

Master Plan of GEBCO outreach Program

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Master plan of GEBCO outreach program

Background

- Paolo Lusiani reviewed the outreach programs in 2011
- presentation and discussion in GEBCO meeting in 2013, led by Paolo Lusiani, Hyo Hyun Sung and Eunmi Chang
- Hyo and Eunmi prepared the documentation about the Roadmap for GEBCO outreach Program

Outreach means the activity of making people aware of the work that you do and the products and services that you provide

Outreach plays an educational role raising the awareness about existing services

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Theme 1

Current Status Reviews and Analysis of Environment

- . Objects: Globes, maps, derived maps produced by GEBCO and members, grid data sets
- . Activities: meetings, documentation and uploading to GEBCO site
- . Clients: those who do not know about GEBCO, International organizations, nations, local governments, business sectors, education sectors

Method 1

Information Strategy Planning Method

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Theme 2

- Vision and Strategy Setting via SWOT analysis
- . Define strong points and weak points
 - . Define opportunities and threats
 - . Strategies

Theme 3

- List of activities based on GEBCO budget and voluntary work
- . Online and offline
 - . activities and products
 - . Long-term and short-term activities

Methods

5W1H method +
Information Strategy Planning Method

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Theme 4

- Prioritization and Cross-referencing
 - . Principles for priority
 - . Definitions of relationship
 - . 3 year short-term budget plan

Theme 5

- Expectations
 - . Quantitative and Qualitative effects
- Road maps for the activities and products

Methods

Paper works and email communications

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2013.GEBCO meeting resolution

Step1. consensus of need for Roadmap

Step2. Environment analysis (members, funds, organization, traditions, rules etc.)

Step3. Current situation analysis (ICT technical trend, user interests)

Step4. SWOT analysis

Step5. Vision and Objectives setting

Step6. Strategies and potential subprograms

Step7. Subprograms priority setting and inter-dependency analysis

Step8. Detailed plan for top 10 or top 15 Subprograms and budget plans

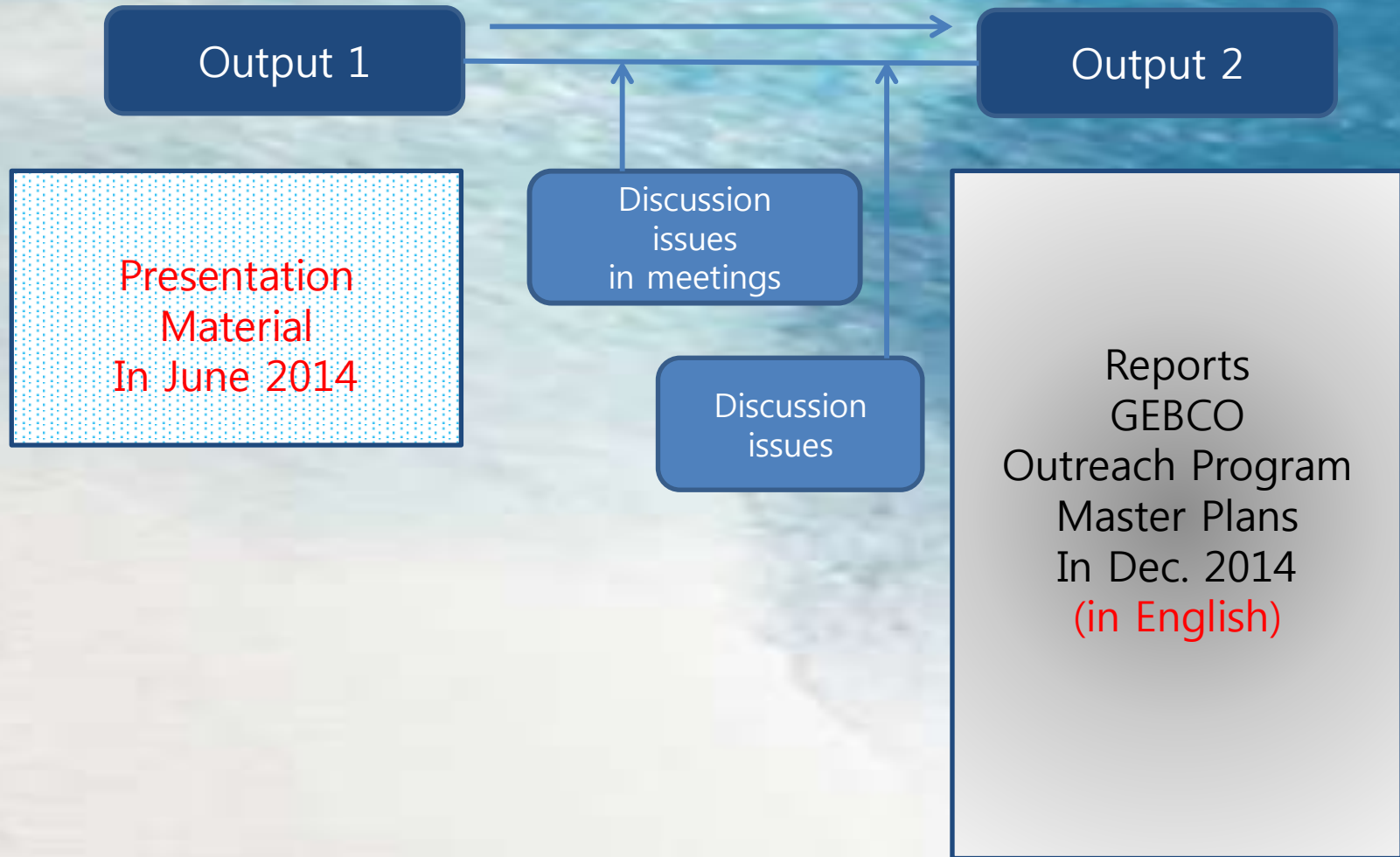
Step9. Implementation Strategy: outreach range, depth, methods, number of volunteers

Step 10. Organization support and declaration of Roadmap for outreach.

