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Head of sector : safety reporting

# **Supporting European Rail Accident Investigation**

**Inter national Rail Safety Conference**  
**Sweden 29th September 2009**



# Supporting European Accident Investigation

**Directive 2004/49/EC requires all EU Member States to have in place an independent national rail accident investigation body**





# Serious accidents on the railways are rare: Collision

Zoufftgen October 11, 2006

- Report validated jointly France and Luxembourg and published in March 2009



- 6 fatalities
- 1 person seriously injured
- 15 people slightly injured



# Serious accidents on the railway are rare : Derailment



Grayrigg UK 23rd February 2007

One passenger was fatally injured; 28 passengers, the train driver and one other crewmember received serious injuries and 58 passengers received minor injuries.



# Serious accidents on the railway are rare : level crossing accident:



**Total damage of the track construction  
and the substructure of the track on the  
length of 105 metres**

Level crossing  
accident in Poland  
**2 fatalities**  
**10 seriously injured**  
**10 slightly injured**





# Serious accidents on the railways are rare: Collision with an obstacle



Train collision  
with an obstacle  
in Studenka  
station in Czech  
Republic

8th August 2008, 10:30

A road bridge above the  
station collapsed just in  
front of  
approaching Eurocity  
train No. 108.

7 fatalities (passengers)  
67 injuries (1 engine driver, 4 staff, 62  
passengers)



The train was carrying 130 passengers and a crew of 4, none of whom was seriously injured



On 21 February 2007,  
train no. 62 ran into an  
avalanche at  
Storekleven – Norway -



12th February 2007  
Tua line  
Portugal



The accident was due to a landslide that destroyed the track just few minutes before the train passed . The train derailed and then slid down into the river.

Fatalities :  
1 Passenger  
2 Railway employees (driver and conductor)

2 passengers seriously injured



# Supporting European Accident investigation

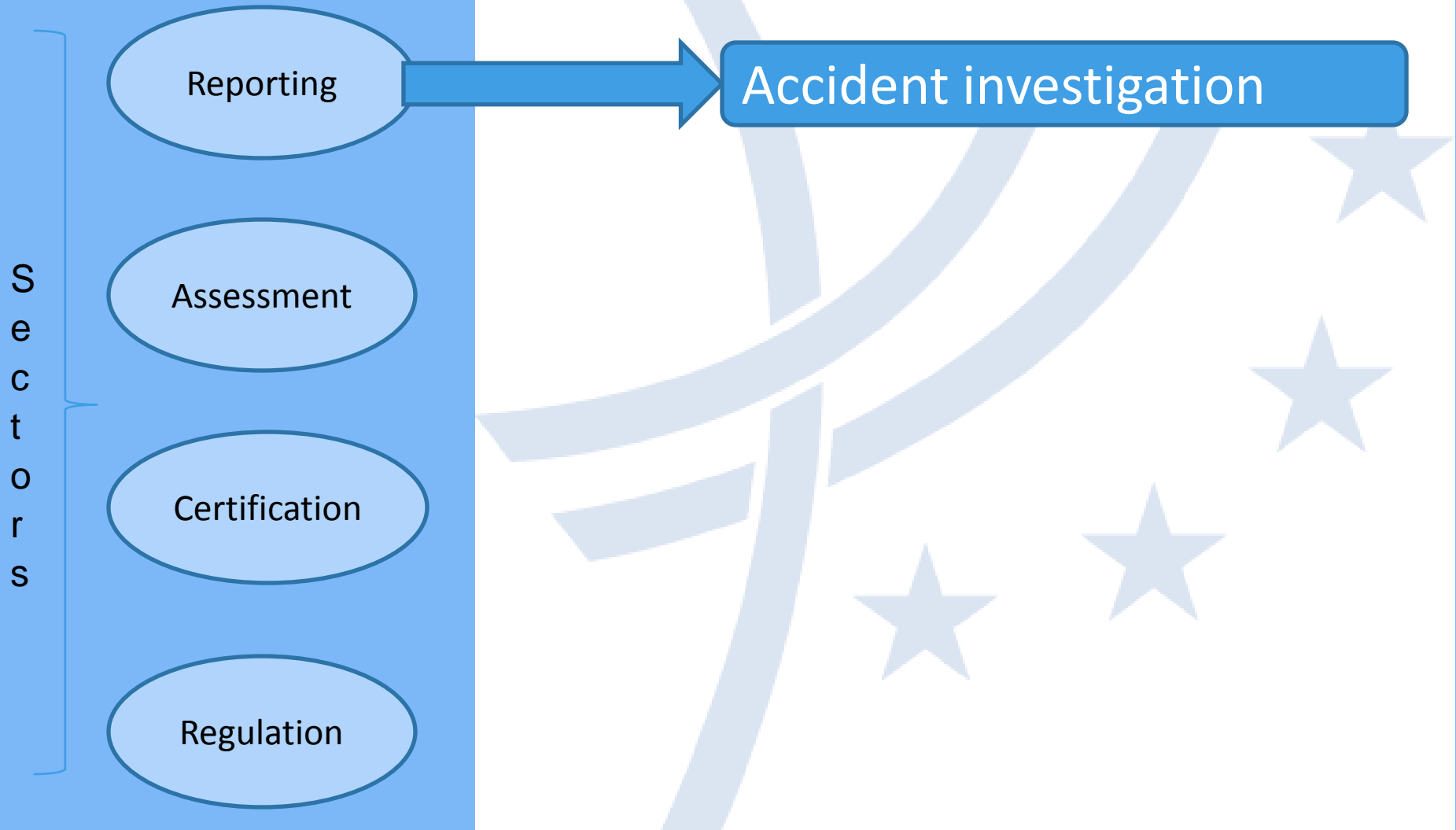
**Safety Directive 2004/49 brings clear requirements for accident investigation and the national investigation body (NIB)**

