

# Call for proposals Japan - Sweden Academia-Industry International Collaboration Program on Innovative Solutions, Community Design and Services for Elderly People

## CALL TEXT AND ANNEX

### Proposal Submission Period:

15<sup>th</sup> July 2016 to 11<sup>th</sup> October 2016  
(17:00 Japanese time / 14:00 Swedish time)

### Websites for Japanese Applicants:

[http://www.jst.go.jp/sicp/announce\\_sw\\_Vinnova1st.html](http://www.jst.go.jp/sicp/announce_sw_Vinnova1st.html) (for Call Text and National/Regional regulations)  
<http://www.e-rad.go.jp/jigyolist/present/index.html> (for online proposal submission portal)

### Websites for Swedish Applicants:

<http://www.vinnova.se/sv/Ansoka-och-rapportera/Utlysningar/> (click on title for Call Text, links to Terms and Conditions and How to Apply)

### Contact for Japanese Applicants:

Name: Daiji Naka Name: Izumi Tsune  
E-mail: [joints@jst.go.jp](mailto:joints@jst.go.jp)

Phone: +81 (0)3 5214 7375

### Contact for Swedish Applicants:

Name: Henrik Fridén Name: Mårten Berg  
E-mail: [henrik.friden@vinnova.se](mailto:henrik.friden@vinnova.se) E-Mail: [marten.berg@vinnova.se](mailto:marten.berg@vinnova.se)

Phone: +46 8 473 31 54

Phone: +46 8 473 31 97

# PART 1: Call Text

## 1. Summary

Building on earlier long-standing fruitful co-operation in promoting and funding Japanese-Swedish research collaboration, JST and Vinnova have decided to work together to promote innovation-oriented collaboration involving research organizations and industry in both countries. Thus the “Japan - Sweden Academia-Industry International Collaboration Program”<sup>1</sup> was founded and the first joint scheme is called “Innovative Solutions, Community Design and Services for Elderly People”.

In this call for proposals, JST and Vinnova invite Japanese and Swedish research and innovation teams to submit joint proposals for Japan-Sweden academia-industry cooperative research projects. The aim is to establish and strengthen research and innovation partnerships between Swedish and Japanese stakeholders. Successful projects are expected to build strong, sustained, Japanese-Swedish cooperation frameworks. The goal for projects is to assess the feasibility of the joint envisioned solution addressing the challenges of an aging society. The most successful projects after the first funding period may be invited to a second phase funding, in which the usefulness of the solution is to be tested and demonstrated. A description of the two-phase funding scheme is found in the Annex to this text.

The call opens on 15<sup>th</sup> July 2016

The call closes on 11<sup>th</sup> October 2016, 17:00 Japanese time, 14:00 Swedish time

## 2. To whom this call is intended for

This call is intended for consortia of Japanese and Swedish academia-industry collaboration teams. It is envisioned that the teams already are pursuing cooperative research and innovation activities in their national context. The following two types of actors/stakeholders are to be involved on both sides:

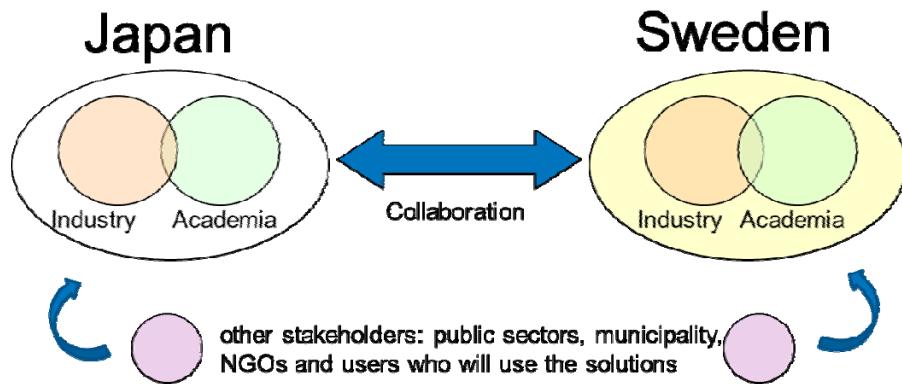
- Private business(s) with relevant business activities
- Research performing organization(s); academia, research institute or similar status and which has relevant and high-level research in the areas

In addition to the above required partners, the inclusion of the user-side in the consortia is often important. Such partners could be, but is not limited to, an organization which has the capacity to understand needs and support testing of the proposed solutions (e.g. “test bed”<sup>2</sup>, nursing or supportive organization with relevant expertise, or similar).

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<sup>1</sup> This program is based on the Memorandum of Cooperation concluded in June 2015 between the Ministry of Education, Culture, Sports, Science and Technology (MEXT) and the Ministry of Enterprise and Innovation in Sweden

<sup>2</sup> The test beds focus on real-life implementation and evaluation of technologies and solutions aimed at meeting special needs of senior citizens, often in collaboration with companies and academia. A number of “test beds”, organized in Sweden by local and regional authorities, have been established in recent years.



### 3. Description of the call

#### 3.1. Background and rationale

*The in-depth description of the joint funding scheme is found in the Annex to this text. Applicants should carefully consider the Annex to get a necessary level of understanding of the context and set-up of the scheme.*

Many advanced countries are facing the problems associated with aging populations, and the rate of the demographic transition is particularly marked in Japan and some other Asian countries. Sweden experienced some of the demographic transition towards an aging society earlier and less dramatic than in Japan.

A transitions towards a society in which people can lead active and healthy lives also at a high age will be of great importance in order to promote quality of life and lessen the burden of family and society. This will require new products and services to be developed.

By collaborating between countries, synergies and complementarities can be better utilized than today in order to lay foundations for groundbreaking solutions with potential in domestic and international markets. The cooperation described here aims to promote such a development.

Resolution of the various challenges facing our aging societies requires not only academic research but also a strong involvement of industrial competence in development, production and markets in order to enable the spread and introduction of new solutions through business activities. The active participation of various other stakeholders is also of importance to use of research results to realize the application, ultimately to benefit our societies. JST and VINNOVA will therefore pursue international academia-industry research collaboration aiming to resolve challenges associated with aging societies.

The long-term and over all aim of this program is to establish a new international academia-industry research and innovation collaboration framework between Japan and Sweden, based on ongoing cooperation in each respective country, in order to achieve new innovations for the support of elderly people's independent and active lives and social participation, enabling the raise of standards in community and private life. The joint projects are expected to create new solutions

addressing needs in Aging Societies by innovations combining existing solutions, knowledge, competences and technologies from the respective country.

