



# EUROPEAN COMMISSION

Directorate-General for Financial Stability, Financial Services  
and Capital Markets Union



**Claryon**

## European Financial Transparency Gateway

**SMART 2016/0488**

**European Commission DG FISMA**



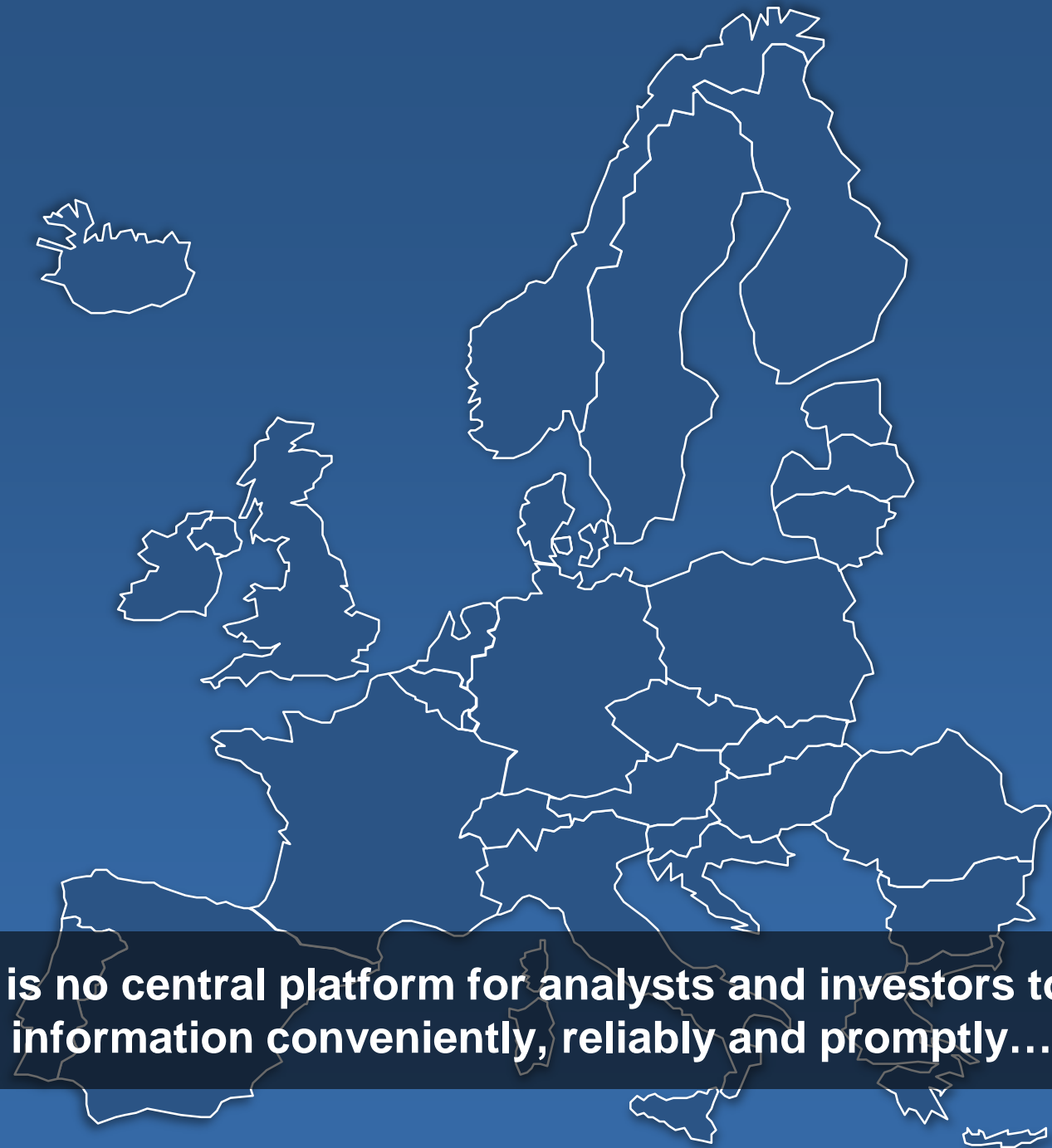
**Anne is an investor who is looking for opportunities on pan-European capital market**



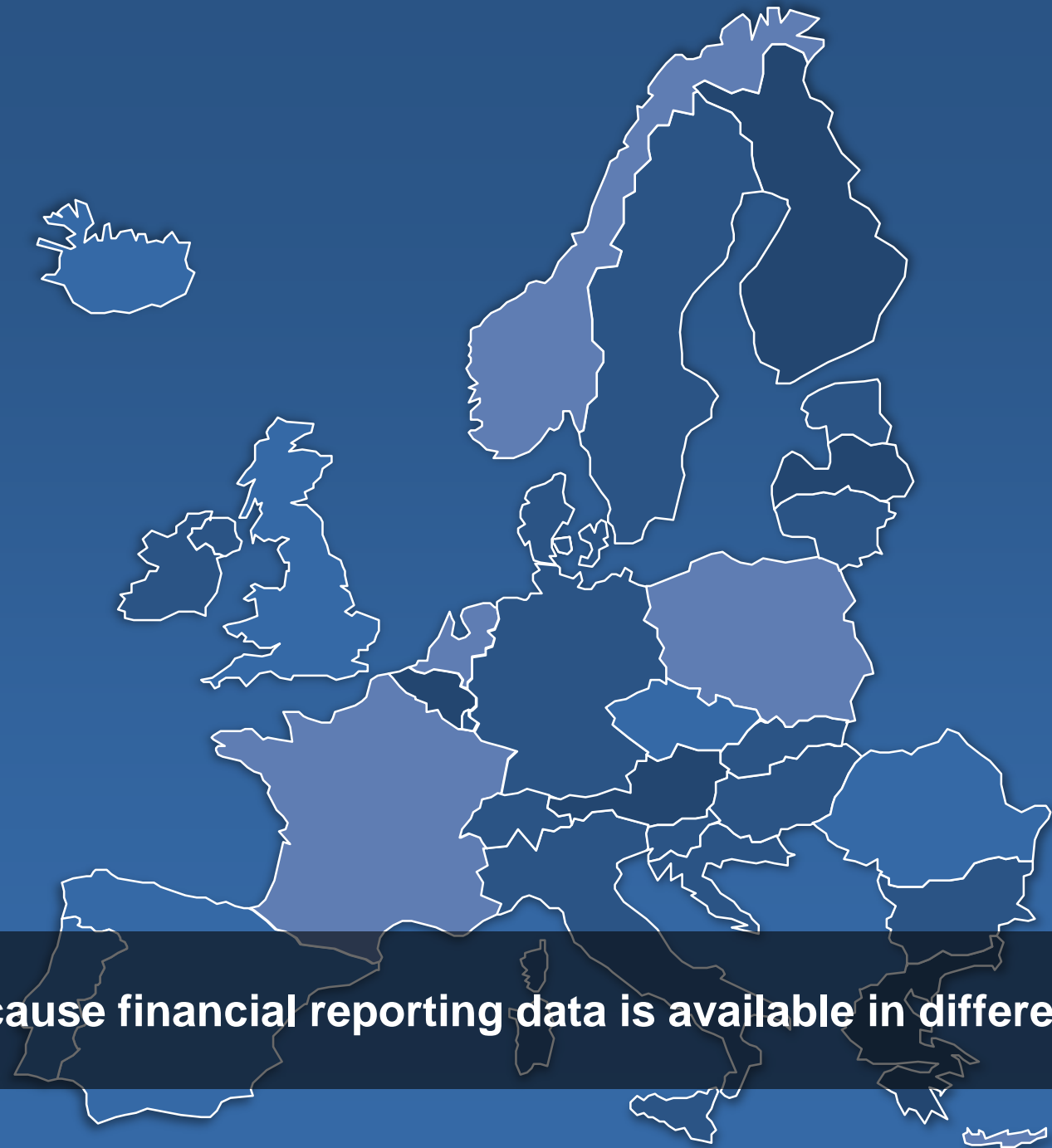
**Peter is an M&A manager who is looking for possible synergy opportunities among the European capital market participants**



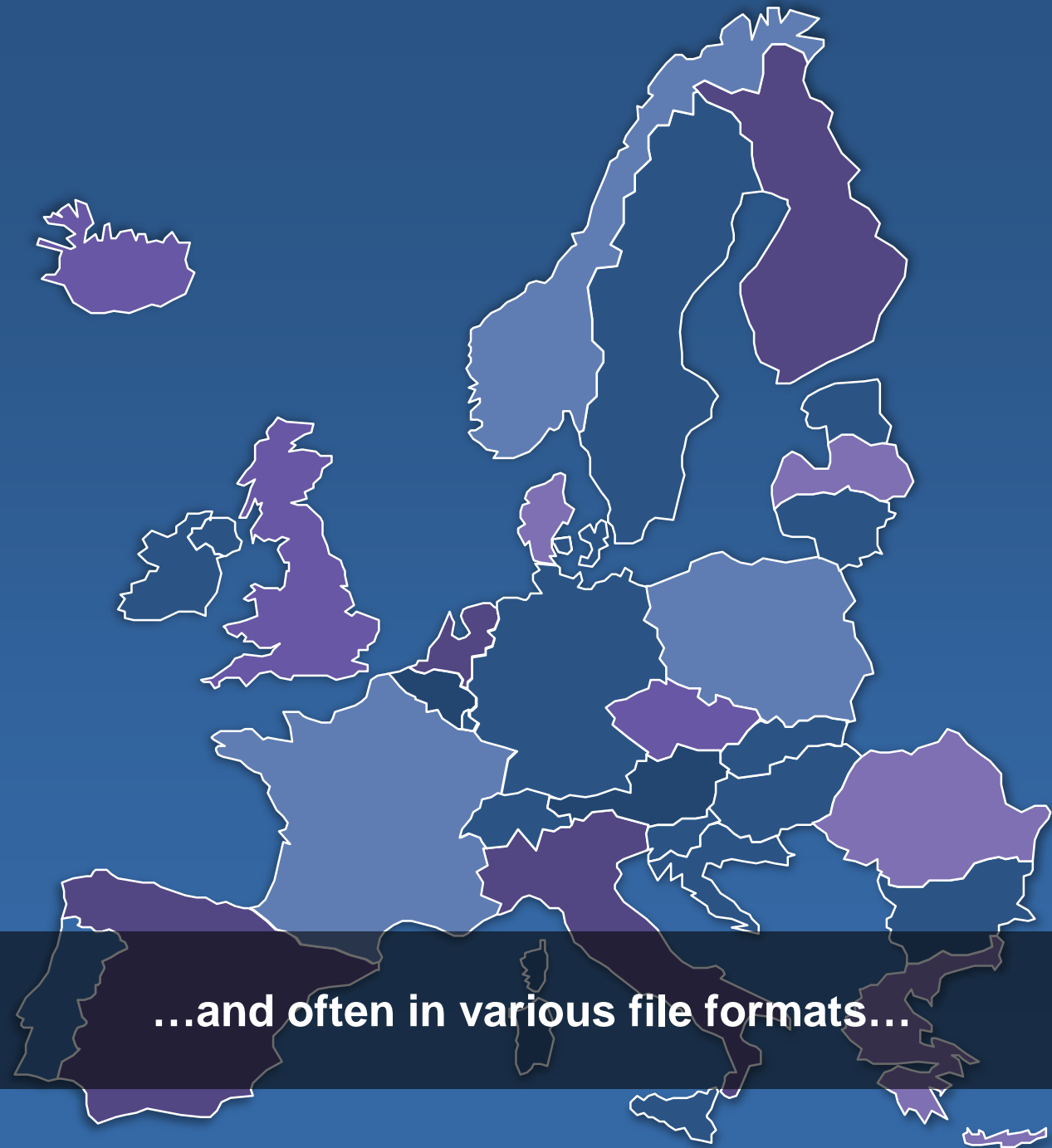
**Maria is an auditor who is searching for peers necessary in transfer prices analysis**



