Content

• ASFINAG Group
• ASFINAG Network: Facts and Figures
• ASFINAG‘s Asset Management
• Maintenance Strategy
• Processes and Tools
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1960: Foundation of “companies for special purposes“ for Alpine crossing projects

1982: Establishment of ASFINAG – initially exclusively as financing company for the “special companies” to coordinate all credit operations

1993: Foundation of ÖSAG und ASG by merging 6 „special companies“

1997: Concession for construction, operation and tolling (”Usufructus contract“)
→ ÖSAG and ASG taken over by ASFINAG
→ Service contracts for operation (with federal states)
→ introduction of toll sticker (vehicles < 12 t)
2004: Introduction of heavy vehicle tolling (vehicles > 3,5 t) → distance-based toll

2005: Merging of ASFINAG, ÖSAG und ASG
acquisition of EUROPPASS → takeover of tolling system

2006: Termination of service contracts with federal states → road operation and maintenance by ASFINAG

2007: Amendment of Usufructus contract: Obligation to prepare a 6-year master plan for construction and maintenance
ASFINAG Group: Today

Organisation chart

ASFINAG Holding
Autobahnen- und Schnellstraßen-Finanzierungs-Aktiengesellschaft
(Motorway and Expressway Financing plc)

Planning and Construction
ASFINAG
Bau Management GmbH

Operation and Maintenance planning
ASFINAG
Service GmbH
ASFINAG
Alpenstraßen GmbH

Tolling
ASFINAG
Maut Service GmbH

Consulting
ASFINAG
Commercial Services GmbH

International Toll Service
ASFINAG
European Toll Services GmbH

public limited company
100% owned by Republic of Austria

iHEEP Meeting, Dubrovnik, June 5-7 2017
ASFINAG Group: Vision 2020
Top-level Service Provider

ASFINAG is one of Europe’s leading motorway network operators with a special focus on

- availability
- traffic management
- traffic information
- road safety and
- technological innovations

We act internationally and interlink with public transport.
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ASFINAG: Toll road network

Total length: 2,199 km
## ASFINAG Network: Key Figures I

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of network</td>
<td>2,199 km</td>
</tr>
<tr>
<td>Lane kilometres</td>
<td>12,616 km</td>
</tr>
<tr>
<td>Tunnels</td>
<td>164</td>
</tr>
<tr>
<td>Kilometres in tunnels</td>
<td>383</td>
</tr>
<tr>
<td>Bridges</td>
<td>5,192</td>
</tr>
<tr>
<td>Kilometres on bridges</td>
<td>340</td>
</tr>
<tr>
<td>Noise protection facilities</td>
<td>1,336 km</td>
</tr>
<tr>
<td>Total area of noise protection walls</td>
<td>4.352 km²</td>
</tr>
</tbody>
</table>
### ASFINAG Network: Key Figures II

<table>
<thead>
<tr>
<th>Facility</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motorway operation and maintenance facilities</td>
<td>43</td>
</tr>
<tr>
<td>Motorway service stations</td>
<td>86</td>
</tr>
<tr>
<td>Rest areas</td>
<td>49</td>
</tr>
<tr>
<td>Parking areas</td>
<td>107</td>
</tr>
<tr>
<td>Parking spaces for cars</td>
<td>18,356</td>
</tr>
<tr>
<td>Parking spaces for trucks</td>
<td>6,886</td>
</tr>
</tbody>
</table>

18,356 parking spaces for cars and 6,886 for trucks
## ASFINAG Network: Key Figures III

### Revenues 2016

<table>
<thead>
<tr>
<th></th>
<th>Toll sticker</th>
<th>Special toll</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Up to 3.5t mpgw</strong></td>
<td><img src="image1" alt="Motorcycle" /> <img src="image2" alt="Car" /> <em><em>Revenue</em>) of EUR 472.2 million</em>*</td>
<td><img src="image1" alt="Motorcycle" /> <img src="image2" alt="Car" /> <em><em>Revenue</em>) of EUR 172.7 million</em>*</td>
</tr>
<tr>
<td><strong>More than 3.5t mpgw</strong></td>
<td><img src="image3" alt="Truck" /> <img src="image4" alt="Truck" /> <img src="image5" alt="Bus" /> <em><em>Revenue</em>) of EUR 1,273.6 million</em>*</td>
<td><img src="image3" alt="Truck" /> <img src="image4" alt="Truck" /> <img src="image5" alt="Bus" /> <em><em>Revenue</em>) of EUR 172.7 million</em>*</td>
</tr>
</tbody>
</table>

*) net revenue 2016, rounded
ASFINAG Network: Key Figures IV

Network growth

![Network growth graph](image-url)

