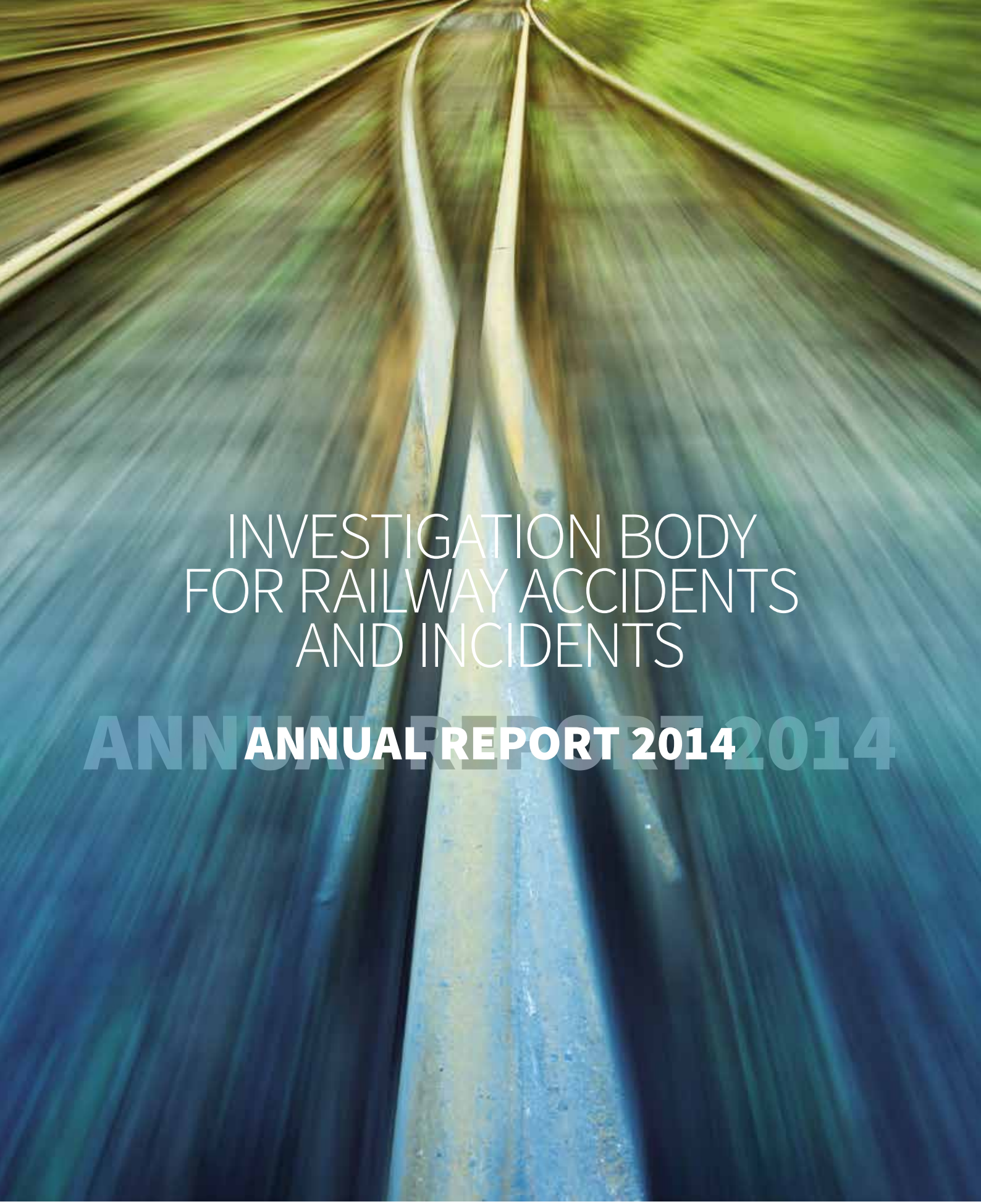

INVESTIGATION BODY FOR RAILWAY ACCIDENTS AND INCIDENTS

ANNUAL REPORT 2014

Federal Public Service
Mobility and Transport

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1. Foreword

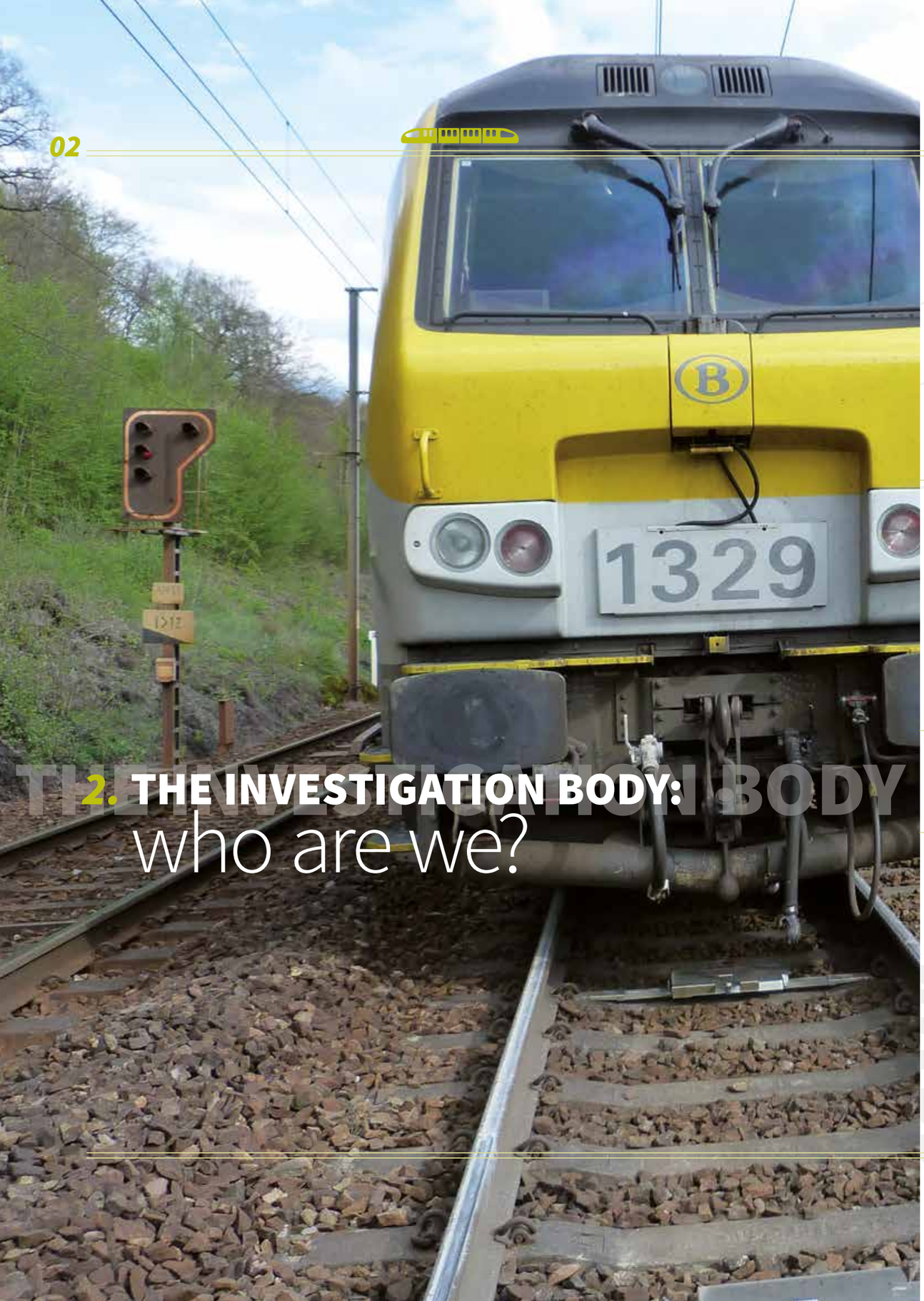
As well as the closing of three investigations opened in 2013, including the investigation into the accident in Wetteren, in the course of 2014 the Investigation body (IB) has continued modernising and professionalising its services.

To do this, it has put in place a policy of periodic training of its agents in order to improve its competences, as well as several ambitious improvement programmes, structured in a multi-annual action plan. This action plan targets the management of day-to-day operations, as well as maintaining a certain level of performance and continuing optimisation. It also allows the management of a number of new initiatives and the outlining of priorities, taking into account various parameters (available human and budgetary resources, number of investigations to complete, etc.).

Furthermore, the IB has moved into a new working environment, following the conversion of the Federal Public Service Mobility and Transport into open space offices. This new configuration has led to a change in working methods.

Finally, the tasks of the IB have been broadened: the body is now also responsible for investigating serious accidents on museum railway lines. A museum railway line is a railway line with the main function of tourist-passenger transport with historical rolling stock (steam trains).

To the extent that the IB is given resources to carry out its objectives, it is reasonable to imagine that these will be achieved in reality.
It is our intention to continue to build a modern and dynamic service, so as to guarantee optimal quality.



2. THE INVESTIGATION BODY: who are we?

The creation of an independent body responsible for investigating railway accidents and incidents for the improvement of safety is provided for by the European Directive 2004/49. This Directive has been transposed into Belgian law with one law and two implementing decrees.

A. Legal basis

1. LEGAL STATUS

