CEPS TASK FORCE

TOWARDS A EUROPEAN INTERNET OF VALUE?
LEVERAGING BLOCKCHAIN TO BOOST THE EU DIGITAL SINGLE MARKET

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Introduction

Distributed Ledger Technologies (DLTs) have become extremely popular, and are being tested by governments, academics and industry in view of a future that promises more efficiency, less intermediation, better service at higher speed with less problems, and the enablement of new, innovative decentralized services. Originally designed to back cryptocurrencies such as bitcoin, distributed ledger architectures have proliferated and evolved, permeating many sectors of the economy, and conquering the attention of most stakeholders. For example, the World Economic Forum has set up a dedicated group on the future of Blockchain; the Internet Governance Forum discussed blockchain governance and economics in dedicated groups; the European Commission is working on exploring applications in various industry sectors (BlockChain4EU), as well as commissioning studies in various fields, and devoted 500.000€ for the setting-up of a European Expertise Hub on Blockchain and Distributed Ledger Technologies; the European Parliamentary Research Service has identified, in addition to digital currencies, also several other areas such as patents, copyright, e-voting and an array of public services as potentially revolutionized by blockchain; at the national level, in countries like Estonia blockchain is already powering important innovations in public services and management; and in Spain, a new national blockchain platforms called Alastria was recently launched, which promises to implement an open, multi-stakeholder, multi-sector platform for services of several kinds, based on the principle of "tokenization" of assets.

Put shortly, the attractiveness of blockchain and DLT lies in their potential to implement "the internet of value" – i.e. a network that implements a decentralized, shared ledger where value can live and be transacted, in comparison with today's internet networks that "only" implement decentralized communications between individually trusted parties. This construct enables powerful, secure and interactive applications that are natively digital, where the business logic is transparent to and verifiable by all the parties involved, and where transactions settle with complete finality in a matter of seconds, immutably and irreversibly – and without the need of individually trusted authorities, therefore not dependent on single points of failure. The system is very efficient too and makes distributed applications very easy to implement, since it avoids the need to connect directly the large, critical and expensive systems deployed in today's enterprise world, and does need hugely complex cybersecurity nor resiliency measures because of the use of cryptography and hyper-replication. It also provides high degrees of transparency, auditability and regulation, with all business rules and logic reflected in the code of the applications through the so-called smart contracts, thus removing the need for interpretation and arbitration.

Applications are endless, and span across many types and industry sectors: from finance to energy, telecoms or health care; from retail to wholesale; from SMEs to large multinationals and public administration – plus the combination of all of the above. In all cases, blockchain and DLT

enable digital applications based both on i) natively digital assets that would live on the blockchain as primary record of registry, and ii) "tokens" or digital representations of "traditional" assets that otherwise live on enterprise systems. In both cases, the potential is huge as a key tool to speed up the overall digitalization of society as a whole.

In the case of the European Union, all this is particularly important, since a decentralized technology like this mimics particularly well the decentralized nature of EU's political and economic structure. And so, it is possible to imagine a blockchain platform at the pan-EU scale, with transactions occurring in real time and with no intermediaries, in a way that would make the (Digital) Single Market work seamlessly, without a centralized, delegated governance body, yet avoiding much of the fragmentation that currently hinders its functioning. Smart contracts and DLTs could become a solution to many of the current problems faced by the digital single market, including copyright enforcement, undesirable geo-blocking and other forms of end user discrimination, thanks to a number of features, including autonomy, trust, redundancy, safety, speed, cost-effectiveness, accuracy and transparency.

Aside from their potential, it is also fair to recognize that at this time DTLs are still emerging technologies, and their stability, scalability and easiness to use (e.g. in terms of security and privacy protection) must still reach maturity. Also, the interaction of these architectures with other emerging technologies such as Artificial Intelligence are still to be fully explored. Moreover, on whether sustainable DLTs will require more "permissioned" architectures, rather than permissionless ones, the jury is still out. For example, the *Quorum* architecture for permissioned ethereum blockchain and smart contracts developed by JP Morgan seems less pervasively distributed, but possibly more scalable and easy to use than its permissionless version (*Ethereum*) in enterprise settings. The consequences of moving from a permissionless to a permissioned architecture for DLT-enabled EU services have not been fully appraised to date, and are worth being discussed in depth – particularly those related to decentralized governance of such platforms.

Can the EU project really benefit from a widespread investment in DLTs? In what sectors are DLTs most promising? What governance structures are needed to ensure stability, scalability and universal access? What coopetition frameworks can be put in place to execute such governance structure? What regulatory changes and spending programmes would need to be introduced to fully unleash the potential of DLTs? What would be a feasible time horizon for such changes?

Why a CEPS Task Force?

