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UNESCO Science for Sustainable Development

UNESCO's Hydro Free and/or Open-source software Platform of Experts (HOPE) initiative

United Nations Educational, Scientific and Cultural Organization · International Hydrological Programme

UN WATER World Water Day 2013 International Year of Water Cooperation

HOPE - INITIATIVE .net for Africa

Dr. Youssef Filali-Meknassi \ UNESCO

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CATALYSIS

Responding to the urgent need for action in Africa stressed by:

- The 4th Annual International Conference on ICT for Africa (2012)
- The 23rd Annual Teaching and Learning Innovations Conference (2010)

Africa should adopt **free and/or open software**
to make ICT accessible to all
to support development and help to build a sustainable future

Thus, UNESCO initiate, in 2012, the HOPE project:
Hydro Free and/or **O**pen-source software **P**latform of **E**xperts (**HOPE**) initiative

ICT: Information and Communication Technologies

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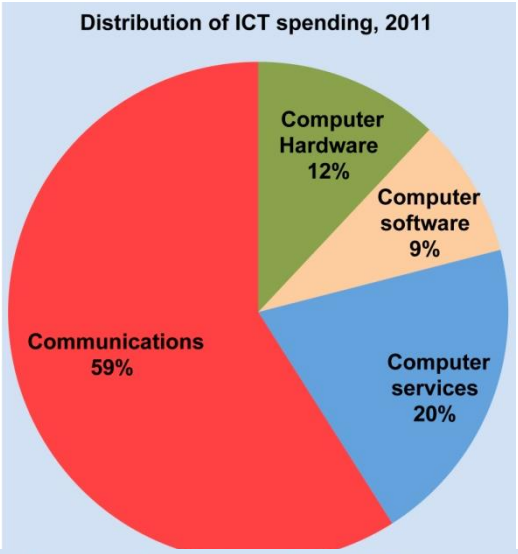
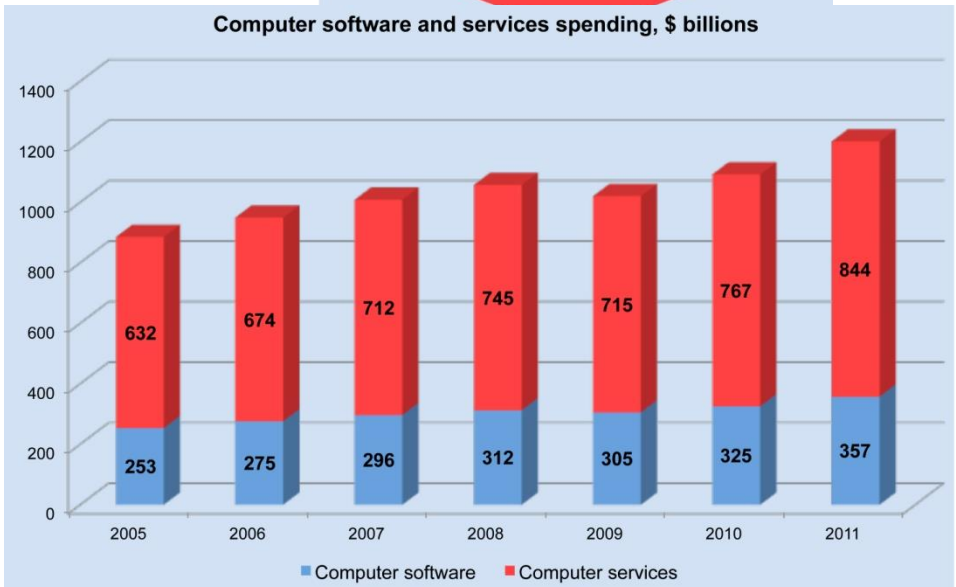
WHICH PLACE IN THE ICT SECTOR?

- In 2011, estimated amount spending on computer software and services = USD$1.2 trillion
- Proportion of computer software and services overall ICT spending ≈ 30%
- Spending on computer software and services ≈ 2% of GDP





Solid growth and more resilient than other ICT sectors

GDP: Gross Domestic Product

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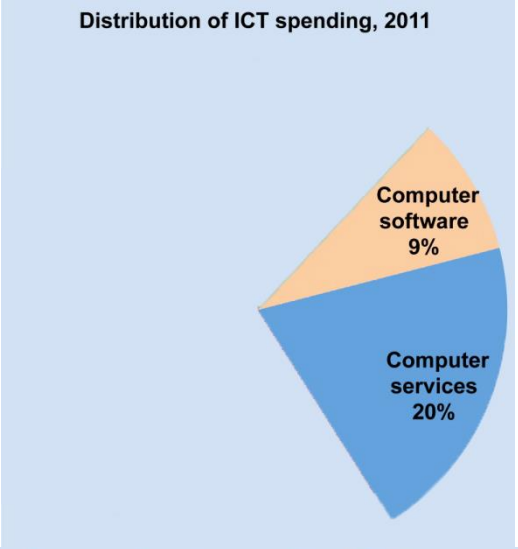