The Law of 30 August 2013 on the Railway Code

The Railway Code is intended to codify and assemble three laws on the railways in a single and coherent text. It finalises the transposition of certain directives and provides for the modifications to railway legislation made necessary by the experience acquired since adoption of the following three laws:

- The Law of 4 December 2006 on the use of railway infrastructure;
- The Law of 19 December 2006 on the safety of railway operations;
- The Law of 26 January 2010 on interoperability of the railway system within the European Community.

Royal Decree of 16 January 2007

The Royal Decree of 16 January 2007 has been amended by the Royal Decree of 25 June 2010 setting certain rules for investigations into railway accidents and incidents.

Royal Decree of 22 June 2011

The Royal Decree of 22 June 2011 designating the investigation body (IB) for railway accidents and incidents and repealing the Royal Decree of 16 January 2007.

It stipulates in Article 4, that the lead investigator and the assistant investigator of the IB may have no link to the Department for Railway Safety and Interoperability (DRSI), or to any railway regulatory body or any authority whose interests could conflict with the investigation.

2.LEGAL DEVELOPMENT

Law of 26 March 2014

The Law of 26 March 2014 regulates all requirements on the operational safety of museum railway lines. A museum railway line has the main function of tourist-passenger transport with historical rolling stock, such as steam trains. These are abandoned railway lines which have remained in place and which are generally operated by a company operating tourist trains.

To be able to operate a museum railway line, the operator must have authorisation, issued by the Safety Authority.

This law stipulates that the operator of a museum railway line should immediately inform the IB of the occurrence of a serious accident, according to the means determined by the IB. It should also foresee that the IB carries out an investigation following every serious accident occurring on a museum railway line.

Royal Decree of 8 May 2014

Royal Decree of 8 May 2014 laying down the safety provisions for stock on museum railway lines.

