



**‘HydroMAOC’
definition study for a
comprehensive capacity
building Project**

CBSC14 – Abu Dhabi (UAE) – May 2016

Background - Context

- Revision of the IHO CB strategy
 - *Offers new perspective for CB projects and funding opportunities*
- MOWCA-IHO-EAtHC workshop on hydrography (Pointe-Noire, nov 2013)
 - *Emphasizing on the need of a specific approach for capacity building project*
 - *Regional approach (mutualisation)*
 - *Comprehensive (i.e training, practising, equipment, organization...)*

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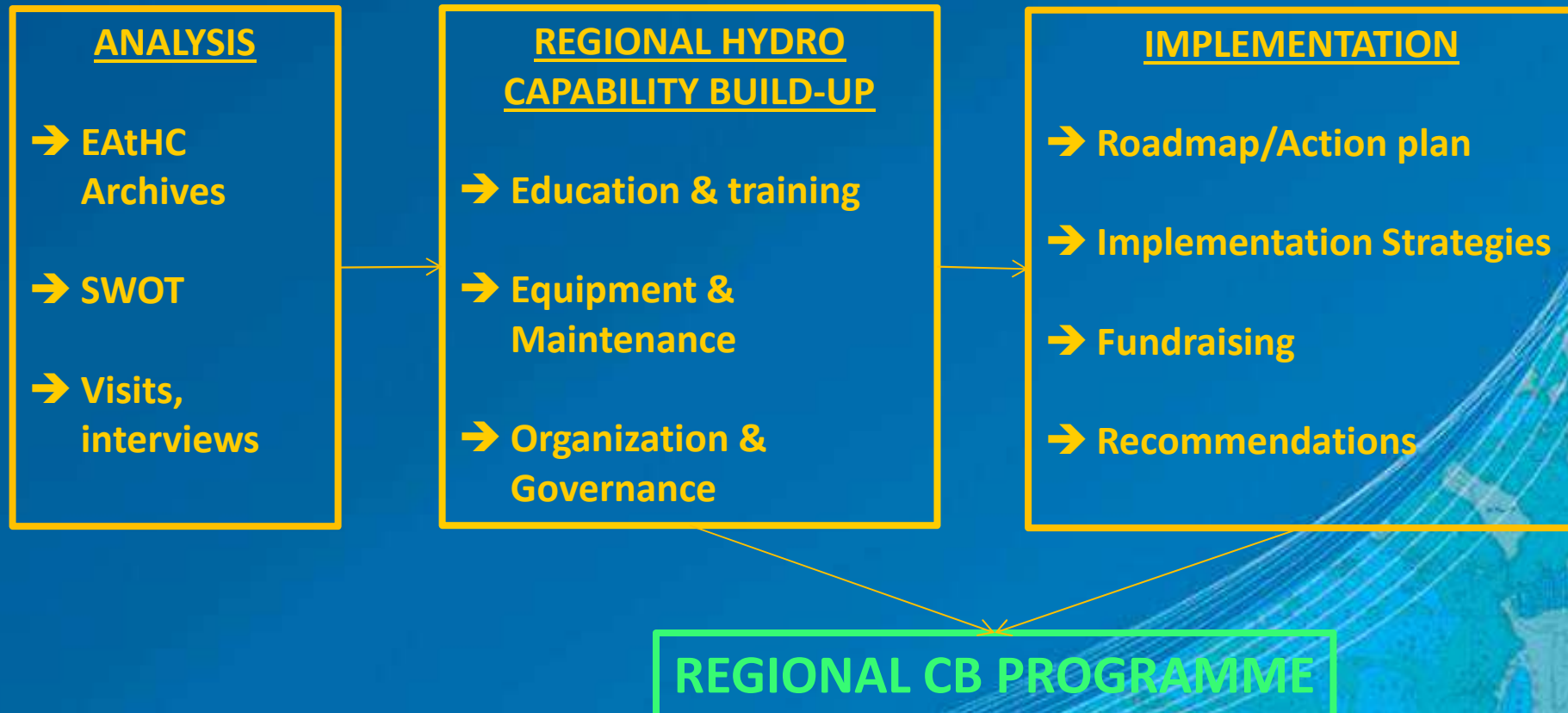
Background - Context

- CBSC12 (France, May14)
 - proposal of a definition study for a comprehensive CB Project has been submitted by FR and approved by CBSC for CBWP 2015

To define how to conduct and implement a consistent set of actions to develop hydrography in West and Central Africa.

