



Meeting between Banedanmark and suppliers

16th of November kl. 14.00-15.40

Banedanmark

Themes for the meeting

- Exceeding clearance profile and slew restrictor
- Banedanmark's current project regarding railway safety
- Safety coordination
- S&I coordination
- Handling of non-supervised switch points

Dagsorden

Welcome

By: Rikke Aarøe Carlsen, Head of Traffic safety, Quality & Safety, Banedanmark

Exceeding clearance profile and slew restrictor

By: Niels Hansen, Head of Section Incidents, Quality & Safety, Banedanmark

Banedanmark's current project on railway safety

By: Rikke Lund Pedersen, Project Manager, Quality & Safety, Banedanmark, & Rikke Aarøe Carlsen, Head of Traffic safety, Quality & Safety, Banedanmark

Safety coordination: Introduction to the safety Coordinator role and new requirements for projects

By: Stephan Ferrigno Christensen, Team leader, Safety Coordination, Banedanmark

S&I coordination: Intro to New Setup for CSM in Banedanmark

By: Thomas Dunthorne-Bille, Head of Rail safety, Banedanmark

Handling of non-supervised switch points

By: Rikke Aarøe Carlsen, Head of Traffic safety, Quality & Safety, Banedanmark

Exceeding clearance profile and slew restrictor

November 2022

Exceeding clearance profile and slew restrictor

- Applicable rules within the area
- The number of errors found during inspection



The safety rules

It must be ensured with an active stop or other technical device that no part of working machinery can inadvertently exceed the safety distances during work - not even as a result of incorrect operation.

The working direction of non-tracked machines must be controlled for the function of the stop, so that the machine itself cannot accidentally turn and thus exceed the safety distance

Statistics

number of inspections 2022	number of errors	In %	Goals
56	8	14 %	10 %

After detecting errors

- Work is stopped until the relationship is rectified
- Banedanmark asks for an explanation from the safety officer of the contractor with whom the contract has been entered into.
- Banedanmark informs the contractor's management (operations manager / managing director) about the incident, and informs them of the importance of using stops, and that it is the contractor's responsibility. It is informed that Banedanmark cannot accept incidents of this nature.
- In the event of repeated cases or particularly serious incidents, the contractor is notified of the imposition of "intensified supervision" or a sanction.

Explanations for not using stops functions

SR Foreman was not sufficiently aware of the requirements described in the JSP for the task. The necessary assessment of the work was also not carried out before the assignment was completed.

Planning error, safety margin not measured.

Planning error, current task including location of machine did not appear in JSP. As all the work must take place on the bridge facade and behind existing railings, it was not perceived as being carried out on the track area, which is why no JSP/JSI had been prepared.



Banedanmark's current project regarding railway safety

By: Rikke Lund Pedersen, Project Manager, Quality & Safety, Banedanmark, & Martin Harrow, Assistant Director, Quality & Safety, Banedanmark

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Planned process

External hearing of law proposal before presentation in the Danish Parliament (via electronic site for hearing)



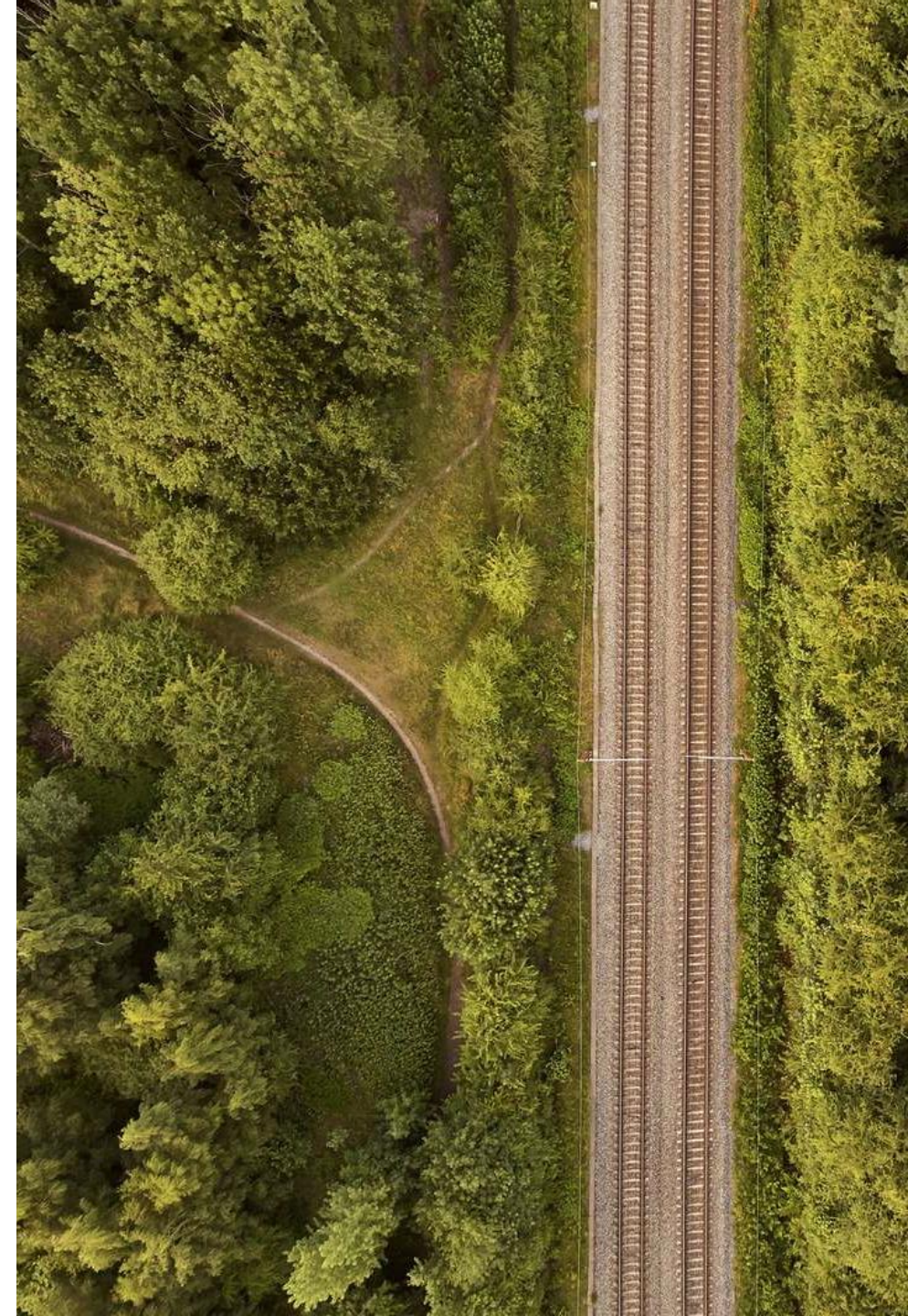
Banedanmark notifies suppliers by e-mail