CEPS is uniquely positioned to convene a far-reaching, comprehensive, high-quality non-partisan working party on DLTs as an engine of integration and prosperity in Europe. Through its proximity to institutions, its global links with academia, its widespread corporate membership and its non-profit nature and vocation, CEPS can animate a debate on the use of technologies for the common good. In the case of DLTs, the management and coordination of the Task Force will be a responsibility of the CEPS Regulatory Policy unit, in cooperation with the units on Financial Markets and Energy for applications related to their respective sectors. **The Rapporteurs of the Task Force will be Prof. Dr. Andrea Renda**, Senior Research Fellow and Head of the Regulatory Policy Unit, and **Sylvain Bouyon,** Research Fellow, Head of Fintech and Retail Finance, who will coordinate a team of researchers from various CEPS units.

Schedule and Content of Meetings

Meeting 1: 24 of May 2018 - Understanding DLTs: challenges and opportunities

Meeting 2: 27 of June 2018 – Block chain and DLTs in public and commercial services: case studies

Meeting 3: Scalability of DLTs in the Single Market

Meeting 4: Presentation and discussion of the Final Report

Team and Methodology

Chair

Eva Kaili, Member of the European Parliament

Rapporteurs

Andrea Renda, Senior Research Fellow, CEPS. Senior Research Fellow and Head of Global Governance, Regulation, Innovation and the Digital Economy (GRID), CEPS; and Chair for Digital innovation, College of Europe, Bruges (Belgium). Andrea is an expert in technology policy, innovation, governance and better regulation.

Sylvain Bouyon, Research Fellow, Head of Fintech and Retail Finance, CEPS. Sylvain is an expert in banking, insurance, Fintech and better regulation.

Joining the Task Force

Participation in the Task Force is subject to a fee to cover the research and organisational expenses. CEPS Corporate Members are entitled to receive a significant discount. Also, bundle discount are available for members that decide to join also the new Task Force on Artificial Intelligence (please inquire with Andrea Renda). Discounted fees will be considered for non-members if they decide to become a member of CEPS.

The fee covers:
- The research carried out by CEPS for the purpose of this Task Force
- Organisational, catering and other costs of all meetings
- Web access and documentation
- Launch of the final report in Brussels in a public event to maximise exposure
- Press release and communications management
- Printing and editing costs of the final report
- Distribution of the final report to key stakeholders in industry and policy-making
- Three printed copies of the final report per member (mailing included)

The fee does not cover travel and accommodation costs for Task Force members to attend the meetings.

Upon request, CEPS will mail additional copies of the final report to members, at their expense. The final report will be launched at a public event in Brussels, open to the press, with the presence of high-level policy-makers. Additional launch events in other European capitals may be organised, if sponsored by members of the Task Force.

Please note that CEPS is also organizing a Task Force **Artificial Intelligence: Ethics, Governance and Policy Challenges.** If you are interested in joining both task forces special, discounted fees apply.

Fee Structure (+21% VAT if applicable)		Fees for two TFs on Blockchain and AI
CEPS Corporate Members	€ 1,500	€ 2000
Non-Members–Large corporations	€ 5,000	€ 7000
Non-Members – SMEs	€ 500	€ 700
Academics and civil society	€ 300 [upon request]	€ 500
Policy-makers	Free of charge [upon request]	

To join the Task Force, please fill in the application form on the next page. If you have any questions do not hesitate to contact us:

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REGISTRATION FORM

Towards a European Internet of Value: leveraging blockchain to boost the EU digital single market

Person attending the meetings		
Title:	First name:	Last name:
Job title:		
E-mail:		Telephone:

Company / Institution		
Company / Institution name:		
Postal address:		
	Postcode:	City:	Country:
Contact Person:		
E-mail:		Telephone:

Billing information		
Tax register number (VAT for Europe):		
Your reference, Customer Purchase Order No. or Cost Code N:		
Department:		
Postal address:		
	Postcode:	City:	Country:
Contact person:		
☐	We are interested in joining also the **Artificial Intelligence: Ethics, Governance and Policy Challenges** task force	

CEPS members – check the applicable fee (+21% VAT)	
☐	CEPS Corporate Member | EUR 1,500

Non-members - check the applicable box (+21% VAT)			
☐	Full Fee | EUR 5,000	☐	My company is interested in becoming a member of CEPS*

Date:	Signature:

Return to: Ada Modzelewska | ada.modzelewska@ceps.eu | + 32.2.229.39.75 | Centre for European Policy Studies | 1 Place du Congrès | 1000 Brussels | Belgium

More information: If you would like to become a member or need more information, please contact *Andrea Renda*, Senior Research Fellow at andrea.renda@ceps.eu +32 2 229 3961 or Sylvain Bouyon, Research Fellow, at sylvain.bouyon@ceps.eu +32 4 94 14 13 62.

