


# International Forum on the "FutureCity" Initiative

## Presentation Material

### Kashiwa's FutureCity Initiative Efforts



Academia  
  
 University of Tokyo,  
 Chiba University

Public  
  
 Chiba Prefecture,  
 Kashiwa City, NPOs

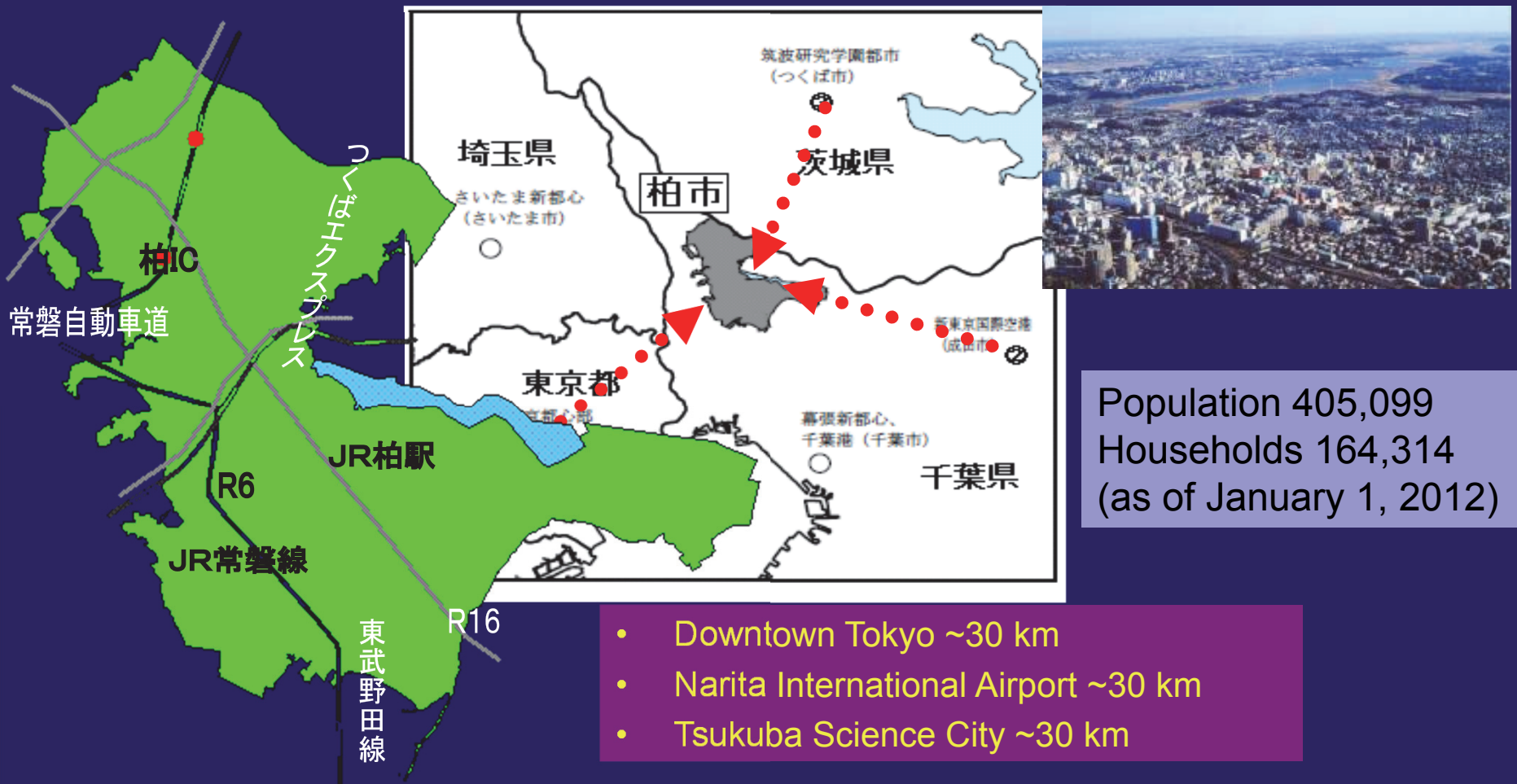
Private  
  
 Businesses and  
 citizens



February 21, 2012  
 Hiroyasu Akiyama  
 Mayor, Kashiwa

## Kashiwa in Brief

Kashiwa lies 30 km from downtown Tokyo, a “community” where beautiful nature represented by Lake Tega, the Tone River, the bustling commercial facilities in and around the JR Kashiwa Station neighborhood, and new industries growing mainly in the northern “Kashiwanoha (Oakleaf)” district come together in harmony.



# Challenges Facing Core “Suburban” Cities

◆ From reliant societies (relying on Tokyo, city hall, regulation) to self-reliant societies

—Population and industrial centers face challenges requiring local “wisdom” and “creative environments”.

