



2015

- 1. Presentación Meteosim**
2. Mercado
3. Principales activos de Meteosim
4. Innovación

## ● INTRODUCTION

**Meteosim** was created as a spin-off company in 2003 through a partnership between the members of the Department of Astronomy and Meteorology of the University of Barcelona (Spain) and the American company Meso Inc., (Troy, New York), world-renowned in the field of Meteorology. Meteosim's activity focused on the research and development of mesoscale and microscale weather simulation models, aimed at the **wind industry**, weather-sensitive sectors and **air quality**.

The logo for Meteosim, featuring the word "METEO" in a large, bold, sans-serif font above a horizontal black bar with a yellow circle in the center, and the word "SIM" in a smaller, bold, sans-serif font below the bar.

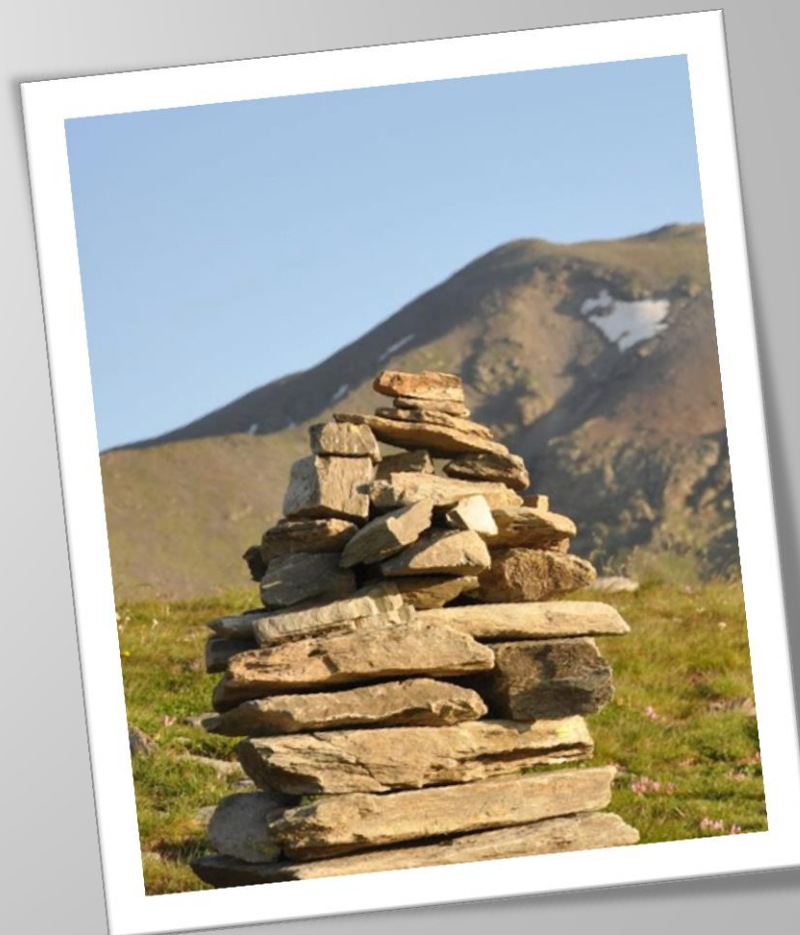
METEO  
SIM

**Meteosim's** main asset is the application of science based developments, which provides valuable solutions to our clients on the basis of research and development around wind flow model techniques.