Law enters into force

A safe railway for us all

- Banedanmark, as an infrastructure manager, is responsible for its part of the railway:
 - Issue safety regulations in the form of e.g. SR/ORS/ORF, containing requirements to the railway undertakings and suppliers of services associated with railway safety, who works on the infrastructure with e.g. transportation of passengers/ goods and infrastructure work on the railway
- Banedanmark wants to clarify:
 - The requirements that apply to railway undertakings and suppliers when working on the railway
 - Reaction options for railway undertakings and suppliers
- Banedanmark propose to change the Danish railway law and issue a new executive order on requirements to work on the railway
- There is no wish to change the division of responsibilities for Banedanmark or the Danish Civil Aviation and Railways Authority. This Authority's reaction options and supervision remain unchanged





Key points on the law proposal

Reaction options

- Banedanmark wants the following reaction options:
 - Railway safety related warning
 - Close supervision
 - Administrative fine
 - Withdrawal of competencies

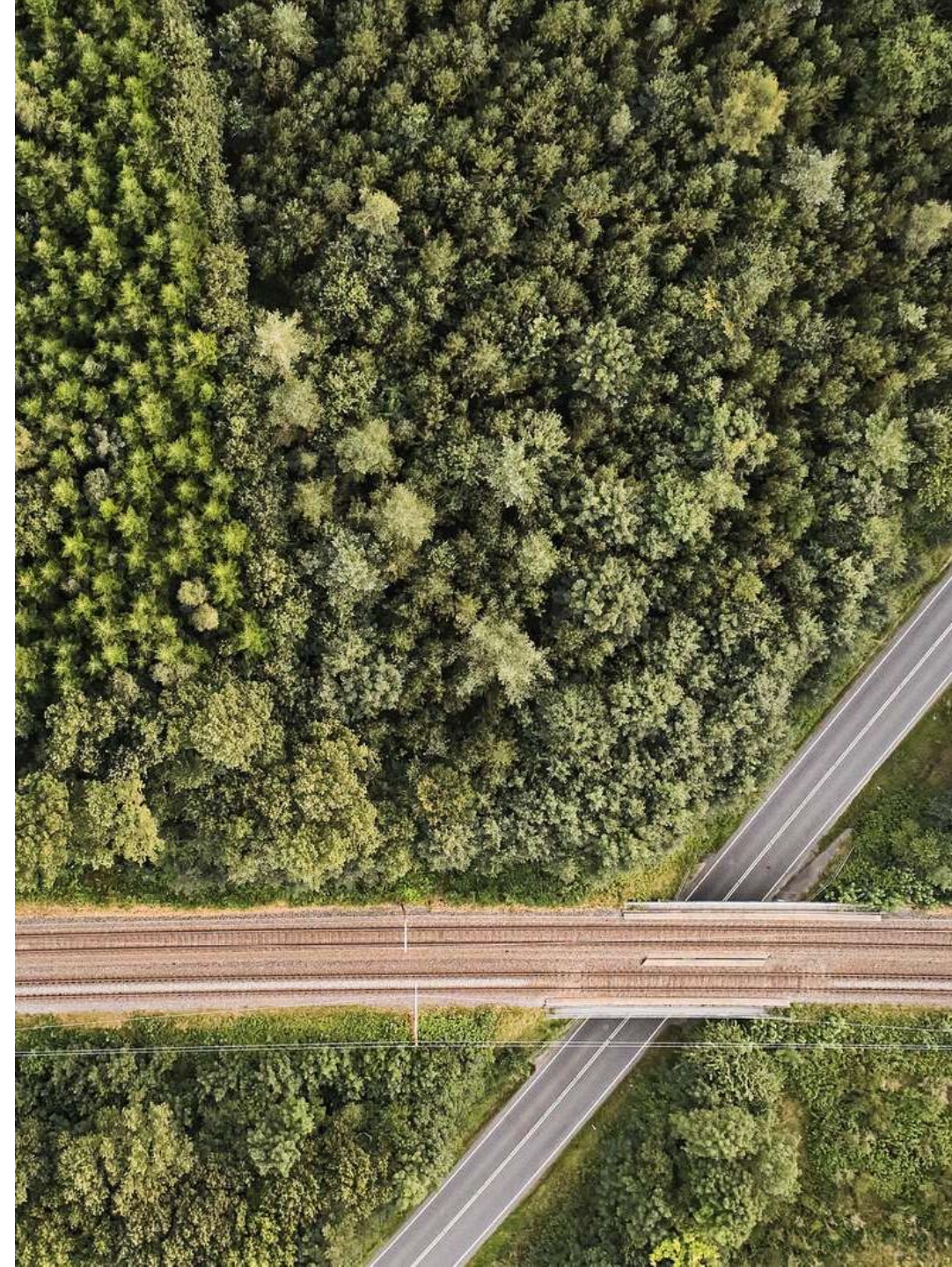
Purpose

- The reaction options must support Banedanmark's work to prevent railway safety incidents and their forerunners
- In all cases, the reaction takes the form of an administrative law decision (legal basis, hearing of parties, reason, complaint guidelines, etc.)
- This will also apply to Banedanmark if the requirements are not complied with

