

EDITED BY:

Fundación
PRODINTEC

FACTORY OF FUTURE

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Activity Report

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Letter from the Chairman

IGNACIO LÓPEZ ARANGUREN

We are a lucky generation, we will see changes we did not realize even in our best dreams.

The trip to the future is starting!

These are the words of the Asturian Amador Menéndez Velázquez, recently awarded with the Prize of Essay Jovellanos, who also states we find ourselves facing a scientific-technological convergence as a driving force. That is, the interactions among nanotechnology, biotechnology, computing, and artificial intelligence will contribute to the development even more than these disciplines alone.

We can neither fight back against the ongoing change, nor consider it as a menace for the challenges in front of us. The vast majority of the last two-year inventions has been designed to replace the human work. Nowadays, paper accounting records are not more kept in the financial departments, the people who dealt in bank counters have been replaced for cash machines and a great part of the work the construction workers did manually has been replaced for much more powerful and safer machines. Nevertheless, and despite the alarming unemployment figures for the last years, the labor force figures are increasing decade after decade.

Technology poses challenges and new needs, and it is there where PRODINTEC defines itself. Our role is to be the links among the different scientific and technological areas and the companies from all the areas. We receive the advances which occur near us and we convert them into the cutting edge for that future to influence the company culture and the work processes. When the companies may assume that innovation is not only a convenience

fact but a survival need, a must to compete against international markets and to face the future decidedly and with a guarantee of success.

Some years passed since many companies supported by the Government of the Principality of Asturias decided to fund PRODINTEC with the objective to address knowledge to new areas, breaking the established limits. After the knowledge the value creation came to reinforce the efforts in research and development as an undeniable goal recorded in the genes of this Centre, and making itself a strategic priority.

The initial intentions have been crystalising as innovative solutions which Asturian companies have been adding to their products and manufacturing processes in so diverse areas as aerospace, biotechnology, capital equipment, and energy, among others. These solutions have let companies being in the vanguard of their respective areas, allowing them to compete with advantage and in a sustainable way.

We want to thank the Government of the Principality of Asturias, the University of Oviedo, the board of trustees and all our clients their continued support and the confidence paid for our daily work.

And some last words to the PRODINTEC people: "be proud of your continued search for the excellence in an ever more demanding world".





2

Introduction by the Managing Director

ÍÑIGO FELGUEROSO FERNÁNDEZ-SAN JULIÁN

I would like to outstand the great and successful PRODINTEC involvement during 2016 through European R+D+I competitive calls, especially in the Horizon2020 program where the first two years of the call, with five approved proposals and leading two of them, has achieved excellent success ratios to continue developing its capacities and technologies internationally. Moreover, it allows PRODINTEC to gain an outstanding positioning and marketing in the definition of future strategies related to technologies as Additive Manufacturing with projects as FoFAM and AM-motion.

All that it is the result of an ongoing commitment of the center in Europe and the workers' good work and great effort to achieve these goals. It is also worthy to highlight the gained tender with the European Defence Agency (EDA) to ratify the Additive Manufacturing in hostile environments by designing and implementing a transportable manufacturing system based in 3D printing technologies which will change the traditional concept of factory. A very relevant and high impact project that will entail a new challenge for technicians and professionals in PRODINTEC. Likewise, the successful organization of the Additive Manufacturing European Forum 2016 (AMEF 2016) held in Brussels serves as another example of the organizational capacity and convening power of the company in the most innovative European areas and technologies.

The support for the deployment in the Industry 4.0 and the enabling technologies among the business community is totally aligned with that mission part

of our DNA. We therefore continue the same roads we designed some years ago, the commitment and investment in new technologies in the company specialized areas, that is, new areas related to additive manufacturing (bio printing, 3D printing in construction, new materials as ceramic, topological optimization,...), printed electronics, virtual and augmented reality, ..., all of these technologies for industrial processes and products from the fourth industrial revolution.

Furthermore, one year more it is remarkable the high visibility of our company and our activities, keeping a major effort to promote the companies and especially the last technological tendencies which help to improve the competitiveness of the manufacturing sector.

During the second semester of this year the new Centre's Strategic Plan 2017-2020 has been designed and approved to continue the positioning of the Centre as a reference in its technological area of specialization, looking to Europe and the future similarly to the last years.

As every year I have to sincerely thank the professional team of PRODINTEC their efforts, dedication and involvement day-to-day, to make advance possible and contributing to the extent of our ability to make a better society. I would also like to thank the Foundation's trustees their total support during these years and our clients for their continued reliance.





The Foundation





Who we are

The PRODINTEC Foundation is a private non-profit entity created in 2004 on the initiative of a group of firms in the region and the Regional Government. It forms part of the network of Technology Centres of the Principality of Asturias.

As the Asturias Technology Centre for Industrial Design and Production, our mission is "to foster the competitiveness of industrial firms by applying technological advances both to their products and to their manufacturing and management processes".

We obtained AENOR certification in 2005 in accordance with the UNE-EN ISO 9001:2008 standard (quality management

systems) and the UNE 166002:2006 standard (R&D&I management system), being the first technology system in Spain to receive this integrated certification. Furthermore, since 27th March 2007, we are registered as an Innovation and Technology Centre (no. 99) by the Spanish Ministry of Industry, Energy and Tourism.

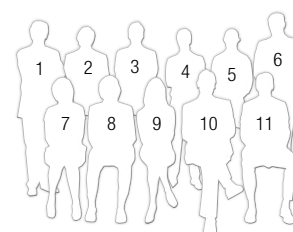
Our slogan, *PRODINTEC Factory of Future*, faithfully mirrors the course we have followed over the last years as well as our clear commitment to the future, fully in line with European trends in this field, as reflected in our Strategic Plan.



Governing Body

The Board of Trustees guarantees that the Foundation fulfils the aims and actions laid out in its Statutes.

- 1.** Mr Arturo Betegón Biempica **2.** Mr Pedro E. Prallong Álvarez
- 3.** Mr Gustavo A. Rosal López **4.** Mr Ricardo Alonso Villemur **5.** Mr Daniel Fernández González
- 6.** Mr Ignacio López Aranguren **7.** Ms María Ángeles Álvarez González
- 8.** Mr José Ramón Obeso Suárez **9.** Ms Ana Concejo Vázquez
- 10.** Mr Íñigo Felgueroso Fernández-San Julián **11.** Mr Adolfo García Guzmán



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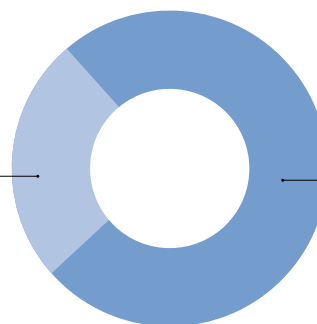
HONORARY TRUSTEE:

Caja Rural de Asturias

Breakdown of the Board of Trustees

Public-/private-sector participation on the Foundation's Board of Trustees

PUBLIC
27%



PRIVATE
73%



Human resources

As of 31st December 2016, there were 61 people working at PRODINTEC, between staff and interns from the University of Oviedo. We have also collaborated with practicum Program for Degrees and End-of-Degree Projects in the University of Oviedo, with the trainee practice scheme of the Gijón Educational Center no. 1, the Industrial and Services Sector Vocational Training Integrated Centre, the School of Art

of the Principality of Asturias and the Revillagigedo Vocational Training Centre.

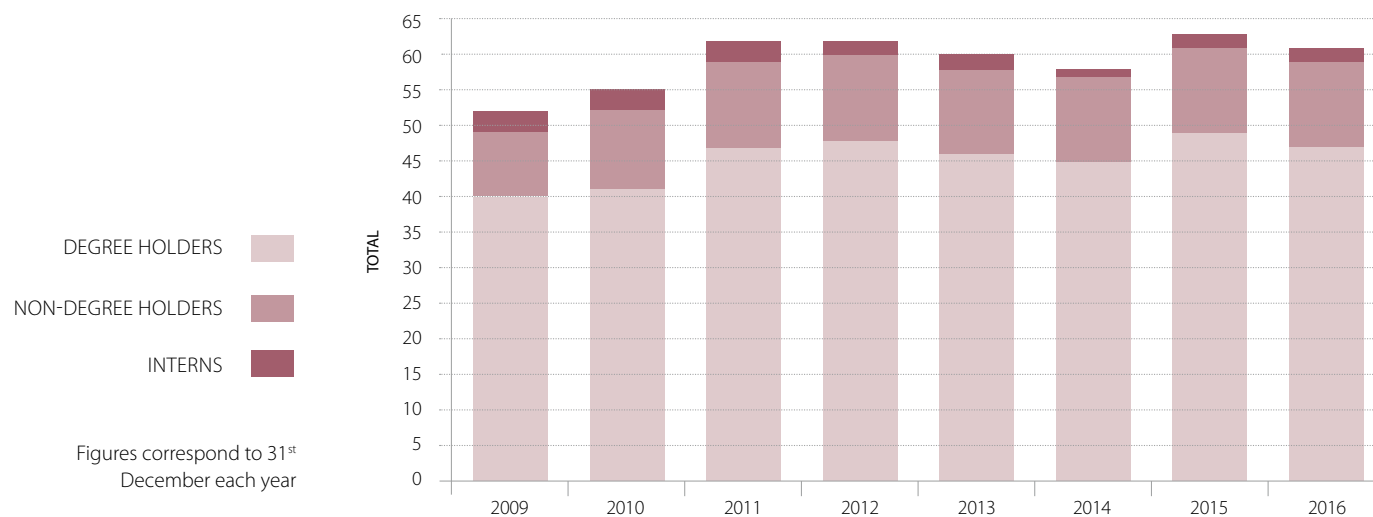
This figure represents the equivalent of 58,36 full-time employees throughout the year, including interns, who suppose 3% of the total.

