

An aerial photograph of a city skyline, likely Yokohama, Japan. The image shows a dense urban area with numerous skyscrapers and modern buildings. A river flows through the city, and a large mountain is visible in the background under a clear blue sky.

“Healthcare New Frontier”

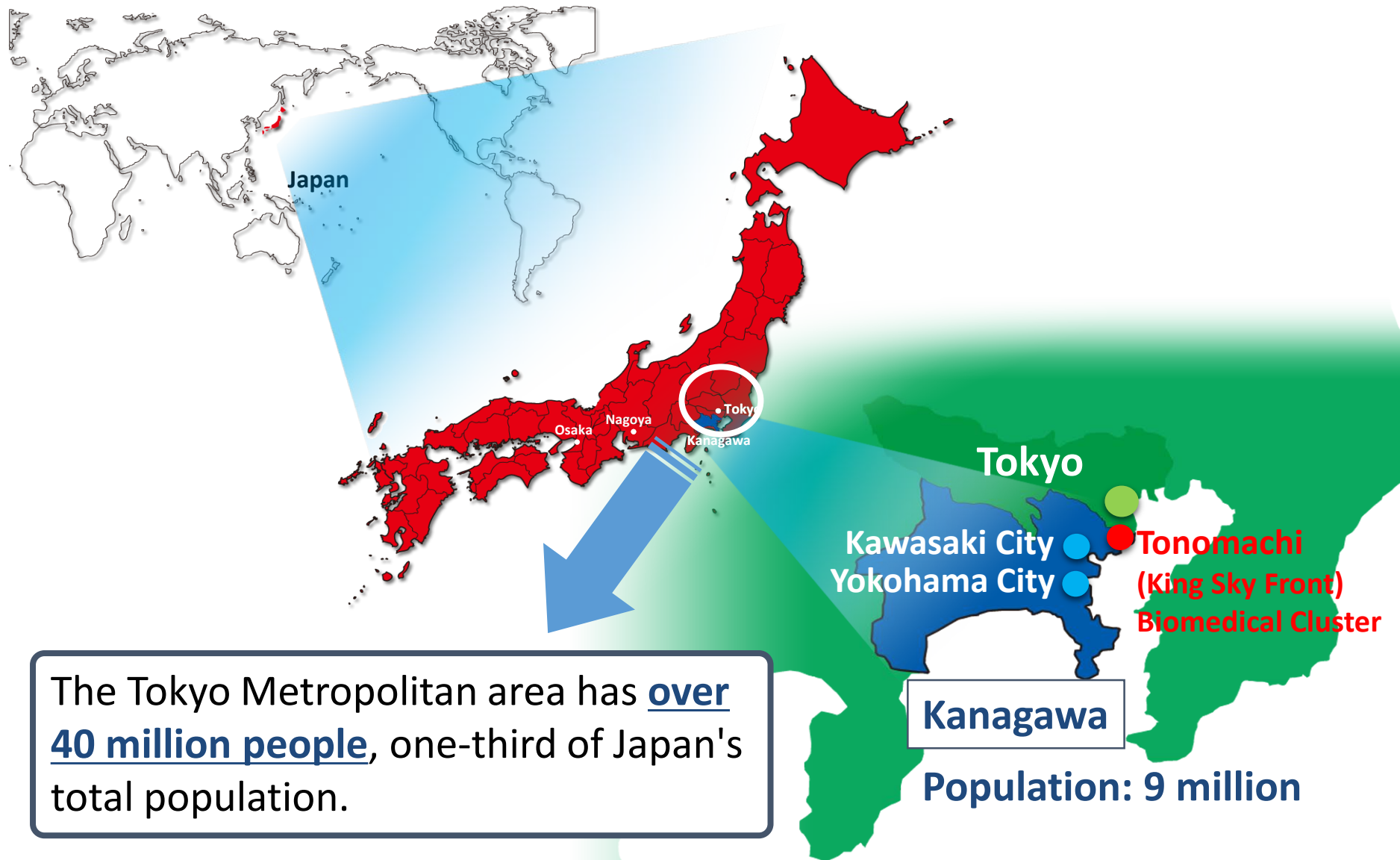
Kanagawa's Innovative Policy for Overcoming the Challenges of Super Aging Society

