



A Swedish Perspective on Governance of Public Research

**OECD
Knowledge Triangle
Impact Assessment**

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A group of people, mostly young adults, are walking up a modern wooden staircase in a bright, multi-level building. The staircase has light-colored wooden steps and railings. The people are dressed in casual attire, and the building features large windows and a clean, minimalist design.

Swedish Competitiveness in the Global Knowledge Economy

A long history – in short

1940-1970

"Society"

Sweden avoids war – institutional capability

Rapid growth and structural change policy

Urbanization and "urbanization policy"

Big societal investments – infrastructures

Development pairs state-industry – innovation

"HEI society's research institutes"

Industrial research institutes

Defence research important focus

Societal engineering

Linear innovation models

Industry

- Innovativity – technologies and system competences
- Innovation based companies – development pairs
- Limited research connection – engineering base
- Big international demand – growth engine
- Export led growth – competitiveness

Universities

- Small part of society
- "Elitist" and narrow recruitment base
- Small direct industry cooperation
- Stronger relations to the state
- Education focus – emerging expansion

1970-1990

"Society"

Oil crisis – high inflation – increasing tax levels

Weak growth and decreased competitiveness

Continued urbanisations – regional cohesion policy

Societal investments – welfare

Weakening industry cooperation – exkl. defence

Education expansion in focus

Increased research resources to HEI

Weaker resource growth to research institutes

STU – industry relevant research – in HEI

"Sektor research"

Continued linear innovation models

Industry

- R&D-intensive industry – multi nationalization
- Internationalized and increasingly complex VCs
- Increasing competence demands – incl. researchers
- Increasing cooperation needs – firms and HEI
- Strategic competence sourcing internationalizing
- Increasing servitization

Universities

- Increasing part of society – "decreasing elitism"
- Growth challenges – primary in education
- Increasing direct industry cooperation – weak incentives
- HEI three missions in law – but weak and weightless"
- Weakly developed processes for external cooperation
- New industry relevant research areas emerging

1990-2015

"Society"

Financial crisis and "state budget innovations"

Stabilizing growth, state budgets and inflation

"Jobless growth" – increased unemployment

Demographic and integration challenges

EU entry and better industry cooperation

Societal challenges on the political agenda

Rapidly increasing research resources to HEI

Weak resource growth to research institutes

EU's R&D-FP's – strong growth

Centers-of-excellence and cooperation programs

Reorganizations of R&D-funding system

Linear models moving towards "systemic thinking"

Industry

- R&D-intensive industry no longer "Swedish"
- Globalized, complex and interdependent VCs
- Increasing competence needs – talents and researchers
- Increasing cooperation needs – firms and HEIs
- Strategic competence sourcing global
- Service economy big – strongly manufacturing linked
- Private and public "value chains" increasingly integrated