## MILESTONES

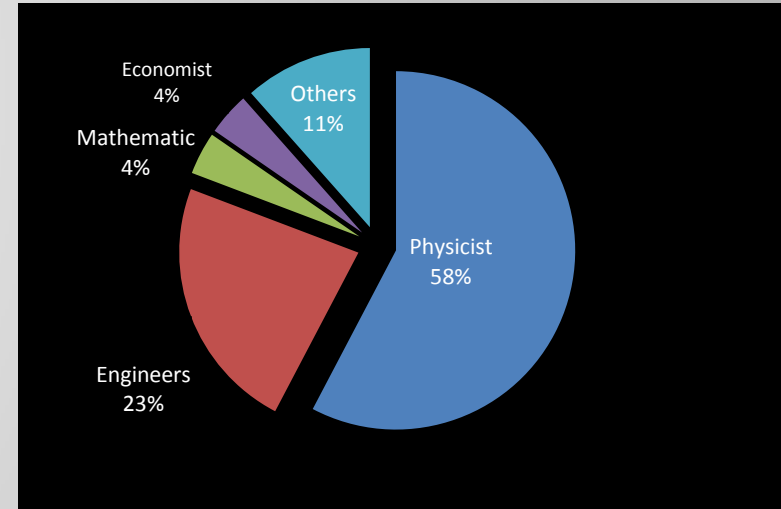
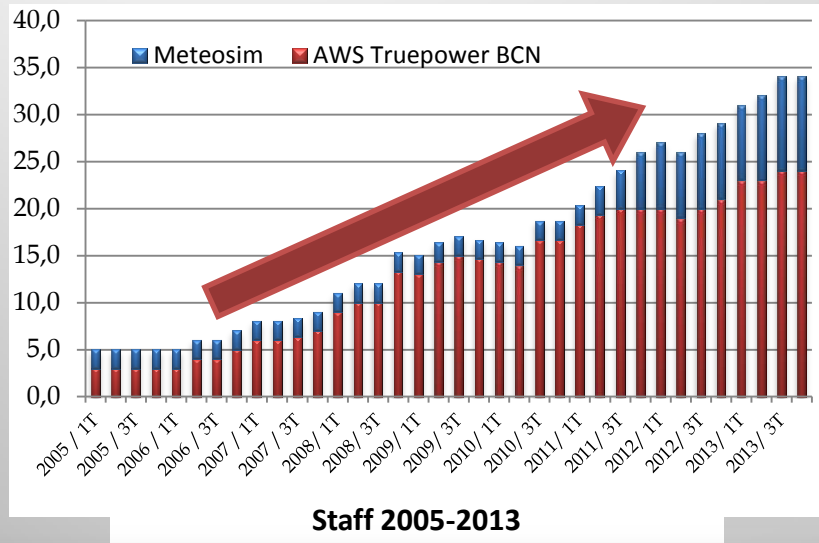
- 2001** : Small business support : Fundació Bosch i Gimpera
- 2003**: Incorporation of Meteosim SL
- 2005**: Introduction of wind flow models to Renewable space
- 2007**: Meteosim agreement with AWS Truepower
- 2008**: Most innovative company award (UB)
- 2009**: Incorporation of Meteosim TrueWind - JV
- 2011**: Merge between MT and AWST Truepower
- 2011**: Creation of 2012-2015 Strategic plan Meteosim
- 2012**: FP7 awards : I2C (partner), PERSEUS (partner), H2Ocean (coordination) > 2M€
- 2013**: New offices in Mexico, and Brazil, partnerships in Chile, Turkey and Poland
- 2014**: New FP7 project, coordination. WEAM4i (agricultural and water management)



# FIGURES

## AWS Truepower BCN & Meteosim:

**Offices:** Barcelona (Barcelona Science Park)  
**Activity:** Europe & Latam.  
**Revenue 2013:** 4 M€  
**Revenue 03-13:** 21M€  
**Staff:** 34



## ● TWO COMPANIES



### Independent Renewable Consulting

- Resource Assessment
- Energy Assessment
- Project Consulting
- Independent Due Diligence
- Performance Assessment
- Forecasting & Grid Integration
- Software & data



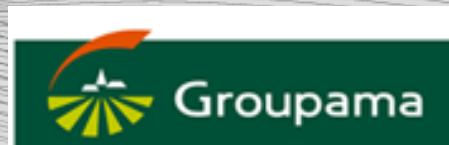
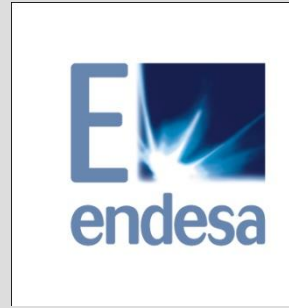
### Meteorological Consulting

- Numerical flow modeling
- Air Quality and atmospheric pollutants
- Forensic (environmental, marine, weather)
- Weather forecasting
- Oceanic, Marine and Offshore services
- Tailor – Made studies and services



# REFERENCES









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## ● MARKETS

### SHORT-TERM FORECASTING

Meteosim provides accurate and located forecasting around the world for different sectors weather sensitive. Meteosim create the platform user friendly or adapt the output at the costumers needs.

