

R&D PROJECTS

HORIZON-CL5-2022-D2-01-05

Project: 101103821 BATSS

Starting date: 01.01. 2024

End date: 31.12.2026

Beneficiary: Fundación CIE I+D+i

BATSS project will focus on the development of a novel battery system concept which exhibits improved high-performance and safety, as a way to unlock the market uptake of next-generation battery system to a broad range of transport applications. The project will develop a specific Safe-by-Design (SbD) approach to guide the whole R&D process, aiming at identifying and mitigating (even eliminating) safety risks across the life cycle of the battery, while also allowing to counteract possible performance and cost trade-offs linked to the implementation of safety barriers in the battery system. The Consortium will develop a new cell-to-pack modular concept targeting at an outstanding safety and electro-thermal performance, mainly for off-road devices (construction site vehicles) and waterborne transport (maritime passenger e-ferries). BATSS consortium will develop, up to TRL5, the different thermal, electric and mechanical innovations to meet (and improve) the industry use cases performance and safety requirements, guided by the SbD approach and supported by cutting edge modelling and simulation tools for the battery system design and predictive maintenance functionalities of the Battery Management System (BMS). Last, but not least, the end of life (EoL) step will be under the scope through (i) the modular concept enabling easier assembly-disassembly of used battery systems, (ii) the data-supported automated disassembly techniques, and (iii) the exploration of battery system second life in a semi-stationary product.

www.batss-project.eu



**Funded by
the European Union**

This project has received funding from the European Union's Horizon Europe research and innovation programme

R&D PROJECTS

HORIZON-CL4-2022-DIGITAL-EMERGING-02-05

Project: 101120276 SoliDAIR

Starting date: 01.10. 2023

End date: 30.09.2026

Beneficiary: Fundación CIE I+D+i

SoliDAIR brings together 10 manufacturing, technological and research experts to accelerate the uptake of Artificial Intelligence (AI) and Robotics in European manufacturing, using Data as an enabler. It will co-develop and demonstrate tailored solutions to digitalise and automate visual inspection and physical testing, enable predictive quality control and process optimisation. AI & Robotics systems are not extensively used in the production industry, because it is not clear whether they are safe and when or why they will fail. The SoliDAIR project tackles this problem by researching, developing and testing methods that are as solid and trustworthy as possible to be adopted by the European industry, while being cost-efficient to develop and replicate. New methods and tools will be developed by research and technology providers, which leverage the current state of the art in visual AI, AI for process data, and smart & collaborative Robotics.

The developed technologies will be applied and demonstrated in 4 industry use cases to prove their functionality and applicability in real production environments. The objective is to improve production processes through digitalised and automated quality control for high volume, high rate and flexible manufacturing. The use cases are led by mature European manufacturing companies and represent problems that every producing industry struggles with. Solving them increases the process efficiency and flexibility, while improving the working conditions of the process staff. The developed methods shall be efficiently and easily adaptable and replicable, so they can be easily applied to new use cases outside the consortium. The accelerated adoption of the AI & Robotics solutions, tools and methods solutions will facilitate a strong increase in the competitiveness and sustainability of the EU manufacturing companies across sectors.

<https://www.solidair-project.eu/>



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This project has received funding from the European Union's Horizon Europe research and innovation programme

R&D PROJECTS

Cofinanciado por:



Project Designation | BETTER PLASTICS .: BETTER PLASTICS - PLASTICS IN A CIRCULAR ECONOMY

Project ID | POCI-01-0247-FEDER-046091 | LISBOA-01-0247-FEDER-046091

Main Objective | OT1 - Reforçar a investigação, o desenvolvimento tecnológico e a inovação

Intervention Region | Norte, Centro, Lisboa, Alentejo

Beneficiary Entity | VIZELPAS FLEXIBLE FILMS, S.A.

Participants | Vizelpas Flexible Films, S.A. | Danipack – Indústria de Plásticos, S.A. | Ecoibéria – Reciclados Ibéricos, S.A. | Intraplás – Indústria Transformadora de Plásticos, S.A. | Isolago – Indústrias de Plásticos, S.A. | KLC – Indústria de Transformação de Matérias Plásticas, LDA | Logoplaste Innovation Lab, LDA | Neutroplast – Indústrias de Embalagens Plásticas, S.A. | Plasfil – Plásticos da Figueira, S.A. | Plasmaq – Máquinas e Equipamentos para a Indústria de Plásticos, LDA | Plasoeste – Sociedade Transformadora de Plásticos, LDA | Repsol Polímeros, Unipessoal LDA | Sacos 88 – Sociedade de Plásticos, LDA | S.I.E. – Sociedade Internacional de Embalagens, S.A. | Sirplaste – Sociedade Industrial de Recuperados de Plástico S.A. | Sonae MC – Serviços Partilhados, S.A. | PIEP Associação - Pólo de Inovação em Engenharia de Polímeros | Universidade do Minho | Laboratório Ibérico Internacional de Nanotecnologia (INL) | Universidade Nova de Lisboa | Instituto Superior Técnico | Instituto Politécnico de Leiria | Universidade de Aveiro | Universidade de Coimbra | Associação Portuguesa da Indústrias de Plásticos – APIP.

