

# DeFi Horizons Convergence of Regulators, Industry, and Academia

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The event hosted on the 12th of June 2023 was orchestrated as part of a collaborative effort between IOTA, EUCI, and EBA, with the support of the [EUBOF](#) expert panel, the [GBBC](#), and the INATBA members. These organizations convened with a shared objective: to jointly respond to the DeFi consultation initiated by the ACPR titled: "Decentralised" or "disintermediated" finance: what regulatory response?. The significance of bridging the gap between technology and regulation was further highlighted in the report "Bridging the gap between technology and regulation with dialogue." This report presented findings from conversations between the IOTA Ecosystem, industry leaders, and European institutions, providing valuable insights for shaping future regulatory frameworks.

This united front is a testament to the potential for diverse industry stakeholders to come together and collaborate on complex matters. This particular event was designed to raise awareness about the need to bring together different stakeholders, such as industry players, regulators, and academia, to discuss the current status of DeFi, including its associated risks and potential regulatory approaches. By facilitating these discussions, we aim to foster a well-informed ecosystem that can collectively navigate the evolving DeFi landscape.

Furthermore, during this event, several topics pertaining to DeFi were discussed. Initial discussions focused on industry-wide mobilization in response to the recent ACPR consultation. The process of putting together a unified industry voice was presented, along with a deep dive into the consultation response and the key conclusions and perspectives highlighted. Following this, several experts from the European Commission, AMF (a national regulator), and representatives of the academia offered their insights. Further, the EUCI provided some general conclusions about the DeFi ecosystem.

The discussion commenced with an overview of the growing interest in DeFi, and the constant emergence of reports from regulatory bodies and academia. Hence the event started with a presentation of the EUBOF report, which is a comprehensive overview that provides an in-depth analysis of the entire DeFi ecosystem, elucidating its fundamental elements, operational differences from traditional finance, and potential regulatory landscapes. It further delves into

different DeFi applications, potential risks, technological underpinnings, market size, and the need for regulatory considerations.

### **i) Introduction to DeFi in the EUBOF report:**

The representative of the EUBOF presented their [in-depth report on the DeFi landscape](#) during the event. The report provided a comprehensive overview of DeFi, defined as a collection of financial products that utilise smart contracts and blockchains to promote decentralisation and interoperability of applications.

Operational features of DeFi were discussed, including permissionless models, immutable data integrity, composability, immediate settlements, and data as intrinsic value. Functional differences, such as accounting, trust, data availability, risk, and reversibility, were compared to traditional finance models.

The report also delved into the regulatory landscape of DeFi. It emphasised the necessity for Europe to adopt clear and beneficial regulations that balance accessibility, transparency, and innovation while also protecting investors. DeFi's ideology, infrastructure, potential for disruptive innovation, and the shift towards a Web3 orientation were underscored.

Moreover, the report examined the technology stack that underlies DeFi, discussing the blockchain trilemma and the significant growth of the DeFi market. The main areas of DeFi, such as stablecoins, decentralised lending and borrowing, and decentralised exchanges, were highlighted.

The presentation was concluded by discussing the risks associated with DeFi from technical, financial, and procedural perspectives. The report suggested that while DeFi applications offer new possibilities and represent the beginning of a wave of innovation, they come with substantial operational risks that need to be effectively managed. To this end, the EUBOF report recommends regulatory considerations for DeFi, such as upskilling in monitoring DeFi activities, auditing smart contracts, and establishing regulatory sandboxes to foster collaboration between DeFi developers and regulators.

### **ii) ACPR consultation and the industry's joint reply**

The conversation then shifted to the [ACPR consultation](#), a [French national regulator](#) that published a paper inviting industry input on DeFi. Recognizing the strength of a unified voice, several associations and communities [responded to the open call](#), providing their expertise and insight on the questions posed. The responses from different industry players, including the contributions of the EUBOF expert panel and the INATBA members, were then reviewed and consolidated by IOTA, EBA, and EUCI.

An interesting finding from the exercise was the varying interpretations of DeFi among different organisations, indicating a need for alignment while also acknowledging that DeFi is still in its early stages and yet to evolve further. The openness and interest of European regulatory bodies and national authorities in hearing industry voices, including startups and SMEs that are often the most impacted by regulatory decisions, was also noted as a positive step towards beneficial regulations. The discussion set the stage for EUCI to introduce the key questions raised in the ACPR consultation.

