



地球村創生ビジョン

Earth Village Vision

A proposal from Japan to the world

To fulfill Japan's mission and responsibility - To unite all people

To tackle global issues - To create an Earth Village

Earth Village Vision Committee

National Land Planning Association

The World Today

A dividing international community

The emergence of huge capital markets due to economic globalization

➔ Changes to the world's socio-economic system

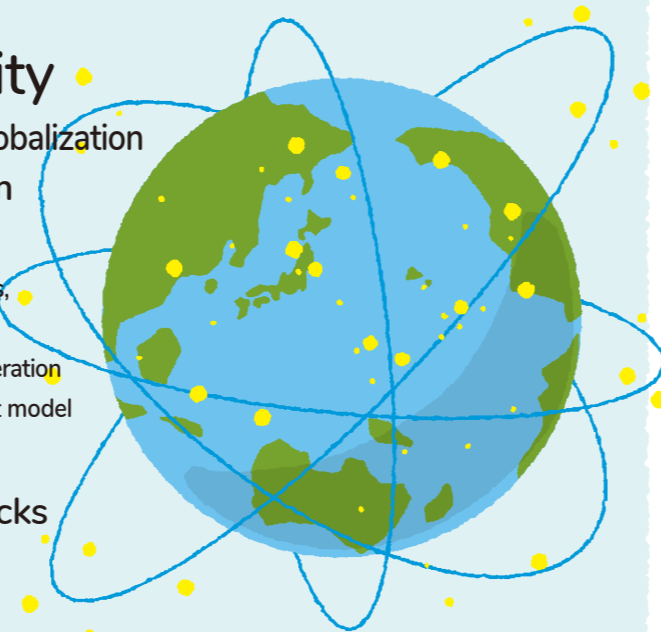
Globally: Industry reorganization, increasing cross-border movement of workers, materials, and money, the digital revolution, the Big Four tech companies, anti-globalization, the rise of populism, division in the international community, confusion across the world, a retreat from multilateral cooperation

In Japan: International division of labor, limitations of an economic development model dependent on industrial productivity

5G, IoT, AI - Technology development and drawbacks

Surveillance society, data leaks, unemployment anxiety, and mistrust

Climate change – We have no time left



Addressing Global Challenges with SDGs (Sustainable Development Goals)

There are so many challenges: poverty, starvation, gender equality, natural disasters, environmental issues, terrorism
All sectors around the world are strengthening their SDGs initiatives. Japan must also work on solving these problems.



The Japanese view of nature, society, history and culture, and its rich natural environment

- The “Satoyama” hilly heartland culture since the Jomon period (8,000 B.C. to 300 B.C.) - People and nature coexist in the hills of their homeland
- World Heritage Hiraizumi and its Pure Land Ideals (Harmony between humans, harmony between man and nature, a desire for peace)
- The creation of a recycling-oriented society in the Edo period (1603 to 1867)
- Blessed in various ways by the forest and the sea
- Integration of production areas, residential areas, and the environment, centered on rice paddies
- A food culture linked to nature and local events
- A history of incorporating different cultures and civilizations

The Japanese Value System

We have created a value system that can be widely accepted around the world

A proposal from Japan to the world Creating an Earth Village

The proposal: Creating an Earth Village

We propose to the world to create an Earth Village. This will fulfill Japan’s mission and responsibility, unite all people, and tackle global issues.

- A divided international community, the crisis of climate change
Mankind needs to gather their wisdom to solve these problems
- All of mankind shares a desire for peace and the pursuit of truth



We propose the creation of an Earth Village to achieve the common purpose of humanity, triggered by an Earth Project where people from all over the world would gather

Earth Village – an antithesis to the Global City

Global City: A city that aims for economic hegemony in a capitalist world system



Earth Village: A village seeking to achieve our common purpose and the coexistence and cooperation of all mankind



The Thinking Behind the Proposal

We're striving to tackle various world problems through placing the idea for an Earth Village within our concept of land planning within Japan. This village would be a place where diverse people from around the world would gather – no matter their race, ethnicity, religion, or language. Here, they would work to solve problems.

