

How does foresight create impact?

Impact assessment of strategic foresight at
the Social Insurance Institution of Finland, Kela

Master's Thesis
in Futures Studies

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Strategic foresight has gained increasing recognition as an important tool for organisations navigating an uncertain future. However, assessing its tangible impact remains a complex challenge, particularly in the public sector, where traditional business performance indicators do not apply. This thesis examines the impact of strategic foresight at the Social Insurance Institution of Finland (Kela), which has engaged in systematic strategic foresight since 2020. The study explores the types of impact foresight creates within Kela, whether strategic foresight impacts Kela's strategic decision-making and identifies key development areas to enhance foresight's effectiveness.

The research employs a qualitative methodology, drawing from semi-structured interviews with Kela's personnel engaged in foresight processes, as well as a questionnaire for the management team. The study applies established foresight impact assessment frameworks, including those by Rohrbeck & Schwarz (2013), Johnston (2012), and Hines (2016), and integrates previous studies to develop a research framework named "The impact attributes framework" comprising 10 attributes that indicate the creation of foresight impact.

Findings reveal that Kela's foresight activities contribute to individual futures capacities, exploring new alternatives, fosters cross-organisational collaboration, generates strategic tools, enhances preparedness for societal influence and supports decision-making. The study also identifies challenges, such as the need for stronger integration with strategic decision-making process, clearer impact goals, and broader engagement across the organisation.

The study concludes that while Kela's foresight efforts have demonstrated valuable contributions, further refinement is needed to maximise their impact. These insights contribute to the broader discussion on the evaluation of strategic foresight and its role in shaping resilient, future-oriented public institutions.

Key words: Foresight, qualitative study, futures studies, Kela, impact assessment, Finland

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1 Introduction

1.1 Background of the thesis and research questions

Foresight has proven to be a valuable resource for organisations and businesses worldwide, enabling better preparation for uncertainties, fostering innovation in product and service development, and promoting cross-team collaboration. Measuring and recognising the impact and/or value of foresight work has been an active topic of discussion among foresight experts and futurists for decades. In 2012, the academic journal *Foresight* dedicated an entire issue to the impact of foresight (Calof & Smith, 2012). In this special issue, foresight experts presented their thoughts and frameworks on what should be measured and how, with regard to the actual impact of foresight. Over a decade later, several publications continue to discuss the various frameworks and practices for defining and measuring this impact. The Association of Professional Futurists (APF), in its work "Applying evaluation thinking and practice to foresight," emphasises the crucial role of foresight and its effective and timely execution in addressing the challenges of the modern world, and presents views on the current state of foresight's impact evaluation (Tonn et al., 2024).

Many studies on foresight evaluation and impact assessment reach a shared conclusion: while no unified framework exists for evaluating or assessing the impact or value of strategic foresight, many proposals and studies have been developed (Ko and Yang 2024; Koivuniemi, 2024). Notable examples include Rohrbeck and Schwarz's (2013) "Value contributions of strategic foresight"; Rohrbeck and Kum's (2018) "Future preparedness model"; Johnston's (2012) "Foresight impact evaluation schema"; and the Sitra model for evaluating futures work by Vatanen, Dufva and Parkkonen (2019).

Despite the availability of various frameworks, insights, studies, and research, the foresight field has been slow to develop robust assessment tools or frameworks for measuring its impact or value. A gap remains between demonstrating the transformational potential of foresight and evaluating or assessing its tangible impacts (Ko & Yang, 2024; Thompson Coon et al., 2024; Georghiou & Keenan, 2006; Miles, 2012; Vataja & Parkkonen, 2019; Gardner et al., 2024). One key dilemma is the absence of a "one-size-fits-all" approach, as evaluations depend on multiple factors. Consequently, many foresight organisations worldwide are developing their own internal evaluation capacities

and methods, including the Finnish Innovation Fund (Sitra), the World Futures Studies Federation, the Association of Professional Futurists (APF), and UNESCO (Gardner et al., 2024).

Measuring the effect of foresight on strategic decisions is often complex, particularly in the long term, as multiple factors interact. Even if attributes indicating impact can be identified, can the impact itself be conclusively attributed to foresight? Moreover, how can we determine whether foresight has positively influenced decision-making? Although foresight is designed to help organisations navigate complexity, the practice itself is inherently complex, making it difficult to define, evaluate, and detect its value for an organisation. These challenges are particularly significant when foresight is conducted in the context of policy-making and societal influence (Gardner et al., 2024).

Despite these challenges, the need to justify investments in foresight, demonstrate tangible achievements, and enhance its role in organisations is pressing. To create impact through foresight and influence important issues on a broader scale, particularly in policy-making and societal contexts, it is vital to establish the connection between foresight and decision-making outcomes (Havas et al., 2010).

For a public organisation influencing societal decision-making that affects millions of Finnish citizens, understanding and demonstrating the value of foresight is crucial. This thesis aims to explore how to assess the impact, value, and benefits of a foresight process in a public sector organisation, identify the types of impact that can be observed, and present development areas to enhance the impact of foresight. The research focuses on the Social Insurance Institution of Finland (Kansaneläkelaitos in Finnish and abbreviated as Kela), and its current strategic foresight process.

The research questions (RQs) are:

RQ1: What kind of impact does Kela's strategic foresight create for Kela and its functions?

RQ2: What is the impact of Kela's strategic foresight on strategic decision-making?

RQ3: What are the key development areas that can increase these impacts in the future?

Kela has undertaken systematic strategic foresight since 2020, with its current foresight process established in spring 2023. While surveys have been conducted among staff and participants to measure foresight maturity levels and identify development needs, the process has not been extensively studied, nor has its impact on strategic decision-making been investigated. The study is focusing on an ongoing process, as Kela wants to evaluate the process and the value it currently generates. Moreover, the study aims to serve as a validation of the existing process and to identify areas for improvement. For Kela, the main objectives of the research are to gain an understanding of whether their current foresight process has an impact on Kela and what kind of impacts there might be.

The study was conducted in collaboration with Kela; however, the researcher adhered to academic integrity and conducted the research independently. Kela's representatives, Kerttu Takala and Anneli Suihkonen, contributed by providing materials, insights on foresight processes and strategy development, and arranging interviews needed for data gathering. Regular weekly meetings with Takala and Suihkonen facilitated reflection and discussion of the findings within Kela's organisational context.

1.2 Key terms and definitions

In this thesis, the terms foresight and strategic foresight are both used when discussing Kela's foresight process. The term strategy is often used vaguely and can have different meanings depending on the context: "One person's strategy is another's tactic" (Rumelt, as cited in Godet, 2000). While strategy is commonly associated with planning and/or management, it is sometimes used indiscriminately to refer to anything considered important. Strategy is not merely a long-term plan; rather, it encompasses an organisation's actions within its environment and reflections on those actions (Ansoff 1965; Poirier 1987, as cited in Godet, 2000). It involves decisions related to the organisation's existence, independence, mission, and field of activity (Lesourne, 1994, as cited in Godet, 2000).

The use of the term *strategic* before *foresight* highlights foresight's role in strategic planning and decision-making at the top management level. At Kela, the term *strategic foresight* is preferred over *foresight* to emphasise its long-term orientation and its connection to strategic planning, demonstrating that foresight operates from a higher-level strategic perspective. Additionally, the term *strategic* is used to distinguish foresight from *forecasting models* applied in various operational functions at Kela. *Strategic*

foresight also conveys the idea that foresight has a broad and integrated impact across the organisation and its different sectors. (Takala, telephone conversation, 6.2.2025.)

This thesis presents the terms *evaluation* and *assessment* mostly referring to the same concept of studying the impacts or outcomes of a foresight process. When carefully defined, however, these terms have fundamental differences: evaluation refers to judging the quality of a performance or work product against a standard or determining a project's success, whereas assessment takes a more holistic approach, providing feedback for future development (based on Parker et al., 2001). In this thesis, the objective is to *assess* the impact of strategic foresight. This means that the researcher is not judging the quality of the process or comparing the results to a standard – such standards do not exist in the field of foresight evaluation or assessment. Instead, the study seeks to uncover the impacts and benefits of strategic foresight on the organisation and the decision-making process at Kela. The term *evaluation* is mostly used in the literature review for to enable the versatile scanning of various existing frameworks for impact assessment and evaluation of foresight.

The term *impact* is used in this thesis to describe both the outcomes produced by the foresight process and the ways in which the process itself influences the organisation, individuals, and strategic decision-making. In the context of a public institution, *impact* also refers to societal influence, particularly through contributions to legislation or parliamentary programmes. Foresight can generate diverse forms of impact, which are further examined in chapter 2.2 and discussed throughout this thesis.

1.3 Thesis structure and research strategy

The thesis structure begins by introducing the studied organisation and its current state of the foresight process, followed by a literature review of previous studies in the fields of strategic foresight and impact assessment. Based on the literature review, discussions, and objective setting with Kela, a list of attributes referring to foresight impact is presented. These attributes form a framework that serves as the foundation for a comprehensive set of questions developed for qualitative data collection. The data is gathered through semi-structured interviews with Kela's personnel involved in the strategic foresight process. Additionally, to examine the connection between the findings from the interviews and the views of the management team in identifying potential impacts on decision-making, a questionnaire is conducted with the management team.

Kela's management team consists of 11 people, who are responsible for reviewing the matters to be presented to the board and ensuring that Kela's strategy is implemented in accordance with the board's guidelines and decisions.

The data analysis section involves thematic coding of the interview data by grouping responses into themes based on the types of impacts identified. Insights related to management and decision-making are used to inform the questionnaire for the management team. Development-related insights are separated and discussed in a dedicated chapter. The interview data, combined with the findings from the questionnaire, is further analysed and grouped into six broader themes, culminating in a visualisation named "The foresight impact cycle". The research concludes with discussion and conclusion sections, synthesising the findings and offering final reflections on the study.

The primary reason for collecting original data is that no previous study at Kela has examined the impact of its strategic foresight process. While several studies have explored the impact and value contributions of strategic foresight, the context (e.g., company, organisation, or other) invariably influences the study and its findings.

Overall, the research strategy evolves throughout the process, achieving its final structure as the researcher develops a deeper understanding of Kela as an organisation and explores the various frameworks currently available for assessing the impact of foresight.

The process of this research and the different phases are presented in Figure 1.

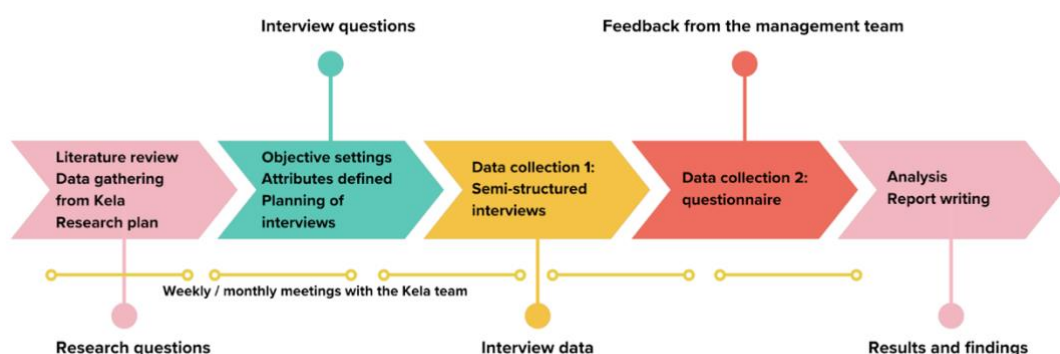


Figure 1. Research strategy

This study can be described as exploratory research, as it aims to uncover insights into the different impacts that a foresight process can have within the case organisation and to

identify potential development areas that could enhance the process in the future. The data analysis combines deductive and inductive approaches: initially to identify predefined attributes within the data, and subsequently to uncover emergent themes. An abductive analysis, which integrates both inductive and deductive methods, uses predefined attributes and analyses the data by identifying themes associated with these attributes (deductive phase), and identifying possible other impacts that cannot be linked to any of the predefined attributes (inductive phase).

1.4 About Kela

Kela was founded in 1937. Kela's primary responsibility is to provide support to individuals covered by the Finnish social security system. Its strategy is based on the vision of "creating well-being through knowledge, support, and cooperation." Kela is funded through the Finnish state budget and statutory contributions from employees, self-employed individuals, employers, the employment fund, students, municipalities, and the Åland Islands government. Its largest expenditure categories in 2023 included national pensions, unemployment benefits, reimbursements for medicine costs, general housing allowances, child benefits, and sickness allowances. (Kansaneläkelaitos, 2024a.)

Kela is also actively involved in the ongoing reform of the Finnish social security system, a project conducted in collaboration with the Finnish Parliament. The social security committee is described as "a parliamentary committee tasked with reforming the Finnish social security system by 2027." Additionally, Kela conducts research on the social security system, with one of its primary objectives being to provide information to society and decision-makers on this topic. (Kansaneläkelaitos, 2024a.)

Kela is a large organisation, employing 8,200 people across Finland. While most employees are based in the capital, Helsinki, other key locations include Jyväskylä, Turku, Tampere and Oulu. (Kansaneläkelaitos, 2025.)

Kela has engaged in systematic strategic foresight since 2020. Prior to this, the organisation produced foresight data, such as population projections, but it lacked a specific process with dedicated personnel focused on strategic foresight. Since 2019, Kela has sought to embed futures thinking across the organisation. Its current system for producing strategic foresight information (presented in chapter 3.1.) has been in place since spring 2023. (Takala, 2024.)

2 Theoretical background

To explore previous studies, theories, and frameworks in the fields of strategic foresight and impact assessment, a literature review was conducted. Volter, the University of Turku's library database, served as the primary source for locating academic books, articles, and previous research. Additionally, Elicit.com – an AI-powered research engine – was used to identify other potential frameworks. However, the researcher found the tool to be of limited relevance and therefore primarily relied on Volter.

The following sections present the findings from the literature review that are relevant to this study's objectives, aiming to uncover insights into how strategic foresight is defined, what objectives and roles it can serve, how impact is defined, why assessing impact is important, and what challenges may arise in creating impact through foresight. Additionally, the review outlines the methods and frameworks that have been developed and examined in previous research thus far.

2.1 What is strategic foresight

There is no universally agreed definition of foresight. However, its basic features can be characterised by future orientation, participation, the integration of diverse data points, action orientation, coordination, multidisciplinary, and a process comprising distinct phases (Popper et al., 2010). Definitions of foresight highlight its role in long-term vision-building, stakeholder engagement, and enabling decision-makers to navigate uncertain and complex environments (Pouuru et al., 2020). The importance of networking and learning – both individual and organisational – is also emphasised in earlier studies (Amanatidou & Guy, 2008; Havas et al., 2010). In addition to producing explicit foresight knowledge or information, the foresight process indirectly promotes cross-team cooperation, networking, creative thinking, organisational resilience, and the capacity for learning and adaptation.

Foresight employs both qualitative and quantitative methods to identify trends and uncertainties, often incorporating tools such as scenario planning, roadmaps, and collaborative strategy formulation. As Calof and Smith (2012) emphasise, foresight acts as a bridge between identifying future challenges and aligning present-day actions.

Godet (2000) distinguishes between foresight and strategic foresight using the concepts of *exploratory* and *normative* approaches. He argues that “a normative phase is required to define strategic choices” – choices that enable an organisation to stay on course towards a desired state or vision (Godet, 2000). However, it is also important to recognise that exploratory planning allows for the validation of the current strategy and may contribute to updating the organisation’s direction for better outcomes.

Strategic foresight refers to the ability to anticipate and prepare for the future in a proactive and forward-thinking manner. It is not solely about reacting to change but also about shaping and preparing for potential developments. Unlike traditional strategic planning, strategic foresight takes a broad and long-term perspective, considering uncertainties and opportunities rather than focusing solely on current trends (Van der Heijden, 2005; Godet, 2000). Overall, strategic foresight can be described as a systematic, participatory process for exploring potential futures to inform decision-making and strategic planning.

The roles of strategic foresight include supporting strategic planning by enabling long-term visioning (Rohrbeck & Gemünden, 2011), catalysing innovation by generating new ideas and driving experimentation (Miles, 2012), testing assumptions by challenging existing norms and fostering adaptability (Calof & Smith, 2012), and influencing policy by shaping decisions through robust insights into future trends (Georghiou & Keenan, 2006).

Rohrbeck and Kum (2018) describe foresight as a proactive tool for aligning organisational goals with evolving societal needs, particularly in public sector organisations – such as Kela. Furthermore, Da Costa et al. (2008) identified six functions of foresight in policy-making: enabling stakeholder participation, supporting policy implementation by highlighting challenges, serving a symbolic role by signalling a rational approach, generating new insights to inform policy, supporting the reconfiguration of policy systems, and translating foresight outcomes into concrete policy options.