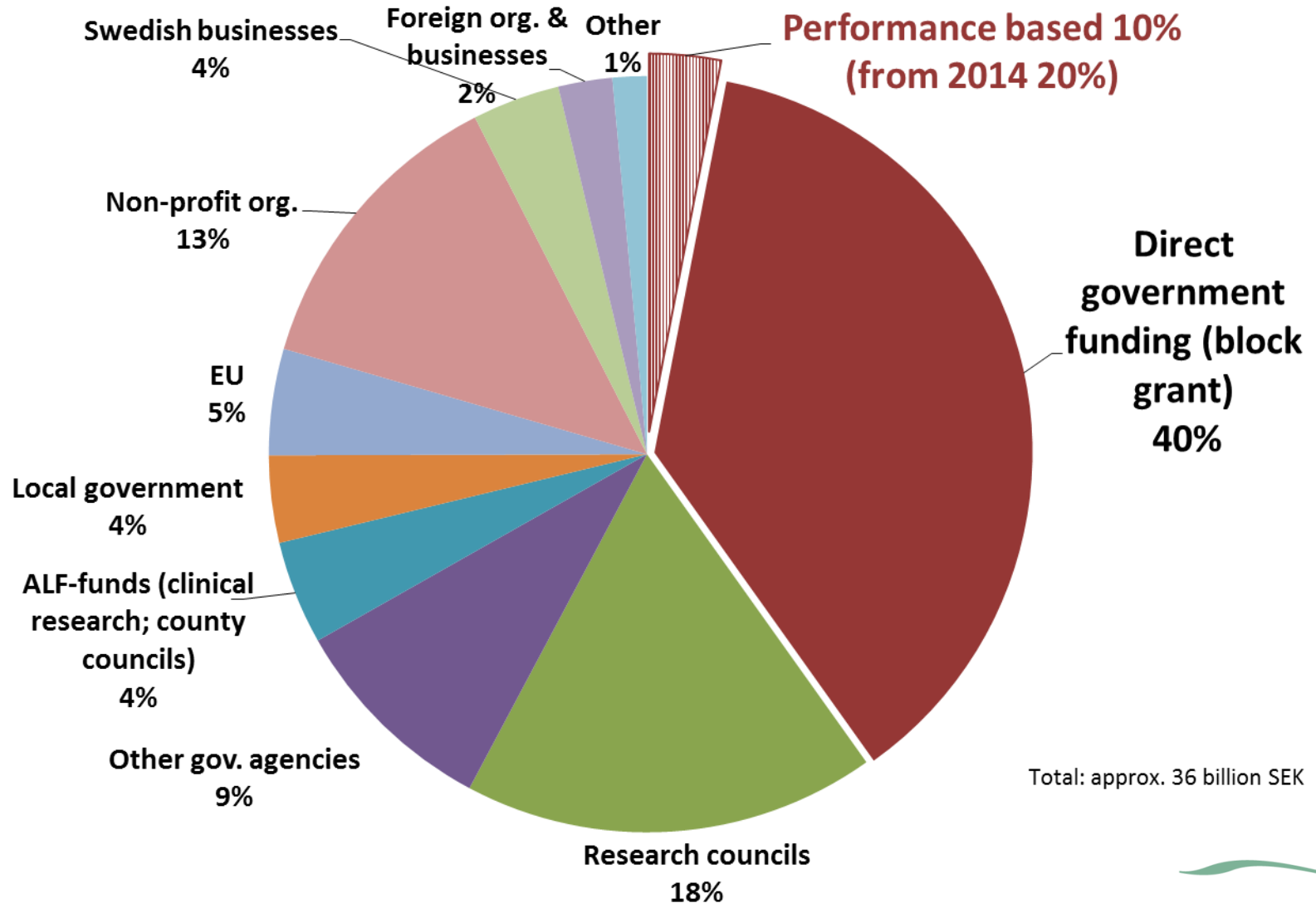
Universities

- Big part of society and new "regional" HEI colleges
- **Autonomous but many leadership challenges**
- Growth challenges in education and research
- **External funding vs. Block funding – governance?**
- Emphasized 3rd mission – weak incentives & processes
- Industry cooperation – with R&D intensive (MNCs) firms
- Increasing internationalization – attractiveness?

Four year Governmental prioritization and budgetary cycle

- Since the 1980s
- Broad and formal written consultation and informal seminar dialogues
- Four year signals and budgets – stability in terms of rules-of-the-game
- Challenge in (Inter)Ministry processing of consultation inputs
- Research Bills primarily address research including links to innovation
- Innovation is considerably more than research – cross-cutting issues
- Innovation and research – lacking cross-policy area strategies

HEI research income 2013



Evaluating Governance



OECD Innovation Policy Reviews





The 2016 Review

- Six policy initiatives – two on strengthening university research

1. Strengthening university research

i) A significant increase in the “general university funds” (GUF) or “block funding” for university research