- Independant
- No blame
- Public notification and reporting
- Direct, underlying and root causes
- Recommendations for safety

**The European Railway Agency has a role to support, faciliate and co-ordinate the learning of lessons from accidents across the EU Member States**

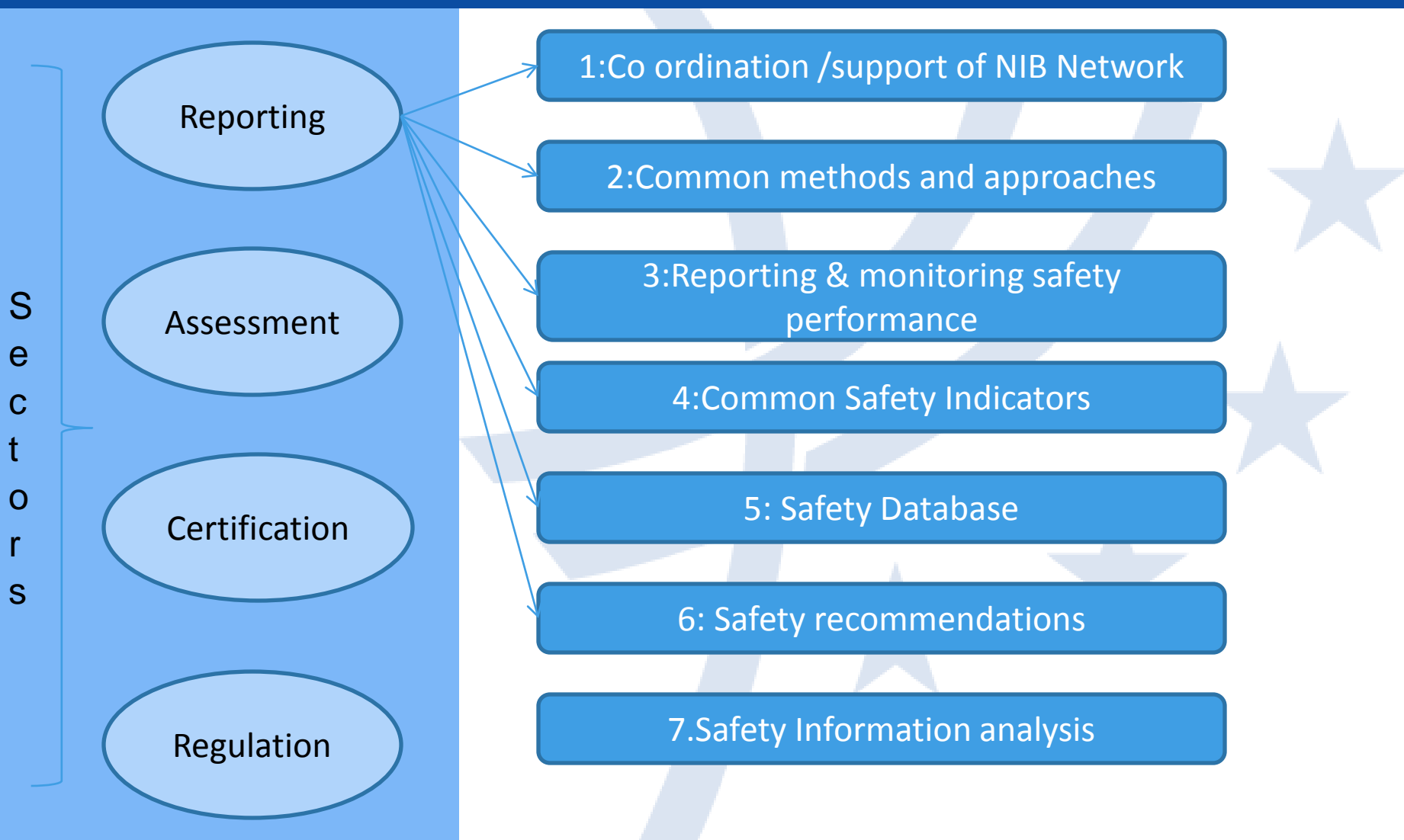


# Safety Unit organisation



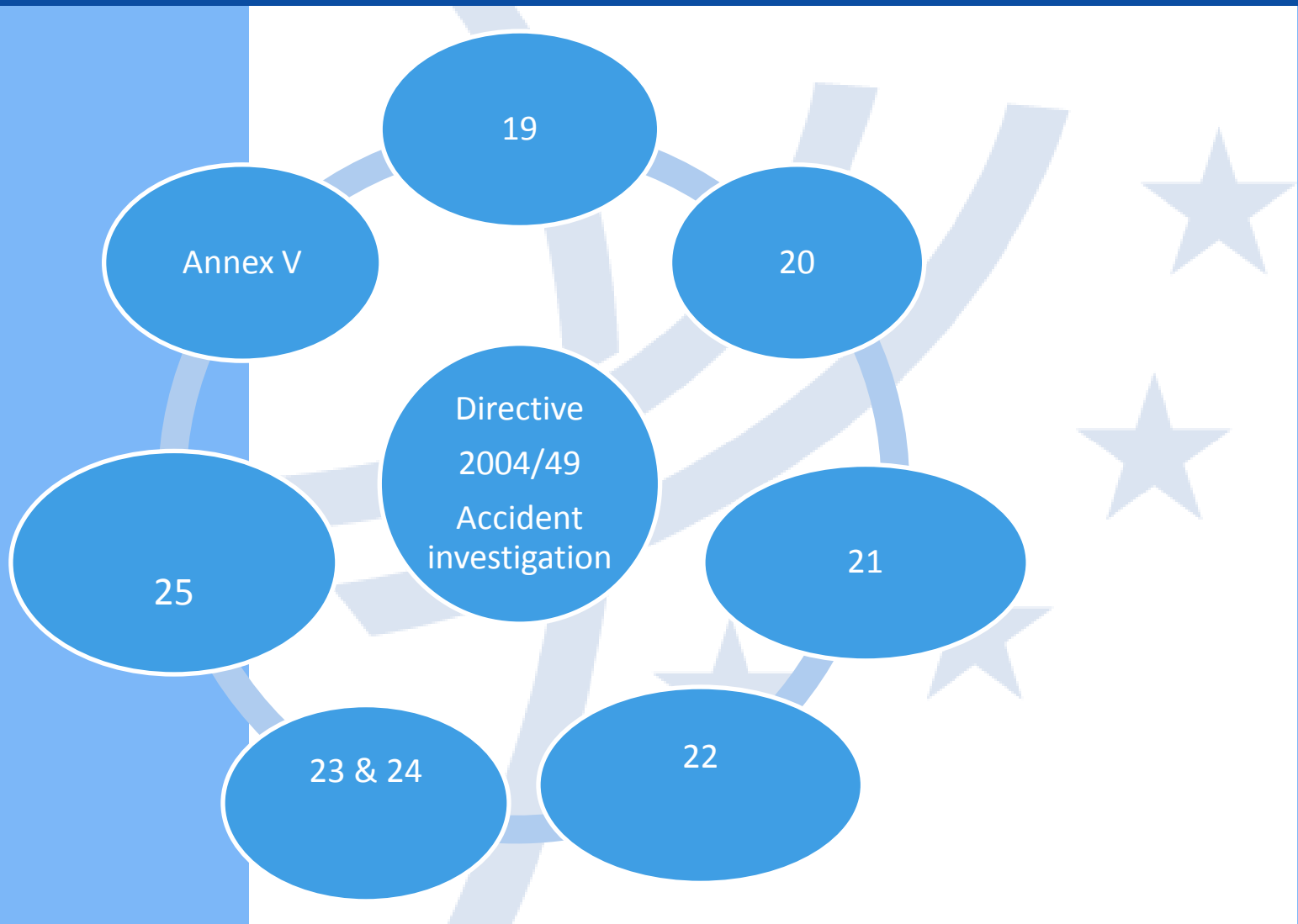


# Safety Unit organisation



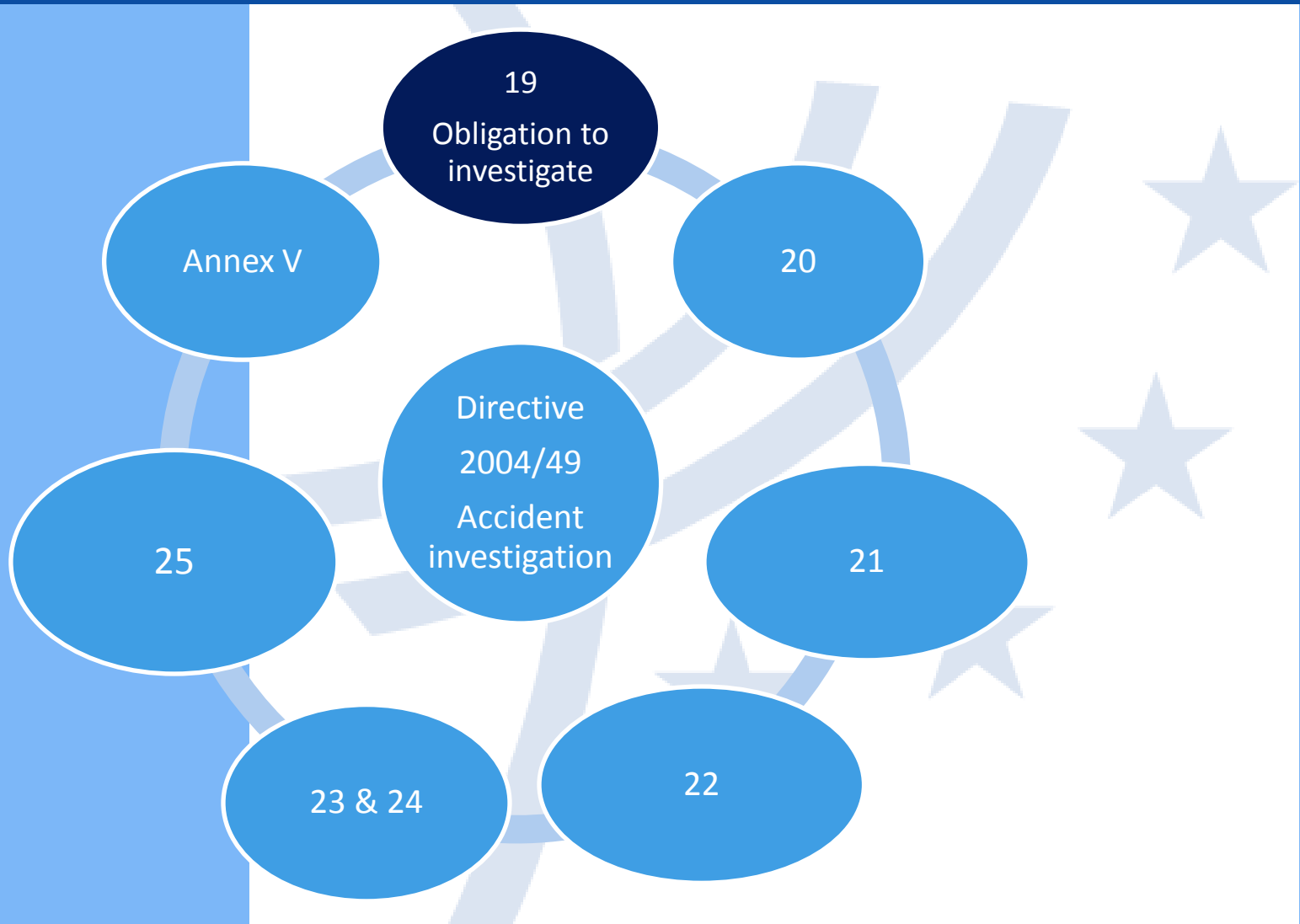


# Railway Safety Directive 2004/49





# Railway Safety Directive 2004/49





# Article 19 : The obligation to investigate

**All Member States and Norway (Switzerland to follow !)  
have investigation bodies established in legislation**

## **Diversity :**

**Nature of the investigation body**

**In transposition of legislation**

**In expertise**

**In the understanding