### **Details of the R&D Focus Area**

## FY2025 RISTEX R&D programs

# R&D Focus Area: Care-based social system FY2025 Call for R&D Proposals [Application Guidelines]

**Keyword: Care-based Society** 

Please refer to the separate pamphlet for details on common items.

This section outlines the idea of the Program Supervisor on the calls for proposals and selection in this R&D Focus Area and provides a general overview of this area. Be sure to read this section carefully before submitting your proposal.

### **Application Call Period**

April 9, 2025 (Wed.) - 12:00 a.m. on June 4, 2025 (Wed.)



Japan Science and Technology Agency (JST)

April 2025

The call for proposals solicited under the R&D Focus Area outlined in the Application Guidelines is titled "Care-based Social System" (hereinafter referred to as "this R&D Focus Area"). Please refer to the separate pamphlet for details on common items.

https://www.jst.go.jp/ristex/proposal/proposal 2025.html

#### (Selection schedule)

(Sciedalis)	
Start of solicitation	April 9 (Wed.)
Briefing on solicitation	To be conducted online on April 24 (Thurs.)
	Please refer to the proposal solicitation website below.
	(https://www.jst.go.jp/ristex/proposal/proposal_2025.html)
Proposal acceptance	Noon on June 4 (Wed.)
deadline*1	
Application screening	June to July (scheduled)
period	
Notification of the results	Candidates will be notified at least one week before the interview
of application screening*2	screening (scheduled)
Interview screening*3	August 4 (Mon.), August 6 (Wed.)(scheduled)
(Online)	
Interview (Explanation of	August 29 (Fri.)(scheduled)
the conditions of	
adoption)	
Notification and	Late September (scheduled)
announcement of	
screening results	
Start of R&D	Early October (scheduled)

<sup>\*1</sup> Indicates the application submission deadline for The Cross-ministerial R&D Management System (e-Rad).

<sup>\*2</sup> Candidates selected for the screening interview will be required to prepare and submit "Presentation Slides" and "Answers to the Pre-interview Confirmation Items" prior to their interview.

<sup>\*3</sup> We plan to use Zoom for online sessions. Your cooperation in participating in the pre-connectivity test is appreciated.

## Contents

Chapter1 Idea of the Program Supervisor on the Solicitation and	
Selection in this R&D Focus Area	3
Chapter2 Overview of R&D Focus Area and Framework of Calls for Proposal	6
2.1 Background and objectives of R&D Focus Area	6
2.2 Subjects of R&D	8
2.3 R&D elements and examples of potential R&D themes	10
2.4 Example of expected outputs	12
2.5 Points to note for promotion of R&D after adoption	12
2.6 Management of the R&D Focus Area	13
2.7 R&D period	
2.8 R&D expenses (direct costs)	14
2.9 Number of proposals to be adopted	15
2.10 Evaluation criteria for selection	15
Chapter3 Instructions for completing the proposal form	19
Chapter4 Reference materials	21

# Chapter1 Idea of the Program Supervisor on the Solicitation and Selection in this R&D Focus Area

# <u>Program Supervisor: Nishimura Yumi, Professor, Faculty of Sciences,</u> <u>Tokyo Metropolitan University</u>

In recent years, intense discussions have emerged around societal challenges such as population decline, aging population, low birthrates, uneven population distribution, and the growing severity of natural disasters, all of which impact both present and future societies. Each of these challenges has the potential to profoundly impact, or even weaken, the communities in which we live. In the face of these rapid changes, I believe we humans must reflect on past actions and reassess our relationships with one another and with the global environment to build a society that can survive and flexibly recover from crisis situations. At the heart of these challenges, I see a fundamental issue: the insufficient practice of "care" - an act that encompasses concern, appreciation, and consideration for others and the environment. The growing number of people in society who are actually interested in care, along with the extensive research on the topic across various academic fields, may itself indicate a deep-seated lack of caring in our world today.

I had the opportunity to conduct research on what nursing students and new nurses (those who have not yet become professionals) experience when they come into contact with sick people (Nishimura, 2007). What struck me was their physical response - their bodies would freeze, trapped between the inability to move closer and the inability to step back. This physical reaction embodied their internal struggle - drawn to the suffering person, yet held back by the pain of not yet having the skills to provide help. Simply standing next to the sick person reflected their innate impulse to reach out, as well as the other party's suffering, revealing that care cannot be easily divided into the roles of "care giver" and "care recipient." Instead, their behavior meant that the essence of care lies in the attitude of "being with the afflicted."

