

**INTERNATIONAL  
CONFERENCE ON  
DESALINATION AND  
SUSTAINABILITY**

1 - 2 March 2012



الجمعية المغربية للمياه و خلاصه المياه



in cooperation with



supported by



CASABLANCA 2012

MOROCCO

# **Around the Mediterranean North–South Cooperation**

**Miriam Balaban**

MOR12\_20 Miriam



# **Around the Mediterranean North–South Cooperation**

**Miriam Balaban**

*European Desalination Society  
Desalination and Water Treatment 2009–  
Desalination, 1966–2009  
Desalination Directory*

**IDA–SMMD International Conference on  
Desalination and Sustainability  
Casablanca, Morocco, 1–2 March 2012**

# Barcelona Process

- **Barcelona 1995** – European Union Association with countries around the Mediterranean region
- **Promoted dialogue** and cooperation for greater stability and security in the Mediterranean region
- **Euro-Mediterranean Free Trade Area (EMFTA)** – The Euro-Mediterranean Association agreements between the EU and nearly all of the countries on the southern coast have made possible major advances in trade liberalization
- **Re-launched in 2008 as the Union for the Mediterranean (UfM)**. One of the main objectives is the de-pollution of the Mediterranean Sea.

# EDS in the Barcelona Process

- **1998** – At EDS Conference in Las Palmas. EDS was alerted to the Barcelona Process which encouraged cooperation in science and technology between countries around the Mediterranean basin.
- **1999** – At an opportune meeting of the African Academy of Science in Hammamet, Tunisia I met with Professor Safi and travelled to Tunis to see his solar pond. On the way EuroMed was born which led to the joint conference in Jerba.



**1999 Planning meeting  
with participation of  
Professor Bechir Hamrouni for the  
1st EuroMed Conference in Jerba**



**Karim Bourouni, Mohamed J. Safi, MB, Bechir Hamrouni**

# Las Palmas – Morocco





# Mediterranean Region



# EDS Series of Conferences

- **Desalination for the Environment**  
Noordwijkerhout 1993, Genoa 1995, Las Palmas 1998, Cyprus 2001, Malta 2003, Santa Margherita 2005, Halkidiki 2007, Baden-Baden 2009, Barcelona 2012
- **EuroMed – Desalination Strategies in South Mediterranean Countries**  
**Cooperation between Mediterranean countries of Europe and the Southern rim of the Mediterranean**  
Jerba 2000, Sharm El Sheikh 2002, Marrakech 2004, Montpellier 2006, Dead Sea Jordan 2008, Tel Aviv 2010, Rabat 2013
- **Membranes in Drinking and Industrial Water Production**  
Paris 1995, L'Aquila 1997, Amsterdam 1998, Paris 2000, Mülheim 2002, L'Aquila 2004, Harrogate 2006, Toulouse 2008, Trondheim 2010, Leeuwarden 2012, Brugge 2014