References: ENCE (Spain), Codelco Andina (Mining company Chile), TV3 (Media), Confidential (Mining Harbor Perú), Ecotecnos (Chile), Meteorem (France)

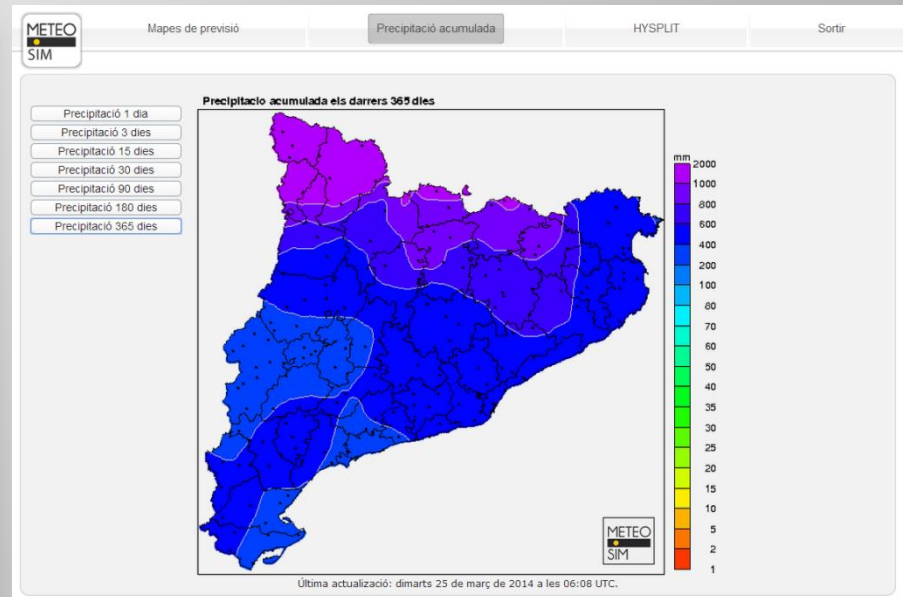
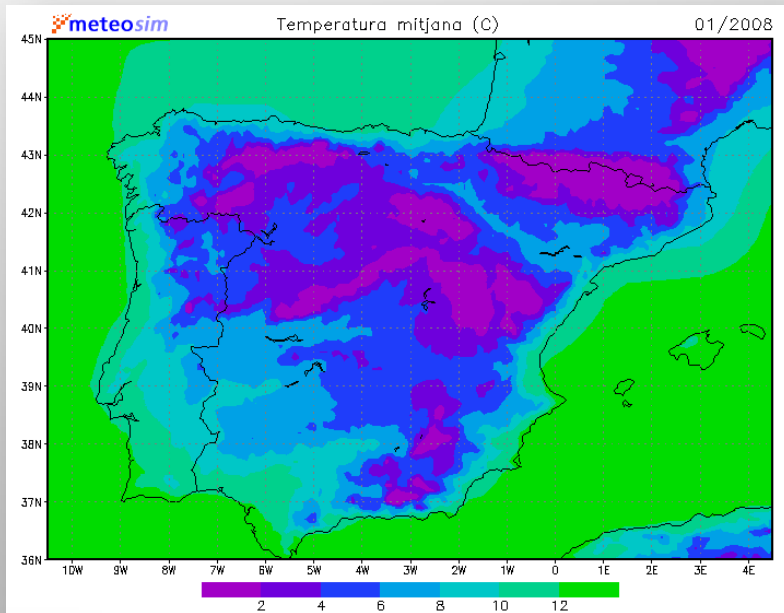


# ● MARKETS

## MID-TERM FORECASTING

Seasonal and monthly forecast to plan the energetic production and natural resources management.

References: Gas Natural, Generalitat de Catalunya



## MARKETS

### CLIMATE CHANGE

Studies about the possible climate scenarios for the future.

