

# telescience WG Update

Fang Pang Lin

Shinji Shimojo

Pragma 24

# Challenge

- Can we use Pragma Cloud?
  - Requirement?: security?, performance? Sustainability?, Reliability?
- We will be joining with GeoScience WG
- Funding?
  - CPS (Cyber Physical System) Project started in Japan.
  - Disaster management information platform will start next January in Taiwan
  - Flood modeling and Coral reef ecological monitoring in Thailand.
  - TEIN or APAN
- Data infrastructure Meeting: 4-6, December@Taichung
  - Theme: "Bridging Big Data Infrastructures: Expeditions in the Network Science Landscape"

- Short term goal
  - find collaborative project with pragma resource
- Long term goal
  - build common infrastructure for both WG

# Structure

- Day 1
  - information exchange
- Day2
  - Discussion for collaborative project.
  - Joint with GeoScience WG

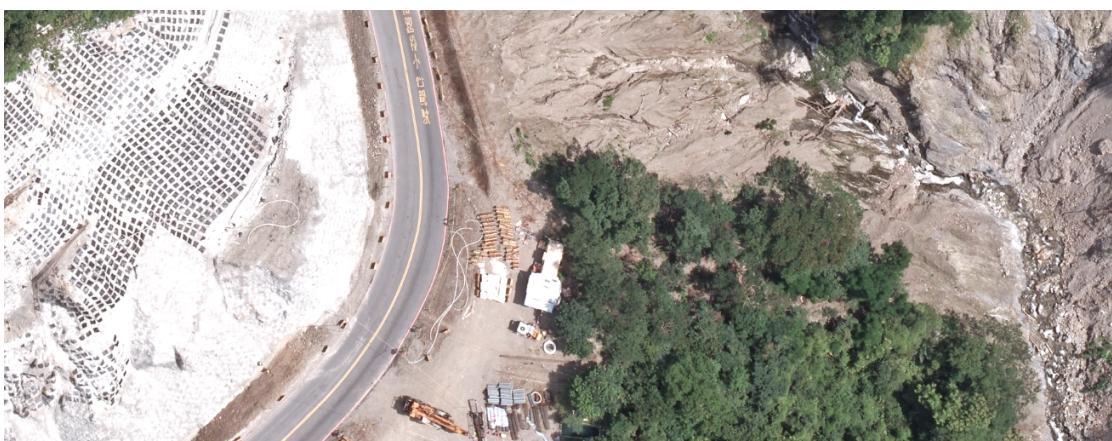
# Talks

- Jason Haga,
- Karpjoo Jeong, “SubAir Project”
- Fang-Pang Lin
- Shinji Shimojo, “CPS project”
- Sameer Tilak