The joint project will also test the innovativeness and usefulness of the proposed solutions, and will evaluate their practicality in actual aging society environments (“field tests”). This will be the focus for those projects selected for Phase 2 funding. Phase 1 is thus a preparatory feasibility stage for Phase 2.

Through this initiative, the joint project will also verify how the envisioned solutions are effective in the different social contexts in Japan and in Sweden. By comparing each model’s requirements with the solutions’ characteristics, along with analyzing their usefulness, the outcomes are expected to branch out into other social models/business opportunities.

### **3.2. Aim of the Call**

The aim of this call (Phase 1) is for the joint project consisting of one Japanese academia–industry team and one Swedish academia–industry team to develop new solutions and/or to combine solutions in each respective country in order to propose and verify the innovativeness and potential effectiveness of new equipment, services and community designs.

This is accomplished by combining existing knowledge, competences and technologies on going cooperation in the respective country in order to prepare for testing of innovative solutions addressing needs of Aging Societies.

The outcomes in Phase 1 should include a completed feasibility study to verify the functionality/practicality of the proposed solutions within the limitations of laboratory-scale, limited facilities, and/or small user participation in preparation for the field test (at Phase 2).

Successful proposals should therefore have a longer-term vision of the project with plans also covering a possible second phase of funding. The joint projects should in this Phase 1 also start the process to identify and include other relevant stakeholders/organizations; public sectors, NPO and so on, which will be able to implement and evaluate the field test in a prospective second phase funding.

### **3.3. Format, content and implementation**

JST and Vinnova will support cooperative activities between the Japanese academia-industry team and the Swedish academia-industry team in a two-phase mode with national funding. This call is for the first phase (Phase 1) of two in the cooperation. A second phase (Phase 2) for “field tests” will involve the most promising projects from this call.

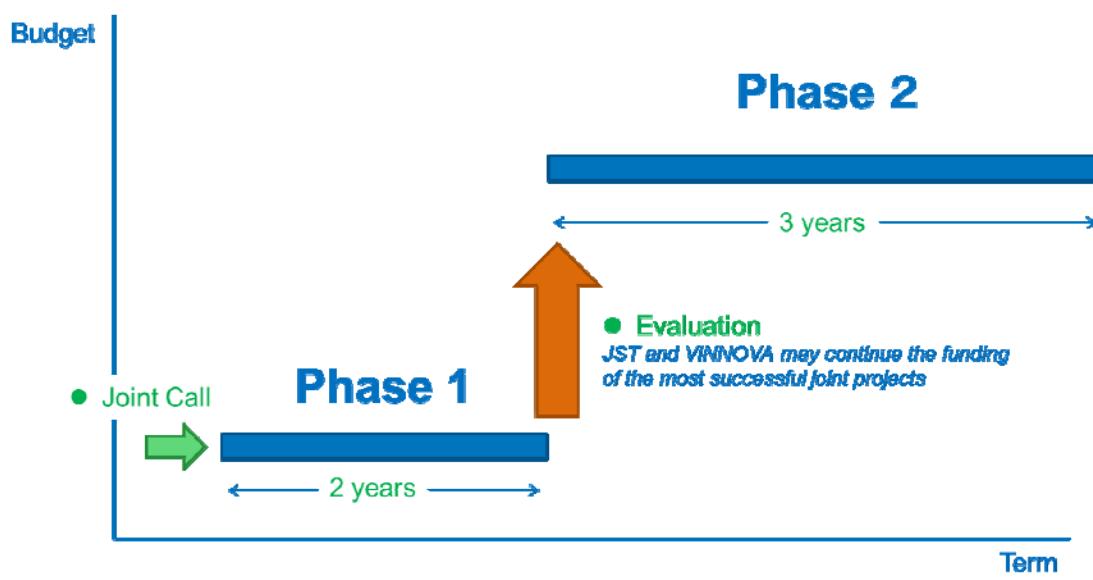
The respective side teams should preferentially already be engaged in academia-industry cooperation activities nationally within the thematic areas of interest. It is possible and sometimes

important, but not required, for public organizations or other relevant stakeholders to be involved in Phase 1.

As the funding provided is limited, it is expected that additional resources, for example in the form of funding and infrastructure, are available on each side to support the projects. It is thus important that the cooperative projects build on well-funded and on-going research and innovation activities/cooperation in the respective country.

The consortium must have a joint research plan which details the processes and the different work packages of the entire project.

JST and Vinnova will evaluate the each joint project around 2 years after the beginning of this phase, and jointly select the successful projects to be invited to apply for Phase 2 funding (see Annex, section A2).



Within the thematic area “Innovative Solutions, Community Design and Services for Elderly People”, the following **subtopics are promoted:**

**A. Technologies and Systems for Accessibility and Support of Social Participation of Senior Citizens**

- Robotics for supporting elderly people including autonomous and remotely operated units
- Accessibility methods and technologies for social participation (including systems for traffic safety and assisted driving)
- Sanitary methods and technologies enabling social participation
- Information systems, knowledge sharing platforms and transport services developed with user interfaces and accessibility also for elderly people

**B. Utilization of Information Communication Technologies for Home-based and Community-based Services Well Adapted to the Needs in Daily Life of Senior Citizens**

**C. Innovative Technologies and Solutions for Housing, Urban Community Design and Services which simultaneously support Independent Living and Social Participation of Senior Citizens and meet High standards of Ecological Sustainability**

- Concepts, methods, technologies and systems for integrated design and redesign of urban neighbourhoods, their buildings, green spaces, infrastructure and systems and services for transport, energy provision and waste handling adapted to demographic needs.
- Concepts, systems and platforms for integrated information services for individuals and households related to health, food, education, entertainment, transport, energy, water, waste handling, other community services, etc. and which facilitate and incentivize social participation and healthy and sustainable living patterns.
- Component and systems technologies, solutions and services for monitoring of personal health, personal safety, energy consumption, environmental quality, etc.

**Note:** Proposals with their primary focus on medical research, e.g. medicine, drug development or study of disease and (medical) treatment are not eligible for project funding.

### 3.4. Results and Outcomes

The results should make it possible to assess the potential for the envisioned solutions to address urgent and important needs of the elderly. If solved, the solutions enables the individuals to lead independent, active, lives as well as lessens the burden of for example care from family and society.

