Entrepreneurship Program for Resilient Society

Future Resilience through Review of the Reconstruction Process

A REPORT

CONTACT Information

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Resilient

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, 7,348 disasters were reported worldwide during the 20 years from 2000 to 2019. Disasters claimed 1.23 million lives and affected 4 billion people. The extent of a disaster depends on multiple factors, including the type of disaster, its location, and the political, economic, technological, and cultural background of the community. The growing severity of many natural disasters and the complex interactions among them require an integrated and multifaceted approach to strategies for risk mitigation and decision-making.

Because of its geographical situation, Japan has experienced many devastating earthquakes, tsunamis, typhoons, and torrential rains. In particular, the Great Hanshin-Awaji Earthquake of 1995, at the time the largest earthquake disaster of the post-World War II era, sent shock waves throughout the world. Since 1996, 172 earthquakes with human casualties have occurred in Japan (as of November 2022), the most devastating being the 2004 Mid-Niigata Prefecture Earthquake, the 2011 Great East Japan Earthquake, the 2016 Kumamoto Earthquake, and the 2018 Hokkaido Eastern Iburi Earthquake. In addition to earthquakes, many people were killed by overflowing rivers and landslides in torrential rains in western Japan in 2018 and the typhoon that struck eastern Japan in 2019, the first year of Japan's Reiwa era. The subsequent 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 the occurrence of each of these disasters, we can observe various processes and phases of reconstruction under way simultaneously in Japan. Kobe has already completed the process of its recovery from the Great Hanshin-Awaji Earthquake, and its recovery process is enabling 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, we are looking back at the reconstruction process to date and discussing future reconstruction policies. This program aims to develop human resources capable of creating and sustaining businesses that generate creative value through a process of learning about past disasters and the reconstruction process, and creating business ideas to achieve a resilient society.

This program for FY2022 was implemented as part of the JST START University and Ecosystem Promotion Type Project (Supporting Startup Ecosystem Creation). Support was also provided by Multidisciplinary Integration for Resilience and Innovation (MIRAI) and the Research Center for Urban Safety and Security of Kobe University.

(Cover photo)
On the seawall in Ishinomaki, Miyagi Prefecture
(Back cover photo)
V.School, Kobe University

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

This project promotes activities to develop human resources with entrepreneurial skills and to create startups in an integrated manner on a platform consisting of universities and institutions that will serve as a core for the Startup Ecosystem Hub Cities selected by the Cabinet Office in July 2020. The program aims to establish a system that will support the practical application of superior technological seeds generated by universities and the development of human resources with entrepreneurial skills, through which we aim to create a system that will lead to the sustainable creation of startups with great social impact, which will lead to social transformation and solutions to social issues following the global COVID-19 pandemic. Currently, seven platforms have been adopted.

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
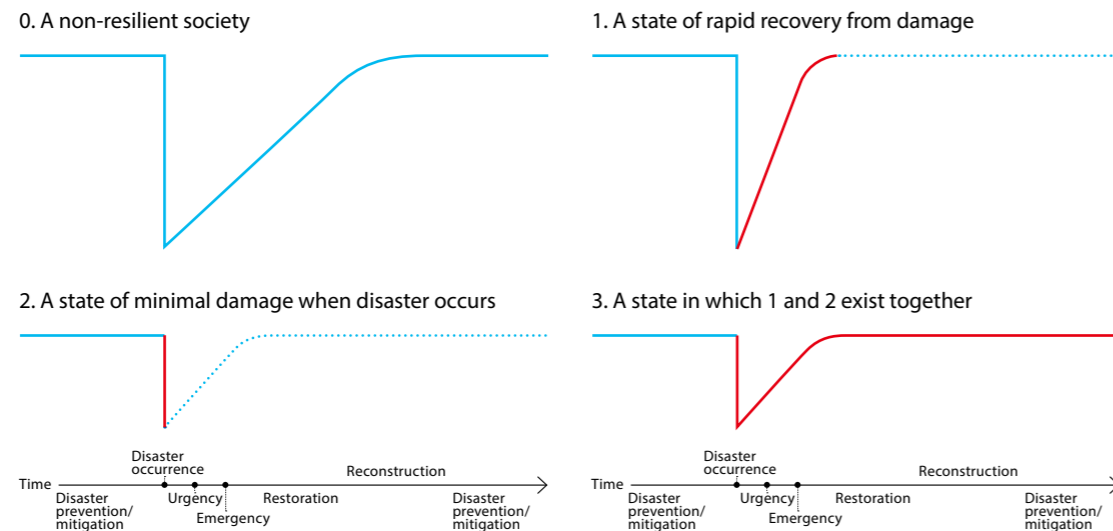**Hokkaido Startup Future Creation Development by Mutual Support Networks (HSFC)**