This physical response is by no means limited to those training to be health professionals. I once encountered a situation where a young girl collapsed in front of a train station. While a professional immediately rushed to her aid, passersby also responded, with one person placing a stole over her and others calling an ambulance. Surrounding her at a distance was a large crowd of people who seemed to be mere bystanders. The term bystander may not have a nice connotation, but these people may have been genuinely concerned for the girl's well-being and could not leave. A similar situation occurred when I was on a train. A person suddenly collapsed toward me, and I immediately caught her. Without hesitation, people around us responded. One person offered to help and we

carried her to a seat, others called for the conductor, and someone even mentioned finding a nurse. I believe many of us have likely encountered similar situations.

We are all inherently endowed with a physicality that instinctively responds to the suffering, illness, and fragility of life. Or perhaps, as Washida (2001) suggests, it is more accurate to say that it is the very "fragility" of others that draws our attention when we are confronted with it. However, in modern society, this natural tendency to respond to the vulnerability of others may have been obscured by various norms, such as an emphasis on competition with others, efficient production, and the values that pursue independent, strong individuals. These forces may have torn apart our basic way of "being with others," making it increasingly difficult to recognize and value the care that comes from simply "being present" with someone in need. Thus, I believe we are called to explore the historical and cultural background that has distanced us from our natural inclination to "be with others," and to critically reassess and reconstruct the institutions, laws, and value systems that have influenced people's values.

This way of life is gradually extending from individuals to all areas where people live - communities, towns, and regions. Efforts are under way to design pedestrian-only streets that naturally encourage conversations between people (Hiroi, 2019). Some towns are even known to foster a sense of vitality and happiness simply by living there. A recent report highlighted a town where many families have moved to raise their children. Residents who moved there say they do not feel like newcomers, but rather express a sense of ease and acceptance, as neighbors warmly invite their children to join in play. Challenges such as declining birthrates and population decline may be deeply connected to this sense of belonging - the experience of feeling accepted and comfortable in one's community. As a result, those who started living in such a town are not only accepted, but often extend the same sense of care and inclusion to others who come after them. In this way, the town itself cultivates a relationship of mutual support - a dynamic that embodies the concept of "being together" I mentioned earlier. If this is the case, then building a town that fosters care where all people including children, young adults, working people, seniors, people with disabilities, and those facing life's challenges, look out for one another with consideration for all beings, seems achievable. However, not all of the cities and towns currently reflect this ideal, and many of them are still in the process of trial and error. We now face the important task of considering what ideas, designs, institutions, and laws are available and needed to build cities that inspire people to care for one another.

I have already mentioned the issue of the global environment, but it is essential to remember that we exist as part of it. Nakamura (2025) emphasizes this point by stating that "Humans must live with other living beings and view them from within. We must consider how we should live in this diverse environment that we share with them." This perspective challenges the conventional notion of humans standing above nature and charged with protecting its diversity. Instead, it calls for a perspective from within, an awareness that we too are one species among many and should consider ways to live

harmoniously with other forms of life. Here also, we can feel the breath of the concept of caring as "being together." (Note 1) However, we now face the harsh reality of the difficulty of sustaining this kind of world. How can we sustain this world, or perhaps work toward its restoration? I believe it requires us to "be together" with diverse life forms and the global environment and a caring attitude based on a deepened sense of coexistence in which we actively acknowledge and value the interdependence of all life forms.

On the other hand, care, which is fundamentally about caring for and valuing others, can sometimes lead to violence or discrimination. When care is seen as a one-way act, with one party providing care and the other receiving it, the recipient may be seen as inherently weak. This dynamic can, in some cases, undermine the recipient's independence and autonomy (Kumagaya, 2009). It has often been pointed out that care work, such as housework, childcare and long-term care, is performed by specific groups rather than being shared by all due to household labor divisions (Note 2). When intertwined with issues such as social inequalities or discrimination, care can symbolize burden. Why is care destined to be associated with such social complications?

We need to cultivate innovative ideas and designs that re-examine and reframe the phenomena involving "care" noted here, learn from the spaces, bodies, and environments that naturally foster care, and work towards reclaiming the value of "being together." In this Focus Area, we look forward to research that cultivates this kind of care towards the establishment of a care-based society.

#### **Notes**

- 1. I believe that the concept of "being in the world," as discussed by the phenomenological philosophers Merleau-Ponty and Heidegger, supports this form of coexistence.
- 2. I refrained from using the word "women" here, as I believe this is a societal issue that extends beyond gender.

#### Bibliography

Kumagaya, Shinichiro. 2009. A Night of Rehabilitation. Igaku-Shoin Ltd.

Nakamura, Keiko. 2005. Humans are Living Creatures, a narrative by Keiko Nakamura.