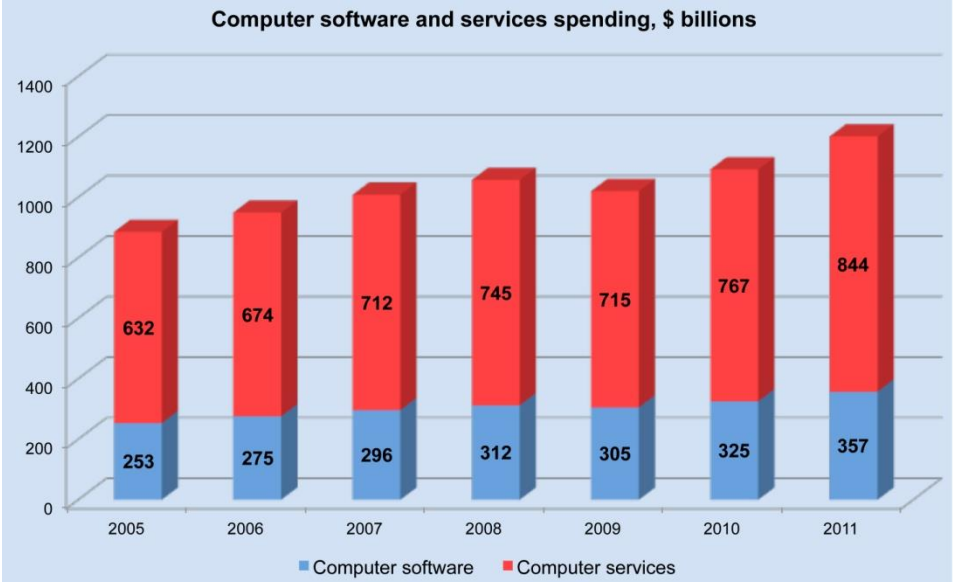

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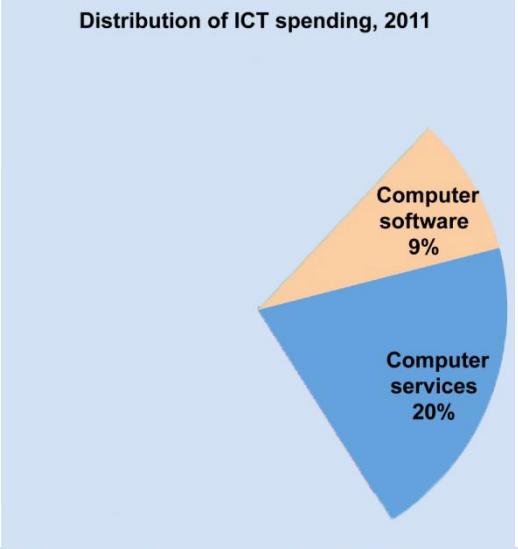