2014 GEBCO meeting: discussion

After 2014 GEBCO meeting

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From theme 1 to theme 5

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Previous work: Current Status of GEBCO outreach activities

GEBCO original products

- bathymetric maps of the world oceans, in paper and digital versions global grid of topography covering the entire world at a resolution of 30 arc-seconds
- Gazetteer of Undersea Feature Names
- Under Development....Regional Undersea Mapping programmes – grids (printed maps) (S E Pacific, N Indian Ocean, Southern Ocean)

- 2011 Presentation material
Lusiani

- Waterproof A3 GEBCO map
 - GEBCO Globe

- 2013 Presentation material
Eunmi and Hyo

- Web-cartoons,
 - animation
- GEBCO-derived map
 - smart Globe

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Theme 1

Technical Environment Analysis

1. Social problem-solving ICT

Innovative business models replace ad-driven campaigns in emerging markets

With technology innovation hubs springing up across the continent, technology communities within many developing countries are gaining access to state of the art facilities, events, mentorship and training; making it more likely that they'll devise impactful solutions.

Early ICT successes that relied on service delivery and civic mapping are creating an appetite among developers and civil society organizations to confront power through public information.

2014, I predict that machine to machine (M2M) technology will be important for ICT for development as it reaches critical mass.

We will see improved food security and increased agricultural yields, rural education transformed, disease outbreaks detected, mothers sent vital information, and all of this done by sophisticated systems that take advantage of a basic mobile phone.

The 750m girls and women around the world who don't have phones, but can afford one designed for them and at the right price.

<http://www.theguardian.com/media-network/media-network-blog/2013/dec/04/ict-for-development-trends-2014>

What about the meanings to GEBCO outreach

More education chances via mobile phones and smart phones and vulnerable groups
Mapping environment is crucial to solve social problems, even in the sea

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Theme 1

Technical Environment Analysis

2. Key success factors in information technology market

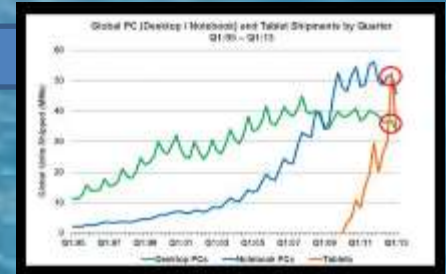
Highlighted competition for platform leadership
-competition and collaboration
on multiple fronts

Changing consumer behaviors - growing
importance of UI and UX

Growing importance of content - content differ
entiation and development of exclusive
Content

Evolving business models - development of ne
w value-added services and business models

PC-> NOTEBOOK-> mobile
devices



Mobile device Diversity and Management
Mobile Apps and Applications
The internet of things
Hybrid Cloud and IT as Service Broker
Cloud/Client Architecture

The Era of Personal Cloud
Software defined Anything
Web-scale IT
Smart Machines and **3-D printing**

2014 ICT Industry Outlook of Korea

Gartner Group, 10 trends technology and strategy

Meanings to GEBCO outreach

Google or any other platform for the standardized bathymetric data platform.
It is necessary for GEBCO outreach group to consider adapting UI and UX and 3D printing to GEBCO products

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Theme 1

The vision of Outreach Program depends on the Mission of GEBCO itself.

GEBCO operates in affiliation with The International Hydrographic Organization (IHO)

"A subsidiary mission is the application of **hydrographic data to support science**, and to promote its use in geographic information systems..."

GEBCO operates in affiliation with Intergovernmental Oceanographic Commission – IOC (of UNESCO)

"The IOC assists Member States of the UN to address their individual and collective ocean and coastal problems through the sharing of knowledge, information and technology and through the co-ordination of national programmes."

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Theme 2

The SWOT of GEBCO are reflected on the SWOT of GEBCO outreach

Strengths

- Long Tradition over 100 years
- Support National and Inter national bodies
- Irreplaceable position

Weakness

- Not well known to public
- Largely relies on volunteers
- Limited travel funding
- Slow communication

- Development of cutting edge technology in survey and mapping
- More public interest in marine territories
- Open education

- Nationalism of data and information
- Increase in GAP between developing countries and developed countries
- Small budget

Opportunity

Threats

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Theme 2

The SWOT of GEBCO outreach activities

Strengths

- Established set of products
- A group of volunteers to work on outreach activities
- Potential input of sub-committees

- Big data, social network, mobile approach to outreach
- Open education
- Needs for new science education about the earth

Opportunity

Weakness

- Not systematic work
- Poor interaction with other institutions
- Not concrete strategies
- Few leaders in outreach activities
- Language barrier

- Sporadic events
- Small size of budget

Threats

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Theme 2

Vision

1

Let people know GEBCO and its outputs

2

More people understand about the work of GEBCO and the importance and uses of seafloor mapping work; bathymetry data and the need to continue seafloor mapping and data collection and banking activities

Goals

A

Users in the academic and commercial sectors uses GEBCO's data and products in their work

B

Business sectors related to transportations use GEBCO's products

C

More children know the potential importance of GEBCO's products and the role of the shape of the sea floor in ocean circulation and climate issues

D

Politicians and government officials are encouraged to increase budgets for seafloor mapping work and ocean studies

E

GEBCO continues to encourage and promote the availability of bathymetry data to the international community and continues to improve and expand its products and services

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Theme 2

Define the clients or audience for outreach

A

Experts in marine and coastal science use GEBCO products

- One stop data, information, knowledge service
- Google maps geo-tagged articles
 - Ex) scientific measurement and theory in a certain point or geographic features

B

Business sectors related to transportations use GEBCO products

- Museum, aquarium and other MICE activities
- Guidance Map of Airline companies and vessel companies
- Tourism Business User Experience Thematic Park about the sea

C

More children know the potential importance of GEBCO products

- In Classroom or out of classroom activities
- "Project : Beyond my country" about geography and oceanography and hydrography
- Subject on "MegaHistory: ocean chapter"

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Theme 2

Define the clients or audience for outreach

D

Politicians and government officials in UN and each nations put more budget to coastal and marine survey and observation

- Scientific knowledge of the sea
- Economic effects of GEBCO products
- Background for International Treaty on Environmental policies about the "clean sea"

E

GEBCO has better collection ocean mapping data and derived products in the future to expand human habitat.