*Projects funded in this call should aim to complete early stages of development in this phase: a completed feasibility study to verify the functionality/practicality of the proposed solutions within the limitations of laboratory-scale, limited facilities, and/or small user participation, which allows for assessment of the feasibility to enter Phase 2 cooperation projects.*

Envisioned outcomes could be:

- Assessment of the needs for a suggested solution in Japan, Sweden and other key markets
- Analysis of the requirements/needs of user, customers, and the regulatory systems, and other relevant factors
- Identification of opportunities and challenges linked to the application/use of the intended solution or of the project results
- Completion of initial development work on the solution in order to verify the feasibility to enter test and demonstration phase
- Have prepared detailed plan for phase 2 test/demonstration and outlined an implementation of the solution/results thereafter
- To have identified and approached possible additional resources needed for phase 2 project
- Establishment of a system for exchange between the Japanese and Swedish teams
- Have developed a communication and dissemination plan to reach a wider set of stakeholders with the results
- Performed a risk assessment

### **3.5. Applicants**

JST and VINNOVA invite Japanese and Swedish research and innovation teams to submit joint proposals for Japan-Sweden academia-industry cooperative research projects in the areas described above.

The Japanese applicant should be a Japan based project leader (PL) who must belong to a university, public research institute or industrial (private) company in Japan, and who can submit the application to JST through e-Rad system.

The Swedish project leader (PL) should in general belong to the Project coordinator, the Sweden-based lead organization responsible to Vinnova for the project, and has to be authorized to submit the application to Vinnova.

### **3.6. Budget**

JST and Vinnova plan to support the international academia-industry research teams with the counterpart country. **JST will provide support to the Japanese academia–industry team, and Vinnova will support the Swedish academia–industry team.**

An overview of the entire funding scheme is found in the table on page 18 in the Annex.  
For this Phase 1 call the following budgets apply:

#### **JST**

- Up to 13 million Japanese yen per project (including 30% overhead expenses) : approximately 6.5 million Japanese yen per project per year

#### **Vinnova**

- Up to 2 million Swedish Krona per project (including overhead expenses under Vinnova's standard terms)
- 12 million Swedish Krona in total budget

### **3.7. Number of Adopted Projects**

It is anticipated that up to 6 joint projects will be funded in this call (dependent on the number and quality of proposals submitted).

### **3.8. Funding Period**

The funding period (duration of the project) shall be a minimum of 24 and a maximum of 27 months. Projects are expected to start no later than the end of January in 2017.

## 4. Proposal evaluation

### 4.1. Formal requirements

JST and Vinnova will check the eligibility of all submitted proposals taking into consideration the general requirements as below and the individual national/regional criteria respectively. Only proposals which fulfil the formal requirement will be subject to evaluation.

- The project is to be conducted over a period of min. 24 and max. 27 months (Phase 1).
- The project consortium must consist of a Japanese academia-industry team and a Swedish academia-industry team. It is required that each team has at least one company and one research performing organization (i.e. university or research institute) in each country. Additional partner(s) can be included.
- The Japan based project leader (PL) and the Sweden based project leader (PL) shall submit a common identical application form (English version) to both JST and VINNOVA in parallel using an Application Forms provided by JST and Vinnova.
- The proposal has the requested information, format, length and layout of the proposal as designated by the Application Forms
- Eligibility of all project partners (national rules applied by JST and Vinnova respectively)
- Proposals with their primary focus on medical research, e.g. medicine, drug development or study of disease and (medical) treatment are not eligible for project funding.

### 4.2. Evaluation process

A committee consisting of experts selected by JST and Vinnova will evaluate all proposals. Based on the results of the evaluation, JST and Vinnova will make a joint decision regarding funding of the selected proposals.

### 4.3. Evaluation criteria

The in-depth for the evaluation criteria and their use is described in the Annex to this text.

*Based on the image of aging societies expressed by the applicants, the proposed solution (equipment, services and community designs) is evaluated in view of following items.*

#### I-1. Potential of Proposed Objective

- a. Validity of the project's vision for Aging Society
- b. Validity of the description of challenges and unmet needs of Aging Society to be addressed
- c. Potential of the proposed innovation for society, economy and life

#### I-2. Appropriateness and feasibility of the proposal: Overall plan to reach the objectives and putting the proposed solutions to practical use

- a. Soundness of the proposed over-all objective of the project
- b. Appropriateness of the project's research/development processes i.e. what the proposed project aims to develop and the ways to carry out the activities in order to realize the project's objective.
- c. Validity of the assessment of risk and obstacles: In order to achieve the goal, what measures will be carried out to overcome the risk and obstacles.

- I-3.** Validity of the description of intended status for the solution at the end of Phase 2 (project's outcome after 2+3 years)

*The proposed solutions (equipment, services and community designs) should be available in actual aging social environments at the end of Phase 1. In order to accomplish this, the proposal should explain its approaches in Phase 1 to develop the proposed solutions.*

- II-1.** Validity of the intended status for the solution at the end of Phase 1 (project outcome after 2 years)

- II-2.** Validity of the current status of the proposed solution to enable further development within the project and reach the objectives (baseline, at time of application)

- II-3.** Appropriateness of the plans for implementation of Phase 1 (e.g. activities proposed for verification and/or improvement of the proposed solution)

- II-4.** Appropriateness of the plans for implementation of Phase 2: i.e. to be able to clarify the difference in level of development between the solution's status at the end of Phase 1 and Phase 2; as well as the steps needed for the project to accommodate them.

*The proposed International Team Formation is evaluated by the following viewpoints.*

- III-1.** Value of the international project

- a. Potential of the international cooperation and academy-industry to provide added value to the solution and to the partners
- b. Potential to build long-term networks in the thematic field between the two countries

- III-2.** Appropriateness and capabilities of the respective national team and relevant synergy of the international team to achieve the intended objective.

- a. Relevant competencies, facilities and other physical resources available to the project
- b. Relevant additional financial resources available to support the project
- c. Appropriateness of approach to formation of the international team, including plan for exchange of staff

- III-3.** Capabilities in leadership required for the management of the project and the team(s)

## 5. How to apply - Format and Content of Proposals

For both sides, a joint project descriptions should be written in English using the Application forms provided by JST and Vinnova. To prevent duplication of effort, both sides' project leaders (PLs) are required to jointly prepare and submit the English version application form to both JST and Vinnova. This form should be identical both for Japan and for Sweden

The proposal submission procedure to JST and to Vinnova, respectively, for the Japan and Sweden-based applicants differs. This reflects the different procedures of both the funding organizations and applicants between the two countries.

The Japan based project leaders must submit their application forms to JST through the service described in sections 9.2. (JST).

The Swedish based project leaders submit their applications to Vinnova through the service described in sections 10.2. (Vinnova).

Applicants to this call for proposals should submit their applications by October 11th, 2016.

**NOTE:** The applicants must use the provided Applications Forms and follow the headings and the instructions. Proposals not using the Application Forms according to instructions may be considered not eligible and therefore to be rejected.