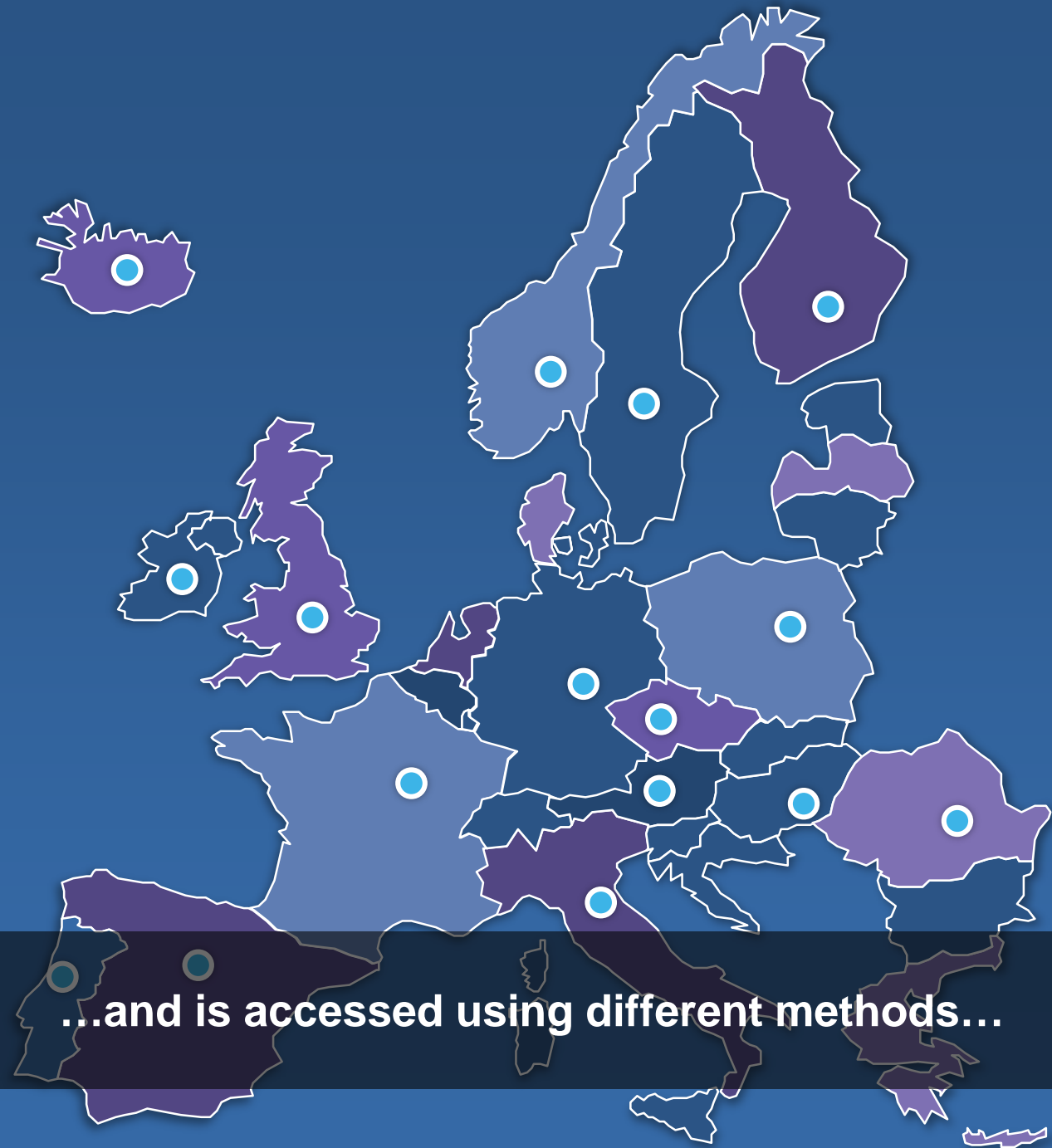
**Since there is no central platform for analysts and investors to obtain that information conveniently, reliably and promptly...**



**...and also because financial reporting data is available in different languages...**

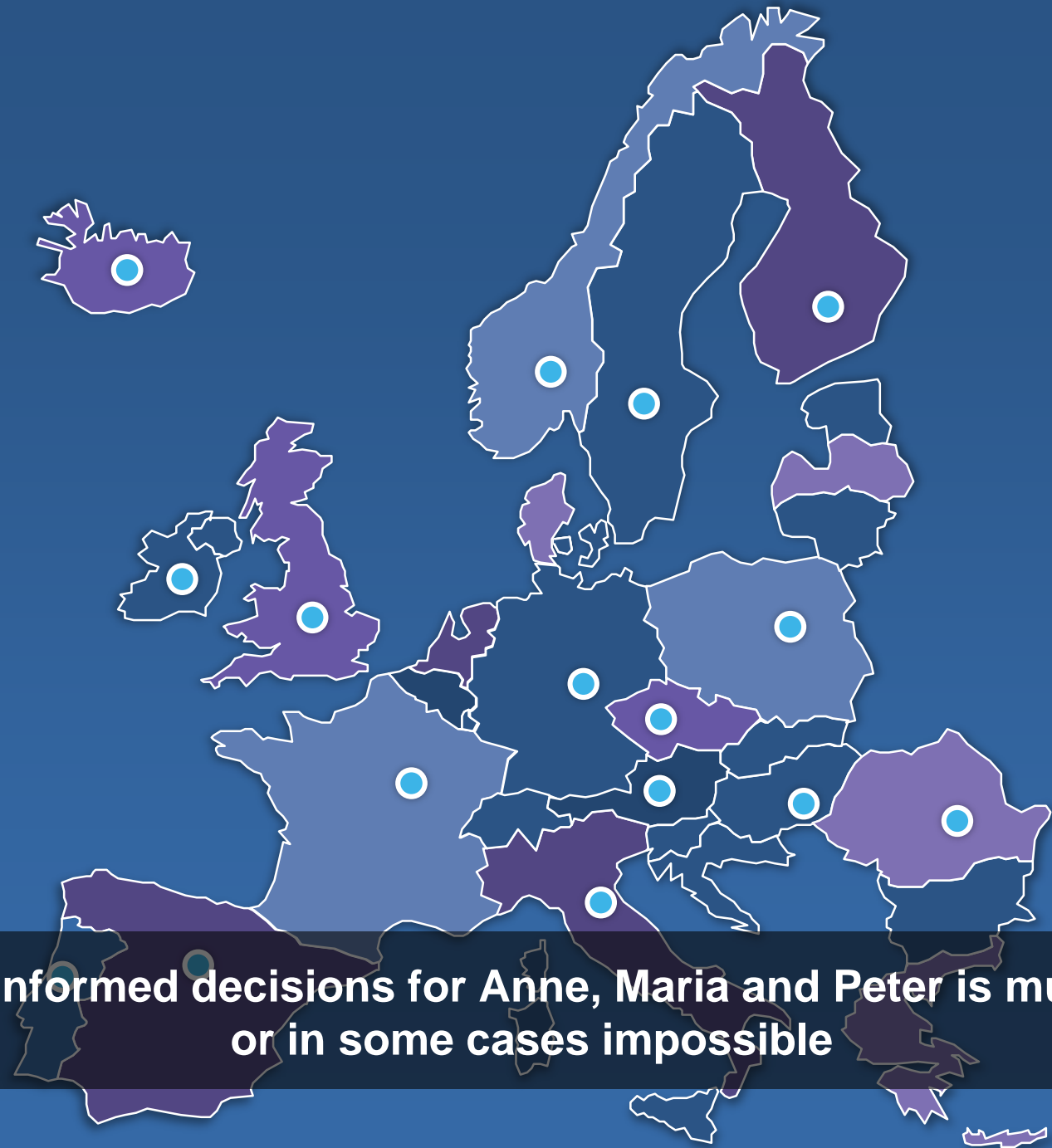


**...and often in various file formats...**

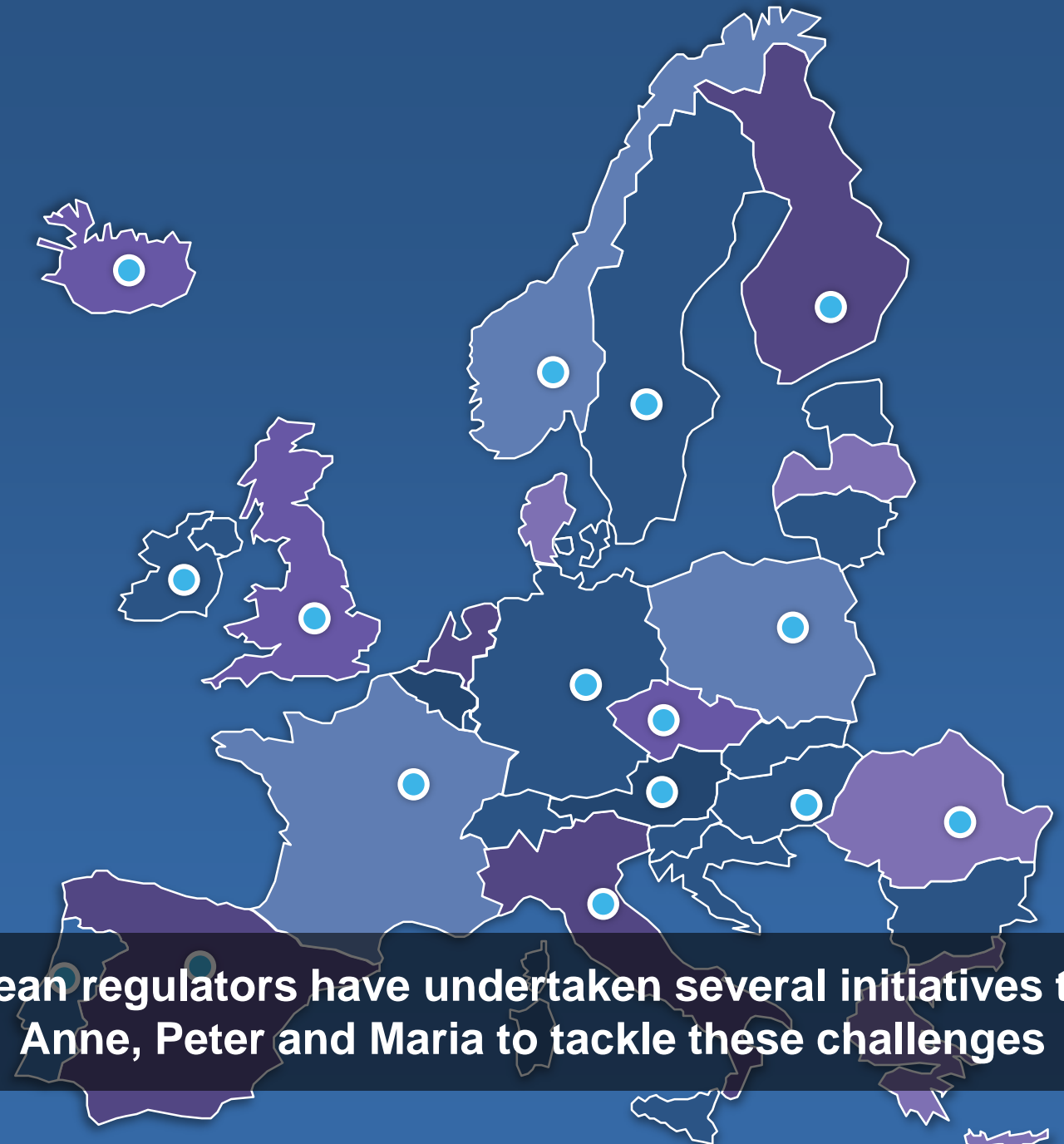


...and is accessed using different methods...





