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Perspectives on topical issues in society and ways to support political decision-making.

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Critical Societal Functions in Finland: Current State and Future Trends

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Key messages

- Critical societal functions are not a fixed list. Criticality is dynamic, context-dependent, and must be reassessed as society and its threat environment change.
- Critical societal functions are organized into eight categories representing societal needs: food and water, health and wellbeing, mobility and infrastructure, security, information and understanding, livelihood, democracy, and equity.
- Energy and digital operations are prerequisites for critical societal functions. Their growing interdependence and energy volatility create new vulnerabilities.

- The criticality of digital operations depends not only on physical systems but also on ownership, data location, and information quality.
- Societal trust and youth confidence in the future are eroding; information quality is the most effective lever for reversing this trend.
- The natural environment underpins all critical societal functions, and its importance will grow in the future.
- Some systemic dependencies have rapid impacts,while others develop slowly. Energy and information changes have immediate impacts, whereas declines in trust, skills, and the environment are often invisible until widespread.
- No single actor has to make a wrong decision for the system to fail. Multiple neglected risks can compound through feedback loops.
- Implementing the proposed assessment model requires standing national coordination, multi-stakeholder participation, and a research-backed process.

Background and context

Critical Societal Functions in Finland: Current State and Future Trends (SYKT) was a joint research project by VTT Technical Research Centre of Finland and Hanken School of Economics, commissioned by Finland's Prime Minister's Office. The project responds to the need to update Finland's definition of critical societal functions in the context of the Comprehensive Security model, which dates to 2003 and has not been systematically revisited since. This report uses the term critical societal functions. International literature and public debate use parallel terms, such as critical infrastructure, critical national infrastructure, vital societal functions, and essential services. Across these terms, the underlying question is the same: Which societal systems are so fundamental that their disruption would cause severe societal harm? SYKT starts from normal, everyday functioning. The question is not what must be secured during a crisis, but what everyday life, population wellbeing, and societal integrity require. The Nordic welfare state's characteristics, including high institutional trust, universal services, and a tradition of comprehensive security, shape which functions are critical societal functions, and how.

Policymakers increasingly use “whole-of-society resilience” to describe shared responsibility among government, business, civil society, and individuals for maintaining critical functions. This report refers to this as societal resilience, built on three complementary dimensions: buffering, recovery, and adaptation. Buffering is the capacity to withstand disruption through safety stocks, redundancy, backup systems, and capacity reserves. Recovery is the capacity to restore functions to an adequate level within a reasonable time. Adaptation is the capacity to learn, adjust, and develop capabilities for changing conditions.

SYKT also takes a systemic perspective, examining how critical functions interact, reinforce, and constrain one another. Three patterns stand out: dependencies can have rapid or slow-building impacts; disruptions can reinforce one another through self-feeding loops; and the natural environment is not a critical function among others, but a systemic boundary condition for all of them.

Rethinking Societal Criticality

Critical societal functions are the functions society depends on to meet basic needs, support wellbeing, and maintain its capacity to act. Their criticality is not fixed: it changes as societal dependencies, conditions, and values change. Criticality varies by context and time horizon: energy supply is especially critical in winter, while the effects of disrupted mental health services may emerge only over time. At the system level, criticality depends on societal necessity, interdependencies, cascading effects, and available alternatives. At the operational level, it depends on the capacity to maintain and restore the function during disruption. Societal trust and legitimacy underpin both. The SYKT report identified four determinants for societal criticality: **Basic needs**: universal human needs such as nutrition, health, safety, participation and information, whose disruption constitutes the core justification for criticality; **Scarcity:** the limits on resources, capacity and alternative systems that raise a function's vulnerability and can create single points of failure; **Urgency:** the time window available before a disruption's consequences become severe; and **accessibility:** the population's actual ability to reach and use a function, physically, digitally, economically, and socially.