To access the infrastructure of a museum railway line, the rolling stock should be compatible with this one and with the signalling system. This is why the operator of the museum railway line should put together a dossier, including a technical description of the rolling stock they wish to use. The requirements are outlined in this Royal Decree.

B. Organisation and resources

BUDGET

The creation of an organic budgetary fund by Article 4 of the programme act of 23 December 2009 is intended to guarantee the financial independence of the Investigation Body for railway accidents and incidents.

The funds are made up of contributions to the operational costs of the IB by the infrastructure manager and railway undertakings.

Aside from general expenses (staff, offices, operations, equipment), there are also specific operational expenses which ensure the IB is able to fulfil its duties: regular external expertise and consulting, individual safety equipment, participation in specialised training and conferences (etc.).

The King determines, by Decree, the amount of the annual IB budget, after consultation with the Council of Ministers.

The Ministerial Decree of 4 October 2011 sets the powers which are delegated to the lead investigator in financial matters.

STAFF

On the 31 December 2014, the IB was made up of
- a principal investigator,
- four permanent investigators,
- an administrative assistant.

The principle of budgetary caution set by the government have not allowed the IB to take on an deputy lead investigator (Dutch-speaking), or to replace the administrative assistant (Dutch-speaking).

Investigations are led by the permanent investigators with the support of experts chosen according to the skills considered necessary.

To be able to carry out its duties effectively and with the level of quality required while remaining independent in its decision-making, the IB has an appropriate level of technical expertise internally in the railway domain and experience on the ground. Newly-recruited IB personnel generally have engineering skills and specialised knowledge in areas other than the railway.

The IB offers its personnel the opportunity to take regular training courses. The aim is for members of the team to be specialised in various disciplines, and for them to accrue and share experiences through a policy of knowledge transfer within the group.

Here are a few examples of training courses taken in 2014:
- course on derailments, given by the European Railway Agency (ERA);
- course “Investigation in Safety Management System”, given by the European Railway Agency (ERA);
- training on the equipment for reading the recorded data of rolling stock, given by the manufacturer HaslerRail;
- training on the Désiro stock, given by the SNCB/NMBS.

LOCATION

The offices of the IB are situated in the offices of the Federal Public Service Mobility and Transport, rue du Progrès 56 (5th floor) in Brussels, close to the North station.

In mid-February 2014, the IB moved into open space offices. Bringing a new organisation to work and more light to surroundings, this new development required changes to be made to some procedures, so as to retain the required level of confidentiality. Various changes in the operation of the IB have been discussed and made. A secure room was made available to the IB for the storage of confidential documents.

THE IB ORGANISATION CHART, GUARANTEE OF ITS INDEPENDENCE

To earn the public’s trust, the IB should be objective, independent and free of any conflict of interest. The question of its independence is any case more complex than a simple link with other bodies. Elements such as the hierarchical position, decision-making independence, personnel competences, the availability of sufficient resources in its broadest sense (financial, human and material) are determining factors for its practical independence.

The various legislative changes made allow the IB to work completely independently. Furthermore, the hierarchical position of the IB reinforces its independence, to the extent that it is under the direct authority of the Minister for the middle class, self-employed, small businesses, agriculture and social integration, in charge of policy on the railway system and regulations on railway transport and aviation.

MINISTER
Willy Borsus

INVESTIGATION BODY FOR RAILWAYS ACCIDENTS AND INCIDENTS
Leslie Mathues

DIRECTORATE OF RAILWAY SAFETY AND INTEROPERABILITY
Thierry Breyne

REGULATORY BODY FOR RAILWAY TRANSPORT AND FOR BRUSSELS AIRPORT OPERATION
Serge Drugmand

PRESIDENT OF FEDERAL PUBLIC SERVICE MOBILITY AND TRANSPORT
Laurent Ledoux

INVESTIGATION BODY FOR RAILWAY ACCIDENTS AND INCIDENTS

Principal Investigator	Leslie Mathues
Deputy Principal Investigator	
Investigator NL	Alex De Smet
Investigator NL	Jean-Pierre Engelmann
Investigator FR	Martin Gigounon
Investigator FR	Raphaël Grosjean
Administrative staff	Daniel Demarez

C. Our duties

1. INVESTIGATIONS

The main task of the Investigation body (IB) is to investigate operational accidents considered serious, occurring on the Belgian railway network.

As well as serious accidents, the IB is allowed to investigate other accidents and incidents with consequences for railway safety.

The safety investigations carried out aim to determine the circumstances and causes of the event and not with apportioning blame.
They are separate from the legal investigation, which takes place alongside.
They are based on multiple aspects: infrastructure, operations, rolling stock, staff training, regulations, etc.
The results of the investigations are analysed, evaluated and summarised in the investigation report.

The investigation report is not a formal decision. It may contain safety recommendations for authorities, railway undertakings, the infrastructure manager or other publics.
The aim of these recommendations is to reduce the risk of similar accidents re-occurring in the future, but also to reduce the consequences.

2. DATABASE

All the accidents and incidents reported by the infrastructure manager and by railway undertakings are recorded into the IB database daily.

This database sorts the events according to information provided by the railway undertaking and the infrastructure manager.

It is made available to the Safety authority and allows common safety indicators to be determined, as foreseen by European Directives.

3. EUROPEAN CONSULTATION

The IB takes part in the activities of the network of national investigation bodies, which takes place under the aegis of the European Railway Agency (ERA). The aim of this network is to allow the exchange of experiences and to work together on the European harmonisation of regulations and investigation procedures. This international platform ensures an exchange of good practices between Member countries, as well as the development of guides so as to have a common vision and interpretation of the practical application of European Directives.

