Introduction about Hirosaki city
H30.4.23 in Tokyo

Cherry

Neputa
(Summer festival)

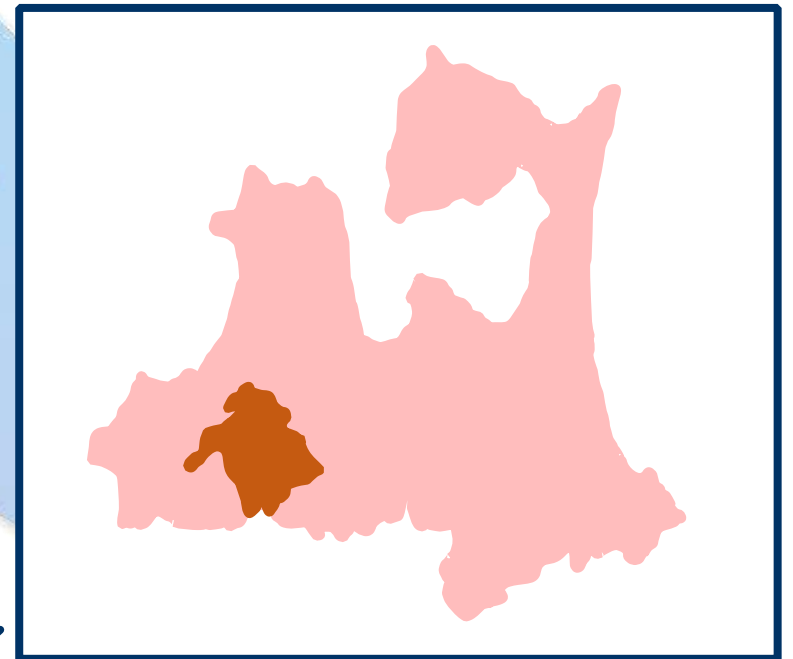Hirosaki Castle
(Autumn)

Hirosaki Castle
(Winter)

The northernmost end of Honshu

・Population:174,507(H29.7.1)

・City area:524.2km2

■From Haneda to HIROSAKI
　〜By Airplane〜
Narita Airport
　↓(1hr15min)
Haneda Airport
　↓(1hr15min)
Aomori Airport
　↓(55min by bus)
Hirosaki City

