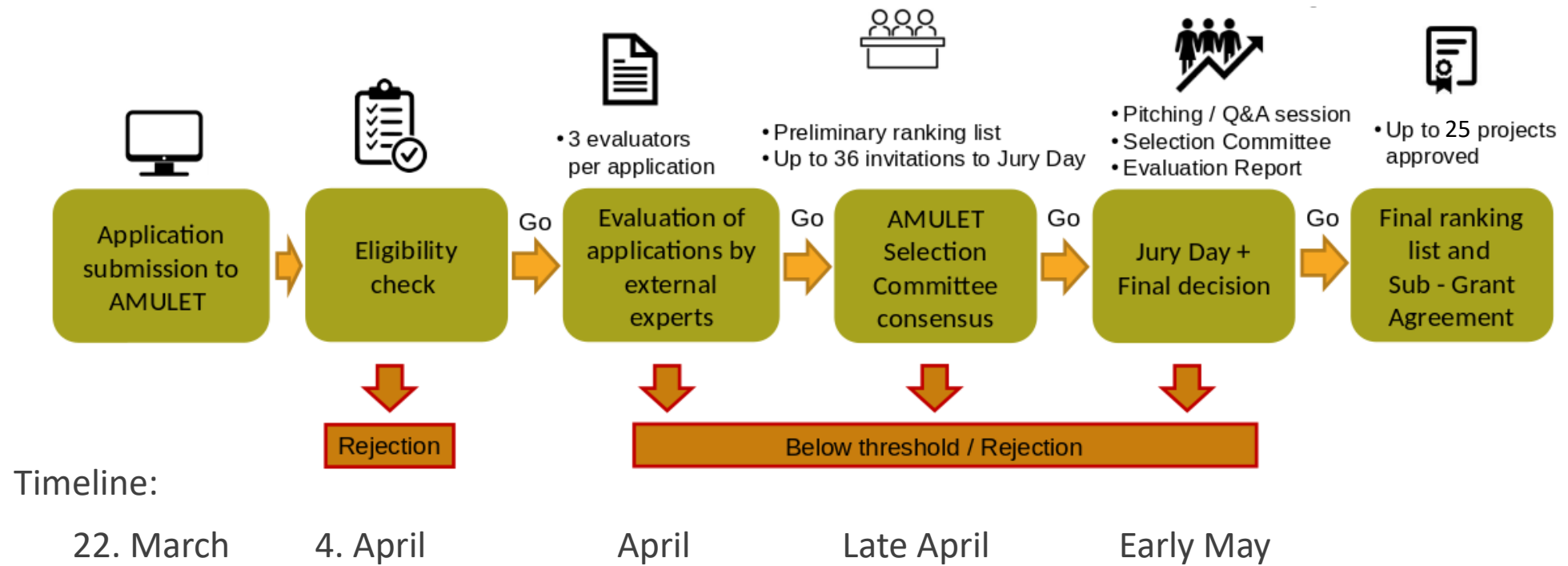
- **Output: Physical prototype(s)** and results from the **validation** (report)
- **Activities:**
 - manufacturing of prototype parts and components,
 - characterization, simulation and modelling,
 - prototype integration into system,
 - technical testing,
 - verification of the solution.

Stage 3

Follow up support for innovation

- **Output: Exploitation plan:** dedicated studies ensuring a successful exploitation (report, supporting documents)
- **Outsourcing these activities to external experts & companies (more than 50% of the Stage 3 budget).**
- **Activities:**
 - marketing strategy, IPR and dedicated studies in the targeted domains (sector, material),
 - effort-intensive analysis (technology scouting and surveillance),
 - foresight studies and scenario planning,
 - tailored market studies including competitive analysis.