Discussion on collaboration

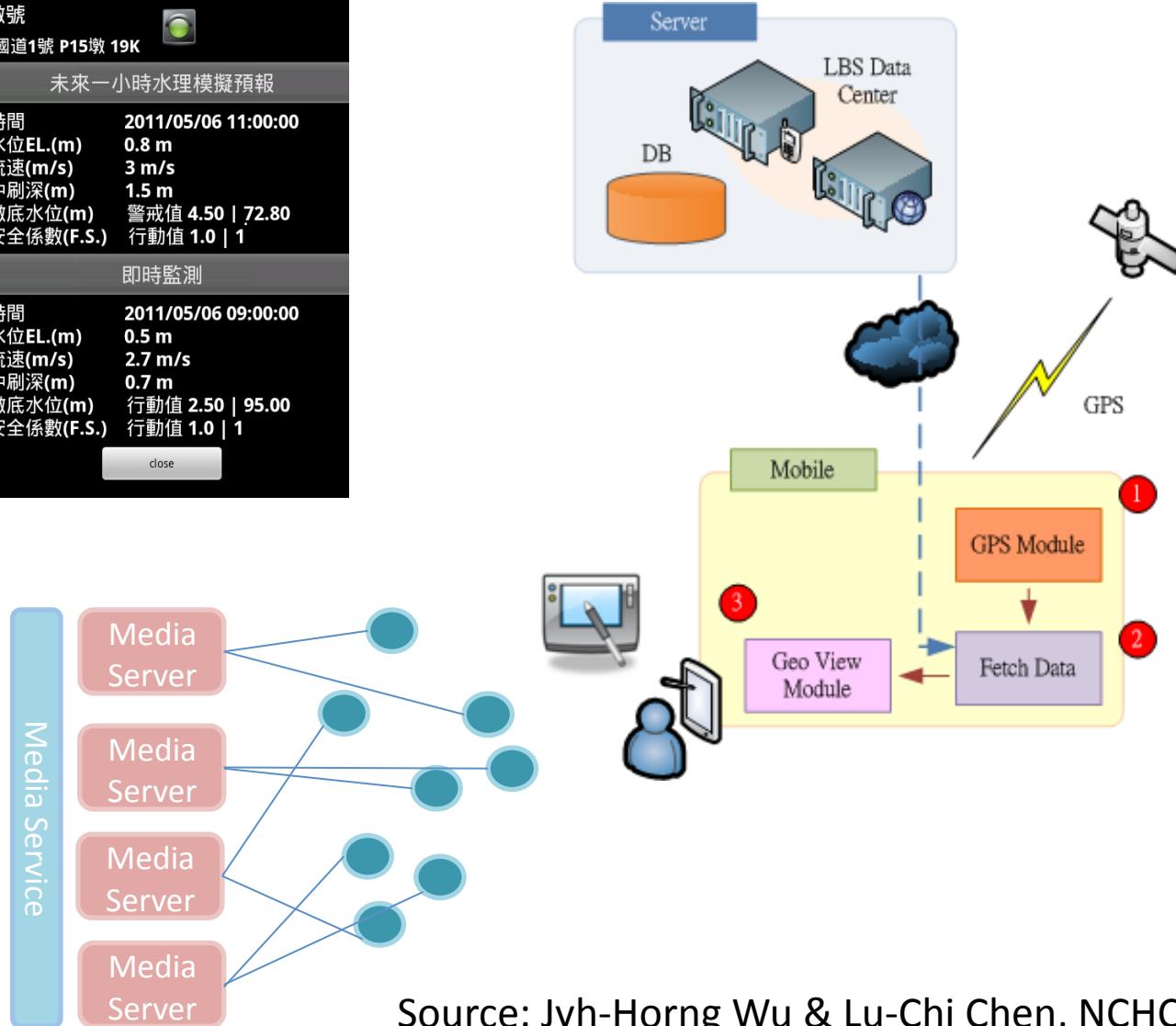
# Large Data Visualization:

## 4K Projection: Large LiDar Point Cloud



Source: Strong Engineering Consulting Co., Ltd., Taiwan

# Move Clients to Mobile Device w/ sensors



# Thailand-Walailak U., NECTEC, MOST – Coral Reef Watch & Climate Change Study

(CREON meeting @ Racha Yai – 29, April~ 3, May )



18 March 2013 @ Racha Yai Island



# Disaster Management on 3D GIS & Sensor Networks

- NECTEC, NCHC and EGAT will work on Dam management together.
  - NECTEC, EGAT visited NCHC in 13-15, March, 2013
  - NCHC visited NECTEC in 20, March, 2013.
  - Will come up a seed project in the next couple of months.