Breakdown of Staff

:: STAFF CHARACTERISTICS AS OF 31ST DECEMBER 2016

QUALIFICATIONS	MEN		WOMEN		TOTAL
	n°	%	n°	%	
PhDs	4	9%	4	22%	8
5-year Degree Holders	23	53%	5	28%	28
3-year Degree Holders	9	21%	4	22%	13
Vocational Training	6	14%	4	22%	10
Baccalaurate equivalent	1	2%	1	6%	2
TOTAL	43	100%	18	100%	61
	70%		30%		100%
AVERAGE AGE	33,58		36,61		35,09

:: CHANGES IN STAFF QUALIFICATION STANDARDS OVER TIME



Meet our team

Estela Montes Rodríguez

My professional career in the field of R&D+Innovation began 6 years ago at PRODINTEC with a grant from the University of Oviedo after I finished my Mechanical Industrial Engineering studies. My first job was in the External Relations Department, where I was able to connect the capabilities of PRODINTEC to the various industrial sectors, improving my business skills in the field of additive manufacturing. I then spent 3 years in the manufacturing department, finding my place in one of the greatest leading work teams in Spain regarding additive manufacturing technology.

What is PRODINTEC from your point of view?

It is a centre that works to help businesses by introducing them to research, innovation, and development through design, engineering, and manufacturing. We cater for the needs they may have, we help them to position themselves within their sector by providing the experience, knowledge and technologies at our disposal, and we help them become more competitive.

What is your work day like at PRODINTEC?

It is worth mentioning the multiple tasks that take place within the technological innovation facility. Each day, we produce new and different parts, based on different requirements, for extremely demanding fields, such as the aeronautics, automotive, or medical industries. Our main concern is to achieve customer satisfaction through the quality of our work, the optimisation of delivery deadlines, and the continuous improvement of our manufacturing processes.

Have you had opportunities to learn and develop at this job?

Thanks to the opportunities granted me by several people over the years and thanks to every challenge that I have encountered, it has been a constant learning and motivating process; a learning process that I shall always apply with the greatest degree of enthusiasm. I see PRODINTEC as a place where one can embark on a highly specialised professional career that is also versatile and where, to this day, I have had the opportunity to learn and improve.

What is the most important thing you have learned?

Clearly, the technical know-how. We have unique equipment at our disposal that is based on innovative technology and that allows us to manufacture complex parts in plastic and metallic materials; processes



in which knowledge and experience are key to ensuring a successful outcome. I must also stress what I have learned by working with a team made up of people with various technical profiles, which has influenced my professional development to a great extent.

Ignacio Gómez Dosil

I am 32 years old, and I have been working at the PRO-DINTEC Foundation since 2010 in the manufacturing department. We are a leading force at the domestic level, and I am proud to belong to such a centre.

What is PRODINTEC from your point of view?

When a person who works designing the future has to answer a series of questions about the past, it is quite difficult to be able to give an answer.

I belong to a company whose biggest challenge is that it receives ideas, on a daily basis, relating to the 4.0 industrial revolution, which we are helping to channel. A job opportunity that is within reach of very few; and one that is a daily privilege in which to be involved.

What was your greatest challenge last year?

The greatest challenge, achievement, and victory I experienced in 2016 was being able to implement Additive Manufacturing in relation to metals for all the sectors that are increasingly finding excellent business opportunities that adapt to this type of manufacturing, such as aeronautics,



automotive, space. Industries in which future developments come with the assistance of PRODINTEC.

Of all the projects you have worked on, which one is your favourite?

With hindsight, I can now acknowledge that among the new projects that I am currently working on; I find 3D construction among my favourites, as well as the development of new materials for additive manufacturing. These projects open new fields of research and development that are allowing the business fabric in our region to grow by offering new business opportunities for all

those entrepreneurs and companies that had the ideas but lacked the capacity to make them become real and tangible.

What do you like most about working at PRODINTEC?

Anyone working at PRODINTEC speaks to their relatives, friends, etc. with the love of a family. 65 people who coexist the way we do, with the trust and professionalism, but also with friendship and a purpose. I have no more qualifiers than those that are objective; I am not even impartial, and when you feel at home you tend to become personal and express kind opinions.

Ana Otero García

I hold a Diploma in Tourism by the University of Oviedo. For 5 years, I worked in the tourism sector, first as a tourist guide and then as a receptionist and head of reception at hotels in Majorca, Andorra, and Nice. After spending some time abroad, I decided to return to Asturias to find a job and a professional career near my family and my people. After improving my qualifications at the Berkley Business College (Oviedo) and working for almost two years in the Sales and Marketing Department of an aluminium extrusion company in the region, I applied for a job offer for the PRODINTEC External Relations Department. This provided me with a chance to join a young and dynamic team where I can develop my skills and improve professionally.

What did you see in PRODINTEC to decide to work here?

I remember reading articles in the newspaper about the various projects undertaken at the centre, about their commitment to innovation, the technologies that PRODINTEC make available to companies... The chance of learning and developing was so great that it was impossible not to want to work at such a place!



What is your day-to-day work at PRODINTEC?

Many people will recognise my face because I am the first person they meet when they come to the centre. I'm in the reception, but my job and activities go beyond that. Over the last 6 years, I have not only worked as a receptionist, but I also belong to the centre's communications and events team, administering the on-line community and managing the information generated at PRODINTEC. I have also participated in several events, the dissemination of news, and all tasks that serve to increase awareness about our activities and our organisation.

What do you like most about working at PRODINTEC?

PRODINTEC allows me to combine my

professional and personal life thanks to the equality and family conciliation plans it offers. I am lucky to work full time but with an adapted timetable so that I can pursue my professional career without neglecting my personal and family obligations.

Have you had opportunities to learn and develop at this job?

Of course, learning at a centre like this one never ceases. PRODINTEC is committed to innovation and new technologies; it covers such diverse fields as bioprinting, construction, robotics... Knowing that you are part of a team that contributes to the improvement of society is highly satisfactory and gives you the strength to do your utmost.

Juan Carlos Piquero Camblor

My training began at the university in the city where I was born several decades ago, Oviedo, where I studied Geology and Geological Engineering. I started work as a researcher at Oviedo University, and then I moved on to the Acciona R&D centre in Madrid. At that moment, PRODINTEC offered me the chance to come back to my beloved region as Project Manager in the Advanced Manufacturing field, linked to the management of new research lines and strategic positioning. In recent times, I have completed my training with an MBA, and I am currently preparing my doctoral thesis.

What did you see in PRODINTEC to decide to work here?

One key aspect of PRODINTEC is the chance it provides you with to work in a technological framework of the highest level, keeping up and in permanent contact with the latest developments and technologies that enable companies and society in general to progress. Another key aspect is the multi-sector nature of our work, which provides the chance to deal



with new challenges each day related to customers and multi-disciplinary subjects that enable you to develop professionally and personally.

Of all the projects you have worked on, which one is your favourite?

Of all the projects I have worked on, there is one strategic line that I find particularly interesting. It is related to the implementation of additive manufacturing technologies in the construction sector. This enables us to work towards the industrialisation of traditional industry through implementing large scale 3D printing, thus reducing production time and improving worker safety, lowering costs, and reducing the environmental impact.

Within this framework, we shall have, towards mid-2017, one of the largest 3D printers in the world, capable of manufacturing large elements for the said industry.

What was your greatest challenge last year?

One of the main challenges I encountered last year was to make progress in integrating our technology in the health sector by providing customised solutions to patients' needs. We have embarked on projects with leading centres in several branches of medicine where our knowledge and experience in 3D printing is key.

Why did you decide to work in the field of R&D?

I started out in this field by chance when I joined Oviedo University as a researcher. Over the years, I discovered that this task involves a great challenge every day, dealing with complicated problems whose solution require perseverance and effort. The bonus is the satisfaction you feel when you solve those problems and, what is even more important, when you see the improvements they bring to industrial and social fields.



Facilities

PRODINTEC headquarters are situated in the Intra área of the Gijón Science and Technology Park. These facilities are highly focused on improving the competitiveness of the manufacturing industry through innovation, boast the latest industrial technologies for manufacturing product and processes. They are located in a truly representative building of the valuable industrial heritage of both Gijón and Asturias, as is the Universidad Laboral's old tobacco drying facility.

These facilities occupy a parcel of about 1,600 sq m, with a usable area of almost 5,000 sq m, distributed in:

- Technical office area
- Laboratories equipped with advanced manufacturing technologies
- A space reserved for housing spin-offs, i.e. innovating companies that have arisen from R&D activities and projects developed in collaboration with PRODINTEC.

