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| 2 June 2016 | ESMA/2016/773 RF |

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| Reply form for the Discussion Paper on the Distributed Ledger Technology Applied to Securities Markets  |
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| Date: 2 June 2016ESMA/2016/773 RF |

Responding to this paper

The European Securities and Markets Authority (ESMA) invites responses to the specific questions listed in the ESMA Discussion Paper on the Distributed Ledger Technology (DLT) Applied to Securities Markets, published on the ESMA website.

*Instructions*

Please note that, in order to facilitate the analysis of the large number of responses expected, you are requested to use this file to send your response to ESMA so as to allow us to process it properly. Therefore, ESMA will only be able to consider responses which follow the instructions described below:

* use this form and send your responses in Word format (pdf documents will not be considered except for annexes);
* do not remove the tags of type <ESMA\_ QUESTION\_DLT\_1> - i.e. the response to one question has to be framed by the 2 tags corresponding to the question; and
* if you do not have a response to a question, do not delete it and leave the text “TYPE YOUR TEXT HERE” between the tags.

Responses are most helpful:

* if they respond to the question stated;
* contain a clear rationale, including on any related costs and benefits; and
* describe any alternatives that ESMA should consider

**Naming protocol**

In order to facilitate the handling of stakeholders responses please save your document using the following format:

ESMA\_DLT\_NAMEOFCOMPANY\_NAMEOFDOCUMENT.

E.g. if the respondent were XXXX, the name of the reply form would be:

ESMA\_DLT\_XXXX\_REPLYFORM or

ESMA\_DLT\_XXXX\_ANNEX1

***Deadline***

Responses must reach us by **2 September 2016.**

All contributions should be submitted online at [www.esma.europa.eu](http://www.esma.europa.eu) under the heading ‘Your input/Consultations’.

***Publication of responses***

All contributions received will be published following the end of the consultation period, unless otherwise requested. **Please clearly indicate by ticking the appropriate checkbox in the website submission form if you do not wish your contribution to be publicly disclosed. A standard confidentiality statement in an email message will not be treated as a request for non-disclosure.** Note also that a confidential response may be requested from us in accordance with ESMA’s rules on access to documents. We may consult you if we receive such a request. Any decision we make is reviewable by ESMA’s Board of Appeal and the European Ombudsman.

***Data protection***

Information on data protection can be found at [www.esma.europa.eu](http://www.esma.europa.eu) under the headings ‘Legal notice’ and ‘Data protection’.

# Introduction

Please make your introductory comments below, if any:

<ESMA\_COMMENT\_DLT\_1>

The Polish Bank Association welcomes the opportunity for response to ESMA’s Discussion Paper on the Distributed Ledger Technology applied to securities markets.

DLT is an innovative technology and we support ESMA seeking views on assessment of the benefits, risks, challenges and regulatory obstacles associated with it.

Polish securities market has undergo a very dynamic development over the past years and it’s really a good example of implementation of innovative solutions. DLT is going to be implemented rather gradually what should allow for proper adjustments of legal framework and market setup and infrastructure.

We would see our answer to this Discussion Paper to be the beginning of an ongoing dialogue and are happy to discuss issues raised in our response further.

<ESMA\_COMMENT\_DLT\_1>

##### Do you agree with the list of possible benefits of the DLT for securities markets? Please explain, e.g., are these benefits unique to the DLT, are some more important than others, are some irrelevant?

<ESMA\_QUESTION\_DLT\_1>

Yes.

Especially important are benefits related to Clearing&Settlement improvements (3.1) leading to reduced Counterparty Risk (3.4) and therefore to improved efficiency of Collateral Management.

(3.5)

Also, improvement of CA processing due to Smart Contracts implementation is a major DLT opportunity (3.2)

Potentially DLT could support the threshold reporting in area of company ownership and voting rights.

DLT shall also remove settlement fails from the system.

It is noted that DLT may allow for T+0 settlement. Generally there is still room for further efficiencies in post-trade space, we are not sure if moving to T+0 should be our short-term goal. Polish market moved recently to T+2, within CSDR implementation, and we already see positive effects of it on risk exposures. Move to T+0 would simplify the market infrastructure by, potentially, removing the clearing and CCP part of it, but on the other hand it may have wide reaching impact on risk profile and means a fundamental change to the way markets currently operate.

Polish market is not joining T2S in currently scheduled waves, but is still is subject to CSDR and EMIR, what may impact developments in area of DLT - being rather decentralised than centralised way of market setup.

