National Aerospace Laboratory NLR
NLR's mission and activities

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Avionics Systems

November 2006
Introduction

Where is NLR?

The Netherlands

NLR - Amsterdam

NLR - Flevoland

NLR’s mission and activities

Nov2006
NLR: *The* national knowledge centre for aviation and space technology

**NLR's mission**

- to develop high-tech products and make them usable
- to focus on the market and social relevance without regard for profit
- to help government and business stay innovative and effective
History and current status

The past:

- **1919**: NLR's predecessor, the Directorate-General for Aviation, is established
- **1937**: NLR established as a non-profit organisation
History and current status

The present:

- NLR – workforce 700 – is among the Netherlands' largest technological institutes

- NLR contributes important scientific and technological knowledge to aerospace in the Netherlands and abroad
### NLR's target group: clients in the Netherlands and abroad

#### Civil aviation:
- airlines
- airports
- the Dutch air traffic control authority (LVNL)

#### Manufacturing:
- ATM and avionics industries
- aircraft manufacturing industry
- small and medium-sized enterprises

#### Military aviation:
- Royal Netherlands Air Force
- Royal Netherlands Navy
- Royal Netherlands Army

#### Space technology:
- Dutch space industry
- European Space Agency (ESA)
What about the government?

The Dutch government:

• supports NLR's pure and applied scientific research work
• provides NLR with a regulatory framework and supervises NLR's activities
• is a customer (Ministry of Defence)
# NLR looks beyond the Netherlands' borders: international cooperation

<table>
<thead>
<tr>
<th>What &amp; how</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Sharing testing facilities:</td>
<td>DLR/DNW &amp; ETW</td>
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<tr>
<td>Working with other institutions:</td>
<td>EREA</td>
</tr>
<tr>
<td>Sharing Research &amp; Development:</td>
<td>WEAO, GARTEUR, NATO, NASA, EU</td>
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<td>Exchanging information:</td>
<td>RTO, ICAS, AIAA, CEAS, IAF</td>
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<td>Other cooperative ventures:</td>
<td>SA, EUROCONTROL, ESA</td>
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Activities and products

- product development
- testing
- technical and operational support
- validation
- analysis
- assessment
- advice
Examples of major projects and developments on which NLR is working:

- GLARE (Glass Reinforced Aluminium)
- Embedded Combat Aircraft Training System (E-CATS)
# NLR’s mission and activities

### Financial information

<table>
<thead>
<tr>
<th>Income in euros, 2003:</th>
<th>73,3 million</th>
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<tbody>
<tr>
<td>Government grant:</td>
<td>19,5 million (27%)</td>
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<tr>
<td>Contracts:</td>
<td>53,8 million (73%)</td>
</tr>
</tbody>
</table>

### Sectors:

<table>
<thead>
<tr>
<th>Sector</th>
<th>Amount</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>Civil aviation:</td>
<td>19 million</td>
<td>(26%)</td>
</tr>
<tr>
<td>Military aviation:</td>
<td>14 million</td>
<td>(19%)</td>
</tr>
<tr>
<td>Space technology:</td>
<td>5 million</td>
<td>(7%)</td>
</tr>
<tr>
<td>Civil and military aircraft development:</td>
<td>35 million</td>
<td>(48%)</td>
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Workforce and organisational structure

Workforce: over 700 employees, 47% university-trained and 23% with a higher professional qualification
Research facilities

wind tunnels:
- high- and low-speed (shared with DNW)

research simulators

a supercomputer

air traffic control and civil aircraft simulator

military aircraft simulator

testing facilities for dynamic load and construction materials

research aircraft

training
Want to know more about NLR?

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