#1: A world revealed in the "life journal" by me who live as "we, the living things" (DISTANCE. media F4-8-1/10 Jan. 2025 A View from Non-Humans, NTT Publishing Co., Ltd.)

https://distance.media/article/20250106000381

Nishihara, Yumi. 2007. Interacting Bodies: Reframing Care, NHK BOOKS

Hiroi, Yoshinori. 2019. Designing a Society with a Declining Population, Toyo Keizai Inc.

Washida, Kiyokazu. 2001. Power of Vulnerability -Hospitable Scenery, Kodansha Ltd.

# Chapter 2 Overview of R&D Focus Area and Framework of Calls for Proposal

#### 2.1 Background and objectives of R&D Focus Area

Today, the increasing burden of elder care and child-rearing, coupled with declining birthrates and an aging population, is placing growing pressure on care systems, threatening the functionality of the social structures that support them. In response, various entities, including national and local governments, private companies, research institutions, and nonprofit organizations, have made efforts to address these challenges, yet a fundamental, society-wide solution has not been achieved, leaving the core issues unresolved.

For instance, initiatives are underway to enhance the quality and efficiency of long-term care itself. However, beyond these measures, it is equally essential to reassess and refine these efforts from a broader perspective, considering the reciprocal relationship between care givers and care recipients, as well as the diverse backgrounds and circumstances of those involved. Additionally, Claudia Goldin, the 2023 Nobel Laureate in Economics, has demonstrated how childcare contributes to widening wage and income disparities between men and women. Similarly, in Japan, reports indicate that "unpaid care work, such as childcare, housework, and long-term care, disproportionately has fallen on women" (The White Paper on Gender Equality 2020) and that "many individuals feel they have no one to turn to in times of hardship" (Comparative Survey of OECD Member Countries on Social Support, 2023). These findings suggest that care work, including long-term care, child-rearing, and housework, remains undervalued, while the burden of care continues to be unequally distributed, making it difficult for many to "live with the support of others."

In today's society, there is a strong emphasis on individual ability and independent personal perspectives, while reliance on others is often viewed negatively. This mindset may be making it increasingly difficult for people to recognize the importance of "showing concern for others" and "being present with one another." On the other hand, care, in its broadest sense - emerging from spontaneous and intuitive concern for others and the environment (hereinafter referred to as "the act of care" or "care") - is not a one-way action from provider to recipient but extends beyond long-term care, childcare, and housework to include education, neighborhood watch, helping others, education, community development, and local activities. Rather, when care is practiced in a way that is mutually empathetic for both the care giver and the care recipient, the care giver may experience a sense of

being cared for through their interaction with the recipient. In such moments, the care giver's body may respond unconsciously and involuntarily. In this sense, the care serves as a reminder that "humans are inherently vulnerable beings and exist in relationships of caring and being cared for" and evokes a sense of purpose and fulfillment for those engaged in it.

When these kinds of care are dismissed as "not worth caring for" or "not having the time or capacity to take on such responsibilities," people may lose the opportunity to experience the value of caregiving. This loss may make it harder for them to reflect on the importance of "relying on others" or "being supported by others." When people in need of care are unable to reach the support networks or institutions on which they can depend on, their life challenges may become more severe - especially when they are held personally accountable for their circumstances - and this difficulty is compounded when they fail to acknowledge that they too are fundamentally "vulnerable beings in need of care." Additionally, there is concern that they may lose the ability to practice self-care in addressing their own vulnerabilities. This could weaken their understanding of "being together" and lead to behaviors that lack respect for others.

Moreover, challenges such as population decline, aging, low birthrates, and uneven population distribution have eroded the vitality of local communities, which are essential for mutual support. With the recent increase in natural disasters, there is a growing need to move beyond self-care and caring for others to redesign the communities and infrastructure that form the foundation of our lives. In doing so, it is essential to be mindful of our interactions with the changing natural and living environments (care for the environment). We are living beings that interact also with other non-human beings as part of nature, while fulfilling various positions in human society. We hope that by scientifically exploring the intrinsic value and importance of care - the natural instinct to reach out to those around us, including our relationship with nature - and promoting practices that integrate this into our daily lives, we can foster diverse connections and work toward building a care-based society rooted in the concept of "being together." In fact, research that takes a broad perspective on care is advancing in various academic fields. Communities are emerging in Japan and abroad that prioritize neighborhood watches and respect for the autonomy of care recipients including people with dementia.