The IB has participated in several meetings, working groups and projects organised by the ERA:

- various *task force*s to outline the independence of investigation bodies, an auditing procedure for investigation bodies on a voluntary basis, etc.;
- the *NIB technical meeting*;
- meetings between investigation bodies, to share good practices, the results of investigations, etc.;
- the *Maturity Matrix pilot*, evaluation system for a country's maturity level.

4. COMMUNICATION

The investigation reports are made public and are intended to inform the parties concerned, the industry, regulating bodies, but also the general public. This is why the IB publishes summaries giving details of the main elements of an investigation. The report outlines the elements that have allowed conclusions to be drawn. The reports and summaries by the IB are available via the website of the Federal Public (FPS) Service Mobility and Transport at the following address:
http://www.mobilit.belgium.be/fr/traficferroviaire/organisme_enquete.

In the course of 2014, the IB presented the results of investigations into the accidents in Godinne and Tintigny to the parliamentary commission on "Infrastructure".

Contact with the press is via the spokespersons of FPS Mobility and Transport, in accordance with the agreement protocol established between the FPS and the IB.

The IB has also participated in various seminars:

- a seminar organised by the IBZ[1] on the subject "Lessons learned train accident Wetteren";
- a seminar organised by the KUL[2], presentation by the Investigation body for railway accidents and incidents;
- presentation during a seminar organised by the Railway Police;
- the «International UIC workshop[3] on Human Factors in investigation of accidents/incidents», Paris, 10 and 11 February 2014, presentation of the results of the human factor investigation carried out in the context of the accident in Buizingen;
- a seminar organised by the Haute Ecole Sualem Rennequin, "raising awareness of risk management";
- a working meeting with the UETF[4] involving safety in railway work.

1. IBZ : Service public fédéral Intérieur (Federal Public Service Home Affairs)
2. KUL : Katholieke Universiteit Leuven
3. UIC : International Union of Railways
4. UETF : Union des Entreprises de Travaux Ferroviaires (Union of companies carrying out railway works)

3. ACTION PLAN of the Investigation body

A. Information safety management system

A safety management system for information is still being set up, so as to maintain confidentiality, integrity and availability of information. The development and the implementation of this system takes into account the needs and aims of the Investigation body (IB), safety requirements, organisational processes, as well as the size and structure of the IB.

ORGANISATIONAL PROCESSES

The IB receives from the infrastructure manager and the railway undertakings:

- records, within 24 hours, on all incidents and accidents occurring on the Belgian railway network;
- summaries, within 72 hours, of operational incidents and accidents.

Up until now, this information came in a Word and PDF format respectively, needing as a result to be reencoded in the system separately by one of the IB team members.

This process created not only a high risk of error in the re-transcription of information, but also a risk in terms of available human resources. This is why the IB is working on a project to automatically transfer information into its own database.

The objective was partially achieved in 2014, with the transfer of data automatically by the infrastructure manager. Several projects are underway for the automatic transfer from railway undertakings and various tests have been carried out.

BENEFIT OF THE SYSTEM PUT IN PLACE

The number of incident reports received is significant. These reports record operational accidents and incidents, but also all the events creating delays (aggression of train conductors, smoke detector activation in the toilets, animals on the tracks, unauthorised people on the tracks, etc.).

So as to draw the attention of IB investigators to certain types of events, automatic alerts were created in 2014.

CLIENT SERVICE

Following a consultation meeting with the various railway undertakings, the IB has suggested developing, in 2015, an online form, allowing information to be input into the database directly and securely.

AVAILABILITY OF INFORMATION

So as to be able to respond to the new way of working within the Federal Public Service Mobility and Transport, the databases have been made available for homeworking.

The database of records and summary reports are made available by the Safety Authority, with access managed by the IB.

B. Management system for preliminary investigations

In a world that is continually changing, the efficient management of daily activities, for the individual or their team, has become an imperative. In this context, it is no longer a question of working based on the time spent working but based on the expected result.

In a world that is continually changing, the efficient management of daily activities, for the individual or their team, has become an imperative. In this context, it is no longer a question of working based on the time spent working but based on the expected result.

One of the objectives of the Investigation Body (IB) is to set up a management system for preliminary investigations, so as to outline roles, responsibilities, authority levels and their limits. The procedure - initiated in 2014 - should be continued in the years to come. An automated system for monitoring and management of investigations and preliminaries is being developed.

In this context, the IB should make easy to use, credible, durable and effective instruments available to all members of the team. A first step has been the acquisition of rugged tablet computers, so that the investigators can work everywhere and with everyone in an efficient way (note-taking and information recording at the accident site, availability of the computerised versions of check lists, regulations and legislation, etc.). Other functionalities are being evaluated and implemented.