**...making informed decisions for Anne, Maria and Peter is much harder,  
or in some cases impossible**



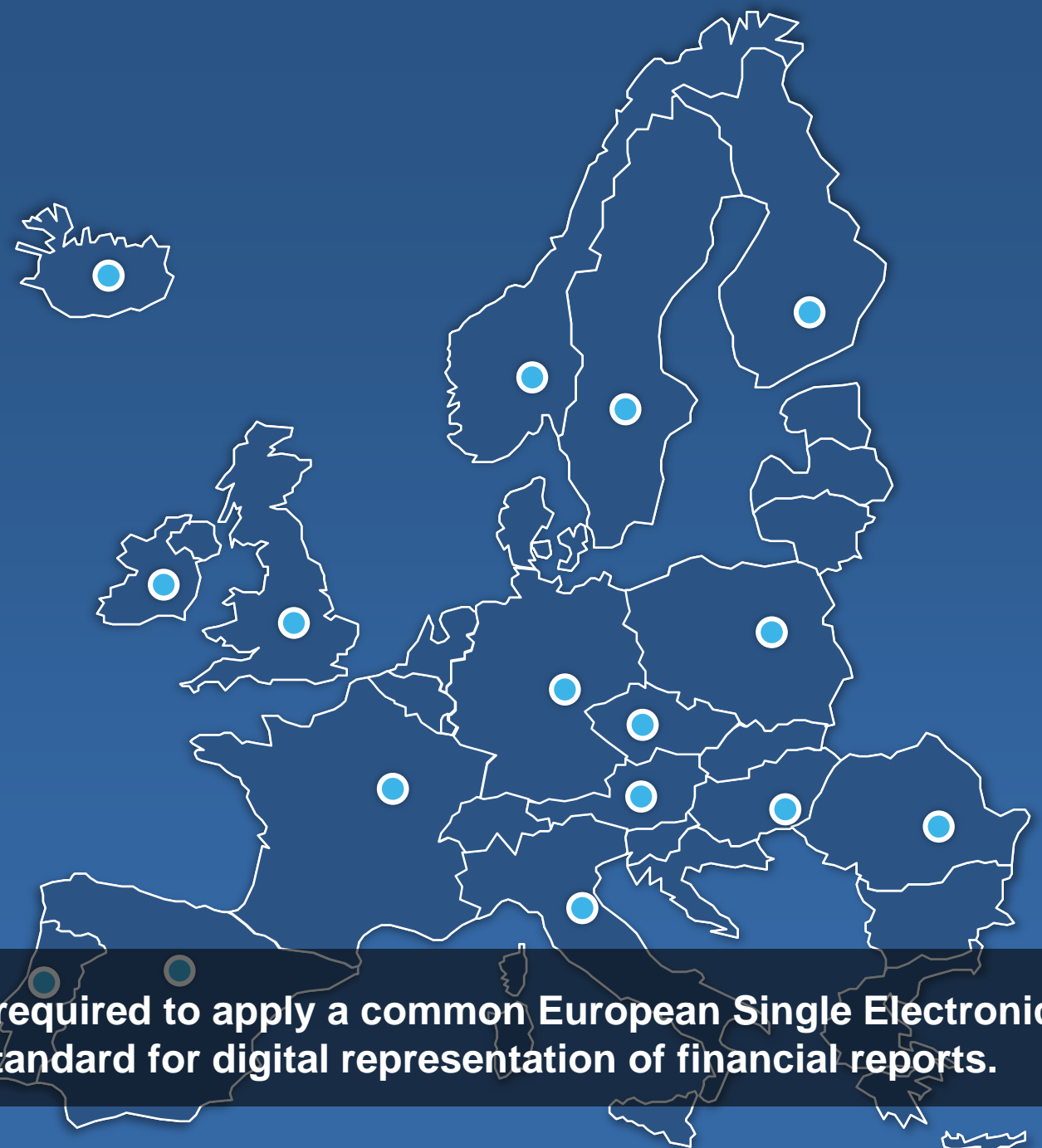
**European regulators have undertaken several initiatives to help Anne, Peter and Maria to tackle these challenges**



**In 2005 the European Union has introduced unified accounting and reporting standards called the International Financial Reporting Standards (IFRS)**



**From 2017 the EU will require capital market participants to start using the Legal Entity Identifier (LEI) as a unique company identification mechanism**



From 2020 all EU listed companies will be required to apply a common European Single Electronic Format which adopts the Inline XBRL standard for digital representation of financial reports.

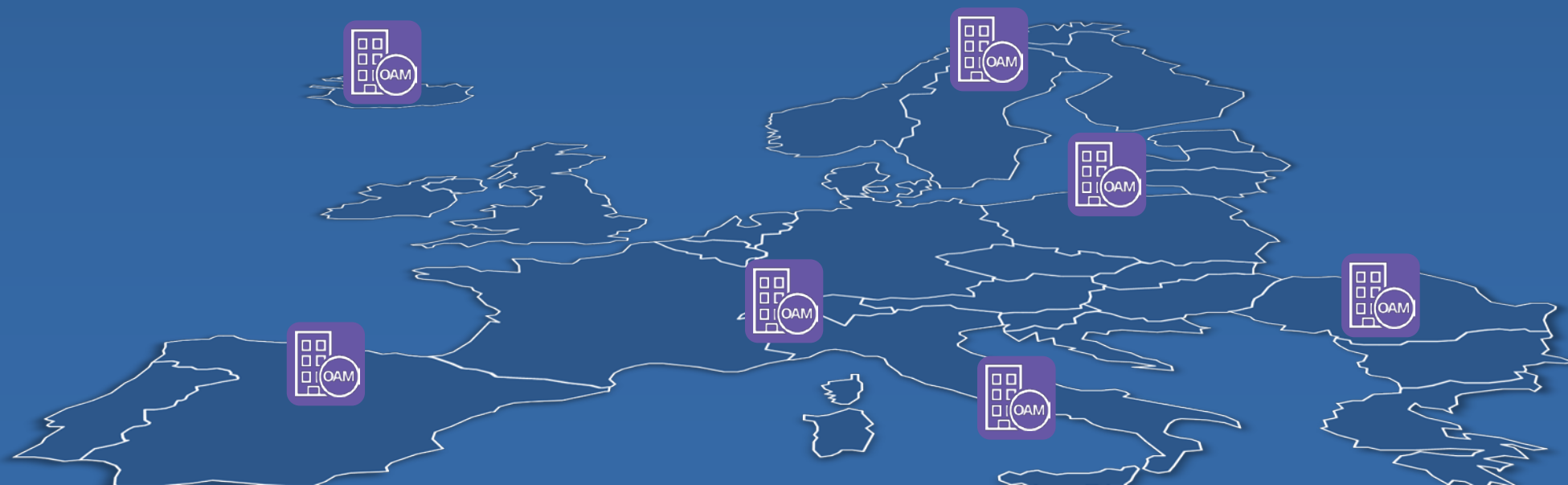


**Yet still, for an investor, the European capital market information  
is not conveniently accessible**

**In 2017 the European Commission has started  
researching the possibility to use Blockchain  
technology to create a distributed record of financial  
reports across the EU**

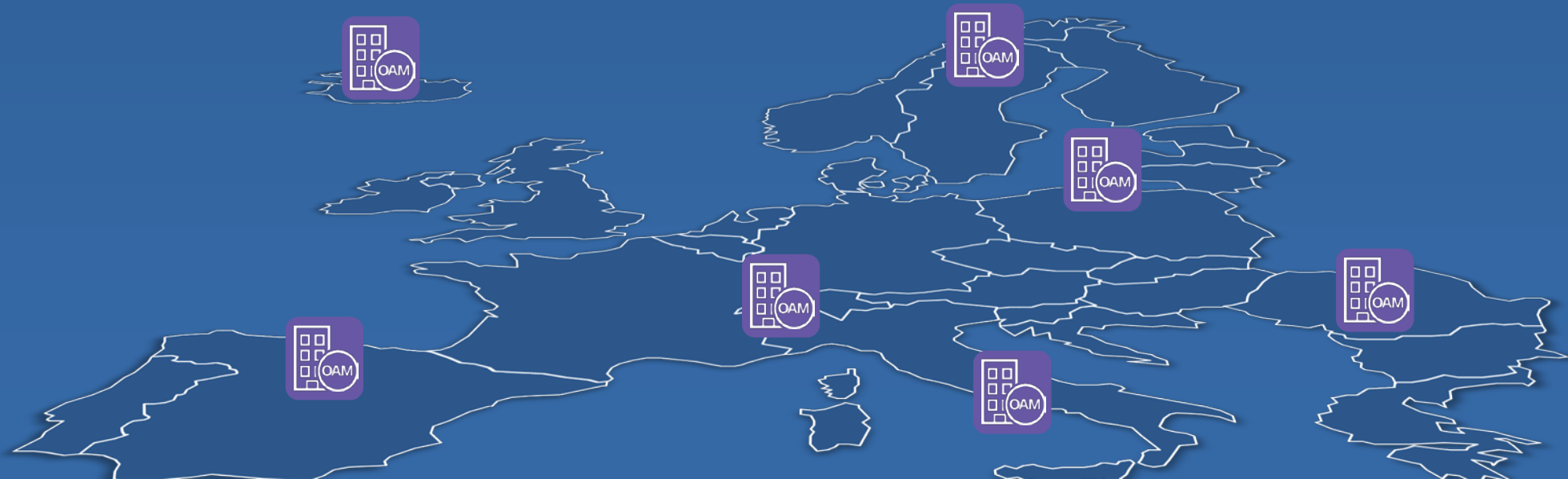
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Distributed Ledger Technology**

**Currently in each country there is an official registry called the Officially Appointed Mechanism (OAM) that is responsible for distribution of regulated information received from listed companies**