Therefore, the initiatives in this R&D Focus Area aim to integrate care more deeply into society, acknowledging that "care is undervalued" and adopting an interdependence perspective that recognizes "human beings are inherently vulnerable and require both giving and receiving care." The pillars of R&D in this Focus Area are twofold: "visualizing the care essential for living and recognizing

its value" and "establishing a social system that reflects and sustains the value of that visible care." The ultimate goal of this Focus Area is to "foster communities where people naturally care for and support one another and to launch spontaneous demonstrations in multiple regions to develop living foundations, including infrastructure, that promote reciprocal interactions between people and the natural environment." We hope that efforts to elevate the value of care and establish it as a fundamental aspect of life will drive a redefinition of social systems around care, fostering a shift in consciousness that cultivates a society where people naturally connect, support each other, and find meaning in life.

#### 2.2 Subjects of R&D

In the face of accelerating population decline, aging population, and low birthrates, there is a growing need for spontaneous and functional communities in which people can support one another, as well as infrastructure that interacts harmoniously with the surrounding environment. To achieve this, it is essential to scientifically demonstrate the value of caring, which arises naturally from an awareness of others, oneself, and the external environment, and to integrate this understanding into real communities and living environments that extend beyond long-term care, childcare, and housework to include neighborhood watches, helping others, education, community development, and local activities.

Therefore, R&D in this Focus Area will focus on "visualizing and practicing care." Here, "visualizing" goes beyond simply analyzing fields of care to elucidate care mechanism and the value of care. It involves conceptualizing the redefinition of the value of care from historical, social, artistic, cultural, and educational perspectives, identifying the forms of care that will need to be practiced in future societies, and developing a framework for a society in which such care is deeply embedded. "Practicing" refers to the process of building models and other frameworks that enable the discovered value of care to permeate among people, introducing these into real-world setting and conducting verification and improvement. Thus, R&D projects in this Focus Area will be required to conduct both of "Visualizing care and its value" and "Practicing care". " By the end of the project period (March 2030 for projects adopted in FY2025), researchers are expected to have made significant progress in identifying real-world implementation fields, verifying their research outcomes, and demonstrating either a care community that fosters mutual support or an infrastructure that enables people to engage with their environment in a mutually beneficial way.

For this reason, R&D projects in this Focus Area must be based on an integrated system of collaboration among researchers from diverse fields and backgrounds, as neither a closed, single-disciplinary approach nor a multi-disciplinary system with independent divisions of labor will be sufficient, even if researchers from different fields of research are involved. In particular, proposals must incorporate a process that engages individuals involved in care (especially care recipients), who have often been overlooked, along with other stakeholders in care (policymakers, practitioners, management organizations, citizens with interest in practicing permeation of care, etc.).

R&D elements 1 and 2 are defined as follows, and we welcome proposals that incorporate both. We encourage R&D projects that observe and analyze events in the real-world care settings, explore the vision of a care-based society, and strive toward its realization while considering the diverse backgrounds of both care providers and recipients.

Therefore, the following types of R&D projects are outside the scope of this program. This Focus Area does not preclude proposals in specific fields. However, applicants should recognize that "care" in this Focus Area extends beyond medical and nursing care to include any action or emerging attitude driven by a natural concern for others, such as helping those in need. This program welcomes R&D projects that contribute to "building communities in which people support one another from the perspective that everyone can be in a position to receive care, and establishing an infrastructure that considers the environment beyond the self (including the natural environment) as a fundamental aspect of life."

<R&D projects outside the scope of this program>

- Research projects focused solely on either the care provider or the care recipient, despite the fact that the act of care involves the interaction of both parties
- Projects aimed at producing outcomes exclusively for professional care providers, such as medical care, long-term care, or childcare professionals
- Projects focused solely on optimizing individual care events (e.g., defecation care) within care settings

(However, studying individual events within care settings is not excluded. R&D that takes a broader perspective is encouraged, for example by studying the social context of these events from the perspective of both the care provider and the care recipient).

- Projects focused solely on developing care-related devices and demonstrating their use in care settings without considering the broader societal context in which care is embedded. (For example, projects limited to the development and validation of domestic assistance robots.)
- Projects that do not go beyond proposing policies to achieve a care-based society
   (In this R&D Focus Area, verification in the social setting will be included in the project)

#### 2.3 R&D elements and examples of potential R&D themes

To implement this R&D Focus Area, the following R&D Element 1 and R&D Element 2 have been defined. Applicants must submit project proposals that incorporate both R&D Element 1 and R&D Element 2. Proposals should aim to verify the value of care identified in R&D Element 1 within real-life settings in R&D Element 2. Proposals that include only R&D Element 1 or only R&D Element 2 will not be accepted. For R&D Element 1, applicants are not required to select both R&D Element 1-1 and R&D Element 1-2. Below are examples of research themes corresponding to each R&D element. These are examples only and are not limited to them.