Approval Date | 09-06-2020

Start Date | 01-07-2020

End Date | 30-06-2023

Overall budget | 6.292.661,23 Euros

EU Contribution FEDER – 3.785.805,31 EUR

Financing Program | Programa Operacional Competitividade e Internacionalização (POCI) | Programa Operacional Lisboa (PO Lisboa)

Summary | BETTER PLASTICS aims to mobilize the Plastics Sector in Portugal, in order to leverage the transition of the sector to a circular economy. Arises from an initiative by APIP – Associação Portuguesa da Indústria dos Plásticos, which intends through this application, to mobilize the private sector together with national authorities, universities and citizens, thus contributing to the objectives of the European Circular Economy of reducing greenhouse gas emissions, greater resource efficiency and job creation.

Project Framework | PPS 1 –Circularity by Material Design | PPS 2 - Circularity by Product Design | PPS 3 - Circularity by Recycling | PPS 4 – Circularity by Alternative Raw Materials | PPS 5 – Management and Coordination.

R&D PROJECTS

Designação do projeto | Smart Factory - Aumento de capacidade produtiva para fabrico de soluções de controlo high-tech para veículos autónomos

Código do Projeto | POCI-01-0249-FEDER-043141

Objetivo principal | Reforçar a investigação, o desenvolvimento tecnológico e a inovação

Região de intervenção | Centro

Entidade beneficiária | PLASFIL - PLÁSTICOS DA FIGUEIRA S.A.

Data de aprovação | 21-05-2019

Data de início | 27-09-2018

Data de conclusão | 26-09-2020

Cofinanciado por:



UNIÃO EUROPEIA
Fundo Europeu
de Desenvolvimento Regional

Custo total elegível | 5.940.924,84 EUR

Apoio financeiro da União Europeia | FEDER - 891.138,73 EUR

Síntese do Projeto:

A Plasfil Plásticos da Figueira, S.A., empresa integrada no grupo empresarial espanhol CIE Automotive, com estabelecimento na zona industrial de Gala em São Pedro, Figueira da Foz, é uma empresa que se dedica à produção de diversos componentes plásticos, sobretudo para a indústria automóvel.

A indústria automóvel está a evoluir no sentido de prestar uma oferta cada vez mais intensiva de veículos autónomos e outras soluções de autonomização da mobilidade. A Plasfil, identificando essa tendência na indústria pretende realizar um projeto de investimento, que visa a criação de um novo produto, um sistema touch screen para controlo de habitáculo orientado para veículos autónomos, sendo que este sistema será integrado em bancos rotativos a 360º.

Tendo em conta as características deste novo produto, verifica-se que este representa um grande desafio a nível tecnológico para a empresa, sendo que este produto se revela inovador não só pelo carácter de novidade ao nível internacional, mas também pelo facto de este ser integrado em soluções de mobilidade verdadeiramente inovadoras, exigindo que a empresa tenha em sua posse tecnologia e capacidades técnicas “State-of-the-art” conseguidas através de esforços de I&D do grupo industrial onde o promotor se insere. Verifica-se ainda que no processo de produção será implementado um método de arrefecimento de moldes de injeção de plástico, pelo que se revela inovador dado o seu grau de novidade em território nacional.

A realização deste projeto implica o investimento no aumento da capacidade produtiva do estabelecimento da Plasfil em São Pedro, pelo que serão realizados investimentos para qualificar o estabelecimento de modo a sustentar esse aumento de capacidade. Serão também feitos investimentos em equipamentos e máquinas orientadas para a injeção de plásticos, bem como robôs autónomos de suporte às máquinas e equipamentos, criando um layout produtivo cada vez mais automatizado e logisticamente integrado. Será ainda realizado investimento em tecnologia para que a unidade produtiva opere de acordo com os objetivos e diretrizes das indústrias 4.0 definidos em referencial.

R&D PROJECTS

SPaC

R&D PROJECTS

PROJECT:
PROJETO: | **SPaC – SmartPlasticCover**

Reference:
Referência: | **POCI-01-0247-FEDER-038379**

SPaC aims to develop and implement new techniques that bring together several distinct car interior control features into a single integrated injected smart plastic system supported by touch-free, mechanical contactless, rugged, easy-to-build and end-part integration supported by low power electronics and therefore high added value.

O SPaC visa desenvolver e implementar novas técnicas que agrupem várias funcionalidades de controlo do habitáculo automóvel distintas num único sistema integrado de smart plastic injetado, suportado por tecnologia touch, sem contactos mecânicos, robusta, de fácil construção e integração na peça final, apoiada em eletrónica discreta de baixa potência e, portanto, de elevado valor acrescentado.

Company involved:
Empresa envolvida: | CIE Plasfil

Funded by:
Financiado por:



R&D PROJECTS



UNIÃO EUROPEIA

Fundo Europeu
de Desenvolvimento Regional

Project Title

Designação do projeto

SPaC – SmartPlasticCover

Project Code

Código do projeto

POCI-01-0247-FEDER-038379

Main goal

Enhance research, technological development and innovation

Objetivo principal

Reforçar a investigação, o desenvolvimento tecnológico e a inovação

Region of intervention

Central Region

Região de intervenção

Região Centro

Beneficiary

Entidade beneficiária

PLASFIL – Plásticos da Figueira, S.A.

