



GALACTICA

**SMART INDUSTRIAL INNOVATION AS
ENABLER TO DRIVE NEW VALUE CHAINS
FOR TEXTILES AND AEROSPACE**

GALACTICA IMPACTS



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INTRODUCTION

GALACTICA project aims to support the creation of new industrial value chains around textile and aerospace sectors based on advanced manufacturing.

GALACTICA project provided a range support and services to favor the emergence of new concrete solutions and innovative value chains. This was done through two types of supporting vouchers for start-ups and SMEs, as described in the specific section of this document.

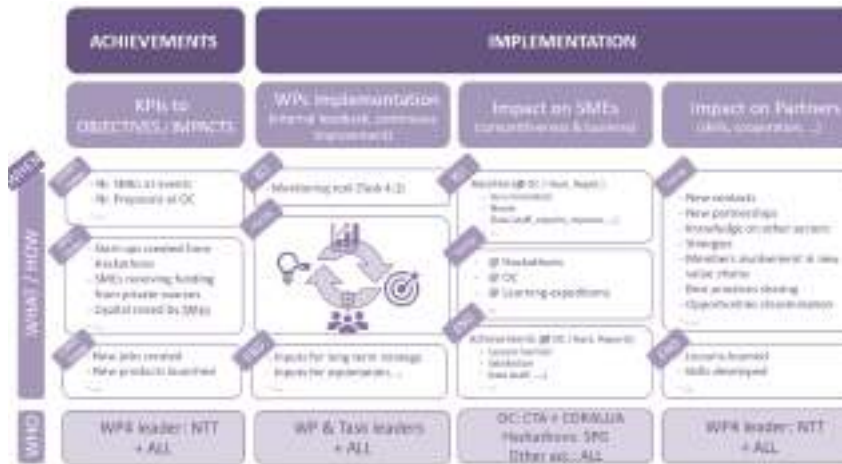
Through the Cascade funding, GALACTICA financed 51 projects, involving a total of 82 SMEs from the textile, aerospace and advanced manufacturing sectors, coming from 18 European countries.

The bundle of actions encompassed by GALACTICA was wide, with dedicated and diversified forms of support and intervention. For this reason, since the very early stage of the project implementation, a dedicated and comprehensive methodology for the monitoring of the ongoing activities and the assessment of the impact of each tool/service put in place was decided. The design of the methodology led to the definition of two main tools, analysed in the following sections of this document.

This publication aims to be a sharing point about the main outcomes generated by the two monitoring tools, to showcase the impact of GALACTICA and the effectiveness of the monitoring methodology specifically designed, with a special focus on the support provided to SMEs and start-ups.

MONITORING AND EVALUATION FRAMEWORK

The GALACTICA has established an effective framework for the monitoring and evaluation of the project actions and results, summarized in the following diagram.



MONITORING AND EVALUATION METHODOLOGY

The methodology adopted to monitor and evaluate the GALACTICA impact is twofold: a specific tool was conceived for the overall project achievements and another specific tool for the continuous monitoring of the activities implementation.

OVERALL ACHIEVEMENTS OF GALACTICA (GALACTICA SCOREBOARD TOOL):

Through the GALACTICA scoreboard tool the level of achievement of the predefined objectives was measured, i.e. the level of achievement of the set of project KPIs (Key Performance Indicators). All project partners were engaged in the constant updating of the KPI measurement.

