



Building Toyama with the compact city strategy

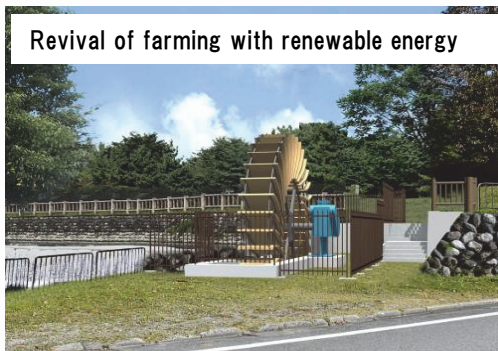
Mayor of Toyama Masashi Mori



Making the eco-model city concept a reality



Forming LRT network

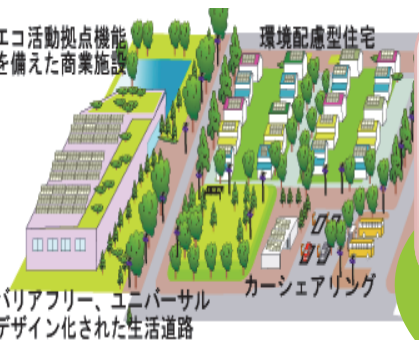


Revival of farming with renewable energy



Creating a healthy and sociable town

Creating a safe and eco-smart model town district



Environment

- Revitalized public transport
- Compact development downtown and along public transportation lines
- Harnessing of renewable energy

Super aging

- Walkable city
- A natural medicine production system
- Maintaining independence through human contact/at-home support service

Spaces for local community to meet



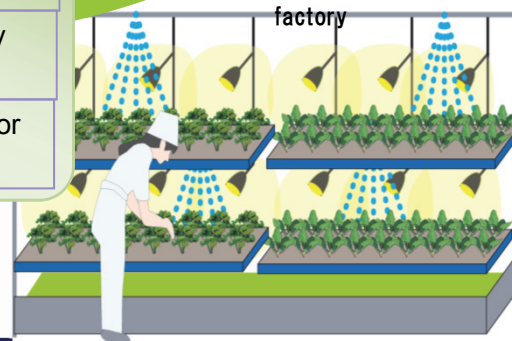
Farming, forests and forestry

- Foster the Toyama brand through agriculture, commerce, and industry cooperation
- Build an independent forestry model by harnessing forest resources
- Create a training and education centre for rural revival

Agriculture, commerce, and industry cooperation



Build a natural medicine factory



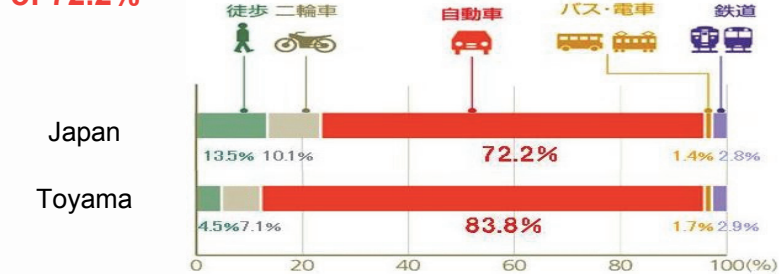
Situation in the city: Overdependence on cars and an eroding public transport network

Growing private vehicle ownership

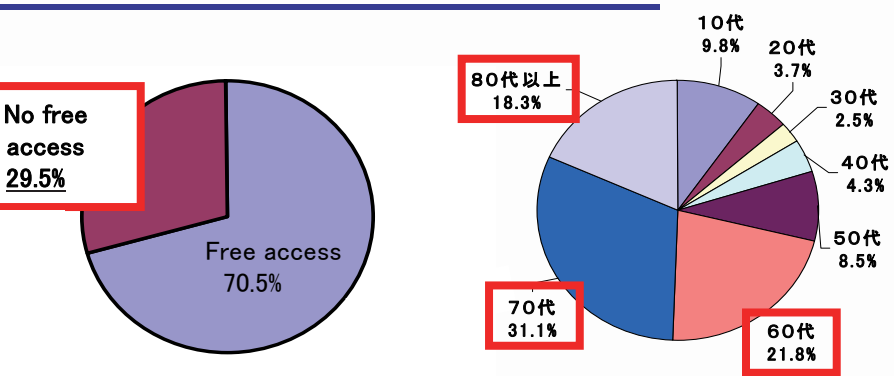
- 1.72 per household (No. 2 in Japan – Toyama Pref.)
- Car growth of 140% (vs 120% national average)
- Minicar growth of 740% (vs 590% national average)