## Challenges Facing Kashiwa

Environment and energy self-reliance  
Disaster-resistant community

Rapid transition to aged society  
Prevention and care-giving

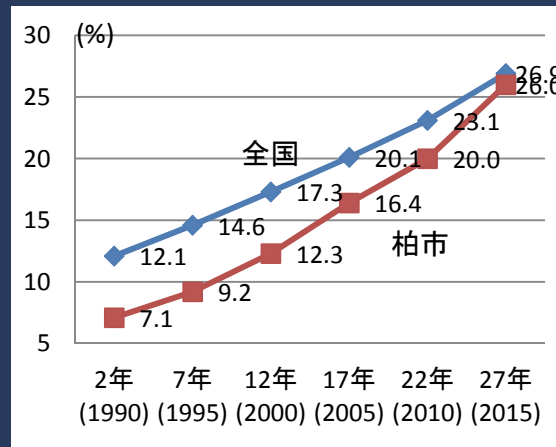
Creating new industries and employment  
Developing creative human resources

◆ Trend toward complex development

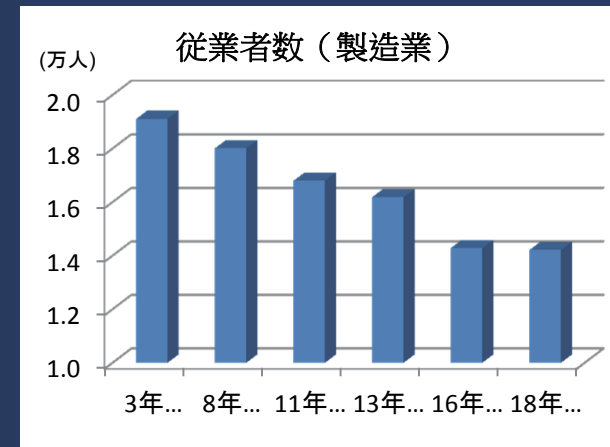


University, housing and commercial facilities  
Office buildings, hotels and the like

◆ Rapid rise in proportion of elderly



◆ shrinking manufacturing



Make full use of local resources

—[space], [networks] and [services]—for self-reliant urban management!

Self-reliant urban management through public/private/academia collaboration

**Smart City**

Use 100% natural energy  
 Enjoyable and efficient local energy management through resident participation

**City of health and longevity**

Active social engagement by the elderly  
 A mobility environment that incorporates ICT  
 A society where everyone can live an active, self-reliant life

**A City of New Industry Creation**

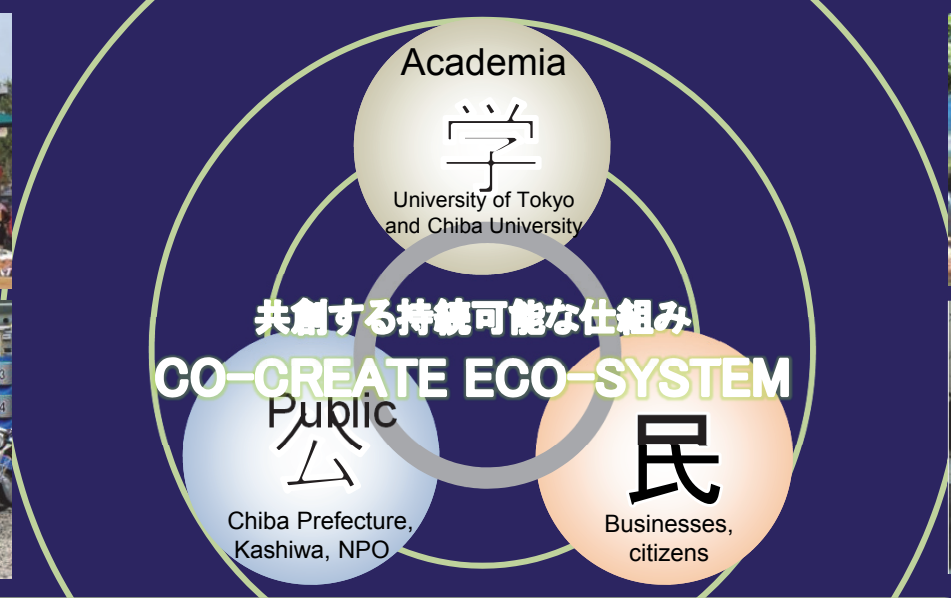
An internationalized environment where new industries are constantly created and businesses are nurtured locally utilizing Japan's "technological prowess."

Realizing a safe, secure and sustainable city where everyone wants to live



## Self-reliant urban management through public/private/academia collaboration

- Self-reliance** Sustainable urban management where local communities use local resources—residents, energy, space—self-reliantly and flexibly to meet local challenges
- Civics** Efforts to meet local challenges through collaboration between local communities and universities with their cutting-edge “wisdom”



[Local Challenges]  
CO<sub>2</sub> emission increase  
Traffic congestion  
Rapid aging  
Manufacturing doldrums

- Existing collaborative organizations including universities
- Urban Design Center Kashiwa-no-ha
  - Kashiwa ITS Promotion Council
  - Kashiwa-no-ha Eco-Promotion Council
  - Smart City Project
  - Gerontology Consortium, the University of Tokyo Industry-Academia Collaboration
  - Chiba University Kashiwanoha College-linked Program Network
  - NPO Plant Factory
  - TX Entrepreneur Partners

[Local Resources]  
Concentration of universities and research institutes  
Development with train station at the core  
Abundance of nature and agriculture  
Local actors

# Kashiwanoha International Campus Town Initiative

○Enhancing local education



## Kashiwanoha International Campus Town Initiative

○Designing urban space



○Efforts on ITS (ITS demonstration test model city)