Evaluation process - from application to stage 1



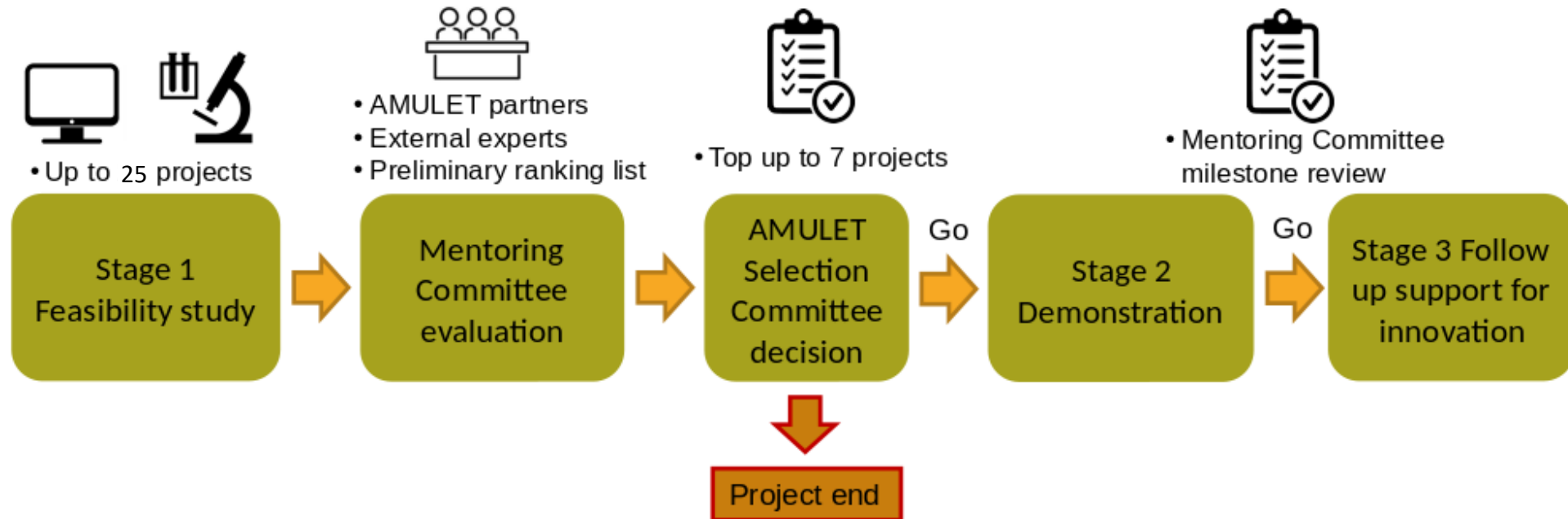
Project start: before July 1st 2023



AMULET support program – from stage 1 to stage 3



3 stages, Milestone Reviews to proceed to next stage



How to proceed?



1. Consult the Industrial Challenges – [AT THIS LINK](#)

AEROSPACE & AERONAUTICS

Polymer-based composites

1_A&A_PBC_LightAIRCRAFT

Title: Wet lay-up/vacuum bag process optimization for lightweight aircraft structures

Challenge summary

Wet lay-up/vacuum bag process optimization for lightweight aircraft structures, comparing different carbon fiber fabrics and core materials regarding weight and mechanical properties.

Scope of the challenge

- Production optimization of carbon fiber reinforced epoxy parts for light-weight aircraft by wet lay-up/vacuum bag process to achieve maximal mechanical performance (tensile-, compressive-, flexural strength, modulus etc.)

Objectives of the challenge

- Objective 1: Producing test panels (monolithic and sandwich) for mechanical testing with wet lay-up technology, materials to be used:
 - 200 gsm carbon fiber woven fabric (aero grade)
 - 160 gsm carbon fiber woven fabric (aero grade)
 - 200 gsm carbon fiber biaxial non-woven fabric
 - 80 gsm UD carbon fiber fabric
 - 300 gsm UD carbon fiber fabric
 - Airex C-70 PVC foam (or equivalent) with 5 mm thickness
 - AHC-Hex-48 aramid paper honeycomb, 48 kg/m³ – 3,2 mm cell size, 8 mm thickness

How to proceed?



1. Consult the Industrial Challenges – [AT THIS LINK](#)



2. Need to find an international partner? Register for the next matchmaking event on the Eventtia platform

1. Registration on this link : <https://live.eventtia.com/en/abd1>

2. Once the registration has been approved, go to the virtual stage: <https://virtual-stage.eventtia.com/en/abd1/home>

NEXT MATCHMAKING EVENT IS SCHEDULED FOR

20 FEBRUARY 2023 - 10AM – 12PM

Matchmaking Platform & Events



AMULET | AMULET Info Day and Matchmaking Platform

To see and update your profile

Main stage to access the events

See the programme of events and your meetings

See other participants and start networking

Chat with other participants and AMULET's partners

Welcome to AMULET's platform !