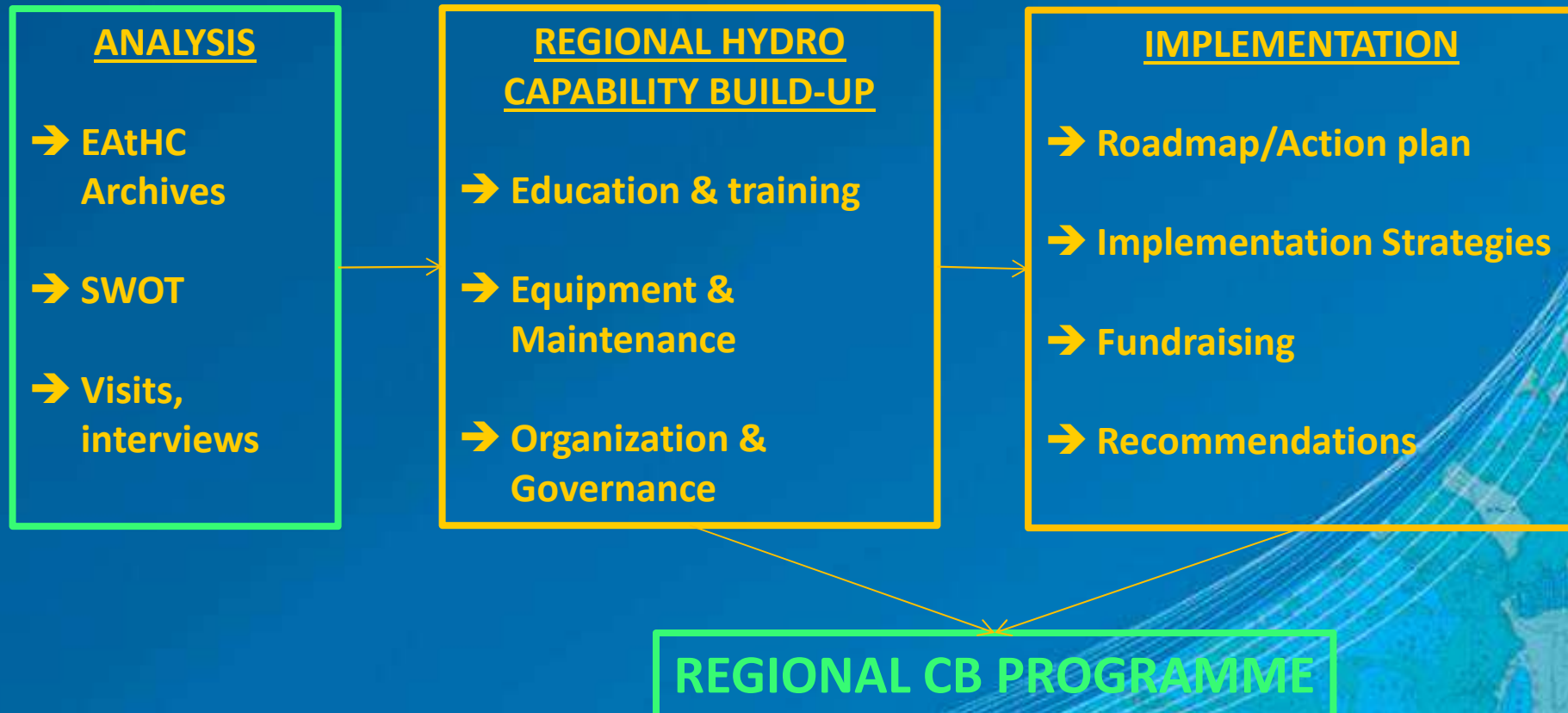
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Overall approach



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EAtHC archives, On site Visits