柏の葉地域において、ICT等を活用し、モーダルミックス、サスティナブルな交通移動を実現するための取り組み、次世代モビリティの可能性の検討・検証を行うことで、環境に配慮した「次世代型環境都市の実現」を目指すとともに、「実証実験の支援と実現プログラムの提供」を実現する。

■実現に向けた取り組み

【モーダルミックス】

自動車

パーク&レールライド

公共交通機関

オンデマンド交通

パーソナルモビリティ

ペロタクシー

サイクルシェア

【国内他地域への情報発信】  
(セミナー・シンポジウムの開催)

【サスティナブルな交通移動】

次世代モビリティ

エコライド

次世代モビリティ

モグウェイ

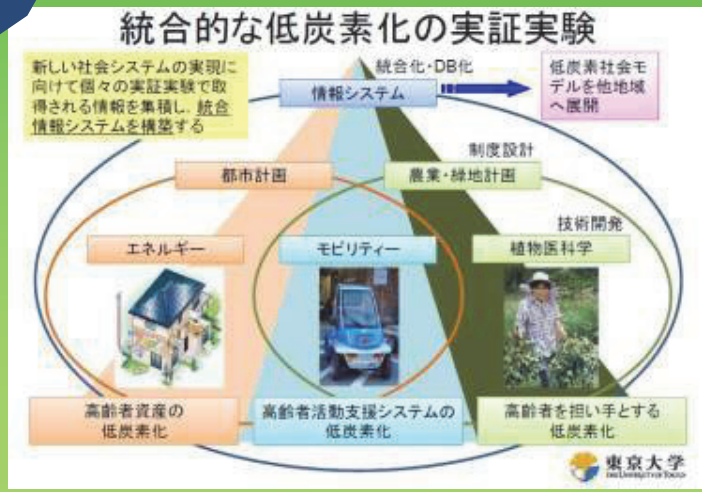
ウイングレット

次世代型環境都市の実現  
実証実験の支援と実現プログラムの提供



Urban Design Center  
Kashiwa-no-ha

○Efforts on JST



- ◆ Comprehensive special zone system and FutureCity designation (“Self-reliant Urban Management through Public/Private/Academia Collaboration” selected on December 22, 2011)
- ◆ Comprehensive collaboration agreement with the University of Tokyo (signed on December 21, 2011)
- ◆ Comprehensive collaboration agreement with Chiba University (signed on October 26, 2011)

[Vision] Self-reliant urban management under local ownership

So

Guidelines for efforts to achieve objectives

which lead to

Value creation

Future Image of Kashiwanoha Campus

<b>Smart City</b>	Enjoyable and efficient local energy management through public participation using 100% natural energy
<b>City of health and longevity</b>	A society where everyone can live an active, self-reliant life through active social engagement, ICT and the mobility environment
<b>A City of New Industry Creation</b>	An internationalized environment where new industries are constantly created and businesses are nurtured locally utilizing Japan's "technological prowess."

- Effective use of local energy
- ITS smart town that meets a wide range of mobility needs
- Comprehensive services to maintain and improve the health of the elderly
- Realizing local communities where the vigorous elderly can play active roles
- Realizing sustainable local economic activities
- Establishing urban development models and turning them into reality through public/private/academia collaboration

Main	Knock-on Effects
<p>&lt;Environmental Value&gt; Promoting carbon reduction</p>	<p>&lt;Economic Value&gt; Creating new industries</p> <p>&lt;Social Value&gt; Safe and secure neighborhoods Enhanced activities</p>
<p>&lt;Social Value&gt; A society where the vigorous elderly can play active roles Reinforcing communities Solidifying social businesses</p>	<p>&lt;Economic Value&gt; Revitalizing local economies Containing medical costs</p>
<p>&lt;Economic Value&gt; Continuous creation of new industries</p>	<p>&lt;Social Value&gt; Creating communities with character</p>
<p>&lt;Social Value&gt; Enriching communities New lifestyles</p>	<p>&lt;Economic Value&gt; Innovation Field~</p>

# The Efforts

-Business feasibility, maturity, seriousness

# Environmental Efforts

[Axis 1] Environment and local energy

[Objectives, solutions] Efficient energy use, local energy use during disasters

## Area energy management system (AEMS)

Unified management of all local energy supply and demand  
⇒ priority lifeline supply to refuge shelters during disasters



Effort ⑤ White certificates (carbon offset system)

Effort ① Establishing the Kashiwanoha AEMS Center

Effort ② Deploying large gas-powered generators

Effort ③ Generating and consuming renewable energy locally during disasters

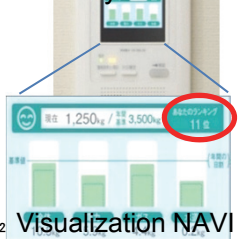
Effort ④ Providing electricity between urban districts during emergencies

[Local Resources and Efforts] Environmental activities through collaboration between citizens, administration and businesses



Local disaster prevention tour by the Kashiwanoha-campus Station Urban Development Council

### ◆ CO<sub>2</sub> Visualization NAVI system



“CO<sub>2</sub> Visualization NAVI system” developed through a social experiment with 100 citizen monitors



