

# nova

MARCH 2014

INNOVATION AND TECHNOLOGY IN THE REGION OF MURCIA



# ¡INNOVA Y CRECE!

Self-Assessment  
Tool to Enhance  
Business  
Competitiveness

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## "Ready for 2014-2020": Europe awaits

The future of the Murcia Region business network is inevitably linked to our capacity to innovate and gain competitive advantages in the marketplace. Innovation, conceived as a growth strategy, contributes to high levels of job creation and the promotion of an integrating, sustainable and intelligent economic model. As the writer and engineer Jorge González Moore puts it, "Constant innovation is the only way of remaining competitive since no advantage is sustainable in the long term".

Europe currently provides excellent opportunities to innovate. With the aim of offering companies useful, understandable information on European Union programs and lines, at INFO we have designed "Preparados para 2014-2020" (Ready for 2014-2020). This initiative is intended to help companies, clusters, universities, foundations and other organizations eligible for European aid, as it has been detected that they need to understand how these lines can benefit their projects.

With the aim of reaching out to all professional profiles and sectors in the Region, we have established five work groups: Food and Biotechnology; Energy, Environment and Transport; Nanotechnologies, Materials and Processes; Health; and ICT. Together with other key institutions and agencies, we have organized sectoral workshops to inform on the scope of available business aid schemes and to explain how to apply for them.

In any case, there is a common message for all firms regardless of their sector: integrating innovation into their business management model is the way to address the recovery challenge faced by our regional economy. SMEs will find the innovation support means needed for growth and consolidation in European programs, which are also managed by INFO through a comprehensive, specialized service made available to all companies. Our offices in Murcia and Brussels work hand in hand with every company and agency throughout the duration of a European project, including business idea selection, funding means, search for European partners, proposal preparation and project implementation.

We would like to invite Murcian companies and organizations interested in innovating and being increasingly competitive to count on us, to join us and participate in the informative workshops of "Preparados para 2014-2020". I would like to conclude by mentioning an old wise sentence I once heard: alone we go faster, together we go further.

**Juan Hernández Albarracín**  
Managing director of INFO



## Great participation success in the 6<sup>th</sup> edition of the 'Food Brokerage Event'

INFO (Regional Development Agency of Murcia) organized last October 2013 in Cartagena the sixth edition of Murcia Food Brokerage Event in which the latest creations in the field of food technology were presented. The event was an excellent opportunity for companies from different European countries to hold bilateral meetings aimed at establishing technology cooperation agreements.

In addition, a number of conferences and presentations took place within the 6<sup>th</sup> International Symposium on Food Technology, in which the latest sectoral creations were presented, as well as within the 2<sup>nd</sup> edition of the Technology Foresight Forum in which upcoming technological prospects and trends were addressed.

This event included the participation of companies, universities, technology centers and research institutes from 9 different countries.

These organizations offered and requested innovative, advanced food technologies on the following areas: Hygienic design of facilities and food safety, Biotechnology, Conservation technology, Active and intelligent packaging and Automation and control processes.

The 6<sup>th</sup> edition of the Murcia Food Brokerage Event included the participation of 250 people registered from 127 companies and universities who took part in bilateral meetings in which nearly 400 technology profiles were assessed. Over 500 interviews were scheduled before the two-day event, although a total of 600 were actually held.

This event is an initiative of SEIMED (European Enterprise and Innovation Service in the Mediterranean Region), member of the Enterprise Europe Network (EEN), funded by the EU.





**“For a company, design is exciting and certainly profitable”**

***Esther Castaño***

Managing director of SANCAL

Sancal designs and manufactures upholstered furniture in the town of Yecla. Since its inception, business innovation and design has been the flagship of this company. Throughout the years, Sancal has established itself as a reference firm because of its commitment to innovation as a key element of business operations.

During our interview with Esther Castaño, Sancal's manager, she shared her confidence in and passion for design. Esther told us how she inherited her passion from her dad, Santiago Castaño, self-taught designer who founded the company in 1973. Sancal, which has grown exponentially over the years, evolved from a company with a workforce of three people “my dad, my mom and my uncle”, to having a staff of 70.

Today, we talk to Esther about design and its profitability and applications in the business world.

**For a company, do innovation and design go hand-in-hand?**

Design is innovation because it implies doing things differently, whereas doing things differently is to innovate. When we talk about innovation, we are not necessarily referring to something technology related; similarly, the word design does not only refer to aesthetics or to simply creating a logo.

For example, a canning company innovates when it designs a new product in which oregano is added to a traditional tomato sauce. Then, it would be necessary to make a nicer type of can, suitable label graphs, etc., to ensure an all-embracing design process. In my opinion, the key is to understand that any product and the way in which

it is marketed and sold, can be improved. We should not limit ourselves to doing the same thing over and over again!

**So then, design goes beyond aesthetic aspects...**

Absolutely, way beyond. There is a general belief that design is about looks but the truth is that in the business world, it covers a vast array of areas. For example, product design and process management design are important business aspects contributing to profitability. Our philosophy is to integrate design in all business areas.

**Has design always being part of Sancal's DNA?**

Yes. My dad, who taught himself about

design, founded Sancal as a furniture company that made María Antonieta armchairs, although he soon realized that he was meant to do something else.

He started traveling to the Milan trade fair, in Italy, where he learned from other designers and collaborated with a number of freelance professionals. In 2007 I joined the company and later my sister did too. For both of us, design is everything; there are no half measures.

**Is design profitable?**

Yes, in fact, we apply design cross-functionally because it is a key element of our business strategy. We apply it to our products, communications, brochures, our website, our premises ...the whole lot.



For us, design is an element we love that helps us sell more; we are passionate about it!

