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The Smart Built Environment Strategic Innovation Programme calls for proposals

Incentives, business models and risks

Smart Built Environment is part of **Vinnova, the Swedish Energy Agency and Formas**' joint strategic innovation programme initiative. The purpose of the venture is to create conditions for international competitiveness as well as to find sustainable solutions to global challenges for societies.

For more information on the programme, see www.smartbuilt.se



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Revision history

If the call for proposals has changed after publication, changes are listed here.

Date	Change
24/04/2018	Contact person regarding application forms, the assessment process and state aid
24/04/2018	Date of decision

1 Summary

The planning and building sector is rapidly undergoing a digital transformation. Intensive efforts are under way to develop standards, tools and processes and to test solutions on a smaller or larger scale. New value chains as well as new roles and new services will be developed as a result.

Today, we have a great need to assess impact on climate and health, create safe environments and increase resource efficiency, while at the same time ensuring a good working environment for everyone involved in the process. The digitisation of the societal structure gives brand new opportunities for more complex analyses and for making decisions within the process based on more parameters. It is important that there are developments in all parts of the planning and building process. The digitisation of the whole process is currently inhibited by the fact that those involved are only responsible for (relatively) small partial deliveries within the process, which can mean that they only digitise their own little part. This only creates smaller improvements instead of the disruptive effects required for a digital transformation. Incentives are needed to change the entire process together and benefit from the opportunities offered by digitisation. One example is the demand for intelligent models that quickly provide the information requested.

New offers will likely require new business models to emerge. The intelligent model, which can provide 10 or 100 times more information than a drawing, requires a different business model than the drawing. New actors contribute technology and knowledge, which may lead to the emergence of new roles, the disappearance of old ones or that suppliers switch places in the value chain. This means major changes in a well-structured process with deep-rooted roles and responsibilities, which can lead to new challenges and risks. If, for example, important competencies are lost, will there then be a gap in terms of responsibility in the new structure?

This open call is intended to find incentives for change, new business models and risks linked to digitisation of the planning and building sector. The open call is aimed at companies, the public sector, universities and higher education institutions. At least one project partner shall come from the business sector *or* the public sector.

The total programme budget for this call is approximately SEK 8 million in project grants, provided that there is co-financing from the applying organisations of at least 50% of the projects' total costs. We welcome proposals from projects seeking SEK 250,000–1,500,000 in project grants. Projects may begin on 01/07/2018 and last no longer than until 31/12/2019.

The following dates apply to the call for proposals:

Please note that the dates are preliminary. For up-to-date information, go to the [call's website](#).

Call opening	9 March 2018
Application deadline	3 May 2018 at 14:00
Decision by	27 June 2018 (approximately)
Earliest project start	1 July 2018

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2 Goals of the open call

The digital transformation entails great changes for the actors of the planning and building sector. Digital working methods mean that new value chains are developed, which entails new roles and services for both public and private actors. Incentives are needed to encourage change in which digital working methods and tools are in demand and on offer.

New business models are essential to achieve Smart Built Environment's goals of lower costs, shorter construction times and a reduced environmental impact within the planning and building sector. Another important piece of the puzzle is to create incentives for all stakeholders in the sector to deliver results that benefit the end user in terms of a life-cycle perspective by way of more integrated processes. This also means that the development of structures and new business models needs to involve all of the sector's actors.

Through this call for proposals, we wish to support projects that identify incentives for new working methods and associated business models and analyse the effects of these in the public and/or private sector. We also wish to support projects that contribute to actors in the sector being able to develop existing or new business models which both utilise new opportunities entailed by digitisation and respond to structural changes resulting from digital transformation. These business models shall benefit from and support digital and industrial processes. We are also interested in studies indicating the consequences of new business models and risks that have not yet been managed, for example when the projects are developing proposed solutions and conducting tests to verify previously developed proposals.

