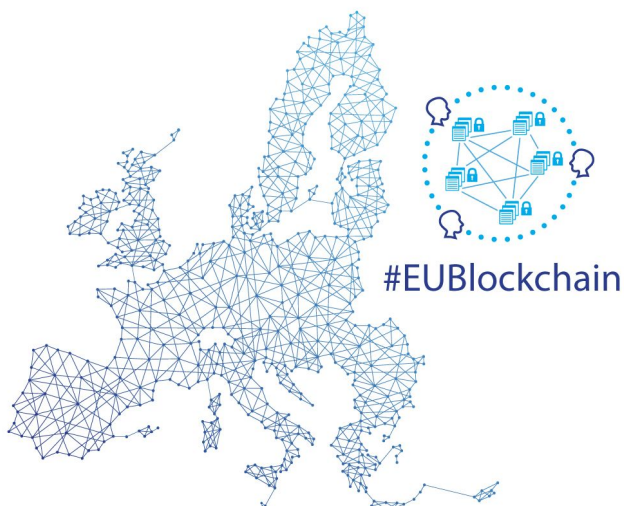# EU BLOCKCHAIN OBSERVATORY AND FORUM

Workshop report - Blockchain Innovation in Europe
Rathaus Vienna, May 22 2018

#EUBlockchain

By the European Commission, Directorate-General of Communications Networks, Content & Technology.

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Context

The grand, stately city hall in the center of Vienna may stand as an elegant reminder of Europe's long history, but on May 22 it also hosted a look into Europe's future as the site of the EU Blockchain Observatory and Forum's first workshop.

Under the motto "Blockchain innovation in Europe", the Observatory and Forum invited members of its two Working Groups as well as selected thought leaders to examine the state of the blockchain industry in Europe, explore Europe's strengths but also uncover and suggest remedies for its weaknesses.

Below are the highlights.

Agenda of the day

10:00	**Introduction of the day. Presentation of the Blockchain Observatory & Forum** Chiara Mazzone, Innovation and Blockchain Policy Officer, European Commission - DG Connect
10:35	**Blockchain innovation in Europe: Report Presentation** Ludovic Courcelas, Observatory and Forum - ConsenSys
11:05	**3 Project testimonies** Manuel Machado, Worldline Hitesh Tewari, Trinity College Dublin Jordan Lazaro Gustave, ETHLend
12:30	**Lunch break**
13:40	**Panel discussion: What are the strengths, competitive advantages and key challenges of the EU regarding blockchain innovation?** **Panelists** • Stuart Davis, Latham & Watkins • Nadia Filiali, Caisse des dépots • Kornél Kalocsai, Tax and Customs of Hungary • Mercina Tillemann, Global Blockchain Business Council • Ken Timsit, ConsenSys Moderated by Susan Poole, BlockBridge Advisory
14:45	**Working session** • **Group 1:** What are the priority and measures that should be adressed by the Observatory & Forum to accelerate blockchain innovation in Europe? • **Group 2:** What are the necessary policy and framework conditions needed to promote larger-scale deployment of blockchain applications? • **Group 3:** What are the most promising use cases and transitions scenarios that could be impulsed by the EU with the support of members states?
15:45	**Break**
16:00	**Working session results**
16:20	**Conclusion**

Lunch break

Introduction to the day: Presentation of the Blockchain Observatory & Forum

Chiara Mazzone, Innovation and Blockchain Policy Officer, European Commission – DG Connect

DG CONNECT is responsible for the EU Blockchain Observatory and Forum. The day opened with an overview of DG CONNECT's overall mandate to support startups and innovation in Europe and an introduction to the Observatory and Forum.

- DG CONNECT considers blockchain, along with artificial intelligence, to be one of today's most important breakthrough technologies.
- Blockchain-related initiatives of the EU besides the Observatory and Forum include: the recently announced Fintech Action Plan; the European Blockchain Partnership; the Blockchain for Social Good Prize; funding for blockchain research.
- Goals of the Observatory and Forum: study, analyse and map the blockchain ecosystem in Europe; create a dynamic and comprehensive knowledge base; share these learnings widely; encourage debate; give a voice to all who want to contribute opinions and expertise.
- The community is particularly important to the initiative.
- The EC is keen to learn. It does not want to regulate just for the sake of regulation, or take any measures with regards to blockchain that are not well-founded and thought through.

