Entrepreneurship Program for Resilient Society

Future Resilience through Review of the Reconstruction Process
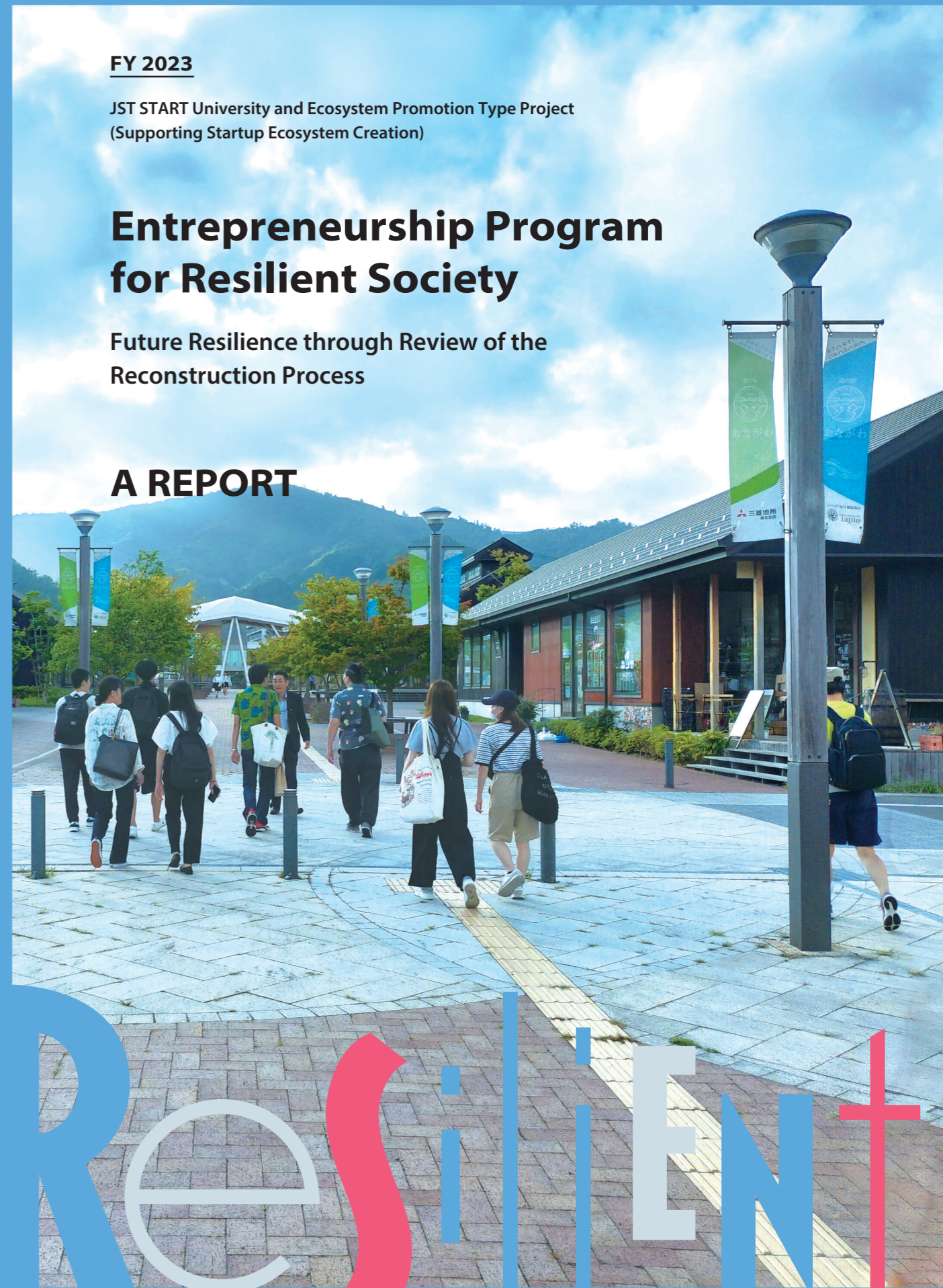
A REPORT

CONTACT Information

Entrepreneurship Program
for Resilient Society
https://resilience-edu.jp/contact/

Program Overview

According to the Emergency Events Database of the Center for Research on the Epidemiology of Disasters (CRED), one of the most comprehensive global disaster databases, 387 natural disasters occurred worldwide in the year 2022. These disasters claimed the lives of more than 30,000 people and affected over 180 million individuals. The extent of a disaster varies depending on multiple factors, including the type of disaster, its location, and the political, economic, technological, and cultural background of the affected community. The increasing severity of many natural disasters and their complex interactions require an integrated and multifaceted approach to strategies for risk mitigation and decision-making.

Japan, owing to its geographical situation on the Pacific Ring of Fire, has experienced many devastating earthquakes, tsunamis, typhoons, and torrential rains. In particular, the Great Hanshin-Awaji Earthquake of 1995, which was the largest earthquake disaster of the post-World War II era at that time, sent shock waves throughout the world. As of January 2024, Japan has experienced 178 earthquakes with human casualties since 1996. The most devastating of these include the 2004 Mid-Niigata Prefecture Earthquake, the 2011 Great East Japan Earthquake, the 2016 Kumamoto Earthquake, and the 2018 Hokkaido Eastern Iburi Earthquake. On January 1st, 2024, a significant earthquake struck the Noto Peninsula of Ishikawa Prefecture. In addition to earthquakes, many people were killed by overflowing rivers and landslides in torrential rains in western Japan in 2018 and Typhoon Hagibis (Reiwa 1 East Japan Typhoon) in 2019. The global outbreak of COVID-19 infections in 2019 not only caused numerous deaths, but also greatly altered ways of life for people around the world.

Now that some time has passed since these disasters, we can observe various processes and phases of reconstruction underway in Japan. Kobe has already completed its recovery from the Great Hanshin-Awaji Earthquake, providing a long-term verification of "Build Back Better" efforts. In the Tohoku region, which suffered tremendous damage from the Great East Japan Earthquake, and where some areas are still working on reconstruction, there is a retrospective analysis of the reconstruction process and discussion about future policies. This program aims to develop human resources capable of creating and sustaining businesses that generate creative value. It involves learning about past disasters and the reconstruction process and creating business ideas to achieve a resilient society.

This program is part of the JST START University Ecosystem Promotion Type (Supporting Creation of Startup Ecosystem in Startup Cities) Project and is supported by the MIRAI (Multidisciplinary Integration for Resilience and Innovation) Alliance of Kobe University.