Start date

Data de início

01-03-2019

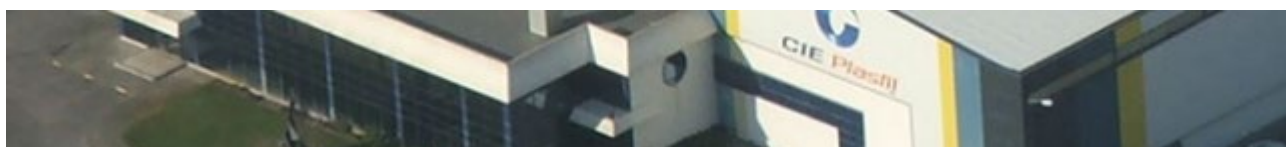
End date

Data de conclusão

28-02-2021

Custo total elegível **672.838,52 euros**

Apoio financeiro da União Europeia FEDER, **333.007,35 euros**



R&D PROJECTS

H2020-NMBP-TR-IND-2020-singlestage

DT-FOF-09-2020

Proposal Number 958339

Period: 1st November 2021 -30th October 2024

Beneficiary: CIE Galfor, S.A.

DENiM: Digital intelligence for collaborative ENergy management in Manufacturing

DENiM develops an interoperable digital intelligence platform enabling a collaborative approach to industrial energy management. DENiM provides an integrated toolchain to provision advanced digital services including secure edge connectivity leveraging IoT, data analytics, digital twin, energy modelling and automation culminating in the delivery of continuous energy impact assessment, together with energy control and optimisation across existing production facilities, processes and machines.



CDTI - PTAS PROJECTS

FCEVLDRUCK : Industrial Research of Solution for Propulsion with Hydrogen in Electric Vehicles of Light and Semi-Heavy Load with Fuel Cell

EXP 00146218 / PTAS-20211007

Period: 1st October 2021 -30th April 2024

Beneficiary: Egaña2, S.L.

The overall objective of the project is to design and develop a power module based on a 20 kW PEM fuel cell. This power module includes the fuel stack (a stack of electrochemical cells comprising a bipolar plate, a catalyzed membrane, and a gasket), as well as the auxiliary components and cooling systems.

Funded by CDTI, E.P.E. within the framework of NextGenerationEU programme



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NextGenerationEU



R&D PROJECTS

PROGRAMA ESTRATÉGICO CIEN

Company: Orbelan Plásticos, S.A. . is participating in COMPLAST project (Advanced Techniques for the Development of New Thermoplastic Composites in High Value-Added Application Sectors), developed within a consortium comprised of Texfire Teixits Tècnics, S.L. (coordinator), FCC ÁMBITO, S.A., CIE AUTOMOTIVE, Anglès Textil, S.A., MAIER S. COOP. LTD, Berbetores Industrial, S.L., Sofitec Aero, S.L., and Abeki Composites, S.L.

Title: ADVANCED TECHNIQUES FOR THE DEVELOPMENT OF NEW THERMOPLASTIC COMPOSITES IN HIGH ADDED VALUE APPLICATION SECTORS

Acronym: COMPLAST

Identification No.: EXP 00157808 / IDI-20230429

Place of execution: Ama Kandida Hiribidea, 13. 20140 Andoain (Gipuzkoa)

Approved budget: 487.107,00€

Execution period: Years 01/2023 – 06/2026

Objective: The strategic objective of the project is to achieve an excellent competitive positioning in the field of thermoplastic composites and specifically, within the value chain in the automotive, aeronautical and railroad sectors through greater sustainability, cost reduction and improvement of the properties of the materials.

CIE Orbelan Results: As a result of the project, a component for the panoramic roof structure of automobiles has been designed, manufactured, and validated through mechanical testing using an injection overmolding process of a fiberglass-reinforced thermoplastic composite insert. The development of this type of hybrid component allows for a weight reduction of approximately 9% without compromising the overall mechanical performance.

Funded CDTI – E.P.E. within the framework of the Research and Development Projects program and by the European Regional Development Fund (FEDER) through the Smart Growth operational program.



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CIE Automotive

R&D PROJECTS

PROGRAMA ESTRATÉGICO CIEN

PROYECTO SPAIN2017: SISTEMA DE PROPULSIÓN AVANZADO INTEGRADO 2017

Reference: IDI-20141273

Financiado por el CDTI y cofinanciado por el Fondo Europeo de Desarrollo Regional (FEDER) a través del programa operativo plurirregional de crecimiento inteligente

Involved plants: CIE Mecauto, S.A.

Reference: IDI-20141275

Financiado por el CDTI y cofinanciado por el Fondo Europeo de Desarrollo Regional (FEDER) a través del programa operativo plurirregional de crecimiento inteligente

Involved plants: Grupo Componentes Vilanova, S.L.

Funded by:



R&D PROJECTS

CDTI - PID PROJECTS

Company: Grupo Componentes Vilanova, S.L.