JR Aomori st

Aomori Airport

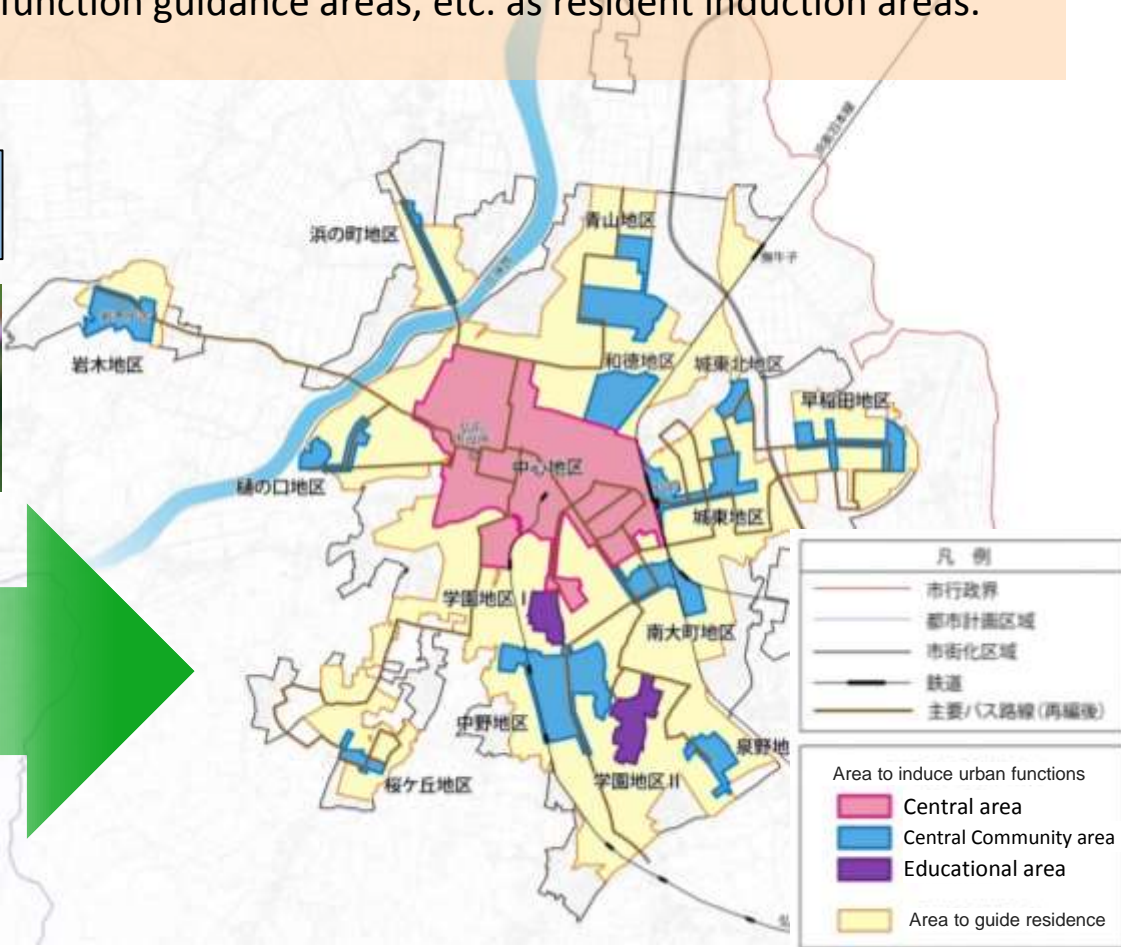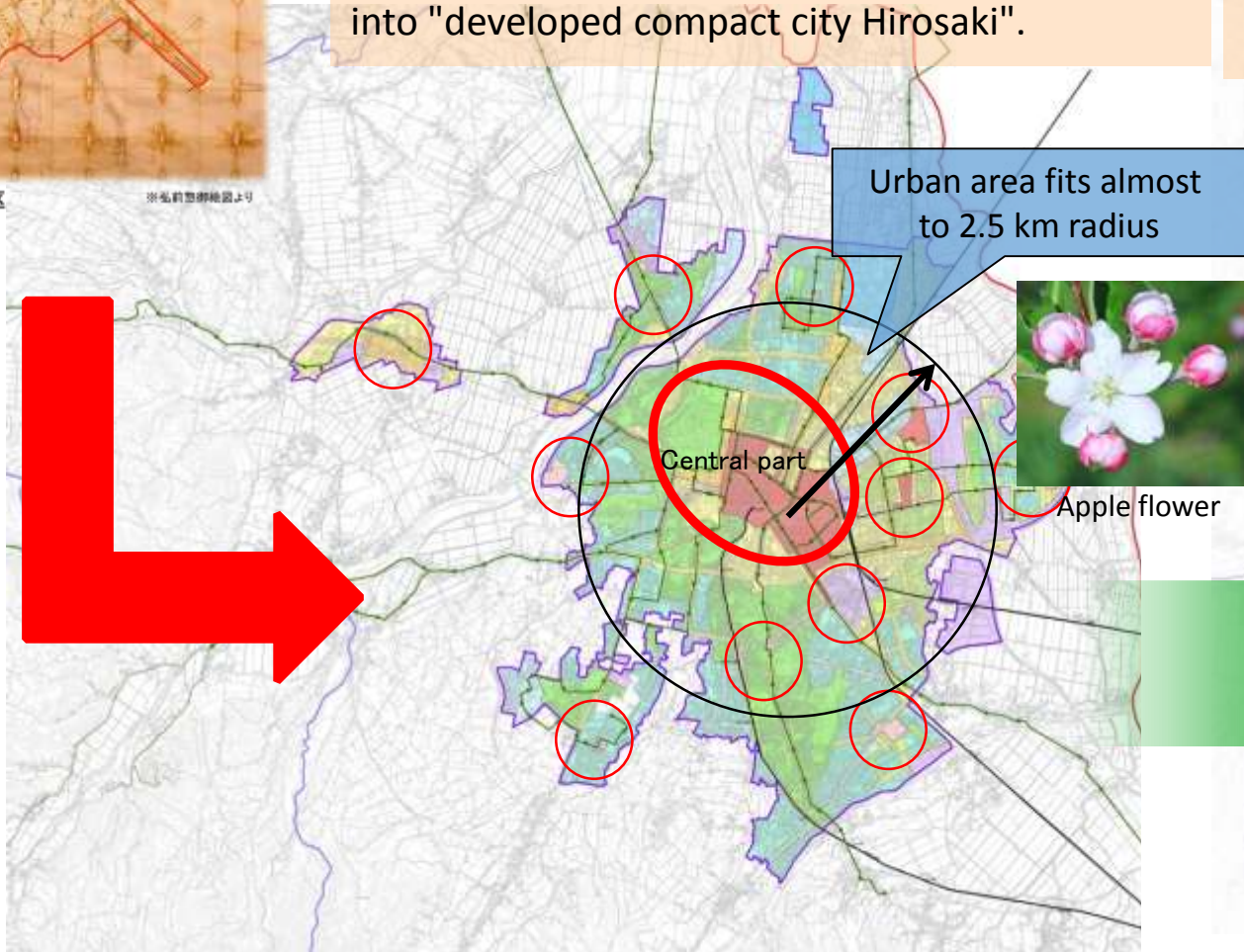**HIROSAKI**

