HACK2BRIDGE
Aerospace & Defence
France

Participants handbook

Funded by the European Union

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1. ABOUT HACK2BRIDGE FRANCE

Hack2BRIDGE is a hackathon dedicated to the aerospace and defense theme organized by **Aerospace Valley**, in collaboration with **the Ecole des Arts et Métiers de Talence** and **Bordeaux Technowest**, as part of **BRIDGESMEs**, a European project aimed at supporting **the transition of SMEs to Industry 5.0** by facilitating the **Connecting industrial SMEs with solution providers**.

HACK2BRIDGE is open to **students**, **start-ups**, **entrepreneurs** and **researchers wishing** to present and prototype innovative solutions that meet concrete challenges arising from the experiences and challenges encountered by manufacturers.

The hackathon offers a unique opportunity to enrich one's network, collaborate and propose solutions to concrete challenges, with the aim of accelerating the **digital and sustainable transformation of the aerospace and defense industry, by putting people back at the heart of transitions**. By fostering synergies between students, start-ups and industrialists, the competition stimulates the development of new products, services and business models, while expanding market opportunities and building bridges between industrial value chains.

Participants:

- Propose solutions to challenges proposed by leading industrial partners in areas such as circular economy, robotics/cobotics or OCR technologies
- Work alongside experienced mentors and industry experts.
- Present and promote their solutions to a jury made up of industry players.

By joining **Hack2BRIDGE France**, participants will not only expand their network, but also contribute to the future of a resilient and human-centric European industry.

Register here

1.1 Themes and challenges

The European aerospace and defence sectors are currently facing a wide range of pressing challenges, such as supply chain disruptions, the urgent need for sustainable solutions, skills shortages and the acceleration of digital transformation. SMEs and start-ups often lack the resources or technical capacity to take full advantage of emerging technologies or invest in cutting-edge R&D, which can limit their growth and ability to compete internationally. Hack2BRIDGE France aims to foster alliances between industrial SMEs and solution providers, by encouraging new cross-sector collaborations and innovative approaches.

The hackathon will foster synergies across the aerospace and defence value chain, empowering participants to design innovative solutions, create new business models and help shape the future of a resilient and human-centric European industry.

The themes of the Hack2BRIDGE France hackathon are as follows:

Extending the life cycle of drone batteries

Company Description: Manufacturing AI-assisted autonomous drones capable of operating in harsh conditions (wind, rain) with a current focus on maritime applications (e.g., Border Patrol surveillance).

Background: The company is currently working on relocating its production to France to reduce its dependence on the Asian market, using modular production facilities, i.e. industrial containers, for flexible deployment close to customers and a reduction of its carbon footprint.

Challenge Description: At present, there is no effective solution integrated into the manufacturing process and lifecycle of drones to reuse old batteries for secondary projects, thus extending their lifespan. The challenge is then to set up an adapted methodology for reusing/recycling drone batteries. The **expected solution** is a methodological and/or technological solution.

XR technologies for operator training on the drone manufacturing process

Company Description: Manufacturing AI-assisted autonomous drones that can operate in harsh conditions (wind, rain) with a current focus on maritime applications (e.g., Border Patrol surveillance).

Background: The company has already begun implementing human-centric practices in its products and processes, to better address the needs of customers and employees. The company intends to establish a test and training center for its customers and wants to focus on operator training at the same time.

Description of the challenge: The use of digital technologies and the implementation of virtual training methodologies offer various potentials. They could improve operator training through immersive simulations, reduce energy-intensive demonstrations, or improve coordination between drone operators and camera operators. In this context, the challenge is to develop a simulation system for operator training, integrating extended reality (XR), applied to a drone manufacturing process. The **expected solution** must be a technological tool.

Robotic and cobotic solution for aeronautical equipment testing and sandblasting and painting operations

Company Description: Use case focused on the maintenance and repair of aircraft equipment, mainly pressure systems such as fire extinguishers and oxygen masks, as well as

the manufacture and assembly of satellite engines. They do not manufacture the individual components, but take full responsibility for the entire assembly and validation cycle.

Background: Today's business processes involve several low-value-added and repetitive tasks. Testing of complex equipment, such as oxygen masks, is done manually, which is also time-consuming. The sandblasting and painting operations of the engines are precarious and involve significant effort and difficult postures for the operator. Automation is then necessary to improve the human-centrism and efficiency of these processes.

Challenge Description: The challenge is to set up and implement robotic or cobotic solutions capable of handling oxygen mask testing, under various temperature and pressure conditions, and for the automation of motor sandblasting and painting operations. The **expected solutions** must meet the need to reduce time for equipment testing and posture issues for sandblasting and painting operations.