Moreover, PRODINTEC has an office in Madrid, established in 2011, and located in Madrid Science Park Building in Cantoblanco Campus.



Corporate Social Responsibility

In 2016, PRODINTEC was working on designing its Social Responsibility strategy and, with this in mind, it has taken two major steps.

On the one hand, by supporting and signing the United National Global Compact, consisting of ten principles covering human rights, labour rights, the environment, and the fight against corruption.

On the other hand, by joining the Social Responsibility Institute of the Principality of Asturias; an initiative promoted by the Asturian Quality Club to foster activities that lead to sustainability and responsibility.

COMMITMENT TO THE PROTECTION OF THE ENVIRONMENT AND EFFICIENCY



The efficient management of resources and respect for the environment are present in the day-to-day operations of PRODINTEC.

We encourage initiatives aimed at waste reduction and management: recycling paper, cardboard packaging and glass; improvements in the areas and procedures dedicated to the management and classification of waste whether generated in offices or laboratories; enabling users to process and subsequently management waste using their own resources or, in the case of hazardous waste, through authorised companies.

Similarly, we work and encourage continuous improvements aimed at reducing energy consumption, optimizing the lighting and air conditioning of our facilities and the energy consumption of the equipment.

COMMITMENT TO HEALTH & SAFETY AND TO THE PROFESSIONAL AND PERSONAL DEVELOPMENT OF EMPLOYEES



At PRODINTEC, we continue to strive to develop measures that adapt to our employees' needs: flexible schedules, shorter working hours, subsidised catering services, in-situ language training, health insurance, etc.

We continue to work on continuous improvement of existing plans, such as the plan for equal opportunities between men and women within the company or ProConcilia, a programme of measures to facilitate the work-life balance, ProConcilia.

Moreover, training remains a priority at PRODINTEC. For year we worked with a Performance Evaluation tool and a Career Plan that allows us, in agreement with our employees, to identify and meet training needs in a personalised way. At the same time, as fostering the personal and professional development of our employees, this measure makes our organisation much more competent.

Performance evaluations allow us to measure the efforts we are carrying out in the field of instruction and training first-hand. All of PRODINTEC's staff carries out this evaluation on an annual basis (with a mid-year follow-up meeting) via a personal interview which, in addition to measuring personal and professional performance, allows us to come to an agreement regarding goals and to obtain feedback.

Regarding health & safety, we are implementing specific training programmes in the field of Occupational Risk Prevention, with a view to ensuring that all PRODINTEC employees are well-trained to perform their tasks. We also organise awareness events designed to promote healthy life-style habits among our employees in cooperation with our mutual insurance company.



COMMITMENT TO QUALITY



At PRODINTEC we are committed to quality as a fundamental pillar of the services and projects we provide. Consequently, we operate a management system based on UNE 166002 and ISO 9001 standards, which ensures compliance with our customers' requirements and with applicable legal rules and regulations.

COMMITMENT TO THE DEVELOPMENT OF SOCIETY



PRODINTEC has also renewed its commitment to gender equality by participating in the 6th Directory of Companies and Entities of Gijón, which is committed to equality and that is promoted by the Equality Office of the City Council of Gijón.

Furthermore, during 2016, and as part of our foundational purposes, PRODINTEC has cooperated with various agencies to disseminate a culture of innovation through visits to our facilities, lectures, and the participation of our personnel at various forums, seminars, and events at regional, national, and international levels. We have also renewed

our sponsorship of the Useful Patents and Models Contest of Asturias organised by BIC Asturias, which held its ninth edition this year.

We also continue, as in previous years, working closely with the University of Oviedo in training its students and graduates through internship agreements and end-of-master projects; a total of 11 students in 2016. We also continue to cooperate with various Vocational Training centres in Gijón, offering a total of 6 of their students work experience this year.

GOOD GOVERNANCE AND TRANSPARENCY



For the last three years, we have been using a tool to optimize governance, aimed at enhancing the dialogue between members of the Foundation's Board of Trustees and the centre's management.

In 2016, with the renewal of our website, we improved our transparency levels so that people can now consult data of interest about the foundation, such as its organisational chart, various indicators, and the assessment of our activities and our economic, budget, and statistical information in accordance with Law 19/2013 on transparency and access to public information and good governance.



Our activities

4

Organizational Structure

PRODINTEC's organizational structure responds to the need to adapt to organisation's growth (in terms of both staff and volumen of projects and services undertaken) and to prepare it to continue to maintain the high levels of efficiency within the organisation.

PRODINTEC is now structured in four major areas:



Operational area

It is the technological "muscle" of PRODINTEC. It is composed of technical experts in different technologies and their applications in industrial areas. It involves four units: Design and Product Engineering, Electronic Engineering, Advanced Manufacturing, and Innovation Management.



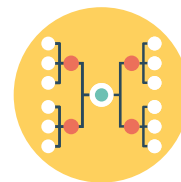
External Relations area

It brings together the interactions of PRODINTEC with the market: managing the search of new business opportunities regionally, nationally, or internationally, identifying the industrial needs, managing the clients' portfolio ... Moreover, it coordinates the communication strategy and the divulgation activities



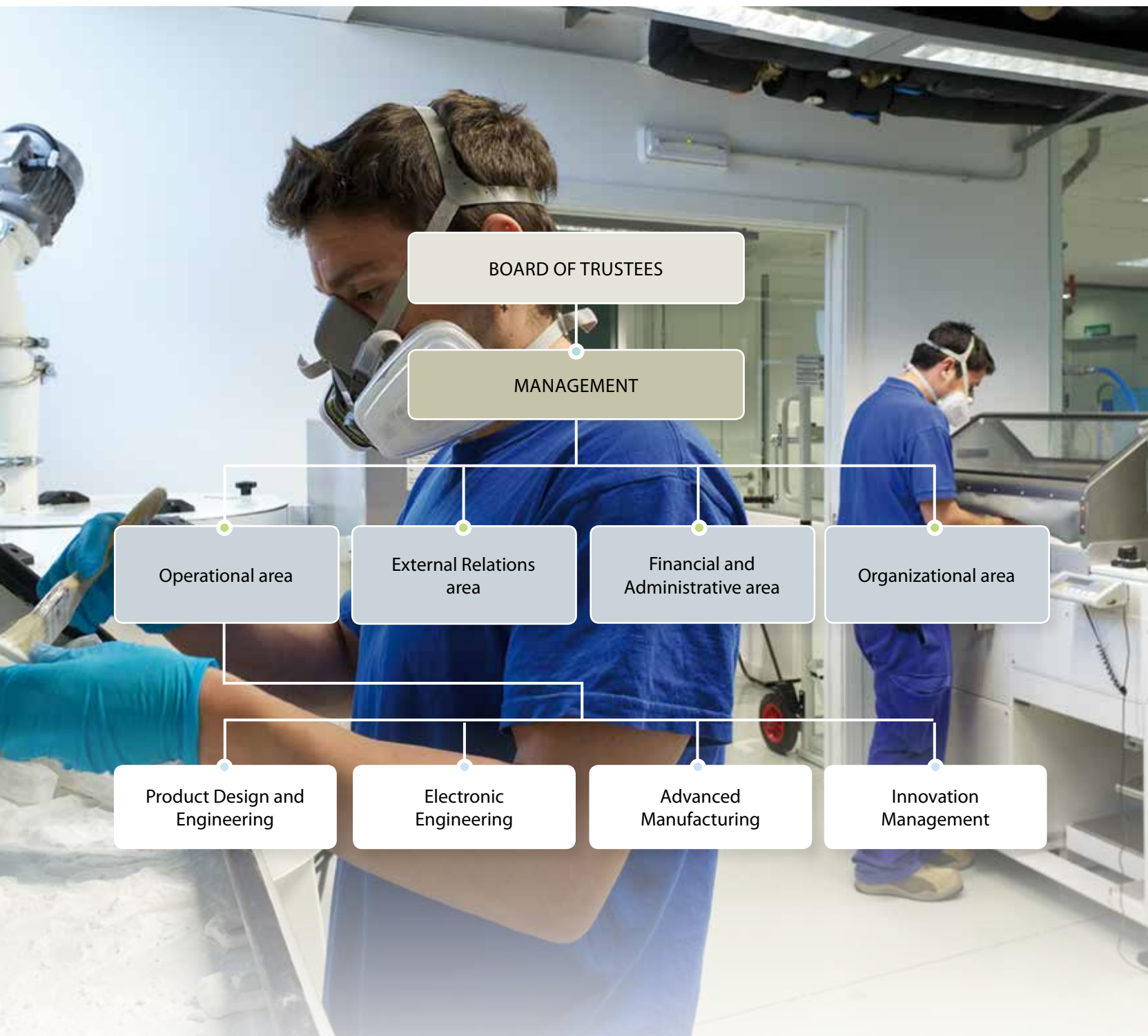
Financial and Administrative area

It has the objective to control PRODINTEC economically and financially, working, in coordination with Management, in the legal and tax Foundation's management and human resources.



Organizational area

The Organizational area is in charge to assure and manage the information systems, the quality assurance systems and R+D+ I, the infrastructures servicing, as well as work security and health.



