

Institut of Marine Sciences (ICM) CSIC



Institut of Marine Sciences (ICM), CSIC , in Barcelona, is the largest public marine R+D centre in Spain

Founded in 1951, with the name **Institut of Fisheries Research**

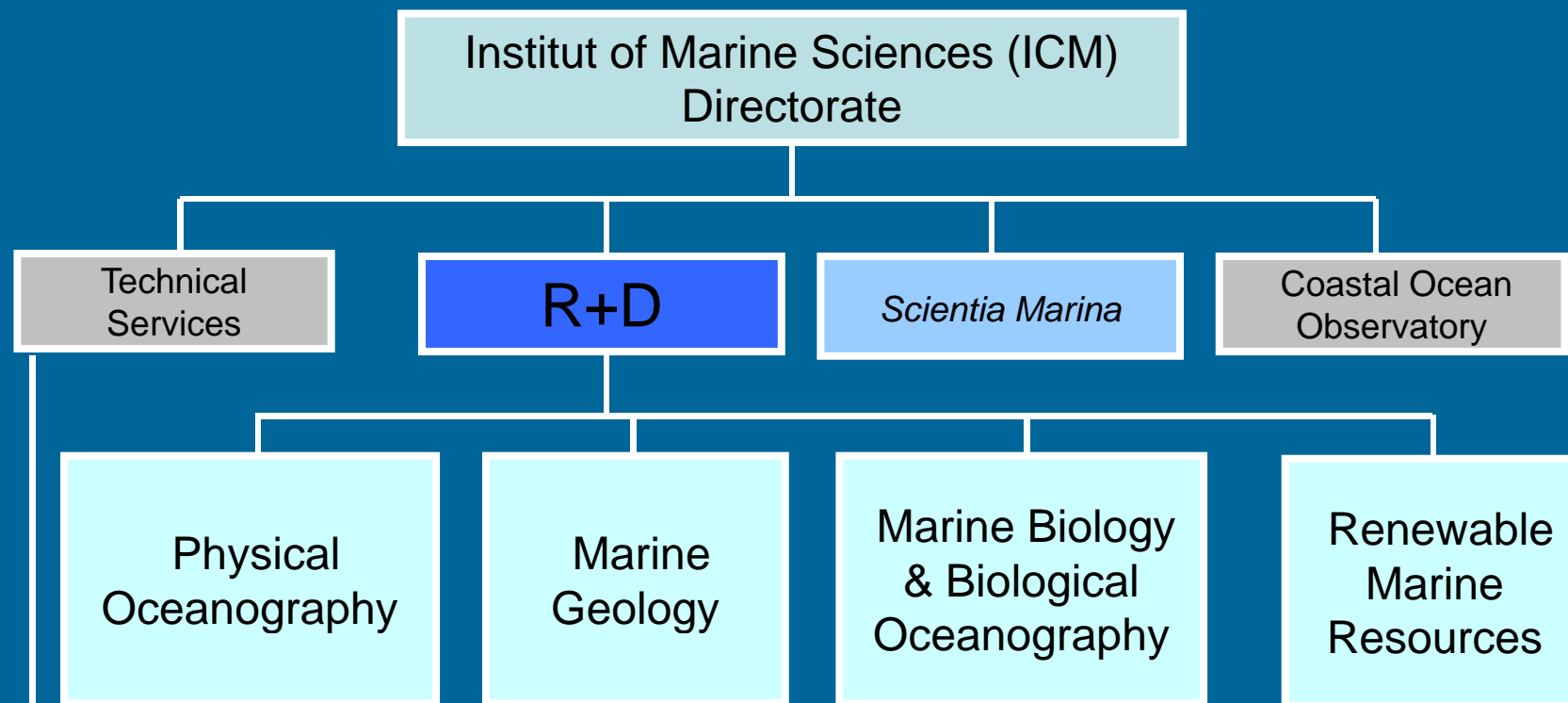
In 1987, new departments were incorporated and the Institute changed its name to **Institut of Marine Sciences (ICM)**

In 2001 , inauguration of a new building and the **Institut of Marine Sciences (ICM)** pass to be a component of the **Mediterranean Marine and Environmental Research Center (CMIMA)**.

The Administration and General Services are provided by the CMIMA and shared with the **Marine Technology Unit (UTM)**.

■ **ICM staff numbers 184**, 73 scientists, 42 ph.D students and 68 scientific support personnel.