- Global databases of publically-available bathymetry data continues to increase;
GEBCO's products continue to increase, improve and expand

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Theme 2

activities and products in the near past

AS-IS

Offline products

- Water-proof A3 GEBCO map
- A0 GEBCO map
- GEBCO globes in different size
- GEBCO balloon
- Stickers and other gifts
- Digital GEBCO map
- Various trials for maps

Offline activities

- Booth in Monaco
- Activities in IOC meetings
- Personal trial to send A3 GEBCO map
- Presentation of GEBCO works in academic conferences

- Uploading GEBCO data
- Google Ocean experiments with you-tube
- Homepage with presentation materials

online products

- Uploading GEBCO data
- Google Ocean experiments with you-tube
- Training Program Nippon foundation activities and Korea

online activities

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Theme 2

How to speed up filling the gap in the past and IT trends

1 One source Multi platform strategy

30 arc grid

Google ocean

ESRI platform

GEBCO platform

Multi-OS
Multi-browser
Multi-device
Multi-resolution
Multi-display

How?

Web Standards compliance

2 One source Multi device strategy

GEBCO world map

GEBCO gazetteer

Value added contents

Multi panel display

Personal computer

Mobile device

3 One source Multi usage

GEBCO world map

GEBCO gazetteer

3-D printing other Technological innovation

Smart GLOBE

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Theme 3

activities and products in the near future

Offline activities

Offline products

TO-BE

- Water-proof A3 GEBCO map
- A0 GEBCO map
- GEBCO balloon with depth information
- Digital GEBCO map
- Smart GEBCO Globe
- Derived thematic maps
- Cartoons and animations

- Better Booth in Monaco
- More trial to send A3 GEBCO map
- Encourage GEBCO colleagues to give presentation of GEBCO's work at conferences; exhibitions and meetings and through scientific and general interest publications
- Report on the economic effects of GEBCO products

- More Uploading of GEBCO data
- Animations and Videos
- Information Services
- Digital imagery products
- Up-to-date GEBCO brochure

- Education Program in Open Universities and Cyber Universities
- Customized expert training on web and mobile environments
- Continue to improve content of GEBCO's 'General Interest' web pages relating to the importance of seafloor mapping and its uses' and post links to posters;
- Post links to articles about GEBCO, its work and about the bathymetry data on GEBCO's Facebook pages

