

Next Generation of Cyber Risk Management Dashboards

GOAL: Enable business leaders to stay ahead of the curve with decision support tools that address their needs

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1. Cyber Risks' Complex Nature

In a very complex and dynamic environment leaders need to drive a cyber risk management strategy that supports the business strategy (see Fig 1).

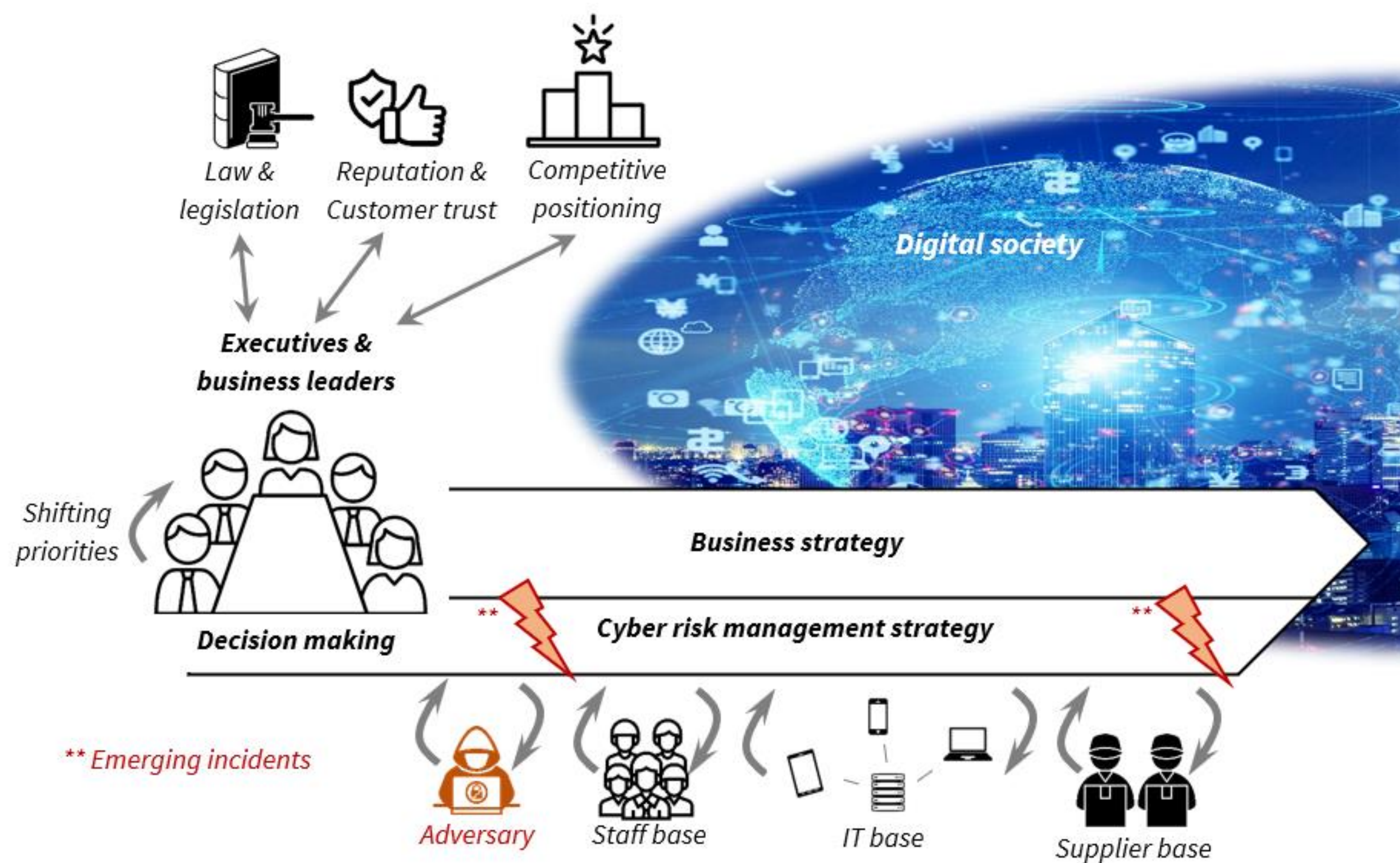


Figure 1. Model: the complex dynamic cyber risk management environment

By nature, the human mind has difficulties in understanding these environments, which cause uncertainties in decision-making or wrong estimations. Ultimately, this negatively impacts the organization.

2. Next Generation of Decision Support Tools

Many tools, such as, cyber risk quantification, self reasoning systems, and forward-looking simulation dashboards have emerged to strengthen cyber risk decision-making.

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3. Empowering Management: Tools to Reduce Uncertainty in the Strategic Decision-Making Process

Our preliminary insights are based on scientific literature research (500 hours). We observe that business leaders must deal with uncertainty about strategic objectives and the effect of their interventions. Decision support tools should reduce this uncertainty (see Fig 2).