The Application Forms consist of following headings:

- Cover: Project title, Thematic area, Keywords, Name and institution of project leaders
- Form-1E: Outline of Japanese Academia-Industry Team and Swedish Academia-Industry Team
- Form-2E: Summary of the project and illustrations to understand it
- Form-3E: Proposal corresponding to the items in 4.3.:objective, plan, solutions and team formation
- Form-4E: Research infrastructures for the project, relevant resources and assets (e.g. IPR)
- Form-5E: Budget plan for the project
- Form-6E: Curriculum Vitae of project leaders
- Form-7E: Participants in the Japanese/Swedish Academia-Industry Team  
For applicants in Japan, "Form 1J" in Japanese should also be submitted to JST.

**CV** with relevant professional information for:

- Main academic representative(s)
- Main company business representative(s)
- Main representative(s) of other participants, if applicable (public sector, NGO, etcetera)

The CV annex should not exceed 1 pages per individual (10-point Arial) and no more than 6 pages in total. Other participants are to be listed at the place indicated in the Applications Forms.

## 6. Agreement between project partners

All project participants' organizations should enter into a Collaborative Research Agreement, and specify at least how rights to foreground and background information, Intellectual Property, commitments of the partners, and confidentiality will be handled.

This Agreement will need to be signed among the project participants in the start-up phase of the project. JST and Vinnova will have different administrative routines regarding the Agreement and which are described in sections 9. 3 and 9. 4 .1(JST) and 10. 4 .1. (Vinnova).The Agreement shall be consistent with JST's and Vinnova's terms and conditions for grants, respectively.

Please summarize the outline of the process to develop such agreement between the Japanese academia–industry team, and the Swedish academia–industry team in the Application Form.

## 7. Joint reporting and evaluation of Phase 1

All funded projects in Phase 1 will be subject to evaluation around 24 months after the start, aiming both at reviewing the achievements during Phase1 and assessing the feasibility and quality of the proposed Phase 2 project. Before the end of Phase 1, the Japan based project leader (PL) and the Sweden based project leader (PL) shall promptly submit to JST and Vinnova a joint report according to instructions given by the funding agencies. The report shall include a financial report,

description of the research activities, results and prospective and planned activities for a tentative Phase 2. Other specific items for reporting may be added in the instructions.  
A panel of experts from JST side and Vinnova side will conduct the evaluation and make recommendations. JST and Vinnova will then jointly decide whom to be invited to Phase 2. Details on the process will be given later and only to the funded Phase 1 projects.

## 8. Timetable (common dates)

- Opening of call July 15, 2016
- Closing of call October 11, 2016
- Approx. date for decision before the end of December, 2016
- Approx. date of project start January 2017

## 9. For Japanese Applicants

### 9.1. Funded Expenses for Cooperative Research Projects

#### (1) Expenses for research exchanges

##### a) Travel expenses

JST will provide travel expenses only for the Japanese academia-industry team, according to their terms and conditions.

##### b) Expenses for holding meetings, seminars and symposia

#### (2) Expenses for research activities

##### a) Expenses for facilities, equipment and consumables

##### b) Expenses for personnel

Stipend for a PhD student, or stipend or salary for a post-doctoral fellow

The cost of accident insurance and travel insurance are not covered.

##### c) Others

Expenses for creating software, renting or leasing equipment, transporting equipment etc.

#### (3) Overhead expenses

Overhead expenses should be, in principle, 30% of direct expenses shown in (1) and (2).

Overhead expenses should be provided for within the total budget.

#### (4) Expenses not covered/funded in the Program

The expenses stated below shall not be covered under this Program:

##### a) Expenses related to acquiring real estate or constructing buildings or other facilities

##### b) Expenses related to procurement of major equipment

##### c) Expenses related to dealing with accidents or disasters which occur during cooperative research periods

##### d) Other expenses unrelated to implementation of this cooperative research project

## 9.2. How to apply

The Japan based project leader (PL) must apply and send their application forms to JST through e

· Rad:

<http://www.e-rad.go.jp/jigyolist/present/index.html>

Guidance and Application Forms can be found at

[http://www.jst.go.jp/sicp/announce\\_sw\\_Vinnova1st.html](http://www.jst.go.jp/sicp/announce_sw_Vinnova1st.html)

The deadline for submission by Japanese applicants is **17:00** (Japanese Standard Time) on **October 11th, 2016**.

## **9.3. Conclusion of funding contracts**

Financial support will be implemented according to research contracts concluded between JST and universities, research institutes and private companies, etc. (hereinafter referred to as the “institutions”) with which the Japan-based project leader (PL) and co-project leaders (coPLs) are affiliated. JST's support will be implemented according to a multiple-year contract for the commissioned research entered into between JST and the institutions.

The contract between the Japanese institution and JST will stipulate that Article 19 of the Industrial Technology Enhancement ACT (Japanese version of the Bayh-Dole Act) and Article 25 of the ACT on Promotion of Creation, Protection and Exploitation of Content (tentative translation) shall be applied to all intellectual property rights (patents, utility model or design rights, rights to programs, databases and other intangible property and know-how, and so on) generated as a result of this project, and that these can be the property of the institution with which the Japan based PL is affiliated.

## **9.4. After the Project has been approved for funding**

### **9.4.1. Conclusion of Project agreement**

All project participants' organizations should enter into a Collaborative Research Agreement as described in 6. This Agreement will need to be signed among the project participants in the start-up phase of the project. In order to check the status of the agreement, JST will request to access the document, the signature or the original copy of the agreement which shall therefore be kept by the Japan based project leader for this purpose.

### **9.4.2. Follow-up and reporting**

At the end of each fiscal year, the Japan based project leader (PL) shall promptly submit to JST an annual report on the progress of the research collaboration, and the institution with which the PL is affiliated shall promptly submit a financial report to JST.

## **10. For Swedish Applicants**

The Swedish side applicants submit the proposals to Vinnova. The following information is therefore mainly relevant to them.

### **10.1. Terms and Conditions for Vinnova funding**

Details on budgets and costs, as well as examples on calculations can be found at [www.vinnova.se](http://www.vinnova.se), under “Att ansöka och rapportera”/”For applicants”.

Grants issued to businesses and other organizations that conduct commercial activities are provided in accordance with the Regulation on State Aid for Research and Development and Innovation (SFS 2015:208), under which Vinnova provides grants covering a certain percentage of recipients' eligible costs.

The basis for project funding of Swedish participants is found in Vinnova's General Terms and Conditions for Grants, as applicable on the date of decision. The General Terms and Conditions contain rules concerning project agreements, reporting, follow-up, auditing, conditions for payment and more.

