Project Management in E-Government Projects: Lessons for the Dutch Government

Remco van der Veen
University of Twente
P.O. Box 217, 7500AE Enschede
The Netherlands
r.vanderveen-3@student.utwente.nl

ABSTRACT
The Dutch government wastes one to five billion euros each year on failed ICT projects. One of the reasons found for this failure, is the weak project management for these projects. This paper aims to find guidelines for selecting a project management methodology to be used within the Dutch government. Similar projects in business context and abroad are compared with the Dutch approach, different project management methods for ICT are summed up and we look for generalizable guidelines in choosing a project management method. The outcome is then discussed with experts to verify the findings. Guidelines for selecting project management methodologies have been defined and applied to the found project management methods. This leads to the conclusion that HERMES, a project management method from Switzerland designed for ICT projects, fits most for e-government projects. PRINCE2 could be a good second option, because of the general availability. Furthermore, we have a discussion about overcoming other problems around project management. Methodologies are used, but many times not complied with. Every methodology provides tools to solve the problems the Dutch government encounters. Because of the decentralized approach of e-government projects, the learning opportunities project management methodologies provide are not used.

Keywords
ICT projects, government, project management, e-government, Netherlands.

1. INTRODUCTION
In 2012, the Dutch House of Representatives started a parliamentary inquiry on ICT projects of the government. In the years before, there were a number of ICT projects which got more expensive, delayed or which failed. The temporary parliamentary committee ICT, consisting of Elias et al. was established who would investigate the reason why so many projects at the government fail. The committee is supported by the company Policy Research, which examined several cases [3]. The cases that are summed up in Appendix B, are the case studies on which the Elias et al. report is based. Two years later, in 2014, the committee published their research report. Their conclusions were firm: “the Dutch government does not control its ICT projects” [13], resulting in the Dutch government wasting one to five billion euros each year on failed ICT projects.

1.1 Problem Statement
One of the conclusions by the evaluation committee is that “the ICT project management is weak” [13]. Elias et al. elaborate by mentioning that the government does not have sufficient insight in the time frame, cost and quality of projects, which are traditionally the factors that determine the success of a project [5]. The government does little to manage the risks of projects, the committee continues. Because of the complexity and size of projects, the risks of government ICT projects are high. However, justifications of large ICT projects in the Dutch government mention risks barely or not at all [23]. Furthermore, the government acts substandard on the change in size of projects. Projects are never executed without incremental changes. For example, the users realize what they want at the moment the project is delivered. Changes in projects create new risks in the quality of the software, because software is complex even for experts in ICT [14]. Modification in the code is not infinitely possible. Given the complexity of the administration, the risk is even higher that problems in a project arise.

The committee also talks about involving users more in the process of designing the ICT projects. At the moment, users are involved only at the beginning of the project, when the requirements are defined. Elias et al. propose to involve users during the process of the project, to make sure their requirements still correspond to the system that is being created.

In the report from Elias et al. they suggest that agile software development might solve some of the issues that the government faces with e-governance projects [13].

1.2 Research Questions
The problem statement makes it clear that something needs to change in managing projects from the Dutch government. The main research question is therefore as follows:

Which project management method(s) can be used best in e-governance projects?

The main research question is supported by multiple sub-research questions. These questions simplify and support answering of the main research question.
1. How do e-government projects differ from business projects?

2. Which project management methods are available, and in which case are they used best?

3. Which lessons can be learned from e-government projects abroad?

4. Which guidelines should the Dutch government use when choosing an appropriate project management method for e-government projects?

In the report, Policy Research states that the awareness of costs of civil servants are low [13]. When a project gets in trouble, there is always somewhere else to get money from. The presumption is that this is not the case with business projects.

To decide on which project management method can be used best by the government, it is necessary to identify different (ICT) project management methods that are available and sum up their pros and cons, so they can be compared.

To have a frame of reference, projects in other countries have to be explored. Other countries might be struggling with the same issues the Dutch government faces, or might have already developed solutions for that.

The last subresearch question will help the Dutch government choose the right project management method for their future e-governance projects.

1.3 Structure
In this report, we will start with explaining the research methods in section 2. Next, the found literature is reviewed in their respective section 3.

The subresearch questions are answered in their own section. Section 4 compares e-government projects to business projects. A list of project management methodologies are presented in section 5. In section 6, we describe which lessons can be learned from projects abroad. The last subresearch question about guidelines is answered in section 7.

