2017 Annual Report

European Business and Innovation Centre of Asturias BIC Asturias











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1. Impact on society

268 entrepreneurial enquires attended 105 new innovative business projects

> **133** Potential entrepreneurs 40 were technology-based

Start-ups supported for growth < 1 year > 1 year 39 270

20 TBCs **127** TBCs

the five-year survival rate for innovative companies 75.71 % for TBCs

65,78%



2 Investment Forums

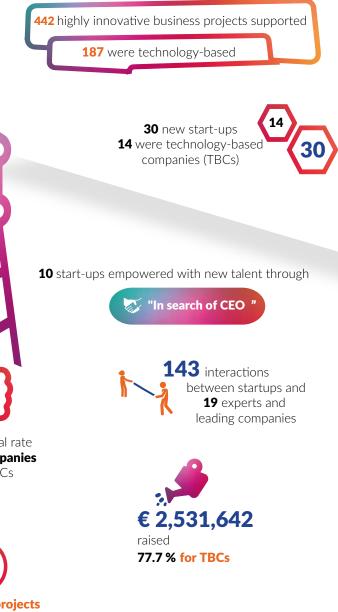
56 business projects presented to 76 investors





62 startups hosted at our incubator and bioincubator

86 % occupancy rate





In the **3rd** Asturias Investor's Day, 50 business projects met **70** investors





3,215

people reached with our dissemination activity



3 national & **3** European SME Instrument evaluators













SECTORAL ECOSYSTEMS



INDUSTRY 4.0 OPEN INNOVATION

7 leading companies 14 technology challenges 64 offered solutions

7 tandems, startup - leading company, to implement 4.0 solutions



CREATIVE INDUSTRIES

96 business projects supported, a new program to promote competitiveness within the **creative sector CREA&TECH**



BIOECONOMY AND HEALTH

64 business projects supported,1 acceleration program for theBioeconomy and health sector

2. Who we are



[BIC Asturias team]

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CE-EI 2017

Who we are

We are the European Business and Innovation Centre of Asturias (BIC Asturias), established as a non-profit organisation and endorsed by a pool of private and public organizations under the European Commission's BIC model, to promote the creation and growth of innovative companies in our region.

We work to help innovative entrepreneurs and start-ups to develop their business and projects ideas, with the objective of generating employment and wealth in Asturias.

Our mission is to

- Encourage a culture of innovation and entrepreneurship.
- Support the creation and growth of new companies, in special innovative and based on scientific and technical knowledge and those related to strategic sectors.
- Assist start-ups through the path to innovation and diversification.
- Research and develop new entrepreneurial activities to boost innovation and employment.

We aspire to

• Be the main choice for would

-be entrepreneurs and start-ups to create and grow their companies.

- Be recognised by stakeholders for the quality of our services.
- Be among the best BICs by our results.

We provide an extensive range of tailor-made services to entrepreneurs and startups, to help them convert their business ideas and projects into marketable products and services.

Innovation and entrepreneurial networks

BIC Asturias is one of the entrepreneurial promotion entities of Asturias Development Agency, IDEPA Group, that belongs to:

- EBN, European Business and Innovation Centres Network. A net of certified business innovation centres (BICs), involved in identification and specialised support for innovative entrepreneurs and start-ups, located in more than 40 countries.
- ANCES, the Association of Spanish BICs. Made up of 27 regional members promoting entrepreneurship.
- ACEPPA, Association of 14 Public Business Centres throughout the Principality of Asturias.

As members of the governing bodies of these networks, we cooperate in strategy planning and implementation of new programmes to promote entrepreneurship.

Other entities and organizations, local, regional and international, rely on our experience in disseminating entrepreneurship within society, and the European Union in our expertise as SMEs Instrument evaluators.

With the objective of transferring knowledge and R&D results to the market, we are strategic partners to universities and technology centres.

Along with the Principality of Asturias and other regional entities, we are taking part, in representation of IDEPA Group, in planning actions to drive "Active and Healthy ageing". Our region, Asturias, has the status of Reference for active and healthy ageing, awarded by the European Union.

We keep expanding links with entrepreneurship accelerators, sectoral experts, investors and technology centres such as Microsoft Ibérica, EMGI (Tel Aviv), Illinois Institute of Technology (Chicago), McCombs School of Business (Austin), ANII (Montevideo) and CIETEC (Sao Paulo).



During the year, we organised many activities and events in cooperation with some of the more than **200** partners we have in different countries as showed in the map. As examples:

- EBN: Policy Event Board, 24 January, Brussels, and "Open Ecosystems for Innovation" Congress, 6 - 7 July, Paris.
- RED.ES ANCES Meeting: "Convergent programmes", 28 July, Madrid.
- Meetings with ASEBIO and ELIXIR (European Life Science Infrastructure), 1 and 10 February, Llanera, BIC Asturias.
- RYME+: 6 7 April, Limoges, 22 23 November, Porto.

- Spanish Regional Development Agencies Association – ADRs Forum: GTR Accelerating Ecosystem, 2 November, Valencia.
- SOUTH SUMMIT, 4 6 October, Madrid.
- 4YFN, 27 February 3 March, Barcelona.
- Jam Today meeting with the European Commission, 18 May, Luxemburg, and "Jamtoday: the future of Gamificaction" event, 5 April, Brussels.

Team

We are team of 16 professionals, expert advisors, acquainted with the best practices and the last international trends.

The background and expertise of our team of advisors covers a wide range of business areas: Finance, Financial resources, Marketing, Communication, Industrial Property, Legal and Procedural, Fiscal, Management, Human Resources, Business Valuation, European Programmes, TICs, Quality Systems, etc.

Our organization:

- Falls under the European Model of Business Innovation Centres BICs subjected to annual assessment.
- Follows a business process management system and professional quality standards
- Values highly team working, client orientation and social responsibility.

Committed to continuous learning and improvement, during the year all employees took part in training and professional competences development. Even more, all staff members were involved, during two intensive days, in revising and exploring tools and new communication approaches.

BIC Asturias Personnel (31/12/2017)

Cristina Fanjul Alonso MANAGING DIRECTOR

Lydia Alonso Díaz CHIEF ORGANIZATIONAL INNOVATION OFFICER

Roberto Parrondo Alonso COMPANY SERVICES AND EUROPEAN PROJECTS COORDINATOR

Eduardo Fernández Valdés CHIEF INFORMATION AND COMMUNICATION TECHNOLOGIES OFFICER

Ana M^a Méndez Rodríguez BUSINESS CONSULTANT

Belén Flecha Sors BUSINESS CONSULTANT

Berta García Fanjul RECEPTION

Cecilia Cachero Crespo BUSINESS CONSULTANT

Loli Fernández Rodríguez ADMINISTRATION

M^a Jesús Nava Fernández BUSINESS CONSULTANT



Natalia Iglesias Álvarez ADMINISTRATION

Noé López Alvariñas BUSINESS CONSULTANT

Pepa Quesada Serrano INCUBATOR

Soqui Pérez Bruces BUSINESS CONSULTANT

Tamara Álvarez Fernández COMMUNICATION AND ICTs

Verónica Álvarez Ayora BUSINESS CONSULTANT

Communication

As part of our mission, we contribute to spread innovation, entrepreneurship, information about the services we provide and to promote and gain visibility for our clients.

