

Adopting TIBER-EU will help fulfil DORA requirements

The EU [Digital Operational Resilience Act \(DORA\)](#)¹ sets out a number of requirements for threat-led penetration testing (TLPT). This paper outlines how the European framework for threat intelligence-based ethical red teaming – the **TIBER-EU framework** – can help competent authorities and financial entities fulfil those requirements.²

The TIBER-EU framework provides comprehensive guidance on how authorities, financial entities, threat intelligence providers and red team testers should work together to test and improve financial entities' cyber resilience, by carrying out controlled cyberattacks. By adopting the TIBER-EU framework, competent authorities will equip themselves and financial entities to perform sound TLPT and thereby meet the DORA requirements for such tests.

1. Why adopting TIBER-EU can help financial entities and authorities to fulfil DORA requirements for TLPT

DORA is an EU Regulation that entered into force on 16 January 2023 and will apply as of 17 January 2025, after which competent authorities will need to guide and manage the performance of TLPT for designated financial entities in their jurisdictions. Guiding TLPT is a specific area of expertise and is outside the usual skillset associated with supervision. Such testing needs to be executed effectively and securely, especially given that TLPT will be conducted on live production systems. The TIBER-EU framework will give authorities and financial entities comprehensive support in fulfilling DORA requirements for TLPT.

Guiding and performing TLPT on the basis of the DORA regulatory technical standards alone will be challenging given the high standards required by such tests. Contextualisation, detailed and in-depth guidance, lessons learned from experience or best practices for TLPT are not included

¹ Regulation (EU) 2022/2554 of the European Parliament and of the Council of 14 December 2022 on digital operational resilience for the financial sector and amending Regulations (EC) No 1060/2009, (EU) No 648/2012, (EU) No 600/2014, (EU) No 909/2014 and (EU) 2016/1011 (OJ L 333, 27.12.2022, p.1). See the [summary of DORA on the EUR-Lex website](#).

² See the ECB's website for more information on [TIBER-EU](#).

in the legal text. Effectively executing the various elements of the testing process requires a specific set of skills and knowledge, while testing may also pose many challenges to authorities and financial entities that are new to TLPT. TIBER-EU will alleviate these difficulties to a large extent and provides a framework that can be used to fulfil the DORA TLPT requirements.

2. What is the TIBER-EU framework?

TIBER-EU is a common European framework that delivers a controlled, bespoke and intelligence-led red team test of financial entities' critical live production systems. It was established as a tool for testing and improving key elements of the cyber resilience of participating financial entities, while focusing heavily on the learning opportunities provided by the testing. There are no differences between the TIBER-EU testing process and the TLPT process set out in DORA.

16 countries have implemented the TIBER framework so far. More are in the process of adopting it, while others have expressed an interest – also in light of the DORA requirements for TLPT. More than 100 tests have been carried out in a safe and controlled manner on financial entities across the EU under the framework as implemented in each country, delivering concrete results that have helped improve cyber resilience. The TIBER-EU framework can be applied to various types of financial entity and is also applied to entities outside the scope of the DORA legislation that want to test and improve their cyber resilience.

3. What does adoption of TIBER-EU entail?

After formally deciding to adopt the TIBER-EU framework, each implementing authority draws up a document setting out the implementation of TIBER-EU in their jurisdiction.³ All implementations must adhere to the core requirements of TIBER-EU.⁴ These requirements are a set of process-related and technical quality standards which safeguard the unity of the framework across countries and ensure that test results are comparable. This guarantees the mutual recognition of test results across jurisdictions within the EU. The TIBER-EU framework can also be adopted at a European level.

Although the core requirements of TIBER-EU must be implemented when the framework is adopted, authorities have the flexibility to include some additional elements in their respective TIBER implementations.

³ This is done in close cooperation with the secretariat of the ECB's TIBER-EU Knowledge Centre.

⁴ These requirements are set out in the TIBER-EU framework.