(Cover photo)
Onagawa Town, Oshika District, Miyagi
(Back cover photo)
Kobe University, Library for Science and Technology

JST START University and Ecosystem Promotion Type Project (Supporting Startup Ecosystem Creation)

This project, initiated in July 2020 by the Cabinet Office, focuses on developing human resources with entrepreneurial skills and fostering startups. It operates on platforms that integrates universities and key institutions, designated as core elements of the Startup Ecosystem Hub Cities. Its aim is to create a sustainable system that not only supports the practical application of advanced technological innovations from universities but also nurtures individuals with entrepreneurial abilities. This system is envisioned to drive social transformation and address issues emerging in the aftermath of the global COVID-19 pandemic, particularly through the creation of impactful startups.

Currently, various projects are being carried out under these seven platforms:

Keihanshin Startup Academia Coalition
Greater Tokyo Innovation Ecosystem
Tokai Network for Global Leading Innovation
Platform for All Regions of Kyushu & Okinawa for Startup – ecosystem
Michinoku Academia Startup Platform
Peace & Science Innovation Ecosystem
Hokkaido Startup Future Creation Development by Mutual Support Networks (HSFC)

These platforms represent collaborations among multiple institutions, with universities taking a lead role in Startup Ecosystem Hub Cities.

Their activities include:
(1) Operating entrepreneurship support programs.
(2) Developing and operating programs for entrepreneurial human resource development.
(3) Improving the entrepreneurial environment.
(4) Building and fostering ecosystems in the hub cities.

Specifically, the Entrepreneurship Program for Resilient Society is a key part of the activities, focusing on (2) developing and operating programs for entrepreneurship human resource development.
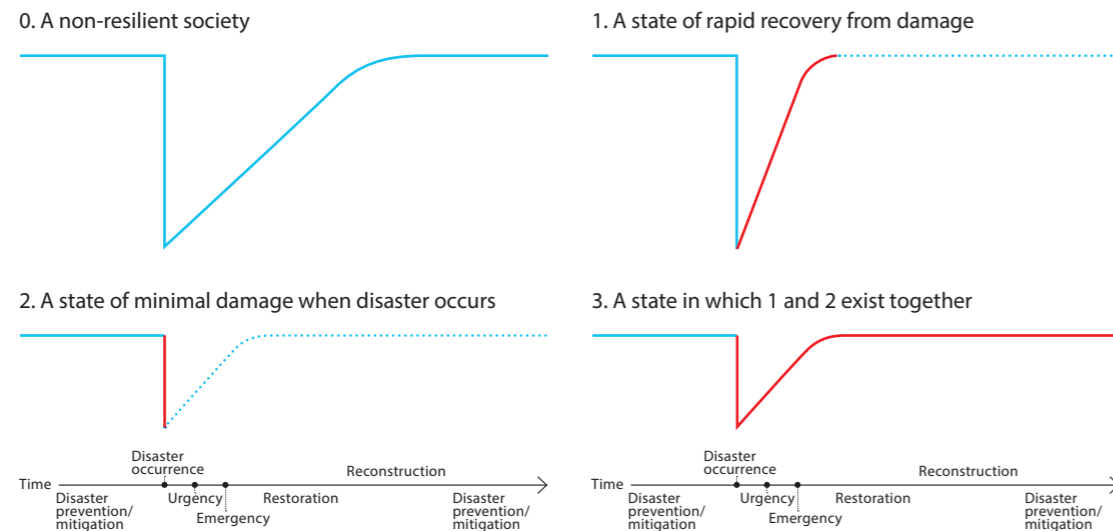
Website: https://www.jst.go.jp/start/su-ecosys/index.html

What Is a Resilient Society?

The term "resilience" generally means "the elasticity, restorative force, capacity to recover from illness, etc., or toughness" (Digital Daijisen, Shogakukan Inc.). It is a word used more recently in the context of psychology to refer to "processes or capabilities that adapt deftly despite circumstances posing difficulties and threats." Moreover, the concept of resilience has come to be seen as a crucial capacity for disaster prevention and mitigation which must be found within industrial and governmental organizations, not to mention in the social and economic fields.

For this program, "resilience" is defined as "the capacity of a system, enterprise, or a person to maintain its core purpose and integrity in the face of dramatically changed circumstances" (Andrew Zolli and Ann Marie Healy, Resilience, 2013). A resilient society is defined, accordingly, as "a society that can maintain its core purpose and integrity in the face of dramatically changed circumstances." It is supposed that a resilient society is one that can achieve the following three states.

0. A non-resilient society

1. A state of rapid recovery from damage

2. A state of minimal damage when disaster occurs

3. A state in which 1 and 2 exist together

Achieving such a society requires more than just restoring conditions to their pre-disaster state. Given that it has become clear our living spaces were exposed to a high risk of earthquakes and tsunamis, it becomes crucial to engage in creative restoration (Nobuaki Hamaguchi, On Creative Restoration, 2013). This innovative mindset involves regenerating society to a state that is superior to what it was before. Such an approach entails not only mitigating risks but also encouraging activities that develop new regional narratives and histories. (Toshihiko Hayashi, Economics of Major Disasters, 2011)
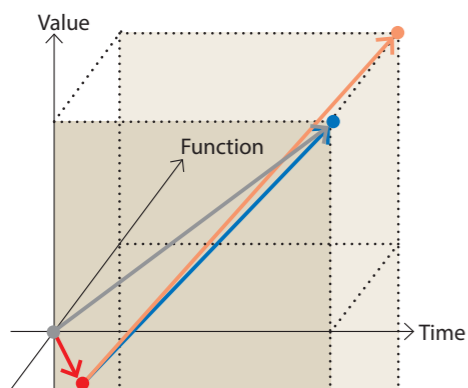
A Business Creation Process Aimed at Building a Resilient Society

Based on the definition of resilience and the concept of creative restoration, the program defines individuals capable of building a resilient society as those who can identify vulnerabilities within social systems, predict changes resulting from disasters, and establish and maintain value-creating businesses.