of what is a serious accident**

## **Progress :**

**Guidance on Article 19.1**

**In development for Article 19.2 , 3 & 4**

**Support through dialogue when reporting**

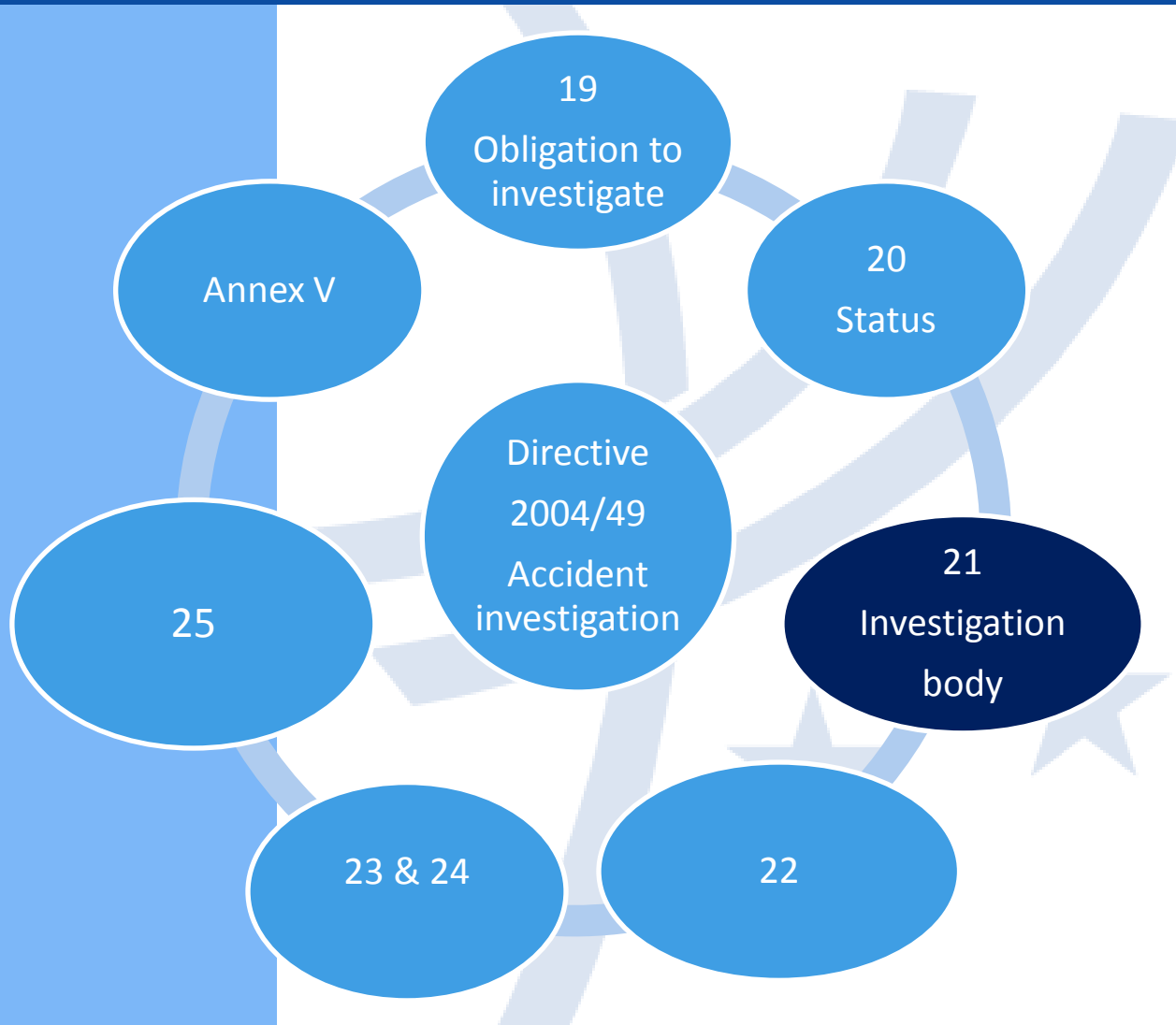


# Railway Safety Directive 2004/49





# Railway Safety Directive 2004/49





# Railway Safety Directive 2004/49





# Articles 20,21 & 23 : Status and Investigation body and process

## Current progress :

The Agency's regulation sector is considering implementation into national law

Building a profile of each NIB to understand how independence is established and maintained, and its relationship to the judiciary

Scope of investigations and the process varies

**The challenges are the different cultural contexts and to evolve an understanding of good practice and mutual support**

The Agency has and is providing support for investigations