Consortium of 18 businesses including Hitachi, Sharp and SAP

### ◆ Kashiwa Stop Ondanka (global warming) Supporters Operation



2010 forum Currently 30 supporters



# [reference] Energy balance monitor

柏の葉 KASHIWANOHA AEMS

AREA: ららぽーと柏の葉

8:00 AM

お天気 ☁️

22°C

88%



MENU 01

MENU 02

MENU 03

MENU 04

MENU 05

- ECO NEWS TODAY**
- 東京電力福島第一発電所で放射能
  - 大型LED蛍光灯開発
  - 蓄電池付LEDライト発売開始
  - 省電力委員会閣議決定
  - 放射能もれさらに拡大
  - 都市部を中心にグリーン
  - スーパービズ今日から各地区で
  - 大型台風九州地方に接近

**暑さ・熱中症予測**

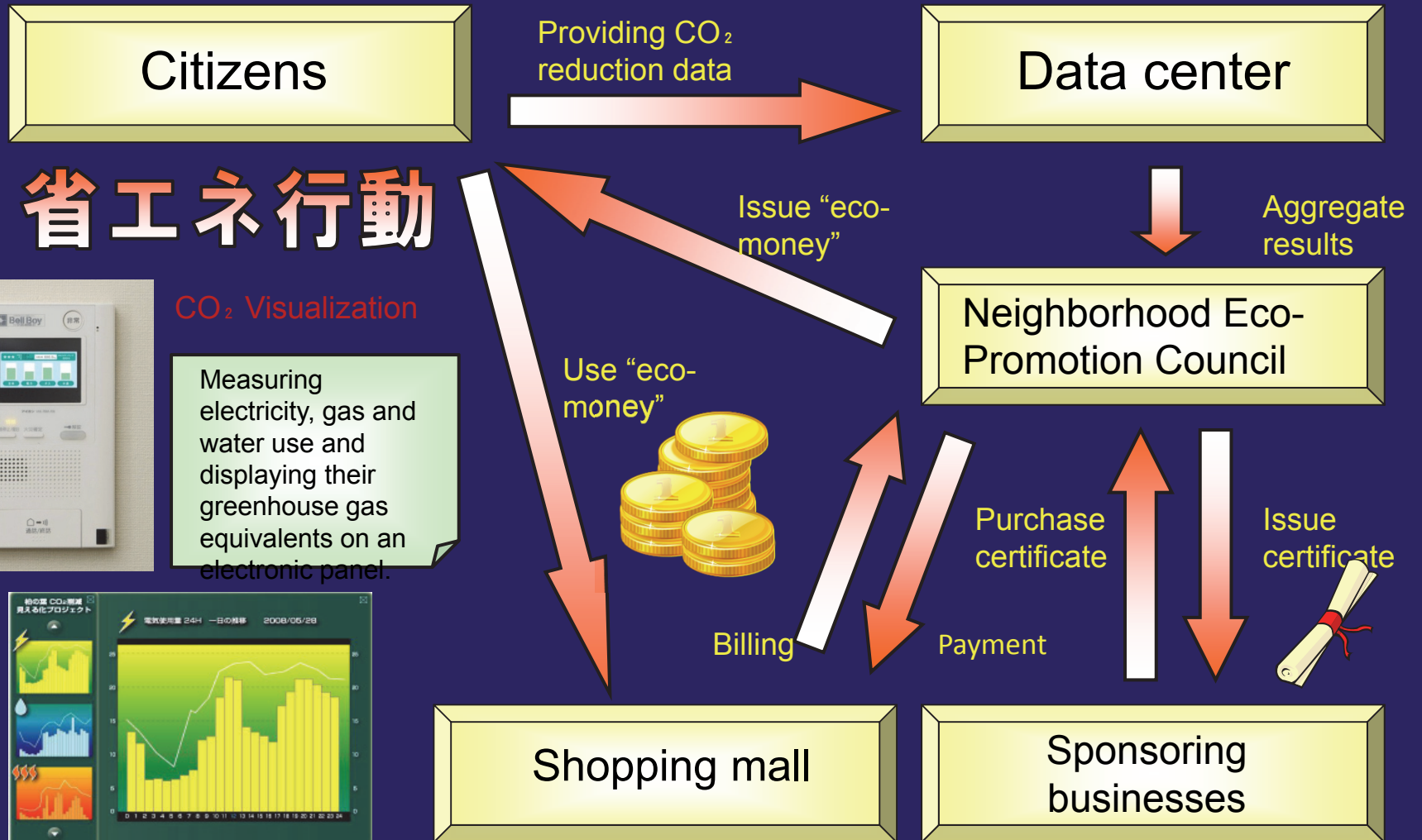
千葉		今後の予測							
		3時	6時	9時	12時	15時	18時	21時	24時
6月1日18時	6月1日						15	15	15
時点	6月2日	15	17	20	20	19	18	16	15
14.5°C	6月3日	15	17	21	22	24	21	20	19

親子		今後の予測							
		3時	6時	9時	12時	15時	18時	21時	24時
6月1日18時	6月1日						16	14	15
時点	6月2日	15	17	20	19	19	17	15	15
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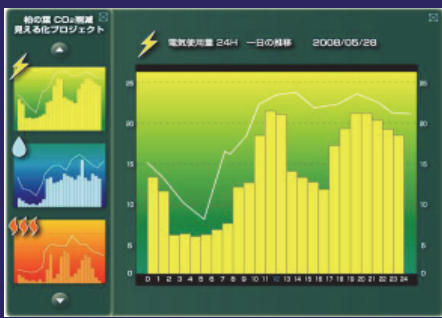
# [reference] Housing CO<sub>2</sub> Visualization NAVI system



## 省エネ行動

### CO<sub>2</sub> Visualization

Measuring electricity, gas and water use and displaying their greenhouse gas equivalents on an electronic panel.