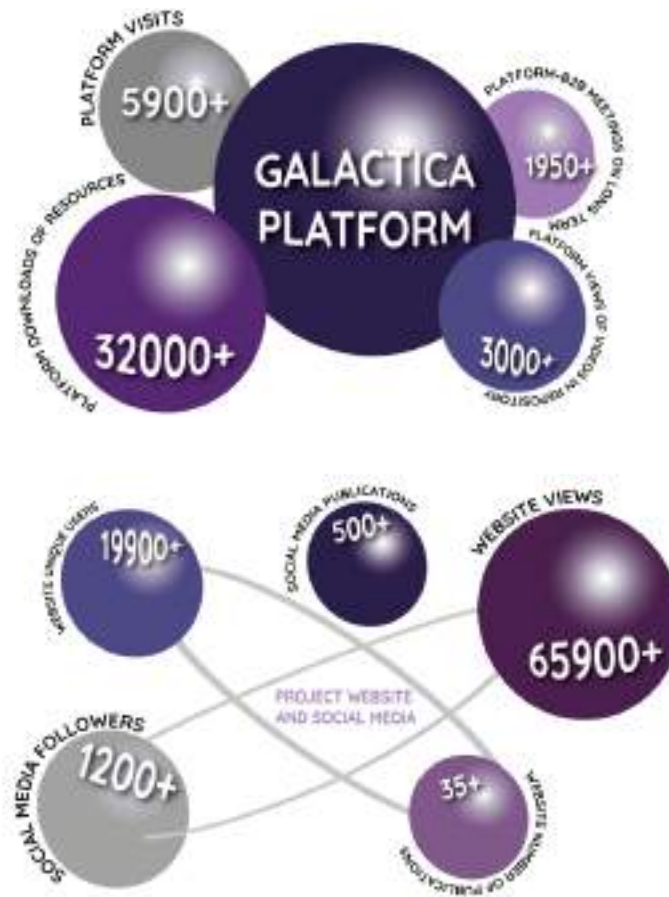
GALACTICA IMPLEMENTATION (INTERNAL MONITORING TOOL):

The internal monitoring tool proved to be strategic in helping the Coordinator and the Partners to monitor the correct implementation of the project, register its evolution, possible deviations and needs for revision. This monitoring tool intended to gather information from three perspectives: activities (WP – Work Package) implementation, impact on SMEs (external supported parties) and impact on project Partners. The internal indicators included in the monitoring tool were both quantitative and qualitative.

IMPACTS AND RESULTS OF GALACTICA PROJECT

GALACTICA PLATFORM AND WEBSITE

The GALACTICA outcomes are over the expectations in terms of dissemination of the project activities. The contents published in the website and the GALACTICA platform for collaboration, not only have reached a very wide audience, but have mainly supported SMEs to get involved in GALACTICA mechanism, that delivered technical and financial support through a high number of interactions with externals.



These outcomes are the results of massive communication internet campaigns.

SUPPORTING SMEs

Over the course of the project, GALACTICA team organised several activities to support SMEs: 2 hackathons, 2 matchmaking events, several webinars, 8 learning expeditions, and 8 workshops.

HACKATHONS

The first GALACTICA Hackathon was held online (due to travel restrictions) and the second was hybrid. The first Hackathon saw the participation of 39 teams (25 SMEs and startups, 14 students teams) from 14 EU countries. 10 teams were selected to access a second and final competition.

The second Hackathon accounted for 14 teams (11 SMEs and startups, 3 student teams) from 9 EU countries. 9 teams were selected to access the final that took place in Terrassa (Spain) on November 30 and December 1, 2021.

A total of €50k in prizes were awarded per hackathon (€25k to the winner, €10k to the runner-up, €10k to the student winner, €5k to the student runner-up).

A total of 53 teams participated in the Hackathons and among them 2 teams of students started up new companies.