Our channels

- Website: http://www.ceei.es
- CEEI Newsletter
- Social networks

Offer up to day information concerning:

- Services and resources available for entrepreneurs and innovative, and technology-based companies, as well as events and activities.
- Directory of businesses hosted at our incubator and information about the start-ups we assist.
- Tools of interest, like the "Guide for company creation"

On the other hand, we also deploy other media means, such us television, press and specialized publications.

In 2017, we had:

- > 1,768,300 visitors to our Web channels
- > 2,268 Facebook friends
- > 4,623 Twitter followers

- > 1,139 followers in LinkedIn
- > 366 media appearances
- > 7 newsletters sent to 6,000 recipients

As a result of the promotional activity, reports of 25 companies appeared in different means of mass communication.



Governing bodies

The Board and the General Assembly, our governing bodies, met on the 26th of January and on the 9th of June.

Members of the BOARD and the GENERAL ASSEMBLY (31/12/2017).

President: Ms. Eva Pando Iglesias ECONOMIC DEVELOPMENT AGENCY OF ASTURIAS (IDEPA)

Secretary: M. Jaime Fernández Cuesta ECONOMIC DEVELOPMENT AGENCY OF ASTURIAS (IDEPA)

M. Ángel Rodríguez Vallina economic development agency of asturias (idepa)

Ms. Nuria Canel Abanilla ASTURIAN BUSINESS FEDERATION (FADE)

M. Carlos Freire Rodríguez LIBERBANK

M. Alfredo Enrique Fernández Santos CHAMBER OF COMMERCE OF AVILÉS

Ms. Ángeles Álvarez González science and technology research development foundation (ficyt)

M. Ignacio Calviño González ASSOCIATION OF YOUNG ENTREPRENEURS (AJE)

M. Alfredo Enrique Fernández Santos SABADELL BANK

M. Jesús Peón Cadavieco ASTURIAS PROFESSIONAL ASSOCIATION OF ECONOMISTS

M. José Ramón Obeso Suárez UNIVERSITY OF OVIEDO

M. David Argüelles García CHAMBER OF COMMERCE OF GIJÓN

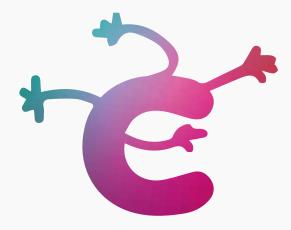
M. Ignacio Iglesias Vázquez CHAMBER OF COMMERCE OF OVIEDO

GENERAL ASSEMBL

BOARD



3. Culture of innovation and entrepreneurship



Culture of innovation and entrepreneurship

Great efforts are made to disseminate and promote an innovative entrepreneurial culture and detect and capture projects, in particular those with innovative characteristics.

In order to do that we:

- Organise a variety of activities, motivational talks and training courses to stimulate entrepreneurship and business management.
- Collaborate with other entities that promote entrepreneurship as well as with centres of innovation like the University of Oviedo, technology centres or leading companies.
- Contribute to give visibility to entrepreneurs and start-ups with publications and in the means of media available to us.
- Convey the annual BIC Asturias Awards: Spin-off Radar, Best Technology-based Project and the Competition for Patents and Utility Models of Asturias.
- Cooperate with other prizes contests and awards in a regional, national and European level, to identify and attract innovative entrepreneurial initiatives.

> People reached with our dissemination activity: 3,215

We joined forces with the **University of Oviedo** taking part in a series of activities that attracted 864 attendants from the university community. We collaborated with speeches, talks, presentations, conferences, courses or masters. As examples:

• "Self-branding and personal pitch" workshop, XVI Employment Forum.

- Motivational talks to students of the masters of Business Management and Food Industry Development.
- Conferences over communication to students of the Polytechnic School of Engineering.
- "Creation of companies based on R&D results, spin-offs" course, Mieres University Campus.
- VII International Doctorates Meeting, Mieres University Campus.
- EPI/COIIPA Awards.

In addition, we taught ad-hoc topics on the creation and management of technology-based companies to **76** students of:

- Master in Food Production Management and Development
- Master in Biotechnology of Environment and Health
- Master in Business and Management
- Master in Biotechnology Applied to Conservation & Sustainable Management of Plant Resources
- Master in Advanced Therapies and Regenerative Medicine
- Master in Computer Engineering

Moreover, we participate in courses and events organised by other entities and companies. As examples:

- III Forum for "Investment and Financial Markets", 26 January, Chamber of Commerce of Gijon, Asturias.
- VII Forum for "Science, Technology and Innovation", 16 February, Malaga.
- "Health and Entrepreneurship" Health and Social Media Agency Asturias, 16 March, Oviedo.
- South Summit, "The Next Big Thing", exposition of Asturias entrepreneurial ecosystem during the debate, 4 October, Madrid.



CEEI 2017

- Il Forum for "Social Thought", 20 October, Professional Association of Political Sciences and Sociology of Asturias, CCAI, Gijón.
- Startup Weekend, 27 October, AsturValley and Gijon Town Council.
- FIMP TALK 2017, stand along with IDEPA, 16 19 November, Gijón.
- "Asturias Active, Healthy Ageing", event, 27 November, Oviedo

BIC Asturias Awards 2017

In order to identify and enhance business projects to stimulate the entrepreneurial fabric and to increase qualified employment, we convey annually the BIC Asturias Awards:

- III Radar Spin-off
- XII Prize for the Best Technology-based Project.
- XI Competition for Patents and Utility Models of Asturias

III Radar Spin-Off

Objective: to identify and transfer knowledge to the market

Sponsored by: IDEPA and BBVA

Prize value: € 2,000

Candidatures received: 6, from 18 researchers belonging to 3 Research Centres of Asturias, (University of Oviedo, SESPA and IUFV).

Winner: **Procols**, presented by a team of researchers from the University of Oviedo and Fernández Vega Institute (IUFV).

On 8 July, during the Radar Spin-off event:

• Ignacio Villoch, member of BBVA Open Innovation team, talked about the need to take advantage of the opportunities arising in a fast changing world.

• Cristina Fanjul, BIC Asturias manager, debated along with R&D chiefs of Dropsens, SL, and Microviable Therapeutics, SL, over technology and entrepreneurship.

XII Prize for the Best Technology-Based Project

Objective: to boost the appearance and start-up of Technology-Based Companies (TBCs)

Sponsored by: IDEPA, Sabadell Bank, Caja Rural, CaixaBank, Liberbank, Abanca, PRODINTEC Foundation and GARRIGUES Law Firm.

Prize value: € 10,000

Candidatures received: 10

Winner: **NineFplus**, start-up that develops portable devises for disease detection using biological fluids samples.

Finalists:

- **Muscle Technologies, SL,** a start-up that designs medical devises for human muscular analysis with health, sporting and esthetical applications.
- **Carbonautics, SL,** a company that recycles carbon fibers residues from the aeronautic sector to use in other sectors like naval, orthopaedic or sporting.

XI Competition for Patents and Utility Models of Asturias

Objective: to acknowledge initiatives that protect R&D&i results by patents and utility models.

Sponsored by: IDEPA, Sabadell Bank, Caja Rural, CaixaBank, Liberbank, Abanca, PRODINTEC Foundation and GARRIGUES Law Firm.

Prize value: € 5,000

Candidatures received: 9

Winner: **Güeyumar, SL.**, for their patented procedure to obtain preserved sardines by means of an inverse osmosis system.





