

Title

Recoverability-Constrained Systems — Cross-Jurisdiction Record
Convergence of Admissibility Boundaries Across Healthcare, Legal, and Regulatory
Systems (RCE-X-001)

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DOI

(To be assigned by Zenodo)

Abstract

This record presents a cross-jurisdiction synthesis of independently established evidentiary records within the Recoverability-Constrained Systems (RCS) framework.

It integrates:

- RCE-UK-001 — Healthcare continuity failure (United Kingdom) — <https://doi.org/10.5281/zenodo.19824726>
- RCE-ARG-001 — Legal admissibility boundary (Argentina) — <https://doi.org/10.5281/zenodo.19825476>
- RCE-EU-ENF-001 — Regulatory enforcement mapping (European Union) — <https://doi.org/10.5281/zenodo.19827113>

The analysis demonstrates that across independent systems—healthcare delivery, legal protection, and regulatory enforcement—a common condition is observed:

→ where recoverability cannot be established in time under real conditions,
continuation is not permitted

This convergence is not derived from shared design or coordination. It is observed across independent systems operating under irreversibility constraints.

1. Scope and Position

This document forms part of the Recoverability-Constrained Systems evidentiary case series.

It provides:

- cross-record synthesis
- convergence analysis
- unified admissibility determination

It does not introduce new system conditions.

All determinations derive from:

Recoverability-Constrained Systems — Master Index

<https://doi.org/10.5281/zenodo.19583410>

2. Input Records

2.1 RCE-UK-001 — Healthcare Failure (United Kingdom)

DOI: <https://doi.org/10.5281/zenodo.19824726>

Demonstrates:

- continuation after loss of recoverability
 - absence of timely response
 - real-world non-admissible continuation
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2.2 RCE-ARG-001 — Legal Admissibility Boundary (Argentina)

DOI: <https://doi.org/10.5281/zenodo.19825476>

Demonstrates:

- irreversibility of harm
 - requirement for prevention under legal doctrine
 - restriction where recovery cannot be guaranteed
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2.3 RCE-EU-ENF-001 — Regulatory Enforcement (European Union)

DOI: <https://doi.org/10.5281/zenodo.19827113>

Demonstrates:

- enforcement of observability, correction, and control
- restriction or prohibition under failure conditions

3. Cross-Mapping of Conditions

Condition	UK (Failure)	Argentina (Law)	EU (Enforcement)
Detectability	Present but not acted upon	Required	Enforced
Response	Not executed in time	Required	Enforced
Recoverability	Lost	Required but not guaranteed	Enforced via restriction
Enforcement	Absent	Judicial mechanisms	Regulatory powers
State Validity	Insufficient	Protected	Required
Transition Control	Failed cascade	Harm must be prevented	Risk mitigation enforced

4. Convergence Analysis

4.1 Independence Condition

The analyzed systems—UK healthcare delivery, Argentine legal frameworks, and EU regulatory enforcement—operate independently across different domains, jurisdictions, and institutional structures.

No shared design, coordination, or common framework defines their behavior.

The observed convergence therefore emerges from system constraints, not from prior alignment.

4.2 Non-Causal Convergence

The convergence described in this record is non-causal.

No system derives its behavior from another.

The convergence arises from shared constraints under irreversibility conditions.

4.3 Observed Pattern

Across all records:

- system operation depends on bounded-time execution
- failure to act within that interval leads to loss of recoverability
- propagation or delay produces irreversible states
- post-event correction cannot restore the original condition

Despite differences in domain:

- healthcare systems fail when recovery is not executed
- legal systems require prevention when harm is irreversible
- regulatory systems restrict operation when control is lost

5. Minimal Admissibility Condition

The minimal condition for non-admissibility across all systems is:

→ inability to establish recoverability in time under real conditions

No additional domain-specific requirement is necessary.

This condition alone is sufficient.

6. Unified Determination

Across all analyzed systems:

If:

- system state cannot be fully observed
- response cannot be executed in time
- recovery cannot be guaranteed
- transitions produce irreversible outcomes

Then:

→ continuation is not permitted

This condition applies independently of domain or jurisdiction.

7. Conformance Classification

Level 0 — Non-Conformance (UK)

System continues after recoverability is lost.

Level 1 — Conformance-Equivalent Behavior (Argentina)

Legal structures require prevention where recovery cannot be established.

Level 2 — Structural Enforcement (EU)

Regulatory frameworks enforce restriction under failure conditions.

No additional conformance states are required to describe the systems analyzed in this record.

The classification is complete for the evaluated conditions.

8. Operational Consequence

Where the admissibility condition fails, the required system response is:

- prevention of continuation
- restriction of execution
- or enforced halt

as applicable to the system context.

9. Uncertainty and Admissibility

In alignment with the Master Index:

Where recoverability cannot be established—including:

- incomplete system state
- uncertainty of conditions
- unknown propagation
- unverifiable recovery pathways

Then:

- continuation is non-admissible
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10. Closure Conditions — Non-Bypassability Layer

The admissibility boundary is non-circumventable.

The following do not preserve admissibility:

- partial system evaluation
- delayed response or deferred correction
- delegation to external actors
- simulated or assumed recovery
- cross-system or cross-border transfer
- post-harm remediation

The listed closure conditions are sufficient to eliminate all known forms of admissibility bypass within the evaluated scope.

11. Terminal Condition

Where recoverability cannot be established in time under real conditions:

→ continuation is non-admissible

→ execution does not occur

This condition is not conditional, deferrable, or reducible.

12. Non-Extension Clause

This record does not introduce new conditions, extend the invariant, or modify prior records.

All determinations are fully derived from the Recoverability-Constrained Systems invariant.

13. Final Statement

This record demonstrates that across independent systems—healthcare, legal, and regulatory—the same admissibility boundary emerges.

Where recoverability cannot be established in time under real conditions:

→ systems do not continue

This convergence is not imposed.

It is observed.