Modes of transport

83.8% of commuters drive, as opposed to national average of 72.2%



Citizens without free access to vehicle

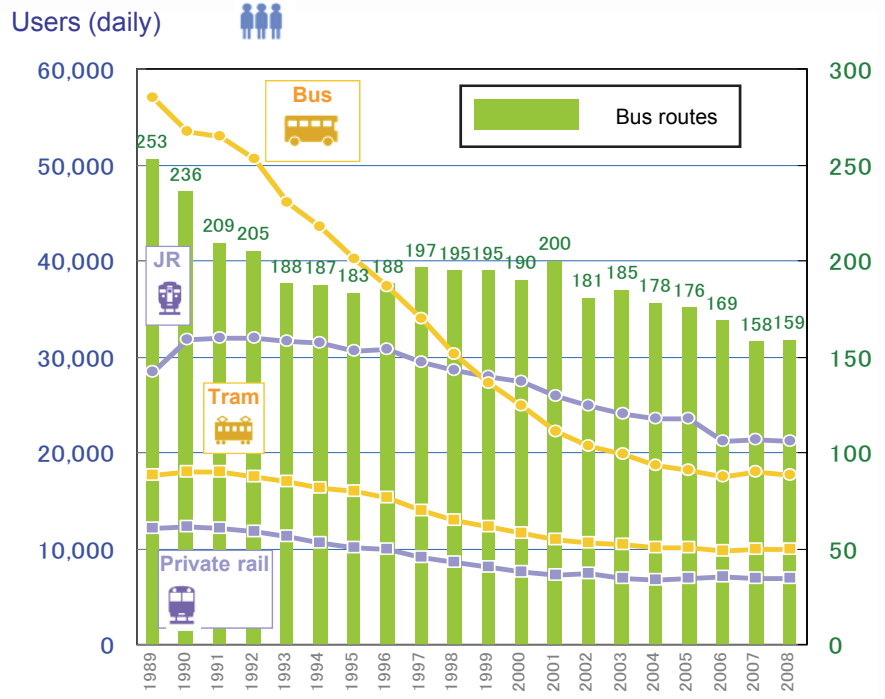


Eroding public transport

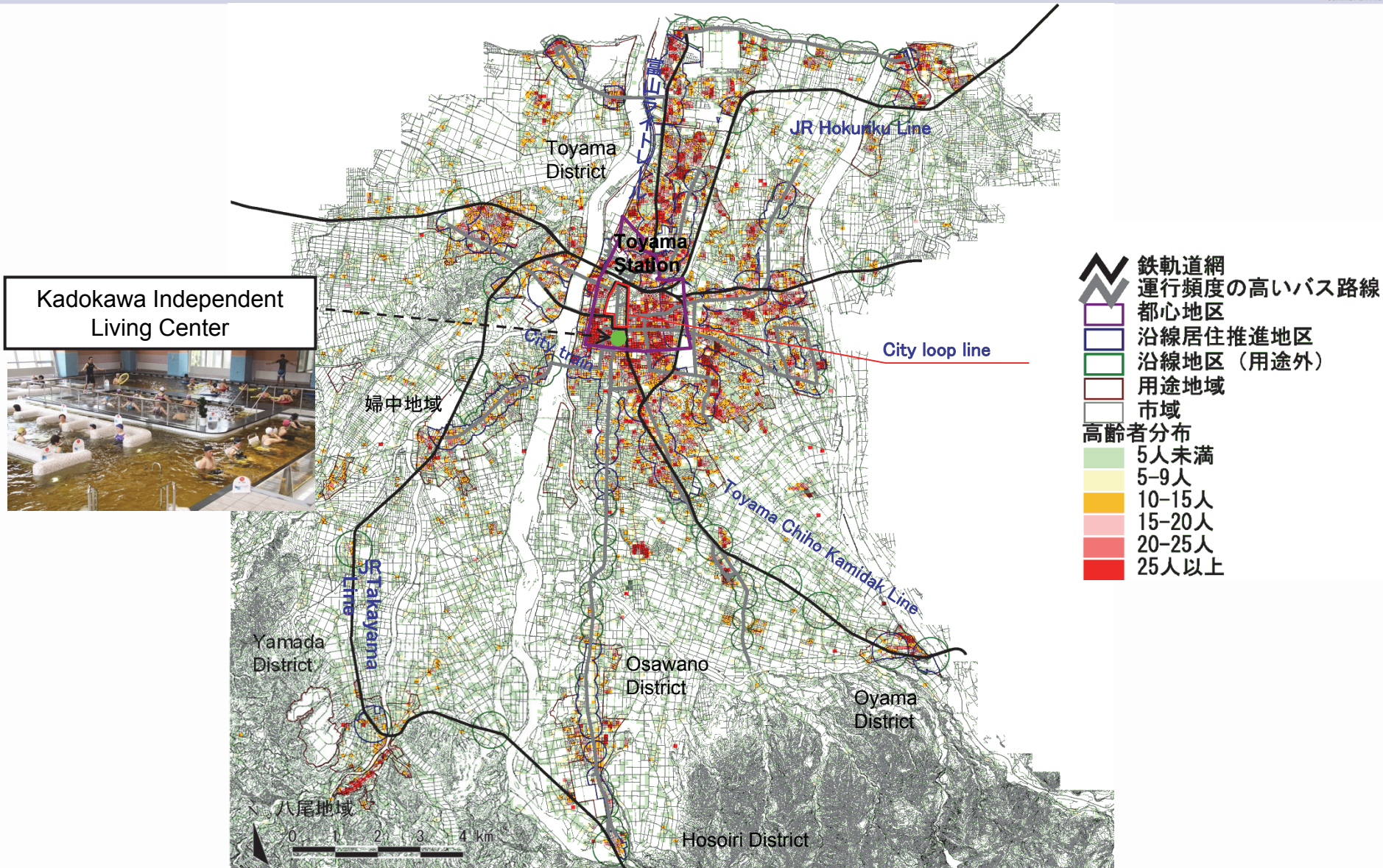
Rate of passenger loss 1989→2009 (20 year period)

- JR -28% (Toyama-ko Line abandoned in 2006)
- Private rail -44%
- Tram -42%
- Bus -70%