Reaction options

Administrative fine

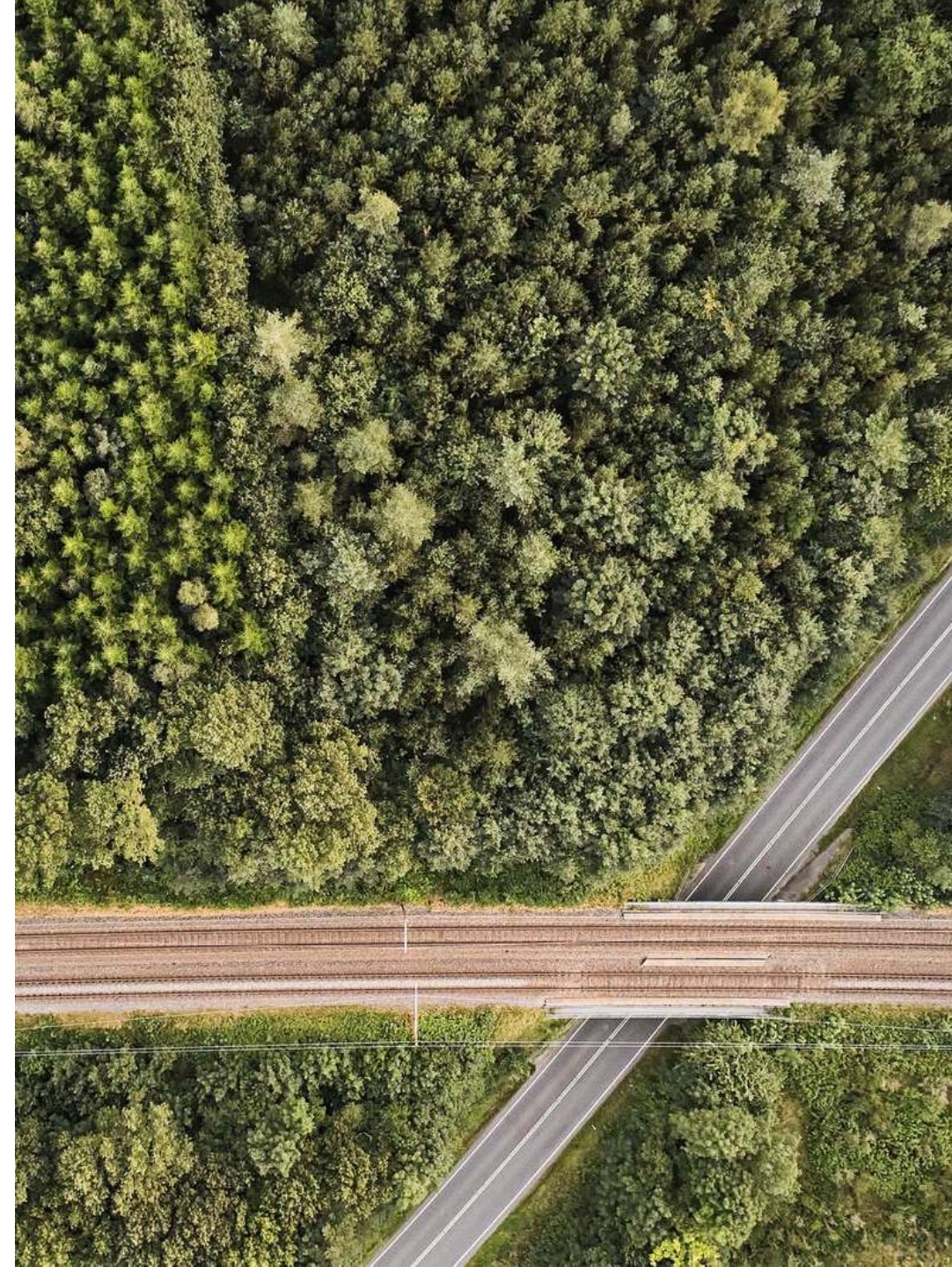
- Reaction option known from the legislation of other authorities
- Banedanmark imagines that administrative fines can be applied to actions within the categories:
 - *Actions in connection with infrastructure work*
 - *Actions in connection with administrative work*
 - *Actions in connection with supervision/audit*
- Administrative fines can be used where the violations are:
 - Uniform and uncomplicated, and without questionable evidence
- If the act is expected to result in a higher penalty than a fine, the existing criminal law track is followed
- The fine is applied only to companies (legal persons)



Reaction options

Administrative fine

- Banedanmark wants a scheme where there are minor administrative fines, which creates incentives
- Level of fine:
 - Starting point: 10.000 dkr.
 - Very serious safety incidents: 50.000 dkr.
 - Aggravating circumstances: 5.000 dkr.
- Banedanmark imagines that the assessment must include, whether a railway undertaking or supplier has reported a violation:
 - This is a mitigating circumstance, and can, depending on the circumstances, result in no administrative fine





Reaction options

Railway safety related warning

- Banedanmark imagines that the reaction option will have the character of an injunction
- In the first instance of ascertaining, thus not an order that a given action must cease
- Will have additional legal effect, as in the case of future violations it may be emphasized that a railway safety related warning has been issued in the past
- Banedanmark imagines that the reaction can be applied to companies (legal persons) and employees in these units