The projects are expected to contribute to the following:

- Identification of opportunities and risks linked to digitisation and new business models as well as suggestions for how to handle these.
- Identification of incentives for the actors in the sector and how these can be created in order to facilitate the implementation of new business models based on digital working methods.
- Knowledge of which opportunities and risks, e.g., financial, technical and competence-related, that may be entailed by altered structures.
- Proposed methods to assess new risks that arise, in order to develop and change activities and processes. How can risks be distributed among different actors?
- Identification of conditions for both public organisations and private enterprise to develop their business models and reduce the risks entailed by digital transformation.

Examples of questions that may be pertinent are:

- How can today's business models be developed to benefit from the opportunities presented by digitisation? (increased quality of information, greater possibility to assess/evaluate more parameters and make decisions based on a life-cycle perspective)
- How can new business models and digitisation push the development towards circular flows as a step in reducing negative climate impact?
- Are there business models in already digitised industries that can be applied or further developed within the planning and building sector? What incentives are required and what would such business models look like? What risks are involved? How are the roles of different actors affected?
- What business models are needed to promote an uninterrupted, correct and quality-assured information flow between the actors throughout the life cycle?
- How does the ability of digital start-up companies to relatively quickly scale up processes/technology interact with the currently rather long cycles of the existing actors in the building sector?

3 Who is the call for proposals directed to?

The open call is aimed at consortiums that include companies, the public sector, universities, colleges or research institutes. At least two partners shall be involved in the application. The project manager may come from the private or public sector, academia or research institute, but at least one of the participating partners shall be from the business sector *or* the public sector. Proposals that involve guest researchers at universities or other higher education institutions in Sweden are also eligible for this call.

The involvement of international project participants is encouraged, and they can contribute their time or other resources for the co-financing of the project. International project participants can also take part of a limited share of the grant, according to the rules of the grant administrating organisation. Participants who are professionally active outside of Sweden may not be assigned as project manager, however.

Smart Built Environment and Formas are striving for a social development including gender equality. This means that applicants should consider gender equality aspects, for example when selecting a project manager and in the composition of the project group.

4 What can be financed?

4.1 Activities for which funding can be sought

In this call for proposals, funding can be sought for the following activities:

- Studies that look at all or parts of value chains.

- Studies that analyse the needs for structural change.
- Surveys and analysis of incentives, business models and risks.
- Summaries and syntheses of change processes in other industries which can provide the basis of possible changes in the planning and building sector.
- Development of results from ongoing or finished projects, both within Smart Built Environment and in other R&D programmes.
- Studies involving guest researchers at universities and other higher education institutions in Sweden.

4.2 Project period

The project period shall be at least 6 months, and no longer than 18 months. The earliest project start date is 01/07/2018. Applications for shorter projects are also welcomed. The end date of the project shall be no later than 31/12/2019.

Project funds may be disposed of three months after the planned end date for the project. In addition, the project period may be extended due to special circumstances approved by the project manager and grant administering organisation.

After the end of the deposition period, the project manager has another month to submit economic and research feedback using a template provided by Formas. For projects longer than 12 months, Formas will also request an economic status report halfway through the project period.

5 How large a sum can be granted?

5.1 Scope of the call

For this call, Smart Built Environment has set aside programme funding of approximately SEK 8 million. We welcome project applications seeking funding of between SEK 250,000 and SEK 1,500,000.

5.2 Types of funding

Three types of funding that can be stated in the application:

1. **Grant applied for:** Indicates how much funding is applied for from Formas within the scope of the Smart Built Environment programme.
2. **Own financing:** Indicates the project partners' own contributions in the form of time, money and other resources.
3. **Other aid:** Indicates any other grants received from other financiers for the implementation of the project.

Sought grant from Formas may amount to a maximum 50% of the total project budget. If other aid from a public financier is included in the project's budget, this

aid in combination with the sought grant may amount to no more than 50% of the total project budget.