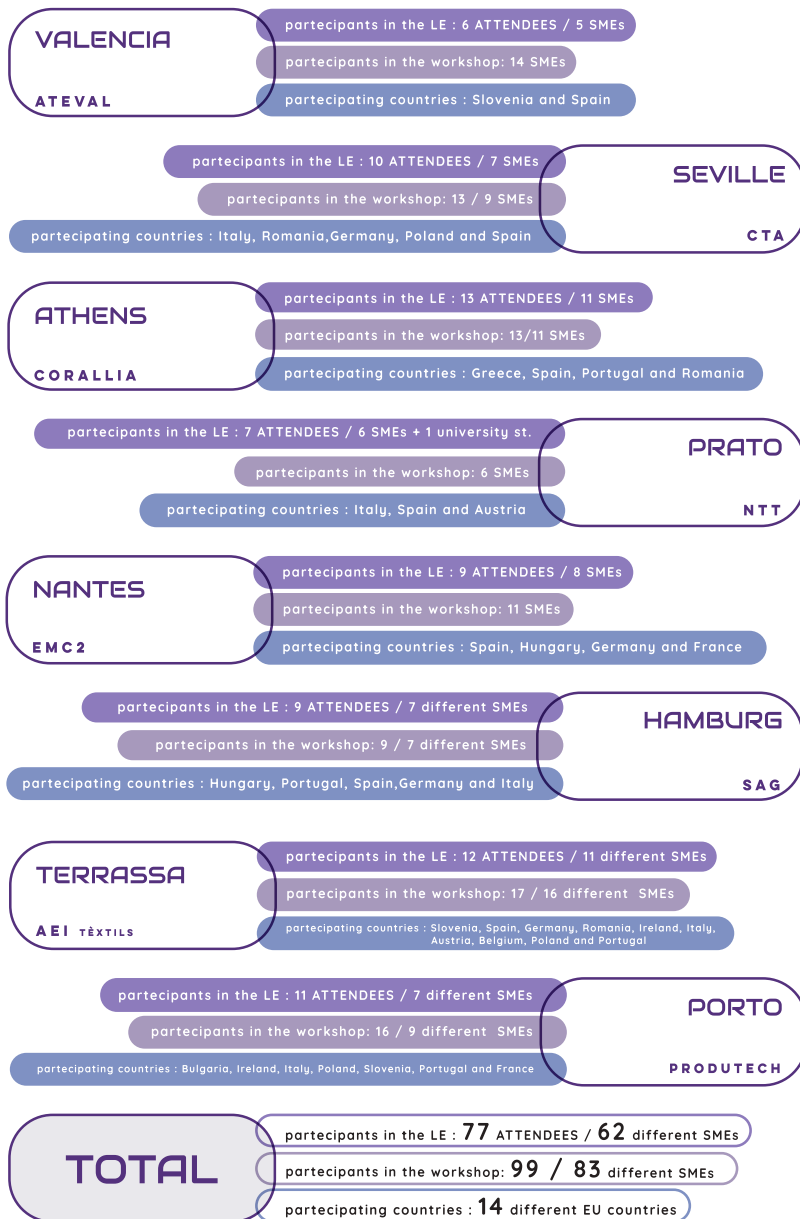
2nd GALACTICA Hackathon in Terrassa

LEARNING EXPEDITIONS AND CROSS-SECTORAL FERTILIZATION WORKSHOPS



The GALACTICA Learning Expeditions (LEs) aimed at fostering cross-regional and cross-sectoral collaboration through visits to flagship institutes in combination with innovation workshops. The 2-day journeys were planned to sow the seed for interlacing the different sectors (textile, aerospace, and advanced manufacturing) by enabling the identification of potential partners for commercial and innovation cooperation, to ultimately generate growth opportunities for SMEs.

8 learning visits combined with 8 cross-sectoral fertilisation workshops were carried out.



MATCHMAKING EVENTS

Two GALACTICA Matchmaking events were organized to help initiate cross-border collaborations among SMEs from the GALACTICA community. The first GALACTICA Info-Day and Matchmaking Event was held entirely online, and gathered 222 registered participants from different European regions, that were engaged in a total number of 176 B2B (Business To Business) meetings.

The second GALACTICA Info-Day and Matchmaking Event gathered 26 participants from 12 countries on-site, and 40 participants online. In total, over 66 SMEs participated in this hybrid session, generating 84 B2B meetings: each participant was involved in at least one B2B meeting, and the majority of them in around 5.

The total **number of SMEs to both GALACTICA Info-Days and Matchmaking Events were 177**, while the attendees during the in-person matchmaking were 288.

SMES SUPPORTED BY CASCADE FUNDING MECHANISM

PROPOSALS RECEIVED FOR PIONEER AND ORBITAL PROJECTS CALLS

One of the most impacting actions of GALACTICA was the call for projects, conceived to support SMEs and start-ups growth and innovation. Two calls were opened and two types of project proposals were possible for applicants: “Pioneer” and “Orbital” projects.

Pioneer Acceleration: exploration of new cross-sectoral value chains feasibility with focus on developing a Minimum Viable Product (MVP) connecting two or more of the sectors (aerospace, textile, advanced manufacturing).

Orbital Projects: implementation of functional prototypes and demonstrators for new cross-sectoral value chains, connecting two or more of the sectors (aerospace, textile, advanced manufacturing), while funding the integration of non-technological innovations for speeding up market match.

