



The Abdus Salam
**International Centre
for Theoretical Physics**
www.ictp.it



Introduction to CRASTE-LF

Anas EMRAN



Royaume du Maroc
Ministère de l'Enseignement Supérieur,
de la Recherche Scientifique et de l'Innovation



الوكالة المغربية للتعاون الدولي
AGENCE MAROCAINE DE COOPÉRATION INTERNATIONALE
AMCI



Affiliated to UN



**African Regional Centre for Space Science and
Technology Education- in French Language
'CRASTE-LF' affiliated to UN**



The CRASTE-LF was
established in Morocco
on 23 October 1998

under the initiative of the UNOOSA/UN General Assembly Resolution
- 45/72 of 11 November 1990
- 50/27 of 6 December 1995



13 Member States

Algeria – Cameroon - Cape Verde - Central African Republic - DR Congo - **Côte d'Ivoire** - Gabon
Morocco – Mauritania – Niger - **Senegal** – Togo - Tunisia





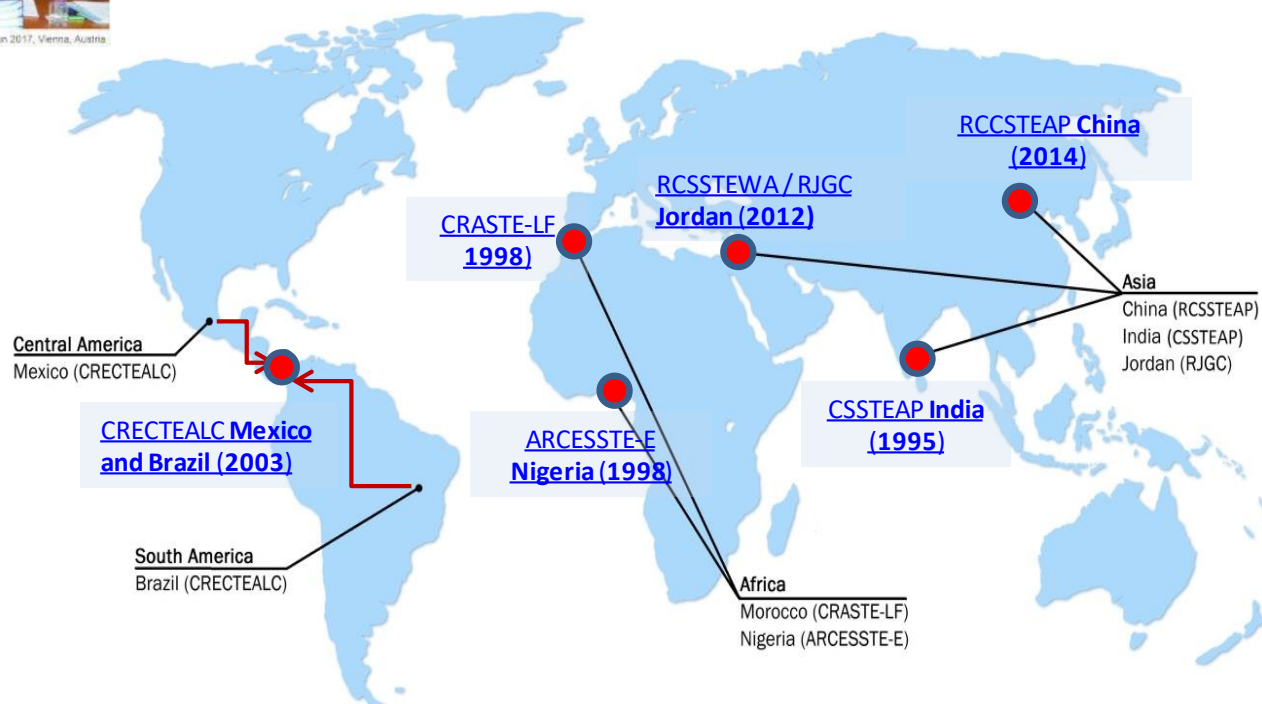
Meeting of the Directors, Jun 2017, Vienna, Austria

2017



Alliance
of Regional centres
affiliated to the UN

Regional Centres for Space Science and Technology Education
(affiliated to the United Nations)



<http://www.unoosa.org/oosa/en/ourwork/psa/regional-centres/index.html>



2003



1998



1998



1995



2012



2014



Objectives of the Centre

Capacity Building

1. To increase knowledge in Space Sciences and Technologies

- Postgraduate Master
- Short courses, Seminars workshops, conferences

2. To improve the technical competences

- Experts, teachers, decision-makers
- Hold them informed about technical progress

3. To assist the countries of the region

- Development of endogens capacities in space tools.
- Strengthen the Local and Regional Capacities
- To develop expertise in Space Sciences and Technology.

4. To promote Cooperation between.

- The Developed Countries
- The States Members as well as among these States.

5. Provide advisory services

- To Member States
- To regional institutions that have made the request.

6. Collect and disseminate information related

- To space and space technologies.