4. INVESTIGATIONS

A. Investigations

A. NOTIFICATION

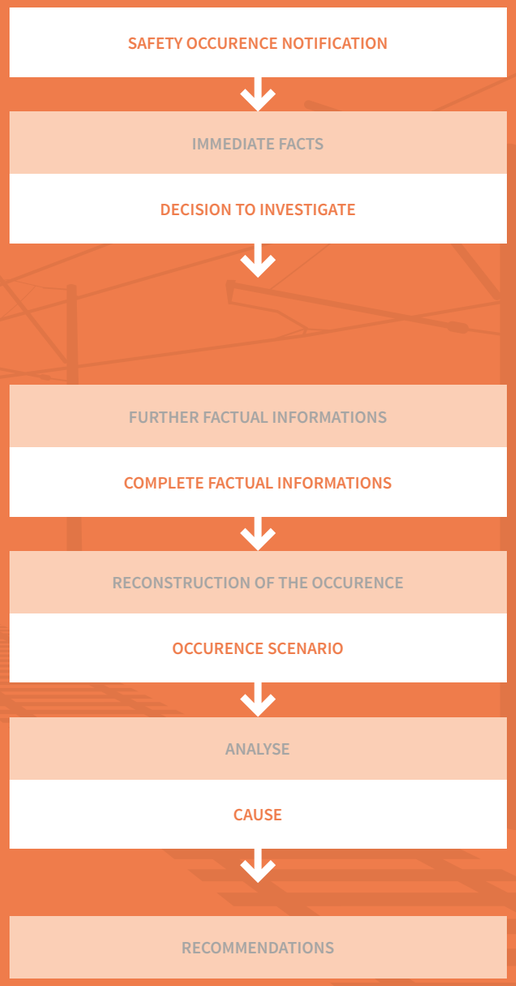
The railway infrastructure manager immediately telephones the investigator on duty to inform them of serious accidents and incidents as well as all collisions and derailments on the main line. The practical formalities are sent by post to the infrastructure manager. The Investigation body (IB) can be reached 24 hours a day, 7 days a week. The decision by the IB to open an investigation is communicated to the European Railway Agency, to the Service for Railway Safety and Interoperability, to the railway undertaking and to the infrastructure manager concerned. The actors concerned are consulted from the beginning of the investigation.

B. INVESTIGATION

The first phase of the investigation involves factual data collection by investigators on the site of the accident or incident. This involves looking for and collecting all the information, descriptive as well as explicative, likely to clarify the causes of an unsafe event. All the information, proof and declarations available and linked to the elements in a situation which have led to the accident or incident, are evaluated, so as to check what can be considered as proof or not. The most probable scenario is then established. The careful analysis of a safety management system with three dimensions (technical, human and organisational) allows possible failures and/or inadequacies to be revealed. And this at different levels of the system and in particular in the management of risks, with the aim of preventing accidents.

C. RECOMMENDATIONS

The recommendations in the area of safety are proposals that the IB makes in order to improve safety on the railway system. The recommendations are centred around the prevention of accidents. Their role is three-fold: minimising the number of potential accidents, limiting the consequences of an accident and finally to lessen the seriousness of resulting damage. The IB addresses, formally, the National Safety Authority with recommendations resulting from their investigation into the accident. If it turns out to be necessary due to the character of the recommendations, the IB also addresses other Belgian authorities or other Member States of the European Union.