Haneda Airport
(Tokyo)

東京

- Current urban area is almost same area as the area 400 years ago, spread around Hirosaki Castle
- Form a compact town where you can live well in public transportation, bicycles and walking.
- Establishment of a location optimization plan making use of town allocation in FY2018.

Approach to site location optimization plan

Utilizing the compact town similar to the appearance of flower of apple by promoting the site location plan (H.29.3.31 formulation), evolve into "developed compact city Hirosaki".

Induction of residential and urban functions

Based on regional characteristics, set three urban function guidance areas and areas that are easy to access urban function guidance areas, etc. as resident induction areas.

Urban area fits almost to 2.5 km radius

Central part

Apple flower

Area to induce urban functions

- Central area
- Central Community area
- Educational area
- Area to guide residence

"Remain Japanese traditional cultureand "Japanese style" western architectures"

Important cultural properties

Choushouji(temple)

Mt.Iwaki shrine

Saishouin Five-Storied Pagoda

"Japanese,Tsugaru style"western architectures

Important cultural properties

Memorial Hall of Aomori Bank

Important cultural properties

Hirosaki Gakuin
Foreign Missionary Residence

Former city library

Modernism architectures
by maekawa kunio

"Also Japanese traditional culture and "Tsugaru style"western culture"

Zen temple area(Zazen's experience)

Oyama sankei(Mt.iwaki Pilgrimage)

There are many Christian-related architectures

"Apple"

・Approximately 20% of Japan production
・Sales topped 100 billion yen(total of aomori pre)

"Tourism"

・Brand power for tourism is No.1 in tohoku
・12spots listed Green michelinman guide japan

We will succeed to the next generation facilities familiar and loved by citizens

Maekawa Kunio Implementing a long-lived and renovated civic hall and museum designed to succeed to the next generation.
While implementing facility refurbishment and function improvement according to the era, a curse of Shiko Minkakata design Restoration and outdoor cafe terraces of the porch roof.