**Active co-operation between NIBs is already happening** – the next step is supporting guidance and good practice



# Network of Investigation Bodies

**All EU Member States – Chief /senior investigators  
14th meeting – October 2009**

**« Active exchange of views and experience for the purpose of developing common investigation methods, ..principles for the follow up of safety recommendations and adaption to the development of scientific and technical progress »**



# Network of Investigation Bodies

## Sharing information

Investigations in progress /recently completed

## Topics covered include:

Level crossings

Relationship with judiciary

Investigation of suspected suicides

On board data recorders

## Seminars, training, briefings

Trespass and suicide

Human factors

Safety management Systems

Safety Recommendations

## Task Forces

**TF1:** Annual Reports

**TF2:** Causation classification

**TF3 :** Recommendations

**TF4 :** Investigator training and competence

**TF 5:** Reporting guidance  
(Annex V) leading to methodology

Plus **guidance and good practice**



# Railway Safety Directive 2004/49





# Railway Safety Directive 2004/49





# Articles 23, 24 and 25 : Reporting and recommendations

NIBs report :

- Notifications
- Final accident investigation reports
- Annual reports

Reporting has given the Agency 2 years of annual reports (CSIs, NSA NIB annual reports) and 4 years of serious accident notifications to the database

In 2008 a project added an historical database of serious rail accidents (19.1) back to 1990, now the most complete database of serious european rail accidents.