Calling in people from all over the world, overcoming all barriers

- ① The Earth Project
Calling diverse people to an Earth Project, which would be something that tackles common problems within education, environment, health and medical care, science and culture
- ↓
- ② Creating the Earth Village
With the Earth Project as the center, we will expand our efforts to other offshoot initiatives and related projects. Striving to solve various problems on a global-scale

An Earth Village, created in Japan with its rich natural environment

Contributing to human progress and securing a Japanese presence in international society

Earth Village is a model for new Japanese national land planning

A new homeland that implements advanced technology in its quest to achieve the SDGs. Presenting a model to the world of the future should be like

Three Principles

- ① Unite people from around the world and challenge ourselves to solve problems
 - A place for exploring our universal and fundamental desire to open up new frontiers, and for working on mankind's problems
 - Uniting people from around the world, no matter what nationality, region, race, ethnicity, religion and language
- ② Give dreams and hope to the next generation and contribute to human progress
 - A place for developing global talent, where diverse talents gather and work on problems
 - Give dreams and hope to the children in the world and send that message to the global stage. Welcome children from all over the world
- ③ Gather various talent from around the world. Work towards innovation centered on human beings
 - Build face-to-face relationships in a beautiful natural environment. A place for innovation centered on human beings, where we can just be human
 - Incorporate advanced technology like digital transformation and AI. Unite diverse human resources in various fields from around the world.



Basic Stance

- ① Develop communities where everyone takes a role in working together
 - Develop a future-looking system of area management that involves foreigners living in this area as full-fledged actors in the system, as well as stakeholders living outside the area
 - Develop communities that keep innovating – a place where people live and work comfortably, and prioritizes people's high level desires incorporating advanced Society 5.0 technology such as automatic driving, 5G
- ② Develop international human resources for the next generation
 - Welcome people of various walks of life, and train Earth Villagers who will work with each other to improve
 - Train workers who will be inclusive and open to the world, as well as young people, skilled workers, and students to have an international mindset
- ③ Lead towards achieving SDGs and communicate the "Satoyama Initiative"
 - A village that makes use of tree resources, renewable energy. Lead towards achieving SDGs so that no one will be left behind
 - Promote local production and consumption within the culture of "Satoyama" – Japan's sense of home and harmony attached to the hilly heartlands. Develop futuristic agriculture, and communicate this as the Earth Village form of the Satoyama and Satoumi Initiative (Satoyama= Heartland in the hills, Satoumi= Heartland by the sea).
- ④ Create innovation
 - Researchers from around the world incorporate advanced technology as they relax and have intellectually stimulating interactions in the village
 - Create innovation in other fields through innovation open to the world
 - Promote international exchange and establish a bridgehead of Asian dynamism

Future Projects (A proposal of goals and policies)

A TOWN - where you can live comfortably

In this area of high-quality amenities and rich culture, set up a residential and educational environment that will make use of things like electronic residential registry services and Society 5.0. Balance information management with seamless transportation services and the use of AI and IoT technology.

(e.g.) Setting up a residential and educational environment, e-residency*, next generation payment systems, a next generation smart city, an environment that allows you to easily travel back and forth
*E-residency is an electronic version of Japan's residential registry

A RURAL AREA - connecting food and climate

Look at the best way to run the primary industry as well as measures to adapt to climate change, and work to make this area an advanced model case. Strengthen our network with all shareholders involved with production and distribution. Fuse local produce with foreign cultures, and communicate these new forms of food culture to the world.

(e.g.) Agricultural experiments within the idea of digital transformation, agricultural domes that reproduce various earth climates, a system for participation in agriculture, forestry and fisheries through use of an interregional network, events showcasing food from around the world

A GATHERING PLACE - Where people can gather and connect

Set up an environment where researchers can gather. Communicate research results and establish a system to share them with the private sector. As stakeholders around the world increase, match them with regional resources and develop healthy exchange within the region and outside.

(e.g.) Exchange salons (both real and virtual), a Knowledge Transfer system, utilizing tourism resources and developing experiential activity-based tourism

A FOREST - Birthing innovation

Accelerate projects that push open innovation with people at the forefront, and set up an environment that will encourage people and companies to gather in the area. Set up a system to make it possible to mutually inspire each other by making sure businesses can integrate easily into the region, and increasing exchange with other regions.

(e.g.) An ecosystem for open innovation, intellectual exchange with all stakeholders, collaboration with Asian countries, applying blockchains to social systems

AN AREA DEEP IN THE MOUNTAINS - Where people can strive towards new frontiers

In this rich natural environment, set up a research environment with high-quality amenities. Provide various activities people can do in their free time that perfectly represent the local region.