The design and results section 8 interprets the findings and we create a framework for comparing the project management methodologies. We validate these findings with experts in section 9. Conclusion, discussion, limitations and future work are presented in section 10.

2. RESEARCH METHODS
The research for this paper consists of three parts. In the first part, literature will be reviewed to answer the first, second and third subresearch questions. The last subresearch question will be answered by designing a decision model. The results will be discussed with experts for validation.

2.1 Literature
The literature search and selection is done using the grounded theory for reviewing literature by Wolfswinkel et al. [26]. The procedure of defining, searching, selection, analyzing and presenting literature is summarized in Table 1.

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2.2 Design
Subsequent to the literature review and answering the first questions, a guideline for the Dutch government is designed to help choosing an appropriate project management method. For this design, the design science of Hevner is used [18] summarized by Figure 1.

Figure 1. Design science research model

2.3 Validation
The validation of the guidelines that are developed in the design phase will be reviewed with experts on e-governance projects and project management. The goal is to find out if and how projects would have gone better if the designed guidelines would have been used. The expert review will be done according to the "Question and Questionnaire Design" by Krosnick and Presser [21] and Wieringa [25].

3. LITERATURE REVIEW
The literature review focuses on finding literature to answer the subresearch questions and to learn about trends and best practices in project management methods, specifically in ICT-projects.

The following four sections covers literature found for one of the subresearch questions. The process of finding and selecting literature is described in Appendix A.
4. COMPARISON WITH BUSINESS
The first field of research is how e-governance projects differ from business projects.
In project management it is common to refer to the Iron Triangle. The angles of this triangle are scope, time and costs, which together influence the quality of the delivered result. The triangle is a metaphor for prioritization of a project: if one wants bigger scope of a project, this has impact on budget and time. When the available budget of a project is not sufficient, this influences the quality of the project.
For companies, these angles usually determine whether a project is continued or stopped, when the angles increase [5]. The Dutch government does less to manage the Iron Triangle: instead of managing the angles, they are more inclined to spend more time, money or increase the scope of the project in favor of the quality and successful delivery of a project [13].
Companies often use other management methods alongside project management methodologies, to improve their business [17]. An example is the maturity model [8]. The Capability Maturity Model determines the maturity of the organization, based on how well-defined the structure of the project process is [17]. The highest level in the maturity model is reached when continuous improvement is implemented in the organization. A strategic alignment model can be used to align the strategy of the company’s ICT with the business strategy, by outlining the common decision points [17]. This is helpful, because nowadays those two strategies can not be seen as separate.
5. MANAGEMENT METHODS
PRINCE2 is the standard used project management methodology for project management within the Dutch e-governance projects [13]. Elias et al. suggest using the agile project management method more, to solve the problems in project management mentioned in the Problem Statement. Other project management methods are not referred to, while they do exist.
One of the conclusions of Elias et al. is that the project management is weak. They present agile as a solution, while not elaborating on alternative forms of project management. In this section, management methods suited for ICT projects are summarized. A bit of background on each method and the characteristics of the method are presented.
The project management methods are ordered alphabetically.
5.1 Definition
A project management methodology helps to identify the needs from the customer, provides guidelines to run the project and helps identifying stages and decisions in a project [16].
Each project management methodology is typified by the stages it goes through. These stages or phases are initiation, planning, execution and management, and closing of a (phase of a) project. The project management methodology provides a framework and implementation for these stages [11]. Next to that, every project management methodology has tools to manage the project by scope, quality, schedule, budget, resources and risk.
5.2 Agile
Agile project management was used first as a term in 1996 [12]. Agile is the umbrella term for specific project management methods, such as DSDM (which was the first), eXtreme Programming, Rational Unified Process and Rapid Application Development [7]. These management methods are covered together because, according to Baars et al. they are essentially the same. The method uses iterative development to deliver projects in incremental parts.
Agile management is about running projects in smaller parts. A cycle of typically 2-4 weeks can be seen as a project on its own, with initiation and planning, developing and implementing, and evaluation. At the end of a cycle, a ready to use product is delivered. This product does not have to implement all the requirements of the main project. Because requirements are re-evaluated every cycle, the project can adapt more easily to change of the requirements.
5.3 HERMES
The Federal Steering Unit IT (FITSU) in Switzerland created their own project management methodology for IT management, called HERMES [1].
HERMES is a project management method which only contains the basic elements. The method is layered (from high to low) in scenarios, phases, modules, roles, tasks and outcomes, so that the method can be tailored to the organization and the project it is used in [2].
The project management methodology provides its own guide to implement the method and is highly customizable.
5.4 PRINCE2
PRojects IN a Controlled Environment 2 is a project management method that is based on seven principles, seven themes and seven processes [6]. These form the PRINCE2 environment in which projects are ran. An overview of this is given in Figure 3. The method is developed by the government in the United Kingdom and is the de-facto standard for project management within the government there [19].
The seven principles of PRINCE2 are:
1. Business justification: is there a justifiable reason for starting this project, that remains consistent throughout the duration of the project?
2. Learn from experience: teams should learn from previous projects.
3. Roles and responsibilities: a team should have defined structure and involve the right persons for the right tasks.
4. Stages: projects should be planned, monitored and controlled stage by stage.
5. Manage by exception: there should be tolerances in a project to establish limits of delegated authority.
6. Products: focus on product definition, delivery and quality requirements.
7. Tailored: PRINCE2 should be tailored to the project’s environment, size, complexity, importance, capability and risk.
PRINCE2 is a method that aims to cover all types of projects and focuses on project management.
5.5 PMP
Project Management Professional (PMP) is a certification for a project management methodology that is based on the principles of the Guide to the Project Management Body of Knowledge (PMBoK).