2.2 Impact in strategic foresight

Foresight can have diverse impacts depending on the context, scale, and perspective. Moreover, how *impact* is defined influences how it can be detected. Gardner et al. (2024)

suggest that the outcomes of foresight are often complex, spanning multiple areas, developed through a multi-step process lasting several months, and requiring input from various stakeholders – making them difficult to identify. The impact may also occur as a result of multiple consequences and can be unexpected (Gardner et al., 2024).

According to Calof and Smith (2012), the impacts of foresight can be categorised into five areas: value statements, the roles foresight plays, success factors, process and knowledge benefits, and the policy interface. Rohrbeck and Schwarz (2013) group the potential value contributions into four thematic categories: perception, strategic management (interpretation and usage), innovation management (interpretation and usage) and overall impact; while Johnston (2012) defines four types of impact: awareness-raising, informing, enabling, and influencing.

Amanatidou and Guy (2008) highlight indirect and/or unanticipated impacts, which are often associated with the foresight process itself rather than its concrete outcomes. They categorise these impacts into three areas: knowledge creation, diffusion and absorption; social capital and networking; and the evolution of strategies to cope with or escape from the negative consequences of a "risk society". They also emphasise the multidimensional nature of foresight's impact, suggesting that it should be "interpreted through the lenses of epistemology, sociology, political science, management science, and organisational theory." Similarly, Miles (2012) underscores the importance of the process over outcomes.

Amanatidou and Guy (2008) also consider the timescale of foresight impacts, which may emerge in the near future or over a longer period. They categorise impacts into three levels: *immediate impacts*, referring to the recognition of new areas of interest and the assembly of diverse stakeholders and experts; *intermediate impacts*, involving the development of future visions, actionable recommendations, the creation of stakeholder networks, and the fostering of ownership of action plans; and *ultimate impacts*, which relate to influencing research agendas, shaping policy directions, and strengthening a foresight culture with a lasting reservoir of knowledge.

Why is it important to evaluate or assess the impact of foresight? Based on previous studies, two main reasons emerge: justifying resources, meaning the demonstration of value to secure funding and organisational support for the foresight programme (see, for example, Gardner et al., 2024; Ko & Yang, 2024; Halonen et al., 2024); and learning and

improvement, aimed at identifying strengths and areas for development in order to refine foresight processes, tools, and methods (Miles, 2012; Ko & Yang, 2024; Halonen et al., 2024).

Halonen et al. (2024) state that evaluation contributes to understanding strategic target-setting perspectives and plays a vital role in supporting the changes promoted by foresight. Georghiou and Keenan (2006) argue that robust evaluation frameworks are critical for demonstrating foresight's utility in decision-making and maintaining its sustainability in public organisations. Van der Steen and Van der Twist (2012) emphasise the importance of evaluation in the cultural integration of foresight, noting that evaluation facilitates the embedding of foresight into organisational norms and practices. Miles (2012) observes that developing foresight evaluation capacity can also lead to broader organisational benefits: learning through the assessment of foresight processes can help others within the organisation improve their capacities.

As mentioned earlier, evaluating or assessing the impact of foresight is complex. Key challenges and obstacles to generating impact, as identified in previous studies, include: cultural resistance, often due to a lack of futures literacy or scepticism among stakeholders (Calof & Smith, 2012); resource constraints, possibly caused by insufficient time, budget, and personnel for foresight activities (Miles, 2012; Tonn et al., 2024); misalignment with objectives, resulting from a disconnect between foresight outcomes and organisational goals (Pouru et al., 2020; Tonn et al., 2024); and complex evaluation requirements, referring to the difficulty of measuring intangible or long-term impacts (Georghiou & Keenan, 2006).

Calof et al. (2012) emphasise the importance of developing a framework that is tailored to the specific needs and characteristics of the organisation. Findings from Tonn et al. (2024) similarly indicate that evaluation is not always prioritised to the extent that it receives adequate resources for assessing the impacts or processes of foresight. Additionally, there may be a lack of shared understanding regarding the purpose, objectives, and expectations for evaluation. Addressing these foundational factors is essential before commencing foresight assessment, as the process, data, and knowledge are likely to follow once these challenges are resolved.

The impact of foresight is also limited by the inherent complexity of conducting foresight activities. Rohrbeck and Gemünden (2011) identify three main reasons why foresight

efforts often fail to yield results – or, in other words, why organisations struggle to adapt effectively and in a timely manner to external change:

1. High pace of change: Shortening product life cycles, rapid technological advancements, increased innovation speed, and the diffusion of innovations.
2. Failure to perceive discontinuous change: This occurs when time frames are too short, organisations cannot look beyond their immediate environment, management is overwhelmed with information, or critical information fails to reach decision-makers.
3. Organisational inertia: Resistance caused by the complexity of internal or external structures.

Gardner et al. (2024) note that while foresight is designed to help organisations and individuals navigate complexity, foresight activities themselves are complex initiatives. These processes engage people with diverse professional and educational backgrounds, require understanding of various phenomena, and demand the ability to imagine scenarios that may not yet exist or may never materialise.

Public sector foresight differs from corporate foresight by focusing on societal benefits rather than direct financial gains. Evaluating the success of publicly funded foresight or innovation is challenging because outcomes cannot be tied to revenue streams, products, or services (Rohrbeck & Pirelli, 2010). Rohrbeck and Gemünden (2011) further observe that public sector foresight necessitates long-term visioning and inclusive stakeholder engagement.

In addition to the challenge of the time required to demonstrate foresight's tangible impacts, context – including the organisation, culture, business environment, and goals – affects how impacts should be measured and what benchmarks they should be compared against. For instance, Miles (2012) highlights that the scale, scope, and ambitions of different foresight programmes must be considered.

Foresight can assist decision-makers operating in the public sector in tackling a number of complex challenges. By helping to identify different options, it can reduce uncertainties in technological, economic, or social sectors. It can also bring together stakeholders with diverse knowledge and experience backgrounds. Additionally, by improving

transparency, it can help gain public support and thereby enhance the efficiency of public spending. (Havas et al, 2010.)

2.3 Foresight evaluation and assessment frameworks

Georghiou and Keenan (2006) argue that robust evaluation frameworks are critical for demonstrating foresight’s utility in decision-making and ensuring its sustainability in public organisations. As the field evolves, new frameworks and theories continue to be developed.

Evaluating or assessing foresight does not necessarily involve an evaluation process that directly demonstrates the impact or outcomes of foresight. Instead, the various frameworks focus on different aspects, such as assessing the quality of the overall foresight study or process. Koivuniemi (2024) identifies 17 different frameworks within foresight and futures studies, while the APF (2022) describes eight frameworks. Furthermore, the literature review for this thesis identified two additional frameworks: Havas et al. (2010) and Rohrbeck & Schwarz (2013). A list of the existing frameworks is presented in Table 1.

Table 1. List of impact evaluation and assessment frameworks in foresight

Framework Name	References	Short Description
Evaluation of National Foresight Activities	Georghiou & Keenan, 2006	Assesses rationale, processes, and impacts of national foresight activities.
Criteria for Improving Impact of Foresight Studies	Rollwagen, Hoffman & Schneider, 2008	Improves impact criteria for foresight studies in organisations.
Impact assessment framework for foresight exercises	Amanatidou & Guy, 2008	Steps towards the development of a framework conceptualising the dynamics of foresight systems.
Evaluation Framework for Technology Foresight Program	Li, Kang & Lee, 2009	Lessons learned from technology foresight programs in Europe.
Impact of foresight on innovation policy-making	Havas, Schartinger & Weber, 2010	A framework for classifying the impacts of foresight activities into informing, advisory or facilitating, combined with time lags: immediate, intermediate and ultimate.
Corporate Foresight Maturity Model	Rohrbeck, 2010	Maturity model assessing organizational future orientation.
Foresight Impact Evaluation Schema	Johnston, 2012	Classifies foresight impacts into Awareness, Informing, Enabling, and Influencing with tailored metrics.
Dynamic Foresight Evaluation	Miles, 2012	Focuses on process benefits like collaboration, learning, and stakeholder roles.

Assessment Criteria National Foresight Studies	Meissner, 2012	Criteria for evaluating national foresight studies.
Impact evaluation framework	Van der Steen & Van der Twist, 2012	Highlights organizational culture and integration issues in foresight evaluation.
Systemic Evaluation Framework for Futures Studies	Piirainen, Gonzales & Bragge, 2012	Systemic evaluation for futures studies.
Value creation of strategic foresight	Rohrbeck & Schwarz 2013	A list of potential value contributions of strategic foresight through four main groups: perception, strategic management, innovation management and overall.
Foresight Evaluation Criteria	Makarova & Sokolova, 2014	Evaluation criteria for project foresight using qualitative methods.
Framework to Classify Impacts of Foresight Activities	Poteralska & Sacio-Szymanska, 2014	Framework for national foresight impact classification.
Futures Preparedness Model	Rohrbeck & Kum, 2018	A model to assess a firm's future preparedness and impact on the firm's performance
Evaluating Complexity	Preskill & Gopal, 2014	Evaluation of complexity in foresight for social change.
Future-Oriented Impact Assessment	Nieminen & Hyttinen, 2015	Impact assessment for strategic decision-making in socio-technical contexts.
Foresight Outcomes Framework	Hines, 2016	Assessing outcomes through three steps of learning, deciding and acting.
Futures Consciousness test	Ahvenharju, Minkkinen & Lalot, 2018	Model for assessing futures consciousness at both individual and group levels.
Three-Level Evaluation Process of cultural readiness	Panizzon & Barcellos, 2019	Evaluation process for cultural readiness in strategic foresight projects.
Impact Evaluation Framework	Vataja, Dufva & Parkkonen, 2019	Framework evaluating foresight impacts on policy development.
Integrated Approach to CF Project Evaluation	Sokolova & Vishnevsky, 2022	Integrated evaluation of corporate foresight projects in state-owned contexts.

This extensive list of frameworks demonstrates a shared interest in evaluating and assessing the impact of foresight within the field. From this list, six frameworks are further applied in this thesis. The frameworks by Rohrbeck & Schwarz (2013), Johnston (2012), and Hines (2016) are utilised due to their practice-oriented approach and connection with Kela's foresight objectives. These frameworks contribute to the development of a list of ten attributes for the data-gathering framework (see chapter 3 for a more detailed explanation). Additionally, the frameworks by Vataja, Dufva & Parkkonen (2019), Amanatidou & Guy (2008), and Havas, Schartinger & Weber (2010) serve as sources of inspiration and validation for the attribute framework. Furthermore,

Miles (2012) provides valuable insights and perspectives on impact assessment, and his work is frequently referenced throughout this thesis.

3 Methodology

This chapter presents the materials and methods applied in the research. First, Kela's current foresight process and its background are introduced, accompanied by the researcher's observations through a light analytical review. Second, the research framework and strategy are outlined, culminating in the presentation of "The impact attributes framework" consisting of ten selected attributes. Third, the chapter explains the rationale for selecting specific data collection methodologies, details the methods employed, and describes the criteria for participant selection. Finally, ethical and integrity considerations related to the chosen research strategy and methods are discussed.

3.1 Strategic foresight at Kela and preliminary analysis

The need for strategic foresight at Kela was recognised in 2019 during a strategy update process, where one of the key insights was that Kela wanted to pay more attention to futures thinking and place greater emphasis on foresight as part of the development of its strategic process. In 2020, the objectives for foresight were defined, and a foresight network consisting of foresight experts was established. During the same year, Kela developed scenarios looking 10 years ahead (to 2030). The process subsequently evolved to focus on a more targeted environmental and foresight review with a shorter-term horizon, explicitly identifying probable developments and their impacts on Kela. This approach also highlighted strategic opportunities and suggested actions. The updated scenarios were published in 2022. The following year, Kela established a structured process for producing foresight knowledge, known as *the foresight cell model*, which involved creating *the future radar* and *the strategic assumptions*. (Appendix 1: Ennakointi Kelassa; Takala & Suihkonen, online meeting, 23.8.2024.)

At Kela, foresight activities are carried out across three distinct timeframes: short-term (1–2 years), mid-term (3–5 years), and long-term (7–10 years). In the short term, the focus is on planning and implementation, the mid-term focus is strategic, and the long-term focus is visionary. As an essential part of the process for producing foresight knowledge, Kela operates five foresight cells, engaging over 50 people from across the organisation. Participants in these cells include Kela's experts from various roles, such as directors, specialists, and customer service staff. (Takala, 2024.) The five cells are divided into the

following thematic areas (Takala, 2024): digitalisation, people and well-being, politics, economy, and legislation; security, and work.

The purpose of the foresight cells is to create a shared perspective on future changes and their impacts. Their objectives are to transition from reactive to proactive operations by identifying societal changes in a timely manner, ensure smooth information flow within Kela, avoid overlapping work, and foster a sense of security among employees by minimising surprises from unforeseen changes. The cells systematically monitor signals of change, assess their potential impacts on society and Kela's operations, communicate key findings across the organisation, and align Kela's strategy, planning, and development with anticipated changes. (Takala & Suihkonen, online meeting, 23.8.2024.)

The cells' concrete tasks include monitoring signals of change, documenting and reflecting on these signals, creating *phenomenon cards* ('ilmiökortit' in Finnish) based on their findings, and sharing insights with others. Each cell is led by two leaders who coordinate meetings, document findings, and share results with other cells. (Takala & Suihkonen, online meeting, 23.8.2024.)

The phenomenon cards are compiled into the *future radar* ('tulevaisuustutka' in Finnish). In the future radar, phenomena are categorised into three sections: Understand (actively follow and investigate), Prepare (requires action within a mid-term timeframe) and Act (requires immediate action). Additionally, phenomena are marked with symbols to indicate their status: new, reinforced, declined, or unchanged. (Takala, 2024.)

Findings gathered from the future radar are used in the formulation of the *strategic assumptions* ('strategiset oletukset' in Finnish). These assumptions consist of information that could influence Kela's operations, and they are discussed and decided upon by the management team. Additionally, phenomena not identified in the future radar can still be formulated as strategic assumptions if deemed strategically important. The future radar may also include phenomena that are not initially connected to strategic assumptions but could become relevant later on. (Takala, 2024.)

The strategic assumptions are categorised by their significance for Kela as 'very significant influence', 'significant influence' and 'moderately significant influence'. Kela also monitors the probability of these assumptions, classifying them as likely, uncertain,

or highly uncertain, or determining if it seems unlikely that the assumption will materialise. (Takala, 2024.)

The strategic assumptions and the future radar are designed to inform Kela's strategy work, situational analyses, innovation initiatives, security and preparedness measures, sustainability efforts, societal relations, risk management and development of work environments (Takala, 2024).



Figure 2. Kela's foresight process (adapted from Takala, 2024).

Foresight is currently overseen by an organisational unit known as the Strategic Management Unit ('Strategisen ohjauksen yksikkö' in Finnish) and is owned by the Director of Strategy. The foresight process is led and developed by Kerttu Takala, Lead Strategic Designer and Foresight Lead, who works full-time in this role. Other individuals involved in the process contribute as part of their primary roles. (Takala & Suihkonen, online meeting, 23.8.2024.)

Kela published its *Strategic vision for the future* ('strateginen tulevaisuuskuva' in Finnish) in June 2024. The purpose of the plan is to outline how Kela intends to develop its services and operations over a ten-year period. The vision is divided into six key areas: customers, services and operations, technology and information, personnel, culture, and competence; finance, and partners and the ecosystem. A central focus of the vision is on digitalisation and automation of customer service and operations, aimed at increasing productivity. (Kansaneläkelaitos, 2024b.)

One of Kela's legal duties is to produce information. Kela's strategic foresight is relevant on a societal level, and it also aims to influence policy-making. Foresight information is used to assess whether there are requirements for changes in legislation, funding, or Kela's duties. It also plays a role in maintaining relationships with members of parliament. (Takala & Suihkonen, online meeting, 23.8.2024.)

The primary objective of strategic foresight at Kela is to "enable better decisions". This implies that the role of foresight is to generate knowledge that supports and informs decision-making. The management team assesses information from multiple perspectives, with foresight representing one of several inputs. Other considerations, such as risk management, and the performance and efficiency of various processes, also compete for prominence in the decision-making process. From a strategic foresight perspective, the key tools provided to the management team are the future radar and the strategic assumptions. (Takala & Suihkonen, online meeting, 23.8.2024.)