BOARD OF TRUSTEES

MANAGEMENT

Operational area

External Relations
area

Financial and
Administrative area

Organizational area

Product Design and
Engineering

Electronic
Engineering

Advanced
Manufacturing

Innovation
Management

Product Design and Engineering



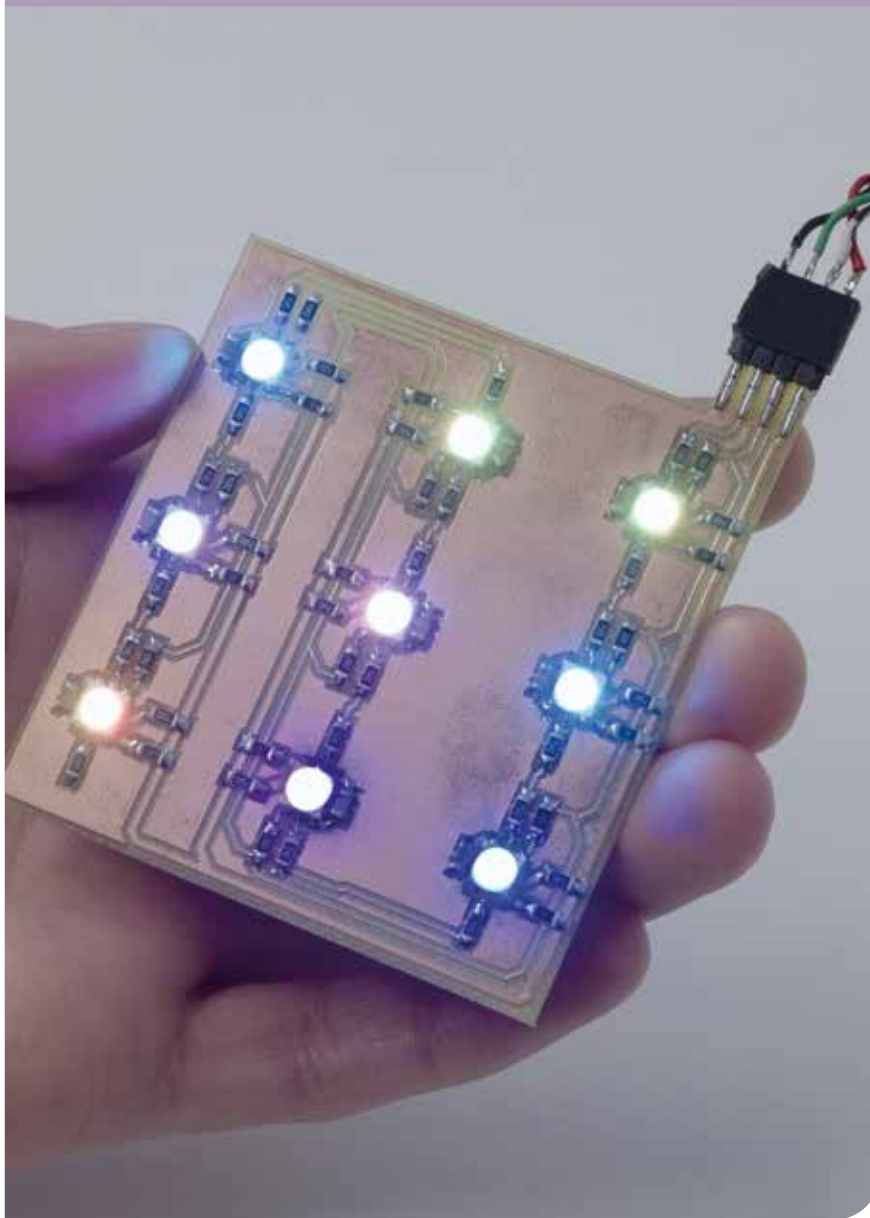
At PRODINTEC, we have cutting-edge methodologies and technologies to help companies during all the new product design (turnkey equipment, tools, structures, parts, pilot plants, special machinery...) and development stages and for a broad range of sectors (aeronautics, capital goods, health, biotechnology, energy, construction...).

We can fully assume the execution of these tasks or support companies on an ad-hoc basis in the stages where they consider it necessary, always taking into consideration aspects such as the mechanical strength, material, safety factors, manufacturability, cost and durability, as well as aesthetics and usability of the product, always taking into account target market and sector.

Thus, at PRODINTEC all the product design stages are addressed:

- Strategic definition
- Economic and technical feasibility study
- Concept design
- Detailed design
- Technical office and product engineering
- Validation tests
- Industrialization

Electronic Engineering



PRODINTEC's electronic engineering department is specialised in the development of new devices, equipment and machinery that require tailor-made automation or electronics integration to obtain accurate, efficient and smart operation. Thus, we can develop new technological products for our customers that satisfy the market demands in all types of sectors, as well as design and manufacture the machinery and equipment needed for the different manufacturing, research, control and testing processes, in the form of automated or autonomous operation.

In this field, we focus on the following action lines:

- Electronic engineering
- Flexible printed electronics
- Automation and robotics
- Smart systems
- Electromagnetic compatibility and electric safety

Advanced Manufacturing



At PRODINTEC we help our customers control, optimise and improve their manufacturing processes, develop new production processes and choose the most appropriate manufacturing technology and material to satisfy their product demands.

To do so, we put the following technologies and methodologies at their disposal:

- Additive manufacturing (3D printing)
- Microtechnologies
- RIM (Reaction Injection Moulding)
- Milling
- Collaborative robotics
- Artificial vision
- Manufacturing control and planning
- Simulation of industrial processes
- Dimensional metrology and reverse engineering

Innovation Management

The management of innovation processes is key to make companies more competitive. Although often they are not aware of it, all firms innovate in their day to day to stay on the market: they improve their products and processes, introduce changes in their way of organizing or seek new ways to sell better. But a good innovation management makes the difference, allowing to minimize associated risk and improve efficiency in the use of human and material resources.

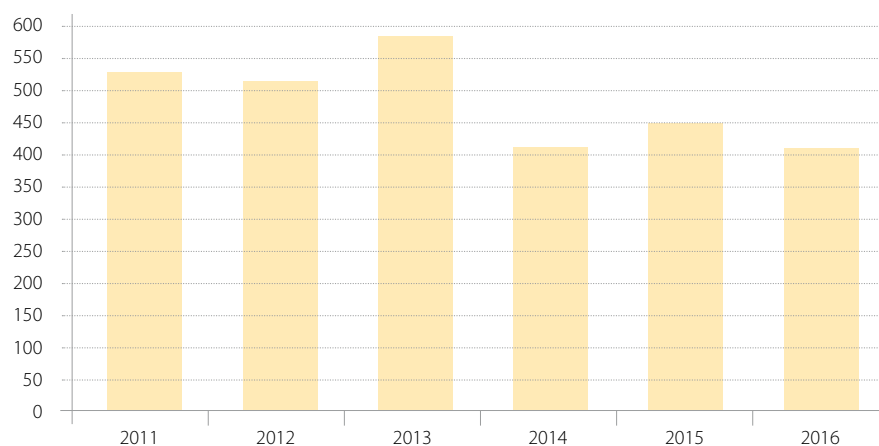
PRODINTEC places the following tool and services at the disposal of companies that require systematic management of their innovation processes.

- R&D and innovation project management
- Technology protection
- Technology surveillance and forecasting
- Internationalisation of R&D and innovation

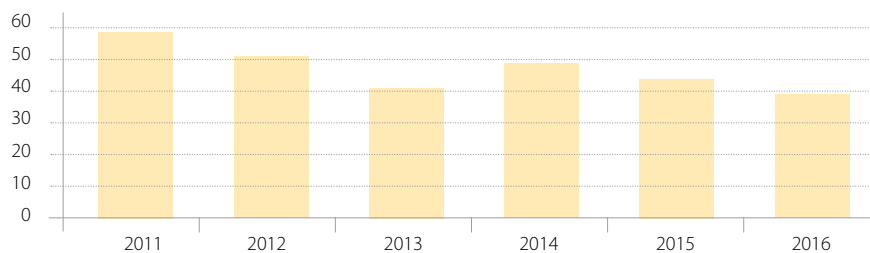


R&D&I Projects and Technology Services Portfolio

NUMBER OF TECHNOLOGY SERVICES PROVIDED DURING EACH YEAR



NUMBER OF R&D&I PROJECTS PROVIDED DURING EACH YEAR



Relevant projects



TUPPERWAVE

Development of a novel efficient and cost-competitive wave energy conversion device for the generation of high-quality renewable electricity

Consortium: IDESA Industrial Plants (Spain – coordinator), WavEC Offshore Renewables (Portugal), University College Cork (Ireland) and CADFEM (Ireland)

Funding programme: OceaneraNET – IDEPA (reference IDE/2015/000125)

Budget: 380,217 €

Duration: October 2015 – September 2017



Development of a seaweed drying equipment

Custom development of a drying equipment or spray-dryer tailored to the client's needs to allow 1.5 h/L solvent evaporation from different seaweed aqueous samples and consequently reducing the intermediate processes from the seaweed crop to the isolated and dry final product obtention.