The SYKT report findings

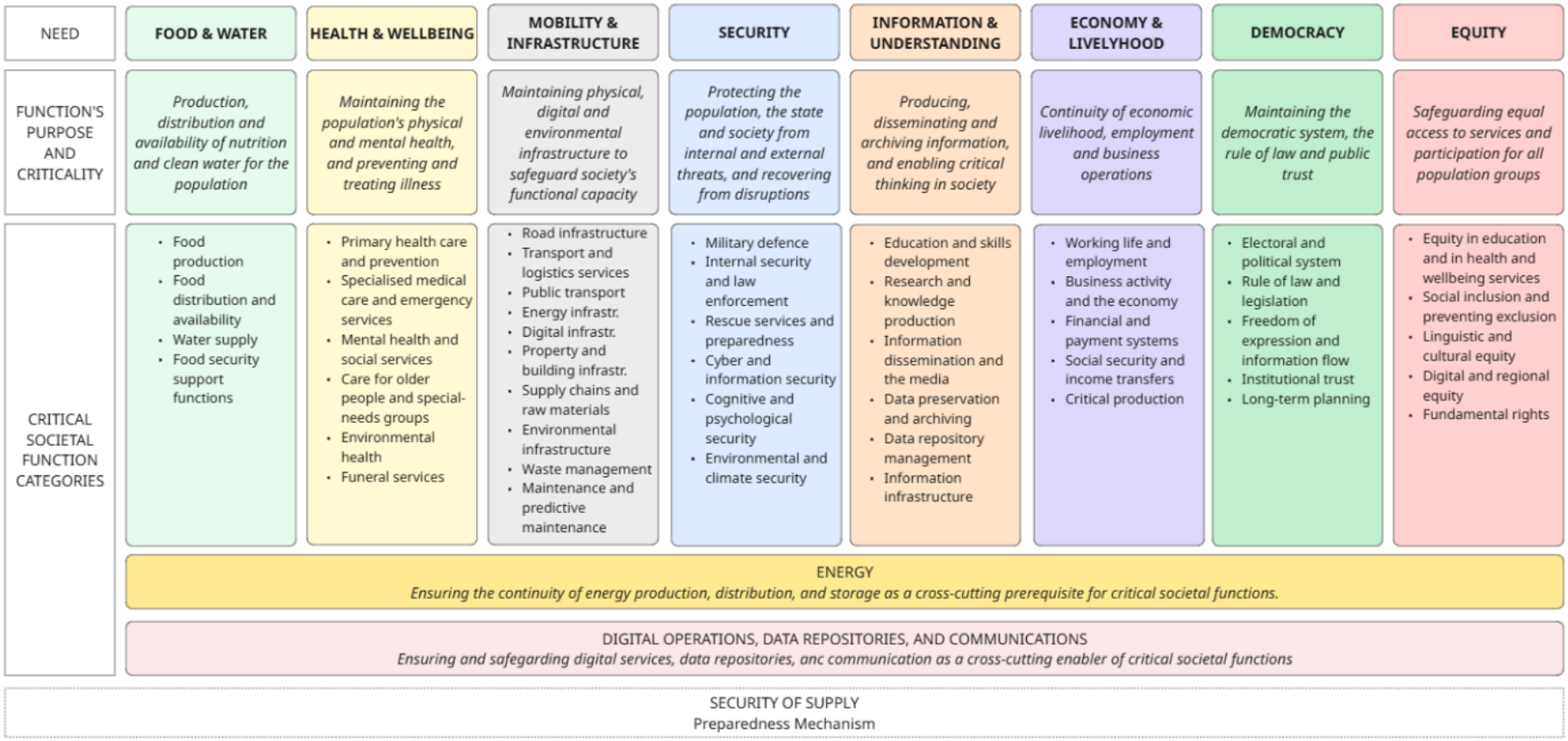
Societal criticality is dynamic and context-specific. Across Finnish regions, energy emerged as a volatility rather than scarcity problem; waste management as a security as well as environmental question; and young people's confidence in the future as a societal reserve for long-term resilience, adaptation, and renewal. Criticality thus changes with time, context, and the population's perspectives and needs, with social dimensions such as societal trust, youth confidence, and cohesion developing over longer time horizons.