References: Banco Iberoamericano de Desarrollo

*“Estudio de vulnerabilidad, adaptación y mitigación al cambio climático para proyectos hidroeléctricos en Costa Rica”*

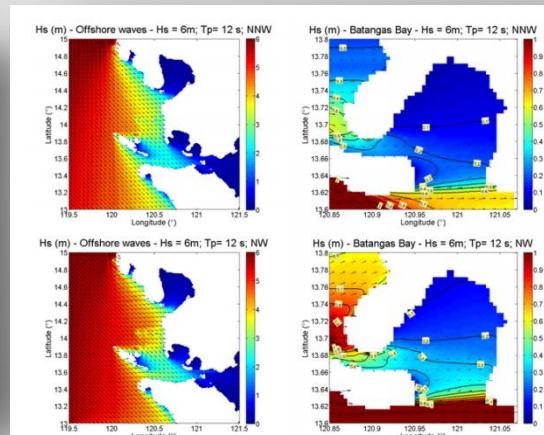


## ● MARKETS

### METEOCEAN SERVICES: CONSULTANCY

Analytical climatic expert reports (30 years Worldwide), climatic wave and currents analysis and reporting, studies about propagation models for calculating local wind and wave at the infraestructures, Downtime calculations (operational limits determination: when moored and for unloading, wind and waves combinations; Downtime calculations: percentage of time when mooring is not possible, percentage of time when unloading operations are not possible)

References: GDF Suez, Técnicas Reunidas, Iberdrola, Plocan



## ● MARKETS

### METEOCEAN SERVICES: OPERATIONAL FORECASTING

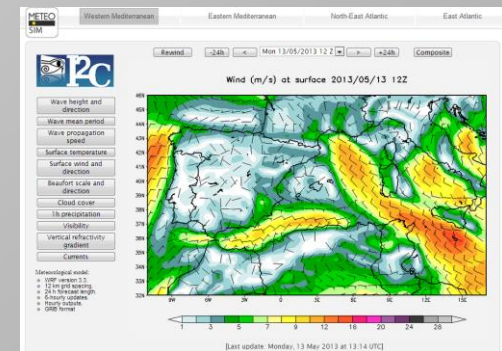
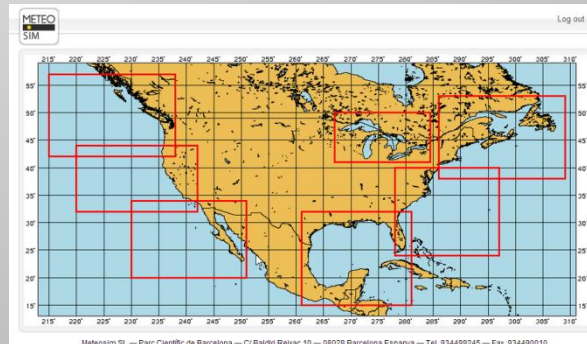
Systems to provide short term and reliable forecasting of the weather, waves and currents on the ocean.

#### References :

EUROPEAN COMISSION: Meteosim provides the weather, waves and current forecasting in high resolution for the European Marine Border in the frame of two projects for the security of the UE. Coordinators: Indra, DCNS

AWS Truepower: Waves forecasting for NorthAmerica

High Competition: Meteosim was the meteorological team for the Desafio Español America's Cup 2007. Worked also on Olympic Games, Volvo Ocean Race and Vendée Globe for Acciona Team.

