

Research and Grant Proposal Project: Sustainable Development Projects in Japan

Step 1: Group Formation

- Form groups of 4-5 students. Exchange contact information among group members.

Step 2: Project Selection

- Each group will select one of the following projects: 1.) Astellas Pharma Inc., 2.) Canon Eco Technology Park, 3.) Dai-ichi Life, or 4.) women-only cars on public transportation.

Step 3: Research

- Use the provided information as a starting point for your research. Conduct additional in-depth research.

Step 4: Create a Google Slides Presentation

- Prepare a Google Slides presentation to accompany your oral presentation. Your presentation should include the following sections:

Section 1: Introduction (1 slide)

- Include your names and the name of the selected development project.

Section 2: Background (2-3 slides)

- Provide an overview of the current development level in Japan.
- Explain the specific problem your development project aims to address.
- Clearly articulate a grant proposal, including a brief timeline and expected outcomes.
 - Ex: We request \$X to do Y, which will allow us to achieve our mission of Z. We anticipate that the proposal will take A months/years and will result in B.

Section 3: Social and Economic Development (2-4 slides)

- Discuss how your development project will contribute to measures of social and economic development like:
 - [GDP](#), [GNI per capita](#), informal and formal sectors of the economy, income distribution, [total fertility rate](#), [infant mortality rate](#), access to health care, use of fossil fuels and renewable energy, and [literacy rates](#)

Section 4: Gender Equality and Human Development (2-4 slides)

- Identify and interpret Japan's [Gender Inequality Index \(GII\)](#) and [Human Development Index \(HDI\)](#) scores.
 - Example: Are the GII and HDI scores high, moderate, or low? Does that mean that there's a high, moderate, or low level of gender inequality and human development in Japan?
- Explain how your project will advance gender equality and/or human development.

Section 5: UN Sustainable Development Goals (2-4 slides)

- Describe how your development project aligns with and supports the [United Nations Sustainable Development Goals \(SDGs\)](#).

Step 5: Oral Presentation/Competition

- Each group will have about 5-10 minutes to present their slides and make their case during class.
- Be concise and focused on the key points of your proposal.
- Keep in mind that you are competing against other proposals for limited funding.

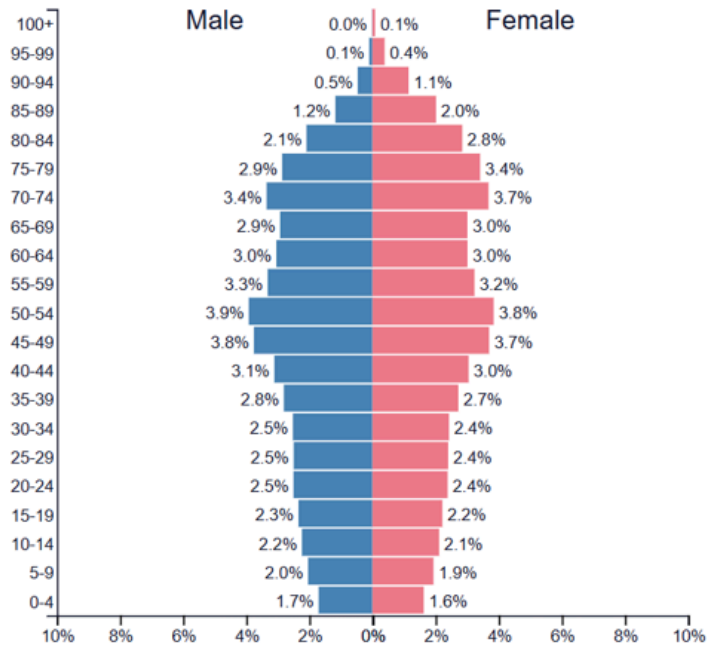
| Checklist for Google Slides presentation | Checklist for the oral presentation |
|---|---|
| Background on Japan's level of development | All group members present roughly for the same amount of time |
| <p>Overview of your development project with a clearly articulated grant proposal</p> <p>Example: We are requesting <u>X</u> amount of dollars in order to do <u>Y</u>, which will allow us to achieve our mission of <u>Z</u>.</p> | Appropriate volume and speed |
| <p>Explanation of how your development project advance measures of social and economic development: GDP, GNI per capita, informal and formal sectors of the economy, income distribution, fertility rates, infant mortality rates, access to health care, use of fossil fuels and renewable energy, and literacy rates</p> <p>Note: not all measures will be applicable</p> | Familiarity with the content on the slides – not reading verbatim off of the slides |
| Explanation of how your development project will advance gender equality and/or human development | |
| Explanation of how your development project will advance the UN Sustainable Development Goals | |
| Clear, easily readable graphics | |