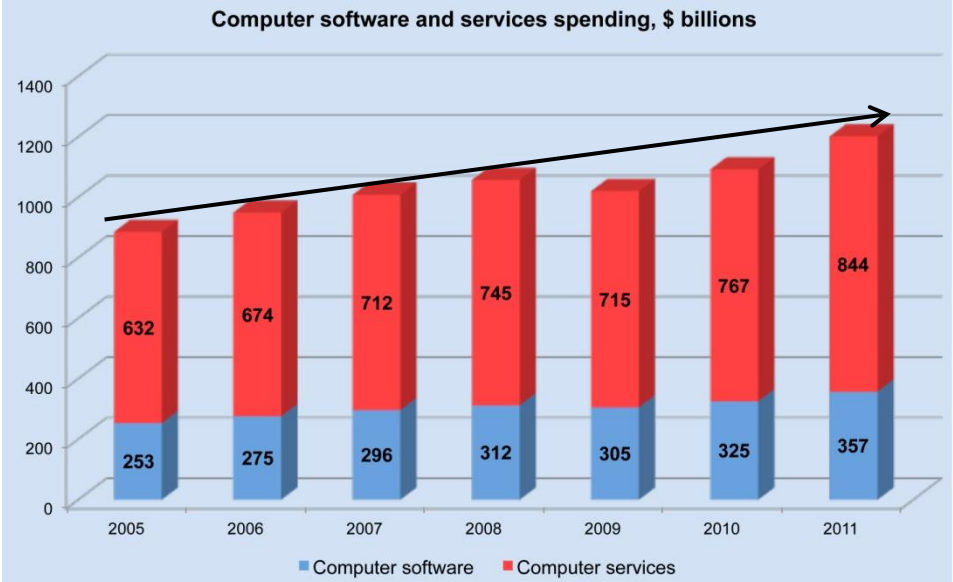

Solid growth and more resilient than other ICT sectors

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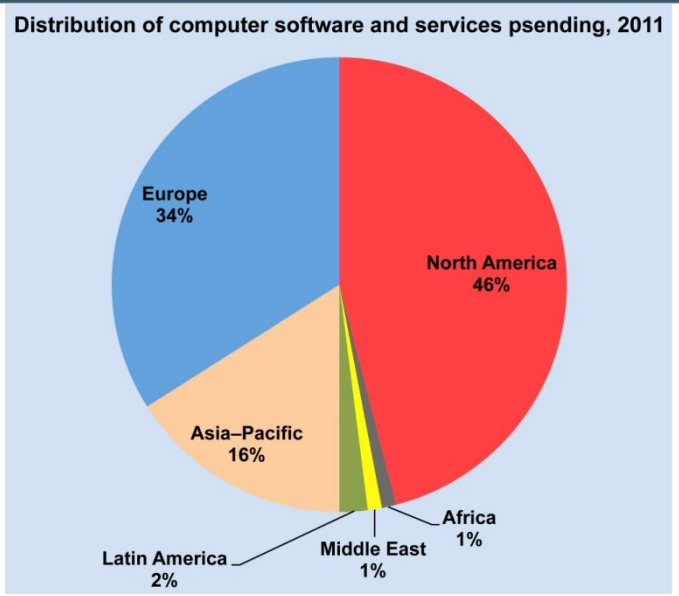
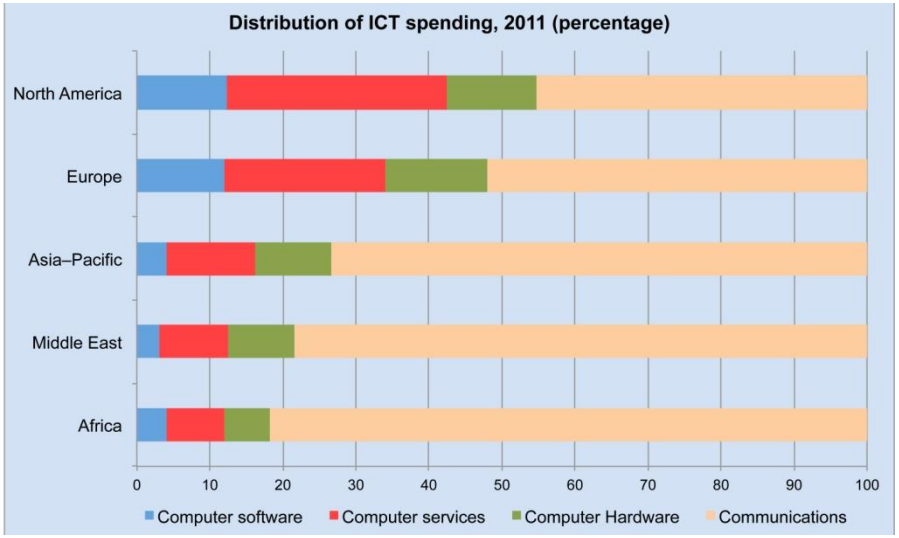
What About Developing Regions?

- In 2011, spending in the developing regions of Africa, Latin America and the Middle East
  = 4%, well below their share of world GDP (10%)