The SYKT report looks at critical societal functions defined by societal needs rather than sectors. Societal needs are what society must provide for people's wellbeing and critical societal functions are the functions that satisfy them. People do not experience societal functions in isolation; they live at the intersection of many at once, with needs and experiences varying across the population. Interdependencies invisible sector by sector become visible once the analysis starts from the person rather than the institution. While specific individual needs change over time, the underlying societal need categories persist, while the functions through which they are met can change. Figure 1 summarises critical societal functions by societal needs and provides a starting point for identifying and revising them. The societal needs categories are: food and water, health and wellbeing, mobility and infrastructure, security, information and understanding, livelihood, democracy, and equity. Two prerequisites cut across all categories: digital operations, data repositories and communications, and energy. Security of supply runs through every category as a preparedness mechanism. The societal needs-based categorization brings in longer-term needs and functions that fall outside traditional critical infrastructure thinking and immediate disruption response, including information and understanding, democracy, and equity. These "softer" categories broaden the traditional understanding of security of supply and critical societal functions. The full Finnish-language report breaks down these categories in detail.

A broader understanding of critical societal functions also broadens the range of actors delivering them. The private sector delivers a growing share, the third sector fills gaps when public-sector capacity is exhausted, and the fourth sector, spontaneous civic action and informal networks, is a growing resilience factor. Volunteer organizations such as volunteer fire brigades and voluntary

rescue services are frequently first on the scene in remote areas, where official responders may not arrive for hours. Yet, the formal status, funding, and command of volunteer activity in a crisis remain open questions. Clarifying the division of responsibility between the public, private, third, and fourth sectors is therefore important.

Figure 1. The eight societal needs categories of critical societal functions.



Energy is no longer solely an infrastructure question. The future challenge is not scarcity but volatility. Weather-dependent production generates price spikes and uncertainty that reverberate through the whole societal system, changing the logic of preparedness. Traditional stockpiles and capacity reserves are not enough on their own. Distribution and structural flexibility become central. Disruption to energy systems is identified as one of the most firmly established drivers of change. The growth of distributed energy production, accelerating electrification, and the increasing coupling of energy systems with digital networks create new kinds of vulnerabilities.

The cross-cutting significance of digital operations, data repositories, and communications has grown alongside energy. Its criticality depends not only on the functioning of physical systems, but also on ownership, data location, and information quality. The rapid development of artificial intelligence (AI) and its economic preconditions have emerged as one of the most significant future uncertainties in the data. Dependence on AI in critical systems is growing faster than the governance mechanisms meant to manage it, and many digital services critical to society are provided by private, often foreign, actors. Information security of supply should be placed alongside energy and logistics. The quality and availability of information are as much a precondition for society's functioning as electricity or fuel.

Changes and disruptions in energy and information have immediate impacts across society. Food systems, healthcare, logistics, transportation, and other essential services all depend on reliable access to energy and digital functions. However, the significance of these systems extends beyond their immediate operational impacts. For example, prolonged energy price volatility can increase economic insecurity, deepen regional and social inequalities, and ultimately weaken trust in public institutions. Similarly, disruptions in information environments may reduce confidence in public authorities, increase societal polarisation, and make collective responses to crises more difficult. Persistent volatility in energy and information environments can therefore gradually affect trust, democratic participation, equality, and society’s capacity to adapt to change. These effects often emerge through complex interdependencies and over longer time horizons, making them more difficult to identify.

Information, trust, and youth wellbeing are critical stocks

Societal trust and youth wellbeing proved to be critical. Both are slow-building, fast-eroding resources: trust can take decades to establish and be damaged very quickly, with consequences that are often invisible until they are already widespread. National youth-barometer data shows confidence in a positive future is rapidly falling and there is indication that Finns do not believe society is capable of solving its key problems. This suggests societal trust is not an isolated youth trend but part of a wider erosion of trust. This challenges the traditional focus on physical systems by identifying human and social resources as critical to societal functions.