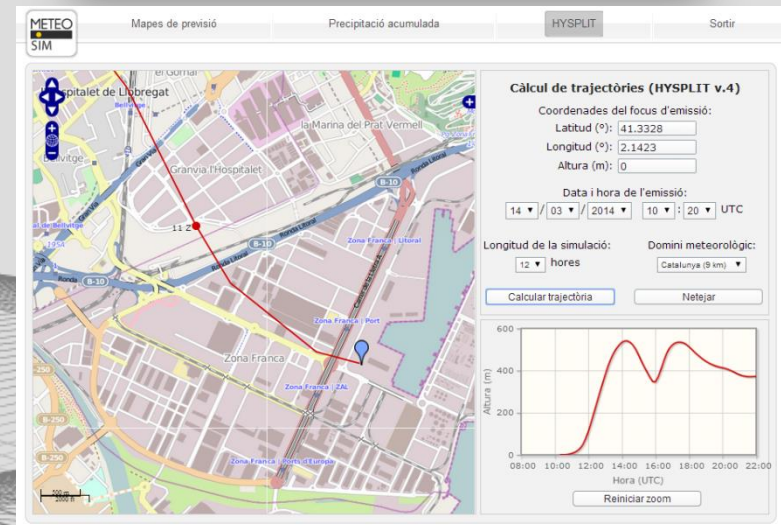
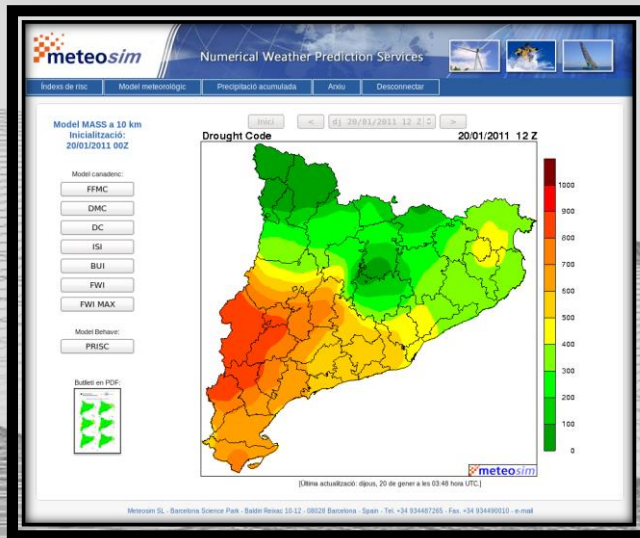


# MARKETS

## RISK MANAGEMENT

Fire Risk forecasting system and chemical risk dispersion model.

References: Civil Protection Generalitat Catalunya, Bomberos Barcelona



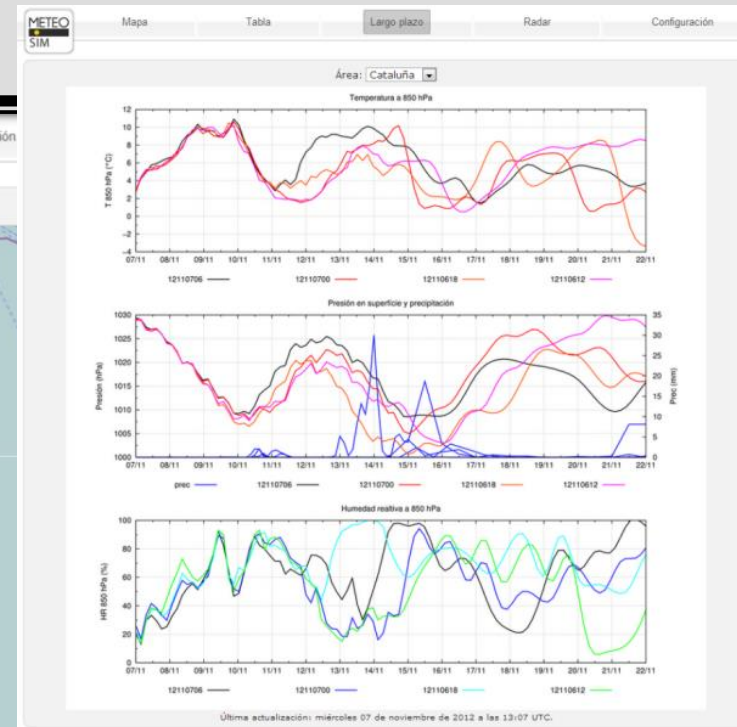


# MARKETS

## RISK MANAGEMENT

Special weather forecasting services to the management of the highway

References: Abertis



## ● MARKETS

### AIR QUALITY

Dispersion models are an indispensable tool on the objective evaluation of the air quality, in addition to its purely scientific application are being used as a key tool to respond demanded needs by the government and society due to their potential impacts.