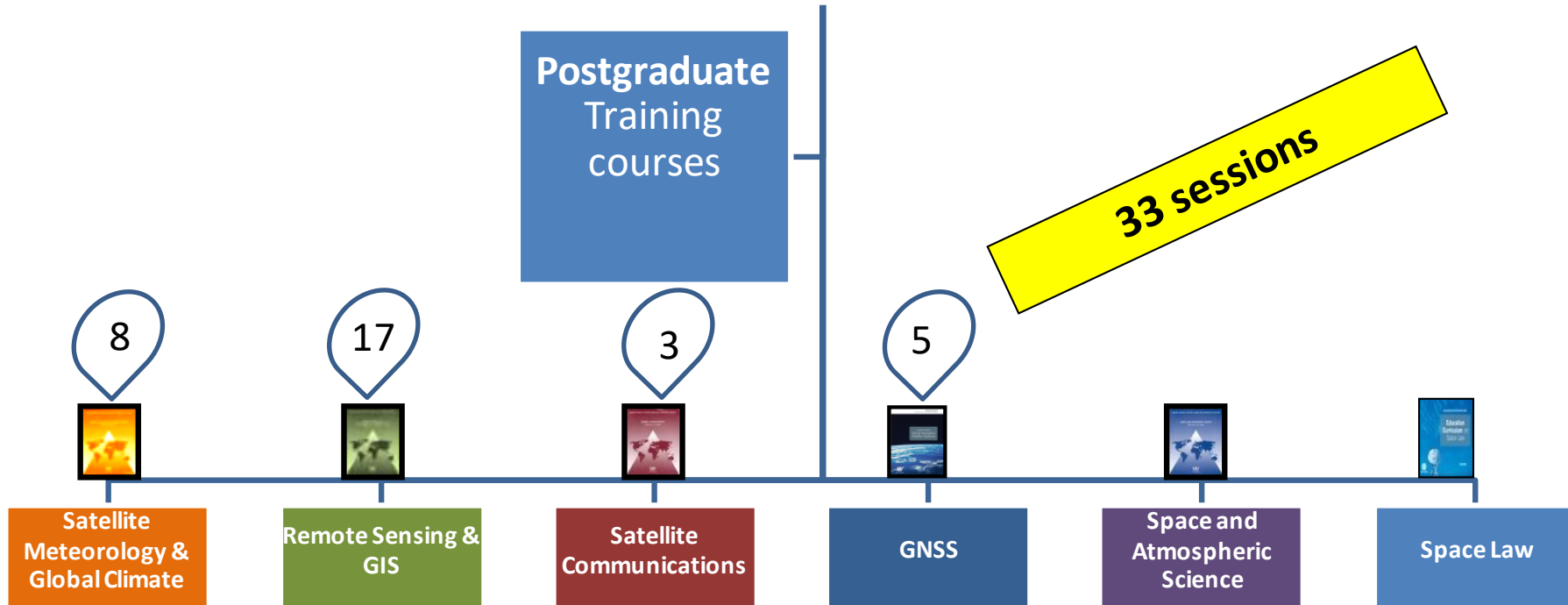


Objectives of the Centre

Objective 1. To increase knowledge in Space Sciences and Technologies

- Postgraduate Master
- Short courses, Seminars workshops, conferences

1. To increase knowledge in Space Sciences and Technologies



Education Curricula

Since 1988 the United Nations, through its Programme on Space Applications, has been supporting the establishment of [Regional Centres for Space Science and Technology Education](#), affiliated to the United Nations, in Africa, Asia and the Pacific, Latin America and the Caribbean, and Western Asia.





Postgraduate Training courses



Remote Sensing & GIS – **17 sessions / 302 trainees**



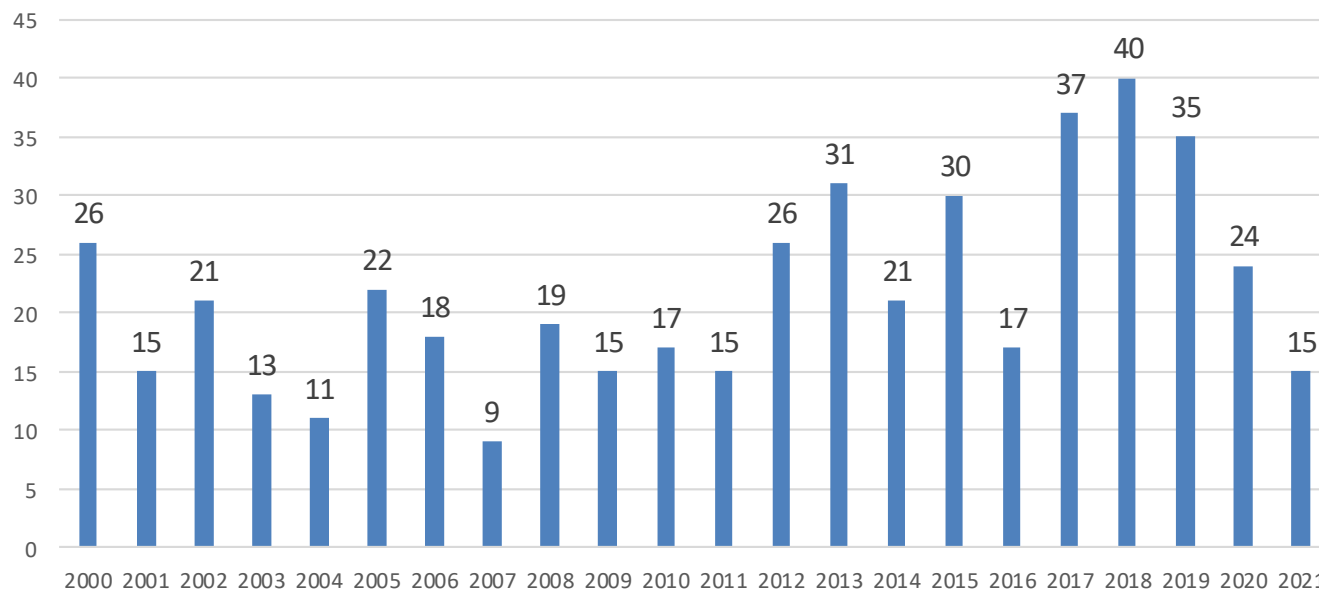
Satellite Meteorology & Global Climate - **8 sessions / 78 trainees**



