

CHAPTER 15

COLLABORATIVE INTERCULTURAL TRANSDISCIPLINARY COMMUNICATION AS INFRASTRUCTURE FOR COLLABORATIVE INNOVATION

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ABSTRACT: Collective impact and collaborative innovation often underperform not because stakeholders lack effort, but because teams conflate activity with collaboration. In culturally and epistemically diverse coalitions, frequent interaction and on-time deliverables can coexist with persistent misalignment because key constructs, assumptions, and commitments remain translationally fragile across roles, disciplines, and cultural norms. This chapter reframes communication as a first-order performance infrastructure and introduces Collaborative Intercultural Transdisciplinary Communication (CITC) as a socio-technical governance capability that stabilizes shared meaning, shared standards, and traceable accountability in business innovation settings. The chapter specifies the Completion Trap as a causal mechanism: when legitimacy is allocated through throughput and artifact production, teams compress meaning negotiation, substitute deference for alignment, and avoid decision-grade documentation, producing semantic drift, late-stage rework, and decision reversals. As an operational response, the chapter presents the CITC Alignment Loop (Frame, Define, Decide, Commit, Verify, Adapt) and a minimal artifact stack, including a shared lexicon, scenario card, decision log, and assumptions register. These artifacts function as boundary objects that enable coordination without requiring full cultural consensus, while protecting team learning and expertise under hierarchy by shifting disagreement from persons to representations. To support adoption, the chapter also connects CITC to the Components of Role-playing in Experiential Learning (CREL) framework as an implementation-compatible scaffold for experiential, role-based co-design and interdisciplinary collaboration, strengthening scenario specification, meaning checks, and commitment formation in practice. The chapter concludes with governance roles, coherence-based milestones, and ROI-oriented metrics that

make alignment inspectable and measurable without reducing communication to volume.

KEYWORDS: boundary objects; collaborative innovation; collective impact; coordination; decision traceability; intercultural communication; organizational governance; performance metrics; psychological safety; semantic drift; sensemaking; shared mental models; transactive memory systems; transdisciplinary communication.

Operational definition 1. In this chapter, **CITC (Collaborative Intercultural Transdisciplinary Communication)** is defined as a socio-technical governance infrastructure by which collaborators negotiate shared meaning, stabilize shared standards, and produce traceable commitments that make joint work interoperable across disciplinary, organizational, and cultural boundaries. CITC is evaluated not by interaction volume or conversational fluency, but by interpretive coherence under pressure, reduced translation fragility, and sustained accountability through traceable commitments.

Operational definition 2. In this chapter, **CREL (Components of Role-playing in Experiential Learning)** is treated as an implementation scaffold: a role-based experiential co-design approach used to elicit scenario parameters, surface drift-prone terms, and normalize structured reflection and meaning checks during alignment work (León et al., 2025; Lipuma & León, 2025).

1. INTRODUCTION: WHY ACTIVITY FAILS TO BECOME COLLABORATION

In business innovation and organizational behavior, teams often celebrate motion. Meetings occur, tasks close, and artifacts accumulate. Yet many cross-functional and cross-cultural teams still experience delays, rework, and conflict during execution. The core problem is that teams can coordinate activity while failing to converge on meaning. When key terms, assumptions, and commitments remain underspecified, teams generate outputs that look finished but remain **translation-fragile**: the same artifact is readable as "complete" while its operational implications diverge across roles, cultures, and disciplinary frames. Under time pressure, performance systems frequently reward completion and throughput rather than **interpretive coherence**, making this failure mode predictable rather than exceptional (Okhuysen & Bechky, 2009).

In this chapter, activity refers to visible throughput signals such as meetings held, artifacts produced, and tasks closed. Convergence refers to stable shared meaning plus traceable commitments that remain usable across roles and time. Semantic drift refers to the gradual shift of working definitions across functions, disciplines, or cultures, such that the same term comes to imply different decisions. Translation risk³ refers to the probability that an artifact will be interpreted differently across boundaries, producing non-interoperability during handoffs, approvals, or implementation.

This pattern becomes more pronounced in contexts aligned with collective impact logic, where cross-sector and multi-stakeholder coordination is required to address complex problems. Collective impact frameworks explicitly position "continuous communication" as a core condition, alongside shared agendas and mutually reinforcing activities, but they often leave communication underspecified at the level required for implementation in culturally diverse teams (Kania & Kramer, 2011). The practical consequence is that coalitions may increase communication volume without increasing alignment quality. In complex collaboration settings, sensemaking is not a one-time event but an ongoing process in which actors continuously interpret, revise, and negotiate what the

³ From this point forward, the chapter uses translation risk as the umbrella construct for boundary-related misinterpretation, and uses translation-fragile to label the observable outcome when artifacts look complete but fail during integration.

work is, what counts as evidence, and what decisions commit the group to (Maitlis & Christianson, 2014).

This chapter advances a claim aligned with *Communication and Culture*: collaboration is not possible without communication that can sustain shared meaning across cultures and knowledge boundaries (Hofstede, 2013). The implication is methodological and practical. If communication is treated as overhead, teams compress meaning negotiation, substitute deference for alignment, and avoid decision-grade documentation. These moves can reduce short-term friction while increasing long-term semantic drift, decision reversals, and rework. Conversely, when communication is designed as infrastructure, teams build shared meaning deliberately and produce traceable agreements that make work interoperable across functions, organizations, and cultural contexts. This is consistent with boundary-oriented perspectives on collaboration, where coordination depends on mechanisms that support translation and transformation across knowledge boundaries (Carlile, 2004), and with team science perspectives emphasizing multi-level models and evidence-based practices that explain and improve collaboration in complex, interdependent teams by specifying the conditions, processes, and infrastructures that enable coordinated knowledge integration and performance (Börner et al., 2010).

1.1 CHAPTER CONTRIBUTION

This chapter makes three contributions.

Conceptual contribution. The chapter defines CITC as a governance infrastructure for culture-in-action rather than as an interpersonal "soft skill" repertoire. This positioning aligns with constitutive and coordination perspectives that treat communication as an enabling condition for organizing, rather than a supplementary layer added after technical work (NAS, 2014).

Analytical contribution. The chapter introduces a named mechanism, the **Completion Trap**, to explain why completion-biased cultures produce translation-fragile outputs. The Completion Trap describes how throughput incentives and time scarcity normalize deference and turn-taking as efficiency strategies, which reduces short-term friction while increasing semantic drift and

late-stage conflict. The mechanism is presented with observable predictions and organizational boundary conditions.

Practical-methodological contribution. The chapter operationalizes CITC through an implementable model, the **CITC Alignment Loop**, and a minimal artifact stack that treats alignment as a deliverable rather than an aspiration. The model is designed to support collaborative innovation in diverse teams and coalitions by improving interpretive coherence and reducing rework, consistent with team science approaches that emphasize actionable infrastructures for collaboration (Vogel et al., 2013).

To situate this argument within established scholarship, the next section positions the "activity without convergence" problem at the intersection of collective impact, collaborative innovation, and organizational communication research. It clarifies why "continuous communication" is frequently treated as a frequency requirement rather than an alignment infrastructure, and why innovation in interdependent, culturally diverse settings intensifies translation risk. This background establishes the conceptual gap that CITC addresses and specifies the conditions under which alignment must be treated as a first-class deliverable rather than a byproduct of collaboration.

2. BACKGROUND: COLLECTIVE IMPACT, COLLABORATIVE INNOVATION, AND THE COMMUNICATION GAP

Collaborative innovation in business settings increasingly occurs in coalitions that are cross-functional, cross-organizational, and culturally heterogeneous, where work is highly interdependent, and success depends on coordinated knowledge integration rather than parallel execution. In such environments, "continuous communication" is frequently treated as a frequency requirement, even though the core failure mode is not insufficient interaction but unstable meaning and weak traceability across boundaries. Coordination research clarifies that interdependence creates integration demands that cannot be met through status synchronization alone. Boundary-oriented accounts further show that innovation depends on mechanisms that support transfer, translation, and transformation of knowledge across specialized domains. Consistent with team science perspectives emphasizing multi-level models and evidence-based

practices that specify the conditions, processes, and infrastructures enabling coordinated knowledge integration and collaborative performance, this section clarifies why activity and communication volume can coexist with high translation risk in diverse teams and coalitions (Börner et al., 2010).

The central challenge in collaborative innovation is rarely a lack of activity. It is the integration of interpretations, incentives, and success criteria across heterogeneous actors who must coordinate interdependent work. Coordination scholarship clarifies why this problem scales: as interdependence increases, coordination requires more than task assignment and status reporting. It requires mechanisms that integrate meaning and commitments across distributed work (Okhuysen & Bechky, 2009). In such settings, communication functions not only as an exchange but as a governance mechanism that shapes how information is weighted, how decisions are made, and how accountability is sustained (Tofan, 2017). The result is a recurring gap: teams increase communication volume while failing to improve alignment quality.

