



# **Project Kijfhoek**

**Industrial Fire Brigade under  
article 31 Safety regions act**

**First Falck fire team in the Netherlands**

**May 3, 2012**

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# Train yard Kijfhoek, Zwijndrecht (1)



Function:

Size:

Importance

Train yard, based on gravity marshalling of cargo trains

Largest in Holland, one of the largest in Europe

Strategic hub in connecting Rotterdam harbor area with Europe mainland, start Betuweroute, Sophiatunnel.

Numerous carriages with hazardous substances



## Train yard Kijfhoek, Zwijndrecht (2)



Length: 5 km.  
Width: 400 meter  
Rails/tracks: 50  
People: > 100 workers / contractors



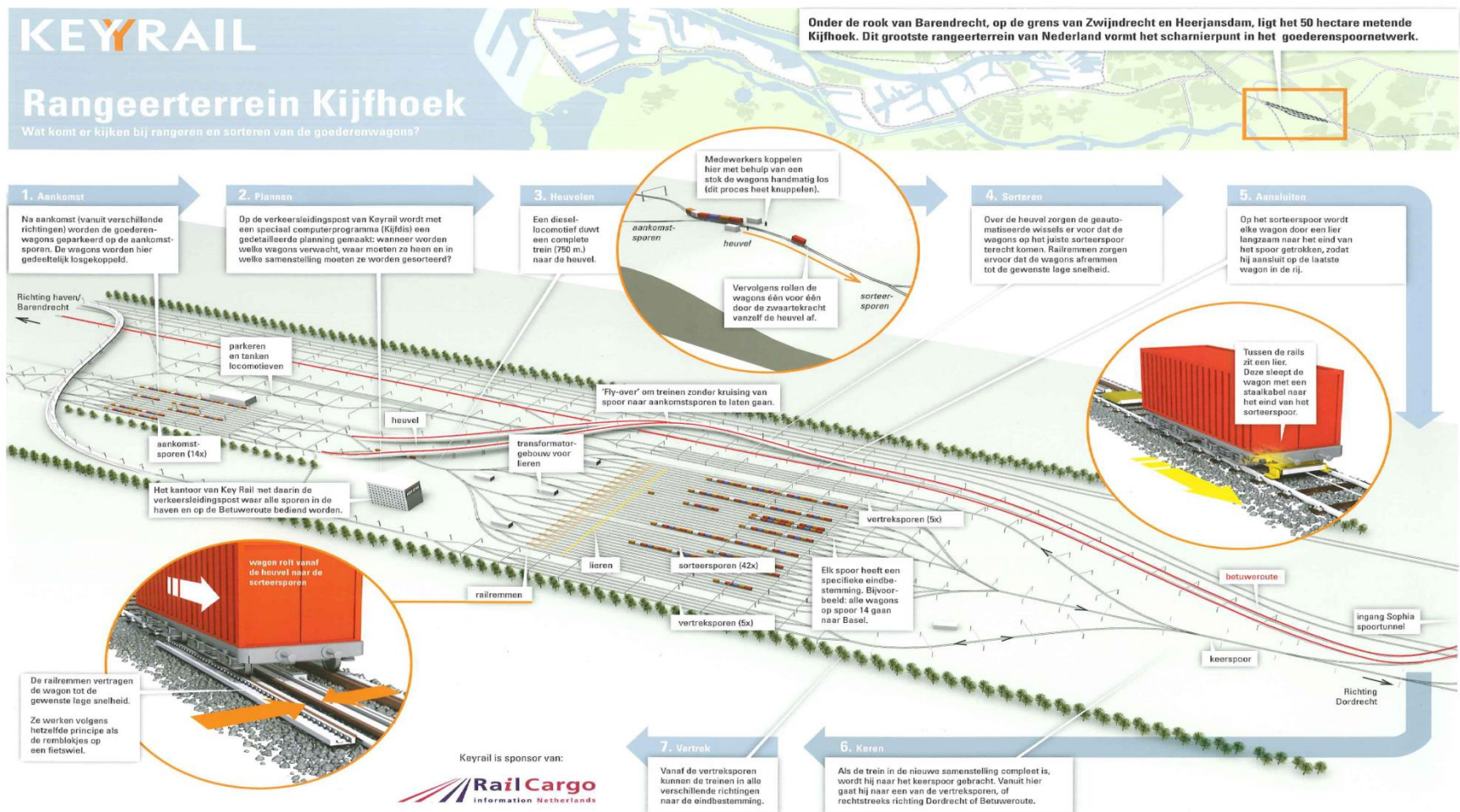
## Train yard Kijfhoek, Zwijndrecht (3)



