

Smart City Development through Cooperation and Partnerships



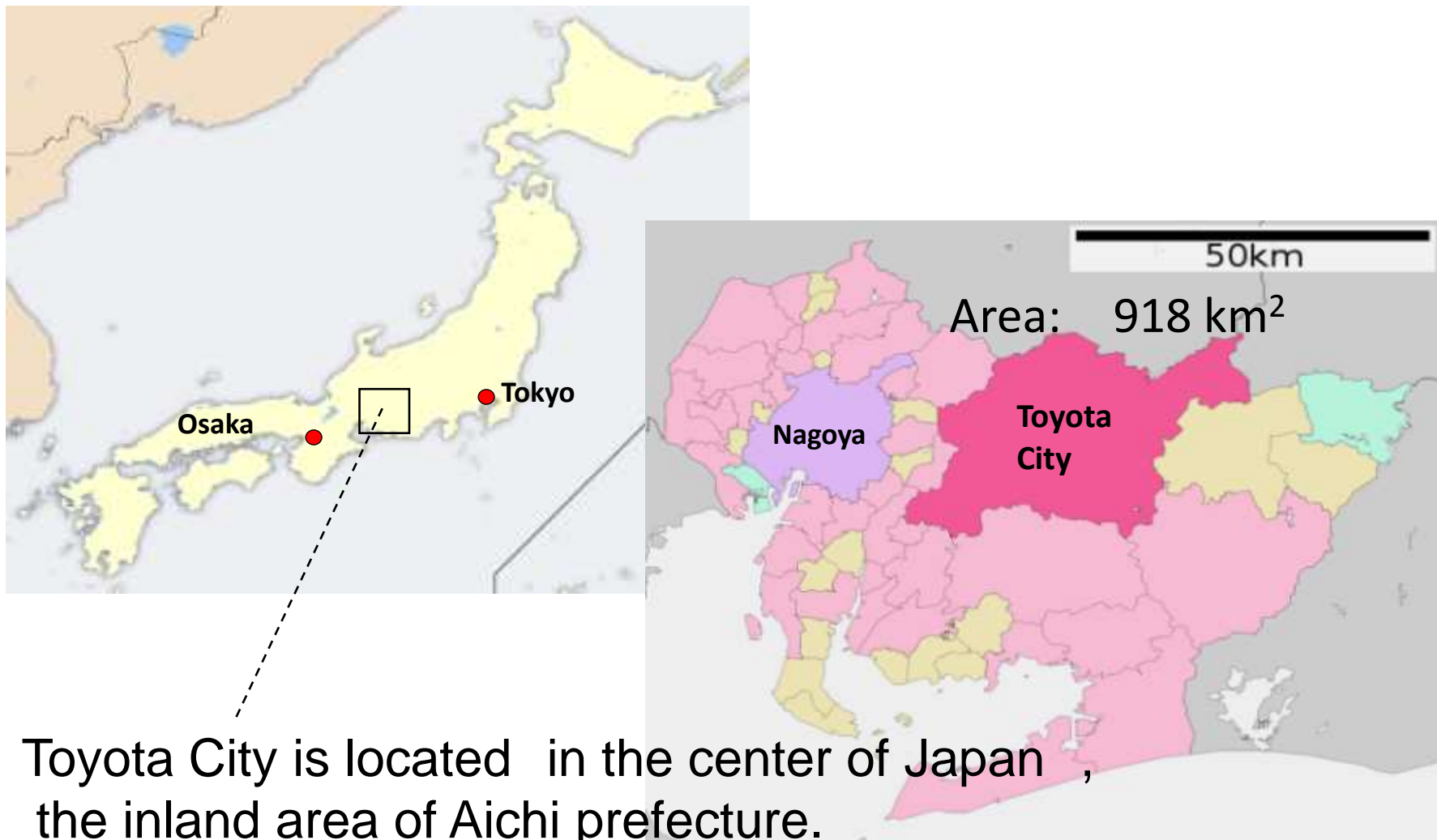
Grenoble-Alpes Metropole
(FRANCE)



Toyota City
(JAPAN)