The platform is a collaboration by multiple institutions centered on universities and institutions that will play a central role in Startup Ecosystem Hub Cities. It is used in the (1) operation of entrepreneurship support programs, (2) development and operation of programs for entrepreneurial human resource development, (3) improvement of the entrepreneurial environment, and (4) formation and development of an ecosystem in the hub cities, which are necessary in developing human resources with entrepreneurial skills and creating university-based startups. The Entrepreneurship Program for Resilient Society is being implemented as part of (2) development and operation of programs for entrepreneurship human resource development.

Website: https://www.jst.go.jp/start/su-ecosys/index.html

What Is a Resilient Society?

The word "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), and a resilient society 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

Rather than trying to restore society to the same circumstances found before the damage caused by a disaster, achieving a resilient society in the future will most certainly require a new mindset of creative restoration. We must aim for regeneration in a form that improves on the past light of our newfound clarity on how our living spaces were exposed to high risk of earthquake and tsunami (Nobuaki Hamaguchi, On Creative Restoration, 2013). We must also encourage activity that builds new regional histories (Toshihiko Hayashi, Economics of Major Disasters, 2011).
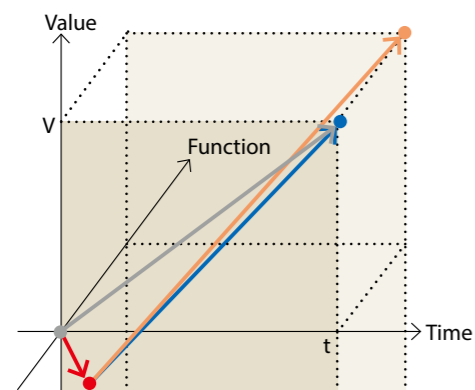
Human Resources Driving Construction of a Resilient Society

Based on the definition of resilience and the concept of creative restoration put forward by Andrew Zolli and Ann Marie Healy, this program defines the "human resources that drive the construction of a resilient society" as "people who create and sustain enterprises that give rise to creative value by discerning the vulnerabilities of social systems and forecasting the changes brought on by disaster." We believe that having the following four capabilities - together with basic entrepreneurial skills and ability - will drive construction of a resilient society through the design and realization of new enterprises, in bringing about reconstruction and disaster prevention and mitigation.

1. Discerning the vulnerability of social systems
The causes of vulnerability in social systems can be divided into (1) design, (2) realization and (3) operation. Moreover, even within the same social system, different vulnerabilities may emerge depending on the context (historical, cultural, geographical, industrial, etc.).

2. Predicting extreme events and their impacts
Rather than merely understanding current circumstances, it is necessary to forecast the ways in which society could change due to potential future disasters.