Location: near A16, highway Antwerp-Rotterdam  
urban areas Zwijndrecht & Heerjansdam 43.000 inhabitants  
local industrial area of municipality Zwijndrecht  
Public services: municipal fire station at entrance of location



# Train yard Kijfhoek, Zwijndrecht (4)



# Driver 1 for industrial fire brigade on location: business continuity

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Continuous drive of Prorail for:

- high reliable service to its customers;
- safe working conditions for its employees and contractors;
- safe environment for train yard neighbors

**Continuous attention on “license to operate”**

# Driver 2 for industrial fire brigade on location: article 13/31 Safety regions act

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Article 31 permit Safety regions act  
(formally article 13 Fire act)



Service contract with KPI's  
8 months to start + option for extension



# Driver 3 for industrial fire brigade on location: incidentmanagement (ethanol incident Jan14, 2011)

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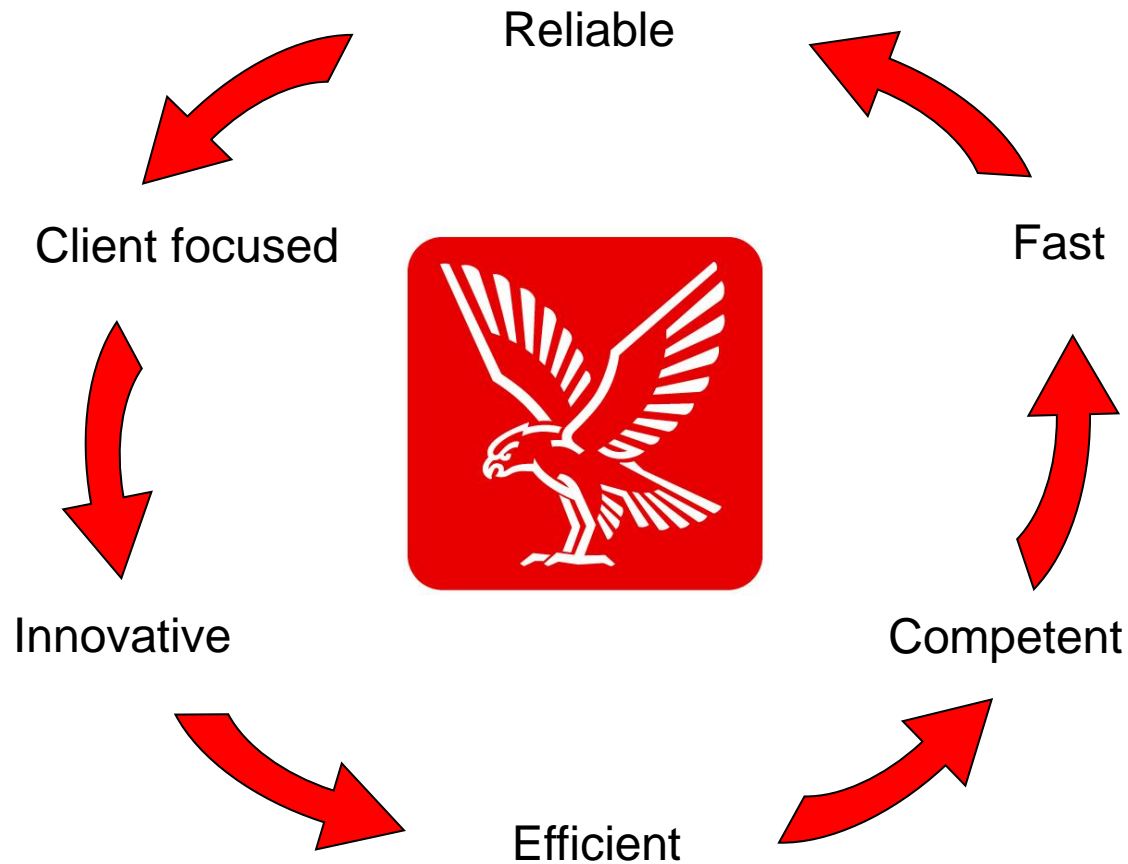