(e.g.) Developing a comfortable research environment, a retreat resort, international academic meetings

A "SATOYAMA" - HILLY HEARTLAND - Living in harmony with nature

In this "Satoyama" hilly heartland, conserve and reuse energy. Build facilities completely out of wood. Lead the way on SDGs and realize the Satoyama Initiative by setting up an agricultural environment that uses energy efficiently, producing and consuming goods locally, and creating a sustainable society.

(e.g.) a Virtual Power Plant, resource aggregators (businesses that integrate and control distributed energy), Wood First society, set up an agricultural environment that uses exhaust heat, resource recycling communities

A SPRING - Developing human resources

Train human resources through a system of exchange, and that is easier for people various life experiences to participate. Promote inclusivity education and increase opportunities to meet and learn from people around the world, including developing countries.

(e.g.) STEAM education (STEM + Art), accepting highly-skilled workers, individual empowerment, inclusivity education, discovering human resources from around the world and training them, intellectual and human resource exchanges with capital hubs



So what would fill the spot of the Earth Project, which the Earth Village would revolve around?

The Direction of the Earth Project

The requirements for the Earth Project, a project that serves mankind's common desires and attracts people from all over the world...

- Education, environment, health and medical care, science, culture...
- An ambitious project that attracts people
- Contributes to achieving SDGs
- Uncovers new knowledge that could cause a paradigm shift
Quantum mechanics, particle physics, condensed matter physics, chemistry, biotechnology...
- Academic research no matter what culture or religion

Focus on the power of science and technology

The First Model of an Earth Project ⇒ The ILC

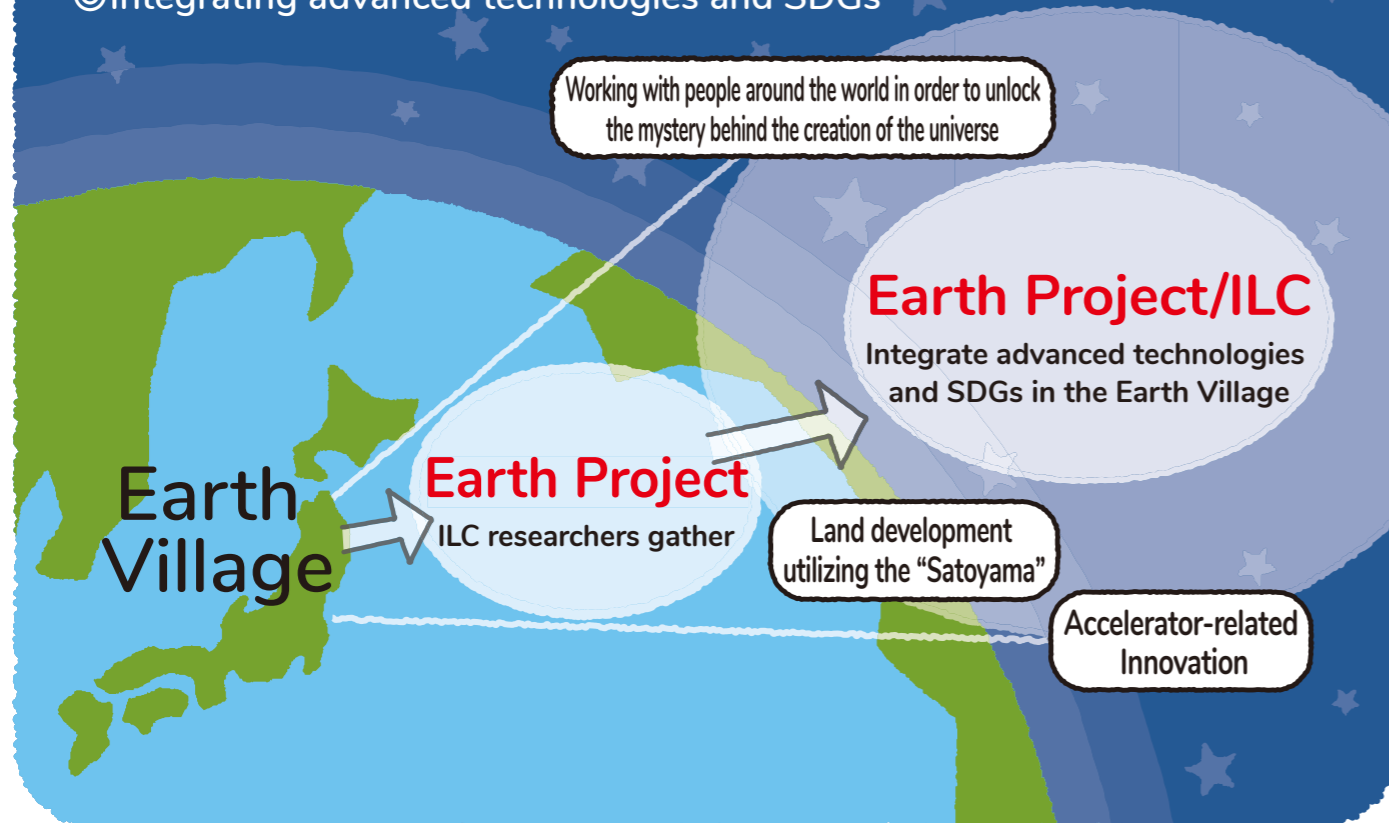
◎A modern "Apollo Program" which will bring mankind to a 13.8 billion year old frontier
Big impact to the world, ambitious advanced researchers