# EDS Conferences

## 1993–2011

Noordwijkerhout 1993

Genoa 1995

Paris 1995

L'Aquila 1997

Las Palmas 1998

Amsterdam 1998

Paris 2000

**Jerba 2000**

 Limassol 2001

 **Sharm El Sheikh 2002**

Mülheim 2002

 Malta 2003

L'Aquila 2004

 **Marrakech 2004**

Santa Margherita 2005

Harrogate 2006

**Montpellier 2006**

Halkidiki 2007

Toulouse 2008

**Dead Sea Jordan 2008**

Baden-Baden 2009

Trondheim 2010

**Tel-Aviv 2010**

## Future Conferences

Barcelona, Spain, April 2012

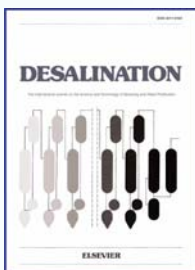
**Rabat 2013**

**Algeria 2014**



EC Support





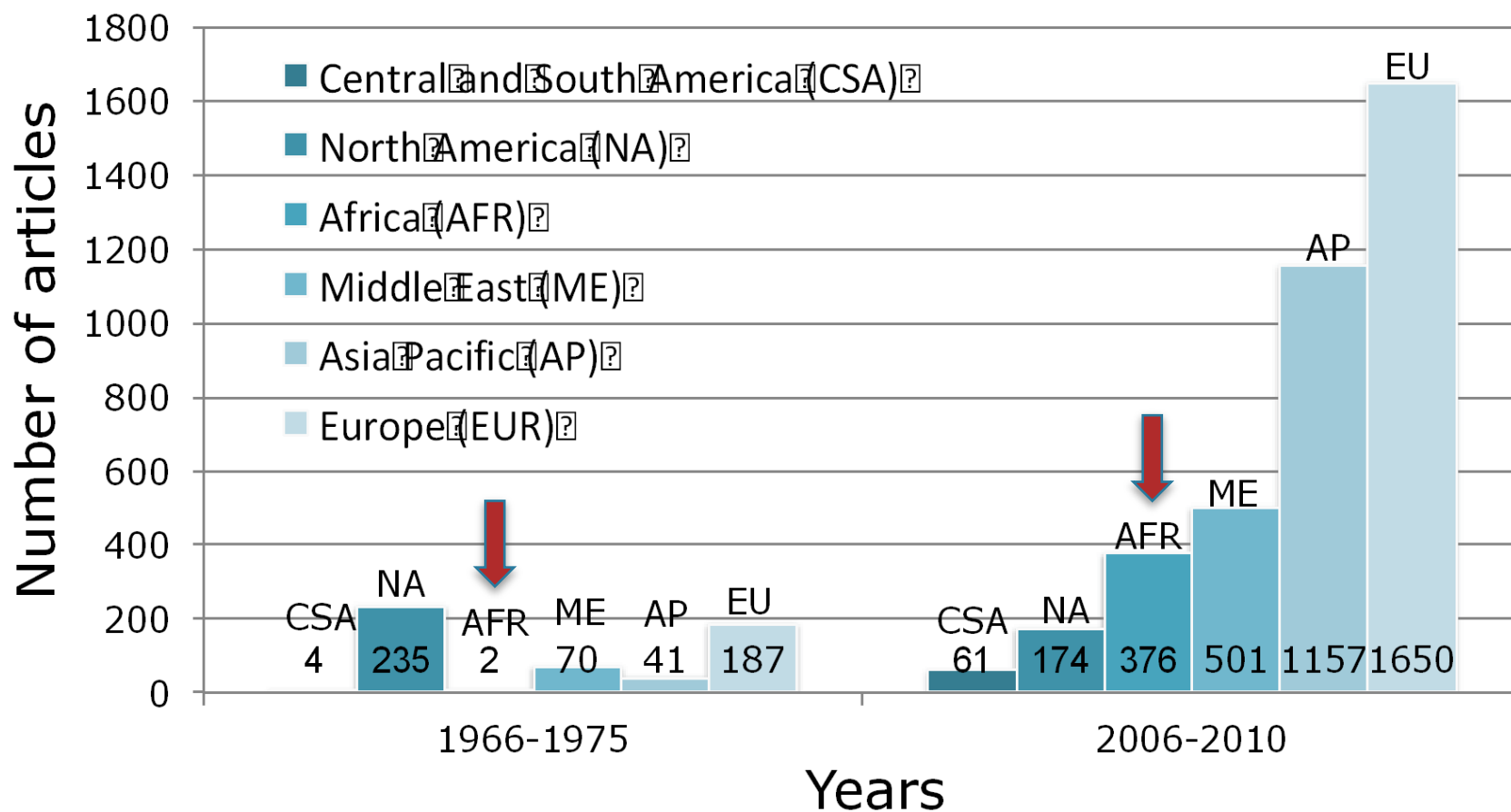
# EuroMed papers in *Desalination and Desalination and Water Treatment*



<i>Desalination</i>	Conference	No. of papers
Vols. 136–137 (2001)	September 11–13, 2000, Jerba, Tunisia	75
Vols. 138–139 (2001)	May 28–31, 2001, Lemesos, Cyprus	108
Vols. 152–153 (2002)	May 4–6, 2002, Sharm El Sheikh, Egypt	98
Vols. 156–158 (2003)	May 4–8, 2003, Malta	145
Vols. 165–168 (2004)	May 30–June 3, 2004, Marrakech, Morocco	208
Vols. 203–206 (2007)	May 21–25, 2006, Montpellier, France	214
<i>Desalination and Water Treatment</i>		
Vols. 3,5,7,10 (2010)	November 9–13, 2008, Dead Sea, Jordan	125
Vol. 31 (2011)	October 3–6, 2010, Tel Aviv, Israel	53
<b>Total</b>		<b>1026</b>

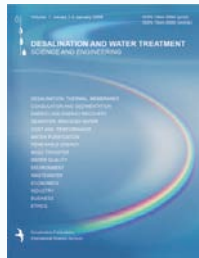
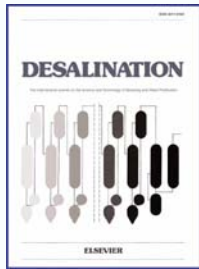
# Desalination and DWT