Information quality is the societal system's most effective leverage point. Accurate, shared information strengthens trust and decision quality, while distorted or polarising information weakens legitimacy and can trigger self-reinforcing negative spirals. Information quality acts as a leverage point, a place where a comparatively small change produces a disproportionately large effect on the rest of the system, for better or worse. Therefore, this report suggests that informational security of supply should be placed alongside energy and logistics, and that independent editorial media should be formally recognized as part of security-of-supply-critical infrastructure.

Changes in trust can have far-reaching implications for Finnish society, where trust in public institutions has traditionally been a key enabler of society. Societal trust influences the use of public services, participation in democratic processes, acceptance of public decisions, and the willingness of citizens and organisations to cooperate. When trust weakens, its effects can extend well beyond individual institutions, gradually affecting social cohesion, the legitimacy of governance, and society’s capacity to address shared challenges. Likewise, declining confidence in the future among young people may influence educational choices, labour market participation, and long-term engagement in society. Because trust, confidence in the future, and wellbeing accumulate over long periods but can deteriorate rapidly, policy responses often arrive too late. Their significance lies not only in their current condition but also in their role in shaping society’s future capacity to cooperate, adapt and respond to emerging challenges. Strengthening these resources should therefore be understood as a long-term resilience investment.

Prevention and distribution strengthen societal resilience

Societal resilience is strengthened not only through buffering and recovery, but also through prevention, distribution, and maintaining critical long-term resources. Prevention reduces the likelihood of disruption, while distribution and decentralization avoid excessive dependence on single actors, infrastructures, or locations. Together, these approaches can reduce systemic vulnerabilities before they materialize. Societal resilience requires balancing fast flows and slow stocks. Fast flows, such as energy, information, goods, and services, are essential to day-to-day functioning and can be disrupted rapidly. Slow stocks, such as trust, wellbeing, knowledge, institutional capacity, and environmental resilience, accumulate gradually but shape society's long-term ability to function, adapt, and renew. While disruptions to fast flows are often immediately visible, erosion of slow stocks may remain unnoticed until consequences become widespread.

Many of the most significant developments shaping societies over the coming decades, including climate change, demographic aging, technological transformation and geopolitical fragmentation, are not isolated shocks but persistent transitions. An excessive focus on immediate robustness can create a false sense of security at the expense of flexibility and long-term adaptive capacity. Future societal resilience therefore requires both immediate preparedness and long-term adaptation, learning and renewal.

Three potential pathways emerge: agile renewal, frozen system or a silent collapse. In agile renewal, the system continuously adapts to the changing environment, evaluates critical factors, and takes corrective action. This agile renewal strengthens societal resilience. The frozen system is not continuously updated, resulting in an expensive system where resources are wasted and not directed to emergent needs. In silent collapse, things seem to continue unchanged, but hidden factors deteriorate until several critical functions collapse suddenly and unexpectedly in rapid sequence.

Future trends: the key drivers of change

The operating environment of critical societal functions will be shaped by multiple long-term developments occurring simultaneously. Climate change, biodiversity loss, aging, technological transformation, geopolitical fragmentation, and changes in societal values and expectations emerged as significant drivers of change. Their combined effects may prove more