3. Adopting the three perspectives of self-help, mutual aid, and public support
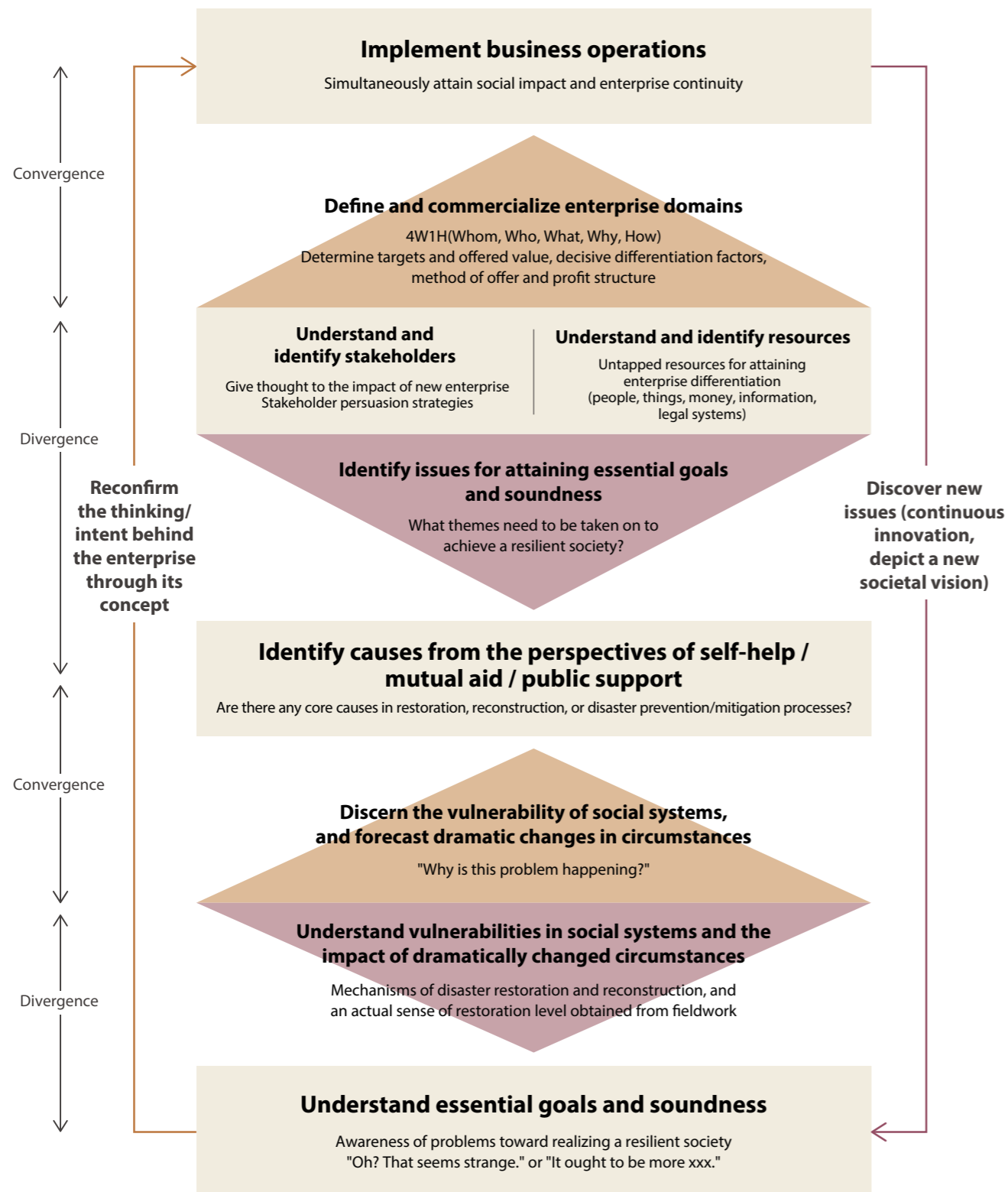By making use not just of individual personal abilities but also of local communities and governments as well as the national government, enterprises that contribute to reconstruction and disaster prevention and mitigation can improve the potential for instituting and sustaining results.

4. Establishing economic value and social value related to reconstruction and disaster prevention and mitigation
We aim to achieve sustainability of enterprises by providing economic value simultaneously with value related to reconstruction and disaster prevention and mitigation (social value).

Program Process Frame

In considering a project which contributes to the construction of a resilient society, we designed this program assuming that the project makes advances by intercommunicating with processes (iteration).

Convergence

Implement business operations

Simultaneously attain social impact and enterprise continuity

Define and commercialize enterprise domains

4W1H(Whom, Who, What, Why, How)
Determine targets and offered value, decisive differentiation factors, method of offer and profit structure

Understand and identify stakeholders

Give thought to the impact of new enterprise
Stakeholder persuasion strategies

Understand and identify resources

Untapped resources for attaining enterprise differentiation
(people, things, money, information, legal systems)

Identify issues for attaining essential goals and soundness

What themes need to be taken on to achieve a resilient society?

Divergence

Reconfirm the thinking/intent behind the enterprise through its concept

Discover new issues (continuous innovation, depict a new societal vision)

Identify causes from the perspectives of self-help / mutual aid / public support

Are there any core causes in restoration, reconstruction, or disaster prevention/mitigation processes?

Convergence

Discern the vulnerability of social systems, and forecast dramatic changes in circumstances

"Why is this problem happening?"

Understand vulnerabilities in social systems and the impact of dramatically changed circumstances

Mechanisms of disaster restoration and reconstruction, and an actual sense of restoration level obtained from fieldwork

Divergence

Understand essential goals and soundness

Awareness of problems toward realizing a resilient society
"Oh? That seems strange." or "It ought to be more xxx."