External threat for several hours: ethanol burns clean out, but whats in the other cargo trains?



# Falck core values, the start of everything...

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## Team, equipment & tasks (1)

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### Tasks:



**Falck AVD**

- Guarantee a fire team with 7 operational positions, 7/24/365
- Be prepared for industrial fires and hazmat scenario's in the extraordinary category
- Response time: 6 minutes after alarm available on all locations at the yard
- Maximum continuous working period during incident: 4 hours
- Fit in the Prorail procedures for safe work & emergency-management
- Fit in the Public procedures for alarming & scaling (both for small incidents and for disaster circumstances)

**Tasks based on credible scenario's as defined by Prorail**  
**Legal requirements for operational performance fire team**  
**set in article 31 permit**

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## Team, equipment & tasks (2)

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**Falck AVD**

### **Team, equipment & housing:**

- 28 fire fighters/teamleaders in 4 teams
- Fire equipment, fire truck and mobile pumps
- Fire station (provided by Prorail)
- Firewater & foam on truck (fixed fire water system provided by Prorail)
  
- Project Manager
- Operational manager
- Back office with all necessary knowledge



**Falck**



# Special responsibilities in a special world

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- Special environment (with difficult and limited access to various locations)
- Primary business process of addressing cargo trains to rails, based on gravity (so called "Hill-proces")
- Both old and modern cargo trains
- Regular trains + high speed trains (HSL/TGV Paris-Brussels-Antwerp-Rotterdam-Amsterdam) next to train yard
- An unknown world with a lot of specific procedures and detailed safety rules
  
- Falck AVD had to prove they can work with a high quality standard in the railway world, respecting all the existing safety measures of ProRail
- Quality manual for the fire services on Kijfhoek

## Difficulties: access

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## Difficulties: distances

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# Educational background & training

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## **Basic education fire fighters/team members (all):**

- Complete program public fire fighter ("manschap A/B")
- Complete program hazmat teammember
- Modules industrial fire fighter
- Training for specialist rail emergencies
- Driverslicence heavy trucks

## **Basic education team leaders (all):**

- Complete program teamleader at public fire services
- Complete program Industrial fire fighter

## **Training & exercise:**

- 4 hours every shift
- Before start: 4 days on external trainingcenter

# Quality manual (Basic)

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## ■ **NEN-ISO-10005 (Index):**

- Generally
- Field of coverage
- Starting points
- Management responsibilities
- Inputs
- Employees
- Requirements
- Specification of fire services
- Communication



# Quality manual (Supplement)

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## ■ **Supplements (the most important):**

- Job specifications
- Training and fire drills
- Safetyrules ProRail
- Rules of Kijfhoek
- Rules of the Falck Fire Brigade
- Work instructions and rules
- Distribution of tasks (ProRail and Falck) Risk management



Implemented in “Safety Portal” as managementtool for planning & reporting



# Monthly reports

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- Fulfilment of fire fighters
- Training and fire drills
- Equipment
- Operational activities
- Quality measurements
  - Theory
  - Fire Fighting
  - Leaks of hazardous substances
- Indicators of results



