

Research Article

Series I - Foundations of Institutional Cognition

EA-029

Measuring Institutional Cognition



IDHUS Institute

Copyright 2026 © IDHUS Institute - idhus.org
Editor and Director: David González

All rights reserved.

This publication forms part of the constitutional editorial architecture of the IDHUS Institute and belongs to the Institutional Cognition Knowledge Series.

No part of this publication may be reproduced, distributed, translated or adapted without prior written permission from the Institute, except where permitted under applicable copyright legislation or for legitimate academic quotation with appropriate citation.



IDHUS
Institute for the Development
of Human Societies

Index

Introduction	4
Why Governance Must Measure Cognition.....	5
The Cognitive Dimensions That Can Be Assessed.....	7
Conclusion	11

Introduction

Throughout this series, institutions have gradually emerged as cognitive systems rather than merely administrative organisations. We have explored how they perceive complex environments, coordinate distributed knowledge, preserve institutional memory, learn through feedback, adapt continuously and participate in wider cognitive ecosystems extending beyond their own organisational boundaries. Together, these capabilities form what the IDHUS Institute describes as **Institutional Cognition**.

Yet an important question remains unanswered. **How can we know whether an institution is becoming more cognitively capable?** This question is far more significant than it might initially appear.

Modern governments devote considerable effort to measuring their own performance. Public administrations routinely monitor expenditure, service quality, implementation timelines, citizen satisfaction, regulatory compliance and countless other operational indicators. These measurements play an essential role in ensuring accountability, transparency and responsible public management. They help institutions determine whether policies achieve intended objectives and whether public resources are being used effectively.

However, performance indicators alone tell only part of the story. An institution may achieve satisfactory results today while gradually losing its capacity to adapt to tomorrow's challenges. Another may experience temporary operational difficulties while simultaneously developing stronger learning processes that will improve future governance. Conventional measurement often captures immediate outcomes but reveals relatively little about the cognitive capabilities that generate those outcomes.

The distinction resembles the difference between evaluating a student's examination results and evaluating the student's capacity to learn. Examination scores provide valuable information about current achievement, yet they do not necessarily reveal how effectively the student acquires new knowledge, adapts to unfamiliar problems or continues improving over time. In much the same way, measuring governance requires understanding not only institutional performance but also institutional cognition.

Institutional Cognition therefore introduces a complementary perspective. Rather than asking exclusively **what an institution achieves**, it also asks **how an institution understands**.

Can it recognise emerging societal change? Does it integrate scientific knowledge effectively? Does it preserve organisational learning across generations? Can it coordinate expertise distributed across multiple organisations? Does it adapt intelligently when previous assumptions no longer correspond to reality? These questions concern cognitive capability rather than operational output. They reveal whether governance itself is becoming progressively more intelligent.

This shift does not diminish the importance of traditional public-sector evaluation. Financial accountability, legal compliance, service quality and policy effectiveness remain indispensable responsibilities of democratic institutions. Instead, cognitive assessment expands the evaluative framework by recognising that long-term governance depends as much upon the quality of institutional learning as upon the success of individual administrative actions. Institutions capable of continuously improving their own understanding are ultimately better prepared to respond to the accelerating complexity of the societies they serve.

This article explores how such assessment becomes possible. It explains why Institutional Cognition can be observed despite its distributed nature, how cognitive indicators differ from conventional performance metrics and why systematic evaluation provides one of the essential foundations for the future scientific development of adaptive governance.

Why Governance Must Measure Cognition

Every mature field of knowledge eventually reaches a point at which description alone is no longer sufficient. Early scientific inquiry often begins by identifying phenomena, proposing concepts and constructing explanatory theories. As understanding develops, however, a further requirement inevitably emerges. If a phenomenon genuinely exists, it should become possible to observe it systematically, compare it across different contexts and evaluate how it changes over time. Measurement therefore represents far more than a technical exercise. It marks the transition from conceptual understanding towards cumulative scientific development.

Institutional Cognition follows the same trajectory. The previous articles in this series have introduced institutions as systems capable of perception, collective learning, distributed decision-making, adaptive governance and continuous cognitive development. These ideas establish a coherent theoretical framework explaining how institutions think. Yet theory alone cannot determine whether one institution displays stronger cognitive capabilities than another, whether institutional intelligence improves over time or whether particular reforms genuinely strengthen Governance Intelligence. Without systematic observation, these questions remain largely matters of interpretation.