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(In no particular order)

Schedule Overview

Kobe Session

Sept. 28	Special	Orientation
	Lecture 1	Introduction to Resilience - Focus on Systems Model
	Workshop 1	Vulnerabilities of Social Systems
Sept. 29	Lecture2	Extreme Situational Changes: Learning from the Past
	Lecture 3	Disaster Psychology
	Fieldwork 1	RIKEN Center for Computational Science Supercomputer "Fugaku"
	Lecture 4	Extreme Situational Changes: Making Predictions from Computer Simulations
Sept. 30	Fieldwork 2	Disaster Reduction and Human Renovation Institution
	Workshop 2	Vulnerabilities of Social Systems: Determining Problems and Issues

Tohoku Session

Oct. 8	Fieldwork 3	Earthquake Heritage Arahama Elementary School
	Workshop 3	Self-Help / Mutual Aid / Public Assistance
Oct. 9	Lecture 5	Onagawa Town Reconstruction - Town Development in Onagawa through Public-Private Partnership
	Fieldwork 4	Onagawa-cho, Oshika-gun, Miyagi Prefecture
	Workshop 4	Establishing Social Value Together with Economic Value
Oct. 10	Fieldwork 5	Earthquake Heritage Okawa Elementary School
	Fieldwork 6	Ogatsu-cho, Ishinomaki-City, Miyagi Prefecture
	Special	Review and Individual Work

| Oct.15 | Special | Final Presentation |

KOBE
SESSION
September 2023

TOHOKU
SESSION
October 2023

Kobe Session

Lecture 1

Introduction to Resilience - Focus on Systems Model

Hisashi Tamaki, Director, V. School, Kobe University
Professor, School of Systems Informatics, Kobe University

The presentation provided an overview of resilience, including its definition and similar concepts. In its original sense, it refers to the capacity to spring back from distortions caused by external pressure. In recent years, however, it has been developed so that it is often used in a psychological sense to refer to the process or ability of successfully adapting despite difficult and threatening circumstances. He defined resilience as the property of being able to maintain and develop functions while adapting to fluctuations and uncertainties within and outside a given system. He also mentioned four requirements for a resilient system: coping, monitoring, predicting, and learning, which are the same as the learning scheme of artificial intelligence.

He spoke of the importance of taking a bird's-eye view and multiple perspectives.

Workshop 1

Vulnerabilities of Social Systems

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

The fictitious city of "Rejiri-cho" was set up to study proposed disaster prevention measures for towns. Group work was initiated with the goal of removing concerns about practical commercialization and profitability, allowing each student to freely propose and share ideas developed from matters related to his or her expertise, interests and concerns. Specifically, the team worked to sort out the impact on the town bus system within Rejiri from the occurrence of extreme changes in conditions, and to identify vulnerabilities in the system.

Lecture 2

Extreme Situational Changes - Learning from the Past

Masakazu Matsushita, Researcher, Graduate School of Humanities, Kobe University

The presentation addressed support for voluntary disaster prevention activities, using materials from past disasters (including those created, used, and preserved since the disaster occurred, as well as records of past disasters and other records). Citing examples of disaster prevention activities that make use of tsunami monuments in various regions, he said it is important for local governments to be proactive in integrating disaster culture into their local cultures. Although it is impossible to predict disasters perfectly, local residents can review disaster prevention issues in their communities by learning about past damage. As for the role that historiography and disaster materials can play, he said, history is both promising and significant for the foothold it can provide in efforts to proactively communicate local prevention measures and ideas, rather than simply being absorbed into disaster prevention lessons in general.

Lecture 3

Disaster Psychology

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

The presentation described the psychological states of disaster victims along a timeline beginning from the occurrence of the damage. Psychological states among disaster victims were explained, divided into acute, reactive, and restorative phases, and psychiatric symptoms such as post-traumatic stress disorder (PTSD), acute stress disorder (ASD), grief and complex grief were also covered. He introduced survivor's guilt among those who make it through disasters, as well as post-traumatic growth (PTG), a sense of growth after overcoming the guilt and unpredictable events and difficulties that survivors of a disaster can feel. He also explained what to be prepared for and what cautions to observe when actually interviewing and covering the victims.

Fieldwork 1

RIKEN Center for Computational Science Supercomputer "Fugaku"

Satoru Oishi, Team Leader, Computational Disaster Mitigation and Reduction Research Team, RIKEN Center for Computational Science
Professor, Research Center for Urban Safety and Security, Kobe University

The fieldwork tour included a visit to Fugaku, a supercomputer jointly developed by RIKEN and Fujitsu. In addition to the facilities tour, the group heard an overview of research projects using Fugaku and an explanation of the role the supercomputer plays in our society. They were also introduced to some of the components of Fugaku and the "K" supercomputer.