This gap is especially visible in collective impact style collaborations, where "continuous communication" is widely treated as a core condition for cross-sector coordination. However, "continuous" is often operationalized as frequency (more meetings, more reporting, more messaging) rather than as an alignment cycle that produces inspectable and updateable agreements. From a boundary and team science perspective, the missing piece is infrastructure: collaboration requires shared reference structures that enable translation, decision traceability, and interoperability across knowledge and institutional boundaries (Star & Griesemer, 1989). Without such infrastructure, teams can "communicate continuously" while drifting semantically and committing to incompatible interpretations.

Cultural diversity amplifies this risk by increasing the probability of false positives of alignment. Culture affects what counts as legitimate clarification, how disagreement is expressed, and how silence or indirectness is interpreted. In intercultural collaboration, facework norms and hierarchy-sensitive interaction patterns can transform deference into a performance of agreement, especially under time pressure and output-driven incentives. Under these conditions, the surface markers of smooth collaboration can coexist with substantive technical disagreement and unresolved interpretive ambiguity (Ting-Toomey, 2017).

Because culture shapes the pragmatics of consent and challenge, alignment cannot be assumed as universal; it must be engineered through explicit practices and artifacts that make meaning and commitments durable.

2.1 COLLECTIVE IMPACT AND THE LIMITS OF "CONTINUOUS COMMUNICATION"

Collective impact is typically used to describe cross-sector collaboration structured by five conditions: a common agenda, shared measurement, mutually reinforcing activities, continuous communication, and backbone support. In practice, the "continuous communication" condition is often implemented as increased interaction frequency. Yet frequency does not guarantee convergence. Communication can be continuous while still failing to stabilize meaning, because teams may coordinate tasks without aligning interpretations of goals, constraints, and standards. Coordination in organizations depends on integrative mechanisms that make interdependence manageable; without them, interaction becomes a substitute for alignment rather than a pathway to it. A team science lens makes the implication explicit: large-scale collaboration requires infrastructural supports that convert communication into shared reference structures, not merely shared airtime (L. M. Bennett & Gadlin, 2012).

Table 1 compares two communication models across eight dimensions. The cadence model treats communication as interaction volume and touchpoints, so effort centers on meetings, updates, and check-ins; "continuous" means more frequent reporting, progress is inferred from visible throughput, and coordination relies on status synchronization and handoffs. Its failure mode is high activity with hidden divergence that later becomes rework and conflict, and its evidence is participation rates; typical outputs are slide decks, minutes, and progress reports. By contrast, the governance model treats communication as infrastructure for coordinated knowledge integration and action; effort centers on alignment artifacts and decision-grade records, "continuous" means iterative alignment cycles, and progress is measured by interoperability through shared definitions, traceable decisions, and testable commitments. Its main risk is overformalization if artifacts become performative, and its evidence is interpretive coherence and

reduced translation fragility; outputs include a shared lexicon, scenario card, decision log, and assumptions register that are revised over time (see Table 1).

Table 1. Communication as Frequency vs. Communication as Infrastructure (Conceptual Contrast)

Dimension	Communication as frequency (cadence model)	Communication as infrastructure (governance model)
Core framing	Communication is interaction volume, cadence, and touchpoints.	Communication is a governance layer that enables coordinated knowledge integration and action.
Primary unit of effort	Meetings, updates, messages, check-ins.	Alignment work products and decision-grade records.
What "continuous" means	More frequent contact and reporting.	Iterative alignment cycles that stabilize meaning under change.
What counts as progress	Activity completion and visible throughput (updates delivered, meetings held).	Interoperability: shared definitions, traceable decisions, and testable commitments that survive boundary crossings.
Typical coordination mode	Status synchronization and handoffs; "staying in touch."	Meaning negotiation plus traceability: define, decide, commit, verify.
Failure mode	High activity with latent divergence; late-stage conflict and rework when interpretations collide.	Overformalization risk if artifacts become performative rather than decision-relevant.
Evidence signal	Communication frequency and participation rates.	Interpretive coherence and reduced translation fragility (e.g., fewer reversals due to undocumented assumptions).
Primary outputs	Slide decks, minutes, summary emails, progress reports.	Shared lexicon, scenario card, decision log, assumptions register (and revisions over time).

Source: The authors

Operationally, the limitation is that "continuous communication" is not a method. To sustain cross-sector coordination, continuous communication must be specified as a **continuous alignment cycle** that produces inspectable and updateable artifacts: shared definitions, decision records, and explicit assumptions that can be reviewed when stakeholders change or evidence shifts. This reframing transforms communication from a cadence requirement into an interoperability requirement.

2.2 COLLABORATIVE INNOVATION AS INTEGRATION WORK

Innovation is often narrated as ideation plus execution. In multi-stakeholder environments, a more accurate description is **integration under**

difference. Integration requires translation across specialized languages, reconciliation of competing success metrics, and governance of decision rights. These are not auxiliary to innovation. They are constitutive conditions of innovation when work is distributed across functions, organizations, and cultures (E. T. Hall, 1989). From a knowledge-boundary perspective, collaboration fails when teams cannot transfer, translate, and transform knowledge across boundaries in ways that preserve decision relevance and actionability (Ahn & Jeong, 2014). The practical implication is that collaborative innovation requires **interoperability between workstreams**, which depends on shared standards and traceable decisions rather than parallel execution alone.

Interdependence intensifies this demand. As diversity increases, teams can gain access to a broader information pool (Hoffer Gittell, 2002). However, performance gains depend on whether the group can integrate that diversity into coherent action rather than fragment into competing interpretations of "what we are doing" and "what counts as success." Diversity-performance research supports this contingency logic: diversity can improve outcomes when processes and structures enable information elaboration and integration; absent such supports, diversity can increase process loss (van Knippenberg et al., 2004). Under innovation conditions, the integration problem becomes the work.

2.3 WHY CULTURE MULTIPLIES THE PROBLEM

Cultural differences affect not only what collaborators value but also how they signal agreement, how they handle conflict, and how they interpret silence, indirectness, time, and authority (Hofstede et al., 2010). In organizational settings, these cultural patterns interact with power and incentives. In high power-distance contexts, junior members may avoid challenging a dominant interpretation to preserve face or role legitimacy; in other contexts, direct questioning may be interpreted as engagement rather than disrespect. Regardless of which national culture typologies one uses, the organizational implication is stable: culturally patterned deference can masquerade as alignment, particularly when outputs are privileged over clarification (J. M. Bennett, 2015).

Face negotiation theory offers a precise mechanism for this amplification: communication behaviors in conflict and decision episodes are shaped by face concerns and culturally patterned expectations about respect, challenge, and relational threat. When time scarcity and completion incentives compress meaning negotiation, teams become vulnerable to false consensus. This is the intercultural pathway by which "smooth meetings" produce fragile deliverables: agreement is performed rather than verified. For collective action and innovation teams, the conclusion is straightforward: alignment must be designed as infrastructure that legitimizes clarification and makes commitments traceable, rather than relying on interaction frequency or interpersonal intuition.

Taken together, the collective impact framing, the integration demands of collaborative innovation, and the intercultural dynamics of face and power all point to the same design requirement: collaboration in diverse teams and coalitions requires a communication infrastructure that stabilizes meaning and commitments, not merely more interaction. The next section, therefore, defines **Collaborative Intercultural Transdisciplinary Communication (CITC)** as a socio-technical governance capability. It specifies the criteria by which it should be evaluated, shifting the analysis from "communication as overhead" to "communication as the enabling condition of interoperability."

3. DEFINING CITC

This chapter treats communication as a constitutive condition of organizing rather than as an auxiliary interpersonal skill. In this view, what teams call "culture," "coordination," and "collaboration" are not stable properties that exist prior to interaction; they are continuously enacted, reproduced, and modified through communicative practices and the artifacts those practices sustain (Ashcraft et al., 2009; Cooren et al., 2011). For intercultural, transdisciplinary innovation teams, this implies a design requirement: if communication is the medium through which organizational realities are negotiated and stabilized, then communication must be engineered as infrastructure for meaning, standards, and accountability (K. L. Hall et al., 2012).

3.1 DEFINITION

Collaborative Intercultural Transdisciplinary Communication (CITC)

is the infrastructure by which diverse collaborators negotiate shared meaning, stabilize shared standards, and produce traceable commitments that make joint work interoperable across disciplinary, organizational, and cultural boundaries.

