


ERTMS National Implementation

Processes, Competence and Training

Mandate

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1 BACKGROUND AND PURPOSE

The introduction of ERTMS in Norway will have a large impact on the organisation and competence needs within Jernbaneverket. It is estimated that approximately 3000 employees will require training in order for the organisation to achieve a successful implementation of the new signalling system.

“Processes, Competence and Training” has been established as part of ERTMS National Implementation (ERTMS NI) with a core focus on successful implementation. The ambition of the training program is to provide the necessary competence to get the full advantages of the national implementation. In order to deliver quality and efficiency in training the processes, roles (functions) and competences needed for key areas need to be revised. The implementation will pose both opportunities and challenges for Jernbaneverket as a whole. It is therefore important to see ERTMS as an enabler for organisational change and strategic competence development.

2 SCOPE AND DEPENDENCIES

2.1 Scope

The main vision within Processes, Competence and Training is to secure that Jernbaneverket has the right people in the right place, at the right time. To achieve this, the activities are divided into three main workstreams, as illustrated below.

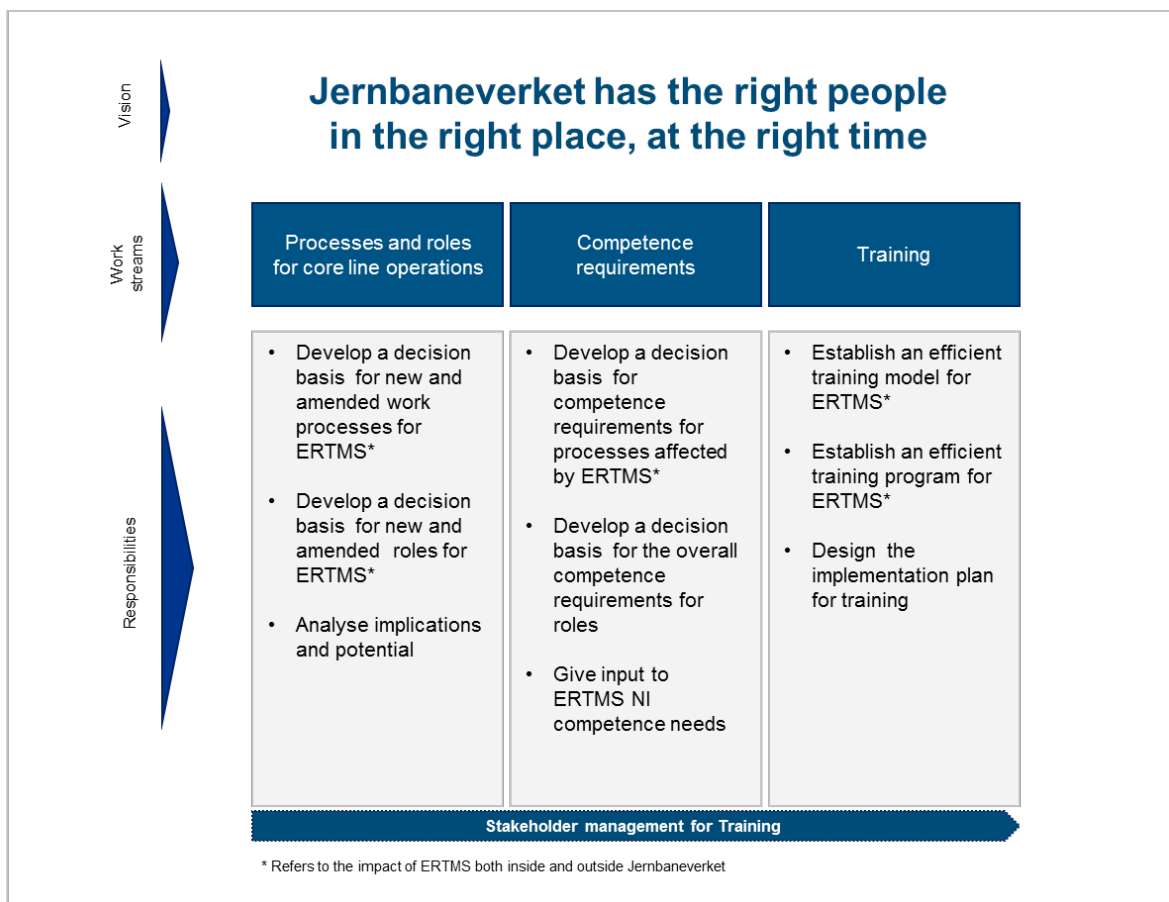


Figure 1: Workstreams and responsibilities for “Processes, Competence and Training”

Processes and roles (functions) for core line operations

The scope is to analyse and identify changes in roles (functions), responsibilities and processes as a consequence of the ERTMS implementation. This enables us to get a better overview of affected processes and thereby design a more relevant training program.

