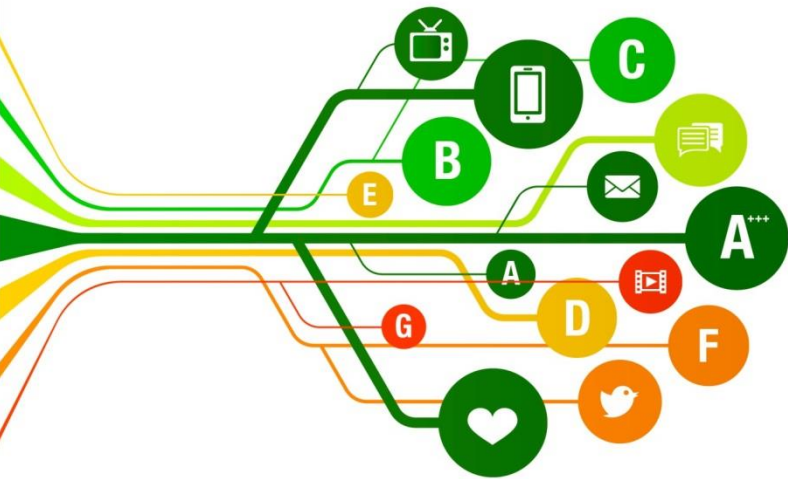


# **Swedish Energy Agency's Strategy for Wind Power**



# The Swedish Energy Agency



## Mission:

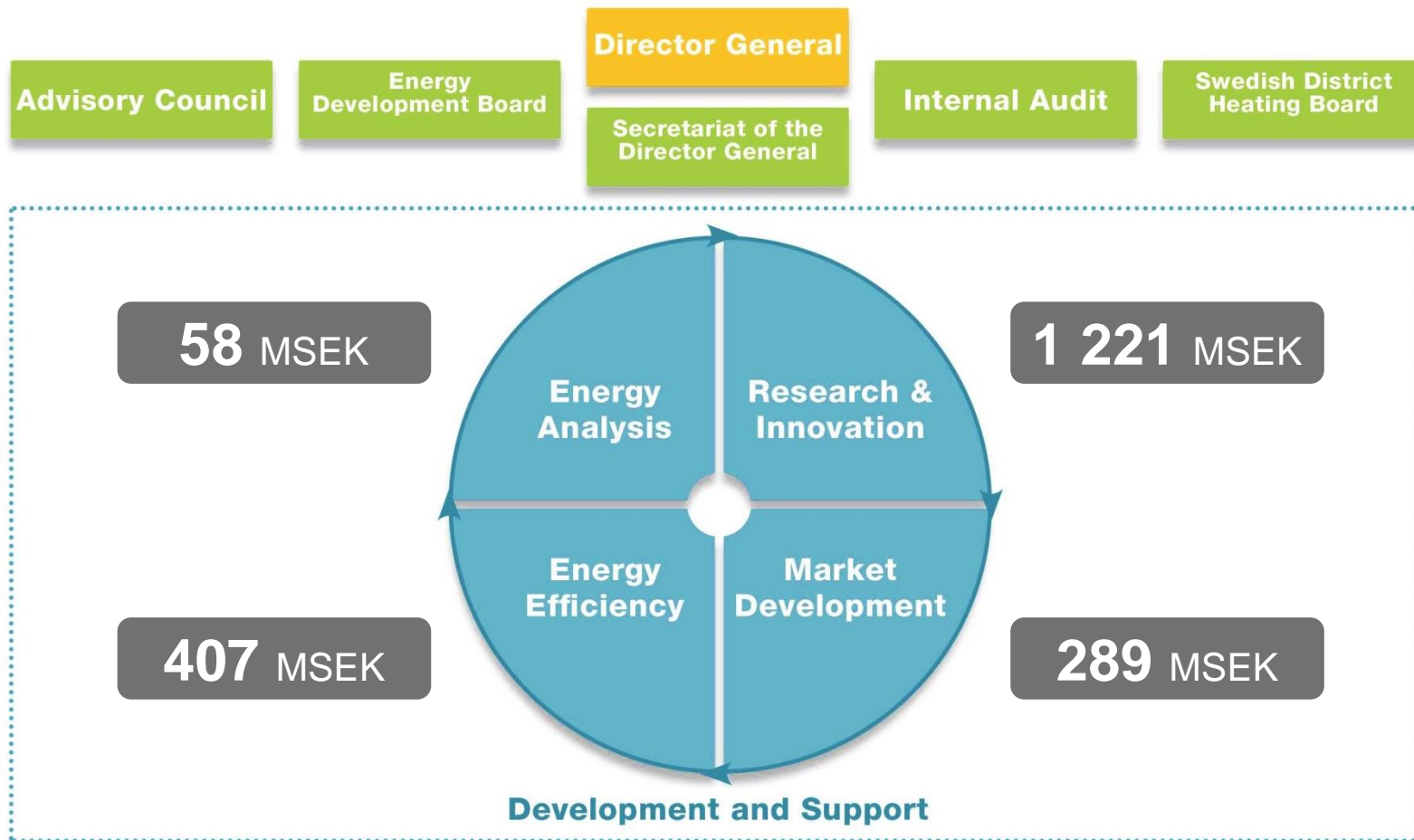
Our mission is to promote a sustainable energy system

