

biovegen

Spanish technology platform
for plant biotechnology

BIOVEGEN - R&D network for plant biotechnology

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BIOVEGEN: Spanish Technology Platform for Plant Biotechnology

What is BIOVEGEN?

- Public-Private Association
- Led by **business sector** (80% companies)
- Gathers together R&D entities in Plant Biotechnology (Companies, Public R&D Organisations, Administration, etc.)



Objective

Improve the **competitiveness** of the Agrifood sector through the incorporation of **new** Plant Biology-Based **technologies**:

- Generation of R&D joint **projects**
- Higher Knowledge and Technology **transfer**
- Contribution to the design of R&D **strategies** adapted to the Agrifood sector
- Promotion of greater public and private **investment** in R&D

Who are we?

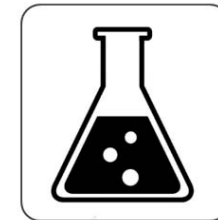
Currently, BIOVEGEN has **73 members** and counts on the support & funding of the Spanish Secretariat of State for R&D



54
Private
Companies



6
Private
Associations



13
Research
Organisations

What do our members do?

BIOVEGEN members work in the different Agrifood fields:



Breeders



Forestry



Plant health



Plant nutrition



Bioenergy



Production & trading



Nursery



Ornamentals

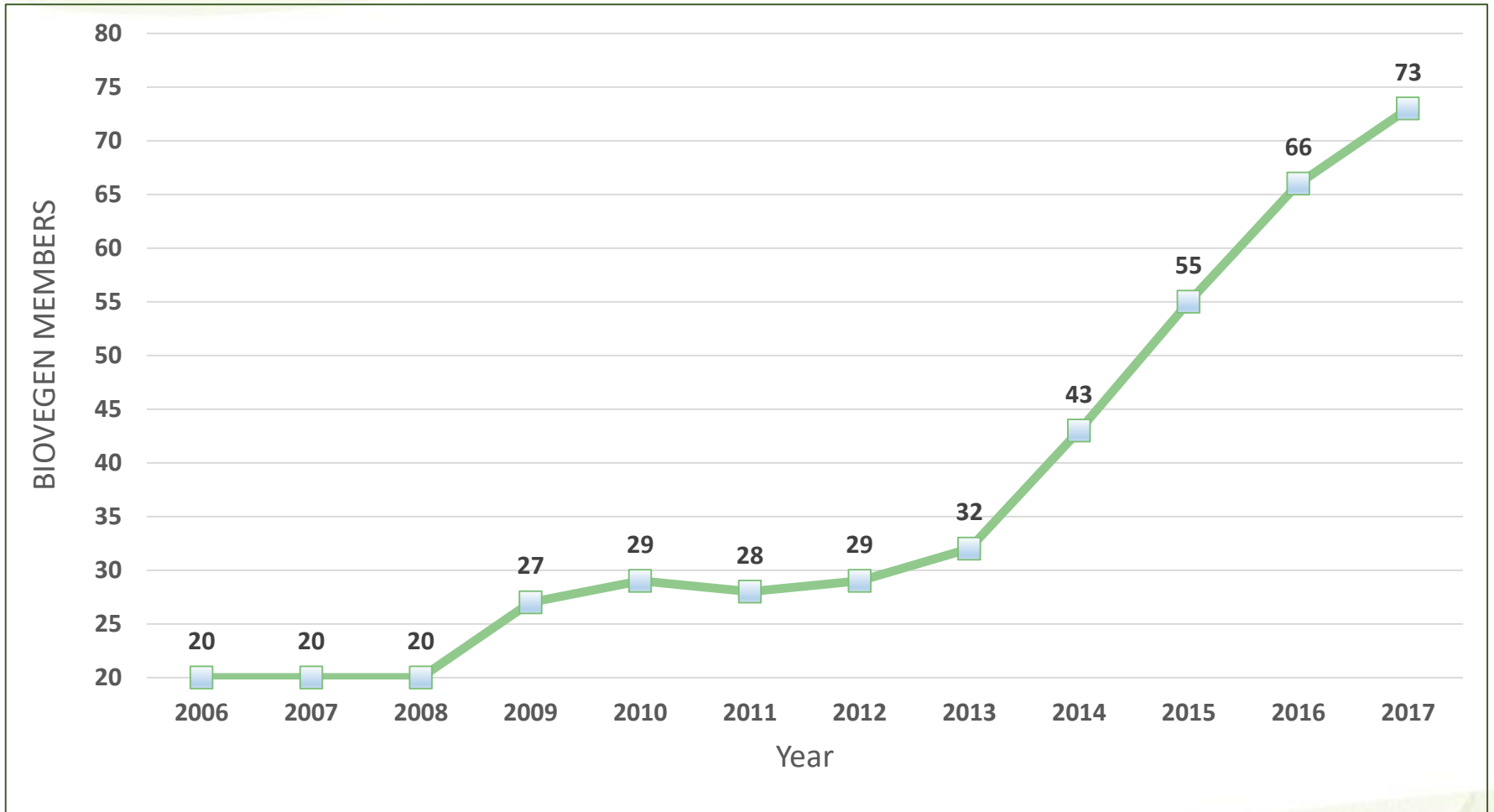


R&D Services

Who are our members?

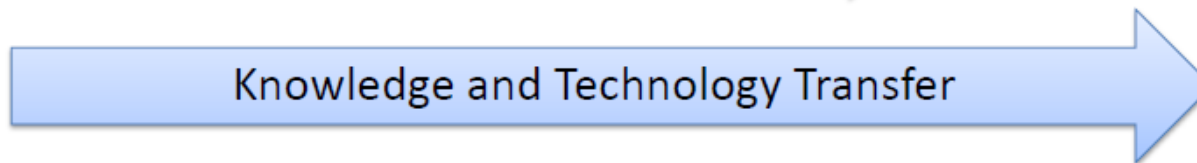


BIOVEGEN Membership evolution



What do we do?

PPP Fostering tool...



