



European Securities and  
Markets Authority

# Final Report

**Draft Regulatory Technical Standards on European Electronic Access  
Point (EEAP)**





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## List of abbreviations and acronyms used in this report

APIs	Application Programming Interface
BIC	Business Identification Code
BRIS	Business Registers Interconnection System
CBA	Cost Benefit Analysis
CP	Consultation Paper
EEAP	European Electronic Access Point
ESEF	European Single Electronic Format
ESMA	European Securities and Markets Authority
TFP	File Transfer Protocol
HMS	Home Member State
HTTP	Hypertext Transfer Protocol
HTTPS	Secure Hypertext Transfer Protocol
ISIN	Instrument Identifier
ISO	International Organization for Standardization
LEI	Legal Entity Identifier
MAD	Market Abuse Directive
NCA	National Competent Authority
OAM	National Storage Mechanism
RTS	Regulatory Technical Standard
TD	Transparency Directive 2004/109/EC
URL	Uniform Resource Locator
UTF	Universal Transformation Format
XML	Extensible Markup Language

## Executive Summary

### Reasons for publication

The European Securities and Markets Authority (ESMA) issued on 19 December 2014 a Consultation Paper (CP)<sup>1</sup> on 'Draft Regulatory Technical Standards (RTS) on European Electronic Access Point (EEAP)' in order to fulfil certain requirements of the Transparency Directive 2004/109/EC (TD) as last amended by Directive 2013/50/EU published in the Official Journal of the European Union (EU) on 6 November 2013 and which entered into force on 27 November 2013. Based on article 22.1 of the TD, ESMA is required to develop draft RTS setting technical requirements regarding the access to regulated information at Union level and submit them to the European Commission (EC) by 27 November 2015.

### Contents

This final report contains an overview of the responses received to the CP on the EEAP as well as the ESMA response to them. The final draft RTS presented in Annex IV takes into account the suggestions raised by respondents. The rationale of the items covered in the CP for which no relevant changes have been introduced is not developed again in this Final Report. Therefore, ESMA recommends reading this report together with the CP on the EEAP.

ESMA welcomes the feedback received on the draft RTS supporting the technical requirements to ensure a correct functioning of the EEAP, in particular the search criteria and the technical infrastructure chosen to ensure an easy search and access to regulated information.

ESMA considered and addressed some of the suggestions related to the service support and the interaction between the different IT systems and the relevant infrastructure. In that respect, ESMA has amended the draft RTS to include additional provisions on the cooperation between the EEAP and the Officially Appointed Mechanisms (OAMs) and made some minor amendments to those requirements.

Finally ESMA has considered that issuers and OAMs may need to adapt to the requirements contained in the draft RTS and proposed that the provisions of the draft RTS apply only to regulated information made available to OAMs by issuers on or after 1 January 2017 and the same date was set out for the application of the use of the LEI. All the other requirements are linked to the operation of the EEAP. As such, OAMs should ensure that the EEAP is able to work from 1 January 2018.

### Next steps

This final report will be submitted to the EC after this publication, the EC will have three months to decide whether to endorse ESMA's draft RTS.

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<sup>1</sup> ESMA/2014/1566 [http://www.esma.europa.eu/system/files/2014-1566\\_consultation\\_paper\\_on\\_the\\_draft\\_rts\\_on\\_the\\_eeap.pdf](http://www.esma.europa.eu/system/files/2014-1566_consultation_paper_on_the_draft_rts_on_the_eeap.pdf)

## 1. Overview

1. Article 22(1) of the TD as last amended on 6 November 2013 assigns ESMA with responsibilities in drafting RTS in relation to:
  - a. the technical requirements regarding the communication technologies used by the OAMs;
  - b. the technical requirements for the operation of a central access point for the search of regulated information at Union level;
  - c. the technical requirements regarding the use of a unique identifier for each issuer by OAMs;
  - d. the common format for the delivery of regulated information by national OAMs; and
  - e. the common classification of regulated information by OAMs and the common list of types of regulated information.
2. ESMA is required to submit the draft RTS to the EC by 27 November 2015.

## 2. Background

### *Consultation Process*

3. ESMA's Consultation Paper (CP) on 'Draft Regulatory Technical Standards on European Electronic Access Point (EEAP) was published on 19 December 2014 and the consultation period closed on 30 March 2015. ESMA received nine responses, representing 14 institutions, mostly OAMs. Other responses came from a government body and few private organisations. A detailed list of the respondents is provided in Annex II. The answers received on the CP are available on ESMA's website<sup>2</sup> unless respondents requested their answers to remain confidential.
4. The CP included 21 questions on various sections of the draft RTS. ESMA is most grateful to all those who took the time to bring their contribution to the consultation process. Some answers were more general, while most of them were specific to the questions asked. For each question, ESMA included in the feedback statement a summary of the main messages from the comments received on the proposed draft RTS and ESMA's answers.

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<sup>2</sup> <http://esma.europa.eu/consultation/Consultation-Draft-Regulatory-Technical-Standards-European-Electronic-Access-Point-EEAP#responses>

### *Regulatory Technical Standards*

5. Article 10 of the ESMA Regulation requires ESMA, where appropriate, to conduct open public consultations on draft technical standards, analyse the potential related costs and benefits, and request the opinion of the SMSG established in accordance with Article 37 of that Regulation.
6. The draft RTS have been developed on the basis of the requirements of the TD, and have been adjusted where relevant following the feedback received to the consultation undertaken by ESMA and summarised in this document.

### *Overall messages*

7. Overall, the feedback received indicates a large support for the functioning modalities of the EEAP, especially the search criteria and the technical infrastructure chosen by ESMA to ensure an easy access of end users to regulated information.
8. However, some respondents believed that further explanations should be provided on the interaction of the EEAP with the current IT systems and infrastructure of the OAMs. In their view, national OAM search facilities as well as service support provided to the end users should not be regulated, as this would limit the autonomy of the OAMs. They also suggested that the requirements clearly indicate that ESMA should only regulate the visualisation on the EEAP.
9. Finally, respondents made a number of comments on the service support, from and to the EEAP, requesting more detailed presentation of the organisation modalities and treatment of individual service support requests.

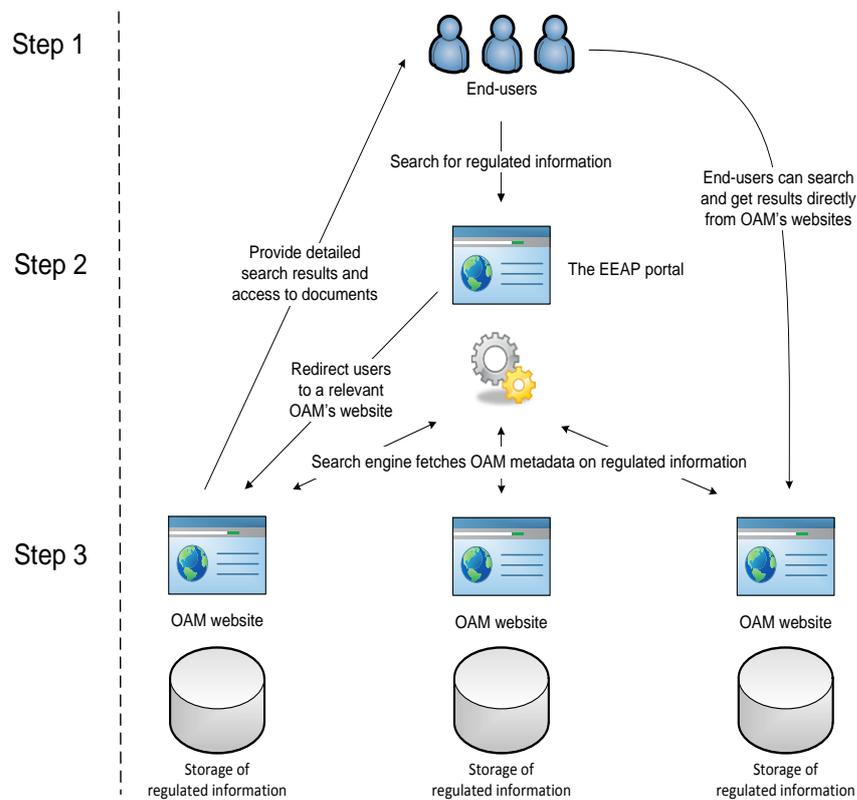
### *ESMA response*

10. In view of the requirement to request the opinion of stakeholders before addressing a draft RTS to the EC, ESMA has considered the points raised by respondents and addressed them in its response to every question in the feedback statement and the final draft RTS.
11. ESMA carefully considered the responses received in order to improve the designed system and ensure its compliance with the objectives set out in the TD, notably to provide an easy access and search of regulated information thus promoting investor protection and transparency of regulated information provided by issuers at Union level.
12. ESMA recalls that Article 21a (2) of the TD requires that the system of interconnection is composed of 'the portal serving as the EEAP' on one side and the OAMs on the

other side. Consequently, the EEAP will not replace existing OAMs in storing regulated information, but rather provide an additional way of access to the information that is already stored and enabled to end users by OAMs.

13. Furthermore, as the draft RTS set up the requirements to ensure an easy access and search of regulated information, the infrastructure chosen will provide end users with a two-step access to the regulated information (Figure 1 below), so that in a first step end users will use the search facility on the EEAP website to look for an issuer and type of regulated information, and in a second step end users will have access to the documents containing regulated information through the websites of the respective OAM.

**Figure 1 – The EEAP system**



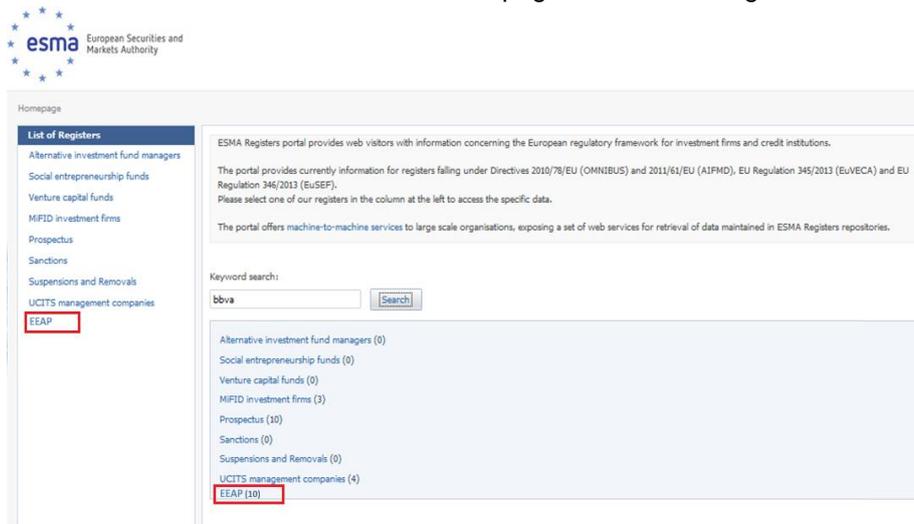
14. The proposed EEAP system will bring more efficiency gains than the other solutions indicated in the CP as it is expected to obtain faster results for the information searched because the information exchanged between the EEAP and the OAMs will be related only to the metadata necessary to identify the issuer and the type of information required. In addition, the EEAP system will leverage upon the current websites of OAMs which will continue to provide access to the documents and may benefit from the increase in the number of end users in their websites and visualisation of documents without incurring significant costs of advertisement.

15. However, the OAMs may incur some costs in relation to the tagging of regulated information stored and displayed, as they may need to adapt systems and their webpages to ensure that the hyperlinks provided to the EEAP shall follow the classification of regulated information laid down in these draft RTS.
16. As a response to the concerns raised by respondents, ESMA would like to clarify that these draft RTS were drafted in the context of the empowerment given to ESMA to develop and operate a web-portal enabling an easy and fast access to regulated information stored by OAMs. As such, the draft RTS cannot deal with:
  - a. Storage of regulated information, for instance the formats and the technologies used to store this information or the scope of other information currently stored by OAMs.
  - b. Search facilities provided by OAMs: OAMs will continue to provide search facilities according to their users' needs.
  - c. Technologies and procedures used by OAMs if they are not related to or affect the connection with the EEAP. As the EEAP will direct end users to the OAMs, the service support required by these RTS relate to the relationship between the EEAP and the OAMs and not the service support provided by OAMs to end users (regardless whether they are based at national level or international level or if directed by the EEAP). Thus, the service support provided by OAMs to the end users is not within the scope of these draft RTS.
  - d. Information displayed on the websites of OAMs, for instance the format used to display information to end users.
17. Furthermore, in order to address some of the concerns expressed on the level of service support in the scope of these RTS, ESMA provided further details on the types of service support related to the EEAP clarifying elements related to the support from the EEAP to the end users on one side, and the support between the EEAP and the OAMs on the other side.
18. Finally, some respondents asked for more details and specifications of a few requirements. ESMA would like to clarify that, as any other IT projects, further technical specifications will need to be defined at a later stage, when the implementation of the EEAP will have started. The draft RTS are the basis for technical specifications which will be decided in cooperation with the OAMs once the implementation phase starts. As some of these specifications are related to the technology used when building the portal and setting the connection between the OAMs and the EEAP, ESMA believes it is premature to provide further details at this stage.

Visualisation on the EEAP website

- In terms of visualisation, end users will access the EEAP through a basic search page accessible on ESMA website. The webpage of the EEAP will subsequently provide end users with a list of metadata (such as name of the issuer or type of regulated information) to be filled for the identification of issuers and the type of searched documents (e.g. annual reports, major shareholdings).

Figure 2 – Provisional screenshot: Basic Search page on ESMA’s Registries and Databases



- Subsequently the EEAP shall display a list of results on the EEAP website (in this case the user used the “issuer name” as the only search criteria), so that the user will make its selection according to the type of regulated information queried.

Figure 3 – Provisional screenshot: Search criteria and display results

Items : 1-10 / 33 Results per page: 10

Issuer name	Issuer's Home MS	LEI	Type of regulated information	URL
BANCO BILBAO VIZCAYA ARGENTARIA, S.A.	ES	K8MS7FD7N5Z2WQ51AZ71	Annual financial reports	<a href="http://cnmv.es/Portal/Consultas/IFA...">http://cnmv.es/Portal/Consultas/IFA...</a>
BANCO BILBAO VIZCAYA ARGENTARIA, S.A.	ES	K8MS7FD7N5Z2WQ51AZ72	Half yearly financial reports	<a href="http://cnmv.es/Portal/Consultas/IFA...">http://cnmv.es/Portal/Consultas/IFA...</a>
BANCO BILBAO VIZCAYA ARGENTARIA, S.A.	ES	K8MS7FD7N5Z2WQ51AZ73	Payments to governments;	<a href="http://cnmv.es/Portal/Consultas/IFA...">http://cnmv.es/Portal/Consultas/IFA...</a>
BANCO BILBAO VIZCAYA ARGENTARIA, S.A.	ES	K8MS7FD7N5Z2WQ51AZ74	Home Member State;	<a href="http://cnmv.es/Portal/Consultas/IFA...">http://cnmv.es/Portal/Consultas/IFA...</a>
BANCO BILBAO VIZCAYA ARGENTARIA, S.A.	ES	K8MS7FD7N5Z2WQ51AZ75	Price sensitive information;	<a href="http://cnmv.es/Portal/Consultas/IFA...">http://cnmv.es/Portal/Consultas/IFA...</a>
BANCO BILBAO VIZCAYA ARGENTARIA, S.A.	ES	K8MS7FD7N5Z2WQ51AZ76	Major shareholdings notifications;	<a href="http://cnmv.es/Portal/Consultas/IFA...">http://cnmv.es/Portal/Consultas/IFA...</a>
BANCO BILBAO VIZCAYA ARGENTARIA, S.A.	ES	K8MS7FD7N5Z2WQ51AZ77	Trading on own shares;	<a href="http://cnmv.es/Portal/Consultas/IFA...">http://cnmv.es/Portal/Consultas/IFA...</a>
BANCO BILBAO VIZCAYA ARGENTARIA, S.A.	ES	K8MS7FD7N5Z2WQ51AZ78	Total number of voting rights and capital;	<a href="http://cnmv.es/Portal/Consultas/IFA...">http://cnmv.es/Portal/Consultas/IFA...</a>
BANCO BILBAO VIZCAYA ARGENTARIA, S.A.	ES	K8MS7FD7N5Z2WQ51AZ79	Changes in the rights attaching to the classes of shares or securities	<a href="http://cnmv.es/Portal/Consultas/IFA...">http://cnmv.es/Portal/Consultas/IFA...</a>
BANCO BILBAO VIZCAYA ARGENTARIA, S.A.	ES	K8MS7FD7N5Z2WQ51AZ80	Regulated information adopted by Member State.	<a href="http://cnmv.es/Portal/Consultas/IFA...">http://cnmv.es/Portal/Consultas/IFA...</a>

- Finally, by selecting the relevant type of regulated information, the user will be automatically redirected to the OAM’s website, where such documents may be visualised or downloaded following the OAMs national provisions.

**Figure 4 – Provisional screenshot: Display of OAM results after clicking respective Uniform Resource locator (URL)**

cnmv.es/Portal/Consultas/IFA/ListadoIFA.aspx?id=0&nif=A-48265169

Nota: Dado el gran tamaño de alguno de estos documentos, es aconsejable guardarlo en disco (pulsando el botón derecho sobre el enlace) en lugar de visualizarlos en línea.