“Swedish Energy Agency works for a sustainable energy system, combining ecological sustainability, competitiveness and security of supply.”

# The role of the agency

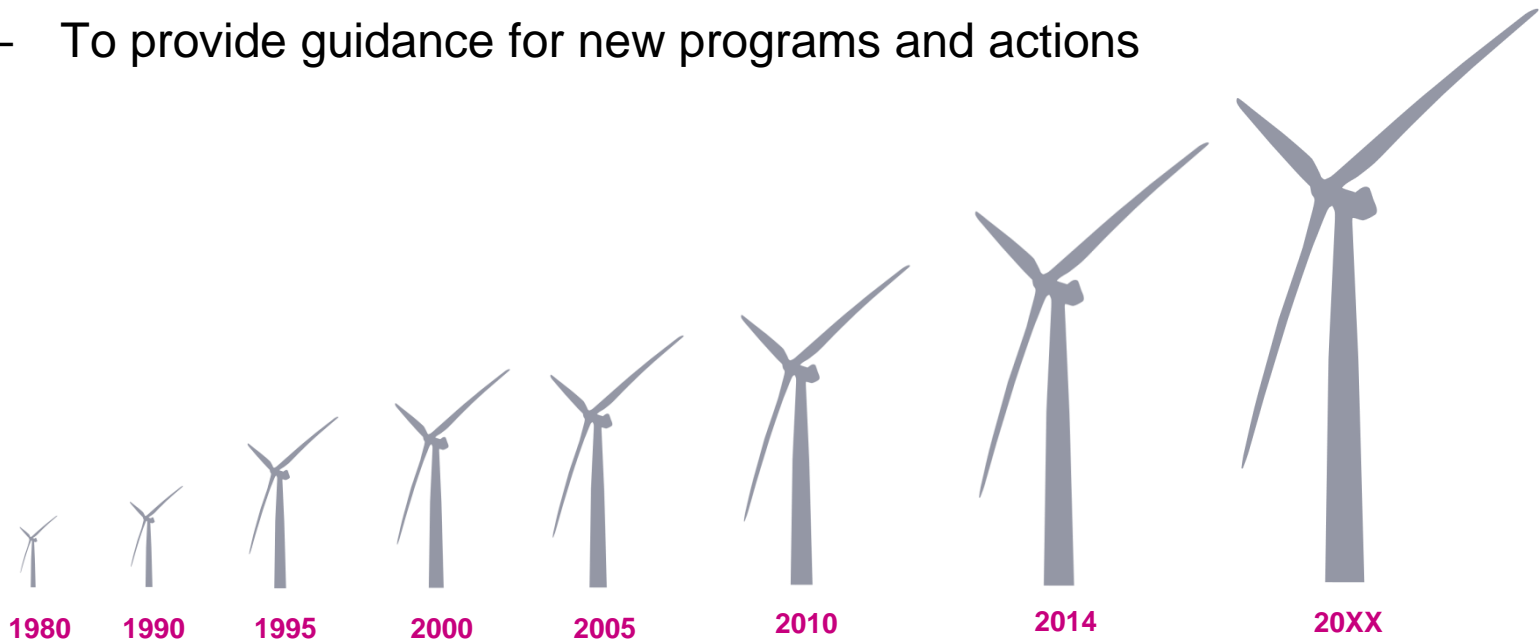
- **Governance** – implement governmental policies and decisions related to incentive in the energy sector
- **Support** – provide founding for research and innovation, and spread information on energy system and climate change.
- **Expertise** – provides the government and the public with data like statistics, analyzes and forecasts

