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For immediate release

Mitsui Fudosan Co., Ltd.  
National University Corporation Ochanomizu University

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## Ochanomizu University and Mitsui Fudosan Sign Comprehensive Agreement Related to Industry-Academia Collaboration

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Tokyo, Japan, February 9, 2023 – Ochanomizu University and Mitsui Fudosan Co., Ltd., a leading global real estate company headquartered in Tokyo, announced today that they have concluded a comprehensive agreement related to the promotion of industry-academia collaboration (hereinafter “the agreement”).

Ochanomizu University and Mitsui Fudosan began considering approaches to resolving social issues based on the concept of gendered innovations in April 2022, sparked by Ochanomizu University’s establishment of the Institute for Gendered Innovations to be a base for research focused on sex/gender differences. By concluding the agreement, both parties aim to accelerate initiatives to utilize their respective resources, collaborate and cooperate in joint research, human resource development and social communications, as well as contribute to making a society where women who want to work can fully demonstrate their individuality and abilities (promote active roles for women).



Photo caption, from the left: Ochanomizu University President Yasuko Sasaki and Mitsui Fudosan President and Chief Executive Officer Masanobu Komoda

### 【Message from the Representatives】

#### ■ Yasuko Sasaki, President of Ochanomizu University

I strongly believe that the Institute for Gendered Innovations will bring about ground-breaking results by creating innovation by incorporating gender difference analysis results and research and development into designs. We aim to achieve diversity and inclusion (D&I) and promote active roles for women in society while using the institute as a base to bring about new social innovations with Mitsui Fudosan, which actively promotes roles for women, as our partner.

#### ■ Masanobu Komoda, President and Chief Executive Officer, Mitsui Fudosan

Backing the promotion of active roles for women, which is an important pillar of the national growth strategy, requires creating environments that enable diverse and flexible choices for working, including starting a business or working a side job, and depending on the individual situation of each woman. By tackling issues together with Ochanomizu University, which has supported women’s independence and advancement into society, we contribute to the quicker realization of a society where more women can work dynamically.

## ■ Gendered Innovations

Gendered innovation is the concept of creating innovation through research considering differences between the sexes (sex and gender), leading to social implementation. It is expected to develop and provide products and services for *seikatsu-sha* (people who actively involved in enriching their lives) that are appropriate for future society based on the results of research results obtained through consideration of biological and social gender differences, which have been overlooked up until now.

### Examples of Gendered Innovations

Gendered innovations have displayed their capabilities in various fields including the natural sciences, medicine, engineering, AI, agriculture, transport, cities and the environment. In Western countries in recent years, research funding agencies and publishers have begun requiring gender difference analysis in research using cells and animals, and the European Commission made it mandatory from 2021 to consider sex and gender differences in all disciplines.

#### Medical Field

##### Pharmaceutical

Does efficacy differ between men and women?



Drug metabolism, side-effects and efficacy can differ between men and women. However, nearly all prescriptions are the same for men and women, and there is increasing damage to women's health. Risk of motor vehicle accidents eight hours after taking a sleeping pill (main ingredient is Zolpidem <Ambien>)\*1  
Women: 15% Men: 3%

➡ In the U.S. prescription volume for women was halved  
➡ Men's and women's versions are sold in different-colored bottles

##### Osteoporosis

Just a woman's disease?



There is an impression that osteoporosis is an affliction that affects women only, but one-third of people aged 70 or over with osteoporosis are men\*2. And there are reports that men have a greater fatality rate after breaking bones.

➡ Review of diagnosis methods for men and research into treatment drugs

##### Heart disease

Is there a difference in symptoms between men and women?



Symptoms and causes of ischemic heart disease (myocardial infarction (heart attack) and angina pectoris) can differ between men and women\*3. Because men's symptoms are regarded as typical, it can cause delays in diagnosis or treatment for women, increasing fatalities.

Men: Coronary artery stenosis is common; chest pain is the main symptom.  
Women: Often non-stenotic type of coronary artery (cannot be discovered with normal contrast media), jaw and back pain, vomiting, or no chest pain

➡ Gender-specific medicine development and penetration in medical practice is crucial

##### Animal Experiments · Most experiments use males?



Animal experiment results often analyze only males as data from females can often be affected by the sexual cycle and experiments cost time and money. However, major discoveries can also be made by using females.

Osteocalcin: Females gain weight, males lose weight\*4.  
Pain: Gender differences exist in pain routes\*5.

➡ An increasing number of international journals require gender difference analysis

#### Engineering Field

##### Car Crash Tests

Are male dummies used?