You will be able to :

- Learn more about the AMULET project
- Be part of the AMULET community
- See how to apply for the 1st Open Call
- Learn to use the virtual stage for the matchmaking part of the 1st Open Call
- Save the dates of the Info Days for Challenges presentation

Powered by eventtia

The screenshot shows a purple vertical navigation bar on the left with icons for profile, home, video, calendar, microphone, people, and chat. The main content area features a large graphic of interconnected hexagons in orange, green, and black. Below the graphic is a welcome message and a list of capabilities. At the bottom, it says 'Powered by eventtia'.



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3. Want to apply? 1. Submission through **AMULET Open Call microsite**

<https://amulet-2oc-h2020.fundingbox.com/>

2. Deadline on **22nd March 2023, 17:00 Brussels Time.**

3. Proposal must be **written in English** in all mandatory parts in order to be eligible.

4. Multiple submissions: **one SME can receive the AMULET grant only once.**

5. **All mandatory sections** of the application form must be **filled in.**

6. **Absence of conflict of interest** (you should not be related to AMULET partners)

7. Have a European dimension

Application form



+ Add a contributor

★ 1	BASIC AND LEGAL INFORMATION*	Fill
★ 2	PROJECT*	Fill
★ 3	EXCELLENCE*	Fill
★ 4	IMPACT*	Fill
★ 5	IMPLEMENTATION*	Fill
★ 6	ETHICS SELF ASSESSMENT*	Fill
7	STATISTICAL SECTION	Fill
★ 8	DECLARATION OF HONOUR*	Fill
★ 9	PROCESSING OF PERSONAL DATA*	Fill



EXCELLENCE

In this section, you should provide information on the innovation component of the product/service, its differentiation and on the research component in which it leverages. You should also demonstrate the soundness of the idea you're proposing and how collaboration and integration of different innovation actors fits in it. It will be scored by the AMULET evaluators (with a minimum threshold of 3 out of 5 points) with special attention to the ambition of your project and the innovation you're planning to introduce.

Ambition *

Please, demonstrate to what extent the proposed project is beyond the State of the Art and describe the innovative approach behind it (e.g. ground-breaking objectives, novel concepts and approaches, new products, services or business and organisational models). (max. 2000 characters).

Innovation *

Please, provide information about the level of innovation within the market and about the degree of differentiation that your project will bring. (max. 2000 characters).

Soundness of the approach and credibility *

You should provide concrete and verifiable arguments, and/or evidences that demonstrate the soundness of your approach regard to the premises of the

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NON FINANCIAL SUPPORT



**TECHNICAL TRAINING
SUPPORT**



**BUSINESS TO BUSINESS
COACHING**

Training Support to SMEs



Educational Materials

- Technical related knowledge
- Business/management knowledge

Repository with papers, news articles, tutorials, ...

Announcement of webinars within the topics of AMULET - SMEs in the competition will get priority in participation

All materials and access to coaching services go through

ELCA PLATFORM

<https://elca.innogetcloud.com>

The screenshot displays the AMULET platform interface. On the left, a user profile for Nicolò Bertolini is shown, including his role as Project Developer at Clust-ER MECH, profile visibility status, and response rate. The main content area features a webinar announcement for 'AMULET: Strategical Digital Transformation' on February 7th, 2023, from 14:00 to 16:00 CET. Below this, there is a 'Listed Webinars' section with a filterable list of topics such as R&D, Hackathons, Corporate Venturing, and Seminars. To the right, there are sections for 'Past Innovation Webinars' and 'Session Pitches EU Polymeris'. The interface includes a search bar, navigation icons for Home, My Activity, My Network, Messages, Notifications, and Resources, and a 'View ELCA partners map' button.

Educational Support to SME's



Available for all European SMEs – not only for SMEs attending the thematic competitions

Individual Coaching & Guidance

SMEs can benefit from free coaching service by AMULET experts - each one with different expertise.