Blockchain innovation in Europe: Report Presentation

Ludovic Courcelas, EU Blockchain Observatory and Forum / ConsenSys

One of the ways that the Observatory and Forum intends to develop its insights is through the commissioning and publication of a series of academic and thematic reports, incorporating input from academic experts as well as the Observatory and Forum community.

A draft version of the first report, on Blockchain Innovation in Europe, was presented at the Workshop.

Strengths of Europe with regards to blockchain:

- High interest in blockchain from governments, startups, corporations.
- Vibrant ecosystem with many blockchain communities in many cities and more than 300 blockchain-related meetups in Europe.
- Very good universities with specialized academic research, often supported by the EU, in blockchain and related topics as well as blockchain courses.

Challenges for Europe with regards to blockchain:

- Many projects still in very early development stages of the technology, and still no large-scale deployed projects, though this is not just a European problem.
- High mortality rate for blockchain projects, though this is typical for all emerging technologies and not only an issue in Europe.
- Clear need for legal and regulatory clarification and lack of standards, for example with accounting or KYC/AML or token classification.
- Lack of talent is also a problem, though here too not one specific to blockchain.
- Mainstream media focused on cryptocurrency volatility and ICO scandals, not the underlying blockchain technology.

Testimonials

To get the "view from the street", the Workshop heard three "testimonials" from representatives of the community about their experiences with blockchain in Europe.

Alastria

Manuel Machado, Worldline

Alastria is a very interesting, community-run initiative to build a national blockchain in Spain upon which anyone can build applications and services.

- A rapidly growing community of some 200 companies, organisations, and individuals, including some of the biggest Spanish corporates.
- One of the few consciously national efforts to build a blockchain infrastructure.
- Conceived as a community-driven, bottom-up designed blockchain.
- Designed to meet the specific needs of Spanish blockchain users and be compliant with the country's legal and regulatory framework.

- Takes a unique, public-permissioned approach. Permissioned: The setup includes pre-selected validator nodes chosen according to a complex governance model, offering low cost, highly predictable transactions. Permissionless: The platform is public and open to anyone.
- Alastria is designing a self-sovereign identity system for platform users which, among other things, would ensure user privacy while maintaining compatibility with GDPR.

Self-sovereign Identity

Hitesh Tewari, Trinity College Dublin

The second testimonial concerned a project to build a blockchain-based, EU-wide identity management infrastructure.

- System is based on the provision of public key certifications to all EU citizens, similar to those companies receive today from commercial certification authorities, but for free.
- These would form the heart of a EU-wide digital identity infrastructure, which could help solve a number of important problems and open up interesting new use cases.
- Could for example eliminate the need for unique passwords for individual websites and be the basis for a type of single-signon for the whole Internet, greatly increasing convenience and safety.
- Could also contribute to spam reduction, be the basis of verified social media accounts, and strengthen and streamline blockchain-based know-your-customer capabilities.
- As an example, Tewari's team is working on an e-voting system using their proposed identity infrastructure and Zcash, the anonymous cryptocurrency.
- Such e-voting would be easier and more transparent than current e-voting alternatives, enabling hassle-free voting via mobile phones and thereby encouraging more people – and in particular young people – to exercise their franchise.

ETHLend

Jordan Lazaro Gustave, ETHLend

The ETHLend COO represented the views of the European blockchain startup scene and talked about strengths and challenges in Europe from an entrepreneur's perspective.

- One pressing need in Europe is education, particularly to address the shortage of trained blockchain developers. Many developers interested in blockchain are however not focused solely on salary, they are also looking to do important, meaningful work.
- Standards, especially those supporting interoperability, will be important to the ecosystem going forward, and the EU should have a role here.
- European blockchain companies tend to be more conservative than for example their US counterparts.