**How far does design stretch?  
Could you give us an example?**

Earlier I mentioned a canning factory as an example of product design, but there are many more. Another example could be space creation, a very important element also related to design. In the case of Sancal, we believe in friendly spaces, which are those that make you feel comfortable.

Something as simple as the lighting in a room can make a big difference. If a space is well lit, people feel better and more relaxed; on the contrary, when the

*"The key is to understand that any product and the way in which it is marketed and sold, can be improved"*

light is somewhat disturbing people find it harder to communicate with others. Now apply that to the business world; if a potential client comes to your company, wouldn't you want him or her to feel relaxed and confident? Another typical example is that of a restaurant

where an excessive noise level does not allow clients to feel good. As you can infer from my examples, design is not just about a logo, but about a work philosophy intended to foster improvements and polish details.

**What competitive advantage does design offer Sancal?**

We manufacture furniture products, which we know will be integrated in some form of space: a home, a hotel, a restaurant... We like to think we offer happy products for happy spaces, products that communicate and are exciting and evolve together with their owners.

When a product is supported by a solid





concept, trends may change but the product lingers on until one day it eventually becomes an antique, a classical design item. We are all about making lasting, timeless products that share a common history with their owners and can somewhat be used and reused.

**Do you think that a philosophy of design is embedded in Spain's business world?**

In Spain we still have a long way to go. In terms of furniture design, we are not doing too bad, but it is true that generally speaking the business community still needs to catch up.

When you look at northern Europe, they are all about design, especially when it comes to habitats. They integrate it in everything they do and that is why their sales excel, because we all perceive that what they offer is innovative and exciting, you want it. We all like nice things and that is why design is a tool that adds value.

**I guess we oppose change...**

We do. I have heard people say a number of times "this is a traditional company and we do not want to lose that". Let me tell you that companies using tradition as a marketing strategy do not have to abandon their essence if they decide to innovate. In other words, the image of tradition can be improved.

In fact, everything is improvable and there are always things to be done; the key is to find new opportunities in what you do. I think sometimes in Spain we love to keep things in the surface, without going into deeper concepts.

**Now, let's look at it from another angle, do you think Spanish consumers value design?**

Consumers do not really know much about design and sometimes perceive it as something "trendy"; but the truth is that interior design, for example, is about creating a balanced, comfortable space. A style can be classical or modern, but that is not really important. Style



*"Design is a work philosophy intended to foster improvements and polish details"*



and design are two different things.

In any case, I think that producing and marketing companies need to overcome a barrier, which is their fear of innovation; sometimes it is hard for them to take chances. I think consumers sometimes want things they do not have; there a lot of people that look for things on the Internet and find products that they would like to buy but are not available in Spain.

Globalization is allowing consumers to take chances. Companies and middlemen are sometimes not taken those chances and, as a result, they hamper an evolution that would certainly benefit the marketplace.

**What advice would you give a company that wants to start integrating design in its business model?**

If the company has never applied design, it is important for the person in charge of it, the decision-maker, to be sensitive to design. Otherwise it is better that that person delegates design duties to someone else...when I say delegate, I mean fully delegate.



*"We like to think we offer happy products for happy spaces, products that communicate and are exciting ..."*

I think that hiring a designer here and there is not the right approach; I mean, it could help improve some details, but you would not ensure integration of design in the business model. It is important for a company to have a

strategic artistic direction in everything they do.

Listening to consultants is good and attending informative presentations is also nice, but the key is to integrate design into the heart of the company.



**¡INNOVA Y CRECE!**

The Regional Development Agency of Murcia (INFO) has designed a tool allowing pre-innovative SMEs to take the first steps towards incorporating innovation management in their business strategies. Self-diagnosis is intended to facilitate an initial, simple approach to innovation as well as to favor SME analyses on this field.

# **Innovation self-diagnosis**

## **A tool improving corporate competitiveness**

The goal is to for small and medium-sized enterprises to assess their position and approach in relation to innovation, not with the aim of providing precise answers, but for raising awareness of key questions potentially leading to enhanced innovation capacity.

The survey includes various innovation-related aspects such as the culture of innovation at the company, generation of new concepts, development of new products, redefinition of productive processes and marketing practices, as well as

technology and knowledge management.

The aim is to address activities, related and non-related to technological innovation, that commonly affect companies that have not commenced or are in the early stages of innovation processes.

The survey should be filled out individually by people in the company's innovation work team so that divergences can be addressed and their opinions discussed as a group.

It is also possible for a business person



to fill out the questionnaire individually; at the end of the day, when a company plans on undertaking an inhouse innovation process, the first step is to create a work team.

The survey, based on a numerical evaluation of the level of agreement, includes thirty statements addressing “the way in which things are done”. In other words, it measures the behavioral pattern associated to innovation management in the company.

Once the 30 statements have been graded, the points are added; the values corresponding to each section are averaged and every SME innovation factor gets “graded”.

For the purposes of this initiative, it is assumed that in this innovation process stage the work team has already been created and the survey individually filled in.

Once divergences between the different diagnoses have been analyzed and the starting point agreed upon, it is necessary to identify improvement opportunities (weakest aspects

needing work). Critical tasks should be categorized depending on the urgency of the weaknesses or improvement opportunities.

Before deciding which project to undertake, it is recommended to study what other leading organizations are doing regarding the work areas identified. Benchmarking should not be avoided or omitted because experience shows that companies learn more from other companies than from theoretical models such as this one.

Once improvement opportunities and experiences developed in the face of similar circumstances have been identified, it is time to establish and prioritize the areas for improvement.

That is the moment when actions to be developed and progress-measuring indicators to be used, are decided.

Lastly, it is important to assign a deadline and a person in charge of each action.

People in charge, deadlines, indicators and objectives should be written once diagnosis results are known.

For further information, contact the Business Innovation and Competitiveness Unit at INFO.