Title: NEW ALUMINUM INJECTION CASTING PROCESS WITH FORCED AND ASSISTED VENTILATION WITH SENSORIZED ADDITIVE INSERTS

Acronym: VENFORSEN

Identification No.: IDI 2023-0304

Place of execution: Ronda d'Europa 24 008800 Vilanova i La Geltrú (Barcelona)

Approved budget: 519.918,00€

Execution period: 10/2022 – 12/2024

Objective: The main objective of this project is the development of new forced ventilation technologies for the mold complemented by advanced monitoring of the physical phenomena involved.

Results: In the first phase of the project, ultra-cooled inserts based on high-thermal conductivity materials were developed using additive manufacturing, and in the second phase, the mold's forced ventilation system and the methodology for monitoring critical process variables were developed. The project resulted in a new generation of cast aluminum components for the automotive sector. These components are mainly characterized by larger size, greater geometric complexity, and improved internal sanitation, achieving a 33% reduction in cycle time and a 45% reduction in defective components due to internal porosity.

Funded CDTI – E.P.E. within the framework of the Research and Development Projects program and by the European Regional Development Fund (FEDER) through the Smart Growth operational program.



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R&D PROJECTS

CDTI - PID PROJECTS

Company: CIE Galfor S.A.

Title: RESEARCH INTO FORGING TECHNOLOGIES TO REDUCE STEEL CONSUMPTION IN THE HOT FORMING OF AUTOMOTIVE CRANKSHAFTS (1/2)

Acronym: CIVOLCE

Identification No.: IDI 2022-0081

Place of execution: Pol. Industrial San Cibrao das Viñas, C/2, S/Nº, San Cibrao das Viñas (Ourense).

Approved budget: 865,766.00 €

Execution period: Years 2022-2024

Objective: The General Objective of the project is the generation of a new methodology for stamping automotive crankshafts from the forming of hot steel plugs and/or preforms with a controlled burr volume with which to reduce the volume of scrap generated by up to 60%.

Funded CDTI – E.P.E. within the framework of the Research and Development Projects programme and by the European Regional Development Fund (FEDER) through the multi-regional operational programme of Spain 2014 – 2020



R&D PROJECTS

CDTI - PID PROJECTS

Company: CIE Galfor S.A.

Title: RESEARCH INTO FREE ELECTRO UPGRADE PROCESSES FOR THE OPTIMIZATION OF HOT FORGING OF AUTOMOTIVE AXLE SHAFTS

Acronym: ELECPAL-II

Identification No.: IDI 2021-0364

Place of execution: Pol. Industrial San Cibrao das Viñas, C/2, S/Nº, San Cibrao das Viñas (Ourense).

Approved budget: 790,682.00 €

Execution period: Years 2020-2022

Objective: The optimization of the deformation processes by electro-upsetting and stamping involved in the forming of the plate and pinion during the forging of industrial vehicle axles currently developed by GALFOR from the development and validation of specific technical knowledge in the electromagnetic areas, thermal and mechanical; in such a way that the forming cycle time of this type of parts is reduced by 25%, while maximizing the microstructural homogeneity of the steel in each of its different areas.

Funded CDTI – E.P.E. within the framework of the Research and Development Projects program and by the European Regional Development Fund (FEDER) through the Smart Growth operational program.

Company: CIE Galfor S.A.

Title: RESEARCH IN AUTONOMOUS TECHNOLOGIES FOR QUALITY CONTROL OF AUTOMOTIVE CRANKSHAFTS AFTER FORMING BY HOT FORGING

Acronym: CALFOR

Identification No.: IDI 2021-0375

Place of execution: Pol. Industrial San Cibrao das Viñas, C/2, S/Nº, San Cibrao das Viñas (Ourense).

Approved budget: 729.592,00 €

Execution period: Years 2020-2022

Objective: The generation of specific quality control techniques for the discrimination of superficial and internal defects corresponding to imperfections of a morphological nature, superficial discontinuity and microstructural on automotive crankshafts manufactured by hot forging technologies that prevent parts that do not reach the final customer. do not meet the requirements in each of these areas.

Funded by CDTI – E.P.E. within the framework of the Research and Development Projects program and by the European Regional Development Fund (FEDER) through the Smart Growth operational program.



R&D PROJECTS

CDTI - PID PROJECTS

Title: RESEARCH IN ALUMINUM HOT FORGING TECHNIQUES FOR THE MANUFACTURE OF LARGE SIZE STRUCTURAL COMPONENTS FOR THE AUTOMOTIVE

Acronym: FORJAL II

IDI: 2020-0204

Approved budget: 1.075.109 €

Execution Dates: 11/25/2019-02/28/2022

Summary:

The need to reduce consumption and emissions has led in recent years to the establishment of increasingly restrictive legislation. This situation has forced the automotive sector to look for lighter alternative materials to replace those conventionally used to reduce the weight of vehicles. Likewise, to guarantee their durability and the safety of the assembly, they must combine lightness with excellent mechanical properties and good resistance to corrosion. In this sense, aluminum alloys meet most of the characteristics described, becoming in recent years one of the reference light materials.

