



**Analysis of increased productivity and
innovativeness in the transport
engineering and construction sector
2015**

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Report 2015:5**

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Summary

One reason for creating the Swedish Transport Administration (STA, Trafikverket) in 2010 was to increase productivity and innovativeness in the transport engineering and construction sector. Since then, STA has been mandated by the government to endeavour to increase productivity and innovativeness in this sector, and to report on its own productivity. In 2012, the Productivity Commission (SOU 2012:39) presented a final report analysing STA's productivity work. In 2014, Transport Analysis was mandated by the government to analyse and evaluate STA's ongoing work.

This first Transport Analysis report on this subject takes as its starting point the conclusions arrived at by the Productivity Commission. We start by describing the structure of STA's work and, in an appendix, present a descriptive model outlining the logical steps this work entails. Transport Analysis has not been able to analyse all areas, but has focused on a few issues that are especially interesting for a preliminary report.

One of the Productivity Commission's suggestions to the STA was to increase the share of design–build contracts, relative to that of design–bid–build contracts, in procuring its construction projects. In this report, Transport Analysis follows up the experience gained on a number of design–build projects in the road sector.

There is relatively broad consensus that design–build procurement enhances the contractor's flexibility and freedom to be creative and innovative, thereby finding the most efficient solutions and increasing the prospects of long-term productivity in the transport engineering and construction sector.

The study indicates that several new ideas have been tried within the design–build procurement model. Large projects have been more successful than smaller projects in stimulating new ideas using the design–build model. However, the new alternative ideas proposed by contractors have sometimes been scrutinized too carefully and for too long by the STA, inhibiting contractor creativity and innovativeness.

In its annual report the STA presents its productivity development using six indicators. Transport Analysis has analysed the validity of these indicators, and found that only three of the six actually measure productivity. Two of these valid indicators measure internal (i.e., organisational) productivity, while one measures the productivity of the construction sector. However, all three valid indicators still need to be refined in order to constitute relevant measures of productivity. The other three indicators presented by the STA are invalid indicators of productivity.

This report also describes the development of the transport engineering and construction sector, for example, in terms of investments, company size and specialities, price and cost trends, employment trends, as well as accidents and safety issues.

We conclude that the STA has set a number of ambitious goals, and that considerable relevant work is going on in several areas in the STA. Its goals and guiding principles are in general broadly accepted by its employees, and by private company representatives, but seem not to have permeated all parts of the organisation. This could explain the communication and other problems arising between the STA and private contractors.

Nevertheless, it is important that the STA continue to work according to its strategies, allowing private sector contractors to adapt to its new roles, to enhance long-term productivity and innovativeness in the transport engineering and construction sector.



Transport Analysis is a Swedish agency for transport policy analysis. We analyse and evaluate proposed and implemented measures within the sphere of transport policy. We are also responsible for official statistics in the transport and communication sectors. Transport Analysis was established in April 2010 with its head office in Stockholm and a branch office in Östersund.