# Our organisation



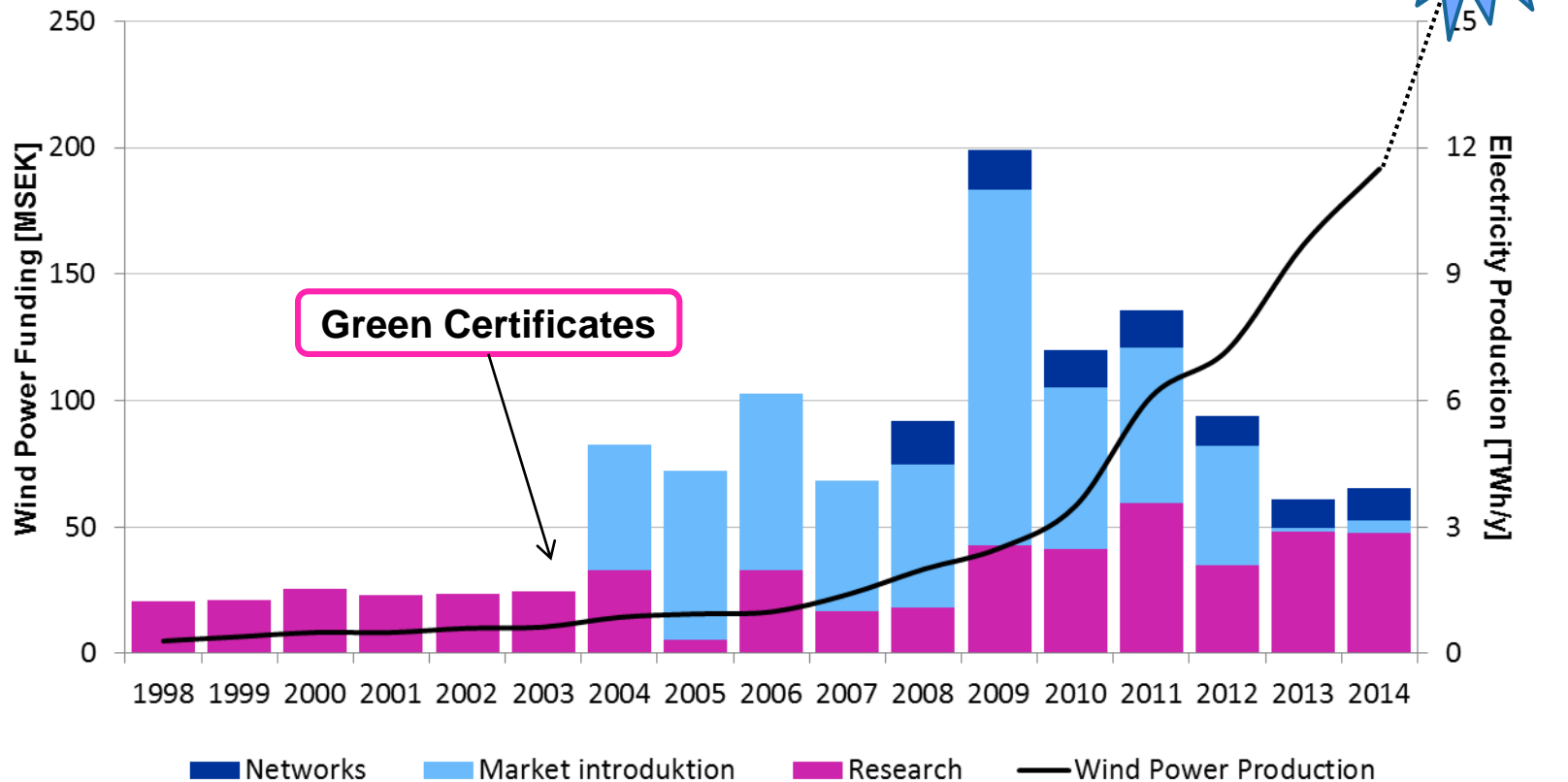
# About the strategy

- **A strategy on wind power for the Swedish Energy Agency**
  - A common strategy for all research and tasks regarding wind power
  - Based on internal and external surveys on wind power action
  - To provide guidance for new programs and actions