In addition to the General Terms and Conditions, Specific Terms and Conditions may be applied. For this call and program, the following Specific Terms and Conditions applies:

- No later than at the time of the first progress report to Vinnova, the Swedish coordinator/project leader must be able to present a consortium agreement (referred to as a “project agreement” in the General Terms and Conditions) signed by all project partners.
- The form “Participant’s approval” only applies to project partners on the Swedish side, once decision on funding of the project has been made.  
Additional specific terms and conditions may also be imposed. Any such terms and conditions will be specified by VINNOVA in its decision.

## 10.2. How to apply

Applications are to be submitted electronically via the application service contained within VINNOVA's e-Services Portal “Intressentportalen” accessible at [www.vinnova.se](http://www.vinnova.se). To be able to submit an application, a Vinnova user account is needed. A person who submit application must be authorized to do so on behalf of the applying organization.

Note that applications must be submitted no later than 14:00:00 CET on the last day of the application period. After this time, the system closes the application submission process and it is no longer possible to submit applications to Vinnova. No supplements to the application may then be submitted unless Vinnova requests such.

**CV annex (“CV-bilaga”)** with relevant professional information is also requested by the application submission system (“Intressentportalen”). The annex may contain other relevant professional information for the Swedish team members than is presented in Application Forms, and should not exceed 8 pages in total. If no additional information is to be given, a document referring to the CV in the application forms needs to be uploaded in order to allow for submission.

## 10.3. Confidentiality

Applications related to this program/call for proposals are public documents. As a rule, in accordance with the principle of public access to official records, the public has the right to access these documents. This also applies to applications that are rejected or withdrawn. Vinnova's decisions and the reasons for its decisions are also public information.

However, Vinnova is required by law to keep confidential all information about an individual's business and operating circumstances, inventions, and research results, if it can be assumed that the individual will suffer financial loss if the information is made public.

More detailed information about what confidentiality rules apply to applications can be found on the Vinnova website.

## 10.4. After the Project has been approved for funding

### 10.4.1. Conclusion of Project agreement

The project participants shall have entered into the Project Agreement no later than the date when the first progress report (lägesrapport) is due, see Specific Terms and Conditions above. Vinnova

does not require that a copy has to be submitted to the Agency. However, Vinnova may at any time request to access the document and the original of the agreement shall therefore be kept by the Swedish coordinator for this purpose.

#### **10.4.2. Follow-up and reporting**

Except for the Joint Report described in Section 7 of this document the reporting and follow-up shall be made in accordance with VINNOVA's decision and instructions.

Participants shall also after the end of the project provide information in accordance with Vinnova's instructions and requests. Such information will not be requested more than three times within ten (10) years from the final report.

**Japan - Sweden Academia-Industry  
International Collaboration Program on  
Innovative Solutions, Community  
Design and Services  
for Elderly People**

**ANNEX**  
**to**  
**Call for proposals**

## A1. Objectives of the Program

The long-term and over all aim of this program is to establish a new international academia-industry research and innovation collaboration framework between Japan and Sweden based on ongoing cooperation in each respective country in order to jointly develop innovative and world-class solutions for the support of elderly people's independent and active lives and social participation, enabling the raise of standards in community and for personal life. The joint project will test the innovativeness and usefulness of the proposed solutions, and will measure their practicality in actual aging social environments.

This will be accomplished by combination of technologies, knowledge and know-how of firms, researchers and other stakeholders in Japan and in Sweden. Here, research organizations include both universities and research institutes. Industry refers to business enterprises in both manufacturing and service domains. It is also recognized that in many cases it will be necessary to involve the public sector as a key stakeholder in the projects. The public sector possess competences as a user and provider of technologies and services in the selected fields of the program, and can often provide input on the social context for a solution. Other public functions such as regulatory agencies may influence the possibilities to introduce solutions to the market. The "value chain" or "value network" perspective is therefore believed to be important in setting up and managing the cooperation.

Through this initiative, the joint project will also aim to verify how the envisioned solutions are functioning in the different social models in Japan and Sweden. By comparing each model's requirements with the solutions' characteristics, along with analyzing their usefulness, the outcomes are expected to branch out into other social models and create business opportunities.

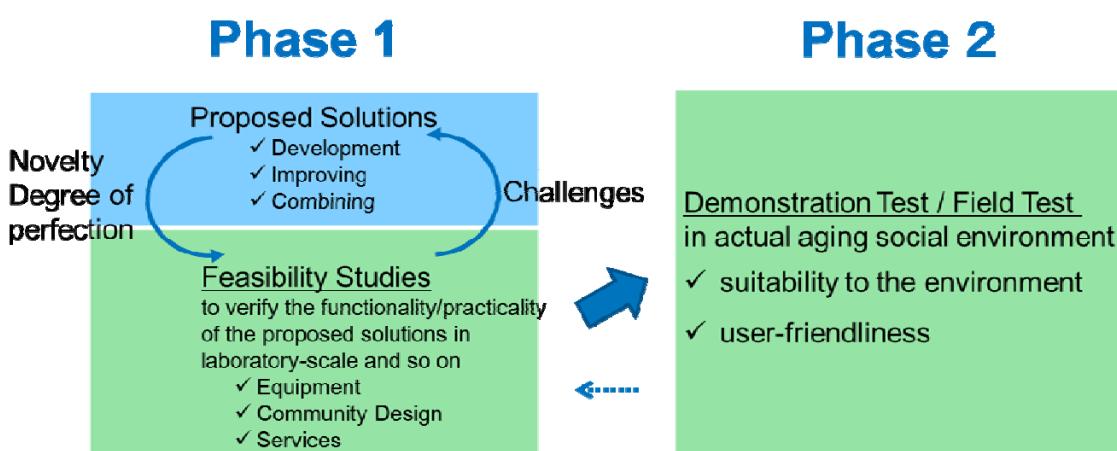
For the Program to have the intended effects, the following aspects are thought to be important and deserve special attention in the design of Program activities:

- The activity should exploit complementarities between already existing capabilities (technology, knowledge, organization, social policies and systems, industrial management systems and regulatory systems etc.) in Japan and Sweden. It is thus important that the cooperative projects build on well-funded and on-going research and innovation cooperation in the respective country.
- The activity should apply an integrated approach which includes bringing in various view points and allowing appropriate flexibility during the research and development process.
- In implementing the collaboration, the projects should demonstrate the feasibility and evaluate the merits of the concepts and specifications of their solutions, and obtain feedback from stakeholders using appropriate models and facilities, for example "Test Beds" operating in actual care or support situations.
- Solutions which are found to be applicable in both Japan and Sweden can be expected to have a good chance to compete on the global markets. Partnerships created or strengthened through the Program should therefore recognize the potential for addressing the global needs and not only markets in the two countries.
- It is important to understand the differences between Sweden and Japan in societal conditions and solutions for addressing the challenges posed by an aging society. The exchange and placement of researchers and other staffs for short or long term in the partner country is thus essential.