## Number of Articles by Region





# Number of articles in *Desalination* and *DWT* 1966–2010



Country	Population (M people)	Articles	Articles per M people
Tunisia	10.5	178	16.95
Libya	6	50	8.33
Algeria	35	224	6.4
Egypt	84.5	225	2.66
Morocco	35	56	1.6

## Percentage of the total number of articles

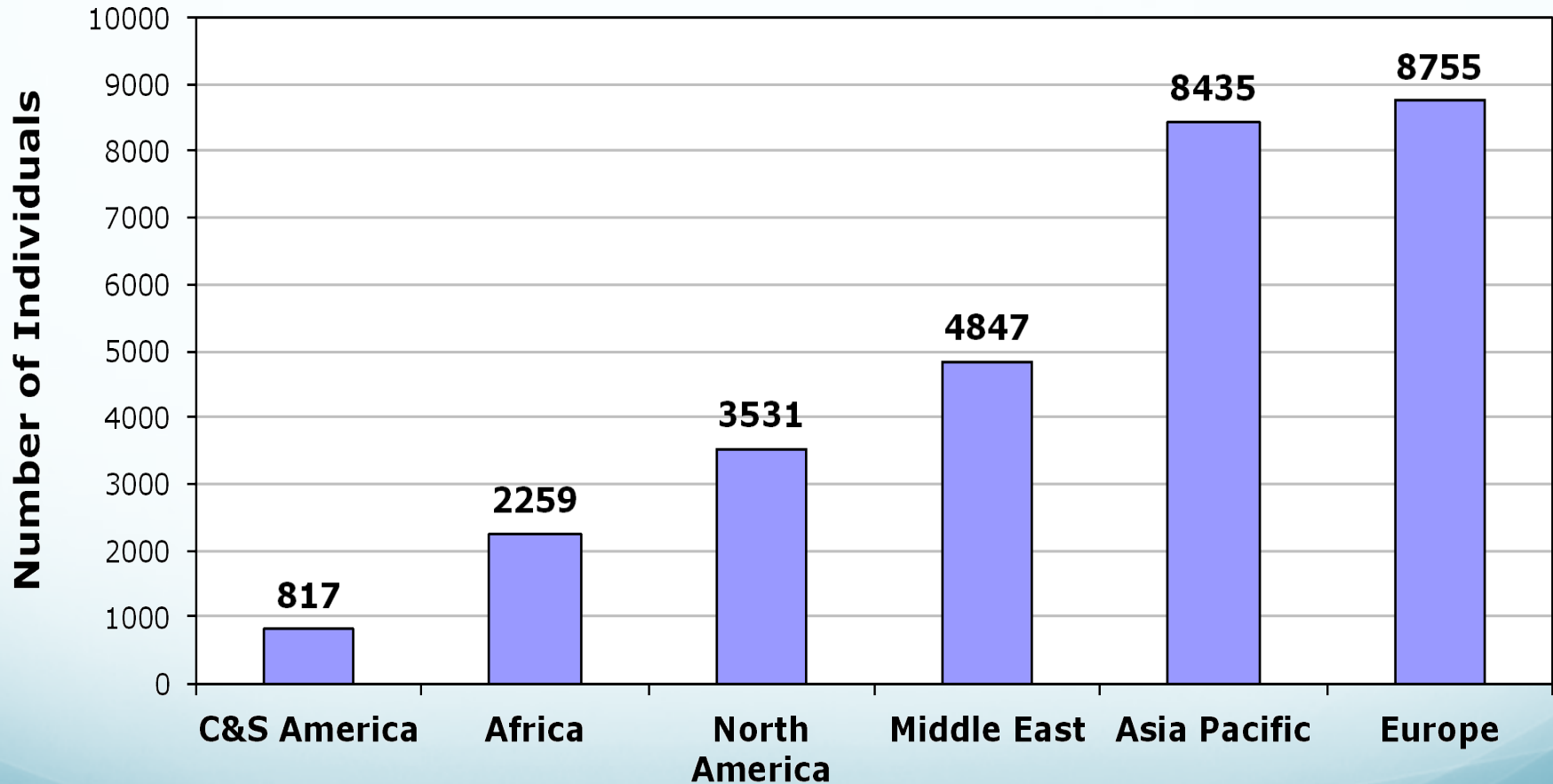
1966–1999

2.4%

After 2000 to now

9.75%

***Number of Individuals  
by Regions  
Total number 28,644***





# EuroMed 2000



**September 11–13, Jerba, Tunisia**

Ecole National d'Ingénieurs de Tunis  
National Engineering School of Tunis



Conference attended by  
Rodney Standring from the  
EC led to EC support of  
four EDS conferences.