The diagram below illustrates the process of business creation for a resilient society against disasters. In this program, we refer to a society that is able to maintain its core purpose and integrity in the face of dramatically changed circumstances as a "resilient society," an earthquake or heavy rainfall as a "dramatically changed circumstance," and a society damaged by an earthquake or heavy rainfall as a "society affected by dramatically changed circumstances." The unique aspect of creating businesses for a resilient society lies in the dual focus: envisioning a resilient society and predicting the society in the face of dramatically changed circumstances. By comparing the two societies, gaps (problems) are identified. It also deciphers the vulnerabilities (causes) of the society by comparing the current society with the society affected by dramatically changed circumstances. From the problems and causes, issues that need to be addressed in order to realize a resilient society are established, solutions are devised, and the process proceeds to a business plan. This process is not a linear progression but rather an iterative one, dynamically moving back and forth to ensure a comprehensive approach to building a resilient society.
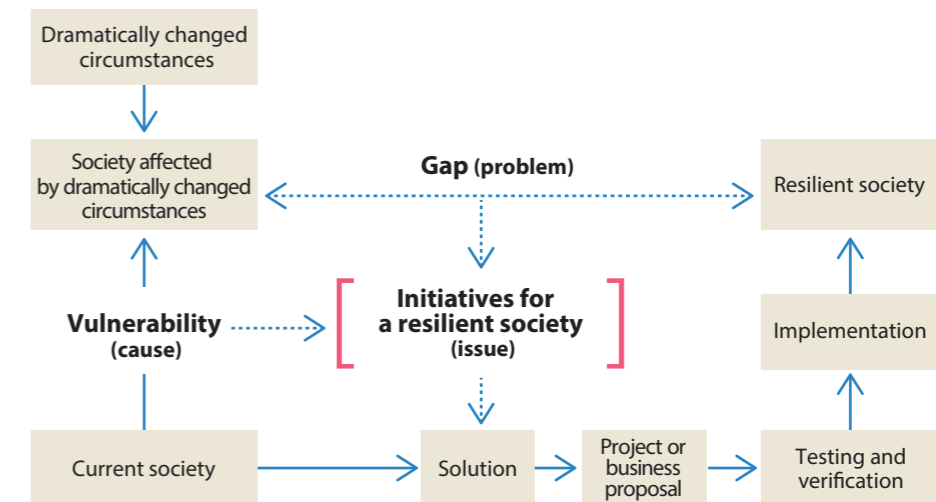
Capabilities needed to drive Construction of a Resilient Society

In this program, we recognize that the construction of a resilient society is driven by individuals who possess not only basic entrepreneurial skills and abilities but also five critical capabilities, as outlined below. These individuals are pivotal in designing and realizing new projects or businesses that contribute to both reconstruction and disaster prevention / mitigation:

1. Forecast impacts due to dramatically changed circumstances
Employing past examples and computer simulations to anticipate societal changes in the wake of future disasters.

2. Find Vulnerabilities in Social Systems
Analyzing resilient and impacted societies to uncover vulnerabilities within systems, including their political, legal, economic, technological, environmental, cultural, and human contexts.

3. Specify Problems
Understanding the discrepancies between resilient societies and those affected by dramatically changed circumstances to pinpoint underlying problems.

4. Identify issues and develop solutions
- From the Point of View of Self-Help / Mutual Aid / Public Assistance-
Generating sustainable solution ideas that leverage business initiatives, personal abilities, community resources, and government support for reconstruction and disaster prevention / mitigation.

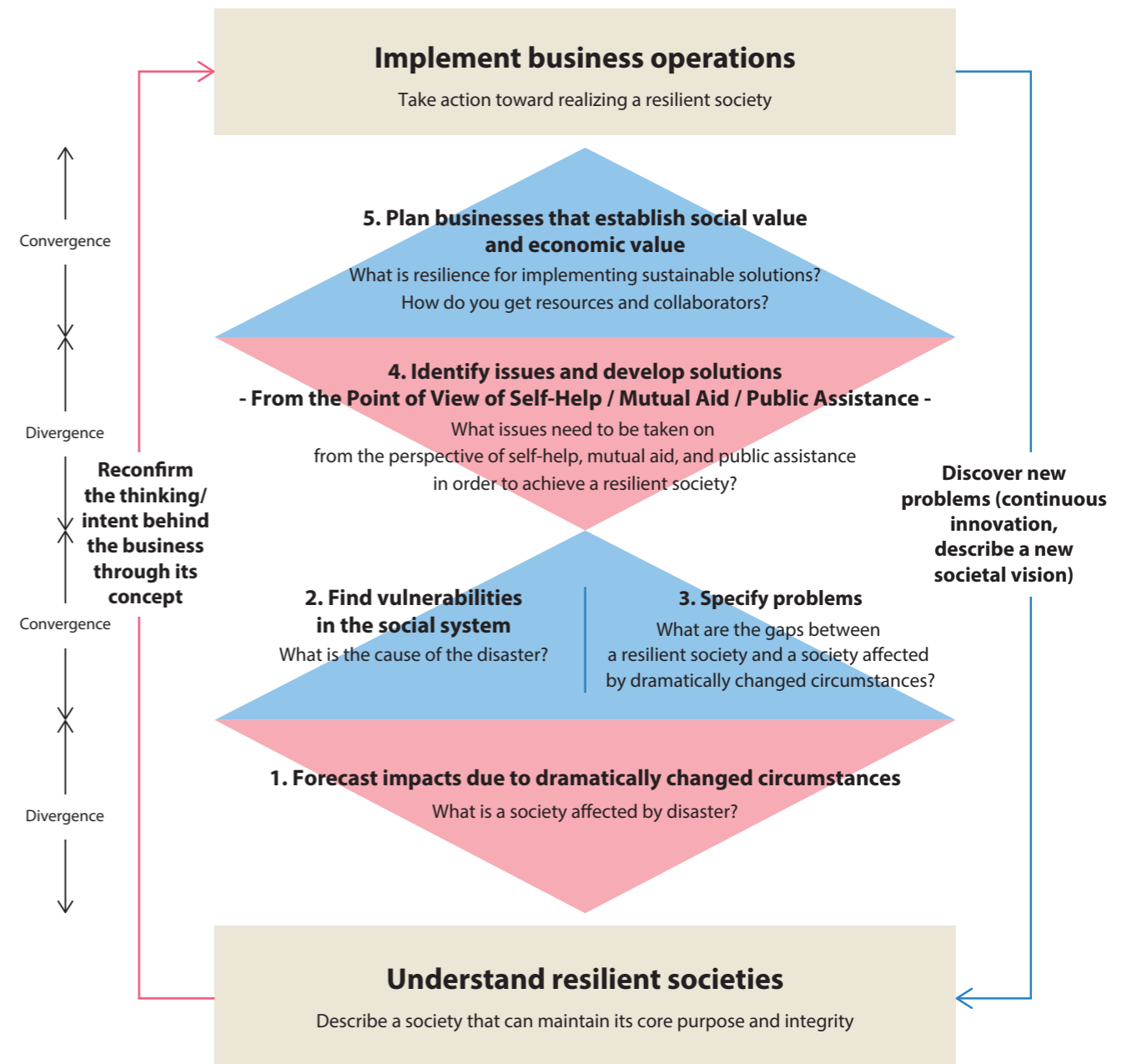### 5. Plan businesses that create social value and economic value
Designing sustainable projects and businesses by generating economic value and contributing to societal benefits related to reconstruction and disaster prevention / mitigation.