- The aim is that the links created or strengthened through the Program shall be strong enough to be maintained also after the Program has ended. Mobility of researchers and other staff for shorter or longer stay in the partner country is thought to be important for this to be realized and should therefore be promoted both within collaboration projects and through other support actions.

## A2. Structure and Instruments of the Program

The program is divided into two main parts - Phase 1 and Phase 2. The rationale for having a two-phase structure of the program is to lower the risk that projects will not reach the desired goals and to enable demonstration of the most promising solutions. In early stages of research and innovation activities, the chance of successfully completing the projects is lower. By giving a larger group of projects the opportunity to perform a feasibility study and continue a second stage funding at a significantly higher level for the most successful ones, the chance of delivering significant results in the form of innovations is increased.



Structure of the Program consisting of Phase 1 and Phase 2

### A2.1. Phase 1

- The aim of Phase 1 is for the joint project consisting of one Japanese academia–industry team and one Swedish academia–industry team to deepen the cooperation and develop and/or combine solutions in each respective country in order to propose and verify the innovativeness and effectiveness of new equipment, services and community designs. The outcomes should include a completed feasibility study to verify the functionality/practicality of the proposed solutions within the limitations of laboratory-scale, limited facilities, and/or small user participation in preparation for the field test (at Phase 2).
- The following two types of actors/stakeholders are to be involved on both sides:
  - ✓ Private business(s) with relevant and business activities
  - ✓ Research performing organization(s); academia, research institute or similar status and which has relevant and high-level research in the areas

In addition to the above required partners, the inclusion of the user-side in the consortia is often important. Such partners could be, but is not limited to, an organization which has the capacity to understand needs and support testing of the proposed solutions (e.g. “test bed”, nursing or supportive organization with relevant expertise, or similar)

The most successful projects after the first funding period of Phase1 may be invited to a second phase funding. JST and Vinnova will evaluate the each joint project around 2 years after the beginning of Phase 1, and jointly select the successful projects to be invited to apply for Phase 2 funding.

## A2.2. Phase 2

- The aim of Phase 2 is for the joint project to demonstrate the functionality/practicality of the proposed equipment, service and community design solutions in actual aging social environments. In order to implement the demonstration test, the joint project should include other stakeholders: public sectors, municipality, NGOs and users who will use the solutions.
- The following two types of actors/stakeholders are to be involved on both sides:
  - ✓ Private business(s) with relevant and business activities
  - ✓ Research performing organization(s); academia, research institute or similar status and which has relevant and high-level research in the areas
  - ✓ An organization which has the capacity to analyze needs and devise testing of solutions being developed in the project (i.e. "test bed")

Project Type	Phase 1	Phase 2 (by invitation only)
Eligible Applicants (2x2)	Japanese-side: <ul style="list-style-type: none"> <li>Joint applications from academia and industry.</li> <li>Participation of the user-side is possible and if feasible recommended. Details are described in the call text.</li> <li>A Japan based project leader (PL) should submit the application to JST</li> </ul>	Japanese-side: <ul style="list-style-type: none"> <li>Joint applications from academia, industry and other stakeholders, for example user-side. Details are described in the main call for proposal text and in further instructions given at a later stage.</li> <li>A Japan based project leader (PL) should submit the final report of the Phase 1 project to JST</li> </ul>
	Swedish side; <ul style="list-style-type: none"> <li>Joint applications from academia and industry</li> <li>Participation of the user-side is possible and if feasible recommended. Details are described in the call text.</li> <li>A Sweden based project leader (PL) should submit the application to Vinnova</li> </ul>	Swedish side; <ul style="list-style-type: none"> <li>Joint applications from academia, industry and other stakeholders, for example user-side. Details are described in the main call for proposal text and in further instructions given at a later stage.</li> <li>A Sweden based project leader (PL) should submit the final report of the Phase 1 project to Vinnova</li> </ul>
Funding Period	January 2017 to March 2019 min. 24 and max. 27 months	April 2019 to March 2022 36 months
Budget for Call for Proposals and Projects	Japanese-side; <ul style="list-style-type: none"> <li>The maximum funding to <u>one project</u> should not exceed <u>13 million Japanese yen including 30% overhead expenses</u></li> <li>JST provides support to the Japanese research teams.</li> </ul>	Japanese-side; <ul style="list-style-type: none"> <li>The maximum funding to <u>one project</u> should not exceed <u>90 million Japanese yen including 30% overhead expenses</u></li> <li>JST provides support to the Japanese research teams.</li> </ul>
	Swedish-side; <ul style="list-style-type: none"> <li>VINNOVA's maximum total funding of phase 1 is <u>12 million SEK</u></li> <li>The maximum funding to <u>one project</u> should not exceed <u>2 million Swedish Krona</u>, including overhead expenses, over the project period</li> <li>VINNOVA provides support to the Swedish side participants</li> </ul>	Swedish-side; <ul style="list-style-type: none"> <li>VINNOVA's maximum total funding of phase 2 is <u>13 million SEK</u></li> <li>The maximum funding to <u>one project</u> should not exceed <u>6.5 million SEK</u>, including overhead expenses, over the project period.</li> <li>VINNOVA provides support to the Swedish side participants</li> </ul>
Number of Adopted Projects	Up to 6	Up to 2 (only if JST and VINNOVA find suitable projects from Phase 1)

### A3. Evaluation Criteria/Guidelines, Instructions for Proposals for Phase 1 apply

Based on the following Evaluation Criteria/Guidelines, committees consisting of experts selected by JST and Vinnova will evaluate all proposals for Phase 1 projects.

- I. Based on the image of aging societies expressed by the applicants, the proposed solution (equipment, services and community designs) is evaluated in view of following items.

#### I-1. Potential of Proposed Objective

- a. Validity of the project's vision for Aging Society
- b. Validity of the description of challenges and unmet needs of Aging Society to be addressed
- c. Potential of the proposed innovation for society, economy and life

##### Evaluation Criteria:

- The proposal should set "the Target Year" when the proposed solutions are supposed to be put to the practical use. The proposal also should explain the aging society situations which the proposal does "NOT apply" to in that year.
- The proposal should show the project's challenges and the reasons why they are chosen for the society's situation in the Target Year.
- Concrete ideas must be expressed: what will the project devise? What kind of innovations will be realized (e.g. innovations enabling the rise of standards in community and private life)?