Nº Estados Financieros	Fecha Estados Financieros	Nombre del emisor y auditor	Tipo	Inf. Esp. (1)	Amp. Inf. (2)	Opinión del auditor	Párrafo de énfasis (3)	Columna Observ.
15532	31/12/2014	BANCO BILBAO VIZCAYA ARGENTARIA, S.A. DELOITTE, S.L.	Individual/ Consolidada			Limpia / Limpia	- / -	
14858	31/12/2013	BANCO BILBAO VIZCAYA ARGENTARIA, S.A. DELOITTE, S.L.	Individual/ Consolidada		Sí	Limpia / Limpia	- / -	

### *Date of application of the RTS*

22. In its assessment on the application of the applicability of the RTS and as a response to the concerns raised by respondents on the classification of regulated information ESMA has considered the need to provide issuers and OAMs with sufficient time to adapt the legislative and technological changes in relation to the new classification of regulated information as set out in these RTS (storage and tagging of the documents received). As such, ESMA has proposed that the RTS applies only to regulated information made available to OAMs by issuers after 31 December 2016 in order to enable the correct functioning of the EEAP on the 1 January 2018. The same reasoning is applicable to the entry into force of the requirement related to unique identifier.
23. All other requirements as set out in these draft RTS have their entry into force connected with the go-live of the EEAP website, i.e, OAMs will need to ensure that their systems and connection are ready to ensure the operation of the EEAP starting from that date onwards.

### **3. Feedback Statement**

24. This section provides a summary of the responses by identifying the main comments from the respondents and ESMA's view on those comments, together with changes to the draft RTS, where the case.

**Q1: Do you agree with the proposed search criteria (name of the issuer from which the regulated information originated; unique identifier of the issuer as defined by the RTS on the unique identifier; Home Member State of the issuer and regulated information as classified by the RTS on the common classification of regulated information)? If not, what other search functionalities should the EEAP provide to end users?**

**Q5: Do you agree with the abandoned list of requirements? If not, which one (s) should ESMA reconsider?**

*The following requirements were discussed but afterwards abandoned:*

- *Providing a search criterion per type of instrument (e.g. shares or bonds);*
- *Providing search criterion using the Instrument identifier (ISIN);*
- *Providing search criterion by sector/industry*
- *Providing a full text search.*
- *European Single Electronic Format (ESEF) format requirements.*

**Q6: Are there any other requirements not mentioned in this section that should be considered by ESMA? Please provide your reasoning.**

25. Eight respondents answered Question 1. A large majority of them agreed with the proposed search criteria as proposed by ESMA in article 1(1) of the draft RTS. In addition, some respondents provided specific comments on the following criteria:
- i. On the search by name, one respondent suggested to allow search by part of the name of a company in order to facilitate end user queries.
  - ii. On the search for issuers by their unique identifier, two respondents specifically supported the search criteria by Legal Entity Identifier (LEI), as the latter, is endorsed by the G20 and already used by some OAMs as well as the EBA and EIOPA for regulatory reporting. However those respondents raised the attention of ESMA on the difficulty to cover issuers no longer admitted to trading on regulated markets. Another respondent disagreed with the use of the LEI because it did not currently use it.
  - iii. On the search by home Member State (HMS), two respondents disagreed with the criterion, which foresees that end users will receive a link to the OAM website of the HMS on the basis of their search. They feared it would lead to performance loss and high infrastructure costs for the OAMs without creating added value to end users.
26. Some respondents suggested adding among the search criteria: reporting/ dissemination date, status of the issuer (admitted or no longer admitted to trading on regulated markets), place of registered office of the issuer and industry code.
27. Finally, one respondent considered that article 1 of the RTS should provide an adequate relation between the type of search queries to be filed and the results to be achieved.

28. Seven respondents answered question 5. Five of them agreed with the abandoned list of requirements, as they considered that 'abandoned search requirements' should be excluded from the requirements in order not to endanger timely implementation of the project.
29. Two respondents considered that the search criteria should include the industry code. They also suggested taking into account the European Single Electronic Format (ESEF) requirements which are to be proposed in an ESMA RTS, as required by article 4.7 of the TD. In their view, this could optimise the benefits of the EEAP requirements so that some of its functionalities are taken into consideration.
30. Although five respondents answered question 6, most of the comments received related to the search criteria notably suggesting to include the dissemination date and the issuer status (admitted or no longer admitted to trading on regulated markets).

#### *ESMA response*

31. ESMA welcomes the support received from the respondents and the agreement with the selected search criteria.
32. ESMA recalls that the disclosure of the HMS and the use of a unique identifier have been introduced by the TD. As issuers will have to provide their HMS to the OAM, the OAM will be able to use this information when setting up the necessary metadata to allow efficient search queries. From an end user perspective, ESMA believes that allowing search by HMS will help end users to access the information of a specific issuer if they do not know its full name. Moreover, as the use of a unique identifier is also required by the TD, ESMA believes that it will be useful when searching for a specific issuer and ensure the accuracy of search results.
33. ESMA does not consider that search by HMS criterion would cause performance issues, because the EEAP will only provide links to OAMs and the performance is not linked to this particular criterion. An impact on OAMs performance would only occur if the EEAP were to store all information (including documents) and provide it directly to end users.
34. ESMA welcomes the support from the respondents on the abandoned list of requirements. ESMA strongly believes that before being able to include specific requirements on the interaction of the EEAP with the ESEF, the ESEF requirements need to be defined. It is also likely that the ESEF implementation will require further discussions between OAMs and the EC as this might have an impact on the storage of annual reports by OAMs. Therefore, taking into account the differences between the two dates of implementation, and the expected discussions on the storage of the annual financial reports, ESMA believes that, at this stage, it is too early to consider specific requirements on this issue.

35. However, considering the current design of the system, ESMA believes that the direct impact of the ESEF on the EEAP is likely to be limited. The EEAP is a search engine that will only allow end users to search for issuers' regulated information. Visualisation will occur on the OAMs websites, as the scope of the EEAP is not the visualisation of extracted documents. The technology will be provided by the OAMs, who are responsible for the visualisation and download of documents. The EEAP will provide a link to a web page in order to access documents stored by OAMs, so that the particular format of the annual financial reports is not relevant.
36. With regards to the status of the issuer (admitted or no longer admitted to trading on regulated markets), ESMA recalls that the provisions of the TD will only be applicable to issuers whose securities are admitted to trading on a European regulated market at the date of implementation of the EEAP. Therefore, as the EEAP should mainly provide search facilities on issuers admitted to trading on regulated markets, OAMs are not required to provide or deliver metadata on issuers who will no longer be admitted to trading at the date of implementation of the EEAP.
37. Concerning the status of an issuer, ESMA understands that most OAMs will have access to information that allows them to identify issuers who are admitted to trading or not, either by obtaining information from the respective NCA or from the issuer itself who may need to inform the OAM of its status.
38. In relation to the date of dissemination/reporting of a specific date, when defining the search criteria for the EEAP, ESMA took into account the expected costs of the implementation of the RTS and the potential benefits for end users. Therefore, when analysing the date of dissemination/reporting criterion, ESMA considered that the increase of the metadata exchanged/delivered by the OAMs to the EEAP would lead to an increase of the complexity, the associated costs for OAMs and to an increase of the response time for the production of search results, without bringing effective benefits to end users. Instead, ESMA believes that end users should have access to this information when accessing the web-page of the OAM where the documents which correspond to a specific search can be visualised or downloaded.
39. With regards to the industry code, ESMA shares the view that its use could be useful for end users when assessing regulated information from issuers with securities traded in several European markets as it could allow to easily compare the information provided by different issuers within the same sector. However, as explained in the CP, the mandate conferred to ESMA to develop the RTS on the EEAP requires that the EEAP ensures an easy access to regulated information. As such, ESMA has a limited room to add requirements on the information stored, the technologies used by OAMs to manage and run the storage or the format used to store and display regulated information. Therefore, as the industry code is not within the current definition of regulated information and is not stored by most OAMs, it is not justified to set out a

search criterion based on information that is not available on the OAMs as the implementation costs will outweigh the expected benefits.

**Q2: Do you agree with the requirements to ensure an easy access to regulated information?** (*ref. to Article 2 of the proposed draft RTS*)

40. Eight respondents answered this question and agreed with the requirements for an easy access to regulated information.
41. However, two respondents considered that the EEAP should provide direct hyperlinks to the webpage of the OAM (specified in paragraph 39 of the CP) where the desired documents could be visualised or downloaded. From the perspective of end users, this would make search easier at European level.
42. Another respondent requested that search queries provided by the EEAP allow machine-to-machine communication in order to enable communication through APIs (Application Programming Interface) or other technologies.
43. Two respondents considered that the information available and downloadable through the EEAP should make explicit reference to the reusable format in accordance with the Digital Agenda for EU 2020 (specified in paragraphs 43 to 45 of the CP) and to standards recommended by European standardisation bodies, such as CEN and MSP ICT Standardisation (specified in paragraph 48 of the CP).

*ESMA response*

44. ESMA welcomes the support from the respondents and their agreement on the requirements to ensure an easy access to regulated information. As mentioned in the CP on the EEAP, these requirements shall ensure a link to the specific page where searched information or documents can be visualised or downloaded.
45. Article 21a (2) of the TD specifies that the system of interconnection is composed of the OAMs for the central storage of regulated information and 'the portal serving as the EEAP' for the search for regulated information. Considering the mandate conferred to ESMA and the design of the portal, the EEAP will only provide hyperlinks to OAMs' websites and will not store documents containing regulated information. As such, the machine-to-machine functionality would not bring any benefits without requiring that all OAMs change their infrastructure and follow a common machine-readable format for regulated information. As the costs of such changes are likely to be very high, and their usability is linked to the implementation of the ESEF, requirements setting up a machine-to-machine technology may be determined in the future when the ESEF is defined and implemented.
46. ESMA also decided to replace Article 2(3) as proposed in the draft RTS related to the pricing policies and include instead a recital in the RTS. The EEAP RTS should not

impose requirements on OAMs which are not directly related to the building of the EEAP or the network, thus the final decision to charge end users when accessing regulated information is left with the OAM (as pricing policies are subject to national law). ESMA will not charge end users for the access to metadata on regulated information at the level of the EEAP.

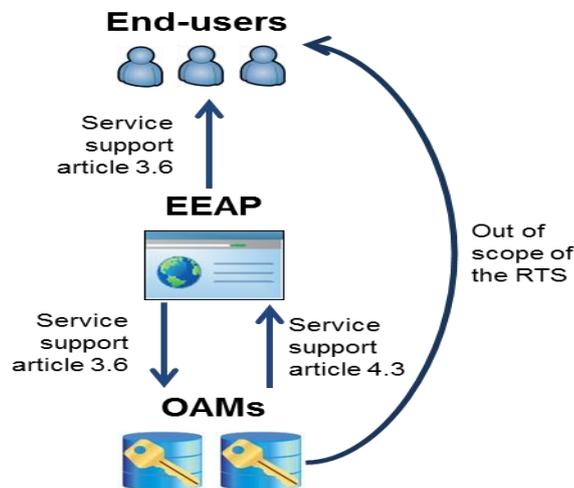
**Q3: Do you agree with the requirements on availability service, technologies used and support (Article 3 of the proposed draft RTS)?**

47. Seven respondents answered this question and generally agreed with the requirements on availability service, technologies used and support. Some of them specifically indicated support for the use of the HTTPS protocol to connect to an OAM website, as they considered it was a common standard with low development cost.
48. Five respondents commented extensively on the modalities of the service support. They encouraged a more precise presentation of the support system, a description of the treatment of responses, the response time, the eligibility for support, an extension of the availability towards local working hours of the OAMs and larger language coverage (national languages and English). They proposed the installation of a pan-European unitary ticket system to improve its efficiency and suggested to extend its operations so that support is available on a European wide basis.

*ESMA response*

49. ESMA welcomes the support and agreement from the respondents on the requirements on the availability of service, technologies used and support provided, notably in the use of the HTTPS protocols.
50. Taking into account the ongoing developments of communication technologies, ESMA should be able to change the technology used to connect the EEAP to OAMs to adapt to alternative technologies available on the market. In those cases the changes as well as the timetable for its implementation shall be done in close cooperation with OAMs.
51. ESMA believes that respondents may have misunderstood the requirements in relation to the service support, as different levels of service support should be identified in the context of the EEAP system. Figure 5 below shows the interaction between the requirements included in the draft RTS and the type of support to be provided.

**Figure 5 – Service support among EEAP stakeholders**



52. Article 3.6 of the draft RTS identifies 2 types of service support, as explained hereafter. Service support from OAMs to end users is out of scope of these RTS and is addressed in paragraphs 70 and 73 of this report.

### **Service support from EEAP to end users**

53. ESMA takes note of the comments received in relation to the requirements on the service support provided to end users and would like to clarify that the requirements included in the draft RTS only relate to the support of the interface (search facility). ESMA does not have the intention to specify the requirements on the support to be provided by OAMs to their end users, as this is outside its mandate.
54. ESMA agrees that more details should be given at a later stage, notably, in the implementation phase to enable a clear picture on how end users should ask for service support and what they should expect from the EEAP's operator. These procedures should in particular refer to situations when a user cannot connect to the EEAP or cannot perform the search use cases. In this regard, ESMA believes it is premature to define procedures and detailed requirements on the level of the service support provided, because neither the expected use of the EEAP nor the type of support for the infrastructure can be accurately estimated..
55. As explained in Figure 1 of this report, the EEAP will only provide a search facility of metadata on regulated information and links to the OAMs' websites for end users. The search results (list of documents) and access to information will be provided directly by OAMs so that end users will need to contact OAMs for most issues. In case an end user makes a request which ESMA considers outside of its remits, this end user will be redirected to the relevant OAM.

## **Service support from EEAP to OAMs and from OAMs to EEAP**

56. The objective of the support from ESMA to OAMs and from OAMs to ESMA is to ensure that the connection between the EEAP and the OAMs systems is operational and that the metadata delivery process works correctly.
57. The detailed requirements on the service support will be defined in coordination with the OAMs when the implementation phase starts as the support level / infrastructure and respective procedures should take into consideration the expected use of the EEAP and the type of infrastructure built.

## **Availability of the website and the connection**

58. In order to address some of the comments received on clarity on some technical requirements, ESMA considered necessary to precise the level of availability of the EEAP website. As specified in paragraph 55 of the CP on EEAP the level of availability of 95% (which was included in the final RTS) relates only to the EEAP website and not to the whole network (the EEAP and the OAMs altogether). The same level was set out as well for the connection between the EEAP and OAMs, ESMA considers that this level of availability will enable end users to use the EEAP in most of their search requests for regulated information and to save time when searching for regulated information.

## **Q4: Do you agree with technical infrastructure chosen by ESMA?**

*ESMA is of the view that Option 4 (search engine tool) is the least complex and most cost-efficient option to implement when considering the overall costs for ESMA and OAMs. It also follows current technology trends and best practices to set up IT systems of functionalities similar to the EEAP.*

*ESMA believes that Option 4 may be implemented differently. The following two sub-options may be considered:*

*Option 4.a): To build the EEAP web portal by ESMA. In this case the EEAP would be developed using the technologies specified by and then maintained by ESMA.*

*Option 4.b): To outsource the development and/or hosting of the EEAP web portal to one of the providers of commercial search engines. This option foresees that the EEAP would be developed as a standalone website with its own URL, which would contain all search criteria defined by these RTS to search for regulated information through all OAMs. The search results would provide the same information as if the portal would be developed by ESMA.*

59. Nine respondents answered this question and assessed the 4 options considered by ESMA. They all agreed with the choice of option 4, while 2 of them considered that option 1 could also be implemented. 1 respondent specifically considered that options 2 and 3 should be ruled out because of their burdensome implementation for the OAMs and highly restricted performance.

60. Respondents also assessed the 2 sub-options for Option 4. Whereas none disagreed with sub-option 4a, 6 respondents strongly opposed to the implementation of option 4b, which foresees the outsourcing of the development of the EEAP web-portal to a commercial search engine provider.
61. Respondents considered that the use of commercial search engines with the involvement of third parties would strengthen monitoring and compliance concerns due to issues related to data security and European data protection. They assumed that monitoring the use of data by commercial search engines was impossible or significantly difficult for OAMs and the EEAP, especially as the commercial terms and pricing policies of commercial search engines can be unilaterally changed by search engine providers on short notice and at any time. As such, this monitoring would also limit the capacity of the OAMs to provide their own search facilities.
62. One respondent suggested two scenarios for indexing the data: either a mass index authorisation declaration of public IP (the risk of denial of access to data) or the establishment of a redundant server exclusively dedicated to the EEAP.

