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**TEXTS ADOPTED**

*Provisional edition*

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**Virtual currencies**

**European Parliament resolution of 26 May 2016 on virtual currencies (2016/2007(INI))**

*The European Parliament,*

- having regard to the Bank for International Settlements' Paper on Digital Currencies of November 2015<sup>1</sup>,
- having regard to the Bank of England's publication on the economics of digital currencies (Q3/2014)<sup>2</sup>,
- having regard to the European Banking Authority's opinion on Virtual currencies of July 2014<sup>3</sup>,
- having regard to the European Central Bank's analysis of Virtual currency schemes of February 2015<sup>4</sup>,
- having regard to the Commission's Action Plan to strengthen the fight against the financing of terrorism of 2 February 2016<sup>5</sup>,
- having regard to the Commission's study on the size of the VAT gap in the EU of May 2015<sup>6</sup>,
- having regard to the Commission's Joint Research Centre study on the digital agenda of virtual currencies<sup>7</sup>,

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<sup>1</sup> <http://www.bis.org/cpmi/publ/d137.pdf>

<sup>2</sup> <http://www.bankofengland.co.uk/publications/Documents/quarterlybulletin/2014/qb14q3digitalcurrenciesBitcoin2.pdf>

<sup>3</sup> <https://www.eba.europa.eu/documents/10180/657547/EBA-Op-2014-08+Opinion+on+Virtual+Currencies.pdf>

<sup>4</sup> <https://www.ecb.europa.eu/pub/pdf/other/virtualcurrencyschemesen.pdf>

<sup>5</sup> [http://ec.europa.eu/justice/newsroom/criminal/news/160202\\_en.htm](http://ec.europa.eu/justice/newsroom/criminal/news/160202_en.htm)

<sup>6</sup> [http://europa.eu/rapid/press-release\\_IP-15-5592\\_en.htm](http://europa.eu/rapid/press-release_IP-15-5592_en.htm)

<sup>7</sup> [http://publications.jrc.ec.europa.eu/repository/bitstream/JRC97043/the%20digital%20agenda%20of%20virtual%20currencies\\_final.pdf](http://publications.jrc.ec.europa.eu/repository/bitstream/JRC97043/the%20digital%20agenda%20of%20virtual%20currencies_final.pdf)

- having regard to the Financial Action Task Force’s (FATF) Guidance for a Risk-Based Approach to Virtual Currencies as of June 2015,
- having regard to the European Council conclusions on the fight against the financing of terrorism of 12 February 2016<sup>1</sup>,
- having regard to the Judgement of the European Court of Justice on the VAT Treatment of a Virtual Currency Exchange (C-264/14)<sup>2</sup>, and the opinion of Advocate-General Kokott delivered on 16 July 2015<sup>3</sup>,
- having regard to ESMA’s consultation on Investment using virtual currencies or distributed ledger technology of July 2015<sup>4</sup>,
- having regard to its EPRS briefing on Bitcoin market, economics and regulation<sup>5</sup>,
- having regard to the Europol report ‘Changes in modus operandi of Islamic State terrorist attacks’ of 18 January 2016<sup>6</sup>,
- having regard to the FATF’s report on Virtual Currencies of June 2014<sup>7</sup>,
- having regard to the OECD study on ‘The Bitcoin Question – currency versus trust-less transfer technology’<sup>8</sup>,
- having regard to the IMF Staff Discussion Note on Virtual Currencies and Beyond of January 2016<sup>9</sup>,
- having regard to the UK Government Office for Science, Chief Scientific Adviser’s Report on ‘Distributed Ledger Technology: beyond block chain’, of 2016<sup>10</sup>,
- having regard to the hearing of the Committee on Economic and Monetary Affairs on virtual currencies of 25 January 2016,
- having regard to Rule 52 of its Rules of Procedure,
- having regard to the report of the Committee on Economic and Monetary Affairs and the opinion of the Committee on the Internal Market and Consumer Protection (A8-0168/2016),

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<sup>1</sup> <http://www.consilium.europa.eu/en/press/press-releases/2016/02/12-conclusions-terrorism-financing/>

<sup>2</sup> <http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1463564584935&uri=CELEX:62014CJ0264>

<sup>3</sup> <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A62014CC0264>

<sup>4</sup> [https://www.esma.europa.eu/sites/default/files/library/2015/11/2015-532\\_call\\_for\\_evidence\\_on\\_virtual\\_currency\\_investment.pdf](https://www.esma.europa.eu/sites/default/files/library/2015/11/2015-532_call_for_evidence_on_virtual_currency_investment.pdf)