EUCI gave a detailed presentation on the ACPR discussion paper, which primarily focused on the description of the DeFi ecosystem, its primary use cases, promises, limitations, and, particularly, the risks involved. The report highlights the high level of concentration in the DeFi ecosystem and how its governance is sometimes centralised. The ACPR report divided the DeFi system into three main layers:

The infrastructure layer, which is composed of nodes that reach a consensus on specific information;

The services application layer, consisting of smart contracts and APIs that enable decentralised applications for lending, borrowing, buying, selling, derivatives, and oracles;

The user interface layer, which can be accessed through websites, applications or directly via smart contract.

The ACPR discussion paper emphasises that the regulation of DeFi cannot replicate the current system for traditional finance but must consider the unique features of DeFi. It proposes different regulatory approaches, including assigning legal status to DAOs, strengthening the control framework for users and supervision of intermediaries, ensuring users are adequately informed of risks, strengthening the security of blockchain infrastructure, and improving the framework for service provision and user access.

EUCI also pointed out that the paper provided a working definition of DeFi, identifying four elements: 1) DeFi is based on public blockchain architecture, 2) the protocols are based on smart contracts, 3) DeFi typically uses decentralised governance, and 4) there is an absence of a custodian, with non-custodial wallets used to access applications.

Furthermore, it was mentioned that the paper highlighted the main use cases, risks, and opportunities of DeFi, including admin keys, governance mechanisms, protocol changes, systemic risks, gas fees, and network congestion, which were discussed in the paper.

Once the core aspects of the ACPR consultation were outlined, we presented the key aspects of the joint reply. For this, EBA discussed five main points:

- **Definition:** the need for a clear and consistent definition of DeFi was underscored. They highlighted the subtle differences between decentralisation and disintermediation, with

the former representing the distribution or control of decision-making and the latter focusing on the removal and introduction of intermediaries through blockchain technology and smart contracts.

- **Democratizing Force:** the potential of DeFi to democratise financial services, enhance financial inclusion, and play a pivotal role in the digital economy, particularly within Europe, was highlighted. While acknowledging the associated risks, such as information asymmetries, price liquidity feedback loops, and over-collateralization, they proposed the use of liquid democracy, quadratic voting, DAOs, and futarchy to mitigate these risks.
- **Certification of Smart Contracts:** the certification of smart contracts for robustness and auditing purposes was endorsed. They emphasised the need for bug bounty programs, continuous monitoring, and regular security audits, cautioning that certification alone might not suffice.
- **Proportionality of Regulation:** they advocated for a proportional approach to regulation, arguing that any regulatory measures must balance innovation and consumer protection. They cautioned against excessive restrictions that could stifle the growth of the blockchain industry.
- **Regulation of Intermediary Services:** they expressed the need to regulate intermediary services in the DeFi ecosystem. They proposed a tailored approach considering the diverse range of intermediaries and their roles, focusing regulatory efforts on higher levels of DeFi infrastructure where users mainly interact.

EBA discussed the inherent risks associated with DeFi, particularly with the pseudonymity and transparency of smart contracts. They emphasised the need for transparent on-chain mechanisms that can bridge Web2 and Web3 standards to mitigate these risks. EBA also stressed the maturity of the DeFi industry and the importance of informed dialogue for effective regulation. Furthermore, IOTA highlighted the importance of the proportionality principle in regulating the burgeoning DeFi industry. It was also underscored that DeFi was intentionally excluded from MiCA not by oversight but as a conscious decision made by regulators, taking into account its current stage of development and potential. The speakers insist that it is necessary to safeguard that the DeFi industry not only exploits its own potential but also reaps all possible opportunities for the European economy as a whole.

The discussion was then passed to Tonia, indicating a transition to a roundtable with various regulators to delve into these critical issues.

### **iii) The roundtable discussion with experts:**

The roundtable discussion on the future of DeFi brought together experts in the field to delve into the challenges, opportunities, and regulatory considerations surrounding DeFi. The roundtable consisted of Tonia Damvakeraki from the EUBOF as the moderator, along with Ivan Keller from DG FISMA, Joachim Schwerin from DG GROW, Dr. Merav Ozair from Cornell University, and Olivier Brochand from AMF.

During the discussion, three key questions were explored, providing valuable insights and perspectives from the speakers. The first question focused on the challenges and opportunities in the future of DeFi, considering the regulatory hurdles. The speakers highlighted the need for a balance between innovation and regulatory compliance. The conversation was primarily focused on the opportunities that DeFi generates while acknowledging that risks may vary compared to traditional finance, particularly due to unique information asymmetries within the DeFi space. They discussed potential solutions in the regulatory landscape that could help overcome these challenges, such as inclusive approaches, clear information dissemination, and the involvement of industry stakeholders.