#### *ESMA response*

63. ESMA welcomes the support from the respondents on the choice of infrastructure as presented in option 4 a). ESMA also takes note of the negative comments such as the liability concerns with regards to the implementation of option 4b. It will be duly addressed by ESMA when setting up the technical infrastructure.
64. ESMA will ensure full compliance of the EEAP (including any contract in relation thereto) with the appropriate legislation on data protection, especially Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and the free movement of such data<sup>3</sup> and Regulation (EC) No 45/2001 of the European Parliament and of the Council of 18 December 2000 on the protection of individuals with regard to the processing of personal data by Community institutions and bodies and on the free movement of such data.<sup>4</sup>

#### **Q7: Do you agree with the requirements on the technologies used, support and maintenance for OAMs (Article 4 of the Draft RTS)?**

65. Eight respondents answered this question, and most of them either disagreed or asked for some clarification on the specific requirements. Only one respondent agreed with the requirement providing the EEAP with the possibility to change unilaterally the

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<sup>3</sup> <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31995L0046&from=en>

<sup>4</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2001:008:0001:0022:en:PDF>

technology used to connect the EEAP to the OAMs in case of security or integrity issues, so that technical adjustments to the EEAP would automatically apply to all OAMs through timely required adoption.

66. Overall, respondents commented extensively on the level of service support that ESMA is going to require from the OAMs and suggested to clarify that:
- a. The recipients of service support provided by OAMs are their end users only.
  - b. An additional service support should be provided to the EEAP only.
  - c. Service support by OAMs should be provided within the local working hours of the respective OAM only.
  - d. Mandatory languages in which service support is supplied should be limited to the national language(s) of the OAM and English. The addition of support in other languages should be provided on an optional basis upon decision of the individual OAMs.
  - e. The extent of the support to be provided by OAMs to end users should be limited to the support already provided prior to the implementation of the EEAP.
  - f. Finally, a unified ticketing system for incidents or reporting of errors should be set up by ESMA in order to strengthen the communication processes between ESMA and OAMs.
67. Five respondents considered that ESMA should consult the OAMs before the implementation of future technical standards in order to ensure coordination and limited cost. One respondent suggested that OAMs are closely associated to further technical requirements on the operation of their systems and requested the involvement of OAMs at an early stage of the process.
68. One respondent suggested creating a security concept (organizational and technical) for the EEAP, for example on the prevention of unauthorized access to metadata by third parties or the limitation of the use of the data supplied by the OAMs when appropriate.
69. Finally, another respondent considered that some sections of the draft RTS appeared too vague and would benefit from a more specific language (e.g. Art. 4 'Communication technologies, support and maintenance').

### *ESMA response*

70. With regards to the comments received on the service support, ESMA recalls the explanations and graphic provided in the answer to Question 3. ESMA only expects a minimum requirement service support in relation to the support of the EEAP, which will be provided in cooperation with the OAMs.
71. Support for end users should be provided by OAMs according to the procedures already in place (e.g. support should be available in the respective national languages and in English). Figure 1 of this report explains how the EEAP will work. As the system will provide a search facility to seek regulated information and links to the OAMs websites where regulated information will be accessible, it is likely that the number of end users of the OAMs will increase. Therefore, the support provided by OAMs shall take into account this aspect, even though it is not the intention of ESMA to regulate these procedures.
72. The draft RTS shall only address situations where any assistance from OAMs to the EEAP is needed. In this context, detailed requirements on the support level expected from OAMs to the EEAP will be defined at a later stage in cooperation with OAMs. Service support provided by OAMs to their end users should follow the procedures currently in place; thus, issues related to languages, helpdesk and working hours should be dealt with at national level only.
73. In relation to the implementation of a ticketing system for the level of support, ESMA intends to continue using the ticketing system already in place and believes that no additional requirements should be included in the draft RTS. In this respect, ESMA takes note that the TD does not empower ESMA to build a pan-European ticketing system, so that there is no need to build a European ticketing system to address the questions raised by end users to the EEAP. Notwithstanding the above, this assessment of the ticketing system will be analysed at a later point and confirmed during the implementation phase or after the entry into service of the EEAP.
74. ESMA took into account the comments received on the security of information and the possible change in the technologies used for the interconnection with OAMs, and has amended the relevant paragraph of the draft RTS in order to allow OAMs to provide their input in case of change of the technology used.
75. Furthermore, during the implementation phase, ESMA will implement relevant procedures to avoid access by robots to the metadata provided by OAMs and will organise connexion to OAMs through a specific protocol in order to ensure the security and integrity of data.
76. With regard to the comments received on security issues and integrity of documents, ESMA takes note that regulated information is public so that there should be no or relatively few confidentiality issues. However, ESMA will implement the necessary

procedures to ensure that the communication between the OAM and the EEAP follows the security standards in place at the time of implementation of the EEAP.

**Q8: Do you agree with the requirements to facilitate the access to regulated information?**

77. Out of the seven respondents who answered this question, only one agreed on these requirements. Four respondents indicated that the choice of the model was unclear and asked for more extensive specifications on the requirements and operational modalities of the different options. As such, they were unable to provide their opinion on the choice proposed by ESMA.

*ESMA response*

78. In addressing the comments received, ESMA refers to the two models of exchanging metadata between systems on the basis of the initiator of the process: 'push' in which OAMs can proactively send the metadata to the EEAP and 'pull' in which the EEAP can periodically obtain metadata from OAMs.
79. ESMA acknowledges that the push model may have some advantages with respect to the processing efficiency and security as the local OAM can control the timing of the submission of metadata. However, ESMA considers that the choice between these 2 models should only be decided during the implementation of the EEAP, and the current proposal in Article 5 of the draft RTS is flexible enough to allow both scenarios.

**Q9: Do you agree that the LEI should be used by OAMs as the unique identifier for each issuer?**

**Q10: Do you agree that in absence of a LEI corresponding to a natural person, an OAM shall use the CONCAT code as the unique identifier?**

80. Eight respondents answered this question and unanimously agreed with the use of the LEI as unique identifier because it is a universal identification standard. They underlined its unique features and the need to have it made available not only to legal entities but also to natural persons. However, some OAMs underlined the cost of LEI implementation in their jurisdiction and requested a timeframe allowing for a smooth implementation.
81. With regards to the CONCAT code, six respondents answered this question. They all disagreed with the use of the CONCAT code, either as an interim solution or in the absence of a LEI. They believed that a CONCAT code cannot be unique as copies are possible. Respondents suggested to retain the LEI code for its unique features or to use the OAM ENTITY ID.

82. One respondent proposed to set up a process tailored towards the LEI and assign a randomly-generated identifier via an official issuing agency. The corresponding validation and test processes would be required to prevent abuse and the OAMs would perform pre-qualification. Such a process would make it easy to transfer the identifier into the LEI for natural persons.

*ESMA response*

83. ESMA welcomes the support to the use of the LEI as the unique identifier because it will bring significant benefits to end users, NCAs and issuers. ESMA agrees that some implementation costs will be incurred, but as specified in paragraph 129 of the CP, these costs will be proportionate and should be considered on a long term perspective. Furthermore, other regulations already require the use of the LEI, which will decrease the overall cost.
84. ESMA has performed a limited fact-finding exercise to obtain relevant information on the existence of natural persons with securities traded on regulated markets in Europe, whose results indicate there is no evidence of this issue. Consequently, and in order to address the concerns raised on the use of the CONCAT code, ESMA decided to remove the provisions originally mentioned in Article 6(2) of the draft RTS.
85. In addition, consistently with what was mentioned in the CP, ESMA continues to believe that developing a specific code solely to cover issuers which are natural persons would not be cost efficient as the expected benefits would not outweigh the costs associated to the creation and maintenance of such code.
86. Based on the above and in case natural persons become more common in the future, ESMA will raise the issue with the LEI Regulatory Oversight Committee (ROC), so that an extension of the LEI to natural persons is possible. As the implementation of the EEAP is only expected for 2018, ESMA assumes that this issue will be clarified by then.
87. As OAMs may need to change its procedures and IT systems to adapt to the use of the LEI and issuers to require its identification number, ESMA decided to defer the application of provisions related to the use of the unique identifier for the 1 January 2017 in order to provide OAMs and issuers sufficient time to implement the legislative and technological changes required.

**Q11: Do you agree with the requirements on the common format of the information to be enabled to the EEAP by OAMs?**

88. All seven respondents who answered this question agreed with the proposed requirements. Two respondents thought that the date of dissemination of the information should be included among the requirements, while other respondents

thought that the status of the company and the characteristics of the URL should be clarified. They considered that the URL should have a character limit, be uniformly created and that the type and date of regulated information should be included.

#### *ESMA response*

89. ESMA welcomes the support from respondents on the common format of the information to be enabled to the EEAP by OAMs.
90. With regards to the comments received on the date of dissemination and the status of the issuer, ESMA notes that the format used follows the search criteria defined in article 1 of the draft RTS and this issue has been addressed extensively in ESMA's answer to question 1.
91. In relation to the common format, ESMA recalls that the URL to be provided by the OAMs shall ensure that the list of documents on regulated information is displayed as specified by the end user through its search request. ESMA is aware that OAMs may be using different technologies so that they should decide independently how they implement such requirement, notably on the creation and functioning of the URL.
92. The above mentioned URL should direct to a webpage where end users will be able to see the documents of an issuer and according to the classification of regulated information.
93. The date of dissemination is not useful for the EEAP as it will not provide access to specific documents which were disseminated on a specific date. Therefore, ESMA is of the view the only important criterion should be the URL per issuer and per type of regulated information.
94. These metadata by type of regulated information will allow the end user to ensure that the results correspond to the searches performed. As such, the metadata displayed will only relate to the searches performed. End users should not be allowed to access the full set of metadata on regulated information provided by OAMs to the EEAP but only the metadata relevant to a specific search request.

#### **Q12: Do you agree with the requirements on the common format for the delivery of regulated information?**

95. Eight respondents answered this question and all agreed that an OAM should use the XML format for the delivery of metadata. They considered that the XML format provides an adequate mechanism for defining data structures, is a broad format governed by external bodies managed as an open standard and has low development costs.
96. However, two respondents considered that the terminology 'exchange of metadata' was inaccurate and that there was an inconsistency between Figure 5 of the CP on the

technical infrastructure and the description of the process for the delivery of regulated information in section 5.3.2 of the CP. They believed that metadata are not exchanged but only delivered to the EEAP by the OAMs. As such, they advised to correct the technical terminology.

*ESMA response*

97. ESMA welcomes the support from respondents on the common format of the delivery of metadata by OAMs to the EEAP, notably on the use of XML format.
98. In order to address the comments received on the lack of consistency on terminology used and to improve the clarity of the RTS, ESMA has amended the draft RTS and clarified that OAMs shall use the XML format for the delivery of metadata. ESMA would also like to highlight that the specific schema for the XML format will be developed during the implementation of the EEAP.

**Q13: Do you agree with the common list of regulated information?**

99. Seven respondents answered this question and agreed with the common classification provided by ESMA, both in terms of concept and level of details. However they considered that this process should only apply to newly generated data and underlined the cost and difficulties of tagging previously published information. Two respondents considered that data archives should not be concerned, as the cost burden for the changes in the information over the jurisdictions and years would be too heavy. As such, only data to be published after the implementation date should be subject to the classification process.

*ESMA response*

100. ESMA welcomes the support from respondents on the common list of regulated information.
101. With regards to the request for adding the item 'changes in the rights of securities other than shares' to the classification, ESMA believes that the current list already follows the classification used by most OAMs when storing and displaying regulated information on their websites. Thus, splitting item of the current list to separate changes on the rights attached to shares from the changes attached to other securities might not be justified if the costs of implementation of those changes in the 28 OAMs procedures and infrastructures are considered.
102. ESMA takes note of the concerns raised by the application of the RTS on the classification of previously published data, which is currently stored by OAMs. ESMA understands that the retrospective application of the classification is likely to be challenging in terms of costs because OAMs would need to check all documents previously published by issuers and stored to ensure the correctness of their

classification. ESMA acknowledges that, in most situations, such classification falls under the responsibility of the issuer and that no technology is currently available to do it automatically. Notwithstanding, ESMA encourages OAMs to make their best efforts when applying these RTS to the data previously published and currently stored as this could enhance the usability of the information stored by OAMs.

103. As such, ESMA considers that further discussion and assessment of the classification of previously published information should take place during the implementation phase of the EEAP in order to identify the best way forward.

**Q14: In your opinion, while searching for financial information about a specific company (on national OAMs websites); what is the preferred way to classify/organise this information (for more information on the options, please see the picture below)? Please provide your reasoning.**

**Option 1: Classification of regulated information, based on their frequency (e.g. periodic vs. on-going regulated information)**

**Option 2: Legal classification, based on the directives which require such disclosure of information Transparency Directive/ Amended Transparency Directive, Market Abuse Directive and Additional regulated information as adopted by Member States.**

104. Seven respondents answered this question, with five of them considering that option 1 was the most appropriate from an end user perspective and two indicating that it was difficult to answer this question as the classification is done by the issuer.

105. Respondents preferred option 1 because it would be more user-friendly as the functional approach is more commonly used than the legal approach and therefore it would be more practical for end users not familiar with the TD or Market Abuse Directive<sup>5</sup> (to be replaced by Market Abuse Regulation) requirements. One respondent suggested that the EEAP sub-classification takes place according to the existing OAM structures and considers the minimum standards that exist in the OAMs to avoid the costs for change.

106. Respondents considered that a classification based on the directives (option 2) would be complex to implement, need frequent update with the legislative change and would not be practical for the target audience. This would lead to burdensome efforts with frequent restructuring of data sets and classifications.

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<sup>5</sup> <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0596&from=EN>

107. One respondent suggested that several OAMs may have difficulties with the implementation of the sub-classifications in each of the suggested options. As OAMs need to comply with other statutory requirements, the changes regarding the sub-classifications for the national OAMs would have significant effects on the existing structures and processes. There might be risks that the changes required by ESMA could be in contradiction with the national requirements.
108. Another respondent suggested that all searches should produce search results on the EEAP portal only. All links to OAM's websites should redirect to pages that are being managed by OAMs only and do not need to interpret any query strings contained in the request other than the identifier of the requested document.

*ESMA response*

109. ESMA welcomes the support from respondents on the common classification of regulated information. ESMA takes note that the sub-classification is paramount to ensure that the results of searches reflect the search queries of end users within a short response time. End users should be able to filter regulated information according to their needs and access it in an easy and fast way. Aggregating regulated information by reducing the number of items in the classification could significantly hamper the use of the EEAP by end users and preclude the web-portal from achieving its purpose.
110. In order to ease the understanding of the classification of regulated information and better interact these categories with the provisions of the TD, ESMA has reorganised the classes and sub-classes of regulated information in section B(2) of the Annex, so that every class is identified with the relevant articles of the TD and linked to the appropriate legal basis article.
111. Furthermore, when setting up this list, ESMA considered not only the provisions from the TD but also the current storage of regulated information by OAMs. Information about the types of regulated information stored was gathered from OAMs and thus the implementation of this classification is expected not to be complex or burdensome for the OAMs.
112. With regards, to the interaction between the draft RTS and national provisions on the classification of regulation information, ESMA recalls that the objective of these draft RTS is to ensure that the classification of regulated information is harmonised at European level. Consequently, additional national provisions on this topic may only complement but not oppose these requirements.
113. Finally, the revised version of article 9 provides a listing of the 'types of regulated information' required to be disclosed in accordance with the adequate legislation. Paragraph 2 provides a framework of classification of regulated information in several classes and sub-classes in a user-friendly module.

**The following part relates to the Cost Benefit Analysis (CBA).**

**Q16: In your opinion, which type of stakeholder would benefit the most from the EEAP? (please tick one as appropriate)**

114. Respondents considered that financial analysts, auditors and accounting bodies will be the most important beneficiaries of the EEAP. They identified benefits, although to a lesser extent in comparison with the other stakeholders, for institutional investors, retail investor associations and non-institutional stakeholders.
115. Respondents were able to provide several answers to this question. One respondent suggested that non-institutional stakeholders would mostly benefit from the EEAP, as other stakeholders, such as investors or financial analysts, use costly professional information systems.

**Q17: Once the EEAP is operational, would it become your first source for searching for financial information about a specific company? Please provide details.**

116. Only one respondent answered this question and considered that the EEAP will be the main source for searching financial information. Other respondents believed that the question was not relevant for them.

**Q18: Once the EEAP is operational, how much time do you expect to save (in comparison with the current situation) while searching for financial information about a specific company (per search)?**

117. Only one respondent answered this question. It considered that 5 to 15 minutes will be saved in the search for financial information.

**Q19: Which type of regulated information would you more often search while using the EEAP (please tick one as appropriate)?**

118. Six respondents answered this question and considered that their most common search on the EEAP will be historical financial statements (annual or half yearly financial reports).

**Q.20: In your opinion, to what extent will the EEAP provide the following benefits? Please rate each benefit from 1 to 5 according to the benefits expected by market participants (1 being the lowest amount of expected benefits and 5 the highest).**

119. Seven respondents answered this question and considered that the main benefits of the EEAP will be an improved quality of the information accessed by investors due to an harmonised classification of regulated information enabling to improve the comparability of information. They underlined that cross-markets searches for regulated information will be easier and faster, and that investment decisions will be facilitated.
120. However, they considered that the increased quantity of information accessed by investors (e.g. disclosure of corporate ownership) and the reduced costs of the search for regulated information (such as the time saved) will be less important than the other benefits.

**Q21: In your opinion, will the EEAP bring any additional benefit(s) to end user?**

121. Five respondents agreed that end users will benefit from the EEAP, especially as it will contribute to increased standardisation of available information, increased usability of information (by offering standardised or computer-readable output), automated access to information (by providing APIs or other machine-to-machine mechanisms to access the EEAP).