Measurement provides the missing link. It allows Institutional Cognition to move from an explanatory framework towards an evaluative discipline capable of supporting continuous institutional improvement. Rather than relying exclusively upon intuition or isolated examples, governments can begin observing cognitive capabilities in structured ways, identifying strengths, recognising limitations and monitoring how institutional intelligence evolves across successive cycles of governance.

Importantly, this does not imply that cognition can be measured with the same precision as physical quantities such as distance, temperature or financial expenditure. Human cognition itself resists simple numerical representation despite decades of psychological research. Intelligence, creativity, judgement and learning are multidimensional phenomena whose richness cannot be reduced to a single indicator. Institutional cognition is even more complex because it emerges from interactions among many individuals, organisations, technologies and social processes rather than from a single biological system.

This complexity should not discourage measurement. On the contrary, it highlights the importance of developing approaches capable of respecting the distributed nature of institutional intelligence.

Many important scientific concepts cannot be observed directly. Gravity cannot be seen, yet its effects can be measured. Ecosystem health cannot be examined through one variable alone, yet ecologists evaluate biodiversity, resilience, productivity and many other interconnected indicators. Economic prosperity cannot be reduced to a single statistic, leading economists to analyse multiple complementary measures. Governance itself has long been assessed through combinations of legal, social, political and administrative indicators rather than through any single universal metric.

Institutional Cognition should be approached in the same way. The objective is not to discover one definitive measure of intelligence but to develop a coherent framework through which different cognitive capabilities can be observed together. Institutions become intelligible because multiple indicators reveal complementary dimensions of how they perceive, learn, remember, coordinate and adapt. The resulting picture resembles a cognitive profile rather than a single score.

This distinction is essential because it protects against one of the greatest risks associated with institutional measurement: confusing simplification with understanding. Public administration has long experienced the unintended consequences of excessive reliance upon isolated performance indicators. Organisations sometimes improve measured outcomes without improving underlying capability. Schools may optimise examination results while neglecting deeper learning. Hospitals may reduce waiting times while overlooking broader dimensions of patient care. Administrative agencies may achieve procedural targets without strengthening long-term institutional effectiveness. Measurement becomes counterproductive whenever indicators replace the phenomena they were originally intended to illuminate.

Institutional Cognition therefore begins from the opposite direction. Indicators exist to support understanding rather than substitute for it. Measurements should stimulate institutional reflection, encourage learning and reveal opportunities for cognitive development. They should help institutions ask better questions rather than merely rewarding particular numerical outcomes. Assessment becomes a learning process in its own right because every observation contributes to expanding institutional self-understanding.

This orientation reflects one of the central ideas developed throughout the IDHUS framework: intelligent institutions possess Operational Consciousness. They are capable not only of governing society but also of observing and evaluating the quality of their own governance. Measurement therefore becomes an instrument of institutional self-awareness. By systematically examining cognitive capabilities, institutions strengthen their capacity to understand how they themselves think, where cognitive limitations exist and how Governance Intelligence can be progressively improved.

Such self-awareness becomes increasingly important as public governance confronts unprecedented complexity.

Technological innovation continually reshapes administrative practice. Artificial intelligence expands analytical capability while introducing new ethical responsibilities. Climate change demands long-term systemic thinking extending across generations. Public expectations evolve rapidly through digital communication and global interconnectedness. Under these conditions, institutions require more than operational efficiency. They require the capacity to understand whether their own cognitive architecture remains appropriate for the environments within which they operate.

Traditional performance measurement rarely answers this question. An institution may satisfy existing operational targets while gradually losing its ability to anticipate emerging challenges, integrate interdisciplinary knowledge or adapt to changing circumstances. Conversely, an organisation undertaking substantial cognitive transformation may experience temporary operational disruption even while strengthening its long-term Governance Intelligence. Evaluating performance alone therefore risks overlooking the deeper processes determining future institutional capability.

Measuring cognition addresses this limitation by shifting attention from isolated results towards the quality of institutional learning itself. Does the institution identify weak signals indicating future change? Does it revise assumptions when evidence evolves? Can knowledge circulate effectively across organisational boundaries? Are lessons preserved through institutional memory? Does feedback influence future decision-making? Are computational systems strengthening collective understanding rather than merely accelerating existing procedures? These questions reveal how governance develops as a cognitive process rather than simply documenting what governance has produced.

This broader perspective also changes the purpose of comparison. Governments have traditionally compared performance using indicators such as economic growth, public expenditure, educational attainment or healthcare outcomes. Such comparisons remain valuable, yet cognitive assessment introduces additional possibilities. Institutions can begin comparing learning architectures, adaptive capacity, knowledge integration, feedback quality and

organisational resilience. Comparison becomes less concerned with identifying winners and losers than with understanding how different governance systems develop institutional intelligence under varying social, cultural and constitutional conditions.