Satellite Communications – **3 sessions / 38 trainees**



GNSS (Since 2012) – **5 sessions / 66 trainees**



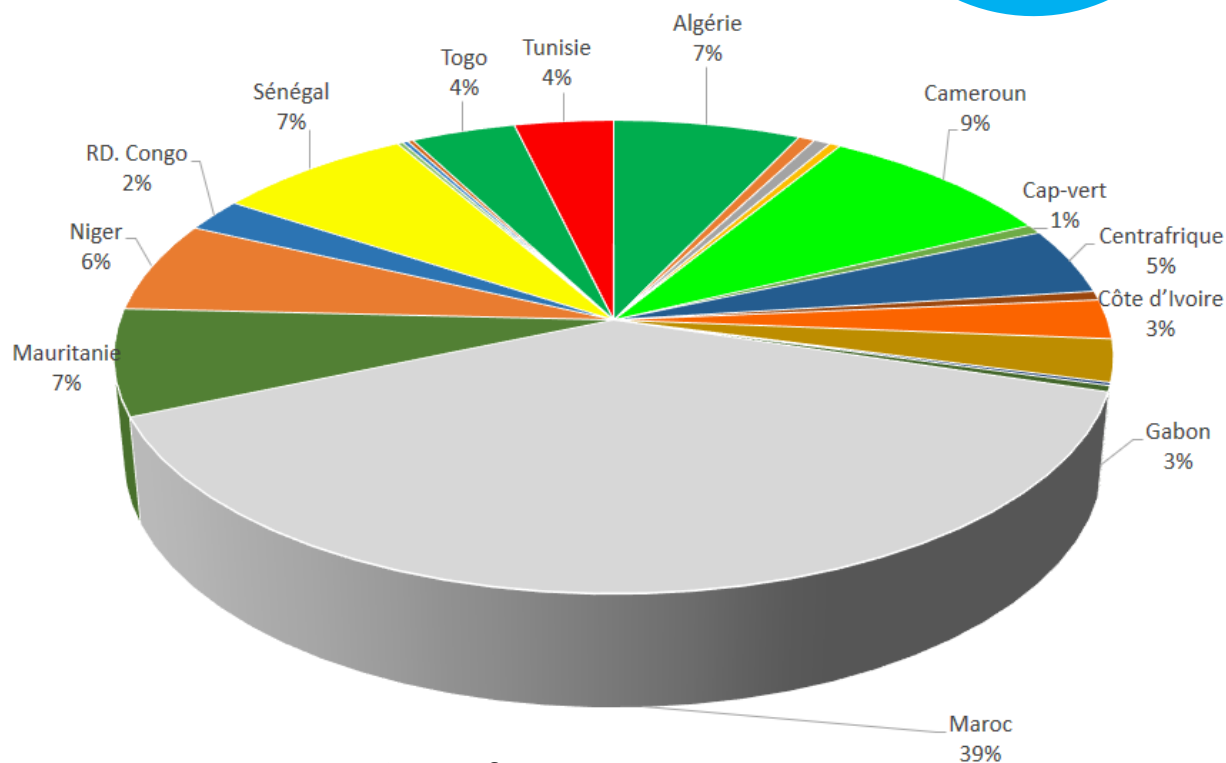
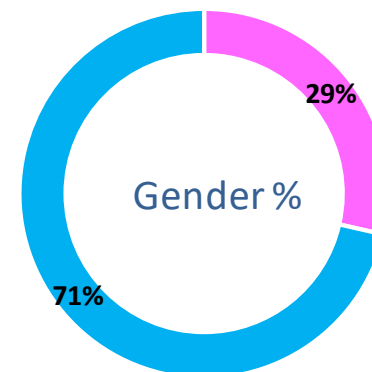
Since 2000
33 sessions
483 trainees
22 Countries





Postgraduate Training courses

Country	Nb
Morocco	187
Cameroon	44
Senegal	36
Mauritania	35
Algeria	34
Niger	30
Centrafica	22
Togo	19
Tunisie	18
Gabon	14
Cote d'Ivoire	13
RD. Congo	11
Cabo-verde	3
Congo (Brazzaville)	3
Burkina Faso	3
Benin	3
Mali	2
Burundi	2
Syria	1
Swaziland	1
Madagascar	1
Chad	1
Total	483





Postgraduate Training courses /Master

Since 2012, CRASTE-LF has agreed its post-graduate training in partnership with the faculty of sciences of Mohammed V University in f Rabat and the Agronomic and Veterinary Institute Hassan II

Each Training Session takes place in 2 phases / in four (04) semesters



Phase I : in CRASTE-LF, theoretical and practical courses, land study and pilot project.



Phase II: achieve the Research Project in their institution (their countries).



End of phase II : Defense of Memoire in the Centre



Postgraduate Training courses



UNOOSA

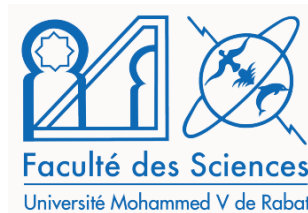


المدرسة المحمدية للمهندسين
Ecole Mohammadia d'Ingénieurs



Royaume du Maroc

Ministère de l'Enseignement Supérieur,
de la Recherche Scientifique et de l'Innovation



Faculté des Sciences
Université Mohammed V de Rabat



الوكالة المغربية للتعاون الدولي
AMCI



Office National des
Œuvres Universitaires,
Sociales et Culturelles





Postgraduate Training courses /Master

Theoretical class - practical work



in the centre (CRASTE-LF)