Organization chart



- Aquarium Experimental Zone (ZAE)
- Electron Microscopy
- Instrumentation
- Chemical Analysis
- *Biological Reference Collection*
- *Marine Sediment Core Collection*
- *Seismic Reflection Profiles Collection*
- Communication and outreach

RESULTS DURING THIS DECADE

	2001-2004	2005-2008	% increase
Total publications (Scopus)	256	526	105,5
Total external funding	12.332 K€	20.113 K€	63,3
Paper per tenure per year	1,64	2,92	78
Funding per tenure peryear	79 K€	111 K€	45

	2004	2008	% increase
Total tenure scientist	39	45	15,4
Total Scientist (PhD)	65	74	13,8
PhD Students	34	42	23,5
Total tenure support staff	14	14	0
Total support staff	28	68	142,8

Barcelona Expert Centre on Radiometric Calibration and Ocean Salinity (SMOS-BEC)

Expert Centre for ESA's Soil Moisture and Ocean Salinity (SMOS) mission. Created at the ICM in July 2007 for obtaining global and regular measurements on the soil moisture and the ocean salinity for climate and hydrological models

SMOS was launched in November 2009 to provide **sea surface salinity** and soil moisture maps on a global basis with frequent temporal coverage

J. Font (ICM-CSIC) is SMOS **Co-Lead Investigator** for salinity and SMOS-BEC chair. ICM has participated in ESA SMOS science definition studies and campaigns and has a strong leadership in ocean salinity retrieval aspects

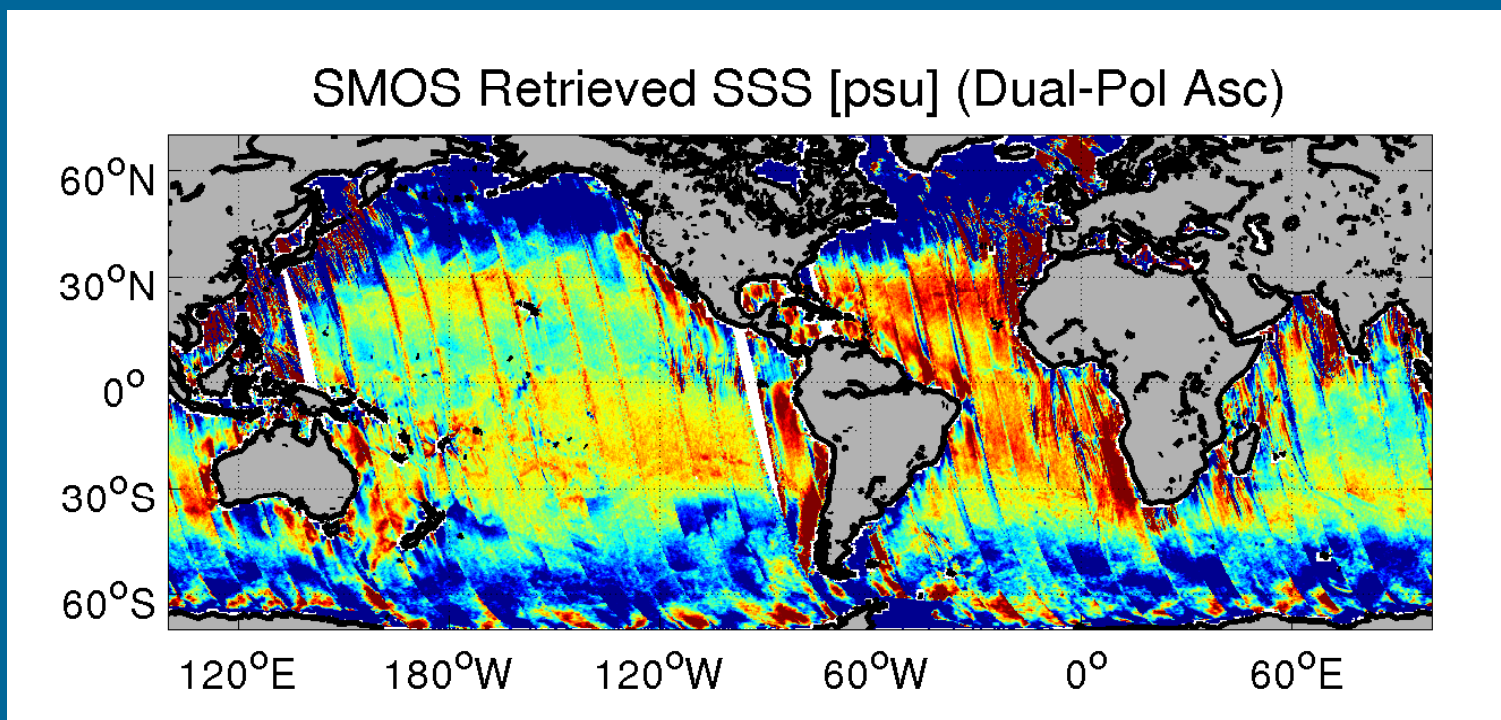


SMOS's artist view (credits ESA)

SMOS-BEC

On-going activities: SMOS In-Orbit Commissioning Phase (IOCP)