Dec3~6, 2012 at NCHC, Taiwan

## Bridging Big Data Infrastructure Workshop-

Expedition on the Network Science Landscape

台美雙邊國際會議－2012巨量資料基礎架構國際研討會



- Data infrastructure Meeting: 4-6, December@Taichung

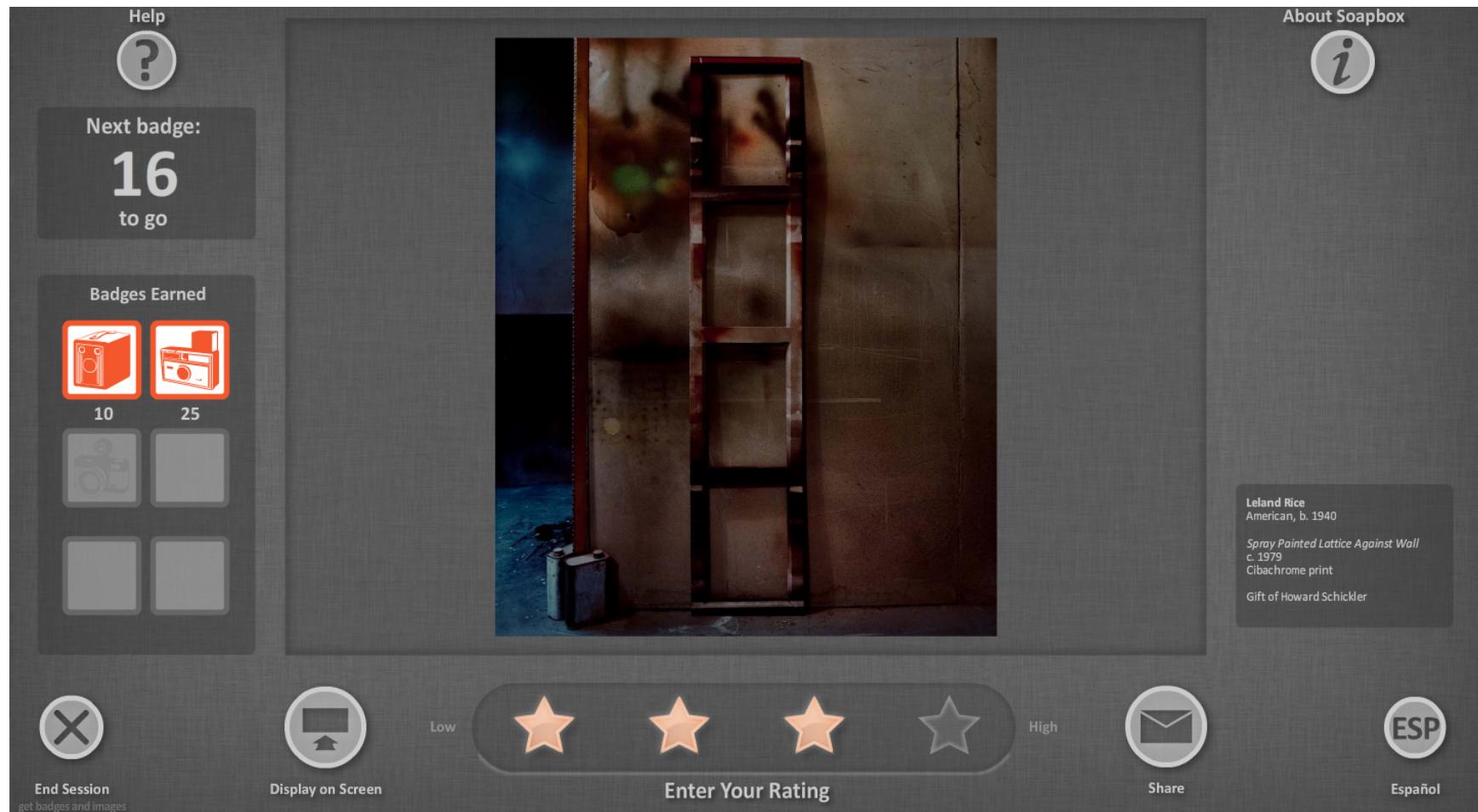
- Theme: "Bridging Big Data Infrastructures: Expeditions in the Network Science Landscape"
  - Details in (including summary report)