Online products

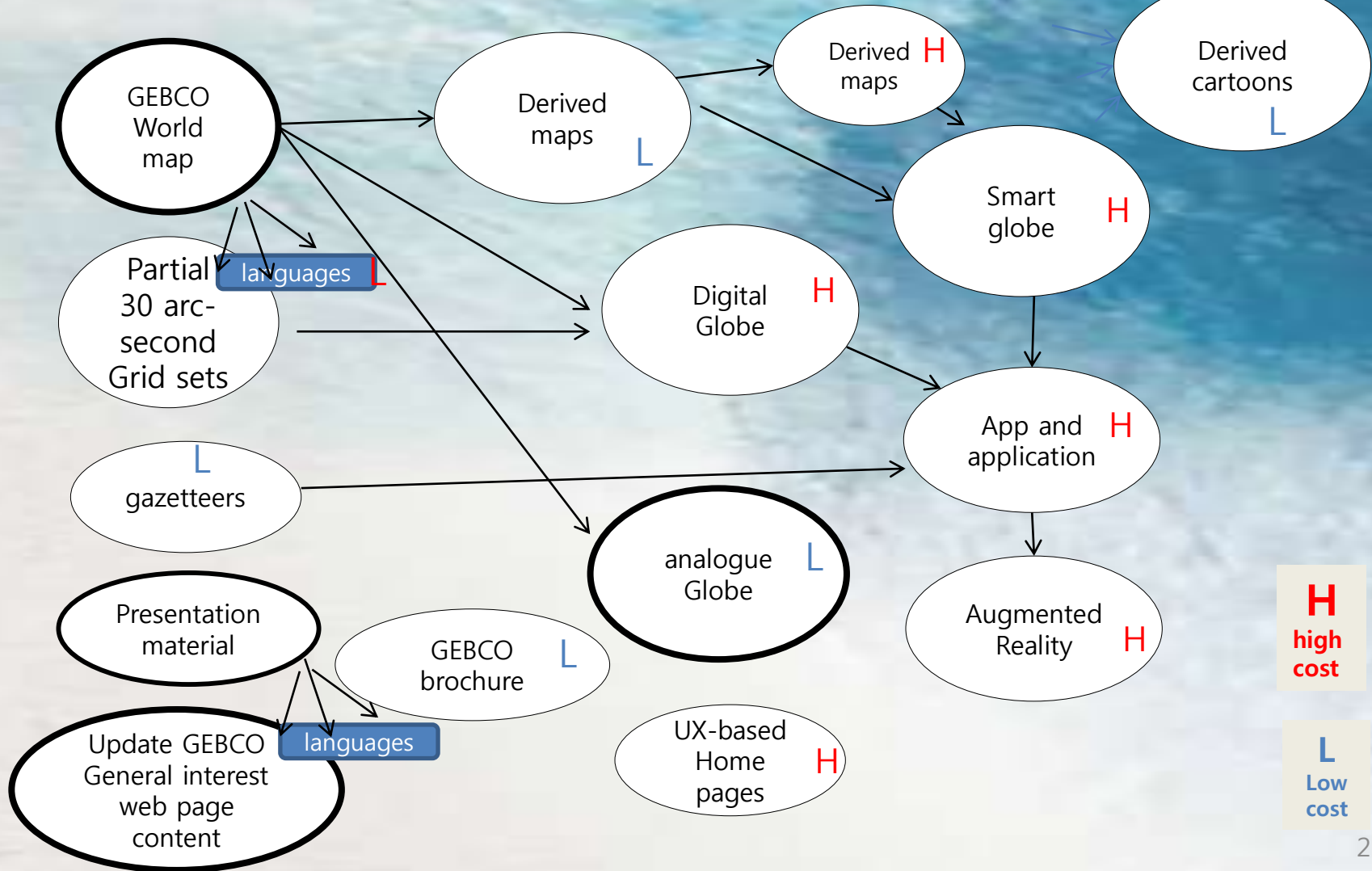
Online activities

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Theme 4

Prioritization and inter-relationship

Each item can be categorized into high-cost group and low-cost group.

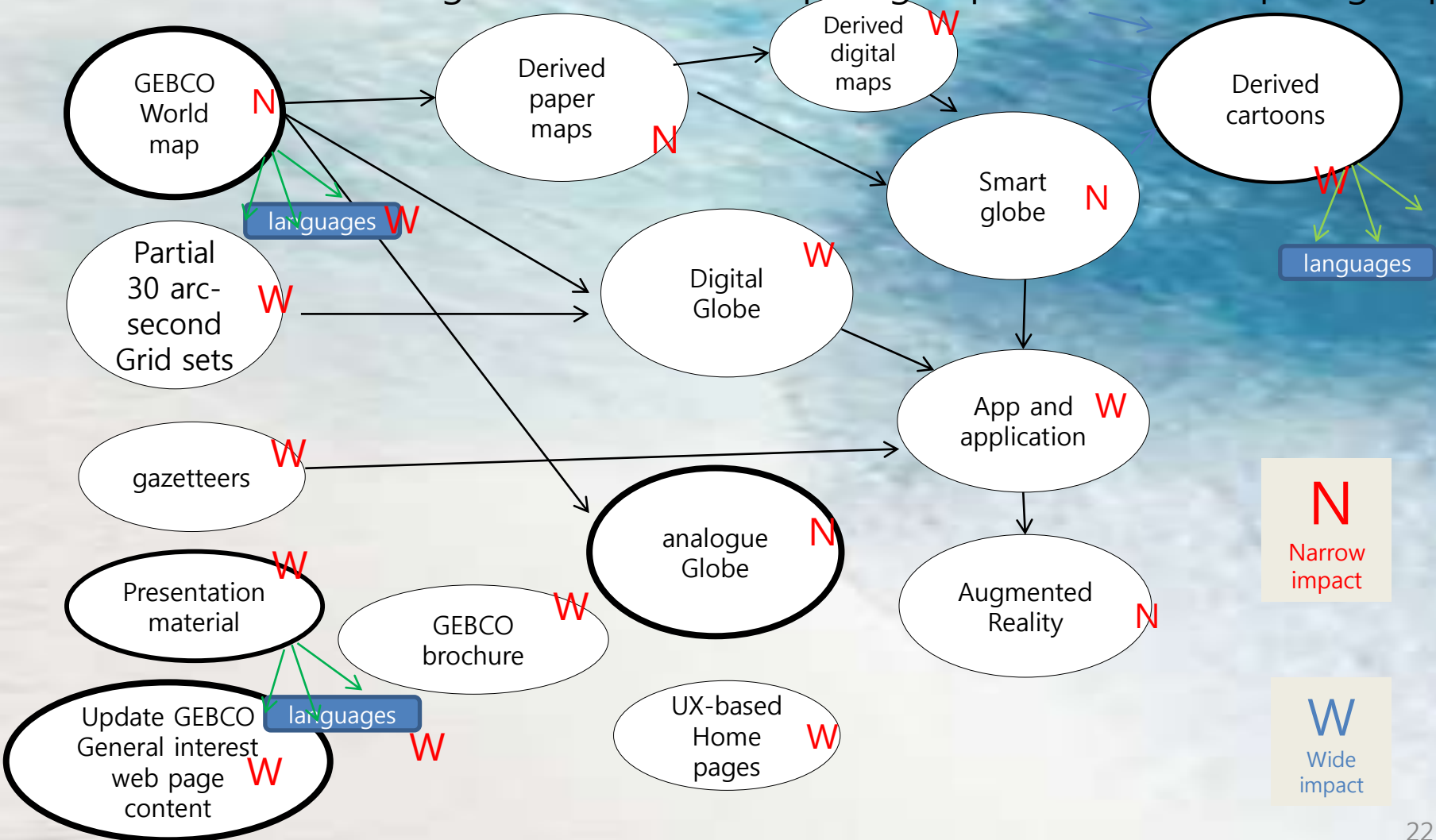


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Theme 4

Prioritization and inter-relationship

Each item can be categorized into wide impact group and narrow impact group.



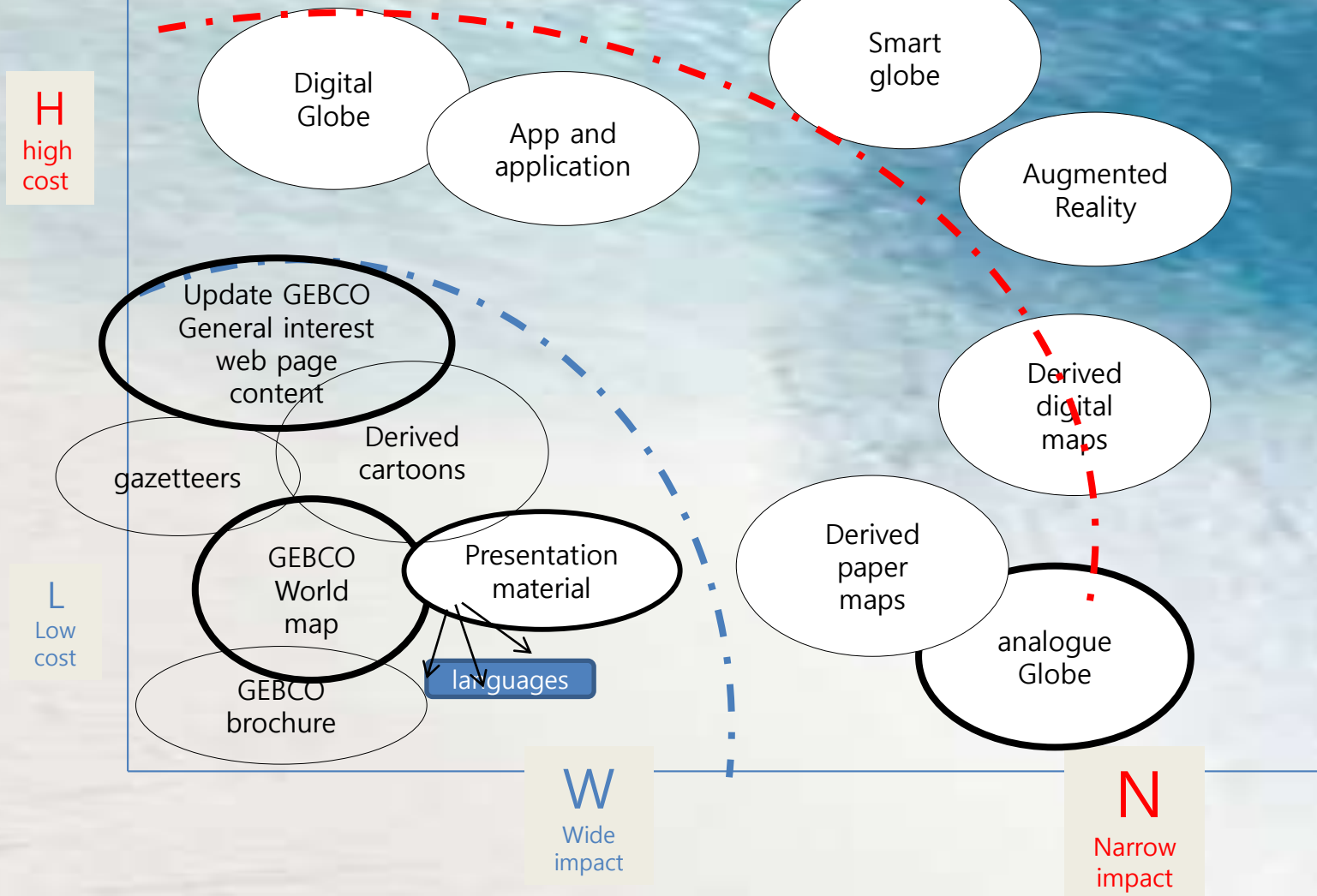
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Theme 4

Which priority with a very limited budget?

LW might be done first and then HW and LW and finally

LW might be done with GEBCO own budget; others can be done voluntarily



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Theme 4

Which priority is placed with very limited budget?

LW might be done first and then HW and LW and finally

LW might be done with GEBCO own budget; others can be done voluntarily



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Theme 5

Expectations

With full understanding ICT standards and trends, GEBCO outreach program will be carried out step by step, covering products and activities.

Limited budgets will be spent on the items with the lowest cost and widest impact. There needs to be collaboration with groups such as TSCOM to prioritize GEBCO's resources

But a master plan for outreach with consensus will go ahead before TSCOM finishes its own jobs.



Outreach means the activities of providing services to populations who might not otherwise have access to those services.

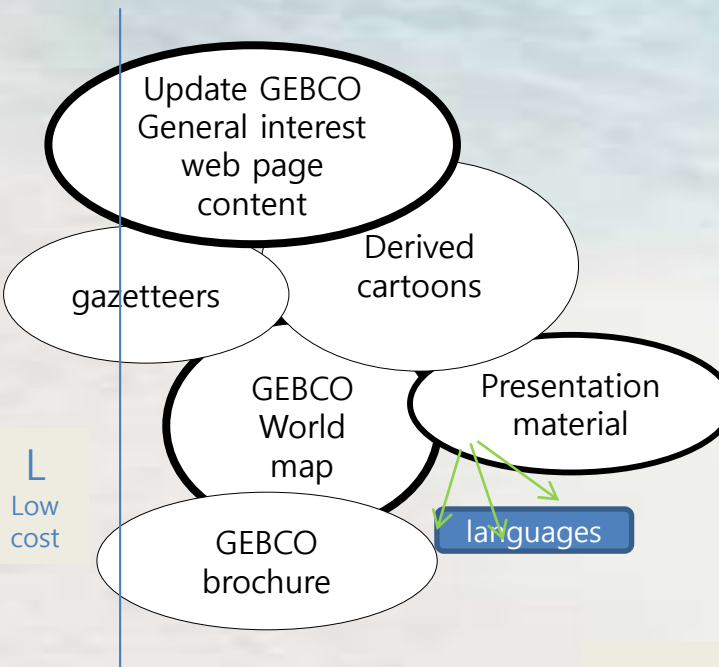
Outreach plays an education role and raising the awareness of existing services

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Action Plans 1

1-1 Archive the previous materials with information of availability and price.

1-2 Who will do this? When will it be done? Budget?



- .Gazetteers: NGDC, NOAA
- .GEBCO world map: diverse Nippon Colleagues
- .GEBCO lenticular map: Pauline
- .GEBCO hard cover brochure (updated): ()
- .GEBCO webpage contents: Korea
- .GEBCO world map balloons
- .Derived Cartoon : Korea
- .Other presentation Material : Korea + ()

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Action Plans

Who will do this? When will it be done? Budget

H
high
cost

Digital
Globe

App and
application

Smart
globe

Augmented
Reality

3D printing

Derived
digital
maps

Derived
paper
maps

analogue
Globe

.digital globe(Google+ NASA)
 .app application (IHO)
 .smart globe (Korea +)
 .Augmented reality (Korea+)
 after 2015
 .Derived digital maps and globes
 after 2015
 .Application of 3D printing

L
Low
cost

W
Wide
impact

N
Narrow
impact

An aerial photograph of a tropical beach. The top half of the image shows clear, turquoise water with gentle ripples. The bottom half shows a wide, white sandy beach. The water meets the sand at a soft, curved edge.

Examples

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Example 1

Exhibition



URL : <http://www.khoa.go.kr/kcom/cnt/selectContentsPage.do?cntId=53301000>

Title : "Ocean, Earn Names and Fame"

Contents :

1. Wider Look of the Ocean
2. Closer Look into the Ocean
3. Oceans, Earn Korean Names
4. Our Magnificent Seas

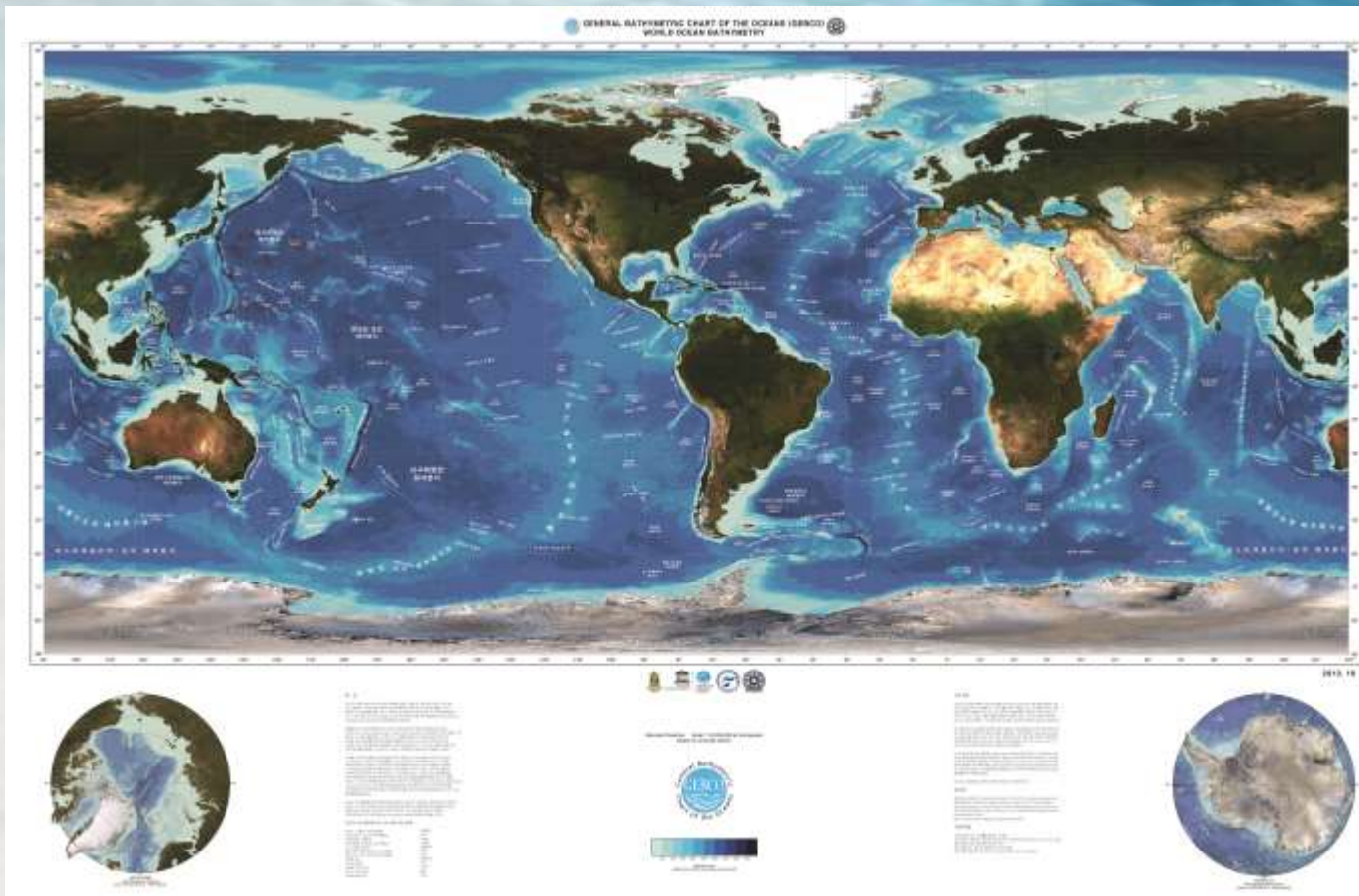


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Example 2

America-centric world map

URL : <http://www.khoa.go.kr/kcom/cnt/selectContentsPage.do?cntId=45705000>



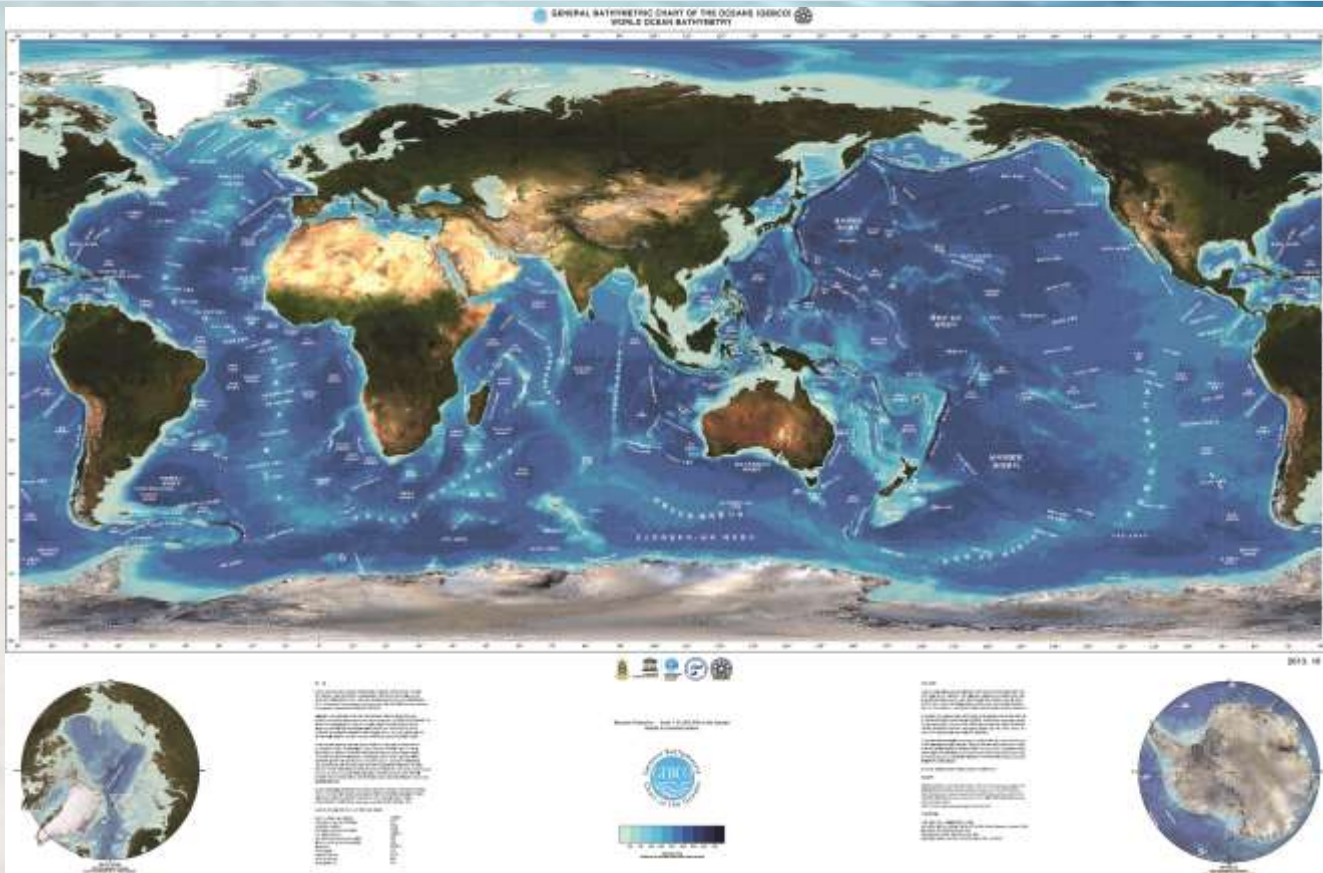
Korean version of the America-centric world map
(undersea feature names)

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Example 2

Asia-centric world map

URL : <http://www.khoa.go.kr/kcom/cnt/selectContentsPage.do?cntId=45705000>

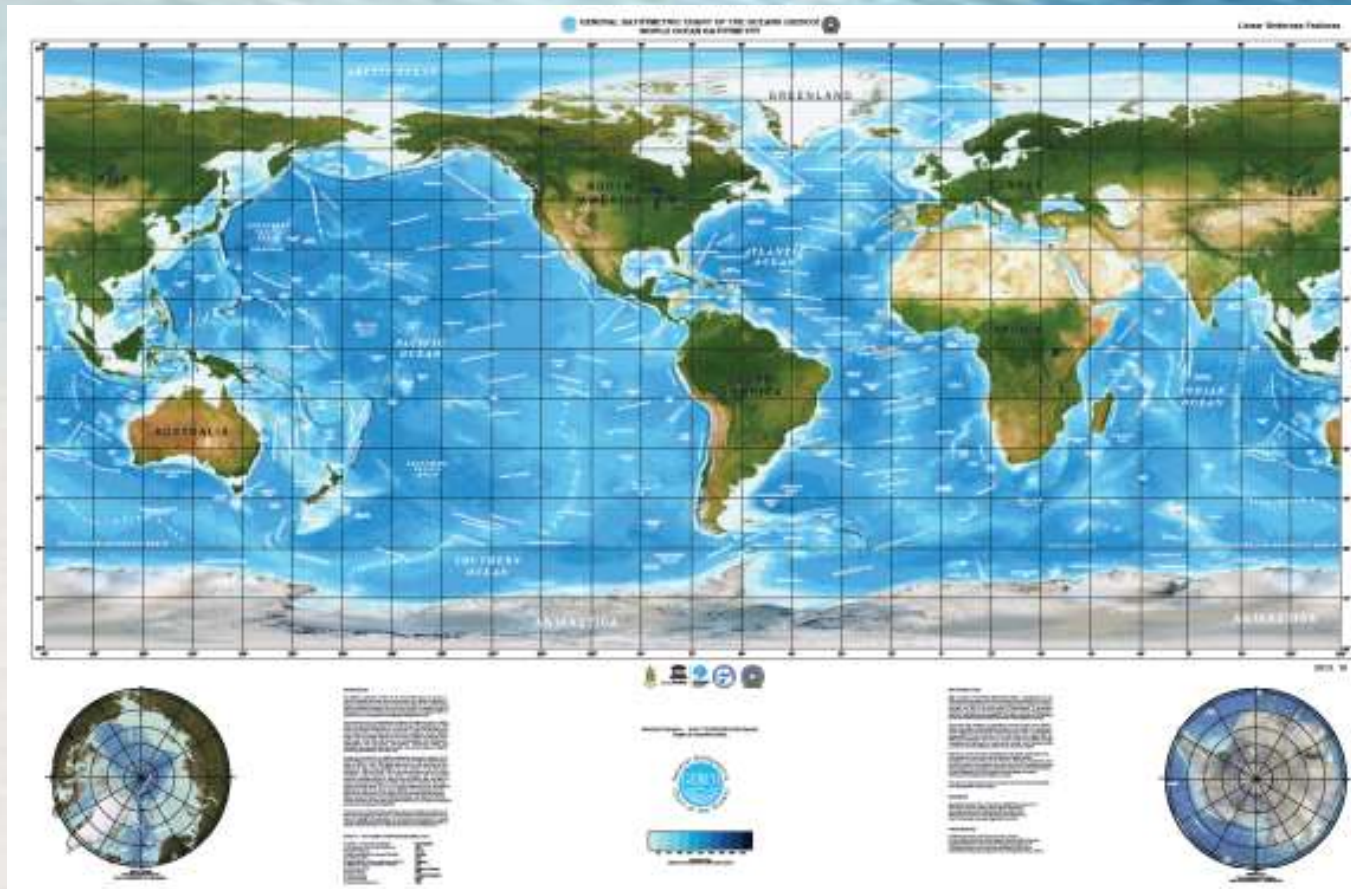


Korean version of the Asia-centric world map
(undersea feature names)

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Example 3

Linear Undersea Features (in revision)



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Example 4 Webtoon

URL : <http://www.khoa.go.kr/kcom/cnt/selectContentsPage.do?cntId=53301000>



Korean



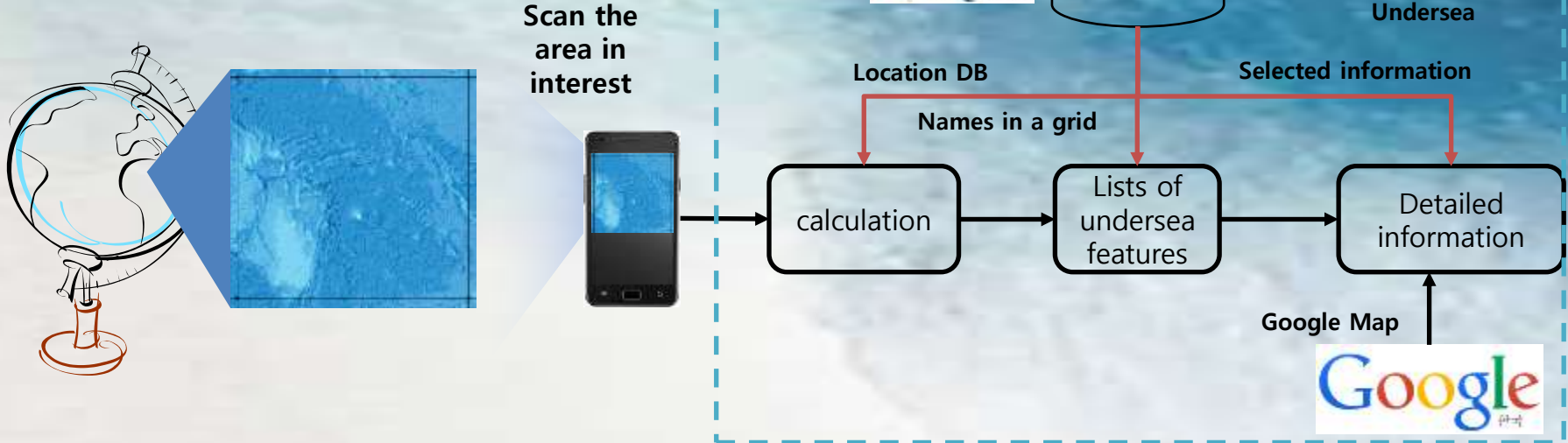
English

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Example 5

Smart Globe

- GEBCO world map+ mobile App program

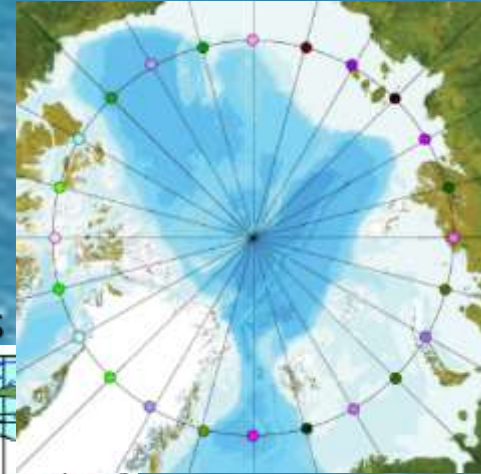



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Example 5

Smart Globe

0		45		90		135		
15		60		105		150		
30		75		120		165		



Marker printing and Hugh algorithm enables the location of the interested areas