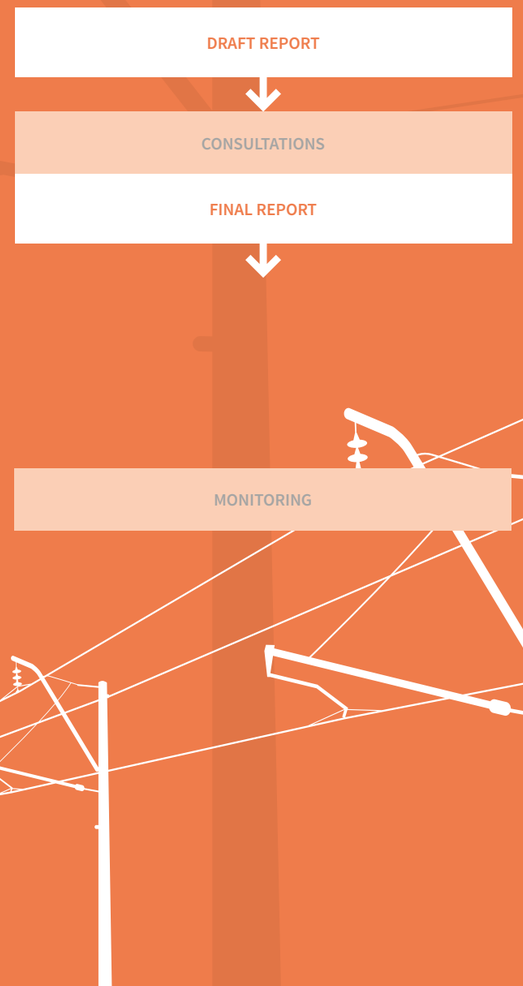


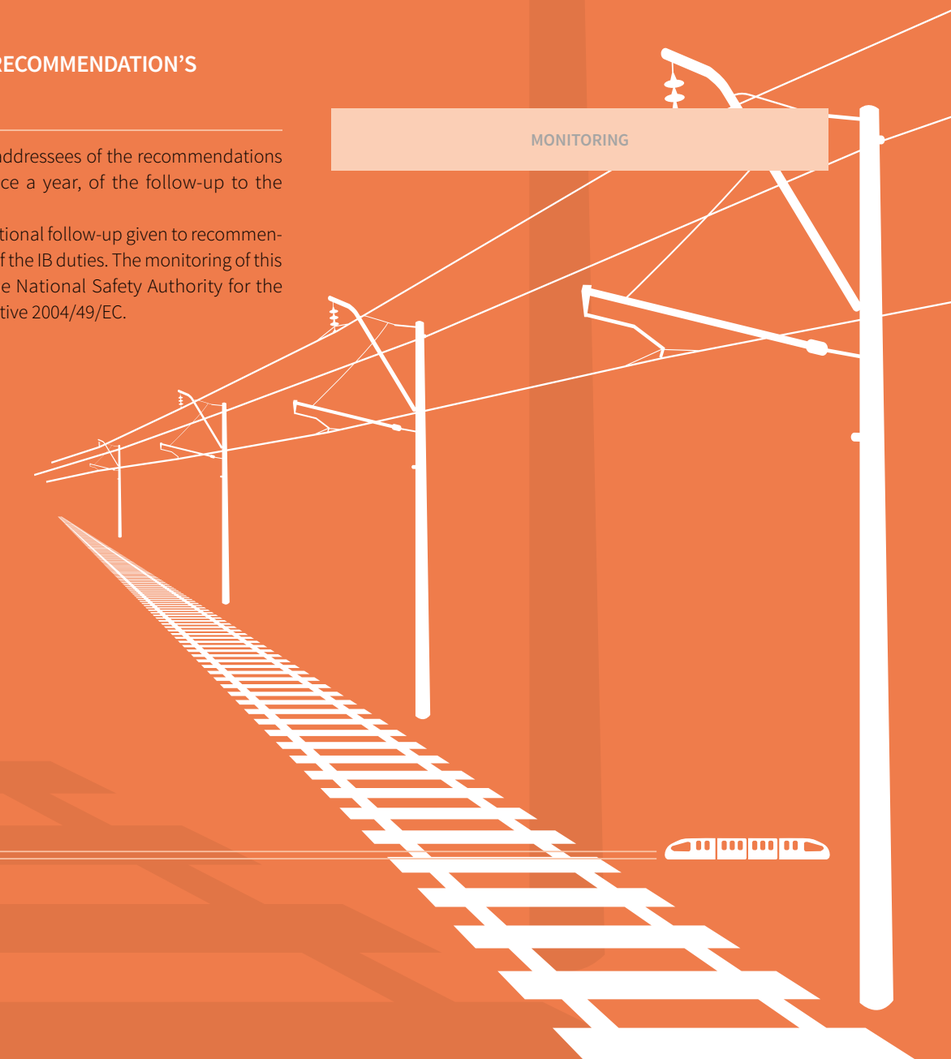
D. INVESTIGATION REPORT

The investigation reports serve as a reminder as well as an archive, but also allow the lessons learned from accidents and/or incidents to be recognised. Their goal is to encourage the circulation of knowledge acquired in the course of different analyses.
The preliminary reports are generally sent twice to the actors concerned, so as to allow them get to know the analyses and to provide their comments. The goal is not to alter the content of the report but to add any necessary details. The conclusions and recommendations are a part of the draft final report sent to the actors concerned. The changes accepted by the IB are then incorporated into the reports.
Further investigations are sometimes necessary to remove any ambiguities or to verify new elements made available to the IB.

E. FEEDBACK ABOUT RECOMMENDATION'S APPLICATION

The law specifies that the addressees of the recommendations inform the IB, at least once a year, of the follow-up to the recommendations.
The inspection of the operational follow-up given to recommendations made are not part of the IB duties. The monitoring of this implementation falls to the National Safety Authority for the railways, according to Directive 2004/49/EC.





B. Case which is subject to an investigation

An accident is defined as an event which is undesirable, unintentional and unforeseen, or a particular chain of events of this kind, having detrimental effects.

According to Article 111 of the Law of 30 August 2013, the Investigation body (IB) carries out an investigation following every serious accident occurring on the railway system. A serious accident is defined as any train collision or any derailment causing at least one death or at least five serious injuries, or causing major damage to the rolling stock, to the infrastructure or to the environment, as well as any similar accident having obvious consequences for the regulations or the management of railway safety. «Extensive damage» means damage that the investigation body can immediately estimate to a value of least EUR 2 million in total.

As well as serious accidents, the IB can carry out investigations into the accidents and incidents which, in slightly different circumstances, could have led to serious accidents, including technical failures at the level of structural subsystems or interoperability constituents of the high speed or conventional railway system.

The accidents and incidents are sorted in the database according to the elements provided by the railway undertaking and the infrastructure manager, according to 3 levels of seriousness: serious, major and other.

«SERIOUS» ACCIDENT/INCIDENT LEVEL 1[5]

Any type of accident/incident resulting

- in the death of at least one person

or

- serious injuries to five or more persons

or

- causing extensive damage to the rolling stock, to the infrastructure or to the environment; «extensive damage» meaning damage that the investigation body can immediately estimate at a value of least EUR 2 million in total.

«SIGNIFICANT» ACCIDENT/INCIDENT LEVEL 2

Any type of accident/incident resulting

- in serious injuries to at least one persone

or

- in damage assessed to be worth at least EUR 150,000

or

- suspension of rail traffic for over 2 hours

«OTHER» ACCIDENT/INCIDENT LEVEL 3

Accidents and incidents that do not fall into the other two categories

The decision to open an investigation is taken by the IB independently on the basis of this information, potentially supplemented by a preliminary enquiry.

There has not been a train collision or derailment fitting the definition of serious accident on the railway network in 2014.
There has not been a derailment fitting the definition of major accident.

There have been three collisions fitting the definition of major accident on the railway network:

- 3 January 2014, Langdorp: A passenger train collided with a fallen tree on track A of line 35, due to meteorological conditions (wind storm). The windscreen of the locomotive was smashed.
  The IB has not opened an investigation.

- 1 February 2014, Marche-en-Famenne: A freight train hit a car which was within the gauge of track A line 43.
  The IB has not opened an investigation.

- 3 November 2014, Linkebeek: A locomotive collided with the rear of a passenger train.
  The IB opened an investigation.