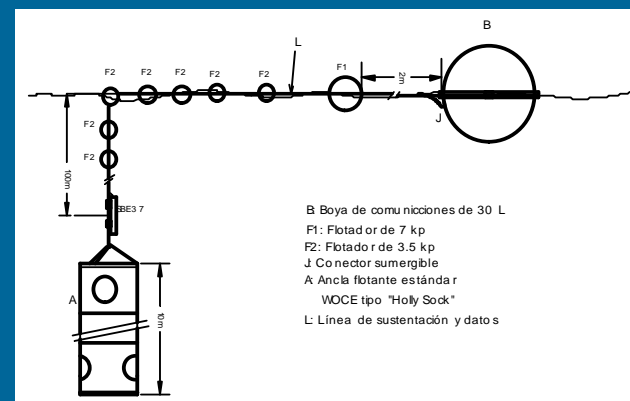
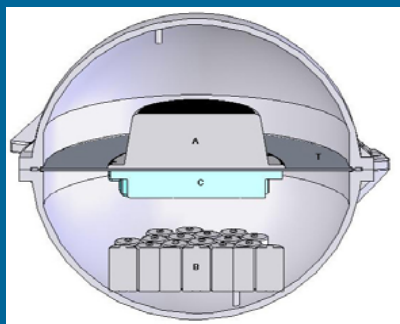
- Providing feedback and support in testing the instrument calibration strategy, in selecting the optimal configurations and in assessing the existing trade-off
- Collaborate with SMOS Calibration Expertise Centre at ESA-ESAC, act as expert centre for CP34, support the coordination of Spanish research teams in SMOS subjects.



First salinity map from SMOS during the "Commissioning Phase"

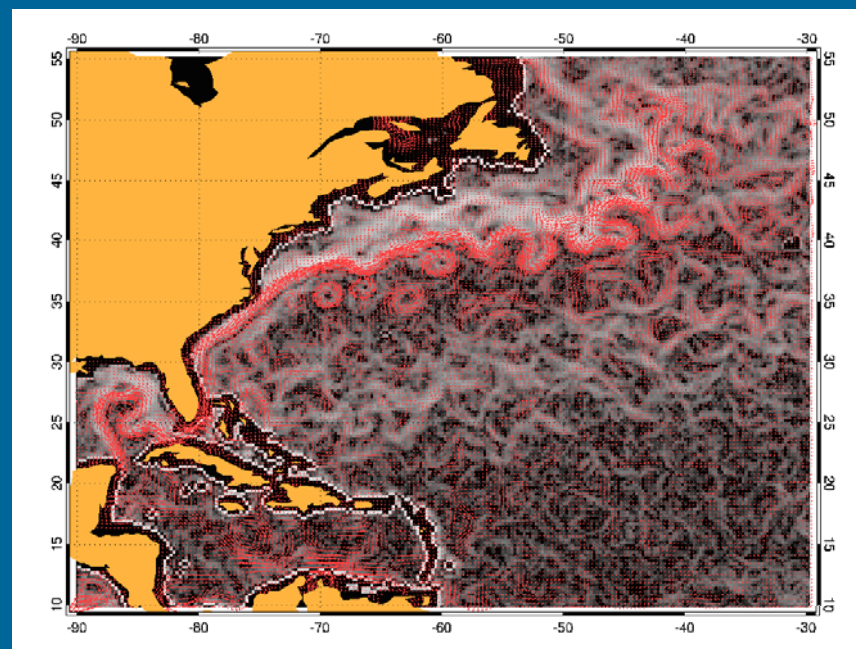
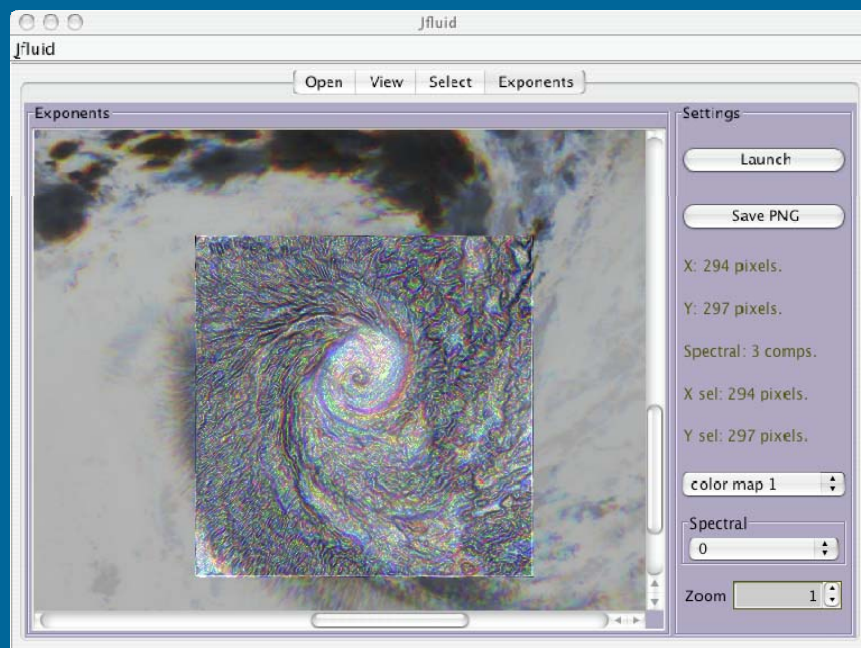
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Associated Technological development



Design and construction of Lagrangian surface and subsurface drifters for TS measurements and for calibrating and validating SMOS data

Design of new algorithms for analysis of remote sensing data



Toolbox on singularity analysis in satellite Images. A method for obtaining new information about ocean physics and ocean-atmosphere interactions

(patent pending)