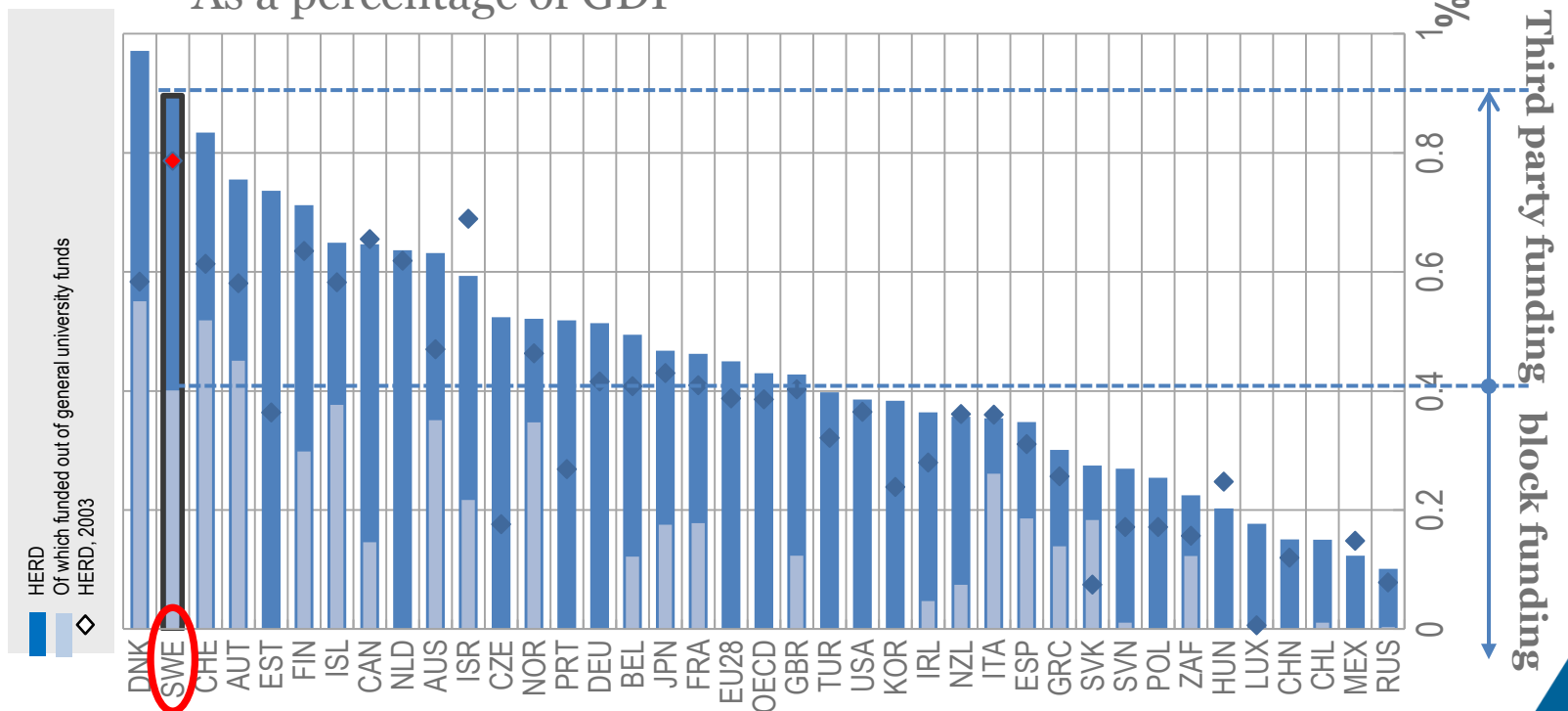
ii) The establishment of Strategic Research Areas (SFOs)



Theme 1. Strengthening university research

- The increase in block funding for research has not noticeably improved research performance nor changed the funding ratio

Higher education expenditure on R&D, 2013
As a percentage of GDP





Theme 1. Strengthening university research (2)

- The Strategic Research Areas programme (SFO) has been mainly successful in universities that have used additional funds *strategically*
- Research excellence and relevance have been limited by weak governance and strategic leadership within universities
- Human resource and career issues make strategic planning in universities difficult

Recommendations

1. Strengthening university research

Enable universities to act in more flexible and strategic ways before any new increase in block funding or extension of the Strategic Research Areas programme

Amend the existing research performance assessment scheme for allocating institutional funding

Strengthen the desired effects of third-party funding to universities and institutes

Strengthen strategic leadership in universities

Encourage universities to increase their specialisation in research

Encourage university management to introduce a real tenure track, as well as to be more flexible in hiring, dismissing and reassigning staff