CITC is not equivalent to "good communication" framed as individual competence. It functions as a socio-technical operating system for collaboration in contexts characterized by heterogeneous knowledge, incentives, and culturally patterned interaction norms. Accordingly, CITC is evaluated not by conversational harmony, but by whether a team can sustain interpretive coherence and decision reliability under time pressure, turnover, and boundary crossings (Kuhn, 2021).

Evaluation criteria (operational):

Interpretive coherence: key constructs retain stable working definitions across roles and cultures, and drift is detected early.

Traceability: decisions, assumptions, and commitments are recorded in decision-grade form with ownership and rationale.

Interoperability: outputs can be used consistently across workstreams without requiring repeated renegotiation of basic terms or criteria.

3.2 CITC AS COMMUNITY-MAKING INFRASTRUCTURE

CITC aligns with a communities of practice lens: learning and coordination in complex work emerge through participation, negotiated meaning, and shared repertoire, including concepts, routines, and artifacts that enable members to act as a collective rather than as parallel specialists. Under intercultural and transdisciplinary conditions, the shared repertoire does not arise automatically; it requires infrastructural support that makes meanings and standards portable across roles and contexts. In this sense, CITC functions as community-making infrastructure: it enables legitimate participation by making the practical language of work explicit, revisable, and accessible to newcomers and peripheral participants (León et al., 2024).

CITC becomes durable when it is materialized in artifacts that persist beyond any single meeting. Scenario specification research and team science tooling illustrate how structured representations and shared resources can reduce ambiguity and accelerate convergence in collaborative work by providing stable reference points for coordination and interpretation (Lipuma et al., 2022). The implication for CITC is direct: community capacity is strengthened when the team's shared meanings and decision standards are externalized into artifacts that support continuity across turnover and shifting stakeholder configurations.

3.3 CITC AS SENSEMAKING INFRASTRUCTURE

CITC also aligns with sensemaking theory: organizations build workable realities by interpreting ambiguous situations socially and iteratively, especially under uncertainty and change. In innovation contexts, ambiguity is not an error state (Weick, 2010). It is a defining condition. Teams, therefore, cannot assume shared understanding as a baseline; they must repeatedly construct it. Sensemaking research clarifies why teams require explicit interpretive processes rather than relying on apparent agreement, since interpretation is shaped by roles, histories, incentives, and culturally patterned expectations (Maitlis & Christianson, 2014).

CITC formalizes interpretation as work. It treats meaning negotiation as a necessary precursor to reliable decisions and durable commitments, and it structures that negotiation through recurring cycles of defining, deciding, committing, and verifying. This is the point at which CITC departs most sharply from "communication as overhead": it specifies communication as an infrastructure that produces inspectable outputs of alignment, not merely exchanges of information.

Defining CITC clarifies what collaboration requires: stable working meanings, explicit standards, and traceable commitments that travel across cultural and disciplinary boundaries. The remaining question is why teams so reliably fail to build this infrastructure, even when they value collaboration and communicate frequently. The next section answers that question by specifying the **Completion Trap** as a mechanism: how throughput incentives and time

pressure privilege artifact production over interpretive coherence, producing translation-fragile deliverables and predictable downstream rework.

4. THE COMPLETION TRAP: WHY TEAMS PRODUCE "FINISHED" BUT NON-INTEROPERABLE WORK

This chapter uses a concise causal mechanism to explain a recurring pattern in collaborative innovation: teams can appear productive while accumulating latent misalignment. The mechanism is not a deficit of goodwill or competence. It is a predictable outcome of institutional legitimacy systems that privilege speed and artifact production over interpretive coherence. Under these conditions, teams optimize for visible completion signals and treat meaning negotiation as discretionary overhead. The result is a structural pathway from "efficient collaboration" to translation-fragile deliverables and late-stage failure.

4.1 THE COMPLETION TRAP (MECHANISM STATEMENT)

If organizational legitimacy is primarily allocated through speed, throughput, and the production of finished-looking artifacts, **then** teams will adopt deference, rapid turn-taking, and minimal documentation as efficiency strategies; they will compress meaning negotiation, treat silence as consent, and avoid decision-grade traceability. **Therefore**, short-term friction decreases while long-term **semantic drift**, rework, decision reversals, and conflict increase.

This mechanism distinguishes **coordination** from **convergence**. Coordination can successfully integrate interdependent tasks while leaving meanings and standards unstable. In interdependent work, coordination processes often privilege handoffs and synchronization, but those processes do not guarantee shared definitions or consistent interpretations of goals and constraints (Goagoses & Koglin, 2020). The Completion Trap arises when coordination is mistaken for convergence, and when artifact completion is mistaken for agreement.

Observable predictions. When the Completion Trap is active, the following patterns should be detectable:

Semantic drift: recurring disputes over the meaning of core constructs (e.g., "innovation," "impact," "done," "quality") despite apparent prior agreement.

Late-stage rework: increased rework after integration points (handoffs, approvals, launches), where interpretive differences surface as technical incompatibilities.

Decision reversals: frequent reversal or re-litigation of decisions because assumptions and rationales were not recorded in decision-grade form.

Conflict displacement: low visible conflict early (apparent harmony), followed by high conflict later when consequences become unavoidable. Meta-analytic evidence indicates that conflict types relate differently to outcomes; suppressed task conflict can reduce learning, while unmanaged conflict can degrade performance (De Dreu & Weingart, 2003). The Completion Trap often produces the worst combination: early suppression and late escalation.

4.2 WHY THE TRAP DOMINATES IN ORGANIZATIONAL CULTURES

Several forces predictably amplify completion bias in business innovation settings.

Incentive design. Performance systems frequently reward outputs, deadlines, and visible artifacts more than alignment quality. When evaluation criteria prioritize "shipping" over coherence, teams learn to optimize for what is counted.

Time scarcity. Under pressure, dialogue is reclassified as overhead. Teams compress definitional work and defer verification.

Power asymmetry. Hierarchy converts deference into an efficiency tool. Participants with less positional power may accept dominant interpretations to preserve progress and face.

Documentation avoidance. Without traceability, agreement becomes performative. Decisions become socially remembered rather than institutionally recorded, making reversals likely.

Coordination minimalism. Teams coordinate handoffs without aligning the interpretive frame that gives those handoffs meaning.

From a boundary perspective, these forces degrade the team's capacity to transfer, translate, and transform knowledge across boundaries. When standards

and meanings are not stabilized, boundary crossings become points of distortion rather than integration, producing work that cannot be reliably reused across contexts (Ashwell, 2015). From a decision-making perspective, communication shapes how information is evaluated and how decisions are constructed; when communicative conditions bias toward throughput, decision quality can degrade even as decisional activity increases (Cummings & Worley, 2007).

4.3 THE CULTURAL FORM OF THE COMPLETION TRAP

In intercultural teams, the Completion Trap is amplified by culturally patterned norms for agreement, disagreement, and face management. These norms do not simply add "complexity." They change what counts as evidence of alignment.

Distinct intercultural signatures include:

Silence-as-consent error: silence may signal deference, face-saving, or uncertainty rather than agreement.

Directness-as-hostility error: requests for definitions and clarification can be interpreted as personal critique, undermining willingness to surface ambiguity.

Harmony-as-alignment error: low visible conflict can reflect suppressed disagreement rather than coherence.

Authority-mediated alignment: deference to senior members can replace the verification of meaning and the recording of commitments.

Face negotiation theory helps specify why these patterns matter: culturally patterned face concerns shape conflict behavior and perceived legitimacy in disagreement episodes, influencing whether clarification is treated as a normal coordination act or as a relational threat (Bazerman et al., 2000; Carnevale et al., 1993). The result is a culturally mediated pathway to false consensus: teams perform agreement to preserve relational stability while leaving the semantic structure of the work unstable.

Team learning conditions also constrain the Completion Trap. When psychological safety is low, members are less likely to raise questions, challenge interpretations, or admit uncertainty. This is consequential because meaning negotiation requires interpersonal risk-taking: asking "what do we mean by X?"

can be read as challenging competence or authority. Psychological safety research shows that learning behaviors in teams depend on a shared belief that interpersonal risk is acceptable (Edmondson, 1999). In the intercultural variant of the Completion Trap, low psychological safety interacts with face concerns and hierarchy, suppressing clarification until late-stage breakdown forces it.

The Completion Trap explains why teams can communicate frequently and still fail to converge: completion-oriented legitimacy systems and intercultural face dynamics incentivize performative agreement and discourage decision-grade traceability. The practical question is therefore not whether teams should communicate more, but how they can convert communication into alignment outcomes that remain stable under pressure, turnover, and boundary crossings. The next section introduces the **CITC Alignment Loop** as an operational response: a repeatable governance cycle that structures definition, decision, commitment, verification, and adaptation so that alignment becomes inspectable, updateable, and interoperable rather than assumed.