#### R&D Element (1): Visualizing Care and its Value

R&D that explores the often-overlooked aspects of care and its value, either by closely observing and analyzing individuals engaged in care and their backgrounds (R&D Element 1-1) or by examining care from a broader perspective, incorporating history, society, art, culture, education and other dimensions of human behavior (R&D Element 1-2).

# R&D Element (1) - 1: The Act of Care as Analyzed by Those Involved in Care and Visualizing its Value

(Examples of themes)

- Making everyday care activities visible and developing an index to assess their value
- Structuring acts of care from the perspectives of both the care giver and recipient
- Elucidating the unconscious physicality involved in the act of care
- Exposing the disadvantages faced by care providers in care work and the mechanism of their development
- Exploring the experiences of young carers and their subsequent impact on their lives
- Investigating and analyzing the time-effectiveness of care activities in a broad sense, including "invisible housework"
- Collecting and analyzing narrative data from care settings
- Elucidating phenomena and mechanisms where individuals, such as those requiring care, frequently in situations as recipients bring purpose to others and become caregivers for others
- Identifying aspects of care that provide reassurance to recipients and those that do not (Including the visualization of the information given by care recipients)
- Developing a system that allows care providers to understand the emotions of care recipients in real time to support smooth communication between the two parties
- Creating an environment where care recipients can express their needs and care providers

- can accept them and respond naturally
- Designing communities to enhance residents' awareness of the natural environment and encourage environmentally friendly behaviors
- Developing regional infrastructure adaptable to changes in the external environment, such as those caused by climate change
- Analyzing progressive care communities in Japan and abroad and suggesting implications for multi-regional implementation

# R&D Element (1) - 2: The Care as Viewed from Historical, Societal, Art and Cultural Perspectives and Visualizing its Value

(Examples of themes)

- Changes in the domestic application of international conventions, laws, and systems related to care (gender equality, disability rights, human rights, etc.) and analysis of their impacts
- Exploring the actual condition of care as reflected in history, society, art, culture, education, etc., and its value
- Conducting international comparative analyses of institutionalized and non-institutionalized care
- Examining the social losses resulting from neglecting or inhibiting care
- Investigating whether the process of mutually beneficial construction and maintenance of living spaces that consider the natural environment generates value for both humans and the environment
- Studying the relationship between feelings of reverence for the natural environment and care
- Exploring the significance of human care from the perspective of human history and the history of life
- Investigating the factors that make it difficult for individuals to reveal their "vulnerability"
- Examining the importance of self-care for overall well-being
- Clarifying the relationship between community functions and care
- Elucidating the relationship between self-care, the well-being it brings to oneself, and the orientation towards caring for others
- Researching the feasibility of creating a society that does not rely on the assumption of independent, "strong" individuals

#### R&D Element (2) Implementing a Social System Based on the Visualized Value of Care

Based on the value of care visualized in R&D Element 1, the project will implement, verify, and refine strategies for revising social systems based on a mutually interdependent view of humanity in real-world settings (PoC: Proof of Concept). Additionally, through workshops and community dialogues, the project will engage the public in discussions about the vision of a care-based society as an outcome of the R&D project, while fostering the gradual and voluntary involvement of residents and other stakeholders. The proposal should clearly articulate a vision for a care-based society in which the project outcomes will be disseminated, detailing "how the value of care advocated by the proposer will take root in people's lives and the shape of the desired state of society that will result from these efforts."

#### (Examples of themes):

• Proposing and executing legal, social, and economic systems that support communities engaged in spontaneous care

- Proposing and executing inter-dependent, spontaneous care communities that operate independently of legal and social systems
- Developing and executing platforms to raise awareness, shift attitudes, disseminate information, and promote education on care-based societies
- Formulating and executing product development policies that contribute to the realization of care-based societies
- Practicing methodologies for transitioning toward a care-based and care-centered society
- Executing novel and sustainable communities where care providers are not marginalized
- Practicing informal care in local communities based on assumptions on disaster response, etc.
- Executing communication for realizing a care-based society
- · Practicing care communities that embrace diversity
- Practicing a system that incorporates care in work evaluation
- Practicing care activities in a digital twin environment
- · Assessing the current state of infrastructure and executing maintenance

#### 2.4 Example of expected outputs

The following are examples of outputs derived from R&D based on the elements outlined in "2.3 R&D elements and examples of potential R&D themes."

- Strategies for and framework of sustainable dissemination of spontaneous, informal care systems in the community
- Tools that enable a deep understanding of the conditions of both care providers and recipients for improved care practices
- Innovative care methods in a digital twin environment
- Outline of systems that support care-based communities, building on feedback from the front lines
- Approaches to fostering a society of "being present with one another" based on the understanding
  of mechanisms that either inhibit or promote care.
- A system that allows citizens to assess the current state of the natural environment and infrastructure and take appropriate action accordingly.