【 drop curtain of Shiko Munakata 】

【Hirosaki Civic Center】

【 Hirosaki City Museum 】

It is utilized as a facility that feels history

Cultural property facility which was only used for conference room To the cafe to make it a familiar facility for citizens conversion.

【 Inside the store 】

【Former 8th Division】

public facility
Private historical cultural facilities

旧武家住宅：4棟
旧紺屋町消防屯所
緑の相談所
弘前城天守
弘前市立博物館
弘前市民会館
藤田記念庭園
旧第八師団長官舎
市庁舎
旧東奥義塾外人教師館
旧弘前市立図書館

Pinch once in 100 years as opportunity!

Hirosaki Castle Tenmyo's stone wall repair takes about 10 years, so it will be a big pinch as a tourism resource, but in order to make this a good opportunity, a citizen experience event is held.

【 Ishigaki Repair Construction 】

【 Hikiya event 】

Utilizing infrastructure for tourism resources

Adjusting the amount of water By riverizing the outer moat, utilizing the flow that was born, formed flower rafts, built landscape value.

【hana-ikada】

Town hall as ″Government building that can be used for 100 years″!

Long-lived and renovated while taking advantage of the main building's tangible cultural heritage's appearance.

【city hall】

Creating space that citizens and tourists can relax

Providing sounds from high-quality sound sources to the tea room in the Western-style building, and offering ″apples″ and " cherry blossoms″Improvement of environment that can spend more comfortable thanks to scented healing space.

【Fujita Memorial Garden 】

Seven projects

○ Seven projects in the field "Life", "Energy", and "ICT"

○ Implement efficiently with evaluation and continuous verification

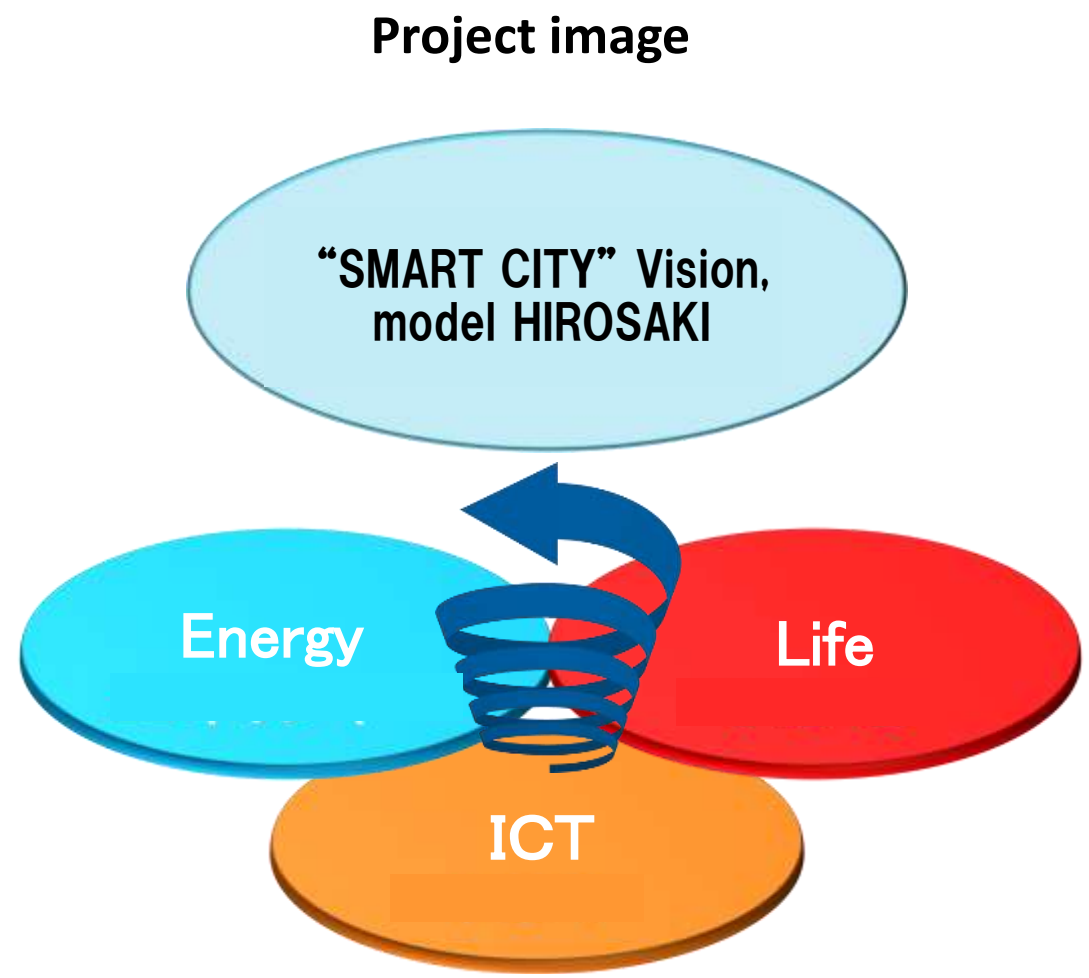○ Proceed while incorporating new technology flexibly