5. CITC ALIGNMENT LOOP: A PRACTICAL MODEL FOR TRANSFORMING TEAMS

This section specifies an operational model that teams can implement without excessive overhead. The CITC Alignment Loop is designed as a lightweight governance cycle that stabilizes meaning and commitments across intercultural and transdisciplinary difference, countering the Completion Trap by making alignment work routine, inspectable, and revisable. The loop is consistent with sensemaking accounts of organizing under ambiguity, in which shared realities are continuously constructed and updated through iterative interpretation and social verification (Maitlis & Christianson, 2014). It is also consistent with coordination research emphasizing that interdependent work requires integrative mechanisms beyond simple task synchronization.

5.1 MODEL OVERVIEW

The **CITC Alignment Loop** operationalizes alignment as a repeating cycle:

Frame: articulate the collaboration scenario, boundaries, and decision context.

Define: identify and negotiate key terms and contested constructs.

Decide: make decisions using explicit criteria and recorded rationale.

Commit: translate decisions into accountable commitments with owners, timelines, and acceptance criteria.

Verify: test interpretation through feedback checks and downstream validation.

Adapt: revise definitions, decisions, and commitments as evidence and context evolve.

The loop produces evidence of alignment through artifacts that stabilize agreements while maintaining revisability. In practice, each pass through the loop outputs updated "alignment objects" (e.g., lexicon entries, decision-log records, assumption updates), ensuring that interpretive coherence is treated as a deliverable rather than an assumption. This design also aligns with boundary-focused theories of collaboration: the loop enables knowledge transfer, translation, and transformation to occur in a controlled, traceable manner as work crosses roles, units, and cultural contexts (Biggs, 1996; Lipuma & León, 2020).

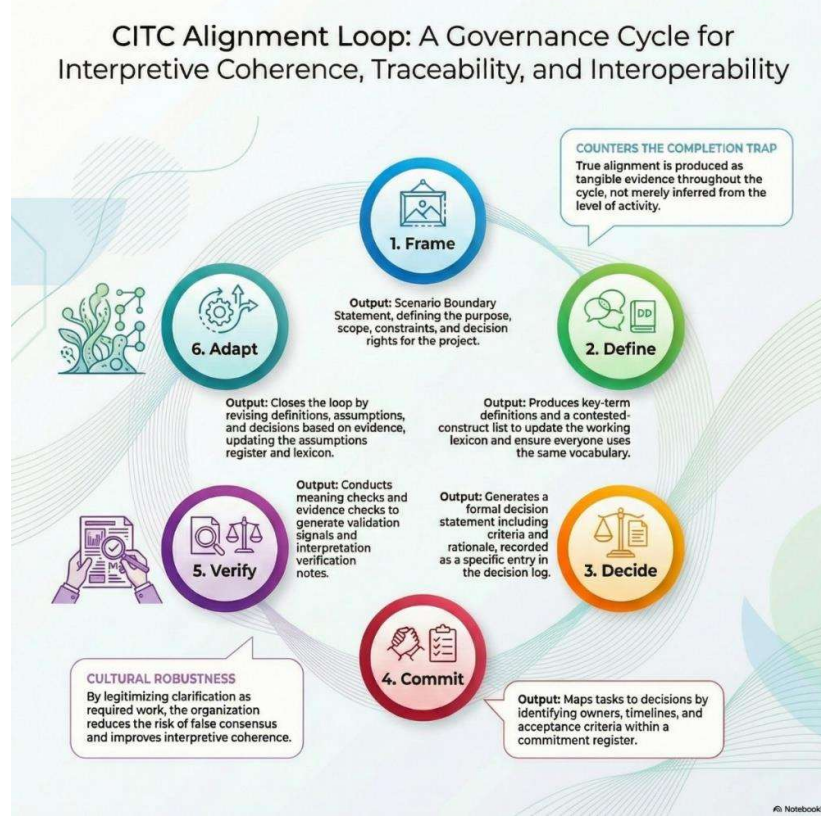
5.2 WHY A LOOP RATHER THAN A STAGE MODEL

A stage model assumes that alignment can be "completed" at kickoff and then preserved through execution. Cross-cultural and transdisciplinary teams rarely operate under those conditions. Meanings change with context; stakeholders reinterpret outcomes; constraints shift; evidence accumulates; and personnel turnover redistributes expertise and authority. A loop structure is therefore superior because it treats variability, learning, and re-interpretation as normal conditions of innovation rather than as exceptions. In sensemaking terms, teams must repeatedly update the plausible story that coordinates action, which requires recurring verification and adjustment rather than one-time agreement. The loop also supports coordination under uncertainty by providing a repeatable mechanism for aligning interdependent tasks with stable meanings and traceable commitments (see Figure 1).

Circular diagram titled "CITC Alignment Loop: A Governance Cycle for Interpretive Coherence, Traceability, and Interoperability." Six numbered steps form a clockwise loop: 1) Frame, producing a scenario boundary statement (purpose, scope, constraints, decision rights); 2) Define, producing key-term definitions and a contested-construct list to update the working lexicon; 3) Decide, producing a formal decision statement with criteria and rationale recorded in a decision log; 4) Commit, mapping tasks to decisions with owners, timelines, and acceptance criteria in a commitment register; 5) Verify, conducting meaning checks and evidence checks to generate validation signals and interpretation notes; 6) Adapt, revising definitions, assumptions, and decisions based on evidence and updating the assumptions register and lexicon. Callouts state that the loop counters the Completion Trap by producing alignment as tangible evidence rather than inferring it from activity, and that legitimizing clarification as required work increases cultural robustness and reduces false consensus.

The CITC Alignment Loop specifies *when* teams should perform alignment work and *what* that work must accomplish: stable meaning, traceable decisions, and testable commitments that remain revisable as context changes. The next section specifies *how* the loop becomes durable in organizational practice by identifying a minimal stack of alignment artifacts. These artifacts function as boundary objects that make communication inspectable and transferable, enabling teams to coordinate across cultural and disciplinary boundaries without relying on presumed consensus or informal memory. Boundary objects are shared artifacts that enable coordination across communities by providing a common reference structure without requiring full consensus on meaning.

Figure 1. The loop treats alignment as a recurrent governance function rather than a one-time kickoff outcome. Each iteration generates inspectable artifacts (e.g., lexicon updates, decision-log records, and assumption revisions) that stabilize meaning and commitment.



Source: The authors

6. ALIGNMENT ARTIFACTS: MAKING COMMUNICATION INSPECTABLE AND TRANSFERABLE

CITC becomes durable when alignment becomes inspectable. Accordingly, this chapter treats a small set of artifacts as the material infrastructure of CITC. These artifacts convert alignment from an implicit interpersonal state into an auditable work product: definitions, assumptions, and decisions become visible, revisable, and portable across roles, cultures, and organizational boundaries. Their function is not bureaucratic. These artifacts operationalize alignment as an auditable work product. They reduce ambiguity and coordinate interdependence in diverse teams and coalitions by externalizing meaning and accountability into shared reference structures (Carlile, 2002). The CREL framework provides a compatible scaffolding for CITC adoption by using role-based experiential co-design to elicit scenario parameters and normalize structured reflection as required work (León et al., 2025; Lipuma & León, 2025).

In practice, the scenario card aligns with CREL's emphasis on making the collaboration context explicit, while the CITC alignment loop functions as the recurring reflection-and-update cycle that keeps meanings and commitments revision-ready.

6.1 MINIMAL ARTIFACT STACK

To operationalize CITC with minimal overhead, we use a four-artifact stack that externalizes meaning, boundaries, commitments, and uncertainty into inspectable alignment infrastructure.

Shared lexicon. A living set of key terms, each with a definition, scope, owner, decision implications, and examples. The lexicon stabilizes working meanings and makes semantic drift detectable early.

Scenario card. A one-page specification of the collaboration scenario: problem framing, target population or customer, constraints, decision rights, and non-negotiables. The scenario card anchors the collaboration boundary conditions that typically remain tacit.

Decision log. A chronological record containing a decision statement, date, participants, rationale, alternatives considered, dependencies, and review triggers. The decision log makes commitments traceable and reduces decision reversals driven by memory or hierarchy.

Assumptions register. A list of assumptions treated as temporary facts, each with a verification plan, risk level, and falsification trigger. The assumptions register formalizes uncertainty and prevents hidden premises from functioning as unexamined constraints.