Lecture 4

Extreme Situational Changes: Making Predictions from Computer Simulations

Satoru Oishi, Team Leader, Computational Disaster Mitigation and Reduction Research Team, RIKEN Center for Computational Science
Professor, Research Center for Urban Safety and Security, Kobe University

It is impossible to predict when a disaster will occur. However, disaster damage can be predicted. The lecture introduced the current status and issues, citing examples of predictive analysis of disaster damage using the supercomputer Fugaku, including simulations of river flooding, and tsunami damage with and without breakwaters. In addition, risk transparency is increased by changing from empirically based probability distribution to a physical basis, in which damage is estimated for each individual case. He added that this would lead to more appropriate insurance premiums and make it easier to invest in disaster preparedness.

Fieldwork 2

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 earthquake that struck southern Hyogo Prefecture 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.

Masaru Shigemoto, a volunteer storyteller and earthquake survivor, was the Production Business Department and Plant Manager of Co-op Kobe at the time. After the earthquake, the company implemented an emergency food procurement agreement and delivered many food supplies to evacuees in the city of Kobe. Created during the oil crisis, this agreement provides a mechanism for companies and the government to work together to deliver goods in the distribution process in the event of an emergency. He added that extralegal measures are indispensable in times of disaster, such as the nation's first food delivery by a large SDF helicopter. Witnessing the looting and a state of panic among people, he also spoke of voices on the ground not reported by the media, and of the importance of setting up a disaster headquarters on the scene.

Workshop 2

Vulnerabilities of Social Systems: Determining Problems and Issues

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

Based on the knowledge they gained through fieldwork at the Disaster Reduction and Human Renovation Institution, students split into groups to discuss problems and issues that could be addressed by enterprise proposals. When examining the vulnerability of social systems, he indicated that they should be viewed from multiple perspectives in the seven "PLETECH" fields: political, legal, economic, technological, environmental, cultural, and human. He also stressed the importance of being aware that when working in a Group, there are gaps between the definitions of the words each person speaks.

Lectures5 / Workshop 3 to 4 / Fieldwork 3 to 6

Tohoku Session

Fieldwork 3

Earthquake Heritage Arahama Elementary School

Takayuki Tomobuchi, Assistant Professor, School of Project Design, Miyagi University

After the Tohoku-Pacific Ocean Earthquake of March 11, 2011, the resulting tsunami swept through the four-story school building of Arahama Elementary School up to its second floor, isolating 320 students, faculty, and neighbors on the rooftop and elsewhere in Sendai City's Arahama Elementary School. In order to prevent further tsunami casualties, the school building was opened to the public as a relic of the disaster so that the tsunami threat and lessons learned can be passed on to future generations.

The classrooms and window frames ravaged by the tsunami, showed the extent of the tragic damage. Also on display was a recreation of how the building was used as an evacuation shelter at the time, including blankets and curtains that were used to keep people warm at night, as well as a simple private tent-type toilet.

One of the exhibits, a model recreating the Arahama area before the disaster, is the result of the Lost Homes model restoration project, which

preserves memories of the lives of the victims who lost their homes, schools, and workplaces in the tsunami. Mr. Tomobuchi, who was involved in the project, noted that there were cases in which disaster victims who had emotionally shut down after the disaster began to talk about their pre-disaster memories in front of the models.

Workshop 3

Self-Help / Mutual Aid / Public Assistance

Yu Ishida, Professor, School of Project Design, Miyagi University
Takayuki Tomobuchi, Assistant Professor, School of Project Design, Miyagi University

Definitions were given for self-help, mutual aid, and public assistance, and the participants examined whether the three types of assistance were established for each of the projects they envisioned. He described how the three types of aid are affected during emergencies and peacetime, and the need for public assistance (individual planning) by the community, including urban and peripheral areas. He also explained 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.

Lecture 5

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

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

Onagawa is a town in the county of Oshika, Miyagi Prefecture that has developed a reconstruction plan through public-private partnership. The Chamber of Commerce and Industry has taken an active part in the reconstruction process, working with the town hall to develop the town. After emphasizing the opinions of residents who would live and remain in Onagawa, private-sector experts were organized into an administrative committee, aiming for town development oriented toward disaster mitigation. As a result, Onagawa deliberately forewent construction of a seawall, instead designating the area near the sea as a commercial zone, with higher ground safe from the reach of tsunami zoned for residential use. The lecture provided a detailed explanation of Onagawa's reconstruction efforts.