◎Hub-style research facilities where researchers come from all over the world
Researchers will come from all over the world over decades

◎Striving to make new technology and develop international cooperation
Electron and positron collision accelerator technology, striving to develop a Global Collaboration System

◎In Tohoku, the land of the "Satoyama" hilly heartland, a candidate site for construction
The "Satoyama" region of the Kitakami mountain range is the candidate site for the ILC's construction Green ILC initiatives such as energy reuse and wooden facility construction

◎Integrating advanced technologies and SDGs



The Significance of the ILC Project

A grand international project based on the intellectually inquiring mind of mankind
Reproducing the Big Bang, and striving to figure out the mechanisms of the universe such as creation of the universe and unification of forces

An innovation creator

The ILC will use a variety of advanced technology such as superconductivity, nanotechnology and supercomputers. A space for innovation where people like researchers and engineers of the associated industries gather and interact

ILC ~Striving for Two Breakthroughs~

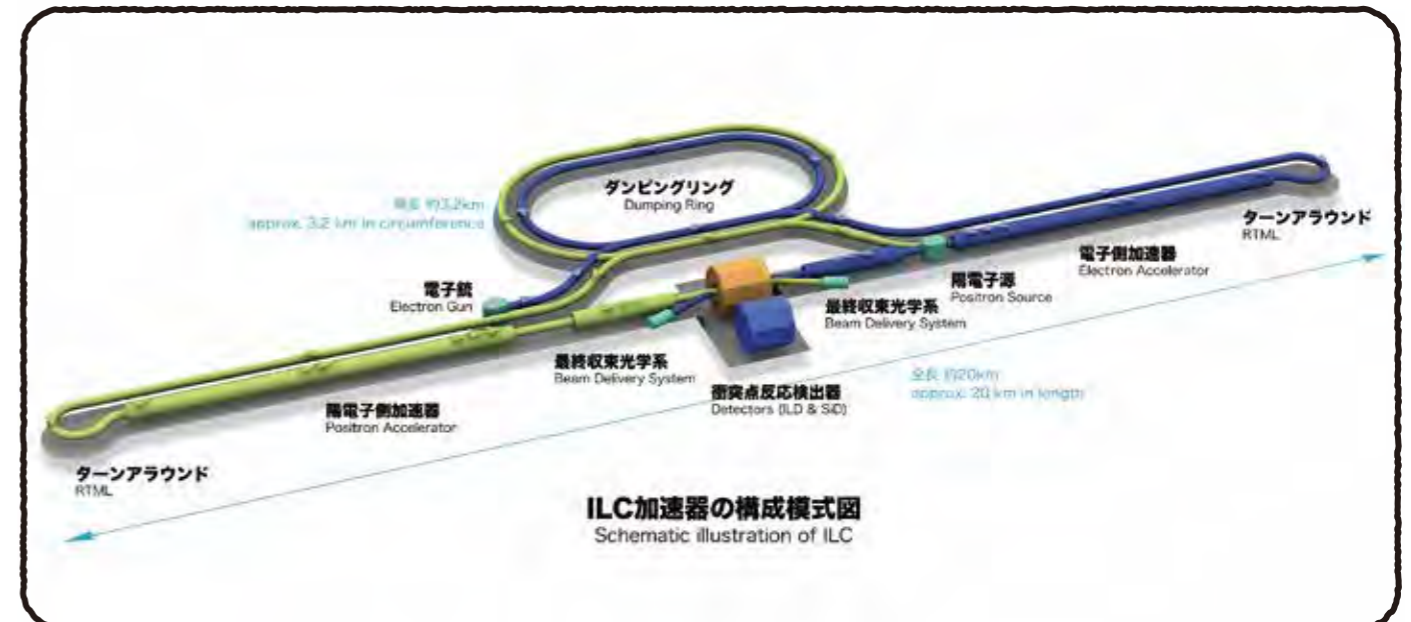
- Aim 1 A Technical Breakthrough**
The ILC uses an ambitious technology that accelerates and collides electrons and positrons in a straight line, compared to conventional circular accelerators that accelerate while orbiting charged particles.
- Aim 2 A Breakthrough for Global Collaboration Systems**
Researchers from all over the world will participate from the design stage. This will be an ambitious process to create the first spot on Earth where mankind can gather and research regardless of race, ethnicity, religion and language