For the researcher, a critical question arises regarding Kela's primary goal for strategic foresight: "enabling better decisions." How is *better* defined? Who determines what constitutes a better decision, and to what is it compared? In the context of foresight, it may not be immediately clear whether a decision was *good* or *bad* until sufficient time has passed and its outcomes can be evaluated. However, in this case, *better* carries the implicit assumption that decisions informed by foresight are inherently superior to those made without it. Thus, the goal presupposes that the mere production and use of foresight information in strategic decision-making will lead to improved decisions. This objective, however, does not address the specific aims or the quality of the foresight information itself. What impact goals does the foresight process seek to achieve? Is it sufficient for the information to simply exist and be accessible?

Miles (2012) highlights the importance of involving various stakeholders in the foresight process, as it informs multiple policy processes and decisions. He also advocates for viewing foresight as a service activity, incorporating the concept of co-production. This notion of co-production is embedded in Kela's foresight cells model and the overall foresight process. One of Kela's objectives is to ensure that foresight is inclusive and accessible to all employees. In practice, all staff members have access to the future radar and can participate in information-sharing sessions organised by the foresight unit.

In their study on national foresight in Finland, Poursu et al. (2020) found that foresight played a crucial role in developing and aligning organisational activities, preparing for the future, and enhancing an organisation's foresight capabilities. It was also identified as an effective tool for monitoring operational environments. Similar objectives are reflected in Kela's foresight strategy.

When setting objectives for foresight evaluation, Gardner et al. (2024) caution that such objectives may not always be realistic, as individuals involved in the foresight process may hold aspirational yet unattainable objectives. Clearly defining objectives that articulate what success means for a specific organisation requires time, dedication, and commitment. Based on discussions with the foresight team and a review of foresight-related materials and the current process, the researcher identified several objectives for Kela's strategic foresight:

1. Objectives directly linked to Kela's main strategy: Knowledge production for overall strategy, workforce planning, and finance; increasing trust and enhancing a sense of security.
2. Objectives related to the utilisation of foresight information: strategic decision-making, raising awareness, supporting innovation activities, enhancing security and sustainability, influencing society, improving risk management.
3. Other identified objectives: developing collaboration within the organisation, increasing open communication and interaction, shaping organisational culture to embrace change positively, enhancing the organisation's capacity for change, recognising future phenomena and assumptions, creating alternative scenarios to inform and select strategic target states.

When establishing research objectives and defining attributes, the researcher and Kela's foresight team discussed the definition of *impact* and its potential objectives. What differentiates impact from outcome? Does Kela's foresight seek to achieve impact, outcome, or both? It is evident that Kela's strategic foresight process has already contributed to strategic decision-making and outcomes. For instance, foresight information was extensively utilised in the preparation of Kela's strategic vision for the future.

Kela has evaluated its current foresight process by conducting surveys to measure the development of foresight maturity. The concept of foresight maturity refers to an organisation's preparedness to respond to external and potentially disruptive changes (Rohrbeck, 2010). Through these surveys, the foresight core team identified key challenges prior to the commencement of this research. These challenges included the following: 1) Lack of cross-team goals, meaning that the responsibilities and goals are

siloes, with limited collaboration across teams; 2) Limited long-term thinking: most foresight activities focus on a 3–5 year timeframe; 3) Restricted creative thinking: the organisational culture is fact-driven and focuses heavily on concrete matters.

Based on an initial interview with the foresight team and an analysis of Kela's current strategic foresight process in relation to the literature review, the researcher identified and summarised some key observations: 1) The process is ongoing and continuous and it engages employees from various hierarchy levels across the organisation; 2) The focus of the process is on probable, preferable, and plausible futures, primarily within a short-term horizon (1–5 years); 3) The insight produced by the process are more fact-driven than creativity-driven; 4) The process generates new information, fulfilling one of Kela's statutory duties.

The recognised development areas of the current foresight process based on the preliminary analysis were expanding the scope to include long-term perspectives (7+ years), establishing common goals across teams to reduce silos, promoting a culture of continuous learning throughout the organisation, defining clearer impact goals for foresight work, particularly in relation to "better decisions"; and encouraging creative thinking to explore alternative futures, including possible and wild-card scenarios.

3.2 Research framework

3.2.1 Foundations of the research framework

The overall research strategy began with an extensive literature review to identify existing frameworks in the fields of futures studies and foresight for impact assessment and to determine which framework or frameworks could be applied to this study and the organisational context of Kela (see chapter 2). Selecting the most appropriate framework required a comprehensive understanding of Kela, including its organisational structure, culture, current strategic foresight processes, the objectives foresight is intended to achieve, and the functioning of its strategic decision-making process. Information about the organisation was gathered through multiple meetings with the strategic foresight core team and from materials they provided concerning the current foresight process.

As presented in chapter 2.3, the literature review identified dozens of frameworks, although most remain theoretical and have not yet been applied in empirical research. The

selection of an appropriate framework or method for assessment depends on the specific objectives of the foresight programme (Miles, 2012; Johnston 2012). During the literature review and the information-gathering phase at Kela, it became apparent that the foresight team had multiple objectives for foresight (see chapter 3.1). Therefore, before a suitable framework could be selected and data collection initiated, the researcher required a clearer and more focused understanding of Kela's objectives for its strategic foresight process.

To address this gap, the researcher developed a questionnaire for the foresight core team to explore various potential objectives for strategic foresight (see Appendix 2). The options for the questionnaire were derived from a combination of Kela's established objectives (see chapter 3.1) and potential objectives identified through the findings of the literature review.

The questionnaire reinforced the potential objectives identified by the researcher during the literature review. Kela's foresight team considered all the listed objectives 'important' for foresight, but the researcher excluded those that were not recognised as 'highly important'. The objectives identified as 'highly important' by the team included: utilising foresight information in the management team's decision-making, fostering innovation, and understanding societal development paths. Additionally, they prioritised the following topics: increasing the capacity for change, raising awareness of foresight information, supporting innovation, enhancing information sharing, promoting collaboration across teams, encouraging learning, influencing legislation, exploring alternative paths, and facilitating action.

Objectives that were excluded at this phase included: supporting the development team's decision-making, applying foresight in the everyday work of all Kela employees, enhancing customer understanding, fostering active participation, encouraging creativity, increasing equality and sustainability, enhancing security, activating networking, increasing social capital, and promoting creative thinking. Regarding societal influence, objectives such as managing societal risks and serving the information society were also excluded.

As this thesis focuses on a public sector organisation and Kela did not provide numeric objectives or specific targets for their foresight work, the identified objectives were qualitative. For these reasons, the researcher chose to focus on the qualitative outcomes achievable through the foresight process. Among the frameworks reviewed, three were

most aligned with Kela’s foresight objectives, and the researcher decided to focus primarily on these. Rohrbeck and Schwarz (2013) propose “potential value contributions”, grouped in four different themes: *perception*, *strategic management* (interpretation and usage), *innovation management* (interpretation and usage) and *overall* (see Table 2).

Table 2. A list of potential value contributions of strategic foresight adapted from Rohrbeck & Schwarz (2013)

Group	Code	Potential value contribution of strategic foresight
Perception (P)	P1	Gaining insights into changes in the environment
	P2	Contributing to a reduction of uncertainty (e.g. through identification of disruptions)
Strategic management: interpretation and usage (SM)	SM1	Fostering conversations about the overall strategy of the company
	SM2	Supporting the adjustment of the company in situations of uncertainty
	SM3	Improving the coordination of business objectives
	SM4	Creating the ability to adopt alternative perspectives
Innovation management: interpretation and usage (IM)	IM1	Reducing the level of uncertainty in R&D project
	IM2	Enhancing the understanding of customer needs
	IM3	Identifying potential customers
	IM4	Enhancing the understanding of the market
	IM5	Identification of opportunities and threats regarding our product and technology portfolio
Overall (O)	O1	Facilitate organizational learning
	O2	Shaping the future (e.g. through influencing other parties, such as politics and other companies)

Johnston’s (2012) “Foresight Impact Evaluation Schema” characterises impact in four different categories: *awareness raising*, *informing policy*, *enabling greater capacity to address uncertainty*, and *influencing policy, strategy, investment, program delivery and public attitudes* (see Table 3).

Table 3. A list of impact attributes and their descriptions, adapted from Johnston (2012)

Impact	Description
Awareness raising	Increasing the understanding of target audiences about the need, the value, the approach, and the methods of foresight in addressing the challenges of understanding and preparing for the future.
Informing	Providing conceptual and empirical inputs to assist in achieving more effective and more appropriate planning and decision-making.
Enabling	Providing or developing the capacity to more effectively engage with the inextricable uncertainty associated with the future.
Influencing	Shaping both the thinking and the consequent outputs, be they policy, law, standards, services and their delivery, business strategy, investment, commercial products and services, research priorities and funding, accepted practices or public attitudes.

Hines’s (2016) “The Foresight Outcomes Framework” combines the outcomes into three main sections (see Figure 3): *Learning* (includes the phases of framing, scanning and forecasting), *deciding* (includes the phases of visioning and planning) and *acting* (includes the phase of acting which leads to measures).

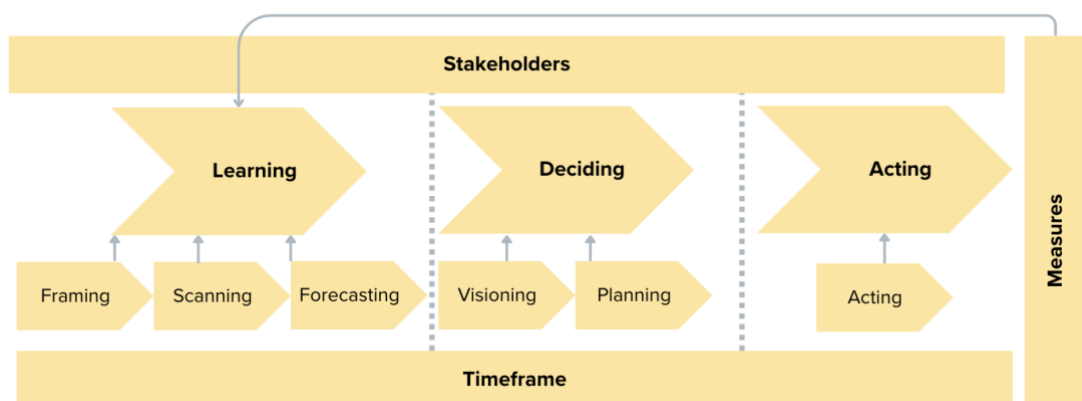


Figure 3. The Foresight Outcomes Framework, adapted from Hines (2016)

In addition, other frameworks that aligned with the ideas of Rohrbeck and Schwarz's, Johnston's and Hines's, and which the researcher considered interesting and relevant for this study, were: "Accountability, learning and development, knowledge production" by Vataja, Dufva & Parkkonen (2019); "Informing, advisory, facilitating" by Havas, Schartinger & Weber (2010) and "Higher level goals; intermediate goals and lower level goals" by Amanatidou & Guy (2008).

3.2.2 The impact attributes framework

Previous studies and findings on the potential benefits of foresight served as a source of inspiration in linking these insights with the context of the research and the objectives of Kela's foresight process. As a result, the researcher integrated both literature and organisational perspectives by developing a list of ten attributes that comprehensively represented the various objectives and potential impacts that a foresight process could generate in Kela's foresight context. This set of attributes was referred to as "The impact attributes framework" (see Table 4).

Table 4. The impact attributes framework

Attribute	Description of the attribute	Connection to Kela's objectives	References (that inspired the attribute)
Exploration	Identifying phenomena to generate new insights and information about the operational environment.	Awareness of foresight information	Rohrbeck & Schwarz, 2013; Hines, 2016
Awareness	Disseminating foresight information throughout the organisation.	Increasing information sharing	Johnston, 2012; Havas et al, 2010; Hines, 2016
Learning	Fostering both individual and organisational learning.	Learning	Rohrbeck & Schwarz, 2013; Johnston, 2012; Vataja et al, 2019; Hines, 2016
Capacity for change	Strengthening the organisation's ability for adaptation by reducing uncertainty and enhancing the sense of security.	Increasing the capacity for change	Rohrbeck & Schwarz, 2013; Johnston, 2012

Innovation	Promoting creativity, innovation, and the development of new services.	Supporting and utilising foresight information in innovation.	Rohrbeck & Schwarz, 2013; Amanatidou & Guy, 2008
Alternative paths	Opening new avenues for development, planning and strategy.	Opening alternative paths	Rohrbeck & Schwarz, 2013; Johnston, 2012; Hines, 2016
Action	Translating strategic foresight into actionable plans and decisions.	Facilitate action	Hines, 2016
Influencing	Shaping policy-making, legislation, and societal development trajectories.	Understanding societal development paths & influencing on legislation	Rohrbeck & Schwarz, 2013; Johnston, 2012
Cooperation	Enhancing collaboration across teams to align on strategy and explore alternative futures.	Collaboration across teams	Rohrbeck and Schwarz, 2013
Management	Engaging leadership in the foresight process and integrating it into decision-making.	Utilising foresight information in the management team's decision-making	Johnston, 2012

The framework presents attributes corresponding to different phases of Kela's foresight process. *Exploration* and *awareness* relate to the information-seeking phase, during which various phenomena are identified and disseminated throughout the organisation. *Learning*, *capacity for change*, and *innovation* refer to the development of individual and organisational capabilities that evolve as the process unfolds.

Alternative paths, *action*, and *influencing* can be interpreted from an outcome-oriented perspective: they represent the opening of new possibilities, the facilitation of concrete actions, and the potential to influence societal decision-making. Finally, *cooperation* and *management* reflect the broader organisational impact of foresight – enhancing collaboration across teams and engaging the management team – ultimately supporting the utilisation of foresight information in strategic decision-making.

These ten attributes serve as the foundation for the interview framework (see chapter 3.3), ensuring that the questions comprehensively address the foresight process in order to thoroughly identify the potential impacts it may generate. Furthermore, the attributes function as a starting point for the data analysis (see chapter 4), offering a structured and holistic lens through which to assess the impacts of the process.

3.3 Data gathering methods

Qualitative research is often recommended in emerging research fields with limited existing knowledge, such as foresight impact assessment. For example, Eskola and Suoranta (2015) state that in qualitative research, the researcher does not have strong preconceptions about the study's outcomes but approaches the subject with an open mind, without predefined hypotheses. This approach enables a deeper understanding of new phenomena and the development of theories, which is particularly beneficial when there is little prior knowledge about the research topic. To gather qualitative data for this research, the researcher conducted semi-structured interviews. The predefined questions were developed based on the attributes presented in "The impact attributes framework" (see Table 4). One of the objectives of data collection was to explore various impacts of strategic foresight, so the researcher ensured space for open discussion, additional questions, and spontaneous input from the interviewees.

The interviewees were selected by Kela's contact people based on their assessment of the interviewees' expertise and level of involvement in the current strategic foresight process. The selected interviewees had central roles in the process and were actively involved in and influenced the production of strategic foresight information. The interviews were conducted during October 2024, and all 13 scheduled interviews were successfully completed. The interviews were held via online video meetings (Microsoft Teams) and were audio-recorded. A data control notice (see Appendix 4) was sent to the interviewees in advance, and at the start of each interview, the researcher sought permission to record the conversation. Each interview was scheduled for one hour, though the duration ranged from 30 minutes to one hour.

Although the predefined attributes were used as a basis for the interview questions, the questions were designed to give interviewees the opportunity to express, in their own words, the benefits and challenges they had encountered while participating in the process. The interviews were conducted in Finnish and it should be noted that not all questions were asked of every participant. As per the semi-structured interview format, some interviewees were asked additional or alternative questions depending on how the discussion progressed and whether interesting topics emerged during the interview. The selection of questions was also influenced by the interviewee's role in the foresight process. If the interviewee was in a leadership role within a foresight cell, questions

related to their responsibilities were asked. Conversely, if they were a regular member, the questions focused more on evaluating and developing the process.

The framework and the interview questions did not take into account the timescale over which potential impacts or outcomes might occur. As noted in chapter 3.1, Kela's foresight work operates across three distinct timescales. However, this research did not focus on identifying impact within a specific timeframe; rather, its objective was to explore participants' perceptions of the types of impact the foresight process has generated to date. For this reason, the interview questions were not designed to assess whether an impact had occurred within a particular period, but instead to determine whether any impact had been perceived and what form it may have taken.

In addition to interviews, a questionnaire was sent to Kela's management team using Webropol survey tool. As the management team members were too occupied to participate in interviews, it was decided – together with Kela's foresight team – to gather their perspectives through a questionnaire that would be quick and easy to complete. The questionnaire consisted of ten Likert-scale questions and one open-ended question. It was sent to all eleven members of Kela's management team. The questionnaire was distributed via email by Kela's designated contact person, accompanied by an introductory text explaining the purpose of the study and the role of the questionnaire within it (see Appendix 5). Respondents were given one week to complete the questionnaire.