**Access our accident database at [www.era.europa.eu](http://www.era.europa.eu)**



**Notification and investigation reports available at: <http://pdb.era.europa.eu>**

- Notifications and investigation reports now cover data from **25** countries
- Information on **688** accident/incidents have been notified
- **453** investigation reports have been completed
- **190** Notifications and **53** investigation reports received on accidents in 2008\*

Of these 33 Notifications and 9 reports concern serious accidents according to article 19.1

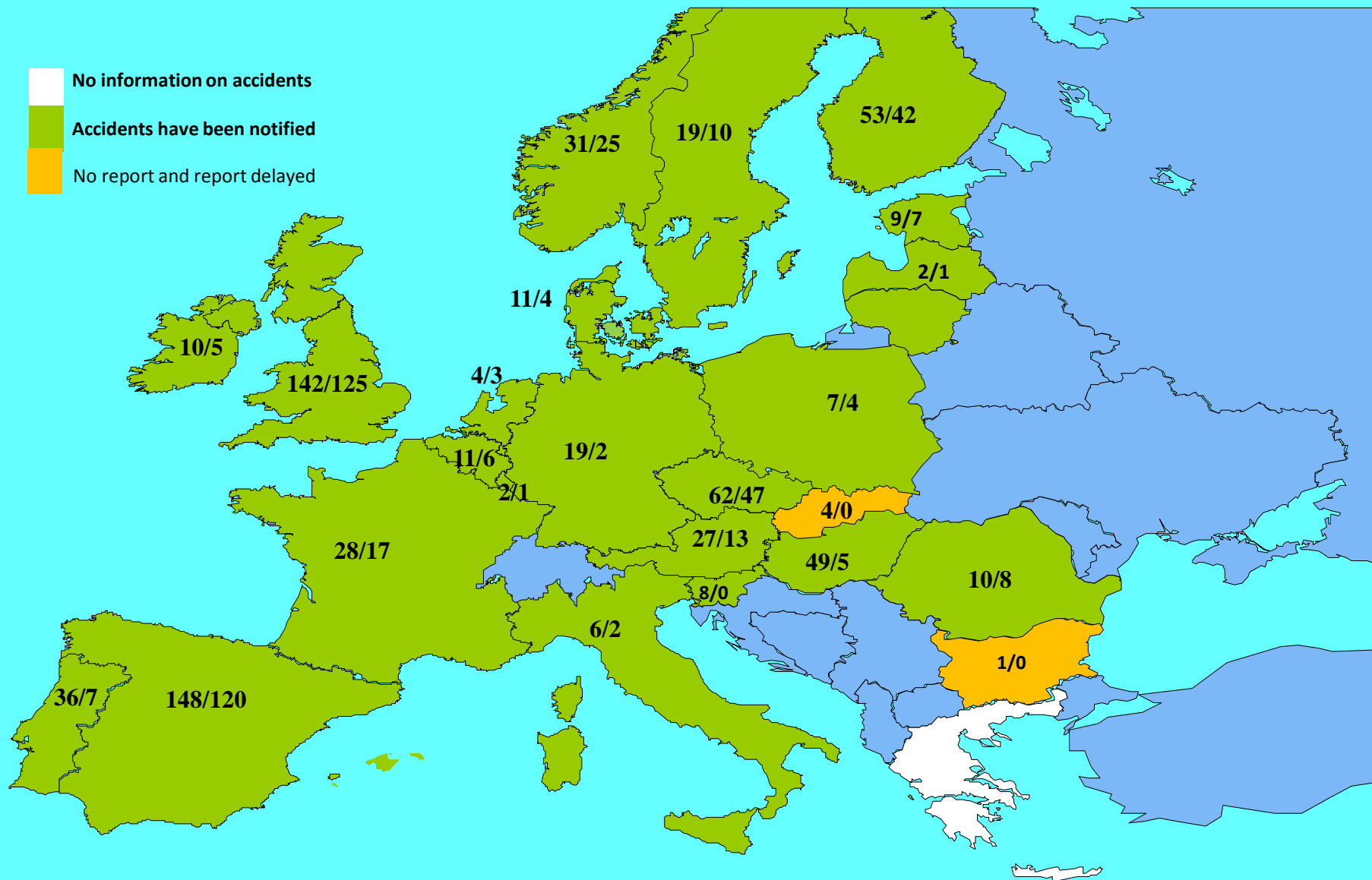
- For 2007 serious accidents: 40 notifications but only 23 investigation reports received





# Developments in the database

## 688 notifications 453 reports..





# Railway Safety Directive 2004/49





# Annex V : Reporting and methodology

**Annex V gives an outline of the content of the final accident investigation report as a 'blueprint'**

**And supports the process**

Guidance on good reporting practice in accordance with the Annex – aim to publish February 2010.