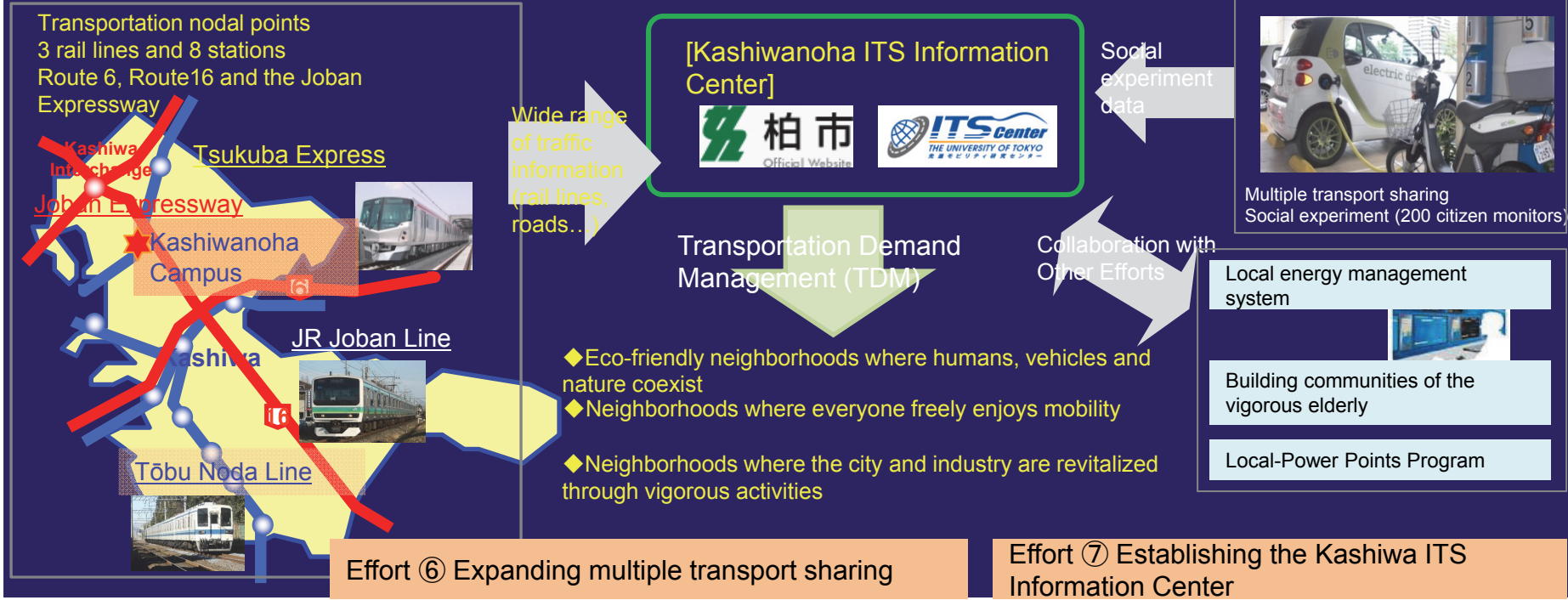
The Efforts

-Business feasibility, maturity, seriousness

# Environmental efforts

[Axis 1] Environment and transport

[Objectives, Solutions] Building an ITS smart town that is gentle to humans and the environment and supports a self-reliant city



[Local Resources and Efforts] large number of citizen participatory demonstration tests led by the Kashiwa ITS Promotion Council (51 organizations)



◆ Kashiwa ITS Seminar (February 2011, 151 participants)



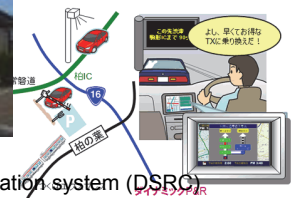
◆ "Smart Cycle" bicycle sharing  
 · 500 citizen monitors  
 · UC41 (5 in the north, 3 in the center)



◆ on-demand Buses  
 · Kashiwa site of first social experiment  
 · Social experiments in 30 locations nationwide to date



◆ Next-generation Car navigation system (DSRC)  
 · 60 citizen monitors  
 Location (commercial facilities in the north, roadside stations in the south)