Automation of engine logbook identification and data extraction

Company description: Safran Helicopter Engines is the world leader in helicopter engines and the only manufacturer to specialize exclusively in this market. With a global presence, the company employs 6,100 people worldwide, has more than 2,500 customers in 155 countries and more than 21,500 engines in service.

Background: Engine logbooks, veritable registers of engine identity, contain operating and technical data throughout the life of an engine, sometimes up to 50 years. They are often filled in by hand, with different writing styles and languages.

Challenge Description: Automating character recognition on engine logbooks or maintenance sheets, filled out by customers, is crucial in order to improve operational efficiency and keep track of equipment sent for repair. The challenge is to develop related technology and methodology to locate, identify and extract all the data from the engine's logbook, which can contain more than 100 pages. The expected solutions must create a resolving methodology and a technological solution to the challenge.

Details related to each challenge will be presented at dedicated information sessions in September 2025.

By joining Hack2BRIDGE France, participants will have the opportunity to work on relevant and high-impact industrial challenges, develop practical solutions and present their ideas to key players in the European aerospace and defense ecosystem.

1.2 Date, place and timeline

Hack2BRIDGE France will take place as a hybrid during the month of October.

Planning:

- **October 3, 2025:** Launch of the online hackathon via webex

- **From October 3 to 31, 2025:** Teamwork to meet the chosen challenge. During this period, the organising team remains available to answer participants' questions, give details of the challenges or put you in touch with experts.
- **October 31, 2025 at 12 p.m.:** Each team sends its pitch deck (the Excell template will be sent to each participant at the time of registration) to Cyrille THUAL (thual@aerospace-valley.com) and Laura CHIRON (chiron@aerospace-valley.com)
- **6 November 2025:** Face-to-face pitch sessions and awards ceremony, at the Cockpit in Mérignac (possibility to participate online if it is not possible for participants to travel).

Need help?

If you need further instructions, please contact the organizing team: **thual@aerospace-valley.com and chiron@aerospace-valley.com.**

1.3 Who can participate?

Hack2BRIDGE dedicated to the aerospace and defense theme is open to **SMEs, start-ups**, newly created companies or companies in the process of being created, as well as **teams of researchers, students, professionals from the public and/or private sector** seeking to develop innovative solutions. Minors can participate with a parental authorization.

Hack2BRIDGE welcomes **teams of up to 5 people, consisting of at least 2 people**. Team members may participate virtually as long as the majority of the team attends the competition in person.

1.4 Why participate?

Participants will have access to the following opportunities:

- **Networking** – Connect with passionate professionals, industry experts, and potential collaborators from a variety of fields.
- **Professional Growth** – Enhance your skills, hone your expertise, and learn from experienced mentors in a dynamic and collaborative environment.
- **Visibility and recognition** – Showcase your innovative solutions to gain visibility, recognition, and potential collaboration opportunities with participating organizations.
- **Interdisciplinary skills** – Working with experts from various disciplines, incorporating ideas to develop more comprehensive and innovative solutions.
- **Mentorship** – Receive one-on-one guidance from industry experts throughout the competition.

2. PREPARATION

To get the most out of your Hack2BRIDGE experience, please follow these steps:

- **Build a strong and diverse team:**
  Train your team with a mix of technical, business, and creative skills. Interdisciplinary teams are strongly encouraged.
- **Register online:**
  Complete your registration via the official link:
  https://bridgesmes.eu/hack2bridge/france/registration
- **Indicate your interests:**
  Once the final challenges are announced, let us know your preferred themes or challenge areas as soon as possible.
- **Review the judging criteria:**
  Familiarize yourself with the judging criteria and contest rules, which will be published prior to the event.
- **Follow**
  Aerospace Valley, Arts et Métiers Bordeaux-Talence, BRIDGESMEs and Bordeaux Technowest on social media for the latest news.

2.1 Useful information for participants

- Form multidisciplinary teams with members from different disciplines;
- Let your imagination and creativity run wild. Think outside the box, brainstorm, select the main features of your idea and implement it;
- Share tasks among team members and vote for quick decision-making;
- Make a schedule and organize your work;
- Ask the organisation team for advice. Enjoy!
- Have fun! Hack2BRIDGE is an opportunity to meet new people, learn new things and have a special experience.

2.2 What the organizer will provide

- Replay of the information and launch session;
- Guidance and support from experienced, industry-leading mentors;
- Template for your pitch deck;
- Breakfast and meals offered during the in-person award ceremony.

3. SPEAKERS

Several key groups of experts from the aerospace and defense sector will contribute to the success of Hack2BRIDGE France:

- **Scientific and Industrial Committee**

This committee is responsible for developing the scientific and commercial content of the competition's challenges. Committee members select relevant educational resources, develop detailed descriptions of challenges, and conduct thematic workshops to help participants develop innovative and technically robust solutions.