1ST CALL

During the first Call, **83** proposals were submitted in total, both for Pioneer Acceleration and Orbital project vouchers.

A total of **26** proposals were proposed for funding:

Pioneer Acceleration: 18
Orbital Projects: 8

2ND CALL

During the second Call, **84** proposals were submitted in total, both for Pioneer Acceleration and Orbital project vouchers.

A total of **25** proposals were proposed for funding:

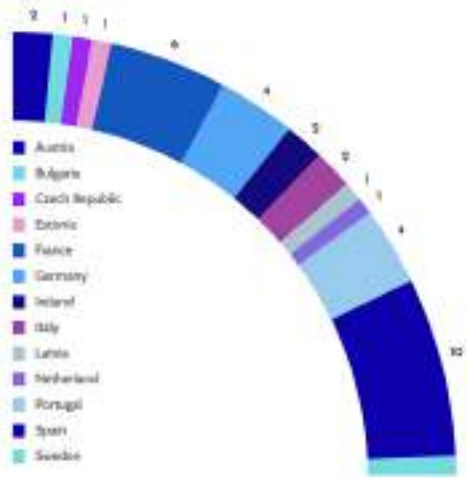
Pioneer Acceleration: 11
Orbital Projects: 14

	1 ST CALL	2 ND CALL	TOTAL
PIONEER ACCELERATION	18	11	32
ORBITAL PROJECTS	8	14	19
TOTAL	26	25	51

AWARDED SMEs

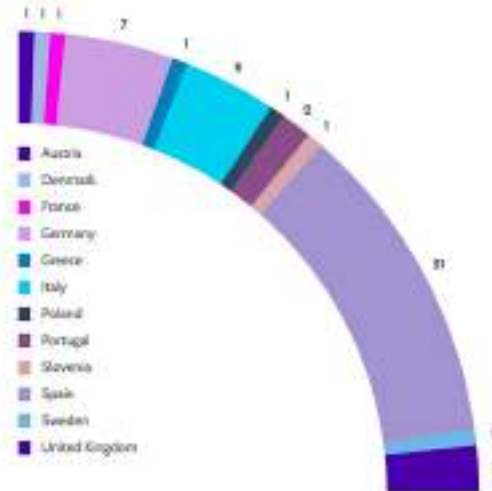
1ST CALL

For the Pioneer Acceleration proposals the number of awarded SMEs is 20 and for the Orbital 16, **for a total number of 36 awarded SMEs in the 1st call.**



2ND CALL

For the Pioneer Acceleration proposals the number of awarded SMEs is 12 and for the Orbital 34, **for a total number of 46 awarded SMEs in the 2nd call.**

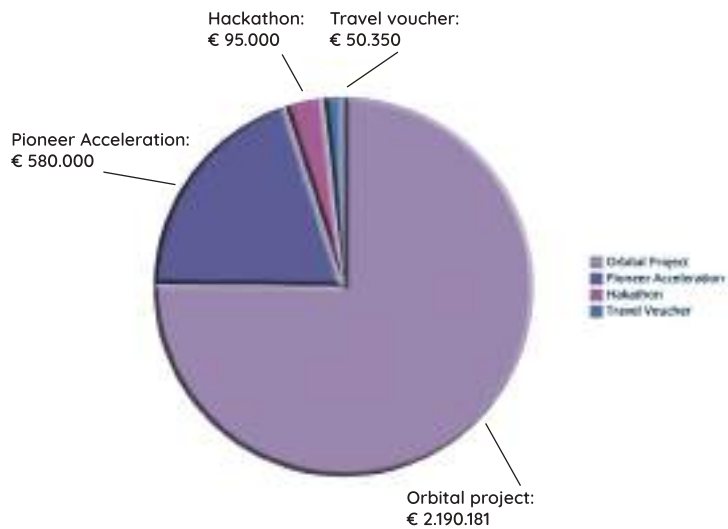


AMOUNT OF FINANCIAL SUPPORT FOR PIONEER AND ORBITAL PROJECTS

The GALACTICA budget for the two calls was €2.770.181 in total, distributed as follows between Pioneer and Orbital projects:

Pioneer Acceleration	Orbital Project	TOTAL
€ 580.000	€ 2.190.181	€ 2.770.181

OVERALL DISTRIBUTION OF CASCADE FUNDING



VALUE CHAIN CREATED BY PROJECTS SUPPORTED

The emergence of cross-sector and cross-border collaborations is at the core of the development strategy of SMEs that often do not dedicate to this activity the necessary attention and amount of resources. From this point of view, GALACTICA was a powerful and effective tool to set up the conditions for the new value chains creation. Through the actions listed in the previous sections, SMEs of the GALACTICA community had the opportunity to learn, grow, experiment and increase their value proposition, as per the impact indicators shown as follows.