<ESMA\_QUESTION\_DLT\_1>

##### Do you see any other potential benefits of the DLT for securities markets? If yes, please explain.

<ESMA\_QUESTION\_DLT\_2>

 Potential benefits may be possible for investment funds industry. It is worth researching if DLT may be applied to units register and asset register.

Further benefits may be possible in all areas where reconciliation of different centralised databases causes operational issues and increases work load.

DLT may be also applicable to all securities types that are currently not registered with Central Depositary, but rather kept in corporate or financial institution registers.

<ESMA\_QUESTION\_DLT\_2>

##### How would the benefits of the technology be affected, in the case where the DLT is not applied across the entire lifecycle of securities (i.e., issuance, trading, clearing and settlement, safekeeping of assets and record of ownership) but rather to some activities only?

<ESMA\_QUESTION\_DLT\_3>

There should be solution for coexistence of traditional and DLT- based business processes at least for interim period.

DLT solutions should be introduced in the closed parts of the process – i.e. input from traditional database – actions taken in DLT area – output to traditional database. However such approach may create the additional interim cost of interfacing between new and old databases.

It is really important to stress out that the work should be done to introduce a proper standardisation for DLT applications into securities market, what will bring necessary interoperability and would lower the cost to achieve for this technology.

<ESMA\_QUESTION\_DLT\_3>

##### Which activities (e.g., post-trading, other activities), market segments and types of assets in the securities markets are likely to be impacted the most by the DLT in your opinion? How is the DLT likely to modify the way securities markets operate? Please explain.

<ESMA\_QUESTION\_DLT\_4>

Private and OTC market should run first as there is a demand for process improvement. Public and organized markets need more effort and need evolution rather than revolution. The most and soonest impact shall be observed in the private debt issuance / corporate debt area.

There is an opportunity for Investment funds (fully automated portfolios etc.) both on distribution and asset investment ends.

<ESMA\_QUESTION\_DLT\_4>

##### According to which timeframe, is the DLT likely to be applied to securities markets in your view? Please distinguish by type of activities, market segments and assets if relevant.

<ESMA\_QUESTION\_DLT\_5>

Private markets – 2 Years

Investment funds – 4-7 Years

Public markets – up to 10 years

<ESMA\_QUESTION\_DLT\_5>

##### How might your organisation benefit from the introduction of the DLT?

<ESMA\_QUESTION\_DLT\_6>

TYPE YOUR TEXT HERE

<ESMA\_QUESTION\_DLT\_6>

##### If you are working on a concrete application of the DLT to securities markets please describe it (i.e., which activities, which market segments, which type of assets and for which expected benefits) and explain where you stand in terms of practical achievements in relation to your objectives.

<ESMA\_QUESTION\_DLT\_7>

N/A

<ESMA\_QUESTION\_DLT\_7>

##### Do you agree with the analysis of the potential challenges? Please explain, e.g., are some more important than others, are some irrelevant in your view.

<ESMA\_QUESTION\_DLT\_8>

We partly agree with the analysis of potential challenges.

We agree with the consideration that scalability is an most important issue. Moreover gradual introduction of DLT in particular stages of the trade lifecycle or introduction of many DLT standards may impact the interoperability between DLT and legacy systems and between various DLTs. We see this as an important point (4.1)

The issues around governance and privacy are highly important: in a new DLT environment the concepts of governance and privacy will significantly change/evolve as new forms of interaction and collaboration are likely to emerge, possibly making it very difficult to ensure proper and satisfactory governance of the new ecosystem. Therefore, we fully agree with the statement that securities DLTs should be permission-based. We would go a step further and argue that operating a DLT node where securities are issued, held and transferred in the DLT should be a regulated profession subject to authorisation, supervision, passporting, minimal obligations, governance requirements and prudential requirements. (4.2)

 We also understand the importance of regulatory and legal area (4.3). This is mostly because of the currently used legal definitions of a security itself, an account and ownership. There might be a need for introducing a completely new set of definitions that would align new instruments and new way of safekeeping and settlement to the existing, or changed, investor protection laws.

<ESMA\_QUESTION\_DLT\_8>

##### Do you see any other potential challenges? If yes, please explain.

<ESMA\_QUESTION\_DLT\_9>

First of all, Security and Public trust of any innovative solution is a challenge.