Procedure when a request is submitted

- Short intake (written or phone)
- Setting up coaching plan (SME & coach): >5hours
- After completion: evaluation form

[Click here for the ELCA Platform](#)

A screenshot of the AMULET website's 'Listed Coaches' page. The page features a navigation bar with 'Challenges', 'Innovation Needs', 'Technology Offers', 'Events', 'Webinars', 'Repository', 'Jobs', 'Articles', 'Coaches', and 'Education'. A 'Become a Coach' button is in the top right. A 'FILTER COACHES' section on the left includes a search box and checkboxes for 'Sectors' (Automotive, Aerospace & Aeronautics, Building, Energy), 'Materials' (Light Metal Allows, Ceramic Matrix Composites, Reinforced polymers), 'Chain stages' (Materials supply & Development, Characterisation & Modeling, Design & Smart Functions, Manufacturing, Assembly & Joining, Scrap Separation & Recycling), and 'Business-related topics' (IP Management). The main content area shows a grid of 12 coach profiles, each with a profile picture, name, title, and a 'View Expertise' button. The coaches listed are: Ricardo Del Valle (22 followers), Emma Arussi (2 followers), Jakob König (18 followers), Annabelle Sion (11 followers), Marjeta Maček Kr... (1 follower), Sreco Skapin (4 followers), Nina Daneu (1 follower), Maria Vittoria Gar... (1 follower), Camilo Zopp, Kristina Roder, Nestler, Daisy, and Ona Bombi.

Topics



Materials

Polymer based composites
Light Metal Alloys
Ceramic Matrix Composites

Technological

Material Supply & Development
Characterisation & modeling
Design & Smart functions
Manufacturing
Assembly & Joining
Circular Economy

Sectors

Automotive
Aerospace & Aeronautics
Energy
Building

Business/Management

IP Management
Market Research
Internationalisation
Business Planning
Technical Surveillance
Funding



Useful links



1 Consult the Industrial Challenges – [AT THIS LINK](#)

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3 WANT TO APPLY?

Go to the **AMULET Open Call microsite** <https://amulet-2oc-h2020.fundingbox.com/>

4 Interested in coaching services and/or educational materials?

Register on the ELCA platform <https://elca.innogetcloud.com>



MAIL

nicolo.bertolini@mech.clust-er.it



AMULET H2020



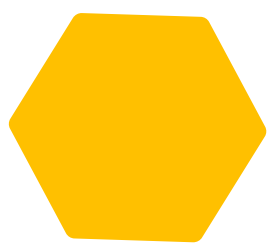
AMULET H2020



amulet-h2020.eu



AmuletH2020



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AMULET support – Eligible costs



Lump-sum grant provided in each of the stages of the support program to SME beneficiaries (up to 120 k€, max. 60 k€ per SME).

Costs incurred **during the lifetime of the AMULET support.**

Eligible costs categories:

- personnel costs,
- other direct costs (travelling, consumables, equipment, and costs of other goods and services),
- indirect costs (**25% flat rate** of the direct eligible costs),
- Subcontracting: includes tasks/services subcontracted to academic and industry experts (allowed in Stages 2&3, **max. 30% of total lump sum**)

AMULET support – Payments



	STAGE 1: FEASIBILITY PLAN M1- M4 up to 26 consortia		STAGE 2: DEMONSTRATION M5-M13 up to 7 consortia		STAGE 3: FOLLOW UP SUPPORT FOR INNOVATION M14-M15 up to 7 consortia
How much?	40% - up to 9,200€	60%- up to 13,800€	40%- up to 32,000€	60%- up to 48,000€	100%- up to 17,000€
Payment due?	Month 1	Month 4	Month 7	Month 13	Month 15
Requirements?	signature of the Sub-Grant Agreement	validation of the Deliverable(s) established for this stage (i.e. 'Proof of Concept [PoC]' and 'Business Plan').	validation of the Deliverable established for mid-term stage (i.e. 'Validation of Results'	successful conclusion and validation of the Deliverable stabilised for this stage (i.e. 'Prototype'	successful conclusion and validation of the Deliverable established for this stage (i.e. 'Exploitation Plan').