➡ Scope for increasing the size of the computer software and IT services use

➡ Growth is indeed much higher in these economies





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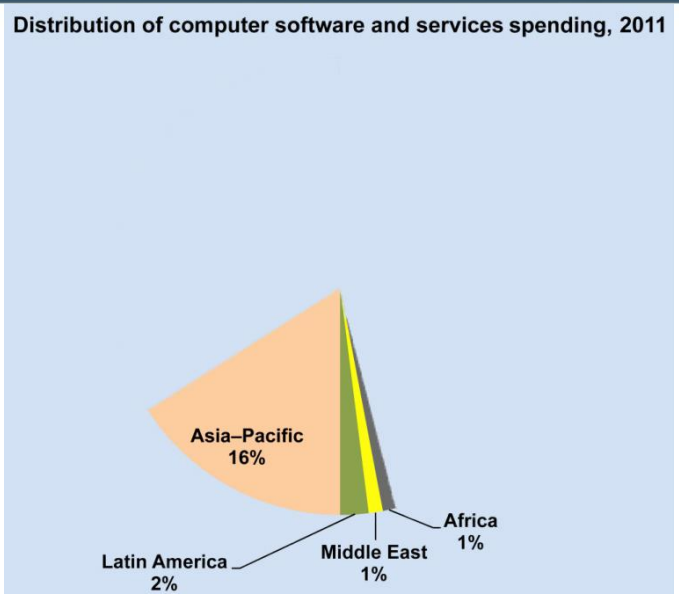

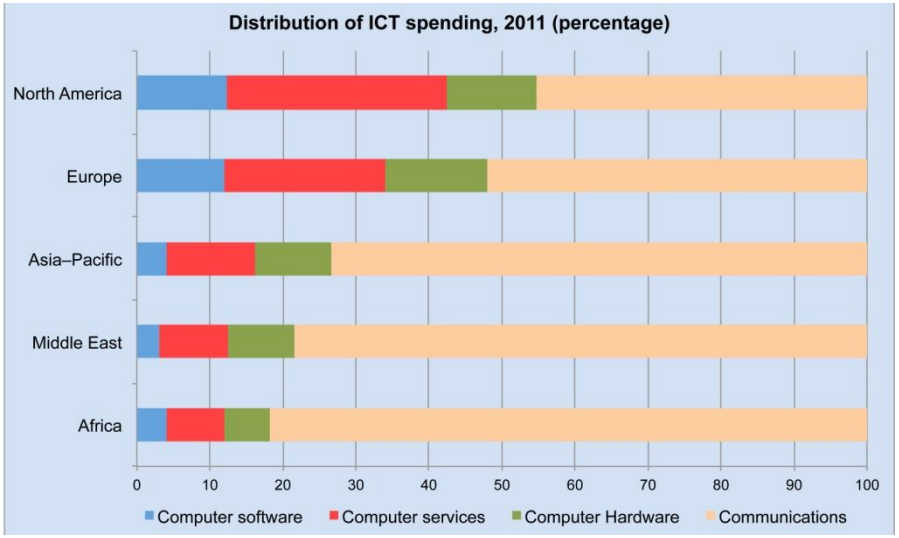

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What About Developing Regions?

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Scope for increasing the size of the computer software and IT services use

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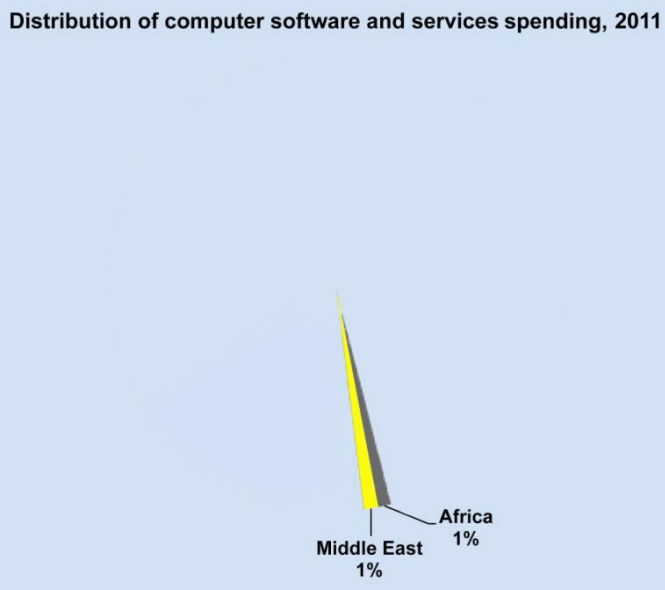