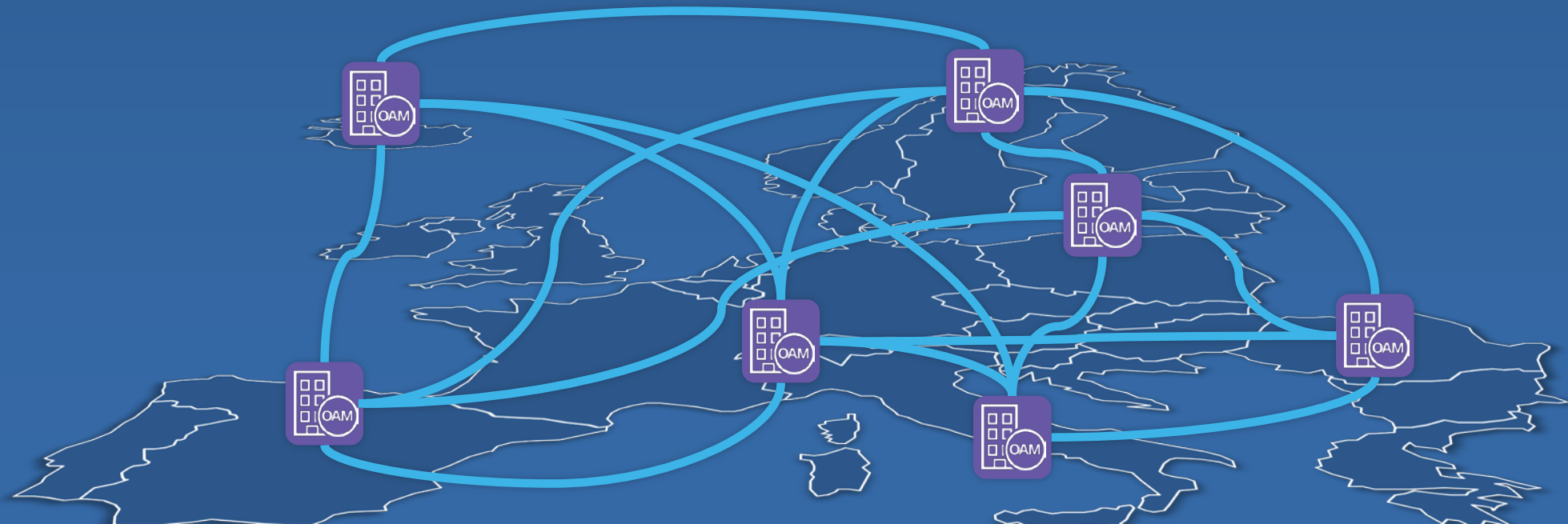




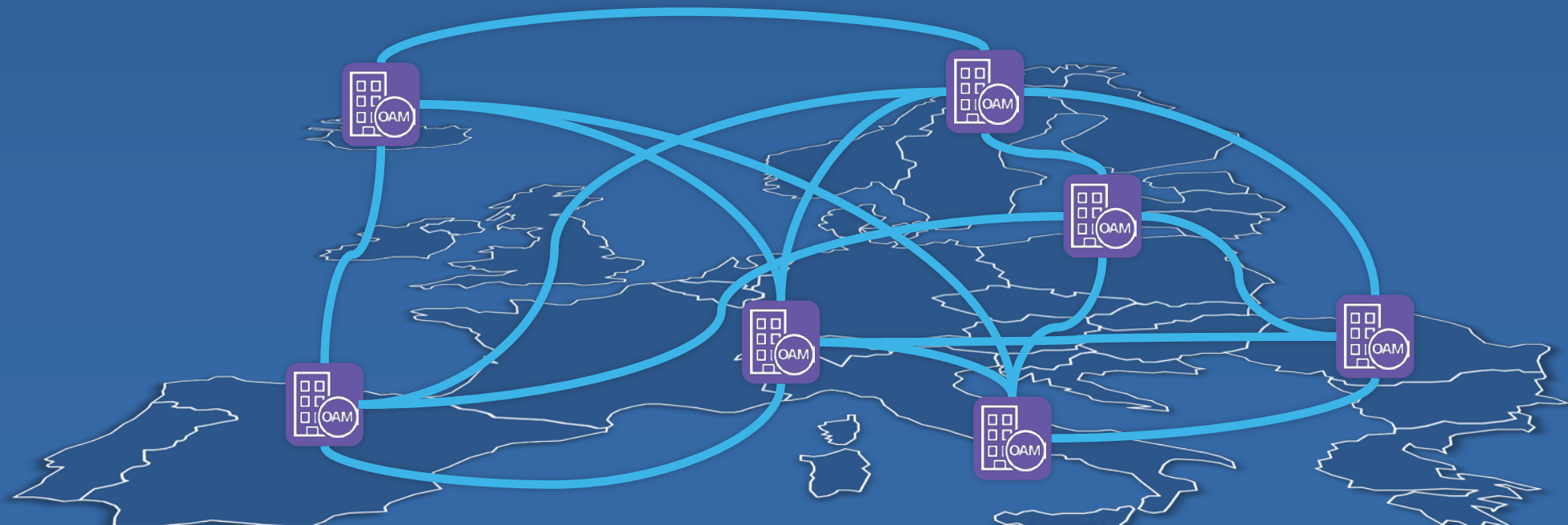
**At present these registries are not connected  
in any usable manner**



**But what if these registries were connected through a decentralized network?**



**What if they became a „cloud-based” commonly accessible registry that synchronises national regulatory information automatically?**



**This is what we call the European Financial Transparency Gateway**

EFTG



# EFTG





### Report Metadata

- Issuer Name
- Unique Issuer ID (LEI)
- Type of regulated information
- Report URL (OAM)
- Report URL (Issuer's IR website)
- Issuer's Home Member State etc.

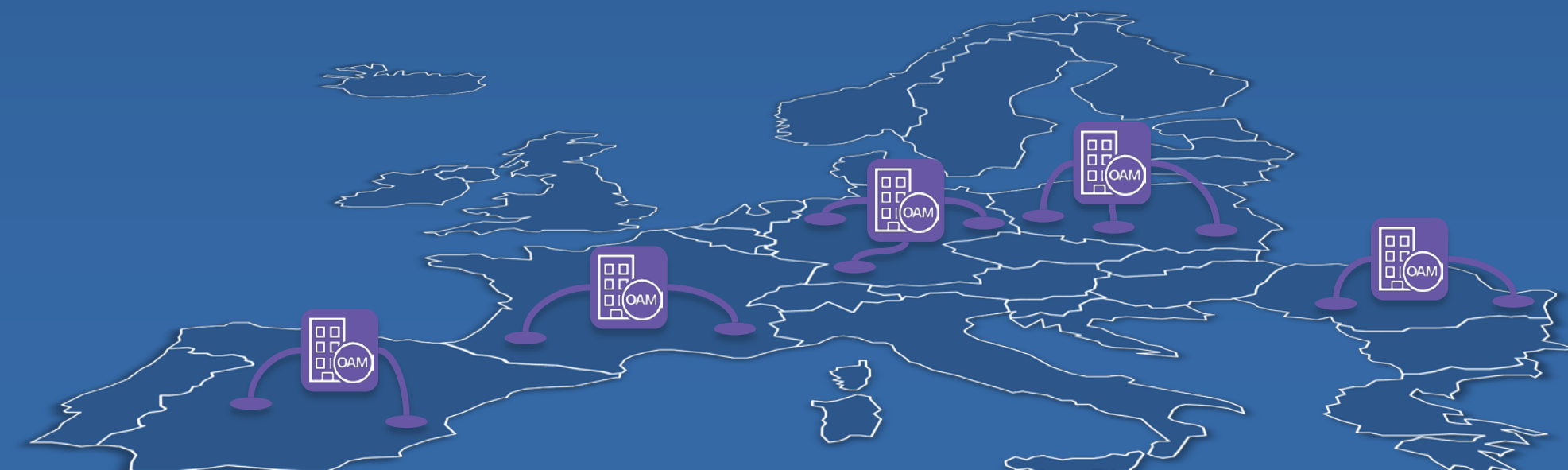




## Report Metadata

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Etc.

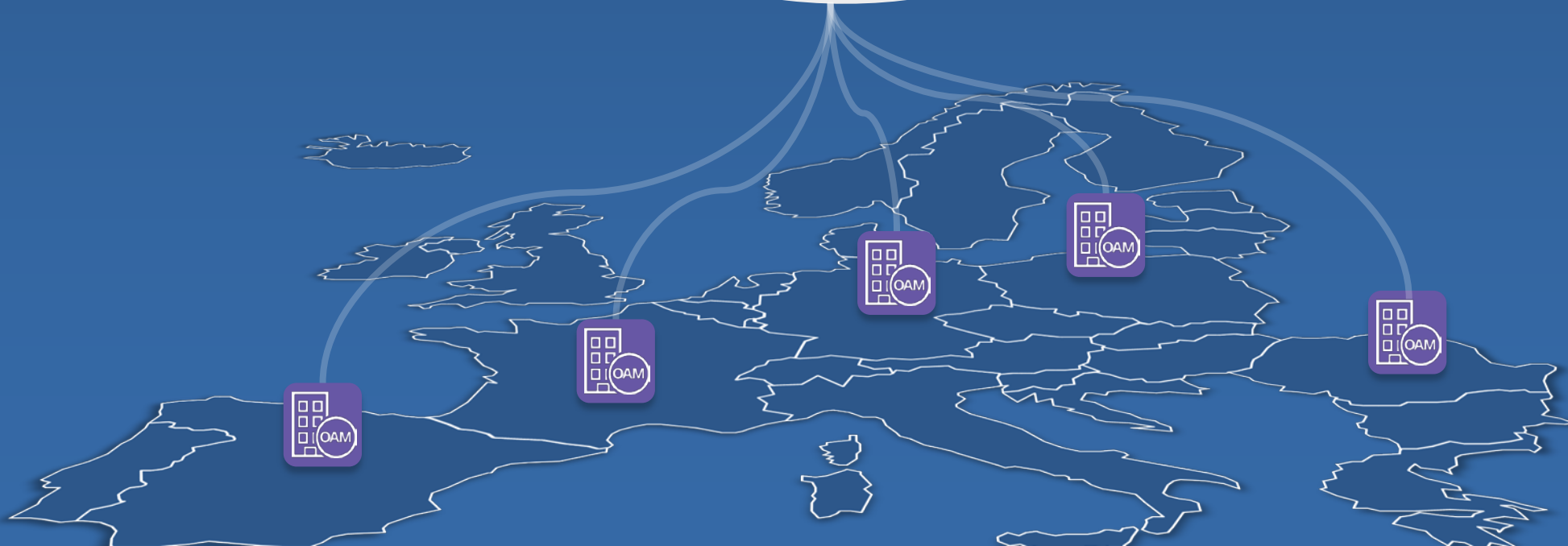






# Accessing information

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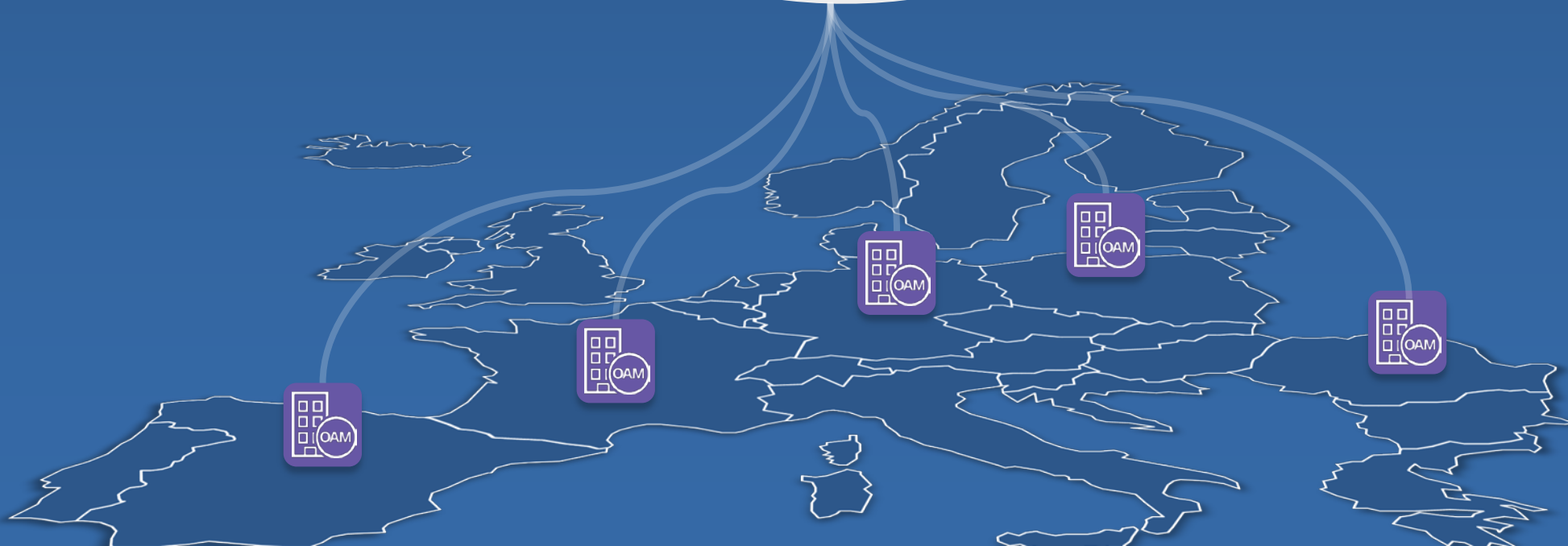




