



The Netherlands aeronautics innovation approach

**Creation of a strategic
Knowledge and Innovation
Agenda in the Netherlands**

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March, 30th 2011**

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NL Agency

- ❑ NL Agency Innovation / Aerospace (formerly NIVR)
 - under direct responsibility of the Minister of Economic Affairs, Agriculture and Innovation.
 - Is a professional and efficient executor of Dutch Government innovation and research policy.
 - Employees are civil servants, bound by governmental law

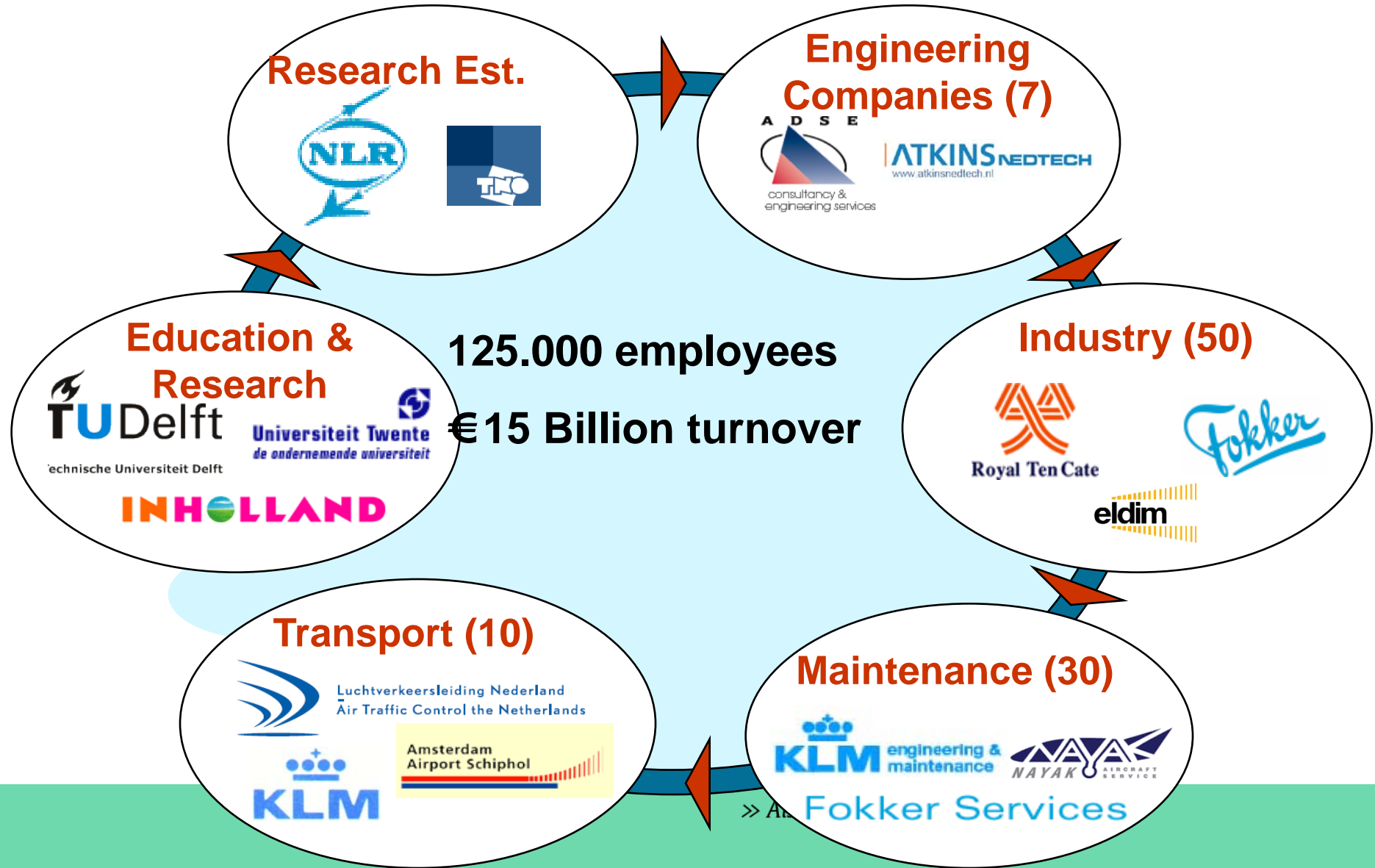
- ❑ Manages the national aeronautical programs:
 - Basic Research by research establishments and universities (civil R&D only)
 - Technology development by industry (civil and military aeronautics)
 - Launch aid credits for industry for product development (civil)
 - Represents the Netherlands in international fora (o.a. ACARE)



Brief overview of Dutch Aeronautics industry

- ❑ The Netherlands has been involved in aviation from the early beginnings
- ❑ Up until 1996 Fokker played an important role in the Dutch aviation industry
- ❑ Dutch industry is now mainly a supplier of components worldwide
- ❑ In 2010 a restart of the Fokker 100 took place: NG Aircraft