This research arises from the need for CIE GALFOR S.A. to continue with its expansion and growth strategy aimed at opening new lines of business with high added value that allow it to establish business relationships with new customers and increase its market share in the automotive sector.

Thus, this project, considered strategic for CIE Galfor S.A., is proposed. and for the CIE Automotive Group to which it belongs, in which the previous FORJAL Project carried out between 2017 and 2019 will be continued, and in which an in-depth investigation is addressed regarding the hot forging of aluminum alloy 6082 for the generation of large structural components for the automotive sector. The purpose of this is to achieve full scientific, technical and operational knowledge in the thermal, metallurgical, mechanical and electrochemical areas involved in the forging of this alloy. For this reason, it goes into great detail in all those parameters, variables and characteristics corresponding to raw materials, hot forming, thermal treatments and finishing processes and quality control.

Funded by CDTI, E.P.E. within the framework of the Research and Development Projects programme and by the European Regional Development Fund (FEDER) through the operational Intelligent Growth operational program Programme.



R&D PROJECTS

CDTI - PID PROJECTS

Title: RESEARCH INTO NEW ALLOYS AND TREATMENT TECHNIQUES TO INCREASE THE DURABILITY OF FORGING TOOLING FOR AUTOMOTIVE CRANKSHAFTS

Acronym: INCRESTA IDI-20191185

Place of execution: CIE Galfor S.A. – Pol. Industrial San Cibrao das Viñas, C/2, S/Nº, San Cibrao das Viñas (Ourense).

Approved budget: 745.440 €

Execution period: 2019 – 2021

Objective: To increase the average life of tooling for the hot forging manufacture of automotive crankshafts by 20%, going from the 15.000 parts currently produced to 18.000 parts, based on the use of latest-generation commercial hot-working tool steels. and the specific definition for each one of them of optimized conventional treatments, thermal mass quenching and tempering and surface thermochemical nitrocarburizing.

Funded by CDTI, E.P.E. within the framework of the Research and Development Projects programme and by the European Regional Development Fund (FEDER) through the operational Smart Growth Programme.



R&D PROJECTS

CDTI - PID PROJECTS

Title: RESEARCH IN ELECTROCHEMICAL TECHNIQUES FOR THE RECOVERY AND INTEGRAL REUSE OF HOT FORGING LUBRICATION WASTE

Acronym: REINTEGRA

IDI: 2019-0324

Approved budget: 654.574 €

Execution dates: 18/02 / 2019-30 / 06/2021

Summary: This project is part of the application of the principles of Circular Economy to the field of hot forging of automotive crankshafts.

After the successive crankshaft forging cycles, there is an excess of cooling water and lubricant of the tools in the environment of the maximum press. Both elements fall by gravity towards the pit of the press itself together with other substances resulting from the process such as scale detached from the steel part, and oils and greases from the different elements of the press.

The amalgam resulting from each of the 5 GALFOR crankshaft forging lines is collected from each of the press pits and transported to an internal treatment plant. Here, through a physical-chemical separation process, it is divided into two differentiated fractions, which are removed from the company by authorized waste managers.

- Liquid fraction. Composed of the excess cooling water, the water that is incorporated into the commercial lubricant used for its dilution and various pollutants in suspension such as oils, greases and elements of the lubricant itself. The total annual volume of this residual fraction exceeds 19.000 cubic meters per year.
- Solid fraction. Composed of the solid elements of the initial mixture, mainly graphite and scale, together with those greases, lubricants and oils that stick to them. The result is a high viscosity paste mixture from which more than 350 tons are generated per year.

The General Objective of this project is the generation of a new range of specific electrochemical treatment techniques for each of these two waste fractions for the recovery of all the water and graphite contained in them and their complete reintegration in the phase itself of forming in maximum forging press.

Funded by CDTI, E.P.E. under the Research and Development Projects programme and by the European Regional Development Fund (FEDER) through the operational Smart Growth Programme.



R&D PROJECTS

CDTI - PID PROJECTS

TEINEXT Project: Research into new forming processes and mass and surface heat treatments for the optimization of the extrusion of industrial vehicle transmission components.

Execution period: 2016 - 2018

Reference: IDI-20170068

Involved plant: CIE Galfor, S.A.

Funded by CDTI, E.P.E. under the Research and Development Projects programme and by the European Regional Development Fund (FEDER) through the operational Smart Growth Programme.



ELECPAL Project: Research in free electro-forged processes for the optimization of hot forging of automotive axle shafts.

Execution period: 2017 - 2019

Reference: IDI-20170281

Involved plant: CIE Galfor, S.A.

Funded by CDTI, E.P.E. under the Research and Development Projects programme and by the European Regional Development Fund (FEDER) through the operational Smart Growth Programme.



FORJAL Project: Research in aluminum hot forging techniques for the manufacture of large structural components for automotive application.

Execution period: 2017 - 2019

Reference: IDI-20170511

Involved plant: CIE Galfor, S.A.

Funded by CDTI, E.P.E. under the Research and Development Projects programme and by the European Regional Development Fund (FEDER) through the operational Smart Growth Programme.