**innovacion@info.carm.es**

**If you or your company are interested in receiving this tool or if you have doubts regarding the methodology, do not hesitate to contact the Business Innovation and Competitiveness Unit at INFO.**

**Tel. 968 36 28 07**

# New CDTI Conditions for 2014

The CDTI (Spanish Center for Industrial Technology Development) approved in January 2014 the new conditions of its financial instruments, which came into effect on February 1, 2014.

The main novelty is a Non-Refundable Tranche (NRT) improvement in all R&D project aid schemes:

- Projects within the EEA-GRANTS CALL do not change: 20% NRT for any type of company (call opened from February 10 to April 10 to fund R&D projects in the areas of renewable energies, energy efficiency and environmental technologies).
- Projects involving effective participation of research organizations, change from a 10% NRT for any type of firm, to 15% for SMEs and 10% for large companies.
- INTERNATIONAL TECHNOLOGY CORPORATION projects increase from an 18% NRT for any type of firm, to a 20% NRT for large companies and a 25% NRT for SMEs.

- The rest of projects shall be eligible for a 5% NRT in the case of large companies and 10% for SMEs. Previous conditions included no NRT for large firms and only 5% for SMEs.

The conditions offered by CDTI for innovation projects (Direct Innovation Line) have also improved, giving applicants the following options:

- keeping current conditions for EU-cofunded innovation projects (2% interest rate and a 3-year repayment period)
- in case of CDTI-funded projects, the business person can choose between the conditions described above, or a 2.5% interest rate and a longer repayment period of 5 years.



# INFOCOMPETITIVIDAD

## Financing your business project

The Regional Development Agency of Murcia (INFO) has launched a new financing line called "Infocompetitividad", with €50-million budget made available by the European Investment Bank and the Murcia Region Financial Credit Institute with the aim of supporting companies within the Region.

The purpose of this program for freelancers, entrepreneurs and SMEs, is to foster business growth (supporting entrepreneurial project funding, business innovation expansion, equipment upgrade, subsidiary creation and liquidity), internationalization, innovation and competitiveness improvement.

As for eligible costs, it is possible to fund investment and working capital depending on the type of expenditure:

For working capital, the funding limit is €300,000 at a maximum interest rate of 5.347% and a repayment period of 5 years.

For investments, the funding limit is €1,000,000 at a maximum interest rate of 5% and a repayment period of 10 years.

It is important to mention that companies can benefit from different interest rate reductions (i.e. in the case of an internationalization or innovation project positively assessed by INFO, the reduction can be of up to 0.377 points).

**REGISTRATION DATES:** Until credit dries up (€50 million) or until September 30, 2015.

**PROCEDURE:** Applications can be presented in offices of the following banks based in the Region of Murcia:

Banco Popular, Bankinter, Cajamar, Cajamurcia BMN, Caja Rural Central, SabadellCAM, Targobank.

Applications will be analyzed, approved and formalized by these banking institutions with the exception of internationalization, innovation and competitiveness lines, which will need to receive a positive assessment report from INFO.





**#SDEI2013**

## **2013 Design and Innovation Week**

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Between November 20 and 27, Murcia hosted the 2013 DESIGN AND INNOVATION WEEK, organized by INFO (Regional Development Agency of Murcia) in collaboration with DIP (Professional Advertising and Design Association of the Murcia Region) and CETEM (Furniture and Wood Technology Center).

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During the entire week, INFO led conferences and round tables in which prestigious firms and experts addressed relevant sectoral topics. The aim was to inform attendees of how to best use design and innovation to enhance business results and corporate competitiveness.

The premises of CTMetal (Metal Technology Center) were visited during this week to gain first-hand knowledge of the industrial design and product design services offered by the Center. A work session was also held at the Murcia Scientific Park including practical, interactive workshops and presentations of augmented reality and 3D technology. Some of the companies participating in this initiative were Visuar, Neotecno Desarrollos, and CENTIC (Information and Communications Technology Center).





Presentations dealing with design as a business strategy, the role of innovation, sustainability and profitability, as well as effective communication a pillar for successful business, have helped communication and design professionals, engineers, architects, interior designers and multi-sectoral firms to understand key market trends and techniques.

A number of case studies and professional studies were presented by well known firms such as SANCAL, which has an inhouse design team and collaborates with prestigious designers worldwide, and AILIMPO, which explained how design has been a differentiating element in a sector which rarely made use of it.

The companies Chatarras Hernández, Bodegas Hijos de Juan Gil and Cafés Salzillo also shared their experiences as firms well positioned in the market that in addition to offering quality products, communicate their good work practices to their clientele.

During this week, an exhibition was held at INFO showing the prototypes awarded in the nineteen editions of CETEM's

International Furniture Design Contest.

Important Region of Murcia communication experts participated in the round tables and presentations, including Fernando Caride, partner at and creator of Portavoz, and Fernando Marín, project manager at Artsolut. Major economic players also participated in this event, such as Juan Pedro Sánchez (AMUSAL manager), Sergio Muñoz (El Creadero president), José Francisco Puche (CETEM director) and Laurent Ogel (business model designer).

On November 27, the new El Creadero Association of Yecla was presented. The purpose of this organization of professional designers and creators in multiple design and creativity areas is to defend, promote, disseminate and dignify the role of design and creativity professionals.

Over 500 people attended the various activities organized throughout this week, in which many design and communication professionals and companies had the opportunity to network and explore possible collaborative projects.





# New Patent Box Advantages of innovation

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The new Patent Box favors cost reductions, enhances flexibility, minimizes uncertainties and is suitable for a larger number of conditions.

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The new Entrepreneurial Law changes substantially the intangible asset exploitation incentive, known as "Patent Box". This innovation incentive is probably the best made available to Spanish firms.