Fieldwork 4

Onagawa-cho, Oshika-gun, Miyagi Prefecture

Yoshie Honma, Onagawa Town Tourist Association

Participants received an explanation of the situation at the time of the earthquake and the subsequent reconstruction while walking through the central part of the town of Onagawa, where the seaside commercial district is located. They also boarded a microbus and, with views from the window, were briefed on the entire town, including the hospital, schools, playgrounds, and residential areas on higher ground. Due to the placement of facilities essential for daily living, such as supermarkets and post offices, as well as shops for tourists, in the center of town to create a space where people can gather, the area was crowded with many people on the day of the inspection. Meanwhile, the division of commercial from residential areas of the town has resulted in a change in means of transportation within the town from walking to driving or bus.

Workshop 4

Establishing Social Value Together with Economic Value

Jun Mikami, Representative, Kamome Solutions

Students learned techniques for verifying economic value to develop the ideas they have each conceived thus far into sustainable projects and businesses. Students learned specifics such as the importance of balancing the four categories of value, social value, customer value, technical value, and business value, and they learned methods of drawing business flow charts to include in the planning worksheet. The participants examined their own ideas, asking themselves whether their business models simultaneously fulfilled the four value categories, and whether their businesses had fallen into the trap of undue self-importance.

Special Review and Individual Work

The group visited Maruhon MakiArt Terrace in the city of Ishinomaki. Opened in April 2021, this cultural complex was designed by architect Sousuke Fujimoto to replace the Ishinomaki Cultural Center and Civic Hall, which were completely destroyed by the Great East Japan Earthquake. In the training room on the second floor, participants reconsidered their own commercialization models based on the fieldwork and lectures in the Tohoku session. They also organized and brushed up their content for presentations. Faculty members and students from various fields of expertise actively exchanged opinions.

Fieldwork 5

Earthquake Heritage Okawa Elementary School

Yuto Naganuma, The Okawa Elementary School Densho no Kai

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. Mr. Naganuma, a narrator, lost several grandparents and a younger brother in the disaster. His younger brother was in second grade at Okawa Elementary School. Mr. Naganuma himself is a graduate of Okawa Elementary School, and his pre-disaster photos and episodes of happy, peaceful days spent at the school only served to underscore the tragedy and regret associated with the school buildings that were transformed by the tsunami. He also spoke of the need to discuss evacuation methods with family members on a regular basis, and to prepare for disasters that could strike at any time.

Fieldwork 6

Ogatsu-cho, Ishinomaki City, Miyagi Prefecture

Akinari Abe, Representative, Community Reconstruction Working Group, Ogatsu-cho, Miyagi Prefecture

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. He suggested that reconstruction should be carried out not only by the people living in the affected area, but also by the neighboring municipalities, former residents who have moved to other areas, local and central governments, as well as each citizen who supports the reconstruction, all of whom should work 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.

Final Presentation

As a culmination of the program, all participants presented their business concepts. This year's program participants were all Kobe University students.

Mentors Takahiro Aoyama from Onagawa in Miyagi Prefecture, and Hideki Doi from the town of Futaba in Fukushima Prefecture, were invited to provide practical feedback.

List of Final Presenters (in no particular order)

Name	Major	Title	Description
Yuto Shima	Oceanology	**Migration Support App**	In municipalities with large numbers of immigrants, information specific to the area, especially information related to disaster prevention, is compiled into an app and provided to immigrants.
Chinatsu Nishimura	Engineering	**A Community Development System That Naturally Raises Disaster Awareness Among Local Residents**	This project helps create an environment in which each resident is motivated to take on a sense of ownership in disaster prevention measures through a system that brings intuitive visibility to the disaster risk level of their residences.
Hinako Kobayashi	Economics	**Creating Towns Free from Suffering in Evacuation Shelters**	Assuming a flood situation in an insular town, we came up with an event that would enable people to live in evacuation shelters with as much comfort as possible.
Yoji Yamamoto	Economics	**Risk-sharing for Buildings and Food in Urban Areas**	We are building a mutual aid infrastructure for disaster relief through sharing of idle space (using warehouses and shelters) and stockpiles based on monetary rewards for contributions.
Kango Nakamura	Engineering	**A Smartwatch Specialized for Medical Care in Non-emergency Times**	The system transmits location information along with earthquake early warnings for people who have difficulty helping themselves in the event of a disaster, such as the physically disabled and the elderly. In non-emergency times, it functions as a medical device.
Eri Ando	Global Human Sciences	**Creating Community and a Life Worth Living Through Agriculture!**	In of non-emergency, the site matches farmers with people who want to learn agriculture. In times of disaster, it transforms into an agricultural business support system for elderly disaster victims.
Yuji Muramoto	Business Administration	**Initiative Consulting**	The project assists local residents in reaching out to local government so that they can communicate their intentions not only in times of non-emergency, but also during periods of disaster reconstruction.

