

VRIEND

Value-Based Security Risk Mitigation in Enterprise Networks that are Decentralized

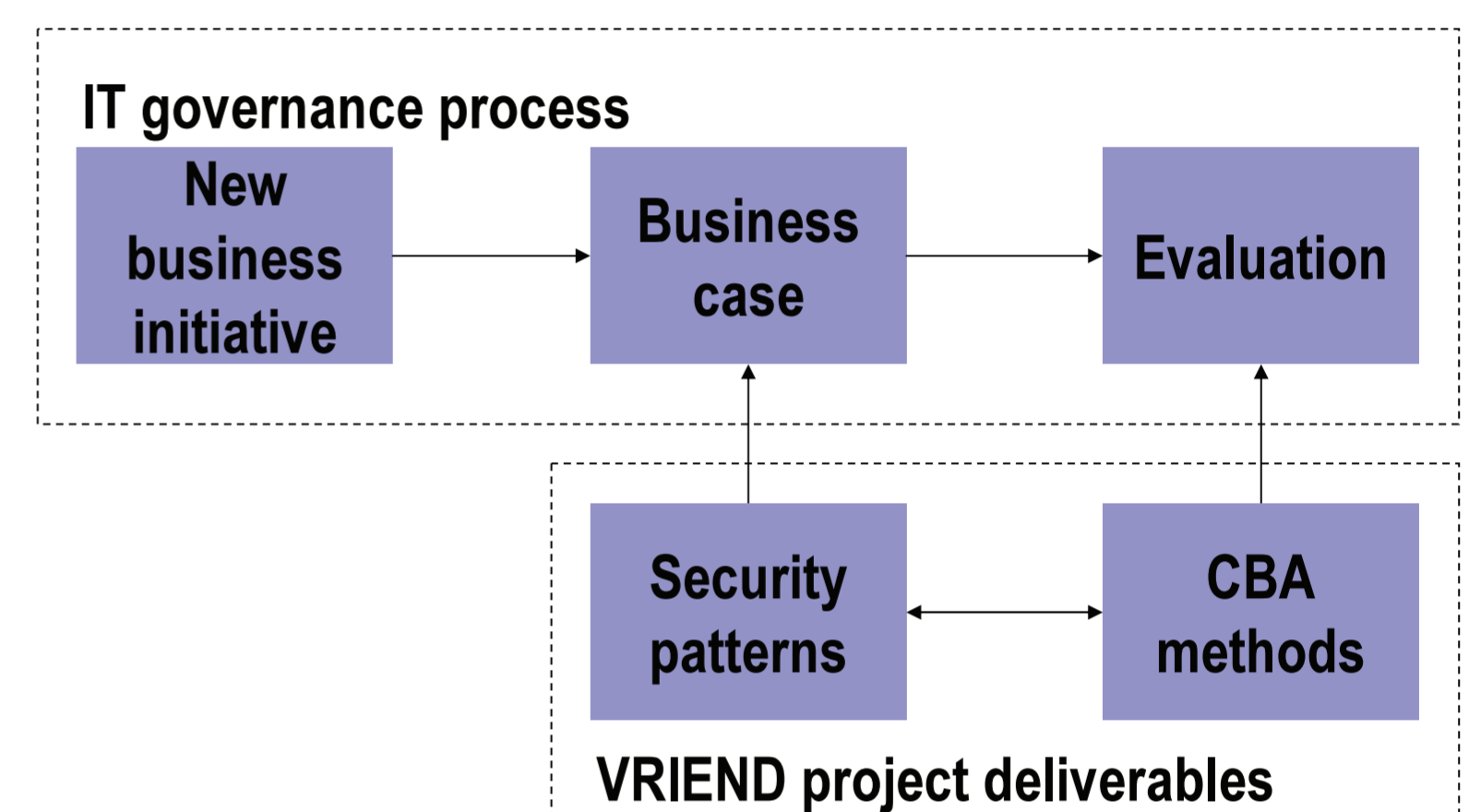
A Sentinels research project

In industrial practice, security engineering is risk management: How to mitigate security risk given a finite budget? Today the IT of a business is connected to that of others in a value web of business partners, suppliers and customers, each of whom has its own confidentiality, integrity and availability requirements. This creates new security challenges, because there is no central decision-making authority in these networks. **The problem to be investigated in VRIEND is how to extend current risk management practices with methods and techniques to deal with security risks in decentralized networks.**

Project vision and deliverables

Value webs are constantly evolving due to the creation of new partnerships and changing collaboration processes. In the VRIEND project, we assume that whenever a business manager wants to engage in a new partnership, he or she needs to submit a business case, which is evaluated as part of the IT governance processes of the enterprise. **VRIEND seeks to support the IT governance process by delivering:**