⇒ Around 40% reduction in bus routes over 20 years



Distribution of the elderly

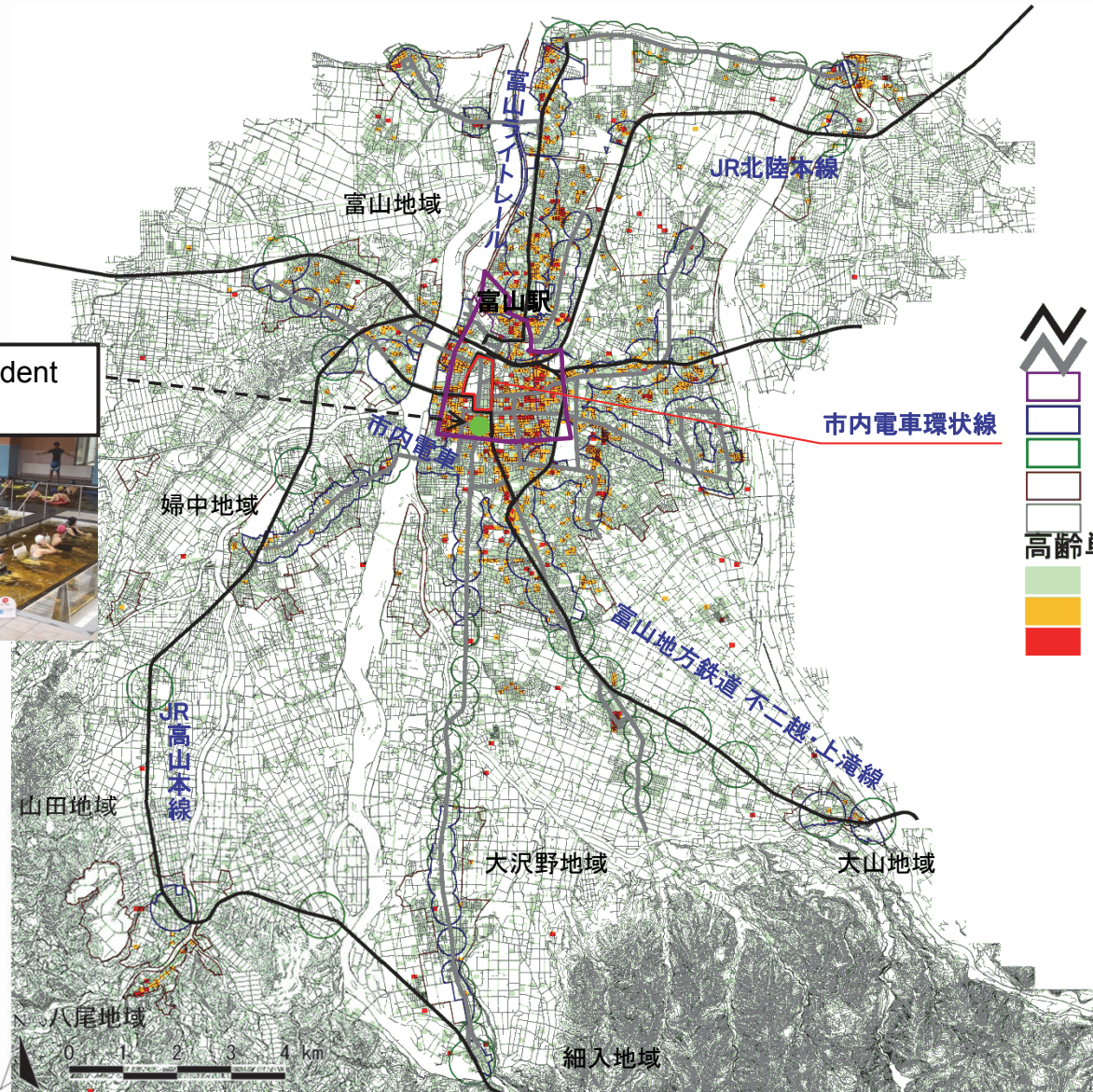




Kadokawa Independent Living Center



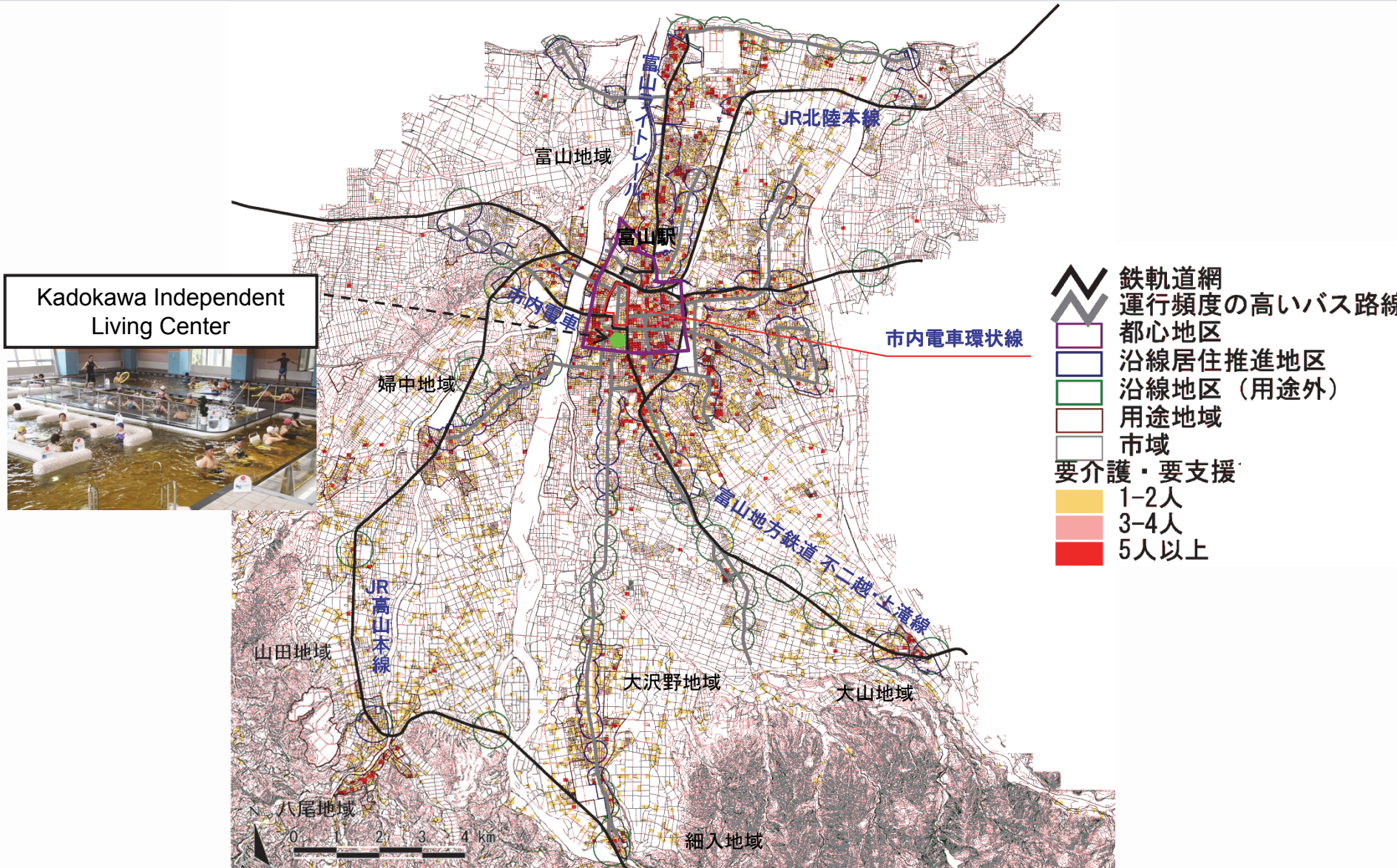
Distribution of single elderly households

Kadokawa Independent Living Center



-  鉄軌道網
-  運行頻度の高いバス路線
-  都心地区
-  沿線居住推進地区
-  沿線地区 (用途外)
-  用途地域
-  市域
- 高齢単独世帯分布
-  5世帯未満
-  5-9世帯
-  10世帯以上

Distribution of elderly in need of care or support



Aiming to be a regional city with a sustainable future

State of regional cities

Population decline, super aging, public deficits, growing administration costs, etc

Toyama City presents one vision of the future regional city addressing these issues

1. Compact development around transport nodes

- Revival of public transport
- Concentration of urban functions downtown and along lines

2. An appealing, high quality of living for citizens

- Revival of downtown area
- Creating a walkable city
- Fostering of social capital and more

3. Thriving industries based on local characteristics

- Full development of Toyama's medical drug industry
- Use of renewable energy, incentives for relocation by firms, etc.