Program Process Frame

American psychologist Joy Paul Guilford emphasizes the importance of divergent and convergent thinking in the idea generation process. Divergent thinking is utilized to generate a wide array of ideas, while convergent thinking focuses on identifying the most logically suitable answer or solution. These two ways of thinking play very important roles in the problem solving process.

The Double Diamond is a framework for problem solving processes proposed by the British Design Council in 2004. It uses a diamond shape to illustrate the combination of divergent and convergent thinking. This framework underscores the dynamic process of exploring an issue widely (divergence) and then refining solutions (convergence), which is essential in addressing complex problems such as building resilient societies.

Comparing the process of developing projects and business proposals for resilient societies to the Double Diamond highlights how divergent and convergent thinking can be systematically applied. This comparison is illustrated in the diagram below:

Implement business operations
Take action toward realizing a resilient society

5. Plan businesses that establish social value and economic value
What is resilience for implementing sustainable solutions?
How do you get resources and collaborators?

4. Identify issues and develop solutions
- From the Point of View of Self-Help / Mutual Aid / Public Assistance -
What issues need to be taken on
from the perspective of self-help, mutual aid, and public assistance
in order to achieve a resilient society?

2. Find vulnerabilities in the social system
What is the cause of the disaster?

3. Specify problems
What are the gaps between
a resilient society and a society affected
by dramatically changed circumstances?

1. Forecast impacts due to dramatically changed circumstances
What is a society affected by disaster?

Understand resilient societies
Describe a society that can maintain its core purpose and integrity

Convergence
Divergence
Convergence
Divergence

Reconfirm the thinking/ intent behind the business through its concept

Discover new problems (continuous innovation, describe a new societal vision)

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Schedule Overview

Kobe Session

Date	Type	Title
Aug. 22	Special	Orientation
	Lecture 1	Introduction to Resilience - Focus on System Models -
	Lecture 2	Vulnerabilities of Social Systems: Determining Problems and Issues
Aug. 23	Lecture 3	Dramatically Changed Circumstances: Making Predictions from Computer Simulations
	Fieldwork 1	Disaster Reduction and Human Renovation Institution
Aug. 24	Lecture 4	Disaster Psychology
	Lecture 5	Dramatically Changed Circumstances: Learning from the Past
	Fieldwork 2	Disaster Recovery of Rokkomichi Station Area
Aug. 25	Workshop 1	Vulnerabilities of Social Systems
	Special	Interim Report 1

Miyagi Session

Date	Type	Title
Aug. 29	Lecture 6	Onagawa-cho Reconstruction - Town Development in Onagawa through Public-Private Partnership -
	Fieldwork 3	Onagawa-cho, Oshika-gun, Miyagi
Aug. 30	Fieldwork 4	Earthquake Heritage Okawa Elementary School
	Fieldwork 5	Ogatsu-cho, Ishinomaki-City, Miyagi
	Workshop 2	Self-Help / Mutual Aid / Public Assistance
Aug. 31	Workshop 3	Establishing Social Value Together with Economic Value
	Special	Interim Report 2
Sept. 1	Fieldwork 6	Earthquake Heritage Nakahama Elementary School
	Workshop 4	Creating Disaster Culture from Collective Memories of Disasters

Sendai Session

Date	Type	Title
Sept. 10	Special	Interim Report 3
Sept. 11	Special	Individual Work
Sept. 12	Special	Final Presentations

Kobe Session

Introduction to Resilience
- Focus on System Models -

Hisashi Tamaki, Dean, V. School, Kobe University
Professor, School of System Informatics, Kobe University

When designing mechanical systems, avoiding the danger zone reduces efficiency. Pushing the boundaries of the danger zone in pursuit of performance may lead to the occurrence of irreversible accidents. Using the example of international travel, how do you manage your passport and valuables? Do you attempt to keep them from being taken, or consider what to do if they are taken? The action you take next will differ significantly based on which stance you take. Considering tsunami, do we try to prevent the wave from overwhelming defenses or take action when it does overwhelm defenses? Normally we take action to stay on the safe side. However, even if we go just a little into the danger zone, functions may recover within a short period of time or even improve performance. This approach embodies resilience. Perhaps drifting a car in order to achieve the ideal line can be thought of as resilient.

Dramatically Changed Circumstances: Making Predictions from Computer Simulations

Atsushi Iizuka, Professor, Research Center for Urban Safety and Security, Kobe University

Simulations can be roughly divided into mock simulations and true simulations. Mock simulations are intended to provide supplemental explanation. On the other hand, true simulations are intended to help understand complex phenomena. One of the big differences between these is the degradation of information. Seismic motion is a wave with a time component, so turning this into a momentary scalar quantity such as seismic intensity results in a large degradation of information, and you cannot tell how accurate predictions will be. Therefore, our team has created a detailed computer model of the city known as a digital twin, and uses this to conduct simulations. Because we can conduct simulations for various scenarios, using this technology we are creating a framework that allows investments to reduce risk to be made in collaboration with companies. The aim is to use ESG investment and other factors as tailwinds to increase new mutual aid.

Vulnerabilities of Social Systems: Determining Problems and Issues

Hiroki Tsuruta, Associate Professor, V.School, Kobe University

What are social systems and what are vulnerabilities. Understanding the vulnerabilities of social systems can provide a road map on where and how to connect your own ideas to the resilience of society. This lecture introduced the seven "PLETECH" perspectives that divide and look at social systems from political, legal, economic, technical, environmental, cultural and human standpoints. Students learned through concrete examples a methodology for organizing the business ideas they will develop from here out base on which specific vulnerabilities they offer solutions to.
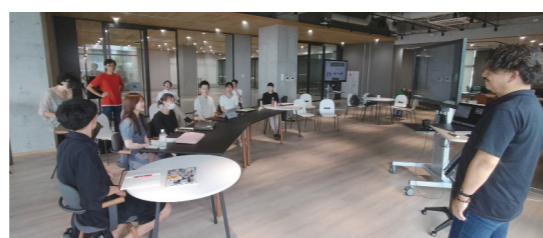
Disaster Reduction and Human Renovation Institution

The Disaster Reduction and Human Renovation Institution is a facility established to pass on the experiences and lessons of the Great Hanshin Earthquake Disaster caused by the Hyogo-ken Nanbu Earthquake that struck in 1995, thereby communicating the information necessary for disaster prevention/mitigation. Each student gathered information from the vast amount of materials on display, using the content of the new business he or she envisioned as a springboard.