Only male dummies are used in the driver's seat in car crash tests. As a result, female drivers are 47% more likely to be seriously injured in an accident\*6  
Moreover, conventional three-point seatbelts increase the risk of miscarriage and are the leading cause of death in fetal trauma\*7.

➡ Need to make it mandatory for crash tests and simulations to take women and pregnant women into account

##### Virtual Reality

Discomforting for women?



Women are at least twice as likely to show discomfort when using virtual reality\*8. This could be caused by competition between visual systems and vestibular system that controls equilibrium, for which women have a greater sensitivity. Narrowing the field of vision for navigation tends to improve women's discomfort\*9.

➡ Including women in prototype development and testing is crucial

##### AI Assistants

Do many have female voices?



In 2019, UNESCO pointed out concerns about the use of female voices as the default settings of AI assistants, which reinforces the gender bias that women are submissive and secretarial\*10.

➡ Improvements were made on some models to enable selection of voice types

##### Facial Recognition

Accuracy differs between men and women?



Facial recognition accuracy differs by sex (greater recognition of men than women) and race (greater recognition of Caucasians than people of darker skin color). The differences in facial recognition accuracy are particularly reinforced at the intersection of sex and race\*11.

Caucasian males: 99.2% Women with darker skin color: 65.3%  
➡ Significant improvements made by reviewing data sets through machine learning

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#### References.

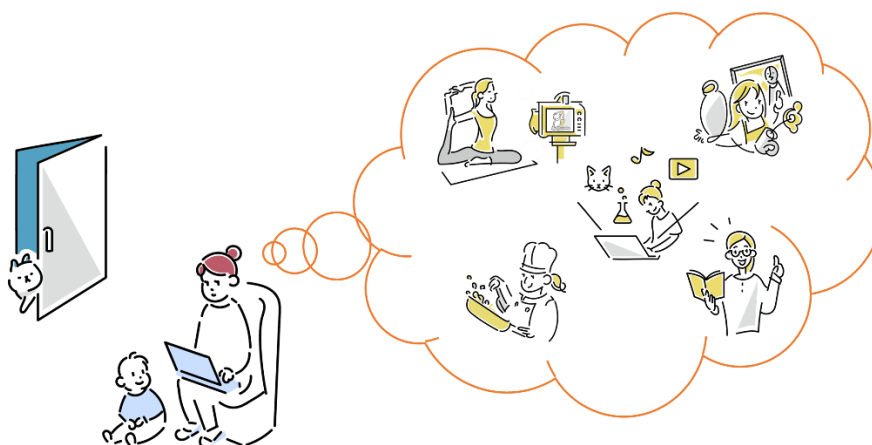
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## ■ Joint Research

As one initiative under this agreement, joint research will be carried out under the theme of women starting a business or working a side job.

Growing numbers of companies are recognizing side jobs in line with the 2018 formulation of Ministry of Health, Labour and Welfare (MHLW) guidelines to promote moonlighting. In addition, supporting women who start a business or side business is also becoming important as an aspect of promoting an active role for women. There is an increasing number of services supporting individual entrepreneurs or side businesses, but many support measures that envisaged men starting a business are a mismatch for women, and it is said that now there has been an opportunity lost for female entrepreneurship.

Female entrepreneurship has the characteristic of many cases involving the creation of lifestyle businesses to resolve nearby issues such as housework and childcare. In general, although each business is small scale, life events such as marriage or childcare have prompted women to leave the workforce to become aware of issues closer to home yet want to remain involved with society by starting a business, and there are strong needs to think about them. By creating new businesses from a *seikatsu-sha*'s perspective, these women are expected to expand domestic demand and have a significant impact on the economy and society.



This research will first investigate the existence of potential female entrepreneurs, discern their needs for starting a business or for side jobs and then study measures to support women starting businesses within and outside of Japan. Furthermore, the research will study measures to make it easier for women to create lifestyle businesses, and aim to implement these in society.

\* The initiatives covered in this news release are contributing to four of the UN's SDGs.