[http://event.nchc.org.tw/2012/  
datainfrastructure/index.php?  
CONTENT\\_ID=2](http://event.nchc.org.tw/2012/datainfrastructure/index.php?CONTENT_ID=2)



# Soapbox – Updated Version of MyGallery

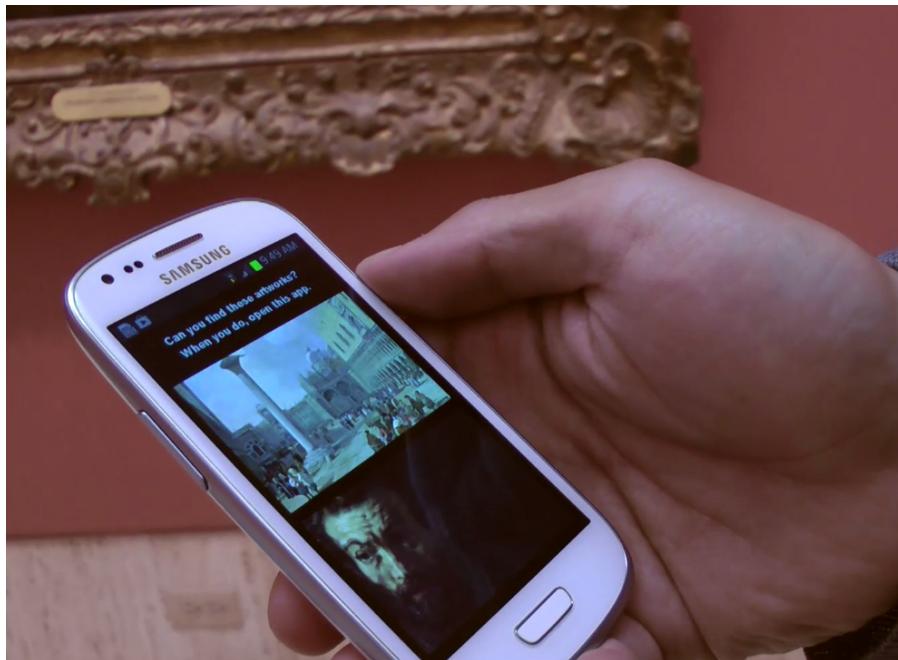
## MOPA's crowd-sourced exhibition on display



Jason Haga

# Mobile Tour – Updated Version

## Timken Museum



Title  
The Piazzetta at Venice  
Artist  
Luca Carlevarijs  
Date  
1663 - 1730  
Nationality  
Italian  
Place  
Italy  
Dimensions  
38 x 76 7/8 in  
Medium  
Oil on canvas  
Description

Jason Haga

# SubAir Project

Develop an integrated system for SeoulMetro to from 2008 to 2012:

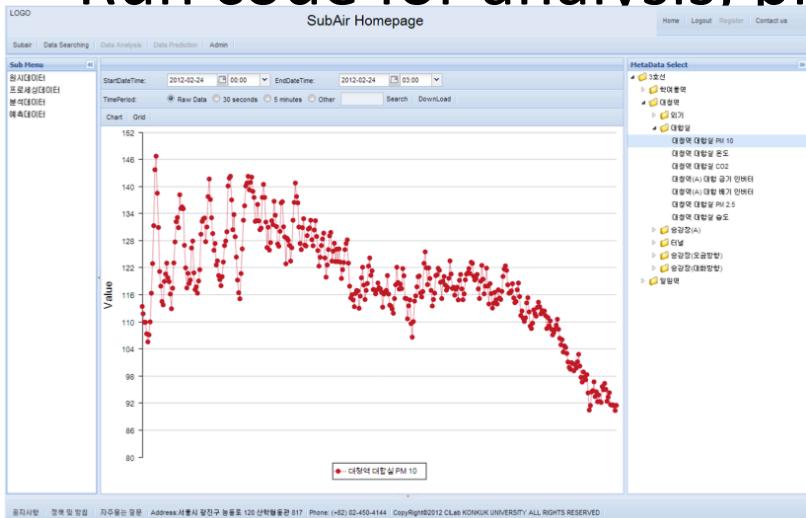
- Monitor both **IAQ of subway platforms/ tunnels and energy consumption of ventilation systems** in real time manner
- Develop **prediction models for IAQ and energy consumption**
- Control **ventilation systems in an energy-efficient way.**