The PMBoK is not a project management methodology, but a standard [9]. Because PMBoK tries to be a standard for all project management, it is very comprehensive.

5.6 Water-Scrum-Fall
Water-scrum-fall (WSF) is what most companies do, when they say they are developing agile [24]. Water-scrum-fall is referred to as both not optimal because it does not fully utilize the power of agile development and the solution to problems with agile and waterfall, as the DANS method shows [7].

The DANS method is a relatively new project management method created by the Data Archiving and Networked Solutions institute [7], part of the Royal Netherlands Academy of Arts and Sciences (KNAW). It addresses some of the alleged problems with agile and waterfall project management methods by creating an intermediate form. This form is summarized in Figure 4.

DANS tries to solve a few options found in agile and waterfall principles.

Baars et al. say that a disadvantage of agile project management is that development immediately is started, without thinking about requirements or proposing a design [7]. On the other side, a problem with waterfall is that the design is not adjusted when the project advances. The DANS method solves this by proposing a flow where the project is started by defining requirements and design, continuing development by iterations and at the end a roundup of the project.

6. PROJECT MANAGEMENT ABROAD
In different countries around the world research of projects within the government has been done. Some countries successfully implement a strategy for e-government projects, while others struggle with the size of such projects. We will look at Australia [22], the United Kingdom [15], Norway [4] and the United States [20].

6.1 Australia
In 1997, an initiative to outsource all ICT projects of Australian government began. In 1999 23 agencies had encountered problems with their ICT projects, which was four billion Australian dollars worth of government ICT [22].

The Australian government conducted an audit and identified the following problems:

1. Implementation delays and cost overruns.
2. Poor management and lack of focus by the central managing office.
3. Service deficiencies and system outages during implementation.
4. Strained service provider and agency relationships.
5. Limited agency involvement in IT industry development aspects.
6. A perceived limit in access to the broader government IT marketplace.

Therefore, the initiative was terminated in 2000. The Dutch government could have learned from this experience; instead, outsourcing happens on a regular basis, without positive results. One of the recommendations of Elias et al. is to have more experience in-house at the government [13].

6.2 United Kingdom
Flowers et al. compared the approach of e-governance project in the United Kingdom to the approach in the Netherlands [15].

Projects in the United Kingdom are centralized, while projects in the Netherlands are more decentralized [15]. This means that e-governance projects in the UK are based on a single IT strategy, while Dutch e-governance projects are bottom-up defined. Both approaches have their pros and cons.

A top-down approach like in the United Kingdom has the advantage of greater and more effective coordination of the government’s policy agenda. Flowers et al. state that this allows central government agencies to define clear frameworks for the development of e-government. The Dutch decentralized bottom-up approach on the other hand helps to involve users more and make their requirements more clear. In practice, this does not happen, as discussed by Elias et al. [13].
6.3 Norway
A study comparing ICT infrastructure in Norway and the Netherlands confirms the claims of Flowers et al. In Norway, ICT projects are centralized and procedures for evaluation of projects are thoroughly implemented [4]. These evaluations are used to create continuous improvement by learning from previous projects.