I would like to invest in European companies that have at least 30% ROI



ANNE

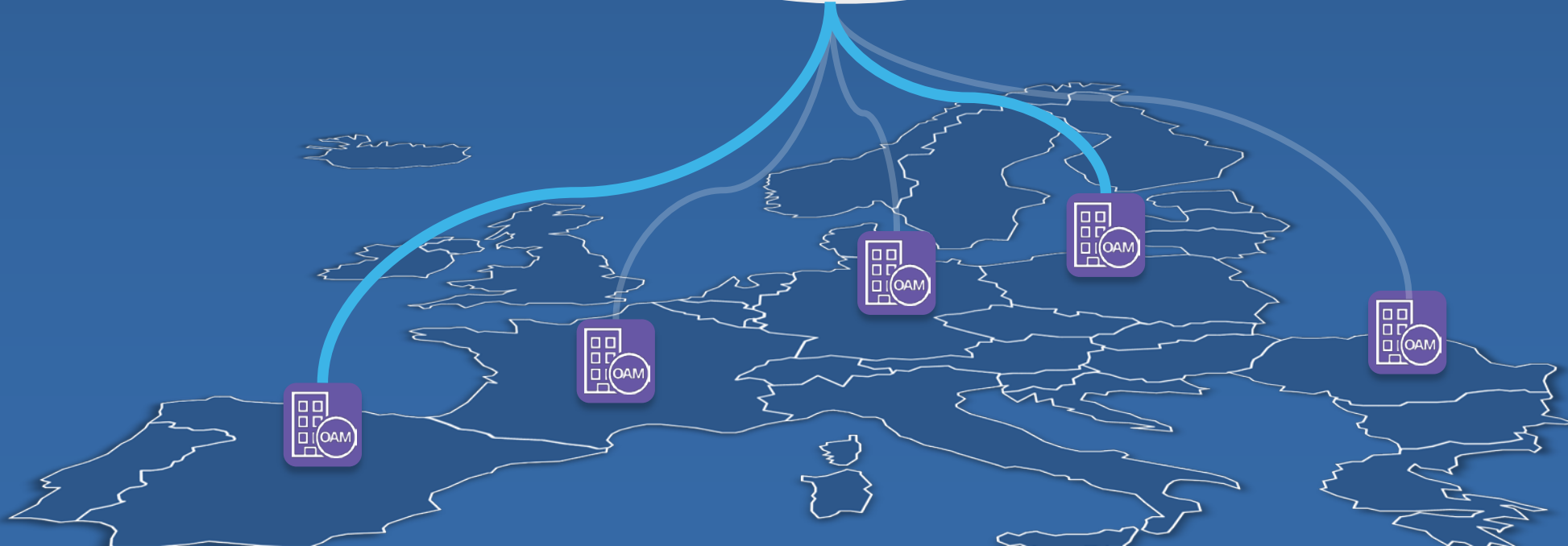




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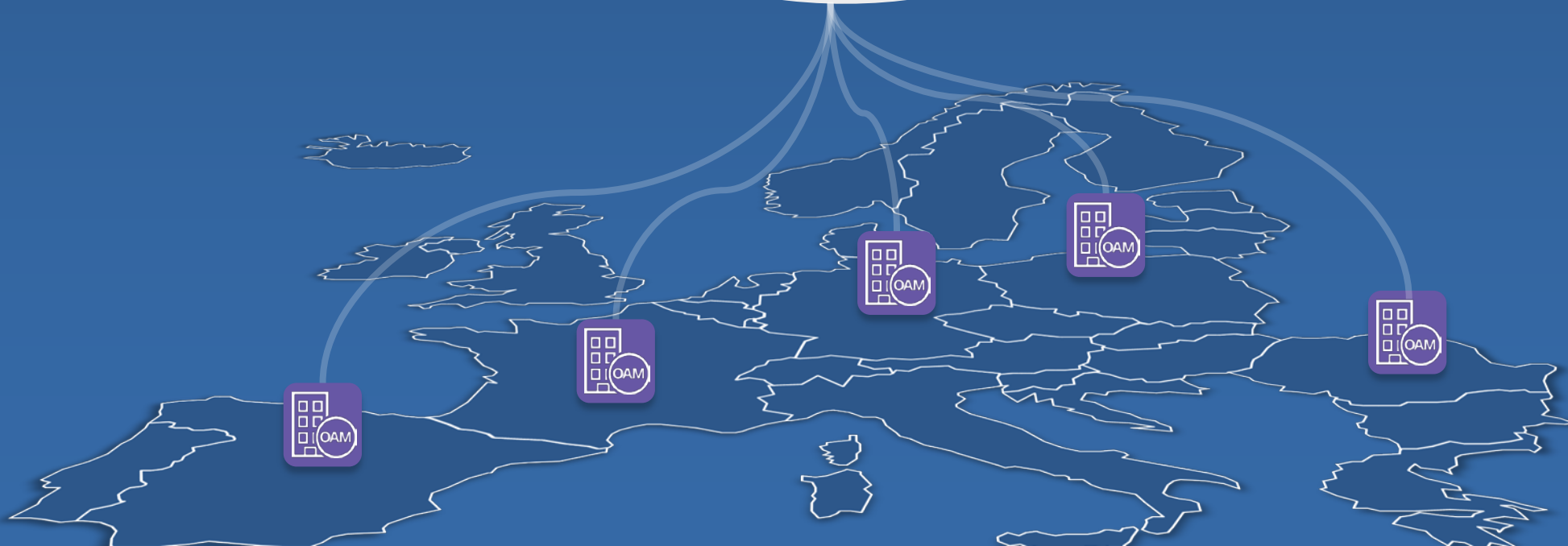




I am looking for steel producer in east Europe with low debt ratio to merge with a shipbuilding company



PETER

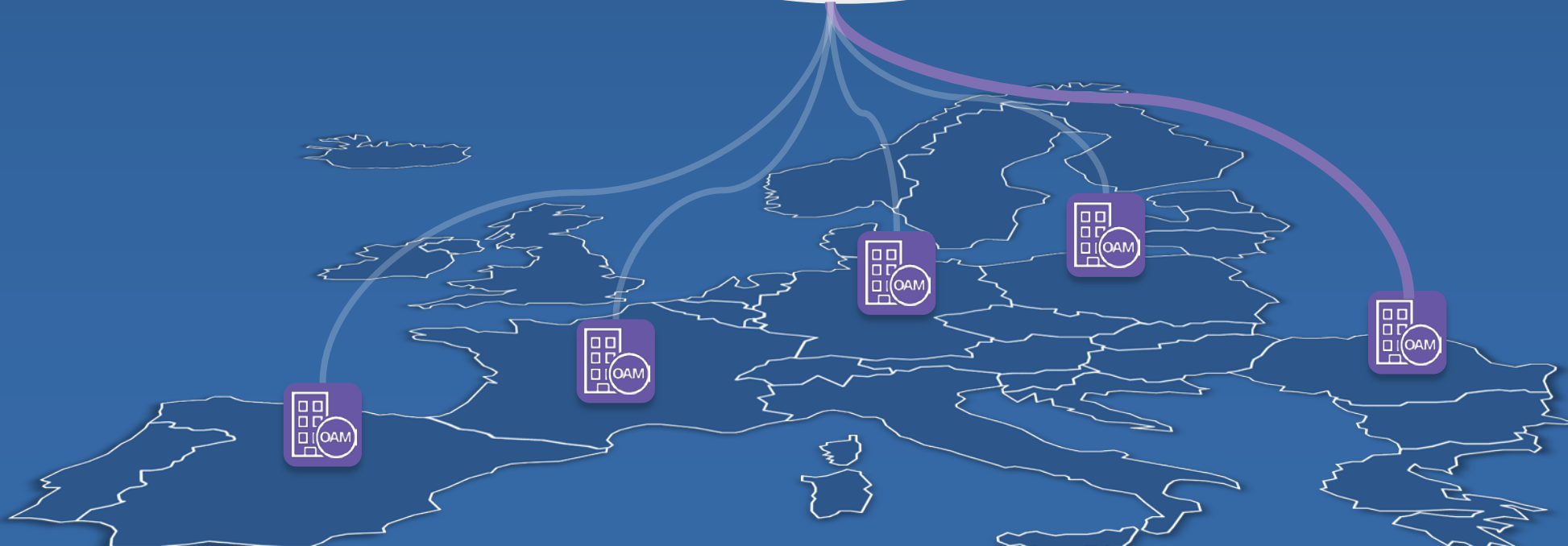




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PETER

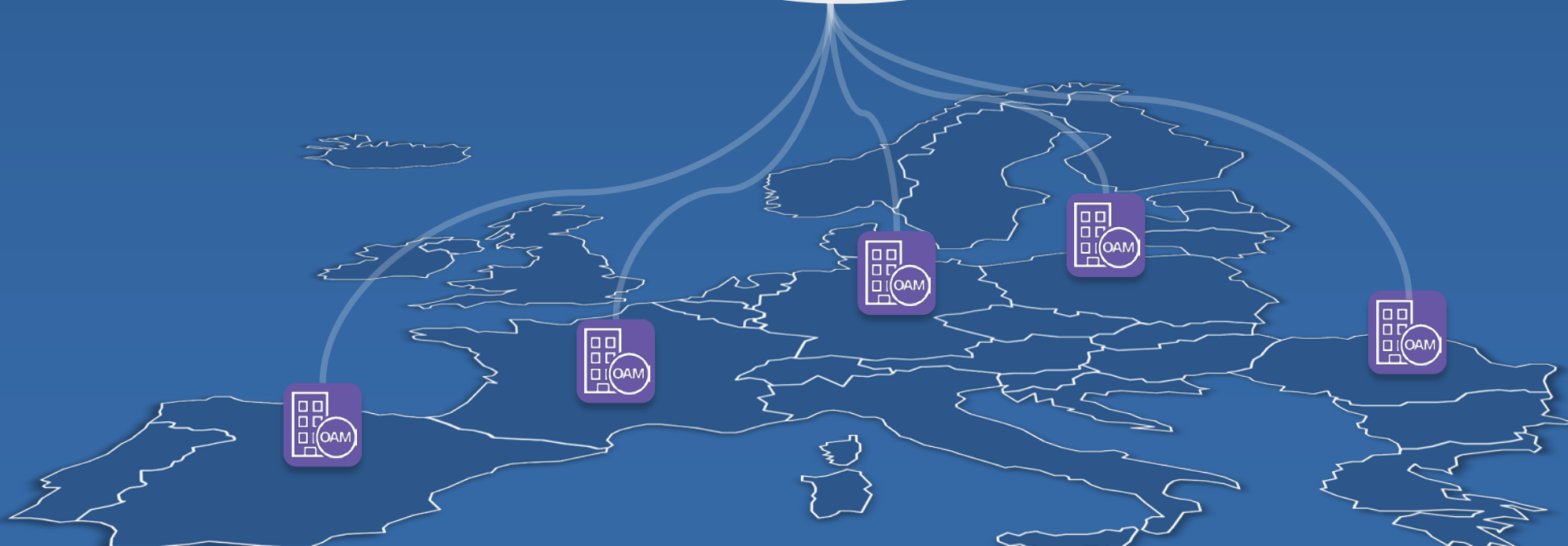




I am looking for peers with more than 50 million EUR assets and revenue more than 70 million EUR and profit more than 5 million EUR