Postgraduate Training courses /Master

Field trip



in the field

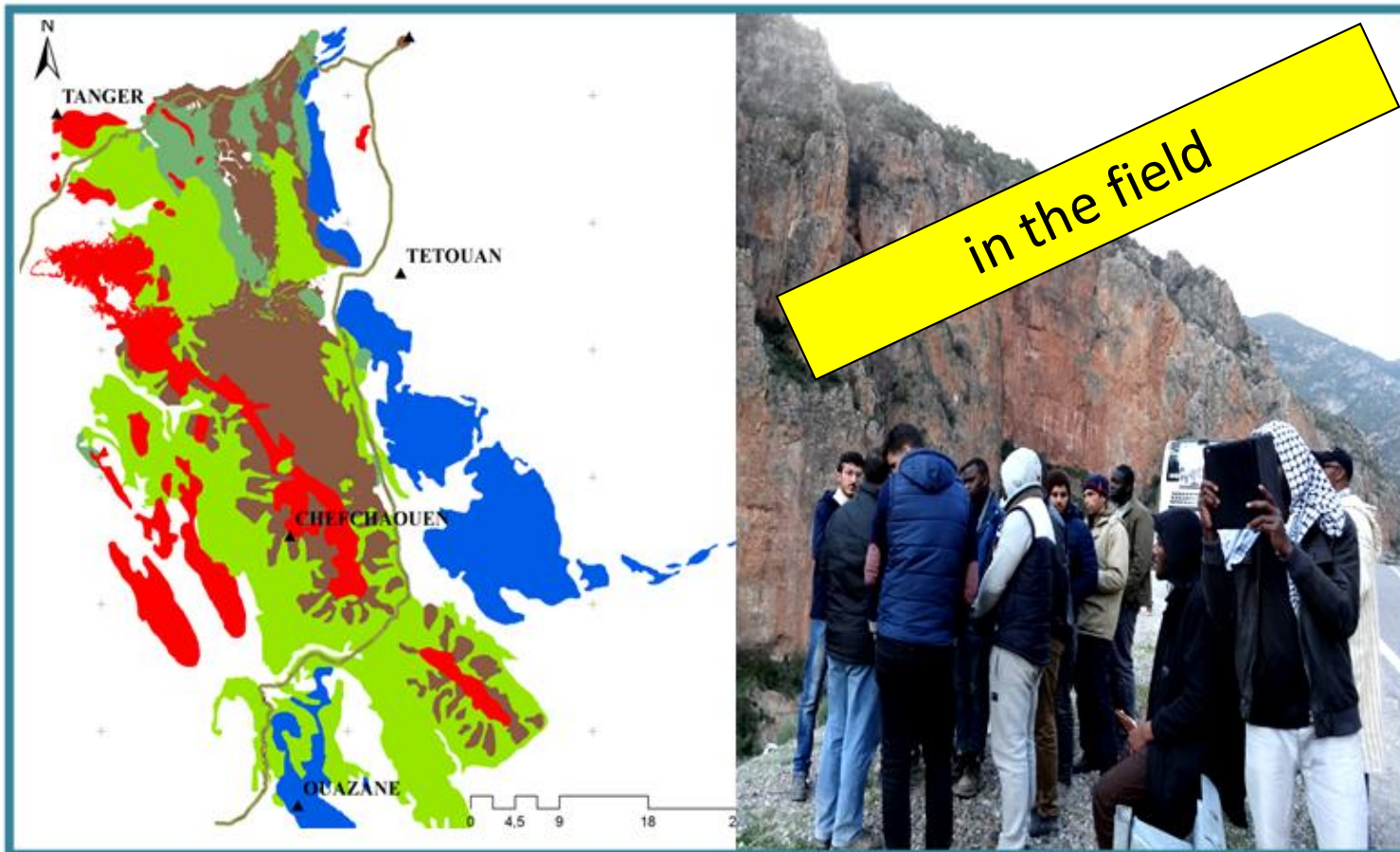




Postgraduate Training courses /Master

Field trip

- Géologie du Rif Occidental : coupe Chefchaouen – Oued Laou





Postgraduate Training courses /Master

Field trip

Port industriel Tanger-Med



in the field