The world is waiting for Japan's decision

Japan possesses accelerator technology along with a strong bedrock foundation, which is why it is the only candidate being considered for the ILC.
This is a crossroads - will Japan contribute to the development of humanity by boldly trying to improve on the current global cooperation system?

What is the ILC?

- In a 20km tunnel underground, electrons and positrons (which are the opposite charge of electrons) are accelerated to close to the speed of light and are smashed together.
- This brings about a state like one trillionth of a second after the birth of the universe. It will recreate the state immediately after the Big Bang 13.8 billion years ago.
- There will be elementary particle reactions, such as with the Higgs particles which has a function in giving matter mass
- The ILC will be a project that searches for answers to mysteries and the unknown, like how the universe was born and what is space-time structure - something that mankind has pondered for many years
- Japan's total contribution to the construction cost of the ILC accelerator itself will be about **400 billion yen (40 billion yen/year)**. One-half of the total construction cost (735.5 to 803.3 billion yen) and a construction period of about 10 years).
- The total Japanese burden of operating expenses is expected to be **20 billion yen/year** (total amount 36.6-39.2 billion yen/year).



Tohoku's Potential and Challenges

- ◎“Satoyama” Culture – living in harmony with forests, the sea, and the natural environment since ancient times
- ◎A treasure trove of excellent agricultural, forestry and fishery resources and foods
- ◎Forming manufacturing bases and the potential of advanced technologies
- ◎Increasing the amount of stakeholders that support the reconstruction from the Great East Japan Earthquake and Tsunami
- A region already in the trenches combating the Japanese issue of population decline

Challenges in Creating the Earth Village for the ILC

- ◎The first time for a project to start from scratch for both Japan and the world
Gaining understanding and support from home and abroad. Collaborating and role sharing with the Japanese government, other governments, NGOs, universities, private sectors, etc.
- ◎Developing basic infrastructure
Developing a residential environment with high-quality amenities by introducing national policies such as a transformation of national land structure, regional revitalization, and utilizing private sector vitality
- ◎Pioneering development towards achieving SDGs
Implementing an environmental impact assessment and developing with utmost consideration for the environment and safety
Promoting understanding through direct dialogue with local residents
- ◎Expectation of the arrival of accelerator-related industries in the area
Maximizing the effectiveness of the ILC location by working to promote industry and other various measures



Vision

- Revising the way we see our planet and exploring the future of a sustainable Earth
- People from all over the world come to live and interact with local residents and children in the “Satoyama” hilly heartland
- Communicating research results, technology transfer, innovation
- Create a recycling-based society, a village of trees, agriculture, and food, in which people live in harmony with nature in advanced technology
- Diversity and Inclusion - No one is left behind
- Interact with the world - human resource development for the next generation with a global perspective to realize young people's dreams