MARIA

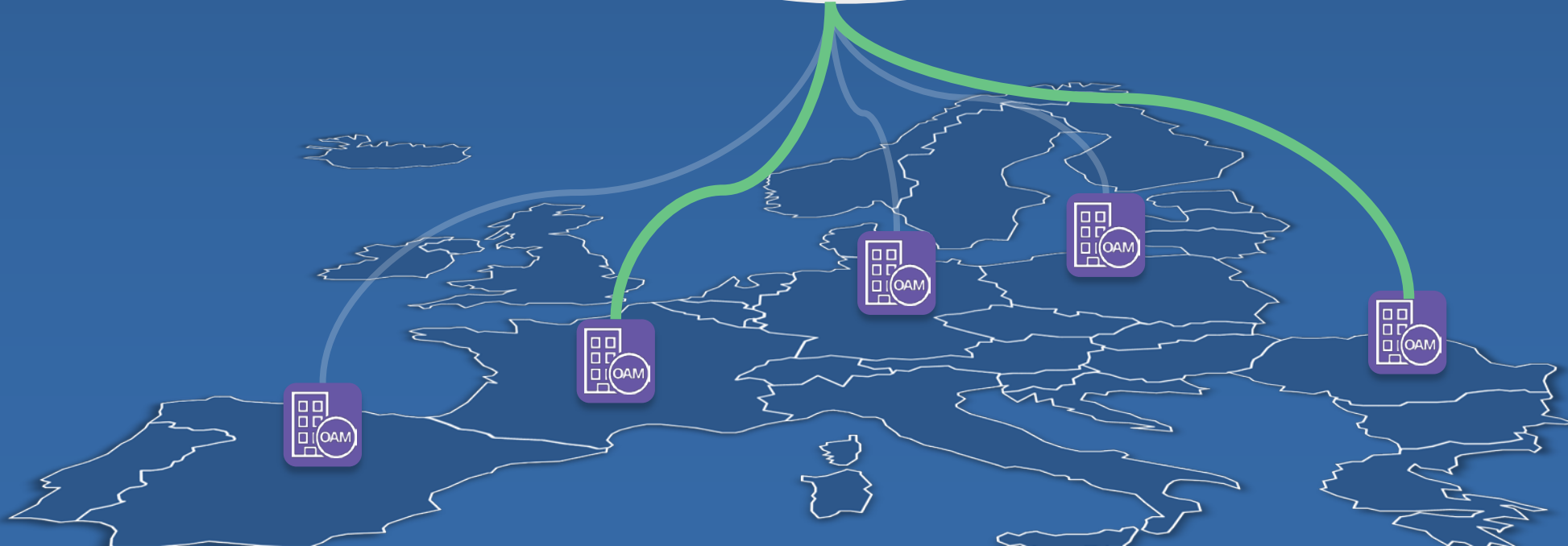




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MARIA





# **What are Distributed Ledger Technology advantages?**

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# SECURITY

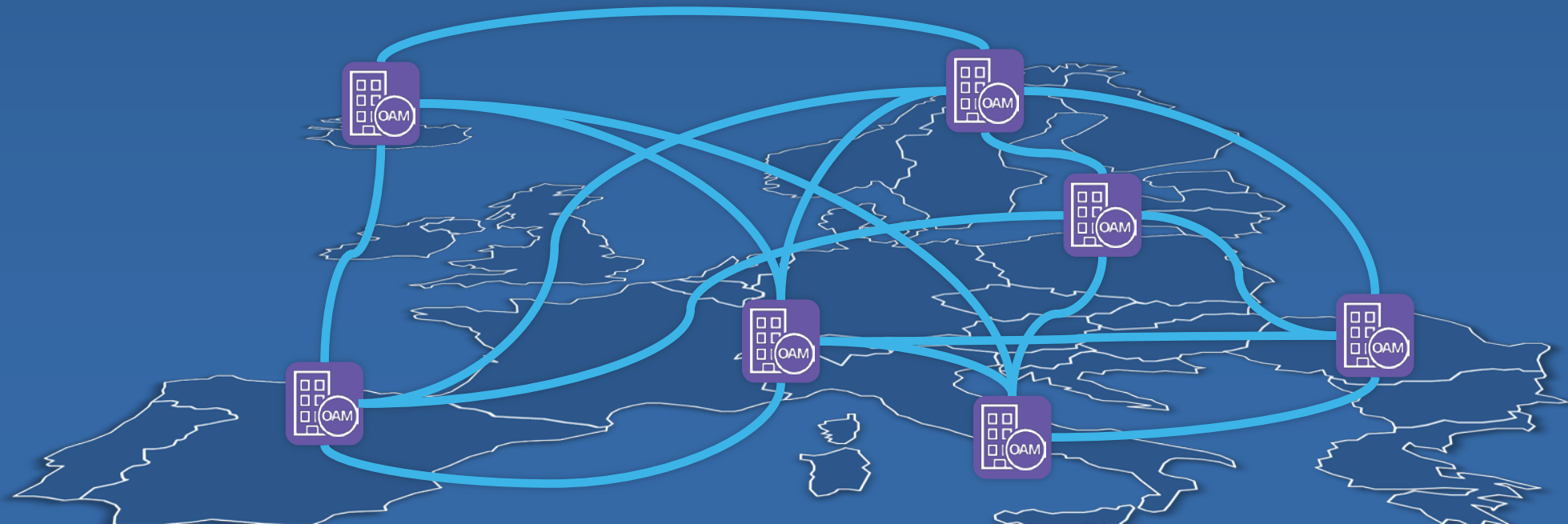
**Blockchain is a data structure that enables the creation of a digital ledger of transactions and share it within a distributed network of computers.**

**It utilizes advanced cryptography to enable each participant on the network to use the ledger in a secure way without a central authority.**



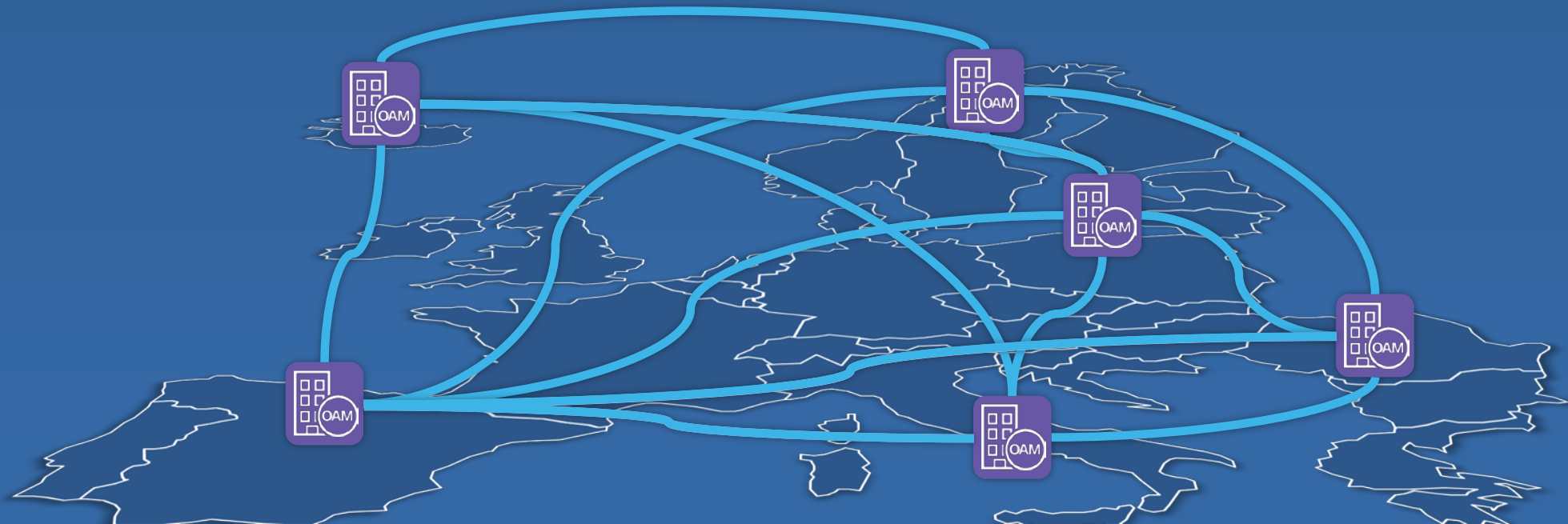
# RESILIENCE

Because every node has their own copy of the complete ledger, even if some of them are compromised or offline, the system is still fully operational



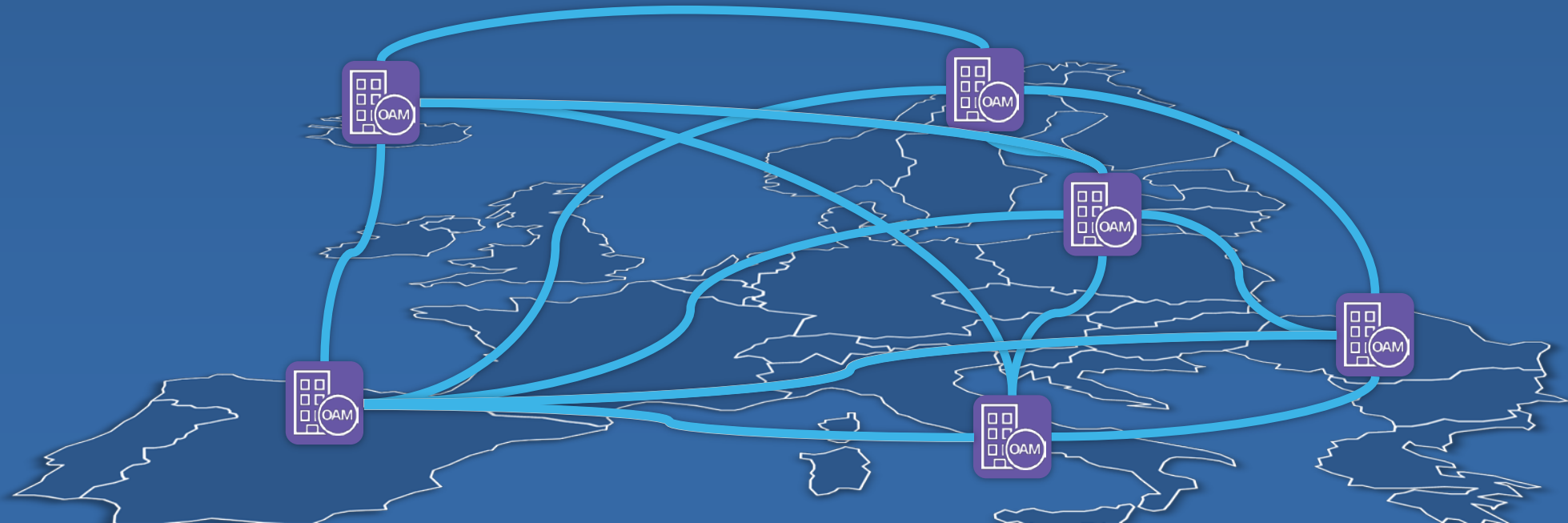
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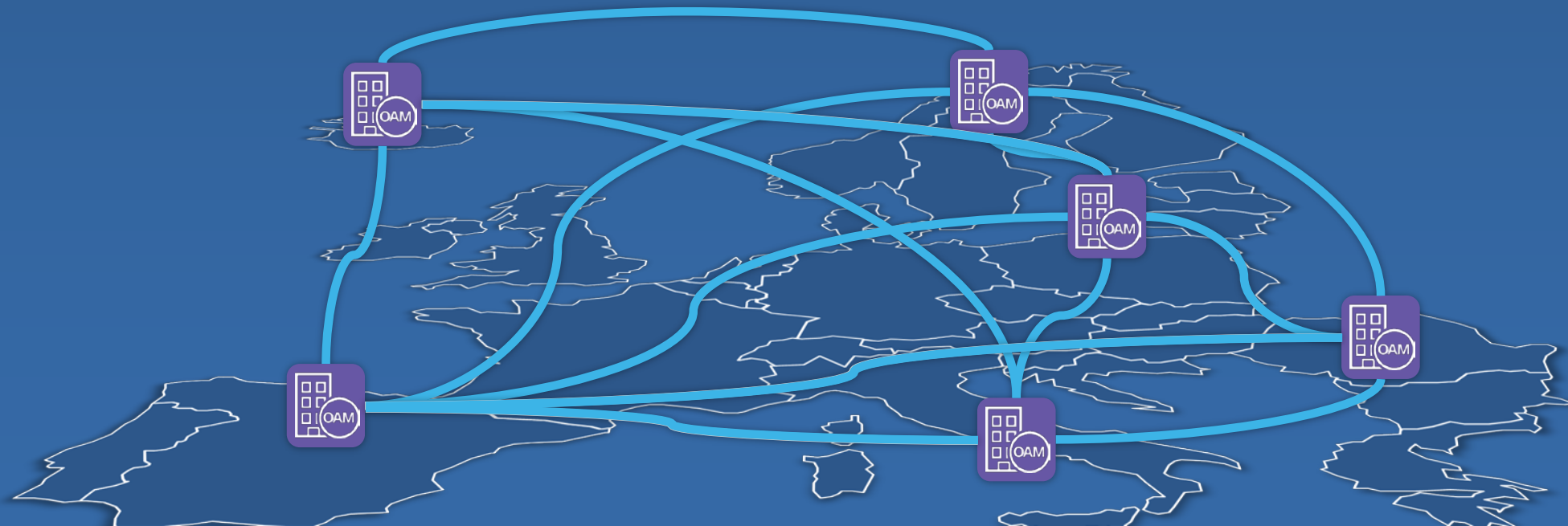
# IMMUTABILITY

Due to the consensus protocol, the majority of the nodes (OAMs) have to approve information submitted by one of the nodes. When an outside party tries to submit a fraudulent information, it will be rejected.