These examples are provided for reference only, and applicants are encouraged to generate innovative outcomes beyond those listed.

#### 2.5 Points to note for promotion of R&D after adoption

Proposals in this R&D Focus Area should go beyond basic research on care visualization and actively explore ways to transform society by implementing changes in real-world care settings. For this reason, the proposed project must include communication with stakeholders in the real world.

Advancing research and development in this area requires not only broad academic expertise across the humanities, social sciences, and natural sciences but also a deep understanding of real-world care environments. Therefore, successful applicants are required to advance their R&D

initiatives by communicating, as needed, with the advisors (commissioned by JST) who have a wide range of expert knowledge in this area, as well as with the Program Supervisor.

In addition, research funding for this area will be allocated to R&D projects that have been selected to achieve the goals of the aforementioned area. The common question to be explored in this Focus Area by the Program Supervisor, advisors, project members, RISTEX, and others is: [If our goal is to establish a society deeply rooted in a broad sense of care - one that begins with 'showing concern for others and being present with them' - what should the mechanisms of economics, society, politics, health, welfare, and education look like, and how can they be effectively implemented?] Successful applicants are required to participate in regular closed-door "Focus Area Plenary Meetings" held after adoption, where stakeholders will explore the central research question of this Focus Area. These meetings will serve as a platform for sharing and discussing project plans and progress, and refining the plans for the adopted projects (including inter-project collaboration).

Additionally, the Focus Area will establish platforms for interaction among researchers from different fields, practitioners, private companies, policy planners, and R&D programs in Japan and abroad to foster deep connections between R&D initiatives both within and beyond the project and program. This initiative will lead to the creation of a new academic network focused on care-centered research, a collaborative research base, and a network that connects research with real-world care settings. By seamlessly linking the concept of ideal care - shaped by the values discovered through basic research - with the verification of care communities and infrastructure in real-world settings, these initiatives aim to enhance collaboration. Ultimately, this will facilitate the sharing and exchange of technology and knowledge among researchers, policymakers, and care practitioners. Since comprehensive R&D on care in Japan is unprecedented on a global scale, we will intensify our initiatives in this Focus Area and encourage each project to actively collaborate in information dissemination and public relations activities.

#### 2.6 Management of the R&D Focus Area

In this R&D Focus Area, the Program Supervisor and Advisors will utilize the following systems and methods to monitor the progress and outcomes of R&D projects. Through hands-on management, they will collaborate with research representatives to ensure the successful achievement of the area's goals.

• The Program Supervisor will be appointed as the individual responsible for managing the R&D

Focus Area and will oversee the overall project.

• The Advisor will be appointed to provide expert guidance and support to the Program Supervisor.

• The Program Supervisor, Advisors, and Secretariat will collaborate in recruiting and selecting R&D

projects, as well as organizing meetings and implementing necessary measures (such as providing

R&D advice, conducting site visits) to ensure effective management of the Focus Area.

The Program Supervisor will conduct ongoing reviews of R&D projects, making adjustments as

needed, including modifications to R&D expenses and the reorganization, consolidation, or

termination of projects.

The management of the R&D Focus Area will remain flexible, allowing for prioritization, policy

adjustments, and changes in solicitation and adoption strategies while considering social

conditions and international trends.

The Program Supervisor, in collaboration with Advisors and other experts, will optimize the content

and implementation framework of each R&D project as needed. This will be based on changes in

the severity of the societal issue addressed by the project, as well as the appropriateness and

feasibility of the R&D approach and other relevant factors. In this regard, the Program Supervisor

will have the discretion to determine whether an R&D project should continue or be discontinued.

As outlined above, the management of the R&D Focus Area will actively promote exchange,

collaboration, and interaction among adopted R&D projects. Initiatives will also be undertaken to

establish discussion platforms (such as Focus Area Plenary Meetings) involving transdisciplinary

internal and external stakeholders who can oversee the R&D projects. Additionally, outreach

activities will be conducted to disseminate R&D outcomes (such as achievement briefings and

information sharing through the program's website).

2.7 R&D period

4.5 years in principle (until March 2030)

The period may be adjusted based on adoption conditions and subsequent research and development plans.

\* Applicants are requested to propose a flexible concept and design aligned with the R&D

objectives.

\* The R&D period may be modified depending on the proposal content, R&D plan, and adoption

policy.

2.8 R&D expenses (direct costs)

Funding limit: Up to 23 million yen per project per year

14

- \* The above is the maximum amount for a proposal.