NUMBER OF NEW VALUE CHAIN

GALACTICA provided a wide range of support and services to favor the emergence of new concrete solutions and innovative value chains: among the projects supported, 51 new value chains were created around textile and aerospace sectors based on advanced manufacturing. Four macro-areas were identified as a synergic approach to allow contamination among the new value chains emerged.

	TEXTILE TEXTILES	SPACE	SMART TEXTILES	NEW LIGHTWEIGHT MATERIALS
1 ST CALL	5	6	7	8
2 ND CALL	9	6	7	3

Number of new value chains created

CROSS-BORDER SME COOPERATION PROJECT ESTABLISHED

In total 63 cross-border cooperative projects were supported by GALACTICA. The interregional dimension was a strategic focus, as demonstrated by the figures below.

1 ST CALL	CROSS-BORDER	NON CROSS-BORDER	TOTAL
1 ST CALL	8	19	27
2 ND CALL	32	24	56

1ST call - number of cross-border partnership

2 ND CALL	CROSS-BORDER	NON CROSS-BORDER	TOTAL
1 ST CALL	3	33	36
2 ND CALL	26	22	48

2ND call - number of cross-border partnership

NUMBER OF CIRCULAR ECONOMY-BASED PROJECTS

The percentage of projects supported by GALACTICA that address environmental issues towards circular economy solutions versus the total number of supported projects is 87,4%, addressing strategic issues like recycling and selection of textile scraps.

EXPLOITING CLUSTER SYNERGIES BY COMBINING DIFFERENT COMPETENCES AND INNOVATIVE SOLUTIONS

A set of actions were dedicated to the creation of synergies, mixing different actors, different sectors, different expertise, different expectations and finally different personalities. The tools put in place and the main relevant outcomes are reported below.

WORKSHOPS ORGANISED WITH RIS3 AUTHORITIES, S3 PLATFORMS AND VANGUARD INITIATIVE PILOTS

GALACTICA partners linked with the regional authorities, platforms and policy makers, mainly by workshops and not-formal contacts: 2 official workshops with S3 (Smart Specialisation Strategy) authorities took place, plus several discussions with regional authorities officers in charge of S3 policy definition.

BEST PRACTICES PUBLISHED TO SUPPORT SME INNOVATION AND LEVERAGING WITH S3 INITIATIVES

GALACTICA released a public handbook about best practices (GALACTICA BEST PRACTICES HANDBOOK - GUIDELINES TO IMPLEMENT A "CASCADE FUNDING" PROJECT), shared with S3 authorities and other relevant stakeholders.

ADDITIONAL IMPACT ON FUNDED SMEs

A final section is dedicated to benefits generated that started within GALACTICA action and perimeter but will continue in the short-medium term. Real benefits are often measured by economic and financial values, and GALACTICA is proud to announce that these ambitious goals were made possible!

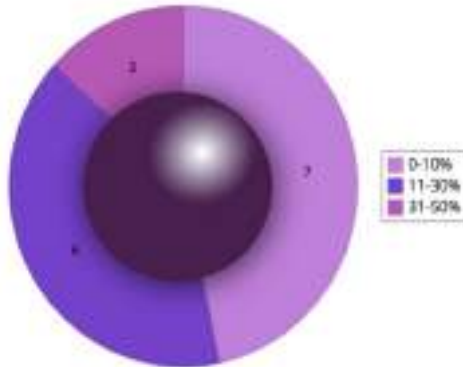
SMEs RECEIVED FOLLOW-UP INVESTMENTS OR FUNDING EITHER THROUGH PUBLIC OR PRIVATE CAPITAL LEVERAGE

8 SMEs involved in the new value chains generated by GALACTICA received, on top of the GALACTICA voucher, follow-up investments or funding either through public or private capital leverage. 2 of the best performing supported SMEs pitched at the European Investment forum of Business Angels.