Independent
finances

Reviving city life downtown and along transport lines
→ *City tax introduction*
(fixed asset tax and city planning tax)

High-quality city favored by many people
→ *Introduction of city tax*
(citizen tax)

Economic resurgence, better job opportunities
→ *Introduction of city tax*
(business tax)

Compact city development ~Basic policy~

Developing a compact city form concentrated around transport nodes; reviving public transport with a rail loop line; and building housing, commerce, offices, and cultural facilities along the line

Outline map

Toyama's "ball-and-chain" development plan

Chain: Minimum service level public transport lines

Ball: Walkable areas connected by chain



Age-friendly city planning ~Current actions~

Public transport revival

Toyama Light Rail



City loop line project



Upgrade of bus lines

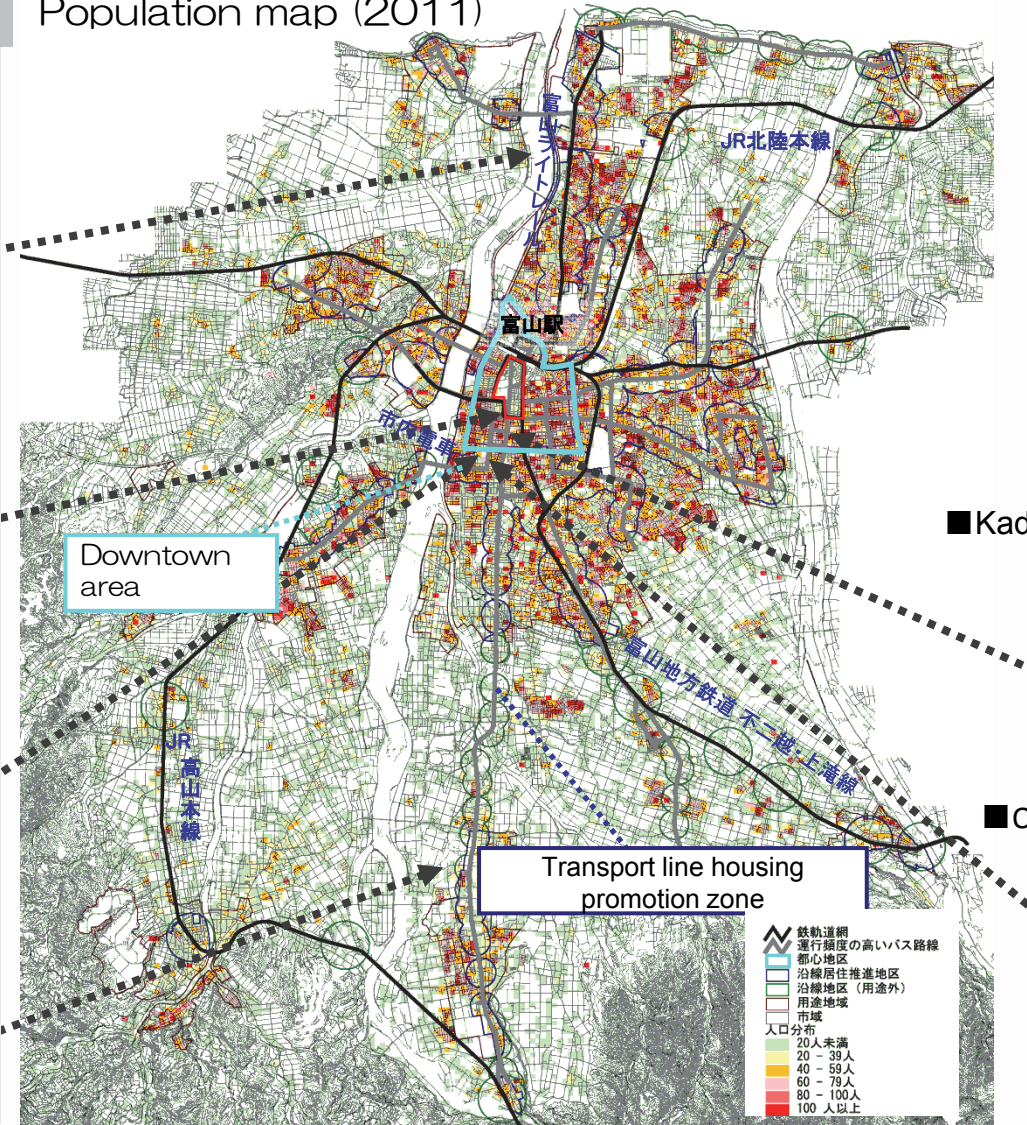


Mado-Haya Bus



Image leader bus

Population map (2011)



Transport for seniors

Trip ticket project



Silver pass project

Silver taxi project

Better care facilities

Kadokawa Independent Living Cent



Quality senior rental apartments



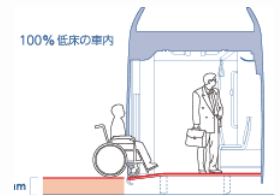
Converting JR Toyama-ko Line to LRT

Replacing the failing JR Toyama-ko Line with the first full LRT system in Japan using a public-private partnership