  Applicants are requested to propose a flexible concept and design aligned with the R&D objectives.
- \* R&D expenses may be modified depending on the proposal content, R&D plan, and adoption policy.
- \* For FY2025, as R&D is expected to begin in October or later, budget proposals should account for costs for a maximum six-month period until the end of the fiscal year (up to 11.5 million yen (direct costs)).

JST will disburse funds to research institutions as commissioned research fees, calculated by adding indirect costs (in principle, 30% of direct costs) to the approved R&D expenses (direct costs) under a commissioned research agreement. For details on the use of R&D expenses (direct costs) and indirect costs, please refer to<Common items>"3.5 R&D Expenses" and "Chapter 5 Q&A on Proposal Application." The allocation of R&D expenses may be adjusted during the selection process and through project management by the Program Supervisor, based on the progress of the R&D. For further details, see "2.6 Management of the R&D Focus Area."

#### 2.9 Number of proposals to be adopted

Approximately three (3)

#### 2.10 Evaluation criteria for selection

A decision on the selected proposal will be made after a comprehensive evaluation of the following criteria. Be sure to refer to "Chapter 1 Idea of the Program Supervisor on the Solicitation and Selection in this R&D Focus Area" and "Chapter 2 Overview of R&D Focus Area and Framework of Calls for Proposal" before submitting your proposal.

#### (1) Purpose and objectives

The proposal must be consistent with and contribute to achieving the objectives of this R&D Focus Area

[Key points for selection in this R&D Focus Area]

- The proposal must be consistent with the objectives of this R&D Focus Area, clearly
  defining the care-related issues it aims to address and outlining the shape of the
  envisioned society.
- 2) The proposal must take a broad perspective on addressing care-related challenges, considering social background, root causes, and propositions for resolution.
- 3) The proposal's content (including the challenges, objectives, and R&D plans) must be consistent with the objectives of this Focus Area.
- 4) The final outcomes should support the development of a care-based society.
- 5) The proposed R&D outcomes are expected to have a significant impact (including academic and public value creation, contributions to current and future societal and industrial needs, and opportunities for dissemination and expansion into other fields and regions within Japan and internationally).

#### (2) Originality and superiority

The proposal content must demonstrate originality, superiority, and challenging characteristics in relation to Japanese and overseas R&D initiatives and trends.

[Key points for selection in this R&D Focus Area]

- 1) The proposal outlines the concrete details of the novelty and originality of the proposed R&D, and its challenge in relation to current trends in related research and initiatives both in Japan and globally.
- 2) The initiative has the potential to generate outcomes with significant impact on similar cases internationally.

#### (3) Objectives and plans

The R&D plan (including the period and processes to achieve the project's achievement objectives and execute plans to reach these objectives) and the research budget plan must be concrete and appropriate.

[Key points for selection in this R&D Focus Area]

- 1) The targeted objectives, including expected outcomes, should be appropriately set.
- 2) The plans for achieving these objectives (budget scale, time period, setting of milestones, processes including PDCA) should be appropriate.

- 3) The project should proactively identify bottlenecks including potential challenges, barriers, and difficulties that may arise in achieving its goals and examine specific measures to address them, including the implementation of PoC.
- 4) The R&D plan should be well-aligned with and responsive to societal trends.
- 5) The plan should be designed to gather feedback from a diverse range of stakeholders from the beginning of the research. Additionally, at key R&D milestones, it should include mechanisms for publicly sharing research progress and soliciting external opinions to ensure necessary improvements are made.

#### (4) Implementation system

The proposal must have an optimized implementation system for R&D and problem-solving and R&D in a real society.

[Key points for selection in this R&D Focus Area]

- The proposal must include a strong collaborative framework that brings together
  researchers from the humanities, social sciences, and natural sciences, along with diverse
  societal stakeholders, including policymakers.
- 2) The project must show sufficient promise for establishing a mechanism for implementing the impact of care-related solutions in designated regions of Japan, as well as in various settings such as schools, workplaces, government institutions, and local communities.
- 3) The project must consider a framework that is sustainable in terms of both human and financial resources, with an eye to the potential for further development beyond the completion of the R&D.

#### (5) Execution capability

The project must be able to demonstrate the necessary research and activity achievements, along with the capability to take responsibility for R&D and problem-solving in a real society.

[Key points for selection in this R&D Focus Area]

- The research proposer must have a strong track record to effectively execute the project.
   The project must present a feasible approach to realizing its research concept.
- 2) The project must have the potential for dynamic and effective project management.

