

I. Introduction and conclusion

1. This report examines how DSB (Denmark's national railway operator) has procured and completed IC4 and IC2 trains. The study has been performed at the request of the Public Accounts Committee following Rigsrevisionen's memorandum of 10 January 2012 to the Committee on the organization of a major examination of the IC4 and IC2 trains.

2. In 2000 and 2002, DSB SOV (in the following referred to as DSB) signed a contract with AnsaldoBreda for delivery of 83 IC4 train sets and 23 IC2 train sets, respectively, at a total cost of approximately DKK 5.3 billion in fixed prices. All the train sets were to be delivered and entered into service by 1 January 2006.

3. However, AnsaldoBreda failed to deliver the trains as scheduled. In May 2009, DSB therefore reached a settlement agreement with AnsaldoBreda that committed AnsaldoBreda to deliver the trains to DSB in a specified, yet not fully completed, design configuration. In exchange for the compensation of DKK 2.25 billion paid by AnsaldoBreda, DSB would complete the trains to the specifications agreed in the IC4 and IC2 contracts entered with AnsaldoBreda in 2000 and 2002. It was also DSB's responsibility to achieve security clearance from the Danish Transport Authority to enter the trains into service. As a result of the settlement agreement, DSB assumed the role of train manufacturer without having any experience in this field. In 2010, DSB also entered a contract according to which DSB Vedligehold (DSB Maintenance) as sub-supplier to AnsaldoBreda was to upgrade the 14 IC4 trains, the so-called NT train sets, that AnsaldoBreda had delivered to DSB at that point.

4. The Ministry of Transport is, in its capacity as owner of DSB, supervising DSB's procurement and completion of the IC4 and IC2 trains.

5. The objective of the study is to assess whether DSB, when procuring and manufacturing trains, and DSB Maintenance, as sub-supplier, have taken the action required to ensure that DSB as soon as possible, and within the financial framework, will be able to enter the completed IC4 and IC2 trains into service, and whether the Ministry of Transport, in its capacity as owner of DSB, has performed its supervision in a satisfactory manner. The report answers the following questions:

- Has DSB when procuring trains and DSB Maintenance as sub-supplier taken prompt and targeted action to have the trains delivered by the agreed time and to the quality standard agreed?
- Has DSB, as manufacturer of trains, planned and implemented the completion of the trains in a manner that will allow DSB to enter the trains into service as soon as possible and within the financial framework?
- Has the overall supervision by the Ministry of Transport, as owner of DSB, of DSB's procurement and completion of the trains been satisfactory?

IC4 and IC2 train sets include four and two cars, respectively. An IC4 or IC2 train may consist of several train sets.

In addition to the actual production of trains, **the train manufacturer** is also responsible for achieving security clearance from the Danish Transport Authority.

The NT train sets

were delivered in 2008 and 2009. NT is short for National Traffic which means that the train sets are approved for passage through the Great Belt tunnel.

DSB SOV is a government-owned independent public enterprise.

DSB SOV established **DSB Vedligehold A/S** 1 January 2011. Its primary task is to maintain trains on behalf of DSB and other customers.

MAIN CONCLUSION

In May 2009, DSB concluded that it could not cancel the contracts with Ansaldo-Breda despite AnsaldoBreda's late delivery of the IC4 and IC2 trains. DSB also arrived at the conclusion that it needed the trains to service an increasing number of passengers. In order to avoid further delays, DSB therefore settled with AnsaldoBreda and it was agreed that AnsaldoBreda was to deliver the trains in an incomplete design configuration and that DSB would be financially compensated by AnsaldoBreda for the completion of the trains.

Rigsrevisionen finds that DSB, in its capacity as procurer of trains – in connection with and following the settlement agreement – has taken into consideration the risks associated with the settlement and has taken initiatives to ensure that AnsaldoBreda delivers the trains on time and of a good quality. AnsaldoBreda is, in spite of these measures, running behind the delivery schedule.

Rigsrevisionen is, however, also of the opinion that DSB Maintenance as subsupplier and DSB as manufacturer of trains have not taken all the steps necessary to ensure that DSB can enter the IC4 and IC2 trains into service as soon as possible and within the financial framework. For instance, DSB failed to address the risk that AnsaldoBreda, also after the settlement was reached, might deliver trains of poor quality. Thus DSB underestimated the size and complexity of the task at hand. As a consequence, costs imposed on DSB to complete the trains and for alternative rolling stock may significantly exceed the financial compensation prescribed in the settlement with AnsaldoBreda.