3.4 Ethical and integrity considerations

The success and challenges of this research were closely tied to its collaboration with Kela. The active participation of Kela enabled the study to succeed. However, the active involvement of Kela also posed challenges related to research impartiality. Kela decided which materials to share, selected the interviewees, and pre-reviewed the management team questionnaire. Additionally, as part of the agreement, Kela was allowed to review the thesis before publication.

While the topic was discussed and agreed upon with Kela, the researcher independently defined the research questions, framework, and methodologies. The researcher's understanding of Kela's organisation and operational environment was limited to the materials and information shared by Kela's foresight team. However, not being an employee of Kela allowed the researcher to adopt a neutral and objective perspective.

This also applied to the interviews, during which the researcher could approach all interviewees without preconceived assumptions.

As the interviewees for the qualitative data collection were selected by the foresight team, the researcher did not have full visibility into the specific criteria used for selecting individual participants. Before conducting the interviews, the researcher was provided with the interviewees' names, job titles, and roles within the foresight process. Factors such as the interviewees' attitudes towards foresight, their level of participation in the foresight process, and their roles within the organisation may have influenced their responses. Had these factors been considered as variables, they might have shifted the research focus from assessing the impacts to evaluating the influence of respondents' perspectives on foresight outcomes, or at the very least, added complexity to the analysis and broadened the scope of the study. Additionally, time constraints with the interviewees and limitations in the background questions meant that the impact of attitudes, involvement, and roles was excluded from this study. Furthermore, members of the foresight team were also included in the interview group, and their responses may have been more optimistic compared to those of other respondents who were not involved in the planning and establishment of the process.

When analysing the results, it is worth noting that the observed benefits and impacts are based on the interviewees own opinions and notions. Some people might answer the questions in a way that they think might please other people, their supervisors, the process owners or the interviewer, despite the interview data being analysed anonymously.

When selecting attributes and themes for the interview questions, the researcher considered the risk of circular reasoning. If aiming to explore predefined impacts by asking interviewees whether those impacts were noticeable, could the questions be leading? This concern influenced the decision not to categorise interview data strictly by predefined attributes at the start of the analysis. Instead, the researcher categorised the data during the analysis to maintain an open-ended and exploratory approach (see chapter 4).

During the writing process of this thesis, the researcher used the AI-powered tool ChatGPT-4o to correct language errors. The command given to the tool was: "Please check the grammar of this text according to academic British English." By using this command, the tool revised the grammar and suggested the correct use of expressions;

however, it did not change the structure of the text, add new content, or alter the meaning of the original text. This was also ensured by adding only limited amount of text at a time (i.e., one chapter) to be revised by the tool. Thus, the tool assisted the researcher in composing more precise wording that aligns with academic-style English.

In addition, translations from Finnish to English were used for translating the interview quotes presented in Chapter 4 and forming an initial draft of Table 1. Drafting was done by providing the tool all the different frameworks and their titles with the command “Could you create one table of this content? The table should consist of a list of foresight or futures assessment frameworks, their names, their references, and a short description”. The table was then rewritten by the researcher into its final form.

Based on the experiences with AI tool, the researcher wants to emphasise the importance of verifying and checking all the materials given to Chat-GPT before making edits to the original texts. From an integrity point of view, the researcher has also considered, is using AI-assisted writing acceptable while writing a thesis? In this case, the use of AI has enhanced the fluency for the reader and accelerated the writing process for the author. The researcher believes that using the tool in the writing process is acceptable, as it has also served as a learning experience by providing insights into correct grammar and proper English usage. In addition, all content, analysis, and reasoning in this thesis have been conducted by the researcher. Any materials input into ChatGPT were subsequently reviewed and edited by the researcher before being incorporated into the thesis to ensure that no additional material or incorrect context was introduced by the AI. Also, no confidential material that would not be published with the thesis was given to the tool.

4 Findings and analysis

This chapter describes the process of analysing the qualitative data gathered through the semi-structured interviews. The development of the “The impact attributes framework” (see Table 4) provided a comprehensive foundation for identifying the impacts. Without the framework, the researcher might not have considered asking questions from various perspectives, such as learning or collaboration. Additionally, constructing the framework helped the researcher gain a deeper understanding of the different types of impacts foresight can have.

The interview data were coded using the NVivo tool. The predefined attributes from “The impact attributes framework” – exploration, awareness, learning, capacity for change, innovation, alternative paths, action, influencing, cooperation, and management – were added as "codes" prior to structuring the data. However, during the coding process, the predefined codes quickly gave the impression that forcing the data into specific themes might narrow the analysis. To preserve the exploratory nature of the research, the researcher opted to examine the data by adding codes while reviewing it. Some predefined codes were still applied during the analysis, as the data strongly aligned with these attributes.

The analysis identified 11 themes indicating the impacts of the foresight process. Additionally, over 20 topics relating to development ideas and issues were detected, along with 10 other observations on various topics. Responses concerning the individuals or groups the interviewees aimed to impact, as well as insights on management and decision-making within the management team, were separated into distinct themes. This grouping was conducted to facilitate the development of the questionnaire for the management team (see chapter 4.4.1).

The main themes identified in the analysis were: concrete achievements, capacity for change, collaboration, personal benefits, influence and societal role, finding new information, learning, strategy work, innovation and creative work and other benefits.

Additionally, the findings highlighted themes related to the impact of foresight, including definitions of strategic foresight, management and strategic decision-making topics, and the individuals or groups respondents wished to influence through foresight.

4.1 What is foresight – shared understanding or not?

The interviews began with a question about how the interviewees defined strategic foresight. If individuals involved in the foresight process understood the concept differently, it could complicate communication about foresight to those outside the process and hinder efforts to integrate foresight more widely into the organisation (Pouru et al., 2020).

Naturally, the interviewees' views were influenced by their role in the organisation and their professional background, as well as by their approach to participating in the foresight process and their specific role within it. These factors could indicate potential differences that the foresight team might wish to address in order to better align the foresight process and enhance its overall impact.

If individuals have varying understandings of what foresight is and what it aims to achieve, this misalignment may prevent the foresight process from fully realising its intended purpose. Furthermore, such discrepancies could also affect the overall effectiveness and impact of foresight activities.

All of the respondents' definitions tied foresight to understanding and preparing for the future, whether through systematic analysis, open-minded exploration, or strategic planning. Nearly all responses underscored foresight's value in shaping decisions and ensuring organisational relevance, linking it closely to strategic processes. Also identifying, structuring, and interpreting weak signals was a recurring theme, showing a shared emphasis on monitoring changes in the operating environment. Many also praised the importance that foresight brought structure in their own thinking and served as an organisational tool for detecting the weak signals.

The key differences were that some people understood foresight as a tool for strategic decision-making, helping the organisation make better decisions. Others saw foresight from a more holistic point of view, as a facilitator for organisational and collective learning, or as an individual self-learning learning tool that was integrated into one's role and assists in widening perspective. Some of the respondents simply described foresight as a tool for observing and did not mention its connection to strategy or decision-making. There were also differences whether foresight should be seen more as a data-driven activity that included means for measuring its quantitative output, such as how many

phenomena cards were produced and if foresight could be detected more by using measurable data, while others thought that the value of foresight is in its influence on fueling discussions, creativity and curiosity.

The key challenge in having different interpretations of the concept of foresight is that it may become difficult to steer the process towards a shared objective. If the primary goal is to serve as a tool for strategic decision-making, it may be beneficial to place greater emphasis on its definition for participants. Conversely, if the objective of foresight is to facilitate organisational learning, then the concept of learning should be more strongly emphasised.

In this case, the variability of responses suggests that foresight serves multiple objectives, making it challenging to achieve a specific impact without a unified definition. Additionally, if many individuals perceive foresight merely as a tool for observation and fail to recognise its connection to strategic decision-making or action, this could influence the tangible outputs that foresight can generate.

4.2 Impact assessment

The following sections outline the 11 main impact themes identified from the analysis. The figure next to each theme (e.g., 10/13) indicates the proportion of respondents who provided answers related to that theme. The total number of interviewees was 13. Every theme also includes a quote or quotes from the interviewees relevant to the findings.

Concrete achievements (10/13)

As concrete achievements, the interviewees highlighted the tools produced by the foresight process. These tools include the future radar, the strategic assumptions, and the strategic vision for the future. Additionally, the foresight cells – as a regular, ongoing, and structured process – the phenomenon cards, and the regular presentation cycle for the management team were identified as tangible accomplishments. Foresight was also credited with improving guidance, which in turn influenced ongoing development efforts, such as enhancements to the working environment. As a negative aspect, one respondent noted that the phenomenon cards were the only tangible output generated by the foresight process.

Foresight has also led to the creation of concrete new ideas. For instance, one team was inspired to develop a questionnaire for a customer touchpoint, while another successfully anticipated a potential criminal case that ultimately materialised. Additionally, some of the scenarios developed through the foresight process were realised in practice.

Foresight knowledge has been applied to societal influence, with its impact on policymaking cited as one concrete example. It has also been mentioned as a tool used in management practices.

Other notable achievements include the development of scenarios, various summaries of foresight knowledge, and the establishment of a structured operational environment. Overall, foresight has contributed to the creation of better policies, which in turn have influenced ongoing development work.

"I was satisfied with the strategic vision of the future. Until then, we had been focused on our unit's work, but we didn't have anything concrete to commit to. We were working on future technology that couldn't be connected to anything. Now the future vision definitely serves that purpose."

Capacity for change (9/13)

Detecting the capacity for change is not straightforward. Kela's foresight process, in its current form, has only been in place for a short period and has engaged a relatively small proportion of Kela's large organisation. To conclusively determine whether foresight has influenced individuals' capacity for change would require more extensive research. However, during the interviews, respondents shared their perceptions, with many stating that they felt foresight had a positive impact on individuals' capacity for change.

The researcher also inquired about the capacity for change at the organisational level. However, respondents were unable to provide specific examples or evidence of change at this level, prompting the researcher to focus on capacity for change at the individual level.

Capacity for change was associated with improved preparedness for uncertainty and transformation. It was fundamentally linked to discussions about the future and development paths, which help provide context and understanding for employees regarding why certain events occur and why particular decisions are made. One

respondent suggested that participating in foresight work could foster a sense of active involvement in change, rather than employees perceiving change as something imposed upon them. Capacity for change was also reflected in a willingness to learn about development paths and an acceptance of uncertainty. One respondent noted that foresight helps them better prepare for threats and identify opportunities in situations that might initially seem intimidating.

Overall, interviewees felt that, although it is challenging to establish a direct link between the foresight process and capacity for change across the wider organisation, individuals involved in the foresight cells are more aware of their surroundings, better able to detect weak signals, and consequently more prepared for change.

Several respondents connected capacity for change to learning. They observed that foresight, as an ongoing process, inherently involves continuous learning. By engaging in foresight activities, individuals become familiar with foresight tools, which enhances their capacity for change and potentially increases their flexibility and resilience.

Capacity for change was also linked to having greater space to think with a broader perspective. It was recognised that foresight has had, and continues to have, an impact on both organisational and individual capacities for change. At the organisational level, this is achieved through improved preparedness for change and uncertainty. At the individual level, foresight fosters a forward-looking mindset, enabling employees to influence current decisions and actively shape the organisation's future direction.

“If we consider how an organisation can benefit from foresight, it is strongly connected to continuous learning and the concept of a learning organisation. Through foresight, we are not only constantly developing our understanding of foresight methods, but we also become more adaptable to change. This process can foster greater flexibility and resilience in the workplace.”

Collaboration (9/13)

Collaboration within the organisation was strongly endorsed by the interviewees. The foresight cells facilitate interaction among individuals from different teams and hierarchical levels, providing an opportunity to generate a broader impact across the organisation. Collaboration both within and between foresight cells was highlighted as a valuable mechanism for sharing findings and insights, as well as for enhancing the overall

foresight process. Many interviewees appreciated the opportunity to meet new colleagues and develop a deeper understanding of the organisation through this collaborative work.

A notable advantage of foresight activities in the context of collaboration is their capacity to amplify diverse voices and foster multidisciplinary within the organisation. The foresight cells bring together individuals from various departments – not only from management but also from customer-facing roles.

Many respondents commended the open invitation to participate in the cells, which promotes inclusivity. However, a key area for development was identified: how to engage employees who are not directly involved in the foresight process or actively participating in the cell work.

Collaboration with the risk management function was also cited as a benefit. For example, in the security cell, two risk analysts maintained direct contact with the unit responsible for risk management. However, a clear area for improvement was the need to strengthen collaboration between foresight and risk management, as these functions currently operate in silos. Foresight was also recognised as a valuable tool in supporting risk management and security leadership by providing additional perspectives and insights.

Another significant benefit of foresight activities is their ability to counteract echo chamber effects. By fostering collaboration, individuals are exposed to a diverse range of perspectives, which, in turn, promotes innovation and creative thinking. Foresight facilitates closer engagement between specialists and management by fostering discussions on change drivers, their impact on Kela, and the appropriate responses. The production of foresight information helps ensure that foresight remains on the management agenda.

“Foresight activities enable diversity of perspectives and interdisciplinarity, both of which are fundamental to foresight as well as design thinking. While multidisciplinary collaboration is already familiar within the organisation, it is inherently embedded in the foresight process, making it one of its significant benefits.”

Personal benefits (8/13)

Personal benefits were closely linked to the predefined attribute of learning. In addition to individual learning, interviewees highlighted that foresight work provides them with

the opportunity to dedicate working hours to exploring interesting phenomena – an activity they already enjoy in their free time. Their awareness of various phenomena related to their own work and the broader environment increased; they became more attuned to different topics, and foresight work helped prevent the echo chamber effect. It also supported the reassessment of personal viewpoints and fostered a more structured approach to work.

One respondent noted that they had received positive feedback for their engagement in the foresight cell, particularly for bringing in and presenting their findings. Another interviewee emphasised the benefits of being able to “think out loud” – sharing personal thoughts with others and recognising the connections between their own thinking and that of their colleagues. This process was seen as fostering greater openness, both in terms of mindset and intellectual engagement.

Participation in the foresight cells also enhanced understanding of the organisation as a whole and provided opportunities to meet new colleagues. It was noted that foresight encourages individuals to think beyond the immediate present, rather than focusing solely on current and short-term developments.

Foresight was reported to enhance subject matter expertise and leadership skills, as well as general knowledge, futures thinking skills, creativity, curiosity, and the confidence to explore phenomena that may not necessarily relate directly to one’s own work. Additionally, foresight was described as contributing to a sense of meaningfulness in work. Some participants expressed feeling privileged to engage in foresight activities, which they found both enjoyable and inspiring, even without prior experience in foresight or futures studies. One respondent suggested that the use of foresight could enhance employees' well-being at work, which, in turn, would enable them to serve their customers more effectively.

A further personal benefit related to one's professional role was the ability to directly apply foresight insights in their work, particularly in areas such as improving the working environment, fostering innovation, and influencing legislation and societal development.

“Foresight work has brought a new perspective to my work, as well as how I observe my surroundings. Being engaged in phenomena collection has increased my personal activity, influencing how I monitor different issues and from which perspectives. It has

changed the way I look at things and encourages a more long-term outlook. I do it now more and more systematically than before.”

Influencing (8/13)

The role of foresight in influencing policymaking and society received considerable attention from respondents. They noted that foresight helps identify phenomena where Kela has the potential to exert influence, providing a foundation for understanding how Kela envisions the future of social insurance and the challenges that may arise. Additionally, foresight was seen as a tool for enhancing preparedness to engage with government programmes, members of parliament, and ministries. However, a key challenge in influencing policy was the slow pace of legislative processes, making it difficult to track the tangible impact of foresight information over time. Foresight was also regarded as beneficial in building networks. It helped in determining which networks to engage with and identifying key stakeholders for collaboration.

Concrete examples of how foresight has supported Kela’s policy influence include providing managers with materials and information for meetings with ministries and members of parliament. It has also enabled better preparation for shaping the content of government programmes and advocating for key themes that Kela wishes to emphasise. Moreover, foresight has contributed to preparing for potentially unfavourable policy decisions, such as budget cuts for public sector organisations and reductions in social insurance funding. For example, when Kela proposed a new, simplified model for social insurance within a government programme, foresight played a key role in the preparation of the proposal. Respondents also highlighted that foresight has been used in discussions with various ministries and in cooperation with political decision-makers.

One of Kela’s most important responsibilities is to produce knowledge, and in the context of policy influence – since Kela is not a legislative institution – it provides decision-makers with relevant information. Many respondents identified foresight as central to Kela’s influencing efforts. Conversely, they noted that without foresight-generated insights on the future of social insurance and Kela’s objectives, it would not be possible to influence or develop legislation in alignment with Kela’s strategy and goals.