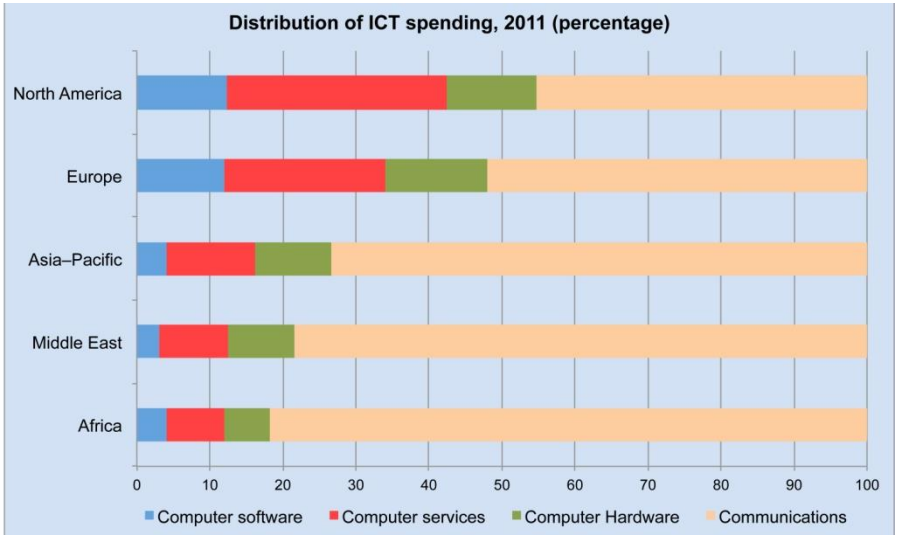

GDP: Gross Domestic Product

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MAIN BARRIERS

Barrier	Developed economies	Asia-Pacific*	LAC**	Middle East and Africa	Transition economies	All regions
Limited capabilities in domestic software/ IT services companies	13	38	45	43	50	34
Lack of qualified human resources	63	63	55	43	75	56
Limited access to venture capital	63	50	73	86	75	66
Weak demand among private enterprises for software and IT services	25	25	18	57	50	29
Lack of government procurement of software and IT services	13	50	45	71	50	44
Limited demand from export markets	13	25	18	29	25	22
Inadequate protection of intellectual property rights	25	25	27	14	—	22
High rates of software piracy	—	13	45	29	25	24
Unfavourable general business climate	13	13	27	14	50	20

**Excluding West Asia, ** Latin America and the Caribbean*

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Open Source Policy Initiatives (2000-2009)

- Considerable regional variation
- Europe, the most active region, with 46% of all initiatives and 51% of approved initiatives
- Among developing regions, Asia is the front-runner (80 initiatives) followed by Latin America (57) and Africa (9)

	Approved	Proposed	Failed	Total
Europe	126	27	10	163
Asia	59	20	2	81
Latin America and the Caribbean	31	15	11	57
North America	16	11	10	37
Africa	8	1	—	9
Middle East	5	2	—	7

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**Excluding West Asia, ** Latin America and the Caribbean*

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How?

Through the International Hydrological Programme (IHP), the only intergovernmental programme of the UN system devoted to water research, water resources management, education and capacity building.

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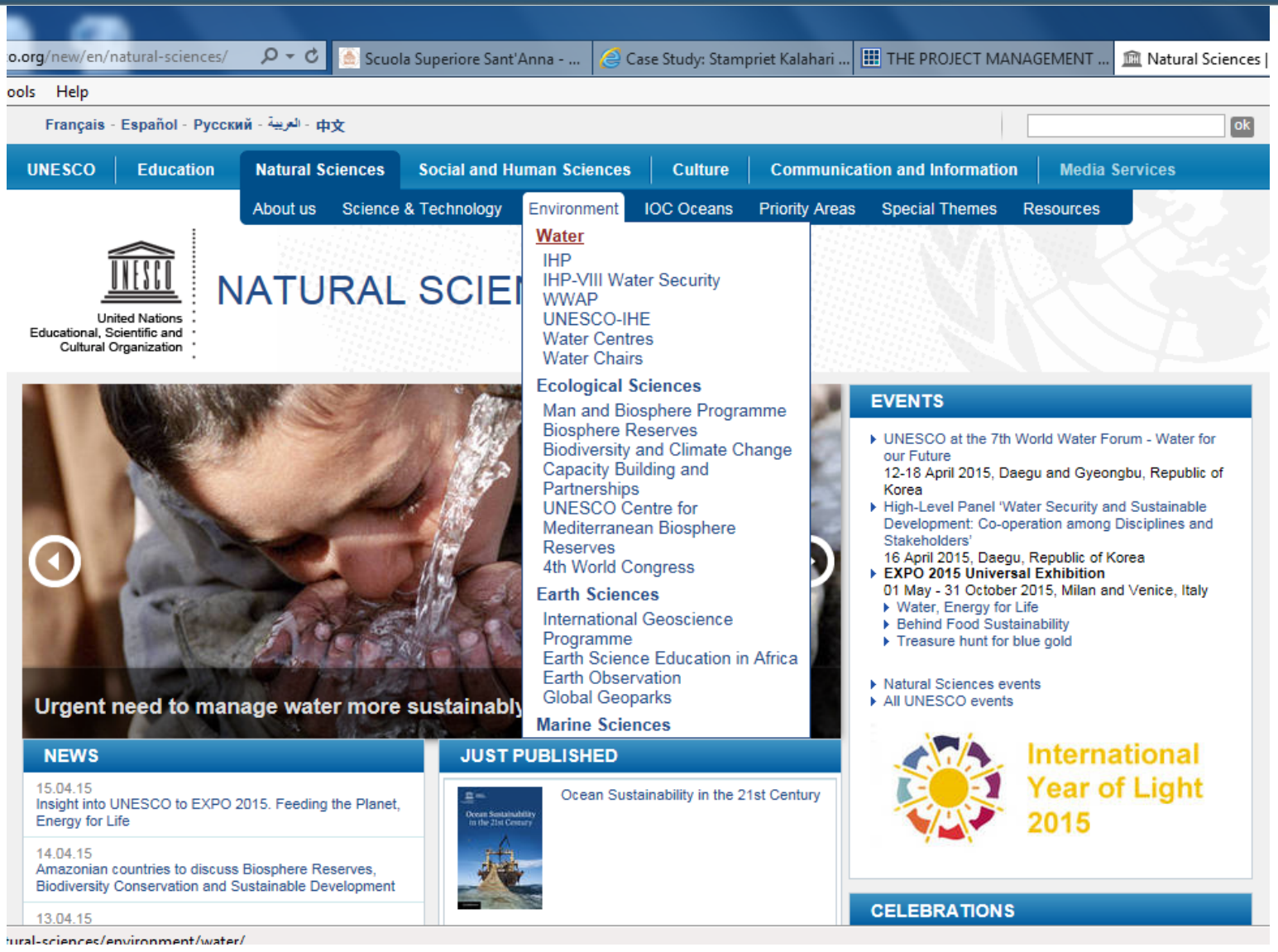
How?