- European regulators however tend to be more progressive than US regulators, which is an advantage for Europe.
- Worried that people are using blockchain when not needed, just as a buzzword or to raise money.
- Worried about media coverage only on cryptocurrency and speculation.
- Thinks the Observatory and Forum is a good first step in the right direction.
- When asked if Europe is a good environment to set up a blockchain company, responded that "Silicon Valley is dead. Everything is happening in Europe."

Panel discussion: What are the strengths, competitive advantages and key challenges of the EU regarding blockchain innovation?

Panelists
- **Stuart Davis, Latham & Watkins**
- **Nadia Filali, Caisse des dépôts**
- **Kornél Kalocsai, Tax and Customs of Hungary**
- **Mercina Tillemann, Global Blockchain Business Council**
- **Ken Timsit, ConsenSys**

A panel discussion also looked at strengths, weaknesses and priorities for Europe and blockchain.

Strengths:

- Strong commitment from the EC to this technology, strong network of researchers, ample funding for research at both the EU and national government levels.
- Europe strong in the underlying technologies, like cryptography, and its engineers already have a very strong voice in how the technology is being developed.
- Europe seems to have an advantage on the regulatory front, at least when compared to the US, with a (comparatively) more streamlined regulatory setup and skill in cross-jurisdictional regulation (passporting).
- Europe also has a strong tradition of companies and organizations cooperating in bottom-up, self-organizing and self-regulating communities.

Challenges:

- One participant was worried about fragmentation of the platforms.
- Unclear how GDPR would effect blockchain development.

- Concerns about misinformation or misunderstandings among the public, for instance the confusion between Bitcoin/cryptocurrencies and blockchain technology.
- Europe not strong when it comes to funding startups, in particular problem with early-stage seed investment capital.
- ICOs face a major hurdle as traditional banks are wary of accepting ICO-raised funds.

Priorities:

- Governments and regulators should take a Hippocratic approach: as a first priority, do no harm. Regulatory sandboxes are a good way to do this.
- The ecosystem needs basic building blocks, for example standards for digital identities.
- Europe needs cloud-based systems in which companies can experiment safely.
- It would be useful to find a way to tokenize fiat money so that contracts can be easily written in both fiat and crypto.
- Could be interesting to mandate government institutions to carry out blockchain pilots for their own operations to gain hands on experience with the technology..

Workshops

The day ended with a workshop involving all the participants present. These separated into three groups,

Group 1: What are the priority and measures that should be addressed by the Observatory & Forum to accelerate blockchain innovation in Europe?

- Top of the list is education, which the group recommended be broken down to technical, C-Level and other stakeholders (like regulators).
- Sandbox environments are an important tool for regulators, innovators and other key stakeholders.
- Identity is also a priority, and the EU should work towards standards.
- The EU should be an enabler of innovation on the individual country level as well as Europe-wide.
- Time is of the essence in terms of providing a clear framework for blockchain in Europe.
- The EU should work with other jurisdictions to develop best practices.
- Standards are also important in areas as basic as terminology.

Group 2: What are the necessary policy and framework conditions needed to promote larger-scale deployment of blockchain applications?

- At the moment, regulation is a hurdle for blockchain companies.
- Where we have no regulation or it is unsure, the group felt sandboxes would be of particular use.
- The EU Blockchain Observatory and Forum could be of use in coming up with concrete case studies and then inviting people in to educate them on the particulars.
- Europe could learn from other regions, for example Asia, which has processes in place and a culture that helps the region to innovate and advance much faster than in Western countries.
- The Observatory and Forum could also carry out surveys to provide more hard data, for example from entrepreneurs, on questions like why they chose one country over another. That could help inform political decisions.

Group 3: What are the most promising use cases and transitions scenarios that could be impulsed by the EU with the support of members states?

- Blockchain has wide potential application in Europe and an almost endless list of potential use cases.
- Identity-based use cases: personal identity, but also identity of legal persons, businesses, foundations, etc. Also things like entitlements attached to your identity, educational credentials, certificates, and the like.
- "Tracking and tracing" use cases: supply chain, goods and services, shipping containers at ports, financial accountability, transparency in how the EU is spending its money, accountability for government.
- Energy use cases: EU-wide initiatives around smart cities, for example, or smart energy, smart mobility.
- Healthcare-related use cases: healthcare data, information for medical research.
- Incentivization use cases: blockchain can be used to facilitate collaboration, for example in public/private partnerships or other broader coalitions.