Current project to review accident investigation methodologies at each stage of investigation and what is suitable for rail

Alongside development of a structure for classifying the contributory factors /causes of accidents



## The next steps : in summary

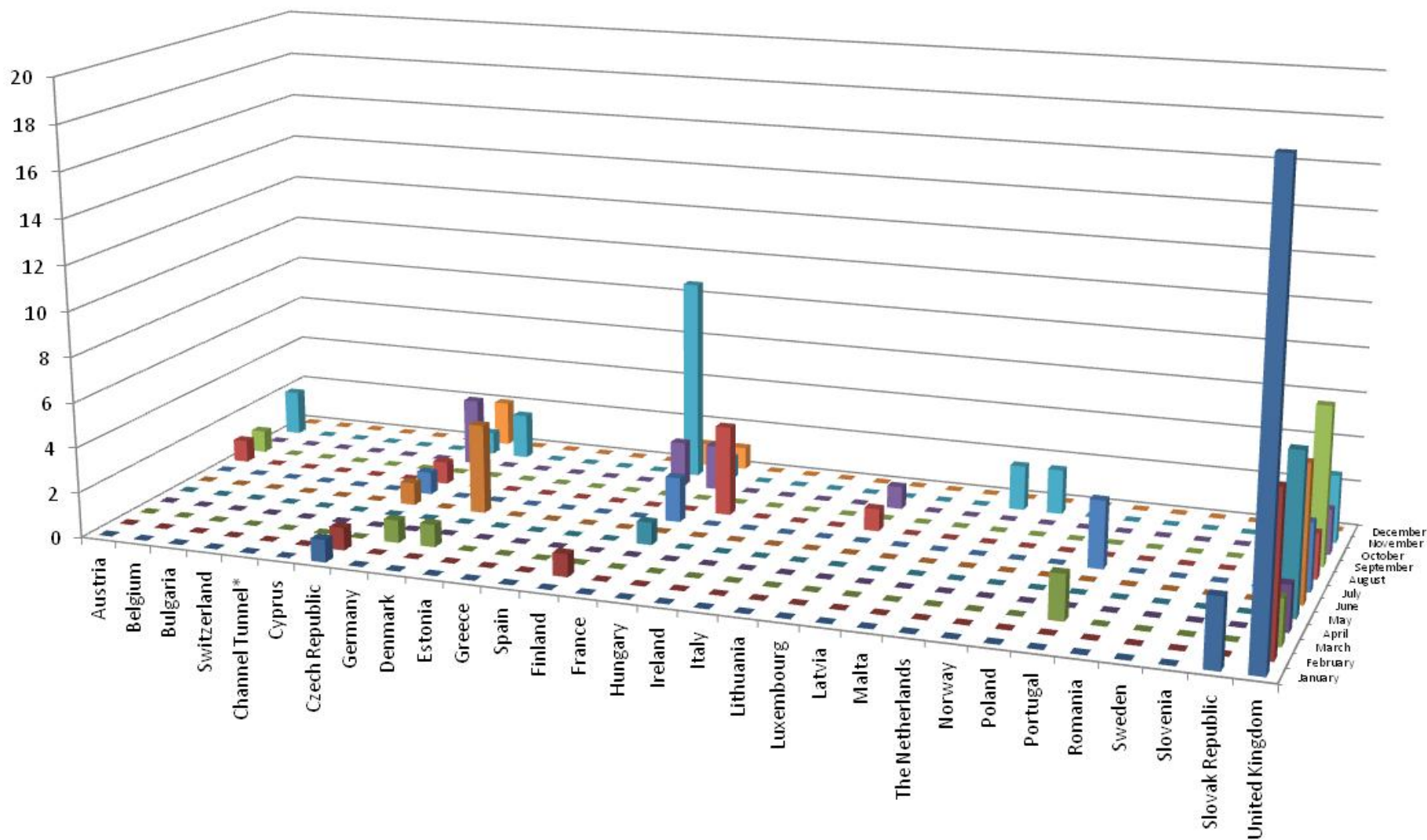
- Supporting independence and the NIB Network
- Communication and information sharing
- Facilitating cross border and co-operative investigations
- Developing the database – ECCAIRS
- Safety recommendations – database
- Monitoring and analysing trends – identifying issues
- Quality and consistency in data
- Training and competence of investigators
- Developing common approaches from diversity