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How?

Celebrations of the 70th anniversary of UNESCO

50 years

International Hydrological Programme

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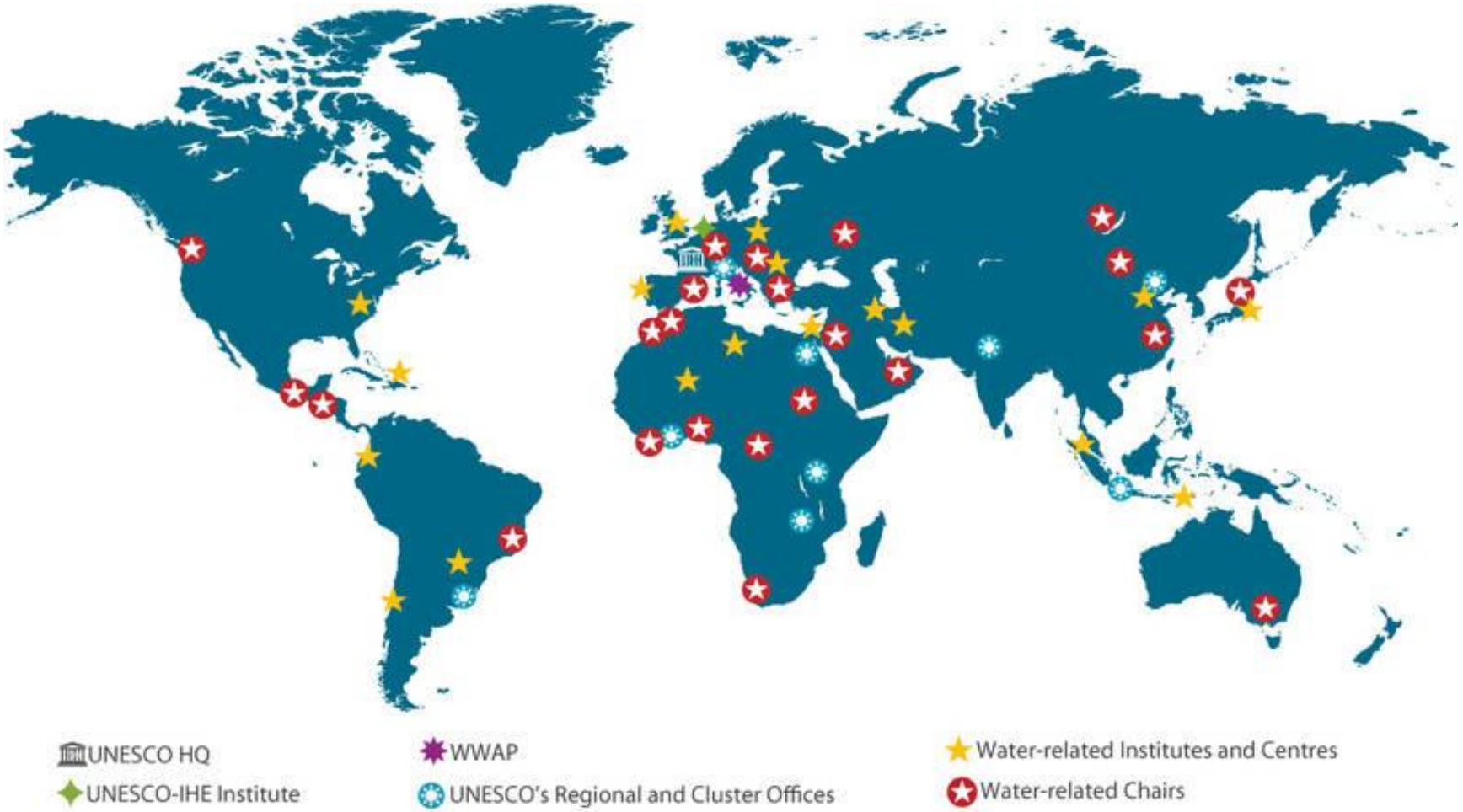
How?