*ESMA response to questions 15 to 21*

122. ESMA takes note of the answers and suggestions provided by respondents, especially on the expected use of the EEAP. As few respondents provided comments and none raised significant concerns on the CBA, ESMA does not intend to modify it or change the overall assessment as published in the CP. Some paragraphs were added to the CBA in order to incorporate stakeholders' views.
123. Furthermore, ESMA recalls that despite ESMA's best efforts to receive additional input to its CBA analysis from end users, it did not receive input from this category of stakeholders. Consequently, ESMA regrets that their views were not better reflected in these RTS as they are expected to be the main beneficiary of the EEAP.



## 4. Annexes

### Annex I – Legislative mandate to develop regulatory technical standards

Regulation (EU) No 1095/2010 establishing the European Securities and Markets Authority empowers ESMA to develop draft regulatory technical standards where the European Parliament and the Council delegate power to the Commission to adopt regulatory standards by means of delegated acts under Article 290 TFEU.

Directive 2013/50/EC of the European Parliament and of the Council of 22 October 2013 inserted the following paragraphs into Directive 2004/109/EC (the Transparency Directive) conferring powers on ESMA to draft RTS regarding the access to regulated information:

#### Article 22(1) Access to regulated information at Union level

ESMA shall develop draft regulatory technical standards setting technical requirements regarding access to regulated information at Union level in order to specify the following:

- (a) the technical requirements regarding communication technologies used by the mechanisms referred to in Article 21(2);
- (b) the technical requirements for the operation of the central access point for the search for regulated information at Union level;
- (c) the technical requirements regarding the use of a unique identifier for each issuer by the mechanisms referred to in Article 21(2);
- (d) the common format for the delivery of regulated information by the mechanisms referred to in Article 21(2);
- (e) the common classification of regulated information by the mechanisms referred to in Article 21(2) and the common list of types of regulated information.

In developing the draft regulatory technical standards, ESMA shall take into account the technical requirements for the system of interconnection of business registers established by Directive 2012/17/EU of the European Parliament and of the Council (23).

ESMA shall submit those draft regulatory technical standards to the Commission by 27 November 2015.

## Annex II – List of respondents

	<b>Officially Appointed Mechanisms</b>
1	Malta Stock Exchange
2	NASDAQ
3	OAM Working Group
4	One confidential response
5	One confidential response
	<b>Other Organisations</b>
6	Government of the Netherlands
7	Oesterreichische Kontrollbank Aktiengesellschaft (OeKB)
8	XBRL Europe
9	One confidential response



## Annex III– Cost Benefit Analysis

*Cost-Benefit analysis for the European Electronic Access Point (EEAP)*

24 September 2015 – amended version

This study was carried out for ESMA by:

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## Executive summary

The Transparency Directive 2004/109/EC (TD) as last amended by Directive 2013/50/EU<sup>6</sup> was published in the Official Journal of the European Union (EU) on 6 November 2013 and entered into force on 27 November 2013. Based on article 22.1 of the TD, ESMA is required to develop draft RTS setting technical requirements regarding the access to regulated information at Union level and submit them to the European Commission (EC) by 27 November 2015.

Following the requirements of the TD published in 2004, each Member State established officially appointed mechanisms (OAMs), which are in most Member States, operated by the National Competent Authorities (NCAs) or the National Stock Exchange. However, the current network of national OAMs for the central storage of regulated information does not ensure an easy access and search for regulated information across the EU.

The 2013 amendments to the TD set out new requirements for establishing an European electronic access point (EEAP) and grant ESMA the responsibility for drafting Regulatory Technical Standards (RTS) to harmonise and ensure interoperability of the information and communication technologies used by the different OAMs. Article 22 of the TD assigns ESMA the responsibility to develop draft RTS setting technical requirements regarding access to regulated information at Union level, and in particular, regarding communication technologies used by the OAMs, the operation of the central access point for the search for regulated information at Union level, the use of a unique identifier for each issuer by the OAMs, common format for the delivery of regulated information by the OAMs and the common classification of regulated information by the OAMs.

Based on ESMA's mandate<sup>7</sup>, ESMA shall conduct public consultations on the drafted RTSs and analyse their potential costs and benefits. In this context, KURT SALMON was mandated by ESMA to conduct a Cost-Benefit Analysis (CBA) on the EEAP.

The CBA carried out by KURT SALMON was substantiated by the responses received to the consultation process of ESMA Consultation Paper (CP) on the Draft RTS published on 19 December 2014.

The CBA on the EEAP aims to assess the costs and benefits related to the technical options considered to implement the EEAP (so-called EEAP options), and to analyse the preliminary list of EEAP requirements. In this regards, the four following EEAP options were considered as relevant for the CBA:

- EEAP Option 1: Central metadata storage;
- EEAP Option 2: Storage of issuers' metadata;

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<sup>6</sup> [Directive 2004/109/EC of the European Parliament and of the Council of 15 December 2004 on the harmonisation of transparency requirements in relation to information about issuers whose securities are admitted to trading on a regulated market and amending Directive 2001/34/EC.](#)

<sup>7</sup> [Regulation \(EU\) No 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority \(European Securities and Markets Authority\), amending Decision No 716/2009/EC and repealing Commission Decision 2009/77/EC](#)

- EEAP Option 3: Query all OAMs;
- EEAP Option 4: Search engine tool.

**Since the draft RTS on the requirements set out in TD Article 22 (1) a, Article 22 (1) b, and Article 22 (1) d are interlinked, when analysing the four identified technical options the cost and benefits associated with these requirements are being assessed simultaneously. On the other hand, a separate qualitative analysis is performed with regards to the requirements related to Article 22 (1) c and e.**

As part of the CBA, each of these four EEAP options is assessed based on two evaluation criteria: efficiency (least-cost) and effectiveness (best-value-for-money). A qualitative analysis of the risks associated to the technical implementation of each EEAP option is also performed, as these may be relevant for ESMA while choosing the preferred EEAP option.

KURT SALMON has analysed the costs and benefits of the EEAP options for OAMs and ESMA, as well as benefits for investors, collating data through extensive desk research, online questionnaires and interviews with key stakeholders.

**Indirect costs for the implementation of the EEAP can also be borne by issuers and NCAs, in case some of the costs incurred to OAMs are transferred to them. However, given that these costs cannot be predicted at the time of the report, they are not taken into account in the CBA.**

Overall, the most efficient options for both OAMs and ESMA are Option 4: Search engine tool and Option 1a: Central metadata storage (connection via web services enabled over HTTPS) with an overall implementation cost of EUR 6,559,000 and EUR 7,577,000 respectively. While Option 4 and Option 1a are the least costly options to implement for OAMs<sup>8</sup>; Option 3 and Option 4 would be the cheapest to put in place for ESMA.

**These cost estimates have been prepared for the sole purpose of this study and taking into account a number of assumptions and simplifications. Therefore, the actual cost of the implementation of the EEAP by ESMA and other stakeholders may be different and will depend on the final state of the requirements as well as other factors, e.g. the market conditions, strategies to run implementation projects by each counterparty, contractual arrangements between ESMA, OAMs and their providers.**

The assessment of the effectiveness of the EEAP options is based on OAMs' perspectives only, as there is no specific requirement in the TD stating that this aspect should be taken into account by ESMA for establishing the EEAP. As a result, Option 1a: Central metadata storage (connection via web services enabled over HTTPS) and Option 1b: Central metadata storage (connection via sFTP), being assessed as the least complex to implement, and as the options having the least impact on IT infrastructure for the OAMs, are considered as the most effective options to implement the EEAP.

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<sup>8</sup> Results based on the aggregation of the quantitative inputs provided by 21 OAMs.

While selecting the preferred EEAP option, three risks associated to the technical implementation of each EEAP option should be taken into account, i.e. synchronisation of data/metadata (1), dependency on OAMs availability and performance for answering to search results (2) and potential investors lacking awareness on the EEAP (3). In this regards, the risk related to the synchronisation of data/metadata is the most severe for Option 1, the dependency on OAMs availability and performance for answering to search results applies to all but to a larger extent to Option 2 and Option 3. The risk of lack of awareness applies equally to all EEAP options.

# Introduction

As stated in Article 5 of the Regulation establishing the European Securities and Markets Authority (ESMA)<sup>9</sup>, the objective of ESMA is to protect the public interest by contributing to the short, medium and long-term stability and effectiveness of the financial system, for the Union economy, its citizens and businesses.

In this context, the TD assigns ESMA the responsibility to establish and operate a web portal to serve as a European Electronic Access Point (EEAP). Based on ESMA's mandate, as defined in ESMA Regulation<sup>10</sup>, ESMA may develop draft Regulatory Technical Standards (RTS). In the context of the EEAP, the RTS will specify:

- a. Technical requirements regarding the communication technologies used by the Officially Appointed Mechanisms (OAMs) – Article 22 (1) a;
- b. Technical requirements for the operation of a central access point for the search of regulated information at the Union level – Article 22 (1) b;
- c. Technical requirements regarding the use of a unique identifier for each issuer by the national OAMs – Article 22 (1) c;
- d. Common format for the delivery of regulated information by national OAMs – Article 22 (1) d;
- e. Common classification of regulated information by national OAMs and the common list of types of regulated information – Article 22 (1) e.

**Furthermore, as stated in ESMA Regulation, before submitting these RTS to the Commission for endorsement, ESMA shall conduct open public consultations on the drafted RTSs and analyse the potential related costs and benefits. KURT SALMON was mandated by ESMA to perform a Cost-Benefit Analysis (CBA) on the EEAP.**

Since the draft RTS on the requirements set out in TD Article 22 (1) a, Article 22 (1) b, and Article 22 (1) d are interlinked, the four identified technical options are related to these requirements. On the other hand, a separate qualitative analysis is performed with regards to the requirements related to Article 22 (1) c and e.

The CBA on the EEAP aims to assess the costs and benefits related to the technical options considered to implement the EEAP (so-called EEAP options), and to analyse the preliminary list of EEAP requirements<sup>11</sup>. KURT SALMON has analysed the costs and benefits of the EEAP options for investors<sup>12</sup>, OAMs and ESMA, collating data through extensive desk research, online questionnaires and interviews with key stakeholders.

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<sup>9</sup> Regulation (EU) No 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/77/EC.

<sup>10</sup> Regulation (EU) No 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/77/EC

<sup>11</sup> Drafted by ESMA and the Task Force on Regulatory Technical Standards on the European Electronic Access Point (so-called EEAP Task Force)

<sup>12</sup> Only benefits are assessed for this stakeholder group.

**Indirect costs for the implementation of the EEAP can also be borne by issuers and NCAs, in case some of the costs incurred to OAMs are transferred to them. However, given that these costs cannot be predicted at the time of the report, they are not taken into account in the CBA.**

In this regards, two online questionnaires were launched:

- On 12.08.2014, an online questionnaire was addressed by KURT SALMON to 41 organisations of investors, representing 23 EU countries. The purpose of this questionnaire was to collect inputs on investors' behaviours towards searches on regulated information, their main needs and expected benefits from the EEAP. Overall, only 2 organisations out of 41 replied.
- On 25.07.2014, an online questionnaire was addressed by ESMA to the 29 National Competent Authorities, who were requested to liaise with their country's OAM to answer the questionnaire. The purpose of this questionnaire was to estimate the expected costs and benefits for implementing the EEAP options by OAMs. Overall, 27 OAMs representing 28 EU countries<sup>13</sup> replied.

Furthermore, KURT SALMON interviewed ESMA officials to assess and estimate the costs that would be incurred to ESMA for establishing the EEAP.

This report is the main output of the CBA and is articulated around five sections:

1. The methodology that is used to perform the CBA is described in Section 1;
2. The technical options considered to implement the EEAP are then described in Section 2, as well as the baseline and the policy objectives for the RTS;
3. Each EEAP option is then assessed in Section 3, in particular the qualitative and quantitative analysis of the costs is presented, as well as the benefits expected from the EEAP;
4. Section 4 compares the various EEAP options, according to three evaluation criteria;
5. The report closes with Section 5, where, based on the outcomes from 5, KURT SALMON draw conclusions on the EEAP options.

The qualitative assessment of the requirements drafted by ESMA and the EEAP Task Force on the unique identifier (TD, Article 22 (1) c) and the common classification of regulated information (TD, Article 22(1) e), the mapping of the costs elements identified for implementing each option, the detailed methodology followed by KURT SALMON to perform the CBA and the calculations used to assess the quantitative costs (for OAMs and ESMA) are appended in Annex.

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<sup>13</sup> The OAMs from Finland and Lithuania are operated by the same provider (i.e. NASDAQ OMX).

# 1 Methodology

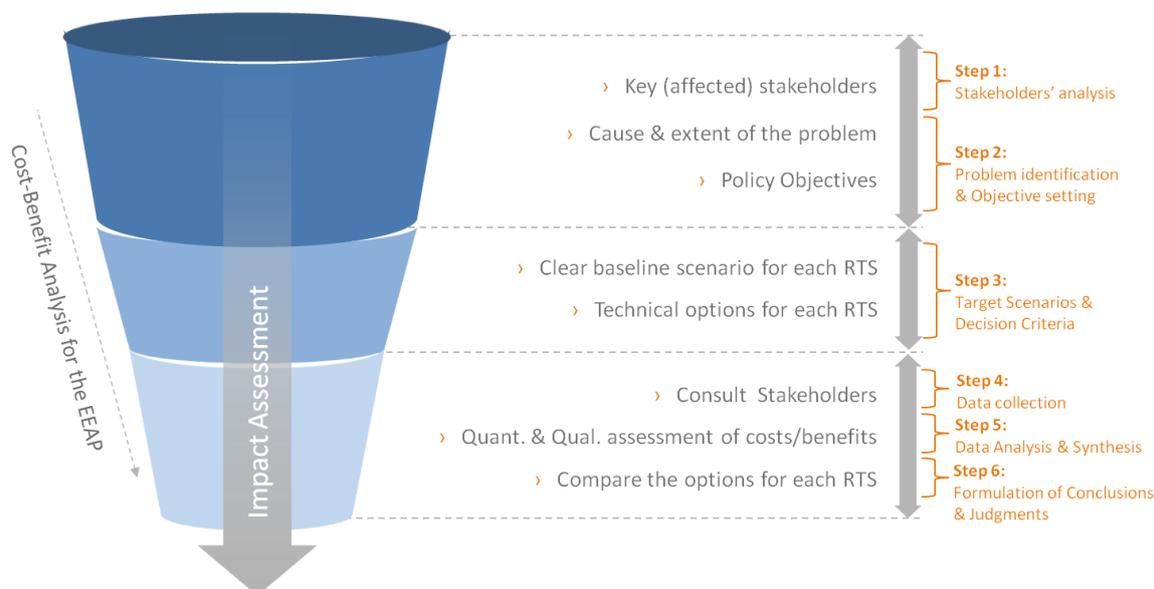
In accordance to Article 10(1) of the ESMA Regulation, ESMA is empowered to develop draft regulatory technical standards where the European Parliament and the Council delegate power to the European Commission to adopt regulatory standards by means of delegated acts under Article 290 the Treaty on the Functioning of the European Union (TFEU).

The TD sets out new requirements for establishing a European electronic access point (EEAP) and grant ESMA the responsibility for drafting Regulatory Technical Standards (RTS) to harmonise and ensure interoperability of the information and communication technologies used by the different OAMs as stipulated in Article22(1).

Moreover, in accordance to ESMA Regulation, ESMA is obliged to conduct open public consultations on draft regulatory technical standards and to analyse the related potential costs and benefits, where appropriate. The RTSs related to the establishment of the EEAP must be submitted to the EC for endorsement once open public consultations and the cost-benefit analysis (CBA) are finalised. This section focuses on the approach to conduct the CBA related to the establishment of the EEAP.

The results of the CBA are achieved by following a six-step methodology in accordance to the Commission impact assessment guidelines<sup>14</sup> and ESMA Impact Assessment manual<sup>15</sup> as displayed on Figure 1.

Figure 1 Overall cost-benefit analysis approach



<sup>14</sup> Adaptation from the Impact Assessment guidelines [SEC (2009)92], European Commission, 15.01.2009

<sup>15</sup> ESMA/2013/INT/145, Impact Assessment Manual, 2013.

## 1.1 Step 1 - Stakeholders' analysis

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Four main stakeholders groups are impacted by the establishment of the EEAP:

1. EU Organisations: This group mainly includes ESMA, who is in charge of developing and operating the EEAP.
2. National stakeholders: This group includes the OAMs and their operators, i.e. National Competent Authorities, national stock exchange, third parties.
3. Issuers: This group includes the issuers, who currently feed the OAMs.
4. Investors, potential investors and analysts, who are affected by the regulated information provided by issuers, may consult the information displayed on the OAMs portals and later on the EEAP.

Even though issuers are central in the EEAP, costs incurred on them are not taken into account in the CBA as they remain minor in comparison with the OAMs.

## 1.2 Step 2 - Problem Identification & Objective Setting

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Following the Commission Impact Assessment guidelines, the impact of each individual option (benefits and costs of the option relative to the baseline) should be assessed for the purposes of the CBA. However, as mentioned in ESMA IA Manual, it is not necessary to carry out the two first steps of the complete EC's Impact Assessment process<sup>16</sup> ("problem identification" and "objective setting"), as these are not legally binding and have already been carried out by the Commission in the IA of the respective Directive and Regulation.