Location of Toyota City

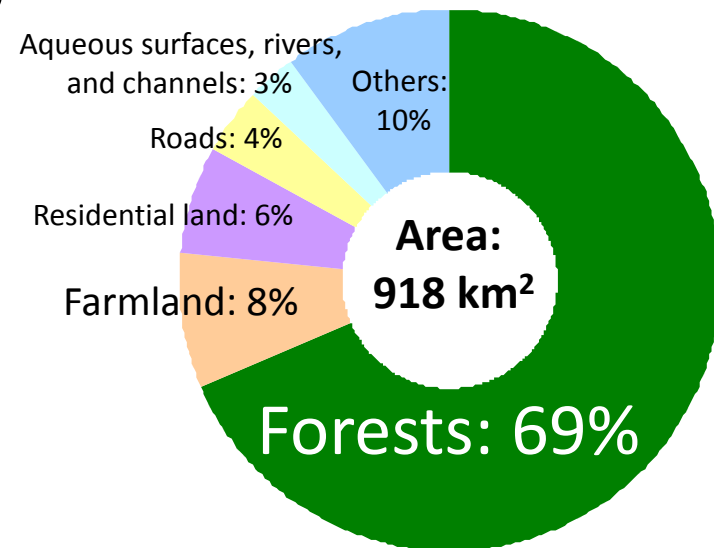


Toyota City is located in the center of Japan ,
the inland area of Aichi prefecture.

Characteristics of Toyota City

- Population/household: 420,000/170,000
 - Administration: Core City
 - 70 % is forests areas
 - Specialties: Peaches, Pears, Tea, Vehicles
- 【Problem】