Pedro Jareño, Southern Europe Program Manager at Microsoft, presented "Reducing the gap between corporations and startups" at the BIC Asturias 2017 Awards Ceremony, 10 November, Oviedo.

XXI Entrepreneur Prize

We worked along with the Regional Ministry of Employment, Industry and Tourism in the organisation of the XXI Entrepreneur Prize in Asturias, to drive it forward on a regional level.

Objective: To recognize companies with higher impact on society.

Sponsored by: CaixaBank and co-awarded by ENISA (Spanish Ministry of Economy, Industry and Competitiveness)

Prize value: € 5,000 and an the accelerating course at the University of Cambridge (UK), Ignite Fast Track.

Winner: Zapiens Technologies, SL.

Finalists: Nanovex Biotechnologies, SL, Neosentec, SL, Triditive, SL, Walden Medical, SL and Zapiens Technologies, SL

Our organization was also involved in other awards contests and entrepreneurship competitions like STARTinnova Asturias, Greenweekend, Startup Weekend or Travelguau.



CEEI 2017



[1., 2., y 3.] Jury, winners and attendants at the BIC Asturias 2017 Awards Ceremony: Best Technology Based Project and Patents and Utility Models Competition. 10 November Oviedo. **[4.]** Winners of the III Radar Spin-off, Award Event, 8 July, BIC Asturias, Spain.

CHPT. 3 Culture of innovation and entrepreneurship

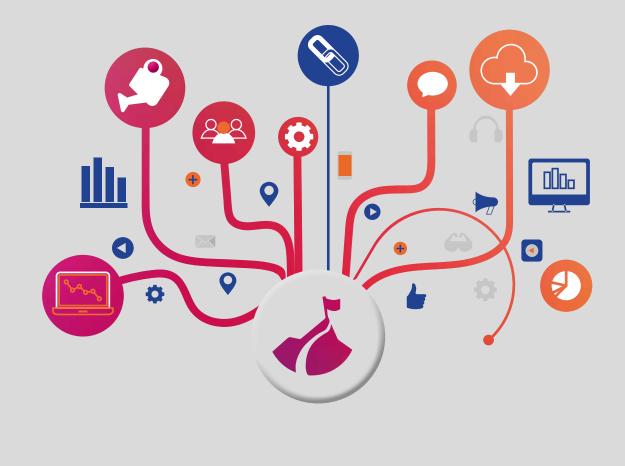


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[1.] Pedro Jareño, Microsoft Ibérica, BIC Asturias 2017 Awards Ceremony, 10 November, Oviedo.

[2.] "The Next Big Thing", debate, South Summit. 4 October, Madrid, Spain.



4. Innovative and technology-based companies, start-up and growth



Innovative and technology-based companies, start-up and growth



As established in our mission, we offer guidance and tailor-made support to would-be entrepreneurs, with innovative and/or technology-based business ideas, and to start-ups, to help them:

- Analyse and develop their business idea
- Formulate a sound business plan
- Online business legal registering, as PAE
- Widen networks with other entities, entrepreneurs, companies and potential collaborators. Not only regional, but also in a national and international spheres as we belong to the incubator – accelerator netwoks, ANCES and EBN.
- Promote and gain visibility for their entrepreneurial initiativesPlan financial resources needs to carry on the business project
- ^{снрт}
- снрт
- Get funding; we facilitate access to grants, capital risk, equity loans, private investors, banks, etc.
- Accommodate their business in our Incubator and Bioincubator, located at the Technology Park of Asturias, and in the Industry 4.0 Building, in the Scientific and Technology Park of Gijón, with affordable and adapted offices, working spaces and laboratories.





During 2017, we supported **442** innovative business projects, in different stages:

CREATION / ENTREPRENEURAL IDEAS

133 potential entrepreneurs that created 30 new innovative companies; 40 were technology-based projects that established 14 new technology-based companies (TBCs).

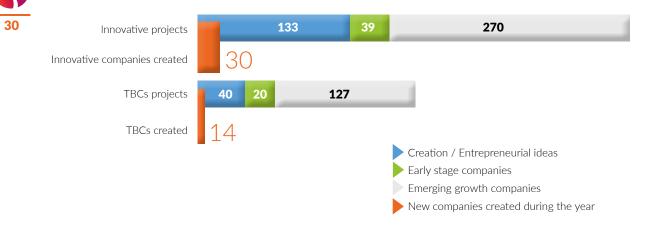
EARLY STAGE COMPANIES

39 new companies (< 1 year), 20 were TBCs

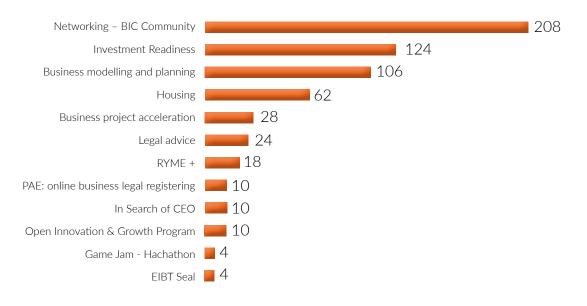
EMERGING GROWTH COMPANIES

270 novel companies (> 1 year), 127 were TBCs

Innovative and TBCs projects supported by stage and companies created



Services provided to supported projects.





Cross-sectoral hackathons

Working sessions where an array of multidisciplinary profiles from different fields, share interests and experience in order to innovate and advance on new business ideas and projects.

There was a hackathon sponsored by Milkstone Studios and organized in collaboration with UNEVA, 20 - 23 of January.

During 48 intensive hours, 18 professionals with different skills and background, programmers, 2/3D modellers, game designers and artists, combined efforts, knowledge and expertise to devise videogames around a topic "the waves".

As a result, the participants designed four prototypes: D-yacht, Shockwave Arena, Waverfly y The Wave of Life.

We also took part, as mentors and members of the jury, along with Health Social Media, RenovAccion Asturias, GDG, Oviedo Emprende and CTIC in a hackathon programmed in March. The activity congregated 30 people, health, technology and design professionals, that worked together to imagine innovative solutions to improve health care services. Of the four resulting prototypes, Babycome, an application for baby feeding, won the final competition.

Business projects acceleration programs

These offer broad support including guidance to develop the business model, training workshops, group and one-to-one business and sectoral advice, networking and a platform to practise entrepreneurial skills.





In 2017, we run a program for innovative business projects, AventuraT, and a sectoral one, BioCEEI Health and Active Ageing.

The seventh edition of **AventurT**, a 60-hour duration acceleration program addressed to innovative business projects, was executed between October and December.

> AventuraT: 12 entrepreneurs formulated 10 business models

Training and skills improvement

There were several workshops for entrepreneurs to improve entrepreneurial and managerial skills

- "Business planning" hands-on workshop, PRODINTEC, 17 February 4 April.
- "Innovative Human resources management experiences", 1 June.
- Business funding, Clinic 2017", 13 September.
- "Keep your business information secure", 19 October.
- "Business Chief Administrative Officers", 17 November.

> 5 workshops, 65 participants

Consultancy for innovative business projects

We advise and help entrepreneurs to define their business model and provide personalised assistance and counselling to develop a sound business plan in all aspects such as marketing, finance, management, industrial property, legal, production and distribution.

At the same time, we introduce would-be entrepreneurs and start-ups to the business entrepreneurial fabric, experts and innovation centres.