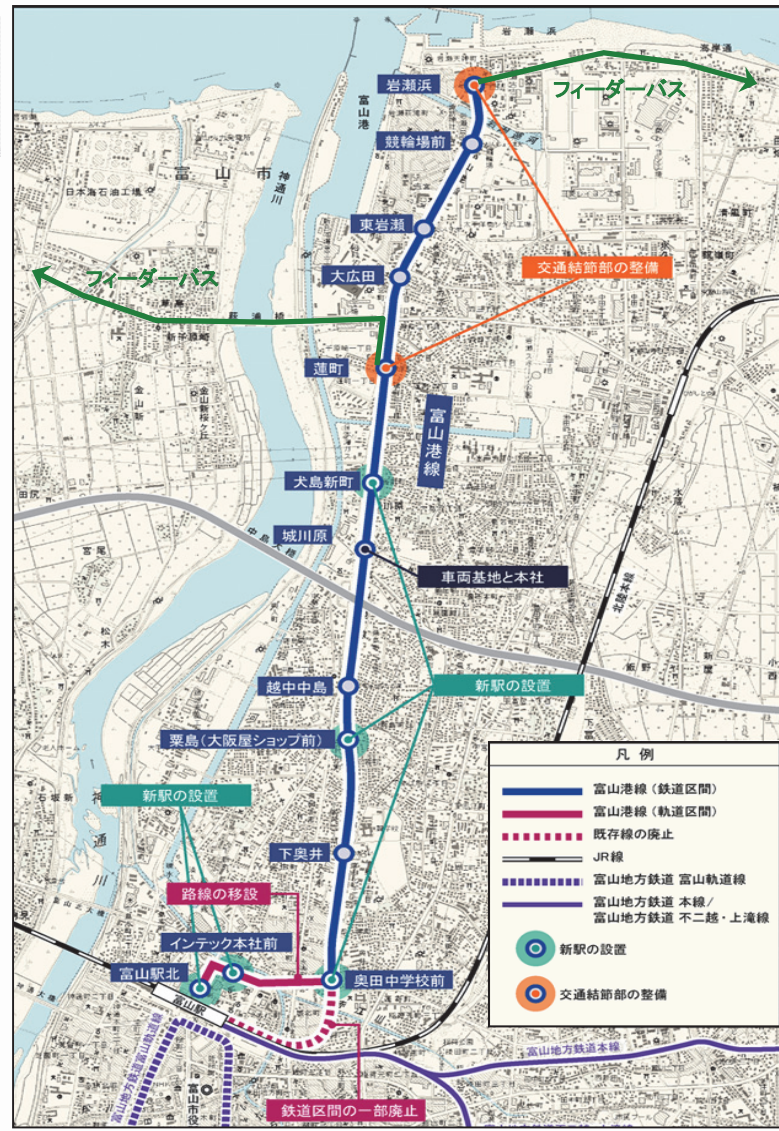
Revival as the first full LRT in Japan



- Better frequency
- IC card tickets
- Introduction of total design
- Vibration reduction, green verge
- Barrier-free trains with low floors and stations



■ Stations staffed

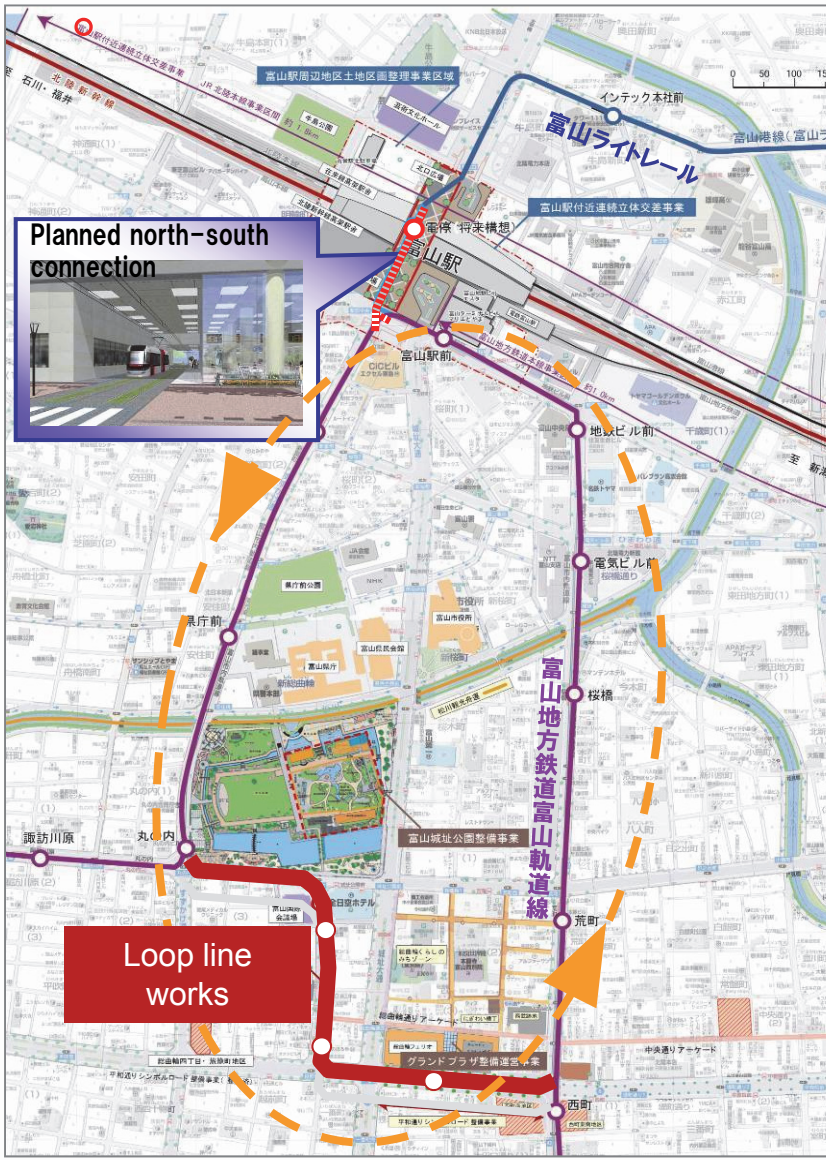


City rail loop line

Goal: to revive public transport by making it easier to get around downtown and revitalize the central city area

- Build out in harmony with road spaces in order to build an appealing cityscape
- Introducing Japan's first **vertically-separated rail system**