As Kela operates under statutory regulations, any necessary changes to its operations or decisions require influencing the legislative process, particularly the government

programme, which is updated every four years. As a result, Kela's policy influence cycle follows this four-year period, meaning that efforts to shape decision-making within ministries and parliament must be synchronised accordingly.

Internally, foresight has enhanced Kela's preparedness by improving the visibility of legislative and societal matters within the organisation's strategy.

“The information gathered through the foresight process has proven valuable. The phenomenon card included clear policy recommendations that are important for decision-makers and I was able to pass those on to the Director General for their ministerial meetings.”

Exploration (6/13)

The theme of discovering new information was evident in several respondents' answers. It was associated with an increased awareness of various phenomena, their potential impacts, and the directions in which they are evolving. The process of finding new information enhances awareness of change, reinforcing the understanding that the world is constantly evolving and prompting considerations of whether action or reaction is required.

The joy and excitement of discovering new information were clearly apparent, particularly in discussions during foresight cell meetings, where participants shared their findings. The opportunity to present different viewpoints and opinions in these meetings was highly valued. Interviewees noted that foresight provides a deeper understanding of the future and encourages a more systematic approach to observing the world.

In some organisational roles, such as those within the innovation unit, monitoring emerging inventions and trends is an integral part of the job description. However, a structured foresight process ensures that other units also benefit from this systematic approach to future-oriented thinking.

One interviewee expressed great enthusiasm when they noticed that a phenomenon they had identified through the foresight process later emerged in a different context.

“One key aspect is the awareness that such phenomena exist, their impacts, and the direction in which they are evolving. It fosters an understanding that the world is

constantly changing and that certain issues are worth addressing, responding to, or at the very least, being aware of as they unfold.”

Learning (5/13)

Learning was connected to both individual and organisational learning. From the perspective of individual learning, interviewees noted that foresight provided a broader perspective on their field of work. Without foresight, they would primarily focus on their specific area of expertise and job role. They highlighted that foresight not only expanded their overall perspective but also enhanced their subject-matter expertise, which, in turn, had a positive secondary impact on the organisation. Continuous learning and the concept of a learning organisation were also recognised as benefits. Respondents further identified that foresight contributed to adaptability and resilience through its learning processes.

Additionally, the foresight process was acknowledged as a means of teaching various tools and methods. One respondent observed that foresight is still a relatively new practice within the organisation, and the systematic process requires further learning – particularly in fostering greater courage and curiosity.

Learning was also associated with developing employees' capacity to recognise emerging phenomena. Participation in the foresight process was seen as influencing individuals' thinking and priorities, ultimately shaping the organisation as a whole.

“I feel that my meta-skills have developed significantly, which in turn has enhanced my subject-matter expertise. As a result, the organisation benefits more effectively from my expertise.”

Strategy work (5/13)

The benefits of using foresight to support strategy development were recognised by less than half of the interviewees. Foresight was described as functioning as a mirror for strategy work, whereby the insights generated through foresight are compared with the current state of the strategy. It was noted that foresight plays a role in identifying success factors for the future and facilitating decision-making. Rather than solely serving as a tool for preparedness, foresight actively contributes to decisions and options.

Interviewees emphasised that foresight should not be conducted in isolation; instead, it must be closely connected with strategy, core functions, and objectives. Foresight is

particularly utilised in formulating large-scale policies for Kela. The current “strategic vision for the future” had already been observed to guide decision-making, development objectives, and the reorganisation process. Additionally, foresight was reported to support smaller-scale decisions, such as those related to security and safety.

Furthermore, foresight plays a role in the development of strategic leadership and the establishment of strategic assumptions, which are widely used as a foundation for decision-making and organisational guidance.

“At its best, foresight helps with preparedness, but it also supports making the right choices. It’s not just about preparing for the future but also about achieving the strategic goals we aim for. The better your view of the future, the more effectively you can align your steps when planning actions.”

“Above all, in strategic leadership, where decision-making is central, the understanding of the future gained through foresight and future intelligence plays a highly significant role.”

Innovation and creative work (4/13)

The benefits of foresight were also recognised in relation to innovation and creative work. Kela has its own innovation unit, which also explores future technologies. The innovation unit utilises the insights and outputs generated by the foresight process, which are considered valuable for innovation activities. Scenario work, for instance, has been applied to explore various options, such as identifying trends in youth mental health and the development of AI technologies.

The collaboration between foresight and innovation was seen as particularly important, especially in fostering an understanding of the world outside of Kela. Without foresight, there is a risk that Kela might become too inwardly focused, limiting its perspective to internal operations. While foresight operates at a higher, strategic level, innovation translates strategic insights into concrete actions. It was also emphasised that the innovation unit should collaborate with different teams across the organisation rather than working in isolation.

Foresight has also helped to bring greater focus to innovation efforts by providing a structured process for gathering information on specific topics. One example cited was

the impact of AI on specialist roles – how this was identified as a phenomenon and how its potential applications were assessed to guide decisions on where to direct innovation efforts. Foresight enables innovation to move beyond immediate strategic priorities towards a broader time horizon, facilitating experimentation with ideas that may involve greater risks or initially appear less likely to materialise.

Respondents also highlighted that foresight supports creative thinking within the organisation by expanding the time horizon, providing tools for imagining different development paths, and offering inspiration for ideation, sense-making, and peer support.

“Foresight enables us to hear and consider the perspectives of others, preventing innovation from happening in an isolation. It also helps avoid an overemphasis on one’s own thinking, instead fostering a more holistic approach to decision-making and strategic planning.”

4.3 Other notions and ideas

Other notions and ideas include the interviewees' views on who they would like to impact through foresight work, the suitable timescale for foresight, the participation activity in the foresight cell model, organisational culture and how to define the terms impact and influence at Kela.

When asked about who they would like to impact through the foresight work, most of the interviewees responded that their main objective is to impact Kela’s management team, their ability to make better decisions; and embed foresight as a capacity, capability and partnership within the managers. These were reasoned in one of the responses with the organisational structure of Kela: if the change is needed and wanted, it is the management team who makes the decisions to change the direction. One respondent stated that if the management team doesn’t use foresight in its decision-making, then the whole process is only a “nice-to-have”.

Other groups or people that the interviewees mentioned were the national decision-makers, meaning ministries and members of parliament, all people at Kela, people working in customer touchpoints, development operations, the general discourse around Kela, middle management, legislation and government program, opinion leaders at Kela, structuring of own work and thinking and researchers. With foresight, Kela could also identify the future needs of their customer and be better prepared for them. And through

Kela's customers – which are basically all the Finnish people in some stages of their lives – foresight can impact the whole Finnish society.

The interviews also identified the views regarding the timescale in which foresight should be applied. Most of the respondents stated that a timescale of 3-5 years is the most beneficial for their organisation: this timescale serves the timecycle of the government program, which renews every four years. Some people substantiated a shorter timescale with technological development being so fast, that it is difficult to foresight further. They also admitted that it is easier to think about futures that are closer than futures further away. Others hoped that foresight could also aim at a longer timeframe, that would enable more opportunities and preparedness.

"If there is a limited amount of input, then let's say, for example, 65 for the medium term and 35 for the approximately 10-year timeframe."

"Not too far into the future, because we operate according to government program cycles. A few years' timeframe is enough. However, legislative projects progress very slowly and require patience."

Another notion that the interviewees discussed relatively much, was the activity of the people who participate in the foresight cells. This also connects to the development needs of the foresight process; however, there are differences between the cells. In one or two of the cells around half of the people were actively involved in the foresight operation, in one only a few participants and in one 80% of the participants. The most common reason why people did not participate in the activities was having other more important priorities and a lack of time. People leading the cells were hoping that the participants could be more active in creating the phenomenon cards. They also wished that the groups could meet more in person instead of online, that would better activate the participants to discussions. The biggest challenge that the respondents mentioned was how to activate people in the discussion and create the phenomenon cards. They noted that the discussions in the cell meetings are good, and people openly share their ideas and findings.

In the interviews, people also discussed Kela's organisational culture and its distinct nature. Some of the respondents stated that it is challenging for their organisation to think or imagine subjects that are unsure, they are more comfortable in dealing with facts and scientifically proven information. The decisions are made from top-down, and there is

not much space for the ideas and thoughts that come from bottom-up. They see that foresight has the opportunity to develop the organisational culture towards broader thinking with a wider perspective. They emphasize the importance of being in contact with entities outside the organisation. Kela is a large organisation, and there does not exist one unified organisational culture, instead there are various cultures inside the organisation consisting of different teams and units.

Some of the interviewees were asked about how impact ('vaikutus' in Finnish, meaning a more direct effect on something) and influence ('vaikuttavuus' in Finnish, referring to an ongoing process of shaping decisions, behaviours, or policies) were defined at Kela. This was to explore if there existed a common understanding of the subjects. Impact was defined as causing influence, making decisions that are future-proof and justified based on the future knowledge. Impact was seen also as changes in personnel's awareness of the operational environment. Influence on the other hand was something that impact causes, and there is no impact or influence without actions and change. One respondent mentioned that "influence is something that we are not allowed to discuss in Kela", as Kela does not aim for influencing, they only execute social benefits. Contrasting views were mentioned that Kela influences society and people's views through their services and benefit decisions, and they do have the possibility to influence through legislation. Foresight's role in influencing was also recognised:

"Perhaps it is influence that we have gathered knowledge about the future customers and their needs and have made decisions based on that knowledge and taking it into action, that can be an impact that happens inside Kela".

Influence was also seen as the impact of the decisions in a longer timescale:

"We have started to develop a future customer path which then guides our planning towards the future."

4.4 The connection to strategic decision-making

Foresight's dominant objective should be making a positive impact on decisions: "if there is not a clear link between foresight studies/work and policy/decisions, there is a low likelihood that the foresight initiative will be sustainable" (Calof et al., 2012).

As one of the research questions was “What is the impact of Kela’s strategic foresight on strategic decision-making”, it was studied through the interviews as well as through a questionnaire to the management team.

The interviewees were asked if they considered the management team to be committed to the foresight process. Most respondents (9/13) indicated that the management team is committed, and it was particularly evident in the fact that the current foresight process was enabled, employees were allowed to participate in the foresight work and the foresight cell model existed. The resources dedicated to foresight were seen as significant and adequate. Some respondents mentioned that the cell model even gathered an excessive number of participants – although the researcher notes that, percentagewise, 50 participants out of over 8,000 employees does not constitute a particularly large proportion.

The interviewees identified several ways in which applying foresight has influenced the thinking and actions of the management team. For example, exploring various perspectives on the operational environment has enabled the management team to shift from focusing on individual phenomena to engaging in broader strategic discussions. This has also highlighted the uncertainties that Kela needs to monitor. Respondents felt that the management is interested and enthusiastic about foresight, acknowledges its importance, and actively engages by raising topics about phenomena they want to learn more about. The foresight process has also been developed in collaboration with the management team, incorporating their feedback on expectations and needs.

Respondents mentioned that foresight is used in decision-making through tools such as the future radar and the strategic assumptions. Its influence is evident in strategy work, particularly when forming the strategic vision for the future. Members of the foresight cells and the foresight team regularly present findings from the foresight process – including phenomena, strategic assumptions, weak signals, and more – to the management team. The management team reviews this information and discusses the relevance of these phenomena in relation to their other priorities.

Some respondents emphasised that Kela’s Director General often mentions foresight in public appearances, which suggests that the entire management team is engaged with foresight. The decision-making of the management team was mentioned to involve using a specific knowledge base that must account for impacts on different sectors, such as

finance, personnel, customers, and communication. Combining foresight information with insights from these sectors allows decision-making to be better aligned with future impacts.

The interviewees also identified several challenges regarding foresight's connection to the strategic decision-making of the management team. These included that most of the management team's time is dedicated to addressing operational issues, more urgent matters often take precedence over foresight and overall, the management team's objectives are more tied to short-term achievements rather than long-term objectives. The respondents also stated that there are differences in the capacity of management team members to utilise foresight information effectively, and a lack of proactive engagement by the management team to request foresight information on specific themes. The interviewees also wished for a clearer format for integrating foresight into decision-making processes, visibility into whether and how foresight information is used in decision-making and more concrete actions based on identified phenomena. They also recognised that the current development initiatives are not consistently evaluated against foresight findings, and there is insufficient willingness to change direction or explore deeper issues if foresight reveals unexpected findings.

Interviewees hoped that the management team could participate more concretely in foresight activities, which would also demonstrate stronger commitment to foresight. Many wished for foresight to become an integral part of decision-making, used consistently in strategic decisions. However, some felt that foresight is not applicable to all decisions, such as those at the operational level.

Some interviewees questioned whether the decisions made by the management team were appropriate for their level. They speculated whether the management team was focusing on the right issues and whether some decisions could be delegated to middle management or other levels. They also raised concerns about ensuring that the management team receives all relevant information concerning specific phenomena.

"The answer is both yes and no. There is a certain discontinuity between operational execution and strategic thinking, where things seem to disconnect. At the strategic and higher-level thinking side, foresight is present, but in practical leadership, it becomes more challenging. This leads to a tension between the current strategy and the influence of foresight, which I believe is more embedded in future strategies. This is also linked to

managing change, where challenges arise when changes are difficult to understand because these two worlds – strategic and operational – collide so strongly in middle management. The management clearly values foresight, but these challenges remain."

4.4.1 Questionnaire for the management team

Based on the findings from the interviews regarding the management team and strategic decision-making, the researcher designed a questionnaire for the members of the management team.

The objectives of the questionnaire were to:

1. Validate whether the findings from the interviews aligned with the views of the management team;
2. Determine whether the management team's perspectives differed from those of the interviewees;
3. Assess whether it was possible to identify the direct impact of the foresight process on strategic decision-making; and
4. Explore potential improvements to increase the impact of foresight on decision-making.

Ultimately, the questionnaire received four responses out of a total of eleven. Due to the limited sample size, it is challenging to draw definitive conclusions. However, the results can be considered indicative, reflecting the perspectives of more than one-third of the management team. The full responses are available in Appendix 5.

Based on the findings from the questionnaire, the management team strongly agreed that foresight supports an understanding of Kela's operating environment, plays an important role in the management team's activities, and contributes to Kela's strategy process. Their views varied regarding whether there is sufficient foresight information available to support the management team's work, whether the foresight information reaches the management team in an appropriate format in terms of length and timing, and whether current management team practices facilitate the effective utilisation of foresight information. Most respondents agreed that the management team had received concrete support from foresight information for decision-making. Half of the respondents were

uncertain about whether foresight has had an impact on legislation concerning Kela's operations, while the other half agreed that it has had an impact.

In terms of organisational collaboration, respondents agreed that foresight information has improved cooperation between different units within the organisation. They also strongly agreed that decisions made by the management team, as well as the foresight information used in these decisions, should be made more visible within the organisation.

Respondents highlighted the following areas for development: a desire to incorporate more numerical data when presenting foresight results and the need to better demonstrate the connection between foresight work and productivity. They also wished to allocate more time for foresight work within management team meetings or in dedicated sessions. They also suggested lowering the threshold for sharing examples of how different operational units have utilised foresight information in their decision-making, highlighting the communication from the operational units to the management team.

Based on these results, it can be concluded that the management team acknowledges the importance of foresight in their work and recognises its role in supporting strategy development. They also wished for more communication between the management team, foresight cells and operational units. However, based on the results from the questionnaire, it is challenging to draw direct conclusions that the foresight process would have a direct impact on the strategic decision-making. This is reflected in the responses concerning the format and availability of foresight information, as well as the indication that current management team practices do not effectively support the application of foresight information in decision-making.

4.5 The foresight impact cycle

The findings from the data analysis of the interviews in the previous chapter indicated that the different themes reflected similar topics. Topics such as learning and capacity for change, different described outcomes and strategy-related findings shared similarities that could be combined under broader themes. When further reflecting on the findings with previous studies and literature, the following six themes were formed and visualised in a figure named “The foresight impact cycle”. The topics under each theme have been gathered from the findings presented in Chapter 4.4. (See larger image with descriptions

in Appendix 6.). Each theme visualised in “The foresight impact cycle” is described in the following sections.