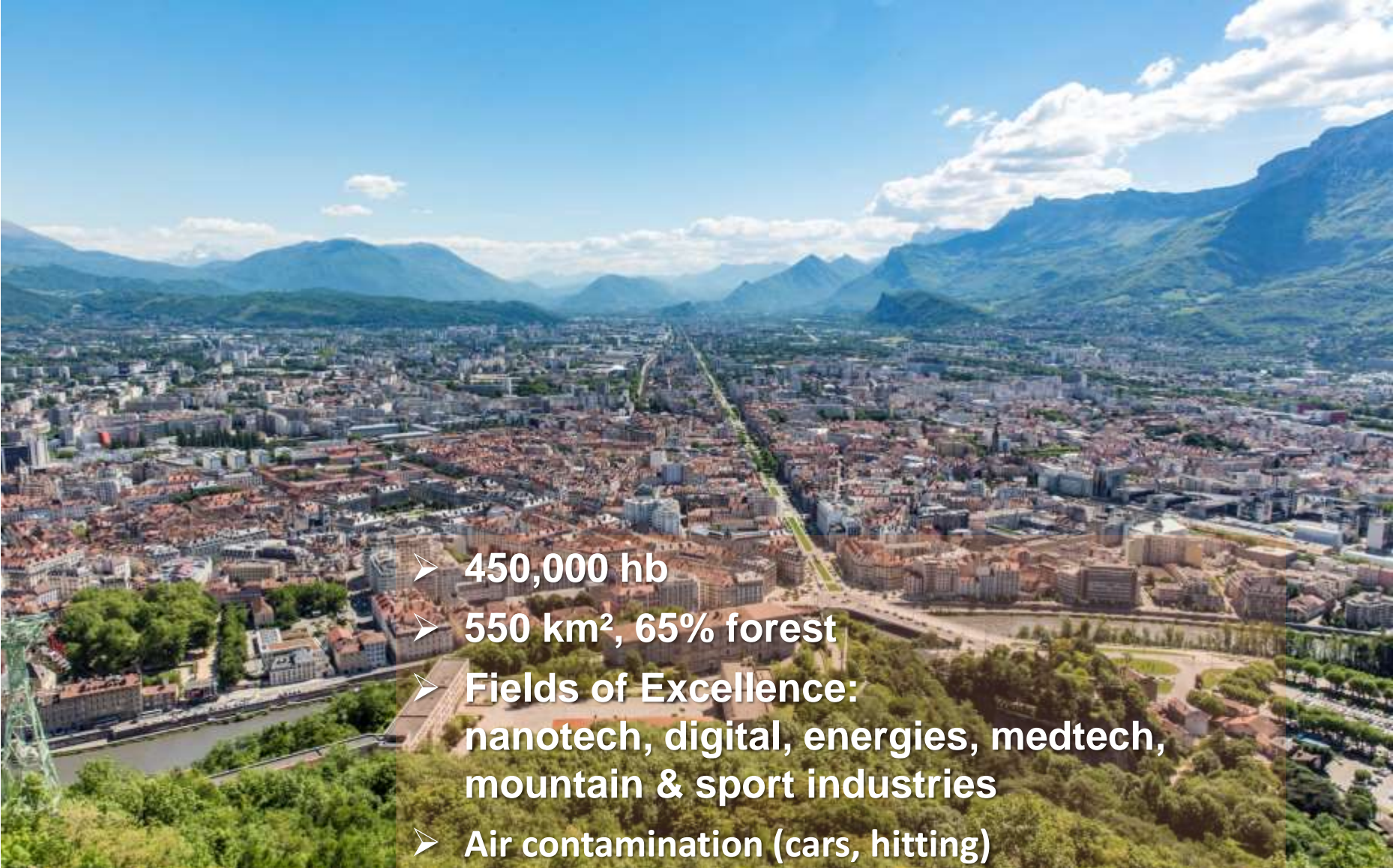
High emission of CO₂ in industry field



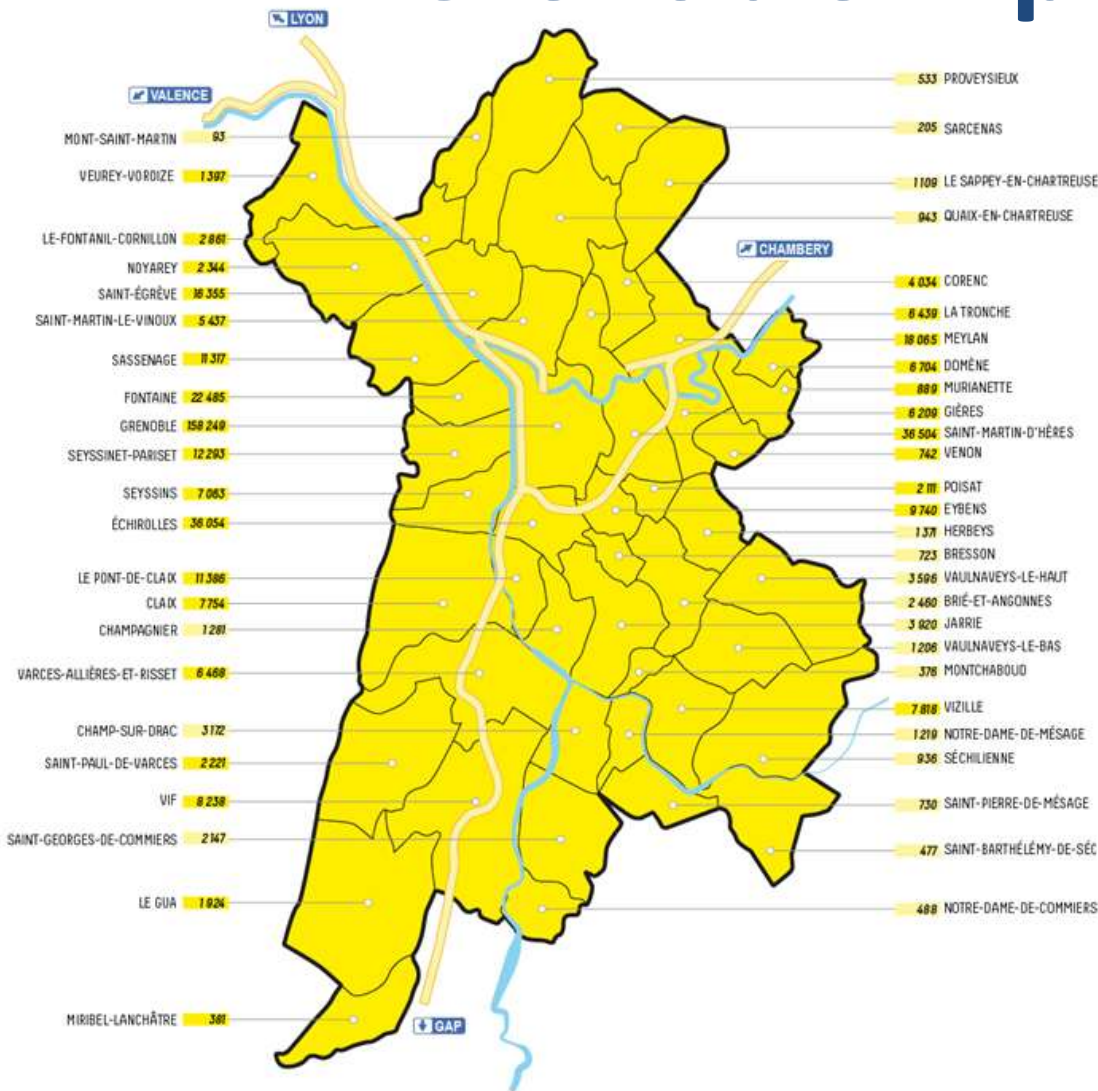
Location of GAM



Characteristics of GAM

- 
- 450,000 hb
 - 550 km², 65% forest
 - Fields of Excellence:
nanotech, digital, energies, medtech,
mountain & sport industries
 - Air contamination (cars, hitting)