- Opened: 23 December 2011
- Length: approx. 0.9km (loop line section approx. 3.4km)
- Stations: three new stops on new section
- Operating plans: Add anti-clockwise trains to existing two routes
- Carriages: new low-floor three-car trains
- Nickname: Centram



Advantages of LRT conversion

Conversion of Toyama-ko Line to LRT

- Since the opening of the Toyama Light Rail, weekday users have increased by around 210%, and by around 370% on holidays

As of 31 March 2011 (average daily users)

Weekday 4,820 per day (2,266 per day before LRT)

Holidays 3,811 per day (1,045 per day before LRT)

- Increased use by elderly during the daytime

- Around 12% of users moved out of their cars

(removing around 74t of carbon per year)

Even more emission reduction can be expected in future as the LRT systems are built out and become more convenient and better connected with other lines

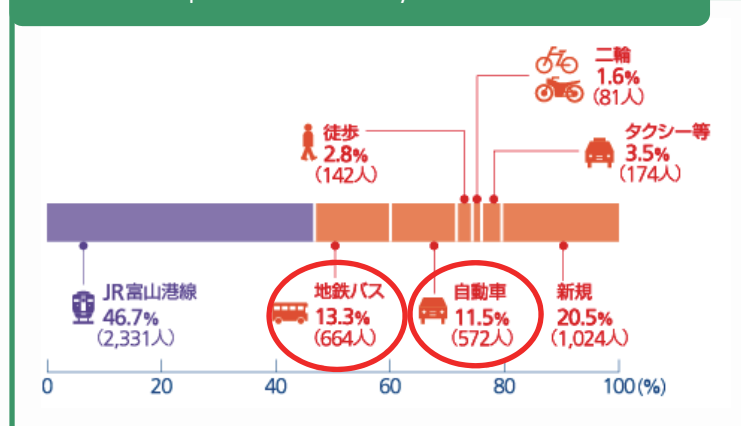
City loop line

- Users of the city loop line: weekdays 1,959 per day, 2,805 per day on holidays

- Since the loop line opened, overall rail use in Toyama city is up 10%

Contributes to prosperity of city by revitalizing public transport and improving downtown mobility

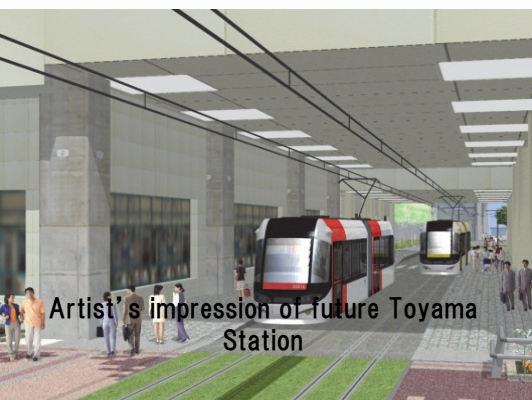
Previous transport methods of Toyama LRT users



(Average passenger numbers since March 2011 opening)

Formation of the LRT network

LRT network fosters “bonds” and is people- and eco-friendly



Connecting Toyama light rail and city trains

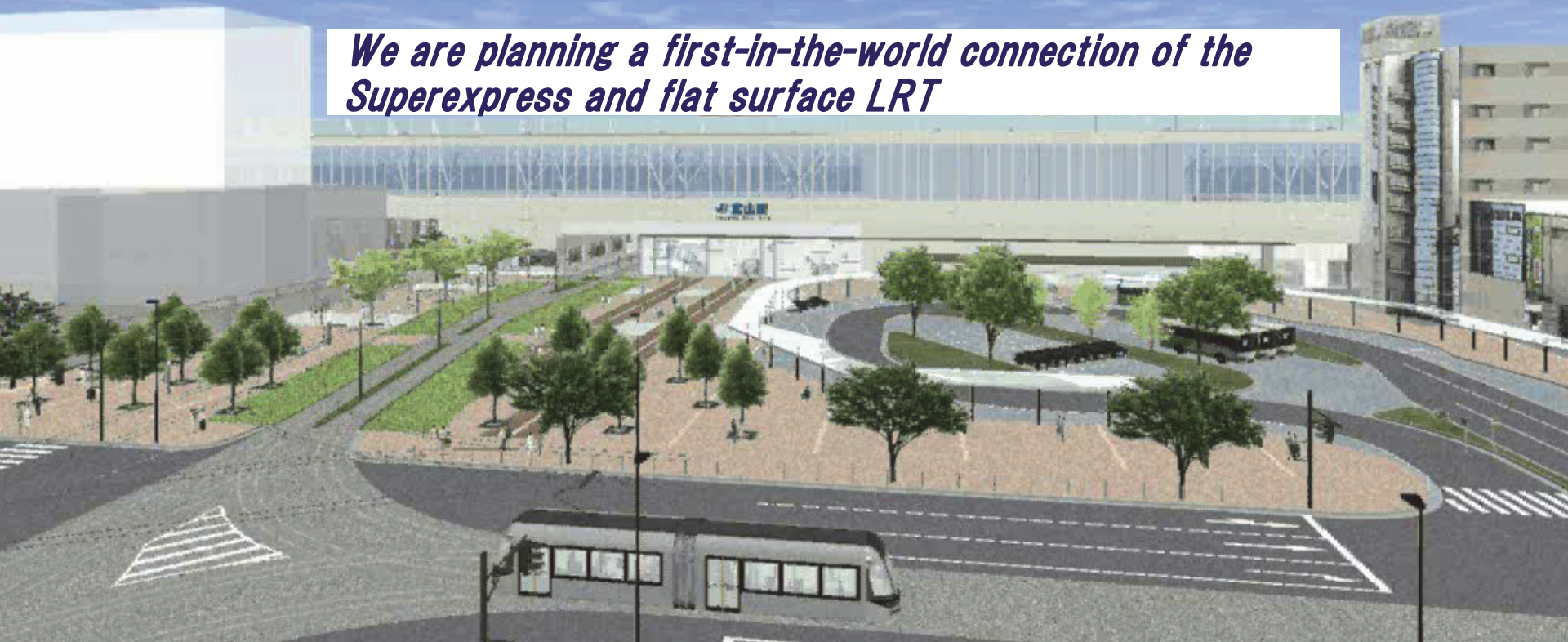


富山駅南口駅前広場全景

Hokuriku Superexpress coming in late FY2014

The north-south LRT (Toyama light rail/city train loop line) will be joined in a few years, in line with the raising of the Hokuriku Line onto an overpass

We are planning a first-in-the-world connection of the Superexpress and flat surface LRT



Toward a healthy and sociable town

Seniors and others will create a **safe, secure, and comfortable life** and a **walkers' network** in the central city, based out of independent living centers.