R&D Projects

Why?

✓ **AGRICULTURE. Strategic sector, Spanish & European level:**

- 8th largest exporter, 4th in the EU (*WTO, 2012*)
- 12% of EU production
- World leader in several crops (Fruit @ vegetables, grapes, olives, citrus...)



✓ **BIOTECH SPANISH SCIENCE:**

- Technological revolution
- Agriculture science: 3rd in citations, 9th citations/paper (*WoK*)
- Leading centres. 43 public research organizations



× **TECHNOLOGY TRANSFER IN SPAIN:**

- Spain: only 2.3% of applications to the European Plant Variety Office (1994-2013). Ej: Netherlands 42%, Germany & France: 18%. Denmark 6%. Belgium: 2.6%
- Spanish EU Biotech Patents = 0.52% . 11th place. Far from the leaders (Germany, UK, France)
- Agro-biotechnological companies:
 - About 50 of 30.000 agro companies
 - 9% of turnover (2000-2009) of the entire biotech industry

Our actions

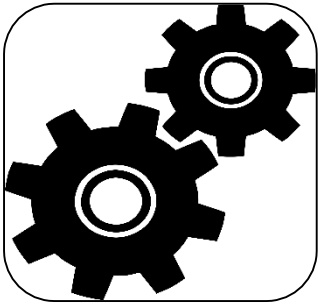
R&D
Projects

SIA

Events

Publications

Collaborations





BIOVEGEN Technological Supply & Demand Newsletters



- BIOVEGEN members (*priority*)
- **57 PRO's & 54 Universities** (*more than 400 research lines*)
- **+1500 companies**
- Bioeconomy PT's
- Dissemination agreements:



TOTAL RESULTS (September 2012 – June 2017)

	RELEASED PROPOSALS	GENERATED CONTACTS
Companies TECHNOLOGICAL DEMAND	65	341 Interested research groups 120 Interested companies
Researchers TECHNOLOGICAL OFFER	155	245 Interested companies 110 Interested research groups
TOTAL	220	816