Netherlands AAT Landscape



Dutch Innovations are 'First class'



Finite-Element Analysis
Global Load Behavior
Knowledge Based
Engineering

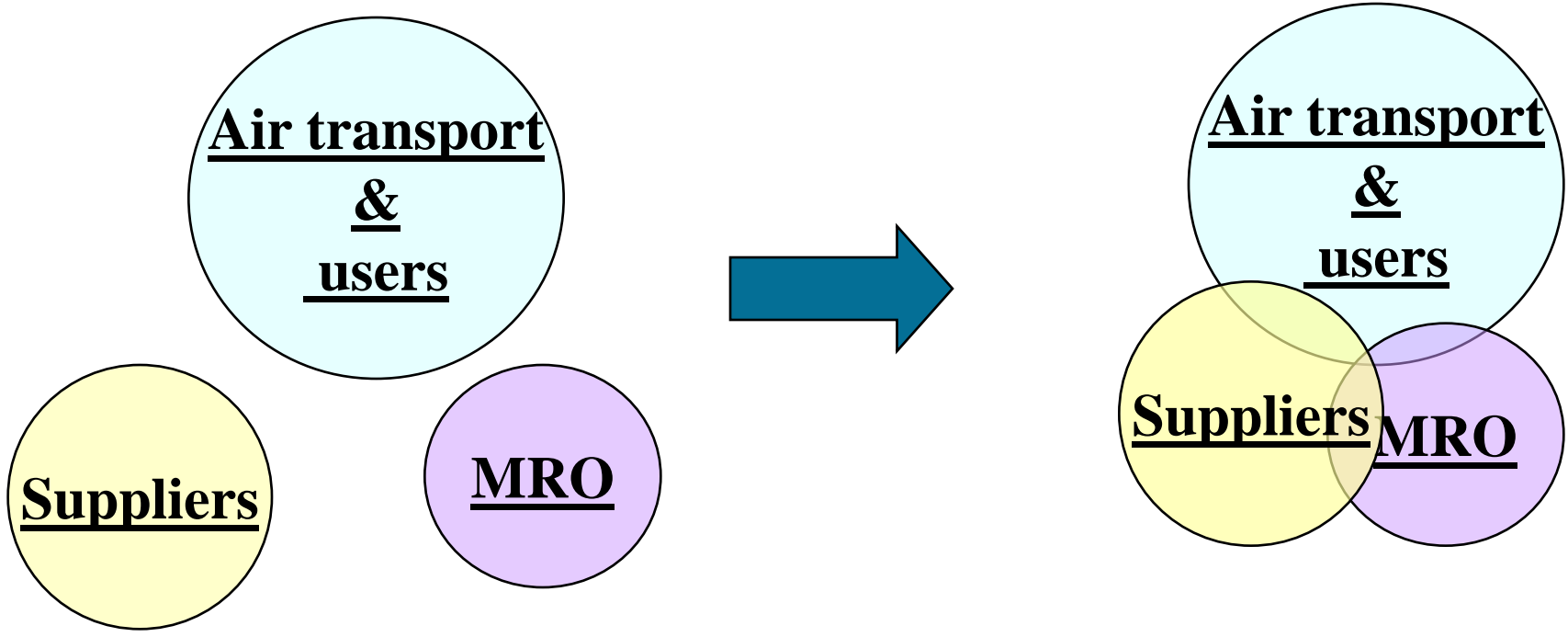


How it started

- ❑ The Minister of Transport, Public Works and Water Management, invited the Netherlands Aeronautics and Air Transport industry to develop a Knowledge and Innovation Agenda (KIA)
 - request also on behalf of the Ministers of Economic Affairs, for Housing, Spatial Planning and the Environment and the State Secretary for Defence.
- ❑ The Ministry of Economic Affairs has evaluated the current Aeronautical policy. This KIA is one of the inputs for future Aeronautical policy.
- ❑ The Ministry of Transport released a White Paper on Dutch Aviation in which a public-private partnership is requested. The KIA is the crystallized ambition of the AAT sector.
- ❑ The Ministry of Defense is looking for civil – military cooperation
- ❑ Aim: create a sustainable and competitive Aeronautics and Air Transport industry



Organisation



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Organising, Initiating and guiding

SYNERGY

Aim: to improve the sector's ability to innovate, through optimum use, design and organisation of the knowledge infrastructure, knowledge and IPR, financial resources, regulations and legislation and cross-fertilisation with other sectors.

SUSTAINABLE

Aim: the Netherlands is consolidating its position as a trendsetter in the field of sustainable technologies and concepts, so that the aviation industry in the Netherlands can develop in a way that lies well within socially acceptable frameworks (the so-called 'license to operate').

SEAMLESS

Aim: to create seamless interconnections between all baggage, transit, cargo, maintenance and air traffic processes in a way that helps to make main port Schiphol a key hub with an international competitive edge when it comes to efficiency, quality and comfort.