Name	Major	Title	Description
Badur un Nisa	Health Sciences	**Supporting Diversity**	Foreigners often experience disasters for the first time in Japan and are not prepared to cope. To support diversity, we plan to create a disaster mitigation resource program.
Sakika Hirose	Global Human Sciences	**From Everyday Life to Times of Disaster - Rebuilding Lives with Information and Support**	We wanted to communicate information about disaster prevention in everyday life, and we wanted to create a space where people could, in times of disaster, share disaster information and support systems, etc. We came up with an app that incorporates a point system.
Ryota Nara	Business Administration	**A Product That Enables One-touch Messaging, Both for Everyday Life and in Times of Disaster**	Messages can be set up on the screen of the phone, and at the touch of a button, messages such as "I'm going home" can be sent during non-emergency times. In the event of a disaster, messages such as "I am safe" and "Evacuation is underway" can be sent.
Kensuke Tsuji	Business Administration	**Establishing an Evacuation Training Consultancy for Elementary and Junior High Schools**	We will establish a consulting firm specializing in disaster prevention manuals and evacuation drills. This business idea was conceived in response to the issue that much of the discretion in the two aforementioned areas is left up to elementary and junior high schools. The consultancy is designed to support appropriate disaster prevention measures.
Chihiro Hotta	Economics	**Stores Involving Third Parties in Depopulated Areas**	Given the sense of urgency over population decline in depopulated areas, our idea was to reduce inconvenience by creating two types of profitable business facility: training facilities for entities like outside companies, and shops.
Ikuto Oyama	Agriculture	**Preparing the Unprepared: Disaster Prevention Food Cycle Project**	We aim to strengthen self-help in order to reduce the burden of public assistance in the event of a disaster. We considered establishing a distribution system for general consumers of preserved food that would serve as a disaster stockpile.

Planning Sheet

事業／ビジネス アイデア名：　　　　　　　　氏名

ビジョン／ミッション
避難した人が避難場所で苦しむことなく生活を送ることができる社会

問題の定義
避難場所で苦しむことなく生活を送ることができるためのシステムの欠如

社会／ビジネス環境分析（原因）
- 避難場所が混んでいる
- 避難場所が近い
- 避難場所がオープンスペース

不足しているアプローチ
- プライバシーをどうしたら守ることができるのか
- どうしたら隣人同士で配慮しあって生活を送ることができるのか
- 避難場所内での人の交流が上手くいくにはどうしたらよいのだろうか

事業／ビジネスのスコープ
同じ避難場所にいるように苦しむことなく周りの人と知り合いになることで、精神的に苦しむことなく生活を送ることができる

ターゲットとなるユーザー：避難場所にいる全員（特に王寺町民）
提供する社会価値：特に社会価値（地域）内の人の交流の活性化

事業ビジネスの流れ：避難場所での地域復興／ヘントの実施

事業ビジネスを支える経営資源：約570社（うち株式会社約300社）

事業ビジネス（自助・共助・公助）どこにアプローチするものか：
- 企業（または個人）からの投資
- 共助→人との交流を促進する

課題／事業設定
周りの人と上手く関わることができるような雰囲気づくりを助ける

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
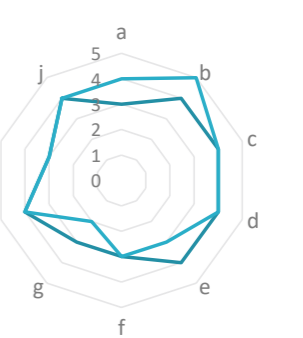2022/10/26