Appendix

Appendix 1: List of registered participants

Mercina Tillemann, COO - Global Blockchain Business Council	**Ville Sointu**, Head of Blockchain - Nordea Bank
Stefan Beyer, Head of R&D - S2 Grupo	**Eve Chen**, Regulatory Strategy Analyst - London Stock Exchange Group
Tim Janssen, Blockchain expert - EBPI	
Nicole Sandler, Lead Innovation Counsel - Barclays	**Michèle Finck**, Senior Research Fellow - Max Planck Institute; Keble College; University of Oxford
Ad Kroft, Program Manager - Dutch Blockchain Coalition	**Manuel Machado Ruiz**, Blockchain GSPC - Worldline
Thibault Verbiest, Partner - DS Avocats	
Dr. Philipp Sandner, Head of Frankfurt School Blockchain Center	**Anja Bedford**, Blockchain Lead - Deutsche Bank
Vikram Nagrani, Partner - Hassans International Law Firm	**Simone Ravaioli**, Business Development Executive - Digitary
Javier Sebastián, Head of Blockchain - BBVA	**Kornél Kalocsai**, Director General of the Strategic Field - Tax and Customs of Hungary
Nadia Filali, Head of Blockchain - Caisse des Dépôts	**Dave REMUE**, Blockchain Lead - B-Hive
Marcello Topa, Head of Market Policy & Strategy - Citibank	**Tamás Chlepkó**, Senior project manager of strategic projects - Tax and Customs of Hungary
Herve Francois, Blockchain Initiative Lead - ING Bank	**Hitesh Tewari**, Assistant Professor - Trinity College Dublin
Savino Damico, Head of Digital Payments and Biometrics - Intesa Sanpaolo	**Stuart Davis**, Senior Associate - Latham & Watkins
Marta Ienco, Head of Government and Regulatory Affairs - GSMA	**Jean-Luc Verhelst**, Author of Bitcoin, the Blockchain and Beyond
Dominik Felix - University of Economics and Business Vienna	**Thorsten Guthke**, Director - Bereichsleiter Europapolitik
Daniel Pichler - RIAT/Bitcoin Austria	**Alfred Taudes** - University of Economics and Business Vienna
Bernd Wünschek - Stadt Wien	
Chiara Mazzone, Innovation Policy Officer - DG CONNECT	**Harald Federspiel**, Blockchain expert - Pioneers
Pierre Marro, EC Officer - DG CONNECT	**Jürgen Eckel,** CIO - Riddle & Code GmbH
Dié Noémie, Head of digital & science development - Institut Louis Bachelier	**Stefan Fölser**, Founder - eWINGZ
	Paul Rieger, Head of Business Development Europe - NEM
Dr. Julie Maupin, Director of Social Impact &	

Public Regulatory Affairs - IOTA Foundation **Gonçalo Fernandes**, Head of IoT - du **Dr Michael John Edwards**, Senior Technical Staff Member - IBM **Jordan Lazaro Gustave**, COO - ETHLend **Peter Hunn**, Founder - Accord Project **Nikica Tomasic**, CEO & Co-Founder - CRIB Consulting **Natalie Samovich**, Head of research and innovation, entrepreneur - ENERCOUTIM	**Lorena Skiljan**, Co-Founder - Blockchain Austria **Stephan Karpischek**, Co-Founder - Etherisc Christina Hubin **Andreas Freitag**, Senior Manager - Accenture **Philipp Marek**, Forensics specialist/Architect - BRZ **Jonas Jünger**, Manager - EY **Katarzyna Ciupa**, Blockchain Analyst - Bitcoin Austria

Appendix 2: Presentation slides

Presentation slides can be [downloaded here](#)

Appendix 3: Video recordings

Video recordings of the sessions are [available here](#)