# EuroMed 2002

May 4-8, Sharm El Sheikh, Egypt



**ADST**  
**Alexandria University**  
**Desalination Studies**  
**and Technology Center**



# Desalination and the Environment

## May 4-8, 2003, Malta







# EuroMed 2004

May 30–June 2, Marrakech, Morocco



National Water Supply Agency







# EuroMed 2004

May 22–25, Montpellier, France





# **EuroMed 2008**

## **November 9–13, Dead Sea, Jordan**

**Under the patronage of HE Prince Faisal bin Al Hussain**



**On the shores of the Dead Sea**

**Sidney Loeb Award to  
Kazuo Yamamomoto**







# EuroMed 2010

October 3–7, Tel Aviv, Israel







**Alexandria University  
Desalination Studies  
and Technology Center  
(ADST)**



**Moroccan Membrane and  
Desalination Society**

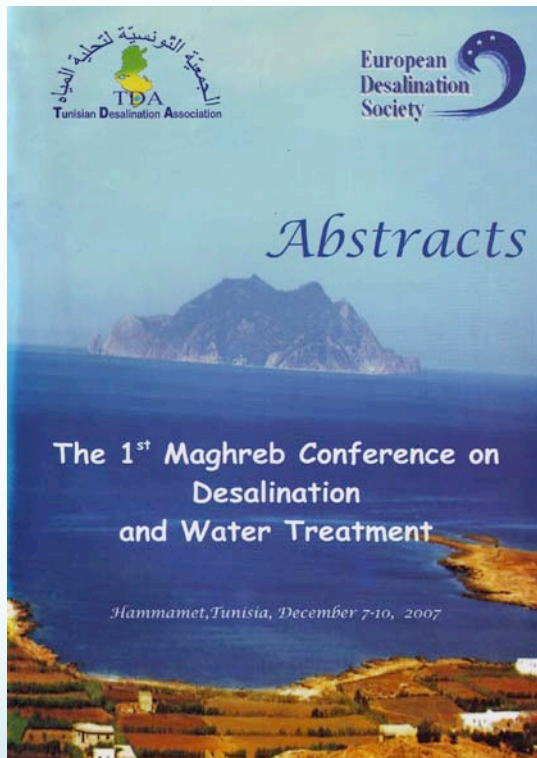


**Tunisian Desalination  
Association**

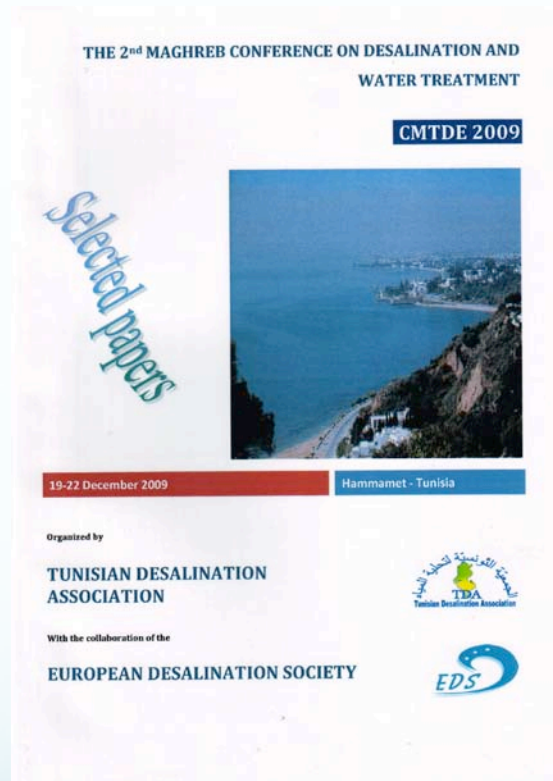
**Algerian Water Reuse  
and Desalination  
Association (ALWARDA)  
(*under construction*)**

