



# Combatting The Risk Reward Paradox to Manage Cyber Risk

GOAL: provide optimized cybersecurity investment strategies

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## 1. Uncertain investment paths in cybers risk management

Decision makers face the task of implementing a cybersecurity program to minimize cyber risk and maximize profits. Organizations encounter a multitude of capability investment options, posing the challenge of strategic resource allocation – *where, what, and when to invest.*

The risk reward paradox shows that similar profit outcomes have different risk profiles and the other way around. All this, while having the same capability investments options available.

## 4. Play the simulation and experience the difference



### Cybersecurity Simulation

[Introduction](#) [Dashboard](#)

#### Objective

This simulation is intended to help you experience the complexities in cybersecurity management, and how it may impact your business, give attacks.

#### Resource allocation

Assume that you are the CEO of a hypothetical company. You have the capability development. You can determine 'what percentage' and 'when' cybersecurity has two main effects:

## 2. Business simulation offers forward-looking insights

We use a simulation that mimics the corporate decision environment. This enabled us to collect insights on profits and compromise systems (risk).

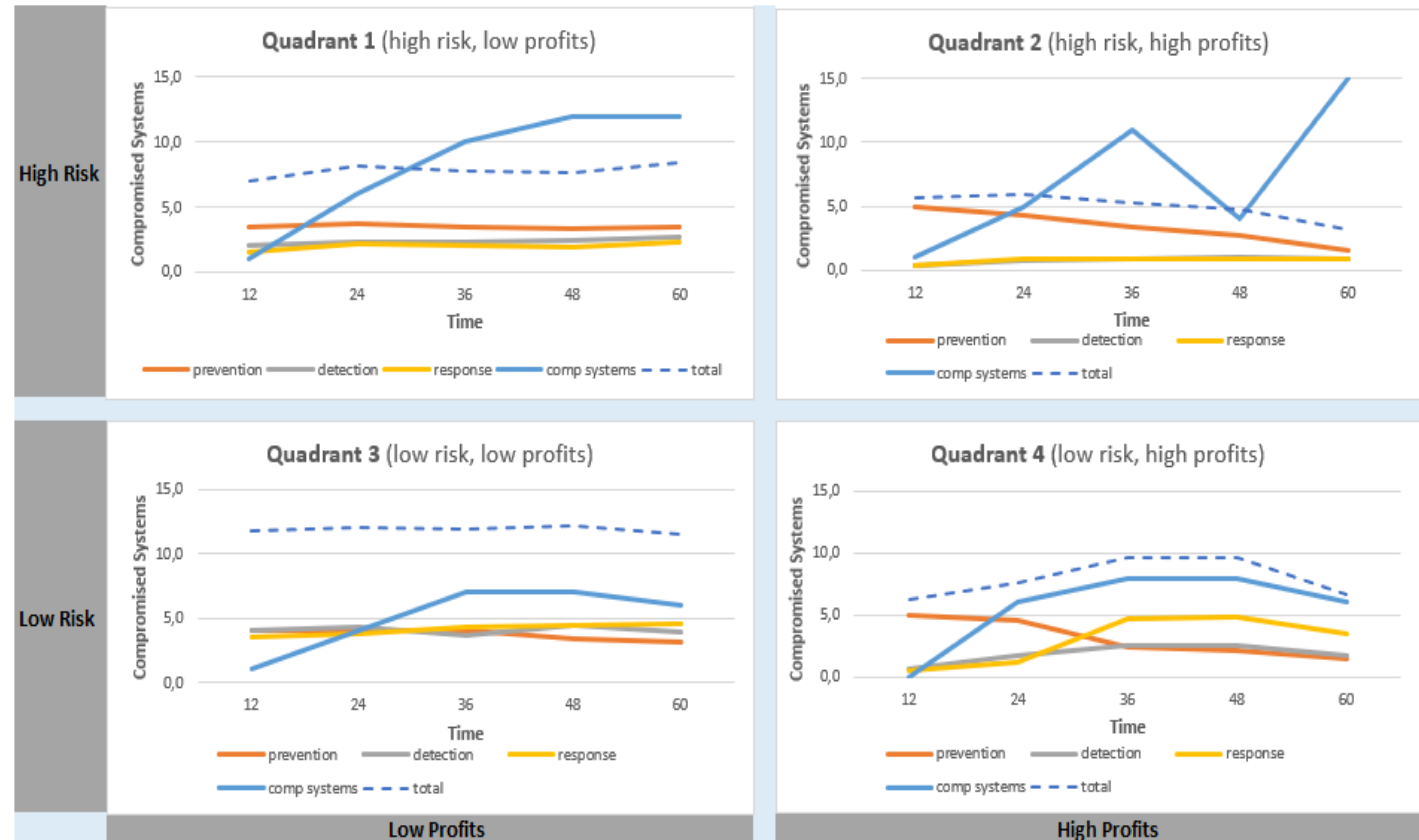


Figure 1. Quadrant analysis of game simulation

## 3. Four investment profiles; one is highly effective

Our study (see Fig. 1) found four different strategic investment profiles. The most effective one in Quadrant 4 (low risk, high profits) that:

- Yields 30% less compromised systems (risk) and 6% more accumulated profit (reward).
- Demonstrates proactive investment in prevention followed by strengthening detection & response.
- Shows that investments change over time to align cyber risk with business needs.

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