Through the Investment Readiness process, we assist entrepreneurs to define their financial needs and to identify and access finance from a variety of sources.

> Business modelling and planning: 106 projects

> Investment Readiness: 124 projects



Sectoral business projects acceleration

With the sectoral business projects acceleration programs, we offer inclusive guidance and assistance to entrepreneurs and start-ups in strategic sectors. Along with business advice, we provide mentoring carried out by sectoral experts, training and support to potential entrepreneurs to establish new companies and to startups to mature new services and scale their businesses.

Within the field of **Bio-economy and health**, there were identified 21 new projects and 64 benefited from our support services.

Between March and July, we carried out "BioCEEI Health and Active Ageing", an



acceleration program to drive forward business ideas and start-ups in the areas of health and active ageing.

The bio-entrepreneurs took part in training sessions and one-to-one coaching from BIC Asturias business consultants and sectoral experts:

- Manuel Varela, COTEC Foundation
- Javier Quiles, SERGAS and INNO-VASAUDE.
- Marisol Quintero, BIONCOTECH
 THERAPEUTICS.
- Pablo Galiana, DIGITAL LABS.
- Francisca García-Lizana, SESCAM.

The program also granted opportunities for networking as well as to present the business projects to potential investors.

- **BioCEEI** Health and Active Ageing: 22 bio-entrepreneurs, 11 business projects
- > Business projects in the field of bio-economy and health supported: 64

Entrepreneurs and star-ups are also supported to access the financial resources needed to success, through the legal procedures to establish as a new company and could be hosted in the offices and laboratories at our incubator and bio-incubator spaces.



As active members of the regional Reference Site working group, we prepared the event "Active Asturias healthy ageing", 214 attendants.

With reference to the BIOCEEI Club that aims to stimulate the bioeconomy ecosystem and to foster networking among researchers, entrepreneurs, start-ups and entities of reference, etc., we arranged meetings with experts from UPS-Asturias, ASEBIO and ELIXIR, with 76 participants.

Bioeonomy and Health

Projects supported since 2002 related to Biotechnology, Sciences of Life and Health.

CONSULTANCY AND BUSINESS PROJECT ACCELERATION

- **129** Business projects adviced
- 39 Start-ups created
- 4 Business projects acceleration programs
 - 78 bioentrepreneurs, 41 business projects
 - 20 sectoral experts

ACCES TO FINANCE

- 31 Business projects financed
- 8.8 Millions of euros of financial resouces

BIOCEEI CLUB

- **49** Bioeconomy related start-ups
- **22** Networking events to stimulate the bioeconomy ecosystem
- **1,369** Participans

TRAINING: "CREATION AND MANAGEMENT OF TECHNOLOGY-BASED COMPANIES"

- 130 Students
 - 7 Masters
- +300 Hours



Within the **creative industries**, there were detected 24 new business projects and 96 got access to our comprehensive support services.

In relation to the creative sector, it should be noted our cooperation and involvement with "2017 Global GameJam" and "Hacking Health Asturias", two events that attracted 48 participants to work in the design and prototyping of videogames and technology applications for health.

Our organization keeps within the EBN Creative SIG for the identification of trends and new tools for creative business projects.

In December, we presented CREA&TECH before 30 companies related to the creative industries. Crea&Tech is a new program, to execute in 2018 in cooperation with ACICCA, that aims to stimulate creative industries competitiveness by means of professional skills training, positioning in the digital economy and cross-sectoral integration.

> Business projects in the creative industries supported: 96



Legal advice and on line business legal registering

We advise on the different types of companies, legal requirements and procedures to operate a business. As a

PAE Point, we process the online legal procedure to establish as a sole trader or to create a new limited partnership.

- > New online processed companies: 8
- > 85 legal advice sesions to 24 business projects

Entrepreneurial growth



"In search of CEO", was launched in 2016 with the aim of reinforcing start-ups teams skills and abilities.

The objective is to aid novel innovative start-ups to incorporate partners with chief executive office profiles and professionals, so that companies would obtain and improve managerial expertise and competences.

The program lasts 18 months and includes training and coaching sessions, in group and individually. Entrepreneurs and would-be CEOs went through the process of getting to know each other, negotiating joint ventures and strategic planning.

In figures, 19 potential CEOs and 16 innovative start-ups wanting a CEO were involved in the program.

In 2017, the program ended with 10 pairs, start-up / CEO, signing collaboration agreements revitalizing managerial, commercial and financial competences in their companies.

Based in the good results and acceptance, in 2018 there would be a new edition of "In search of CEO".

> Start-ups teams reinforced: 10

Program for company growth

In the framework of IDEPA Group (SRP, ASTURGAR, CEEI and ASTUREX), we offer personalised advice to the companies that join the Program for Growth.

The initiative is for SMEs that knowable of their strengths and differentiation from competitors are planning to grow by themselves of by means of alliances.

Technical and business consultants collaborated in validating the methodology and made the diagnosis of the 16 companies taking part in the program.

> Start-ups of BIC Asturias Community in the Program for Growth: 3



Open Innovation

Aligned with Asturias RIS3 we implemented a pioneering program for smart specialization "Open Innovation Industry 4.0".

The objective of "Open Innovation Industry 4.0" is that leading and consolidated companies take advantage of start-ups knowledge to bring solutions to their technological and entrepreneurial needs and challenges.

• There were 7 leading companies, ACITURRI, ALSA, ARCELOR MITTAL, EDP, GONVARRI, QUIMICA DEL NALÓN & THYSSENKRUPP, challenging innovative start-ups to solve their technology needs.

The 15th of March, the seven leading companies presented 14 Industry 4.0 challenges to the 68 assistants.

- 44 novel start-ups proposed 64 solutions to the leading-companies demands.
- Phase I: Solution design. There were established 7 tandems, leading-company / start-up, to articulate the project to solve the challenge.

This stage was complemented with meetings with Industry 4.0 experts:

- Manuel Ausaverri, Director of Strategy and Innovation at INDRA and COTEC Industry 4.0 expert.
- Rubén Martínez García, Director of Organizational Development at ASTI, now this presides over AMETIC Industry 4.0 Commission.
- Luis Antonio Gaite (EPC Channel Electrification Products division), Fernando Bernárdez (Key Account Manager Red Eléctrica) and Asea Brown Boveri S.A. (ABB).
- Phase II: Implementation of the solution. The resulting 7 tandems were eligible for a specific financing line for the execution of open innovation projects in Asturias.

Fruit of the collaboration with the leading company EDP, a new company was created, Energy Intelligence Systems, SL

> Open Innovation Industry 4.0: 64 solutions proposed to the challenges



7 solutions proposed by START-UPS implemented in LEADING-COMPANIES



Networking – BIC Asturias Community

We provide information, access to resources, alerts of collaboration and assistance to fairs as well as facilitate meetings and events with experts and leading companies, one-to-one and in group, for the start-ups belonging to BIC Asturias Community.

Start-ups in BIC Asturias Community: 208

Sectoral Fairs

We took novel companies to three international sectoral fairs: V Asturias Metal Industry Forum, South Summit and 4YFN in the Mobile World Congress.

Even more, projects and activities we cooperate with, like Ryme+, give start-ups access to international markets and collaboration opportunities.

VAsturias Metal Industry Forum

Worldwide metal industry forum, that took place during two days, 30 & 31 of May, at FIDMA, Gijón, Spain.