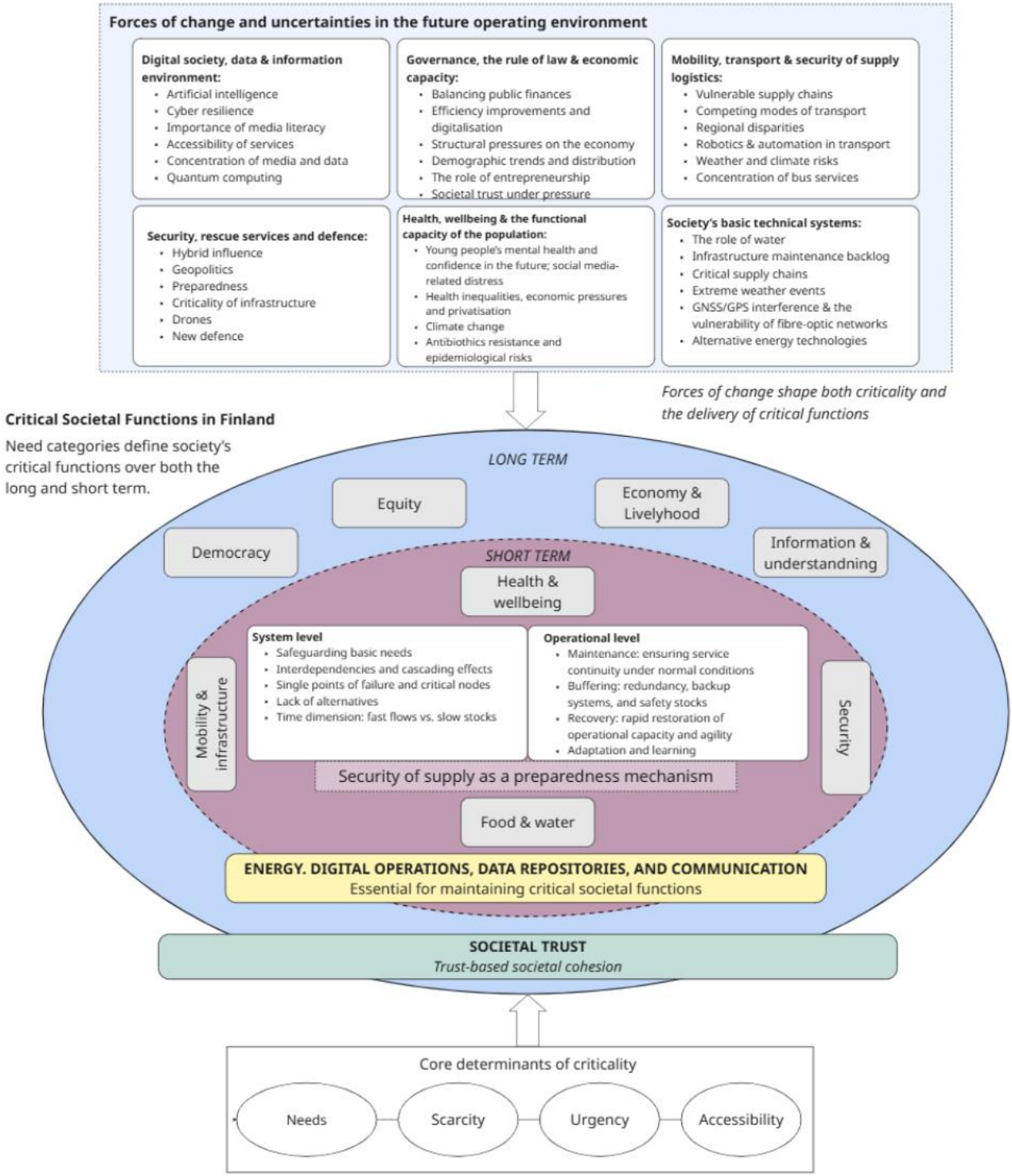
consequential than any individual trend, as demographic aging, technological transformation, changing skill requirements, and geopolitical uncertainty interact and reinforce one another. Environmental pressures stand out because of their systemic character. Climate change, biodiversity loss, and weakening ecosystem resilience do not affect a single societal function but shape the operating conditions of all societal functions. Their significance increases as the time horizon extends, making them particularly important in long-term assessments. These interactions highlight the need to examine dependencies between societal functions rather than assessing them in isolation. As technologies, dependencies, societal needs, and environmental constraints evolve, functions that are critical today may differ from those that become critical in the future. Continuous assessment and regular re-evaluation are therefore essential for maintaining a future-oriented understanding of critical societal functions.