| Rubric for the Google Slides Presentation | | | | |
|--|---|--|---|--|
| | 4 | 3 | 2 | 1 |
| Content | The slides provide a very clear presentation of the topic. Each slide has factually correct, relevant information from several resources. | The slides provide a clear presentation of the topic. Each slide has factually correct information from resources. | The slides provide a presentation of the topic. Some important information may be omitted or not fully described. | The slides provide a presentation of the topic. Many important pieces of information are omitted or not fully described. |
| Organization | The information on the slides is well organized with clear section headings and a good flow. | The information of the slides is organized with section headings and some flow. | The information is somewhat unorganized and may lack section headings and flow. | The information is unorganized, lacking section headings and/or a good flow. |
| Design | The information on the slides is well designed with an appropriate size font and can be easily read. | The information on the slides is well designed with an appropriate size font and can usually be easily read. | The information on the slides does not always have an appropriate size font and can sometimes be easily read. | The information on the slides does not have an appropriate size font and cannot be easily read. |

Background information about Astellas Pharma, Inc.



Population Pyramid of Japan in 2023



Above left: the cover of a picture book produced by Astellas Pharma Inc. that conveys to children the importance of health, medicine, and caring for one's friends in an easy-to-understand way.

Above right: the population pyramid of Japan, which is currently in Stage 5 of the Demographic Transition Model

Astellas Pharma Inc., a global pharmaceutical leader based in Japan, is dedicated to the research, development, manufacturing, and sales of pharmaceuticals. Operating in over 70 countries across regions like Western Europe, East Asia, and North America, Astellas is committed to sustainable growth through pioneering scientific advancements that improve patient outcomes.

Among their core products are prescription treatments for conditions such as prostate and urothelial cancer, leukemia, menopause, and overactive bladder. Astellas is devoted to expanding healthcare access, especially for patients facing socioeconomic barriers, by offering programs like post-trial access, international pharmaceutical initiatives, and tailored patient access plans.

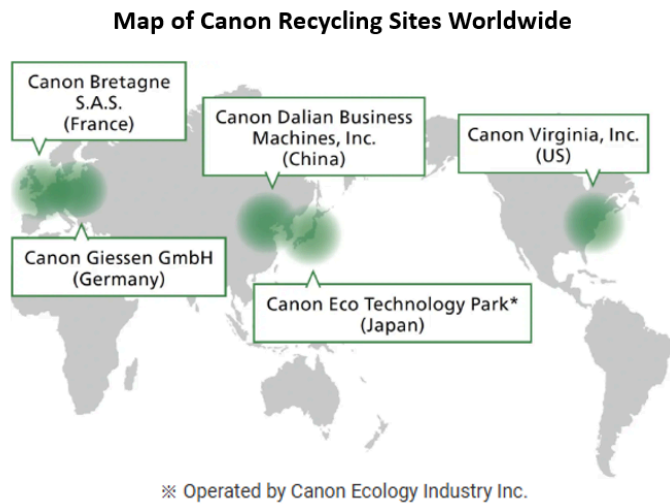
Guided by the concept of "medical eco-activities," Astellas seeks to foster sustainable healthcare by encouraging public engagement and behavioral change through partnerships with citizen groups, government bodies, research institutions, media, universities, and professional sports organizations. To reach diverse audiences, Astellas utilizes various platforms including picture books, mobile apps, games, public and sports team events, and internships, helping to promote a collective shift toward sustainable healthcare practices.

Astellas operates in numerous North American and Western European countries that are currently in Stage 4 or Stage 5 of the Demographic Transition Model (DTM). These countries face unique healthcare

challenges due to aging populations and lower birth rates. In these stages, life expectancy is high, and fertility rates decline, leading to a higher proportion of elderly citizens. This demographic shift strains healthcare systems as they must address age-related conditions like heart disease, dementia, and other chronic illnesses. Additionally, the demand for long-term care services and specialized geriatric [relating to old people] care increases.

With a declining birthrate and an aging population, Japan is currently in Stage 5 of the Demographic Transition Model (DTM). This demographic reality compounds the healthcare burden as the working-age population shrinks relative to the number of dependents. This shift can lead to shortages in healthcare professionals and funding as fewer people contribute to the economy, challenging countries to balance resources for preventive care, advanced medical treatments, and support for the elderly. Addressing these challenges often requires innovative healthcare policies and investments in technology to maintain healthcare quality and accessibility for aging populations.