The comparative dimension is particularly important because Institutional Cognition explicitly rejects the idea that there exists one universally optimal institutional design. Different societies possess different constitutional traditions, administrative cultures and historical experiences. Cognitive measurement therefore seeks to evaluate how effectively institutions learn within their own contexts rather than how closely they resemble some predefined organisational model. Diversity becomes a source of scientific insight because different institutional arrangements reveal alternative pathways through which Governance Intelligence can emerge.

This perspective also encourages humility. Measurement should never create the illusion that institutional intelligence has become fully understood. Every assessment framework remains provisional because cognition itself continues evolving alongside society. New technologies, new forms of collaboration and new governance challenges will inevitably require corresponding refinement of cognitive indicators. Institutions therefore measure cognition not to arrive at final certainty but to support continuous institutional learning.

In this sense, the act of measuring Institutional Cognition becomes part of Institutional Cognition itself. Assessment generates feedback. Feedback strengthens reflection. Reflection improves governance. Improved governance produces richer institutional experience, which subsequently informs future assessment. Measurement therefore enters the recursive learning cycles explored in previous articles, becoming one more mechanism through which institutions progressively expand their collective intelligence.

Having established why governance must measure cognition, the next question naturally concerns what exactly should be observed. If institutional intelligence cannot be reduced to a single indicator, which cognitive capabilities reveal whether an institution is becoming more intelligent? The following section explores the principal dimensions of Institutional Cognition, showing how perception, learning, memory, coordination, adaptation and collective intelligence together provide the foundations for a systematic framework of cognitive assessment.

The Cognitive Dimensions That Can Be Assessed

Once the importance of measuring Institutional Cognition has been established, the next challenge is determining exactly what should be observed. Unlike conventional administrative evaluation, which often focuses on outputs such as budgets executed, services delivered or regulatory compliance achieved, cognitive assessment begins with a different premise. The primary object of evaluation is not the institution's visible activity but the quality of the cognitive capabilities that make intelligent activity possible.

This distinction is fundamental. Every institution produces measurable results, yet those results are generated through underlying processes of perception, interpretation, learning, coordination and adaptation. Two organisations may achieve similar short-term outcomes while possessing profoundly different cognitive capacities. One may succeed because circumstances happen to be favourable, while another succeeds because it continuously learns, integrates new knowledge and adapts intelligently to changing conditions. Performance may appear similar today, but their ability to confront future uncertainty may differ dramatically.

Institutional Cognition therefore directs attention towards the deeper architecture of governance. Rather than asking whether institutions simply function effectively, it asks whether they possess the cognitive capabilities required to continue functioning effectively as their environments evolve. The emphasis shifts from temporary achievement to enduring intelligence.

The first dimension concerns **institutional perception**.

No cognitive system can respond intelligently to changes that it fails to recognise. Perception represents the ability of institutions to observe their environment, identify emerging developments and detect signals indicating that existing assumptions may no longer correspond to reality. In public governance, perception extends far beyond collecting statistical information. It includes recognising changing citizen expectations, monitoring technological innovation, understanding scientific advances, identifying geopolitical transformations and detecting subtle social trends before they develop into larger systemic challenges.

Institutions displaying strong perceptual capability rarely rely upon a single information source. Instead, they cultivate diverse channels through which knowledge enters the organisation. Scientific evidence, professional expertise, local experience, citizen participation, international cooperation and computational analysis all contribute complementary perspectives that broaden institutional awareness. Assessment therefore examines not simply whether information is available but whether institutions have developed the capacity to perceive complexity in sufficiently rich and diverse ways.

Closely connected to perception is the second cognitive dimension: **knowledge integration**.

Modern governance rarely suffers from an absolute shortage of information. Quite the opposite. Public institutions operate within environments characterised by unprecedented volumes of data, reports, analyses and expert opinion. The challenge increasingly lies not in obtaining knowledge but in integrating diverse forms of knowledge into coherent institutional understanding.

Knowledge integration requires institutions to connect evidence originating from different disciplines, organisations and professional communities. Scientific discoveries must be interpreted alongside operational experience. Economic analysis must be considered together with environmental implications. Legal frameworks must interact with technological possibilities. Artificial intelligence may identify patterns within large datasets, yet those patterns require interpretation within broader social, ethical and constitutional contexts.