Disaster Psychology

Seiichi Saito, Professor, Faculty of Education, Osaka Shin-Ai Gakuin University

Have you ever experienced a situation in which you might die?
When a person's life is threatened, he or she can exhibit the "fight-or-flight response," an incredible ability to fight or flee. However, this puts great stress on them, which can result in long-term negative effects on their body and mind. This is known as Post Traumatic Stress Disorder (PTSD) or Acute Stress Disorder (ASD).
The mental state of disaster victims as time passes following the incident can be divided into acute, reaction, and recovery phases. There are various symptoms among those who make it through disasters, including survivor's guilt and as well as post-traumatic growth (PTG), which is a sense of growth after overcoming the guilt and unpredictable events and difficulties that survivors of a disaster can feel. Even if disaster victims appear to be fine, they may have sustained significant psychological injuries. During interviews, we need to remember not only to be considerate to these victims, but that we ourselves may be hurt as well.

Disaster Recovery of Rokkomichi Station Area

Masakazu Matsushita, Project Associate Professor, Office for Promoting Regional Partnership, Kobe University

Professor Masakazu Matsushita, participants led students on a walk from Kobe University to JR Rokkōmichi Station, comparing what they saw against photos of the particularly heavily damaged arcade from the time of the disaster. Actually observing the conditions now and at the time of the disaster allowed them to experience one example of the dramatically changed circumstances.

Dramatically Changed Circumstances: Learning from the Past

Masakazu Matsushita, Project Associate Professor, Office for Promoting Regional Partnerships, Kobe University

What do you imagine when you think of historical materials?
Ancient texts and clay figures may come to mind, but these are not all that there is. Everything that "could be anywhere but only exists here" is a historical material. During the Great Hanshin Earthquake, I worked as a volunteer to save such materials that were held not only in museums and libraries, but in private homes and community centers. I noticed that this activity helped me move on from a sense of loss to regain a sense of normalcy. Today I support local disaster prevention activities using the Nankai Earthquake tsunami stones. However, the more I seriously engage in disaster prevention exercises, the more I realize that it takes a lot of time to move to evacuate to the designated evacuation center, causing me to despair at the harsh reality. On the other hand, in some areas the ingenuity of their ancestors has breathed life into disaster prevention activities through incorporation into local festivals, and reconstruction every 50 years. Learning something from the past to employ in the future. I want people to consider the importance of starting from the concrete uniqueness of the area while accepting the gap between reality and realism.

Vulnerabilities of Social Systems

Keiko Gion, Associate Professor, V.School, Kobe University

Participants learned how to see things as systems, using the methods of systems thinking and systems architecture. They created a fictitious town, and considered disaster prevention measures for that town. Specifically, the team considered the impact of dramatically changed circumstances on the town bus system in the fictitious town, and wrote out the requirements for the town bus system. After that, they considered the gaps between the current situation and the ideal situation in order to identify vulnerabilities

Miyagi Session

Onagawa-cho Reconstruction - Town Development in Onagawa through Public-Private Partnership -

Takahiro Aoyama, Director, Public-Private Partnership Office, Onagawa General Affairs Section

Onagawa was the municipality with the highest percentage of structures damaged by disaster in the entire country. The tsunami hit three times, razing the town. In other words, there was nothing left. On April 19th, 2011, the Onagawa Town Society of Commerce and Industry (FRK) was established, and the words of its chairman Masanori Takahashi during his inaugural speech surprised everyone. "People over 60 should keep their mouths shut." Though surprised at first, everyone agreed and the administration showed understanding. Thus began the long road to recovery and reconstruction through public-private partnership. To ensure the sustainable existence of the town, foster a small economy. To ensure it does not stop, increase the active population, which is the number of people who utilize Onagawa, and is more informal than the exchange population. Even those coming to learn are part of the active population. Since they formulated the plan through steadfast public-private partnership, they were able to move it smoothly into implementation. By putting the prime locations in town under the management of a

public-private partnership, they were able to carefully design the area, through measures such as separating ownership and usage of the land and buildings, to prevent it becoming a shuttered shopping street. To achieve this, they negotiated directly with the national government for subsidies, had them create a new system, and formulated a plan for town revitalization. Today, they continue to pioneer new forms of public-private collaboration, such as obtaining roadside station designation, despite being an existing facility in the center of town. They aim to become a town that people want to keep living in, return to live in, and come to live in.

Onagawa-cho, Oshika-gun, Miyagi

Takahiro Aoyama, Director, Public-Private Partnership Office, Onagawa General Affairs Section

Participants boarded a microbus and, with views from the window, were briefed on the entire town, including the hospital, schools, and residential areas on higher ground. Facilities essential for daily living, such as supermarkets, post offices, and shops are situated in the center of town to create a space where people can gather. On the other hand, participants learned that the town has begun to grapple with new issues, such as the shift from walking to using cars and buses to get around town, driven by the separation of the commercial and residential areas.

Earthquake Heritage Okawa Elementary School

Tetsuya Tadano,
Team Okawa - Network for Opening Up the Future

We heard about what happened at Okawa Elementary School on March 11, 2011 when the Great East Japan earthquake struck, from Tetsuya Tadano who was a student there at the time. The Kamaya district, in which Okawa Elementary School was situated, was devastated by two tsunamis, one flowing in toward the mountains from the sea, and another which flowed back down toward the sea after surging up the Kitakamigawa River. Tadano himself climbed a nearby mountain just before he was about to be swallowed by the wave. He kindly explained how he stayed overnight on the mountain as the temperature fell with a few other people who had fled there, then walked barefoot through the mountains the following day to evacuate.