Customer: Neoalgae (Spain)

Funding programme: Innovation vouchers – IDEPA (reference IDE/2015/000408)

Duration: November 2015 – May 2016





AM-motion

A strategic approach to contribute to a rapid market uptake of AM technologies across Europe by connecting and upscaling existing initiatives and efforts, improving the conditions for large-scale, cross-regional demonstration and market deployment, and by involving a large number of key stakeholders

Consortium: PRODINTEC (Spain – coordinator), TNO (Netherlands), CEA (France), ERRIN (Belgium), TWI (UK), IDEA Consult (Belgium), Airbus Operations (Spain), Materialise (Belgium), Siemens (Germany), D'Appolonia (Italy), EPMA (Belgium), CECIMO (Belgium) and Brainport Development (Netherlands)

Funding programme: Horizon 2020 – European Commission (grant agreement no 723560)

Budget: 993,053 €

Duration: November 2015 – December 2018

www.am-motion.eu



iAsturias 4.0



iAsturias4.0

Feasibility study for the creation of a Regional Digital Manufacturing Innovation (RDMI) hub in Asturias in order to stimulate the uptake of industry 4.0 solutions, specifically robotic technologies, cyber physical systems (CPS) and Internet of Things (IoT).

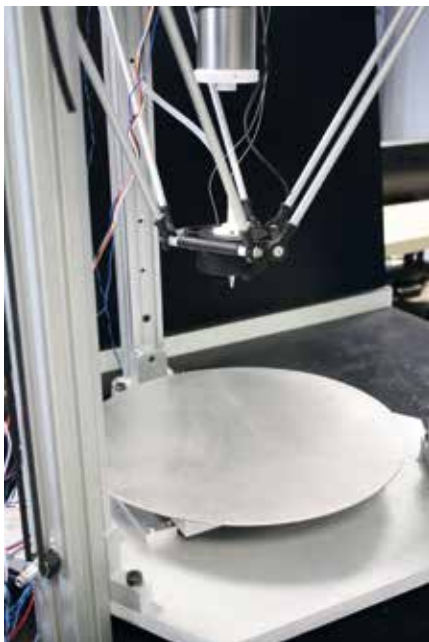
Consortium: PRODINTEC (Spain - coordinator) and FEMETAL (Spain)

Funding programme: I4MS – European Commission (reference I4MS-2-[28])

Budget: 39,790 €

Duration: September 2016 – May 2017





AM Food

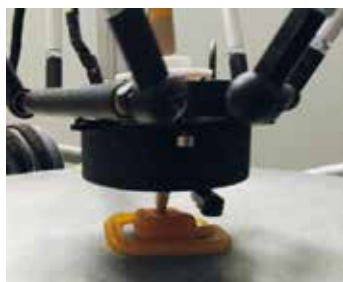
Research on new textures and formulations for food creation using additive manufacturing technology

Customer: Casa Gerardo (Spain)

Funding programme: R&D projects – IDEPA (reference PID-1-II-15-012-PC3)

Budget: 60.220 €

Duration: March 2016 – February 2017



NOVAGLASS

Novel interlayer films for laminated glass panels with enhanced functionalities and new applications

Consortium: STR (Spain – coordinator), SITEX 45 (Romania), SPLIFAR (Belgium), SIRRIS (Belgium) and PRODINTEC (Spain)

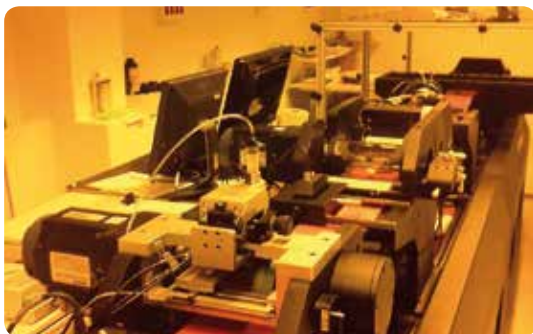
Funding programme: MANUNET – IDEPA (reference IDE/2015/000455)

Budget: 714,244 €

Duration: March 2016 – July 2017



Pilot lines



Flexible printed electronics

Our roll-to-roll manufacturing pilot line for the production of high-technology products on low cost flexible materials is the result of combining PRODINTEC's expertise in electronic design, equipment manufacturing and process automation.

Currently, we use this line to design tailored products and analyse the feasibility of their mass production. For this, we test different materials and substrates, and develop, manufacture and integrate new roll-to-roll operation modules and quality control systems (visual and inspection).

Some types of products where the roll-to-roll production is being implemented are lighting and signing products (LED, OLED, EL...), photovoltaics, electrochemical sensors, microfluidic systems, flexible optical systems, smart labeling, etc.



Bioprinting

Bioprinting is a new applied research area that results from the adaptation of additive manufacturing technology (3D printing) to generate live tissues and even whole human organs.

This process can be applied directly, by printing the entire biochemical structure needed for cell growth, or indirectly, by creating scaffolds on which the cell growth can occur.

PRODINTEC has the experience needed to address the design and manufacture of complete indirect bioprinting prototypes, including the development of devices and the testing of different materials (bioinks, biopapers...), as well as the development of new direct bioprinting concepts.

Testing centres



R&D Centre for Vertical Transportation

Located at the Industrial Site of Porcayo (Gijón), the testing tower is the most emblematic feature of this R&D centre. It is 38 m high (equivalent to 12 floors) and with a 6 x 4 m internal shaft to test lifts of up to 4 tons.

Thanks to this laboratory, companies specialised in the vertical transport field can optimise the deadlines to validate their new developments by testing and checking the products before launching them onto the market, improving aspects such as the design, equipment comfort, mechanic, electric or electronic systems or trial runs.

In this way, our product design and development and electronic engineering capabilities are complemented with advanced infrastructure to provide our customers with a holistic service to develop more competitive products.



Electromagnetic Compatibility Laboratory

Our Electromagnetic Compatibility Laboratory (CEMLab), located at the Campus of Gijón of the University of Oviedo, is the most powerful tool for the electromagnetic testing of electronic products, both during the development stages and during the commercialization process.

This evaluation allows us to get to know the electromagnetic disturbance caused by the equipment in normal operating conditions, as well as subject it to certain radiations and disturbances to ensure its robustness.

Moreover, our specialised staff provides personalised guidance and counselling to our customers in terms of electromagnetic quality and CE marking, which, complemented with the capabilities of our electronic lab, allows us to guide the design of electric and electronic products to the final compliance with the applicable standards or their fast adaptation if the evaluation is negative.

In-house developed products

idinet®

www.idinet.es

IDINET

The project management methodology developed in-house by PRODINTEC enables the execution, monitoring and control of R&D&I projects with a guarantee of success, while at the same time allowing the user to know the value obtained through these projects.

Based on this methodology and in conjunction with Futuver Consulting, we have developed IDinet, an intuitive software tool to manage not only projects, but all the organization's activities and projects. The system enables us to plan the team's tasks, manage expenses and income, centralise documents, generate reports based on the information saved, manage contacts...

Simple use, fast implementation and high availability of centralised information from any spot by means of an agile and safe web environment have resulted in the presentation by Microsoft of IDinet® as one of the most innovative tools in the market. At the same time, AENOR has certified IDinet® as an R&D&I management system in organisations.

R3ALD

Innovation for real 3D prints

www.r3ald.com

R3ALD

R3ALD is the first Spanish additive manufacturing (3D printing) platform to target the industrial sector. It provides instant quotations and permits ordering online the manufacture of parts in different materials (metal, plastic, resin, plaster...) and finishes (painted, tinted, metallic...), from a file provided by the customer while preserving the strictest confidentiality.

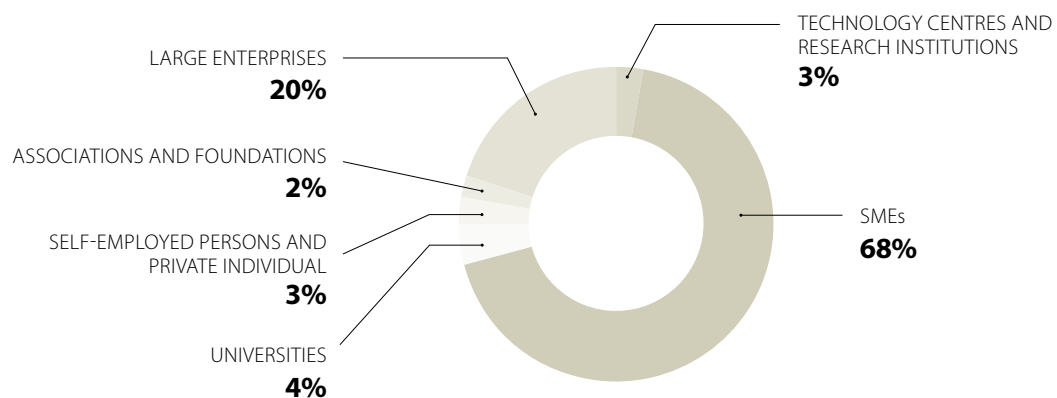
R3ALD ensures the purchase of competitive products, with very short delivery times whilst adapting to the stringent requirements of the industrial sector (capital goods, aeronautics, automotive, mould and die sectors, energy, health, implantology...).