## 1.3 Step 3 - Target Scenarios & Evaluation Criteria

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Four EEAP options were defined as part of the scope of the CBA (please refer to Section 2).

In order to evaluate and compare these options, two main evaluation criteria are used:

- Efficiency, i.e. the extent to which the EEAP can be established at least-cost. Therefore, this evaluation aims to identify the 'least-costly' EEAP option(s).
- Effectiveness, i.e. the extent to which the EEAP options achieve the European Commission requirements stipulated in the TD (EEAP objectives), in terms of increased benefits or lowest complexity. This evaluation aims to identify the EEAP options supposed to deliver the 'best-value-for-money'.

A qualitative analysis of the risks associated to the technical implementation of each EEAP option is also performed, as these may be relevant for choosing the preferred EEAP option.

In this context, Table 1 illustrates a map of the stakeholders that will be affected (input from the stakeholders' analysis) by the EEAP and the corresponding regulatory costs and benefits assessed in the CBA.

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<sup>16</sup> SEC(2009)92, Impact Assessment Guidelines, European Commission, 15 January 2009.

**Table 1 Map of regulatory costs and benefits on EEAP stakeholders**

Category	Sub-Category	Stakeholders affected			
		EU Organisations	National stakeholders	Market participants	
		ESMA	OAMs	Issuers	Investors
<b>Direct Costs</b>	Regulatory charges				
	Substantive compliance costs	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
	Administrative Burden				
	Hassle Costs				
<b>Indirect Costs</b>	Indirect Compliance costs			<input checked="" type="checkbox"/>	
	Other indirect costs				
<b>Direct Benefits</b>	Wide range of products/services				<input checked="" type="checkbox"/>
	Improved Information	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
	Cost Savings				<input checked="" type="checkbox"/>
<b>Indirect Benefits</b>	Indirect Compliance Benefits		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Wider macro-economic benefits				

As displayed in Table 1, the regulatory costs for the establishment of the EEAP can be categorized as direct and indirect costs.

Direct costs can be broken down into regulatory charges, substantive compliance costs, administrative burdens and hassle costs<sup>17</sup>.

- Regulatory charges include fees, levies, taxes, etc.
- Substantive compliance costs encompass those investments and expenses that are faced by businesses and citizens in order to comply with substantive obligations or requirements contained in a legal rule.
- Administrative burdens are those costs borne by businesses, citizens, civil society organizations and public authorities as a result of administrative activities performed to comply with information obligations included in legal rules.
- Hassle costs are often associated with businesses, but they apply equally well to consumers: they include costs associated with waiting time and delays, redundant legal provisions, corruption etc.

Indirect costs refer to the costs incurred in related markets or experienced by consumers, government agencies or other stakeholders that are not under the direct scope of the regulation. These mostly relate to indirect compliance costs, i.e. the costs related to the fact that other stakeholders have to comply with legislation. However, they may also concern the costs related to substitution (e.g. reliance on alternative sources of supply), transaction costs and negative impacts on market functioning such as reduced competition or market access, or reduced innovation or investment.

As displayed in Table 1, the benefits for the establishment of the EEAP can be categorized as direct and indirect benefits.

Direct benefits can be expressed in terms of additional citizens' utility, welfare or satisfaction (in the context of the EEAP, a wider range of products and services, improved information) and improved market efficiency, which might

<sup>17</sup> Assessing the costs and benefits of a Regulation, Study for the European Commission, Secretariat General, A CEPS (Economisti Associati Study for the European Commission), 2013.

include improvements in the allocation of resources, removal of regulatory or market failures, or cost savings generated by regulation.

Indirect benefits mostly relate to the indirect compliance benefits, i.e. spill over effects related to third-party compliance with legal rules. Indirect compliance benefits can be defined as benefits that accrue to individuals or businesses that are not the addressees of the regulation, but that enjoy positive effects due to the fact that other have to comply with the regulation. Wider macroeconomic benefits such as GDP increases, competitiveness and productivity effects, are other types of indirect benefits that were identified in the context of the EEAP, to a lesser extent.

## 1.4 Step 4 – Data Collection

Four different data collection strategies were used to conduct the EEAP CBA: desk research, individual/group interviews, a workshop and an online questionnaire. Table 2 represents a map of the stakeholders affected (input from the stakeholders’ analysis) and corresponding regulatory costs and benefits.

**Table 2 Regulatory costs/benefits mapped with research methods**

Regulatory Costs/Benefits	Desk Research	Interviews		Workshop	Online Questionnaire	
		ESMA	OAMs	OAMs	OAMs	Investors
Direct Costs - Substantive Compliance Costs	••	•••	•	•	•••	
Indirect Costs – Indirect Compliance Costs	••	•		•		
Direct Benefits – Wide range of products/services	••				•	•
Direct Benefits – Improved Information	•••					•
Indirect Benefits – Indirect compliance benefits –	••	•			••	•

First, a workshop was organised with OAMs on 17.07.2014 in order to explain the objective of the study and gather preliminary inputs from them on the EEAP options.

Secondly, taking into account these preliminary inputs and desk research on the EEAP, KURT SALMON designed two online questionnaires, one addressed to OAMs on 25.07.2014 and one to investors, on 12.08.2014, for collating quantitative and qualitative benefits. Overall, 27 out of 28 OAMs<sup>18</sup> responded to the former questionnaire, while only 2 out of 41 organisations<sup>19</sup> responded to the latter one. KURT SALMON followed-up with OAMs when their answers were missing or assessed as inconsistent.

<sup>18</sup> The OAMs from the following countries replied to the online questionnaire submitted by KURT SALMON: Belgium, Hungary, Estonia, Czech Republic, Latvia, Slovakia, Croatia, Spain, Sweden, Denmark, Germany, the Netherlands, Romania, Ireland, Norway, Finland/Lithuania, Slovenia, Luxembourg, Cyprus, Poland, United Kingdom, Malta, Austria, Portugal, Italy, France and Greece. It should be noticed that the answers related to Finland and Lithuania count as one input, taking into account that their related OAMs are operated by the same provider (i.e. NASDAQ OMX).

<sup>19</sup> The following organisations of investors replied to the online questionnaire submitted by KURT SALMON: the Swedish Society of Financial Analysts (SFF) and the Chartered Institute for Securities & Investment (CISS).

In parallel to these data collection activities, KURT SALMON also interviewed ESMA officials to validate assumptions on the costs to implement the EEAP for ESMA, mostly based on desk research on similar EU initiatives and KURT SALMON previous work on the subject.

## 1.5 Step 5 – Data Analysis & Synthesis

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A wide range of techniques can be used to enhance the effectiveness of a CBA and result in a quantification of costs and benefits. ESMA Impact Assessment manual (2013) and the EC Impact Assessment guidelines (2009) describe methodologies at hand, from which we can choose the most appropriate for the EEAP. The following four activities are carried out to analyse and synthesise data:

1. Quantification of costs over five years for ESMA and the OAMs;
2. Qualitative assessment of benefits assuming that these cannot be monetised;
3. Comparison of estimated costs applying a discount rate;
4. Conclusions on the EEAP options based on the evaluation criteria and a qualitative analysis of the risks related to the technical implementation of each EEAP option.

**The discount rate is a correction factor that allows the comparability of costs and benefits in different points in time considering options with same time horizons. In that regards, the Commission Impact Assessment guidelines recommend to apply the standard discount rate of 4%. This discount rate broadly corresponds to the average real yield on longer-term government debt in the EU over a period since the early 1980s<sup>20</sup>.**

## 1.6 Step 6 – Formulation of Conclusions and Judgments

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Based on monetized cost of each technical option, their associated risks, and qualitative benefits, KURT SALMON is able to draw conclusions on each option.

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<sup>20</sup> [European Commission Impact Assessment guidelines \(SEC\(2009\) 92\) and Part III, Annexes to Impact Assessment guidelines, European Commission 15.01.2009.](#)

## 2 Description of the technical options

Prior to describing each of the EEAP option that is in the scope of the CBA, this section gives a status on the current situation in the EU, with regards to access and search of regulated information (i.e. Baseline) and the policy objectives behind each technical requirement that shall be developed by ESMA for the purpose of the EEAP.

### 2.1 Baseline

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The baseline scenario serves as a basis for assessing the potential impacts of the range of possible technical options which are included in the EEAP cost-benefit analysis.

When considering the baseline scenario for the EEAP, it is important to note that the current network of national OAMs for the central storage of regulated information does not ensure an easy access and search for regulated information across the EU, for the three following reasons:

- The functioning of the OAMs (e.g. search facilities) is not harmonised;
- The web portals provided by OAMs are not easy to access for investors, potential investors and analysts residing in another country due to language barriers;
- There is no easy search for regulated information at EU level.

In this context, the investors, potential investors and analysts communities need to go through different national databases in order to search for regulated information.

All these difficulties facing investors, potential investors and analysts, who wish to access regulated information, due to the insufficient interconnection between OAMs, are also limiting the visibility of Small-Medium size issuers.

Minimum standards to enable a connection between the mechanisms and a central access point for the search for regulated information at EU level are not yet implemented.

Taking into account the baseline and the objectives of the EEAP, all costs generated by the legal provisions of the EEAP are incremental costs, i.e. the EEAP will enhance additional costs compared to the “do nothing option” (without legislative intervention).

**The costs related to the baseline (or business as usual) are excluded from the CBA.**

## 2.2 Policy objectives

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The purpose of the EEAP is to maintain and enhance the current level of investor protection by facilitating investors' access to information, in a manner ensuring fast access to such information and on a non-discriminatory basis. This takes into account the current situation of investors going through 28 different national databases to search for regulated information at EU level.

Taking into account the baseline, the Article 22 of the TD assigns ESMA the responsibility to develop draft RTS setting technical requirements regarding access to regulated information at Union level, and in particular, regarding communication technologies used by the OAMs (a), the operation of the central access point for the search for regulated information at Union level (b), the use of a unique identifier for each issuer by the OAMs (c), common format for the delivery of regulated information by the OAMs (d) and the common classification of regulated information by the mechanisms (e).

This sub-section aims to define the policy objectives related to each of these types of requirements.

### 2.2.1 *RTS 22 (1) a*

As above-mentioned, the TD provides a mandate to ESMA to develop technical requirements regarding communication technologies to be used by OAMs. However, given that the TD itself does not provide any detailed legal requirements regarding those technologies, the requirements for the communication technologies should be driven by the requirements and architecture options drafted by ESMA, for the operation of the central access point for the search for regulated information at Union level. Additionally, general IT standards and best practices, e.g. ISO standard 2011, regarding the information systems development should be considered to ensure that the interface between OAMs and the EEAP is reliable<sup>21</sup>.

### 2.2.2 *RTS 22 (1) b*

In accordance with Recital 15 of the TD, the policy objective related to the EEAP is to facilitate cross-border investment by allowing investors an easy access to regulated information of all listed companies.

In this regard, ESMA believes that the requirements defined in ESMA's draft RTS shall ensure easy access but also easy search for regulated information, for all listed companies in the EU.

Taking into account the overall objective of the TD, as stated in Recital 1<sup>22</sup>, the draft RTS shall also ensure that the information provided via the EEAP reflects accurately the information stored in the OAMs and that this information is timely provided to the investors, through the EEAP.

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<sup>21</sup> Draft Discussion Paper on the communication technologies used by OAMs, ESMA and the EEAP Task Force, 2014.

<sup>22</sup> The disclosure of accurate, comprehensive and timely information about security issuers builds sustained investor confidence and allows an informed assessment of their business performance and assets. This enhances both investor protection and market efficiency.

Furthermore, ESMA's draft RTS shall ensure that the access to regulated information provided through the EEAP is free of charge<sup>23</sup> and adaptable to developments in the communications technologies applied to the EEAP and OAMs and investors' needs.

### **2.2.3 RTS 22 (1) c**

As for RTS 22 (1) a, the TD simply requires the use of a unique identifier for each issuer. In this regards, the conditions directly provided by the legal basis only allow determining two core requirements regarding the identifier to be used by OAMs:

- Core requirement 1: The identifier used is unique for each issuer;
- Core requirement 2: The identifier is required to be used for the identification of each issuer<sup>24</sup>.

### **2.2.4 RTS 22 (1) d**

Based on the TD, it is possible to determine two core requirements regarding the format for the delivery of regulated information:

- Core requirement 1: A common format shall be used;
- Core requirement 2: The common format shall be used for the delivery of regulated information.

### **2.2.5 RTS 22 (1) e**

The regulatory technical standard on the classification of regulated information is an additional tool to facilitate cross-border investment by granting investors easy access to regulated information of all listed companies. In particular, the investors should be able to make more focused EEAP-searches in order to obtain more relevant information for their investment decision. This issue is even more significant at EU level than at national level, as the EEAP-searches are searches in the OAMs of all Member States. In lack of such classification, the search results bear the risk to become confusing with respect to the amount of information displayed and may cause disclosure-overload to the investor. Moreover, non-narrowed searches need significant more response time<sup>25</sup>.

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<sup>23</sup> If not free of charge, no specific costs should be charged to investors if they decide to use the EEAP.

<sup>24</sup> Draft Discussion Paper on the use of a unique identifier for each issuer, ESMA and the EEAP Task Force, 2014.

<sup>25</sup> Draft Discussion Paper on the common classification of regulated information by OAMs, ESMA and the EEAP Task Force, 2014.

## 2.3 Technical options considered for the CBA

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In 2011, an external study<sup>26</sup> (Actica report) was conducted for the European Commission on the feasibility of a pan-European storage system for regulated information disclosed by issuers of securities. As a result of this study, eight technical options were assessed as compliant with the European Commission requirements<sup>27</sup>, for providing a pan-European single access point.

KURT SALMON, in close collaboration with ESMA, assessed the eight technical options from the Actica report towards the new requirements from the TD, taking into account the potential impacts they may have. A benchmarking with similar initiatives from ESMA, such as Prospectus<sup>28</sup> and from the European Commission such as the European Case Law Identifier<sup>29</sup> (ECLI) and European Criminal Records Information System<sup>30</sup> (ECRIS) was also performed to assess the options.

As a result, out of these eight options, the four following EEAP options were qualified as relevant for the CBA and fulfilled the TD requirements:

- EEAP Option 1: Central metadata storage, which corresponds to Option 3 in the Actica report;
- EEAP Option 2: Storage of issuers' metadata, which corresponds to a combination of Option 3 and Option 5 in the Actica report;
- EEAP Option 3: Query all OAMs, which corresponds to Option 5 from the Actica report;
- EEAP Option 4: Search engine tool, which corresponds to Option 6 from the Actica report.

This selection of options was assessed as relevant by the OAMs: even though 33% of the OAMs questionnaire's respondents have no opinion on the matter (9), for 63% of them (17) these four options are comprehensive enough and no additional ones need to be considered for establishing the EEAP.

The answers received to that questionnaire confirmed the first inputs received from OAMs, during the workshop help on 03.07.2014: no additional options need to be considered as the four proposed ones are exhaustive enough.

The remaining of this section further describes each EEAP option in the scope of the CBA.

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<sup>26</sup> Feasibility study for a pan-European storage system for information disclosed by issuers of securities, Final Report, Actica Consulting, October 2011.

<sup>27</sup> The CESR's consultation and report, the OAM Survey Analysis (Actica) and other work performed by the Commission have identified the key requirements to be in place in order to build an effective pan-European storage network.

<sup>28</sup> <http://registers.esma.europa.eu/publication/searchProspectus>

<sup>29</sup> [https://e-justice.europa.eu/content\\_european\\_case\\_law\\_identifier\\_ecli-175-en.do](https://e-justice.europa.eu/content_european_case_law_identifier_ecli-175-en.do)

<sup>30</sup> [http://ec.europa.eu/justice/criminal/european-e-justice/ecris/index\\_en.htm](http://ec.europa.eu/justice/criminal/european-e-justice/ecris/index_en.htm)

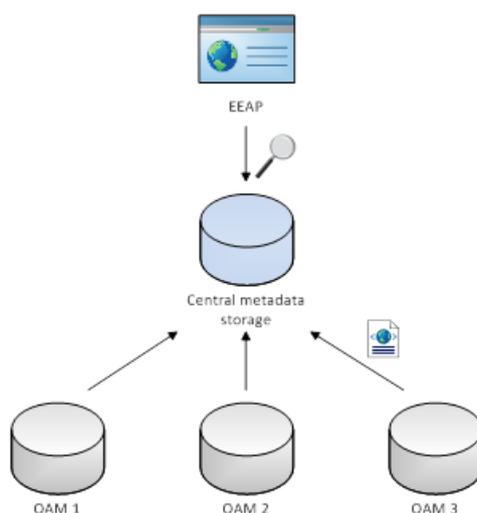
### 2.3.1 Option 1: Central metadata storage

As illustrated in Figure 2, the EEAP Option 1 provides search facility based on a central copy of metadata for all information held by the national OAMs. OAMs are requested to upload metadata on the EEAP immediately after documents' metadata (e.g. title, type of regulated information, language) and issuers' metadata (e.g. name, unique identifier, home Member State) are updated<sup>31</sup> in the OAM.

An investor's search would thus result in the provision of a document and issuer metadata, including a link to the document itself, i.e. the actual regulated information.