This is more difficult in the Netherlands, because projects are decentralized. The bottom-up approach [4, 15] makes projects more heterogeneous, which makes it harder to create a single method to execute projects.

6.4 United States
On the first of October in 2013, the HealthCare.gov website launched. The website is part of the Patient Protection and Affordable Care Act and is used to give citizens of the United States the chance to sign up for healthcare, which is compulsory since 2014. The website, a $630 million project, was plagued by problems [20]. Keil et al. investigated the project and came to the conclusion that if status reporting would have been better, the project would not have failed. They have listed some common pitfalls in project status reporting and made recommendations to prevent them.

Trust, but verify
While it is expected that employees report problems that might impact the project, this is not always the case. Keil et al. reviewed and found in one study that 60% of the time reports from project managers were biased, and that bias was more than twice as likely to be optimistic than pessimistic. Their advice is to verify status reports with different people involved in and around the project.

Composition of project teams
There are different reasons why people would misreport on project status. Keith et al. mention three: individual traits, work climate and cultural differences. They recommend to invest in the composition of the project team, especially project manager positions.

Auditors
The assumption to rely on a distant audit team to address misreporting is deficient, Keith et al. say. Auditors can lead to less openness about the status of a project. Lack of trust between auditors and project staff is often the key cause of harmful organizational dynamics. Keith et al. propose to pay attention to building trust between project status reporters and auditors. This can for example be done by bringing them together quarterly to discuss project success, best practices and lessons learned.

Power distance
The research of Keith et al. suggest that the stronger the perceived power of the project sponsor or leader, the less inclined employees are to report statuses accurately.

Overconfidence
Keith et al. observed in several studies that sometimes employees report bad news and executives ignore it. As status reporting is also an issue in Dutch e-governance project management [13], the recommendations could also be relevant to the Dutch projects.

7. GUIDELINES
To help the Dutch government select an appropriate project management methodology, guidelines are created.

7.1 Australian Guidelines
The Australian government of Victoria has guidelines for selecting the appropriate project management method for ICT projects [11]. They select a project management methodology based on rationale, principles, components and implementation.

These guidelines [11] put forward that the expected benefits from using a project management method are improved governance and decision making, increased chance of success by improved project delivery processes and increased time spent on delivery outcome, rather than “reinventing the wheel”. Other benefits are elimination of choices, consistent reporting and analysis and reduced risk and controlled change.

The principles of a project management methodology should be easy to use and understand, the guidelines continue [11]. The method should be able to provide early warning of problems. Also the method should be scalable, customizable, measurable, improvable and resourced.

Also, the project management method should consist of components to identify the typical project lifecycle, resources and skills required and provides tools to support delivery [11]. The project management method components include a framework or set of principles, a definition of the steps to be followed, roles and responsibilities, defined processes, a set of templates for commonly used documents and access to lessons learned from previous projects. Furthermore it provides training materials and a definition of the minimum training required.

Implementing a project management methodology is a significant organizational change and should be managed as a change project or program [11]. Lastly, the project management methodology can be supported by tools [11]. These tools can lead to improved compliance with methodology and business processes, estimating and scheduling, progress reporting. Furthermore the tools could improve team collaboration and communication, resource management and decision making.

7.2 Factors for Project Success
Cooke-Davies identified twelve success factors on projects [10]. Eight factors are determined for project management success, one for individual project success and three for consistently successful projects. Project success in IT/IS projects deliver financial benefits for the organization, and/or reduced wastage from aborted projects.

The first six success factors are about on-time performance. This include education about risk management in the organization, mature processes for assigning ownership of risks, a visible maintained risk register, an up-to-date risk management plan and documentation of organizational responsibilities on the project [10]. A project or project stage should be kept below 3 years as far as possible.

Two on-cost performance success factors are to allow scope change only through a mature scope change control process [10]. The integrity of the performance measure baseline should be maintained.

For an individual project, an effective benefits delivery and management process should exist, that involves the collaboration of project management and line management functions.

Consistently successful projects can be created by three success factors. First, portfolio- and programme management practices should be implemented that allow an or-
organization to resource a project that is matched to corporate strategy and business objectives. Secondly, a suite of project, programme and portfolio metrics should be available to report the status of a project immediately. It is proposed to use the balanced scorecard [10]. Lastly, there should be an effective means of learning from experience on projects and embed that learning into continuous improvement of project management.