- Models **provides information** not properly covered by instrumental data
- Dispersion models are useful to **study environmental impacts/risk** of actions in advance
- Combined with meteorological forecasting models provides **Air Quality forecasting**

Air quality modeling applications cover varied ranging from urban and industrial pollution, pollution of photochemical type, leakage of toxic material, transboundary pollution and others



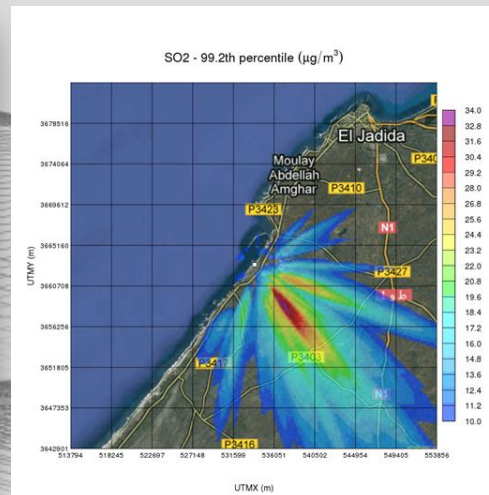
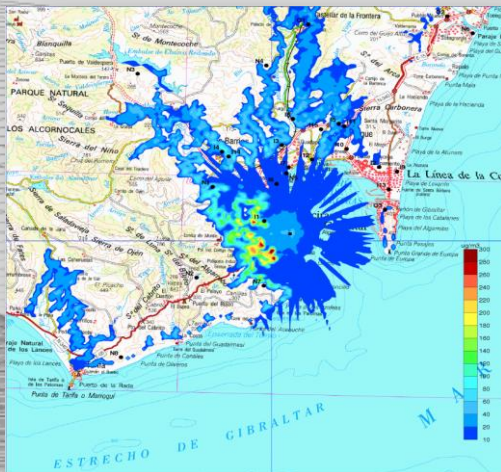
## MARKETS

### AIR QUALITY: ENVIRONMENTAL IMPACT ASSESSMENT

Studies based on air quality dispersion models (US-EPA) to determine the impact of industrial activity.

Meteosim have done studies in Europe, Africa, Asia and America.

References: Idom, Worley Parsons, Gas Natural Engineering, Applus Novotec, Inypsa, Isolux-Corsan, Sacyr, SGS, Bureau Veritas, Arcadis, Golder Associates, Poch, Navarro SiC, Lafarge...



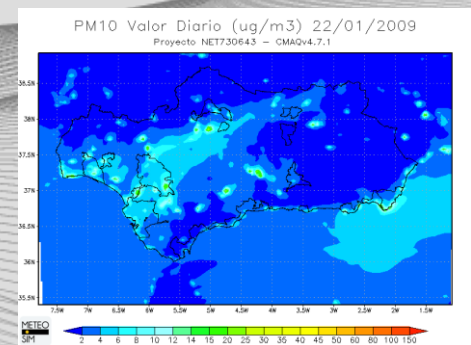
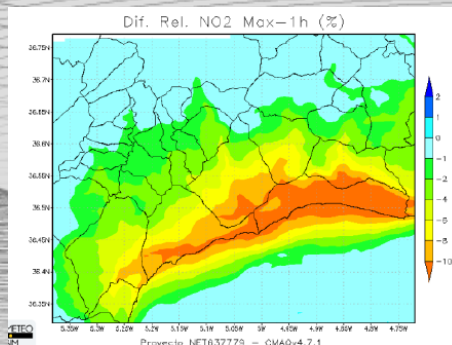
## ● MARKETS

### AIR QUALITY: HIGH LEVEL CONSULTANCY

The expertise, knowledge and well reputation allow Meteosim to participate on consultancy service for air quality improvements plans for Public Administration.

References: Junta de Andalucía Agencia de Medio Ambiente y Agua, Generalitat de Catalunya, Junta de Castilla y León, Ministerio de Industria.