**Thank you for your attention**



# 2006 : 122 notifications,0 report



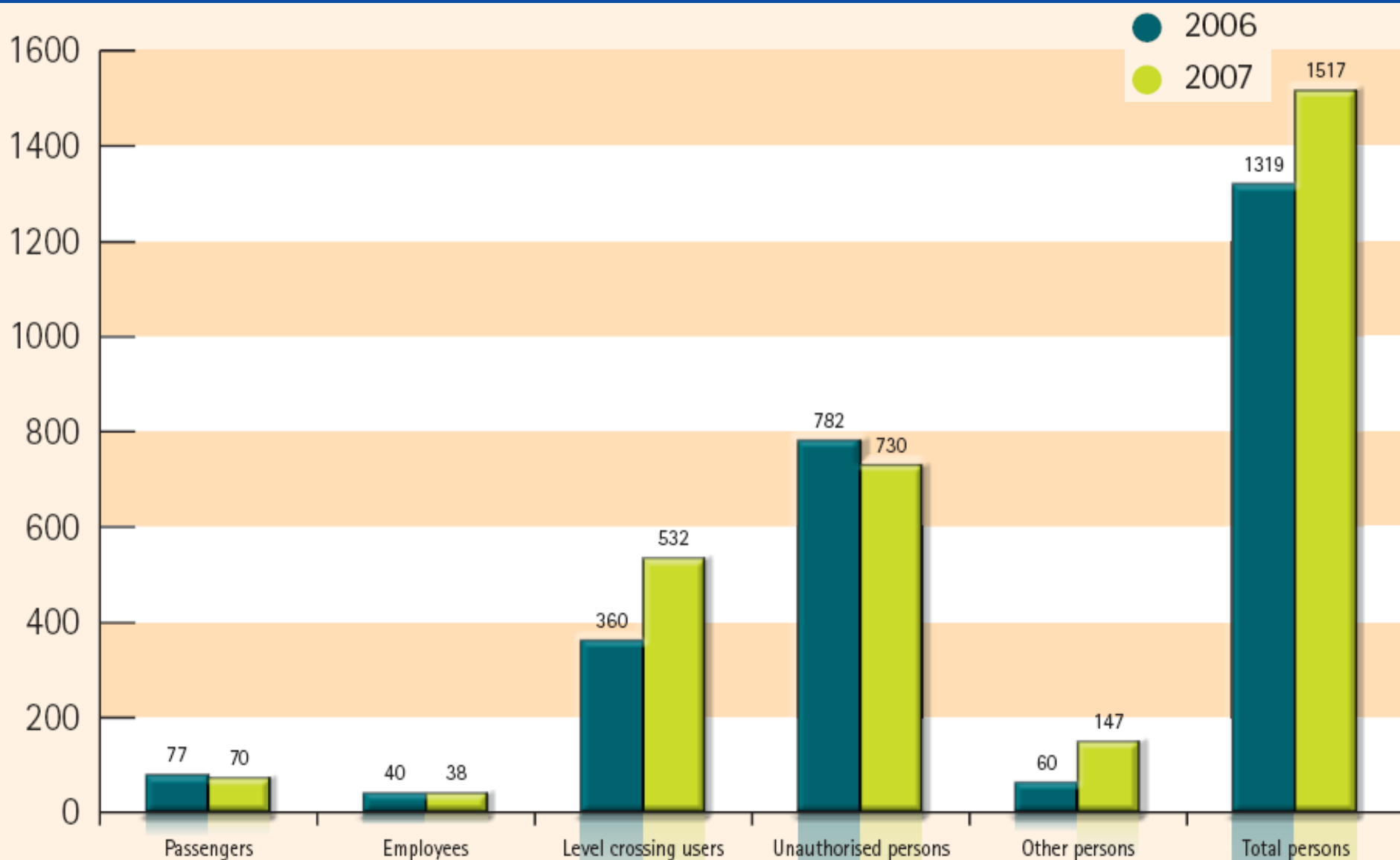
**2007 : 242 notifications, 104 reports**

**2008 : 198 notifications, 186 reports**

**2009 : 133 notifications, 163 reports**



# Fatalities by category of person





# Safety certification

- 17 members have issued safety certificates
- 184 certificates issued in 2008
- In total, 350 certificates issued
- DE, NL and ES have issued safety certificates for workshops
- No certificates have so far been issued for the entities in charge of maintenance.



# Accidents in Europe by type of accident

2006  
2007