From operational point of view backvalue bookings and fixes are not possible and the mechanism of mistakes correction is not known. It is not known how would the DLT based market behave under heave market conditions: large number of trades, volatility.

Time differences – is a change of ownership in DLT-finance valid if it happens outside the business hours in a particular market. Is the validation accurate if it happens ourside the business hours of the validator?

Legal enforceability and time stamp in case of opening the insolvency proceedings.

Moreover the self-execution feature of a DLT based contracts must also be considered from it’s potential challenging side, which is a possibility to prevent such automated execution of a DLT-based contract. Such possibility shall be there for all domino-effect-like cases.

<ESMA\_QUESTION\_DLT\_9>

##### Which solutions do you envisage for these challenges and where do the current initiatives stand in terms of practical achievements to overcome them?

<ESMA\_QUESTION\_DLT\_10>

Privacy access to data, using private / public keys is a challenge. It is always a question who shall get access to which data if it is assured that an unauthorised access is not possible.

We would recommend that a high number of small and highly diverging use-cases be put in service and tested in order to determine as precisely as possible what the risks are and how to address them.

<ESMA\_QUESTION\_DLT\_10>

##### Do you agree with the analysis of the key risks? Please explain, e.g., are some risks more important than others, are some irrelevant in your view.

<ESMA\_QUESTION\_DLT\_11>

Yes. Cyber and Operational risk actually materialised (DAO attack) (5.1/5.2.-50)

<ESMA\_QUESTION\_DLT\_11>

##### Do you see any other potential risks? Please explain.

<ESMA\_QUESTION\_DLT\_12>

There should be rising awareness on the need for standardization.

We also see the risk connected to standard triggers involved in the DLT – based contracts, what makes them, under distressed conditions, to potentially act similar to trading algorithms and creating a market disruption in that way.

<ESMA\_QUESTION\_DLT\_12>

##### How could these risks be addressed? Please explain by providing concrete examples, especially for the risks potentially affecting your organisation.

<ESMA\_QUESTION\_DLT\_13>

Standardization issues are a key requirement for the adoption of useful common solution, otherwise there is a strong risk of fragmentation of services and processes. Possibly, ESMA could take on the role of a “referee” for standardization, e.g. in the area of standards for identity management.

<ESMA\_QUESTION\_DLT\_13>

##### Do you think that the DLT will be used for one of the scenarios above? If yes, which one(s)? If no, please explain?

<ESMA\_QUESTION\_DLT\_14>

Not likely, at least not in the early wave of DLT implementations. Cash market and investment funds is expected to run first.

Triggering factor may be assessment of value added over existing solutions based on confirmation platforms (MarkitWire) and clearing houses infrastructure.

There’s no point to introduce DLT to bilateral (derivative) contracts other than utilisation of it’s automated execution function. Unilateral, standardised derivatives represent transferable rights and therefore might be good example of application of DLT. Especially because not every change of derivative contract ownership results in real cashflow, and that (collateral) cash flows may be processed independently from the derivatives transactions – what is not possible in cash market.

<ESMA\_QUESTION\_DLT\_14>

##### If the DLT is used for one of these scenarios, how compliance with the regulatory requirements attached to each scenario could be ensured?

<ESMA\_QUESTION\_DLT\_15>

We believe that gradual implementation of DLT should start from those areas where it brings additional efficiencies and is not requiring a wide reaching law changes.

Scenario 1.1 : we don’t think that the DLT will be used for this in the short run as the technological change is higher as per transaction the CCP needs to be interposed between the counterparties to the contract.

Scenario 1.2 : although we are not aware of any concrete use-cases yet, the use of DLT for non-CCP cleared transactions seems to make more sense in this early phase of testing. The DLT would function like a register and a trade repository.

Scenario 2. : same answer as scenario 1.1 above

Scenario 3 : from a technological point of view, this makes most sense, but is largely contrary to recent European financial legislation including MiFIR, CSDR and EMIR.

We would expect DLT to be tested in the coming years mainly for securities that are currently held either in an issuer’s register or in securities accounts.

<ESMA\_QUESTION\_DLT\_15>

##### Do you think that the DLT will be used for one of the scenarios above? If yes, which one(s)? If no, please explain?

<ESMA\_QUESTION\_DLT\_16>

Yes.

Scenario 1.1 (Non-CSD; non-Internalizer) seems to be easier to run first with newly originated non-public securities.

Scenarios based on interoperability with CSD may follow, when advantages of DLT will attract present securities to move towards DLT model.