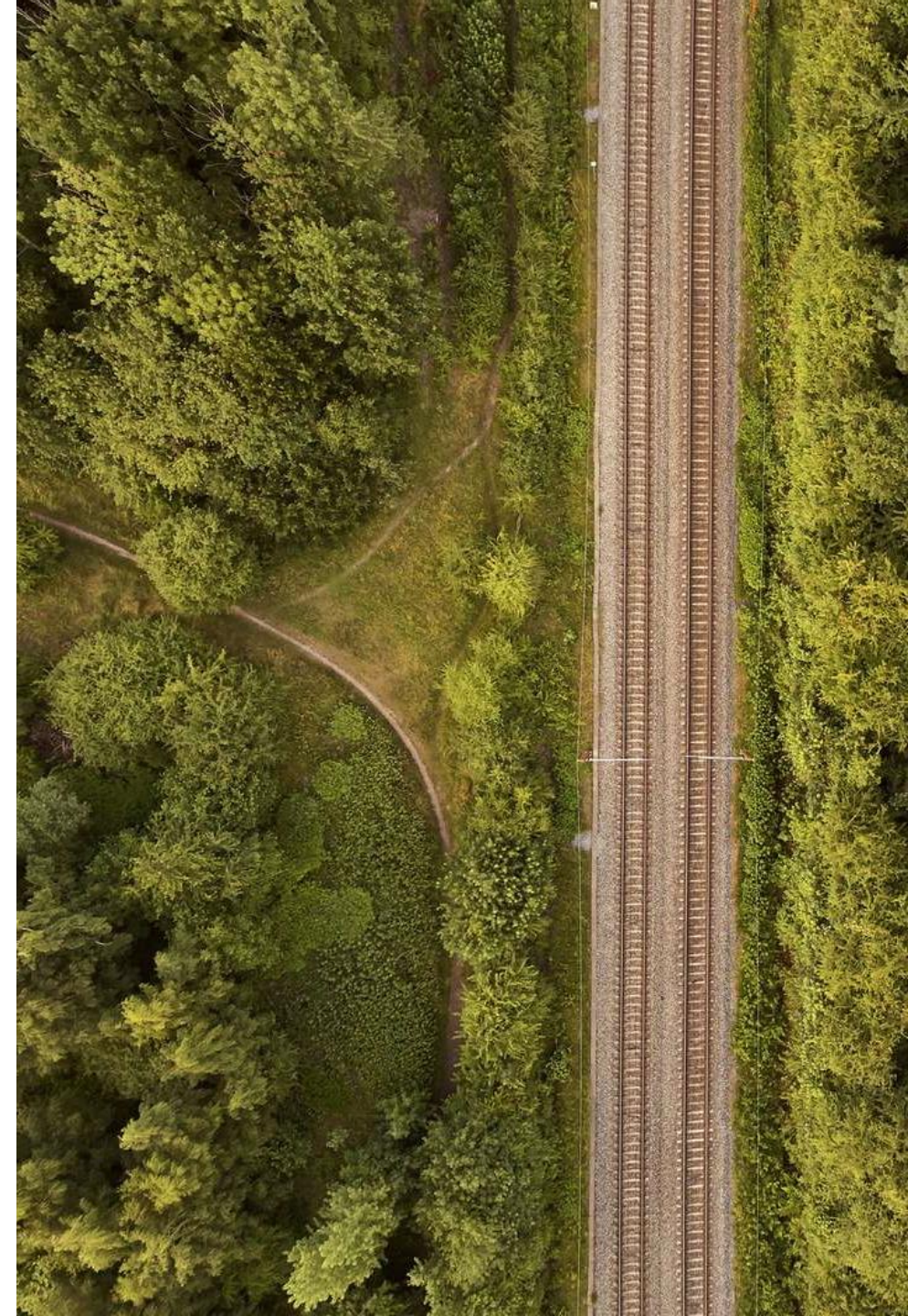
Close supervision

- Banedanmark imagines that the reaction options means that Banedanmark announces and implements a more targeted and intensive control of a given railway undertaking or supplier
- Banedanmark imagines that close supervision means that the supplier must report all work prior to execution. In each individual case, Banedanmark agrees with the contract holder on how close supervision will be carried out
- Banedanmark imagines that the close supervision will only apply to companies (legal persons)

Reaction options

Withdrawal of competencies

- Banedanmark imagines that the reaction option can be used for more serious incidents or for repeated safety incidents and is used against employees (physical persons)
- Banedanmark imagines that it can be both:
 - Withdrawal of competencies for a limited period
 - Withdrawal of competencies with regard to recovery or disqualification of competencies forever
- Period is determined after a concrete assessment of all elements of the case, including primarily the nature of the violation and previous violations





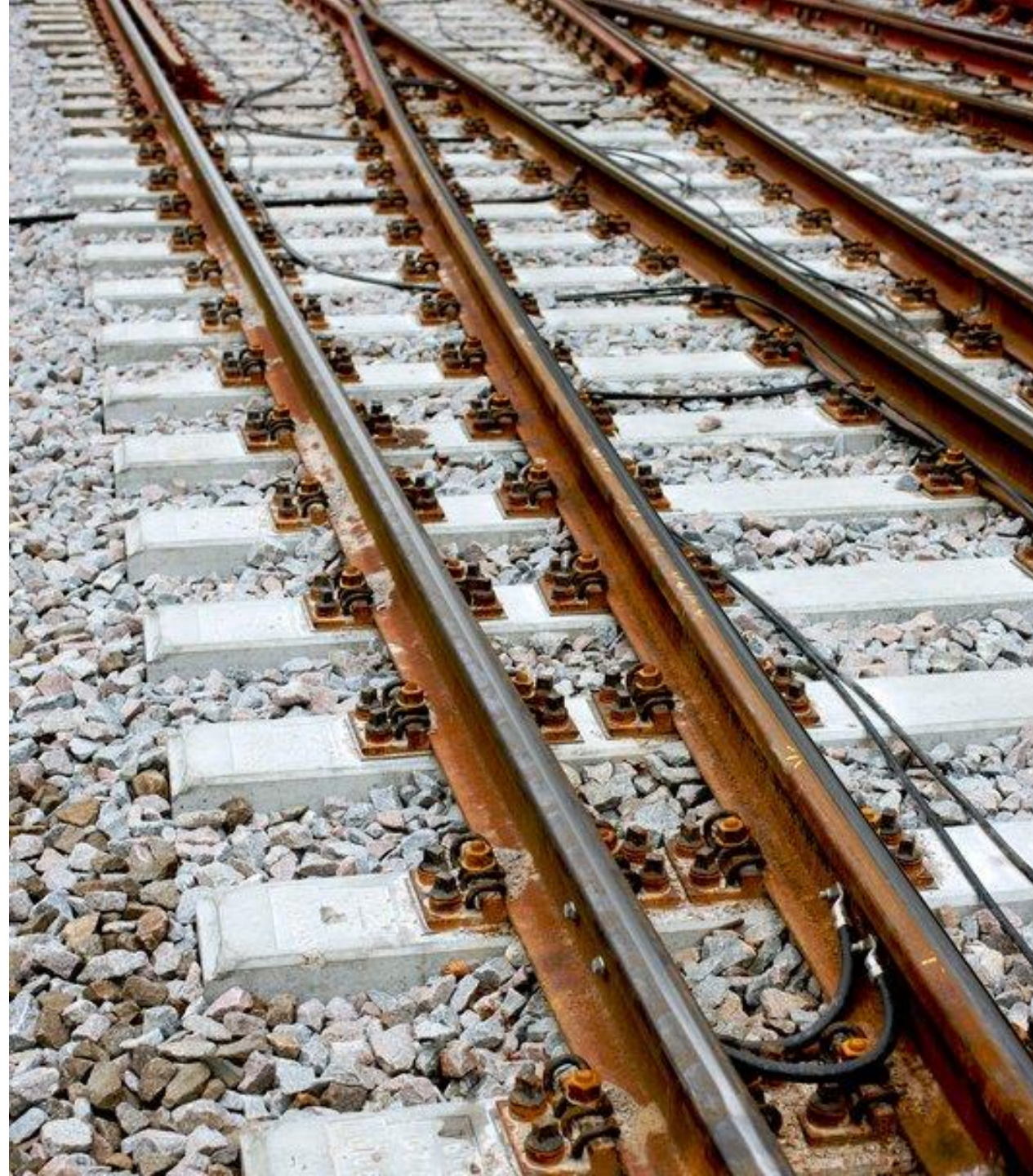
Safety coordination: Introduction to the Safety Coordinator role and new requirements for projects

By: Stephan Ferrigno Christensen, Team leader, Safety Coordination, Banedanmark

Banedanmark

Railway Safety Coordination

- New templates and guidelines for safety documents
- Deadlines
- What you can use your Safety Coordinator for
- Cooperation
- Duty to inform regarding safety issues





BANEDANMARK

Presentation of Banedanmark's New CSM Setup

16.11.2022

Thomas Dunthorne-Bille
Sektionschef, Jernbanesikkerhed (Rail Safety)

Agenda

1) The S&I Process in Anlæg

- The New Setup
- Implementation of a Goal Management-Approach
- Implementation of New Standard Templates
- The Revised IB-1 Processes (CSM)