Postgraduate Training courses /Master

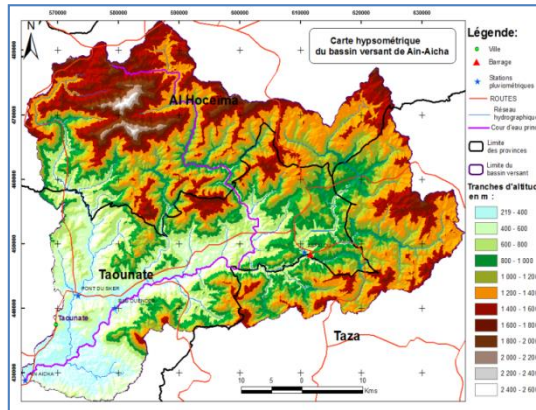
Participation in scientific events



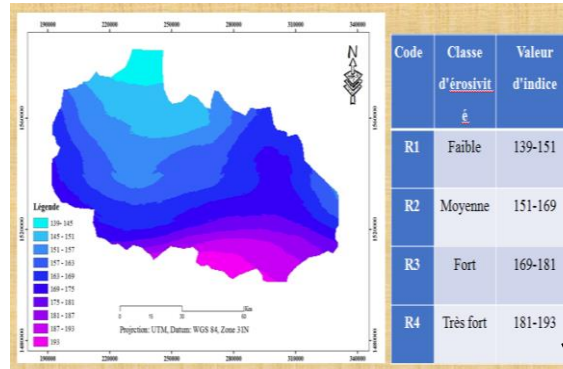


Postgraduate Training courses /Master

Master's Defense



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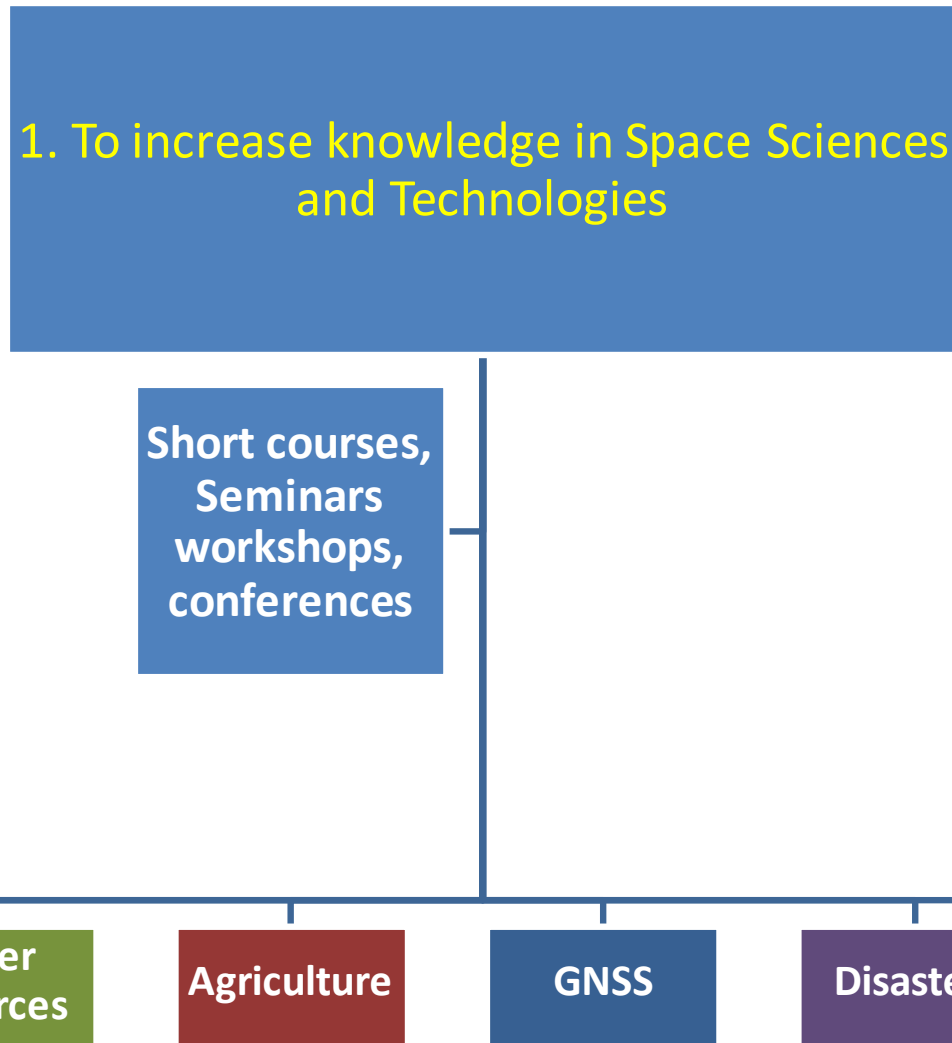


