



# Challenge-Driven Innovation

*Societal Challenges as  
Opportunities for Growth*

VINNOVA

Swedish Governmental Agency  
for Innovation Systems

# How can we turn societal challenges from threats into opportunities?

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The world faces a number of global societal challenges related to climate, energy, environment and demographics, but also to social security, health and education. The thing that these challenges have in common is that they are all clearly international in character, that they transcend sectorial and disciplinary boundaries and that they are high ranking on political agendas worldwide.

While these challenges seriously threaten the future of our societies, they also constitute a demand for innovative solutions. Addressing these challenges requires both finding a solution to the problems and creating growth.

Societal challenges will not be solved by traditional inventions within individual research fields or sectors. We need incentives to shift the focus from 'silo thinking' to increased cooperation between policy areas, between different fields of research and between various private and public players.

Vinnova, Sweden's innovation agency, therefore launched the programme Challenge-Driven Innovation – Societal Challenges as Opportunities for Growth, in 2011. We are convinced that Sweden have the prerequisites necessary to be at the forefront when it comes to developing innovative solutions for societal challenges. The programme will deliver real innovation to tackle societal challenges as well as bringing actors from the innovation system to work more proactively and systematically in this area.

# Societal challenges

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Projects greenlighted in the programme Challenge-Driven Innovation must meet one or several of the following societal challenges:

**COMPETITIVE  
INDUSTRIES**

**FUTURE  
HEALTHCARE**

**INFORMATION  
SOCIETY**

**SUSTAINABLE  
ATTRACTIVE CITIES**

Projects dealing with societal challenges often have:

- a comprehensive approach, with technology as just one element,
- broad groupings, in which users and customers are often key actors,
- a strong emphasis on utilisation.

# Programme rationale and funding

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Our programme's vision is to fund projects of international eminence and develop sustainable solutions to tackle key societal challenges.

Greenlighted projects are funded in three stages, each more competitive than the last. As risks lessen and results become better established, so the involvement of the actors must increase.

1

## STAGE 1 INITIATION

Duration: approximate 9 months.

Focus: further development of concept and grouping.

Grant: SEK 500,000 maximum.

Grant as a proportion of total project costs:  
80 percent maximum.

2

## STAGE 2 COLLABORATION

Duration: approximate 2 years.

Focus: development and testing of solutions, often on a limited scale.

Grant: MSEK 10 maximum.

Grant as a proportion of total project costs:  
50 percent maximum.

3

## STAGE 3 IMPLEMENTATION

Duration: 2 years.

Focus: full-scale testing and implementation.

Grant: MSEK 5-20 approximate.

Grant as a proportion of total project costs:  
25-40 percent approximate.

# Requirements and support

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The programme's demands of greenlighted projects are stringent since they must:

- be based upon the key needs of society and industry,
- result in innovations which combine international business potential with benefit to the community.

Standards are high and projects greenlighted under the Challenge-driven Innovation programme are often complex. Thus, to support these projects, Vinnova runs various activities, such as workshops where the projects can swap experiences and benefit from practical hints and methods, leadership development initiatives and so on.

Vinnova also recognises the need to support projects in regard to evidence and measuring impacts. In other words, how projects can bring reliable evidence of the ways in which they benefit society and business. This is a work in progress and Vinnova's first step has been to translate British innovation charity Nesta's publication *Standards of Evidence*. This publication is available on the Vinnova website.





Where can we find further information?  
**[www.vinnova.se/cdi](http://www.vinnova.se/cdi)**

# Applying

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## When should we apply?

Calls close on the last Thursday of January and August each year. For more info, see: [www.vinnova.se/cdi](http://www.vinnova.se/cdi).

## Who can apply?

Groups of at least three project partners can apply for Stage 1 funding – Initiation. Projects that receive funding at Stage 1 may proceed and apply for the next stage of the programme.

## How are applications assessed?

Each stage is assessed confidentially by teams consisting of Vinnova officers and external assessors.

## Pre-application support

The programme website offers various forms of pre-application support, such as a description of the programme, call texts for the three stages and presentations and films from information sessions.

## Suggested reading

For inspiration, the programme website also has project files on greenlighted projects (available in Swedish only). Four examples of such projects can be found on pages 8-11 of this folder.



# C/O City



Secure a sustainable eco system in concentrated cities (urbanization)



Ecosystem services for a sustainable city planning to benefit the citizens' wellbeing and which fulfil the city's demand for clean water, clean air and reduced environmental influences



Municipalities, architects, building developers, academia, non-profit organizations and consultants

CHALLENGE

**Sustainable  
Attractive Cities**

STAGE



**VATTEN & VÄXTER**  
REDUCERAR & REGLERAR  
TEMPERATUREN  
I STADEN



**GRÖNOMRÅDEN**  
ÖKAR OMGIVANDE  
FASTIGHETSVÄRDEN



**VÄXTLIGHET**  
MINSKAR STRESS  
& ÖKAR  
VÄLMAENDE

**LÖVERK**  
MINSKAR  
BULLER

**GRÖNA TAK & VÄGGAR**  
SKYDDAR MOT  
UV-STRÅLNING



**VÄXTLIGHET**  
GER OSS FÄRRE  
ÖVERSVÄMNINGAR

**SAMT VÄRMER & SVALKAR**  
BYGGNADER

# DigInclude – Digital inclusion in the connected society for groups with special needs



Effective citizen services, via personally adapted tools, for elderly, immigrants and dyslectics



IT support that adapts and simplifies information flows



Academia, institute, municipality, county council, authority and companies (ICT and natural language processing)

CHALLENGE

Information Society

STAGE



skede. Det kan  
Behandling  
En blindtarmsinflamm  
opereras korta  
rusten blind  
d omedelb  
tabehandl  
risk för ko  
man söka  
om man har de v  
akutmottagning  
Blindtarmsinfla  
betrakta oklara  
Man kan alltid  
Vad är blindta  
Mer informa  
Det som hä  
blindtarms  
bihanget,  
behandla  
Blindtarm  
centime  
männis  
Blindta  
bihang  
briste  
Män  
Män  
No  
Sv  
ål  
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# HAI-proactive – New workflows and IT-tools to combat healthcare-associated infections

CHALLENGE

Future  
Healthcare

STAGE



8-10 percent of patients in hospitals in Sweden are affected by Healthcare-associated infections (HAI)



New work processes and IT tools that will identify patients at high risk of HAI, to be able to act preventive



Academia, hospitals, county councils and software companies

# Business model innovation for closed-loop furniture flows



A large quantity of furniture is thrown away each year, which has a significant impact on the environment



A concept for product development, business models, logistics and information services that enables a circular economy



Academia, municipalities, county council, research institutes, Ecolabelling Sweden, furniture-maker, design bureau and architect office

CHALLENGE

Competitive  
Industries

STAGE





*Do you want to know more?*  
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