2) The significance of the changes to contractors

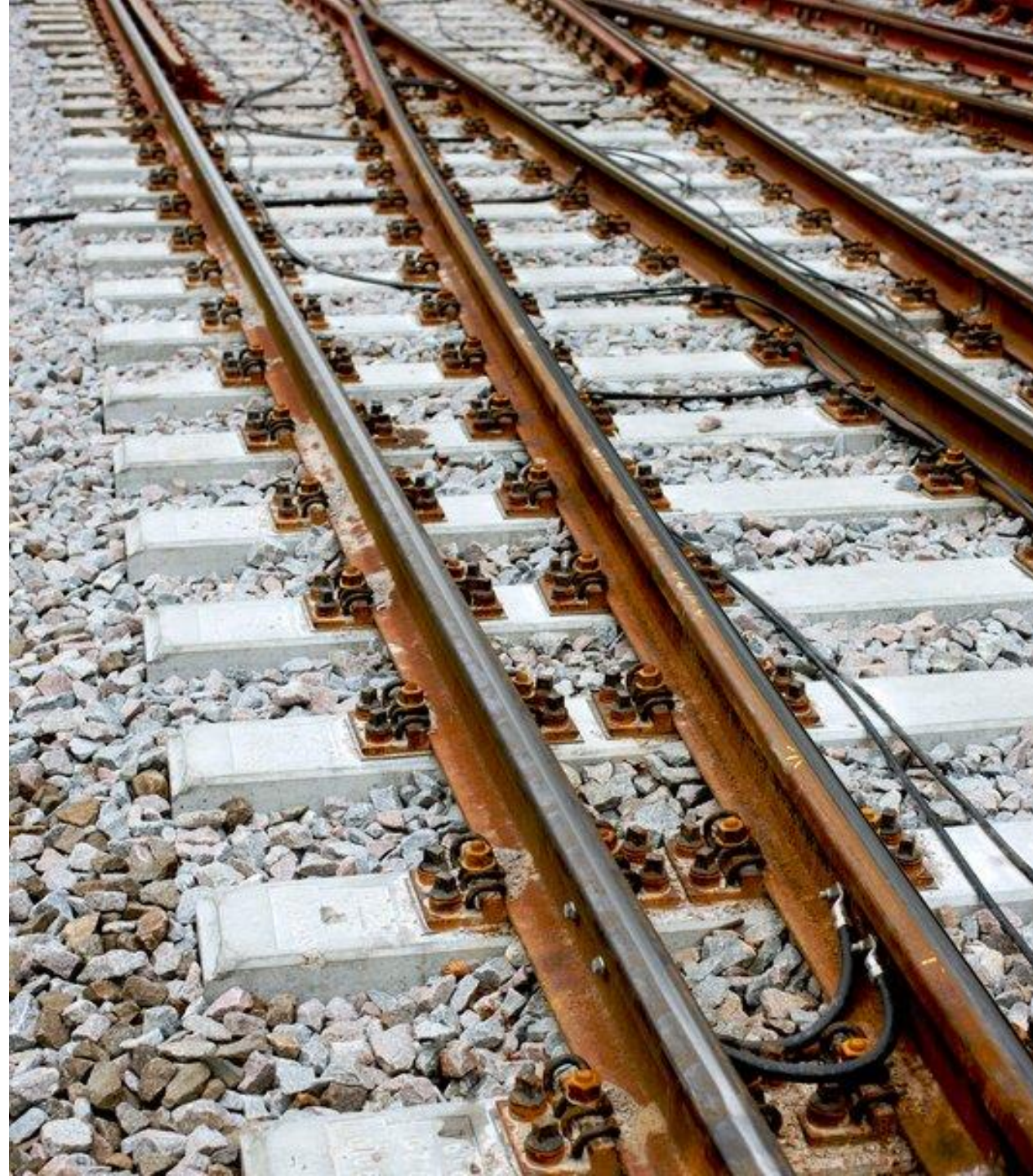
- Sharper Focus on the Documentation of the Execution Phase
- More Consistent Requirements from Banedanmark



1) The S&I Process in Anlæg

We will be looking at:

- The New Setup
- Implementation of Goal Management
- Implementation of New Standard Templates
- The Revised IB-1 Processes (CSM)



The New Setup

- The responsibility for approving non-significant changes has been transferred from Quality & Safety to us Rail Safety in Anlæg
- Implementation of a new goal-management approach with standardised tools and guidelines to be used by all projects
- Full standardisation of templates for all CSM-documents so that we now have "official" Banedanmark templates
- Focus on ensuring that the CSM-process is efficiently carried out, including during the transition from the design to the execution phase and again towards commissioning