The benefit established includes a corporation tax base reduction of up to 60% for revenues stemming from the transfer of rights to make use of exploit patents, drawings or models, plans, secret formulas and processes, as well as of rights on information concerning industrial, commercial or scientific experiences.

Although "Patent Box" came into force in Spain five years ago (January 1, 2008), not many companies have benefited from its substantial fiscal savings. According to Spain's Public Tax Administration data, out of the more than 20,000 companies asserting to conduct R&D activities in the National Institute of Statistics survey, only 121 benefited from available reductions in 2010, with fiscal savings amounting to €74 million.

## *Implementation difficulties for small and medium-sized enterprises*

The complex implementation of recently quashed tax benefit requirements made the process nearly unachievable for most companies, especially small and medium ones; complexities included, among others:



- Difficulties to identify fundable intangible assets, especially secret knowledge resulting from industrial, commercial or scientific experiences, as well as challenges to calculate creation costs and revenues.
- Lack of real savings due to business profits being insufficient to be eligible for deduction.
- The organizational structures and contractual relationships needed for Patent Box application were not adapted to the day-to-day reality of the industry and the marketplace.
- Corporate uncertainty resulting from the lack of certification measures and the binding report which had been so effective in terms of R&D deductions.

#### **Updates on the Patent Box application regime**

With the aim of overcoming these difficulties, the new regulation introduces many important amendments to the application regime:

1. Tax base reductions increase from 50% to 60%.
2. New application base on the ground of net income and not of gross revenue stemming from transfer
3. Elimination of the incentive application limit, which until now only applied to a maximum royalty amount equivalent to six times the asset generation cost.
4. A 25% company participation in asset creation will suffice (before it was 100%).
5. The uncertainty of the previous system is avoided by authorizing the possibility that, prior to conducting operations, a request is sent to the Administration so as to adopt a pre-assessment agreement with regards to transfer-related revenue and expenses, as well as income obtained through

the transfer. An asset categorization pre-agreement any of the categories included in the incentive, can also be requested.

Furthermore, the new Article 23 of Spain's Corporate Tax resulting from the new Entrepreneurial Law, includes significant improvements compared to the old one: increased savings, more flexibility, less uncertainty and better adaptability to the heterogeneous nature of situations in the Spanish business network.

The final text of the Law is certainly a step forward in ensuring that "Patent Box" can finally establish itself as an effective, legally sound measure meeting its ultimate objectives: to promote national business investment in R&D, to attract foreign R&D investment, to favor Spain's technological independence and to further facilitate international operations for our innovative companies.

#### **Inconveniences relating to the Patent Box incentive approval**

The most important one is to do with delays potentially impacting business liquidity. Effective application of the new Patent Box is postponed until settlement of the 2014 corporate tax, to be made in July 2015. There could also be additional delays if Reasoned Reports are not issued before that date. In addition, the current legal duality (operations conducted before and after September 29, 2013) makes it difficult for companies to establish a clear tax policy for exploiting their intangible assets.

*\* This article is merely informative and should not be considered as legal advice on the subjects herein.*

**Source:** Industrial and Intellectual Property. Ignacio Gómez-Acebo, Innovation Development Manager - Clarke, Modet & Cº.



INFO is a member of the European technology transfer network where offers and demands such as the following are exchanged:

## Offers



### **Versatile ovens for toasting cereals & biscotti using forced heat flow convection**

Ref. OTfood201301

The latest production designs of this company have resulted in remarkable ovens that can toast different types of food and process various products simultaneously. The company offers the option of toasting a wide range of products including snacks, precooked bread and even dehydrated low moisture foodstuffs.



### **Multiparameter measurement station on liquids**

Ref. OTfood201302

Multiparameter measurement station for all types of fluids. The station can be miniaturized and enlarged, is modular and adaptable to user requirements, and offers the possibility of fitting measuring equipment from any manufacturer with a very low adaption cost. The station has automated monitoring instrumentation systems, hence minimizing maintenance tasks. The basic unit, which allows for up to 5 sensors from any manufacturer to be installed, is able to measure several parameters simultaneously.



### **Better multivariate data analysis and experimental design to improve food design, quality and postharvest process**

Ref. OTfood201303

Appropriate experimental design and correct application of univariate and multivariate data analysis are basic tools to compete in the R&D sector of new food product designs. However, SMEs usually find this process difficult as access to funding and developing new process and products is harder for them.

Accurate analyses of experimental design results is essential for a company to obtain the right conclusions and propose the most suitable new experiments.



### **Platform for enhancing collaboration and corporate communications, multi-device and multi-connection**

12 ES 23C6 3RC5

A technology-based Spanish company in the ICT sector, linked to one University, has developed a tool that integrates Events Agenda, Corporate Directory, Corporate Voice (VoIP phone), Twitter, Instant Messaging, Presence and status and Notification service. Significant cost savings and productivity and communication enhancement are its two main advantages. The company is looking for ICT companies to reach an agreement on commercial agreement with technical assistance.

For further information: [tt-seimed@info.carm.es](mailto:tt-seimed@info.carm.es)  
Victoria Díaz Pacheco  
Business Innovation Technician

## Requests



### Valorization of almond industry by-products

Ref. TRfood201301

During almond and nut production, large amounts of by-products are generated (mostly skin and shell). Eliminating those by-products implies spending a lot of money and allocating significant resources. The company seeks options for putting by-products to effective use with the aim of obtaining financial profits and potentially supplying another company with raw materials.



### New packaging solutions to increase aseptic fruit production shelf-life

Ref. TRfood201302

The company seeks to access new packaging solutions (active packaging) so as to increase the shelf-life and/or storage conditions of its products. The products of this company have a typical standard shelf-life of 18 months (cold storage conditions). With an average yearly red berry and strawberry production of around 10,000 tons, the company intends to focus initially mostly on these two fruits.