Competence needs and requirements

The scope is to identify competence needs and requirements for processes and roles (functions) affected by ERTMS. This includes performing a training needs analysis in order to ensure that all competence requirements are addressed. The process of identifying competence needs and requirements will also serve as input to the competence needs within ERTMS NI. Changes must be compliant with formal requirements as stated in the procedure for training (FOR 2002-12-18-1679 / Opplæringsforskriften and FOR 2005-02-07-113 / Førerforskriften).

Training

The scope is to provide efficient training to the affected resources. This workstream will establish a training model which includes a clear division of responsibilities between the project, vendors and academy as well as other stakeholders. The project will also describe necessary training facilities for the stakeholders to use or purchase. The model must support new and changed procedures throughout Jernbaneverket. Based on the training model a training program will be developed. "Processes, Competence and Training" will cooperate closely with key stakeholders to design an implementation plan.

2.2 Activities outside of scope

- Conducting training
- Implementing organisational changes enabled by the implementation of ERTMS NI
- Handle a supporting team to assist the local line organisation in the implementation of ERTMS
- Assuring successful local implementation of each line
- Resource planning and recruitment for JBV as a whole, lines in operation and ERTMS NI
- Benefit realization within the line organisation

2.3 Dependencies (internal/external)

- The National Railway Reform may affect the current organisation and scope of the internal Competence Centre and the National Rail Academy (Jernbaneskolen). This will ultimately affect authority and responsibilities within the competence process at Jernbaneverket
- External suppliers have not yet been selected, and the division of responsibility between client and supplier in terms of training is undecided.
- Training facilities will be an important factor to the training. The extent of physical training facilities is undecided.
- Dependencies will occur with regards to identified processes and roles outside core line operations.

3 EFFICACY¹ OBJECTIVES

The efficacy objectives (effektmål) for Processes, Competence and Training should be aligned with the overall strategy of ERTMS National Implementation.

¹ Efficacy- the power to produce an effect (Merriam-Webster)

In order to achieve the goal of a more efficient, stable and safe railway, five efficacy objectives are defined according to the project phases within ERTMS NI. See figure below (figure 2).



Figure 2 : Efficacy objectives in relation to project phases

Key performance indicators (KPI's) are detailed below. During the course of the project, the KPI's will be adjusted to ensure continuous relevancy for Processes, Competence and Training.

	Process and roles	Competence requirements	Training
KPI	<ul style="list-style-type: none"> New and amended processes are described <i>(measured through the number of described processes vs total)</i> New and amended roles are described <i>(measured through the number of described roles vs total)</i> 	<ul style="list-style-type: none"> Competence requirements are clearly defined per process and role <i>(measured through the number of roles with defined competence requirements, against the number of roles for ERTMS)</i> 	<ul style="list-style-type: none"> Return on investment with regards to the project plan and perceived relevance for training for each role <i>(measured in the form of delays in operation as a result of training and evaluation forms after each training course)</i> The number of end users per line who have completed training <i>(measured according to a predefined target)</i> The cost of training for each role <i>(time/resources, measured against current situation)</i>

Table 1: Key Performance Indicators for the three main workstreams

4 KEY ROLES AND RESPONSIBILITIES

The work is to be carried out mainly by the Head of Processes, Competence and Training together with several training advisors and other relevant resources. Additional support is necessary from other ERTMS NI project members and JBV employees.

Project participants from "Erfaringsstrekning Østfold Østre Linje" and various Thales project representatives will assist in obtaining preliminary insight. The team will also make use of contributions through interviews with other resources within the organisation.

Additionally the team will draw upon key resources and form small working groups related to different themes.

The Head of Processes, Competence and Training will report to Project Manager ERTMS NI, and act on his behalf for all matters relating to these topics. Specific roles are defined below.

Role	Name
Project Owner:	Gorm Frimannslund
Project Board:	Gorm Frimannslund, Bjørn Kristiansen, Gunnar Løvås, Per Arne Fredriksen, Jørn Johansen, Sverre Kjenne
Project Manager:	Eivind Skorstad
Head of Processes, Competence and Training:	Morten Schjelderup
Training Advisors:	Linn Vibran, Ingrid Wøien, Elin Vik and additional resources when agreed with Project Manager.
Reference group:	Håvard Vestgren (Transport), Trude Berntzen (Trafikk og Marked), Vigdis Saure (Infrastruktur/ Kompetansesenteret), Sverre Kjenne (Signal og Tele), Eva Ervik (Jernbaneskolen), NN Forening, NN Teknologi

The project is still in an early phase and there is uncertainty attached to the future need for resources and specific expertise. The resource plan will be updated throughout the project period.

5 REPORTING AND TOOLS

- Reporting will be done according to project procedure on the indicators time, cost and quality
- It is estimated that the reference group will convene bi-annually during the first phase. The reference group does not have the authority to make decisions regarding processes, competence and training on behalf of ERTMS NI.
- Processes, Competence and Training will share all relevant information and documents at the sharepoint-based ERTMS Project room, ProArc and Saksrom.