# 11/2016

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# Extract from Rigsrevisionen's report on Central Region Denmark's risk and contingency management in two hospital construction projects

submitted to the Public Accounts Committee



184147.281  $\left[ \right] \left( \right) \right]$ 22.4

# 1. Introduction and conclusion

## 1.1. PURPOSE AND CONCLUSION

1. This report concerns Central Denmark Region's<sup>1</sup> risk and contingency management in connection with the construction of two new public hospitals: the New University Hospital in Aarhus (DNU) and the New Hospital West (DNV). The DNU has a budget of DKK 6,35 billion and the DNV has a budget of DKK 3,15 billion (both in 2009 prices).

2. The Central Denmark Region is responsible for the construction of the hospitals. The government provides funding for the hospital construction works through the Kvalitets-fonden (the Quality Fund). Funding from the Quality Fund is provided on a fundamental condition concerning the financial framework set for the construction works; neither the government nor the Central Denmark Region are allowed to inject additional capital into the projects. This means that the region must cover unforeseen expenditure either through relevant budget contingencies or by modifying the construction plans. It is therefore particularly important that risk and contingency in the projects are managed well by the region.

The region has implemented several modifications to the two construction projects in order to achieve savings. Many of the savings have been implemented either to finance unforeseen expenditure that could not be covered through the contingency, or to keep costs within the budget. Both projects are subject to strict supervision by the Ministry of Health. This means that the ministry has decided to monitor the construction works and the region's management of the projects closer than normally to support the region in its efforts to complete the projects within the financial framework set.

3. Rigsrevisionen initiated the study in February 2016. We have previously examined work done by the ministry and regions in preparation for the hospital construction projects funded through the Quality Fund. In this study, we examine two of the hospital projects during the construction phase. In this phase, the region is required to manage risk and contingency in order to prevent and/or reduce any financial consequences of problems that might emerge during the construction phase.

#### <sup>1)</sup> Denmark is divided into five regions: Capital Region of Denmark, Region Zealand, Region of Southern Denmark, Central Denmark Region and North Denmark Region.

#### RISK

A risk is a threat that may have an adverse effect on the project like, for instance, a concrete floor that turns out to be of inferior quality and therefore unable to carry the planned load. Risks are assessed and prioritised based on probability and consequences.

#### FUNDING PROVIDED THROUGH THE QUALI-TY FUND

The government commits funds for the hospital construction projects through the Quality Fund. The fund supports 16 hospital construction projects in the five regions with a total value of DKK 41.4 billion (2009 prices).

#### SAVINGS

Savings are achieved by implementing modifications to the construction plans in order to release funds for the contingency, cover unforeseen expenditure or in other ways keep within the financial framework. Modifications can include decisions to reduce the number of floors, operating theatres or parking places. However, modifications can also be of an esthetic nature that do not necessarily have an adverse effect on staff, patients or the operation of the buildings.

4. The purpose of the examination is to determine whether Central Denmark Region, to the degree required, has managed risk and contingency in the DNU and DNV projects to prevent and handle financial pressure on the construction of the two hospitals. The report answers the following questions:

- Has Central Region Denmark's risk management in the two hospital construction projects been satisfactory?
- Has Central Region Denmark's contingency management in the two hospital construction projects been satisfactory?

## CONCLUSION

It is Rigsrevisionen's assessment that, overall, Central Region Denmark's management of risk and contingency to prevent and handle financial pressure on the construction of the two hospitals has been unsatisfactory.

Central Region Denmark is managing risk in the two construction projects differently. Risk management in the DNU project is inadequate and unsystematic and does not provide a sufficient basis for the region's effort to prevent risk to the economy of the construction project. Risk management in the DNV project is more systematic and thus providing a better basis for risk prevention activities.

The region also manages contingency in the two projects differently. However, neither of the approaches applied in the two projects ensure that the region has an appropriate basis for its assessment of whether the contingency plans cover risks to the projects. In the DNU project, the region did not include knowledge of previous calls on the contingency and construction risks in its contingency forecasts till late in the process. The region has yet to work out adequate contingency forecasts for the DNV project.

The need to improve the management of risk and contingency in the DNU project has been brought to the attention of Central Region Denmark several times over the past years. Since 2015, the region has worked on improving the contingency forecasts concerning the DNU project and has taken a few steps to improve risk management. However, Rigsrevisionen finds that basic problems associated with risk and contingency management in the DNU project remain unresolved, which increases the risk that the region has to modify the construction plans even further.

The region has already implemented many savings through modifications of the construction plans for both hospitals. Currently, the region has very limited economic opportunities to manage risks in the two projects and at the same time, the region's opportunities to modify the construction plans even further are severely limited. According to the region's own assessment, further modifications of the construction plans will affect the quality and future operating economy of the hospitals. Therefore, Rigsrevisionen finds it essential that Central Region Denmark implements appropriate risk and contingency management to support the region in its efforts to complete the construction of the hospitals within budget.