Our organization was present at the institutional stand "Startup 4.0: Digitalization and innovative models for metal Industry".

During the exhibition, we worked to disseminate the potential of Asturias start-ups and technology enablers with application in different areas such as Industry 4.0, sustainable and new production models for metal industry.

The 15 start ups we accompanied to the forum had the opportunity to interact with companies from all five continents and to present their company, products and services at the Speaker's Corner.

South Summit

One of the leading innovative platforms for startups, investors and corporations from over the world that took place in Madrid, 4 - 6 of October.



Backed by ASTUREX, we shared with seven national BICs the stand of the Spanish BICs Association (ANCES) that brought together more than 50 start-ups.

There attended 13 startups from Asturias, 2 of them, Lazzus and Zapiens, were among the 100 selected as more innovative.

4 Years From Now (4YFN)

Specialized event organized during the World Mobile Congress, 27 February – 3 March, Barcelona, with the objective of gaining visibility for innovative startups.

With the support of ASTUREX and in collaboration with Asturias ICT Cluster, we participated in the institutional stand and invited 4 start-ups.

> Start-ups attending to fairs: 32

Meetings with experts and leading companies

Continuous efforts are taken to help start-ups interact with experts, entities and leading companies, one-to-one or in group events, as a way to integrate in the entrepreneurial fabric and identify potential clients or partners to cooperate in new projects.

During the year, we facilitated meetings with leading companies, sectoral experts and entities such as Technology Centres, ASTUREX, ENISA or CDTI

> Interactions between BIC Asturias Community start-ups and experts and leading companies: 143



Entrepreneurial survival

Survival rate of companies created with our support

Companies created with BIC Asturias support	Survive	
	> 5 years	> 3 years
Innovative companies	65.78 %	76.11 %
Technology-based companies (TBCs)	75.71 %	82.30 %
National Average (*)	40.88 %	57.11 %

(*) Source: INE - DIRCE - IDEPA

Survival rate to 5 years: 24.90 points above average for innovative companies and 34.84 for technology-based companies



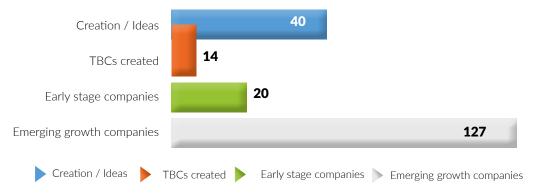
Technology-based business projects

Technology-based (TB) projects are of vital importance for our activity. In 2017, we supported **187** technology-based business projects (42.3 % of the total) in different phases.

CREATION / ENTREPRENEURAL IDEAS: 40 entrepreneurs with business ideas that created 14 new technology-based companies (TBCs).

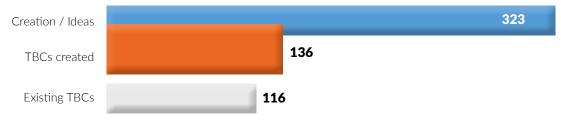
EARLY STAGE COMPANIES: 20 new TBCs up to 1 year of entrepreneurial activity. **EMERGING GROWTH COMPANIES:** 127 novel TBCs, with more than 1 year of entrepreneurial activity.

187 TB projects supported (2017)

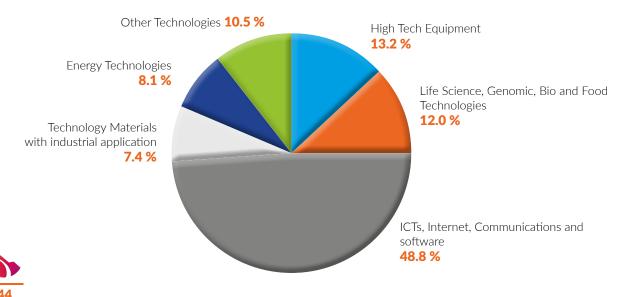


Between 2000 and 2017, we supported **439** TBCs business projects, 323 were of potential entrepreneurs that created 136 companies, with a rate of conversion of 42 %.

439 TB projects supported (2000 – 2017)







252 TBCs companies supported by sector

> 79.5 % of the TBCs created with our support keep trading





We encourage companies to apply for the EIBT Seal (Innovative Technology-Based Company). It is a label recognised by the Ministry of Economy, Industry and Competitiveness as a differentiating and visibility feature for technology-based companies. Professionals

from different areas of expertise, ENISA, CDTI, IESE, EOI, the Spanish Chamber of Commerce and ANCES are actively involved in the evaluation committee.

There are 34 regional companies with EIBT Seal recognition:

- ADELE ROBOTS, S.L. ADITAS, ASTURIANA DE DISPOSITIVOS INTRAORALES PARA EL TRATAMIENTO DE LA APNEA DEL SUEÑO, S.L. ADN CONTEXT-AWARE MOBILE SOLU-TIONS, S.L. (INDIGO) BAP HEALTH OUTCOMES RESEARCH. S.L. BEQBE INTERNET, S.L. BIONUMERIC, S.L. BIOKER RESEARCH, S.L. BIOQUOCHEM BIOTECHOLOGIES, S.L. DOGRAM INGENIERÍA DE DOCUMEN-TACIÓN TRIDIMENSIONAL, S.L. DREAMGENICS, S.L.
- DROPSENS, S.L.

- ENTRECHEM, S.L.
- GESTIÓN E INNOVACION EN EFICIEN-CIA ENERGETICA, S.L. (GESINNE) (*)
- HEALTHSENS, S.L.
- INGENIERIA DIGITAL OVIEDO, S.L.
- INVESTIGACIÓN Y DESARROLLO EN SEGURIDAD, S.L. (IDSEGUR)
- MICRODAN ALTA DESINFECCIÓN, S.A.
- MICRUX FLUIDIC, S.L.
- NANOVEX BIOTECHNOLOGIES, S.L.

ONE TO TRIKE, S.R.L.

- NEOALGAE MICRO SEAWEEDS PRO-DUCTS, S.L.N.E.
- NUMERICAL ANALYSIS TECHNOLO-GIES, NATEC INGENIEROS, S.L.

- PROTECMA, ENERGÍA Y MEDIOAM-BIENTE, S.L.
- ROBOTICS SPECIAL APPLICATIONS, S.L.
- SOLUCIONES ANTROPOMÉTRICAS, S.L.
- SPECTRAPPLY, S.L.
- TAGSONOMY, S.L.
- TESIS MEDICAL SOLUTIONS, S.L.
- THINGTRACK, S.L.
- TRIDITIVE, S.L. (*)
- VALOR, DESARROLLO E INNOVACIÓN. S.L. (VDI)
- VIACOREIT, S.L.
- VITESIA MOBILE SOLUTIONS, S.L.L.
- XEROLUTIONS, S.L.

(*) Granted in 2017

Spin-offs

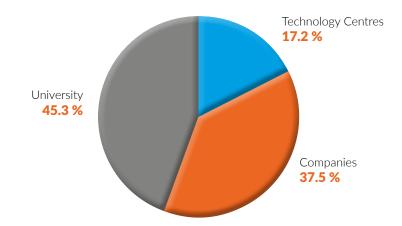
Spin-offs spring from University, Technology Centres and other companies. BIC Asturias bets on attracting and stimulating spin-offs creation as a means of transferring knowledge and R&D results to the market while generating high quality employment and regional economic development.