- EAtHC archives review

- *Coastal States awareness status knowledge*
- *Older regional initiatives:*
 - *West African Action Team reports (2001-2002)*
 - *Former CHARMER, CACAO regional projects (2000's)*

- On site visits

- *Narrowed sample of EAtHC coastal States to visit*
 - *2 non-IHO MS: 1 francophone (CI), 1 anglophone (GH)*
 - *1 IHO EAtHC MS: Nigeria*

- *Visits to Cote d'ivoire (Sept 2015)*

Visit to Ghana incl. Nigeria (March 2016)

ADB Group workshop (Paris, April 2016)



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SWOT Analysis: Internal Factors

STRENGTHS (ORGANIZATION)

- IHO standards and Publications and bodies,
- IHO capacity building strategy and funds.

WEAKNESSES (ORGANIZATION)

- IHO member-centric CB initiatives,
- De facto transfer of African States' SOLAS obligations to European states,
- IHO unawareness from African high level decision makers (Low proportion of African coastal States in IHO membership/political leverage from IHO African coastal states representatives),
- Lack of Regional integration to address CB issues.

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SWOT Analysis: External Factors

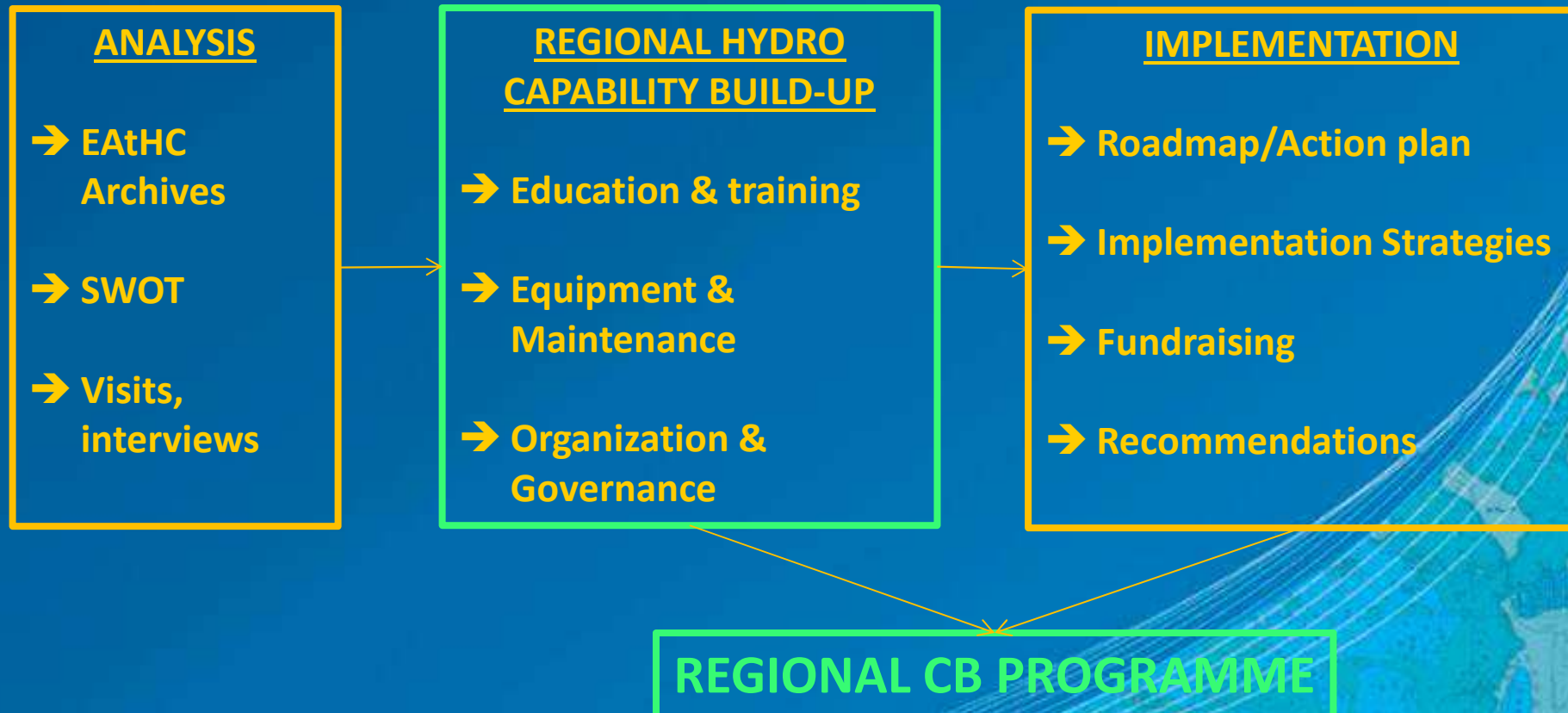
OPPORTUNITIES (ENVIRONMENT)