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How?

Field Offices

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How?

Field Offices

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STRATEGIC PLAN

IHP-VIII focuses on six thematic areas to assist Member States in their challenging endeavor to better manage and secure water and to ensure the necessary human and institutional capacities. These are:

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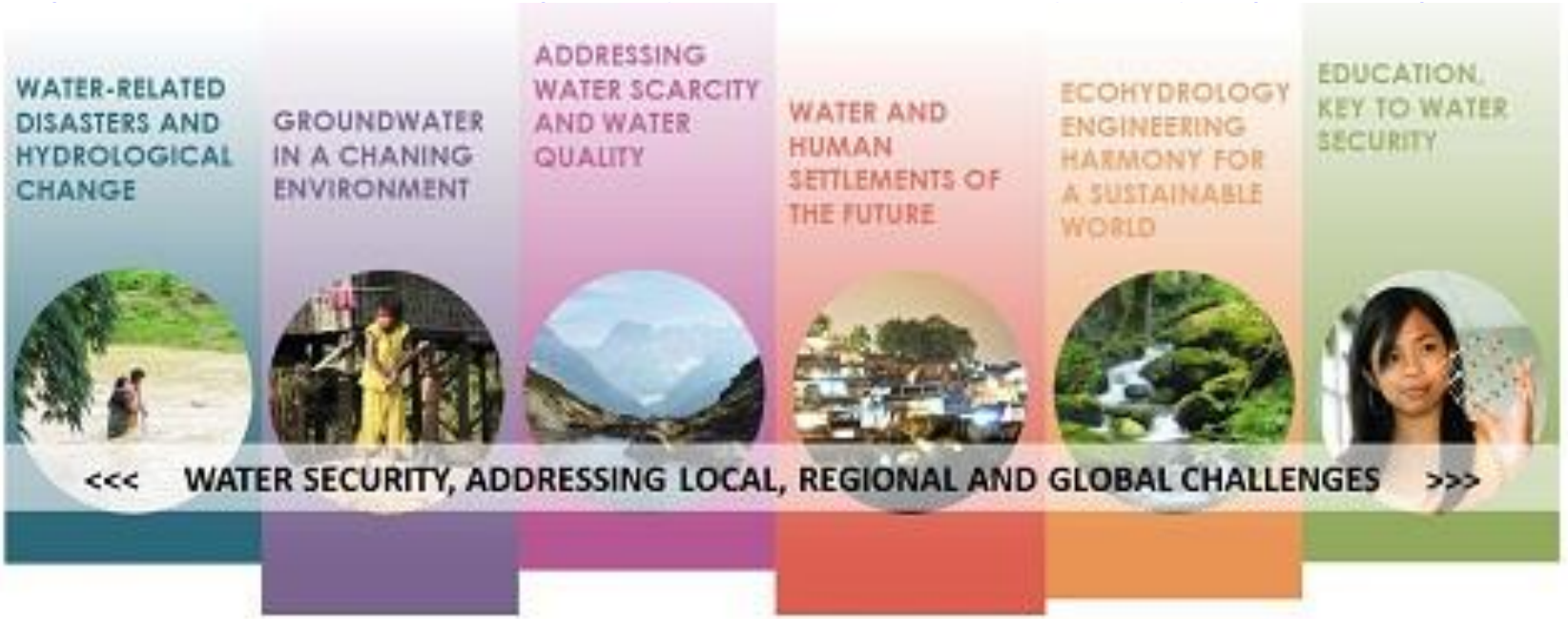