<sup>5</sup> [http://www.europarl.europa.eu/RegData/bibliotheque/briefing/2014/140793/LDM\\_BRI\(2014\)140793\\_REV1\\_EN.pdf](http://www.europarl.europa.eu/RegData/bibliotheque/briefing/2014/140793/LDM_BRI(2014)140793_REV1_EN.pdf)

<sup>6</sup> [https://www.europol.europa.eu/sites/default/files/publications/changes\\_in\\_modus\\_operandi\\_of\\_is\\_in\\_terrorist\\_attacks.pdf](https://www.europol.europa.eu/sites/default/files/publications/changes_in_modus_operandi_of_is_in_terrorist_attacks.pdf)

<sup>7</sup> <http://www.fatf-gafi.org/media/fatf/documents/reports/virtual-currency-key-definitions-and-potential-aml-cft-risks.pdf>

<sup>8</sup> <http://www.oecd.org/daf/fin/financial-markets/The-Bitcoin-Question-2014.pdf>

<sup>9</sup> <https://www.imf.org/external/pubs/ft/sdn/2016/sdn1603.pdf>

<sup>10</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/492972/gs-16-1-distributed-ledger-technology.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/492972/gs-16-1-distributed-ledger-technology.pdf)

- A. whereas a universally applicable definition is not yet established, but virtual currencies (VCs) are sometimes referred to as digital cash, and the European Banking Authority (EBA) regards them as being a digital representation of value that is neither issued by a central bank or a public authority nor necessarily attached to a fiat currency, but is accepted by natural or legal persons as a means of payment, and can be transferred, stored or traded electronically; whereas VCs are most notably based on distributed ledger technology (DLT), the technological basis for more than 600 VC schemes<sup>1</sup>, which facilitates ‘peer-to-peer’ exchange, the most prominent of which to date is Bitcoin; while it was launched in 2009 and currently holds a market share among DLT-based VCs of almost 90 %, with a market value of the outstanding Bitcoins of around EUR 5 billion<sup>2</sup>, it has not yet reached systemic dimensions;
- B. whereas DLT includes databases with varying levels of trust and resilience, with the potential to process large numbers of transactions rapidly, and with transformational capacity not only in the area of VCs but also in fintech more broadly speaking, where clearing and settlement might be one obvious application, as well as others beyond finance, especially with regard to proof of identity and property;
- C. whereas investments in DLT are an integral part of the ongoing fintech innovation cycle and have totalled more than EUR 1 billion to date, from both venture capital funding and corporate investment<sup>3</sup>;

***Opportunities and risks of VCs and DLT in the rapidly evolving technological landscape of payments***

1. Stresses that VCs and DLT have the potential to contribute positively to citizens’ welfare and economic development, including in the financial sector, by means of:
  - (a) lowering transaction and operational costs for payments and especially cross-border transfer of funds, quite possibly to well below 1 %, compared to the traditional 2 % – 4 % for online payment systems<sup>4</sup> –, and to more than 7 % on average for the cross-border transfer of remittances<sup>5</sup>, hence, in an optimistic estimate, potentially reducing total global costs for remittances by up to EUR 20 billion;
  - (b) more generally, reducing the cost of access to finance even without a traditional bank account, thereby potentially contributing to financial inclusion and the G20 and G8 ‘5x5 objective’<sup>6</sup>;
  - (c) enhancing the resilience and, depending on the architecture of the scheme, the speed of payment systems and trade in goods and services thanks to the inherently decentralised architecture of DLT, which might continue to operate reliably even if parts of its network were to malfunction or to be hacked;

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<sup>1</sup> <http://www.bis.org/cpmi/publ/d137.pdf>

<sup>2</sup> <http://coinmarketcap.com/>

<sup>3</sup> See, among others: <http://www.coindesk.com/state-of-Bitcoin-blockchain-2016/>

<sup>4</sup> <https://www.eba.europa.eu/documents/10180/657547/EBA-Op-2014-08+Opinion+on+Virtual+Currencies.pdf>

<sup>5</sup> [https://remittanceprices.worldbank.org/sites/default/files/rpw\\_report\\_december\\_2015.pdf](https://remittanceprices.worldbank.org/sites/default/files/rpw_report_december_2015.pdf)

<sup>6</sup> <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTFINANCIALSECTOR/0,,contentMDK:22383199~pagePK:210058~piPK:210062~theSitePK:282885,00.html>