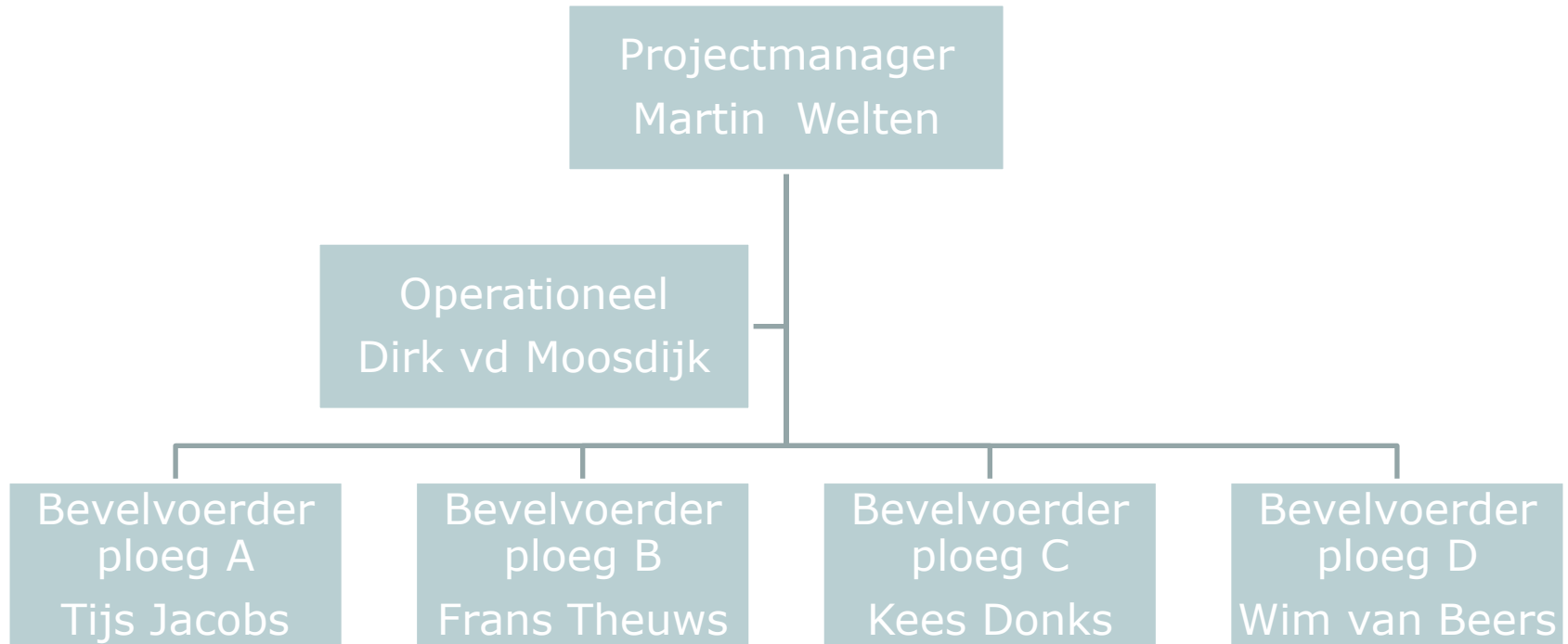
# Indicators of results

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- **Daily presence of operational crew**
- **Qualified crew**
- **Fire crew**
- **Medical health certificates**
- **Document of activities and results**
- **Procedures and requirements**
- **Organisation**
- **State of the equipment**
- **Replace equipment in case of damage**
- **Foam accorded by the government fire brigade**
- **Check of the foam**
- **Documents of the checks**
- **Maintenance of equipment**
- **Schedule op maintenance in documents**
- **Checks of the fire engines**
- **Right storage of equipment**
- **Certificates in documents**
- **Training as required**
- **Knowledge and skills**
- **Requirements of training program**
- **Procedures emergency organisation**
- **Transmission equipment**
- **Protective equipment**
- **REMI procedures**
- **Information for fire brigade government**
- **Commanders know the structure of the government fire brigade**
- **Showing skills on request**
- **Fixing technical problems within a month**
- **Reporting problems**