May 22, 2018

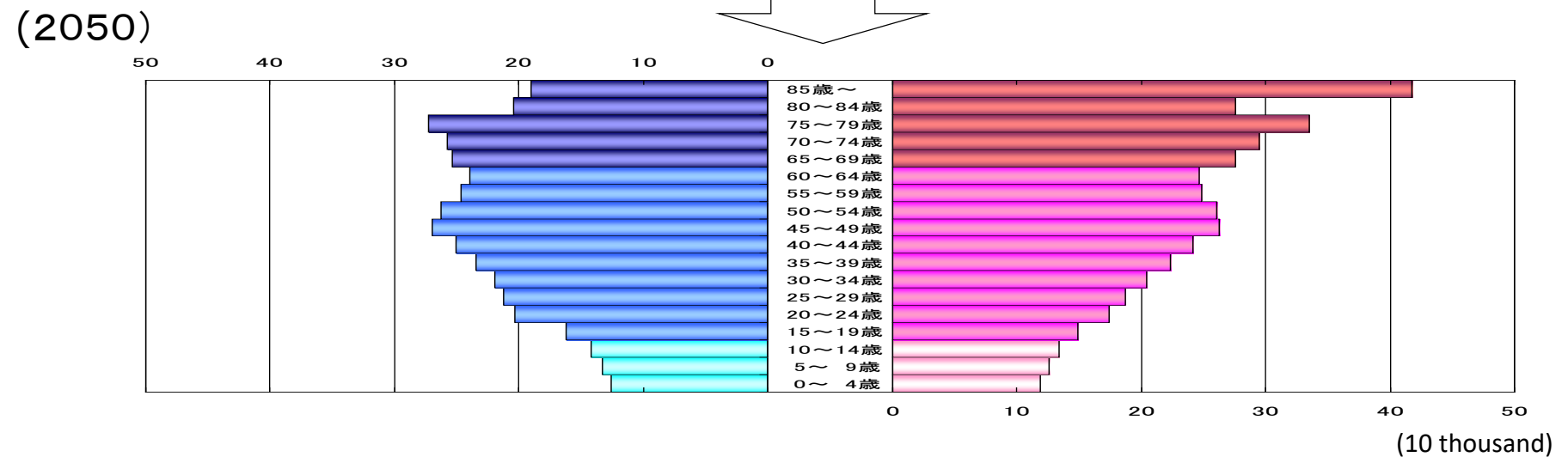
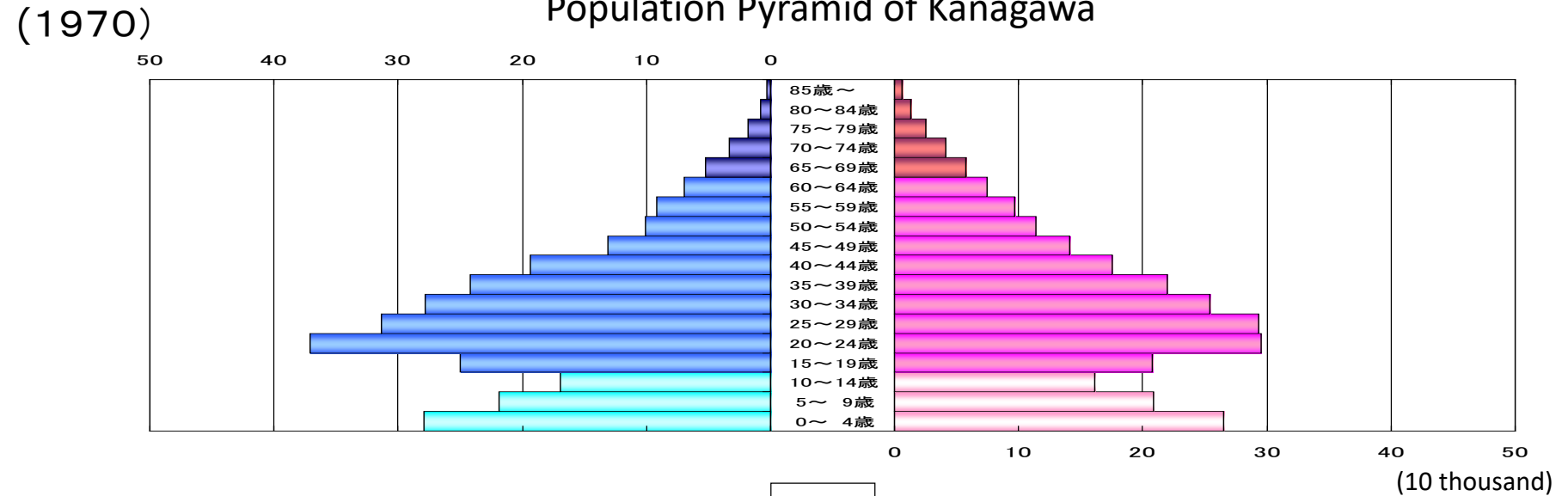
**Kumiko Miyasaka, Executive Director of International Strategy
Healthcare New Frontier Promotion Headquarters Office
Kanagawa Prefectural Government**

- 1. About KANAGAWA**
- 2. What is “Healthcare New Frontier” Policy?**
- 3. Biomedical Cluster in Kanagawa
“Tonomachi” King Sky Front**

Introduction of Kanagawa Prefecture



Population Pyramid of Kanagawa



Healthcare New Frontier

Integration of the two approaches

Advanced Medical Technologies

iPS cell research



Life supporting robot



Personal Health Record through smartphone



Curing ME-BYO

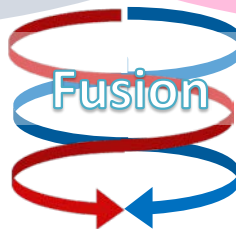
Daily Food as Medicine



Exercise habit



Realization of
personalized medicine



Lifestyle change

Healthy longevity

New Markets / Industries

Healthcare New Frontier

Integration of the two approaches

Advanced Medical Technologies

iPS cell research



Life support
robot



Personal Health
Record through
smartphone



Curing ME-BYO

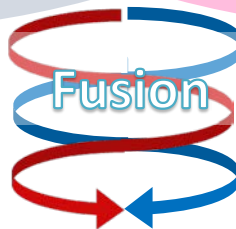
Daily Food
as Medicine



Exercise habit



Realization of
personalized medicine



Lifestyle change

Healthy longevity

New Markets / Industries

“Me-Byo”