R3ALD's target audience are the engineering or R&D departments, designers, entrepreneurs, architects... In general, anyone who needs to manufacture a part based on a 3D file, either to validate its design or to use it as a final product.

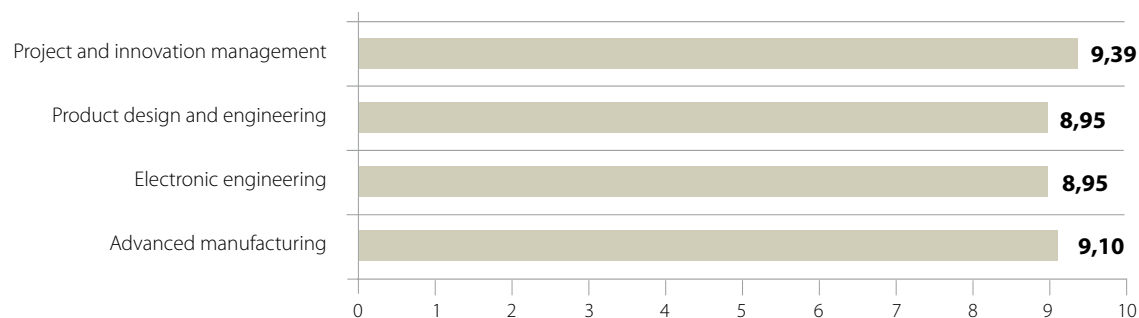


Client Portfolio

CLIENT PORTFOLIO IN 2016 BY TYPE OF CLIENT



LEVELS OF CLIENT SATISFACTION



Our clients' opinion

GRUPO VALEO



The VALEO TERMICO plant in Zaragoza, belonging to the VALEO Group, is a leading world centre for the development of Exhaust Gas Recirculation cooler (EGRC). It has a group of top level experts dedicated to the permanent development of this product. Furthermore, the centre produces:

- HVAC: Heat Ventilation Air Conditioning.
- Oil Coolers.
- EGR coolers: Exhaust Gas Recirculation Cooler.
- Radiators: Mechanical aluminium and welded aluminium technologies.

With a current staff of more than 420 workers, in the past five years the R&D costs have exceeded, in every case, 6% of their turnover; clear proof of the company's strategic commitment to basing its future viability and competitiveness on technological development, the high value of its products, and the constant optimisation of its processes.

What type of work do you do with PRODINTEC?

The collaboration between Valeo Zaragoza and PRODINTEC is mainly based on manufacturing sintered stainless steel parts and prototypes in plastic to:

- Analyse the morphology and dimensions of the parts designed, and that will be manufactured in the future using our own means.
- Analyse the functionality of the parts based on our customers' specifications, thus identifying potential design issues.
- This collaboration presents a clear advantage for Valeo in several aspects:

- It brings forward the design phase and cuts down the prototype production phase.
- Reduction in the levels of investment in the initial phase of projects, obtaining dimensionally and functionally suitable parts for their assessment.
- It anticipates functional risks regarding the designs to be implemented, allowing for a larger number of iterations to achieve Valeo customers' functional requirements.

What are, in your opinion, PRODINTEC's strengths?

From the point of view of Valeo, PRODINTEC offers several strategic points that place it above its competitors as a provider in the field of research:

- Technological Value: it offers solid technological know-how regarding the technologies it uses, supporting customers in every phase of their projects.
- Flexibility: the adaptation to customers' requirements is absolute, offering adapted solutions or recognising the limitations of their own technologies. Transparency in the latter aspect is highly valued, and scarce, among a panel of trustworthy providers.
- Tight deadlines: compliance with deadlines is guaranteed at Prodintec. Being able to make plans involving vendors with this level of seriousness is a guarantee of success.
- Responsibility: it assumes its responsibilities in the face of errors. Prodintec always offers a solution and assumes its responsibilities if the results do not meet expectations.

TNO

The Netherlands Organisation for Applied Scientific Research (TNO) is the largest research organisation of the Netherlands dedicated to Applied Scientific Research, and one of Europe's largest independent research institutes for technological and strategic research and consultancy. Established in 1932, TNO's public mission has been laid down in a special law: to support industry and society in general in transforming knowledge into products and processes of economic and societal value. TNO is fully independent. It is neither a governmental body nor is it related to any specific interest group. In the system of innovation, TNO acts as an interface between science and the market. In the performance of its public task – demand-driven programs – TNO receives funding from the Dutch government, part of which is available for European R&D project matching. As a research partner TNO works for a wide range of companies and industries world-wide.

The Department of Equipment for Additive Manufacturing (EfAM) within TNO has been active in the field of AM for over 20 years. TNO was among the first organizations in the Netherlands to obtain a 3D printer and to start research activities in that domain. EfAM has a unique combination of expertises that allows us to develop new applications for AM technologies and develop these into new markets for TNO. The EfAM team is a multidisciplinary team of people with backgrounds in engineering (mechanical, aerospace, automotive, chemical), as well as in physics, electronics, and industrial design, resulting in competences ranging from system-, control-, process-,



TNO innovation for life

and thermal and fluid engineering to model based and equipment design.

In which fields or projects are you collaborating with PRODINTEC?

TNO has a solid track record in the collaboration with Prodimtec in the area of Additive Manufacturing. Both TNO and Prodimtec are founding members of the European Additive Manufacturing platform (AM-Platform) where the community of European stakeholders of Additive Manufacturing build a coherent strategy and a technology and research roadmap for enabling successful implementation of AM in Europe. In this sense, there is a close and good cooperation with the relevant EU representatives and directorates.

As a result of this initiative, H2020 projects were granted under the leadership of Prodimtec: FoFAM, which conducts the industrial and regional valorisation of FoF additive manufacturing projects as secondly AM-motion: a follow up CSA where a strategic approach to increasing Europe's value proposition for Additive Manufacturing technologies and capabilities is drafted as a guidance document to the AM community and the European Commission.

How would you describe the collaboration between TNO and PRODINTEC?

Our experience in the collaboration with Prodimtec and its employees is that all personnel is very knowledgeable about the topic of Additive Manufacturing and demonstrates to be able to organize very effective meetings and events.

Also the embedding of Prodimtec in various European networks is an aspect which is very much appreciated by TNO. We are glad to know professional people in the area of AM with whom we can work together in an effective and professional way.

What, in your opinion, are the strengths of PRODINTEC?

Knowledgeable, assignments are conducted with full energy and enthusiasm, well embedded in the European community, good gut feeling for industry needs, good political sense.

COPROSA



CONSTRUCCIONES Y PROMOCIONES COPROSA was constituted in Oviedo, Asturias in 1976. Initially it started as a merely regional company, bringing together its activity in the execution of the railway construction, and to a lesser extent, in building. Over time it becomes in a generalist construction company structured in five great divisions, as referred: Civil Work, Building, Railway, Equipments and Special Works, and lastly Promotion. Nowadays the company counts with a strong national implementation dedicated to the execution of all type of works, with an annual income that situates the company among the most important in its area. Moreover, during the last year the company has been implementing an internationalisation strategy resulting in actions in European Union countries, as Poland, and in projects in South America and the Arab countries.

What type of works do you cooperate with PRODINTEC with?

The collaborative path between COPROSA and PRODINTEC started more than 4 years ago as a result of a cooperation agreement with the cluster ICA (Innovación de la Construcción Asturiana), being COPROSA a relevant part of it.

The activities we work together are bring together in the implementation of R+D projects (nationally and internationally), basically those named as INDUSTRY 4.0, especially in the Additive Manufacturing.

Additionally, we cooperate with projects related to Energy Efficiency and New Technologies in Building.

How does a technological centre as PRODINTEC contribute to your company?

After the path jointly travelled, COPROSA considers PRODINTEC not only as any other contributor who contracts technological services, but our reference PARTNER to achieve the challenges proposed for everything related to the implementation in our area of the INDUSTRY 4.0 technologies, especially concerning to the Additive Manufacturing area.

What are, in your opinion, PRODINTEC strengths?

As aforementioned, we understand that from the technological point of view, PRODINTEC is a first level reference in everything related to INDUSTRY 4.0, especially in the Additive Manufacturing.

But, from the other side, COPROSA considers PRODINTEC as the human addendum to our collaborations, as well as the professional one, achieving a relationship based on confidence and being considered as an ongoing source for new cooperation initiatives with a great percentage of success guarantees.