The defenses of memories





Short courses, Seminars, Workshops and Conferences

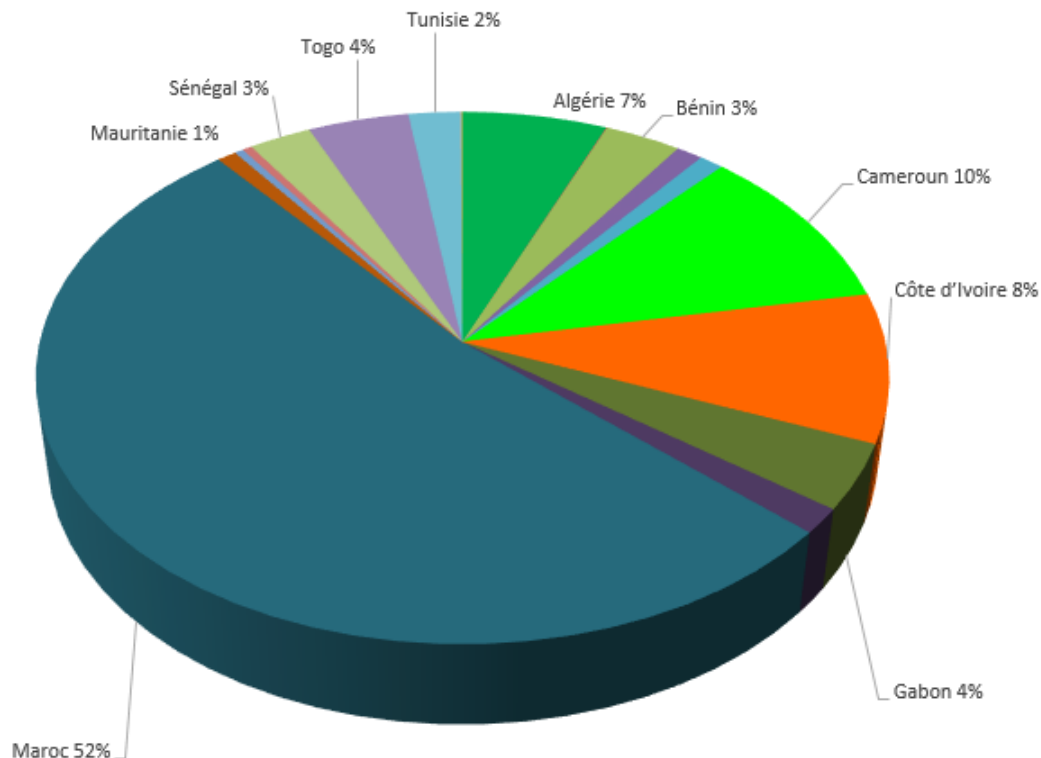




Short courses, Seminars, Workshops and Conferences

Since 2000
45 activities
3143 *trainees*
61 *Countries*

Country	Nb
Morocco	1160
Cameroon	334
Cote d'Ivoire	253
Algérie	183
Niger	150
Togo	133
Tunisia	125
Gabon	124
Senegal	93
Benin	85
Burkina Faso	69
Mauritania	66
Guinea Conakry	50
Centrafica	23
RD Congo	11
Congo	10
Total	3143





Short courses, Seminars, Workshops and Conferences

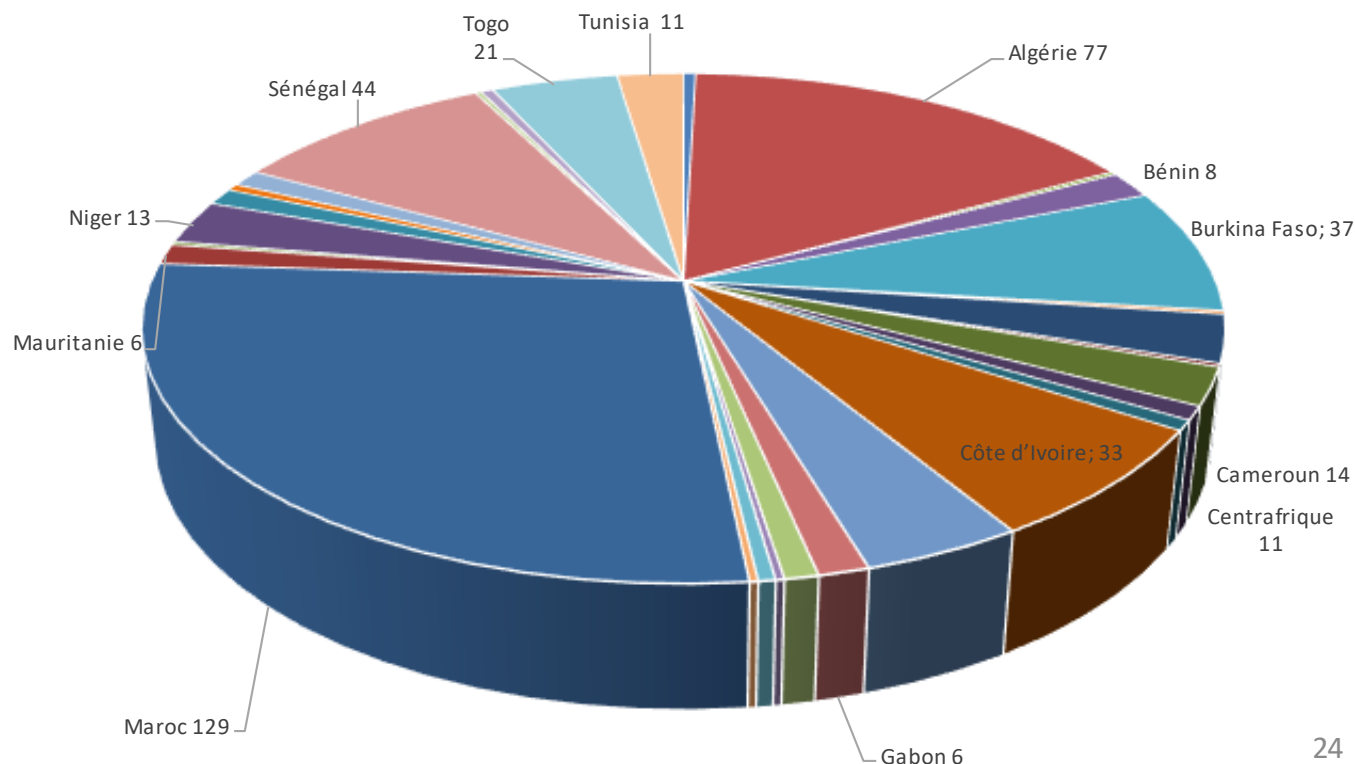
Étiquettes de lignes	Nb
Morocco	129
Algeria	77
Senegal	45
Burkina Faso	37
Cote d'Ivoire	33
Togo	21
Cameroon	14
Niger	13
Centrafica	11
Tunisia	11
Benin	8
Gabon	6
Mauritania	6
Nigeria	5
Guinea	4
Conakry	4
Congo	3
Afrique du Sud	2
Madagascar	2
RD Congo	2
Chad	2
Total général	465

GNSS activities

11 GNSS activities

465 trainees

29 Countries





Short courses, Seminars, Workshops and Conferences

CNDT-MINRESI (Yaoundé, Cameroon)



**45 participants
3 Countries**



Short courses, Seminars, Workshops and Conferences

CURAT-UFHB (Abidjan, Côte d'Ivoire)



90 participants
6 Countries





Short courses, Seminars, Workshops and Conferences

Lomé University (Togo)





Short courses, Seminars, Workshops and Conferences

AGEOS (Libreville, Gabon)

Workshop Régional sur «La télédétection multi-échelle au service du développement durable : du satellite au drone TMDD» tenu à Libreville-AGEOS (Gabon), du 3 au 6 juillet 2017.