- **Speakers**

Leading figures in the industry will deliver keynote speeches to officially open the event and inspire attendees.

- **Mentors**

Experienced mentors from industry and academia will be available throughout the hackathon to guide participants, share expertise, and offer hands-on support. The full list of mentors will be announced shortly before the event.

- **Jury**

A jury composed of industrialists and experts in the aerospace and defense sector will attend the pitch of the participating teams and award prizes to the three best teams of the event.

4. THE COMPETITION

4.1 Contest Registration

To participate in the competition, you must register at the relevant link.

Whether you're signing up as a startup, SME, or team, make sure all team members are registered and over the age of 18 at the event.

Online registration is open until October 24, 2025.

In case of an extension of the application deadline, participants will be informed via official communication channels and the website.

4.2 The agenda

Below is the agenda. Any changes will be announced so that you can allocate your available time accordingly.

Program	
October 3, 2025	Kick-off session (online)
October 2025	
October 3 to October 31	Teamwork on challenges
October 31, 2025 at 12 p.m.	Sending pitch decks to the Aerospace Valley team
November 2025	
November 6, 2025	Pitch sessions and awards ceremony, in Mérignac (hybrid format possible on request)

4.3 Submission

All teams must submit a presentation (PowerPoint or PDF) **by October 31, 2025 at 12 p.m**. A template will be provided with more details on the content that should be included in the presentation. A demonstration or technical implementation related to the final presentation is optional.

The presentation should include the following:

- Introduction: Provide a clear summary of your presentation.
- The **problem**: Describe the problem you want to solve or the opportunity you're looking to exploit.
- The **solution**: Explain how your approach approaches the problem and the value it creates. Explained how you solve the problem and make sure your idea is feasible).
- The **market**: Identify your target customers or consumers. Quantify the size of the market, ideally in monetary terms (e.g., what is the size of the market?).
- The **business/pricing model**: Explain how your business generates revenue. Clarify who is paying you, the distribution channels you will use, your gross margins, and other key financial considerations.
- **Competition**: Are there alternatives? Are there direct or indirect competitors? Categorize them briefly.
- Unique **selling point(s**): Highlight what sets you apart from the competition. What makes your solution unique and compelling?
- The **team**: Introduce your team members, their skills, and their roles. Explain why your team is well-positioned to solve the problem.
- **Timeline**: Outline the next steps in implementing your idea. Identify key milestones and expected progress.
- Financial **data**: Present the expected costs, funding required and expected revenues. Provide estimates to illustrate the financial feasibility of your idea.

Beyond the submission of the presentation, the teams will have to pitch their idea and present it in front of a jury. Participants will have 10 minutes to present their solution and then participate in a Q&A session with the jury members for 10 minutes. The teams will be able to attend all the pitches.

When pitching, you should assume that you are "selling" your idea to potential investors! **Focus on capturing their attention and provide the required information that can help them assess the business potential of your idea**. Present both the technical and business aspects of your idea.

4.4 Evaluation process and final presentation

The competition process will be completed by the presentation of the participants to the jury. In terms of the presentation, participating teams should know the following:

- The duration of the presentation will be strictly regulated (limit to be specified during the competition).
- The submission must be complete (meeting all evaluation criteria).
- Presentations may be supported by actual prototypes, slides, and/or any other audio-visual support, as appropriate.
- Teams should keep in mind that they are targeting a potential client/investor and want to persuade them to invest in their idea.

The **evaluation criteria** are as follows:

1. **The relevance of the concept and its innovative nature (30 points)**

- Clarity and innovative nature of the solution (10 points): *is the proposed solution innovative? Does it stand out from the competition?*
- Adequacy with the challenge and issues of the sector (10 points): *is the proposed solution relevant to the targeted sector?*
- Coherence and solidity of the approach (10 points): *structuring of the project, storytelling, ability to convince*

2. **The technical quality of the proposal (30 points)**
    - Technical feasibility and realism of the solution (10 points): *The solution defended is feasible and can be implemented in the company*
    - Relevance and mastery of the technology used (10 points): *the proposed technology is adequate for the sector and target market*
    - Level of technological innovation (10 points): *what technological maturity?*
3. **The impact on the sector (30 points)**
    - Potential adoption of the solution in the sector and market launch (10 points): *Is the solution ready for adoption by the sector? Is the business model solid?*
    - Contribution of the solution to the competitiveness of the sector (10 points): *the solution contributes to the competitiveness of the sector?*
    - Contribution to the objectives of Industry 5.0 (sustainability and human factor) (10 points): *the project is in line with the sector's environmental transition objective and the proposed solution is centred on the human factor*
4. **Team dynamics and quality of collaboration (10 points)**

5. EVENT LOGISTICS

Participation in the hackathon is **free of charge**.