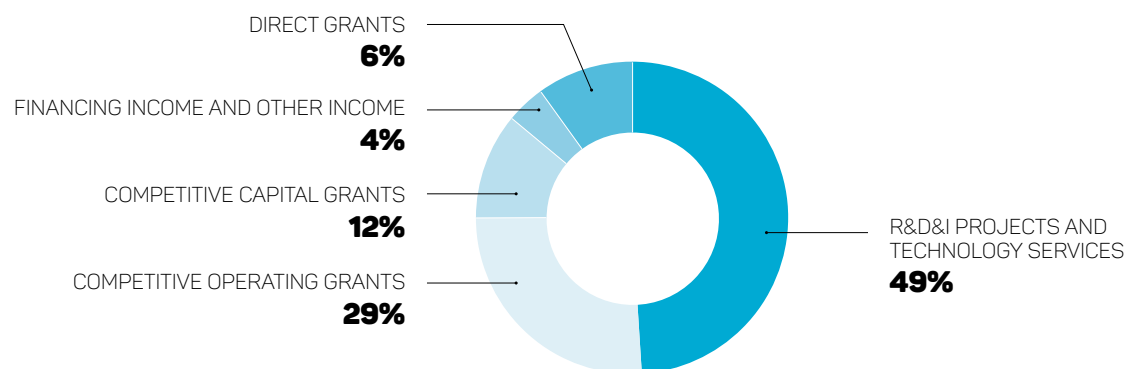


Financial report

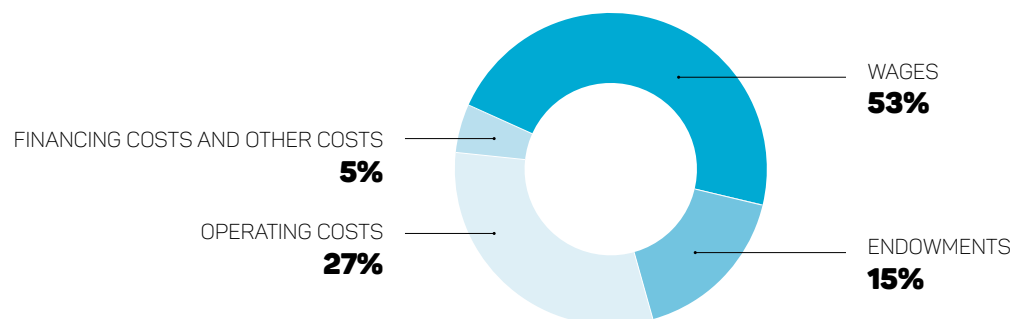
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Income and expenses

TYPE OF INCOME 2016



TYPE OF EXPENSE 2016



Balance sheets

PROFIT AND LOSS ACCOUNT

CONTINUING OPERATIONS	
Turnover due to the entity's own activity	3,731,665.00
Works undertaken by the entity on its assets	0.00
Wages	2,074,918.35
Other business expenses	1,077,788.00
Fixed asset depreciation	-591,345.71
Grants, donations and bequests of capital transferred to the profit/loss of the period	0.00
Deterioration and result due to disposals of fixed asset	0.00
One-off revenues	873.12
OPERATING PROFIT	-11,513.94
Interest income	383.69
Financing costs	-26,481.49
Differences in exchange rates	-117.45
Deterioration and result due to disposals of financial instruments	-194.75
FINANCIAL STATEMENT	-26,410.00
PRE-TAX PROFIT	-37,923.94
SURPLUS FOR THE PERIOD	-37,923.94

STATEMENT OF ASSETS AND LIABILITIES

ASSETS	
NON CURRENT ASSETS	7,013,225.43
Intangible fixed assets	565,214.79
Material fixed assets	6,352,840.81
Investments in the Group companies and entities considered as long-term	1,000.00
Long-term financial investment	94,169.83
CURRENT ASSETS	4,516,035.67
Trade and other receivables	4,175,941.27
Short-term investments in group and associated companies	4,550.00
Short-term accruals	5,013.91
Cash and other equivalent liquid assets	330,530.49
TOTAL	11,529,261.10
NET ASSETS AND LIABILITIES	
NET ASSETS	9,665,792.81
Equity	1,446,577.57
Grants, donations and bequests received	8,219,215.24
NON CURRENT LIABILITIES	397,481,72
Long-term provisions	100,189.77
Long-term debt	297,291.95
CURRENT LIABILITIES	1,465,986,57
Short-term provisions	8,418.13
Short-term debt	94,171.84
Accounts payable and other payables	1,363,396.60
TOTAL	11,529,261.10

Audit report

On 19th June 2017, the entity CENTIUM AUDITORES, S.L., registered under No. S1315 at the Official Register of Auditors of Spain, certified the audit of the annual accounts corresponding to the financial year 2016 of the PRODINTEC Foundation.

Inscrita en el Reg. Mercantil de Asturias, Tomo 2.654, Folio 200, Hoja AS-21377, Inscripción 1ª. C.I.F. B-33555095
Centium Auditores, S.L. inscrita en el Registro Oficial de Auditores de Cuentas con el nº S1315

C E N T I U M
— auditores —

INFORME DE AUDITORIA INDEPENDIENTE DE LAS CUENTAS ANUALES

Al Patronato de
FUNDACIÓN PRODINTEC

Hemos auditado las cuentas anuales adjuntas de la entidad FUNDACION PRODINTEC, que comprenden el balance al 31 de diciembre de 2016, la cuenta de pérdidas y ganancias y la memoria correspondientes al ejercicio terminado en dicha fecha.

Responsabilidad del Presidente del Patronato en relación con las cuentas anuales

El Presidente del Patronato es responsable de formular las cuentas anuales adjuntas, de forma que expresen la imagen fiel del patrimonio, de la situación financiera y de los resultados de FUNDACION PRODINTEC, de conformidad con el marco normativo de información financiera aplicable a la entidad en España, que se identifica en la Nota 2.1) de la memoria adjunta, y del control interno que consideren necesario para permitir la preparación de cuentas anuales libres de incorrección material, debida a fraude o error.

Responsabilidad del auditor

Nuestra responsabilidad es expresar una opinión sobre las cuentas anuales adjuntas basada en nuestra auditoría. Hemos llevado a cabo nuestra auditoría de conformidad con la normativa reguladora de la auditoría de cuentas vigente en España. Dicha normativa exige que cumplamos los requerimientos de ética, así como que planifiquemos y ejecutemos la auditoría con el fin de obtener una seguridad razonable de que las cuentas anuales están libres de incorrecciones materiales.

CENTIUM

AUDITORES

Una auditoría requiere la aplicación de procedimientos para obtener evidencia de auditoría sobre los importes y la información revelada en las cuentas anuales. Los procedimientos seleccionados dependen del juicio del auditor, incluida la valoración de los riesgos de incorrección material en las cuentas anuales, debida a fraude o error. Al efectuar dichas valoraciones del riesgo, el auditor tiene en cuenta el control interno relevante para la formulación por parte de la entidad de las cuentas anuales, con el fin de diseñar los procedimientos de auditoría que sean adecuados en función de las circunstancias, y no con la finalidad de expresar una opinión sobre la eficacia del control interno de la entidad. Una auditoría también incluye la evaluación de la adecuación de las políticas contables aplicadas y de la razonabilidad de las estimaciones contables realizadas por la dirección, así como la evaluación de la presentación de las cuentas anuales tomadas en su conjunto.

Consideramos que la evidencia de auditoría que hemos obtenido proporciona una base suficiente y adecuada para nuestra opinión de auditoría.

Opinión

En nuestra opinión, las cuentas anuales adjuntas expresan, en todos los aspectos significativos, la imagen fiel del patrimonio y de la situación financiera de la entidad FUNDACION PRODINTEC al 31 de diciembre de 2016, así como de sus resultados y flujos de efectivo correspondientes al ejercicio anual terminado en dicha fecha, de conformidad con el marco normativo de información financiera que resulta de aplicación y, en particular, con los principios y criterios contables contenidos en el mismo.

Oviedo, 19 de Junio de 2017

CENTIUM AUDITORES, S.L.
R.O.A.C. nº S1315

Daniel Martínez Fernández
Socio-Auditor de Cuentas



Relational capital



List of firms or bodies with we have established significant agreements or collaborations:

 <p>Additive & 3D Manufacturing Technologies Association of Spain</p>	 <p>Alliance of Foundations for the Development of Territories</p>	 <p>Association for the Advancement of Leadership</p>	 <p>Asturian Federation of Businessmen</p>
 <p>Asturian Innovation Club</p>	 <p>Asturian Meat Industry Research Association</p>	 <p>Asturian Quality Club</p>	 <p>Asturian Technology-Based Companies Network</p>
 <p>Business Innovation Centre CEEI Asturias</p>	 <p>European Technology Integrating and Innovation Platform on Nanotechnology</p>	 <p>European Technology Platform for Micro- and Nano-Manufacturing</p>	 <p>European Technology Sub-platform in Additive Manufacturing</p>
 <p>European Technology Platform in Manufacturing</p>	 <p>Federation of Metal and Related Product Companies in the Principality of Asturias</p>	 <p>Foundation for Technological Innovation</p>	 <p>Foundation for Training, Qualification and Employment in the Metal Sector</p>

 <p>PARQUE CIENTÍFICO DE MADRID</p> <p>Madrid Science Park</p>	<p>AENOR</p> <p>Spanish Association for Standardisation and Certification</p>	 <p>Asociación Española de Fundaciones</p> <p>Spanish Association of Foundations</p>	 <p>M2F</p> <p>Move to Future</p> <p>Spanish Automotive Technology Platform</p>
 <p>federación española de empresas de Tecnología SANITARIA</p> <p>Spanish Federation of Sanitary Technological Companies</p>	 <p>itemas</p> <p>RED DE INNOVACIÓN EN TECNOLOGÍAS MÉDICAS Y SANITARIAS</p> <p>Spanish Innovation Platform on Medical and Health Technologies</p>	 <p>Hispa Rob</p> <p>Spanish Robotics Technology Platform</p>	 <p>MANU-KET</p> <p>Spanish Technology Platform for Advanced Manufacturing</p>
 <p>Solar Concentra</p> <p>Spanish Technology Platform on Concentrating Solar Power</p>	 <p>UNIVERSIDAD DE OVIEDO</p> <p>University of Oviedo</p>	 <p>GVTT</p> <p>OBSERVATORIO VIRTUAL DE TRANSFERENCIA DE TECNOLOGÍA</p> <p>Virtual Observatory for Technology Transfer OVTT</p>	 <p>Mi4</p> <p>Cluster for Advance Manufacturing in Asturian Metal Industry</p>



Record of events

7

January to april

18/02 Official presentation of the project “Sinkular” organized by PRODINTEC.