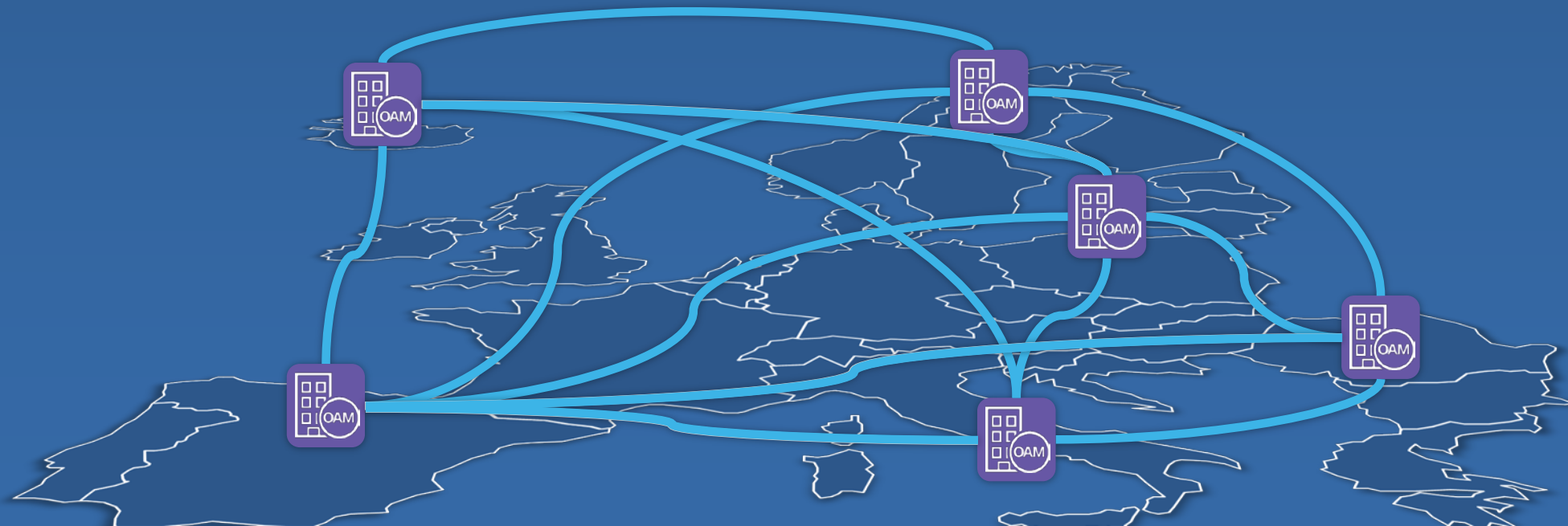
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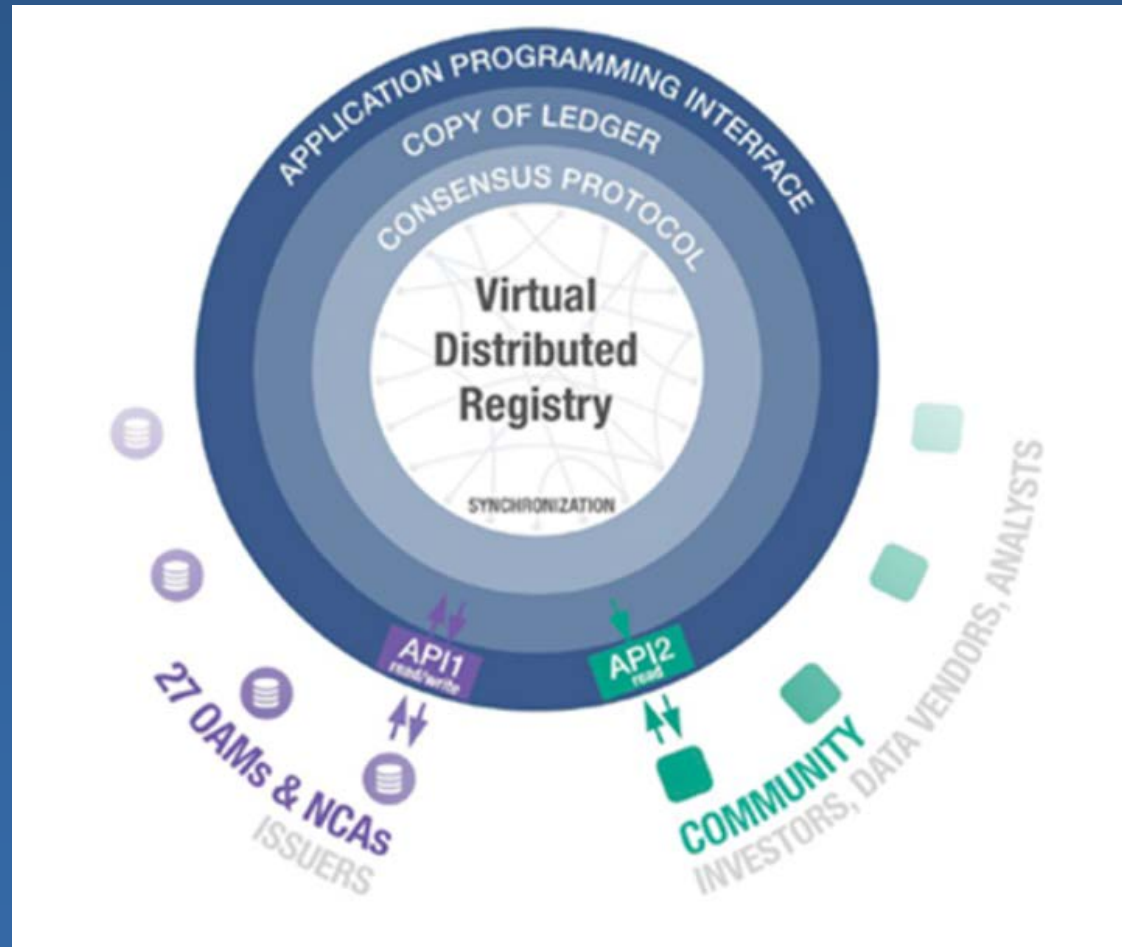
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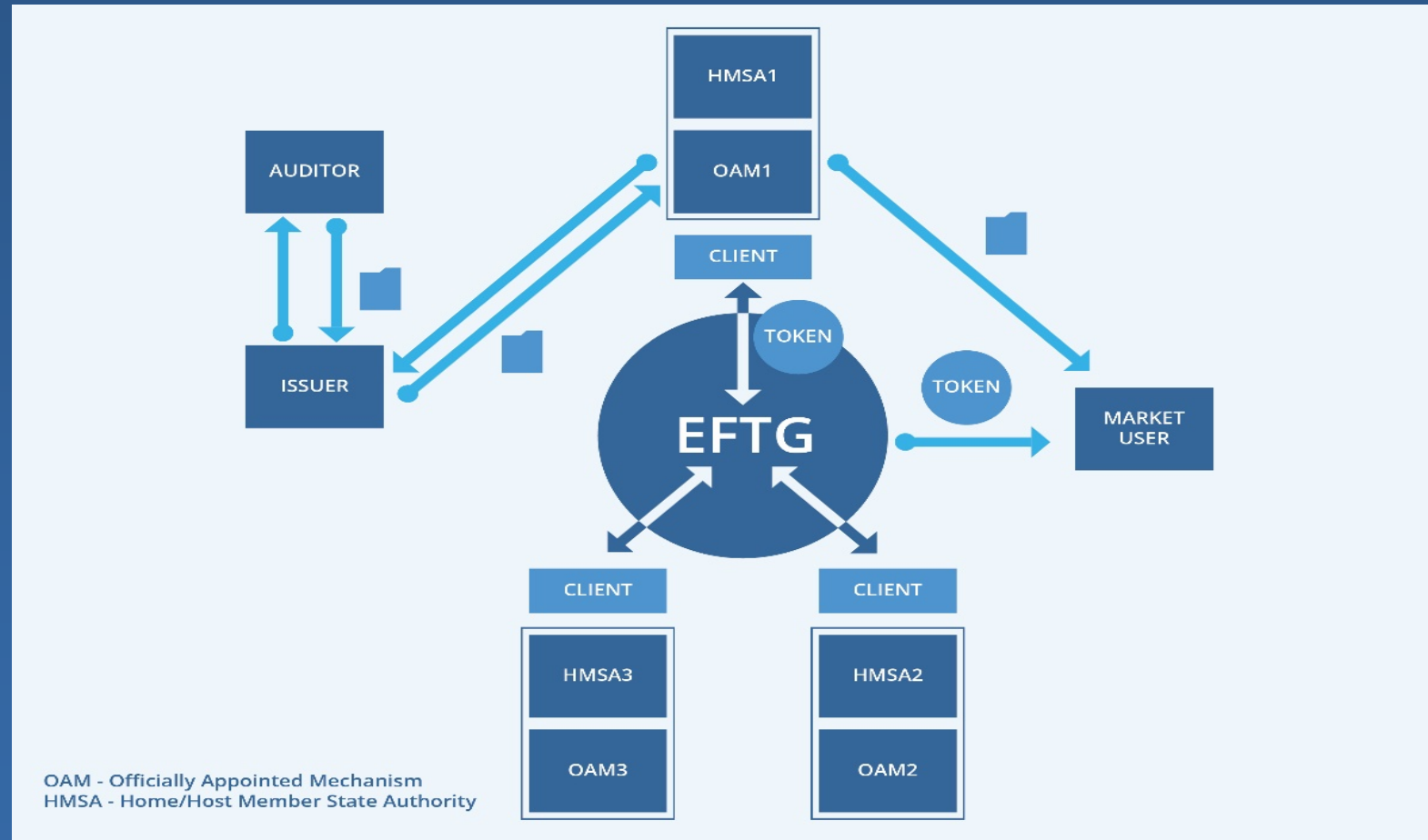