6.2 WHY ARTIFACTS WORK: BOUNDARY OBJECTS AND COORDINATION WITHOUT CONSENSUS

Artifacts reduce misalignment because they function as **boundary objects**: shared reference points that different communities can use for coordination even when they interpret details differently. Boundary objects support collaboration across heterogeneous social worlds by providing enough structure to sustain joint work without requiring full cultural or epistemic

consensus. In CITC, the lexicon and scenario card operate primarily as boundary objects for meaning, while the decision log and assumptions register operate primarily as boundary objects for accountability. This design matters in transdisciplinary, intercultural settings because the practical goal is not uniformity of worldview. The goal is **interoperable action** through stable working definitions and traceable commitments that survive boundary crossings.

6.3 ARTIFACT DISCIPLINE: AVOIDING BUREAUCRATIZATION

A predictable failure mode is over-documentation. CITC addresses this risk through two constraints.

Minimalism. Document only terms, assumptions, and decisions that materially affect interoperability, downstream dependencies, or accountability.

Acceptance criteria. An artifact counts only if a new team member can use it to predict decisions and actions without restarting foundational meaning negotiations. If the artifact does not guide real decisions or does not accelerate onboarding to decision competence, it is not infrastructure. It is paperwork.

Table 2 presents these four artifacts function as boundary objects that support transfer, translation, and transformation of knowledge across boundaries, enabling coordination without requiring full consensus while preserving traceability and revisability. Coordination can proceed without convergence, but intercultural and transdisciplinary innovation performance depends on mechanisms that stabilize meaning and commitments under interdependence.

Table 2. Alignment artifacts as boundary objects: ambiguity reduced, interdependence coordinated, risk mitigated, and coherence metrics

CITC artifact	Ambiguity reduced	Interdependence coordinated	Primary risk mitigated	Coherence metric (operational indicator)
Shared lexicon	Definitional ambiguity in key constructs (e.g., "innovation," "impact," "quality," "done")	Interpretive interdependence across functions and cultures (shared meaning needed for interoperable execution)	Semantic drift and "false alignment" where shared words mask divergent meanings	Definitional dispute rate (count of rework episodes traced to definitional disagreement) and term-consistency check (periodic quick test: do roles provide convergent definitions)
Scenario card	Boundary ambiguity (scope, constraints,	Boundary and governance interdependence	Scope creep, mis-scoped workstreams, and re-litigation	Scope stability (frequency of scope renegotiation) and decision-rights clarity

CITC artifact	Ambiguity reduced	Interdependence coordinated	Primary risk mitigated	Coherence metric (operational indicator)
	decision rights, non-negotiables)	(who decides what; what is in/out)	of foundational intent	(number of escalations caused by unclear authority)
Decision log	Commitment ambiguity (what was decided, why, and what it commits the team to)	Temporal and dependency interdependence across workstreams (handoffs rely on stable decisions)	Decision reversals, accountability gaps, and authority-driven reinterpretation	Decision reversal frequency (reopened decisions due to missing rationale/record) and time-to-reconstruct decision (how quickly the team can justify a decision from the record)
Assumptions register	Uncertainty ambiguity (what is assumed vs. known; what evidence would falsify)	Risk and evidence interdependence (workstreams depend on shared assumptions and verification plans)	Hidden premises, late-stage failure when assumptions collapse, and avoidable rework	Assumption-to-incident ratio (how often undocumented assumptions drove a failure) and verification latency (time between assumption entry and validation/falsification)

Source: The authors

The artifact stack specifies how CITC becomes durable as infrastructure: alignment is externalized into boundary objects that stabilize meaning and accountability across roles and cultures. However, these artifacts do more than document decisions. They reshape the cognitive architecture of collaboration by supporting shared mental models and transactive memory, especially under conditions of turnover and hierarchy. The next section, therefore, links CITC artifacts to team cognition mechanisms to explain why infrastructural alignment improves performance even when communication volume remains unchanged.

7. CITC IN TEAM COGNITION: SHARED MENTAL MODELS AND TRANSACTIVE MEMORY

CITC functions not only as a governance infrastructure but also as a cognitive infrastructure (Ostrom, 2015). In innovation teams, performance depends on whether distributed expertise can be integrated into coherent action under interdependence and uncertainty. Team cognition research has long argued that high-performing teams coordinate effectively because they share structured representations of the task, roles, and interaction patterns, rather than relying on ad hoc negotiation at every decision point (Mathieu et al., 2000). CITC provides an implementable route to produce these cognitive conditions by

externalizing meaning, standards, and commitments into artifacts that persist across time, turnover, and cultural interaction norms. This externalization also reduces the cognitive load of coordination by shifting key knowledge from individual memory to shared reference structures, consistent with coordination perspectives that treat interdependent work as requiring integrative mechanisms beyond task synchronization (Cannon-Bowers et al., 1993).

7.1 SHARED MENTAL MODELS AS AN OUTCOME OF CITC

Shared mental models are commonly understood as overlapping, organized knowledge structures that enable team members to anticipate one another's needs, interpret events consistently, and coordinate without excessive explicit communication. In intercultural, transdisciplinary innovation settings, these shared representations cannot be assumed. They must be built. CITC supports shared mental models by making the team's working meanings and coordination logic explicit: task definitions, criteria of success, decision constraints, and dependencies are externalized into artifacts that are accessible, inspectable, and revisable.

The crucial design move is that CITC shifts alignment from conversational inference to documentary evidence. Instead of treating agreement as a transient interpersonal state, CITC produces stabilized representations that allow members to compare interpretations against shared references. This is particularly important for cross-functional teams, where different subgroups often carry distinct assumptions about what constitutes valid evidence, acceptable risk, and "done." By stabilizing these assumptions into a shared lexicon, scenario card, and decision log, CITC reduces interpretive variance and increases the team's ability to coordinate under uncertainty.

7.2 TRANSACTIVE MEMORY SYSTEMS AND "WHO KNOWS WHAT" ACROSS CULTURES

Teams also require a reliable map of distributed expertise, often conceptualized as a transactive memory system (TMS): a shared understanding of "who knows what," how expertise is accessed, and how credibility is assigned

(Wegner, 1987). Empirical work on TMS further indicates that teams perform better when expertise location and specialization are clear and retrievable, especially in complex tasks that exceed any single member's knowledge (Lewis, 2003).

CITC strengthens transactive memory by making expertise and decision ownership explicit in artifacts. Lexicon ownership clarifies who is responsible for definitional stewardship in contested constructs. Decision log authorship clarifies who set the criteria and rationale for commitments, and under what assumptions. Assumptions register assignments clarify who verifies which premises and when. These mechanisms are particularly consequential in intercultural teams where deference norms and power distance can suppress the assertion of expertise. When expertise claims are culturally risky, the artifact system allows expertise to be exercised through roles and documented responsibilities rather than through direct interpersonal contest. In effect, CITC protects distributed expertise from being lost to hierarchy or turnover by anchoring "who knows what" and "who decides what" in durable shared references.

Shared lexicon → **shared mental models**: aligns core construct meanings, reducing interpretive variance and enabling consistent inference across roles.

Scenario card → **shared mental models**: aligns boundary conditions, goals, constraints, and decision rights, enabling anticipation and coordination without repeated renegotiation.

Decision log → **shared mental models + TMS**: stabilizes decision rationale and criteria; clarifies who contributed expertise and who owns commitments.

Assumptions register → **TMS + learning behavior**: externalizes uncertainty management; assigns verification ownership; enables evidence-based updating rather than retrospective blame.

The team cognition benefits of CITC depend on whether members can surface ambiguity, challenge interpretations, and revise assumptions without incurring interpersonal penalty. Shared mental models and transactive memory improve performance only when teams can engage in learning behaviors, including clarification and constructive disagreement. The next section, therefore, links CITC to psychological safety and conflict dynamics, showing how alignment

infrastructure can reframe disagreement as an artifact-centered task and reduce the cultural and hierarchical risks that otherwise suppress meaning negotiation.

8. PSYCHOLOGICAL SAFETY, CONFLICT, AND THE CONDITIONS FOR MEANING NEGOTIATION

CITC is not conflict avoidance. It is conflict governance. Intercultural, transdisciplinary innovation requires teams to disagree about meaning, evidence, and tradeoffs without converting that disagreement into interpersonal threat. This is a structural requirement because alignment depends on clarification and challenge: if teams cannot safely ask "What do we mean by X?" or "What assumptions are we making?" then interpretive ambiguity persists until it emerges as late-stage failure.

8.1 PSYCHOLOGICAL SAFETY AS A PRECONDITION FOR ALIGNMENT WORK

Team psychological safety is commonly defined as a shared belief that the team is safe for interpersonal risk taking, and it has been empirically linked to learning behavior in work teams (Edmondson, 1999). In the CITC framework, psychological safety matters because alignment work is inherently risk-bearing. Definition, verification, and revision episodes require participants to admit uncertainty, surface misunderstandings, and question implicit premises. In completion-biased cultures, these behaviors can be interpreted as incompetence, obstruction, or disrespect, particularly when hierarchies and time scarcity are salient. Under such conditions, teams may appear cohesive while silently accumulating semantic drift.