DSB is unable to provide an indication of when it expects to enter the trains into service with the functionality and operational stability required. Neither is DSB able to provide an estimate of the costs involved in completing the trains.

Rigsrevisionen's finds that the Ministry of Transport has failed to supervise DSB's procurement and completion of the trains in a satisfactory manner. On the basis of the financial scope and commercial aspects of the settlement made in May 2009, which requires DSB to assume and coordinate the roles of procurer and manufacturer, the ministry should have ensured that the composition of the elements of the financial compensation prioritized covering DSB's costs for completion of the trains. Subsequently, the ministry should – on an on-going basis - have monitored how DSB used the compensation.

As a consequence of the IC4/IC2 case, the Ministry of Transport will intensify its supervision of DSB's procurement of equipment in the future.

The main conclusion is based on the following sub-conclusions:

Has DSB when procuring trains and DSB Maintenance as sub-supplier taken prompt and targeted action to have the trains delivered by the agreed time and to the agreed quality standard?

Acting as procurer of trains, DSB has both in connection with and following the settlement agreement in May 2009 been aware of the risk that AnsaldoBreda would not deliver the IC4 and IC2 trains by the agreed time and to the agreed quality standard. DSB has taken prompt and targeted action to make AnsaldoBreda deliver the IC4 and IC2 trains by the agreed time and to the agreed quality standard. In spite hereof, AnsaldoBreda is running behind the delivery schedule.

DSB Maintenance's upgrading of the 14 NT train sets has thus been delayed and is more expensive than estimated. The primary reason is that DSB Maintenance, although this was not stipulated in the contract with AnsaldoBreda, has rectified a number of faults and deficiencies identified in the NT train sets that were initially delivered. DSB Maintenance has therefore not been compensated by AnsaldoBreda for the additional work performed.

Has DSB as manufacturer of trains planned and implemented the completion of the trains in a manner that will allow DSB to enter the trains into service as soon as possible and within the financial framework?

DSB has not in its capacity as manufacturer of trains planned the completion of the IC4 and IC2 trains in a satisfactory manner, because DSB has underestimated the size, complexity and financial scope of the task. As per April 2012, DSB has to some extent completed 32 of the 47 delivered IC4 train sets. DSB will not be able to complete all 83 IC4 train sets and 23 IC2 train sets within the financial framework. Moreover, the trains will not be completed and entered into service on time. Since the settlement agreement in May 2009, DSB's planning of the completion of the trains is the main cause of the delays in entering the trains into service with the functionality and operational stability that was stipulated in the IC4 and IC2 contracts with Ansaldo-Breda from 2000 and 2002. DSB has expanded the capacity of its workshops and changed its strategy for increasing the operational stability of the trains in order to ensure effective momentum. DSB is not able to indicate when all the completed trains can be entered into service nor is it possible for DSB to provide an estimate of the total completion costs. DSB expects to be compensated by AnsaldoBreda for the delays that have occurred since the settlement agreement was entered in May 2009.

Has the overall supervision by the Ministry of Transport, as owner of DSB, of DSB's procurement and completion of the trains been satisfactory?

As owner of DSB, the Ministry of Transport's overall supervision of DSB's procurement and completion of the trains has not been satisfactory. Based on the financial significance and commercial aspects of the settlement agreement entered with AnsaldoBreda in May 2009, the ministry should have focused more on the appropriateness of the basis upon which DSB allocated the compensation from AnsaldoBreda. Moreover, the ministry has not subsequently on an on-going basis monitored whether DSB used the compensation in a manner that would cover the costs of completing the trains. Last, the ministry failed to ensure that DSB in 2009 informed the Danish Transport Committee that DSB intended to spend DKK 500 million of the compensation on a plan to improve punctuality. The ministry could, for instance, have entered the supplementary contract with DSB, which the ministry insisted on when the punctuality organisation was set up in April 2010. When DSB in the spring 2011 informed the Ministry of Transport of the poor operational stability of the IC4 trains, the ministry took action immediately and commissioned the consultancy firm Atkins to perform a review of the delivery of the IC4 and IC2 trains. The ministry has subsequently on an on-going basis followed up on DSB's efforts to implement the recommendations made by Atkins.

The Ministry of Transport has stated that the ministry finds the IC4/IC2 case extremely problematic. The ministry intends to intensify its supervision of DSB and change the distribution of tasks between the ministry and DSB in connection with procurement of equipment in order to avoid a similar situation in the future.