



CICYTEX, Mérida, 30 de marzo

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Presentación eFoodPrint

El reto agroalimentario y ambiental

La sostenibilidad ambiental: **Evaluación, Mejora y Comunicación**

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# Equipo eFoodPrint

**15 años de experiencia en el sector agrícola.**

**Equipo de ingenieros informáticos y agrónomos.**

## eFoodPrint ENV

Software online para el cálculo de indicadores de sostenibilidad ambiental y eficiencia productiva.

Validado para el cálculo de Huella Hídrica y de Huella de Carbono según WFN y PAS2050.

## Hesperides

Software online para el control y la trazabilidad de producciones agroalimentaria.

Para técnicos que asesoran y productores que necesitan gestionar trazabilidad y información de campo.

## Consultoría

Estudios de evaluación y mejora de sostenibilidad ambiental y formación personalizada.

Para cualquier tipo de organización vinculada al sector agroalimentario.

# Ejemplos de clientes



## CCPI

Desarrollo de estudios de sostenibilidad ambiental para el Consejo Catalán de Producción Integrada.



## Bayer

Programa de formación en indicadores de sostenibilidad ambiental.



## DNV-GL

Proyecto AQUA+I



## IRTA

Diseño y ejecución de un Plan y Acciones para la mejora de la sostenibilidad ambiental



## Agraz

Acceso a software eFoodPrint ENV para el cálculo de indicadores de sostenibilidad ambiental.



## Fruits de Ponent

Acceso a software Hesperides y software eFoodPrint para control, trazabilidad de campo e indicadores de sostenibilidad.



## Transa

Acceso a software eFoodPrint ENV para el cálculo de indicadores de sostenibilidad ambiental.



## El Ciruelo

Acceso a software eFoodPrint ENV para el cálculo de indicadores de sostenibilidad ambiental.



## Florette

Acceso a software eFoodPrint ENV para el cálculo de indicadores de sostenibilidad ambiental

# El reto para 2050

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**Abastecer a un tercio más de población**

**Producir un 70% más de alimentos de aquí a 2050**

**Está previsto que el 90% del crecimiento en la producción agrícola procederá de un aumento del rendimiento y la intensificación de los cultivos**

Fuente: FAO

# El entorno agrícola en España

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**La agricultura es responsable del 80% de la huella hidrológica en España**

**España es el país europeo más árido y que más recursos hídricos dedica a la irrigación**

**El 70% del agua captada en España es utilizada en el sector agrario**

Fuente: LA HUELLA HIDROLÓGICA DE LA AGRICULTURA ESPAÑOLA (2008, Roberto Rodriguez Casado et al.)

# ¿La sostenibilidad ambiental como **respuesta**?

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**Intensificación sostenible de la agricultura**

**Mejora continua y ahorro de costes**

**Diferenciación: Acceso a nuevos clientes y mercados**

**Crear opinión a favor de la empresa**

# La evaluación

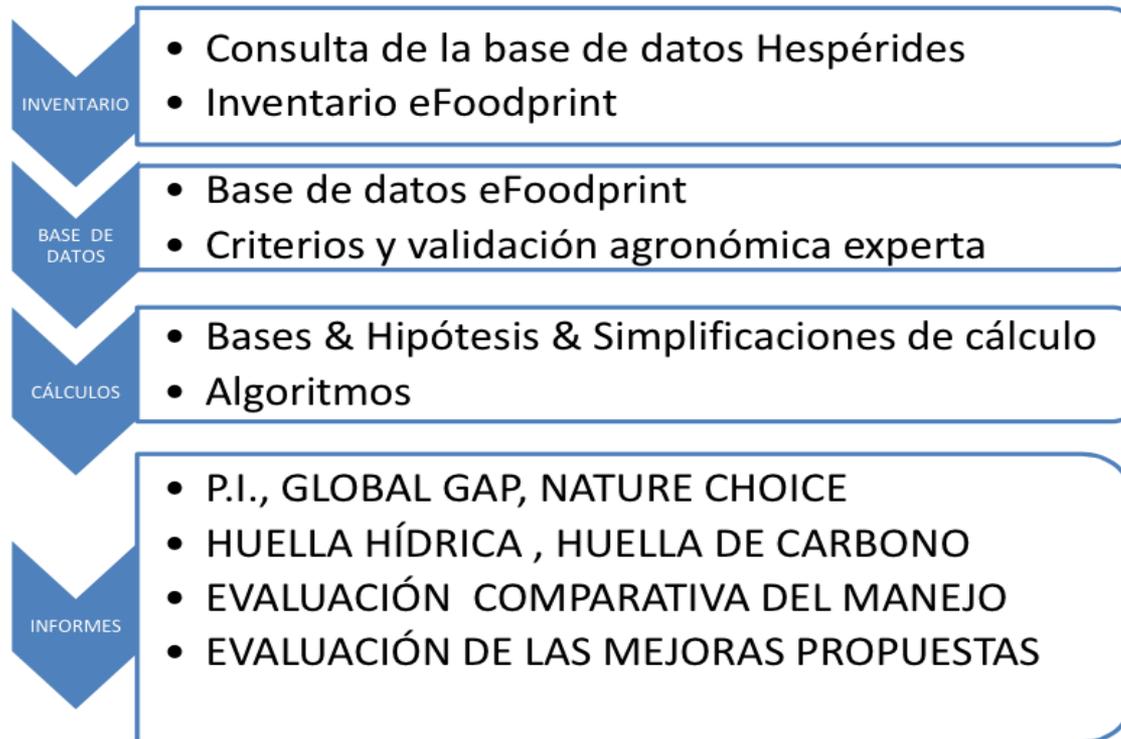
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Registro de datos

