

e-QR Whitepaper v1.1

A pan-European, transport-agnostic A2A payment initiation specification

Condensed Summary v1.1 (non-normative)

e-QR Payment Standard MTÜ
January 2026

1. Definition

e-QR is a pan-European, transport-agnostic account-to-account (A2A) payment initiation specification. It enables participating banks and payment service provider (PSP) applications to initiate SEPA Instant Credit Transfers (SCT Inst) to merchants using an EPC-profiled, standardised merchant payment payload. The payload may be carried via QR codes (baseline carrier profile in v1.0) and, in future, additional carriers such as NFC.

e-QR does not introduce a new payment system, processor, switch, or clearing infrastructure. It is a lightweight interoperability layer that initiates SCT Inst over existing SEPA rails in line with EPC MSCT guidance, without introducing new payment rails.

2. Problem addressed

Across Europe, mobile banking adoption is high and SCT Inst availability is widespread, yet retail point-of-interaction payments remain dominated by international card schemes. Existing QR and mobile payment solutions are fragmented, relying on proprietary formats, inconsistent merchant identification practices, and provider-specific implementations. There is no universal guarantee that any payer application can interpret any merchant-presented payment request.

This fragmentation prevents scalable A2A merchant acceptance and limits the practical use of instant payments in everyday commerce.

3. Core solution

e-QR standardises two missing layers, profiled from EPC/MSCT guidance:

- a merchant payment initiation payload profile mapped to SCT Inst fields; and
- a Merchant Registry trust model.

Payer applications capture the payload (e.g. by scanning a QR code), validate merchant identity via the Registry (MID–IBAN binding), and initiate an instant credit transfer with strong customer authentication inside the user's own bank or PSP application. This removes fragmentation, mitigates QR tampering risks, and ensures a consistent initiation flow across providers.

4. Key components

- **Interoperability Layer:** standardised payload schema, carrier encoding rules, versioning, and validation requirements.
- **Merchant Registry:** verifies merchant legal identity, issues Merchant Identifiers (MIDs), binds verified IBANs, enables real-time lookup, and prevents redirection or spoofing attacks (operated by certified Technical Operators under MTÜ governance).

- **Merchant Tools:** zero-cost scheme-level tools for registration and payload/QR generation; PSP-assisted onboarding may coexist.
- **PSP / Bank Execution:** PSPs retain full responsibility for SCA, AML/sanctions screening, risk controls, and SCT Inst execution via SEPA rails.

5. Payment flow models (conceptual)

- **Merchant-presented static:** fixed payload; payer enters the amount.
- **Merchant-presented dynamic:** POS-generated payload with amount and reference; supports automation and reconciliation.
- **Customer-presented (optional):** payer presents a token or payload scanned by the merchant in high-throughput environments; all payments remain payer-authorized and payer-initiated.

6. Economics and merchant charging principle

The MTÜ and Technical Operators do not charge merchants onboarding, participation, or usage fees at scheme level. PSPs remain free to price their overall merchant services independently, subject to competition law. e-QR does not set, recommend, or coordinate merchant pricing.

7. Governance and operations

e-QR is stewarded by a non-profit MTÜ providing a single pan-European governance framework for the specification, rulebook, certification, and stakeholder consultation. Operational services, including Merchant Registry instances and tooling, are delivered by one or more accredited Technical Operators under MTÜ oversight and defined service-level obligations. Governance is intentionally separated from operations and designed to evolve from a founder-led bootstrap phase into broader stakeholder representation. The MTÜ's objective is royalty-free implementability; an IP/patent policy will be published prior to adoption of Standard v1.0.

8. Implementation roadmap (high level)

Whitepaper → Technical Standard v0.1 → Proof-of-Concept → Pilot → Initial production deployments → European alignment and future evolution, including additional carrier profiles.

9. Call to action

Banks, PSPs, POS vendors, merchants, regulators, and industry bodies are invited to participate in consultation, specification refinement, pilot programmes, and production deployments to establish a low-cost, interoperable, SEPA-Instant-based merchant payment initiation layer and support a pan-European specification aligned with EPC standards.