Grenoble-Alpes Métropole



- **49 Municipalities**
- **Key areas for action:**
 - Economic Development; Higher Education & Research
 - Water and sanitation; Waste management;
 - Transport; Energy; Urban development; Environment
- **Smartcity : deeptech solution for transition city ...**

Common Items

Grenoble-Alpes Metropole / Toyota City

- population : approximately 400,000 people scale
- Town is constructed in an urban area and the mountainous area.
 - Urban area : Industrial agglomeration
 - Mountainous area : Regional revitalization
- Emphasis on a transport policy.
 - (Public transport, bicycle, Next-Generation Vehicles)



【subject】

**Civic action promotion for
the local problem solution/the smart city development.**

Theme of cooperation (specific objectives)

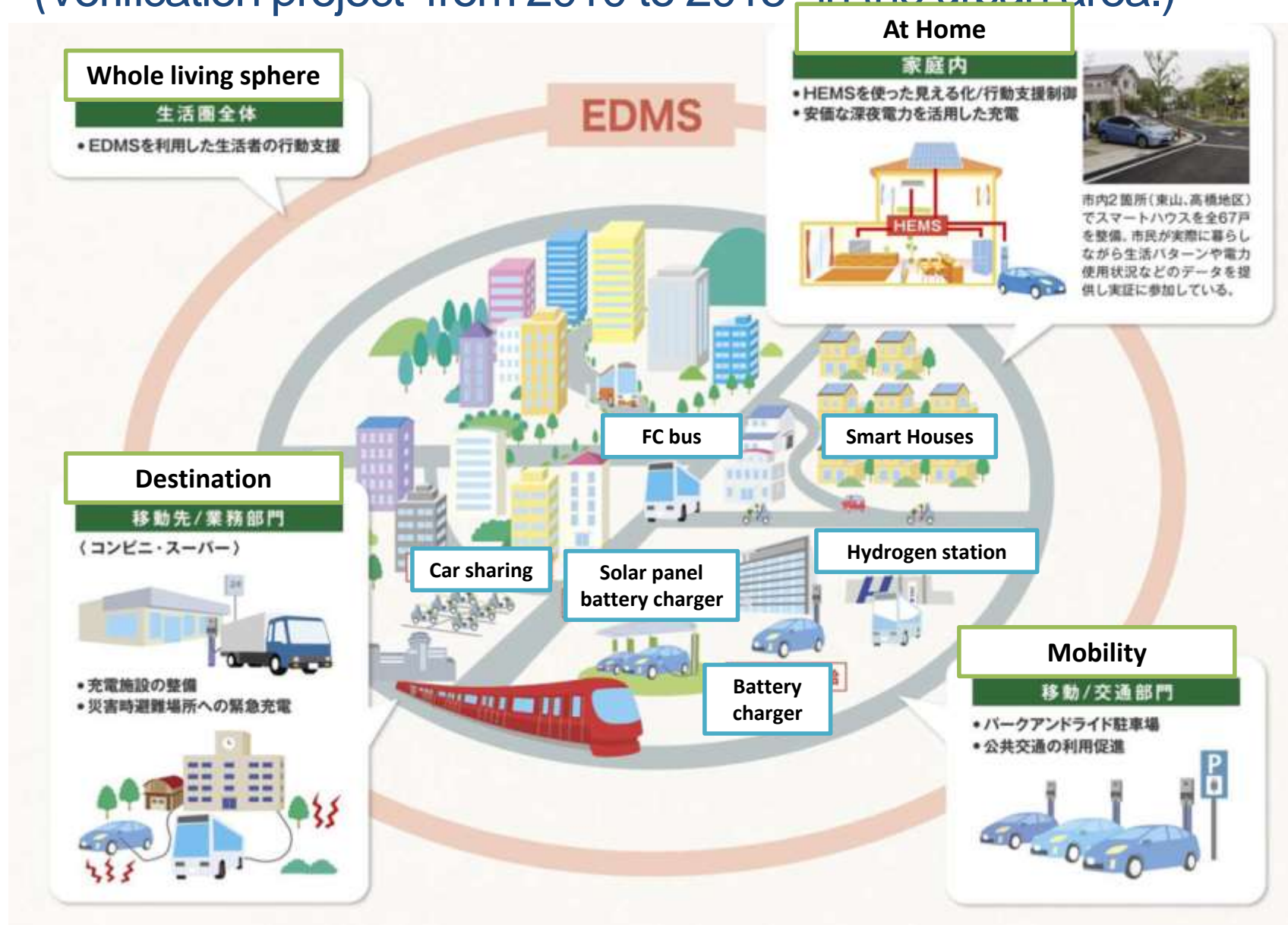
- 1 Increasing use of
Renewable Energy
- 2 Citizen participation for
(Environment)
Change management
- 3 Open Innovation & Soft landing