Uso herramientas profesionales y adaptadas al sector

Obtención de indicadores

# Ejemplo de proceso de evaluación



# Registro de tratamientos

Tratamiento + Costes + 2014

08 jul 2014

Tratamiento Joan perill botritis

Devesa JE368 JE630 JE735 JF016 JF042 Màxim Marça

SABUESO

07 jul 2014

Tratamiento Gumà Karles, Martinoy oïdi Tortosa

CAG IL041 JE342 JE346 JE652 JF017

SIDECAR M

20 jun 2014

Tratamiento Joan tratamientos de julio

CAG IL041 JE342 JE346 JE652 JF017 la granadella

FL + KARNAK SABUESO

Tratamiento Gumà Karles, Martinoy perill mildiu

Devesa JE368 JE630 JE735 JF016 JF042 la granadella Màxim Marça

EQUATION PRO KANTAREL

# Registro de fertilizaciones

30 dic 2014

Fertilización Gumà Karles, Martinoy

CAG Devesa Finca provincial Hivernacle IL041 IL737 JE342 JE346 JE368 JE630 JE652 JE735 JF016 JF017 JF042 kellogg's la banyeta la granadella La grande la parada Màxim Marça

NITROSULFAT AMÒNIC 26%

Fertilización Gumà Karles, Martinoy

Devesa JE342 JE368 JE630 JE735 JF016 JF042 Màxim Marça

NITRATO DE CALCIO 15,5-0-0-27(Ca)

Fertilización CLICK S.C.C.L.

CAG exterior hivernacle IL041 JE342 JE346 JE652 JF017

NUTRILEN

# Registro de riegos

The screenshot displays a web interface for recording irrigation events. At the top, there are filters for 'Localizado' (set to 'Localizado') and 'Costes' (set to '+'). The year '2014' is also visible. The main content is a vertical timeline on the left with dates '30 dic 2014' and '01 dic 2014'. Each date has a corresponding record card. Each card contains a blue button labeled 'Riego localizado', the name of the irrigator, and a list of tags. The '30 dic 2014' date has two records: one for 'Gumà Karles, Martinoy' with tags 'Devesa', 'JE735', 'JF016', 'JF042', and 'Màxim Marça'; and another for 'CLICK S.C.C.L.' with tag 'Devesa'. The '01 dic 2014' date has two records: one for 'Joan' with tags 'Devesa', 'JE735', 'JF016', 'JF042', and 'Màxim Marça'; and another for 'CLICK S.C.C.L.' with tag 'la granadella'. Each record card also features three icons: a share icon, an edit icon, and a delete icon.

Date	Irrigator	Tags
30 dic 2014	Gumà Karles, Martinoy	Devesa, JE735, JF016, JF042, Màxim Marça
	CLICK S.C.C.L.	Devesa
01 dic 2014	Joan	Devesa, JE735, JF016, JF042, Màxim Marça
	CLICK S.C.C.L.	la granadella

# Registro de cosechas

Fecha	Cosecha	Cantidad	Varietal	Peso
03 dic 2014	Cosecha		Garnatxa blanca, Lledoner blanc	10000,0 Kg
03 dic 2014	Cosecha	344	Chardonnay	5000,0 Kg
13 oct 2014	Cosecha	123	Syrah	300000,0 Kg
03 oct 2014	Cosecha		Syrah	50000,0 Kg