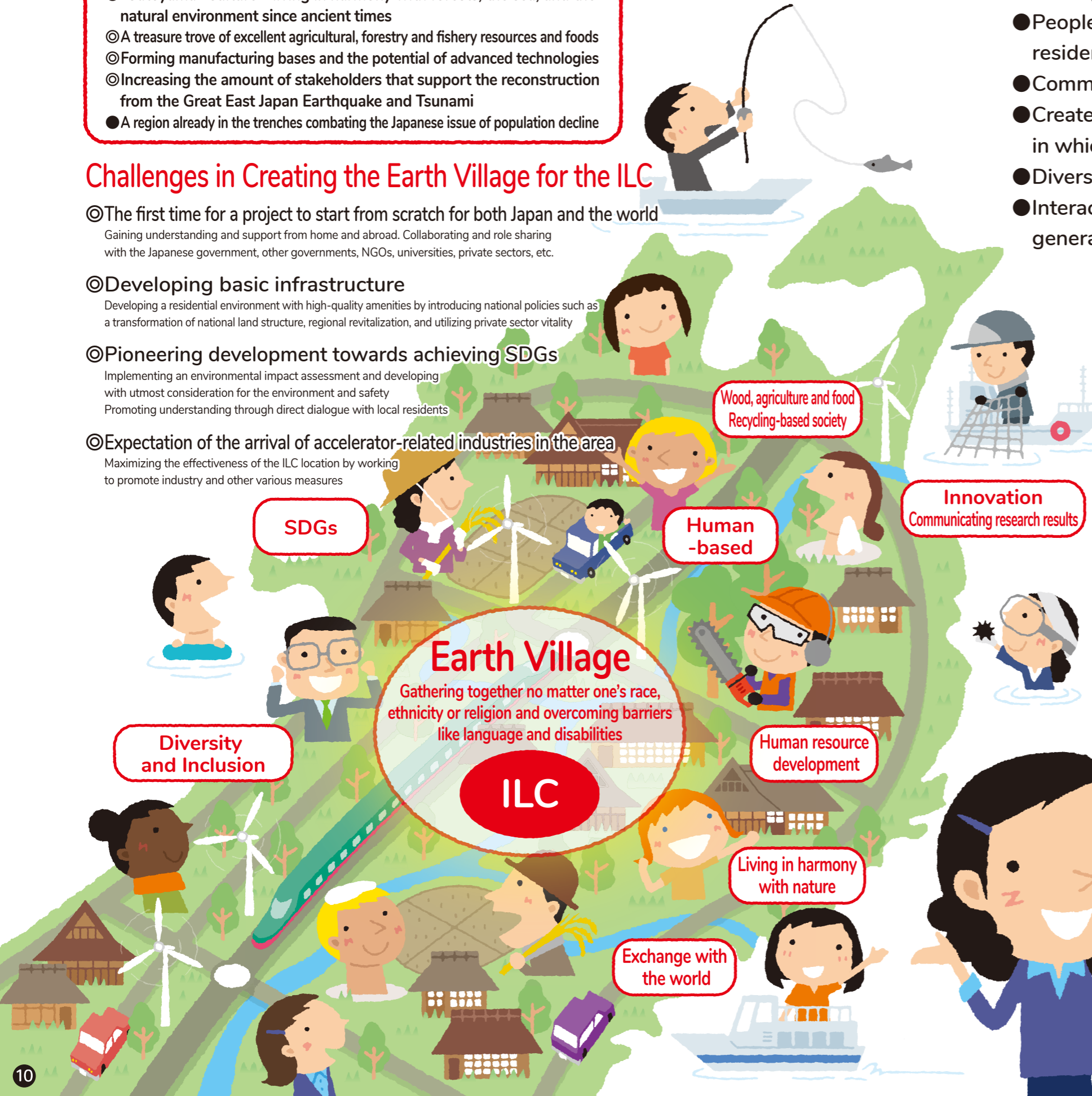
CERN as a model for the ILC

- CERN (the European Organization for Nuclear Research) is our model for ILC.
- Established in 1954, CERN is the world's largest research institute for researching and developing technology related to particle physics and nuclear physics using large accelerators
 - Operation and use of 23 member states (22 European countries and Israel) - non-member States can join
 - Physicists from more than 100 countries and regions around the world research without a care about race and religion
 - Budget (2015 expenditure): 1,083 million CHF, Employees: approximately 3,200, User researchers: approximately 11,500 from around the world

While CERN is a European research institute, ILC will be one of the world's leading research centers that accepts researchers from countries and regions around the world, with people from all over the world studying together starting from the very beginning.



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The Future the Earth Village Brought About By the ILC



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