8. DESIGN AND RESULTS
In this paper, we find the best project management methodology to be used in e-government projects within the Dutch government.

For this, we examined how governmental projects differ from business projects. In business projects, the angles of the Iron Triangle are almost always decisive for continuing or stopping a project. In Dutch government, instead of making the decision to stop a project, the decision to stretch the angles is made. This leads to projects that overrun their budget, time, and scope.

While businesses use other management methodologies alongside the project, this is not done at the government. A possible explanation for this is that the Dutch government is decentralized. Each ministry has its own projects, making it difficult to create a corporate culture of learning and improvement.

Now we defined the project management methodologies and the guidelines to choose an appropriate method, we can compare the methods to each other. This is done in Table 2. The table design places the project management methodologies we outlined in section 5 in rows, ranking them based on the guidelines we got from section 7. The stars indicate the amount a project management methodology complies with the guideline.

- *** Complies with all criteria
- ** Complies with most criteria
- * Complies with some of the criteria

The agile methods are one of the least extensive, but most difficult to implement. Many companies trying to implement agile, actually implement a water-scrum-fall method [24]. Accountability is not easy to achieve, because of the iterations and the joint effort a cycle demands. On the other hand, principles and components are abundant: the agile method is easy to understand and teach, is customizable - hence the amount of variations exist.

HERMES, the project management methodology developed by the Swiss government, scores best overall. The core of HERMES is small, but can be improved with scenarios, phases, modules, roles, and tasks when required. It can be seen as a big toolbox where the needed tools are taken from when the project demands it. The roles make accountability possible and the modules define the components which are needed for a project. HERMES provides a plan for implementation.

Next is PRINCE2. This methodology is very comprehensive. Defined roles make accountability possible and the whole methodology is aimed at implementing the rationale stated before. PRINCE2 does not score highest on principles, because it requires a considerable effort to fully understand the methodology, which is not scalable for smaller projects, and customization and improvement require a substantial effort.

PMP, the certification for PMBoK, is the most extensive because the standard it is backed by. This results in a vast set of components and tools, but makes it difficult to use and understand the method in full.

Last is the water-scrum-fall model. Overall this method scores the lowest, because it is often considered an undesirable implementation of the agile approach. DANS proposes it as a solution, but that is a theoretical model. Some tools are developed, but not many exist.

9. VALIDATION
To verify the findings of this paper, two expert reviews are conducted. These are set up as semi-structured qualitative interviews.

One of the experts is a project manager within government projects. The other expert is a professor in Design and Implementation of Information Systems at the University of Twente, who before joining the University of Twente, was active in IT management on the Rotterdam School of Management. He also worked in business projects.

Both experts mention the difference in commitment when comparing governmental projects to business projects.

The decision of stopping a project is almost never made, in governmental projects. The project manager says this is different from business organizations, where this decision is made earlier. A possible explanation comes from the professor: the government does not have competitors in its market. Therefore, the government is more likely to take the decision to make the best out of a project and invest more money and time in a project, than to stop it and have a completely failed project. The project manager agrees on this.

Managers and employees are almost never held accountable for the decisions they have made. This has different reasons: the project manager says this is because managers alternate each three years. Also, the project board does not act when someone needs to be held accountable. The professor adds to this that a lot of managers are hired externally and that control from within the government lacks.

Both the project manager and the professor say there is no standard at the Dutch government for project management. PRINCE2 is used a lot. Some additions have been made about reporting. Whether this is an improvement or not, the project manager could not say. The project manager adds that when a part of the methodology is not (correctly) used, the project board does not act on it. The professor states that when projects are done by externals, they bring their own methodologies.

Discussions about using agile within PRINCE2 are ongoing, the project manager claims. The government would like to tackle the long lead time. Next to that, at the beginning of a project the requirements are not clear yet. Both experts state that projects can be delivered in smaller parts instead of the whole project, with or without delay, at once.

The project manager recognizes that risk registers are sometimes not updated. This makes it difficult to act on risks - when they are not registered, they are simply overlooked. When risks are logged, they are recognized and acted on.

These interviews clearly show in addition to our research that the project management methodologies are not executed in full potential and overseeing the process often lacks. They both refer to agile and PRINCE2 as project management methods, because these are most common.
methodologies. Zooming out, there are not only deficiencies, but also in the environment around it.