### Rapid test for pathogen detection in acidified canned vegetables (mainly artichoke)

Ref. TRfood201303

*Clostridium botulinum* is bacteria rarely found in vegetables, but its presence is very dangerous due to a strong pathogenic effect known to produce "botulism". In specific conditions the bacteria can grow and generate botulinic toxins, a strong type of neuro-toxin that may cause asymmetrical paralysis and even respiratory problems leading to death.

The aim is to detect this type of pathogen in low acidified canned vegetables so as to avoid bacteria growth and risks for end consumers. The pH of canned artichokes makes it necessary to control the presence of this bacterium.



### Enzymatic citrus fruit peeling (Lemon, orange and tangerine)

Ref. TRfood201304

This Spanish company, specializing in the production of aseptic fruits for industrial use, is capable of IQF processing using cryogenic technology. The company, currently processing an yearly average of 50,000 tons of fruit, is searching for another company capable of transferring technology for enzymatic citric fruit peeling. The technology must be cheap, clean and easy to set up. The company seeks to acquire the technology or reach a technical collaboration.

# READY FOR 2014

## The European Union brings new opportunities for our companies

### **What is the current scenario?**

The current European programming period (2007 - 2013) is about to end, which means that calls for programs such as CIP (eco-innovation, intelligent energy, ICT, SME...), the 7th Framework Program, Life+ (environment), etc., are also near completion.

The participation of Murcian companies in this type of projects has increased over the last few years. In the previous edition, Framework Program (2007 - 2013) returns totaled €25.3 million to date, with 41% of that amount corresponding to Murcia Region firms (November 2013 data provided by CDTI -Spanish Center for Industrial Technology Development-).

Murcian SMEs need to learn about the new EU instruments and programs replacing old ones, so that they can make the most of novel business opportunities to enhance competitiveness and international market presence in the 2014-2020 period.

At a European level, the EU growth strategy, Europe 2020, is aimed at restoring economic growth and high employment levels through an economy that is intelligent, sustainable and inclusive.

The EU funding program for research and innovation, Horizon 2020, will be a particularly useful tool in the support of companies throughout the 2014 -

2020 period. The new program integrates research and innovation, providing coherent and comprehensive funding from the moment a business idea is put on the table until it becomes a commercialized product or service. This makes it easier for innovative firms to access funding and use the innovative potential of the European Union.

The COSME program for support of European SME Competitiveness will also facilitate access to European funds for companies through various entrepreneur-support means. Furthermore, we will also be watching for other interesting European programs for companies operating in specific sectors (environment, creative industries, etc.)

### **What is around the corner?**

On December 11, The European Commission published the first public calls in the Horizon 2020 program for research and innovation, the largest international call for R&D projects in history. Region of Murcia companies will have the opportunity of partnering up with other European technology leaders in the development of internationally competitive products. In addition, participation in these projects will allow companies to establish new long-term relationships with other EU companies, as well as the possibility of accessing new markets together. For that to happen, companies need to

learn about work programs related to this calls as well as the deadline for submitting applications for European collaborative projects.

Also on December 11, Murcia held an event aimed at disseminating the main European SME programs and instruments for the 2014-2020 period. The objective of this initiative was to present them to companies and intermediate agencies in the region. This was the first of a series of dissemination and training actions that INFO and other regional organizations collaborating in the PREPARADOS PARA 2014-2020 initiative (technology centers, business clusters, enterprise centers, universities and business-oriented management centers) are putting together to bring business opportunities resulting from new EU programs closer to Murcian firms.

### **What type of support services does INFO provide companies with?**

At the Development Agency, we are firm believers that participating in European projects is key to enhancing business competitiveness. Thus, we are going to work harder than ever to make the most of new available opportunities over the 2014 - 2020 period.

### **More information:**

euservices@info.carm.es  
Tel: 968 366838

**\* new awareness, information and counseling campaign (PREPARADOS PARA 2014-2020) which we plan on implementing together with Murcian firms and intermediate business organizations. Our motto is "together, we are stronger" (work groups based on thematic priorities)**

**\* The INN CORPORATE A EUROPA Murcia-Brussels service provides a business support structure throughout the duration of a European project, including business idea selection, funding means, search for European partners, proposal preparation and project implementation, among others.**

**\* The new HOSPITALITY service offered by the Region of Murcia Office in Brussels, offering business accommodation and access to other organizations interested in further participating in European projects.**



# Patent Databases as a source of technological information

Patents provide technical information and are present in every sector of our day-to-day life: agriculture, chemistry, electricity, mechanics, etc.

Although patents are not the only source of technical and scientific information in the industrial world, their practical utility puts them at the same level as other important sources because they describe techniques of immediate application in the production process. Patents also provide "commercial" information such as the name and address of the inventor or the name of the proprietor or applicant company. Furthermore, the patent document contains legal information regarding the exact object of the protected right, as well as the length of time the right has been and will be in effect, among other aspects.

Patents are used to assess technological innovation as a tool for analyzing the degree of innovation. This turns patent databases into efficient channels to obtain relevant information for R&D studies.

There is a large number of databases, some of them significantly different from each other. Some are free (Esp@cenet and PatentScope), others only national (INVENES) and others operate on a business bases (Derwent Innovations Index, Chemical Abstracts Plus, Thompson Delphion and Intellectual Property Network, among others). The added value of commercial databases is that their information is thoroughly reviewed and a number of assistance tools provided to facilitate data search and interpretation. Having said that, free websites are gradually becoming resources of enhanced reliability, better quality and more options.

Firstly, it is necessary to mention that intellectual property rights imply administrative records. That means that a brand, a patent or a design are filed in an official patent office, which in the case of Spain is the OEPM (Spanish Patent and Trademark Office). The OEPM is available for public consultation. In addition to this access option, Spanish legislation establishes the obligation to publish all administrative proceedings related to these rights; that is the exact role of the Official Industrial Property Journal.