- ① Using independent living centers that provide comprehensive independent living programs
- ② Preparing **safe, secure, and comfortable walking spaces** to encourage outings on foot
- ③ Setting up **medical and welfare facilities, shops, and services** along the way
- ④ Promoting community events using open spaces, etc.



Walkers' network



Kadokawa Independent Living Center (opened July 2011)

Heat therapy, athletic exercise training, personal care



Walkers' network



Toyama-style day service

With the mission of achieving a harmonious community, this involves providing services in a privately-run facility, a familiar, home-like house setting where the elderly, impaired, and infants are treated without separation

Basic concept

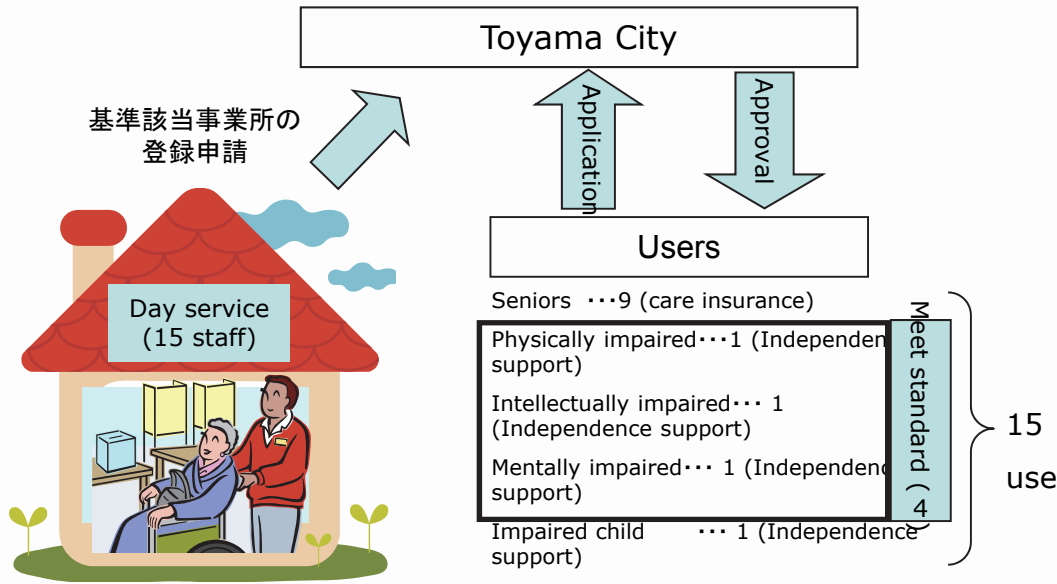
| | |
|-------------|--|
| Small scale | <ul style="list-style-type: none"> ①Facilities are refurbished private homes in city ②They are “just another house” in the community |
| Mutual care | <ul style="list-style-type: none"> ①Seniors, the physically and mentally impaired adults and children, and infants are treated at the same place at the same time |



Merits

- For users, more choices because of more facilities
- By providing services for the elderly and disabled (children) in the same place, there may be positive interaction.

How it works



Welfare policy achievements

Toyama-style day service

Services in a privately-run facility, a familiar, home-like house setting where the elderly, impaired, and infants are treated without separation

43 facilities in city
NO 1



Average for regional cities: 4

Care for physically-impaired children

Goal is to place impaired children in daycare to improve their motor skills, while socializing them through spending the day with others

100% implementation in city



Daycare centers serving impaired children
National average 32%

Diverse daycare service

Addressing increasingly diverse childcare needs by expanding highly in-demand special daycare (holiday care, overtime care)

66% of centers in city



Ratio of childcare centers providing care on holidays
Average for regional cities: 4

Community support centers

Maintaining a "community care model" that enables seniors to continue to live at home in their own community

32 centers in city
NO 1



Average for regional cities: 13

Kadokawa Independent Living Center



An independent living support service using hot spa waters has opened in Toyama



Toyama Rakuno Gakuen

(Center for learning agricultural techniques) (as of late Jan 2012)

Farming 101 course

Building skills through practical activities for those entering agriculture or considering new ventures.

A three year course, held 14 times a year for nashi specialization, 30 times/year for vegetable specialization (Nashi specialization: 13 students) (Vegetables: 16)

Farm supporter course

2 year course
Seminars on vegetables, fruit trees, flowers, and rice paddies; for vegetables 16, fruit trees 14 times, flowers 14 times, and rice paddies 10 times.

(First year students: 101)
(Second year students: 80)

Lectures for corporates entering agriculture

Held twice a year
Supports acquisition of basic knowledge for corporations seeking entry to agriculture (held in June and November 2011)

(10 companies, 11 participants)

Home gardening

(run by Satoyama Club)

1 year course

Sunday, Wednesday, and family classes, mostly about vegetable growing. 15 times per year.

(10 Wednesday classes: 50 students)
(5 family classes: 90 students)

Farming support activities (supporting farm life, providing work opportunities)

Farming supporter registration

Management of farming supporter registration.

332 signed up (as of end Jan 2012)

Provision of information about requests for help from farmers

Provision of information on farming help requests from farmers to farming supporters

Toyama Slow Life Field

Toyama Slow Life Field

Developed as a recreational garden space in a lush green environment for people to experience hands-on gardening and farming

Main functions: Rental garden space, car parking, cultivation classes, equipment rental, everyday management support

Hirakigaoka learning exchange center

Building a “Life Skills Center” providing hands-on experience of farm product processing; a “Satoyama Inspection Tower” for learning about animals and plants of rural life; and an “Exchange hall” for holding classes and events and providing accommodation (Life Skills Center – general reception, reception for citizens garden, etc.)