**Option 1 can be implemented via two scenarios, i.e. Option 1a: Connection between the OAM and the EEAP via sFTP and Option 1b: Connection via web services enabled over HTTPS.**

Figure 2 Central metadata storage (Option 1)



### 2.3.2 Option 2: Storage of issuers' metadata

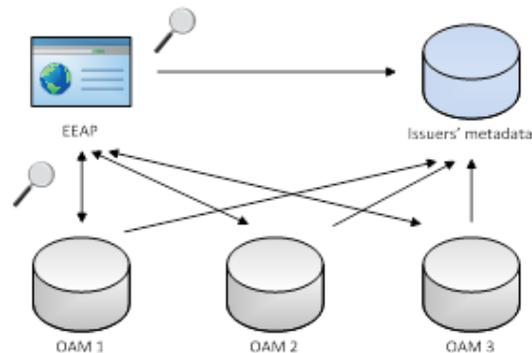
As illustrated in Figure 3, EEAP Option 2 stores issuers' metadata (e.g. name, unique identifier, home Member State), so that each investor's search follows a 2 step. Firstly, based on the parameters entered in the investor's search, the EEAP retrieves the issuer information, in particular its home Member State from the database. Secondly, the EEAP triggers a search request to the OAM hosting the regulated information of the concerned issuer. The results provided by the relevant OAM (i.e. list of documents and hyperlinks to the documents) are finally displayed on the

<sup>31</sup> In the context of the EEAP CBA, 'update' is defined as any addition, modification, or archiving of a document and issuer available at national level.

EEAP portal. It should be noticed that this option implies that OAMs provide the issuers' metadata to the EEAP each time these are updated in the OAMs (i.e. added or modified).

**Option 2 can be implemented via two scenarios, i.e. Option 2a: transmission of XML files in real-time and Option 2b: transmission of XML files once a day.**

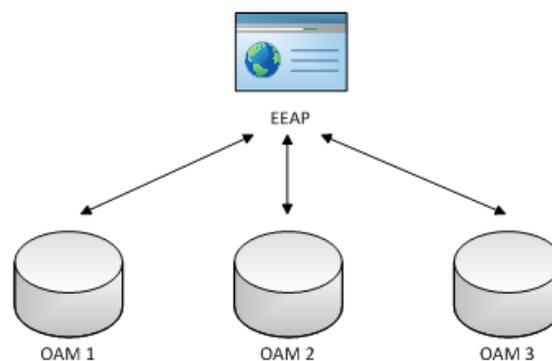
**Figure 3 Storage of issuers' metadata (Option 2)**



### 2.3.3 Option 3: Query all OAMs

As illustrated in Figure 4, in the EEAP Option 3 does not store any metadata. In fact, this option follows federated search principles, meaning that each investor's search performed via the EEAP triggers a search request to all OAMs. The search results provided by OAMs are then consolidated and displayed by the EEAP.

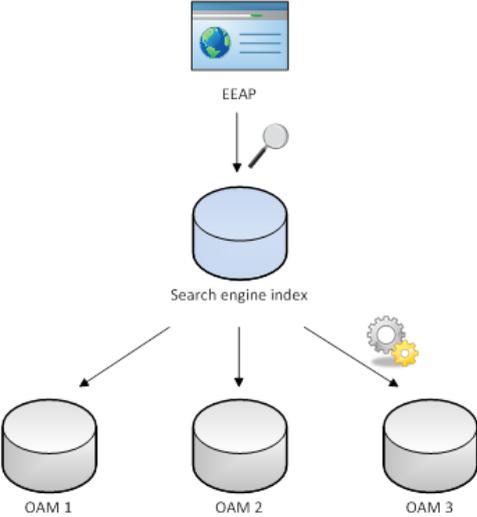
**Figure 4 Query all OAMs (Option 3)**



### 2.3.4 Option 4: Search engine tool

As illustrated in Figure 5, in EEAP Option 4, no metadata needs to be stored by the EEAP as such. The EEAP is connected to all OAMs via a web crawler (search engine). The web crawler indexes documents and issuers' metadata published by OAMs via a secure URL (https) enabling investors' searches to be performed via the EEAP.

Figure 5 Search engine tool (Option 4)



### 3 Assessment of each EEAP option

This section presents the assessments of the positive impacts (benefits) and negative impacts (costs) foreseen for each EEAP option.

The following points should be taken into account while going through this section:

- Given the low response rate of investors to the online questionnaire (i.e. 2 respondents out of 41 organisations), additional inputs from investors will need to be gathered during the public consultation on the Draft Technical Standards on the EEAP planned to be launched in Q1 2015. For data reliability reasons, the inputs from the two organisations of investors having replied to the questionnaire are not taken into account in the CBA.
- The low response rate mentioned above has also impacted the quantitative analysis of the benefits. While KURT SALMON intended to quantitatively assess the benefits using the Willingness-To-Pay methodology, the lack of inputs from investors prevents them from doing so. 'N/A' is thus included in the related cell of the assessment of the EEAP options.
- Given that the costs of implementing the EEAP options will mostly be incurred to ESMA and OAMs, only these two groups of stakeholders are included in the cost analysis performed.

**Indirect costs for the implementation of the EEAP can also be borne by issuers and NCAs, in case some of the costs incurred to OAMs are transferred to them. However, given that these costs cannot be predicted at the time of the report, they are not taken into account in the CBA.**

- The assessment of the EEAP options is based on:
  - Answers to the online questionnaire provided by OAMs;
  - Interviews with ESMA officials to assess the costs for the establishment of the EEAP; and
  - Benchmarking of similar EU initiatives<sup>32</sup> from the European Commission.
- Since the estimates of EEAP costs are focused on Information Technology (IT), substantive compliance costs that will define the Total Cost of Ownership of an Information System (IS)<sup>33,34</sup> are calculated as a sum of:
  - Infrastructure: Infrastructure costs provide the total (anticipated) cost of the hardware (e.g. network, servers) and software (e.g. licences, libraries) required to develop, support, operate and maintain the system.

<sup>32</sup> European Case Law Identifier (ECLI), Business registers interconnection system (BRIS), European Criminal Records Information System (ECRIS), etc.

<sup>33</sup> Training costs are not included in the TCO considering that these are not substantial for the EEAP implementation.

<sup>34</sup> Approach recommended by the European Commission in accordance to the Value Assessment Tool (VAST) guidelines.

- **Development:** Development costs provide the total (anticipated) cost (human resources) for the development of the system (e.g. analysis and process re-engineering activity, coding activity, project management activity, test activity, configuration & change management activity, deployment activity).
- **Maintenance:** Maintenance costs provide the total (anticipated) cost (human resources) in person days per year to maintain the system (e.g. activities related to both corrective maintenance and evolving maintenance).
- **Support costs<sup>35</sup>:** Support costs provide the total (anticipated) cost (human resources) in person days per year to support the system (e.g. three-level helpdesk, operations). We assume that a three-level support will be put in place by ESMA in a way that a first-level help desk can collect queries (via email), answer questions, provide information and escalate more complex issues to a second-level support. A third-level support should deal with EEAP infrastructure-specific needs, such as updates and bug fixes that directly affect a stakeholder of the EEAP.

**These cost estimates have been prepared for the sole purpose of this study and taking into account a number of assumptions and simplifications. Therefore, the actual cost of the implementation of the EEAP by ESMA and other stakeholders may be different and will depend on the final state of the requirements as well as other factors, e.g. the market conditions, strategies to run implementation projects by each counterparty, contractual arrangements between ESMA, OAMs and their providers.**

- A discount rate of 4% was applied to the total one-off and total on-going costs estimated to implement each EEAP option, for the 21 OAMs and for ESMA. The cumulative costs for OAMs are calculated by aggregating the quantitative inputs received from 21 OAMs<sup>36</sup>. In this regards, the total cost for OAMs correspond to the total costs for 21 out of 31 OAMs.
- While development, maintenance and support costs were provided by OAMs in person days, these days were then computed into Euros, using the conversion rates provided by DG ESTAT<sup>37</sup> for each country and adjusted to the skills required for the implementation of the EEAP. Infrastructure costs were directly provided by OAMs in Euros.
- For ESMA, person days were also used to assess the development and maintenance costs. These days were then computed into Euros, using the European Commission rate, adjusted to ESMA.

<sup>35</sup> Quantitative data on the support costs for ESMA were gathered based on similar initiatives from ESMA, such as Prospectus and from the European Commission such the European Case Law Identifier (ECLI), European Criminal Records Information System (ECRIS). Quantitative data on the support costs for OAMs were gathered via the online questionnaire.

<sup>36</sup> Following data quality control on the quantitative data received by the 27 OAMs, the answers from 6 OAMs were discarded as they were assessed as incomplete, inconsistent or unreliable. In this regards, the quantitative inputs from the following 21 OAMs were included in the costs analysis: Croatia, Spain, Sweden, Denmark, Germany, the Netherlands, Romania, Ireland, Norway, Finland/ Lithuania, Slovenia, Luxembourg, Cyprus, Poland, United Kingdom, Malta, Austria, Portugal, Italy, France and Greece. It should be noticed that the answers related to Finland and Lithuania count as one input, taking into account that their related OAMs are operated by the same provider (i.e. NASDAQ OMX).

<sup>37</sup> Rate based on [http://epp.eurostat.ec.europa.eu/cache/ITY\\_PUBLIC/3-10042013-AP/EN/3-10042013-AP-EN.PDF](http://epp.eurostat.ec.europa.eu/cache/ITY_PUBLIC/3-10042013-AP/EN/3-10042013-AP-EN.PDF)

### 3.1 Benefits of the EEAP

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The online questionnaire addressed to investors aimed at gathering the main benefits they expect from the EEAP. Given the low response rate, additional inputs from investors shall be gathered during the public consultation on the Draft Technical Standards on the EEAP planned to be launched in Q1 2015.

**Potential investors may lack awareness on the EEAP; therefore raising their awareness, via e.g. a marketing campaign, will be key to ensure that the objectives of the EEAP are reached and its related benefits acknowledged by the investors. The potential costs related to any communication activities were however not assessed in this CBA as the need for these cannot be predicted at the time of the report.**

Nevertheless, based on the inputs received from OAMs and on desk research performed by KURT SALMON, EEAP benefits can still be assessed from a qualitative perspective.

It should however be noted that, in the context of this CBA, the ‘least-cost analysis’ was assessed by KURT SALMON as the most appropriate methodology, as it aims to find the least cost–option of achieving the policy objectives and benefits. One important feature of the least-cost analysis is that benefits are fixed across the different options. In the case of the EEAP benefits were identified for four groups of stakeholders: investors, OAMs, regulators and issuers.

In this regards, the six main benefits identified for the EEAP are summarised below:

- 1 Taking into account that the disclosure of accurate, comprehensive and timely information about security issuers builds sustained investor confidence and allows an informed assessment of their business performance and assets, the EEAP will enhance both investor protection and market efficiency, by providing a free of charge access to metadata on regulated information to all its users, regardless where they are situated.
- 2 Overall, the EEAP will ensure more confidence among investors on the regulated markets and encourage long-term investment, by promoting transparency in financial markets.
- 3 By being provided with a tool to perform centralised search on financial information, investors will be able to perform more efficient searches, both easier and faster, and cross-border searches. As a result, they will be better informed and the number of investors may potentially increase.
- 4 On their side, OAMs will benefit from an enhanced visibility through a central access point for regulated information at EU level as well as the EEAP will serve as a channel between end users and the OAMs’ website who may continue to provide value added services to their end users.
- 5 Thanks to the EEAP, the benchmarking of issuers’ filings will be facilitated for regulators and the quality of information improved.

- 6 Issuers are also expected to benefit from the EEAP as it should ease benchmarking with their competitors and bring additional visibility to them (indirect compliance benefit) especially to small and medium-sized issuers<sup>38</sup>.

Even though benefits are fixed across the options, costs significantly differ from one to another. The remaining subsections describe these costs, option by option. Considering that the disclosure of the costs for the development of the EEAP (for ESMA) and eventually for OAMs may affect the procurement phase of this project, this CBA only includes the overall quantitative costs for all options, i.e., although determined separately, the costs for ESMA and OAMs are presented aggregated.

## 3.2 Costs for option 1: Central metadata storage

Table 3 below provides a qualitative and quantitative description of the main costs related to Option 1.

**Table 3 Cost-Benefit Analysis of Option 1**

OPTION 1: Central metadata storage		
	Qualitative description	Quantitative description
<p><i>Costs to ESMA:</i></p> <ul style="list-style-type: none"> <li>- <i>One-off</i></li> <li>- <i>On-going</i></li> </ul>	<ul style="list-style-type: none"> <li>• Development costs (one-off costs) will be incurred to ESMA to set-up the connection between ESMA and OAMs<sup>39</sup>, load metadata XML files, set-up the database and its back-up, deploy a search software application and a server and application monitoring module including a web analytics application to monitor the operation and use of the EEAP, develop a Graphical User Interface (GUI) for the EEAP and conduct the activities necessary to implement the EEAP, including project management tasks, the definition of business and functional requirements, coordination activities, testing and roll-out.</li> <li>• With regards to on-going costs, not only maintenance and support costs should be considered but also infrastructure costs, as ESMA lease their infrastructure.</li> </ul>	<ul style="list-style-type: none"> <li>• ESMA would need a total of 585 pd to perform all the development activities. These costs will run until the EEAP is operational, i.e. over two years (i.e. 2016 and 2017).</li> <li>• While support costs are estimated at 18.75 pd per year, maintenance costs were assessed as a fixed percentage of the development and infrastructure costs (i.e. 20%).</li> <li>• Infrastructure costs include the setup of the overall infrastructure necessary for the implementation and operation of the EEAP and the hardware and software related to the database.</li> <li>• Person days have been valued at the European Commission rate and adjusted to ESMA.</li> <li>• A discount rate of 4% has then been applied on the total costs.</li> </ul>

<sup>38</sup> The results of the public consultation on the "Modernisation of the Directive 2004/109/EC" launched in 2010 by the EC services also confirmed that the development of a central access point for storage of regulated information could facilitate research and result in greater attention to small listed companies from financial analysts, financial intermediaries and investors. This was also confirmed by the External Study on the feasibility of a pan-European storage system for regulated information disclosed by issuers of securities accessible at [http://ec.europa.eu/internal\\_market/securities/docs/transparency/report-application\\_en.pdf](http://ec.europa.eu/internal_market/securities/docs/transparency/report-application_en.pdf)

<sup>39</sup> Whether via sFTP (Option 1a) or HTTPS enabled over web services (Option 1b), the cost incurred to ESMA to set-up the connection between ESMA and OAMs is the same. The differentiation between the two scenarios only impacts OAMs.

**OPTION 1: Central metadata storage**

	Qualitative description	Quantitative description
<p><i>Costs to OAMs</i></p> <ul style="list-style-type: none"> <li>- <i>One-off</i></li> <li>- <i>On-going</i></li> </ul>	<ul style="list-style-type: none"> <li>• Infrastructure, development, maintenance and support costs will be incurred to OAMs to set-up a connection between their national mechanisms and the EEAP. This connection can be implemented via two scenarios, i.e. a sFTP connection or web services enabled over HTTPS.</li> <li>• Using web services enabled over HTTPS to connect the OAMs to the EEAP was assessed as more complex (and more costly) to implement than a connection via sFTP. However, views are mixed on the subject, as further detailed below Table 3.</li> <li>• In addition, costs will also be incurred to OAMs to extract, generate &amp; transmit XML files immediately after documents' and issuers' metadata are updated at national level (added or modified). Implementing the latter cost element was assessed by OAMs as medium or medium to low complexity.</li> <li>• Depending on the OAM, infrastructure and development costs can be either one-off or on-going costs.</li> </ul>	<ul style="list-style-type: none"> <li>• While 10,034 pd would be needed (for 21 OAMs) over five years, in both Option 1a and Option 1b, to extract, generate &amp; transmit XML files immediately after documents' and issuers' metadata are updated at national level (added or modified); the cost to set up the connection between OAMs and the EEAP would differ between Option 1a and Option 1b.</li> <li>• Over five years (for 21 OAMs), 7,828 pd would be needed to set up a connection via sFTP while 8,300 pd would be required to set up a connection via web services enabled over HTTPS.</li> <li>• These person days have been valued based on a conversion factor provided by DG ESTAT<sup>40</sup> for each country and adjusted to the skills required for the implementation of the EEAP.</li> <li>• A discount rate of 4% has been applied on the costs.</li> </ul>

<sup>40</sup> Rate based on [http://epp.eurostat.ec.europa.eu/cache/ITY\\_PUBLIC/3-10042013-AP/EN/3-10042013-AP-EN.PDF](http://epp.eurostat.ec.europa.eu/cache/ITY_PUBLIC/3-10042013-AP/EN/3-10042013-AP-EN.PDF)

### 3.3 Costs for option 2: Storage of issuers' metadata

Table 4 below provides a qualitative and quantitative description of the main costs related to Option 2.