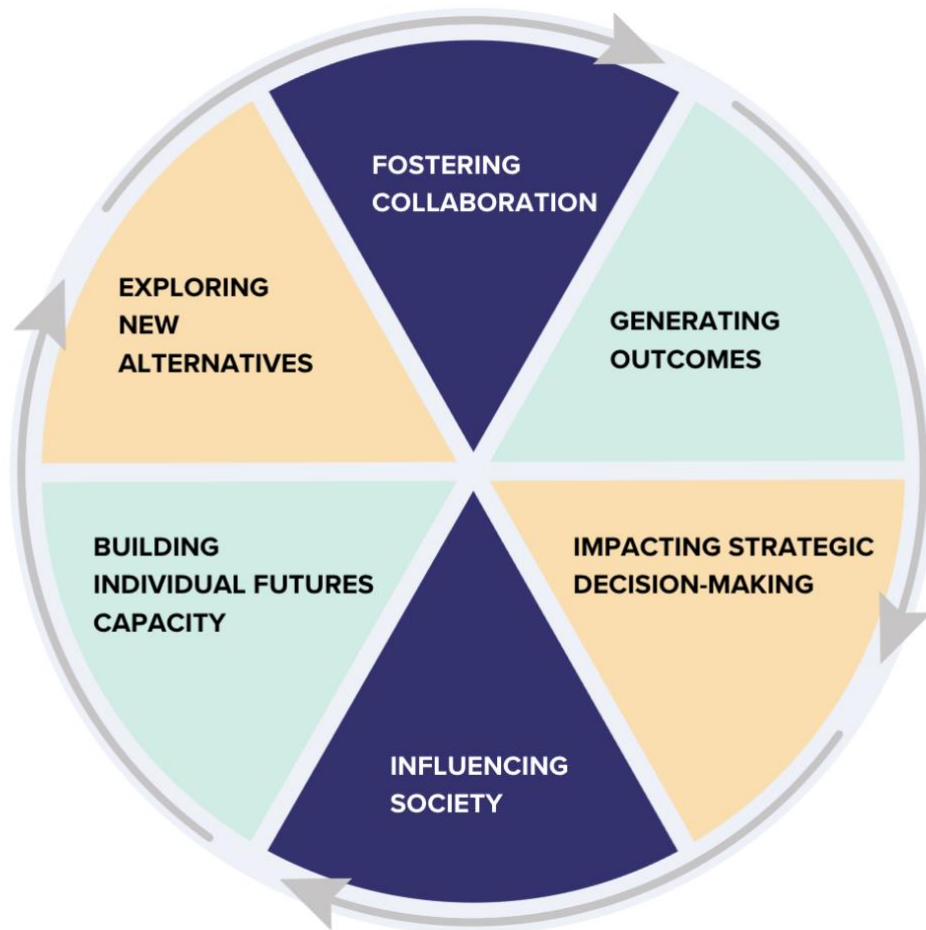


Figure 4. The Foresight Impact Cycle.

1. Building individual futures capacity. Learning, capacity for change, personal benefits, and alternative paths were recurring topics that could be combined to form this broader theme. The theme encompasses the following impacts identified in the interview data: capacity for change; individual learning; meaningfulness, inspiration, and the joy of discovery; as well as improved skills in futures thinking, creativity, and courage.

The concept of 'individual futures capacity,' introduced by Pouru-Mikkola and Wilenius (2021), refers to the capability gained through the individual futures learning process. Their concept integrates various futures thinking theories and themes, such as anticipation

(see, for example, Poli, 2017), futures literacy (see, for example, Miller, 2018), and futures consciousness (see, for example, Ahvenharju et al., 2018). These different concepts have been utilised in the futures literature ”to express the development of the individual capacity to observe, understand, reflect, imagine, use and act upon the future” (Pouru-Mikkola & Wilenius, 2021).

2. Exploring new alternatives. This theme gathers the findings from different detected impacts: strategy work, exploration, concrete achievements, and personal benefits. It connects strongly to building individual futures capacity, as when the capacity is there, it enables the exploration of new alternatives that are not so obvious or easy to find. The impacts detected under this theme are: the foresight process broadens horizons and inspires new ideas, foresight helps systematically observe the world and understand the future, foresight increases awareness of global changes and helps decide when to act or react.

3. Fostering collaboration. Numerous examples of how the foresight process has enhanced collaboration both internally and with external parties were mentioned in the interviews. This theme encompasses findings related to cooperation with different teams at Kela, collaboration in innovation, inviting multidisciplinary perspectives into discussions, and enabling diverse viewpoints. Fostering collaboration also relates to the varied responses of participants when asked whom they would like to influence through foresight (see Chapter 4.3).

4. Generating outcomes. In this context, outcomes are defined by the concrete results produced by the foresight process. These may include models, reports, achievements, or ways of influencing – anything mentioned as a relatively tangible outcome of the foresight process. When considering the connection between foresight and risk management, foresight can also provide information that helps mitigate negative outcomes (Gardner et al., 2024).

The outcomes identified through the interview data analysis were primarily strategy tools, including phenomenon cards, strategic assumptions, the strategic vision for the future, and scenarios. Additionally, new development ideas, guidance, and concrete actions fall within this overarching theme.

5. Impacting strategic decision-making. This theme encompasses strategic guidance, insights for decision-making (for the management team and others), and improvements in strategic leadership. Leadership also connects to other themes, such as building individual futures capacity and fostering collaboration around the organisation.

6. Influencing society. Finally, the data analysis identified several ways in which the foresight process impacts society. These include helping to identify phenomena where Kela can have a societal impact, supporting legislation, contributing to the preparation of government programmes, and ultimately influencing policies and decision-making.

4.6 How to increase the impact of strategic foresight?

The interviewees suggested multiple ideas for improving the foresight process and identified broader development areas concerning the organisation as a whole. The most significant development points centred on collaboration, both within the organisation and with external institutions and organisations. Respondents expressed a particular desire for increased cooperation and shared discussions between the foresight cells. Some questioned whether there could be greater synergies between risk management and foresight, with some wondering why these two units even operate separately. It was noted that risk management focuses on shorter time frames, while foresight addresses longer-term issues; however, both are concerned with preparing for the future. Outside the organisation, respondents saw opportunities for greater collaboration with other public sector institutions and the private business sector.

Many interviewees also emphasised the importance of better utilising customer touchpoints. This involves ensuring that customer-facing specialists – those involved in customer service, grant decisions, or other tasks involving direct interaction with Kela’s customers – are more engaged in the foresight process. Suggestions included providing foresight information to customer-facing staff in an accessible format or incorporating weak signals gathered from customer interactions into the foresight process. Some respondents even questioned whether there was any existing connection between the foresight process and customer touchpoints.

"Perhaps the biggest challenge is how this [foresight] becomes visible in everyday work and how we can bridge that gap. There seems to be a missing 'glue' in the middle. It's about understanding the actual impacts. Sometimes it feels like we live in a bubble, and

this is partly due to the size and hierarchy of our organisation. It's difficult when you're not connected to everyday work or when your own tasks don't influence it or provide visibility into it – it's really hard to see how these things have an impact."

Many development ideas were also focused on the process itself, however, the views differed from some considering developing the process to a more quantitative approach, while others suggesting focusing on more depth and quality over quantity. It was also mentioned that management work from mid-management to top-level would need development: strategic assumptions and phenomena are not fully integrated into the current goal-oriented management model, the existing model reflects a top-down approach and requires stronger employee engagement from the bottom up and incorporating a stronger future perspective in management decisions and allocating more time for foresight discussions.

4.6.1 Development ideas for Kela's foresight process

The main findings of the development topics are listed in Table 5. By developing these subjects, Kela could improve the impact of foresight across the organisation and further to its customers.

Table 5. Development ideas for Kela's foresight process (total number of respondents was 13)

Development idea (share of responses)	Description
Internal collaboration at Kela (9/13)	<p>Increased interaction and discussion between foresight groups and cells. Better dissemination of strategic insights across the organization and reduction of silos.</p> <p>Improved integration between foresight, risk management, goal-oriented leadership, and customer understanding.</p> <p>Leveraging innovations to enhance foresight processes.</p>
External collaboration (9/13)	<p>More partnerships with other authorities, researchers, private sector actors, and foresight organizations.</p> <p>Building ecosystems for customer-oriented future solutions through cross-sector collaboration.</p> <p>Utilising Kela's public image through foresight, showcasing societal development perspectives.</p>
Broadening foresight at Kela (8/13)	<p>Making foresight accessible to all employees, including operational staff.</p> <p>Clearer communication and storytelling of foresight findings to make them understandable.</p> <p>Cultivating a culture where foresight is embraced as part of everyday work.</p>

Better use of customer interfaces (7/13)	<p>Leveraging insights from customer service to inform foresight and strategic development.</p> <p>Collecting signals and transferring knowledge from customer interactions across the organization.</p> <p>Enhancing customer understanding by predicting behaviors and future needs.</p>
Time management and motivation in foresight work (7/13)	<p>Prioritizing foresight work over operational tasks.</p> <p>Allocating scheduled time for foresight and workshops.</p> <p>Motivating participants and encouraging active engagement in foresight cells.</p>
From recommendations to actions (6/13)	<p>Using foresight information concretely in decision-making and actions.</p> <p>Deeper analysis of impact chains and clear responsibility for implementing recommendations.</p> <p>Ensuring a process flow from foresight findings to practical actions.</p>
Visibility in management decisions (5/13)	<p>Clarifying the impact of foresight outputs, such as phenomena cards, on decision-making.</p> <p>Enhancing feedback loops from management decisions back to foresight teams.</p> <p>Increasing transparency and tracking impacts.</p>
Developing strategic assumptions (4/13)	<p>Developing better medium-term (1–5 years) strategic assumptions.</p> <p>Faster response to foresight findings and updating strategic assumptions accordingly.</p>
Collaboration with risk management (3/13)	<p>Closer integration between foresight and risk management.</p> <p>Aligning risk management timeframes with foresight data.</p>
Identifying alternative pathways / creative thinking (3/13)	<p>Foresight enables the identification of various development trajectories and alternative futures, along with analyzing their impact chains.</p> <p>Strategies should be evaluated against identified alternative futures instead of focusing on one or two directions.</p> <p>The organization should systematically assess the strengthening or weakening of scenarios.</p>
Addressing longer time horizons (2/13)	<p>Extending planning beyond the four-year cycle, for example to 6–8 years.</p> <p>Improving the capacity to imagine and plan for longer-term futures.</p>
Management and leadership (Single answers)	<p>Strengthening mid-management commitment to foresight and its application.</p> <p>Improving the goal-oriented management model to maximize foresight impact</p> <p>Incorporating a stronger future perspective in management decisions and allocating more time for foresight discussions.</p> <p>Strategic assumptions and phenomena are not fully integrated into the current goal-oriented management model.</p> <p>The existing model reflects a top-down approach and requires stronger employee engagement from the bottom up.</p>
Other topics (Single answers)	<p>Foresight work should prioritize depth and quality over quantity.</p> <p>Improving the use of foresight insights in development, such as supporting technological advancements.</p>

	<p>Better identification of weak signals to anticipate unexpected changes.</p> <p>Shifting the focus of foresight cells from recommendations to understanding phenomena and their implications.</p> <p>Directing foresight efforts more intentionally and purposefully.</p> <p>Enhancing shared situational awareness based on foresight data to evaluate the need for course adjustments.</p>
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5 Discussion

When defining the topic and approach for this thesis, the researcher questioned whether generating impact equates to a successful foresight project or whether impact could also be undesirable. What are the unanticipated impacts that should be avoided? Who determines what is desirable and what is not, and how? Should measuring, defining, and detecting impact even be an objective of foresight?

Miles (2012) argues that the outcome of the foresight process is less important than the process itself. After gathering data through interviews with individuals participating in Kela's foresight process, the researcher concurs with this perspective. Witnessing the joy, excitement, and added value foresight has brought to many people in a public sector organisation and providing them with concrete tools for making strategic decision-making, it is easy to identify that the "magic" of foresight lies not in its results but in the process itself – the joy of collaboration, discovery, and understanding.

Strategic foresight presents an inherent challenge for evaluation: assessment looks backwards, while foresight looks ahead to potential futures (Georghiou & Keenan, 2006). Albert Einstein famously remarked, "Everything that can be counted does not necessarily count; everything that counts cannot necessarily be counted." This sentiment applies well to strategic foresight. Its value often lies not solely in outcomes but in the process – how it benefits individuals, organisations and informs better decision-making overall.

Pouru et al. (2020) found in their study on national foresight that it requires a broader understanding that foresight is not merely about data collection but is primarily about forming strategic future visions and translating them into action. Kela has embraced this concept, using foresight to shape a strategic future vision that aims to guide its decision-making and strategy development in the coming years.

Foresight processes share the same success factors as any other project: they require sufficient resources in terms of personnel, budget, and time, involvement of key stakeholders; and, in most cases, support from management. Additionally, foresight activities benefit from the principles of creative projects: fostering a working culture that encourages new – even radical – ideas; enabling the open expression of differing opinions; and adopting new tools and practices to achieve innovative outcomes. What makes the foresight process distinct from other initiatives, such as product development

or marketing workshops, is its ability – or even its probability – to share information across teams and policies (Miles, 2012). Furthermore, Georghiou and Keenan (2006) observed that identifying whether a project caused impact “does not necessarily indicate the quality of the evaluation, only whether its conclusions were implemented.”

5.1 Organisational culture and learning

Organisational culture, the importance of attitudes, and commitment are essential conditions for creating impact through strategic foresight (Calof et al., 2012). If the organisational culture does not support the principles of foresight – enabling participation, exploring potential futures, and ensuring a connection to decision-making and strategic planning – it is difficult for foresight to have a meaningful impact. The research presented here indicates that it is challenging at Kela to contemplate or imagine subjects that are uncertain: people are more comfortable dealing with facts and scientifically proven information. Although the foresight process involves individuals from across the organisation, and although it is participatory and feeds information to the management team to support strategic decision-making, decisions are ultimately made in a top-down manner.

There could be a larger opportunity for foresight to develop the organisational culture towards more participative and transparent decision-making. This was also identified as one of the most interesting findings when examining the cooperation between the foresight process and the management team: both parties agreed that the management team should inform foresight participants about what foresight information has been used in decision-making – how foresight has actually influenced strategic decisions.

Learning was also identified as a key factor in creating impact with strategic foresight, and is seen as an essential part of strengthening foresight’s role and improving the process itself. Georghiou & Keenan (2006) emphasise that learning should be systematic and rigorous, and the process of evaluation or assessment can assist in exchanging the knowledge of what has been learned. To enable and encourage learning, it is important not only to focus on the process but also to allocate time for reflection and make learning intentional.

According to Calof & Smith (2012), futures literacy is highly important for individuals to engage in and benefit from foresight and its initiatives. Also, Calof et al. (2012)

recognise the importance of attitudes and commitment, as well as the need for foresight literacy as a condition for foresight impact. Various concepts and frameworks can be applied to evaluate an organisation's futures thinking capabilities, including *Futures Preparedness* (Rohrbeck & Kum, 2018), *Futures Consciousness* (Ahvenharju, 2022), and *Futures Literacy* alongside the *Discipline of Anticipation* (Miller, 2018). However, it may not be beneficial to draw overly simplistic conclusions that without any futures literacy skills, the foresight process would have no impact on the organisation. Perhaps, it would be interesting to focus on the relationship of futures literacy level and its impact on strategic foresight. Based on previous studies, learning through foresight activities has a positive influence on the capacity for change (see for example Rohrbeck & Kum, 2018).

Kela's foresight process has the potential to influence Finnish society – and even globally – by serving as an example of how social security and insurance needs may evolve and how the state can enhance people's lives by ensuring basic needs during times of societal volatility and transformation. However, one of Kela's key challenges, shared by many organisations, is balancing the need for change with the obligation to maintain core functions. Kela's statutory duties must be fulfilled without disruption, even as societal and global changes occur. This raises a critical question: how can space for radical and rapid change be created without jeopardising core missions?

Building a foresight process takes time and integrating it into an ongoing strategy process requires significant effort. It is worth questioning when assessing impact becomes reasonable. When can an organisation expect to start recognising the impact of foresight on decision-making? When is its future maturity sufficient for impact assessment? On the other hand, many evaluations are conducted only once a programme is ongoing or nearing completion. Without a process established early on, there is a risk of losing data from the initial stages (Gardner et al., 2024). As with all projects, it is essential to define the objectives of the project, establish methods for monitoring those objectives, and incorporate findings from monitoring back into the project to support ongoing development.

6 Conclusion

This thesis involved significant effort in foresight impact assessment by forming a new framework called “The impact attributes framework” which presents 10 attributes indicating possible impact, gathering qualitative data through semi-structured interviews and two questionnaires, and finally analysing the data and summarising the findings in a visualisation comprising different themes and presenting the detected impacts.

The results of this research, similar to previous studies on foresight impact, indicate that impact can vary significantly depending on context, objectives, resources, and organisational culture. This study was a case study of a large Finnish public sector institution focused on providing social security allowances to people living in Finland.

The main objectives of this research were to explore the impacts of Kela’s strategic foresight process, assess its influence on Kela’s strategic decision-making, and identify means to enhance its impact through future development.