Assessment therefore considers whether institutions merely accumulate information or whether they successfully transform dispersed knowledge into meaningful collective understanding. Institutions demonstrating strong cognitive integration are capable of constructing comprehensive perspectives that exceed the limitations of isolated disciplinary viewpoints.

A third dimension concerns **institutional memory**.

Every intelligent system depends upon memory because learning cannot accumulate without mechanisms for preserving previous experience. Human beings develop expertise by remembering. Scientific communities advance because discoveries are documented and transmitted across generations. Institutions similarly become more intelligent when knowledge survives beyond individual careers, political cycles and organisational restructuring.

Institutional memory includes far more than archives or administrative documentation. It encompasses the preservation of practical experience, policy evaluation, organisational learning, procedural knowledge and historical understanding. It allows institutions to avoid repeatedly confronting identical problems without benefiting from previous solutions. More importantly, it provides the cognitive continuity necessary for long-term governance in societies where many challenges unfold over decades rather than electoral cycles.

Evaluating institutional memory therefore involves examining how effectively knowledge is retained, organised, updated and made accessible to future decision-makers. Strong institutional memory does not simply preserve the past; it enables the past to remain cognitively available whenever new circumstances require it.

The fourth dimension is **collective learning**.

Learning differs from memory.

Memory preserves experience.

Learning transforms experience.

Institutions demonstrating genuine learning capability do not merely record what happened. They modify their assumptions, procedures and decision-making processes in response to experience. Feedback becomes integrated into future governance rather than remaining isolated within reports that are rarely consulted again.

This dimension reflects one of the central themes developed throughout the Evergreen series. Institutions capable of continuous learning possess significantly greater adaptive potential than institutions relying exclusively upon fixed administrative routines. Assessment therefore examines whether feedback mechanisms genuinely influence organisational behaviour, whether unsuccessful policies generate meaningful reflection and whether successful innovations become systematically incorporated into future practice.

Closely related is the dimension of **adaptive capacity**.

Learning only acquires practical significance when institutions are capable of translating new understanding into revised action. Adaptive capacity measures the ability to reorganise procedures, revise strategies, incorporate emerging knowledge and respond constructively to changing environments without sacrificing constitutional stability or democratic legitimacy.

Adaptation should not be confused with constant organisational change. Frequent restructuring does not necessarily indicate institutional intelligence. Indeed, excessive organisational instability may weaken institutional memory and reduce governance effectiveness. Cognitive adaptation instead refers to the capacity for purposeful evolution. Intelligent institutions preserve stable constitutional principles while remaining sufficiently flexible to revise methods, policies and operational practices whenever new evidence justifies doing so.

Assessment therefore focuses upon the quality rather than the quantity of institutional change. The essential question is not whether institutions change frequently but whether they change intelligently.

Another increasingly important dimension concerns **distributed coordination**.

As explored in previous articles, governance now depends less upon isolated organisations than upon cognitive ecosystems composed of many interacting institutions. Effective cognition therefore requires the ability to coordinate distributed expertise across organisational boundaries.

This capability includes collaboration among ministries, cooperation between different levels of government, interaction with scientific institutions, engagement with civil society and increasingly sophisticated forms of human–AI collaboration. Assessment examines whether knowledge flows efficiently throughout these networks, whether different organisations develop shared situational awareness and whether collective intelligence emerges from institutional interaction rather than remaining fragmented across separate administrative structures.

Institutions possessing strong coordination capability become effective participants within larger cognitive ecosystems because they contribute actively to collective learning while simultaneously benefiting from the knowledge generated by others.

Finally, cognitive assessment must consider **reflective governance** itself.

Perhaps the most distinctive characteristic of intelligent institutions is their capacity for institutional self-observation. Reflective governance refers to the ability of institutions to evaluate the quality of their own cognitive processes, identify emerging weaknesses and deliberately improve the way they think.

This represents a higher level of institutional maturity. Rather than merely evaluating policies, reflective institutions evaluate the quality of the decision-making systems producing those policies. They ask whether evidence is sufficiently diverse, whether assumptions require revision, whether institutional memory remains accessible, whether collaboration functions effectively and whether governance itself continues learning from experience. Reflection becomes an internal mechanism for continuous cognitive improvement.

None of these dimensions exists independently. Perception supports knowledge integration. Integration enriches institutional memory. Memory strengthens learning. Learning enables adaptation. Adaptation improves coordination. Reflection continuously refines every other capability. Together they form an interconnected cognitive architecture in which each component reinforces the others through recursive cycles of institutional development.