**Table 4 Cost-Benefit Analysis of Option 2**

OPTION 2: Storage of issuers' metadata		
	Qualitative description	Quantitative description
<p>Costs to ESMA:</p> <ul style="list-style-type: none"> <li>- One-off</li> <li>- On-going</li> </ul>	<ul style="list-style-type: none"> <li>• The same development costs (one-off costs) as Option 1 (in the case of a connection via web services enabled over HTTPS) are expected in order to implement Option 2.</li> <li>• In addition, the development costs (one-off costs) related to the set-up of a query mechanism should be included, i.e. setting-up a software application enabling the production of a search request message (XML-based), transmission of a search request message via HTTPS protocol from the EEAP the concerned OAM(s) immediately after investors' search request, treatment and collection of OAM response messages and production of a query response immediately after the search request transmission.</li> <li>• With regards to the on-going costs, not only maintenance and support costs should be considered but also infrastructure costs, as ESMA lease their infrastructure.</li> </ul>	<ul style="list-style-type: none"> <li>• ESMA would need a total of 645 pd to perform all the development activities. These costs will run until the EEAP is operational, i.e. over two years (i.e. 2016 and 2017).</li> <li>• The difference in the number of pd between Option 1 and Option 2 is due to the effort estimated for setting-up and operating the query mechanism.</li> <li>• While support costs are estimated at 18.75 pd per year, maintenance costs were assessed as a fixed percentage of the development and infrastructure costs (i.e. 20%).</li> <li>• Infrastructure costs include the setup of the overall infrastructure necessary for the implementation and operation of the EEAP and the hardware and software related to the database.</li> <li>• Person days have been valued at the European Commission rate and adjusted to ESMA.</li> <li>• A discount rate of 4% has then been applied on the total costs.</li> </ul>

**OPTION 2: Storage of issuers' metadata**

	Qualitative description	Quantitative description
<p><i>Costs to OAMs</i></p> <ul style="list-style-type: none"> <li>- <i>One-off</i></li> <li>- <i>On-going</i></li> </ul>	<ul style="list-style-type: none"> <li>• Infrastructure, development, maintenance and support costs will be incurred to OAMs to set-up a connection via web services enabled over HTTPS between their national mechanisms and the EEAP and to extract, generate &amp; transmit XML files immediately after documents' and issuers' metadata are updated at national level (added or modified) for Option 2a or once a day for Option 2b.</li> <li>• In addition to these costs, OAMs will also be incurred the costs of answering to search requests. Taken into account the filtering of requests upfront (search in the issuers' database), these costs are expected to be lower than these incurred for Option 3, in this same context, i.e. 33% of the number of requests of Option 3 is estimated for Option 2.</li> <li>• On average, extracting the metadata from the OAM local database, and generating and transmitting a XML file in the proposed common metadata format in real-time would be of higher complexity compared to doing it once a day..</li> <li>• Depending on the OAM, infrastructure and development costs can be either one-off or on-going costs.</li> </ul>	<ul style="list-style-type: none"> <li>• Similarly to Option 1b, in Option 2a and Option 2b, 8,300 pd would be needed (for 21 OAMs) over five years, to set up a connection via web services enabled over HTTPS.</li> <li>• However, the cost to extract, generate and transmit XML files to the EEAP would differ between Option 1a, 1b and Option 2a and 2b. In the case of Option 2a, over five years, 13,579 pd would be needed (for 21 OAMs) to transmit XML files to the EEAP <u>in real-time</u>; whereas, 13,737 pd would be required in the case of Option 2b, to perform the same task but <u>once a day</u>.</li> <li>• These person days have been valued based on a conversion factor provided by DG ESTAT<sup>41</sup> for each country and adjusted to the skills required for the implementation of the EEAP.</li> <li>• A discount rate of 4% has been applied on the costs.</li> </ul>

<sup>41</sup> Rate based on [http://epp.eurostat.ec.europa.eu/cache/ITY\\_PUBLIC/3-10042013-AP/EN/3-10042013-AP-EN.PDF](http://epp.eurostat.ec.europa.eu/cache/ITY_PUBLIC/3-10042013-AP/EN/3-10042013-AP-EN.PDF)

### 3.3 Costs for option 3: Query all OAMs

Table 5 below provides a qualitative and quantitative description of the main costs related to Option 3.

**Table 5 Cost-Benefit Analysis of Option 3**

OPTION 3: Query all OAMs		
	Qualitative description	Quantitative description
<p><i>Costs to ESMA:</i></p> <ul style="list-style-type: none"> <li>- <i>One-off</i></li> <li>- <i>On-going</i></li> </ul>	<ul style="list-style-type: none"> <li>• Development costs (one-off costs) will be incurred to ESMA to set-up the connection between ESMA and OAMs, deploy a server and application monitoring module including a web analytics application to monitor the operation and use of the EEAP, set-up a query mechanism (same mechanism as for Option 2), develop a Graphical User Interface (GUI) for the EEAP and conduct the activities necessary to implement the EEAP, including project management tasks, the definition of business and functional requirements, coordination activities, testing and roll-out.</li> <li>• In the case of Option 3, ESMA will not need to load metadata XML files, set-up the database and its back-up or deploy a search software application.</li> <li>• With regards to the on-going costs, not only maintenance and support costs should be considered but also infrastructure costs, as ESMA lease their infrastructure.</li> </ul>	<ul style="list-style-type: none"> <li>• ESMA would need a total of 590 pd to perform all the development activities. These costs will run until the EEAP is operational, i.e. over two years (i.e. 2016 and 2017).</li> <li>• While support costs are estimated at 18.75 pd per year, maintenance costs were assessed as a fixed percentage of the development and infrastructure costs (i.e. 20%).</li> <li>• Infrastructure costs include the setup of the overall infrastructure necessary for the implementation and operation of the EEAP.</li> <li>• Person days have been valued at the European Commission rate and adjusted to ESMA.</li> <li>• A discount rate of 4% has then been applied on the total costs.</li> </ul>

**OPTION 3: Query all OAMs**

	Qualitative description	Quantitative description
<p><i>Costs to OAMs</i></p> <ul style="list-style-type: none"> <li>- <i>One-off</i></li> <li>- <i>On-going</i></li> </ul>	<ul style="list-style-type: none"> <li>• Infrastructure, development, maintenance and support costs will be incurred to OAMs to set-up a connection via web services enabled over HTTPS between their national mechanisms and the EEAP.</li> <li>• In addition, costs will also be incurred to OAMs to extract, generate &amp; transmit XML files in real-time.</li> <li>• On average, extracting the metadata from the OAM local database, and generating and transmitting a XML file in the proposed common metadata format for each reply to a search request (in real-time) would be of higher complexity compared to doing it on a daily basis or immediately after documents' and issuers' metadata are updated (added or modified).</li> <li>• Depending on the OAM, infrastructure and development costs can be either one-off or on-going costs.</li> </ul>	<ul style="list-style-type: none"> <li>• Similarly to Option 1b, 2a and 2b, in the case of Option 3, over five years, 8,300 pd would also be needed (for 21 OAMs) to set up a connection via web services enabled over HTTPS.</li> <li>• However, the cost to extract, generate and transmit XML files to the EEAP would differ between Option 1a, 1b, 2a, 2b and Option 3. In the case of Option 3, over five years, 10,743 pd would be needed (for 21 OAMs) to extract, generate and transmit XML files to the EEAP.</li> <li>• These person days have been valued based on a conversion factor provided by DG ESTAT<sup>42</sup> for each country and adjusted to the skills required for the implementation of the EEAP.</li> <li>• A discount rate of 4% has been applied on the costs.</li> </ul>

<sup>42</sup> Rate based on [http://epp.eurostat.ec.europa.eu/cache/ITY\\_PUBLIC/3-10042013-AP/EN/3-10042013-AP-EN.PDF](http://epp.eurostat.ec.europa.eu/cache/ITY_PUBLIC/3-10042013-AP/EN/3-10042013-AP-EN.PDF)

### 3.4 Costs for option 4: Search engine tool

Table 6 below provides a qualitative and quantitative description of the main costs related to Option 4.

**Table 6 Cost-Benefit Analysis of Option 4**

OPTION 4: Search engine tool		
	Qualitative description	Quantitative description
<p>Costs to ESMA:</p> <ul style="list-style-type: none"> <li>- One-off</li> <li>- On-going</li> </ul>	<ul style="list-style-type: none"> <li>• Development costs (one-off costs) will be incurred to ESMA to set-up the connection between ESMA and OAMs, deploy a search software application and a server and application monitoring module including a web analytics application to monitor the operation and use of the EEAP, develop a Graphical User Interface (GUI) for the EEAP and conduct the activities necessary to implement the EEAP, including project management tasks, the definition of business and functional requirements, coordination activities, testing and roll-out.</li> <li>• In the case of Option 4, ESMA will not need to load metadata XML files or to set-up the database and its back-up. Furthermore, the deployment of a web crawler to index OAMs metadata will replace the query mechanisms required in Option 2 and 3. In this regards, the web crawler represents an additional item included in the development costs. While maintenance will be needed for the web crawler, the cost will be relatively low as ESMA would deploy SOLR open source enterprise search platform as its search engine. With regards to on-going costs, not only should maintenance and support costs be considered but also infrastructure costs, as ESMA leases their infrastructure.</li> </ul>	<ul style="list-style-type: none"> <li>• ESMA would need a total of 620 pd to perform all the development activities. These costs will run until the EEAP is operational, i.e. over two years (i.e. 2016 and 2017).</li> <li>• While support costs are estimated at 18.75 pd per year, maintenance costs were assessed as a fixed percentage of the development and infrastructure costs (i.e. 20%).</li> <li>• Infrastructure costs include the setup of the overall infrastructure necessary for the implementation and operation of the EEAP and the hardware and software related to the database.</li> <li>• Person days have been valued at the European Commission rate and adjusted to ESMA. A discount rate of 4% has then been applied on the total costs.</li> </ul>

**OPTION 4: Search engine tool**

	Qualitative description	Quantitative description
<p><i>Costs to OAMs</i></p> <ul style="list-style-type: none"> <li>- <i>One-off</i></li> <li>- <i>On-going</i></li> </ul>	<ul style="list-style-type: none"> <li>• Infrastructure, development, maintenance and support costs will be incurred to OAMs to set-up a connection between their national mechanisms and the EEAP. However, in the case of Option 4, there is no need to develop a connection via web services enabled over HTTPS as the implementation of Option 4 includes a web crawler that already indexes metadata published by OAMs via a secure URL (https). In this context, the cost of the connection for Option 4 is half the cost estimated by OAMs for a connection via web services enabled over HTTPS.</li> <li>• In addition, costs will also be incurred to OAMs to extract, generate &amp; store XML files to the EEAP.</li> <li>• Depending on the OAM, infrastructure and development costs can be either one-off or on-going costs.</li> </ul>	<ul style="list-style-type: none"> <li>• Over five years (for 21 OAMs), 4,150 pd would be needed to set up a connection via web services enabled over HTTPS and 10,762 pd would be required to extract, generate &amp; store XML files to the EEAP.</li> <li>• These person days have been valued based on a conversion factor provided by DG ESTAT<sup>43</sup> for each country and adjusted to the skills required for the implementation of the EEAP.</li> <li>• A discount rate of 4% has been applied on the costs.</li> </ul>

<sup>43</sup> Rate based on [http://epp.eurostat.ec.europa.eu/cache/ITY\\_PUBLIC/3-10042013-AP/EN/3-10042013-AP-EN.PDF](http://epp.eurostat.ec.europa.eu/cache/ITY_PUBLIC/3-10042013-AP/EN/3-10042013-AP-EN.PDF)

## 4 Comparison of the EEAP options

This section aims to compare the EEAP options and conclude on the EEAP options, according to two evaluation criteria, i.e. the efficiency, effectiveness.

- Efficiency can be defined as the extent to which the EEAP can be established at least-cost. Therefore, this evaluation aims to identify the ‘least-costly’ EEAP option(s).
- Effectiveness can be defined as the extent to which the EEAP options achieve the European Commission requirements stipulated in the TD (EEAP objectives), in terms of increased benefits or lowest complexity. This evaluation aims to identify the EEAP options supposed to deliver the ‘best-value-for-money’.

A qualitative analysis of the risks associated to the technical implementation of each EEAP option is also performed, as these may be relevant for choosing the preferred EEAP option.

### 4.1 Efficiency

First of all, efficiency refers to the extent to which the EEAP can be established at **least-cost** in terms of Total Cost of Ownership (TCO)<sup>44</sup> for the OAMs and ESMA over the lifespan of the EEAP implementation (2016-2020). Only the incremental costs directly related to the EEAP implementation are considered in the scope of the efficiency evaluation. In this regards, Table 7 and Table 8 illustrates the total foreseen costs in Euros and person days incurred on OAMs and ESMA for each of the identified options.

**Table 7 Cost aggregation for the EEAP implementation (EUR)**

Foreseen costs per option (in thousand EUR)	2016	2017	2018	2019	2020	TOTAL
<b>OPTION 1a (sFTP + immediate updates)</b>						
Total costs	1,803	1,874	1,395	1,280	1,225	7,577
<b>OPTION 1b (web services + immediate updates)</b>						
Total costs	1,897	1,983	1,460	1,327	1,276	7,943
<b>OPTION 2a (web services + real-time updates)</b>						
Total costs	2,208	2,369	1,760	1,587	1,522	9,446
<b>OPTION 2b (web services + updates once a day)</b>						
Total costs	2,210	2,371	1,748	1,578	1,513	9,420
<b>OPTION 3 (web services + real-time updates )</b>						
Total costs	2,042	2,136	1,544	1,374	1,306	8,401
<b>OPTION 4 (web services + indexing)</b>						
Total costs	1,585	1,669	1,199	1,074	1,031	6,559

Source: KURT SALMON Final Data analysis report, September 2014.

<sup>44</sup> The TCO of an information system defines the total estimated cost to develop the system, to put it into production, to operate it, to support it, to maintain it, to phase it out at the end.

**Table 8 Cost aggregation for the EEAP implementation (person days)<sup>45</sup>**

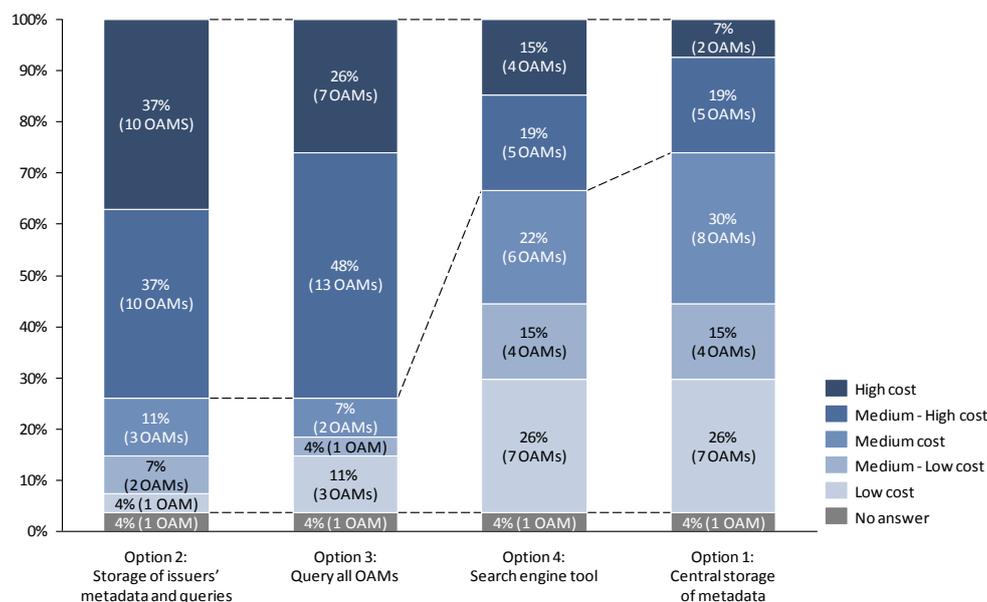
Foreseen costs per option (in person days)	2016	2017	2018	2019	2020	TOTAL
<b>OPTION 1a (sFTP + immediate updates)</b>						
Total costs	3,767	4,312	3,592	3,440	3,451	18,562
<b>OPTION 1b (web services + immediate updates)</b>						
Total costs	3,937	4,458	3,661	3,486	3,492	19,034
<b>OPTION 2a (web services + real-time updates)</b>						
Total costs	4,580	5,308	4,411	4,180	4,172	22,651
<b>OPTION 2b (web services + updates once a day)</b>						
Total costs	4,613	5,409	4,425	4,185	4,177	22,809
<b>OPTION 3 (web services + real-time updates )</b>						
Total costs	4,020	4,728	3,835	3,601	3,565	19,749
<b>OPTION 4 (web services + indexing)</b>						
Total costs	3,220	3,699	3,029	2,852	2,851	15,651

Source: KURT SALMON Final Data analysis report, September 2014.

For OAMs, the two least costly options are Option 4 and Option 1.

This quantitative result is aligned with OAMs’ qualitative assessment<sup>46</sup>, as they considered Option 4 and Option 1 as the least costly options to implement (Figure 6). Option 2 and Option 3 remain the most costly options to implement for the majority of the OAMs. In fact, 74% of the OAMs (20) having answered the questionnaire expect high or medium to high costs for implementing these options, while only 26% and 34% of the respondents (i.e. 9 and 7 OAMs) expect so when it comes to Option 1 and 4 respectively. On the other hand, the two least costly options for ESMA are Option 3 and Option 4.

**Figure 6 Ranking of options per implementation costs**



<sup>45</sup> The cost aggregation in person days includes only development, maintenance and support costs excluding infrastructure costs.

<sup>46</sup> The qualitative assessment refers to the results of the first question of the online questionnaire addressed to OAMs: Q1. In your opinion, which option would be the most costly for OAMs?

Overall, the least costly option is Option 4, whose implementation is estimated to cost (for OAMs and ESMA) a total of EUR 6.559 million, during the period 2016-2020.