In 2017, we supported 55 spin-offs, 41 were novel companies and 14 entrepreneurial ideas that created 3 new companies.

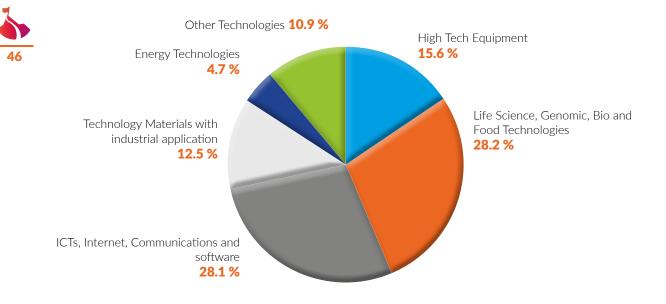
Since 2001, we have supported 132 spin-off business projects; 110 were potential entrepreneurs that created 42 spin-offs.

There are 64 spin-offs we are offering services.

64 spin-offs supported (2001 - 2017) / origin



64 spin-offs supported (2001 - 2017) / sector



> 80.90 % of spin-offs created with our support keep trading









[1.] AventuraT, Closure session, 5 December, BIC Asturias.

[2.] "BioCEEI Health and Active Ageing", 4 July, BIC Asturias.

[3.] AventuraT, Communication workshop, 10 October, BIC Asturias.

[4.] ELIXIR Meeting, 10 February, BIC Asturias.

[5.] Start-up presentations at the Speaker´s Corner, Metal Industry Forum, 30 – 31 May, FIDMA, Gijón, Asturias.











[1.] Leading-companies announcing their technology challenges, Open Innovation 4.0, 15 March, BIC Asturias.

[2.] Open Innovation, leading-companies and start-ups meet sectoral expert Rubén Martínez García, 30 May, Gijón.

- [3.] Start-ups of BIC Asturias Community at South Summit 2017,4 6 October, Madrid.
- [4.] With Asturias start-ups at 4YFN, 1 February, Barcelona.

5. Access to finance



Access to finance

One of our main tasks is to act as a bridge to financing for entrepreneurs to start up, run and grow innovative and technology-based companies.

We perform as a link between entrepreneurs and different sources of financial resources such as private investors, seed and risk capital, equity loans, grants for TBCs, investors forums, NEOTEC – CDTI, ENISA and crowdfunding platforms.

With the Investment Readiness itinerary, we advise, guide and help entrepreneurs and novel companies analyse their business projects financial feasibility, identify financial needs, prepare financial proposals and access private and public sources of financing.

Moreover, the Investment Readiness Workshops (IRWs) reinforce individual support by training entrepreneurs abilities in search of financial resources.

In addition, we organise investment forums like Asturias Investor's Day, a meeting platform for Asturias entrepreneurs and international investors.

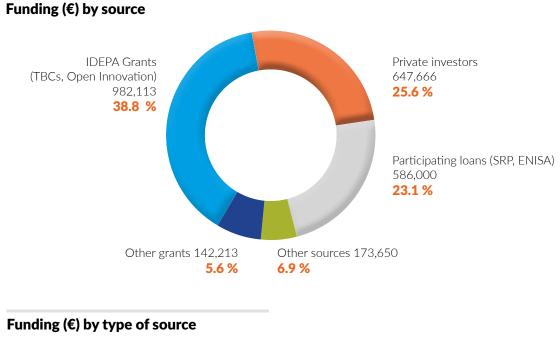
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Investment Readiness

- > Business projects supported in Investment Readiness itinerary: 124
- > Business projects presented to financial sources: 88

The following graphs show raised funding by source and type of source.

- > Business projects financed: 49
- Funding obtained: € 2,531,642





Investment forums

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In 2017, we organised two investment forums: Asturias Investor's Day 2017 (AID 2017) and Venture on the Road.

- > Investment Forums: 2
- > Investmen
- > Projects presented to investors: 56
- > Investment agreements: 6
 > Finance raised: € 647,666

Asturias Investor's Day

On the 15th of June, we organized the third Asturias Investor's Day (AID 2017), an institutional and entrepreneurial event to convey Asturias potential for investors and investment funds.

One-day event co-organised with the Economic Development Agency of Asturias (IDEPA), the Regional Promotion Society of Asturias (SRP), Asturias Business Federation (FADE) and the support of the Ministry of Employment, Industry and Tourism of Asturias.

During the day, there were three different types of forums for Seed Capital, Growth Capital and Business Transfer.

- In the Seed Capital Forum, 50 innovative novel start-ups had the opportunity to explain their business to potential investors. The start-ups came from different grounds, 35 % were related to ICTs, 24% to Industry 4.0, 20 % to health science and the rest to an assortment of activities.
- A group of 13 mature companies participated in the Growth Capital Forum and in meetings with the investment funds.
- There were 10 companies attending the Business Transfer Forum, promoted by Asturias Business Federation (FADE), aiming at securing business transfer.

The event congregated 70 investors, with different profiles (investment funds, private and public investors) more of them specialized in specific fields like biotechnology or digital economy.

Entrepreneurs had 2 minutes to convince potential investors and to catch their attention so that they could enter to successive rounds of negotiation.

At the end of the forum, four companies, Onirix, Moonwater, Protein Biotechnologies and Triditive, were single out and Onirix, a platform for augmented reality design, was recognized as the best start-up

> AID2017: 263 attendants





Venture on the Road

Venture on the Road, celebrated on the 23th of November, was a forum for emerging companies in the fields of biotechnology, health and wellness to meet public and private investors. A roadshow to bring access to investors and networking in different cities, organized in Asturias in collaboration with SeedRocket and BStartup of Sabadell Bank at national level.

During the event, four companies, Microviable Therapeutics, Protein Biotechnologies, Muscle Technology and Human Analytics explained their business models to the investors. The jury chose Protein Biotechnologies as the start-up with the highest potential to invest.

To finish the event, Enrique Domínguez, mentor of SeedRocket, Founder & CEO of ParkingDoor & the Parking, explained his experience as entrepreneur and as investor.

> Venture on the Road: 43 attendants

Investment Readiness Workshops (IRWs)

IRWs are intensive training workshops to help entrepreneurs get familiar with the investment method and improve skills to defend their business projects in front of investors. BIC Asturias business consultants, with more than 10 years of experience in entrepreneurship, venture capital and business angels, lead the workshops.

With a hands-on approach, entrepreneurs practice to acquire and improve techniques to present their business projects to potential investors.

In 2017, there were three workshops, 27 hours total, including experiences:

- As entrepreneurs: Patricia Robledo, CEO of Quiquilo, Jonathan Solís, CEO of Flame Analytics and Pedro Javier Saéz, founder of LAZZUS.
- As investors: José María Fuster, CEO of Digital Ecosystems of Innovation, and Arturo Rodríguez del Amo, founder of the Investment Group PADEINVEST.
- > Investment Readiness Workshops (IRWs): 3
- > Participant Entrepreneurs: 33





4thF Investors Club

The 4thF is a club of informal investors launched on AID 2017 ceremony that aims to simplify seed capital investment in Asturias start-ups

Members of the club will receive periodically proposals of investment in Asturias innovative star-ups with great potential for growth.

Investors pool their money acquiring tickets, circa € 5,000, to invest in the companies of their interest.

Why?