The OEPM has created and distributed a number of industrial property databases, most of which are of FREE ACCESS in their website at [www.oepm.es](http://www.oepm.es)

INVENES is a Patent and Utility Model Database that provides three browser options:

- Bibliographic search of old Spanish

patents, including European patents and Spain-appointed PCTs, and of all Spanish utility models since the year 1826.

- Patent references in 18 Latin American countries.
- Information on Spanish industrial designs.

Information can be accessed via any search criteria in the database: applicant, publication or request date or number, words in the title or summary, international patent classification (IPC) or various combinations of these. A large number of references also include the possibility of downloading the full patent document.

The TRADEMARK SEARCH (distinctive features) is a cost free service available through the OEPM website to obtain the following information:

- National trademarks and commercial names registered in Spain,
- International trademarks appointing Spain
- Community trademarks (when the community trademark browser is used)

From the OEPM website it is possible to access various Offices and Institutions, as well as other databases such as Esp@cenet, which provides access to 80 million patent documents worldwide.

Supranational and commercial systems allow for searches covering larger territories. The most important free system is Esp@cenet, which despite being a European project, contains documents from all over the world, with information provided by 72 international industrial property authorities from Australia, Japan, the United States and WIPO, in addition to that submitted by

the European Patent Office (EPO) and various European countries. As for commercial databases, Derwent Innovations Index (DII) also operates internationally, providing information from over 40 industrial property organizations. Delphion has the largest international coverage as it receives information from the six main databases worldwide: United States, Japan, Europe, WIPO, INPADOC and Derwent World Patent Index, with access to the documents of more than 70 organizations. The case of PatentScope is different because they do not have a specific geographic coverage; their approach is to include patents requested through the Patent Cooperation Treaty (PCT).

## Other patent information sources:

### GSA invention search:

Google Search Appliance (GSA) is a Google-developed application accessible from OEPM's website and with an index fund of 60,000 Spanish patent requests, 75,000 utility models and 320,000 European patent translations. These 455,000 documents contain key technological information available to users through the powerful, quick and day-to-day environment of Google.

### IPR-HELP-DESK

This European Commission service provides information on industrial and intellectual property aspects. It is hierarchically linked to CORDIS and can be accessed at <http://www.iprhelpdesk.eu>. This service is interesting because it has been designed to provide basic, easy-to-understand information to the general public.

**More information:**  
[patentes@info.carm.es](mailto:patentes@info.carm.es)

# NOVAMED-IMIDA Program for genetic improvement of peaches and nectarines

*José Cos Terrer & Antonio Carrillo Navarro*

IMIDA (Murcia Institute of Food and Agricultural Research and Development)

The fruit and vegetable production team at the Murcia Institute of Food and Agricultural Research and Development (IMIDA), in collaboration with the company Novedades Varietales de Melocotón del Mediterráneo (NOVAMED SL), has been developing a program aimed at breeding new varieties of peach and nectarine since 2008. NOVAMED SL is a firm created by fruit producers aware of existing business opportunities in this type of research. Fruit varieties bred within the framework of this program will be the sole property of NOVAMED, hence allowing the company to market unique products. The project is led by IMIDA researchers José Cos and Antonio Carrillo, who coordinate a multidisciplinary team comprised of agricultural engineers, biologists, as well as field and lab technicians.

The objectives set forth in the collaboration agreement were the breeding of varieties of extra-early and early ripening adapted to the region's soil and climate conditions. This would help Murcia to market its production before any other EU region, allowing producers to obtain better prices. It was also determined that the varieties obtained should be of excellent organoleptic quality (taste and smell). This was explicitly mentioned as many varieties in the market are selected because they look nice and have great storage properties, but their taste and

smell are not good. In fact, all consumer surveys point to the fact that the worst defect of many new peach varieties available in the market is that they do not taste and smell that great. To avoid that, lab and field tasting tests on new potential varieties are conducted during the selection phase with the idea of choosing only the best in terms of taste and aroma. Other objectives are to reverse the year-on-year negative trend of per capita consumption as well as to bring new consumers to appreciate fruit.

All these objectives apply to the different fruit types grown in the Region, such as red peaches and nectarines of white and yellow flesh, yellow peach and flat peaches with and without fuzz (platerinas). These varieties have revolutionized the peach market.

This program applies a classic improvement methodology including field crosses between two different varieties of interest so as to obtain a new variety combining all characteristics. The classical genetic improvement program for peaches and nectarines has a duration ranging between 10 to 12 years, from the moment of hybridization to variety registration and distribution to the farmers. Crosses are conducted in February and March, removing anthers with pollen (emasculation) from the flowers, treating pollen in the lab and preparing on-the-field pollination. Fruits

obtained by means of crosses are harvested and their seeds extracted for germination. Since one of the main objectives was to obtain early varieties, the seeds need to be germinated using in vitro cultivation techniques (picture 1) because their embryo is underdeveloped and cannot germinate in normal conditions. After a few months in the greenhouse, the plants obtained are taken to the field, and 2 or 3 years later the yielded fruits analyzed. This is the phase in which the best fruits are selected; then, they are grafted in a lot simulating production cultivation conditions in order to assess their performance and characteristics.

About 20,000 hybrids have been analyzed in the field; 200 of them are in the pre-selection phase and 14 in the registration phase at the commercial variety office (table 1) so that they can be distributed to the producers participating in this project.

Murcian stone fruit producers, as in many other sectors, are amongst the most dynamic when it comes to adapting to the latest trends in irrigation, fertilization, prune and development techniques. The long-term vision of Murcian producers has allowed them to anticipate the fruit varieties demanded by the marketplace, making the necessary investments and cooperating with IMIDA in a project that is a perfect example of mutually beneficial public-private collaboration.