Karpjoo Jeong

# SubAir Data Portal

- Have 330 million Indoor Air Quality (IAQ) observation records (~60GB)
- Provide data and analysis services:
  - Search and plot data
  - Run code for analysis, prediction



Date	Value
2012-02-24 00:00:01	113.4
2012-02-24 00:00:07	111.2
2012-02-24 00:00:25	112.4
2012-02-24 00:00:37	111.1
2012-02-24 00:00:49	108.7
2012-02-24 00:00:55	110.5
2012-02-24 00:01:01	109.3
2012-02-24 00:01:19	108.2
2012-02-24 00:01:25	106.5
2012-02-24 00:01:55	105
2012-02-24 00:02:13	106.1
2012-02-24 00:02:25	107.8
2012-02-24 00:02:31	106.4
2012-02-24 00:02:37	108.7
2012-02-24 00:02:43	111.3
2012-02-24 00:02:49	113.7
2012-02-24 00:02:55	119
2012-02-24 00:03:01	120.3
2012-02-24 00:03:07	125.5
2012-02-24 00:03:13	128.4
2012-02-24 00:03:19	134.2
2012-02-24 00:03:25	141.9
2012-02-24 00:03:31	145.5
2012-02-24 00:03:37	147.5
2012-02-24 00:03:43	145.9
2012-02-24 00:03:55	140

Karpjoo Jeong



Open 26<sup>th</sup> April  
2013

Umekita Phase 1 Development Area Project GRAND FRONT OSAKA

**KNOWLEDGE  
CAPITAL**



## ■ Knowledge Capital Zone (facilities and functions)

Gather

### Knowledge Salon

『A membership-style exchange salon』  
approx. 1,500m<sup>2</sup>



Create

### Knowledge Offices

『Offices in a variety of types』  
approx. 11,000m<sup>2</sup>



Interact

### Knowledge Plaza

『An indoor plaza for events』  
approx. 1,200m<sup>2</sup>



### Convention Center

『Accommodates up to approx. 3,000 persons』  
approx. 5,760m<sup>2</sup>



Exhibit

### Knowledge Theater

『A multi-purpose theater』  
approx. 380 seats



### Future Life Showroom

『Space to propose a future life』  
approx. 21,000m<sup>2</sup>

### The Lab.

『A hub for exhibition and promotion』  
approx. 3,100m<sup>2</sup>

### Knowledge Office

### Conference Tower C

### Knowledge Theatre

### Future Life Showroom

### Knowledge Shop

### The Lab.

### Knowledge Plaza

### Convention Centre



# The Lab.

乐高乐世界 — 研究所

**The World's Best Laboratory for Everyone by Everyone.  
 Impress with the World's Best .  
 Move with amazing technology.  
 A laboratory focusing on fun – made and shared by all.**