The second question revolved around striking a balance between innovation and regulatory compliance in the DeFi space. The speakers emphasised the significance of finding a middle ground that fosters innovation while ensuring adherence to regulatory frameworks which can be achieved through various means such as learning curves, co-learning, sandboxes, and the exploration of self-regulation. They stressed the importance of creating guidelines and standards that promote responsible innovation and mitigate risks without stifling creativity. The discussion emphasised the need for continuous dialogue and collaboration between regulators, industry participants, and academia to achieve this balance effectively.

The final question tackled the liability of developers and accountability in the DeFi ecosystem. The speakers shared their perspectives on the role of developers and the challenges associated with ensuring accountability for code vulnerabilities and smart contract failures. While there was discussion about holding developers accountable for their work, there were varying opinions regarding the extent of regulation in this area. The speakers suggested approaches such as the certification of smart contracts, auditing processes, and community-driven governance to enhance accountability without stifling innovation.

Overall, the roundtable discussion provided valuable insights into the future of DeFi and the regulatory considerations surrounding it. The speakers highlighted the need for a balanced approach that encourages innovation while addressing regulatory challenges. Their perspectives shed light on the complex interplay between technology, regulation, and accountability in the evolving DeFi landscape. The discussion underscored the importance of ongoing collaboration and dialogue among stakeholders to shape a regulatory framework that fosters responsible innovation and ensures the long-term sustainability of DeFi.

An overview of the main discussion per question can be found below:

**What are the different challenges and opportunities you see in the future of DeFi, considering the hurdles we face at the regulatory level? How do you expect these could be overcome? Are there any potential solutions in the regulatory landscape that could address these issues?**

The speakers engaged in a nuanced discussion on the regulatory challenges and opportunities presented by DeFi, agreeing on the imperative of regulation but diverging on the optimal approach. They identified several challenges, such as the fast-paced evolution of DeFi, understanding the components involved in this landscape, and recognizing the global, borderless nature of these digital assets.

A key challenge cited was the identification of the appropriate time and manner to introduce regulation without impeding innovation. Recognizing the elements involved in the DeFi ecosystem, like applications, smart contracts, and protocols, and understanding who is responsible for these offerings is crucial. This multilayered complexity necessitates a balance between regulatory oversight and fostering innovation.

Another hurdle identified is the global and borderless nature of DeFi. It was agreed that country-specific or continent-specific regulations could be counterproductive and potentially hamper innovation. An internationally coordinated regulatory approach was seen as a potential solution to prevent jurisdictional regulatory arbitrage and to foster the seamless use of DeFi.

There was also an acknowledgment of the differences in regulatory landscapes, particularly between the US and the EU. The EU's approach, seen as proactive and open to communication, was appreciated, while concerns were raised about the US's less clear, potentially innovation-stifling approach.

Regarding opportunities, the speakers believed that properly balanced, effective regulation could enable innovation and experimentation within a legally robust environment. They saw potential in 'softer' regulatory regimes and encouraged exchanges between regulators and developers to inform future regulatory decisions.

While the speakers offered differing views on how to approach regulation, they agreed on its importance and the need for a globally coordinated, flexible approach that does not stifle innovation. They also concurred on the importance of ongoing dialogue between regulators and the DeFi community to ensure that regulation is informed and effective.

The speakers highlighted several distinct approaches to the regulation of DeFi:

- **Learning Curve Approach:** some speakers emphasised a "learning curve" approach in regulatory evolution, suggesting that regulation should come last in the process. Existing regulatory frameworks need constant updates to accommodate new technological developments. It was proposed that decentralised movements like DeFi and DAOs cannot be addressed without horizontal principles, suggesting that a single regulation will not suffice, but rather a combination of various initiatives could effectively address the issues.
- **Clearer Regulation Approach:** Dr. Merav Ozair highlighted the necessity for clearer, less inhibitive regulations. She gave the example of the U.S. regulatory landscape, which she described as less clear and more ambiguous compared to Europe's proactive approach. She expressed concern over the U.S.' regulatory approach, particularly the SEC's stance that views everything, including DeFi, as securities, which she expressed concerns that it might stifle innovation.
- **Global Legislation Approach:** The speakers emphasised the global and borderless nature of DeFi, suggesting that country-specific or continent-specific regulations could hinder innovation. They proposed the idea of global legislation for DeFi to prevent jurisdictional regulatory arbitrage and to promote the seamless use of these innovations.
- **Soft Regulation Approach:** Some speakers advocated for a softer regulatory approach, predicting that different jurisdictions might introduce softer regulatory regimes to encourage innovation and experimentation within a legally robust environment (we've already seen such examples like in Switzerland or Singapore). They believed that this approach could facilitate constructive exchanges between regulators and developers, informing future regulatory decisions.