Life

・ Promotion melting snow and comfortable going out

・ Comfortable living environment

・ Utilization of snow resources

Energy

・ Independence and locally generated, locally used energy system

・ Green energy system for next generation

ICT

・ Centralization of regional knowledge by ICT

・ Realization of tourism city by ICT

Project image

"SMART CITY" Vision, model HIROSAKI

Energy

Life

ICT

INCREASE CO2 SAVING EFFECT BY EMS

ELEMENT : CLIMATE ＋ TRADITION ＋ RESTRICTION

【 Advanced & Diffusion Technology 】

Utilize the bright sun

1 ADR technology for CO2 reduction

※ADR（Auto Demand Response ）
　→Responding to requests by automatic control

2 Comfort by HDR technology
+
CO2 management utilizing climate

※HDR(Human Demand Response)
→Responding to requests by manual control

Utilize natural ventilation

✔Reference
For example, summer ventilation
・So far mechanical ventilation 100%
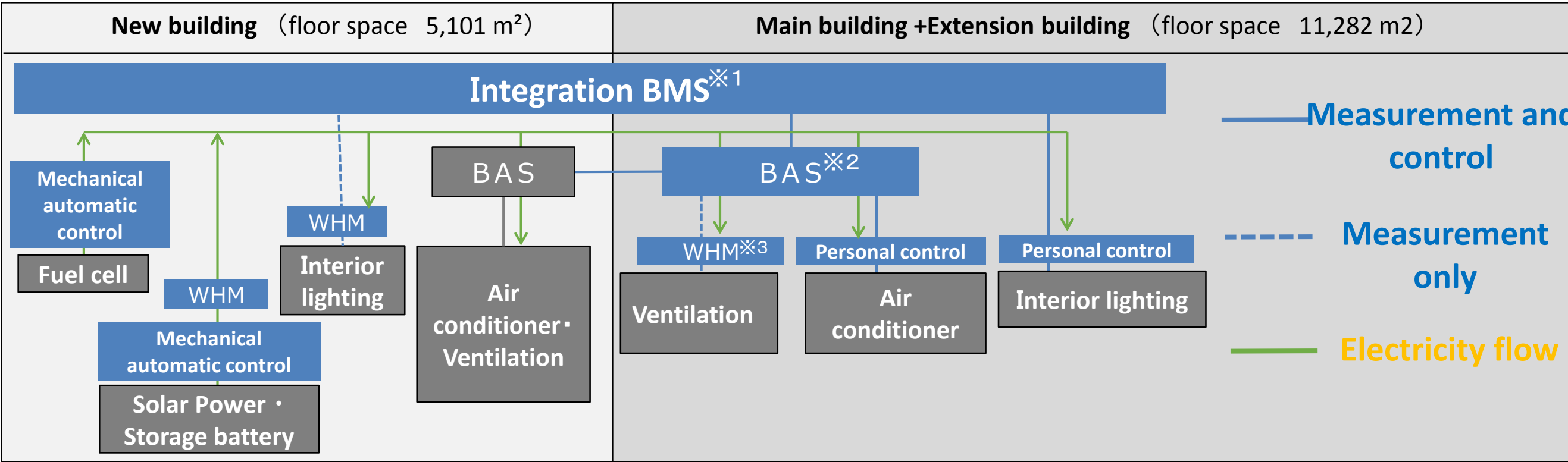・From now on machine control 50%
+ natural ventilation 50%