**Table 1. Varieties in the registration process.**

<i>Designation</i>	<i>Typology</i>	<i>Harvesting date</i>	<i>Number of protected varieties registered</i>
Alisio 10	Red peach with yellow flesh	First week in May	20135099
Alisio 15	Red peach with yellow flesh	Second week in May	20104933
Alisio 20	Red peach with yellow flesh	Third week in May	20135100
Levante 10	Yellow peach	Fourth week in May	20104935
Levante 20	Yellow peach	First week in June	20135101
Levante 30	Yellow peach	Second week in June	20104934
Levante 40	Yellow peach	Third week in June	20135102
Mistral 30	Platerina	Third week in June	20125046
Siroco 5	Paraguayo (flat peaches)	First week in May	20135103
Siroco 10	Paraguayo (flat peaches)	Second week in May	20125045
Siroco 20	Paraguayo (flat peaches)	Third week in May	20135104
Siroco 30	Paraguayo (flat peaches)	Fourth week in May	20135105
Siroco 40	Paraguayo (flat peaches)	Fourth week in June	20135106
Siroco 43	Paraguayo (flat peaches)	First week in July	20135107

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**CETENMA · Energy and Environment Technology Center**

## Bio-fuels from used plastics and other urban waste

The Energy and Environment Technology Center (CETENMA) participates in a €1.3 million project approved by the Spanish Ministry of Economy and Competitiveness and led by the EL ECOFA, S.A. The project aims to produce second generation bio-fuels from solid urban waste.

This eco-innovative technology will allow for the transformation of specific solid urban waste fractions into liquid and gaseous hydrocarbons used for generating heat or powering stationary or mobile combustion engines. Obtained fuels will be tested and validated at CETENMA's ENGINE LAB.

Plastic waste will be treated at the plant. The new innovative technology allows for economically and environmentally feasible treatment, even at a small scale, of plastics currently discarded in recycling and recuperation lines (due to their halogen content, plasticizer diversity or non-feasible separation and classification). Right now the only option for these types



of plastics is to be stored in dump sites.

This project includes the participation of waste treatment companies (RIVAMADRID) interested in validating and exploiting project results together with CETENMA. As part of this 3-year project, a pilot plant will be built so as to validate and test the technical and commercial viability of the technology developed prior to the industrial application phase.

The support given to this project favors, on the one hand, an increase of revenues for firms in the energy and environment sector and, on the other hand, the consolidation of CETENMA's expansion strategy to establish itself as a key player in collaborative R&D technological projects at a national and European level.

**More information:** [www.cetenma.es](http://www.cetenma.es)

**CETEC · Footwear and Plastics Technology Center**



## EU-Funded "Greenavoid" Project Under Way

The Footwear and Plastics Technology Center of the Murcia Region participates in the GREENAVOID project together with two other research bodies (Tecnologías Avanzadas Inspiralia S.L and Fraunhofer-Gesellschaft zur Foerderung der Angewandten Forschung E.V. -Germany-). GREENAVOID, standing for Greenhouse Solution to Avoid Film Cover U.V. and Sulfur Degradation, is an SME-oriented project funded by the European Union through the Seventh Framework Program. The project also includes the participation of three SMEs, two of them from Europe (Colores y Compuestos Plásticos S.A. and Marion Technologies S.A.) and the other from Israel (Soli Industries LTD), as well as two end-user enterprises (Solplast S.A.

and Aprofruit Italia Sco. Coop. Agricola). Planned project duration is 24 months, with a total cost of €1,459,229, of which EU funding amounts to €1,140,000.

The GREENAVOID project aims to develop a novel integrated solution including a new polyethylene film resistant to UV degradation in the presence of sulfur. This will be made possible by means of an improved sulfur vaporizer minimizing the amount of product in the inner greenhouse covering. This integrated solution is intended to provide a 3-year warranty for agricultural films used in the presence of sulfur and under radiation levels of 145-150 KIAngleys/year (average radiation in Southern Europe

greenhouses). Another objective is to ensure resistance to sulfur concentrations in plastic of 3500 ppm and of 250 ppm in the case of chlorine, blocking UV rays and having a minimum PAR transmittance of 85%.

The integrated solution of GREENAVOID is expected to have significant benefits for the EU, increasing SME revenue and reducing the need of end users (farmers) to buy plastics. This project will also favor reductions in the consumption of energy associated to polyethylene production and in the need to import specific materials from China.

**For further information:** [www.cetec.es](http://www.cetec.es)



**agenda****Workshop on Financing of Innovation**  
Event on Productive Investment Funding**Date:** April 24**Place:** INFO (Regional Development Agency of Murcia)

The aim of this event is to inform companies on available CDTI (Spanish Center for Industrial Technology Development) financial support lines for investment projects in Spain and abroad. During the event, CDTI representatives will present the latest aspects related to this aid programs.

The target audience for this event are managers and CFOs working in companies that plan to undertake new investment projects for opening new lines of business, enhancing production processes, accessing new markets, etc.

**More information:** [www.institutofomentomurcia.es](http://www.institutofomentomurcia.es)**Brokerage Event Alimentaria 2014****Date:** March 31 - April 2**Place:** Barcelona

Alimentaria 2014 will once again present the latest international trends in food and beverage products for distributors and consumers.

A brokerage event is the networking formula selected for exhibitors in and visitors to Alimentaria 2014, where participants with commercial and/or technological interests could request b2b meetings in advance.

The event is targeted mostly to the Agrofood Sector, more specifically: Food industry technologies, Food safety and quality, and Nutrition and health.