The Dutch government works with a bottom-up approach when it comes to starting new initiatives in ICT. This approach means that projects are started when there is demand from citizens or ministry. Research shows that because the initiative has to come from ministry or citizens that end-users can be directly involved in the process of a project. In practice this is not the case, as can be read in the report of Elias et al [13].

E-government projects in the Netherlands can benefit from a centralized approach. This means that the government presents a vision on ICT and that projects that emerge from that vision are done by one organization. This organization can define clear standards for project management and within this organization it is possible to verify if these standards are met.

The decentralization of Dutch ICT projects has another disadvantage. Because projects stand on their own and are done by different ministries, it is difficult to learn from previous projects and to include these lessons in new projects. A central approach would make it possible to use the evaluation of previous projects in running or new projects.

Centralization of projects grant another opportunity. It would allow to create an environment not only focused on running successful projects, but also improving ICT solutions and aligning them with governmental targets. The discussed management methods that look rather useless now, because not all constraints in project management are covered, could then be put into use.

This suggestion is in line with and implements recommendations from the parliamentary committee of Elias et al. [13]. They suggest to:

1. grant the CIO of the State more overriding authority in executing ICT policy.
2. centralize ICT procurement and statewide ICT facilities.
3. create a central and structural educational ICT programme for principals and project leaders within the government.
4. collect and analyze data of ICT projects continuously and project management uses the found patterns.

10.2 Limitations

The best way to verify the findings in this paper, is to run a project with the proposed changes. As this was difficult to achieve, we verified the project with experts. It was pretty hard to find experts for validation. Due to time
constraints, we only got two weeks for validation. For various reasons people did not want to participate: lack of time, confidentiality or we got no response at all. In total, twelve experts in the field of project management, politics and project management science were contacted for a expert review. Two responded positively and allowed us to interview them. Validation should be done in greater depth in future research; this is discussed in section 10.3.

10.3 Future Work
In our research we found that implementing a project management methodology must be seen as a project on its own [11]. Table 2 shows that implementing a project management method is not always easy; none of the methods score the maximum amount of stars. More research should be done in the direction of implementing the project management methodology.

Also, we concluded that project managers do not always use the full potential of a project management methodology. Further research is needed on how to motivate project managers to use the project management methodology the way it is meant to be used.

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11. REFERENCES
APPENDIX

A. LITERATURE REVIEW PROCESS

A.1 Criteria for inclusion/exclusion
Include criteria. The reference should either be:

1. comparing business government projects to governmental projects.
2. discussing a project management methodology in depth.
3. addressing e-government in any country.
4. providing guidelines for finding a project management methodology.

A.2 Sources
The majority of the literature was found using Scopus. Other sources include using Web of Science, the University Library of the University of Twente, Google Scholar, Google Books and web searches with Google.

A.3 Search Terms
E-government, project management, agile, prince2, hermes, project management method, project management methodology, guidelines, and combinations of these search terms.

A.4 Search and Selection
The initial search got us 54 references. Upon investigation in greater depth, 19 references remained, plus references for our research method and original research parliamentary papers for the research.

B. POLICY RESEARCH CASES
These cases are all studied by Policy Research and described in their report [3].

1. C2000: is a mobile communciation system for emergency services. Implementation and improving coverage of the system. Duration: 1995 - 2013
Expenditure: €765M. once, €86M. annually operating costs

2. Electronic patient record (EPD): project to make patient records electronically available. Duration: 2002 - 2011
Expenditure: €349M.

3. Modernization of municipal administration: exchange the decentralized systems of municipalities by a centralized persons administration. Duration: 2001 - 2012
Expenditure: €49.6M.
Implementation by municipalities: €20M.

Governmental costs: €215M and €76M loan. Budgeted costs at NS (Dutch Railways): €906M.

5. RDW Platform independence: development of a new IT platform and migrate the old platform to it. Case is taken as a successful project. Duration: 2002 - 2011
Expenditure: €39.6M.

6. Tunnels A73: IT component of the tunnels, the technical installations for traffic and tunnel Duration: 1995 - 2009
Expenditure: €136M.

7. UWV Werk.nl: a website from the Dutch governmental institute UWV to help jobseekers find a job and employers find employees. Duration: 2000 - 2015
Expenditure: €75.4M.