「未病」

The state in-between health and illness

What is ME-BYO

Healthy

Sick

What is ME-BYO

Healthy

ME-BYO

Sick

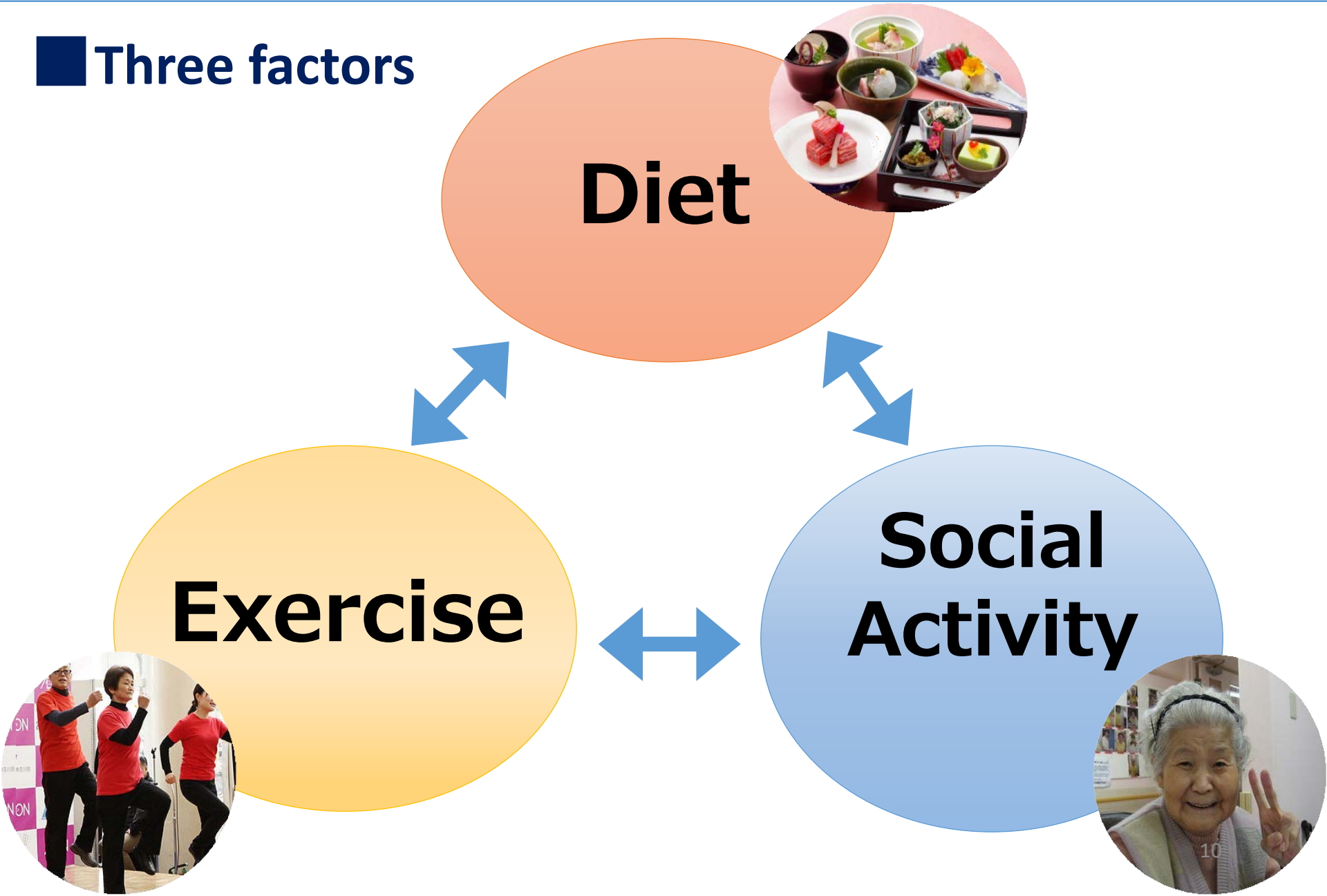
“The Healthcare Policy” (excerpt)

Approved by Cabinet July 22, 2014
Partially Revised February 17, 2017

It is expected that **the realization of PHR – that is, the integration of each individual's information dispersed among the fields of medical care, health and nursing care – will make it important to adopt the concept of “**ME-BYO**,” which regards health and diseases continuously instead of separately.**

What is ME-BYO

■ Three factors



A New Policy Trend of ME-BYO

Until now

Decide by someone



Authentication, Cost
burden and
Systematization



Provision of
services by
experts



Provision of products and
services restricted by the
framework



Passive behavior



Future

Decide by yourself
Choose by yourself



Behavioral change by own
judgment



Support by reliable products and
services provided by companies



Involvement and guidance by
experts (ex. Doctors, Dentists, Pharmacist,
Nurses)



Support by local governments,
countries, etc.