# Resultados HH con eFoodPrint ENV

**Field data**

**Field:** Moli del Mig      **Crop:** APPLE      **Variety:** granny smith  
**Coordinates:** lat:1 / long:1      **Elevation:** 1 m      **Area:** 3.675 ha  
**Campaign:** 11-12      **Sowing/Planting date:** 01/01/2006      **End of season:** 31/10/2012

**Water footprint**

Green Water Footprint (WFv) ?	62 l of water/kg of yield
Blue Water Footprint (WFb) ?	89 l of water/kg of yield
Grey water footprint ?	0 l of water/kg of yield
Water Footprint (WF) ?	151 l of water/kg of yield
Water footprint impact assessment ?	27 l of water/kg of yield

A pie chart illustrating the composition of the total water footprint. The chart is divided into two segments: a blue segment representing the Blue Water Footprint (WFb) at 59%, and a purple segment representing the Green Water Footprint (WFv) at 41%.

Environmental online software assessment, training and support to obtain environmental indicators.

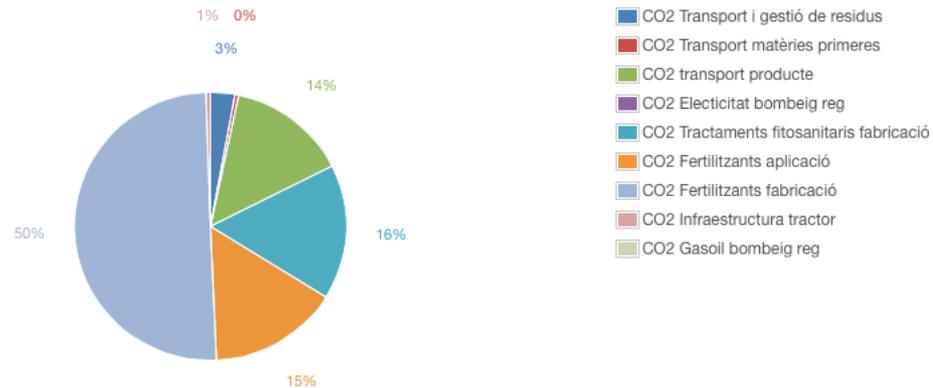
Water footprint, based on the ISO 14046 and Water Footprint Network methodology. Carbon footprint based on ACV / PAS 2050 LCA.

Software externally verified by KIWA and DNV-GL-

# Resultados HC con eFoodPrint ENV

## Emisions de CO2

	kg CO <sub>2</sub> eq/t FU	%
CO2 Transport i gestió de residus	1.2	2.4
CO2 Transport matèries primeres	0.2	0.4
CO2 transport producte	5.8	12.0
CO2 Electricitat bombeig reg	0.0	0.0
CO2 Tractaments fitosanitaris fabricació	6.6	13.7
CO2 Fertilitzants aplicació	6.3	13.0
CO2 Fertilitzants fabricació	20.3	42.1
CO2 Infraestructura tractor	0.2	0.5
CO2 Gasoil bombeig reg	0.0	0.0
CO2 Gasoil tasques camp	7.7	16.0
<b>TOTAL</b>	<b>48.2</b>	<b>100</b>



# La mejora

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**Marcar objetivos de mejora**

**Implementar acciones de mejora**

**Evaluar la mejora**

# Acción de mejora: benchmarking

Parcela	CCPI-eFoodPrint				Water Footprint Network Tool			
	PHv	PHb	PHg	PH	PHv	PHb	PHg	PH
PERA-LLEIDA-G-2013	20	176	0	<b>196</b>	290	200	62	<b>552</b>
PERA-LLEIDA-M-2013	28	140	0	<b>168</b>	290	200	62	<b>552</b>
VINYA-LLEIDA-2013	130	138	0	<b>268</b>	750	130	210	<b>1.090</b>
NECTARINA-EBRE-2013	172	125	243	<b>541</b>	340	220	78	<b>638</b>
OLIVERA- GARRIGUES-2012	350	277	1.211	<b>1.838</b>	2200	540	5	<b>2.745</b>
POMA GS – EMPORDÀ – 2012	62	89	0	<b>151</b>	280	200	60	<b>540</b>
PARAGUAYO –LLEIDA 2013	69	141	90	<b>300</b>	340	220	78	<b>638</b>

# Acción de mejora: riego, fertilización y sanidad

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**Programación de riego en base a monitorización**