CITC can also function as a *mechanism that produces psychological safety*, not only as a mechanism that depends on it. By externalizing alignment into shared artifacts and decision-grade records, CITC shifts the focus of disagreement from persons to representations. This reduces identity threat and makes clarification legible as performance work rather than as an interpersonal challenge. In other words, when the team's shared lexicon, scenario card,

decision log, and assumptions register become the official sites of contestation, the team legitimizes questioning as a normal coordination act.

8.2 PRODUCTIVE CONFLICT: FROM INTERPERSONAL CONTEST TO DEFINITIONAL WORK

Conflict research in teams distinguishes forms of conflict that have different consequences for performance and satisfaction. Meta-analytic evidence suggests that conflict is not uniformly beneficial; unmanaged conflict can degrade outcomes, and the relationship between conflict and performance depends on how conflict is expressed and governed (De Dreu & Weingart, 2003). CITC's contribution is to treat task-relevant disagreement as a signal to be processed through infrastructure rather than as a disturbance to be minimized.

CITC, therefore, reframes productive conflict as definitional and governance work. When disagreement occurs, the appropriate first move is not persuasion or escalation. It is a diagnostic question: *Is the disagreement about meaning, about standards, or about commitments?* CITC then routes disagreement to the relevant artifact (lexicon, scenario card, decision log, assumptions register), enabling the team to revise the representation that is producing divergence. This approach directly addresses the Completion Trap's tendency to suppress early disagreement and displace conflict into late-stage breakdown.

8.3 FACEWORK, POWER, AND THE INTERCULTURAL RISK OF CLARIFICATION

Intercultural conflict dynamics add precision to why psychological safety is especially fragile in diverse teams. Face negotiation theory explains that conflict behavior and perceived legitimacy in disagreement episodes are shaped by face concerns and culturally patterned norms regarding respect, directness, and relational threat. In high power-distance settings, junior members may treat clarification as face-threatening to authority; in other settings, direct questioning may be expected as evidence of engagement. These mismatches produce false

consensus: silence and deference are interpreted as agreement even when technical disagreement remains.

CITC addresses this risk by treating clarification as a formal task requirement rather than as an optional interpersonal style. Practices such as "define-before-decide" become face-sensitive by design because they move clarification from individual initiative to institutional procedure. The team does not ask for definitions because someone is challenging another's competence. The team asks because the method requires it. Clarifying a standard step lowers the interpersonal cost of raising ambiguity and makes alignment work culturally portable.

8.4 DESIGN PRINCIPLE: ARTIFACT-CENTERED DISAGREEMENT

Artifact-centered disagreement is the guiding design principle that links CITC to psychological safety and productive conflict governance:

Disagreements are expressed as proposed revisions to shared representations (definitions, assumptions, criteria, commitments).

The "object of contest" is an artifact entry, not a person's credibility or intent.

Resolution requires updating the artifact in decision-grade form, not merely achieving conversational harmony.

Operationally, this principle allows teams to convert conflict into alignment evidence: a disagreement is "resolved" only when a definition is stabilized, an assumption is tagged with a verification plan, or a decision criterion is recorded with traceable rationale.

If CITC requires artifact-centered disagreement and repeated meaning negotiation, teams need interaction-level procedures that make these behaviors routine under time pressure and hierarchy. The next section specifies facilitation protocols that translate CITC from an infrastructure concept into meeting-level practice, including define-before-decide, end-of-meeting meaning checks, translation tables for contested terms, and commitment-language rules that turn alignment into inspectable, updateable outputs.

9. CITC FACILITATION PROTOCOLS: MICRO-PRACTICES THAT TRANSFORM MEETINGS

CITC requires more than shared intent. It requires repeated, observable alignment work under constraints of time, hierarchy, and cultural difference. This section translates the CITC Alignment Loop and the principle of artifact-centered disagreement into meeting-level protocols that are brief enough to adopt and structured enough to produce traceable outputs. These protocols also reflect a functional view of leadership: effective collaboration depends on procedural communication behaviors that clarify goals, summarize agreements, and coordinate interdependence, rather than relying on informal authority or conversational fluency alone. In CITC terms, facilitation is the mechanism that turns interaction into infrastructure by ensuring that meetings yield alignment artifacts, not only discussion.

9.1 DEFINE-BEFORE-DECIDE RULE

Before any consequential decision, the team answers three prompts:

Decision question: What is the decision question, in one sentence?

Drift risk: Which terms in that sentence are likely to drift across roles, disciplines, or cultures?

Commitment consequences: What would a "yes" and a "no" each commit us to operationally?

This protocol institutionalizes clarification as required work and reduces the likelihood that the team performs agreement through shared language that conceals divergent meanings. It also creates a predictable entry point for the shared lexicon and scenario card: drift terms are either defined on the spot or explicitly assigned for lexicon update.

9.2 FIVE-MINUTE MEANING CHECK (END OF MEETING)

The meeting closes with a brief alignment check designed to produce traceability:

What did we decide?

What do we mean by the key terms?

Where is the decision recorded?

What is the verification trigger that will tell us we were wrong?

This practice converts closure from a social signal ("we are done") into an epistemic signal ("our commitments are recorded and testable"). It also operationalizes psychological safety by normalizing uncertainty management: the verification trigger legitimizes the possibility of revision without blame.

9.3 TRANSLATION TABLE FOR CONTESTED TERMS

For each contested construct (e.g., "innovation," "impact," "productivity," "equity," "quality," "done"), the team creates a compact translation table:

Local meaning (function A, unit B, culture group C)

Cross-team working meaning (for this project, in this context)

Decisions affected (which choices depend on this meaning)

Evidence required (what would count as confirmation or disconfirmation)

This protocol is especially important in intercultural settings where facework norms can discourage direct definitional contest. The translation table shifts negotiation into a structured artifact and makes differences discussable without framing them as personal conflict. It also directly supports boundary management by making knowledge translation explicit and portable across subgroups.

9.4 COMMITMENT LANGUAGE PROTOCOL

CITC treats "agreement" as a weak indicator unless it is converted into an accountable commitment. The protocol, therefore, replaces vague consensus language with commitment statements that specify ownership and evidence:

"We commit to X by date Y, owned by role Z, measured by metric M."

"We are aligned that 'impact' means A for this project (not B), and we will revisit on date D using evidence E."

This practice reduces ambiguity by binding key terms to decisions, responsibilities, and verification. It also supports intercultural teams by replacing

implicit expectations with explicit commitments that are less dependent on culturally variable norms of indirectness, deference, or relational signaling.

Script Box 1 summarizes four CITC micro-scripts that convert meeting conversations into traceable alignment outputs. The scripts standardize how teams define decision questions, surface drift-prone terms, document agreed meanings, translate contested constructs into shared working definitions tied to evidence, and express commitments with explicit ownership, timelines, metrics, and review points, so that alignment is produced as inspectable artifacts rather than inferred from conversational agreement (see Script Box 1).

Script box 1. DMTC Framework

CITC micro-scripts
Define-before-decide: "State the decision in one sentence. Identify drift terms. Specify what yes/no commits us to."
Meaning check: "What did we decide, what do key terms mean, where is it recorded, what would prove us wrong?"
Translation table: "Local meaning → working meaning → decisions affected → evidence required."
Commitment language: "We commit to X by Y, owned by Z, measured by M; revisit on D with E."

Micro-practices can transform meeting output into alignment artifacts, but they will not persist if organizational incentives continue to reward throughput while treating alignment as overhead. The next section therefore, specifies the governance layer required to institutionalize CITC: explicit roles, milestone design, and coherence metrics that make alignment visible as progress, protect clarification under hierarchy and cultural difference, and prevent the Completion Trap from reasserting itself through performance systems.

10. GOVERNANCE: MAKING CITC COUNT AS PROGRESS IN BUSINESS INNOVATION

CITC does not persist through aspiration. It persists through governance. In completion-biased environments, alignment work competes with throughput work, and it typically loses unless it is institutionalized as a recognized form of progress. Governance is therefore the mechanism that converts CITC from a "good practice" into an operating requirement. Because collective impact style collaborations and many innovation coalitions operate with transient participation,

CITC governance must assume variable membership rather than stable teams. Stakeholders join with partial context, roles shift, and degrees of commitment fluctuate across phases. CITC's artifacts and roles, therefore, function as continuity infrastructure: they preserve shared meaning and decision traceability across turnover, and they enable rapid induction to decision competence for new or intermittent participants without reopening settled definitions and commitments. From a coordination perspective, interdependent work requires integrative mechanisms that are maintained over time; without explicit responsibility and accountability, coordination relies on informal memory and social pressure, both of which degrade under turnover, time scarcity, and cultural distance (Brzakovic & Cozzens, 2014). From a boundary perspective, governance is what preserves translation capacity across functions and cultures by ensuring that shared representations remain current and decision-relevant.