Integration of the two approaches

Advanced Medical Technologies

iPS cell research



Life supporting robot



Personal Health Record through smartphone



Curing ME-BYO

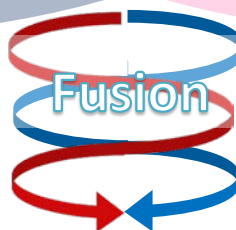
Food medicine



Exercise habit



Realization of personalized medicine

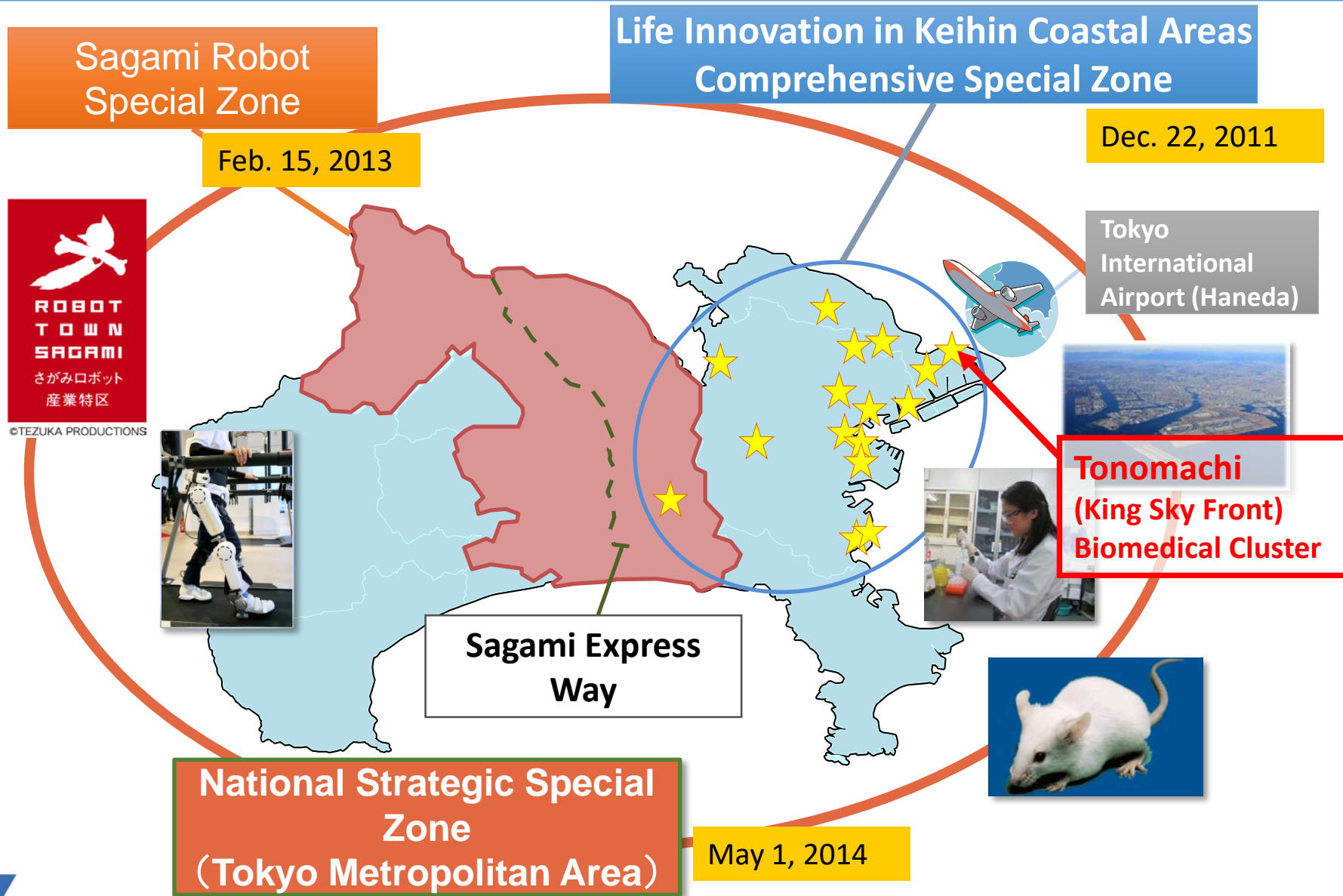


Lifestyle change

Healthy longevity

New Markets / Industries

Three Strategic Special Zones