##### Notes:

The above descriptions reflect the principle of the proposed project. For instance, a comparison of the current state of the specific issue of aging society to be addressed with what is expected to be improved by the proposed project, and can show the effectiveness of the project. Stating which of the many challenges should be focused on can make the proposed objective clearer.

#### I-2. Appropriateness and feasibility of the proposal: Overall plan to reach the objectives and putting the proposed solutions to practical use

- a. Soundness of the proposed over-all objective of the project
- b. Appropriateness of the project's research/development processes i.e. what the proposed project aims to develop and the ways to carry out the activities in order to realize the project's objective.
- c. Validity of the assessment of risk and obstacles: In order to achieve the goal (a), what measures will be carried out to overcome the risk and obstacles.

##### Evaluation Criteria:

- The proposal should show what solutions the proposed project will develop (a)
- The proposal should explain requirements (b) to accomplish the proposed projects (a), and to carry out the measures to overcome the obstacles (c). It's also required to show how the best approach (b) is chosen to realize the proposed solutions.
- The proposal should foresee issues and obstacles (external environment, internal affairs), during the approach of the proposed project (b). Appropriate measures must be taken in advance.

##### Notes:

Appropriately explaining the above issues will contribute to not only the efficient and smooth

implementation of the proposed project, but also let applicants and funding agencies, e.g. JST and Vinnova, understand project structure and management more readily. These descriptions will be considered during the project's execution, and possible extension, thus having significance in assessing development status over time / in the future. The proposal therefore should explain clearly what solutions (a) the proposed project will develop to realize the proposed innovations in I-1c, in view of the risk and obstacles described in (c).

Except for unexpected obstacles, the proposal is required to take measures (c) for obstacles which occur during the project, i.e. to minimize all unexpected risks and obstacles.

I-3. Validity of the description of intended status for the solution at the end of Phase 2 (project's outcome after 2+3 years)

Evaluation Criteria:

- The proposal should describe the status of the proposed solution achieved at the end of Phase 2, divided into either "Schedule X" or "Schedule Y" as described below:
  - Schedule X: solutions can be applied to / implemented in the aging societies immediately after the end of Phase 2
  - Schedule Y: solutions can be applied to the societies after further development from the end of Phase 2.
- In the case of "Schedule X", the proposal should explain the business model: e.g. the products provided to the market, form of service, outline of specifications the financial resources from the public and private companies.
- In the case of "Schedule Y", the proposal should explain the required approaches and funding from the end of Phase 2 to the Target Year of implementation described in I-1a, in addition to the above "Schedule X" and the business model in the Target Year.

Notes:

The project will immediately deploy the proposed solutions in the aging societies in the case of "Schedule X". The project is therefore required to make sure of its application to societies and the economic potential.

The project belonging to "Schedule Y" should show its additional approaches from the end of Phase 2 to use in practice, in addition to the above "Schedule X".

II. The proposed solutions (equipment, services and community designs) should be available in actual aging social environments at the end of Phase 1. In order to accomplish this, the proposal should explain its approaches in Phase 1 to develop the proposed solutions.

II-1. Validity of the intended status for the solution at the end of Phase 1 (project outcome after 2 years)

Evaluation Criteria:

- The proposal should describe concretely the status of the proposed solution achieved at the end of Phase 1.

Notes:

The goal of Phase 1 is determined from Phase 2's goal (I-3) and the approaches used, so it is necessary to describe them in view of the project's whole schedule.

**II -2. Validity of the current status of the proposed solution to enable further development within the project and reach the objectives (baseline, at time of application)**

Evaluation Criteria:

- The proposal should describe the proposed solution at the beginning of Phase 1. It is desirable to concretely explain the situation: functionality of the proposed equipment or services, suitability to user environment etc.

Notes:

The above descriptions are important for implementing the progress management of the proposed project, and should be referred to during Phase 1 and 2. The proposal should grasp the solution's current status in relation to the status in the "Target Year" when the proposed solutions are supposed to be put to practical use, (not dependent on "Schedule X" or "Schedule Y" in I-3).

It is required to appropriately choose necessary and sufficient elements for the development of the proposed solution, which should focus on the proposed project. In order to set them, the proposal should determine all elements which make the project a success, e.g. specifications, introductory cost to the market, degree of user skill, and social acceptability.

**II-3. Appropriateness of the plans for implementation of Phase 1  
(e.g. activities proposed for verification and/or improvement of the proposed solution)**

Evaluation Criteria:

- The proposal should explain the contents of Phase 1, which are required for the project to develop the proposed solution
- It is also required to show concrete approaches and desired outcomes of the elements which are focused as the most important ones described in II-2

Notes:

The proposal should explain what the project will have to implement in Phase 1, comparing the status of the solution at the end of Phase 1 described in II-1, and the current status described in II-2.

**II-4. Appropriateness of the plans for implementation of Phase 2: i.e. to be able to clarify the difference in level of development between the solution's status at the end of Phase 1 and Phase 2; as well as the steps needed for the project to accommodate them.**

Evaluation Criteria:

- The proposal should explain the tentative contents of Phase 2
- The proposal should also address which possible additional partners (competencies, facilities, resources, and etcetera) are expected to be needed for the Phase 2 project

Notes:

The proposal should explain the tentative contents of a Phase 2 project, i.e. what the project will have to implement in Phase 2, comparing the status of the solution at the end of Phase 2 described in I-3 with that of the end of Phase 1 described in II-1.

In the case of "Schedule X", it is required for this explanation to consider the readiness to putting it on the market. The proposal should therefore consider the practical use adapted to the aging societies in order to describe above.

In the case of “Schedule Y”, practical use as described above and additional approaches from the end of Phase 2 to the practical use will also have to be considered.

### III. The proposed International Team Formation is evaluated by the following viewpoints.

#### III-1. Value of the international project

- a. Potential of the international cooperation and academy-industry to provide added value to the solution and to the partners
- b. Potential to build long-term networks in the thematic field between the two countries

##### Evaluation Criteria:

- This program has two major characteristics: international cooperation and academia-industry collaboration. The proposal should explain how it will benefit through two major characteristics of this funding scheme: Japan-Sweden international research collaboration, academia-industry cooperation

##### Notes:

International cooperation and the involvement of multiple organizations require efforts in order to get their consensus. Therefore the project requires generating the appropriate value in the organizations. From this view point, applicants are required to explain why the planned outcomes require the international cooperation especially with Sweden or Japan, and academia-industry cooperation.

#### III-2. Appropriateness and capabilities of the respective national team and relevant synergy of the international team to achieve the intended objective.