R&D PROJECTS

AID PROGRAM TO SUPPORT BUSINESS R&D - HAZITEK

Project: DESKAR30 - Research and development of innovative technologies for the decarbonization of the Casting and Forging value chain by 2030

Execution period: 2022-2024

Exp No: ZE-2022/00043

Participant: CIE Legazpi, S.A.

Financing Program: HAZITEK Aid program to support business R&D

Action co-financed by the Basque Government and the European Union through the European Regional Development Fund 2021-2027 (ERDF)



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Project: SEMFEM – Sustainable & efficient magnet free electric motors for EV

Execution period: 2022-2024

Exp No: ZE-2022/00006

Participant: CIE Legazpi, S.A

Financing Program: HAZITEK Aid program to support business R&D

Action co-financed by the Basque Government and the European Union through the European Regional Development Fund 2021-2027 (ERDF)



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R&D PROJECTS

AID PROGRAM TO SUPPORT BUSINESS R&D - HAZITEK

Project: GOD2ESS – Good Electric Storage System for 2nd life

Execution period: 2022-2023

Exp No: ZL-2022/00878

Participant: Orbelan Plásticos, S.A.

Financing Program: HAZITEK Aid program to support business R&D

Action co-financed by the Basque Government and the European Union through the European Regional Development Fund 2021-2027 (ERDF)



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Project: HIBRID - Development of a hybrid housing with integrated cooling system for electric vehicles using secondary aluminium casting with forced ventilation and friction joining of dissimilar materials

Execution period: 2022-2023

Exp No: ZL-2022/00877

Participant: Inyectametal, S.A.

Financing Program: HAZITEK Aid program to support business R&D

Action co-financed by the Basque Government and the European Union through the European Regional Development Fund 2021-2027 (ERDF)



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R&D PROJECTS

AID PROGRAM TO SUPPORT BUSINESS R&D - HAZITEK

Project IBILGARBI - Development of smart, connected and sustainable solutions for the vehicle interior through the incorporation of electronics and advanced materials

Execution period: 2021-2023

Exp No: ZE-2021/00044

Participant: Orbelan Plásticos, S.A.

Financing Program: HAZITEK Aid program to support business R&D

Action co-financed by the Basque Government and the European Union through the European Regional Development Fund 2021-2027 (ERDF)



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Project: FOREV - Development of a new differential system for the vehicles of the future through hybridization of advanced manufacturing technologies

Execution period: 2019 – 2021

Exp No: ZL-2021/00668

Participant: CIE Legazpi, S.A.

Financing Program: HAZITEK Aid program to support business R&D

Action co-financed by the Basque Government and the European Union through the European Regional Development Fund 2021-2027 (ERDF)



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R&D PROJECTS

Project: PROTOOL Oxide-Resistance of tungsten carbide high-temperature forming tools by innovative coatings and mechanical interface manipulation

Execution period: 2021-2023

Exp No: ZL-2022/00080

Exp No: ZL-2021/00210

Participant: CIE Legazpi, S.A.

Financing Program: HAZITEK Aid program to support business R&D

Action co-financed by the Basque Government and the European Union through the European Regional Development Fund 2021-2027 (ERDF)



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Project: CRACK Design and manufacture of advanced components of the REPS electric steering rack assembly

Execution period: 2021-2022

Exp No: ZL-2022/00081

Exp No: ZL-2021/00448

Participant: Gameko Fabricación de Componentes, S.A.

Financing Program: HAZITEK Aid program to support business R&D

Action co-financed by the Basque Government and the European Union through the European Regional Development Fund 2021-2027 (ERDF)



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R&D PROJECTS

PROJECT: CRAIR Stainless steel common rail design using upsetting technology.

Reference Nr: ZL-2020/00286

Participant Company: Gameko Fabricación de Componentes, S.A.

ACTION CO-FINANCED BY THE BASQUE GOVERNMENT AND THE EUROPEAN UNION
THROUGH THE EUROPEAN REGIONAL DEVELOPMENT FUND 2014-2020 (ERDF).



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PROJECT: ALUJOINT Development of a modular lightweight chassis by integrating structural components, hybridizing advanced aluminum processing and joining technologies.

Reference Nr.: ZE-2020/00014

Participant Company:

CIE Legazpi, S.A.

Industrias Amaya Tellería, S.A.

CIE Udalbide, S.A.

ACTION CO-FINANCED BY THE BASQUE GOVERNMENT AND THE EUROPEAN UNION
THROUGH THE EUROPEAN REGIONAL DEVELOPMENT FUND 2014-2020 (ERDF).



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R&D PROJECTS

PROJECT: EMOVLAB Platform for the provision of advanced infrastructure and services for sustainable mobility.

Reference Nr: ZE-2019/00039

Participant Company: Egaña2, S.L.

ACTION CO-FINANCED BY THE BASQUE GOVERNMENT AND THE EUROPEAN UNION THROUGH THE EUROPEAN REGIONAL DEVELOPMENT FUND 2014-2020 (ERDF).



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PROJECT: ZEROEHUN Autonomous quality platform 4.0 for intelligent quality management of advanced and active processes in new generation automotive component manufacturing lines.