The Efforts

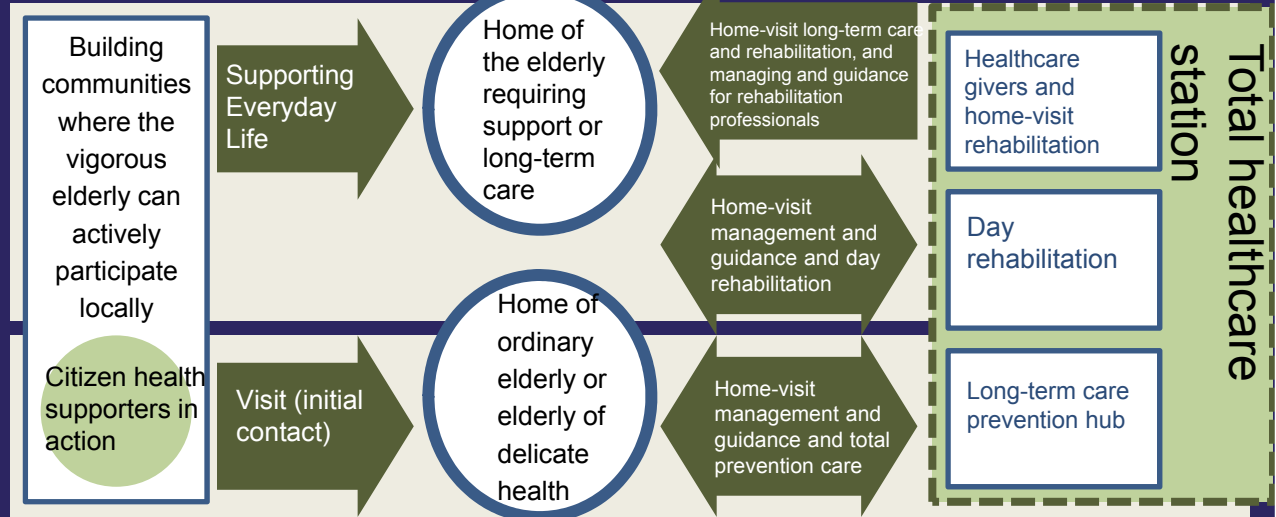
-Business feasibility, maturity, seriousness

Efforts on Super-aging

[Axis 2] Super-aging

[Objectives, Solutions] Increasing service participants by establishing total healthcare stations

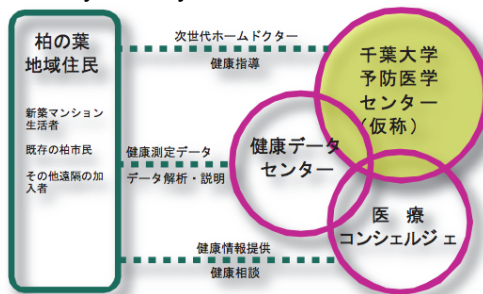
Integrated provision of locomotorium rehabilitation, oral care and nutritional care in collaboration with doctors and care managers



Effort ⑨ Building communities where the vigorous elderly can actively participate

Effort ⑧ Establishing total healthcare stations

[Local Resources and Efforts] Efforts for health improvement with Chiba University in the lead; collaboration with the Institute of Gerontology, the University of Tokyo



Health Support Network (health visualization)



Exchange programs in old residential neighborhoods by local university students



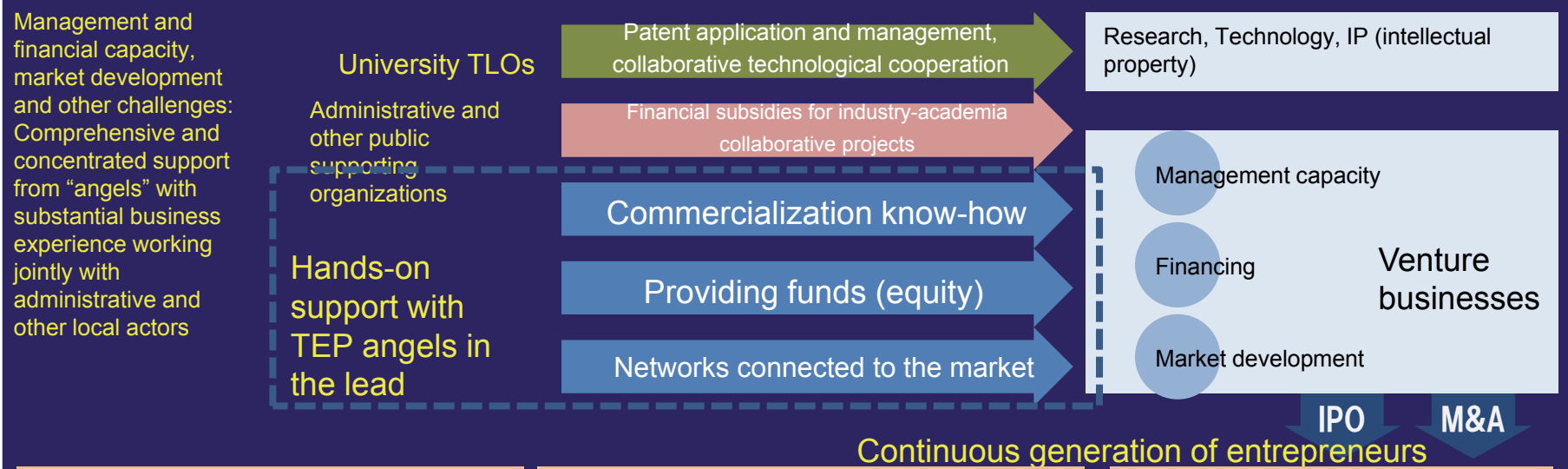
Institute of Gerontology, the University of Tokyo