- (d) enabling systems that combine ease of use, low transaction and operational costs and a high degree of privacy, but without full anonymity so that transactions are traceable to a certain extent in case of malfeasance and so that transparency for market participants in general can be increased;
  - (e) using such systems to develop secure online micropayment solutions that respect individual privacy, which could conceivably replace some of the existing online business models that significantly challenge privacy;
  - (f) potentially allowing different types of traditional and innovative payment mechanisms, from credit cards to mobile solutions, to merge into one secure and user-friendly application, which could advance certain aspects of e-commerce in Europe and deepen the Single Market;
2. Notes that VCs and DLT schemes entail risks which need to be addressed appropriately so as to enhance their trustworthiness, including in the present circumstances, namely:
- (a) the absence of flexible, but resilient and reliable, governance structures or indeed a definition of such structures, especially in some DLT applications such as Bitcoin, which creates uncertainty and consumer or – more broadly – user protection problems, especially in the event of challenges unforeseen by the original software designers;
  - (b) the high volatility of VCs and potential for speculative bubbles, and the absence of traditional forms of regulatory supervision, safeguards and protection, issues which are especially challenging for consumers;
  - (c) the sometimes limited capacity of regulators in the area of new technology, which may make it difficult to define appropriate safeguards in a timely manner in order to ensure the proper and reliable functioning of DLT applications when or even before they grow so large as to become systemically relevant;
  - (d) the legal uncertainty surrounding new applications of DLT;
  - (e) the energy consumption of running certain VCs which, according to the UK Government Chief Scientific Adviser's report on DLT, in the case of Bitcoin has been estimated to be in excess of 1 GW, which would call for investments in research into, and promotion of, more efficient forms of transaction verification mechanisms;
  - (f) the lack of sufficiently transparent and easily accessible technical documentation of the functioning of specific VCs and other DLT schemes;
  - (g) potential sources of financial instability that might be associated with derivative products based on poorly understood characteristics of VCs;
  - (h) the potential long-run future limitations on the effectiveness of monetary policy if private VC schemes were to be widely used as a substitute for official fiat currency;

- (i) the potential for ‘black market’ transactions, money laundering, terrorist financing<sup>1</sup>, tax fraud and evasion and other criminal activities based on the ‘pseudonymity’ and ‘mixing services’ that some such services offer and the decentralised nature of some VCs, bearing in mind that the traceability of cash transactions tends to be much lower still;
3. Suggests that addressing these risks will require enhanced regulatory capacity, including technical expertise, and the development of a sound legal framework that keeps up with innovation, ensuring a timely and proportionate response if and when the use of some DLT applications becomes systemically relevant;
4. Points out, however, that if a regulation is adopted at a very early stage, it may not be adapted to a state of affairs which is still in flux and may convey a wrong message to the public about the advantages or security of virtual currencies;

### ***Employing DLT beyond payments***

5. Notes that DLT’s potential to accelerate, decentralise, automate and standardise data-driven processes at lower cost has the potential to alter fundamentally the way in which assets are transferred and records are kept, with implications for both the private and the public sector, the latter being concerned in three dimensions: as a service provider, as a supervisor and as a legislator;
6. Points out that clearing, settlement and other post-trade management processes currently cost the global financial industry well in excess of EUR 50 billion per year<sup>2</sup>, and that this and bank reconciliation processes are areas where the use of DLT might turn out to be transformational in terms of efficiency, speed, and resilience, but would also raise new regulatory challenges;
7. Highlights the fact that, in this regard, several initiatives have been put in place by private sector actors, and invites competent authorities, at both European and national level, to monitor such initiatives;
8. Further notes that DLT could be used to increase data sharing, transparency and trust not only between government and citizens, but also between private sector actors and clients;
9. Recognises the still unfolding potential of DLT well beyond the financial sector, including crypto-equity crowdfunding, dispute mediation services, in particular in the financial and juridical sectors, and the potential of smart contracts combined with digital signatures, applications allowing for heightened data security and synergies with the development of the Internet of Things;
10. Underscores the dynamics that the block-chain technologies generate in the business environment as well as their potential for transformation in the real economy in the long run;

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<sup>1</sup> While there is potential for use of VC for terrorist financing, Europol has recently (18 January 2016) pointed out that ‘despite third party reporting suggesting the use of anonymous currencies like Bitcoin by terrorists to finance their activities, this has not been confirmed by law enforcement’.