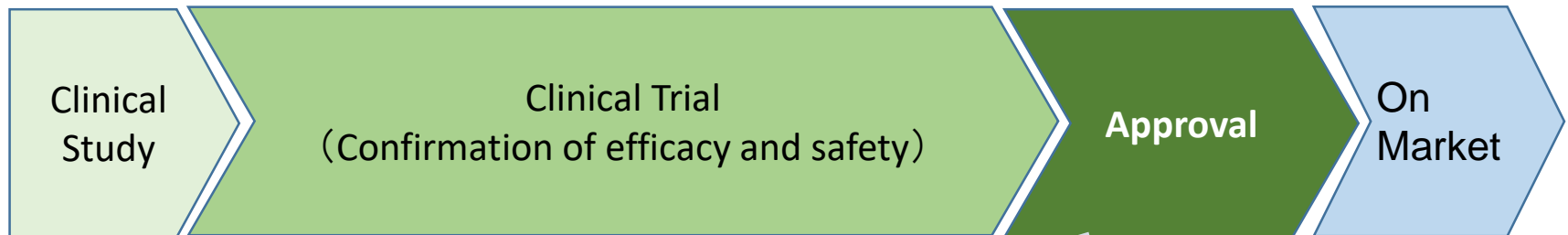


“Tonomachi” King Sky Front

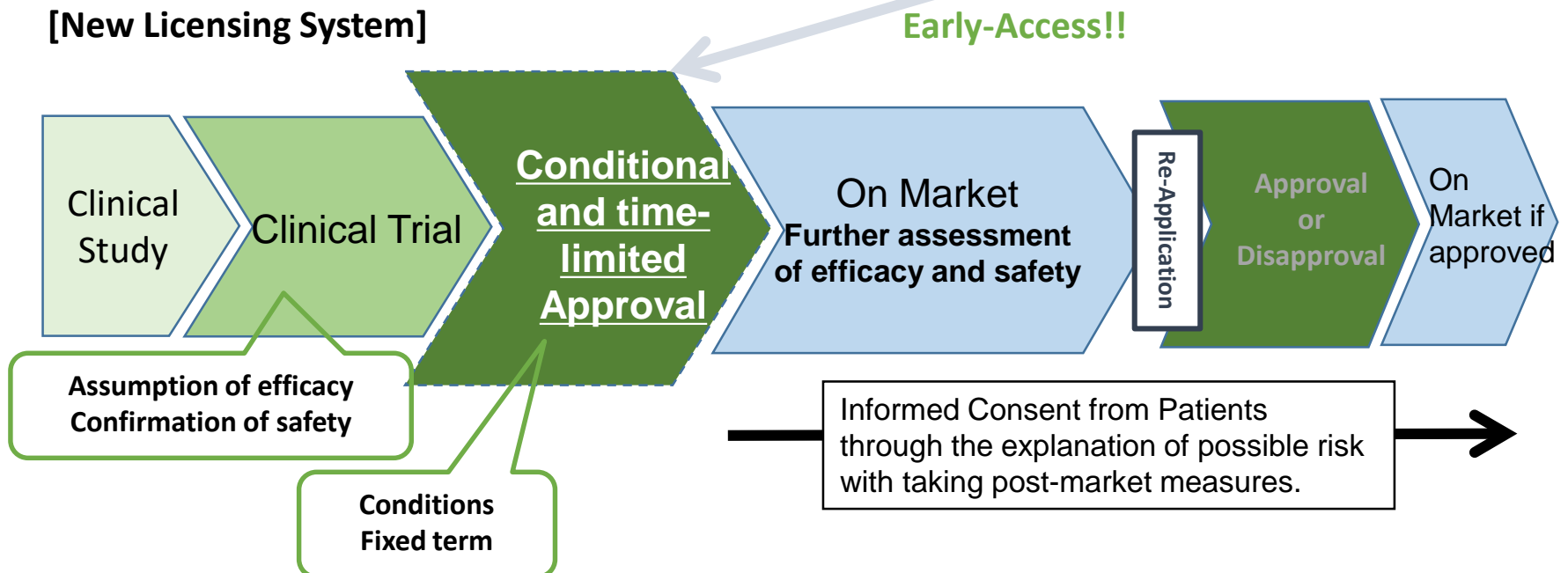


New Approval System for Regenerative Medicine Product

[Pharmaceutical approval system]



[New Licensing System]



Life Innovation Center (LIC)

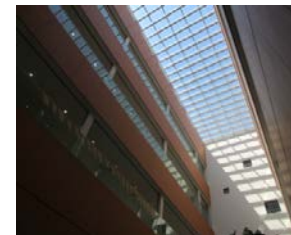
**Center for Industrialization of
Regenerative Medicine & Cell
Therapies (Opened April 2016)**