STRATEGIC PLAN

IHP-VIII focuses on six thematic areas to assist Member States in their challenging endeavor to better manage and secure water and to ensure the necessary human and institutional capacities. These are:

- *Theme 1: Water-related Disasters and Hydrological Changes*
- *Theme 2: Groundwater in a Changing Environment*
- *Theme 3: Addressing Water Scarcity and Quality*
- *Theme 4: Water and Human Settlements of the Future*
- *Theme 5: Ecohydrology, Engineering Harmony for a Sustainable World*
- *Theme 6: Water Education, Key to Water Security*

PROPRIETARY SOFTWARE *VS.* FOSS

A dire need exists for affordable and accessible specialized software in engineering in developing countries:

- As most of software applications are **not affordable** for low-income and middle-income economies
- It increases the **digital divide**, the gaps and barriers the world, especially when it comes to the engineering curricula.

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HOPE INITIATIVE

- The UNESCO's Hydro Open-source software Platform of Experts (HOPE) is a free **and/or** open source software platform, targeting experts that can assist African water authorities, teachers, university lecturers and researchers to elaborate water management models.

- HOPE is a set of organizations (e.g. universities, institutes, centers) and practitioners committed to open development through the use of ICTs. The UNESCO's HOPE features are four core resources: People (including knowledge - Hu/W), Tools (material, information – H/W), Procedures (S/W) and Management.

Hu/W: Human Resources;

H/W: Hardware;

S/W: Software

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HOPE'S OBJECTIVE

OVERALL OBJECTIVES [OUTCOME] Member States/Institutions (Universities, Colleges, Water Departments)/People (Water professionals, Students, etc.) are developing (innovation)/using Open-Source Software in the effective management of water resources in their respective countries.

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VISION!

The HOPE initiative will be contributing to the Africa Water Vision for 2025: Equitable and Sustainable Use of Water for Socio-Economic development .

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OUTPUTS

OUT-1: Appropriate Platform infrastructures and, or facilities for hosting open-source software for water management (the HOPE Platform) are in place, operational, well maintained, and their correct use actively promoted [Hardware];

OUT-2: Policies: procedures, rules and regulations for the development, contribution/selection and acceptance, maintenance and use of the open-source software for water management (OSSWWM); Plus: A collection of suitable OSSWWM is in place and actively promoted [Software];

OUT-3: People in the water sector in Africa have increased awareness, knowledge and skills in the use of open-source software for water management (the HOPE Platform). [Human ware];

OUT-4: The HOPE initiative is efficiently and effectively managed. [Management].

OSSWWM: Open Source Software for Water and Wastewater Management

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THE STATUS OF THE IMPLEMENTATION

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THE STATUS OF THE IMPLEMENTATION

UNESCO's Hydro free and/or Open-source software Platform of Experts (HOPE)

The 2nd OpenWater symposium and workshops – September 16-17, 2013

Published on: July 26, 2013 | Author: adminLeave a comment

The 2nd OpenWater symposium and workshops – September 16-17, 2013 The OpenWater symposium aims at sharing experiences, tools, training materials and model codes applicable in the water domain. Several open source tools are emerging and initiatives are currently taken to initiate open standards and interfaces. OpenWater will be organised as a series of invited presentations,... More »

Categories: Events, FOSS, Hydrology | Bookmark

UNESCO adopts open access policy for its publications

Published on: July 12, 2013 | Author: adminLeave a comment

UNESCO has become the first agency of the United Nations to adopt an Open Access policy for it publications, following a decision of its Executive Board [Click here].

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Ambassador FOSS Hydrology policy Survey UNCTAD water

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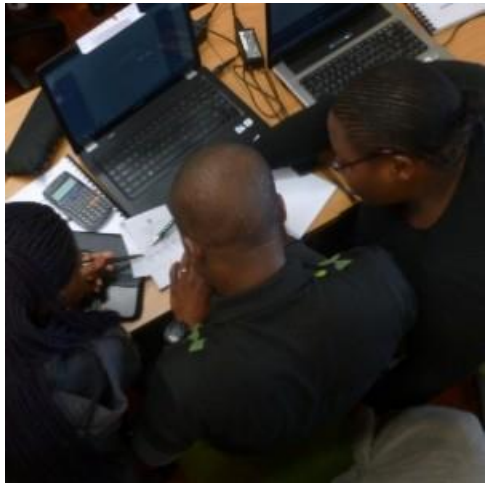

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For more details visit :
http://www.hope-initiative.net/

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