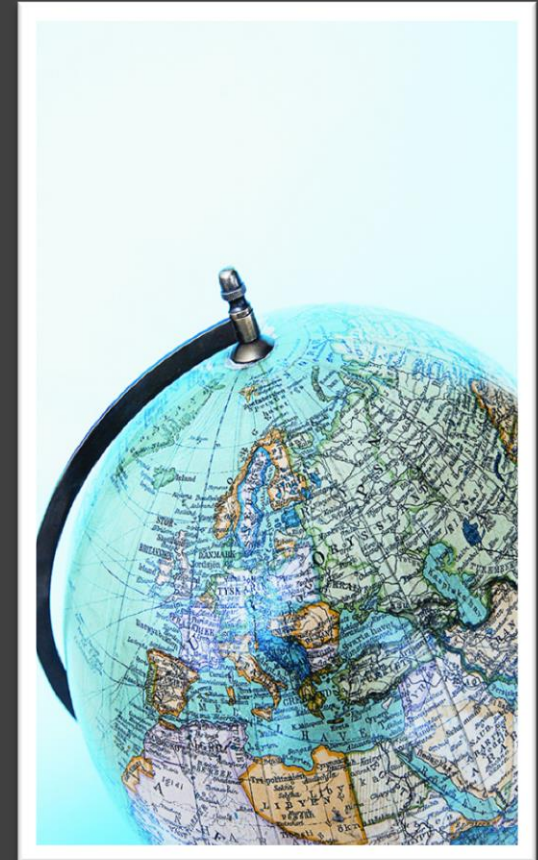
Formal “Governance Consultation”

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**Universities and Colleges prepared
for the future**

HEI facing strong change pressures – acting on a global ”market”

- Improve national and international recruitment
- Relevance in educations for future competences
- Attracting and developing business R&D
- Contributing to societal challenge solutions



Proposal to Government Bill 2016

Research, innovation and higher education

- Governance towards improved K3 performance
 - Clear visions and goals – long-term and short-term
 - Increased and transparent block funding competition
- Introduce block funding incentive model rewarding quality
 - In research, education and cooperation and which
 - Which allows HEI diversification and profiling

“Consultation” Missions

The Government Commission (14 March 2013):

The Government commissions the Swedish Research Council to investigate and submit – in consultation with Forte, Formas and Vinnova – a proposed model for resource allocation to universities and university colleges involving peer review of the quality and relevance of research

- Should enable resource allocation that rewards quality and performance in research
- Should comprise both assessment of research quality and assessment of the societal relevance and impact of the research
- May provide a good platform for long-term planning at higher-education institutions
- Should be done bearing in mind the preconditions for the respective research area
- All research should be regularly assessed in subject-area based evaluations in a cycle of four to six years
- May include indicators
- To be submitted by 31 December 2014

Government decision I:8 U2013/1700/F, 14 March 2013



Vinnova's Mission

Design methods and criteria for evaluation
of performance and quality in societal
cooperation

200 MSEK for testing until 2016



The Research Council Model

The evaluation model – Elements of evaluation and suggested weighting

FOKUS – Research evaluation in Sweden

Purpose: To improve the quality of research and ensure that high quality research is of benefit to society

Background
information (not
to be graded)

70 %
Scientific/artistic
quality

15 %
Quality
enhancing
factors

15 %
Impact outside
academia

All research is to be evaluated in a cohesive manner every sixth year (initially more frequently).

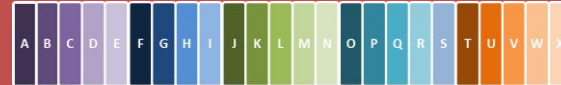
Summary: research area panels

– data and assessment

Background
information (not to be
graded)

70 %

Scientific/artistic quality



Description

- Research profile, i.e. multidisciplinary research
- Vision and strategy
- Organisation, administration, management, recruitment
- Infrastructure

Research statement

- Research focus, ie. multidisciplinary
- Potential
- Other

Nominated sample (excellence)

5 % of unit's research production reviewed by panel members

Quantitative data

- Research funding
- Teaching and research staff
- Doctoral education
- Publication profile and publication volume

Citation analysis or nominated sample (ca 50 %), ("overall quality")

reviewed by panels (citation analysis) or external reviewers (nominated sample)

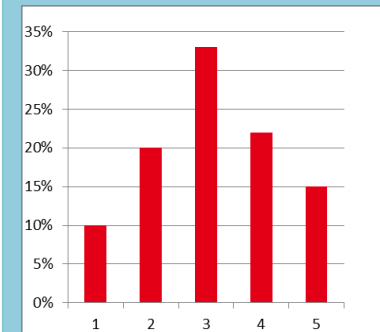
Assessment criteria

- Novelty and originality
- Significance
- Rigour

Productivity: (research publication volume in relation to the volume of staff and financial resources).