The Efforts

-Business feasibility, maturity, seriousness

Efforts on nurturing new industries and entrepreneurs

[Objectives, Solutions] Promoting the commercialization of university and research institute ventures

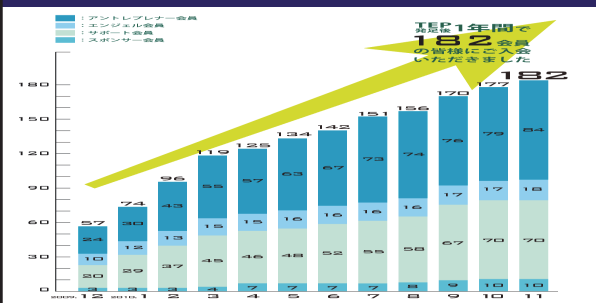


Effort ⑩ Comprehensive support for university and research institute ventures

Effort ⑪ Effecting model cases of business startup support by individuals

Effort ⑫ Asia-wide networking by university ventures

[Local Resources and Efforts] Hands-on support from top-level university and research institute concentrations and TEPs



From Angel Members to Entrepreneur Members:  
Investment: 8 cases  
Management Guidance: 9 cases

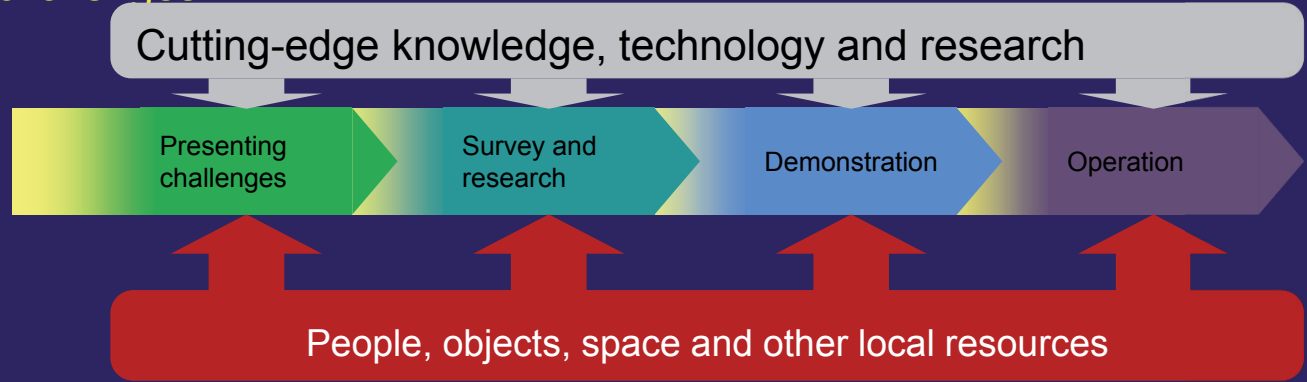


# The Efforts

-Business feasibility, maturity, seriousness

## Efforts to nurture "local power"

[Objectives, Solutions] Local actors joining together to construct sustainable solution models for challenges



Joint efforts by local actors to construct sustainable models

### Effort ⑬ Local-Power Points Program for local actors nurturing local power

- Common Points Program for participants in local activities and social experiments
- Facilitating participation in local activities and enhancing benefits > promote participation
  - Enhancing data collection, accumulation and analysis efficiency

### Effort ⑭ Road and other flexible local maintenance and management

- Promoting social experiments and local activities using roads, etc.
- Sustainable management of bustling, high-quality urban space (area management) led by local actors

Human resource development



Local communities and high-level activities



Wide-ranging social experiments



[Local Resources and Efforts]



Framework  
Effectiveness, maturity, project management

Developing and implementing self-reliant urban management

### Kashiwanoha International Campus Town Initiative

Public-private-academia follow-up and project tracking through civics (2008 ~ )

Follow-up subgroups set up each year (7 subgroups established in 2011) with UDCK as the secretariat  
Liaison meetings held for progress management and overall coordination

Applying PDCA

A follow-up report published each year

### Businesses

- Local businesses (chamber of commerce and industry)
- Japanese and foreign businesses

F  
D  
C  
Participation

**Kashiwanoha Campus and FutureCity Consortium**  
(Kashiwa, University of Tokyo, Chiba University, Mitsui Fudosan, Smart City Project, Urban Design Center Kashiwanoha (UDCK), TX Entrepreneur Partners (TEP)  
Overall PM: Urban Design Center Kashiwanoha (UDCK)

#### ① Environment Subgroup

Explore ① local energy management, ③ renewable energy sources, ③ large-scale gas, ⑤ mutual electricity assistance during emergencies, ⑥ carbon offset, ⑦ ITS

#### ② Meeting the aging challenge

Explore ⑧ total healthcare, ⑨ building communities where the vigorous elderly can actively participate

#### ③ Business Startup and Nurturing Subgroup

⑩ Comprehensive support for university and research institute ventures, ⑪ effecting model cases of business startup support by individuals, ⑫ Asia-wide networking by university ventures, ⑬ Local-Power Points, ⑭ flexible local road maintenance and management, ⑮ public/private/academia collaboration

U  
D  
C  
K  
Participation

### Citizens

- Neighborhood clubs
- UDCK
- Neighborhood Development School
- Kashiwanoha Neighborhood Eco-Promotion Consultations