3 Link to regional facilities by energy management

HIROSAKI Castle Park

Main building
Extension building
New building

Main building（Historical buildings）+Extension building

✔Consideration for landscape

✔While repair

New building

✔Consolidation of energy facilities
（Solar power・Fuel cell・Storage battery）

【 Integration BMS（ Building Energy Management System ）:Integrated Energy Control Of Multiple Buildings】

New building （floor space 5,101 m²）	Main building +Extension building （floor space 11,282 m2）

Integration BMS[1]

Mechanical automatic control
Fuel cell
WHM
Mechanical automatic control
Solar Power・Storage battery
WHM
Interior lighting
BAS
Air conditioner・Ventilation

BAS[2]
WHM[3]
Personal control
Personal control
Ventilation
Air conditioner
Interior lighting

— **Measurement and control**

- - - **Measurement only**

— **Electricity flow**

※1 BEMS(Building Energy Management System) : Facility energy management system
※2 BAS(Building Automation System) :Centralized monitoring and control system for building internal facilities
※3 WHM(Watt Hour Meter)

1 Personal control system of lighting and air conditioning

Daytime zone
(automatic control of brightness using daylight)

At night
(individually lighting dimming)

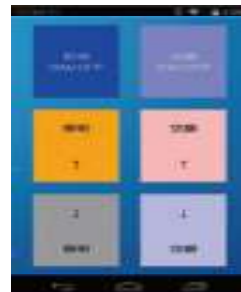Window
blind opens   （Comfortable outside light and fresh air）

2 "System information is visible"
Promote saving CO2 behavior and increase interest