Joint project
between Kanagawa
and private sector

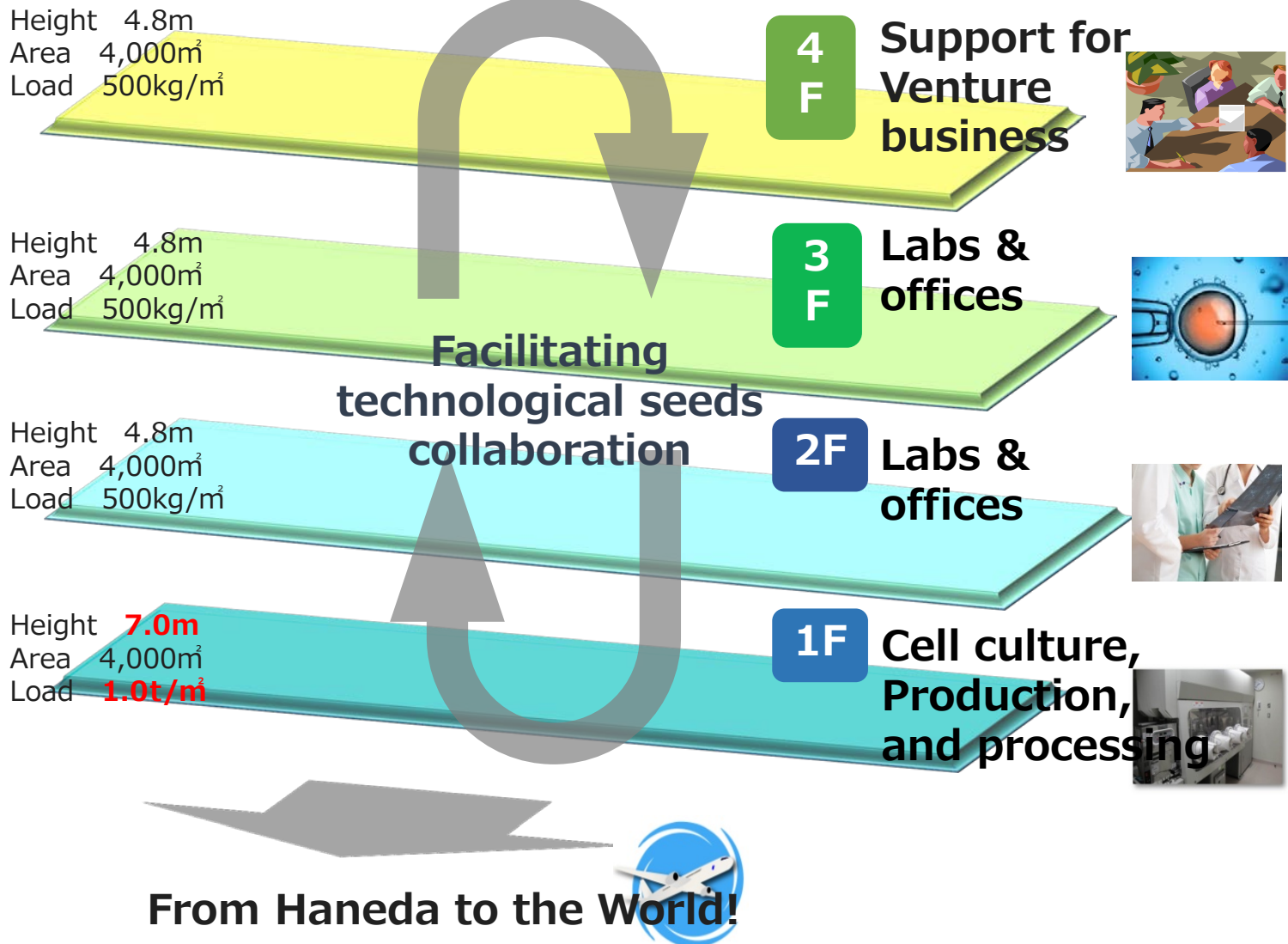
28 tenants

Collaboration with
industry groups



LIC – Floor Map

Integrated center for accelerating the industrialization of regenerative medicine and cell therapy



LIC Tenants ① (Total 28, as of Mar 2018)

Name	Description of Business
Agilis GTRI Japan K.K.	R&D and production of viral vectors related to gene therapy products, conducted jointly by Gene Therapy Research Institute
AS ONE Corporation	Provision of cell culture facilities and training for lab personnel such as cell culture technicians, contract gene analysis
Cellular Dynamics International Japan Co., Ltd.	Development, production and sales of differentiated cells derived from iPS cells
DAI-DAN Co., Ltd	Promotion of open innovation with regenerative medicine industries and researchers in CPF Open Laboratories; relaying information through seminars
DOJINDO LABORATORIES	Development of research agents used for cell functional analysis
Gene Therapy Research Institution Co., Ltd.	R&D and production of innovative gene therapy formulation
Genomedia Inc.	R&D of integrated analysis technology for genome information, clinical information and iPS cell information
BrightPath Biotherapeutics Co., Ltd.	R&D of cancer immunotherapeutics drugs (including cell therapy products)
KSP Inc.	Support to startups using the knowhow obtained in Kanagawa Science Park (KSP), and investment through venture fund