# Wind power funding

The Swedish Energy Agency's Wind Power Funding 1998-2014



# The goal of the strategy

## Goal 2030

*”The wind power in Sweden makes a major contribution to the electricity supply, with an annual production of more than 30 TWh. Wind power contributes to climate mitigation, business development and system services. The construction and operation of wind power is made with respect to social, ecological and economic sustainability.”*

The aim of the Swedish Energy Agency's actions is to contribute to building knowledge and skills, while contributing to innovations and strengthening Swedish industry. The actions will be focused on a few strategic areas.

# Wind power priorities

## Swedish Conditions

- Wind power in cold climate
- Wind power in the forests
- Wind power in the Baltic Sea

## Sustainability & Involvement

- Local value of wind power
- The impacts of wind power
- The role of wind power in society
- Sharing wind power knowledge

## Power Grid Integration

- Efficient grid connection
- Production variability
- Power system services
- System and market models





## Swedish Conditions

### Why a priority field?

- Building in cold climate with weather conditions many times more extreme than what the wind turbines are originally designed for is a prerequisite for expansion of wind power in Sweden.
- Sweden is also a country with large forest areas and a unique marine environment in the Baltic Sea with specific building conditions. These environments are deemed to be important for Swedish wind power.
- Sweden has no domestic turbine manufacturer. Therefore, efforts are concentrated on a few areas where there is a potential to achieve excellence and to create an innovation cluster.



## Sustainability & Involvement

### Why a priority field?

- The wind power turbines are getting bigger, more visual and noisier. Increased knowledge about impacts on the environment and society is a prerequisite for achieving a sustainable deployment of wind power.
- Local involvement and knowledge plays an essential role in the deployment of wind power. This can add to local value of both citizens and organizations.
- Wind power contributes to climate goals and business opportunities. The deployment need to be done with respect to social, ecological and economic sustainability.



## Power Grid Integration

### Why a priority field?

- The variability of wind power production leads to several challenges related to integration in the electrical grid, that remains to be resolved.
- In order for wind power to contribute to the stability of the power system more research, demonstration and development are required.
- Sweden is at the forefront in research on smart grids. Coordinating research on smart grids and wind power integration opens opportunities for innovations.

# Collaboration

- **Governmental collaborations**

The collaboration with other governmental organisations and institutions is an important part in our duty as an Agency as well as in this strategy. The collaboration also includes municipalities and county governments.

- **Interdisciplinary collaborations**

Within the framework of this strategy interdisciplinary collaborations are encouraged. The wind power expansion is affecting the citizens on multiple levels and the inclusion of other perspectives are relevant.

# Wind programs

- Ongoing wind programs

Program	Start/end	2013	2014	2015	2016	2017	2018	2019
<b>Kallt klimat</b>	2013-01-01 2016-12-31	Active	Active	Active	Active	Active	Expired	Expired
<b>Vindforsk IV</b>	2013-04-01 2017-09-30	Expired	Active	Active	Active	Active	Expired	Expired
<b>Vindval III</b>	2014-08-01 2017-12-31	Expired	Expired	Active	Active	Active	Expired	Expired
<b>SWPTC II</b>	2014-10-01 2018-09-30	Expired	Expired	Active	Active	Active	Active	Expired
<b>Nätverket för vindbruk</b>	2014-04-01 2019-12-31	Expired	Expired	Active	Active	Active	Active	Active

– The strategy will influence our new wind power programs

# Thanks for listening!

**Contact:**

Pierre-Jean Rigole, 016-544 21 91

[pierre-jean.rigole@energimyndigheten.se](mailto:pierre-jean.rigole@energimyndigheten.se)