EXAMPLES OF REAL PROPOSALS (2016 – 2017)

TECHNOLOGICAL DEMAND	ENTITY	INTERESTS
<i>"Innovation in plant protection"</i>	French Company	18 Companies 7 PROs
<i>"Cooperation between Spain & China for special fertilizers commercialisation"</i>	Chinese Company	7 Companies

TECHNOLOGICAL OFFER	ENTITY	INTERESTS
<i>"Innovative bio-based fertilising products to increase the sustainability of fertilising practices in agriculture"</i>	Bulgarian Company	15 Companies 13 PROs
<i>"Zero chemical waste agriculture"</i>	Spanish Company	7 Companies 2 PROs

BIOVEGEN & CITRUSEQ Consortium



Characterisation of genetic, genomic & metabolic variation in citrus, and its use in citrus breeding

- ✓ Starting date: 2009
- ✓ Expected duration 4 years
- ✓ Public-private consortium
- ✓ Total budget ≈ 4M€ (private funding 2,3M€)



CITRUSEQ

PUBLIC-PRIVATE CONSORTIUM

Private companies



Public institutions



R&D Project development

- ✓ Advising for R&D financing tools:
 - Identification of calls
 - Contact with managers related to calls
- ✓ Support in application processes:
 - Consortium Agreements (CA) – Expression of interests
 - Technical and administrative coordination
- ✓ Partner search services



Qualified Human Resources Search Service. Employment Offer & Demand Newsletter

BIOVEGEN-CDTI collaboration agreement: advising on R&D funding opportunities



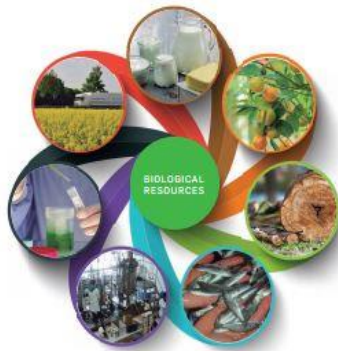
AGENDA ESTRATÉGICA
DE INNOVACIÓN
plataforma tecnológica
de biotecnología vegetal

- ✓ Analyzing: **132 R&D Proposals** released by BIOVEGEN+projects involved+surveys...
- ✓ Grouping together companies' interests in:
 - Crops
 - Technological topics
 - Innovation subsectors
- ✓ **Objective:** contribute to the design of R&D strategies better adapted to agrifood sector needs



- **Spanish Bioeconomy Strategy:** Horizonte 2030
- Work Programme SC2. **Horizon 2020**
- **Integrated Crop Production (ICP)**
- **PRIMA Initiative**
- **INIA Strategic Plan**
- **JTI Bioindustries**

BIOVEGEN participation in the elaboration of the **Spanish Bioeconomy Strategy: Horizon 2030**



The Spanish
Bioeconomy Strategy
2030 Horizon



Inputs:

- ✓ **Spanish scientific resources map**: done by BIOVEGEN at the request of Spanish Ministry of Economy & Competitiveness, containing:
 - 43 PRO's (21 of them belonging to CSIC)
 - 360 Spanish research groups working on Plant Biotechnology
 - +400 research lines
- ✓ **BIOVEGEN vision document**: proposals to boost Bioeconomy sector
- ✓ Participation in **meetings/events** related to the SBS



EVENTS

Jornada BIOVEGEN "FRUIT TECHNOLOGY: El Futuro de la Tecnología en Plantas"

October 6th 2016 IFEMA. Madrid (SPAIN) ≈ 300 assistants

Agricultural Knowledge and Innovation Systems (AKIS) in the Mediterranean

October 12th-13th 2016. Antalya (TURKEY) ≈ 80 assistants

BIOSTIMULANTS EUROPE CONFERENCE

November 31th – December 1st 31 noviembre 2016. Almería (SPAIN) ≈ 150 assistants



EVENTS

"Plant Autophagy: Improving Crop and Energy Production" Congress

March 23th-24th 2017 CIB-CSIC. Madrid (SPAIN) ≈ 80 assistants

Jornada "Tendencias de mejora en producción hortofrutícola"