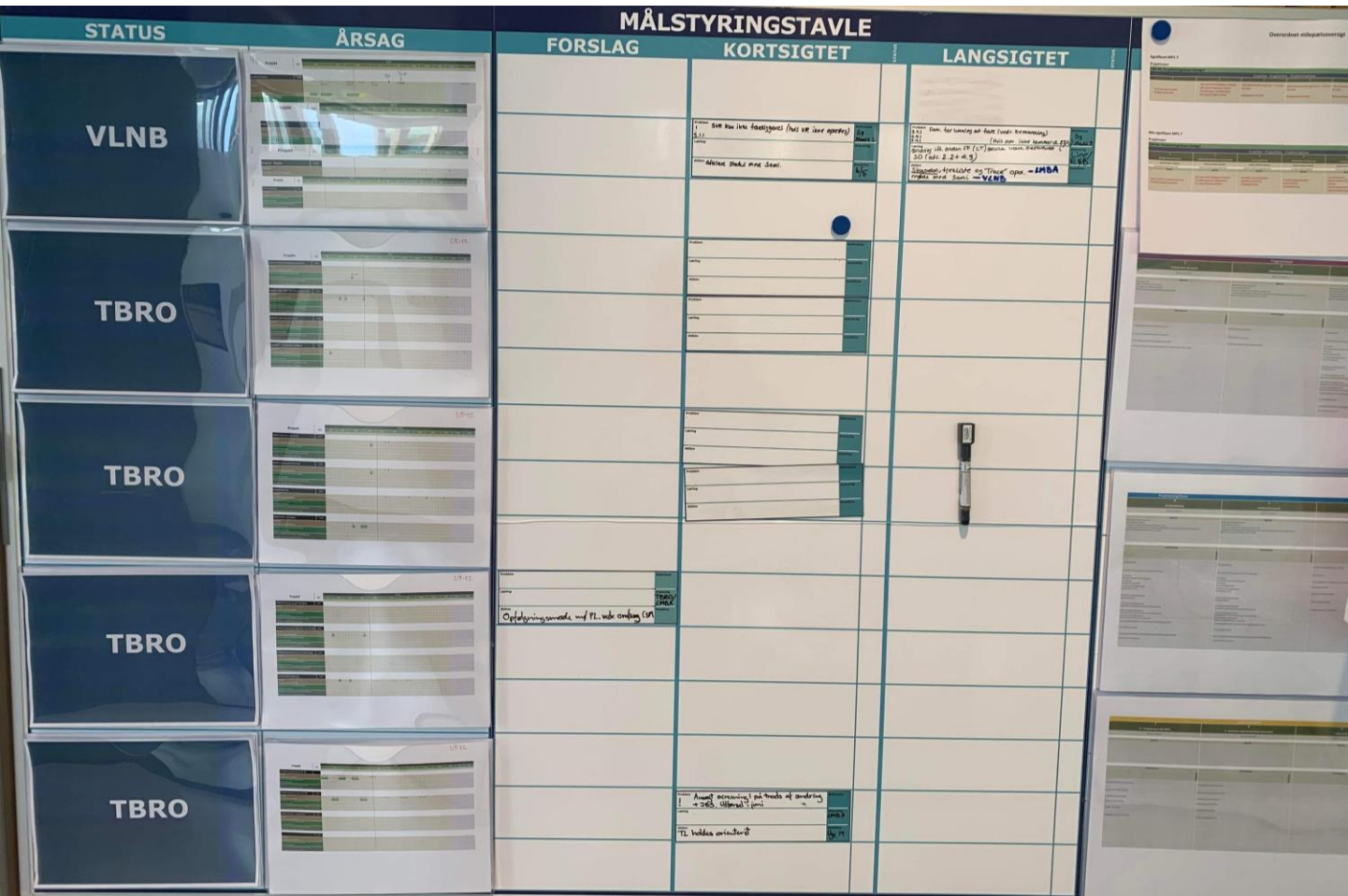


Implementation of a Goal Management-Approach

- The Milestone-plan (MPP) is the S&I Coordinator's tool to ensure that all CSM-related deliveries arrive in the desired time and quality
- The MPP is closely coordinated with the overall project management plan to ensure that any changes that might delay the project are flagged in time

CSM-RA: Projekteringsfasen (design)						CSM-RA: Gennemførelsesfasen	
Scopefase - Programfase - Projekteringsfase						Udførelsesfasen	
1	2	3	4	5	6	7	8
Rettidig omhu ved opstart	Udbud, kontrahering og ressourcetræk	Start projektering	Medio/ultimo projektering	Projektering slut	Klargøring til udførelse	T1 - Ibrugtagning er sket sikkert	Resterende sikkerhedsaktiviteter gennemført
<i>date for milepæl 1 indsættes</i>	<i>date for milepæl 2 indsættes</i>	<i>date for milepæl 3 indsættes</i>	<i>date for milepæl 4 indsættes</i>	<i>date for milepæl 5 indsættes</i>	<i>date for milepæl 6 indsættes</i>	<i>date for milepæl 7 indsættes</i>	<i>date for milepæl 8 indsættes</i>
Gennemført før programfase start	Senest 2 md efter programfase start	Senest 6 md efter programfase start	Ca. midt projekteringsfase	Senest 3md før udførelse	Senest 1md før udførelse	6 uger efter IB	6 md efter IB
Agenda	Agenda	Agenda	Agenda	Agenda	Agenda	Agenda	Agenda
Afkłaring af roller Aftale om leverancer fra PL og S&I Fastlęggelse af deadlines for gates Gennemgang/trning og oprettelse af ændringslog	Opfłlgnng pđ aftalte leverancer Gennemgang af tjekliste - Aftale om mitigerende handling for punkter i rđd - vurdering af konsekvenser for projektet og tilhřrende mitigerende handling ift. konsekvensen Aftale om kommende leverancer fra PL & S&I	Opfłlgnng pđ aftalte leverancer Gennemgang af tjekliste - Aftale om mitigerende handling for punkter i rđd - vurdering af konsekvenser for projektet og tilhřrende mitigerende handling ift. konsekvensen Aftale om kommende leverancer fra PL & S&I T&I verifikation med sřvendelse af BDK skabeloner (modul SG)	Opfłlgnng pđ aftalte leverancer Gennemgang af tjekliste - Aftale om mitigerende handling for punkter i rđd - vurdering af konsekvenser for projektet og tilhřrende mitigerende handling ift. konsekvensen Aftale om kommende leverancer fra PL & S&I	Opfłlgnng pđ aftalte leverancer Gennemgang af tjekliste - Aftale om mitigerende handling for punkter i rđd - vurdering af konsekvenser for projektet og tilhřrende mitigerende handling ift. konsekvensen Aftale om kommende leverancer fra PL & S&I	SVR modtages og IBT udstedes EF verifikation Aftale og involvering med PL og BL, bđde CSM og T&I Tidreplan		
Delmilepęle	Delmilepęle	Delmilepęle	Delmilepęle	Delmilepęle	Delmilepęle	Delmilepęle	Delmilepęle
1.1 Leverancer og tidsplan for S&I leverancerne	2.1 Gennemfłrelse af Udbud	3.1 Faglig ledelse	4.1 Faglig ledelse	5.1 Faglig ledelse	6.1 Kontrol med SVR leverance rettidigt	7.1 Kvalitetssikring af dokumentation	8.1 Byggeledelse og PL involvering
1.2 Forelębigt grundlag for S&I arbejdet udarbejdet	2.2 Kontrahering og opstart	3.2 CSM RA dokumentation generel kvalitetssikring	4.2 CSM RA dokumentation generel kvalitetssikring	5.2 CSM RA dokumentation generel kvalitetssikring	6.2 KS af AcBo rapport(er)	7.2 Ąndringer under udfłrelse	8.2 Kvalitetssikring af dokumentation
1.3 Forelębigt grundlag for S&I arbejdet udarbejdet	2.3 S&I ressourcetręk tildelt ved opgavsstart	3.3 CSM-RA Generelle principper og forpligtelser 3.4 CSM-RA Styring af gręnsesflđder	4.3 CSM-RA Generelle principper og forpligtelser 4.4 CSM-RA Styring af gręnsesflđder	5.3 CSM-RA Generelle principper og forpligtelser 5.4 CSM-RA Styring af gręnsesflđder	6.3 Er forlęgstillers skriftlige erklęring udfyldt og godkendt 6.4 Ansłgning om IBT	7.3 Modtage dokumentation 7.4 Assessors involvering	8.3 Ąndringer under udfłrelse 8.4 Modtage dokumentation