DORA requires the regulatory technical standards on TLPT to be developed in accordance with the TIBER-EU framework. Accordingly, and to avoid fragmentation of the regulatory landscape, the core requirements of the TIBER-EU framework have been included in the DORA requirements for TLPT. The core requirements for DORA TLPT and the TIBER-EU framework are therefore identical. This means that financial entities completing a test under a national or European-level implementation of the TIBER-EU framework will, assuming they fulfil the formal TLPT-related requirements set by the competent authorities, be **DORA TLPT-compliant**. **The TIBER-EU framework may therefore be seen as a handbook or set of detailed guidelines on how to complete DORA TLPT in a qualitative, controlled and safe manner – one which is consistent and uniform throughout the EU.**

For example, a Dutch financial entity subject to DORA is required to complete DORA TLPT every three years. De Nederlandsche Bank (the Dutch central bank), the national competent authority under DORA for this entity, has adopted the TIBER-EU framework and published a national TIBER-NL implementation document. With the support of the central bank's TIBER Cyber Team, the financial entity completes the test, using the TIBER guidance. In so doing, it fulfils the DORA requirements for TLPT.

4. What benefits does the TIBER-EU framework have for authorities and financial entities that need to fulfil the DORA requirements for TLPT?

Adopting and implementing the TIBER-EU framework – at national or at a European level – offers several benefits.

i) Extensive guidance

The two main documents of TIBER – the TIBER-EU framework and the Services Procurement Guidelines – contain additional context, guidance and points of attention for managing a TIBER test to completion. Carrying out advanced TLPT to a high standard of quality is an extensive process, with many aspects requiring careful management. This is also reflected in the various pieces of additional guidance that have been prepared and published by the ECB in recent years, including guidance for purple teaming, the scoping phase, the threat intelligence report and the red team test report.

ii) Experience and knowledge of TLPT

The members of the various TIBER cyber teams at the authorities that have adopted the framework across the EU are responsible for coordinating and executing tests for their respective financial entities. They have substantial knowledge on the testing process and related topics, such as provider certifications, the procurement phase, TLPT project management, the scoping of critical functions and outsourcing. Their experience is reflected in the best practices and lessons learned that are shared within the community, and evidenced by the fact that no noteworthy

incidents have occurred since the launch of the TIBER-EU framework. Some of these shared best practices have now become mandatory under DORA TLPT, including purple teaming, for which the ECB published a guide in 2022. Several national central banks and national competent authorities are planning to use their existing TIBER cyber teams when performing TLPT under DORA.

iii) TIBER-EU Knowledge Centre and community

The TIBER-EU Knowledge Centre (TKC) is a forum for national and European TIBER authorities, chaired by the ECB. The participating authorities use the forum to share their knowledge and experiences, and to coordinate common TIBER-related initiatives.

After an authority has formally decided to adopt and implement TIBER-EU, it is invited to join the TKC. This allows the new representatives to quickly increase their knowledge of the TIBER-EU framework and aspects of practical implementation and to establish bilateral lines of communication with other test managers. The existence of the cooperative, trust-based TKC community has contributed to the success of the TIBER-EU framework and its broad adoption across EU jurisdictions to date. This is illustrated by the significant support provided by the TKC in maintaining the framework, conducting bespoke training activities and developing additional guidance documentation.

5. Adopting the TIBER-EU framework as a next step towards fulfilling the DORA requirements for TLPT

As the testing requirements of DORA TLPT and the TIBER-EU framework are aligned, synergies will be reaped if **competent authorities adopt and implement the TIBER-EU framework**.

The EU community of authorities and financial entities would benefit from using a single common framework for TLPT that is already established, well-known and widely acknowledged. Not only would this allow the competent authorities to capitalise on the above-mentioned benefits of adopting TIBER-EU and participating in the TKC, it would also be the most cost-efficient and secure way of preparing for the advent of DORA TLPT on 17 January 2025. Adopting and implementing TIBER-EU will enable financial entities to ensure they fulfil the DORA requirements for TLPT.

Authorities that plan to adopt the TIBER-EU framework and join the TIBER community are invited to send an email to TIBER-EU@ecb.europa.eu