

# Management of risk portfolio in project-based organisations

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'Heijmans Beton- en Waterbouw' (HBW) is a Dutch construction company active in the field of (complex) concrete structures and infrastructure. At HBW the focus of risk management is on projects. The effects of project risks however often transcend the specific projects and affect the whole organisation. For the line management there is no clear overview of the risk profile of the entire organisation. Determination of the risk profile provides an indication of this and gives the possibility to respond. Hence the goal of this research was formulated as: *'to develop a model that produces risk profiles of project-based organisations to be able to manage them and to analyse the model in the specific context of HBW'*

The developed model consists of three parts. The first part describes the influence of the various project risks within the portfolio at the cross-project organization. The risks in terms of probability and impact are quantitatively estimated and categorized within each project. The model describes how the project risks are added to provide the overall influence of cross-project risks on the organisation. The second part of the model describes how the project portfolio influences the (non financial) business risks of the organization. This is done by estimating the impact of each project on the business risks using quantification tables. The third and last part of the model describes the influence of the previous two parts on the financial business risks of the organization. The three components of the model represent the general model that describes how the project risk portfolio influences the risk profile in a typical project-based organization. Figure 1 shows a simplified version of the developed model.

The general model is used to create a practical Excel based tool, adapted to the specific context of HBW. The effectiveness of the model is tested through a review session with the intended users of the model within the company. The participants of the review session have agreed that the model helps HBW to understand its risk profile and that this understanding can be used for improving risk management across projects within the organisation.

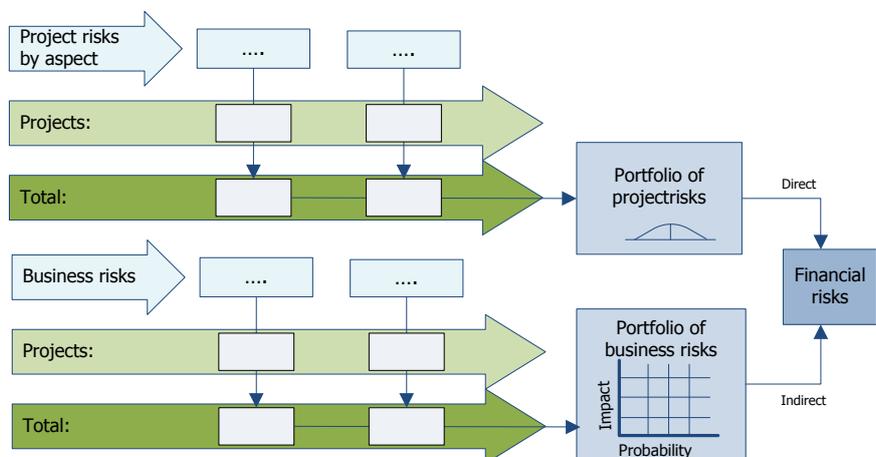


Figure 1: The developed general model for project-based organizations