## Facade



View from 2F  
14

2F

Inside:  
Communication Area

The  
**Lab.**

3F | コミュニケーションスペース  
フリースペース

2F | クラウドエッジ  
会議室

2F | 3D | ラーニングスペース  
フリースペース

EVENT

Information

Digital Signage

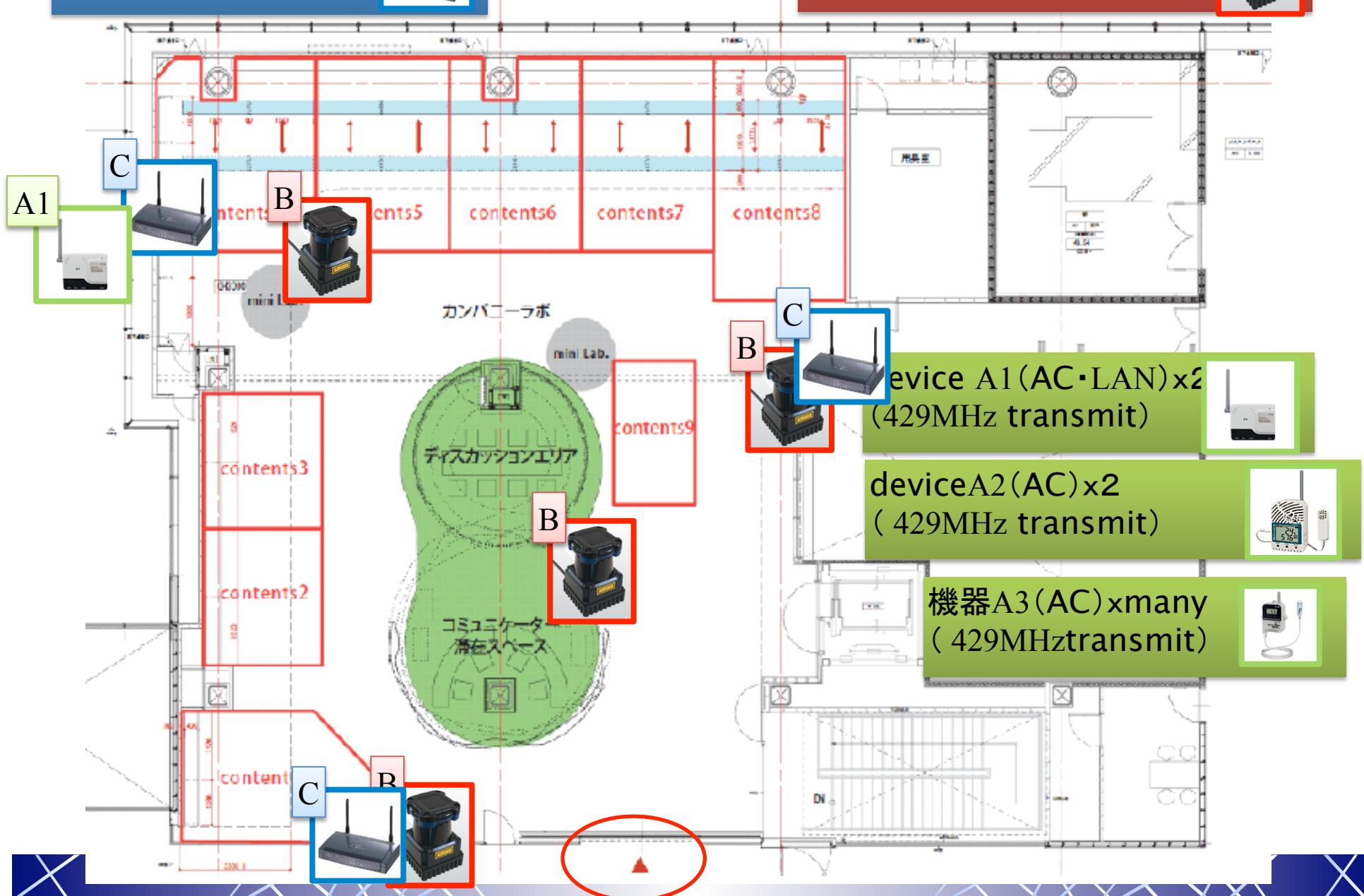
Exhibition of activities at the Lab.

