

Filling Tunnel Operation Needs by a Managing Agent

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Content

- Introduction: Short overview of the Dutch road tunnel landscape
- Challenges of tunnel management for new Tunnel Owners
- The solution: the managing agent concept

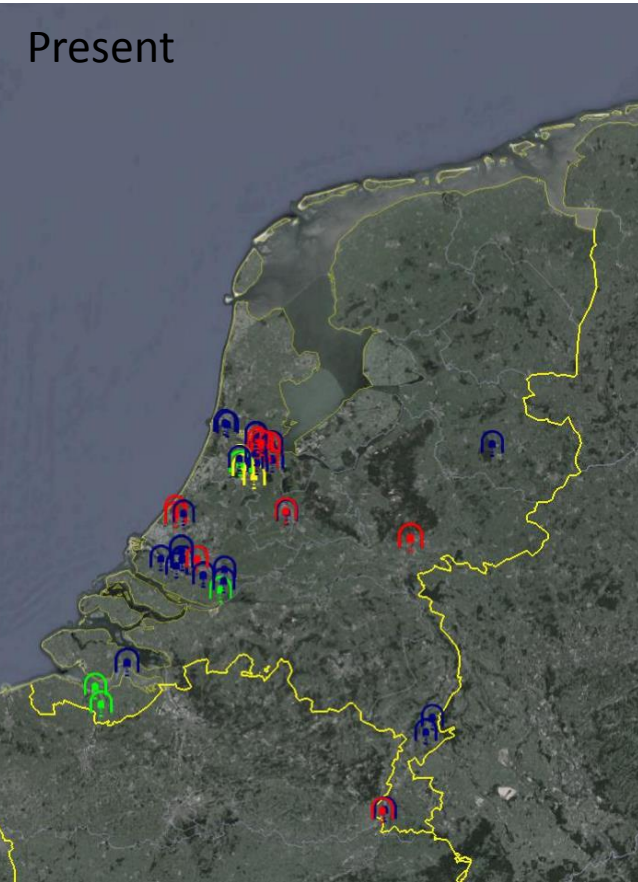
Managing Agent Tender

- Knowledge of
 - Asset management
 - Incident management
 - Traffic management
 - Quality management
 - Education, training & practice
- Operational team
 - 6 FTE Operational Tunnel Management
 - 15 Tunnel Operators (24/7)
 - 5 Tunnel Inspectors

Introduction





- More and more tunnels in NL
- First tunnel in 1944
- At present 50+
- Rijkswaterstaat and municipalities are traditional tunnel owners

Present



Introduction



- From connecting watersides to connecting elements to:
 - lower nuisance habitants
 - Connect Economic centra
 - Connect city parts
 - Unbundling transport systems and busy roads.
 - Multiple space use
- Fund tunnel by the economic activity on top
- Tunnelowners:
 -  Federal,
 -  Urban,
 -  Province,
 -  Private owners

Tunnelobjects Province

- Waterwolftunnel: open April 2013
- Amstel Aquaduct: open May 2014
- Abdijtunnel : Bus tunnel, planned renovation 2015-2016
- Part of new N201, the busiest Provincial Road Holland.
- Connecting Schiphol Airport with Flower auction-house



New Tunnel Owner

European Law

WARVW

RARVW

National Tunnel Standard

Labor Law

- Complex (changing) law
- Standard for Federal Tunnels
- Trafficflow vs Tunnelsafety
- (Tunnel)Safety is more and more in the publicity
- Public image as tunnel owner

Changing market



- More and more public bodies retreat from tactical and operational to strategic management
- Tactical organizations changing
 - Reorganization
 - Getting old(er)?
- Adding an extra tunnel?

Existing structure differs

- (Tunnel)Traffic management is different from urban traffic management:
 - Systems
 - Incidentmanagement
 - Quality management in relation to the law
- Space, capacity and / or knowledge for 24/7 Tunnelmanagement team
- Resources to keep tunnel organisation on necessary level

Organize tunnel- management



Province

- Set-up own organisation



Rijkswaterstaat

- Integrate with government Tunnel organisation



Market Managing Agent

- Hire expertise



Design, Build, (Finance), Maintain

- Hire expertise

Organize tunnel- management

Own organisation



- Advantages
 - Clarity in responsibility
 - In-house Contract
- Disadvantages
 - Re-invent the wheel
 - Larger risk to miss openingspermit by lack in experience
 - Knowledge of controlling regional trafficmanagement, locks en bridges is different

Organize tunnel- management

Rijkswaterstaat



- Advantages
 - Knowledge Tunnels (systems, safety and permits)
 - Knowledge of maintenance
- Disadvantages
 - Contract
 - Responsibility
 - Workload already high
 - No connection with local network
 - Ownership of (operator)-systems