■■■　■■■　さん

	石田　祐	祇園　景子
社会システムの脆弱性	ビジネスの実現性を実験できる場が少ない日本社会と群部の過疎化問題の2つを含むことができる。	買い物をしたくても商店がないという問題を的確に捉えられていると思います。
極度の状況変化	過疎化の状態が極度の変化の後の状態に捉えることができるならば、災害時にも役立つが、現モデルでは有事に役立つかは不明。	この商店の平時と発災時の機能の違いが明確化されると、■■■さんのやりたいことがより分かりやすくなると思いました。極度の状況変化において、商店のシステムの背景はどうなるのか整理してみてはどうでしょうか。
自助・共助・公助	レジリエンスの高い事業を運用できる企業に自助力高。被災地の一部は公助により安価に場所は利用できるので活用しうる。	とことん自助だけにアプローチするのであれば、移動式無人商店でもよいわけですが、そうではなく、有人の商店にこだわっているのであれば、たぶん自助だけでなく共助にもアプローチしたいと思っているように感じました。
価値の両立 経済的・社会的	事業モデルは経済的価値は生み出せそうであるが、どんな場所でも展開できそう→この場合、社会的価値を何に見出すのかの検討が必要。	平時と発災時で違う経済的価値を生み出しそう。それぞれ、より具体的にステークホルダー間の価値のやり取りを整理してみてはどうでしょうか。
全体	場所と研修が目的とできる内容があれば、事業として成立しそう。Nice！高齢化する地域住民とのニーズとあわせてみるとできる業務が限られてしまうかも、などの具体的な設計があるとGood！	このアイデアは、平時と発災時どちらでも社会的価値も経済的価値も生み出そうとする挑戦的なものだと思います。だからこそ、とても複雑になりがちなので、できるだけシンプルに価値を定義してみてはどうでしょうか。

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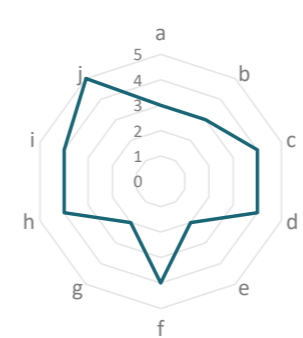
a. 社会システムを理解する
b. 社会システムの背景を理解する
c. 極度の状況変化を理解する
d. 極度の状況変化による社会システムへの影響を理解する
e. 極度の状況変化による社会システムの背景への影響を理解する
f. 自助・共助・公助を理解する
g. 自助・共助・公助のつながりをつくる
h. 復興／防災・減災に係る価値を理解する
i. 経済的価値を理解する
j. 価値の両立を理解する

The program in the future

A part of the MEXT EDGE-NEXT project from FY2019 to FY2022, the Entrepreneurship Program for 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 online group work and field work. From this fiscal year, the project has entered a new phase, implemented as part of the JST START University and Ecosystem Promotion Type Project (Supporting Startup Ecosystem Creation). While taking measures to combat COVID-19 infection, face-to-face group work and on-site fieldwork resumed, enabling students and faculty to return to spending time together. Perhaps because of this, students during the current year came up with a wide range of new business ideas, which they took a step forward to realizing by giving presentations at 078KOBE, a citizen participation festival in Kobe, and at the symposium "Resilience and Entrepreneurship in Local Communities" held at Tohoku University.

In the coming year, we will seek to expand our stakeholder base. In addition to the universities participating in the EARTH on EDGE consortium, we would like to seek cooperation not only from universities that value our program, but also from companies and local governments. In particular, we will promote program development in collaboration with local residents who provide field subjects for the Value Verification Fieldwork Program, which is also part of the startup ecosystem creation support project. By doing so, we hope to encourage students who want to move their business idea into the execution phase to take a step toward realization by giving them 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.

Design and Management Faculty of the
Entrepreneurship Program for Resilient Society

Sponsorship and Cooperation

Sponsor   V. School, Kobe University
                Multidisciplinary Integration for Resilience and Innovation (MIRAI), Kobe University

Cooperation   The Research Center for Urban Safety and Security, Kobe University
                Onagawa-cho, Oshika-gun, Miyagi Prefecture
                Michinoku Academia Startup Platform
                Kamome Solutions
                Disaster Prevention Policy Research Unit,
                    Graduate School of Public Policy, Hokkaido University
                Pilot Practice Corporation
                Atsuma-cho, Yufutsu-gun, Hokkaido Prefecture
                Hayakita Educational Center for Children
                Entrance, Abira

The FY2022 "Entrepreneurship Program for Resilient Society" was implemented as part of the JST START University and Ecosystem Promotion Type Project (Supporting Startup Ecosystem Creation).