*Meteosim has network knowledge and agreements with Centro Superior de Investigaciones Científicas, CSIC (Spain), Universidad de Barcelona (Spain), Universidad Politécnica de Catalunya (Spain), Universidad Nacional de Colombia, Universidad de Irvine (USA), Universidad Católica del Norte (Chile), Rydroshmet San Petesburgo (Rusia).*



# ● MARKETS

## AIR QUALITY FORECASTING SYSTEMS

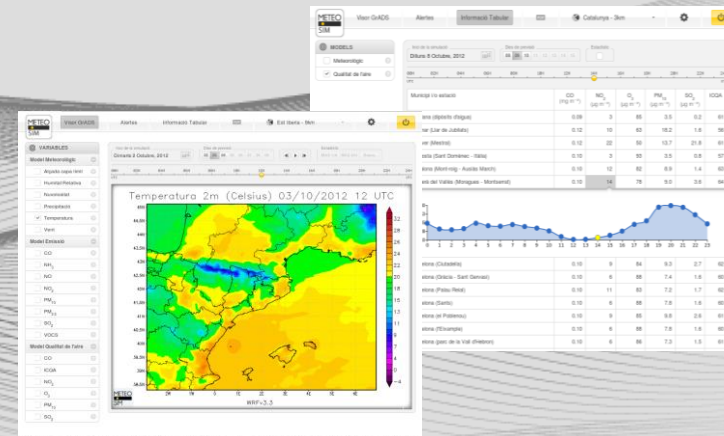
Merging the expertise on weather forecasting and air pollution Meteosim has created SIAM, the Air Quality Forecasting Platform for manage the air quality in a region, city or industrial activity. **Meteosim provides the objective solution.**

### References:

**Regions:** Comunidad de Madrid, Catalunya

**City:** Barcelona (Spain), Nice (France), Bogotá on process (Colombia), San Petesburgo scientific project on process (Russia)

**Industrial:** Ciuden Endesa-Ministerio de Industria (Spain), Confidential (Perú), Confidential (Chile)



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## ● PRINCIPALES ACTIVOS DE METEOSIM

1. TRANSFERENCIA TECNOLÓGICA
2. TALENTO DEL EQUIPO TÉCNICO Y COMERCIAL
3. INNOVACIÓN

Innovation = Invention X Commercialization

Ken Morse

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Innovation = **Invention** X Commercialization

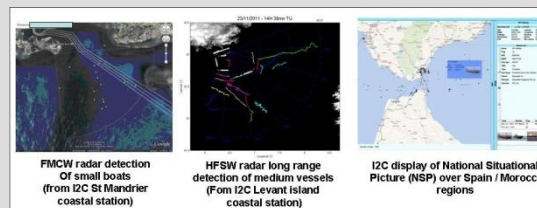
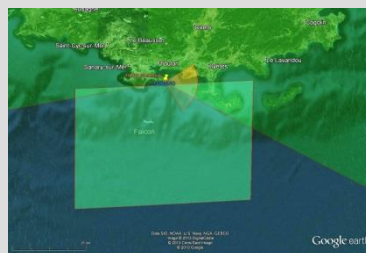
Ken Morse

## Invention

1. Personal investigador con aptitud y actitud
2. Escuchar a los clientes... y learning by doing
3. Proyectos Europeos FP7:
  - Partner en Perseus (45 M€)
  - Partner en I2C (15 M€)
  - Coordinador H2Ocean (6,5 M€)
  - Coodinador WEAM4i (7,6 M€)

## ● INNOVACIÓN: Proyectos Europeos

Partner proyectos de Seguridad?



### Beneficios:

- Desarrollo tecnológico aplicado en proyectos offshore: Filipinas, Turquía, Omán, Guinea, USA, Perú, Chile
- Networking partners importantes: más propuestas H2020 y comerciales

## ● INNOVACIÓN: Proyectos Europeos



Meteosim is coordinating the R&D project WEAM4i. This project is an ambitious system that will improve the management of the water and energy on agriculture.

Meteosim tasks are the coordination and the weather forecasting applied on agriculture.

Some figures:

- 17 partners Spain, Germany, Portugal, Netherlands, France
- 3 Demo Sites: Spain, Germany and Portugal
- Budget 7,6 M€

### **Beneficios:**

- Desarrollo de tecnología aplicado a otros campos sensibles a la meteorología
- Rol de coordinador

Innovation = Invention X Commercialization

Ken Morse

## Commercialization

1. *Rock & Roll* team
2. No olvidar mercado español
3. Internacionalización

Experiencia “a la brava”: Chile, Perú, Colombia

Experiencia Acció:

China

Multilaterales

4. Alianzas, somos pequeños y pensamos en grande



**Many Thanks!**

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