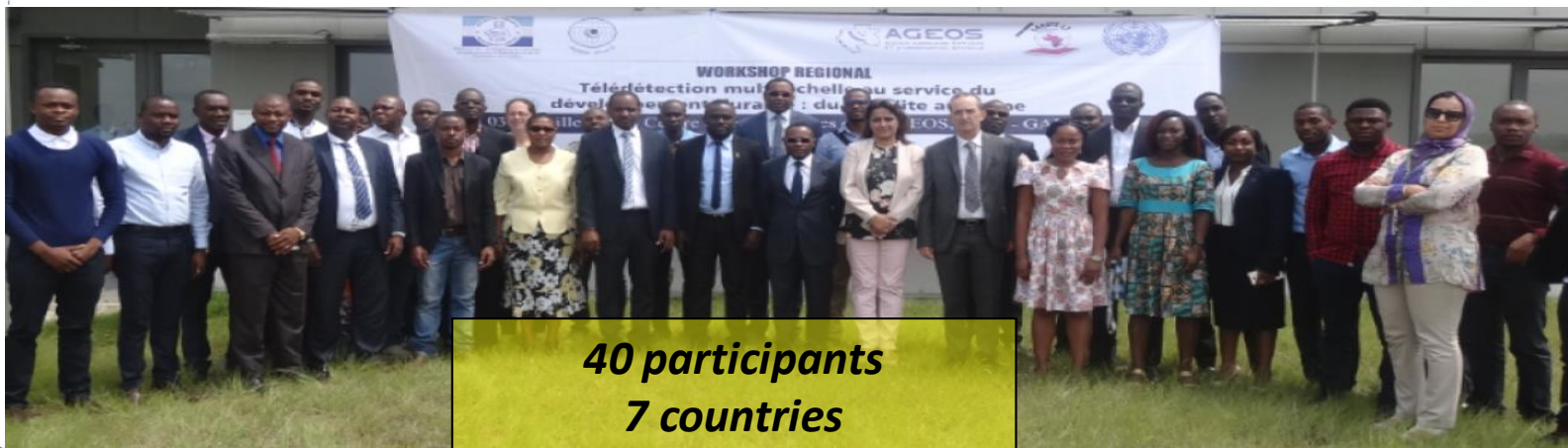
MESRSFC GABON



AGEOS
AGENCE GABONAISE D'ÉTUDES
ET D'OBSERVATIONS SPATIALES



CRASTE-LF



**40 participants
7 countries**





Short courses, Seminars, Workshops and Conferences

EMI (Rabat, Morocco)

Formation de courte durée sur «Les traitements GPS appliqués à l'ionosphère» tenue à Rabat
(Maroc), du 16 au 20 janvier 2017.



21 participants
5 Countries





Short courses, Seminars, Workshops and Conferences

Short Course : 'Global BeiDou Satellite Navigation System (BDS)'

EMI (Rabat, Morocco)



36 participants - 8 Countries



Formation de courte durée sur le
Système Mondial de Navigation par
Satellite BeiDou (BDS)

Rabat, Maroc 23 - 26 avril 2018

[Détails](#)



Short courses, Seminars, Workshops and Conferences

EMI (Rabat, Morocco)



25 participants
5 Countries





Short courses, Seminars, Workshops and Conferences in 2018

Regional Workshop : 'GNSS : Foundation and Applications'

(Ouagadougou, Burkina Faso) 9-12 /07/2018



Systèmes Mondiaux de Navigation
par Satellite (GNSS)
Fondements et Applications

Ouagadougou, Burkina Faso, du 9 au
12 juillet 2018

Détails



Short courses, Seminars, Workshops and Conferences in 2018

Regional Workshop : 'GNSS- Augmentation par satellites (SBAS)'

JPO (Dakar, Senegal) 13-15/11/2018

EGNOS in Africa - JPO

Funded by the European Union

ATELIER REGIONAL
Dakar (Sénégal), 13 - 15 Novembre 2018

SYSTEMES MONDIAUX DE NAVIGATION PAR SATELLITES - AUGMENTATION PAR SATELLITES (SBAS)

Partenaires du CRASTE-LF

AMCI ONOUCS

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*Seminar & Workshop :
35 participants – 7 countries*





Short courses, Seminars, Workshops and Conferences

UFHB (Givenchy, Côte d'Ivoire)

**49 participants
12 Countries**

Formation de courte durée «3^{ème} édition de l'école de météorologie de l'espace - IMAO 2017»
tenue à Abidjan (Côte d'Ivoire), du 16 au 28 octobre 2017.

Sous le Haut Patronage du Ministère de l'Enseignement Supérieur et de la Recherche
Scientifique de la République de Côte d'Ivoire





The dissemination of CB



- By putting data and educational resources created in the scientific events on the CRASTE-LF website crastelf.org.ma:

crastelf.org.ma

Centre Régional Africain des Sciences et Technologie de l'Espace en Langue Française

Affilié à l'ONU

Accueil Formation Conseil d'administration Produits OT

Formation

Le programme de formation du centre est orienté vers la diffusion des connaissances dans le domaine des sciences et technologies de l'espace. Initialement, le centre devra offrir un enseignement en profondeur, un programme global de formation et les bases des projets pilotes, une formation continue, une perception et évaluation des programmes. Ce programme bénéficiera des spécialistes et professionnelles touchant la technologie spatiale.