24/02 Talk “Técnicas de simulación y ensayos en energías marinas” during the VI Engineering Technical Session organized by SACYRFLUOR and Asturias Technological Park at their facilities.

24/02 Stand at the XV Employment Forum organized by University of Oviedo Foundation.

26/02 Stand at the networking event organized by AJE Asturias.

10/03 Participation in the Panel Discussion “Gestión de la Tecnología de las Compras” during the Purchases Congress organized by AERCE in Luis Adaro Trade Fair, Gijón.

11/03 Participation in the “Human Resources Sectorial Roundtable. Technological companies” organized by AEDIPE Asturias and the Chamber of Commerce of Gijón in Luis Adaro Trade Fair, Gijón.

17/03 Participation in the roundtable “Dispositivos medicos, sensors y biomédica” during the III Technological and scientific cooperation meeting of the University Carlos III and ITEMAS platform held in Madrid.

14/04 Talk “Advanced Manufacturing Processes: Additive Manufacturing” during the event “Impact of Factories of the Future PPP” organized by the European Commission in Brussels.

18/04 Talk “Industria 4.0: Nuevas tecnologías para construir la fabrica del futuro” during the technological workshops organized by Escuela Superior de Tecnología de SENATI, Perú.

19/04 Talk “La fábrica inteligente: internet de las cosas, productos inteligentes, fabricación personalizada en masa” during the technological workshops organized by Escuela Superior de Tecnología de SENATI, Perú.

20/04 Talk “Tendencias tecnológicas para la modernización de la industria manufacturera” organized by Escuela Superior de Tecnología de SENATI, Perú.

20/04 Talk “La fábrica inteligente: automatización de procesos, robótica industrial e interacción hombre - maquina” during the technological workshops organized by Escuela Superior de Tecnología de SENATI, Perú.

21/04 Talk “La fábrica inteligente: optimización de la producción, simulación de procesos y la fabrica virtual, la gestión



eficiente de recursos y seguridad industrial” during the technological workshops organized by Escuela Superior de Tecnología de SENATI, Perú.

23/04 Talk “Software de simulación y casos practicos” during the course “Título propio de especialista de dirección de operaciones y Lean Seis Sigma” organized by Asturian Quality Club and the University of Oviedo in IUDE facilities, Oviedo.

26/04 Participation in “Industria 4.0: Claves para competir en el futuro” talking about Additive Manufacturing - 3D printing. Event organized vya IDE Business Training at Murcia Technological Park.







May to august

02/05 Talk “FoFAM: Industrial and regional valorization of FoF Additive Manufacturing Projects” during the International workshop on Project clustering in “Additive Manufacturing” organized by the European Commission at Fundación CIM.

12/05 Talk “Introducción a la Industria 4.0” during the workshop “Retos y tendencias de la industria 4.0 y su implantación en la industria asturiana” organized by the Chamber of Commerce of Avilés and PRODINTEC held at the Pavilion of Exhibitions and Congresses of La Magdalena, Avilés.

18/05 Talk “LifeHyGENet: Hidraulic co-generation system in water abduction and distribution network” during the workshop of networking about European projects within aquaculture scope organized by ARIEMA in Madrid.

19/05 Participation in the workshop “Industria 4.0: una oportunidad, una obligación” organized by UGT Castilla y León in Salamanca.

19/05 Stand at Meeting Show of creative transformation in Madrid.

26/05 Participation in the roundtable “Itinerarios de transformación digital hacia la industria 4.0” during the workshop “DIA W3C 2016 – Industry 4.0” organized by CTIC in Luis Adaro Trade Fair, Gijón.

30/05 Stand at Addit3D 2016 in Bilbao.

02/06 Talk “La fabricación aditiva en la industria aeronáutica: aplicaciones y casos de éxito” during Addit3D Congress held in Bilbao.



02/06 Collecting the “Evolucion” award in the “Associations, Foundations, Training Centers and Professional bodies” category.

08/06 Talk “Robótica Colaborativa: tecnologías para una interacción máquina-persona segura” at the 6th technical workshop about security in maintenance processes organized by the Spanish Maintenance Association in Madrid.

21/06 Participation in the Workshop “Oferta tecnológica de los Centros Tecnológicos Asturianos (CETEMAS, CTIC, ITMA, PRODINTEC) para el sector de la construcción” organized by the construction sector CLUSTER ICA and ITMA Foundation at Llanera Technology Park.

28/06 Collecting the award of best technology transfer in machining sector during the Official Open of WNT Iberica Tech Center organized by WNT at their facilities in Madrid.

13/07 Organisation of the workshop “Demostración tecnológica sobre fabricación por mecanizado” jointly organized with FEMETAL at PRODINTEC facilities.

11/08 Collecting the certificate of local company committed to equality.



September to december

13/09 Ponencia "Roll to roll Printed Electronic Line" during the Workshop on nano enabled printed Electronics held in the Karlsruhe Institute of Nanotechnology, Germany.

13/09 Talk on R&D&I at Clinic Joven Empresa 2016 organized by FIDA Consultores.

14/09 Talk "Interacción persona – máquina en la nueva industria: Robótica colaborativa" during the workshop "uso de nuevas tecnologías en PRL: drones y robots colaborativos" organized by IAPRL at their facilities in Oviedo.

21/09 Organisation of a Seminar APS (Advanced Proser) with two workshops "Adhesivos para Microelectrónica" and "Equipos de curado LED" at PRODINTEC facilities.



26/09 Presentation of VTraining project at Mata-Jove Sports Pavilion in Gijón.

29/09 Participation in the workshop for presentation of calls NMBP 2017 organized by CDTI at their facilities.

29/09 Talk at 5th Workshop about industrial productivity (industry 4.0) organized by INEO/IESE Business School in Pamplona.

11/10 Talk "Towards the industrial implementation of the European Strategy in Additive Manufacturing" during the World Congress PM2016 organized by European Powder Metallurgy Association in Hamburg.

20/10 Talk "Proyecto OTEA, vigilancia estratégica en industria 4.0 para el sector

metal" during VISIO 2016 Conference held in Vitoria.

21/10 Talk "Juego de Simulación Lean" at 2nd edition of the course "Título Propio de Especialista en Dirección de Operaciones y Lean Six Sigma" organized by Asturian Quality Club and the University of Oviedo.

25/10 Seminar of innovation and technological development for students and professors of the Design School and other schools from University of Valparaíso, Chile.

25/10 Participation in the workshop "¿Cómo explotar las ventajas de ser Sitio de Referencia? Respuestas desde la experiencia acumulada y perspectivas de futuro" held at Oftalmologic Institute Fernandez- Vega.



26/10 Presentation of an international expert: "Main characteristics of an innovation center specialized in design and industrial production" for professors of the Design School and other schools from University of Valparaíso, Chile.

26/10 Talk "Construyendo future 4.0: las tecnologías que necesitamos" during "the 4th Foro Europeo Interclusters de Construcción" organized by Construction sector Cluster ICA and Asturex in Luis Adaro Trade Fair, Gijón.

03/11 Talk "Los nuevos paradigmas en el mundo de la salud: emociones y diseño" during the Congress "Design and you" organized by DIDA in Oviedo.

05/11 Talk "El diseño y los Nuevo paradigmas en la industria agroalimentaria" during the Congress "Design and You" organized by DIDA in Oviedo.

09/11 Organisation of the Additive Manufacturing European Forum held at the Albert Borschette Congress Center in Brussels.

10/11 Organisation of the Workshop "Standardization in Additive Manufacturing" at the CEN/CENELEC facilities in Brussels.

10/11 Participation in the workshop "Mitos y realidades de la biomasa energética" jointly organized by Tuinsa, Idesa, Navia City Council and PRODINTEC in Navia.

16/11 Stand at Madrid Metal Sector Fair 2016.

01/12 Participation in the workshop "Factories of the future event – making

innovation happen" organized By EFFRA in Brussels.

01/12 Participation in the "25th Encuentros empresariales de Asturias: #AsturiasProductiva" organized by IDEPA (Economic Development Agency of the Principality of Asturias) in Oviedo.

14/12 Talk "Additive Manufacturing, una tecnología revolucionaria" at Repsol Foundation in Madrid.

21/12 Talk "Tendencias para la modernización de la industria manufacturera" during the international seminar "Tecnologías para la manufactura avanzada" organized by Federico Santa Maria Technical University at their facilities in Chile.













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