Management of benefits in govern-ment IT projects

1. Introduction and conclusion

1.1. Purpose and conclusion

1. This report concerns the realisation of benefits of government IT projects.

2. The digital development offers new opportunities to achieve efficiency gains and improve services. As a result the ministries initiate many IT projects aimed at developing and improving the performance of the public sector. Some projects aim at streamlining specific processes in order to release resources for deployment elsewhere. Other projects aim at enchancing the quality of services; the Danish police has, for example, been provided with an automatic number plates recognition system.

3. The 44 IT projects included in this report were initiated by 11 ministries. All the projects were initiated after January 2011, when all ministries were instructed to apply a joint-governance IT project model. In accordance with this model, the improvements that IT projects are expected to deliver must be defined as benefits. The benefits must quantify the expected improvements and justify the cost of the projects. Moreover, the benefits facilitate measurement of the degree to which projects have delivered the expected improvements. Rigsrevisionen has in several earlier reports, among these the *report on the digital property registration system*, established that the ministries have experienced difficulties realising the benefits of IT projects.

The IT project model calls for a systematic approach to the realisation of benefits throughout the lifecycle of a project, and the ministries are encouraged to make realisation of benefits pivotal in their management of IT projects. To that end, the ministries report to the Danish Council for IT Projects (*Statens It-råd)* on planned benefits and performance. On project initiation, the ministries forward a project plan for risk assessment by the Council for IT Projects, and on project completion, the ministries forward a project completion report to the council that includes updated benefits forecasts. Next, one year after project completion, the ministries are required to work out a benefits realisation report that measures achievement of the planned benefits. Thus, benefits realisation has been incorporated in the ministries' management of IT projects for the past nine years.

Realisation of benefits
Realisation of benefits includes the identification, definition and measurement of benefits achieved.

Benefits of government IT projects
Benefits break down and operationalise the objectives of a project. Benefits are the measurable improvement resulting from an outcome of a project.

Project basis
The project basis consists of the project initiation document, the business case and relevant appendices worked out by the ministry.

Scenario 0 and 1
The ministries present the benefits of an IT project to the Council for IT Projects in two scenarios: Scenario 0 describes the situation for the individual benefit, if the project is not initiated and scenario 1 describes the situation, if the project is initiated. The difference between the two scenarios is the change that the project is expected to deliver. One year after project completion, the ministry measures and reports to the IT Council on the performance of the project, namely whether it has delivered the expected change in accordance with the two scenarios.

4. It is essential that ministries undertaking IT projects plan which benefits they expect to realise through the projects, and base their benefits forecasts on well-founded scenarios 0 and 1. If the basis upon which the ministries identify the benefits is inadequate, it might in fact not be possible to realise the benefits. It is also essential that the ministries measure the realisation of the planned project benefits one year after project completion.

The purpose of the study is to assess whether the ministries' realisation of IT project benefits has been satisfactory. The report answers the following questions:

- Are the ministries adequately monitoring and tracking the benefits realisation of their IT projects?
- Do the ministries have an adequate basis for their expectations in regard to planned IT project benefits?

Rigsrevisionen initiated the study in October 2019.

Main conclusion

It is Rigsrevisionen's assessment that the ministries' management of realisation of benefits associated with IT projects has been unsatisfactory. As a consequence, the ministries have either largely failed to achieve or have no knowledge of the current status of the planned improvements and savings. Rigsrevisionen recommends that the Council for IT Projects, based on the results of this study, consider how the ministries can improve the identification, monitoring and tracking of benefits.

Overall, the ministries' monitoring and tracking of the realisation of IT project benefits has been inadequate

The ministries have failed to monitor and track delivery of approx. one third of the planned benefits. The ministries' tracking showed that overall the IT projects had fully or partially delivered less than half of the benefits identified by the ministries. The ministries' monitoring and tracking also showed that 20 % of the remaining benefits were not expected to be achieved.

For 23% of the benefits, which the ministries assessed had been realised, the ministries made the assessment without carrying out a measurement after the implementation, which could be compared to the baseline. Where the ministries' assessments were based on post-implementation measurements, either these, or the methodology applied by the ministries to document the measurements, were flawed. Overall, the ministries only had adequate evidence to support their assessments for 18% of the benefits that were realised.

It appears from the benefits realisation reports that the ministries expected to deliver approx. 32% of the planned benefits at a later stage. However, the ministries only monitored and tracked the realisation of these benefits to a very limited degree.

Overall, the ministries' identification of the expected benefits of their IT projects was made on an inadequate basis

The ministries are unable to provide evidence in support of the majority of the benefits they have identified for their IT projects. Only 5% of all identified benefits are sufficiently supported by documentation.

The ministries have not carried out baseline measurements of approx. one third of the benefits referred to in scenario 0. Moreover, the ministries have no data to support their assessments of the potential shown in the scenario 1 of approx. one half of the benefits for which they had carried out baseline measurement.

Due to the inadequate basis upon which the ministries have identified the benefits of their IT projects, they are unable to provide convincing evidence that the planned benefits can actually be realised. This makes achievement of the improvements that provided the basis for initiation of the IT projects uncertain.