Ogatsu-cho, Ishinomaki City, Miyagi

Akinari Abe, Representative, Community Reconstruction Working Group, Ogatsu Area, Ogatsu-cho

The town of Ogatsu has a seawall 9.7 meters high and 1.8 kilometers long. Passing through the seawall and emerging on the ocean side, one can look out to sea. Mr. Abe suggested that reconstruction efforts should involve not only the residents of the affected area but also the neighboring municipalities, former residents, local and central governments, and every citizen supporting the reconstruction effort, all collaborating together. He also mentioned examples of how the earthquake highlighted or exacerbated underlying problems in the town, noting the vulnerabilities of Ogatsu and the difference in the concept of its reconstruction compared to that of Onagawa.

Establishing Social Value Together with Economic Value

Jun Mikami, Visiting Associate Professor, V. School, Kobe University

Prof. Mikami lectured on the perspective needed to solve social problems through business, and pointed out that whether in ordinary times or during emergencies, if solutions are not sustainable they cannot be installed in society. After that, students worked individually on revisiting their own planning worksheet through the framework of the four categories of value (social value, customer value, technical value, and business value) and brushing up their business ideas.

Creating Disaster Culture from Collective Memories of Disasters

Masashige Motoe, Associate Professor, Graduate School of Engineering, Tohoku University

In considering whether to preserve ruins from the earthquake disaster, survivors must grapple with not being able to move on unless they forget, but knowing that the disaster is something we must not forget. This can be traumatizing to those who have experienced enormous devastation. However, if this experience is forgotten and allowed to fade away, the same destruction will be visited upon residents again and again. Therefore, the lecture explained the concept of "disaster culture." This is a social culture that recognizes that disasters will occur, and has the skills to overcome disasters when they do occur. Participants sat in a circle and held a free discussion looking back over the entire process thus far.

Self-Help / Mutual Aid / Public Assistance

Yu Ishida, Professor, School of Human Welfare Studies, Department of Social Organization Development, Kwansei Gakuin University
Takayuki Tomobuchi, Assistant Professor, School of Project Design, Miyagi University

Participants confirmed the principle of subsidiarity, consisting of self-help you do yourself, mutual aid we give each other, and finally public assistance. They then examined whether the three types of assistance were established for each of the projects they envisioned. They learned how the three types of aid are affected by disasters during emergencies and ordinary times, and the need to consider public assistance (individual planning) based on the characteristics of the community, including urban and peripheral areas. They also learned about the decentralization of power, with decisions on how much risk to take and where to draw those lines being left to the discretion of each municipality.

Earthquake Heritage Nakahama Elementary School

Masashige Motoe, Associate Professor, Graduate School of Engineering, Tohoku University

Nakahama Elementary School was enveloped by the tsunami during the 2011 Tohoku earthquake and tsunami, but everyone who evacuated to the roof was saved. However, this was the cumulative result of various decisions. If the wrong decisions had been made, they may not have been saved - or they may still have been. The ruined school building has been left open to the public as it has been allowed to weather. This makes it possible to somewhat relive the experience of those who evacuated there at the time.
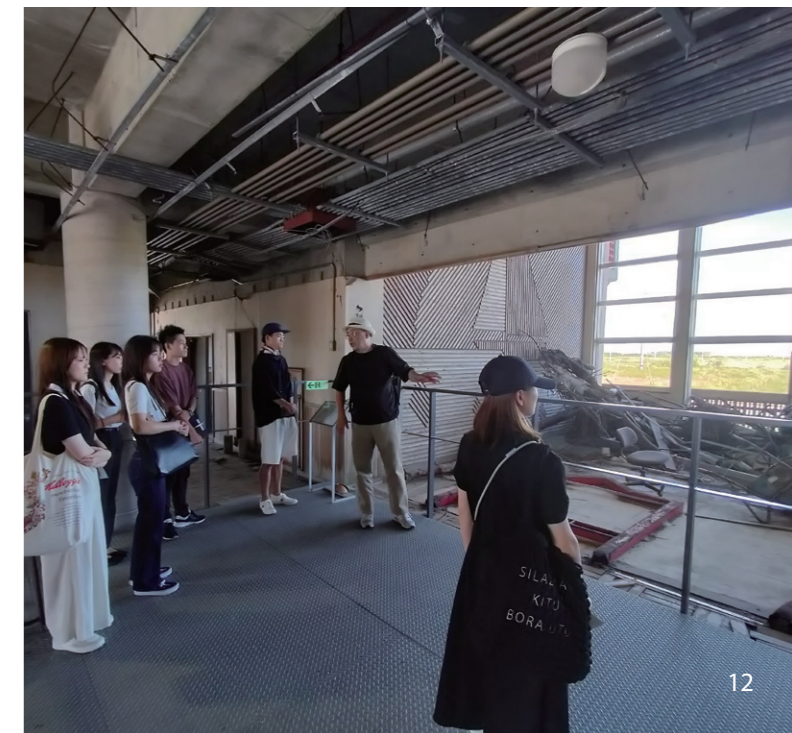
Sendai Session

Special

Final Presentations

As a culmination of the program, all participants presented their business concepts in the "enspace" co-working space which provides support for entrepreneurs in Sendai.

The following three reviewers were invited to exchange opinions.

・Prof. Yusuke Kakei (Specially Appointed Professor, Keio University Graduate School of System Design and Management)

・Prof. Masahiko Hayasaka (Specially Appointed Professor and Deputy General Manager of Startup Incubation Center, Tohoku University)

・Mr. Atsutoshi Tanaka (President, Okaeri Co., Ltd. / Representative Director, Share Space Omusubi / Representative Director, Certified NPO Cloud Japan)

Mr. Kazuhiro Ohara (General Manager of Human Resources & General Affairs at Hankyu Hanshin Holdings, Inc.) also attended the meeting as an observer.