- Awareness of the African Union and regional bodies on maritime safety issues (MOWCA-IHO MoU on safety of maritime navigation),
- African development assistance funding sources,
- Perspectives of Africa's Blue Economy growth,
- Global awareness on climate change and environmental resilience,
- Rapid advances of ICTs (information and communication technologies),
- Existence of recognized regional maritime educational centres and universities.
- Development of the use of satellite data

THREATS (ENVIRONMENT)

- 'Blue World' matters vs. International funding organizations' thematic,
- Governance and integration of Regional bodies (Piracy & illegal trafficking growth, Multiplicity of maritime geospatial data holders).

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Hydrographic Capacity Definition



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Hydrographic Capacity Build-up

Education
& Training

Equipment
&
Maintenance

Organization
& Governance

Hydrographic Capacity

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	Education & Training	Equipment & maintenance	Governance & organization
Surveying	<ul style="list-style-type: none"> ➤ Surveyors/Operators ➤ Electronic experts ➤ IT experts 	<ul style="list-style-type: none"> ➤ Deployable Equipment ➤ Software/CPU ➤ Tide/GPS stations 	<ul style="list-style-type: none"> ➤ R/N Framework ➤ Consolidated procedures
Charting	<ul style="list-style-type: none"> ➤ Cartographers (Land?) ➤ MSI experts ➤ SDB experts ➤ IT experts 	<ul style="list-style-type: none"> ➤ Software ➤ Database, IT network. 	<ul style="list-style-type: none"> ➤ Chart production plan (iaw PCA) ➤ Consolidated procedures
MSDI	<ul style="list-style-type: none"> ➤ GIS experts ➤ IT experts 	<ul style="list-style-type: none"> ➤ IT infrastructure ➤ GIS tools/web portal 	<ul style="list-style-type: none"> ➤ Marine Geospatial Data Policy ➤ Portal hosting and management
Expertise	<ul style="list-style-type: none"> ➤ Maritime boundaries ➤ Survey specifications ➤ MSP 	<ul style="list-style-type: none"> ➤ Software/CPU ➤ Database, IT network. 	<ul style="list-style-type: none"> ➤ Connection with other admin/bodies
Structure	<ul style="list-style-type: none"> ➤ Local tutors (MOOC) ➤ Local trainers 	<ul style="list-style-type: none"> ➤ Maintenance framework ➤ Facilities 	<ul style="list-style-type: none"> ➤ R/N Survey Programme ➤ MSI organization

Education & training

- E-learning courses
 - Awareness thematic >> Expertise thematic
 - Supported by tutor network >> local tutoring
- Roving courses
 - 'Blended' F2F/MOOC sessions
 - Training of local trainers
 - Synchronized with the provision of deployable equipment pool
- Locally based courses:
 - Role of regional maritime academies (ARSTM, RMU)
 - Integration in existing courses
 - >> Creation of dedicated course.
 - Basic training >> Skill maintenance

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PRÉSIDENCE DE LA RÉPUBLIQUE

Equipment & maintenance

▪ E-learning material (MOOC)

- *Based on IHO certified courses >> unique reference*
- *Large spectra: Awareness >> Technical*
- *MOOC platform management + maintenance*