Own financing and other aid from private actors comprise the projects co-financing. This share is to make up at least 50% of the total project amount.

The project consortium may decide independently how they wish to distribute funding, costs and co-financing levels amongst themselves, as long as the project as a whole is co-financed to at least 50% and complies with the regulations on state aid (see section 5.3). A participating project partner can thus (1) only apply for a grant from Formas; (2) only contribute their own financing; or (3) apply for a grant *and* contribute their own financing.

Budget instructions are provided in section 9.3.

5.3 State aid

Companies and other organisations which have business operations and receive grants from Formas are subject to rules regarding state aid. The rules are based on the EU law principle that state aid normally skews competition, but that certain exemptions are allowed, including aid for research, development and innovation.

The aid level that can be granted by Formas depends on the size of the organisation and what type of activities will be carried out within the project. The size of the organisation is assessed with the help of EU's definition of small and medium-sized enterprises. Activities will primarily be assessed based on whether they involve industrial research, experimental development or support for process or organisation innovation.

In addition, de minimis aid, so-called negligible aid, can be a possible aid foundation. For projects where this may be relevant, Formas will ask the applicant to complete a special form once the project has been approved.

At the [Formas' website](#), you can find more information about state aid. Questions regarding state aid can be directed to the person responsible for call for proposals at Formas (see contact information, section 1).

6 Conditions for the application to be considered

To be considered for assessment in accordance with the criteria specified in 7.1, the following requirements must be met:

- The application shall be written in Swedish or in English
- The project description shall be written in the template provided on the [call's website](#) and in accordance with the instructions set out in section 9.3
- The project description may be no longer than 10 A4 pages and shall be written in a 12-point font size.
- The project partners must be legal persons.

- The applicant must be an approved grant administrating organisation at Formas, see also sections 9.1 and 9.2. Special rules apply within the scope of this call, as it is carried out within the strategic innovation programme initiative.
- At least two organisations shall participate in the project and at least one of the participating organisations shall represent the business sector or the public sector.

7 Assessment of received applications that meet the formal requirements

7.1 What is assessed?

The projects that are granted funding shall contribute to the realisation of Smart Built Environment's impact goals (see appendix 1). Applicants shall address relevant impact goals and clarify in their applications how they will contribute to attaining them.

Assessment criteria for the call for proposals "Incentives, business models and risks":

Relevance

- Is the project clearly related to Smart Build Environment's impact goals and the focus area for the programme, Business Models?
- Which impact goals have been addressed within the project?

Potential

- Is there a credible strategy for managing the results of the project?
- Are the project results innovative or significantly better than what is currently available on the market or common practice within the planning and building sector?
- Are the actors or constellations of actors new to the planning and building sector?
- What potential does the project have to contribute to increased gender equality?

Implementation

- Is the project plan for implementation and application credible?
- Is there a sufficiently detailed schedule and budget?
- How has the gender equality perspective been integrated in the project plan?

Organisation/actors

- Does the proposed organisation have the competency, resources and experience required?

- Is there a need for international establishment and, if so, how will this happen?
- How good is the composition of the team (key individuals) in terms of gender distribution and distribution of power and influence between women and men?

7.2 What is the assessment process?

Summary of the decision process:

1. The applications that meet the formal requirements (see section 5) will be assessed based on the assessment criteria by independent external examiners. This results in a ranking of the applications and a recommendation for financing.
2. Formas then makes the decision of which projects to finance.
3. The decision is announced to applicants, the management of the strategic innovation programme Smart Built Environment, and is also published on the Formas and Smart Built Environment websites.

8 Decision and terms

8.1 Formas' decision

How much each partner in the project will be granted in terms of funding is specified in the decision. Funding will be granted pursuant to the EU's General Block Exemption Regulation, GBER (Commission Regulation (EU) No 651/2014) or the Regulation on de minimis aid (Commission Regulation (EU) No1407/201). The basis of aid level is stated in the decision and also controls which costs are eligible for aid.