10.1 ROLE DESIGN

CITC becomes reliable when responsibilities are explicit and minimally redundant. The following roles operationalize CITC as an organizational capability rather than as an interpersonal virtue.

Alignment owner. Ensures the shared lexicon and scenario card remain current, decision-relevant, and revision-ready. This role treats definitional stability and boundary clarity as performance-critical deliverables.

Documentation steward. Maintains the decision log and assumptions register, ensuring that decisions are recorded with criteria, rationale, dependencies, and review triggers, and that assumptions are treated as testable claims rather than as invisible premises.

Cultural translator. Monitors intercultural misunderstanding risks and reframes clarification as legitimate work rather than as an interpersonal challenge. This role reduces false consensus by legitimizing face-sensitive inquiry and ensuring that indirectness, silence, and deference are not misread as agreement.

Induction lead (onboarding and continuity). Designs and maintains an onboarding pathway that brings new or transient participants to decision competence without restarting foundational meaning negotiations. This role

curates the "minimum viable orientation" package (scenario card, top lexicon terms, current decisions and rationales, open assumptions with verification plans) and runs brief induction check-ins that verify interpretive alignment for newcomers.

In high power-distance or high-stakes settings, these roles directly protect expertise and learning behavior. When clarification and onboarding are institutionalized functions, individuals do not need to incur disproportionate interpersonal risk to surface ambiguity or to claim expertise; the method requires it, and the roles normalize it.

10.2 MILESTONES THAT REWARD COHERENCE

To counter completion bias, teams can define phase gates that include CITC artifacts as acceptance criteria. The objective is to make coherence visible as progress and to prevent "finished-looking" outputs from advancing without interpretive stability.

Examples of coherence-based milestones include:

No phase gate without an updated scenario card and decision log that specifies decision rights, constraints, and the rationale for commitments.

No launch without an assumptions register review and an explicit definition of success metrics, including what evidence will constitute validation or trigger revision.

These milestone rules institutionalize the principle that alignment is a deliverable. They reduce the probability that teams discover semantic drift only at integration points, when correction is expensive.

10.3 METRICS: MEASURING ALIGNMENT WITHOUT FLATTENING IT

CITC should not be evaluated through volumetric proxies such as the number of meetings, number of messages, or number of pages produced. Those measures typically reinforce the completion bias they are intended to address. Instead, alignment infrastructure should be assessed with coherence indicators that are closer to the causal mechanism: semantic drift, traceability failures, and rework.

Recommended indicators include:

Rework rate attributable to definitional disputes.

Decision reversal frequency due to undocumented assumptions.

Time-to-onboard to decision competence (how quickly a newcomer can make consistent decisions using artifacts).

Cross-team interpretive consistency on key constructs (measured via short definition checks).

These measures are imperfect but strategically valuable. They render alignment outcomes visible and enable ROI arguments that connect CITC directly to productivity, decision quality, and speed sustainability (see Table 3).

Table 3. CITC coherence metrics: definitions, measurement approach, and interpretation thresholds

Metric	Definition (what it captures)	How to measure (practical method)	Interpretation / threshold logic
Rework attributable to definitional disputes	Proportion of rework episodes caused by divergent meanings of key constructs (semantic drift)	Tag rework incidents in retrospectives; code root cause as "definition/term mismatch" vs other causes; compute rate per sprint/phase	Downward trend indicates improved interpretive coherence; spikes signal drift terms requiring lexicon and translation-table intervention.
Decision reversal frequency (assumption traceability)	The rate at which prior decisions are reopened or reversed because assumptions/rationale were not recorded or were unstable	Count reversals per phase gate; classify cause as "undocumented assumption," "missing rationale," or "new evidence"; link to decision log quality	High reversal rate indicates weak traceability; target is reduction over time, not zero (some reversals reflect learning)
Time-to-onboard to decision competence.	Time required for a newcomer to make decisions consistent with the team's established criteria and commitments	Provide a short decision simulation; compare newcomers' decisions to decision log criteria; measure days/weeks to reach acceptable concordance	A shorter time indicates that artifacts are usable and that shared mental models are externalized effectively
Interpretive consistency on key constructs	The degree to which different roles produce convergent working definitions for contested terms	Quarterly or per-phase "definition check": ask 5–7 roles to define 3–5 key terms; score convergence against lexicon entries	Low convergence indicates false alignment; the target is convergence on working definitions, not philosophical consensus
Verification latency (assumptions register)	Time between recording an assumption and validating or falsifying it	Track the timestamp of assumption entry and subsequent verification event; compute median latency	Long latency indicates risk accumulation; shorter latency indicates effective

Metric	Definition (what it captures)	How to measure (practical method)	Interpretation / threshold logic
Escalations due to unclear decision rights	Frequency of delays caused by ambiguity about who decides what	Log escalations; code cause as "decision-rights unclear"; correlate with scenario card updates	Declining rate indicates improved boundary clarity; increases indicate scenario card drift or stakeholder changes

Note. These metrics prioritize interpretive coherence and traceability over activity volume. They are designed to detect Completion Trap dynamics early by making semantic drift, assumption fragility, and governance ambiguity measurable in operational terms.

Source: The authors

Governance and metrics explain how CITC becomes an organizational capability rather than an episodic facilitation style. However, the value proposition becomes clearest when the Completion Trap is observed in familiar innovation scenarios and then contrasted with how CITC artifacts and protocols would have altered the trajectory. The next section, therefore, presents two concise vignettes that make translation fragility visible in everyday business innovation work and demonstrate how coherence-based governance reduces rework, decision reversals, and late-stage conflict.

11. TWO VIGNETTES (ILLUSTRATIVE, BUSINESS INNOVATION CONTEXT)

The following vignettes are designed to make the Completion Trap observable in everyday innovation work. In both cases, the failure does not originate in inadequate technical capability or insufficient effort. It originates in not fully **stabilized definitions** that convert central constructs into floating signifiers, enabling rapid activity while silently accumulating translation fragility. Each vignette closes with a CITC intervention triad: a primary artifact, a meeting rule, and a coherence metric that would have detected or prevented the late-stage cost.

11.1 VIGNETTE 1: "INNOVATION" AS A FLOATING SIGNIFIER

A global product team launches a strategic initiative with a clear directive: "We need innovation this quarter." The kickoff meeting is energizing. The project

plan was approved quickly. Workstreams start in parallel across engineering, marketing, and regional business units. Progress looks strong because deliverables accumulate: prototypes, messaging drafts, partner decks, and release timelines.

Two months later, launch planning surfaces "unexpected" conflict. Engineering has prioritized technical novelty, including features that require integration risk and additional testing. Marketing has built positioning around differentiation and brand narrative, expecting feature stability for packaging and campaigns. Regional teams have pursued adoption and localization, investing in implementation support and customer enablement rather than technical feature expansion. Each group has been fully productive in its own frame. The mismatch appears only when integration is required and tradeoffs become binding. The team now debates whether the project is over-engineered, under-marketed, or mis-scoped for adoption, and deadlines slip as the coalition re-negotiates what "innovation" was supposed to mean.

CITC diagnosis. "Innovation" functioned as a floating signifier that enabled early alignment performance (shared vocabulary) without interpretive coherence (shared working definition). The Completion Trap amplified this: speed and artifact production served as legitimacy signals, discouraging early definitional negotiation and verification.

CITC intervention (artifact + rule + metric).

Artifact: Translation table for "innovation" plus lexicon entry (local meanings → cross-team working meaning → decisions affected → evidence required), recorded in the shared lexicon and scenario card.

Rule: Define-before-decide at kickoff and at phase gates: identify drift terms and specify what "yes" and "no" commit the team to.

Metric: Interpretive consistency check on "innovation" across roles (convergence against the lexicon entry) plus rework attributable to definitional disputes (tracked during retrospectives).

11.2 VIGNETTE 2: PRODUCTIVITY WITHOUT AGREEMENT ON "DONE"

A cross-functional operations group reports high productivity. Tickets are closing at record speed. Dashboards show green status across service queues.

Leadership praises the throughput and assigns the team additional scope. However, customer escalations rise. A pattern emerges: issues marked as "resolved" continue to recur, and "root cause" analyses do not prevent the reappearance of the same failures.

When the team investigates, the divergence is not in effort but in standards. Support defines "resolved" as customer-visible symptom removal, even if the underlying defect remains. Engineering defines "resolved" as code deployed, regardless of whether monitoring confirms stability. Quality defines "resolved" as confirmed non-reproducibility under specific test conditions, which may not match production contexts. The same word, "resolved," is used as a completion marker across groups with incompatible criteria. The organization experiences an illusion of productivity: throughput is high, but interoperability of standards is low. Escalations increase because "resolution" does not mean the same thing at each handoff.