The event commenced with an opening address by Prof. Senhiko Nakata (Dean, the School of Project Design, Miyagi University). Then six students gave presentations on their project and business ideas, and Prof. Tetsuya Nagasaka (Vice President, [in charge of Social Cooperation and Research Evaluation] / Director, New Industry Creation Hatchery Center, Tohoku University) offered closing remarks.
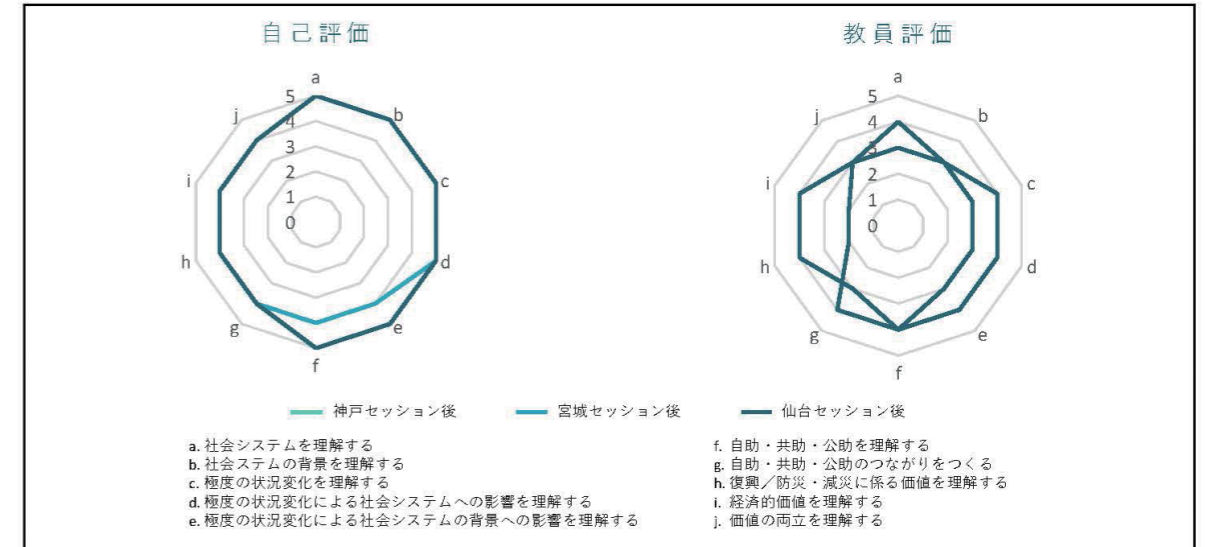

List of Final Presenters

Name	Affiliation	Title	Description
Shuri Inoue	Faculty of Business Administration, Kobe University	Disaster Prevention Education Using the "Disaster Prevention Helping Each Other Game" to Make Disaster Prevention a Personal Matter for Elementary School Students	I examined disaster prevention education that nurtures children's own self-help and mutual aid skills by focusing on changes in children's lives during a disaster. The aim was to develop empathy and interest in disaster prevention in children through a game in which they match people who are in trouble when a disaster occurs with people who can help them.
Haruka Yamane	School of Human Welfare Studies, Kwansei Gakuin University	Disaster Prevention ✕ Design for a Resilient Society	I recognized the problem of differences in interpretation of information in times of disaster due to language barriers, and worked together with foreigners on information design. In this project, we aimed to raise the advance awareness of foreigners by using the plot of four-frame manga to help them understand disasters logically.
Kotomi Takahashi	School of Human Welfare Studies, Kwansei Gakuin University	Chi-curry	I provide a place where parents can communicate during ordinary times so that they are able to provide mental care to lessen the secondary psychological stress that can affect children in times of disaster. For example, parents take the initiative to make curry with their children as a chance to communicate with one another.
Saki Ogata	Graduate School of Human Welfare Studies, Kwansei Gakuin University	Introducing an Employee Volunteer Program to Connect Working Generations with Their Places of Residence	Based on the importance of "mutual aid" in local communities during an emergency, I added the perspective of "what to do when an emergency occurs in your local community" to the existing program. In an age when most people work and live in separate areas, it creates an environment where employees can connect with the communities in which they live.
Kotona Ozaki	School of Human Welfare Studies, Kwansei Gakuin University	Emergency Food Bank	In recognition of the problem of not being able to procure food as you wish during times of emergency, this project ensures a functioning system for food procurement during emergencies. It emphasizes the importance of self-help rather than relying on public assistance by continuously stockpiling food during normal times so that people can quickly obtain the food they need during emergencies.
Kazuhiro Motoori	Hankyu Hanshin Holdings, Inc.	Bichicookie (stockpile food gift)	Creating a new tradition of sending stockpile food cookies to loved ones on Disaster Prevention Day. This helps to strengthen self-help and gets every person to stockpile emergency food by creating an opportunity for regularly thinking about disaster prevention with your loved ones.

Planning Sheet

事業／ビジネス アイデア名　■■■　　氏名　■■

親の心のケアのネットワークを通じて 子どもの心のケアができる社会

事業／ビジネスによって実現する「防災・減災の未来のシナリオ」
子どもの保護者が話し合えたり、何かを一緒に作る経験をできる場の提供

レジリエント社会の未来のシナリオ	・地域での子どもを支える家族間でのコミュニケーションが足りない ・親同士が変わる機会がない
問題の定義	心の支えとなる人がいない、安心して話せる人が少ない 二次災害を抱えてしまう
社会システム（分析）	気軽な関係、同じ問題に直面している人、かつ同年代の人との関係をつくるアプローチがない 現在のアプローチは、自治会・町内会・子ども会など強い地域での取り組みが強化されている
原因（仮説）の導出とその理由	・子ども・子育てのアプローチがない ・不足しているアプローチ
事業／課題解決の概要	①生活の原因を解決するために自分が関与して解決できてしまうことが多い ②地域の中で災害時助け合う人が疎遠しかいない 問題を引き起こしている真の原因 日常生活を送っている親の周りの人とのかかわりがない

ターゲットとなるユーザー （想定される顧客）	親、子ども
	・小学校で開催する（小学校区の地域、モノ、ヒト・情報に近い、どこで利用者が集まりやすいかも）
提供する価値	子どものネットワークをつくることで災害時に役立つ
商品・サービスの機能	交流の場を作る

事業／ビジネスを支える経営資源
・小学校施設
・参加者
・企画者

事業／ビジネスのステークホルダー
・地域の小学生親子
・小学校

共助　→　自助
（自助・共助・公助）のどこにアプローチするのか
親から親へと広めていくことで、初めはやりたい人だけで開催し、だんだん親同士に広がっていく

事業／ビジネスが求められる社会システム（スタート地点につながっている）
現状
初めは地域内でイベントを開催したい親が企画している
事業／ビジネスによって親の企画の参加者を増やす
レジリエンスが高まる状況（ゴール地点につながっている）
親が自分の心のケアにつながる環境をつくっておく