Finally, 8 SMEs/start-ups supported by GALACTICA raised capital from private investors.

INCREASE IN REVENUE FOR SMES PARTICIPATING IN GALACTICA PROJECTS

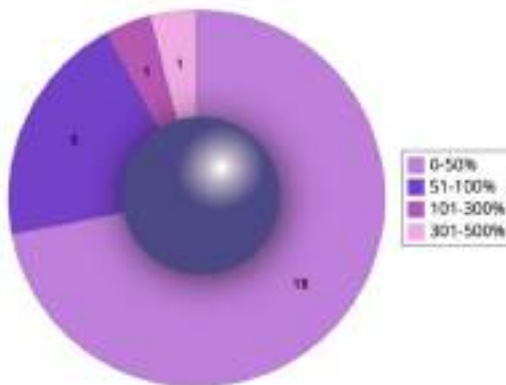
A final assessment of the SMEs supported by GALACTICA revealed that 15 of them have already experienced an increase in revenue as a result of the project implemented.



Increase in revenue (%)

INCREASE IN STAFF FOR SUCCESSFUL MARKET LAUNCHES OF NEW VALUE CHAINS

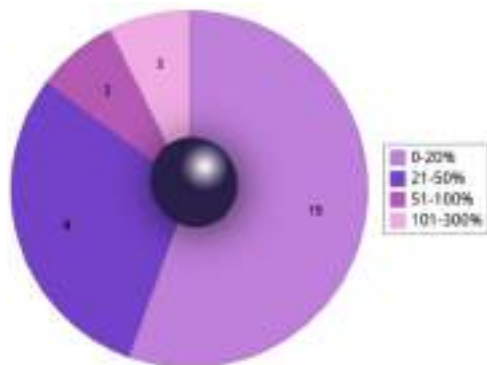
25 supported SMEs increased their technical staff after the project, demonstrating the enrichment of company's internal skills.



Increase in staff (%)

FUNDED SMEs INCREASE IN PRODUCTIVITY

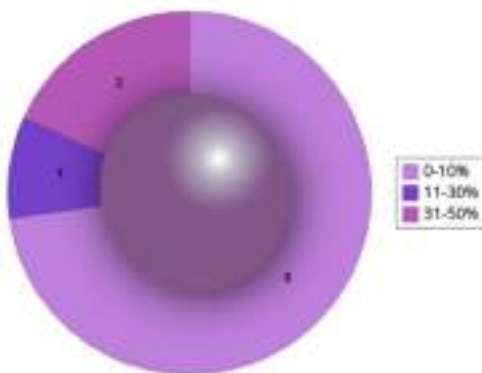
27 supported SMEs experienced an increase in productivity in the months after the end of the project.



Increase in productivity (%)

SMEs INCREASE IN EXPORT INTO NEW MARKETS/SECTORS

11 SMEs supported by GALACTICA increased their exports into new markets (again, assessed via a survey at the end of the project). Many of the other supported SMEs will testify an increase in their exports in the coming years.



Increase in export into new markets/sectors (%)

CONCLUSIONS

GALACTICA methodology for the impact assessment proved to be effective and easy to use. The two tools conceived were kept alive during the project implementation thanks to the contribution of all GALACTICA partners.

This methodology also put an eye on the future perspective, by allowing the measurement of short, medium and long terms effects. Three specific sections of the tools are dedicated to this scenario.

As a last consideration, the monitoring methodology of project performance shows a high level of replicability, as it can apply to other similar actions, where a set of services is delivered to support the industrial creation of new collaborations. The adaptation of the two tools can be easy and very practical.

GALACTICA partnership is willing to share the methodology with other project beneficiaries and business actors to favor a simple and effective valorisation of project concrete results.

GALACTICA will continue to monitor the effects of the implemented activities and to strengthen the collaboration, both with supported business organisations and within project partners.

Team that wins does not change!



PARTNERS



ATEVAL



CTA



EMC2



Süderelbe AG
Metropolregion Hamburg

Science Park
The High Tech Incubator
Graz



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