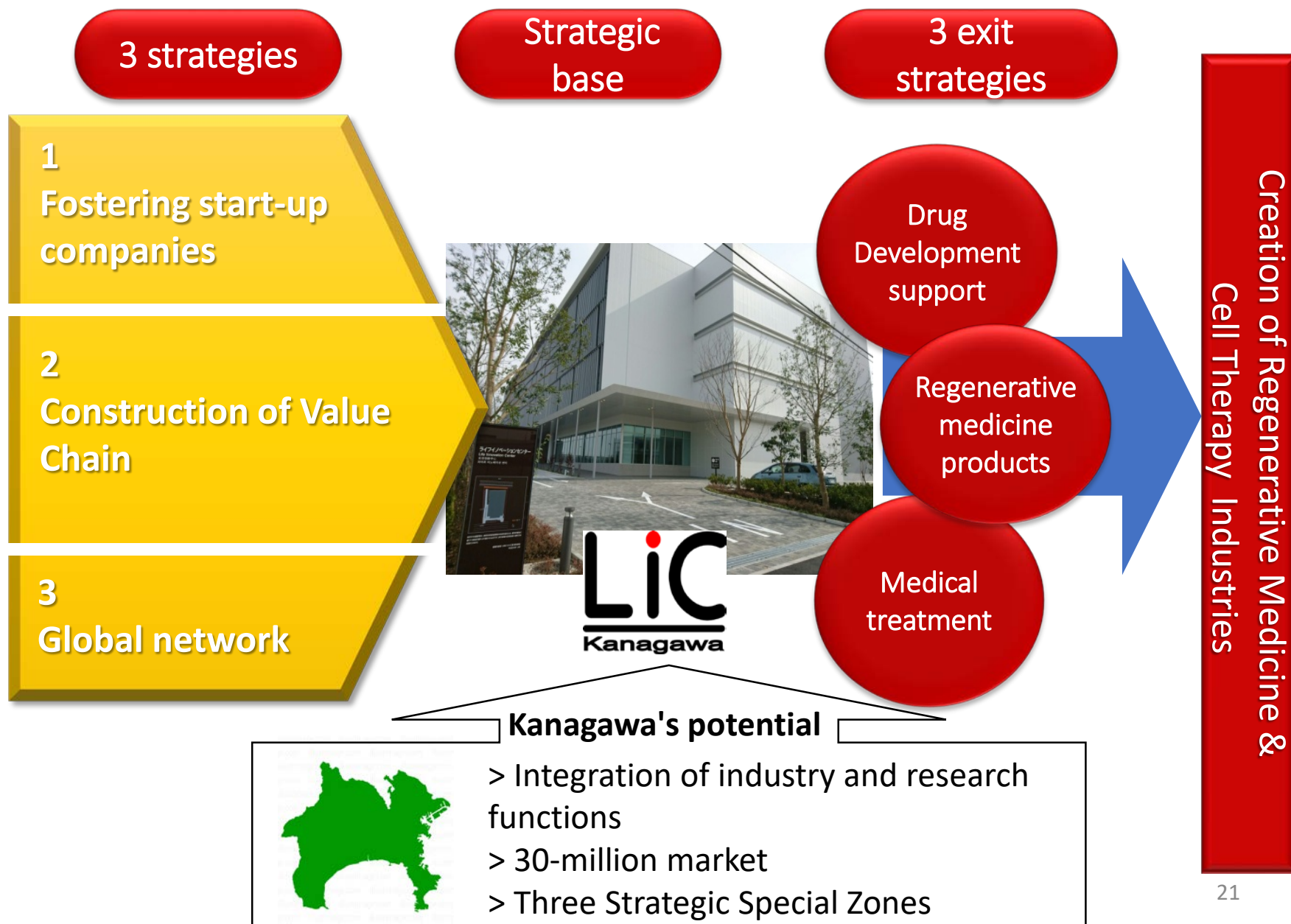
LIC Tenants ② (Total 28, as of Mar 2018)

Name	Description of Business
LifeBankJapan, Inc.	Processing, preservation and supply of hMSCs (mainly derived from placental and umbilical cord connective tissue)
Metcela Inc.	R&D for utilizing fibroblasts in cardiac disease therapy
Mitsubishi Logistics Corporation	Creation of logistics platform (mainly for cell banking and transport) for regenerative medicine and cell therapies
Osaka Sanitary Co., Ltd.	Development of technologies for culture of a large volume of iPS cells by using agitation culture technologies for food and medical industries
PharmaBio Corporation	Under Pharmaceuticals and Medical Devices Law, providing one-stop solution for contract-based production and development of study drugs & approved products of regenerative medicine
Pharmacological Evaluation Institute of Japan (PEIJ)	Development support for the next generation test system for the evaluation of toxicity and safety of drugs which use iPS-derived cell technologies
RIKEN GENESIS CO., LTD.	Contract-based gene analysis service using advanced gene analysis technology and bioinformatics; development, production and sales of in-vitro diagnostic agents
Ricoh Co., Ltd.	Development of bases for precision 3D cell prints aimed at creating 3D human tissues which can be applied to regenerative medicine and drug effect tests
Scottish Development International	Support to Scottish businesses in Japan in the field of life sciences such as regenerative medicine