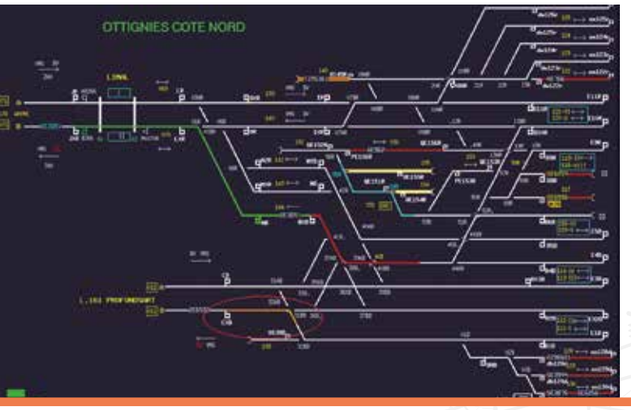
Two investigations classified as level 3 in the database have been opened: the IB considered that in slightly different circumstances, the incidents could have led to serious accidents.

The investigations opened are described in the next chapter.

In addition to these three investigations, the IB has started an analysis of accidents at level crossings. During 2014, eleven people lost their lives, and eleven others were seriously injured.

5. Article 19(1) of the Directive 2004/49

C. Three investigations opened in 2014



OTTIGNIES

OTTIGNIES: SIGNALLING INCIDENT

On Monday 28/07/2014 at around 21:21, the train E2020 was travelling in the grid of Ottignies station – via the signal (D10-R.29) – of a track (120) to another track (012), according to a pre-set route by the signal box. This route crossed multiple points on the grid of Ottignies station.

Just before 21:22, while the train E2020 had completed its route and continued its journey leaving the Ottignies grid, the EBP signal box operator noticed that the train's route had not been released between two signals.

In accordance with procedures and with Regulations, the operator applied an (NT) help function in the EBP system in order to release the route.

At the same time, another route was automatically set by the Automatic Route Setting (ARS) system for another train (E6592). While it was travelling the first section of this route, the second section was released.

The operator of the signal block then saw the train E6592 had turned brown on their screen, showing an occupation without interlocking. On the track, nothing was present to show occupation without interlocking for the driver, and it therefore continued its journey: the train left the Ottignies grid.

This incident had no effect on the traffic.

LINKEBEEK

COLLISION BETWEEN A PASSENGER TRAIN AND A LOCOMOTIVE

On Monday 3 November 2014, at around 13:17, a passenger train (E2163) was travelling from Braine l'Alleud to Alost. The train was an omnibus which makes regular stops on the line.

The stock involved was a Désiro type triple motor coach.

After the stop at Rhode-St-Genèse, the train pulled away in the direction of Linkebeek, where it had to make a regular stop. Despite applying the emergency brake, the passenger train could not stop in time and went beyond the Linkebeek platform.
A diesel locomotive, coming from Monceau and heading to the Schaarbeek formation station, was travelling the same portion of the line as the passenger train. The driver encountered a double yellow signal and initiated a deceleration. Despite an emergency brake, the experienced driver of the locomotive was not able to stop, overran the signal at danger and collided with the rear of the passenger train.

The driver of the passenger train immediately sent a GSM-R alarm after the collision.

There were no fatalities. About twenty passengers were transported to the local hospital for treatment and to carry out medical tests. They were allowed to leave the hospital the same day. There was no damage to the infrastructure. The damage to rolling stock were limited.

SCHAERBEEK

SIGNAL PASSED AT DANGER

On 10 October 2014, at around 20:30, after a planned stop at Vilvoorde station, a first passenger train E3340 - from Essen to Brussels Midi - continued its journey in the direction of Brussels Nord via Schaerbeek. Due to the work foreseen in the North-Midi junction, certain tracks were put out of service and the train (E3340) was led, via a series of points, from the track B of line 25 to the track B of line 27.

After a planned stop at Brussels-North, a second passenger train E4519 - from Charleroi-Sud and going to Antwerp-Central - continued its journey towards Schaerbeek on track B of line 27.
The routes of these two trains took a joint portion in the opposite direction.

So as to avoid conflict, the T-M.8 signal was changed to red at the exit on the route of the first train E3340, so as to allow the passage of the other train E4519.

At around 20:42, the train E3340 passed the T-M.8 signal at danger: the TBL1+ system equipping the track and the rolling stock initiated an emergency brake, and the train stopped at around 105 metres after this signal. The driver of the train sent an alarm directly via GSM-R.

The driver of the second train (E4519) received this alarm and immediately initiated an emergency brake.

The two trains stopped 150 metres from each other.

After resolving various technical and organisation problems, the passengers of the two trains involved were evacuated to the stations of Brussels-North, Central and Midi, where bus and taxi services were organised to bring them to their final destinations. The last passengers arrived at around 04:00 in Antwerp Central.

There were no casualties or material damage.
The two trains were blocked in the Schaerbeek grid and many other trains had delays or cancellations.

6. EBP : Elektronische BedieningsPost = poste de commande électronique = electronic command post
7. NT = Nietiging Traject / aNnulation Trajet = emergency function for cancellation of a route

D. Three investigations completed in 2014

HEVER

DERAILMENT OF A FREIGHT TRAIN

A freight train, filled with copper, derailed on track B of line 53, at the Hever junction. In total, six wagons left the track, specifically wagons 14 to 19. The freight train left its originating station in Poland to reach its final destination in France. The transit passage on Infrabel infrastructure was provided by SNCB/NMBS Logistics.

There were no victims, but the damages to rolling stock, to the load and infrastructure were significant. Train traffic on the line 53 between Mechelen and Leuven was at a standstill for several days.