Formas' decision to grant or decline an application cannot be appealed.

8.2 Conditions for granted funding

Granted funding is subject to Formas' general terms and conditions for funding. These terms include provisions regarding project agreements, payment conditions, follow-up, reporting and incorporation of results.

As the call for proposals is made within the scope of the strategic innovation programme Smart Built Environment, there are also special terms and instructions that regulate reporting, follow-up and communication, etc., in relation to the programme, see <http://www.smartbuilt.se/verktyg>

If any project partner is subject to the state aid regulations, they are also subject to [Formas' special terms](#) for state aid.

Supplementary special terms may be decided for individual projects.

A party that does not comply with Formas' terms and conditions may become liable for repayment. This also applies to parties who have been erroneously granted funding or in too high an amount.

9 How to apply

9.1 Formal requirements

The main applicant must be an approved grant administrating organisation with Formas. Within the scope of the strategic innovation programmes and this call for proposals, organisations involved in financial activities may also be approved as grant administrating organisations with Formas, which is a departure from the general information on approved grant administrating organisations on the Formas website.

If this is the first time your organisation is applying, you need to first apply to be approved as a grant administrating organisation by applying for an organisation account in the Prisma application system (see section 9.2).

If you do not know whether your organisation has already been approved as a grant administrating organisation, contact the responsible research administrator at Formas (see contact information, section 1).

A maximum of six project partners can participate in each application. All project partners applying for funding shall be legal persons.

9.2 Prisma application system

In order to apply for funding, the project manager submits a digital application in the [Prisma](#) application system.

In order to submit an application, the organisation that the project manager is active in must have a user account in Prisma (organisation account). An existing user account in Prisma can be used. If the organisation does not already have a Prisma user account, a representative of the project manager's organisation shall request an organisation account from the Prisma website in good time before submitting an application. It may take a few weeks to be approved as a grant administrating organisation. If the representative of the organisation is the same person as the project manager, two different e-mail addresses should be used. In conjunction with applying for an organisation account, the representative shall

also send and e-mail to the responsible research administrator at Formas (see contact information, section 1).

The project manager also needs to have a personal account in Prisma to send the application.

9.3 Content of the application

The application shall be written in Swedish or in English.

The following information is requested in the application. All parts are compulsory, with the exception of the list of references.

- **Basic information:**
 - *Number of months:* This number may not exceed 18 months.
 - *Starting month:* The date 01/07/2018 has been preselected in Prisma and cannot be changed. If you wish to use a different starting date, this date must be clearly stated in the “Project description” section.
 - *Estimated project period:* The project period is automatically calculated in Prisma based on the starting date 01/07/2018 and the number of months indicated. If you wish to enter a different project period, this must be clearly stated in the “Project description” section.
 - *Project title in Swedish and English:* A maximum 200 characters per project title, including spaces.
 - *Outline in Swedish and English:* A maximum 2,000 characters per outline, including spaces. It must be possible to freely disseminate and publish the outline, and it may not contain any confidential or otherwise sensitive information.

- **Project description:** Maximum 10 pages. A project description template can be downloaded from the [call's website](#). The project description is uploaded as a file whose size may not exceed 4 MB. Please do not include a budget in the project description.

- **List of references:** This part of the application is optional and can be used to list references in support of the project description text. The list of references is uploaded as a file whose size may not exceed 4 MB.

- **Budget:** The project budget shall be accounted for in both Prisma and in the “Budget appendix”. Formas recommends that you fill out the “Budget appendix” first (see more detailed description in “Budget appendix”).

The budget form in Prisma shall account for the projects entire funding: sought grant, own financing and other aid (for a description of these three types of funding, see section 5).