*Discounted fees for this Task Force will be considered for non-members if they decide to become member of CEPS

ANNEX
Principles and Guidelines for CEPS Task Forces

This Annex offers guidance to prospective Task Force members and other interested parties in understanding the functioning of a CEPS Task Force and the process of drafting a Task Force report. Task Forces are processes of structured dialogue among industry representatives, policy-makers, consumers and NGOs, who are brought together over several meetings. Task Force reports are the final output of the research carried out independently by CEPS in the context of the Task Force.

Participants in a Task Force

- ✓ Members are for-profit entities, membership organisations or NGOs which participate in a Task Force and contribute to its expenses by paying a fee.
- ✓ Rapporteurs are CEPS researchers who organise the Task Force, conduct the research independently and draft the final report.
- ✓ Chair is an expert appointed by CEPS to steer the dialogue during the meetings and advise as to the general conduct of the activities of the Task Force.
- ✓ Observers are any policymakers or stakeholders who are invited to attend the Task Force meetings and provide oral and written input.

Objectives of a Task Force report

- ✓ Task Force reports are meant to contribute to policy debates by presenting a balanced set of arguments, based on the members' views, available data and literature.
- ✓ Reports seek to provide readers with a constructive basis for discussion. Conversely, they do not seek to advance a single position or misrepresent the complexity of any subject matter.
- ✓ Task Force reports also fulfil an educational purpose, and are therefore drafted in a manner that is easy to understand, without jargon, and with any technical terminology fully defined.

The role of the Task Force members

- ✓ Member contributions may take the form of participation in informal debate or a formal presentation in the course of the meetings, or a written submission.
- ✓ Input from members is encouraged and will be made available to all members, if it is to be used for the final report.
- ✓ Members represent their institutions but are asked to provide input as experts.
- ✓ Members are given ample opportunity to review the Task Force report before it is published, as detailed below.

Drafting of conclusions and recommendations

- ✓ Task Force reports feature a set of conclusions. To draft these conclusions, rapporteurs will summarise members' views. Wherever members' views do not lead to clear conclusions, general phrasing will be employed.
- ✓ Task Force reports feature a set of policy recommendations. These recommendations are meant to reflect members' views.
  - For a recommendation to be featured in the report, there needs to be 'consensus' or 'broad agreement' among Task Force members. Consensus does not however mean unanimity or full agreement as to every aspect of a given recommendation.
  - Where 'consensus' co-exists with a significant minority view, the report will feature this minority view next to the relevant recommendation.
  - Where there is no 'consensus' but several contradictory views, the report will feature all these views and either refrain from making any recommendation or simply advise policy-makers to clarify the given subject matter.
  - In all cases, the report will seek to identify the points where there is some form of agreement, for instance a common understanding of facts or opinions.
- ✓ Both conclusions and policy recommendations will be summarised at the beginning of the report in the form of an 'executive summary'.

✓ Members will be given ample opportunity to review the text of both conclusions and recommendations.

Drafting of the main text

✓ In the main text, rapporteurs detail the results of the research carried out independently in the framework of the Task Force. This part of the report will refer to the discussions during the task force meetings but also to available data and literature.
✓ Members' views are not simply presented as such but are also put into context. Wherever there is fundamental disagreement, the rapporteurs will ensure that all views are presented in a clear and fair manner.
✓ Scientific literature may be cited in this part of the report. Members are not purported to endorse any reference to this literature. A general disclaimer is inserted to clarify this aspect.
✓ The conclusions for each section will be clearly presented –and highlighted if appropriate. For the drafting of these conclusions please refer to the section above.

Use of data

✓ Task Force reports feature data that are considered both relevant and accurate by the rapporteurs.
✓ Task Force members are encouraged to contribute with any data or propose any sources they may consider relevant.
✓ Members may question either the relevance or accuracy of any given data. After consultation with other Task Force members, rapporteurs may decide either to exclude this data or to mention these concerns in the main body of the text.

Sample structure of a Task Force report

1. Editorial information
2. Disclaimer (see example below)
3. Executive summary
4. Outline
5. Main text
6. Summary of conclusions
7. References
8. Annexes, if any
9. List of participants

Sample disclaimer

"This report is based on the discussions in the CEPS Task Force on Innovation and Entrepreneurship, which met on five separate occasions in 2015. The policy recommendations offered at the beginning of this report reflect a general consensus reached by Task Force members, although not every member agrees with every aspect of each recommendation. A list of members, observers and invited guests of the Task Force can be found in Annex 3. The members were given the opportunity to comment on the draft final report, but its contents may only be attributed to the rapporteurs."