Reference Nr: ZE-2018/00032

Participant Company: CIE Udalbide, S.A.

ACTION CO-FINANCED BY THE BASQUE GOVERNMENT AND THE EUROPEAN UNION THROUGH THE EUROPEAN REGIONAL DEVELOPMENT FUND 2014-2020 (ERDF).



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R&D PROJECTS

PROJECT: EFFORT Advanced and energy efficient digital architecture for the manufacture of components and products, supported by new sensors, applied in extreme industrial environments.

Reference Nr: ZE-2018/00011

Participant Company: CIE Legazpi, S.A..

ACTION CO-FINANCED BY THE BASQUE GOVERNMENT AND THE EUROPEAN UNION THROUGH THE EUROPEAN REGIONAL DEVELOPMENT FUND 2014-2020 (ERDF).



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R&D PROJECTS

ECOINNOVATION ECOTAPE

RECYCLED POLYPROPYLENE COMPONENTS FOR TRANSPORT VEHICLES

IN GENERAL, THE PRIORITY FOR THE NEW AUTOMOTIVE AND TRANSPORT COMPONENTS sector is to reduce the overall weight of the vehicle to reduce CO₂ emissions, improve power and range of electric vehicles, and also to comply with recycling regulations. Continuous Fibre Reinforced Thermoplastic (CFRT), are innovative plastic composites with high technical characteristics, low density, good weatherability and good recyclability. The fact that they are used to replace metal and/or technical plastics represents a major technology and market opportunity. It is currently used at a very early stage because manufacturing and processing techniques are expensive, in addition to a lack of product range. Obviously, the possibility of obtaining thermoplastic tape based on thermoplastic matrices from recycled sources does not exist at all.

CIE Automotive is a processing specialist and masters all available technologies available for the manufacture of automotive components and sub-assemblies. GAIKER Technology Centre and RECYCLAIR, the waste management company, also collaborated with ECOTAPE.

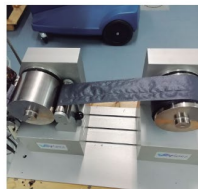
DRIVING FACTOR



PLASTICS



EXTENDED PRODUCER
RESPONSIBILITY (EPR)



OBJECTIVES

- Create a new generation of composites to be used in the manufacture of components for land transport vehicles with a structural function; and make the use of these composites more affordable through design, innovation and optimisation of their manufacturing processes.
- Introduce a range of more competitive parts in the transport sector for which there is currently no competition in our environment, maintaining the technical performance required for the current part, and with the possibility of diversifying to other sectors in a lean way.
- Re-introduce polypropylene (PP) plastic fractions that are currently used for energy recovery when mixed with other materials, into the economic cycle as secondary raw materials.
- Create a thermoplastic tape based on recycled PP: setting up the work procedure, selecting and classifying the source of PP to guarantee the homogeneity of the resulting product; and adapt the thermoplastic matrix specifications to the particular needs of ECOTAPE.

RESULTS

- Complete production cycle of a part used in the roof unit structure - from concept and creation of the ad-hoc composite sheet to manufacturing the demonstrator or prototype, including its design, transformation process, manufacturing the necessary tooling and product characterisation.
- Estimated potential savings of 2,700 tonnes of CO₂ equivalent per year.

CONCLUSIONS

- ECOTAPE's main technical limitation is availability of homogeneous and purified recycled PP fractions, as well as potential lack of interaction between a recycled plastic matrix and the reinforcement material itself.
- ECOTAPE must continue developing with several lines of action: optimisation of processing techniques to obtain a competitive tape; improving mechanical performance; reducing the thickness of the designed components; and further research into purifying the recycled PP stream to minimise the presence of foreign matter.
- Although the environmental impact has been positive, at the moment, the need for a technically improved tape to be more competitive prevents escalation to an industrial processing line for thermoplastic tapes based on recycled matrices.



R&D PROJECTS

Digital and Green Transition 2021 - Advanced Digitization (D3)

Project: SMART CONNECT. INDUSTRY 4.0

Reference: 6/12/D3/2021/00018

Execution period: 2021-2022

Participant: Egaña2, S.L.

«Bizkaiko Foru Aldundiak finantzatu du proiektu hau, 2021eko Digital Trantsizio eta Berdea Programaren barruan eta Feder funtsaren kofinantziazioa ere badauka / This project has been financed by the Diputación Foral de Bizkaia within the 2021 Digital and Green Transition Program and has co-financing from FEDER».



Digital and Green Transition 2021 - Basic Digitization (D2)

Project: Renewal of virtualization systems

Reference: 6/12/D2/2021/00031

Execution period: 2021

Participant: Egaña2, S.L.

«Bizkaiko Foru Aldundiak finantzatu du proiektu hau, 2021eko Digital Trantsizio eta Berdea Programaren barruan eta Feder funtsaren kofinantziazioa ere badauka / This project has been financed by the Diputación Foral de Bizkaia within the 2021 Digital and Green Transition Program and has co-financing from FEDER».