▪ Regional Maritime Geospatial GIS tool

- *Based on existing maritime geospatial data*
- *Collaborative web services, Regional MSI portal role*
- *Management/Maintenance: remote >> local*
Potential local host: MOWCA's CINFOCOM (Abidjan)

▪ Survey/Charting equipment

- *Synchronized with training phases*
- *Assistance Maintenance framework*

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Access to Maritime Geospatial Data



DATA.SHOM.FR

Information géographique maritime et littorale de référence

[Nous contacter](#) | [Aide](#) | [FR](#) | [EN](#)

[Remonter une information](#)

The screenshot displays the DATA.SHOM.FR web application interface. On the left, there is a sidebar menu with several sections:

- Limites maritimes** (Maritime Limits):
 - Zones SAR
 - Zones de surveillance
- Base de données maritimes et littorales** (Maritime and Coastal Data Base):
 - Câbles et conduites (Cables and conduits)
 - Délimitations maritimes (Maritime delimitations)
 - Limites du plateau continental (Continental shelf limits)
 - Toponymie (Toponymy)
 - Trait de côte HISTOLITT® (HISTOLITT® coastline)
 - Trait de côte mondial (World coastline)
 - Épaves et obstructions (Shipwrecks and obstructions)
- Altimétrie littorale** (Coastal altimetry)
- Bathymétrie** (Bathymetry)

The main map area shows a satellite-style view of the Gulf of Guinea coastline. Overlaid on the map are several data layers:

- Green rectangular boxes with labels: FR373840, FR373830, FR373830, FR372570, FR372570, FR375880.
- Purple lines representing cables and conduits.
- Yellow and green shaded areas representing maritime zones.
- Text labels 'GULF OF GUINEA' and 'II - France' are visible on the map.

On the right side of the map, there are navigation controls: a set of four directional arrows (up, down, left, right) and two circular buttons with '+' and '-' signs for zooming. Below these is a small inset map of the world with a red rectangle highlighting the location of the Gulf of Guinea. At the bottom right of the map area, there are two logos: the SHOM logo and the GEBCO logo (General Bathymetric Chart of the Oceans).

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Governance & Organization

- Regional hydrographic assessment study
 - ➔ Past survey effort inventory
 - ➔ SDB regional assessment

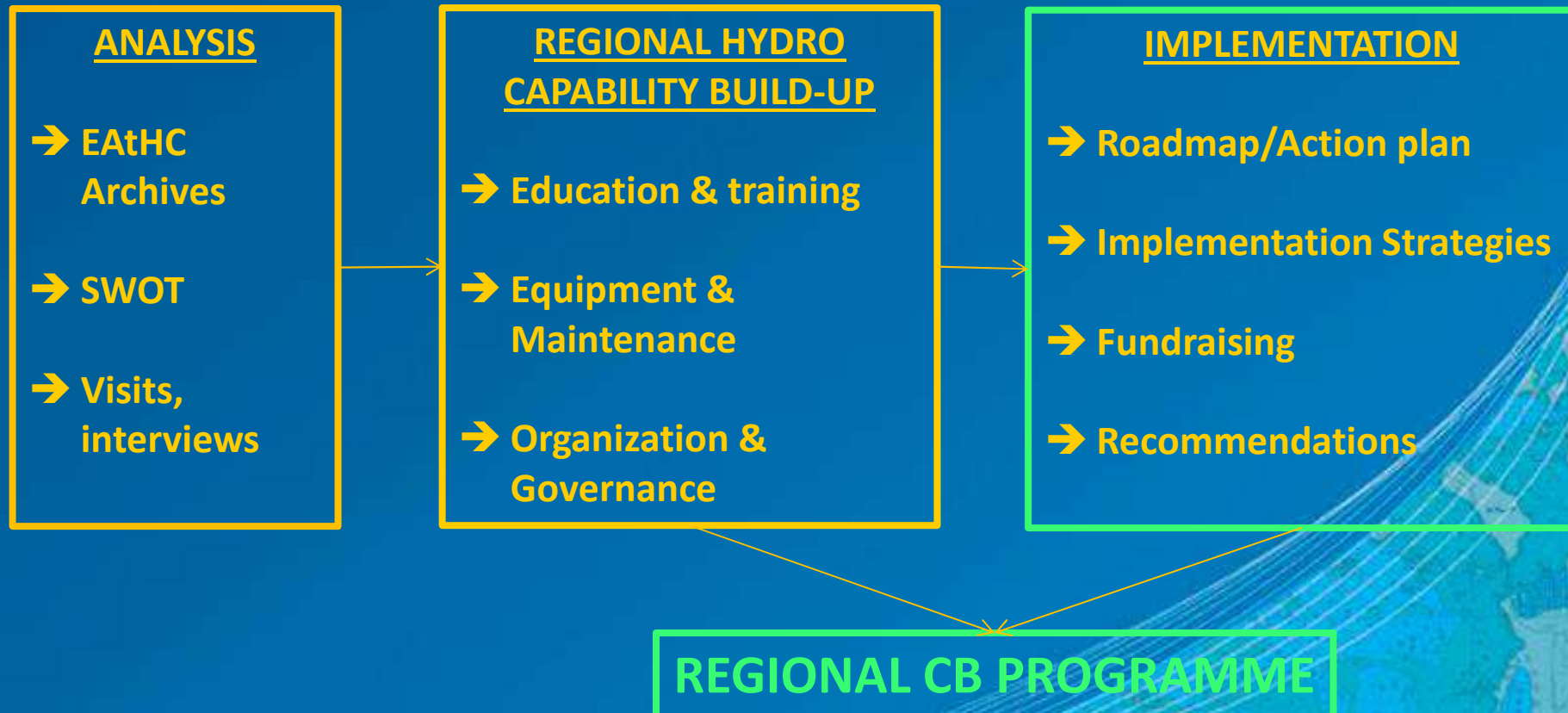
- Region survey programme (RSP)
 - ➔ Development of a regional multi-criteria algorithm
 - ➔ Issue of a regional survey programme based on algorithm results
 - ➔ Provision of initial guidance for implementation