Results from panel

- Grade profile



- Explanatory statements

Summary: main panels

– data and assessment

Background
information (not to be
graded)

15 %

Quality enhancing factors

NL

T

M

S

HK

15 %

Impact outside academia

NL

T

M

S

HK

Description

- Research profile, ie. multidisciplinary research
- Vision and strategy
- Organisation, administration, management, recruitment
- Infrastructure

Quantitative data

- Doctoral education and early career researchers
- Collaboration and mobility within academia (int+nat)
- Collaboration, partnerships and mobility outside academia (int+nat)
- Integration of research and education
- Gender equality

Assessment criteria

Potential for renewal and sustainability

Results from panel: grades and explanatory statement

Case studies

Examples of activities:

- Dialogue and dissemination of results
- Collaboration
- New products and processes
- Application
- Documented impact

Assessment criteria

Reach and significance

Results from panel: grades and explanatory statement

Quantitative data

- Research funding
- Teaching and research staff
- Doctoral education
- Publication profile and publication volume

Description

- Results
- Strategies
- Documentation of processes

Description

- Strategies and resources for the dissemination of results and the promotion of use outside academia

The Vinnova Model

Basic principles

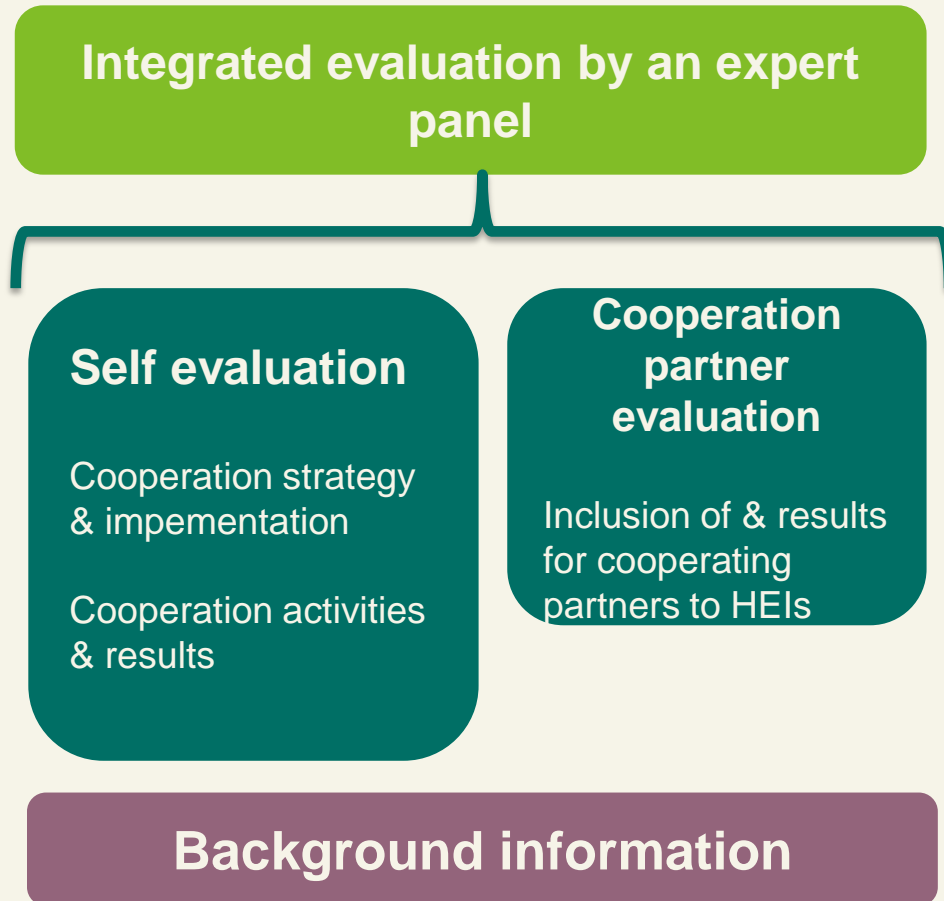
**Starts with HEI
own visions and
aims**

**Should be useful in
HEI own strategy
and operational
development**

**Cooperation has
several functions
and contributes to
different impacts**



Model for evaluating HEI cooperation



Proposal to Government Bill 2016

Research, innovation and higher education

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 - Increased and transparent block funding competition
- Introduce block funding incentive model rewarding quality
 - In research, education and cooperation and which
 - Allows HEI diversification and profiling

Processing...



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