1 Increasing use of Renewable Energy



Next-generation Energy and Social Systems

(Verification project from 2010 to 2015 in the urban area.)



Bilateral working group on new energy systems in Grenoble (February 12th and 13th 2020)

Among the topics to be addressed:

- hydrogen,
- biomass,
- smart grids
- Solar and solar recycling



- > workshops, conferences
- > technical visits & B2B

(programme to be finalised)



On-site Hydrogen Station

since 2013



Subsidy for Fuel-Cell Vehicle Purchase (FCV) MIRAI

Toyota Motor Corporation launched MIRAI on December 15, 2014



Car runs with Hydrogen

Price (TAX.inc.): 7,236,000JPY

Subsidy by government: MAX 2,020,000 JPY

Subsidy by Toyota City: MAX 335,000 JPY (For individual)

MAX 150,000 JPY (For businesses)

Fuel Cell Bus



「SORA」



on August 8, 2019

Start to the business route by FC Bus (First trial in Japan)



Joint proof by;
Toyota Motor Co.Ltd.
Meitetsu bus Co. Ltd.
Toyota City



Picking up for the environmental learning

H2 fleet deployment , promotion to local stakeholders & networking



Toyota Mirai, Hyundai NEXO and Renault Kangoo are proposed to be purchased within the programme “ZEV”

Grenoble-Alpes Métropole is in charge of the deployment of the “ZEV” project on its territory

Regional objectives of ZEV:

Until 2023

+ 1000 H2 vehicles

+ 20 H2 refuelling stations

From 8000 km/vehicle/year a subsidy can be attributed to companies or administrations wanting to buy a hydrogen vehicle (maximum subsidy 18 000 €)

2 Citizen participation for (Environment) Change management



Civic action promotion

Toyota Eco Points

Eco Family Pledge

Aiming at 365kg reduction of CO² per person annually for prevention of the global warming

★Subsidy for Purchase

(Solar panel, battery charger, HEMS, EV,PHV,FCV.)



Eco Points to be Given for

Using a recycle station

Participating in environmental education & survey

Visiting an environmental learning facility "Eco T"

Goods to be exchanged with Toyota Eco points



→ box tissue(Mô-ichido)