For this reason, Institutional Cognition cannot be represented through a single indicator or numerical score. Its assessment necessarily involves multiple complementary dimensions that together provide a comprehensive picture of how effectively an institution thinks, learns and evolves. The objective is not to simplify cognition into one measurement but to construct a coherent framework capable of observing the richness and complexity of institutional intelligence without losing sight of its interconnected nature.

These cognitive dimensions also reveal an important distinction between traditional governance evaluation and the emerging science of Governance Intelligence. Conventional assessment largely measures what institutions have already accomplished. Cognitive assessment, by contrast, evaluates the capabilities that determine what institutions will be able to accomplish in the future. It therefore shifts the emphasis from retrospective performance towards prospective capacity.

This forward-looking perspective naturally raises a final question. If these cognitive dimensions can be systematically observed, how should they be incorporated into practical governance? The concluding section of this article explores how cognitive assessment frameworks can support continuous institutional improvement, making measurement not an end in itself but one of the principal engines through which Governance Intelligence progressively evolves.

Conclusion

Throughout the development of modern public administration, considerable attention has been devoted to measuring what institutions achieve. Governments routinely evaluate financial performance, service delivery, regulatory compliance, policy implementation and a wide range of operational outcomes that remain essential for democratic accountability and responsible governance. These forms of assessment have significantly improved administrative transparency and have provided valuable mechanisms through which institutions can demonstrate effectiveness to the societies they serve. Nevertheless, as governance increasingly confronts environments characterised by accelerating technological change, systemic uncertainty and growing societal complexity, it becomes evident that evaluating institutional performance alone is no longer sufficient. Understanding the future capacity of governance requires understanding the quality of the cognitive processes from which that performance ultimately emerges.

This article has proposed that Institutional Cognition should itself become an object of systematic observation. Rather than treating cognition as an abstract theoretical concept, it has argued that the capabilities enabling institutions to perceive, integrate knowledge, preserve organisational memory, learn from experience, coordinate distributed expertise and adapt intelligently can all be examined through coherent assessment frameworks. Such evaluation does not seek to reduce institutional intelligence to a single numerical score, nor does it attempt to simplify the extraordinary complexity of governance into a limited collection of isolated indicators. Instead, it recognises that cognition is a multidimensional phenomenon whose various capabilities must be considered together if a meaningful understanding of institutional intelligence is to emerge.

This broader perspective also transforms the purpose of measurement itself. Cognitive assessment is not conceived as a mechanism for ranking institutions according to predetermined standards, nor as another administrative reporting exercise designed simply to generate additional metrics. Its principal function is to strengthen institutional learning. By observing how institutions acquire knowledge, how effectively they integrate evidence into decision-making, how successfully they preserve collective experience and how readily they adapt to changing circumstances, governance acquires the capacity to reflect upon its own cognitive development. Measurement therefore becomes part of the learning process rather than an activity conducted separately from it. Institutions progressively improve because assessment continuously generates new opportunities for reflection, refinement and adaptation.

The importance of this shift becomes even clearer when considered within the broader framework developed throughout the IDHUS Institute's research programme. Institutional Cognition has consistently been presented not as a metaphor but as a practical way of understanding how contemporary governance functions in increasingly interconnected societies. If institutions genuinely possess cognitive capabilities, then those capabilities must be capable of continuous development. Such development cannot rely exclusively upon intuition or isolated reform initiatives. It requires systematic observation capable of revealing both strengths and limitations within the institutional architecture of governance itself. In this sense, measuring Institutional Cognition represents one of the essential foundations upon which adaptive public administration can progressively mature into a genuinely learning system.

Looking ahead, the significance of cognitive assessment extends beyond individual organisations. As institutions become increasingly interconnected through digital infrastructures, collaborative governance and human–AI interaction, understanding the intelligence of governance will depend not only upon evaluating individual institutions but also upon understanding the cognitive quality of the relationships linking them together. Future assessment frameworks will therefore need to examine how learning circulates across institutional ecosystems, how collective intelligence develops through distributed collaboration and how

governance as a whole becomes progressively more capable of understanding and responding to an ever-changing world.

Ultimately, the most important contribution of cognitive measurement lies in the fact that it redirects institutional attention from the question of whether governance appears successful today towards the deeper question of whether governance is becoming more intelligent for tomorrow. Institutions that continuously evaluate and strengthen their own cognitive capabilities are not simply improving administrative performance. They are developing the long-term capacity to learn, to adapt and to govern wisely under conditions of uncertainty that will continue to define public administration throughout the twenty-first century.