Additionally, the following factors will be considered in the project selection and adoption process:

- The project should be positioned within the broader context of both domestic and international research trends, with the potential to generate significant global impact.
- It should actively contribute to human resource development by fostering the participation and success of young and female researchers.

#### **Chapter3** Instructions for completing the proposal form

Please complete the form by following the instructions provided on the proposal form. For information on the budget scale and R&D period, please refer to "2.7 R&D Period" and "2.8 R&D expenses (Direct Costs)".

The required submission documents are listed below.

Form number	Document name
Form 1	Basic Items
Form 2	Concept
Form 3	Originality and Superiority of the Proposal
Form 4-1	Objectives and Implementation Plan
Form 4-2	Budget Plan
Form 5-1	Implementation System (Overall)
Form 5-2	Implementation System (Principal Investigator's group)
Form 5-3	Implementation System (other group)
Form 6-1	Research and Activity Achievements (Principal Investigator)
Form 6-2	Research and Activity Achievements (Group Leader)
Form 7	Availability of Grants, etc., from Other Schemes
Form 8	Special Points Worth Note

<sup>\*</sup> Materials submitted in formats other than the designated forms will not be considered for review.

- \* Please follow the instructions for completing the form and be sure to complete all required fields.

  Incomplete submissions may be deemed ineligible for review.
- \* Be sure to also review "Chapter 1 Idea of the Program Supervisor on the Solicitation and Selection in this R&D Focus Area" and "Chapter 2 Overview of R&D Focus Area and Framework of Calls for Proposal."
- \* Before applying, please read "Chapter 4 Points to Note upon Application" section of the application guidelines <Common Items>.
- \* For instructions on the submission of R&D proposals, please refer to the e-Rad manual in the application guidelines.
- \* The proposal file must be converted to PDF format before uploading it to e-Rad. You can convert the file to PDF from the menu after logging into e-Rad. The use of special or non-standard characters may result in text corruption on a page-by-page or file-by-file basis. Please check the converted PDF file before submission.
- \* The size of the submitted PDF file must not exceed 5MB.
- \* Use a font size of approximately 10.5 points for the main text and ensure the layout is easy for evaluators to read.

- \* Remove all blue instructional text from the proposal format before submission.
- \* Download the proposal format (Word version) from the JST website or the e-Rad website.

#### **Chapter4** Reference materials

(Related websites, etc.)

■ Science Council of Japan, Care Science Subcommittee, Joint Committee on Clinical Medicine and Committee on Health/Human Life Science

Care Science Subcommittee in a society with a declining population, a declining birthrate and an aging population

"Laying the Foundations of Care Science and Creating a Future Society"

https://www.scj.go.jp/ja/info/kohyo/pdf/kohyo-24-t291-7.pdf

Public symposium: "Care as a 'collective issue' - beyond families and professionals"

https://www.scj.go.jp/ja/event/2024/372-s-1124.html

#### ■ Cabinet Office

Convergence Knowledge portal site: 'Interim report on the basic approach to and strategic promotion of 'convergence knowledge'"

https://www8.cao.go.jp/cstp/sogochi/index.html

https://www8.cao.go.jp/cstp/stmain/20220408.html

The 6th Science, Technology and Innovation Basic Plan (adopted by the Cabinet on March 26, 2021) states that the Science, Technology and Innovation Policy is not only a policy to promote science and technology, but also to contribute to a comprehensive understanding of human beings and society and to the solution of problems through "convergence knowledge" that combines humanities and social sciences "knowledge" and natural sciences "knowledge" to generate social values. It is stated that the policy was meant to contribute to a comprehensive understanding of people and society and to the solution of their problems. Since then, the Council for Science, Technology and Innovation has been discussing the basic concept of "convergence knowledge" and measures to strategically promote it, and in April 2022, the Council published an interim report on this concept. In this R&D area as well, we expect to see proposals for developmental R&D projects that emphasize interdisciplinary research across the natural sciences, humanities, and social sciences, and the fusion of this research knowledge with on-the-ground knowledge that addresses specific issues, in collaboration with various entities involved in such research and

development.

■ Ministry of Education, Culture, Sports, Science and Technology

Committee on Collaboration of Science, Technology, and Society: Technology and Society "Promotion of Collaboration between the Humanities, Social Sciences and Natural Sciences in Research Activities related to the Social Implementation of New Science and Technology"

https://www.mext.go.jp/b menu/shingi/gijyutu/gijyutu2/092/houkoku/1410641.htm

■ Ministry of Health, Labour and Welfare

Community-based integrated care system

https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/hukushi kaigo/kaigo koureisha/chiiki-houkatsu/index.html

Portal website for community-based society

https://www.mhlw.go.jp/kyouseisyakaiportal