The following information (specified costs) is requested in the Prisma budget form:

- *Salaries including social security contributions:* Cost per person and year. Annual salary increases shall not be included.
- *Degree of activity in the project:* Per person and year.
- *Operational costs:* Cost per named organisation. This may refer to travel, collaboration activities, conferences, costs for guest researchers or equipment.
- *Premises:* Cost per named organisation.
- *Total amount applied for:* This field is automatically completed based on the above cost items.
- *Indirect costs:* Overhead (OH) shall be stated according to the practice of the grant administrating organisation.

One alternative to filling out the items above is to instead account only for:

- *Salaries including social security contributions*
- *Degree of activity in the project*
- *Indirect costs*

In that case, it shall be clearly stated what the indirect costs refer to in the budget form comment field, for example OH costs and what is included in these.

The field “other cost” is where you state the project’s total co-financing (own financing + other aid).

- **Categories:** Formas categorises all submitted applications according to subject area, SCB codes and the global goals for sustainable development. For all three categories, the applicant must select at least one and not more than three options. The categorisation for the global goals should be based on the direct purpose or expected application of the project results.
- **Participant CVs:** A CV shall be attached for at least one and no more than six participants. The project manager shall attach their CV to supplement the information provided in Prisma. Each CV may be a maximum of 2 pages.
- **Budget appendix:** A template for the appendix can be downloaded from the [call's website](#). It consists of tables in Excel where the applicant is to enter information and budget for project coordinator, each project partner and for the project as a whole.

The budget appendix shows the costs and financing for all participating partners: sought grant, own financing and other aid (for a description of these three types of funding, see section 5).

Especially note the following in the budget appendix:

- It is compulsory to fill out the basic information requested regarding the project coordinator and each project partner in the budget appendix.
- It shall be clearly stated in the budget appendix what is referred to under “other aid”. Other than the name of the financier, it shall state whether the financing consists of public or private funds. Financing under “other aid” shall be secured when the application is submitted for this call.

Own financing may consist of time, connections or other resources. Guidelines for how to calculate the value of time can be found on the [Formas' website](#).

In the budget file, there are also fields and instructions for how to calculate aid level and degree of co-financing. Note that the calculated aid level is preliminary and may be adjusted prior to Formas' decision on granted funds.

The total cost of the project as a whole shall be the same as the total financing.

The budget appendix shall be saved as a PDF file and uploaded with the application in Prisma.

When the application deadline is passed, supplementation of the application can only be made at Formas' request.

10 Who can read the application?

Applications that are sent to Formas become public documents after the announcement of a decision. However, Formas does not share information about an individual's commercial or operational situation, inventions and research results, if there is reason to believe that the individual may suffer damages should such information be made public. If Formas receives a request to see an application, Formas first carries out a confidentiality assessment.

Appendix 1 – Smart Built Environment in brief

The strategic innovation programme Smart Built Environment supports digitisation and the opportunities it entails for the planning and building sector, having identified industrialisation, a common information structure, business-driven applications and process integration as fundamental areas. A general goal is to create the conditions for an uninterrupted flow of information with business-driven applications within building information modelling, geodata, industrial processes and construction, including planning and building processes.

Smart Built Environment's impact goal for programme partners is to achieve the following by the year 2030:

- a 40 % reduced environmental impact from a life-cycle perspective for new construction and renovation of buildings and infrastructure.
- a 33 % reduction of the total time from planning to completion of new construction and renovation
- a 33 % reduction of the total construction costs
- several new value chains and business models based on a life-cycle perspective, platforms and new constellations of actors

The call for proposals “Incentives, business models and risks” within the focus area Business Models has the following short-term impact goals:

- Business models based on digitisation and industrialisation from a life-cycle perspective
- Known economic, technical and competency risks for altered structures
- Risk assessment methods

More information about Smart Built Environment can be found at www.smartbuilt.se. Brief information on the focus area Business Models can be found at <http://www.smartbuilt.se/om-oss/strategin/affaersmodeller/>

Current information about the call for proposals and a link to the application function can be found at <http://formas.se/sv/Finansiering/Utlysningar/>