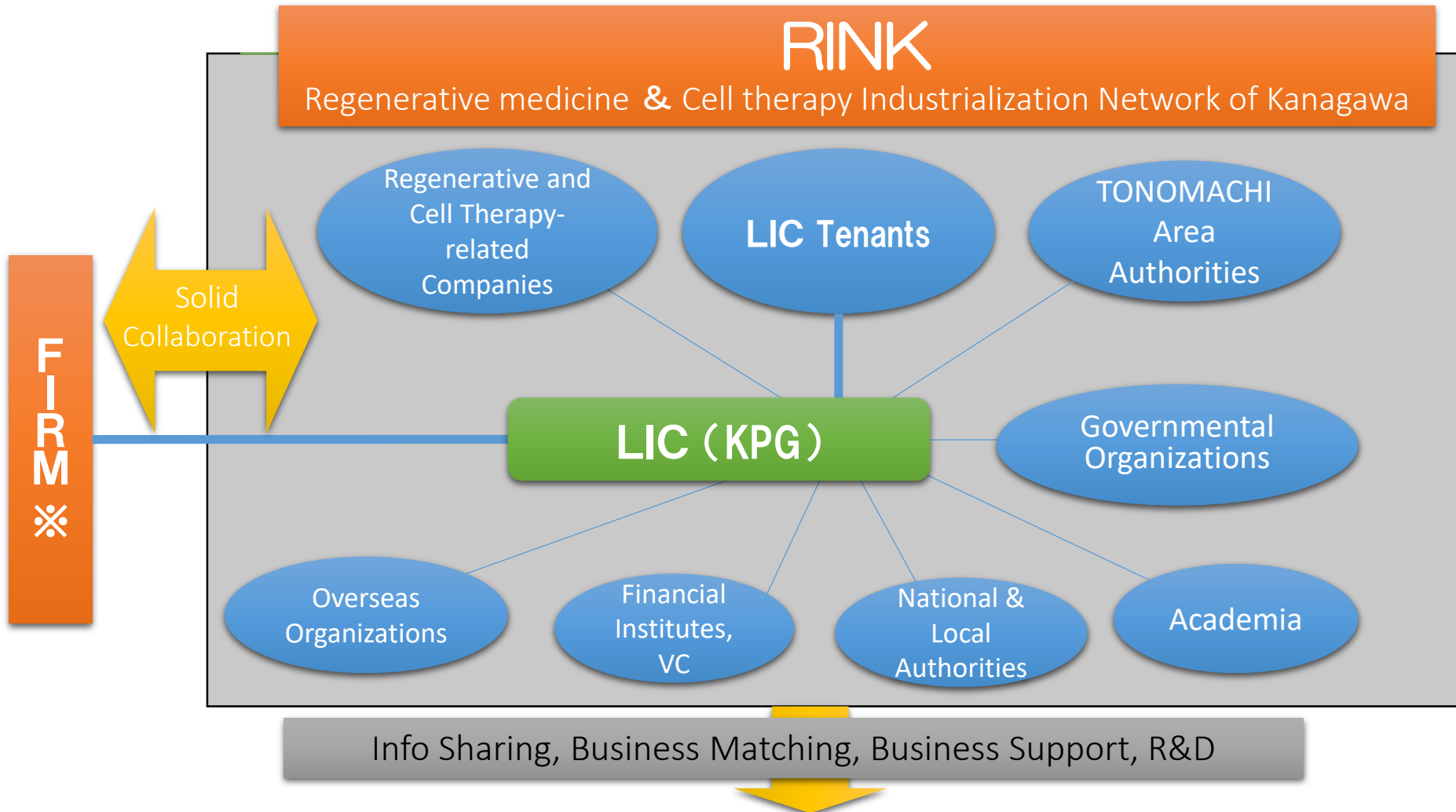
LIC Tenants ③ (Total 28, as of Mar 2018)

Name	Description of Business
Seiko Holdings (Biotech Lab Inc.)	Provision support of reagent, culture equipment and tools in regenerative medicine studies, publicizing new technologies using demonstration rooms and exchanging expertise in seminars
Shimazu Science East Corporation	Sale and information service of life science equipment and peripheral devices
SYSMEX Corporation	R&D involving the medical applications of artificial intelligence technology, systems biology, and other advanced information technologies
Stem Cell Evaluation Technology Research Association	Development of production system of regenerative medicine products derived from human pluripotent stem cells (cardiac muscles and nerves)
Takara Bio Inc.	Clinical development of gene therapy, contract-based production of cells used in regenerative medicine, their process development and quality management tests
Tella Pharma, Inc.	R&D and production of the dendritic cell vaccine in cancer immunity therapy
VICX Therapeutics Co., Ltd.	Planning, development, approval application and sales of regenerative medicine products using somatic stem cells and immuno-cell therapy products
Wako Pure Chemical Industries, Ltd.	Test production for joint development of optimized culture media and test reagent
TC BioPharm Ltd.	Market research on the development, manufacturing and distribution of immunocyte products in Japan
Life Science Institute, Inc.	Research, development and production of regenerative products using Muse cells

Strategies for Industrialization of Regenerative Medicine and Cell Therapy in Kanagawa



Networking - RINK



By Establishing Value Chain Process for Cell Processing, Cultivation, Evaluation, Storage and Transport,
All concerned entities unite their all strength, accelerating industrialization of regenerative
medicine and cell therapy from Tonomachi Area

※ Forum for Innovative Regenerative Medicine

(*) Task Force for Verifying Regenerative Medicine Industrialization Base established in FIRM