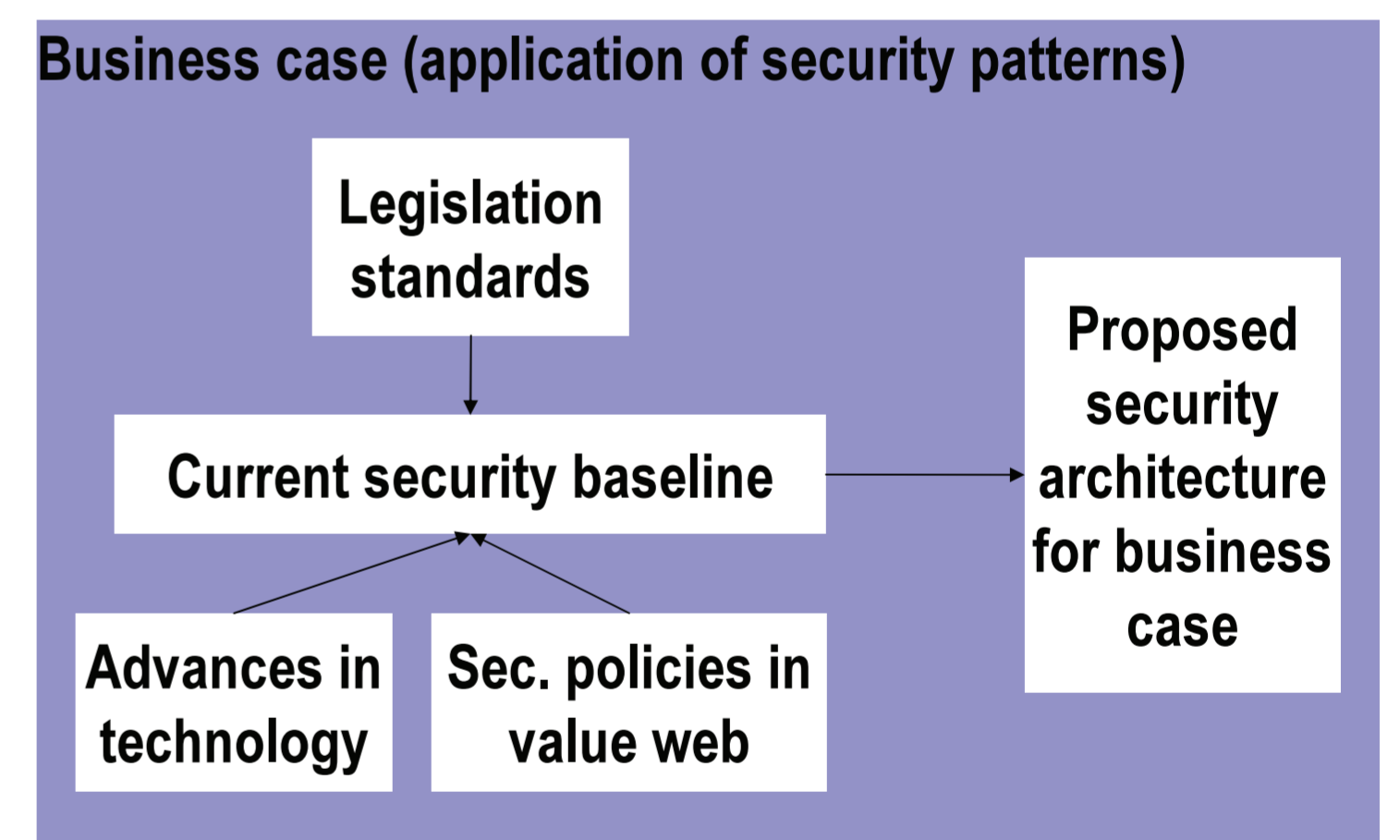
1. **A library of security patterns for risk mitigation in decentralized value networks together with method and tool support for managing this library.**
2. **A set of cost/benefit analysis (CBA) techniques that help to choose among security patterns and assemble them in different business scenarios.**