# Tunisian Desalination Association

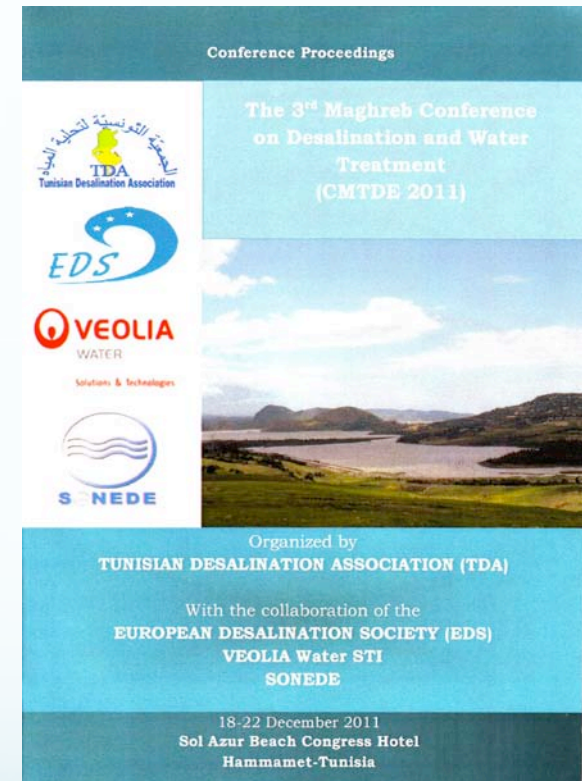
## Conferences on Desalination and Water Treatment



2007



2009



2011

# Desalination capacity in the Mediterranean Sea in m<sup>3</sup>/day

MSF

MED

RO

## Spain

1. Valdelent.: 140,000
2. Murcia: 131,000
3. Alicante: 130,350
4. Cartagena: 130,000
5. Carboneras: 120,000
6. Almeria: 114,300
7. Mallorca: 64,500
8. Rambla M.: 60,000
9. Tordera: 57,600
10. Marbella: 56,400

## Med. Sea coast

600,647  
586,099  
2,819,664

## Italy

84,934  
87,100  
97,723

- 1,000 - 5,000
- 5,001 - 25,000
- 25,001 - 50,000
- 50,001 - 75,000
- 75,001 - 150,000
- total (by country)

- 1,000 - 5,000
- 5,001 - 25,000
- 25,001 - 50,000
- 50,001 - 75,000
- 75,001 - 150,000
- total (by country)

- 1,000 - 5,000
- 5,001 - 25,000
- 25,001 - 50,000
- 50,001 - 100,000
- 100,001 - 500,000
- total (by country)

## Greece

10,080  
11,620  
22,519

## Turkey

1,000  
8,610  
30,850

## Cyprus

2,280  
2,160  
146,613

Dhekelia 80,500  
Larnaca 63,000

## Algeria

112,971  
41,100  
603,176

## Tunisia

3,760  
2,220

Zawia 93,000

52,800  
60,000

## Misurata

85,000

## Libya

373,982  
380,078  
37,970

## Egypt

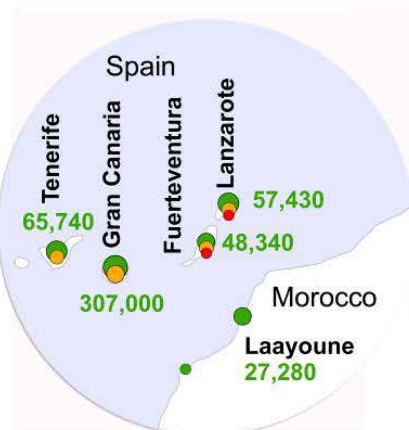
32,574 total  
10,500 Med. Sea  
15,544 Red Sea  
6,530 unknown  
25,202 total  
4,132 Med. Sea  
9,080 Red Sea  
11,990 unknown  
321,318 total  
8,756 Med. Sea  
223,210 Red Sea  
89,352 unknown

## Israel

17,032  
440,714  
8,000 Red Sea  
432,714 Med. Sea

## Spain

12,300 total  
2,200 Med. Sea  
7,500 Canary Islands  
2,600 unknown  
82,644 total  
9,356 Med. Sea  
67,888 Canary Islands  
5,400 unknown  
1,907,821 total  
1,207,400 Med. Sea  
507,935 Canary Islands  
192,486 unknown



© S. Lattemann and T. Höpner 2009

© Lattemann and Höpner (2009). Primary data from IDA (2007). Map includes all plants that are presumed online or in construction and all sites with a capacity > 1,000 m<sup>3</sup>/d.



# **From Barcelona to Barcelona**

process conference

## **DESALINATION FOR THE ENVIRONMENT CLEAN WATER AND ENERGY**

**April 22–26, 2012**