- ◆ Promoting projects based on an open platform with citizen participation and private investment
- ◆ Transmitting information and drawing on public opinion for publicly accessible promotion
- ◆ Progress monitoring progress, prioritization and overall coordination by the supervisory project manager (UDCK)

Developing a self-reliant urban management model that fits the characteristics of the three zones

Northern zone

International academic city  
Next-generation environmental city

Self-reliant city based on public-private-academia collaboration  
Pioneering implementation of management models

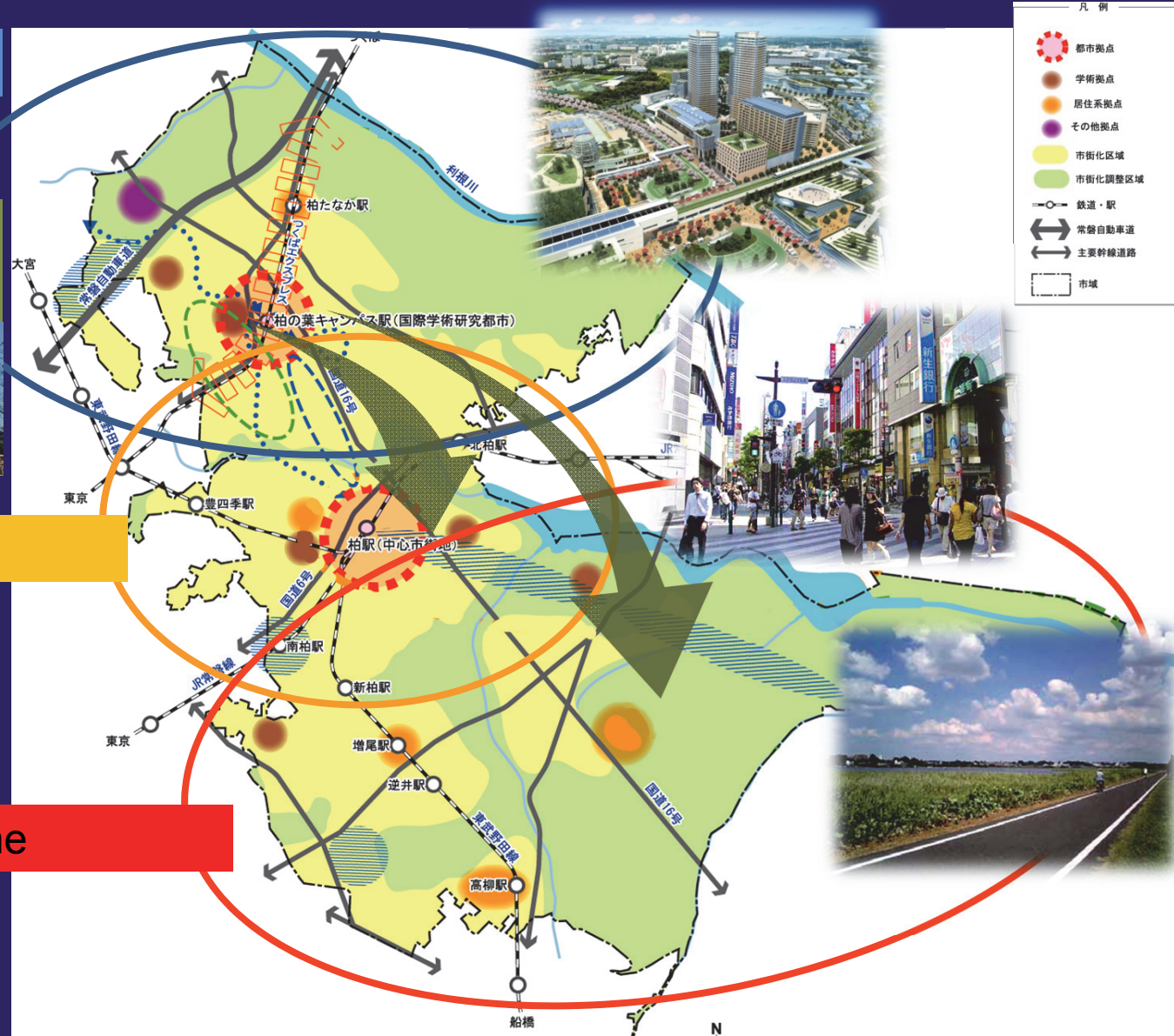


Central zone

Translocal commercial hub  
Creating an environment that provides purpose in life to the elderly

Southern zone

Agriculture, tourism and recreation  
Coexisting with nature





### ③ Framework – intercity collaboration and networking

## National and global dissemination and projection

National and global dissemination and projection through information transmission from the hub and through 6 channels

From Kashiwanoha to all of Kashiwa

Information transmission from UDCK (website, receiving observation tours, etc.)

Information transmission and human exchanges

Receiving over 70 tours in 6 months  
Internet, PR publications, forums

モデル都市としての発信  
(ITS、植物工場等)

Projection through 6 channels

公  
民  
学

Platinum Initiative Network

UDC network

Smart City Business Consortium

Kiedanren (Japan Business Federation)

TEP Network

Asian University Network

Nationwide



Worldwide



## Neighborhoods that create the future of the world



We will project information worldwide together with the Platinum Network.