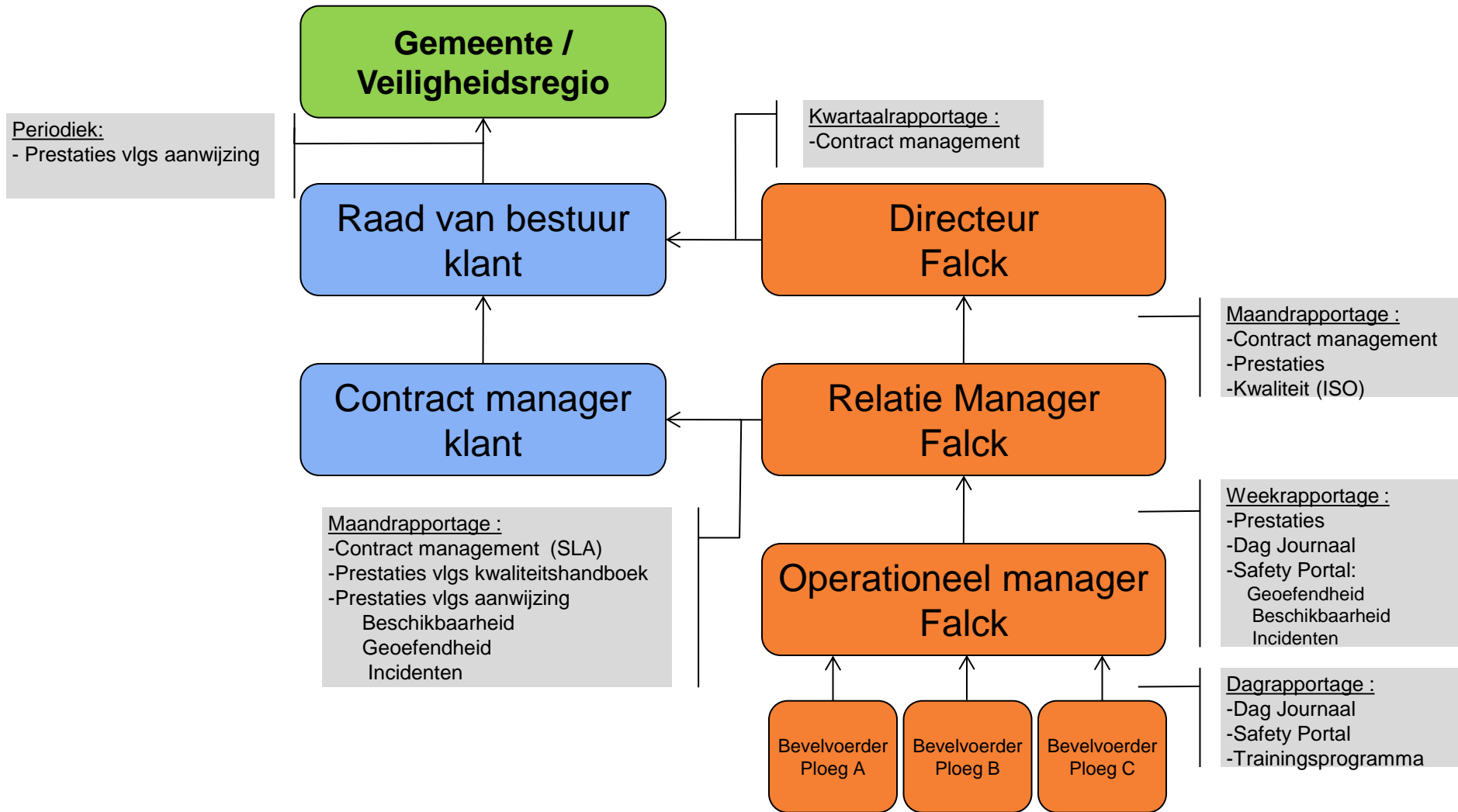
# Falck at Kijfhoek, the structure....

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# Falck at Kijfhoek, the reporting....



# Falck at Kijfhoek, meet the people....

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**Falck**

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*Always there*