Feedback Sheet

レジリエント社会の構築を牽引する起業家精神育成プログラム
フィードバックシート　　2023/9/18

■■■　■■　さん

	石 田 　祐	三 上 　淳
社会システムの脆弱性	社会システムのどこが脆弱であると考えているかをより明確にするとよい。子どものレジリエンスが低いのはなぜか？なぜ自分ごと化するシステムがないのか？なぜ「能動的に学び、自主・自立を育む機会とする状態」を生み出すシステムが生まれないのか？	一般的には社会的弱者とも言える子供自身の自助、共助の能力不足をレジリエント社会の脆弱性と捉えた点がユニークです。防災教育を設定し、社会に不足している点は教育コンテンツが受動的である点もと論理性を感じました。また、その原因を引き起こすための課題に防災教育を設定したところも論理性を感じました。一方で「主体性を引き出す教育がない」と分析した点については定量or定性的なエビデンスが無かったのが惜しいと感じます。さらに踏み込んで、その不足がどんな結果を引き起こしているかも示して頂けると周囲を巻き込める発信となると思います。
極度の状況変化	「災害時に自分で動けない子どもたちが多い」という現象の具体はどのようなものだろうか。「自分ごと化」ができていない状況はどのようなものだろうか。事例をいくつか確認してみると、何が必要かリアルに感じられるかもしれない。例えば、災害直後の時期なのか、住む場所がある程度落ち着いた復興期なのか、時間軸にフォーカスするとどうか。その上で、具体的にどのような状態で、いつ（子どもの間？大人になってから？今後ずっと？）どのように動ける（ようになる）とよいかを更に検討するとよい。	自身の経験から子供たちの健全な成長をビジョンと置き、災害発生時の子供のメンタル不全を極度の状況変化による問題と設定している点は納得感は高いと感じました。
自助・共助・公助	防災助け合いゲームは、内容次第で自助や共助を高めることに寄与すると考えられる。公助を高めるようなこともゲームに盛り込むと面白い。	社会システムの脆弱性で述べた課題に基づき、理想の防災教育は「学ぶ目的や理由が学ぶ側にとって明確になること」としており、論理的なプレゼンテーションであると感じました。一方で、ゲームで学ぶことがこの課題の解決につながるのか？というストーリーの記述がもっと聞きたくなりました。
価値の両立（経済的・社会的）	社会的価値については、必要とされている社会のための、かつ自分を救うための力を伸ばすことを企図したものであるので、十分にあると言える。一方、経済的価値については、「買いたい」と思う人が誰で、どのくらい買いたいと考えられるかがわからない。どのようにすると、誰が買いたいと考えるかについての検討が必要である。	上記の分析から「札合わせによる困り人と助け人を組み合わせるカードゲーム」と設定し、顧客を防災学習をしたい教育委員会、意識の高い教師を顧客としていた点は顧客価値や事業価値を理解したプレゼンテーションになっていたと思います。一方で、すでに多くのカードゲームによる防災教育が存在する中で、このビジネスが競争優位を持ち、既存のビジネスでは解決できなかった領域をカバーするものであるというアピールができていなかったと思います。
全　体	課題の真相を解明すること、そしてその課題を解決するために、この解決方法がどのように優れているかについて説明できると説得力が増す。子どもの「自分ごと」にする力は重要と私も考える。そして、子どもに限らず、大学生も大人も同じ問題に直面しているように思う。小学生以外にも目を向けることができるかもしれない。	自身の価値観から子供の成長というビジョンを設定し、子供が自分の頭で考える、という教育を課題と置いたところはシャープな分析だったと思います。一方で、ゲームそのものの内容と、課題のフィット感が弱いのが惜しい！と感じました。また、TVゲームやスマホゲームに慣れた子供が飽きずに利用し続ける中で学校教育自体の質も高まり、子供の主体性が高まるような仕組みがプランに仕込まれていなかったのが惜しまれます。また、そのゲームをどのように教師に認知させるか、主体性をどう磨くかの仕組みがセットされていることがもっと欲しいと感じました。引き続き練り上げてほしいと感じる力作でした。

自己評価　　　　　　　**教員評価**

凡例：
■ 神戸セッション後　　■ 宮城セッション後　　■ 仙台セッション後

a. 社会システムを理解する
b. 社会システムの背景を理解する
c. 極度の状況変化を理解する
d. 極度の状況変化による社会システムへの影響を理解する
e. 極度の状況変化による社会システムの背景への影響を理解する
f. 自助・共助・公助を理解する
g. 自助・共助・公助のつながりをつくる
h. 復興/防災・減災に係る価値を理解する
i. 経済的価値を理解する
j. 価値の両立を理解する

Future Programs

A part of the MEXT EDGE-NEXT project from FY2019 to FY2021, the Program to Inculcate the Entrepreneurial Spirit in Driving Construction of a Resilient Society was planned and implemented by the EARTH on EDGE consortium consisting of Tohoku University, Hokkaido University, Otaru University of Commerce, Miyagi University, Kyoto University, and Kobe University. The outbreak of the COVID-19 pandemic occurred during this time, and the program has continued for four years with group work online and in the field. The project entered a new phase last fiscal year, implemented as part of the JST START University and Ecosystem Promotion Type Project (Supporting Startup Ecosystem Creation). Starting this fiscal year, we had Kwansei Gakuin University and Niigata University faculty members participate as Program Design and Management Members, and were able to further enhance the support system for students. As COVID-19 infections settled down, we made the implementation period longer than usual so that there was adequate time for face-to-face group work and on-site fieldwork. This may have slightly increased the burden on the students. However, we received a lot of positive feedback from the reviewers of the final presentations. Plus, the participation of working adults this fiscal year allowed students to interact with people in the workforce.

In the coming year, we will seek to further expand our stakeholder base. We would like to seek participation and cooperation not only from universities that sympathize with our program, but also from companies and local governments to make the program more practical. Moreover, by promoting program development in coordination with the Value Verification Fieldwork Program, which is also part of the startup ecosystem creation support project, we hope to give students who want to move their business idea into the execution phase the opportunity to verify the value of their business idea.

If you concur with the aims of this program, we would gratefully appreciate any support or cooperation you may be able to give. We would very much like to work together to educate entrepreneurs who will drive the construction of resilient societies.

Sponsorship and Cooperation

The Program to Inculcate the Entrepreneurial Spirit in Driving Construction of a Resilient Society for FY2023 was implemented as part of the JST START University and Ecosystem Promotion Type Project (Supporting Startup Ecosystem Creation).

Sponsor
Miyagi University
V. School, Kobe University
Kwansei Gakuin University
Kyoto University
Tohoku University
Niigata University
Multidisciplinary Integration for Resilience and Innovation (MIRAI), Kobe University

Cooperation
Onagawa-cho, Oshika-gun, Miyagi
Kamome Solutions
Pilot Practice Corporation
Public Policy School Disaster Prevention Research Unit, Hokkaido University
Rhythm Gakuen Hayakita Educational Center for Children
Abira-cho ENTRANCE