# Concept



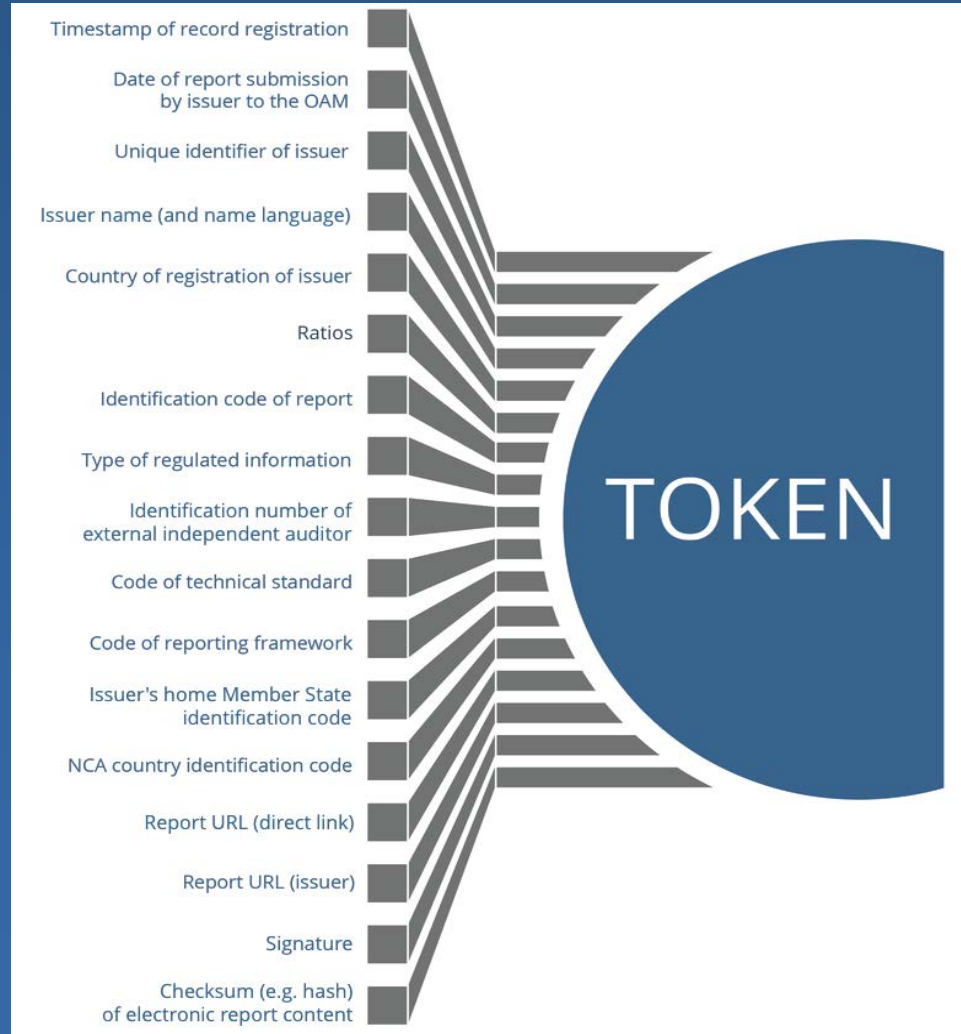


# Environment

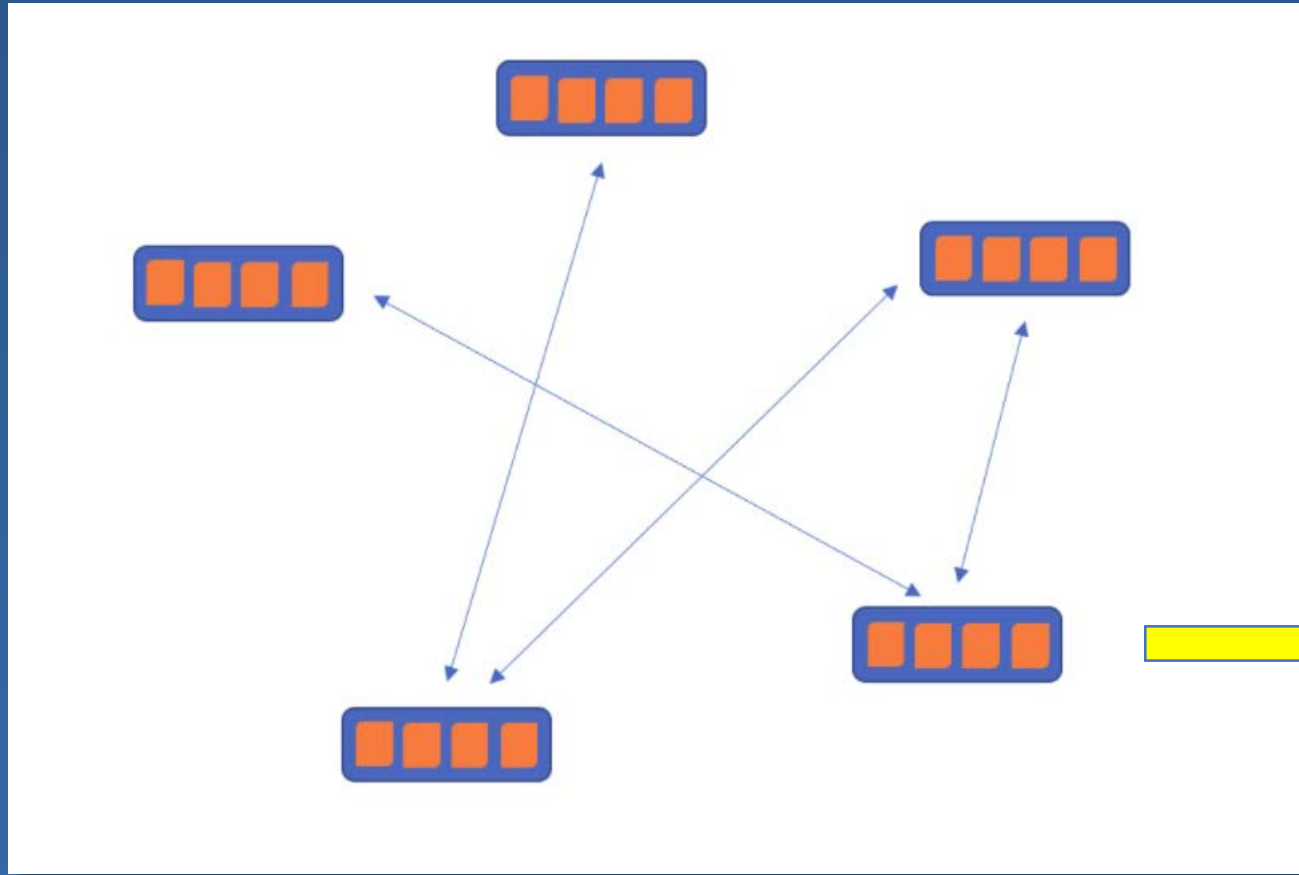


# Token

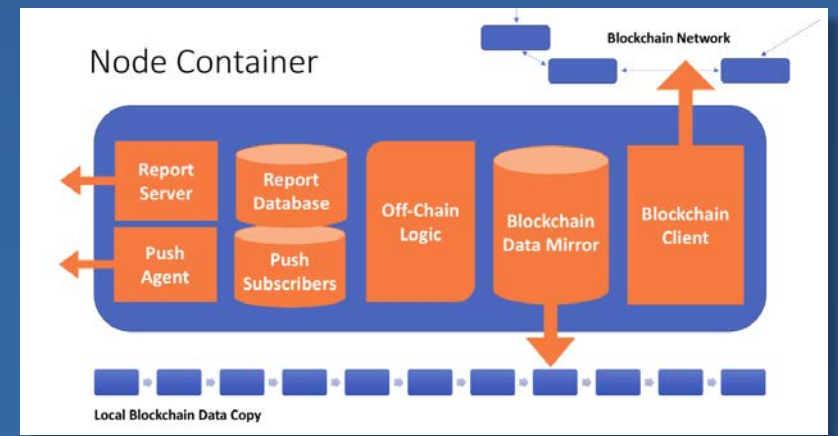
The term 'token' here is synonym for 'meta data'.



# Technical Architecture



The nodes of the NCAs are identical subsystems that work the same for every NCA. Each node has multiple software components, the DLT client is one of them.



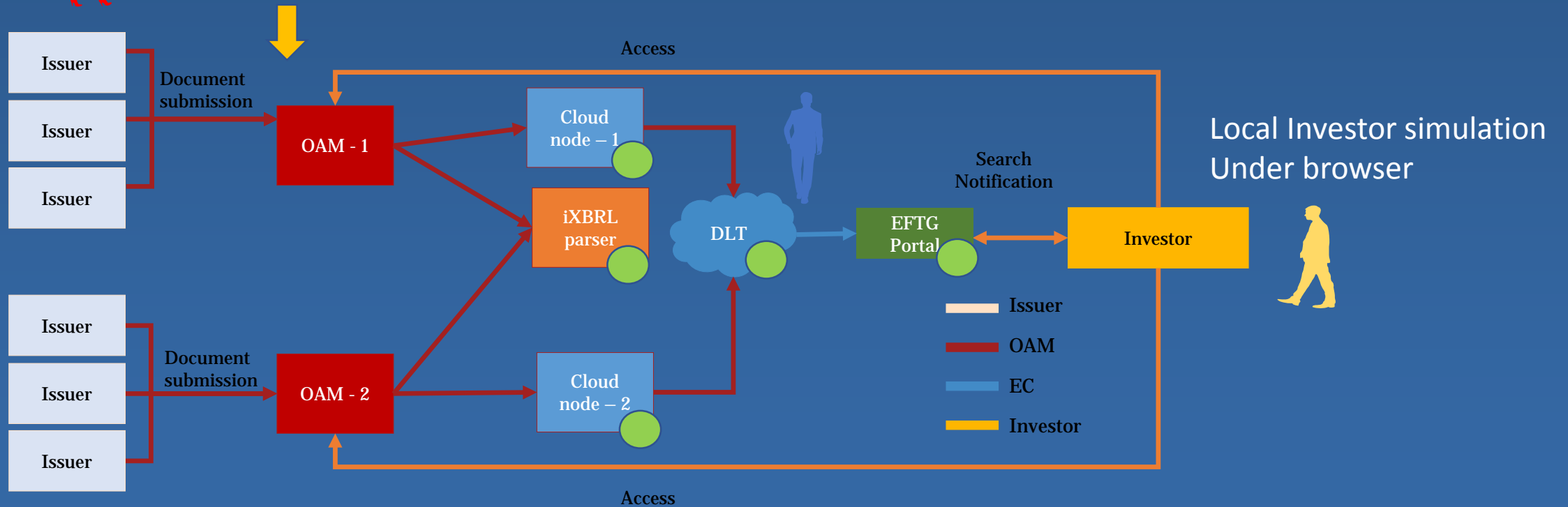
# Overview

Github.com

Deploy to  cloud nodes



Local OAM simulation in Java



XBRL files from <https://www.esma.europa.eu/field-test-esef>

# Extension scenarios

What is the EFTG capable of?

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**Can DLT improve the cooperation between  
business registers in Europe?**

***Business Registers  
Interconnection System***

**Can an investor identify small and medium  
entity by standardised code in DLT?**

***LEI central repository***

**Can an investor have instant and open  
public access to company prospectus?**

***The Prospectus Database***

**Can DLT be used to prove legal contracts?**

***Smart Contracts***

# Extensions

Company establishment	Growth and development stage	Company transformation, limitation or discontinuity
<b>Common actions (reporting, registration, announcements, notifications etc.)</b>		
<ul style="list-style-type: none"> <li>Registration of a company</li> <li>Initial Coin/Token Offering</li> <li>Application for public grants / funding</li> <li>Exemptions and privileges</li> <li>Tax reporting and registers</li> </ul>	<ul style="list-style-type: none"> <li>Initial Public Offering</li> <li>Prospectuses and KIIDs publication</li> <li>Issuance of debt securities</li> <li>Corporate actions publication</li> <li>Registration of related parties and subsidiaries</li> <li>Licences and permissions</li> <li>Application for public grants / funding</li> <li>Tax reporting and registers</li> </ul>	<ul style="list-style-type: none"> <li>Splits / mergers / acquisitions</li> <li>Nationalisation</li> <li>Filing for bankruptcy / insolvency</li> <li>Deregistration</li> <li>Going dormant</li> <li>Sanctions</li> <li>Prosecutions and regulatory warnings</li> </ul>
<b>Other actions and market-driven activities</b>		
<ul style="list-style-type: none"> <li>Investment and business plans publication</li> <li>Forecasts, prospects and plans announcements</li> </ul>	<ul style="list-style-type: none"> <li>Ratings publication</li> <li>Rankings and indices</li> <li>Certificates</li> <li>Corporate sustainability reporting</li> <li>Major internal corporate announcements</li> <li>International cooperation and trade events</li> </ul>	<ul style="list-style-type: none"> <li>Announcements of recovery plans</li> <li>Bankruptcy auctions</li> </ul>

# Contact

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