- Provision of consolidated procedures
 - ➔ Synchronized with training and equipment provision
 - ➔ Covering MSI, survey acquisition, chart production

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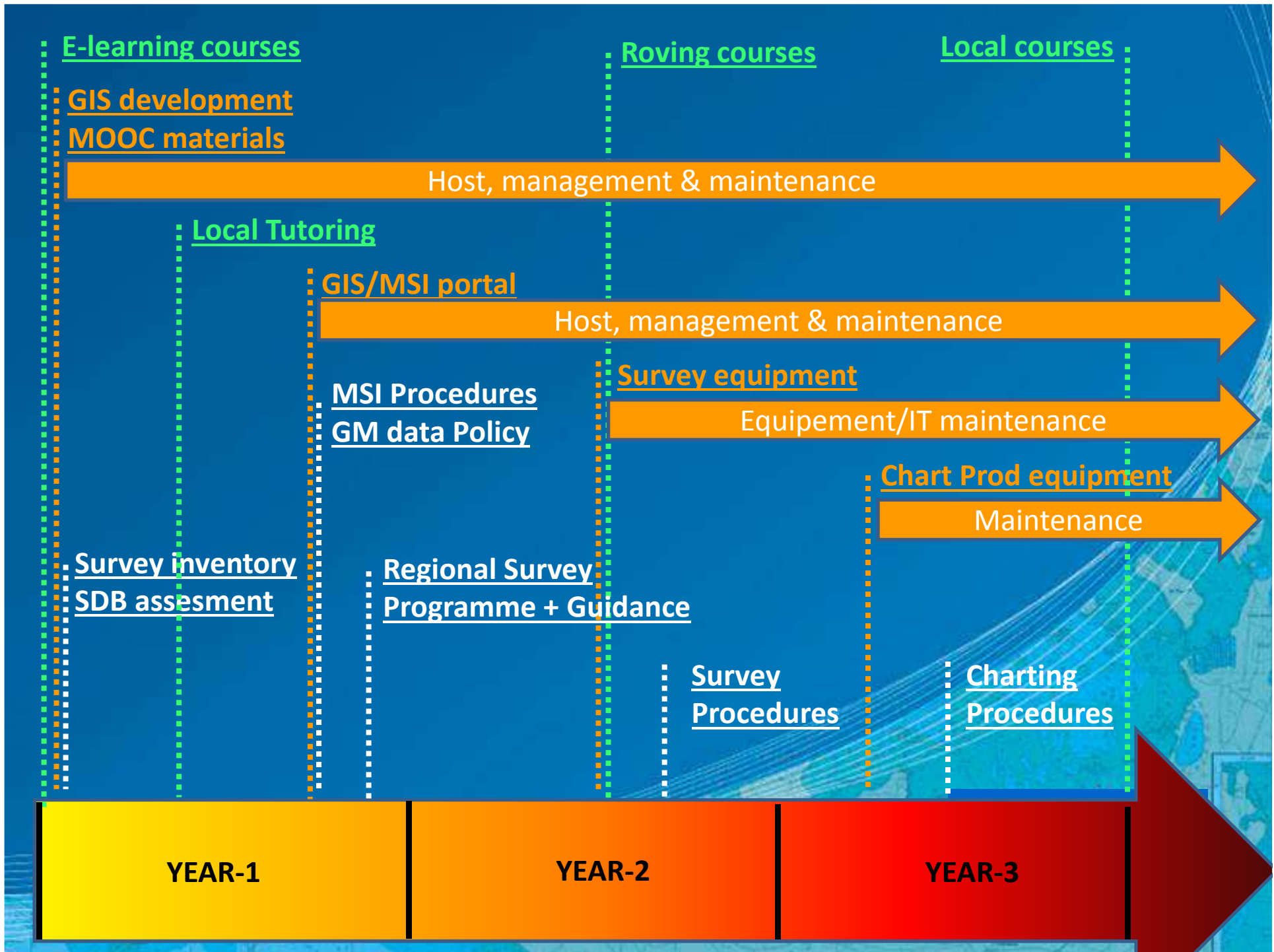