**Planes de fertilización**

**Ajuste de aplicaciones fitosanitarias**

# La comunicación: ¿qué comunicar?

La evaluación

El compromiso de mejora

Las acciones de mejora que se implementan

Los resultados obtenidos

~~NO: valores absolutos de indicadores en productos o etiquetas~~

# Kellogg's

## GLOBAL SUSTAINABILITY COMMITMENTS

### RESPONSIBLE SOURCING

#### Ingredients / Materials

Responsibly source top 10 ingredients/materials by 2020

#### Sustainable Agriculture

Continue enabling farmers and millers to implement more sustainable farming practices



#### Smallholder Farmers

Identify smallholder farmers and build programs to improve agronomic practices and business skills



#### Women Farmers / Workers

Identify women in the value chain & develop programs to help improve their livelihoods, families and communities



### CONSERVING NATURAL RESOURCES

#### Energy

By 2020, expand low carbon energy use in plants by 50%\*

Reduce energy, GHGE in plants by an additional 15%\*



#### Packaging

Continue adding value to foods and the planet via increased resource-efficient packaging



#### Water

By 2020, implement reuse projects in at least 25% of plants, reduce usage by additional 15% and continue watershed quality support\*



#### Waste

By 2016, increase to 30% number of plants sending zero waste to landfill



\* Per metric tonne food produced

Goals released August 2014

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## Agraz: Sustainability commitment

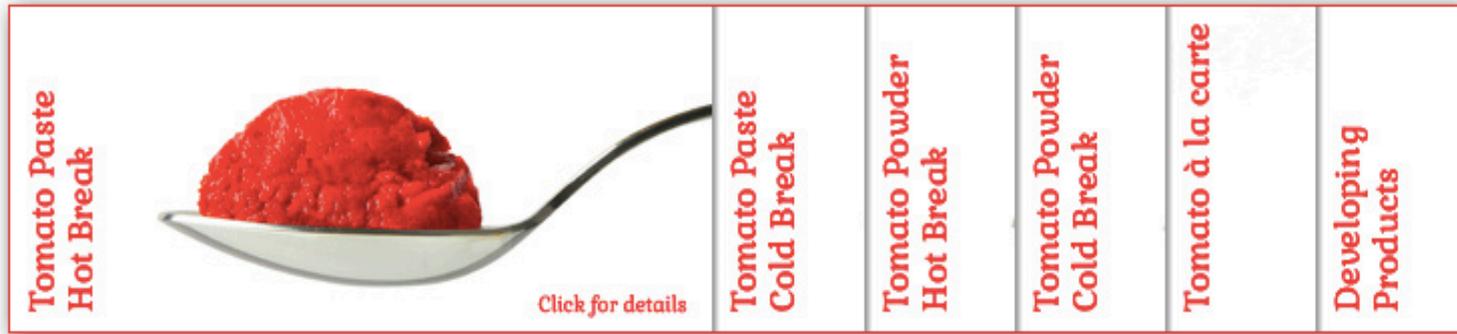
Dear friends, I would like to focus this 4<sup>th</sup> Sustainability Report, in the advantages that our costumers perceive of their products being sustainable, faced to the final consumer.

Each year there are more costumers, who are really interested in the sustainable nature of the product that we offer them, because there is a greater awareness of the need to protect the environment. In Agraz we are fully committed with the environment, so that is why, for years, we have been interested in letting know what we are doing and what are our goals in sustainable matters. With the production of sustainable raw

After five years of experience working in sustainable projects, it is confirmed that the climate factor is very important and affects the tomato crops. Therefore, each year, we have to adjust our goals based on this factor, but always aimed at the reduction of environmental impact. Once achieved our objectives to be sustainable, both in Spain and in the USA, the next step is China, where we want to be pioneers in the culture of respect for the environment, implementing our way of working within the Chinese local culture, little by little making our factories, more sustainable. As measures to take in short term, we are going to select a group of farmers to begin working with them. These should serve as a