- **km:** 0, 500, 1000, 1500, 2000, 2500

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ASFINAG Network: Key Figures V

Age distribution and condition of bridges

Bridge area vs year of construction

50% of bridge area constructed 1971-1986
Average age 36 years

Condition of bridges vs age
Content

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Asset Management
Operation and Maintenance

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Consulting
ASFINAG Commercial Services GmbH

International Toll Service
ASFINAG European Toll Services GmbH
Asset Management

Department

Asset Management
head of department
Christian Honeger

Project Development
Walter Neumann
• ordering of maintenance measures
• bundling and coordinating requirements for construction programme
• preliminary investigations
• project delivery

Focus on project management and coordination

Engineering
Christian Honeger
• Technical support for other teams
• quality assurance
• Operation of
  • Infrastructure Management Tool (IMT)
  • techn. inventory data base (TBV)
• reporting
• maintenance strategy

Focus on strategy, reporting and controlling

Structural Maintenance Management
• condition inspection/monitoring/survey and assessment
• project requirements and definition
• take-over of new constructed/maintained sections
• strategic long-term corridor planning

• incident management (emergency measures decision makers / requestor)
• input to infrastructure database
• technical assessment of special transports

Team East
team leader
Michael Anthofer

Team North
team leader
Thomas Hetzenberger

Team South
team leader
Michael Pucher

Team West
team leader
Hans Hubmann

Technical focus on structures and pavement

Assistance of Department
Monika Binder
Asset Management - Organisation

Teams

ASFINAG MOTORWAY MAINTENANCE, MONITORING CENTRES

- 43 Motorway maintenance centres
- Monitoring centres
  - Arning: St. Jakob/Artberg
  - Bruck/Mur: St. Michael/Lungau
  - Hohenems: Wels
  - Klagenfurt: Wien-Kaisermühlen
  - Plabutsch
- Traffic control centre
  - Wien-Inzersdorf

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Maintenance Strategy
Strategies to implement ASFINAG’s “Vision 2020”

Finance:
To obtain a balance between revenues, investments and expenses to ensure ASFINAG’s economic independence

Customers:
Increasing customer satisfaction by (inter alia)
- providing a safe and optimally available road network
Maintenance Strategy

Overview

**strategic level**

- **network availability**
  - availability
    - > 95% of network has to be available all time
    - consideration of sectoral and seasonal boundary conditions

- **safety**
  - Road safety (skid resistance, rut depth)
    - safety index “poor” < 3% of network

- **customer goals**

- **financial goals**
  - annual surplus
    - quality of estimated costs
      - before handing over to ASFINAG BMG +/- 25% for projects (packets) at a total cost > € 5 million
      - after handing over FROM ASFINAG SG to ASFINAG BMG +/- 10% for projects (packets) at a total cost > € 5 million
  - sustainability
    - sustainable use of resources
      - ensure optimal utilisation of expected lifetime of infrastructure; Cost of the construction program design, differ < 10% of the expected life cycle costs (LCC)
      - key structures are defined and monitored.
      - avoiding a critical backlog to keep planning flexibility for refurbishment program

**management level**

- **safety of facilities**
  - Implementation of measures for structures in poor condition and safety-critical electro mechanical systems

- **Safety and “EM” systems (in tunnels)**
  - implementation of safety standards according to road tunnel safety act until 2019

- **schedule reliability**
  - Ensure schedule reliability by monitoring and managing the project indicators “priority” and “schedule risk”

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Asset Management Processes and Tools

Processes

• Mid-term maintenance planning – budget provided in the 6-year construction programme
  ➔ planning on object level (by engineers)

• Long-term project preview – corridor planning (6-15 years)
  ➔ preview in corridor level (by engineers)

• Long-term budget planning – requirement planning (15+ years)
  ➔ portfolio planning on network level
Asset Management Processes and Tools

Infrastructure Management Tool - IMT

IMT
- dTIMS
- Cockpit
- MOM

IMT Datenbank SQL
Asset Management Processes and Tools

Strategic Network Condition Report

- Internal information about current network condition, the consequence of 6-year maintenance plan and expected long term development of network condition.
- Content
  - Inventory data for asset classes
  - Condition of asset classes
  - Financial effort for refurbishment and effect to condition development
  - Prognosis models and long term financial requirements
Conclusion
Main success factors to achieve strategic objectives:

- Available budget
- Necessary measures
- Customer demands
- Sustainable use of resources (finances and staff)

Reliable implementation of right measures in the right time
ASFINAG: Construction Programme
Mid-term Plan

Financed only by toll revenues, no state grant!
RELIABILITY ALL THE WAY.