It is an easy way to invest, with benefits for investors:

- Access to the best opportunities to invest in star-ups in Asturias
- · Periodical information and business projects analysis
- Investments are led by a recognized investor for more security and trust
- Reduced amount of money to acquire the investment tickets
- Flexible and standard investment agreements
- Tax advantages for investors in innovative novel companies

As well as for innovative start-ups:

- Access to a club of investors ready to pool money to invest
- Advice to formulate investment proposals
- Simple and standardized procedure to close investment agreements









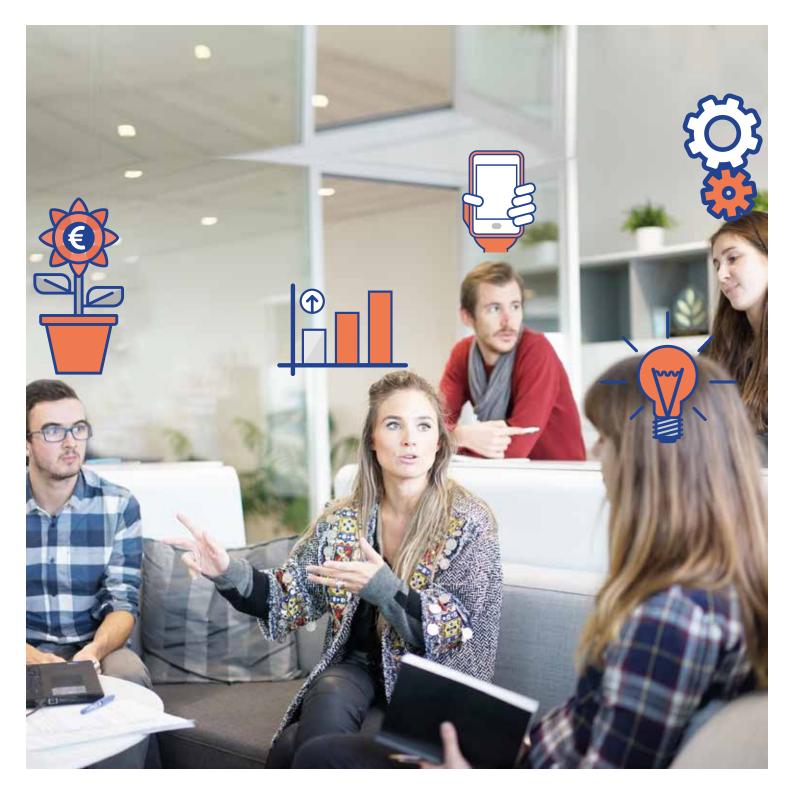


[1., 2. y 3.] Asturias Investor´s Day 2017 (AID2017), Overview, exhibitors and funding round, 15 June, Avilés, Asturias, Spain

[4.] Promoters of Microviable Therapeutics, Protein Biotechnologies, Muscle Technology and Human Analytics at Venture on the road, 23 November, Llanera, Asturias, Spain.

CHPT. 5 Access to finance

6. Incubator Spaces



Incubator Spaces

We manage the Incubator and Bio-incubator at the Technology Park of Asturias for innovative and technology-based entrepreneurs and companies under different incubation models.

During the year, we designed and opened a new business site, the Industry 4.0 Incubator (I4.0), located in the Scientific and Technology Park of Gijón, a site to incubate and to serve as a meeting point for Industry 4.0 related projects.

The Incubator offers co-working areas and private offices as well as shared spaces to cater for entrepreneurs needs to establish and run their companies.

The bio-incubator provides offices, fully equipped laboratories and shared equipment, an effective way to launch a Life Sciences business.

To adapt to entrepreneurs and start-ups specific needs there are different models of incubation: Nest, Vive, Bio, Virtual, Junior, Coworking and Mundus.

Hosted companies benefit from the portfolio of services we provide for entrepreneurs and start-ups such as business development advice and investment readiness assessment.

At our incubator spaces, we find a vibrant and dynamic environment a place where entrepreneurs are close to like-minded people and share experiences and initiatives.

Hosted companies, entrepreneurs and the start-ups that we support make up BIC Asturias Community. Huge amounts of resources are invested in promoting its members visibility, stimulating synergies among them, facilitating their access to experts and networking.

Meeting rooms, spaces and equipment are also available for not hosted companies to hire for meetings, training activities, interviews or events.

The incubator spaces thrive with events, networking activities, media presence, entities and other companies visiting our premises and tenants. During the year, 46 events/visits/activities... attracted 1,149 people to the incubator premises.

Hosting at the incubartor spaces

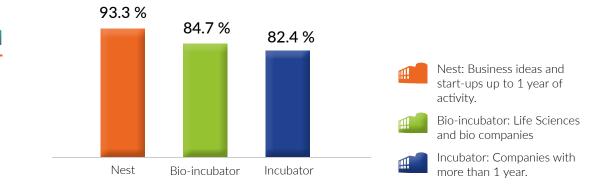
- > Number of companies hosted: 62
- > Hosting applicants: : 18
- **Employment by tenants: : 160**
- > Rate of occupancy: 86 %

New tenants: 14

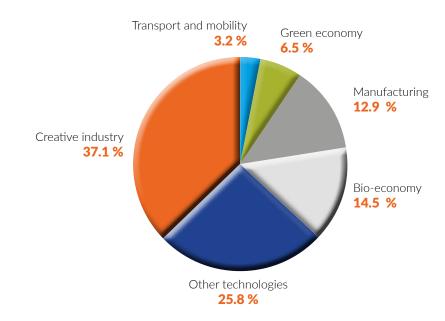
Hosted companies in 2017



Occupancy rate by hosting model



CEEI 2017



Hosted start-ups by sector





Industry 4.0 Incuabator (I4.0)

We manage the Industry 4.0 Incubator (I4.0), a new entrepreneurial space situated in the Mile of Knowledge at the Scientific and Technology Park of Gijón.

The I4.0 site is aligned with Asturias smart specialization RIS3 aiming to generate entrepreneurial initiatives to explore and exploit technology 4.0 business opportunities.

14.0 welcomes entrepreneurs and start-ups that are innovative and Industry 4.0 enablers, in a variety of fields such as 3D printing, robotic, sensor, cybersecurity, virtual and intelligent reality, cloud computing, connectivity and mobility, solutions applied to the process, drones and big data.

The I4.0 is an open and collaborative space, with private and communal areas, a show centre for technology potential, a venue that holds an array of activities and events related to industry 4.0.

During the year, 139 companies joined in activities organized within the premises. As examples:

- Debate over "Industry 4.0 opportunities for Asturias" 25 May.
- Open Innovation 4.0 Program
 - Workshop with Manuel Ausaverri, Chief Strategic and Innovation Officer at INDRA and COTEC expert in Industry 4.0, explained "Digital economy and the new innovation model at INDRA" 27 April.
 - Final presentation of reached agreements by the tandems (leading company / start-up), with the given solution to the challenges and implementation plans, 3 July.
- Colloquium "Financial resources for technology-based companies: NEOTEC-CDTI and TBCs-IDEPA". After the event, there were 33 individual meetings between the start-ups and the experts, 13 July.
- "European Coworking EOI" presentation, 15 September.
- Workshop: "Keep your business information secure", with SAT expert, 19 October.



CEEI 2017







[1.] Christmas Gathering, 22 December, BIC Asturias, Llanera, Asturias, Spain.

[2.] RYME+ public presentation, 3 February, BIC Asturias, Llanera, Asturias, Spain.