Overall approach



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Potential risks

- The estimated cost of that regional hydrographic capacity:
10-15 Millions Euros (€)
- The inconsistency of the learning approach;
 - *Thematic choice, MOOC pedagogic approach , apprenticeship*
 - *E-learning economic model*
- The sustainability of the equipment pool;
 - *Wise choice of equipment and tools*
 - *Synchronization between provision and training*
 - *IT/electronics expert training considered*
 - *Maintenance framework (lease? loan?).*
- Implementation of a regional survey programme
 - *Survey specifications >> contractors*
 - *Local capacity >> survey work*

Fundraising

▪ International & regional funders

World Bank, African Development Bank Group, Western African Development Bank, Islamic Development Bank, European Union (EDF), IHO, IMO, UN.

▪ National funders

AFD (FR), UK Trade & Investment (UK), AICEP (PT), Chinese Development Bank (CN), EAtHC coastal States.

▪ Corporate and private funders

Oil and Gaz, Maritime transport & infrastructures, Hydrographic Industry, Marine renewable energy

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Implementation strategies (1/2)

▪ Regional implementation

→ Funding: International/regional

→ Implementation in regional/national integration policy & strategy documents

→ Requires support from coastal States

→ Long term strategy (ADB's RIPoS = 10 years!)

▪ National implementation

→ Funding: International/regional/national

→ Target high potential coastal States

→ 'Snowball effect' leverage

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Implementation strategies (2/2)

▪ Thematic implementation

→ Funding: International/regional/national

→ Identify 'maritime' areas of concern

Blue Economy, Maritime Safety, State action at sea, Environment

→ Connect them with hydrographic related projects

Blue Economy: Marine Renewable energy site study

Maritime Safety: Maritime highways

Environment: Sea level observation network

State action at sea: MSP, maritime boundaries



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What's next?

- Promote the concept of a comprehensive CB project to high level political deciders/international regional bodies/potential funders
- Improve the consideration of maritime issues in International funders policies & strategies
- Support E-learning resources development to improve access to awareness and practical topics
- Build-up a E-learning economic model to generate some revenues and reduce costs.
- Harmonize African RHC's CB programmes

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Questions?

Thanks you for your attention
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