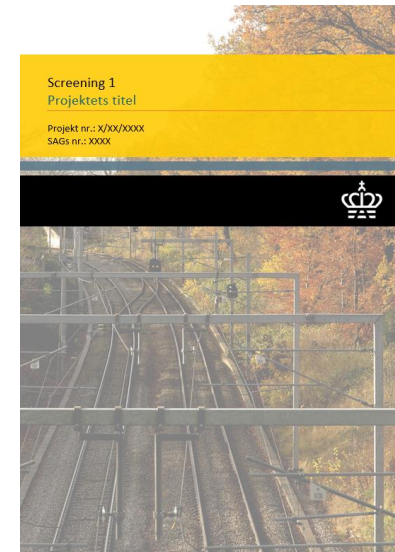
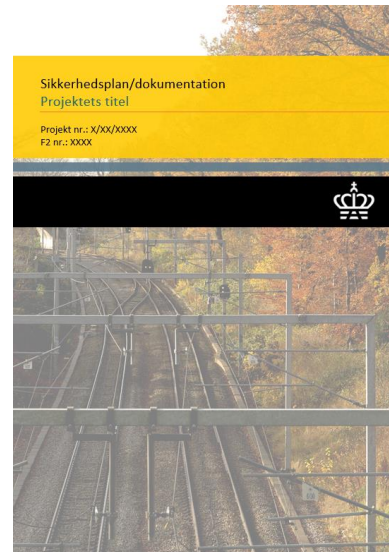
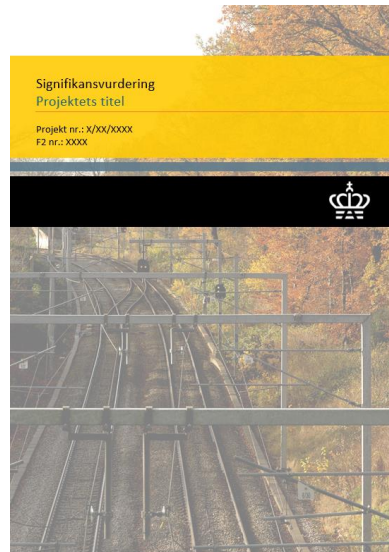
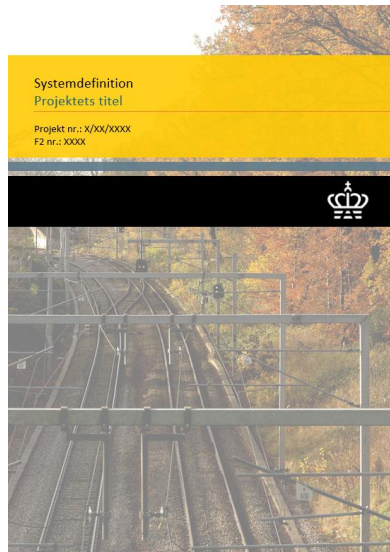
Implementation of a Goal Management-Approach



- To ensure a visual overview of each project physical boards are in use
- The goal-management boards are in each of our offices and cover all of our projects
- The boards allow us to maintain an overview of the CSM-process and flag any issues that might cause delays to the project in the short or long term

Implementation of New Standard Templates

- New standard templates for system definition, significance evaluation, safety plan/documentation and screening 1
- The new templates must be used by all new significance and non-significant projects as well as by existing projects that have yet to commence with the CSM-process



The revised IB-1 processes

Old IB-1 processes	New IB-1 processes
IB-1.1.1 Ikke-signifikante ændringer (opdelt sign.vur/IBTK)	IB-1.1.1 Screening 1
IB-1.1.2 Ikke-signifikante ændringer (samlet sign.vur/IBTK)	IB-1.1.2 Signifikansvurdering
IB-1.1.3 Signifikante ændringer	IB-1.1.3 Signifikant ændring
IB-1.1.4 Test med rullende materiel	IB-1.1.4 Test med rullende materiel
	IB-1.1.5 Ikke-signifikant ændring (IBTK)

Specification of requirements in IB-1 (CSM)

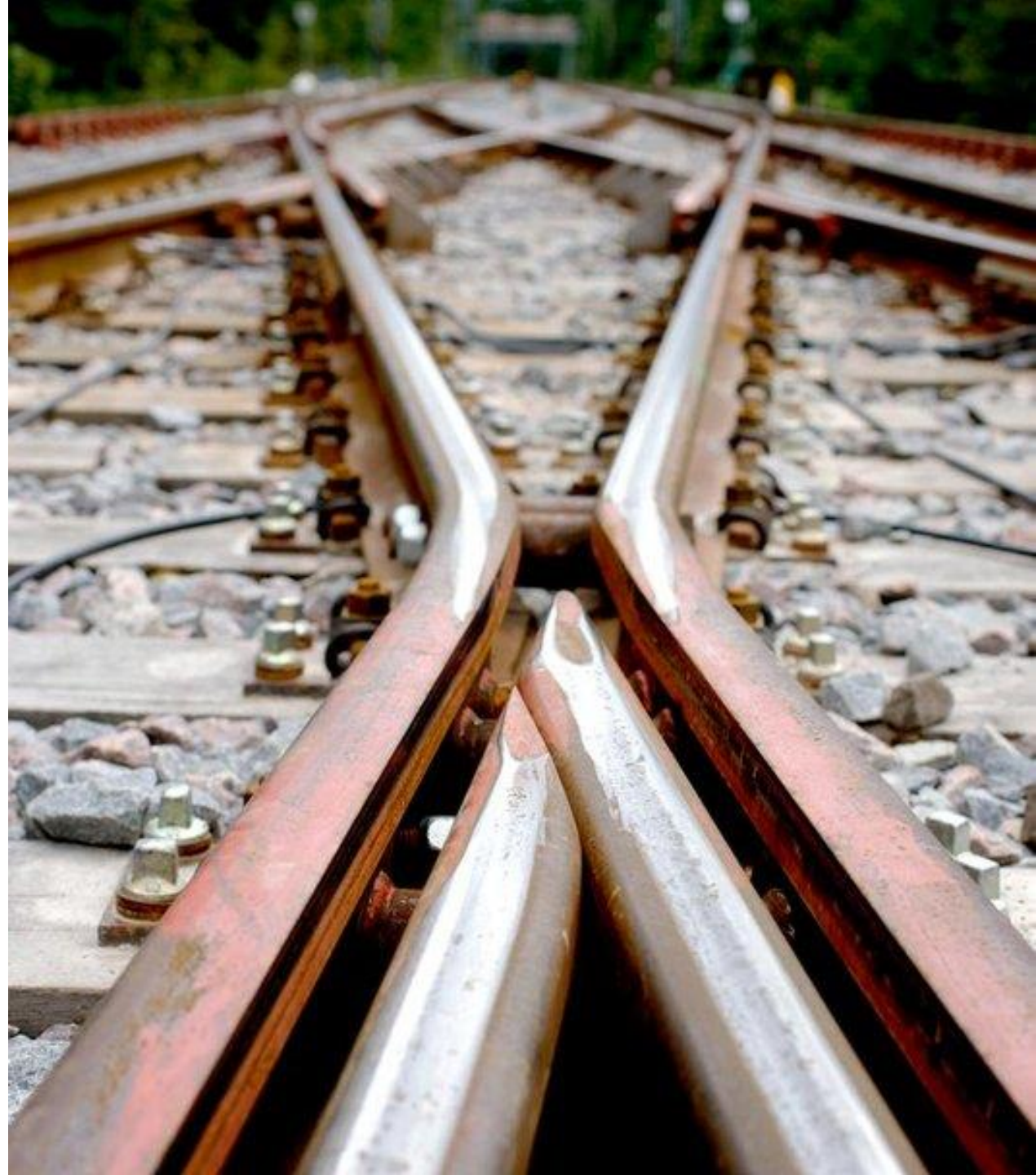
- The purpose of the IB-1 process is to ensure that all projects abide by all safety-related legal requirements, as well as Banedanmark's own internal requirements
- We have focused on making it clear that the various roles within the process must assist each other in ensuring the fulfillment of safety requirements
- Furthermore the critical deliveries, including faglig ledelse, the finished design and documentation of the execution phase, have been highlighted
- The process also makes it obligatory to utilise the MPP, standard templates and other standardised tools