Organize tunnel- management

Market



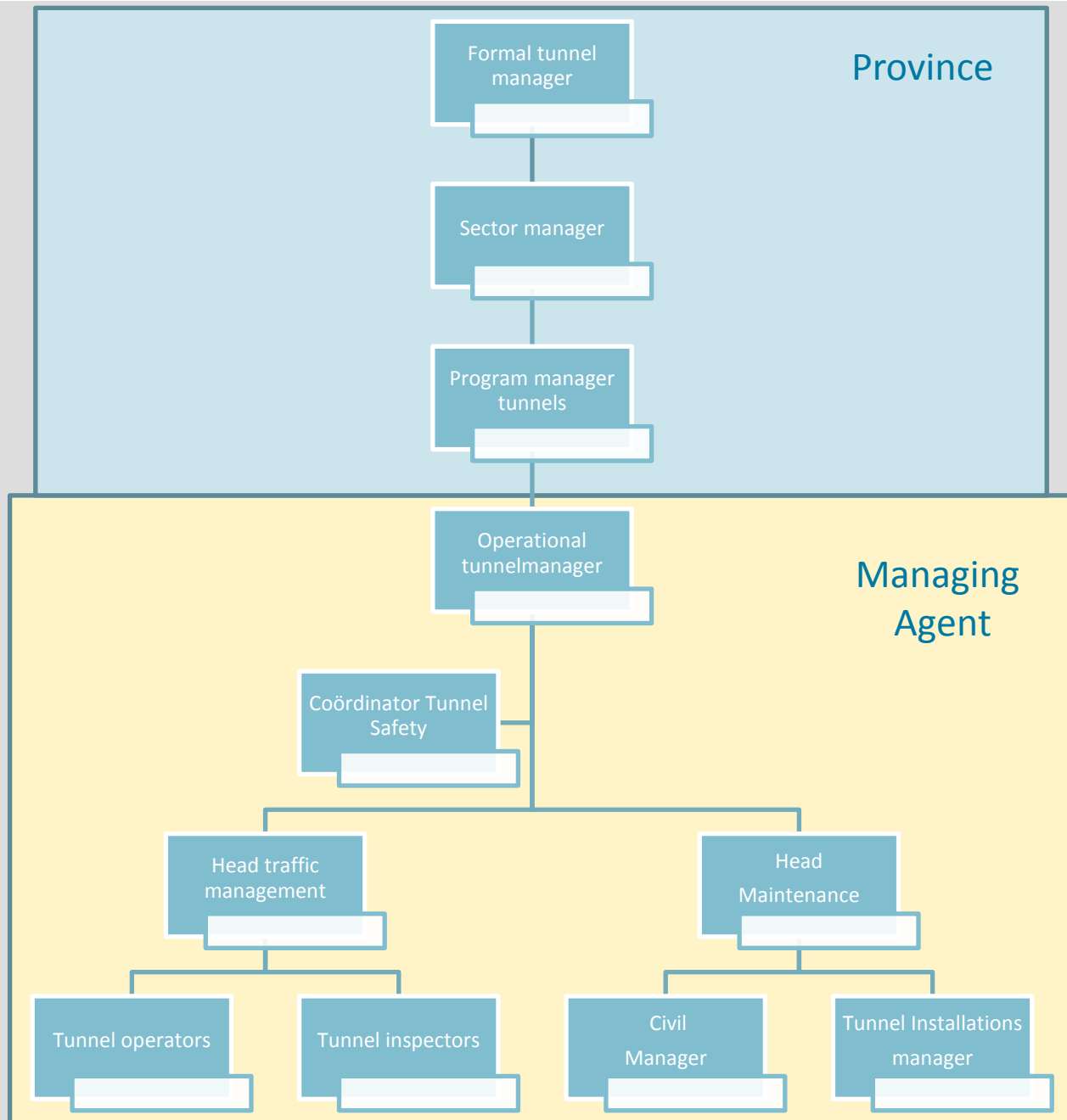
- Advantages
 - Knowledge Tunnels (systems, safety and permits)
 - Knowledge of maintenance
 - All systems are owned by Province
- Disadvantages
 - Complex steering contract
 - Responsibility

Organize tunnel- management

Design, Build, (Finance), Maintain

- Advantages
 - Knowledge of design, build en maintenance
- Disadvantages
 - Complex tender
 - Responsibility
 - No steering layer between maintenance and province (safety vs traffic management)

Organisation Managing Agent



Incident Coördinator

- Part of incident organisation region
- Tunnel knowledge
- Organisation knowledge
- Stand by 24/7 by phone

Contract steering

- Safety
 - Safety planning
 - Risk management
- Customer satisfaction
 - Image quality of objects
 - Reaction to public complaints
 - Contractrapports on time
- Availability and reliability
 - Availability Waterwolftunnel
 - Maintenance planning
- Improvements
 - Improvements costs
 - Percentage improvements finished

Improvements

- Independent safety decisions from contractor
- New ways of
 - Information sharing,
 - virtual training
 - personal continued education
- Integration of incident management, traffic management, asset management, education and quality management

Conclusions

- More “new Tunnel owners” without the capacity / experience
- The managing agent concept is a powerful tool for tunnel owners with the advantage:
 - Experience in Tunnels
 - Independent safety decisions from contractor
 - Integration of incident management, traffic management, education and quality management
- Contracts need stable steering points

Imagine the result