Security patterns for value webs

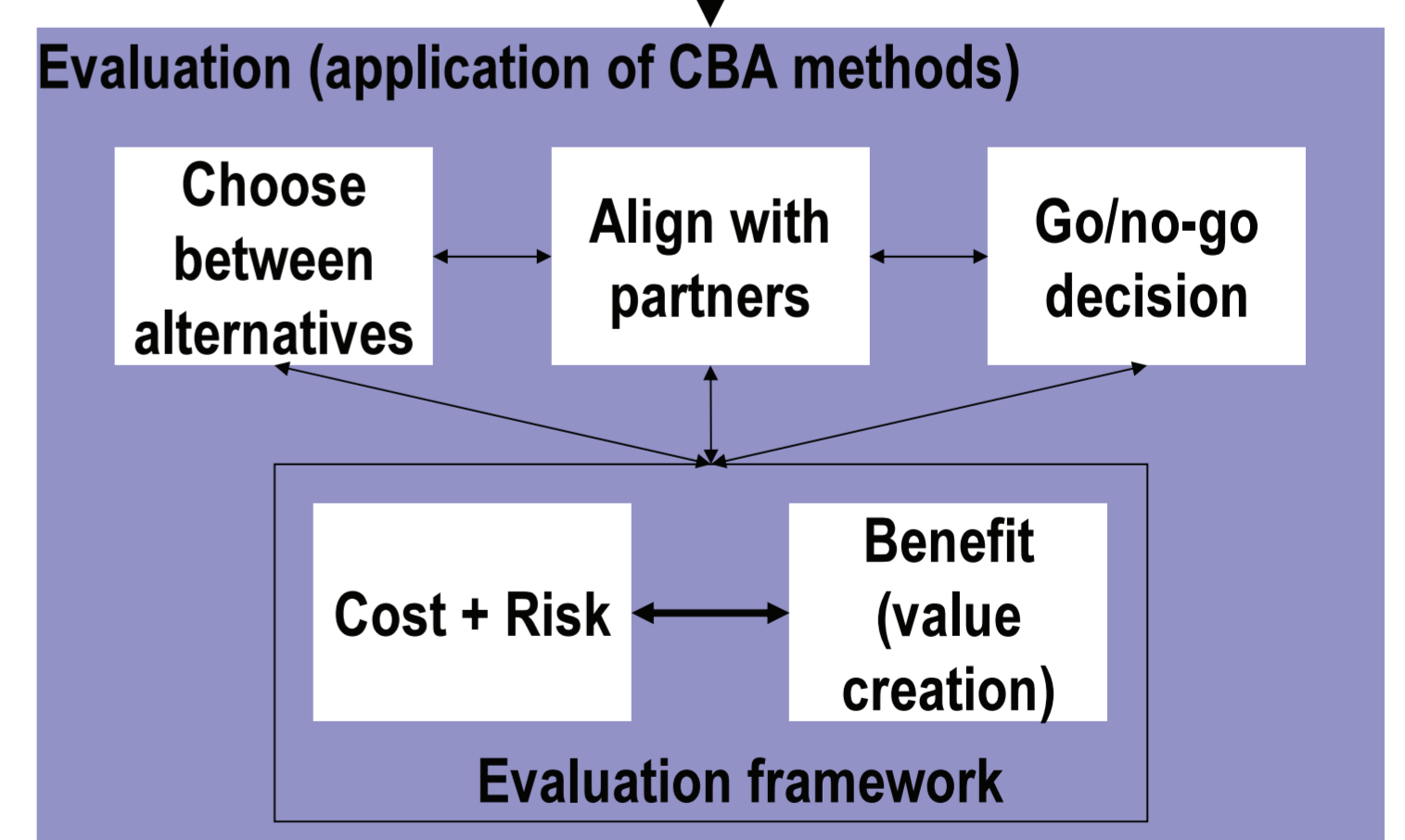
We assume that each new business initiative in a value web requires IT support. Business partners exchange sensitive information and may even become dependent upon each other's IT infrastructure. The business case needs to pay considerable attention to the security architecture proposed for the business initiative. **In VRIEND, such architectures are composed of security patterns and components developed in the project.** Composing a security architecture is driven by:

- The current security baseline present at each business partner;
- Legislation and standards such as CobiT, ISO 17799 and Sarbanes-Oxley;
- Advances in technology;
- Security policies in the value web.



Cost/benefit analysis methods

IT budgets need to be allocated in a way that maximizes value creation for the enterprise, while minimizing costs and (IT security) risks. Given one or more business cases, this means that an enterprise may need to choose between alternative allocations, reject some proposals, and align its decisions with business partners. **In the VRIEND project, an evaluation framework will be developed that supports these decisions.** This framework consists of quantitative techniques to assess alignment of cost/risks and value creation from the perspective of each business partner in a collaboration.



Project participants and contact information

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<http://vriend.ewi.utwente.nl/contact.php>

Industrial partners: AkzoNobel, Corus, DSM, Philips Electronics