**Registration:** Available until March 18, 2014**Selection of meetings:** March 4-25, 2014**More Information at**<http://www.b2match.eu/alimentariabrokerage2014>**Mission for Growth****Date:** April 2-4**Place:** Seville and Merida

With the aim of carrying out internationalization and business cooperation actions, the European Commission, supported by Enterprise Europe Network, has organized a Mission for Growth on April 2-4 in the cities of Seville and Merida. The event will be led by Antonio Tajani, Vice-president of the European Commission.

The Mission for Growth will include a number of technological and business cooperation events intended to favor networking among companies and facilitate business opportunities in the domestic European market.

Participation in these events and the various conferences organized is free, although it is necessary to publish your cooperation profile and register beforehand.

**Destinations and sectors:**

**Seville, April 2-3:** Aeronautics, agrofood, biotechnology and health, intelligent energy, creative industries, construction, mining and construction materials, tourism and culture, ICTs.

**Merida, April 4:** Agrofood, logistics, intelligent energy, tourism, culture and the environment, life sciences, innovation and new technologies.

**More information at:** <http://www.b2match.eu/m4g-spain-andalucia-extremadura>**For further information on these three events:**[victoria.diaz@info.carm.es](mailto:victoria.diaz@info.carm.es)**publications****Performance of Spanish Institutions in the Scimago Institutions Ranking (SIR)****Edited by:** Spanish R&D Observatory ICONO  
**Year:** 2013

ICONO analyzes the Spanish research institutions included in the SCImago Institutions Ranking 2013. The analysis classifies 219 Spanish institutions, which were selected after publishing a minimum of 100 articles in the SCOPUS database in 2011. This document looks at the value of key report indicators (scientific production, international collaboration, Standardized impact and high-quality publications, among others).

The Spanish R&D Observatory (ICONO) of the Spanish Foundation for Science and Technology (FECYT) generates a comprehensive analysis of the latest innovation and science strategies and indicators at a regional, national and international level.

**Biotechnology impact on the agriculture and livestock sectors 2025****Edited by:** FECYT  
**Year:** 2013

This technology foresight report by FECYT follows the one written in 2004 by Genoma España Foundation and OPTI (Observatory for Industrial Technology Foresight). The main purpose of this report is to detect and assess agro-biotechnology research trends and technological innovations so as to know the future of the sector and, whenever possible, establish measures to optimize development.

**Practical Guide: Horizon 2020 Online Manual****Edited by:** European Commission  
**Year:** 2014

H2020 Online Manual is a guide published in the European Commission participant website offering information on the steps to be followed and information to know when preparing R&D project proposals. This user-friendly manual provides brief descriptions on each step, as well as templates, tools, a FAQ list and links to must-read documents when preparing project applications.

[http://ec.europa.eu/research/participants/docs/h2020-funding-guide/index\\_en.htm](http://ec.europa.eu/research/participants/docs/h2020-funding-guide/index_en.htm)

**links of interest**

INFO (Regional Development Agency of Murcia)

[www.institutofomentomurcia.es](http://www.institutofomentomurcia.es)Enterprise Europe Network (EEN)  
European Enterprise and  
Innovation Service in the  
Mediterranean Region SEIMED[www.seimed.eu](http://www.seimed.eu)Spanish Patent and Trademark  
Office[www.oepm.es](http://www.oepm.es)Ministry for Industry, Tourism and  
Commerce of Spain.[www.mityc.es](http://www.mityc.es)Ministry of Economy and  
Competitiveness of Spain[www.mineco.es](http://www.mineco.es)CDTI (Spanish Center for Industrial  
Technology Development)[www.cdti.es](http://www.cdti.es)CORDIS (Community Research  
and Development Information  
Service)[www.cordis.lu](http://www.cordis.lu)

University of Murcia

[www.um.es](http://www.um.es)

Cartagena Polytechnic University

[www.upct.es](http://www.upct.es)

San Antonio Catholic University

[www.ucam.edu](http://www.ucam.edu)CEBAS-CSIC (Murcia's Edaphology  
and Applied Biology Center)[www.cebass.csic.es](http://www.cebass.csic.es)



#### INFO – CDTI Agreement

- **37** business R&D support operations for a total investment of €**16.74** millions.
- CDTI contribution: €**13.62** millions.

**ICT Check  
2013**  
**44** SMEs  
benefited

#### EEN - SEIMED

- **160** visited companies.
- **14** International Technology Cooperation projects.
- **28** technology offers and requests.
- **516** advice sessions.

#### ADVISE ON R&D PROJECT FUNDING

- NATIONAL PROGRAMS: **160** companies advised. **6** events with **473** attendees.
- EUROPEAN PROJECTS: **372** companies advised. **5** events, **334** attendees.

#### VI MURCIA FOOD BROKERAGE EVENT

- International Symposium and Technology Foresight Forum.
- **250** people registered from **9** countries.
- **127** companies and universities.
- **280** technology profiles.
- **600** interviews.

#### TECHNOLOGY CENTERS

- **9** Technology Centers.
- **694** member companies.
- **1,883** client companies.
- **75** in-house R&D projects.
- **98** under-contract R&D projects.
- **97** courses.
- €**11** million revenue.

#### PERAL SERVICE

- **10** workshops with **142** attendees.
- **1,171** queries.
- **642** requests and processes.
- **34** patents, **24** utility models, **265** trademarks/commercial names, **14** designs.

#### INNOVATION MANAGEMENT TRAINING

- **4** editions of Creativity, Innovation Management and Financing workshops.
- **40** participating companies.

#### DESIGN AND INNOVATION WEEK

- **500** participants.
- **4** events: Product innovation, Industrial Design, 3D Technologies and Design and Image.

#### INNOVATION AND COMPETITIVENESS RIS3Mur

Participation: **120** business people, **9** TCs, **7** IBCs and **16** associations.



[www.institutofomentomurcia.es](http://www.institutofomentomurcia.es)