Assessment Model & Recommendations

The assessment model for critical societal functions nests the eight societal need categories within two further layers. Health & wellbeing, security, mobility & infrastructure, and food & water form a short-term critical cluster, where disruption produces rapid, visible consequences. Democracy, equality, livelihood, and information & understanding form a long-term critical cluster, where disruption erodes more slowly and often less visibly. Within each category, criticality is assessed at system and operational levels. The assessment process proceeds through six cyclical phases: identifying functions; assessing criticality against the four determinants; defining societal-harm thresholds; analyzing dependencies across the zero-to-seven, seven-to-fifteen, and fifteen-to-twenty-plus-year horizons; validating through Delphi testing and stress-testing; and continuous learning that feeds disruption experience into the next cycle. Criticality is continuously monitored. The model is an operating structure. Each category can be read by its cluster (how quickly disruption becomes visible), system-level dependencies (cascading failure is most likely to originate), and operational readiness (how much buffering capacity currently exists). A national coordination mechanism could use this three-level structure to prioritize reassessment efforts.

Translating the assessment model into national practice means updating existing frameworks to reflect the needs-based categorization. Finland's 2026 national security strategy and the CER Act (310/2025) already provide an institutional framework for this update. A standing national mechanism, with a clear institutional home, mandate and budget, should coordinate continuous reassessment of critical societal functions. The assessment model should complement sector regulation. Participation should include government, private operators, third-sector organizations and citizens. The process should remain research-backed, with a defined reassessment cycle built in.

Figure 2. The assesment model



International benchmarking. The results of the report were benchmarked throughout against comparable frameworks in Australia, Canada, Sweden and the United Kingdom. Despite differing institutional traditions, all four are moving in the same direction toward whole-of-society resilience models that treat criticality as actively assessed. Finland's reframing aligns with international practice. Four specific mechanisms from the benchmarking comparison stood out as particularly well-suited to complement the critical societal functions perspective of the SYKT report. Australia's Systems of National Significance concept prioritises criticality by the scale of cascading impact rather than sector membership.This informs a dynamic prioritization approach and its application to CER Directive implementation. Sweden's societal-harm principle treats criticality as something that plays out on a time axis, 24 hours, 72 hours, one week. Australia's Community Consultations program reinforces the individual as an active security actor rather than only a subject of protection, strengthening the case for the citizen-centered model. Canada's combination of normative standards and voluntary cooperation offers a model for achieving consistent protection across critical sectors without relying on prescriptive regulation alone, relevant to how CER Directive obligations might be implemented in Finland. **Strengthening equality, trust and youth wellbeing.** Equality should become a mandatory, explicit criterion in assessing critical societal functions, rather than an implicit or optional consideration. Unequal access to critical functions is itself a resilience risk, not only an equity concern. Alongside this, a long-term programme should be launched to strengthen trust, confidence in the future, and youth wellbeing as part of the strategic development of critical societal functions, treating these as slow-building, fast-eroding resources whose erosion has consequences across the whole system.

Bringing information security and AI into the assessment. Information resilience should be placed alongside energy and logistics, and independent editorial media should be formally recognised as part of security-of-supply-critical infrastructure, since the quality and availability of information are as much a precondition for society's functioning as electricity or fuel. The rapid development of AI, and its economic preconditions, should also be brought explicitly into the assessment of critical societal functions, given that dependence on AI in critical systems is growing faster than the governance mechanisms meant to manage it.

Recognizing the natural environment as the foundation for critical societal functions. A functioning natural environment, including a stable climate and biodiversity, underpins all critical societal functions. The environment and nature should be recognised as a systemic boundary condition underlying all eight societal needs categories. The environment should not be treated as a separate category alongside them, as it is not a societal function. The natural environment carries society and is a prerequisite for societal functions and a systemic precondition for a functioning society in the future. Its significance grows the further the time horizon extends. Without meeting the climate and environmental preconditions, none of Finland's critical societal functions can ultimately be sustained.

Methods

The SYKT research project combined a multidisciplinary theoretical synthesis with empirical data gathered between September 2025 and May 2026. The evidence base included a literature review, four regional workshops with 167 participants, sixteen expert interviews, a two-round Delphi survey, a futures-radar exercise, and systemic analysis. Workshops identified the critical functions, interviews and the Delphi survey validated the findings, and group model-building mapped interdependencies. The findings were benchmarked against comparable frameworks in Australia, Sweden, Canada and the United Kingdom.

Further reading & key references

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