Before derailing, the freight train E47582 encountered the passenger train E2736 (Sint-Niklaas - Leuven) stopped at Wespelaar Tildonk station. The driver of this train noticed sparks at the rear of the freight train and informed Traffic Control. Traffic Control made contact with the driver of the freight train, who was given the instruction to slow down gradually and enter the Muizen sidings. The freight train slowed down and derailed at the Hever junction. A broken axle on wagon 14 was found at the place of derailment. The examination of the marks, carried out prior to the derailment, revealed that the axle of the wagon was already broken seventeen kilometres before.

The complete summary is available on the website: (link to the summary). The complete report is only available for the moment in Dutch (link to the report).

WETTEREN

DERAILMENT OF A FREIGHT TRAIN CARRYING DANGEROUS GOODS

On Saturday 4 May 2013, at around 01:58, the freight train Z44601 derailed between the towns of Schellebelle and Wetteren. It carried out a night service between Kijfhoek (Netherlands) and Terneuzen (Netherlands), via Gent-Zeehaven (Belgium). The convoy was made up of two locomotives pulling eighteen wagons. Several rail tank wagons contained goods that are subject to the RID regulation [8]. After going to Dendermonde station, the driver of the train encountered a horizontal yellow-green warning signal. They carried out the expected professional actions and the convoy was directed onto the wrong track due to the presence of works on the normal track further along the line.

The driver encountered a sequence of nine consecutive flashing green signals. They then encountered a horizontal flashing yellow-green warning signal, which informed them of the following signal (FX-W.6). With the absence of the indication of speed on the warning signal, the train was allowed to continue its route, with a speed restriction of 40km/h from the next dangerous point. The driver passed the works to the left of the track, then encountered the signal (FX-W.6) which was flashing green with two fixed lights: a white “V” chevron and a white figure “4”. It indicated to the driver the change of regime, switching from wrong-line running to normal-line running and reminded them that this change of regime should be done at 40km/h.

In the zone of the points bringing the convoy from the wrong track to the normal track, the first seven wagons of the train derailed. Three of the tanker wagons were broached during the derailment, and their toxic and inflammable content poured out in the ditch, just next to the tracks. After the derailment, the driver started a GSM-R alarm.

Numerous inhabitants were evacuated from the nearby houses and a safety perimeter was established.

It was then decided to leave the substances to burn, under control, and to cool the wagons using water to avoid the convoy exploding.

One person would be found dead at their home.

The complete summary is available on the website: (link to the summary). The complete report is only available for the moment in Dutch: (link to the report).

REMERSDAEL

COLLISION BETWEEN 2 FREIGHT TRAINS

On Friday 1 October 2013, a first freight train (train E47540), originating from Montzen, was travelling on track B of line 24 in the direction of Genk.

A second freight train (train Z65292) – originating from Aachen West in the direction of Antwerp – was travelling on the same track B of the same line.

At around 04:00, the first train stopped at a signal in operation at danger just before Remersdaal station. The second train reached a signal at danger (on red) which protected the section where the first train was present. The driver stopped their train at this signal at danger. Due to the permissive nature of this signal at danger, the driver filled in their on-board document and passed the signal in running at sight, i.e. at a reduced speed in accordance with the procedure.

At around 04:07, the driver of the first train restarted their vehicle following the opening of the signal (green). They then felt an impact: the second train had just collided with the back of their train.

A GSM R alarm was launched and protection measures were taken. The movement of trains on line 24 was suspended.

The accident caused major damage to the infrastructure and to the rolling stock but no one was injured.

The conclusions of the investigation accompany those from the accident in Tintigny which occurred in May 2012: the passing of a permissive signal at danger in running at sight had also caused a collision due to the overtaking of a train present further along in the section by a second train. A recommendation from the IB concerns the reflection to be led by the actors in the railway sector on the risks of collision following the catching up of a train by another, in order to identify the various elements involved at an organisational, technical or operational level and so as to identify control and recovery measures to be taken.

The complete summary is available on the website: (link to the summary). The complete report is only available for the moment in Dutch: (link to the report).

8. RID : Regulation concerning international railway transport of dangerous goods

5. STATISTICS

REPORT TYPES OPENED BY THE IB

Serious accidents	2007	2008	2009	2010	2011	2012	2013	2014
Collision	1	1	0	1	0	1	0	**0**
Derailment	0	0	1	0	0	0	1	**0**
Accident at a level crossing	0	0	0	0	0	0	0	**0**
Accident involving a person caused by rolling stock	3	1	1	0	0	1	0	**0**
Fire in rolling stock	0	0	0	0	0	0	0	**0**
Major accidents	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
Collision	1	1	0	0	1	1	1	**1**
Derailment	1	0	0	0		2	1	**0**
Accident at a level crossing	0	1	0	0	0	0	0	**0**
Accident involving a person caused by rolling stock	0	0	1	0	0	0	0	**0**
Fire in rolling stock	0	0	0	0	0	0	0	**0**
Incidents	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
	0	0	0	0	1	0	0	**2**

NUMBER OF INVESTIGATIONS OPENED

	2007	2008	2009	2010	2011	2012	2013	2014
Number of investigations opened in the course of the yeare	6	4	3	2	3	5	3	**3**
Cumulated number of investigations opened	6	10	13	15	18	23	26	**29**

NUMBER OF INVESTIGATIONS CLOSED

	2007	2008	2009	2010	2011	2012	2013	2014
Number of investigations closed in the course of the year	1	3	3	1	0	1	8	**3**
Cumulated number of investigations closed	1	4	7	8	8	9	17	**20**

In the course of 2014, the Investigation body closed the three investigations opened in 2013.

6. RECOMMENDATIONS

On 1th September 2015, the Investigation body had not received the report containing the follow-up to recommendations.
An addendum to the present annual report will be published.

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