SPIN-OFF

Aim: to create new jobs and new export value through the international marketing of developed technologies and concepts.

Ambition 2020

- Greater contribution to GDP
- Create new export value
- Optimum accessibility
- Greater economic spin-off
- Reduce environmental impact and noise disturbance
- To help make Schiphol a more peaceful, even safer place and to help with the provision of assistance.

Ambition 2040

To make Dutch air travel climate-neutral



Research

Develop

Market

Research

Develop

Market

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Sustainability issues

- ❑ Sustainable air traffic
 - Alternative fuels
 - Weight savings in aircrafts and interiors
 - Fuel-efficient operations
 - Creation of a single European airspace
 - More efficient partitioning and a joint civil-military airspace management
- ❑ Sustainable aircraft
 - New materials and coatings
 - High tech systems
 - Intelligent design systems



Sustainability issues

- ❑ Sustainable Maintenance
 - Life cycle management
 - New repair and inspection methods
 - Rapid diagnostics and logistics

- ❑ Sustainable Ground Infrastructure
 - Reducing energy consumption
 - Green zone
 - Deployment of sustainable sources



Seamless issues

- ❑ Seamless flow of passengers and baggage
 - Security
 - Accessibility

- ❑ Seamless flow of air cargo
 - Accessibility
 - Fast, secure and reliable air cargo processes

- ❑ Seamless flow of air traffic
 - Broadband data connections between control centers and aircraft
 - New cockpit and aircraft systems



Synergy issues

- ❑ Designing the Knowledge Infrastructure

- ❑ Supporting a climate of innovation
 - Education
 - Adjusting administrative rules
 - Create a level playing field

- ❑ Synergy with other Innovative initiatives
 - Dutch innovation programs
 - EU initiatives



Current situation

- ❑ KIA was handed over to Minister on September 7th 2009
- ❑ Fall of the Dutch government and economical crisis are reasons for delay
- ❑ A Steering Committee has been formed to implement the KIA
- ❑ Proposals for projects have been made late 2010



Results until now

- ❑ Cooperation between industrial parties is improved
- ❑ A mutual ambition has been formulated
- ❑ Cooperation between different ministries has started on AAT subjects

The public – private dialog has been started. All parties are willing, but the means are uncertain. Help from the government is more than €



The new Governmental setting

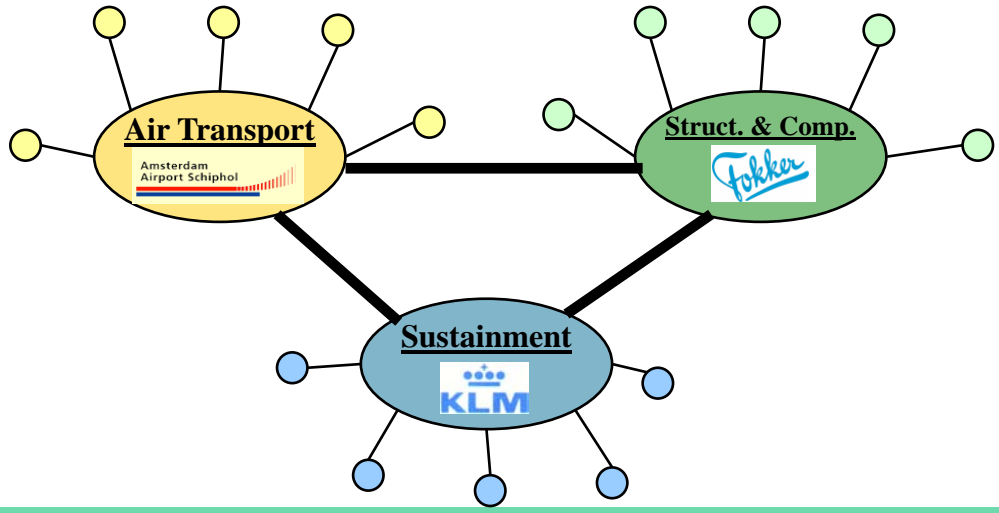
- ❑ The New governmental policy focuses on Top Areas for Dutch Economy
- ❑ Nine overall sectors have been selected
 - Aeronautics and MRO have been included under **High Tech**
 - Air Transport is linked to **logistics**
- ❑ Each Top Areas is now defining its Business Plan
- ❑ This will include an innovation strategy combining
 - National frameworks
 - Position towards a European support strategy



Follow up

- ❑ Links will be established by the sector to the Top Area identified by the government
- ❑ KIA to used as an input for future business plans
- ❑ Three sub sectors have formulating their innovation needs
 - Aeronautics: manufacturing of structures and components
 - Aircraft sustainment (MRO)
 - Air Transport

❑ Each sub sector lead by industrial champion and charged to involve stakeholders



❑ In June 2011 delivery of action plan