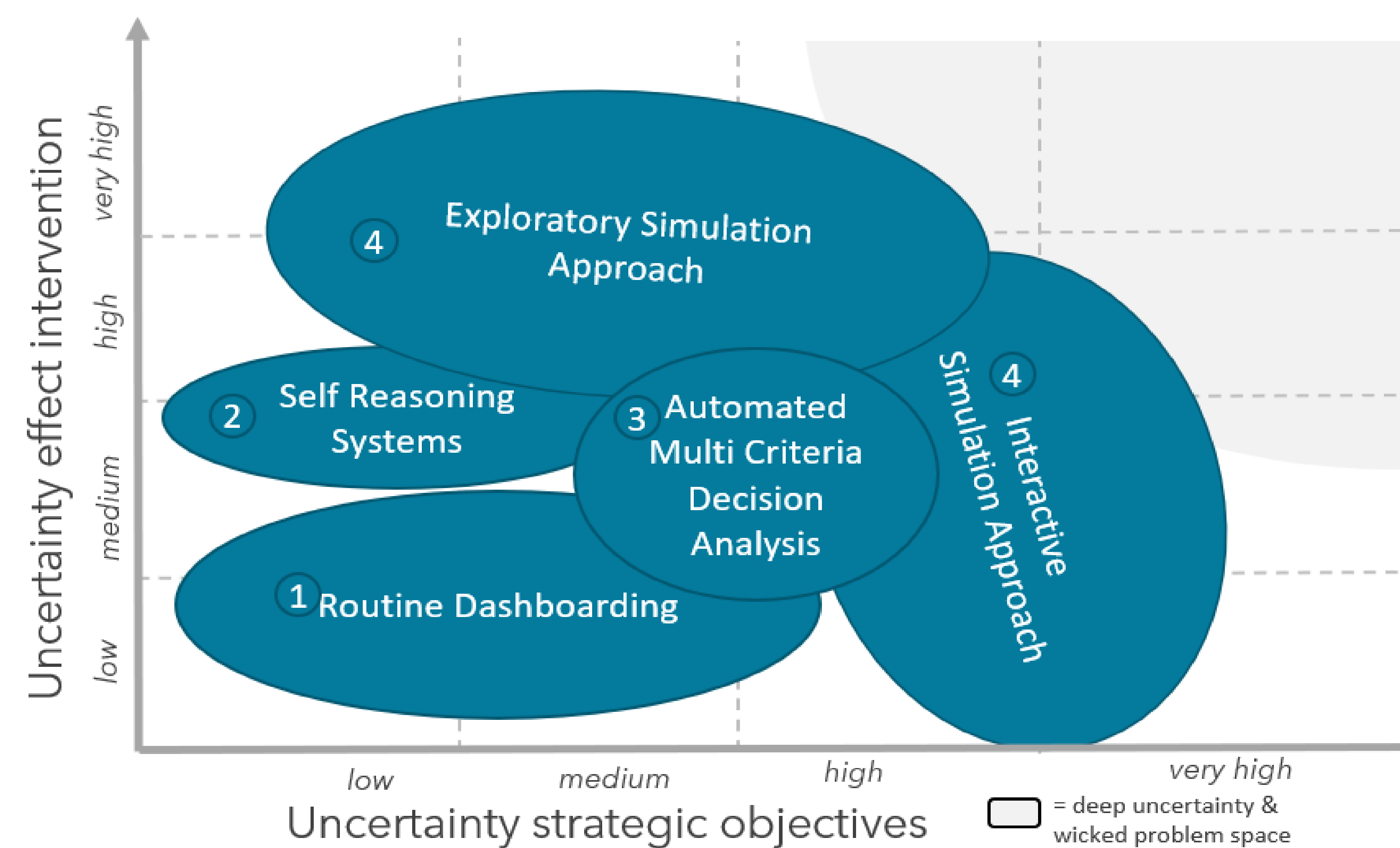


Figure 2. Support tools address different levels of uncertainty in strategic decisions-making

We recognize four tools' types:

- 1) Tools that provide output to steer and create common understanding (e.g., cyber risk quantification, security score cards).
- 2) AI / ML driven expert systems that automatically opts for the best intervention (e.g., XDR, automated response).
- 3) Solution that act as automated judgmental control system by weighting a wide variety of inputs and objectives. (e.g., advanced threat hunting).

4) The cyber risk management dashboard, developed at MIT CAMS, is an interactive and exploratory strategic business simulation solution that closely mimics the cyber risk environment. It allows decisionmakers to explore how their intended cyber risk interventions will impact business performance by forecasting the future behavior multiple critical performance indicators.

4. Simulation Approach to Cyber Risk will enter the C-Suite.

The *Next Generation* cyber risk management dashboard allows you to stay ahead of the curve. Our dashboard is a *unique* interactive and exploratory technological solution that helps management to develop better *foresight* to control cyber risk and simultaneously *align* with business needs.

We invite you to experiencing the Nex Gen Cyber Risk Dashboard through a tailored case study approach to drive this innovation further by your feedback