2F

device C(AC・LAN)×4  
(2.4GHz transmit)



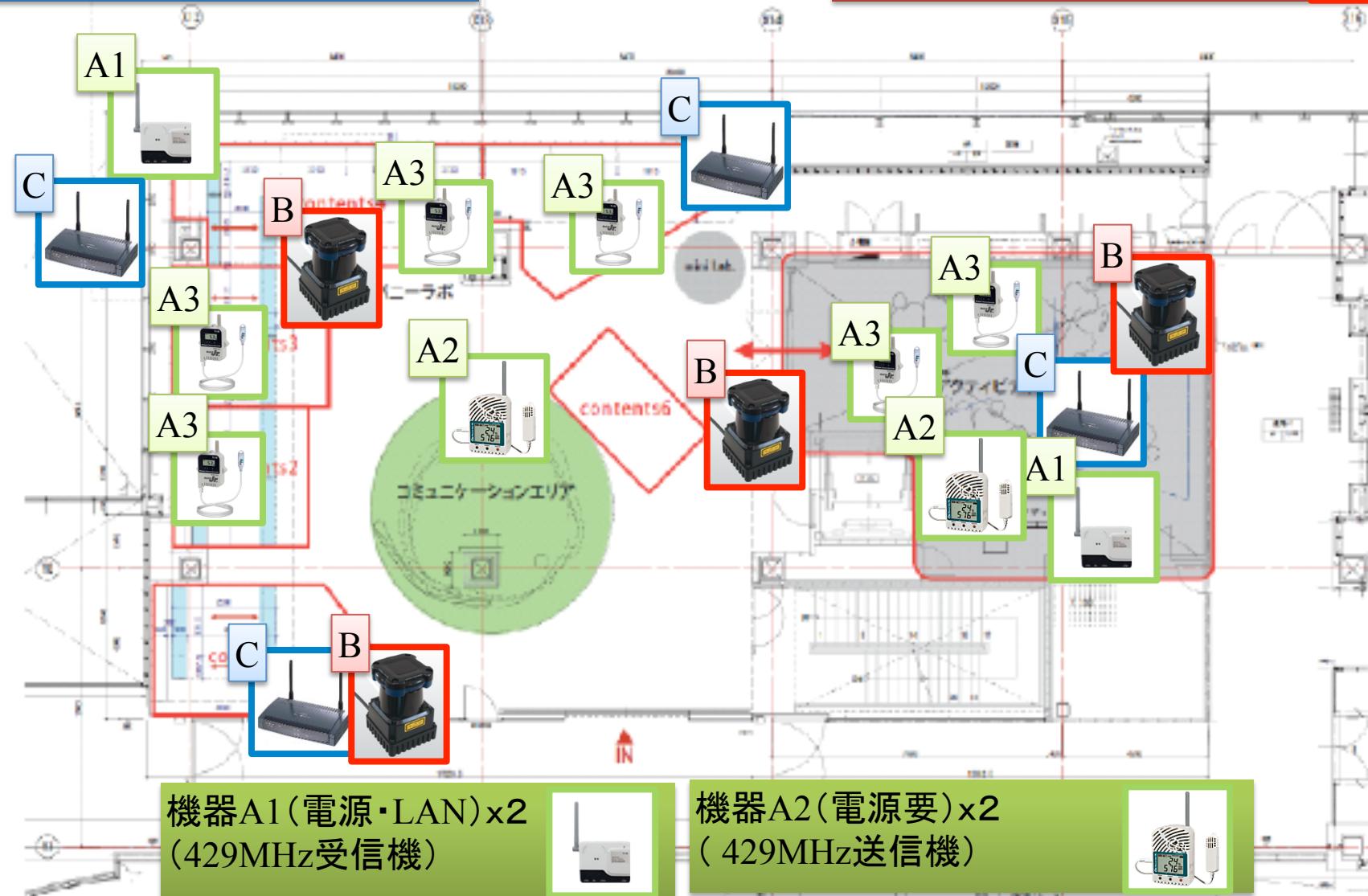
device B(AC・LAN)×4



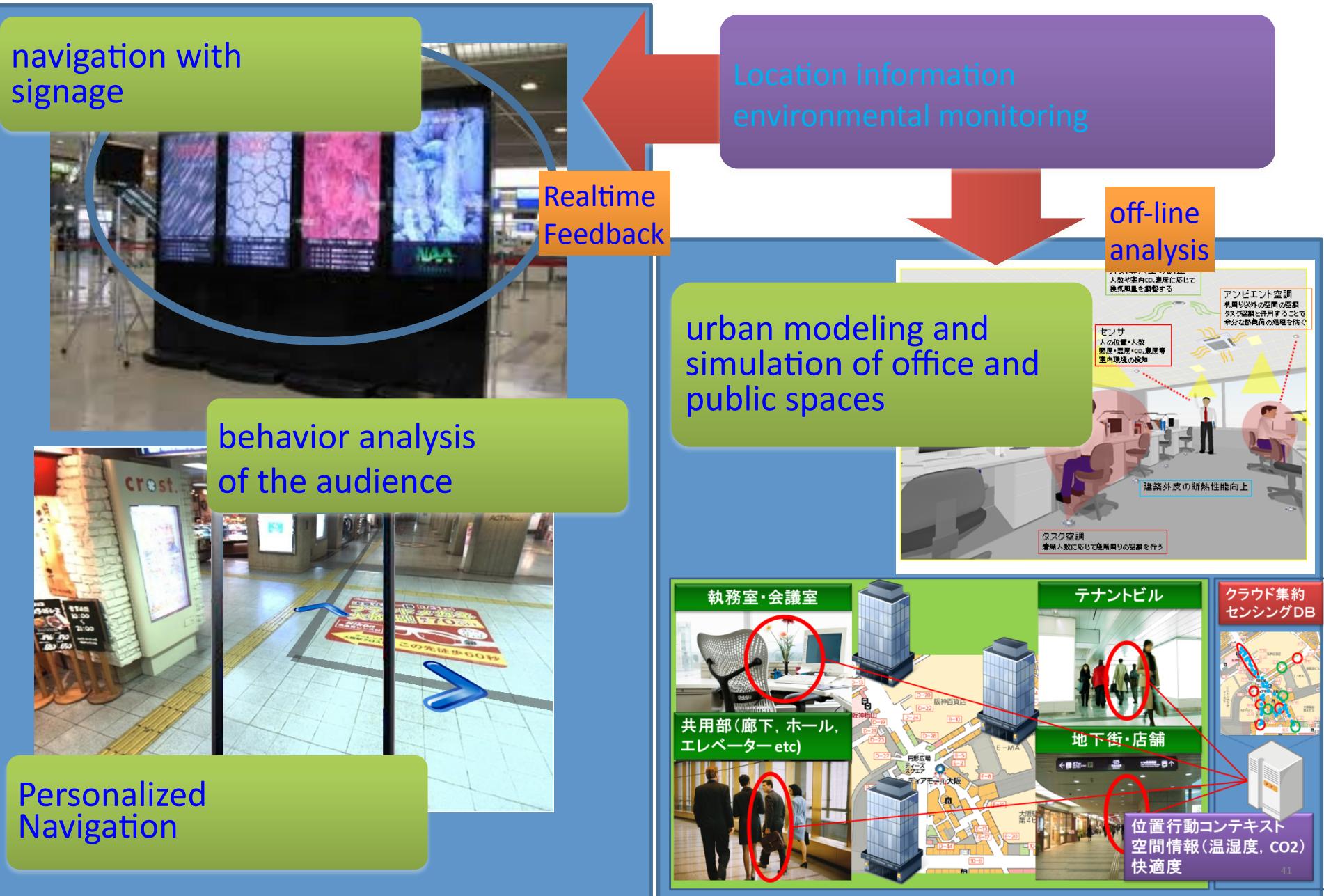
機器C(電源・LAN)×4  
(2.4GHz送受信機)



機器B(電源・LAN)×4  
(見通し要, 設置場所注意)



# Use cases



## (Tablet, mobile phone and signage)