Each of these approaches reflects a different perspective on how to balance the need for oversight and control with the desire to promote innovation and growth within the DeFi sector.

**How can we strike a balance between innovation and regulatory compliance in the DeFi space?**

The speakers provide varying perspectives on how to strike a balance between innovation and regulatory compliance in the DeFi space.

Some emphasised the need for a conversation with all stakeholders, both public and private, to understand the nature of DeFi and translate it into a common language or rules that can be understood. They also highlighted the challenge of defining decentralisation and the importance of the industry taking an active role in presenting the concrete benefits of DeFi to policymakers and regulators.

To those initial remarks, some speakers agreed that DeFi combines familiar aspects of traditional finance with new approaches. There was an emphasis on the challenge of determining how existing activities can be transposed under current legislation and how to apply the same rules to similar activities in DeFi that are not captured by existing regulations.

Furthermore, the issue of embedded supervision and the potential benefits and challenges it presents for regulators was raised. There was mention of the difficulties of identifying anonymous transactions and the need for regulators to develop the right skill sets and utilise technologies like AI and algorithms to analyse complex relationships within the data.

Dr. Merav Ozair supported the idea of using AI and analytical software to supplement transactions' monitoring in order to identify patterns and relationships. She agreed that simply observing transactions may not suffice and emphasised the need for advanced analytics to address compliance challenges effectively.

The speakers generally agreed on the importance of understanding the nature of DeFi and the need for collaboration between industry and regulators. They acknowledged the challenges in defining decentralisation, transposing existing activities, and implementing effective supervision in a decentralised environment. While they provided different perspectives and suggestions, they generally shared the goal of finding solutions that balance innovation and regulatory compliance in the DeFi space.

**What are your perspectives on the liability of developers and those in the DeFi ecosystem, and how can we strike a balance between accountability for code vulnerabilities or smart contract failures while also encouraging innovation and avoiding stifling creativity?**

The speakers discussed various key points regarding the liability of developers and striking a balance between accountability and innovation in the DeFi ecosystem. The complexity of the liability question in DeFi was highlighted by the speakers due to its multi-layered nature. Moreover, it was stressed that it is essential to consider liability at different levels, including the application level and smart contract level. Additionally, the importance of involving users and participants in the governance of DAOs and addressing issues like pseudonymity and legal uncertainty for regulators to ensure accountability was emphasised.

The concept of collective responsibility was also emphasised and drew parallels to cooperatives. It was indicated that advancements in technology, such as Web3 and AI, can contribute to better compliance in the DeFi sector. Also, the need for a new assessment of what can be expected from the public sector was highlighted, as well as the importance of education and clear information on contracts as crucial entry points.

Dr. Merav Ozair expressed her view on differentiating between holding developers accountable for their code and regulating them. She emphasised that it's imperative that developers are



accountable for the code they write, suggesting measures like certification of smart contracts and community-led auditing processes. She cautioned against excessive regulation, which could stifle innovation, and emphasised the need for a mindful and responsible approach by developers and the ecosystem to self-regulate their developments, actions and activities.

Overall, the speakers agreed on the importance of discussing the potential accountability of developers but held differing opinions on the extent of regulation needed. They acknowledged the rapid pace of technological advancement in DeFi and highlighted the challenges faced by regulators in keeping up with the exponential technological evolution. However, they also emphasised the need for responsible innovation, self-regulation, and collaborative efforts between the industry and regulators to strike a balance between accountability and creativity in the DeFi ecosystem.

#### **iv) Final remarks:**

In conclusion, the event served as a platform to underscore the importance of future dialogues on DeFi regulation, building on the success of previous discussions like MiCA. The IOTA Foundation, the European Blockchain Association, and the European Crypto Initiative emphasised the need for clear and objective information from the industry to assist policymakers in making informed decisions.

Furthermore, the discussion recognized the potential social costs associated with implementing new regulations and stressed the importance of avoiding excessive limitations that could stifle innovation in the DeFi space. By promoting open dialogue and continued engagement, the roundtable aimed to create an environment that supports responsible innovation while addressing regulatory concerns.

The organisers expressed their unwavering commitment to fostering ongoing discussions and finding the right balance between regulation and innovation in the DeFi ecosystem. By leveraging the insights from the report and engaging in collaborative efforts, IOTA, EBA, and EUCI aim to support a regulatory framework that nurtures the growth and sustainability of DeFi while safeguarding the interests of all stakeholders involved.