April 26th 2017 PARC BIT. Palma de Mallorca (SPAIN) ≈ 50 asistentes

BIOPESTICIDES EUROPE CONFERENCE

June 7th-8th 2017. Madrid (SPAIN) ≈ 100 assistants



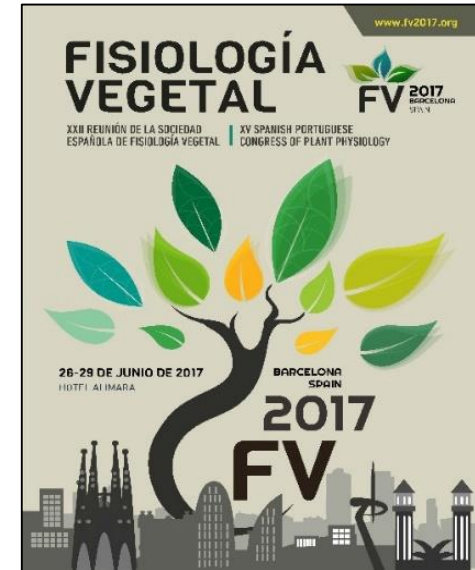
UPCOMING EVENTS

"Global Crops & Chemicals Summit"
June 15th-16th 2017. Berlin (GERMANY)

Plant Physiology 2017
July 26th-29th 2017. Barcelona (SPAIN)

XIV Solanaceae & III Cucurbitaceae Joint Conference
September 3rd-6th 2017. Valencia (SPAIN)

Fruit Attraction 2017
October 18th-20th 2017. Madrid (SPAIN)



GLOBAL CROPS & CHEMICALS
SUMMIT

June 15 - 16 | Berlin, Germany

Public Private Partnerships Workshop
June 7th-9th 2017
Universitätsclub Bonn, Germany

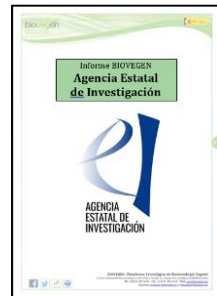


✓ **Objective:** facilitate the understanding of R&D issues

Grupos Operativos
(June 2016)



Research State Agency
(September 2016)



EUROSTARS-2 2017 Call
(January 2017)



JTI-BBI 2017 Call
(January 2017)



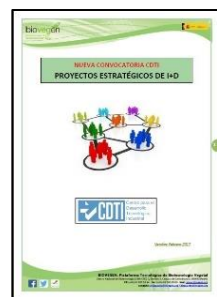
EUREKA TURBO Call
(February 2017)



Germplasm Banks
(February 2017)



Estrategic CDTI Projects
(March 2016)



JTI-BBI Update
(April 2017)



CIEEN Call 2017
(May 2017)



Innovation in SMEs
(May 2017)



Administration

- Ministry of Economy and Competitiveness
- CDTI (Centre for the Development of Industrial Technology)
- Ministry of Agriculture (MAGRAMA)
- OEPM (Spanish Patent & Trademark Office)
- ICEX (Instituto de Comercio Exterior)
- Commission for Agricultural Biotechnology (MAGRAMA)
- Autonomous University of Madrid. Office of International Projects
- Other entities: **Plants for the Future** (European TP), EPSCO (European Plant Science Organisation), other national TPS, etc.



Others

- Agreement with different **R&D Consultants**: tax deductions for R&D activities. Free diagnosis, preferential rates, free training workshops, etc.





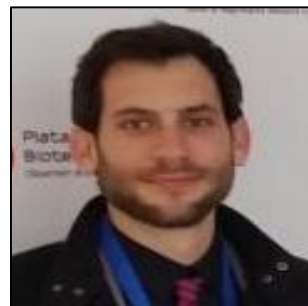
José Pellicer
President



Antonio Leyva
Executive Secretary



Gonzaga Ruiz de Gauna
Manager



David Lapuente
Project Officer

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<http://biovegen.org/en/index.cfm>



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