Crop Year 2014: Sustainability Report



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Quality policy

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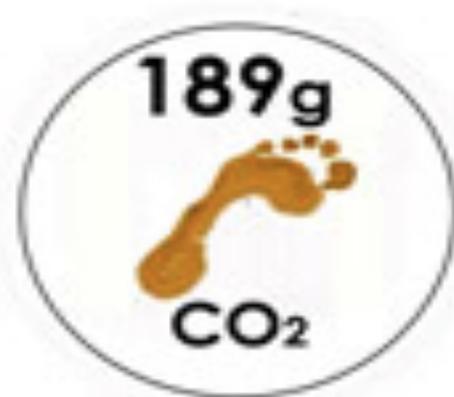
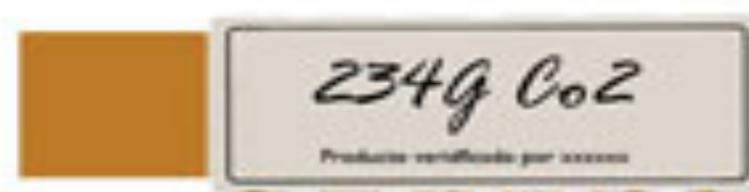
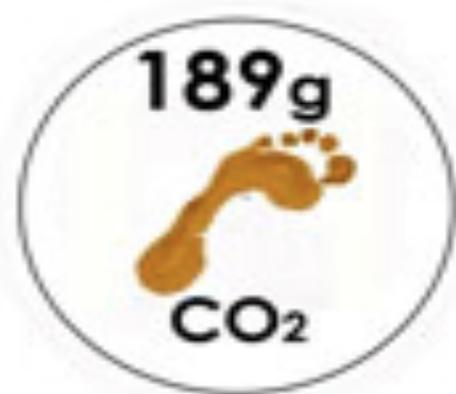
## SUSTAINABILITY

Getting a global leader position has actually made Transa to reconsider its philosophy, accepting our responsibility to the environment and to the people surrounding us. We understand that achieving a fully sustainable tomato processing line is the only way to keep ourselves working in a long-term future.

Being farmer of our products, our worrying about nature is an essential part of who we are; this is our reason to get a sustainable crop production. Moreover, we are also aware of the importance of the role we locally play at a social level. This has made our whole company to redirect itself towards Sustainability, both by getting a more naturally obtained and quality product and becoming a focus of training and awareness to the society.

Our main KPIs to obtain a fully sustainable supply of tomato paste and powder are:

- Agrochemical Control through an Integrated Pest Management system based on reproducing the habitat of several predator species of the tomato plant parasites and also closely monitoring it.
- Efficient Soil management based on minimum tillage techniques which delay soil degradation and reduce fuel consumption. Our farming equipment is able to deep plough, which allows:
  - Better soil exploration by the roots, which increases production



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### MEDIO AMBIENTE

# El Ciruelo, primera empresa murciana con verificación de huella hídrica y de carbono

El proceso, que ha sido verificado por la entidad certificadora DNV GL, ha empezado por calcular la huella hídrica de unas 65 hectáreas de la zona de Alhama de Murcia Vieja.

# What do consumers and buyers think about **environmental sustainability**?

## **Developed countries**

22% of consumers from developed nations such as Germany, the UK and US are willing to buy and pay more for products with environmental and social benefits.

## **Developing countries**

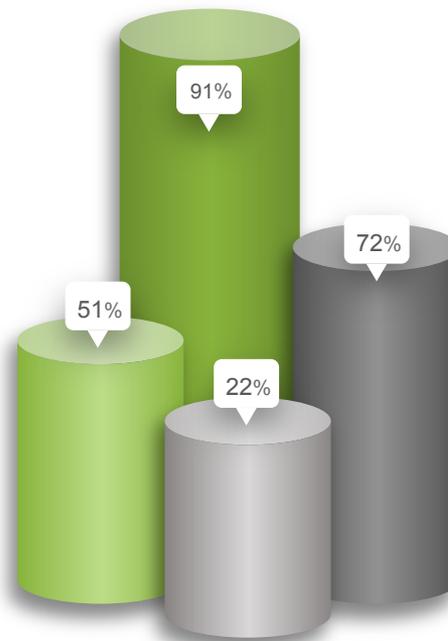
Consumers in developing markets are particularly inclined towards sustainable consumption. 51 % of consumers in developing markets report purchasing products with environmental benefits.

## **US Companies**

72% of US companies say sustainability influences their purchasing decisions and is an important factor when selecting a service provider.

## **Companies outside US**

91 percent of companies outside US said sustainability has been built into their purchasing decisions on either a periodic or standard basis.



Source: <http://www.environmentalleader.com>

# CONCLUSIONES

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La mejora de la sostenibilidad ambiental empieza por el registro de datos

Implementar acciones de mejora no tiene porqué ser económicamente caro: ejemplo benchmarking

¿Nuestros stakeholders prefieren publicidad o contenidos relevantes, cómo mejoras en sostenibilidad?



# Contacto

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