<sup>2</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/492972/gs-16-1-distributed-ledger-technology.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/492972/gs-16-1-distributed-ledger-technology.pdf)

11. Acknowledges the potential of DLT in assisting governments to reduce money laundering, fraud and corruption;
12. Encourages government agencies to test DLT systems after conducting proper impact analyses in order to improve the provision of services to citizens and of e-government solutions, in compliance with EU data protection rules; encourages government agencies to avoid lock-in effects which may be associated with reliance on proprietary DLT schemes; specifically recognises the potential of DLT for improvements in land registry systems;
13. Recommends that government agencies and competent authorities that are tasked with analysing large quantities of data explore the use of real-time DLT-based supervision and reporting tools as part of a RegTech agenda in the financial sector and beyond, including in order to at least reduce the sizeable VAT gap in the Union<sup>1</sup>;

### ***Smart regulation towards fostering innovation and safeguarding integrity***

14. Calls for a proportionate regulatory approach at EU level so as not to stifle innovation or add superfluous costs to it at this early stage, while taking seriously the regulatory challenges that the widespread use of VCs and DLT might pose;
15. Highlights the similarities between Distributed Ledger Technology (DLT), consisting in a set of nodes participating in a system and sharing a common database, and the World Wide Web, defined as a global set of resources logically interrelated by hyperlinks; notes that both the DLT and the WWW are based on the internet, a global system of interconnected mainframe, personal and wireless computer networks;
16. Recalls that the internet, despite the attempts to promote a multi-stakeholder approach, is still governed by the National Telecommunications and Information Administration, an agency of the United States Department of Commerce;
17. Welcomes the creation of a Dynamic Coalition on Blockchain Technologies at the Internet Governance Forum, and invites the Commission to promote a shared and inclusive governance of the DLT, so as to avoid problems previously encountered in the development of the internet;
18. Points out that key EU legislation, such as EMIR, CSDR, SFD, MiFID/MiFIR, UCITs and AIFMD, could provide a regulatory framework in line with the activities carried out, irrespective of the underlying technology, even as VCs and DLT-based applications expand into new markets and extend their activities; observes, however, that more tailor-made legislation might be needed;
19. Welcomes the Commission's suggestions for including VC exchange platforms in the Anti-Money-Laundering Directive (AMLD) in order to end the anonymity associated with such platforms; expects that any proposal in this regard will be targeted, justified by means of a full analysis of the risks associated with VCs, and based on a thorough impact assessment;
20. Recommends that the Commission draw up a comprehensive analysis of VCs and, on the basis of this assessment, consider, if appropriate, revising the relevant EU legislation on payments, including the Payment Accounts Directive (PAD), the Payment Services

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<sup>1</sup> [http://europa.eu/rapid/press-release\\_IP-15-5592\\_en.htm](http://europa.eu/rapid/press-release_IP-15-5592_en.htm)

Directive (PSD) and the Electronic Money Directive (EMD), in light of the new possibilities afforded by new technological developments including VCs and DLT, with a view to further enhancing competition and lowering transaction costs, including by means of enhanced interoperability and possibly also via the promotion of a universal and non-proprietary electronic wallet;

21. Observes that several virtual local currencies have been created in Europe, not least as a response to the financial crises and the related credit crunch problems; urges particular caution when defining virtual currencies, in the context of any future legislative proposals, with a view to taking proper account of the existence of ‘local currencies’ of a not-for-profit nature, often having limited fungibility and providing significant social and environmental benefits, and to preventing disproportionate regulation in this area, as long as taxation is neither avoided nor circumvented;
22. Calls for the creation of a horizontal Task Force DLT (TF DLT) led by the Commission, consisting of technical and regulatory experts, in order to:
  - (i) provide the necessary technical and regulatory expertise across the various sectors of pertinent DLT applications, bring together stakeholders and support the relevant public actors at EU and Member State level in their efforts to monitor DLT use at the European level and globally;
  - (ii) foster awareness and analyse the benefits and risks – including to end-users – of DLT applications in order to make best use of their potential, including by aiming to identify a core set of attributes of DLT schemes conducive to the general interest, such as non-proprietary open standards, and by identifying standards for best practice where such standards are emerging;
  - (iii) support a timely, well-informed and proportionate response to the new opportunities and challenges arising with the introduction of significant DLT applications, including by means of a roadmap for future steps at EU and Member State level which would include an assessment of existing European regulation, with a view to updating it in response to significant and systemic DLT use where appropriate, also addressing consumer protection and systemic challenges;
  - (iv) develop stress tests for all relevant aspects of VCs and other DLT schemes that reach a level of use that would make them systemically important for stability;
23. Stresses the importance of consumer awareness, transparency and trust when using VCs; calls on the Commission to develop, in cooperation with the Member States and the VC industry, guidelines with the aim of guaranteeing that correct, clear and complete information is provided for existing and future VC users, to allow them to make a fully informed choice and thus enhance the transparency of VC schemes in terms of how they are organised and operated and how they distinguish themselves from regulated and supervised payment systems in terms of consumer protection;

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24. Instructs its President to forward this resolution to the Council and the Commission.