Scenario 2 assumes a central, regulated institution to become a major validator in the DLT network, what in some areas denies the idea of DLT itself.

<ESMA\_QUESTION\_DLT\_16>

##### If the DLT is used for one of these scenarios, how could compliance with the regulatory requirements attached to each scenario be ensured?

<ESMA\_QUESTION\_DLT\_17>

 Must to resolve extraterritoriality issues in a DLT-based reporting solution?.

<ESMA\_QUESTION\_DLT\_17>

##### Do you think that the DLT will be used for safekeeping and record-keeping purposes? Please explain, with concrete examples where appropriate.

<ESMA\_QUESTION\_DLT\_18>

Yes

DLT should assure integrity between issuer and investor levels by definition. From legal point of view, holdings registered at investor portfolio (~securities account) should be considered as an ownership evidence. This however may require proper reflection in the laws and regulations.

It’s rather the issuer level when DLT is applicable. On the other hand investor level blockchain would be good source of tax and compliance data, e.g. for the reason of lack of possibility to change the past records.

<ESMA\_QUESTION\_DLT\_18>

##### If the DLT is used for the safekeeping and record-keeping of ownership, how could compliance with the regulatory requirements be ensured?

<ESMA\_QUESTION\_DLT\_19>

As long as DLT would be considered to be a register minor regulatory adjustments are required. See French bonds regulation as an example. With DLT issues moving closer to CSD like operations, it would need to comply with CSDR and other regulations that require centralisation of the infrastructure used for securities issuance. This must be solved before DLT is used for general safe- and record-keeping.

It is also worth mentioning that also MIFID II is now looking into area of record-keeping, what would require either adjustments to DLT or recognition of DLT in MIFID regulations.

<ESMA\_QUESTION\_DLT\_19>

##### Do you think that the DLT will be used for regulatory reporting purposes? Please explain, with concrete examples where appropriate.

<ESMA\_QUESTION\_DLT\_20>

Yes. Especially within scenarios where DLT substitutes in part or fully current infrastructure.

This may be not the case for new kind of instruments/transactions.

Also, DLT may be used for regulatory reporting in area of voting rights, ownership structures and tax data.

<ESMA\_QUESTION\_DLT\_20>

##### If the DLT is used for regulatory reporting purposes, how could compliance with the applicable regulatory requirements be ensured?

<ESMA\_QUESTION\_DLT\_21>

Automated reporting to existing repositories should not be an issue. Embedding repositories into DLT (i.e. creation and authorisation of new ones) can be justified only when volumes will be really significant.

It is important that regulatory reporting rules assume flexible formats allowing for reporting directly from DLT. In other case, any regulatory reporting may require an additional interface or dictionary between the DLT and the report recipient.

<ESMA\_QUESTION\_DLT\_21>

##### Do you think that the DLT could be used for other securities-related services than those already discussed, in particular trading and issuance?

<ESMA\_QUESTION\_DLT\_22>

Yes. Investment Funds market should be considered in details.

<ESMA\_QUESTION\_DLT\_22>

##### Do you see potential regulatory impediments to the deployment of the DLT in securities markets?

<ESMA\_QUESTION\_DLT\_23>

 We believe most of the possible regulatory obstacles have been correctly identified by ESMA, however it is highly important to make sure that law changes and preparation process assumes existence of this new technology going forward and gives an area for its implementation and maintenance.

<ESMA\_QUESTION\_DLT\_23>

##### Should regulators react to the deployment of the DLT in securities markets and if yes how? If you think they should not do so please justify your answer.

<ESMA\_QUESTION\_DLT\_24>

The regulators are part of the financial markets stakeholders and, as such, have a role in the possible DLT implementation. Two complementary visions are necessary to manage the application of the DLT: the “Oversight” approach, as the regulator can insure the monitoring of further DLT developments, without hindering innovation, and the “Foresight” approach, as the regulators needs to be aware of the potential radical changes brought by DLT and anticipate it to the extent possible.

With reference to the possibility of some sort of regulatory intervention to cover the use of DLT in securities markets, it would be important to stress that any regulatory action would need to primarily focus on the need to ensure a level playing field for all providers of financial services i.e. any innovative solutions provider that offers services of a regulated nature, such as banking, credit, settlement, custody, etc., should be subject to the same regulatory supervision and requirements as current providers of the same services..

<ESMA\_QUESTION\_DLT\_24>