Firstly, the research detected 11 themes of impact, which were consolidated into six key impact themes:

- **Building individual capacity:** Including personal development, learning, capacity for change, futures thinking, and a sense of meaningfulness in work.
- **Exploring new alternatives:** Identifying opportunities and potential future states.
- **Fostering collaboration:** Both internally and externally.
- **Generating outcomes:** Such as strategic tools and development ideas.
- **Impacting strategic decision-making:** By providing insights for decision-makers, guiding strategy, and improving leadership.
- **Influencing society:** Through contributions to legislation and societal decision-making, fulfilling a key duty of a public institution.

Secondly, the connection between the foresight process and the strategic decision-making was examined. The results indicated that the connection between foresight and strategic decision-making remains inconclusive. Responses from the management team

questionnaire pointed to areas for improvement in the format and availability of foresight information. Overall, the interviewees identified the largest challenge as the management's need to balance solving urgent issues with focusing on the future. They highlighted a disconnect between operational execution and strategic thinking. While foresight exists at a strategic level, it does not consistently translate into concrete actions at the operational level.

The third objective of the study was to identify future development areas. Key topics included enhancing internal collaboration, gathering insights from customer touchpoints, and strengthening the connection between foresight and decision-making by improving the format of foresight outputs and increasing the management team's dedicated time for foresight-related activities.

Communication was identified as a central element across all development areas. Effective and systematic communication is essential for ensuring information flows between foresight cells, teams, customer touchpoints, and management, and back from management to the foresight process. Enhancing organisational communication – both in terms of sharing information from the management team with the wider organisation and facilitating the flow of insights from operational units to the management team – could also contribute to refining the format of foresight information to better meet the needs of decision-makers.

Designing communication systems in a large organisation is challenging, but participatory processes such as strategic foresight depend on robust communication. This requires addressing organisational culture, including who communicates with whom, the methods of communication, and its tone. It also raises the question of whether Kela is ready to increase transparency between the management team and the organisation and to foster greater participation in foresight. Furthermore, communication requires time and resources, which can be challenging during periods of budget cuts and organisational change.

By addressing these development areas, the foresight team, in collaboration with the management team, could strengthen the role and impact of foresight in strategic decision-making. Furthermore, it would be beneficial to explore ways in which the management team could become more actively involved in the foresight process.

The findings are inspiring and motivating for Kela's strategic foresight team, demonstrating that the current process has a range of impacts on both the organisation and the broader societal context. However, as the process is relatively new (established in spring 2023) and Kela is undergoing transformation due to governmental cost-cutting measures, technological development, changing societal demands, and leadership transitions, further development is required.

The researcher's recommendations for Kela are to define clear objectives for foresight and prioritise the most important ones; develop a framework, tool, or process for monitoring these objectives, and to integrate the monitoring system into the foresight process. Such a system could provide continuous feedback on the process's performance, the value foresight brings to the organisation, and potential impact indicators, such as effects on decision-making, societal influence, or individual engagement. It is also worth considering whether differences in understanding the definition of foresight (see chapter 4.1.) require action or whether such diversity is beneficial for the process. Aligning a shared understanding of foresight's objectives could enhance its impact.

The primary factors influencing the development and assessment of foresight impacts are human resources and time. Finland's economic situation is challenging, with significant pressure to cut public sector budgets. This focus on productivity and cost reduction often deprioritises creativity, innovation, and cultural development within organisations.

Kela's employees and management are inspired by and engaged with the opportunities and positive impacts of strategic foresight. This study demonstrates that the current process has already produced valuable tools for strategy work, generated varied impacts, and engaged people across the organisation. With secured resources for maintaining and developing foresight, the process has the potential to achieve even greater and broader impacts. It is hoped that this research will facilitate Kela's efforts to evaluate and refine its foresight structure, making it an integral part of its decision-making process and organisational culture.

6.1 Suggestions for further research

The field of foresight impact assessment and evaluation is still evolving, with room for new tools applicable to various contexts. Since no single approach suits all cases, different methodologies are needed for diverse objectives, operational fields, and organisations.

This research focused exclusively on Kela's context and its multiple foresight objectives. However, its findings may offer insights and inspiration for those working with foresight in the public sector, where quantitative metrics are often less applicable than in private business. Developing a monitoring system for each of the six identified impact themes and tracking their progression over time could be an interesting avenue for further study.

To concretely demonstrate that there has been an impact on policymaking, there should be a more extensive study or research conducted. Gardner et al. (2024) list possible metrics that could be tracked in this context: "Reported use of foresight concepts and data; Foresight findings regularly used as evidence basis for decision-making; New foresight issues being examined by government departments, companies, NGOs; Level of investment in and use of horizon scanning; and Confidence expressed in foresight concepts and data."

As most foresight evaluations are based on qualitative data, exploring more quantitative methods could also be valuable. Leveraging the vast amount of digital data available to generate numeric insights and presenting these through graphs and charts could help communicate foresight's impact more effectively. This approach would not only highlight the importance of foresight but also provide actionable tools for strategic decision-makers.

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Appendix 2: Objectives questionnaire for Kela's strategic foresight team

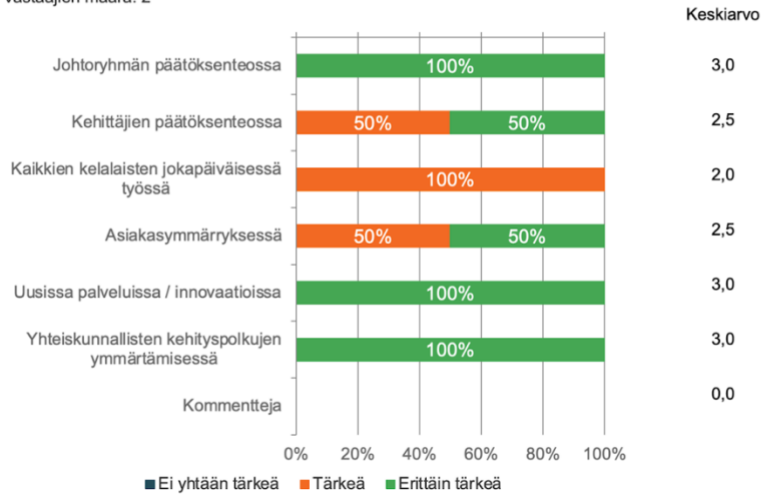
Kelan strategisen ennakkoinnin tavoitteet

Alla on lista mahdollisista tavoitteista Kelan strategiselle ennakkoinnille ja niiden tärkeydestä nykyisessä prosessissa. Huomioitthän, että kyselyn tarkoituksena on siis arvioida nykyisen vaikutuksia, joten vaikka olisikin tavoitteita tulevalle prosessille, niin pyrkikää olemaan ajattelematta niitä tässä. Jokaisen vaihtoehdon alla on avoin tekstilaatikko, mihin voi halutessa lisätä huomioita, "esim. tulemme kehittämään prosessia (kuvaus siitä millä tavalla), jolla pyrimme kehittämään tämän tavoitteen merkitystä." Kommenttikenttään voi myös vapaasti kommentoida, mikäli vaihtoehdoista puuttuu jotain tai haluatte muuten antaa lisätietoja. Kiitos paljon vastauksista!

Vastaajien kokonaismäärä: 2

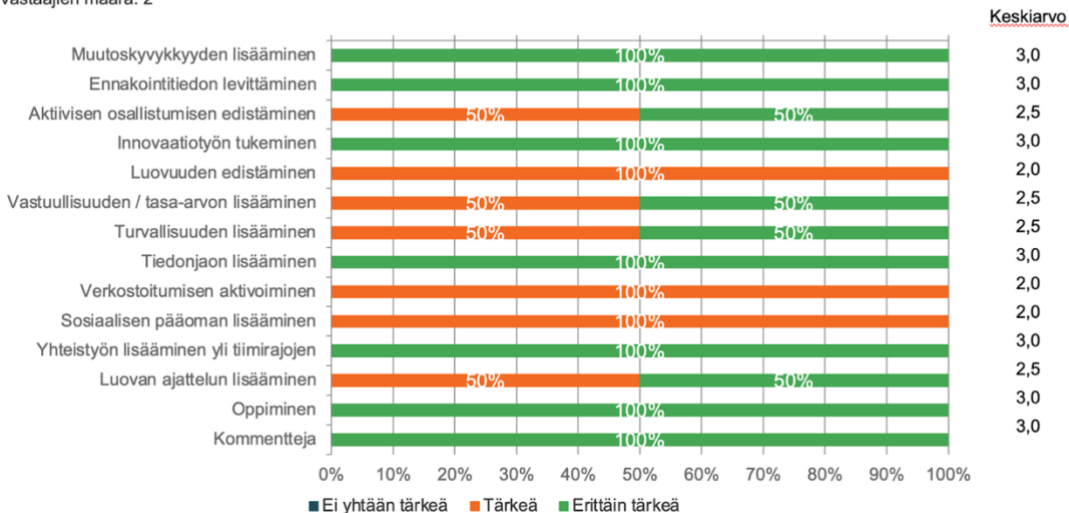
Miten tärkeää on ennakointitiedon hyödyntäminen seuraavissa osa-alueissa?

Vastaajien määrä: 2



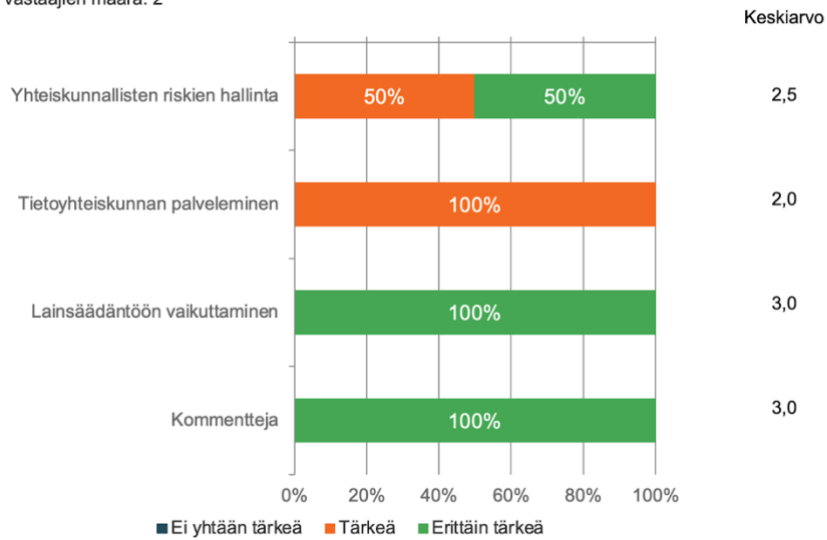
Miten tärkeitä ovat seuraavat tavoitteet Kelan ennakointityölle Kelassa sisäisesti?

Vastaajien määrä: 2



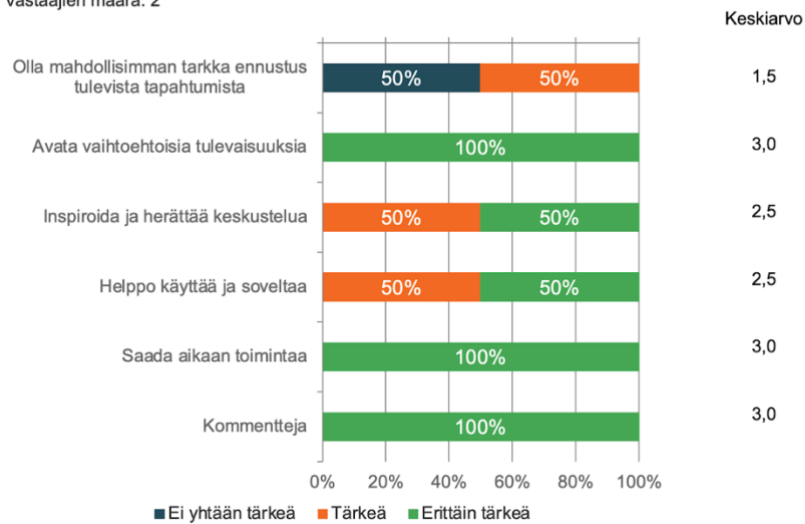
Miten tärkeä on Kelan ennakointityö yhteiskunnallisella tasolla seuraavissa osa-alueissa?

Vastaajien määrä: 2



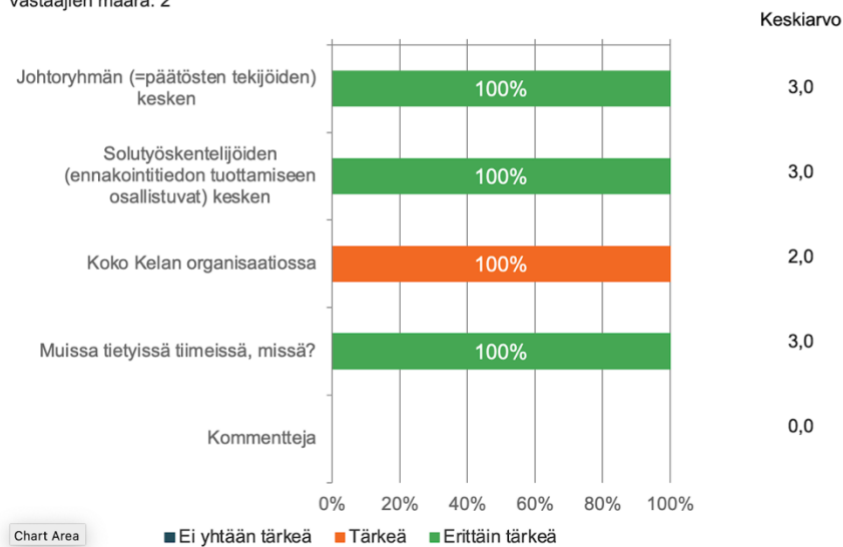
Miten tärkeitä ovat seuraavat tavoitteet tuotetulle ennakointitiedolle:

Vastaajien määrä: 2



Miten tärkeää on ennakoinnista oppiminen:

Vastaajien määrä: 2



Appendix 3: Interview questions

Below are the pre-defined questions organised under the relevant attributes (excluding the introductory questions).

Introduction

Describe your role and job description from the perspective of foresight work. / How do you participate in foresight work? / What aspects of your role have you enjoyed so far? How long have you been involved in foresight work at Kela?

Do you have any prior experience or studies related to foresight work before Kela?

Awareness

How do you define foresight? What do you think foresight work at Kela entails?

Learning

How has participating in foresight work developed your own skills?

How has your foresight expertise been developed at Kela?

Capacity for Change/Exploration/Alternative Paths/Innovation

What would you still like to learn more about?

What other impacts has foresight expertise had on your work (motivation, time management, well-being, etc.)? /action/innovation/alternatives/influence, etc.

What do you think are the most important benefits of foresight work based on your experience so far?

What kinds of outcomes would you like foresight work to achieve more effectively?

Cooperation

What new connections have you created through foresight work (new people, teams, etc.)?

With what groups should there be more collaboration? / Who would you most like to influence through your foresight work?

Action

What concrete successes have you experienced with your team in foresight work?

Influencing

What examples can you provide of the impacts of strategic foresight on legislation or parliamentary work? Or other broader societal impacts (understanding, concrete actions, etc.)?

Cooperation/Awareness/Capacity for Change/Innovation: Organizational Culture

How does the organizational culture enable the presentation of bold ideas and innovation?

Is there room to disagree with others?

Capacity for Change

What impact has foresight work had, in your opinion, on the organization's capacity for change? For example, are you better able to prepare for changes with the help of foresight information?

Management/Cooperation

Do you think the leadership is committed to foresight work? How do you see this demonstrated?

Do you think there is a clear connection between foresight information/work and organizational decision-making? How does this appear, in your view? Why do you think the challenges you describe exist?

Can you think of cases where the foresight information produced was not wanted or used? Why do you think this was the case?

Appendix 4: Data Control Notice

Information for participants of the research project "Impact assessment of strategic foresight in Kela".

You are taking part in a thesis research conducted at the University of Turku. This notice describes how your personal data will be processed in the study.

1. Data Controller

Researcher and principal investigator:

Name: Elisa Oinonen

Address: [disclosed]

Tel.: [disclosed]

E-mail: [disclosed]

2. Description of the study and the purposes of processing personal data

The research aims to assess the impact of Kela's strategic foresight on strategic decision-making, and to explore what other possible impacts foresight work and processes have in Kela. The research data is gathered by conducting interviews for selected employees in Kela, who have a central role in the current foresight process. The gathered data will be analysed according to current foresight impact assessment

frameworks that are identified from academic literature concerning foresight and futures studies. The personal data gathered through the interviews are name, email address, job title, job description, duration of employment relationship in Kela, and recorded voice data in the form of the recorded interview.

3. Contact details of the Data Protection Officer

The Data Protection Officer of the University of Turku is available at contact address:

dpo@utu.fi.