Civic action promotion

Citizen awareness
rising


GRENOBLEALPES
MÉTROPOLE

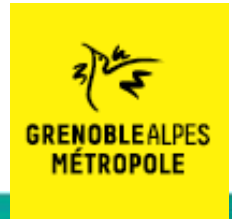


Thermic Isolation
subsidy

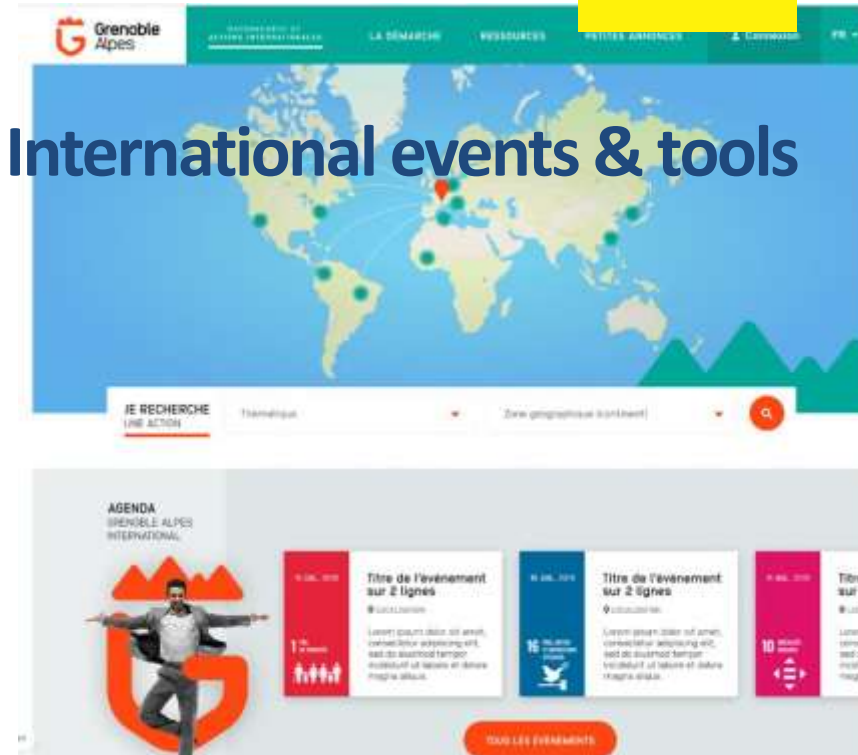


PV subsidy

Promotion of SDGs partnership



International events & tools



SAKURA PROJECT



3 Open Innovation Softlanding

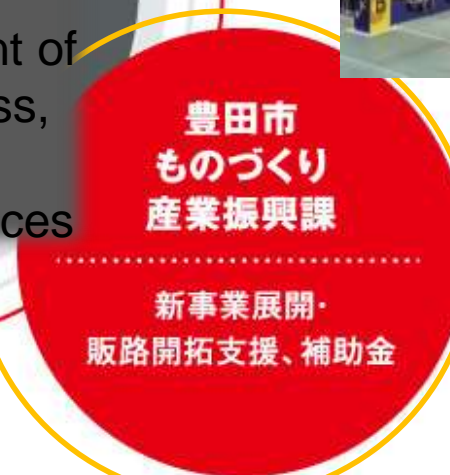


「SENTAN」 Base facilities of the manufacturing



SENTAN

support
the development of
new business,
innovation,
human resources





■ Venture matching

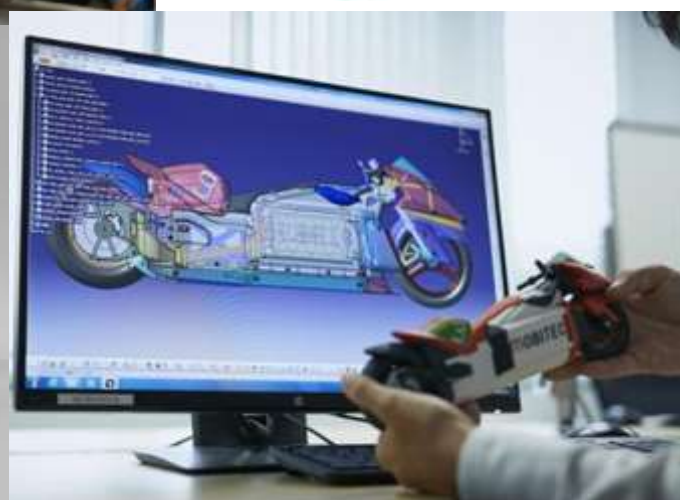
small-to-medium-sized company

×

Venture company



(Technology × Idea)



Results in 2018 Venture matching

Theme: AI

【the development of image recognition solution that utilized AI】

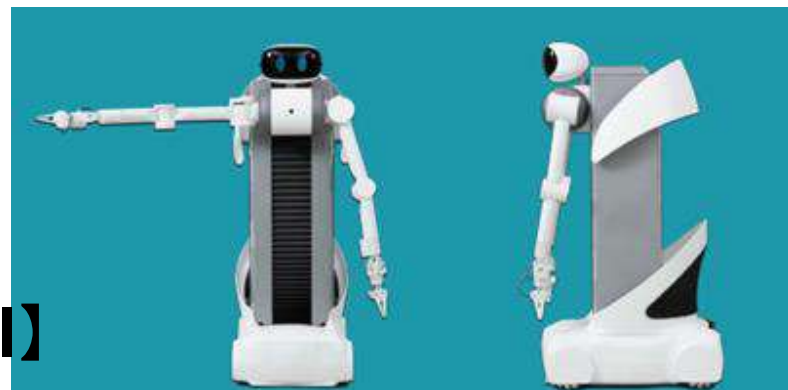
SHINMEI industry Co., Ltd.
× KISMO Co.,Ltd.



Theme: Robot

【the development of housework support live-in robot by the remote control】

NICHIEI mechanic Co., Ltd.
× Mira Robotics Co., Ltd.



Open lab



Incubator



Fablab