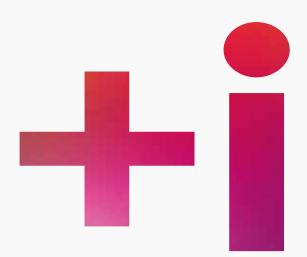
[3. y 4.] Colloquium "Financial resources for technology-based companies" and visit to the shop floor, 13 July, Industry 4.0 Incubator, Gijón, Asturias, Spain.



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7. R&D&i



R&D+i

Research and development of new methodologies are our main way to improve and increase the portfolio of services provided to clients.

At the same time, we pursue to identify and make the most of national and international programs of interest to accomplish our mission.

Besides, we are committed to share and transfer knowledge, methodologies and managerial tools to support entrepreneurs and other entities, either national or international, through technical assistance and taking part in joint projects.

In addition, we design and submit proposals for national and international programmes calls: SUDOE, ATLANTIC ARC, HORIZON 2020, etc.

During the year, we went on executing the European projects Jam Today and Ryme+ and launched Crea&Tech and Industry Digital Transformation.

> In 2017, we submitted in association with national and European partners 6 proposals for European, national and regional projects.



JAM TODAY

The European Game Jam Learning Hub is a European CIP programme that aims to implement and adopt a new generation of educational videogames across Europe.

Led by Dutch Game Garden (DGG), 24 European partners cooperated with the objective of building the paths to create a sustainable network upon which to organize educative videogame contests and to set up an advisory group of gaming experts in the field of learning to support ICTs, mathematic learning and wellbeing.

During the year, there were executed the final planned actions under the umbrella of Jam Today, with a series of activities to disseminate and transfer good practices.

In this way, we joined the Global Game Jam, an interna-

tional video game development event that takes place simultaneously at different venues. In our region, the event was at ESNE, 20 – 22 January. During 48 hours professionals with different professional profiles, met to create four videogame prototypes.

The Global Game Jam served to transfer Jam Today game jam & hackathons experience to our region.

In the same line, we cooperated, as organizers, mentors and jury, with Hacking Health Asturias. Between 10 and 12 of March, cross-discipline professionals put together their know-how to innovate in health gaming.

On 5 April, at "Jam Today, The Future of Gamification", an event held in Brussels to review the achievements of the program, we gave testimonial of the impact of Jam Today methods on our region.





JAM TODAY, The European Game Jam Learning Hub

DURATION: January 2014 to March 2017

FINANCED BY: Competitiveness and Innovation Framework Programme (CIP)

PARTNERS: 24 European partners from Austria, Belgium, Bulgari, France, Germany, Hollande, Italy, Spain, Switzerland and the United Kingdom

LEADER: Utrecht University of the Arts (HKU) y Dutch Game Garden (DGG), Hollande.

OBJECTIVE: To create a sustainable network upon which to organize educative videogame jams and competitions. To set up a network for sustainable implementation and adoption of a new generation of video games.

ACHIEVEMENTS

- 35 Game Jams events held in 13 countries, circa 1,000 attendants.
- 200 Videogame prototypes developed.
- 3 European Fair Jam Today competitions.

MAIN UNDERTAKINGS

- To establish a European network of mentors and experts in educative videogames in order to support simultaneous game competitions at different places.
- To organise an annual European event to share the implementation processes vision, results and impact.

FOR US IT MEANT

- 4 Game Jams, 109 participants, 17 videogame prototypes developed.
- The III Game Jam of Asturias was selected as the best European game jam for cross-discipline hackathons among experts, professionals and students.
- In cooperation with other entities, Jam Today methodology has been transferred to other sectors, like health, and new game jams are being organized in Asturias.

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RYME +

RYME+ is a European Interreg Sudoe project that aims to promote innovative SMEs internationalization and competitiveness within the SUDOE area by developing innovation and technology, and gui-

ding them to international markets, benchmarking, to share good practices and to establish trade relationships.

The project focusses on stimulating SMEs mainly in the fields of health and wellbeing, energy, materials and industrial sustainability, smart cities, ICTs and creative industries according to specific needs of the regions involved and their RIS3 specialization strategy.

Companies selected for RYME+ have access to:

- Mentoring by a pool of international experts through the internationalization process.
- Networking, visibility and interrelation with SMEs from other countries through Ryme+ website.
- Commercial preparation and training on foreign markets, legal requirements, taxes, cultural barriers, funding, etc.
- Speed meetings and multilateral online gatherings.
- Trade and benchmarking missions.

After the regional kick-off event that took place on February 3th, with the collaboration of ASTUREX and DROPSENS and 34 participants, 24 start-ups showed interest in the project.

There are 18 selected start-ups taking part in the project actions. During the year, they attended commercial preparation meetings to elaborate their company profiles. The profile is the tool for the start-ups to get advice and feedback, from the project mentors, and to look for partners and clients in the international markets.



In the fifth Steering Meeting, 22 & 23 November, UPTEC, Porto, Portugal, one of the main topics was planning the trade missions to Israel, USA, Uruguay and Brazil.

RYME+ is co-financed by the European Regional Development Fund (ERDF) through the Interreg Sudoe Programme. There are 8 coordinating partners from France, Portugal and Spain with the collaboration of 10 associate partners from Brazil, France, Israel, Portugal, Spain, The United States of America and Uruguay.



INDUSTRY DIGITAL TRANSFORMA-TION (IDT)

Industry Digital Transformation aims to accelerate Industry 4.0 in the municipality of Gijon, Asturias.

Approved at the end of the year, the planned actions would

be developed within the surrounds of the Industry 4.0 Incubator (I4.0), in the Mile of Knwoledge of Gijón.

Main goals:

- To accelerate Industry 4.0 technologies implementation, in special digital processes.
- To promote novel technology-based companies growth and integration in industrial markets.

There take part in the program

- INDUSTRIAL COMPANIES, wanting to digitalize and incorporate innovative technologies
- Young STARTUPS / TBCs that offer technology and digital solutions for Industry 4.0 as products, services or processes.

Industry Digital Transformation (IDT) is financed by the Economic Incentives for Entrepreneurial Development of the Municipality of Gijón, Gijón Impulsa.



CHPT. 7 R&D+i



CREA&TECH

Crea&Tech is a national program designed in collaboration with the Creative, Cultural and Audiovisual Cluster Association of Asturias (ACICCA).

PROYECTO CREA&TECH The program has the objective of promoting competitiveness in businesses related to the creative and cultural sector by training professional skills, digital positioning and cross-sectoral interchange, with the linkage of audivisuals.

At the end of the year, we celebrated the first Crea&Tech event that pivoted around three working sessions with sectoral experts over the topics: first Health and Wellness, second Design and Architecture and third Tourism, Heritage and Leisure.

Crea&Tech is financed by the 2017 Cultural Promotion program, Spanish Ministry of Education, Culture and Sports.

Working groups

There are 3 Special Interest Groups (SIB), led by EBN, we are involved in, to analyse state of the art, design and implement initiatives to stimulate Creative industries, Bioeconomy, Acceleration, funding and entrepreneurial growth.

Simultaneously, we are working actively in 3 working groups, set up by ANCES, to advance on TBCs, Funding and Open Innovation.

RYME+, European Network

110 European start-ups, 18 from Asturias

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European Business and Innovation Centre of Asturias - BIC Asturias

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