The event is in a hybrid format. The pitch sessions and the awards ceremony will be held in person, at the Cockpit in Mérignac with the possibility of participating online, in case of inability to travel.

6. COMMUNICATION - INFORMATION

If you encounter any problems while applying for the competition or if you need more information about any aspect of it, please do not hesitate to contact us! The main points of contact between the competitors and the organising committee are Laura Chiron and Cyrille Thual:

- Et : thual@aerospace-valley.com | chiron@aerospace-valley.com

7. PRICE

All participants will benefit from:

• Exclusive networking opportunities with industry leaders, innovators, and investors

• Development of interdisciplinary and entrepreneurial skills

• Visibility and commercial recognition within the European aerospace and defence and innovation ecosystem

- Certificates of participation for all registered team members

Prizes for the winning teams:

- **1st prize**: **6-month incubation offered by Bordeaux Technowest**and a **trophy Customized Aero**, custom-made by the company, **Crazy Metal**, which shapes unique parts from real aeronautical components;
- **2nd prize**: **training session to pitch your solution or company with Aerospace Valley**;
- **3rd prize**: Tickets **for the Cité de l'espace** in Toulouse for your team.

8. REGULATION

Here you will find an overview of the most important competition rules that all participants must follow or be excluded from the competition.

- All participants must be registered on the Hack2BRIDGE platform.https://bridgesmes.eu/hack2bridge/registration
- All participants must meet the conditions described in point 2.
- All teams must submit a complete pitch as defined in the "Project Submission" section by the submission deadline.

- All teams must propose one or more representatives who will present the Pitch during the dedicated Pitch Session.

9. CODE OF CONDUCT

- Activities that promote alcohol, tobacco, religion, politics, intolerance, violence, firearms, pornography, obscenity, gambling, or illegal drugs are explicitly excluded from the contest.
- We provide a harassment-free experience for all, regardless of race, creed, colour, ethnicity, nationality, religion, sex, sexual orientation, gender expression, age, physical appearance, height, disability or marital status. We do not tolerate harassment on our platforms in any form.
- Sexual language and images are not appropriate on our platforms.
- Anyone who violates these rules may be sanctioned or expelled from the competition at the discretion of the organiser.

10. IPR, OWNERSHIP OF RESULTS AND CONFIDENTIALITY

Ownership of any intellectual property developed by entrants during and in connection with the competition shall remain the property of each entrant.

The Organizers will not assume ownership of the intellectual property. The Organizer may use for promotional purposes the non-confidential textual and audio-visual descriptions of the intellectual property provided by the participants in connection with the contest.

The Organizer undertakes not to disclose to third parties the confidential information acquired in the context of the organization of the Competition. In addition, the Organizer ensures that all experts and mentors involved in the Competition agree to abide by a non-disclosure agreement.

11. DATA PROTECTION

The Organizer processes and protects all personal data in accordance with the privacy policy to be defined by the Client and in accordance with applicable privacy laws and regulations, in particular Regulation (EC) 45/2001 and Regulation (EU) 2016/679 (General Data Protection Regulation).

12. USER SATISFACTION

Participants undertake to complete a short user satisfaction questionnaire after the Competition.

13. AWARD DECISION

Decisions to award the award may not be subject to judicial review. The decisions made by the expert appointed by the Organizer are final and binding on all Participants. Participants have no right to justification for these decisions.

14. DATA PROTECTION

The Promoter will process and protect the personal data of all Participants in accordance with the General Data Protection Regulation (GDPR) and the relevant European Union data protection laws. All personal data of Participants will be processed exclusively in a member state of the European Union or in a contracting state of the Agreement on the European Economic Area. Any transfer of personal data to third countries is excluded.

By participating in Hack2BRIDGE, each participant agrees that their contact details will be shared with the European Commission (EC) and the BRIDGESMEs Project Coordinator for the purpose of informing them about issues related to Hack2BRIDGE or other relevant project activities, if the Coordinator or the EC deems it appropriate.

In addition, by participating in Hack2BRIDGE, all Participants acknowledge and agree that the Organizer and the EC may use their names, country of origin, comments, likenesses, photos and videos (including photos/videos taken during the Hack2BRIDGE), as well as non-confidential descriptions of their projects developed during the hackathon, for advertising or publicity purposes relating to Hack2BRIDGE on any medium known or later developed (including Internet and other networks), worldwide and at any time, without further compensation or right of review. Entrants agree to waive any rights with respect to such use.

The obligations relating to the protection of personal data will remain in force indefinitely, or as long as required by applicable law