2) What the changes mean to contractors

We will be looking at:

- Sharper Focus on the Documentation of the Execution Phase
- More Consistent Requirements from Banedanmark



Sharper Focus on the Documentation of the Execution Phase

- Despite the fact that the CSM-requirements are identical for all projects we experience a great deal of diversity when it comes to the documentation collected from the building sites (this is the case from everything from inspection notes to measurements etc.)
- The new setup (alongside other supplementary activities) aims at standardising the documentation for the execution phase and ensure the delivery of documentation in terms of timeliness and quality
- Strengthening site management's overview of the documentation to be collected to allow them to communicate this to the contractor
- This is to ensure increased standardisation and higher quality of the CSM-documentation regardless of the project in question



More Consistent Requirements from Banedanmark

- Banedanmark wants to be able to present exact and consistent (across all projects) requirements in regards to the documentation generated during the execution phase
- The aim is to ensure that the project will be able to determine the requirements for the necessary documentation while still in the design-phase so that these can be presented to the contractor, preferably during the tender
- This is to allow the contractor to start planning the necessary inspection activities and the associated documentation even before breaking ground and thereby avoid "surprises" during the execution itself
- If the contractor is unable to supply a certain type of documentation a suitable replacement will be decided upon by the contractor, site management and S&I coordination in unison



Questions?



Handling non-supervised switch points

Trafical Safety, Quality & Safety
Head of Section Rikke Aarøe Carlsen

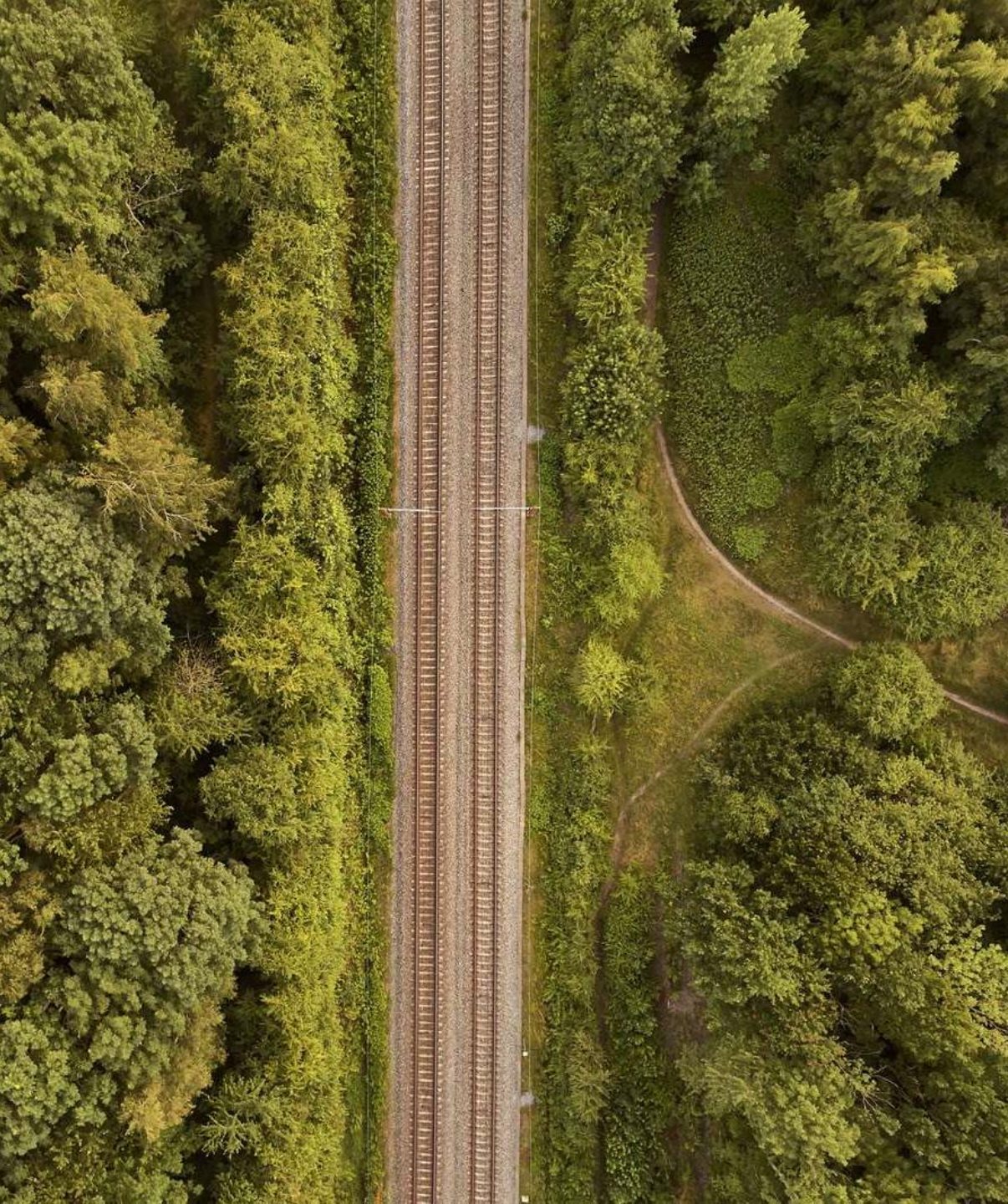
Banedanmark November 2022



Attention to dangerous points

- Banedanmark exercise strict handling of non-supervised switch points that may only be changed for specified and limited occasions.
- Very important that non-supervised switch points are locked in correct position (driving by right or left branch), and it may only be done by personnel with right competencies for the specific type.

There must not be any doubt about the position or correct locking of non-supervised switch points.



Banedanmark's tactic for the focus area

As a general rule it is NOT allowed to open or change position of the non-supervised switch point – or introduce new ones.

- Bringing down number.
- Reducing risks through mitigation
- Process and procedures for handling projects and maintenance.

Keys are only handed out when issued permission exists

- Long term planning is needed



Questions?

THANKS FOR TODAY