# AI Sectorial TEFs and AI Regulatory Sandboxes

Europe's twin pillars for the AI Compliance pipeline and AI Governance under the AI Act

## AI Sectorial TEFs

- Technical validation at scale
- Real-world performance & safety testing
- Pre-market conformity evidence
- Possible support for notified bodies in certification processes
- Sector-specific expertise and infrastructure

## AI Regulatory Sandboxes (AIRS)

- Regulatory experimentation & compliance guidance
- Supervised testing under legal oversight
- Improving legal certainty and supporting regulatory compliance
- Authority-led, possibly involving AI ecosystem actors
- Facilitating & accelerating access to the EU market for AI systems
- Supporting high-risk AI system providers to connect with national competent authorities and test their solutions to anticipate regulatory compliance

| | AI Sectorial TEFs | AI Regulatory Sandboxes |
|---|---|---|
| **Legal basis** | Digital Europe Programme, AI Act (Recitals 138, 139, 140, 145, 147 and 148) | AI Act (Art. 57-63) |
| **Primary purpose** | Technical validation, performance & safety benchmarking | Regulatory experimentation, legal compliance clarification |
| **Environment** | Real or close-to-real conditions; large-scale | Regulatory guidance, testing, also in real world conditions where appropriate |
| **Duration** | Permanent reference sites | Limited period, time-bound engagement |
| **Led by** | Sector-specific consortia; technical experts | National competent authority |
| **Scope** | Healthcare, manufacturing, agrifood, smart cities | Any AI system (not limited to one sector); priority access given to SMEs |
| **Output** | Technical evidence, risk assessments, conformity documentation | Accelerate and facilitate market access, regulatory compliance, sharing of best practices and contribute to regulatory learning |

## Complementary, Not Competing

- TEFs offer the technical proving grounds to assess, refine and validate AI systems at scale.
- AIRS provide a controlled, legally supervised framework enabling providers to develop, train, validate, and test AI systems for a limited time.
- Used together, often sequentially, they enable a coherent pathway combining technical excellence with regulatory assurance.

**Development & Early Validation**
Benchmarking, governance, robustness checks

**TEF Testing**
Large-scale technical tests and safety assessment

**AIRS Testing**
Supervised real-world trials and compliance checks

**Conformity Assessment**
Potential use of TEF evidence for notified body review

**CE Marking**
Market authorisation and certification

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To get further information on which TEF might suit you best, reach out to CoordinaTEF helpdesk

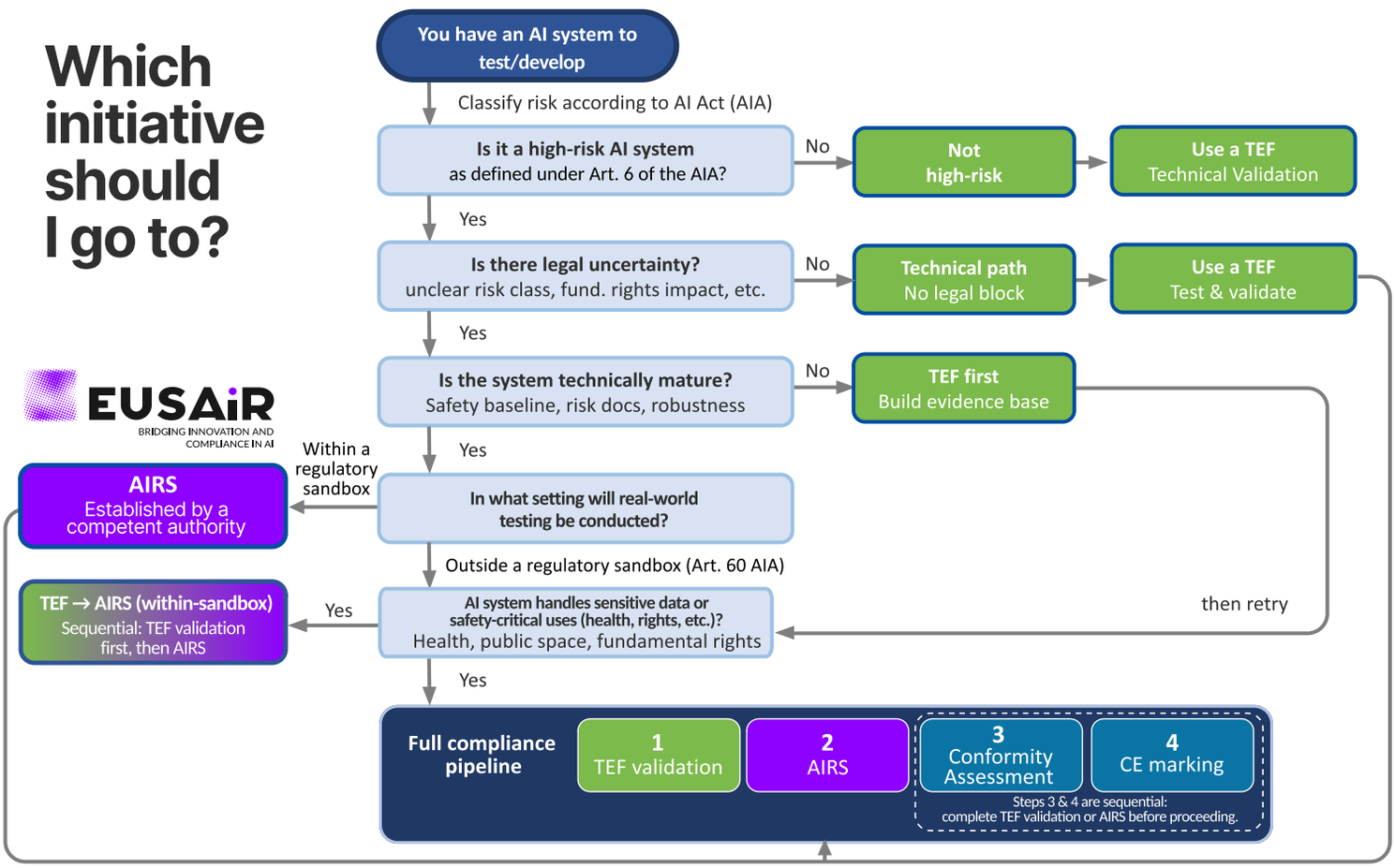
# AI Sectorial TEFs and AI Regulatory Sandboxes

Quick-reference guide

**Guide/Legend**

- **AI Sectorial TEF (TEF)** — Technical validation at scale, i.e., 'Does it work & is it safe?'
- **AI Regulatory Sandbox (AIRS)** — Legal supervision, compliance & guidance, i.e., 'Is this compliant with the AI Act?'
- **Both (Sequenced / Synergy)** — TEF first, then AIRS for Art. 60

## Which initiative should I go to?




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### Prioritise TEFs when...

- Primary need is technical robustness or performance benchmarking
- Integration testing or safety validation is required at scale
- Preparing technical documentation ahead of conformity assessment
- Supporting notified bodies with sector-specific evidence

### Prioritise AIRS when...

- Risk classification under the AI Act is unclear
- Novel or sensitive datasets (e.g. biometric, public space data) are involved
- Early engagement with national competent authorities is needed to ensure compliance before deployment
- Improving legal certainty is critical to proceed to market
- Aiming to accelerate EU market access, especially for high-risk AI systems

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