- a. Relevant competencies, facilities and other physical resources available to the project
- b. Relevant additional financial resources available to support the project
- c. Appropriateness of approach to formation of the international team, including plan for exchange of staff

##### Evaluation Criteria:

- This program requires that the project will achieve the objective and benefit through international and academia-industry cooperation. The international team formation is required to realize the above aims.
- In view of the above points, the proposal should explain why the proposed international team formation is ideal for the project.

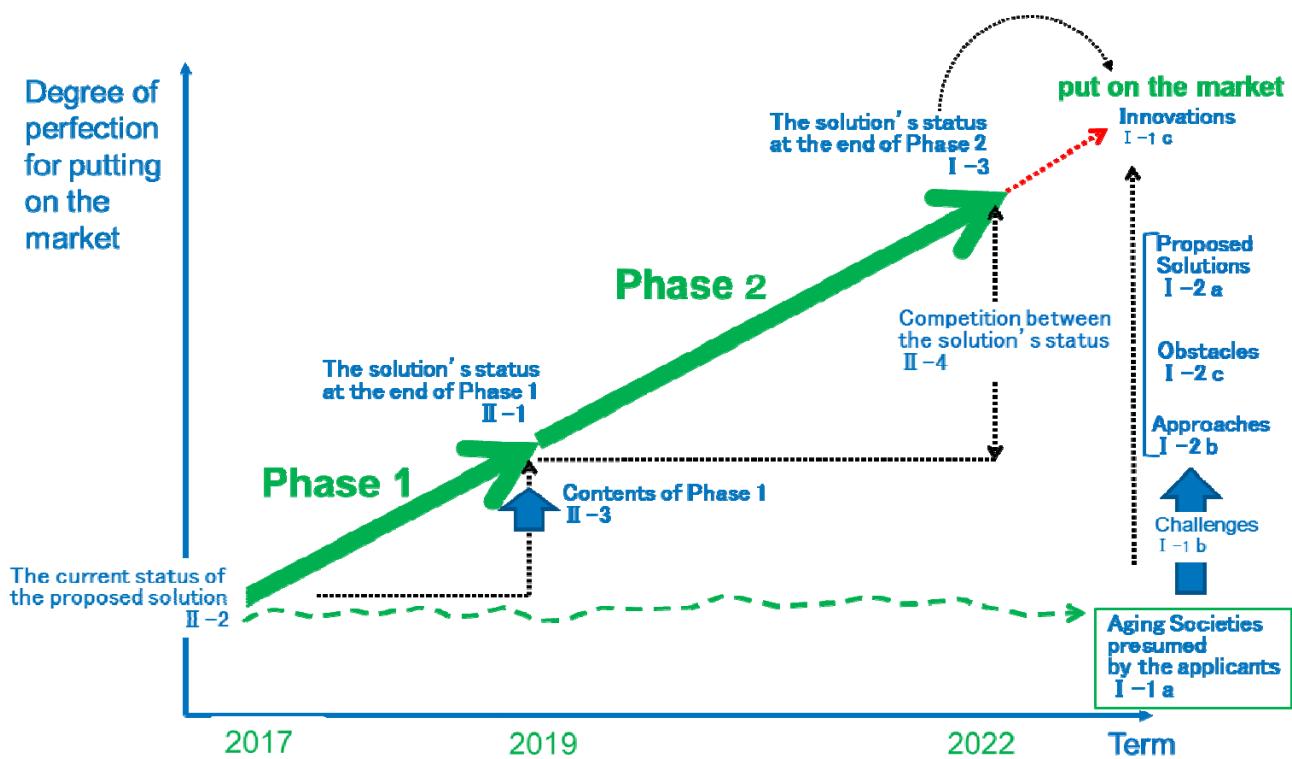
#### III-3. Capabilities in leadership required for the management of the project and the team(s)

##### Evaluation Criteria:

- The proposal should consider what kind of leadership is required for project management considering its objective, the added benefits and team formation. After stating the requirements for project leaders to implement the project, the proposal should show whether the proposed project leader fulfil them.

##### Notes:

The proposal should enumerate the requirements (A) that project leaders should fulfil, and compare the proposed project leader's skill with above requirements (A) in order to demonstrate the leader's qualifications.



Schematic viewpoints of Evaluation Criteria/Guidelines

#### A4. Evaluation of the Phase 1 projects

JST and Vinnova will evaluate each joint project around 2 years after the start of Phase 1, based on the project model shown in the figure above. The following points are examples used for the review in order to select the Phase 1 projects which will be invited for Phase 2 funding. Specific evaluation criteria will be developed and presented to the funded Phase 1 projects.

- Review of the project's objective: project's vision for aging society, proposed challenges and its innovation. Evolution of the objective during Phase 1. Review of the overall plan (I-2.a, b and c in the initial proposal) and how the project has progressed to reach the objectives towards having the proposed solutions in practical use
- Validity of the description of intended status for the solution at the end of Phase 2 (project's outcome after 3 years): Progress from the initial proposal to the current plan.
- Validity of the status for the solution at the end of Phase 1 (project outcome after 2 years) compared to at the beginning of Phase 1 (baseline, at time of application)
- Review the execution of the plans for implementation of Phase 1 (e.g. activities proposed for verification and/or improvement of the proposed solution)
- Assessment of the plans for implementation of Phase 2: i.e. to be able to clarify the difference in level of development between the solution's status at the end of Phase 1 and Phase 2; as well as the steps needed for the project to accommodate them. Progress from the initial proposal to the current plan.

- The value of the international cooperation for Phase 1 outcome and the potential in Phase 2
- Review of the appropriateness and capabilities of the respective national team and relevant synergy of the international team to achieve the intended objective to successfully complete Phase 2.
- Review of the management system and leadership in Phase 1, and the capabilities required for management of the project and the team(s) in Phase 2

Japanese applicants should contact the following for further information:

For Additional information: See (Annex) Additional Requirements for Japanese-side Researchers  
(only in Japanese)



Dr. Daiji Naka (Mr.), Izumi Tsune (Ms.)  
Department of International Affairs  
Japan Science and Technology Agency  
Tel. +81(0)3-5214-7375 Fax +81(0)3-5214-7379  
Email: [joints@jst.go.jp](mailto:joints@jst.go.jp)

Swedish applicants should contact the following for further information:



Dr. Henrik Fridén  
Program Manager  
International Division  
Vinnova – Swedish Governmental Agency for Innovation Systems  
Tel: +46 (0)8-473 31 54  
E-mail: [henrik.friden@vinnova.se](mailto:henrik.friden@vinnova.se)

Mr. Mårten Berg  
Program Manager  
Health Division  
Vinnova – Swedish Governmental Agency for Innovation Systems  
Tel: +46 (0)8-473 31 97  
E-Mail: [marten.berg@vinnova.se](mailto:marten.berg@vinnova.se)