CITC diagnosis. The Completion Trap converted closure into legitimacy: ticket completion was rewarded, while definitional alignment of "done," "resolved," and "root cause" was treated as overhead. The result was decision and accountability fragility hidden by dashboard metrics.

CITC intervention (artifact + rule + metric).

Artifact: Shared lexicon entries for "resolved," "done," and "root cause," each with acceptance criteria and examples; decision log rule requiring traceability for closures under ambiguity.

Rule: Five-minute meaning check at meeting end: confirm what "resolved" means in this context, where the standard is recorded, and what verification trigger validates closure.

Metric: Decision reversal frequency due to undocumented assumptions (reopened tickets) and rework rate attributable to definitional disputes (repeat incidents coded to term mismatch), supplemented by verification latency for assumptions tied to "root cause."

These vignettes illustrate the core claim of the chapter: innovation failure in diverse teams is frequently a governance and meaning-stability problem rather than a capability problem. In both cases, completion signals masked translation fragility until integration forced the underlying ambiguity into view. The next section situates these applied observations within the chapter's theoretical

positioning, clarifying how CITC extends collective impact and organizational behavior accounts by specifying a mechanism (Completion Trap), an infrastructure response (Alignment Loop plus boundary-object artifacts), and measurable coherence outcomes that link communication directly to innovation performance.

12. DISCUSSION: WHAT CITC ADDS TO COLLECTIVE IMPACT AND ORGANIZATIONAL BEHAVIOR

This chapter positions CITC as an infrastructure claim with theoretical and practical implications for collective impact and organizational behavior. The central contribution is to make "communication" actionable without reducing it to volume. CITC specifies a mechanism (the Completion Trap), an operational response (the Alignment Loop), and a minimal artifact stack that converts alignment into inspectable outputs and coherence metrics. In doing so, CITC reframes collaboration failure as a predictable outcome of incentive structures, boundary conditions, and culturally patterned interaction norms, rather than as an interpersonal deficit.

12.1 THEORETICAL POSITIONING

This section positions CITC across five complementary literatures—collective impact, coordination and interdependence, knowledge boundaries and boundary objects, communities of practice, and sensemaking and organizational learning—to clarify how CITC specifies communication as alignment infrastructure rather than interaction volume.

Collective impact. CITC complements collective impact by operationalizing "continuous communication" as an **alignment infrastructure** rather than a frequency requirement. Communication volume can coexist with semantic drift; what collective action requires is recurring stabilization of meaning, standards, and commitments. CITC therefore provides a specification layer for the "continuous communication" condition: communication becomes continuous insofar as alignment artifacts are continuously updated, and verification cycles are continuously executed (Easterling, 2013).

Coordination and interdependence. CITC complements coordination theory by addressing not only task interdependence but also **meaning interdependence**. Coordination can succeed at synchronizing work while failing to synchronize interpretation, producing integration failures that appear late and cost more to correct (Lipuma et al., 2023). CITC treats interpretive coherence as a first-class coordination object and institutionalizes traceability so that dependencies do not rely on memory or deference.

Knowledge boundaries and boundary objects. CITC also extends boundary-focused accounts of collaboration by translating boundary management into a concrete artifact stack. Boundary objects enable work across heterogeneous social worlds without requiring full consensus; CITC uses this logic to explain why lexicons, scenario cards, decision logs, and assumption registers reduce translation fragility while maintaining revisability.

Communities of practice and shared repertoire. CITC complements communities of practice by specifying how shared repertoire is deliberately constructed and maintained through artifacts and meeting-level protocols, especially under turnover and distributed participation. This addresses a common operational gap: teams may value shared practice but lack mechanisms that prevent the re-initiation of meaning negotiations each time membership or context changes (Catana et al., 2021; Cundill et al., 2015).

Sensemaking and organizational learning. Finally, CITC complements sensemaking by providing a recurring loop that structures interpretation, decision, verification, and adaptation under ambiguity. Sensemaking accounts emphasize that organizational realities are continuously constructed and revised; CITC makes this reality operational by defining which outputs must be produced to prevent drift and to enable learning without blame (Maitlis & Christianson, 2014).

12.2 BOUNDARY CONDITIONS AND RISKS

CITC is not self-validating. It can fail if treated as performative compliance rather than as a decision infrastructure. Three failure modes are especially likely.

Artifact production without adoption. Documents exist, but do not guide decisions. This is the classic "paper infrastructure" failure: traceability is simulated, not used.

Token cultural translation. Teams adopt surface-level etiquette rules while ignoring power-sensitive governance, producing false consensus that remains driven by deference and face dynamics.

Over formalization. The artifact stack becomes bureaucratic overhead, increasing documentation load without improving interpretive coherence.

Mitigation requires disciplined minimalism and explicit acceptance criteria. Minimalism restricts documentation to terms, assumptions, and decisions that affect interoperability or accountability. Acceptance criteria require that artifacts support real decision-making work: if a new member cannot use the artifacts to predict decisions and actions, the infrastructure is not functioning. Governance behaviors must also legitimize clarification as core work, reducing the interpersonal risk of asking for definitions and verification in high-stakes or high power-distance settings.

12.3 A 14-DAY IMPLEMENTATION PLAN (ONE ARTIFACT + ONE RULE + ONE METRIC PILOT)

To convert CITC from concept to capability, the chapter proposes a minimal, high-leverage adoption sequence:

Days 1–3: Select and instantiate one artifact.

Choose **one** artifact based on your primary failure mode:

Drift problem → **Shared lexicon** (start with 10 terms).

Scope/authority ambiguity → **Scenario card** (one page).

Decision reversals → **Decision log** (start immediately).

Hidden premises → **Assumptions register** (top 10 assumptions with triggers).

Days 4–7: Install one meeting rule.

Adopt **Define-before-decide** for all consequential decisions, or adopt the **Five-minute meaning check** at the end of every meeting. The rule must produce a traceable output (an updated entry in the chosen artifact).

Days 8–14: Pilot one coherence metric.

Select **one** metric aligned with the artifact and rule:

Lexicon → **interpretive consistency check** (short definition survey across roles).

Scenario card → **escalations due to unclear decision rights** (count and classify).

Decision log → **decision reversal frequency** (reopening due to missing rationale).

Assumptions register → **verification latency** (median days to validate/falsify).

This 14-day sequence operationalizes CITC with minimal overhead while producing early evidence of ROI through reduced drift, fewer reversals, and faster onboarding to decision competence.

The discussion clarifies why CITC is best treated as infrastructure: it operationalizes continuous communication as alignment work that yields inspectable artifacts and measurable coherence outcomes, while also identifying boundary conditions that can convert documentation into performative compliance. The conclusion, therefore, restates the chapter's main claim in its strongest form and consolidates the practical implication: collaboration begins where shared meaning becomes durable, and commitments become traceable, enabling innovation that remains interoperable across cultural and disciplinary differences.

13. CONCLUSION: COLLABORATION BEGINS WHERE MEANING BECOMES SHARED AND COMMITMENTS BECOME TRACEABLE

For teams pursuing collaborative innovation and collective impact, activity is necessary but not sufficient. Meetings, deliverables, and closed tasks can create the appearance of progress while concealing translation fragility and semantic drift. Effective collaboration begins only when meaning becomes shared in operational terms and when commitments become traceable in decision-grade form. Without those conditions, apparent alignment remains a deferred risk that reappears later as rework, decision reversals, and conflict at integration points.

This chapter has argued that Collaborative Intercultural Transdisciplinary Communication is best conceptualized not as an interpersonal "soft skill," but as an infrastructure for interoperability. CITC specifies how diverse teams stabilize shared meaning, standards, and accountability under conditions where culture,

discipline, hierarchy, and uncertainty otherwise produce false consensus. The Completion Trap explains why completion-biased legitimacy systems reliably generate finished-looking but non-interoperable work. The CITC Alignment Loop provides a repeatable governance cycle that converts communication into inspectable alignment outcomes. The minimal artifact stack materializes those outcomes as boundary objects that support coordination without requiring total consensus, while coherence metrics demonstrate ROI by linking CITC to performance-relevant reductions in drift and rework.

The practical implication is direct: collaboration can be engineered. Teams do not need more communication volume. They need communication designed as infrastructure, with roles, artifacts, and protocols that institutionalize clarification, verification, and adaptation as core work. Under intercultural and transdisciplinary diversity, CITC is the first step because it makes collaboration possible on terms that can hold under pressure, turnover, and boundary crossings.

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