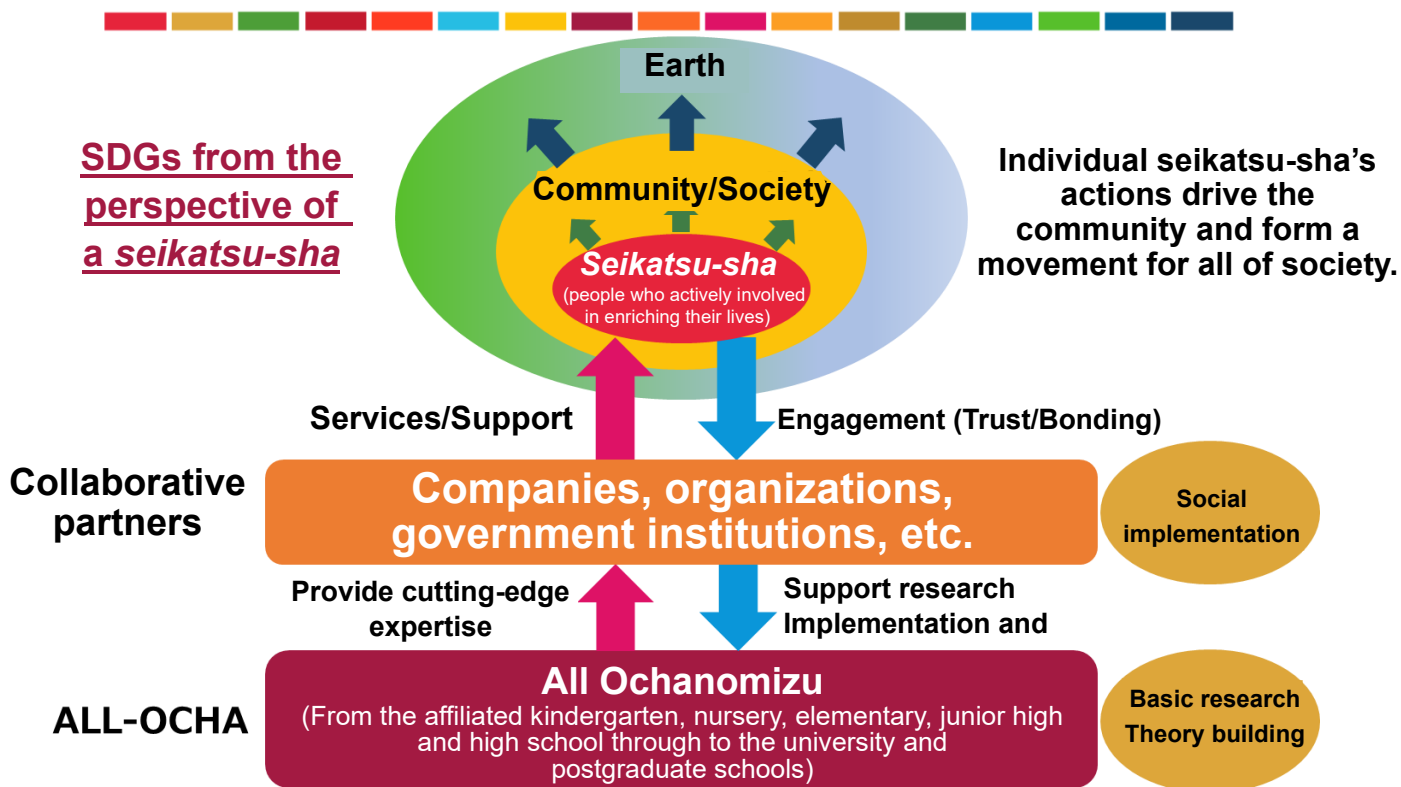


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### ◆Ochanomizu University’s Contribution to the SDGs

Aiming for human development to promote achievement of the SDGs throughout all of society, we plan and implement SDGs education and research programs to contribute to the achievement of a sustainable society from the perspective of a *seikatsu-sha*, mainly in the fields of life science, education and gender.

## SDGs promoted by Ochanomizu University



### ◆Mitsui Fudosan Group’s Contribution to SDGs

[https://www.mitsuifudosan.co.jp/english/esg\\_csr/](https://www.mitsuifudosan.co.jp/english/esg_csr/)

The Mitsui Fudosan Group aims for a society that enriches both people and the planet under the principles of coexist in harmony with society, link diverse values and achieve a sustainable society, and advances business with an awareness of the environment (E), society (S) and governance (G), thus promoting ESG management. By further accelerating its ESG management, the Group will realize Society 5.0, which the Japanese government has been advocating, and contribute significantly to achieving the SDGs. Additionally, the Group formulated the following Group guidelines related to “Realize a Decarbonized Society” and “Diversity & Inclusion Promotion” in November 2021. The Mitsui Fudosan Group will continue to work toward solving social issues through neighborhood creation.

#### 【References】

· Group Action Plan to Realize a Decarbonized Society

<https://www.mitsuifudosan.co.jp/english/corporate/news/2021/1124/>

· Formulated Diversity and Inclusion Promotion Declaration and Initiatives Policy

[https://www.mitsuifudosan.co.jp/english/corporate/news/2021/1129\\_02/](https://www.mitsuifudosan.co.jp/english/corporate/news/2021/1129_02/)