Le centre offre des cours de formation pour les universitaires, chercheurs, administrateurs et techniciens des domaines suivants:

1. **Télédétection et système d'information géographique**
2. **Télécommunications par satellite**

Produits OT

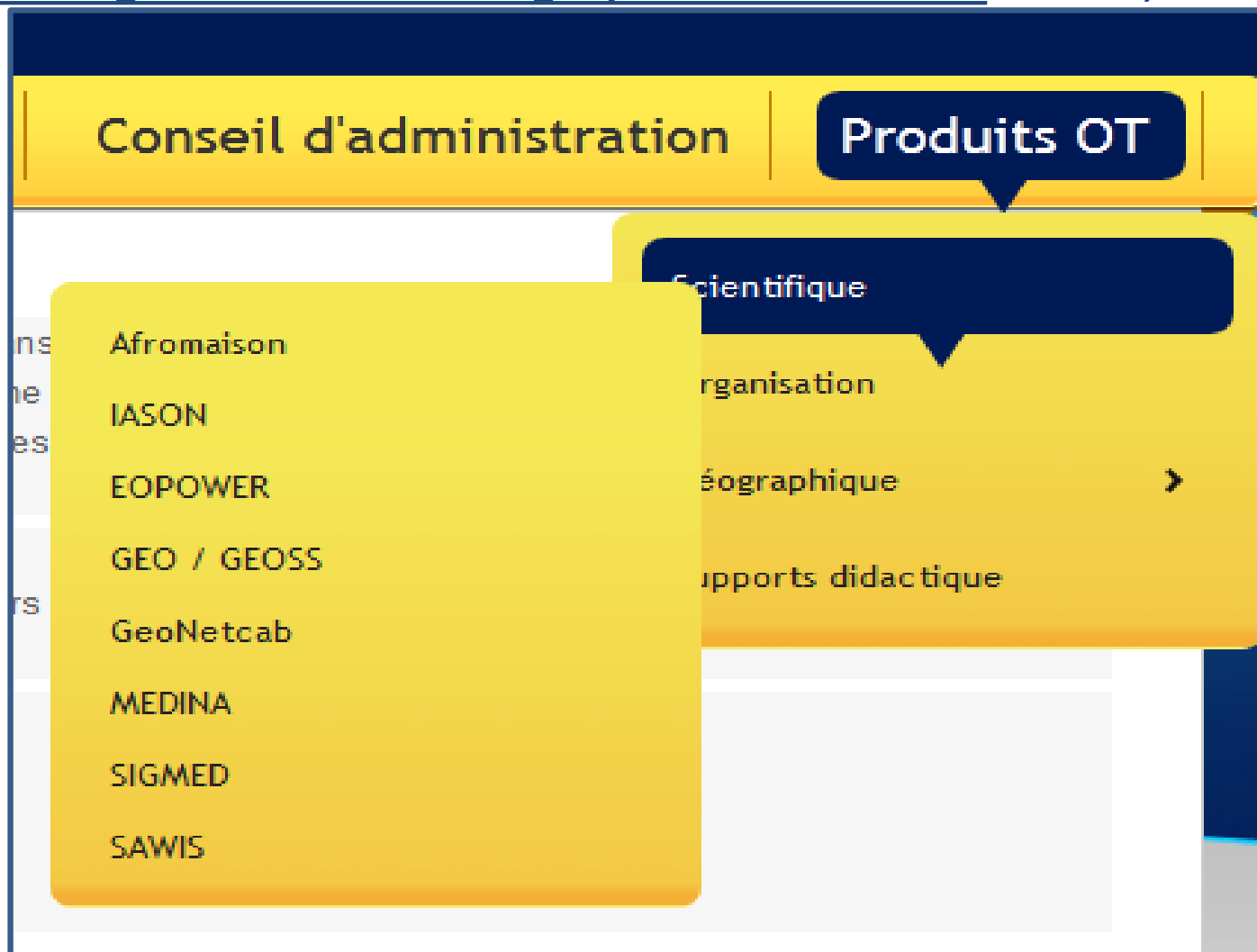
- Scientifique
- Organisation
- Géographique
- Télécharger d'images satellitaires
- Logiciels libres pour SIG
- Antenne ICG
- Antenne LANDSAT

the crust is trying to conduct a data dissemination policy adapted to the region





- By establishing the link with other geoportals such as the GEOCAB, GEOSS etc



- By developing Open Geoportal Data



Approche Spatialisée de l'Impact des activités agricoles au Maghreb sur les transports solides et les ressources en Eau De grands bassins versants

ENGLISH FRANÇAIS

HOME PROJECT **DATA AND GIS** PICTURES

You are here: [Accueil](#) > [Data and GIS](#) > The maps

The maps

SIGMED GEPORTAL (Bouregreg Success Story - Morocco)

MAPS C

The **contour of the basin**, click on:

Administrative divisions click on:

Pedology, click on:

vegetation click on :

The **hydrographic network** click on:

Geology click on :

Bouregreg Sub-basins click on:



Participation in some Research Program by promoting for development in the African countries



participation in several funded projects





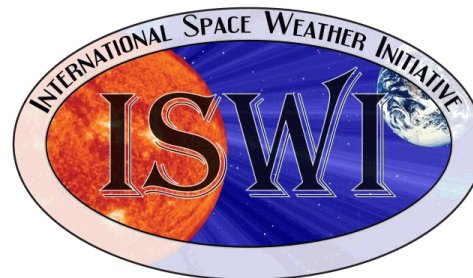
Cooperation

International

Regional and International organisations



UNOOSA



Centres Régionaux

CSSTE-AP - **India**

CSSTE-EL - **Nigéria**

CRECTEALC - **Mexique**

RCSSTEWA - **Jordanie**

RCSSTEAP - **Chine**



**Alliance des Centres
Régionaux affiliés à l'ONU**





Cooperation

International

Regional and International organisations





Cooperation

National

National organisations and institutions



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Thank you