Toyama Slow Life Field Map (a place for learning and exchange and citizens' gardens set in a hilly market garden district)



“Medicine City Toyama”: thriving industry based on herbal medicines

Harnessing the concentration of drug manufacturing in Toyama, developing a “medicine factory” by creating a **herbal medicine production system** using renewable energy and cutting-edge biotechnology and production management systems

Community revitalization by revival of traditional industry

Over 300 year history of drug making in Toyama

Cluster of drug-related industries and research organizations

Ties with Swiss and Italian firms on drug R&D and research activity surveys, etc.

Using renewable energy

Investing in small hydro generation to harness local geography and supplying the power to factories

Reducing energy costs for factories

Taking medicinal herb production hi-tech

New biotechnology to boost added value (enriching active elements)

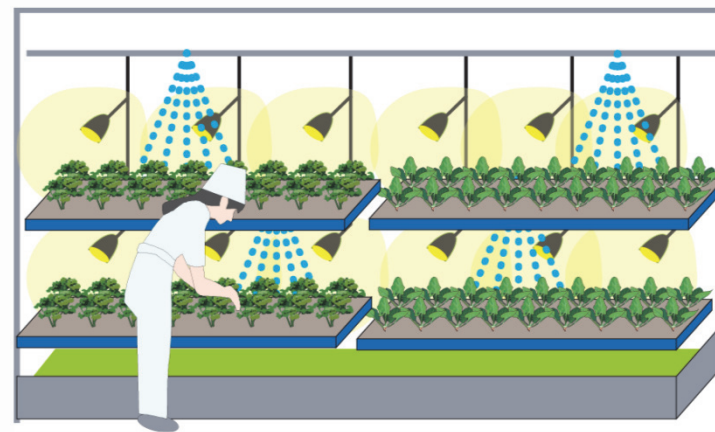
Pesticide and herbicide free

More stable quality and supply

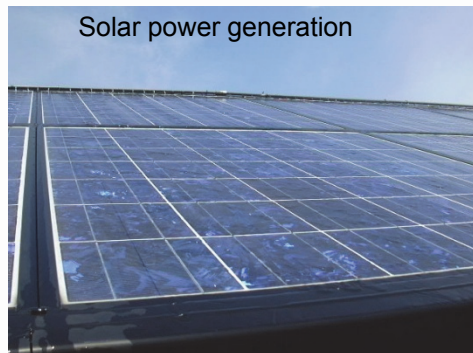
Chinese licorice root



Sources: Kashima Corp., National Institute of Biomedical Innovation, and Chiba University



Solar power generation



Small hydro



Local community forum model

Inspiring senior citizens by providing places for their activities and fostering social capital (bonds) through participation in community activities by all generations, including seniors.
 In addition, new community businesses can be created for citizens by citizens as a new public good

Revival of empty plots by neighborhood councils and other community groups as community gardens, parks, etc.

Applicable area

Transport line housing promotion zone

Anywhere within 500m of a railway station, or within 300m of a bus stop on a heavily used bus route

Community gardens in city (currently)

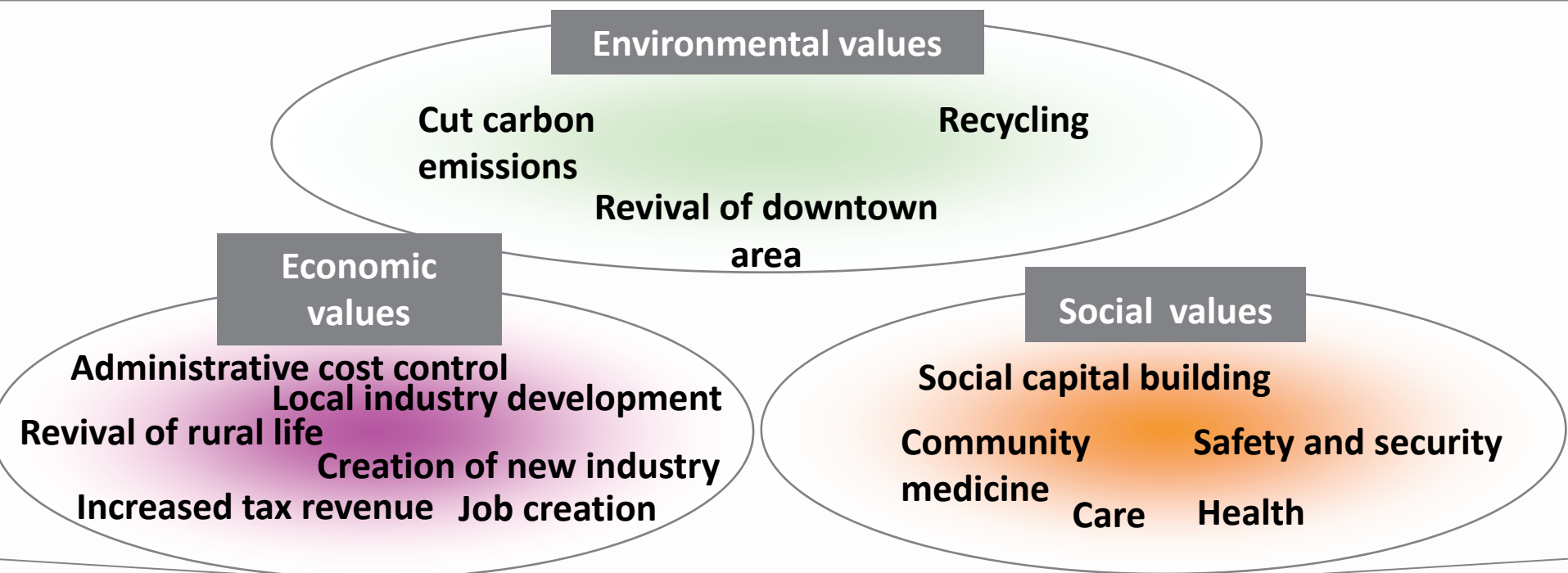
| | Gardens | Plots | Area (ha) |
|------------------|---------|-------|-----------|
| Community garden | 10 | 566 | 1,190 |
| Senior garden | 5 | 209 | 10 |

*Community business

An organization run by local residents that solves local problems using business



Building Toyama with the compact city strategy



A city open to the future, thanks to environmental, economic, and social innovation

Realizing a **sustainable community** by harmonizing quality of life with the environment, creating a highly satisfying lifestyle