Background information about Canon Eco Technology Park



Above left: map of Canon Recycling Sites Worldwide

Above right: signage at the Canon Eco Technology Park

Canon has five global recycling plants located in France, Germany, China, Japan, and the United States. The Canon Eco Technology Park in Japan serves as a leading example of sustainable innovation and environmental responsibility in manufacturing. Operating in Ibaraki Prefecture, the state-of-the-art recycling plant showcases Canon's commitment to eco-friendly production and waste reduction, integrating cutting-edge technology to create a closed-loop recycling system. The Eco Technology Park was designed with a dual purpose: to serve as a recycling center for Canon's products and as an educational hub where visitors can learn about sustainability and the company's environmental initiatives.

One of the park's main focuses is the recycling of Canon's used toner cartridges and printers. Using advanced recycling technology, the facility breaks down these items to extract valuable raw materials, such as plastics and metals, which are then reused in the manufacturing of new Canon products. This closed-loop system conserves natural resources and significantly reduces waste and carbon emissions. Canon's process includes both mechanical recycling, where plastics are shredded and repurposed, and chemical recycling, which breaks down materials at a molecular level to create high-quality raw substances. This approach exemplifies Canon's corporate philosophy of *kyosei*, or living and working together for a common good.

The Eco Technology Park also functions as a public educational center, welcoming visitors to tour the facility and observe its recycling and manufacturing processes. Interactive displays and guided tours allow visitors to understand the various stages of product recycling, from collection to material separation and repurposing. Canon's goal in this educational outreach is to raise awareness about the importance of a circular economy and to inspire both individuals and organizations to consider sustainable practices in their own operations. Through these tours, Canon hopes to instill an

appreciation for conservation and to promote eco-conscious behavior.

In addition to recycling initiatives, the park employs a range of energy-saving technologies, including LED lighting, high-efficiency air conditioning, and renewable energy sources, reducing its overall environmental footprint. The facility is constructed with eco-friendly materials and designed to maximize energy efficiency, aligning with Canon's broader environmental vision, "Action for Green," which prioritizes reducing environmental burdens across all stages of the product life cycle. By setting high environmental standards at the Eco Technology Park, Canon demonstrates how corporations can integrate sustainability into their core operations and contribute positively to global environmental goals.

Through its commitment to recycling, educational outreach, and sustainable facility design, Canon's Eco Technology Park reflects a forward-thinking approach to corporate responsibility, positioning the company as a leader in environmentally conscious manufacturing. This facility not only underscores Canon's role in the global shift toward a circular economy but also provides a tangible model of how businesses can adopt practices that benefit both their operations and the environment.

Background information about Dai-ichi Life

Dai-ichi Life Insurance Company, one of Japan’s largest and oldest life insurance companies, has a reputation for its financial stability and comprehensive life insurance offerings. Established in 1902, Dai-ichi Life provides a broad range of life insurance products, investment solutions, and financial planning services, uniquely designed to meet the needs of Japan’s aging population. Guided by a commitment to sustainable growth, the company integrates social responsibility and community engagement into its operations, seeking to enhance societal well-being across generations.

Dai-ichi Life actively champions diversity, equity, and inclusion (DEI) to cultivate a more inclusive workplace and foster the development of diverse talent. Diversity ensures a broad representation of different backgrounds and perspectives, equity addresses and works to correct systemic inequalities within an organization, and inclusion fosters a sense of value and belonging for everyone. By promoting DEI, the company aims to enhance labor productivity, foster innovation, and contribute to economic growth. Key areas of focus include:

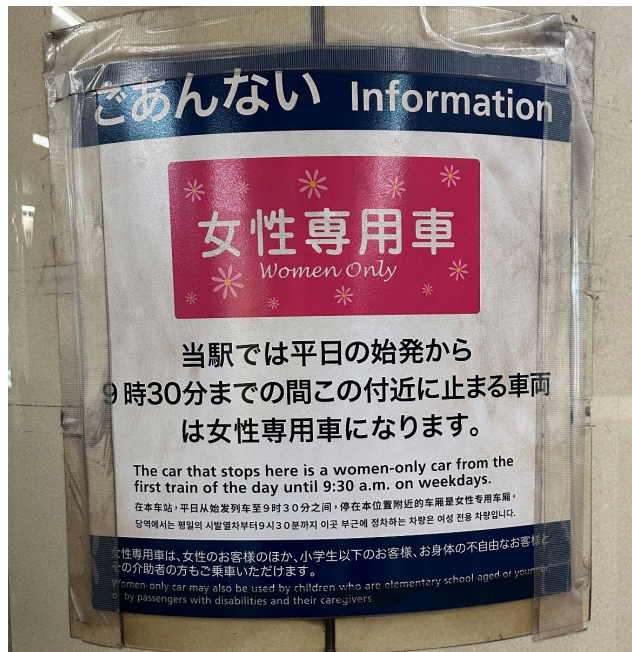
- **Promotion of diverse human resources:** Dai-ichi Life is dedicated to creating a welcoming environment for people with disabilities, global talent, senior employees, and LGBTQ+ individuals, ensuring equal opportunities and support for all. For example, the company’s leave system for marriage, childbirth, etc., now applies to employees’ same-sex partners.
- **Promotion of women’s participation:** With an emphasis on developing female leadership, Dai-ichi Life has implemented robust training systems tailored by rank to empower women within the company, recognizing the value of gender diversity at all levels of management. Various seminars are held annually about health issues that may affect womens’ career development like breast cancer and menopause. As of April 1, 2024, the percentage of women in management positions in the company was approximately 30%.
- **Work style reform and work-life balance support:** The company is adopting flexible work styles, offering support for employees balancing family responsibilities like childcare, illness, and nursing care. Dai-ichi Life accommodates flexible working arrangements like shortened work days for parents and fully remote options for people with commutes longer than 90 minutes.

In light of Japan’s projected demographic decline, Dai-ichi Life places high value on fostering a more dynamic and inclusive workforce.

| | 2020 | 2070 (projected) |
|---|-------------|------------------|
| Japan’s total population | 120 million | 87 million |
| Japan’s working-age population (aged 15-64) | 75 million | 25 million |
| Percentage of working-age population relative to total population | 63% | 29% |

The company’s initiatives are closely aligned with those of the Japanese government, which also actively promotes greater roles for women and international students within the workforce. Government briefing materials on these efforts can be accessed [here](#).

Background information on women-only cars on public transportation



Above: signage at a subway stop in Tokyo, Japan informing riders about the women-only car

Japan's public transportation system is renowned for its efficiency, punctuality, and vast network. High-speed trains like the Shinkansen or "bullet train," along with subways and buses, serve as the primary mode of transportation for millions of people. Tens of millions of people ride the Tokyo metropolitan area subway system every day, contributing to lower carbon emissions.

Japan's women-only train cars have a history dating back to 1912, when a major railway line in Tokyo first introduced them for schoolgirls during rush hour. In the 1920s and 1930s, women-only trains also appeared in the port city of Kobe. After World War II ended in 1945, more train cars designated for women and children became common, though this system shifted in the 1970s to prioritize seating for seniors, people with disabilities, and expectant mothers.

The modern women-only car system emerged in the early 2000s in response to a surge in reported cases of *chikan*, or sexual harassment or groping, on crowded public transit. These women-only cars attempt to provide a safer and more comfortable commute for female passengers, especially during peak travel hours. Women-only cars are now a common feature across major subway and train lines in cities like Tokyo, Osaka, and Yokohama. Women-only cars are marked with distinct signage, allowing female passengers—including schoolgirls and the elderly—a space to feel secure.

Japan places high value on public harmony and respect for personal space, which is reflected in the societal response to issues like public safety and harassment. This respect for order influences both the design of public transport and the success of initiatives like women-only cars.

The introduction of women-only cars has received both support and criticism. Many women find the initiative beneficial, reporting that it provides them with peace of mind and reduces the anxiety associated with potential harassment in packed subway cars. While women-only cars are designed primarily for female passengers, they also extend access to young children, the disabled, and caregivers of either gender, further supporting a comfortable commute for those who may be more vulnerable in crowded settings.

However, critics argue that women-only cars could inadvertently reinforce gender segregation, rather than addressing the root causes of harassment. Others believe that reliance on such cars might place undue burden on women to adapt their commuting behavior, rather than encouraging a broader societal shift toward respecting personal boundaries and deterring harassment. Despite these differing opinions, the popularity of women-only cars has grown, with additional lines adopting them.

In Japan, the initiative has also been accompanied by broader efforts to raise awareness about public safety and personal boundaries on trains, including public campaigns, signage, and increased patrolling by railway personnel. Together with women-only cars, these measures aim to cultivate a respectful commuting environment.