Display
installation on t
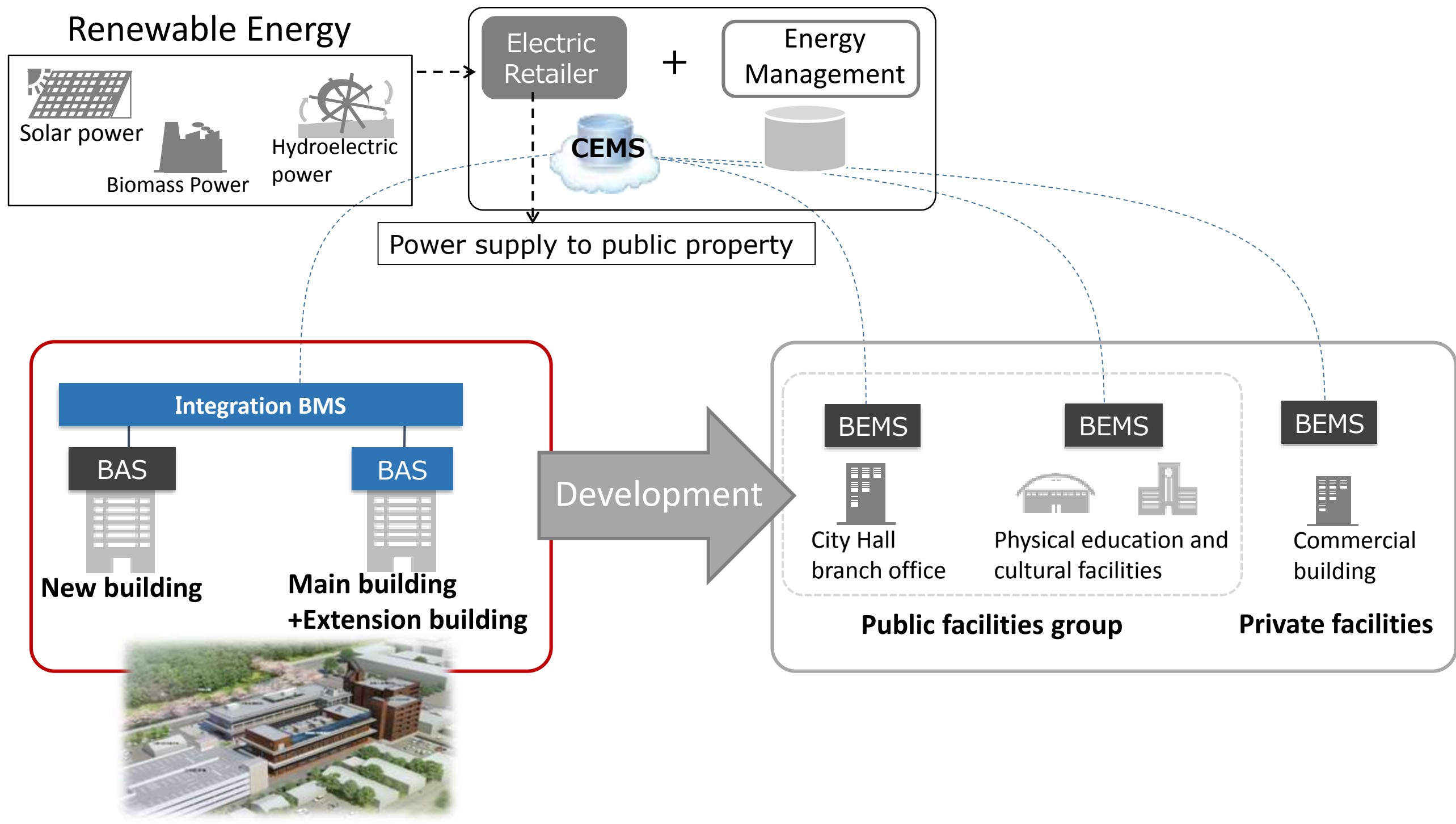city hall entran

Control by "self-
seat PC"

"Smartphone"
"Tablet"
Control

3 Health・comfort・saving CO 2, unique comfort indicator

5	4	3	2	1
GOOD		NORMAL		BAD

Confirmation of comfort "Self-seat PC"

"LEADING PROJECT" **Energy management in public facilities group**

Renewable Energy

Solar power

Biomass Power

Hydroelectric power

Electric Retailer

+

Energy Management

CEMS

Power supply to public property

Integration BMS

BAS

BAS

New building

Main building +Extension building

Development

BEMS

City Hall branch office

BEMS

Physical education and cultural facilities

BEMS

Commercial building

Public facilities group

Private facilities

- Plan for this study tour

1. To expand the knowledge on attractive historical resources(architecture, culture etc.) in Hirosaki City

   - This year, Hirosaki cherry blossoms festival will celebrate 100th anniversary, Over 2 million tourists will visit Hirosaki during this study tour, because cherry blossoms will be in full bloom at April 24th

   - Learning about good practices of effective facility management through inspection and discussion(ex.Hirosaki castle,Fujita memorial garden etc.)

2. To understand about Smart city vision and discuss future directions to increase the value of this vision by exchanging best practices and know-how

   - Learning about some projects that we're promoting to build effective social system, based on Smart city vision.

Promoting collaboration on "Buildings and site regeneration"

Ex. The project "Sight" regeneration bring "site" regeneration