4. Persons processing personal data in the study

Elisa Oinonen (student of the University of Turku), Kerttu Takala (Kela), Anneli Suihkonen (Kela).

5. Lawful basis of processing

The legal basis for processing personal data in the Article 6 of the EU General Data Protection Regulation is: Data subject has given their consent to processing personal data (consent, Point 1a of the Article 6). Processing is necessary for scientific research (public interest, Point 1e of the Article 6).

6. Personal data included in the research materials

The personal data gathered through the interviews are name, email address, job title, job description, duration of employment relationship in Kela, and voice data in the form of the recorded interview. Name and job title of the interviewee will not be presented in the final published written report of the thesis. The duration of employment relationship will be used as a background information for the researcher, in order to form an understanding how well the interviewee has been integrated in the organisation. Email address will be used for booking the interview, and if additional questions and information are needed after the interview.

7. Sensitive personal data

There is no sensitive personal data processed in the study.

8. Sources of personal data

Recorder voice interview, researcher's written notes and written transcription of the interview recording.

9. Transfer and disclosure of the personal data to third parties or countries outside the EU/European Economic Area The personal data will not be transferred to other recipients outside the research group, nor outside the EU/ European Economic Area.

10. Automated decisions

No automated decisions are made.

11. Safeguards to protect the personal data:

The data is confidential.

Protection of manual material: Manual notes will be stored in the researcher's home, and hidden from other people than the researcher.

Personal data processed in IT systems: The data will be stored in the researcher's personal cloud storage, which is protected by a password that is only in the possession of the researcher.

Processing of direct identifiers: Direct identifiers (such as name and job title) will be removed in the analysis phase. However, the description of a job can be used as an indirect identifier during the analysis phase.

12. Processing of personal data after the completion of the study

The research material including personal data will be deleted after 2 years of completion of the study.

13. Your rights as a data subject, and exceptions to these rights

More details about data subject's rights according to GDPR, contact the researcher Elisa Oinonen. There are no exceptions to these rights.

Right to lodge a complaint You have the right to lodge a complaint with the Data Protection Ombudsman if you think your personal data has been processed in violation of applicable data protection laws.

Contact details of Data Protection Ombudsman:

Office of the Data Protection Ombudsman

Visiting address: Lintulahdenkuja 4, 00530 Helsinki

Postal address: P.O. Box 800, 00531 Helsinki, Finland

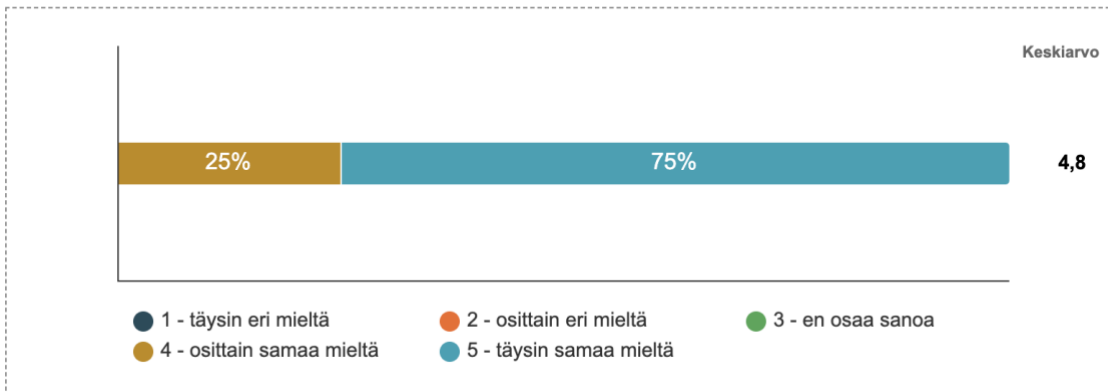
E-mail: tietosuoja(at)om.fi

Switchboard: +358 (0)29 566 6700

Appendix 5: Questionnaire for the management team

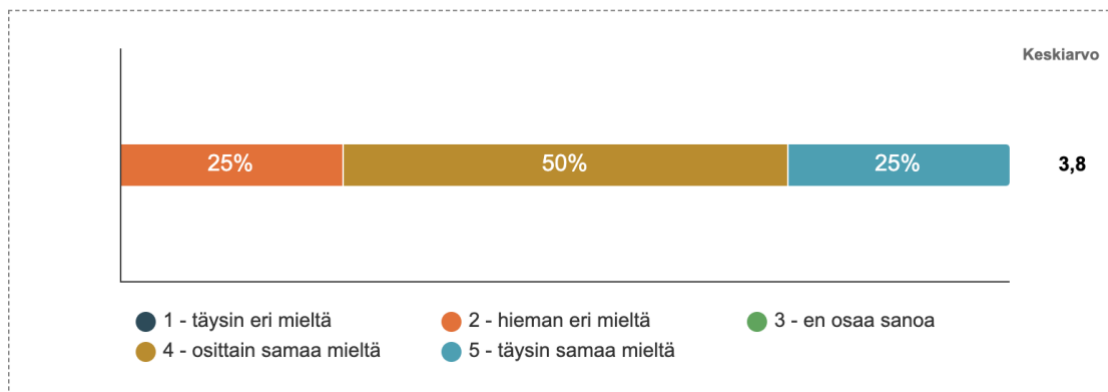
Ennakointi auttaa ymmärtämään paremmin Kelan toimintaympäristöä

Vastaajien määrä: 4



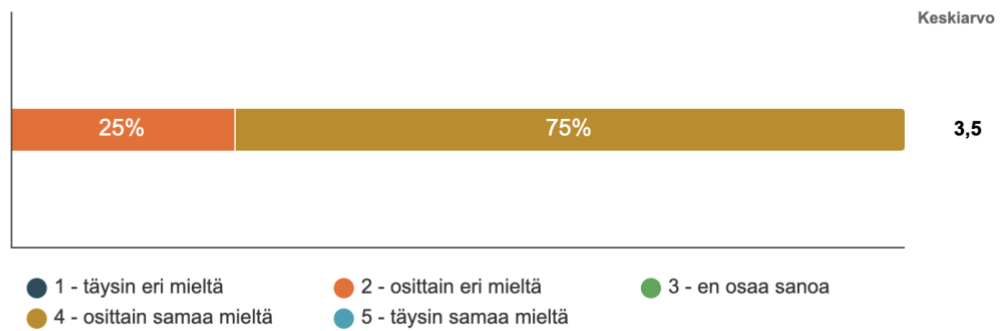
Ennakointitietoa on saatavilla riittävästi johtoryhmän työskentelyä varten

Vastaajien määrä: 4



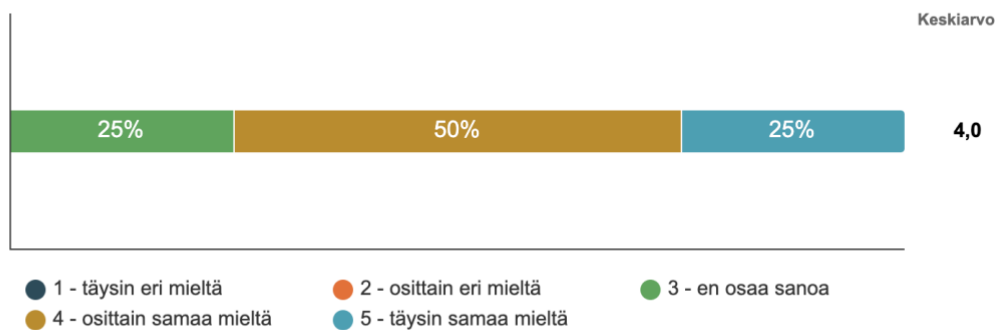
Ennakointitieto saapuu johtoryhmään kestoaltaan ja pituudeltaan sopivassa muodossa

Vastaajien määrä: 4



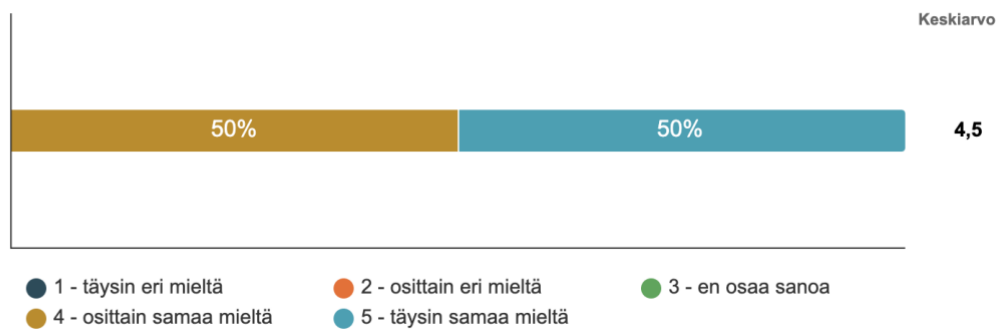
Johtoryhmä on saanut ennakointitiedosta konkreettisia apuja päätöksentekoon

Vastaajien määrä: 4



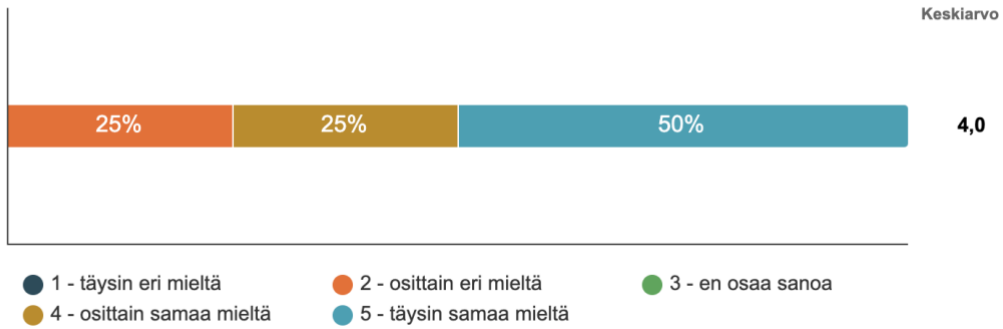
Ennakointitieto tukee Kelan strategiaprosessia

Vastaajien määrä: 4



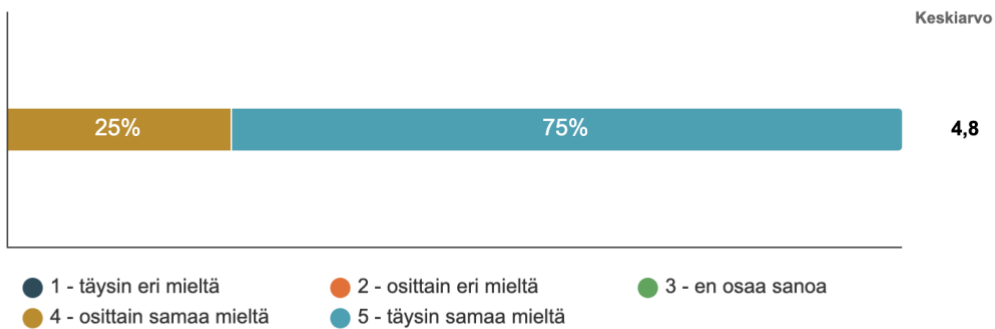
Nykyinen johtoryhmäyöskentely mahdollistaa ennakoitiedon hyödyntämisen

Vastaajien määrä: 4



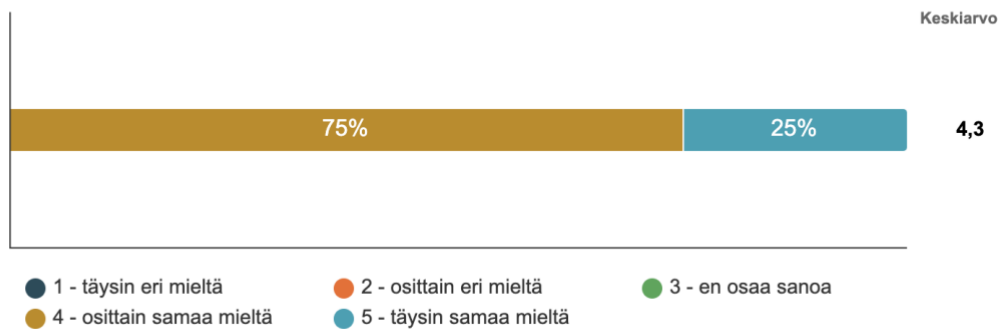
Ennakointityö on tärkeä osa johtoryhmäyöskentelyä

Vastaajien määrä: 4



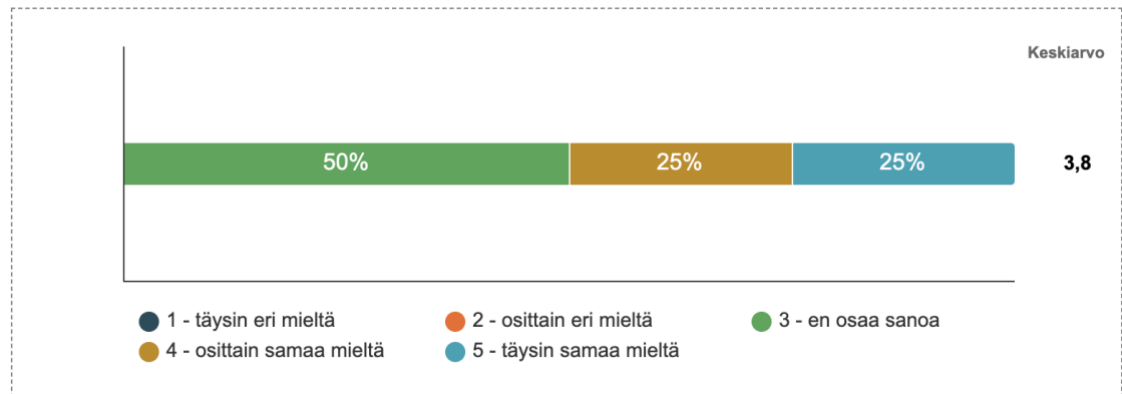
Ennakointitieto on parantanut organisaation eri yksiköiden yhteistyötä

Vastaajien määrä: 4



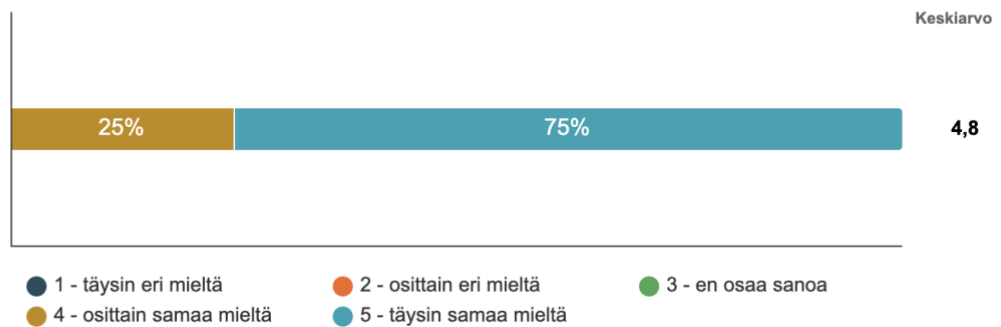
Ennakoinnilla on vaikutusta Kelaa koskevien asioiden lainsäädäntöön

Vastaajien määrä: 4



Johtoryhmässä tehtävät päätökset ja niihin käytetty ennakointitieto pitäisi tuoda näkyvämmäksi organisaatiossa

Vastaajien määrä: 4



Miten johtoryhmään tuotavaa ennakointitietoa tai sen käsittelyä pitäisi kehittää, jotta sitä pystyttäisiin hyödyntämään paremmin päätöksenteossa?

Vastaajien määrä: 3

Vie kaikki tekstivastaukset [Word](#) tai [PDF](#) muotoon

Vastaukset	
▼	Kehittäisin tiedon vaikuttavuusanalyysia. Nyt ilmiötä esitellään kyllä varsin laadukkaasti, mutta mukana ei ole kauheasti numeroita kuvaamaan asian merkittävyyttä. Numeroiden mukaan tuominen ei ole kauhean helppoa, yksinkertaista tai yksiselitteistäkään, mutta olisi silti kiinnostavaa yrittää edes. Pitäisi pystyä paremmin osoittamaan, että tekemällä ennakointityötä parannamme omaa tuottavuuttamme.
▼	Ennakointityöhön olisi varattava aikaa enemmän joko johtoryhmän kokouksissa tai erillisissä tilaisuuksissa.
▼	Kertoa esimerkkejä miten eri tulosyksiköissä on hyödynnetty päätöksenteossa ennakointitietoa=mataloittaa kynnystä

Appendix 6. The foresight impact cycle visualisation

Foresight Impact Wheel
 CASE: KELA

The current foresight process has an impact on...