R&D PROJECTS

ALT IMPACTE - High-impact business investments for the value chain of the automotive industry

Project: New production improvements in the manufacture of aluminium components
The project consists of carrying out requirements and specification design activities, integration, development and automation tasks, as well as assembly and parameterization of processes for the implementation of productive equipment in the machining and foundry areas.

ID Nr: 021/20/000056

Beneficiary: Grupo Componentes Vilanova, S.L.

Execution period: 2020-2023

The action has been carried out with the support of ACCIÓ through the Aid program for high-impact business investments for the value chain of the automotive industry (2020)



**Generalitat
de Catalunya**

R&D PROJECTS

Project Title

Designação do projeto **EMCOOL – EFFICIENT MOLD COOLING**

Project Code

Código do projeto **POCI-01-0247-FEDER-011375**

Main goal

Enhance research, technological development and innovation

Objetivo principal

Reforçar a investigação, o desenvolvimento tecnológico e a inovação

Region of intervention

Central Region

Região de intervenção

Região Centro

Beneficiary

Entidade beneficiária **PLASFIL – Plásticos da Figueira, S.A.**

Start date

Data de início **01-05-2016**

End date

Data de conclusão **30-04-2018**

Custo total elegível: **756.858,82 euros**

Apoio financeiro da União Europeia FEDER: **379.525,49 euros**



R&D PROJECTS

INNPACTO PROGRAM

WHENEVER PROJECT

Desarrollo de minicorner con motor en rueda para vehículo eléctrico urbano

Reference: IPT-370000-2010-026

Financiado por el Ministerio de Economía y Competitividad y cofinanciado por el Fondo FEDER

Involved plants: GC Vilanova, CIE Mecauto

Funded by:



FP7 - SÉPTIMO PROGRAMA MARCO DE LA COMISIÓN EUROPEA

ODIN - OPTIMIZED ELECTRIC DRIVETRAIN BY INTEGRATION

Reference: IPT-370000-2010-026

Financiado por el Ministerio de Economía y Competitividad y cofinanciado por el Fondo FEDER

Involved plants: Fundación CIE I+D+i

Funded by:



R&D PROJECTS

FP7 - SÉPTIMO PROGRAMA MARCO DE LA COMISIÓN EUROPEA

LEARN FORM - SELF-LEARNING SHEET METAL FORMING SYSTEM

Involved plants: Fundación CIE I+D+i

Funded by:



FP7 - SÉPTIMO PROGRAMA MARCO DE LA COMISIÓN EUROPEA

EUNICE - ECO-DESIGN AND VALIDATION OF IN-WHEEL CONCEPT FOR ELECTRIC VEHICLES

Involved plants: Fundación CIE I+D+i

Funded by:



FP7 - SÉPTIMO PROGRAMA MARCO DE LA COMISIÓN EUROPEA

T-REX - Lifecycle extension through product redesign and repair, renovation, reuse, recycle strategies for usage&reusage-oriented business models

Involved plants: CIE Legazpi

Funded by:



R&D PROJECTS

2009, 2010, 2011, 2012 & 2013 ACTION PLAN

Reference: AUT-010000-2009-66

Involved plants: División de Mecanizado (Recyde, Nova Recyd, Recytec, Recylan)

Reference: AUT-010000-2009-192

Involved plants: División de Aluminio (Inyectametal, GC Vilanova, Tarabusi)

Reference: AUT-010000-2009-193

Involved plants: División de Gestión de Fluidos (Orbelan, Alfadeco, Alurecy)

Reference: AUT-010000-2009-194

Involved plants: División de Metal (Egaña 2, TM Norma, CIE Udalbide)

Reference: SEI-010000-2009-114

Involved plants: Bionor, Berantevilla

Reference: SEI-020000-2010-158

Involved plants: GC Vilanova

Reference: SEI-020000-2010-222

Involved plants: TM Norma

Reference: SEI-020000-2010-223

Involved plants: Egaña 2

Reference: SEI-020000-2010-225

Involved plants: Inyectametal

Reference: SEI-020000-2010-226

Involved plants: CIE Legazpi

Reference: SEI-020000-2010-228

Involved plants: CIE Galfor

Reference: SEI-020000-2011-184

Involved plants: GC Vilanova

Reference: SEI-020000-2011-181

Involved plants: TM Norma

R&D PROJECTS

2009, 2010, 2011, 2012 & 2013 ACTION PLAN

Reference: SEI-020000-2011-180

Involved plants: Egaña 2

Reference: SEI-020000-2011-183

Involved plants: Inyectametal

Reference: SEI-020000-2011-179

Involved plants: CIE Legazpi

Reference: SEI-020000-2011-177

Involved plants: CIE Galfor

Reference: SEI-020000-2011-185

Involved plants: CIE Mecauto

Reference: SEI-020000-2012-42

Involved plants: GC Vilanova

Reference: SEI-020000-2012-44

Involved plants: CIE Mecauto

Reference: RCI-020000-2013-36

Involved plants: CIE Galfor

Reference: RCI-020000-2013-50

Involved plants: CIE Legazpi

Reference: RCI-020000-2013-38

Involved plants: Egaña 2

Funded by:

