



Mario Hernandez

Future Earth Engagement Committee

Energy – Environment and Ecosystems (3E) International Conference

Tokyo – January 18th- 2017

Nexus: Energy + Environment + Ecosystems

Building resilient societies

Implications to the Sustainable Development Goals (SDGs)









Coal mine in China





REUTERS

January 15th 2017 – Tiananmen Square - Beijing



Green House Gases



energy



Ecosystems



Health



Climate Change



Societal transformation

What is Future Earth?

The logo for Future Earth is centered on a white rectangular background. It features the word "futureearth" in a blue, lowercase, sans-serif font. The letter "e" in "earth" is stylized with a circular arrow around it. Below the main text, the tagline "research for global sustainability" is written in a smaller, grey, lowercase, sans-serif font.

futureearth
research for global sustainability

1980



1987



1991



The International Group
of Funding Agencies for
Global Change Research

1991



International Human Dimensions
Programme on Global Change

1996

Earth Systems Science
Partnership
2001

1980



1987



1991



1991

International Human Dimensions Programme on Global Change

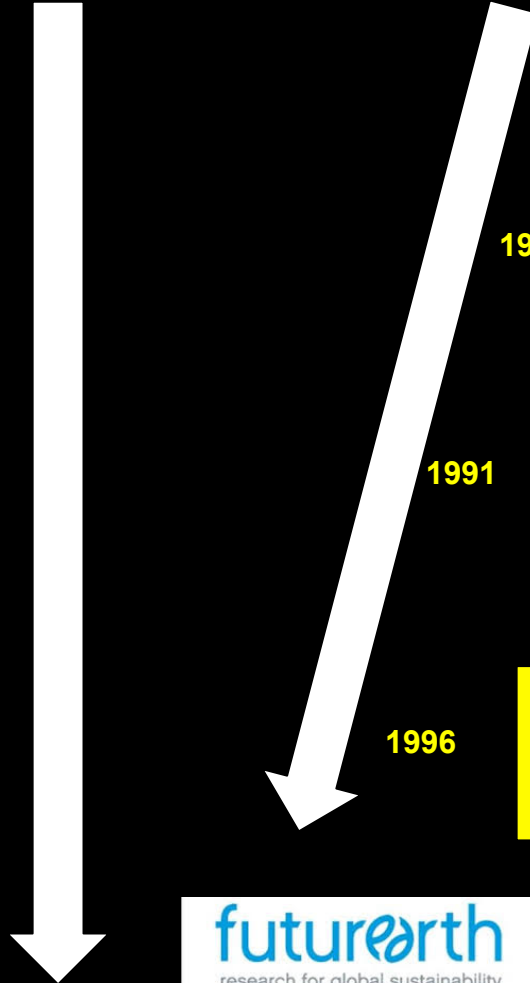
1996

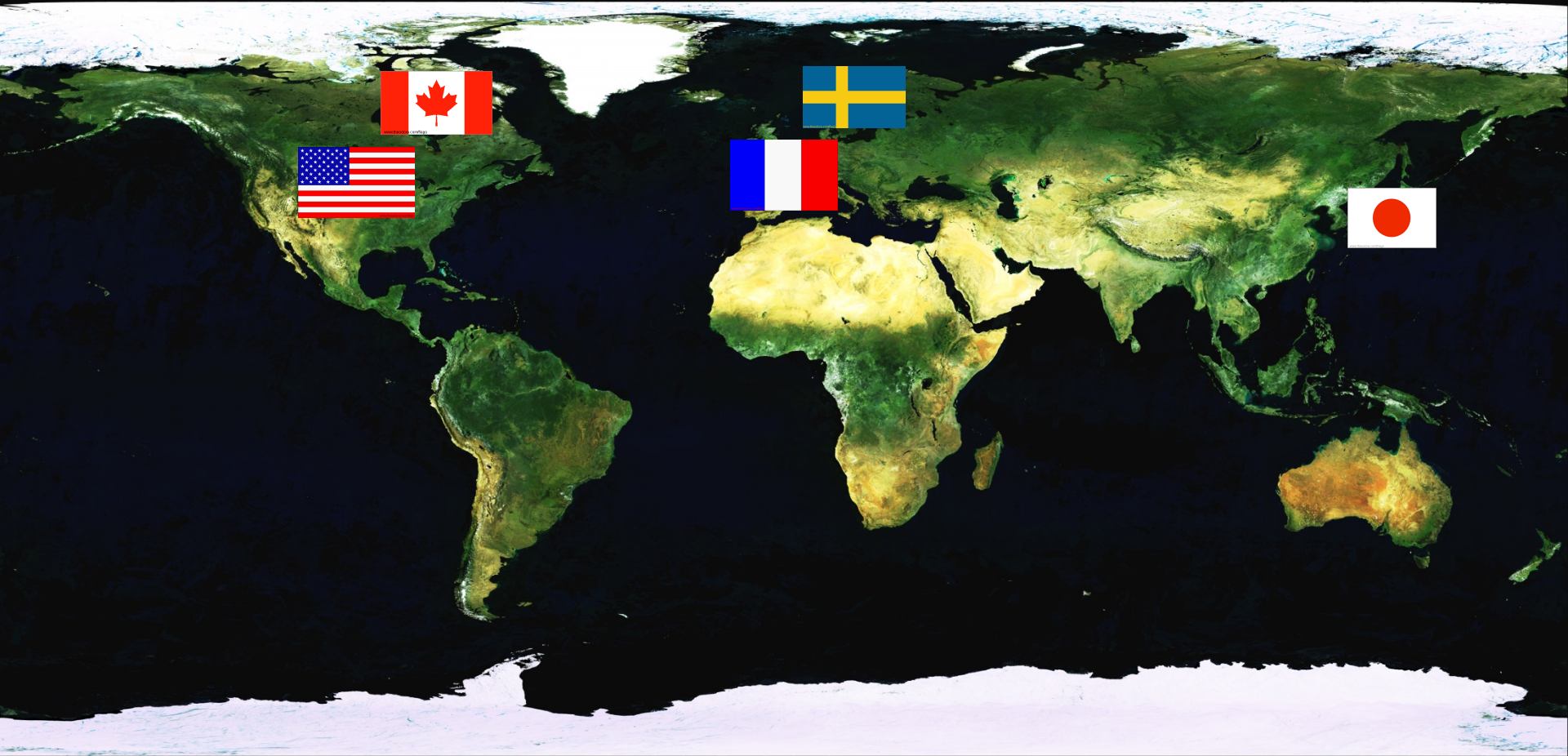
Earth Systems Science Partnership 2001

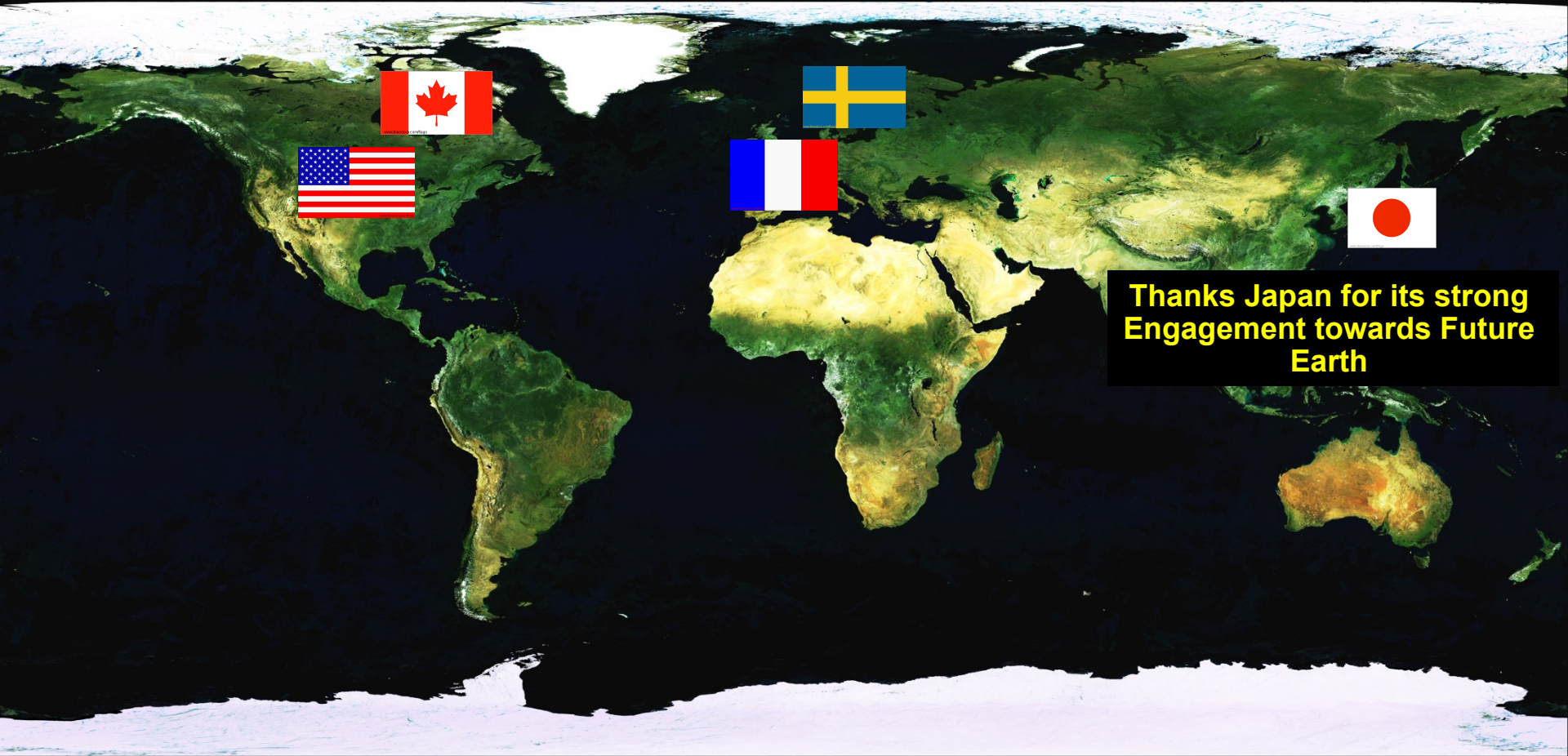


2011

The International Group of Funding Agencies for Global Change Research







**Thanks Japan for its strong
Engagement towards Future
Earth**



A science and technology
network platform

futurearth



To build and connect global knowledge

To intensify the impact of research and

To find new ways to accelerate sustainable development



To support the decision making process
and
Societal transformation

An interdisciplinary
research network





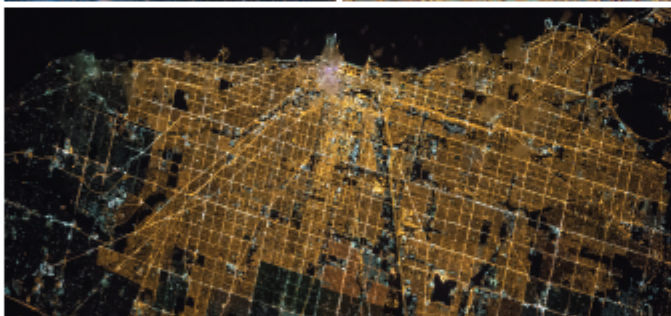
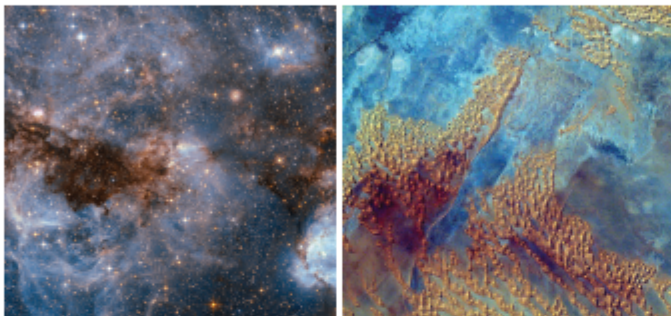
futurearth

A scientific research platform

Interdisciplinary + decision makers

Co-design + co-production

“Scientific-sound-options for sustainability”



Future Earth
International Co-Design Workshop

Earth Observation in Support of the Sustainable Development Goals

– The Case of Urban Areas in Asia

2017.01.16-18 Tokyo

09:30-17:30 (Registration starts at 09:00)

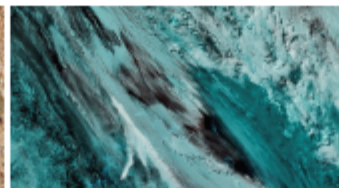
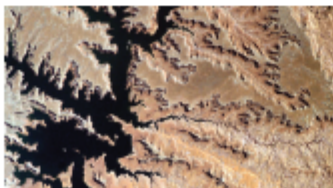
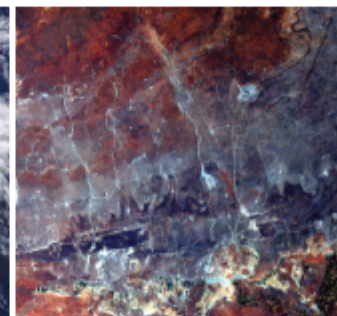
Venue

16-17 Jan: Science Council of Japan

18 Jan: The University of Tokyo

Language: English

Registration Fee: Free



The international event will explore how scientists can link satellite and on-the-ground data on the Earth to socioeconomic data to support the



Extreme Environmental Event

- Event that significantly interrupts tops daily life
- Event that causes human lost

3 GOOD HEALTH



6 CLEAN WATER AND SANITATION



11 SUSTAINABLE CITIES AND COMMUNITIES



13 CLIMATE ACTION



17 PARTNERSHIPS FOR THE GOALS





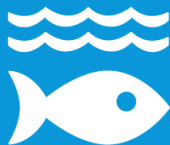
3 GOOD HEALTH



6 CLEAN WATER AND SANITATION



14 FLORA Y FAUNA ACUÁTICAS



11 SUSTAINABLE CITIES AND COMMUNITIES

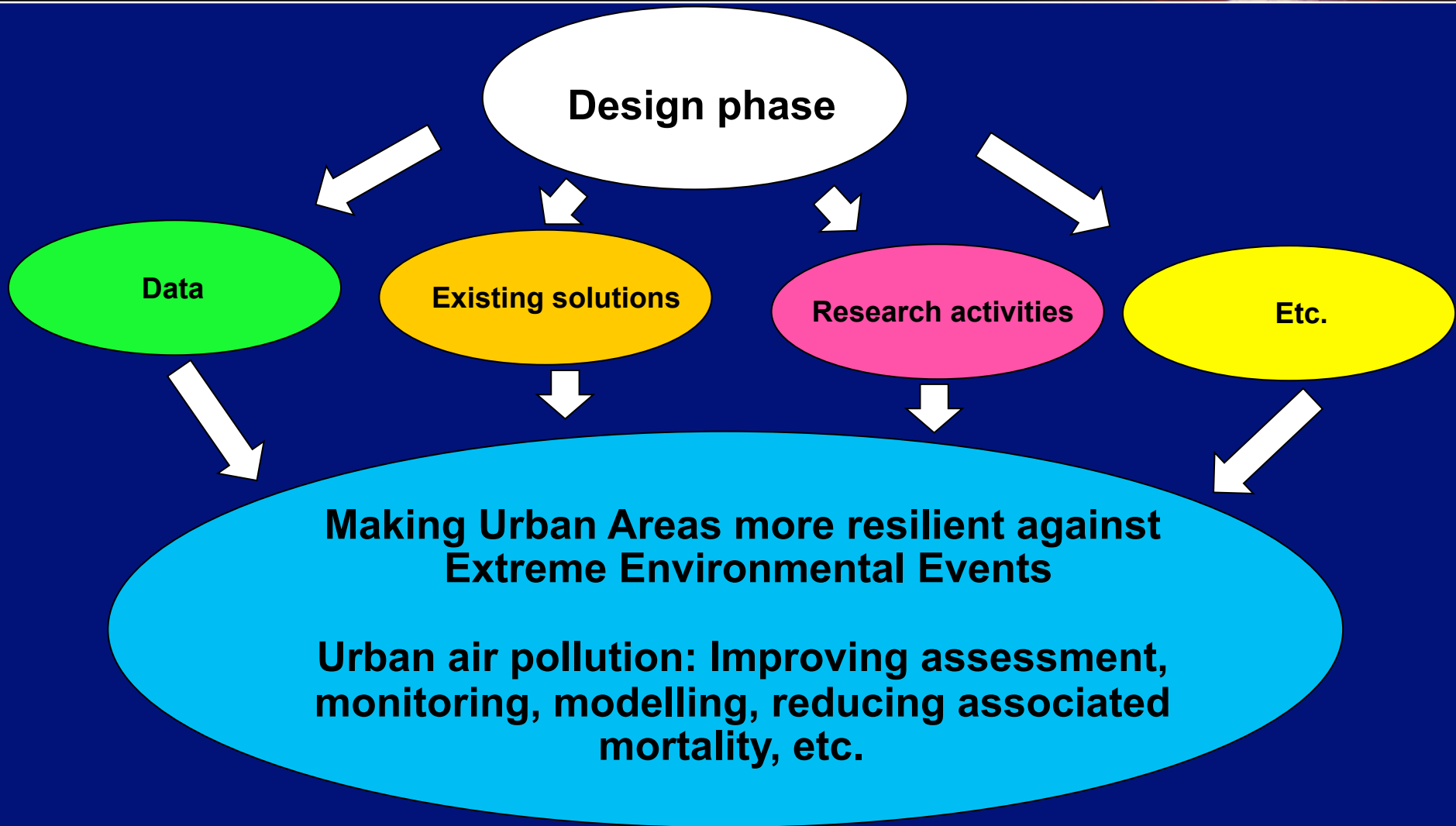


13 CLIMATE ACTION



17 PARTNERSHIPS FOR THE GOALS







The Future Earth Data Task Force

A Network of Partners

(An open initiative calling for data experts to join and assist supporting interdisciplinary sustainability research)

Current partners (internal first)

CORE projects

**Emerging
Knowledge in
Action Knowledge
Network(s)**

KAN(s)

Current partners (external)



CODATA



World Data Systems



Group on Earth Observations



Intl. Institute for Applied System Analysis (IIASA)

Current partners (external)



European Space Agency



NASA - CIESIN

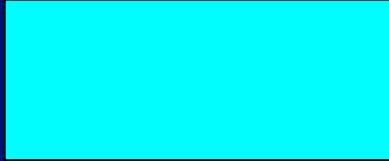


International Society for Photogrammetry and Remote Sensing



International Society for Digital Earth

Current partners (external)



Belmont Forum e-infrastructure



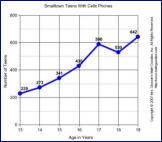
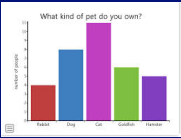
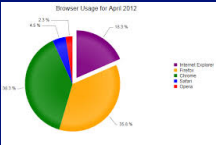
Your institution!



Indicators encourage the decision process



indicators



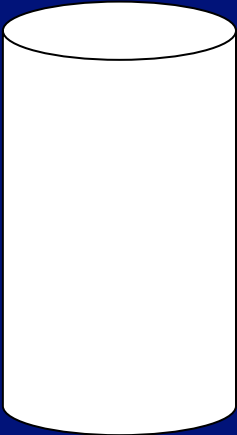
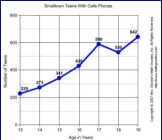
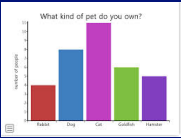
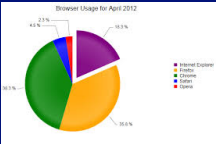
Co-design

Indicators encourage the decision process



indicators

data



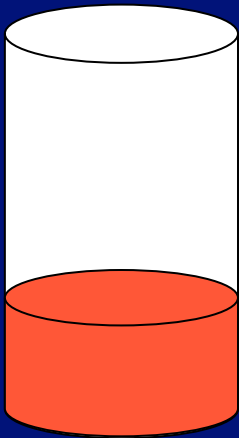
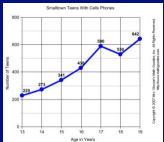
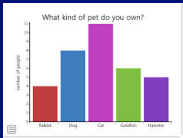
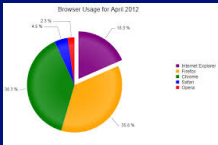
Co-design

Indicators encourage the decision process



indicators

data



Co-design

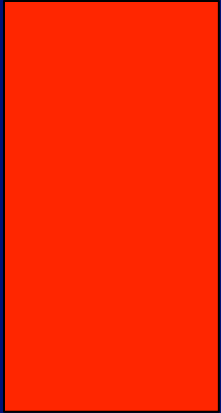
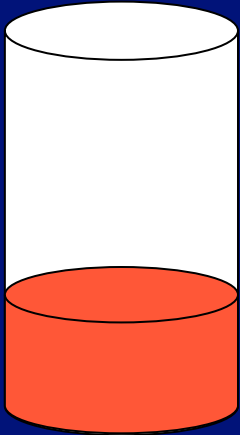
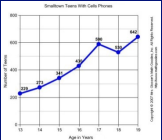
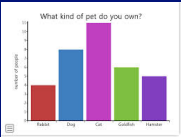
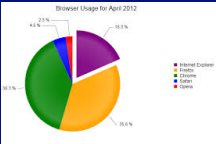
Indicators encourage the decision process



indicators

data

knowledge



Co-design

Indicators encourage the decision process

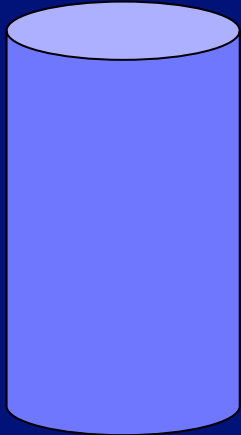
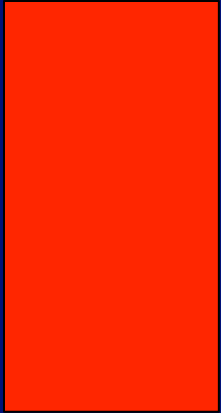
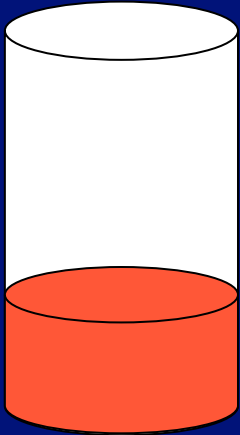
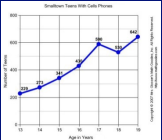
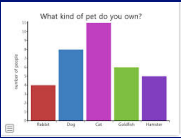
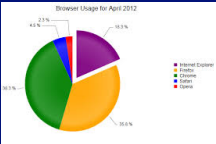


indicators

data

knowledge

information



Co-design

Co-production

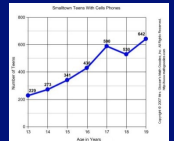
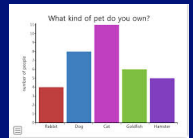
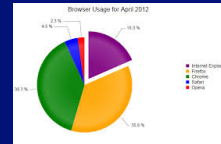
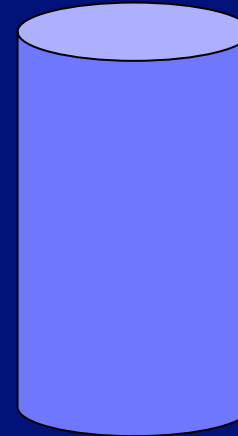
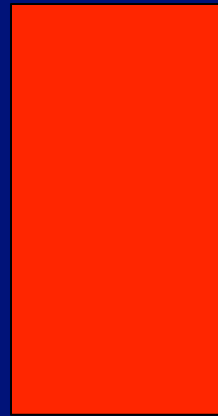
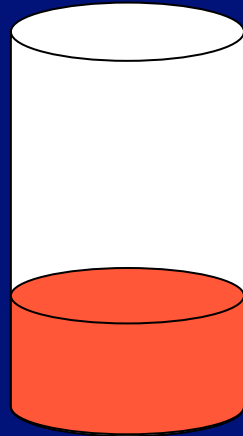
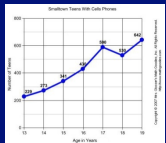
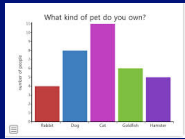
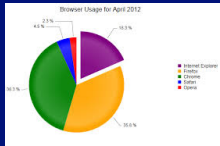
Indicators encourage the decision process

indicators

data

knowledge

information



Co-design

Co-production

Conclusions



- ***Sustainability is complex (need to assess all the interactions (nexus))***
- ***Co-design + co-production + interdisciplinarity is required***
- ***Science can derive scientifically based options***

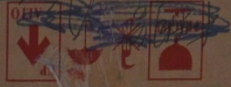


中关村路
ZHUANGGUAN JIU



KEEP DRY

KEEP AWAY FROM
HEAT OR SUN



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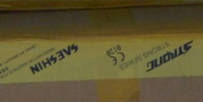
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FRAGILE
HANDLE WITH CARE
NO HEAVY LIFTING
NO TIPPING

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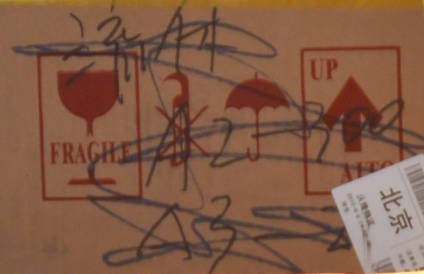
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STRONG SERIES
SAESHIN
MICRO MOTOR HANDPIECE FOR DENTAL
JEWELRY BEAUTY WOOD CARVING



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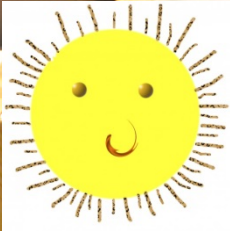
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ありがとう