While analysing the costs for OAMs to implement Option 4, two main elements stood out: on the one hand, in Option 4, there is no need to develop a connection via web services enabled over HTTPS as the implementation of Option 4 includes a web crawler that already indexes metadata published by OAMs via a secure URL (https). In this context, the cost of the connection for Option 4 is half the cost estimated by OAMs for a full connection via web services enabled over HTTPS.

On the other hand, while all the other EEAP options generate a cost for OAMs to extract, generate and transmit XML files; this cost element is slightly different for Option 4. The latter indeed also implies the extraction and generation of XML files in the proposed common metadata format however, instead of transmitting these files for each reply to a search request, the latter are to be stored so that they can be indexed by the EEAP search engine, in Option 4.

While the first cost element is less costly in Option 4 than any other options, the second cost element is less costly for Option 1. In this regards, one can conclude that the main driver for cost efficiency remains the first one, i.e. set up a connection between the OAMs and ESMA.

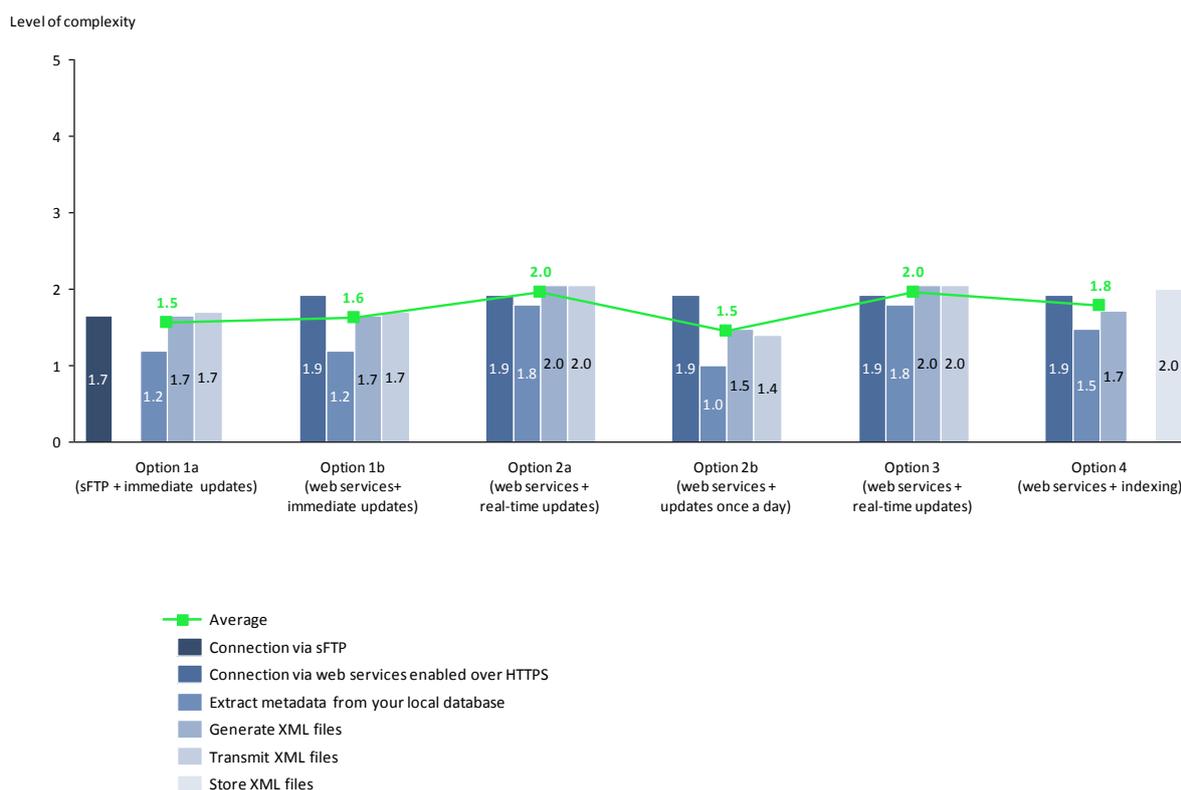
## 4.2 Effectiveness

As mentioned earlier, effectiveness can be defined as the extent to which the EEAP options achieve the European Commission requirements stipulated in the TD in terms of increased benefits. However, in the context of this CBA, benefits can be considered fixed across the different EEAP options. Therefore, effectiveness will be measured based on the perceived complexity to implement the EEAP options.

**The complexity to implement the EEAP options for ESMA should not be taken into account, as any specific requirements in the TD states that this aspect should be taken into account by ESMA for establishing the EEAP. As a result, the effectiveness of the EEAP options is based on OAMs' perspectives.**

In this regards, Figure 7 illustrates OAMs' assessment of the level of complexity to implement the EEAP (on their side). Whatever option is selected, overall, OAMs expect the complexity to be medium to low (between 1.5 and 2 in a 5-point Likert scale).

**Figure 7 Summary of the level of complexity per option**

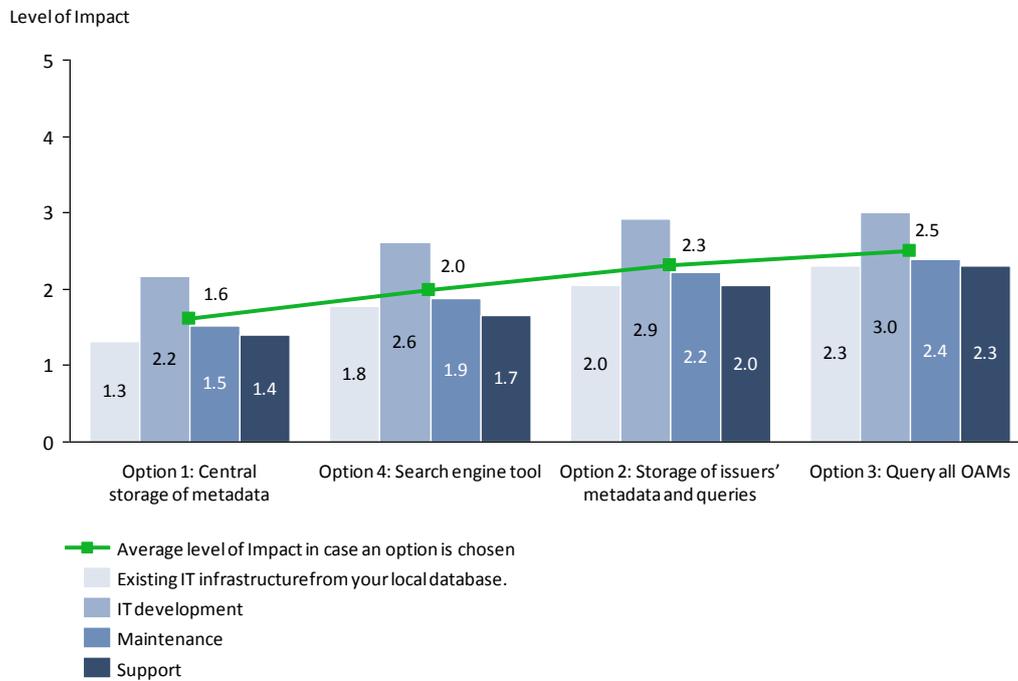


Source: KURT SALMON Final Data analysis report, September 2014.

More specifically, OAMs assessed Option 1a, 2b and Option 1b as the least complex options to implement. It should however be noticed that, even though Option 2a, Option 3 and Option 4 were assessed as slightly more complex to implement, the difference can be considered as not significant.

OAMs were also asked about the expected level of impact that each EEAP option would have on the existing IT infrastructure of the OAMs, IT development, maintenance and support needed for OAMs' information systems. The result of this assessment is further displayed in Figure 8.

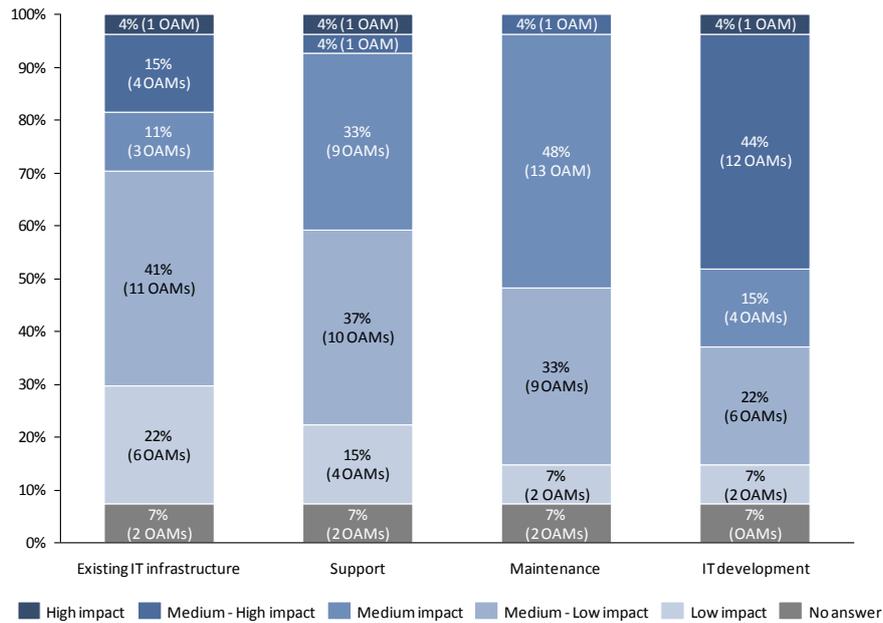
**Figure 8 Summary of the level of impact of the EEAP options on OAMs**



Source: KURT SALMON Final Data analysis report, September 2014.

Option 1 is clearly expected to have the lowest level of impact on OAMs. Therefore, KURT SALMON has further analysed the assessment of the expected impact of Option 1 on each of the elements abovementioned, i.e. the existing IT infrastructure of the OAMs, IT development and the maintenance and support needed for OAMs' information systems, as shown in Figure 9.

Figure 9 Impact of Option 1 on the OAMs



Source: KURT SALMON Final Data analysis report, September 2014.

### 4.3 Associated risks

A qualitative analysis of the risks associated to the technical implementation of each EEAP option is displayed in Table 9. Three main risks were identified, related to data/ metadata synchronisation (1), to OAMs availability and performance for answering to search results (2) and potential investors lacking awareness on the EEAP (3).

Table 9 Risks Associated to the EEAP Options

Associated Risks	
Option 1a & 1b	<p><b>Data/metadata synchronisation:</b> The search results performed via the EEAP may lead to delayed information due to the time necessary for synchronisation of <u>documents and issuers metadata</u> between OAMs and the EEAP. This delay can occur because OAMs need to submit, at each update, documents and issuers metadata to be stored and indexed in the EEAP central database. In this context, 'update' is defined as any addition, modification, or archiving of a document and issuer available at national level. Even though Options 1a and 1b assume that updated documents and issuers metadata are sent immediately after any update performed at national level, the extent of the delay depends on the technical implementation chosen to the EEAP. Given that the volume of metadata is much higher in option 1a and 1b (metadata on all documents) than in option 2a and 2b (only issuers metadata), it is important to notice that in Option 1a and 1b this risk is more severe than in other options. Except in the case of Option 3, a delay may occur between the information displayed at national level by the OAM and the EEAP, which may lead to an asymmetry of information between investors using different access points (local or the EEAP).</p>
	<p><b>Dependency on OAMs availability and performance for answering to search results:</b> No risk on the dependency on OAMs availability and performance for answering to search results is associated to Option 1a and 1b, as the EEAP would perform searches in the local central database. However, as search results include links to documents (regulate information) stored by OAMs, investors will be dependent on the availability of these documents at OAM level. This dependency exists, with the same severity, in all EEAP options.</p>

Associated Risks	
	<p><b>Lack of awareness:</b> Potential investors may lack awareness on the EEAP; therefore raising their awareness, via e.g. a marketing campaign, will be key to ensure that the objectives of the EEAP are reached and its related benefits acknowledged by the investors. On the contrary, if investors are not aware of and thus do not use the EEAP, this would result in just a legal compliance exercise with no benefits for EU citizens.</p>
Option 2a	<p><b>Data/metadata synchronisation:</b> The search results performed via the EEAP may lead to delayed information due to delays time necessary for on the synchronisation of issuers' metadata between OAMs and the EEAP. This delay can occur because OAMs need to submit, at each update, issuers' metadata to be stored and indexed in the EEAP central database. In this context, 'update' is defined as any addition, modification, or removal of an issuer available at national level. Even though Option 2a assumes that updated issuers metadata is sent immediately after any updated performed at national level, the extent of the delay depends on the technical implementation chosen to the EEAP. It is important to notice that the frequency of updates on issuers are significantly lower than the frequency of updates on documents, therefore, this risk can be considered less severe in Option 2a than in Options 1a,1b and 2b.</p> <p>Except in the case of Option 3, a delay may occur between the information displayed at national level by the OAM and the EEAP, which may lead to an asymmetry of information between investors using different access points (local or the EEAP).</p>
	<p><b>Dependency on OAMs availability and performance for answering to search results:</b> In Option 2a, each search request made via the EEAP triggers a search request <u>to one or more OAMs</u>. This dependency can result in long response time to an investor's search request as well as incomplete search results if case an OAM platform is temporarily unavailable. Additionally, as search results include links to the documents (regulate information) stored on OAMs, investors will be dependent on the availability of these documents at OAM level. The latter dependency exists, with the same severity, in all EEAP options.</p>
	<p><b>Lack of awareness:</b> Potential investors may lack awareness on the EEAP; therefore raising their awareness, via e.g. a marketing campaign, will be key to ensure that the objectives of the EEAP are reached and its related benefits acknowledged by the investors. On the contrary, if investors are not aware of and thus do not use the EEAP, this would result in just a legal compliance exercise with no benefits for EU citizens.</p>
Option 2b	<p><b>Data/metadata synchronisation:</b> The search results performed via the EEAP may lead to delayed information due to time necessary for the synchronisation of issuers' metadata between OAMs and the EEAP. This delay can occur because OAMs need to submit, at each update, issuers' metadata to be stored and indexed in the EEAP central database. In this context, 'update' is defined as any addition, modification, or removal of an issuer available at national level. Option 2b assumes that updated issuers metadata is sent once a day to the EEAP what makes this risk more severe than the one identified in option 2a. It is important to notice that the frequency of updates on issuers are significantly lower than the frequency of updates on documents, therefore, this risk can be considered less severe in Option 2b than in Options 1a and 1b.</p> <p>Except in the case of Option 3, a delay may occur between the information displayed at national level by the OAM and the EEAP, which may lead to an asymmetry of information between investors using different access points (local or the EEAP).</p>
	<p><b>Dependency on OAMs availability and performance for answering to search results:</b> In Option 2b, each search request made via the EEAP triggers a search request to one or more OAMs. This dependency can result in long response time to an investor's search request as well as incomplete search results if case an OAM platform is temporarily unavailable. Additionally, as search results include links to the documents (regulate information) stored on OAMs, investors will be dependent on the availability of these documents at OAM level. The latter dependency exists, with the same severity, in all EEAP options.</p>
	<p><b>Lack of awareness:</b> Potential investors may lack awareness on the EEAP; therefore raising their awareness, via e.g. a marketing campaign, will be key to ensure that the objectives of the EEAP are reached and its related benefits acknowledged by investors. On the contrary, if investors are not aware of and thus do not use the EEAP, this would result in just a legal compliance exercise with no benefits for EU citizens.</p>

Associated Risks	
Option 3	<p><b>Data/metadata synchronisation:</b> No risk on data/metadata synchronisation is associated to Option 3.</p>
	<p><b>Dependency on OAMs availability and performance for answering to search results:</b> In Option 3, each search request made via the EEAP triggers a search request to all OAMs. This dependency can result in long response time to an investor's search request as well as incomplete search results if case an OAM platform is temporarily unavailable. It is important to notice that this risk is more severe in option 3 than in options 2a and 2b as all OAMs are triggered in each search request. Additionally, as search results include links to the documents (regulate information) stored on OAMs, investors will be dependent on the availability of these documents at OAM level. The latter dependency exists, with the same severity, in all EEAP options.</p>
	<p><b>Lack of awareness:</b> Potential investors may lack awareness on the EEAP; therefore raising their awareness, via e.g. a marketing campaign, will be key to ensure that the objectives of the EEAP are reached and its related benefits acknowledged by the investors. On the contrary, if investors are not aware of and thus do not use the EEAP, this would result in just a legal compliance exercise with no benefits for EU citizens.</p>
Option 4	<p><b>Data/metadata synchronisation:</b> The search results performed via the EEAP may lead to delayed information due to time necessary for the indexation of updated documents and issuers metadata made available by the OAMS to the EEAP web crawler. In this context, 'update' is defined as any addition, modification, or archiving of an issuer available at national level. The extent of the delays on the indexation of the metadata will depend on the technical implementation chosen to the web crawler of the EEAP as well as potential temporary unavailability of OAMs' systems disallowing the EEAP to access the metadata to be indexed. It is important to notice that as no metadata is stored in the EEAP, this risk can be considered less severe than in option 1a, 1b, 2a and 2b.</p> <p>Except in the case of Option 3, a delay may occur between the information displayed at national level by the OAM and the EEAP, which may lead to an asymmetry of information between investors using different access points (local or the EEAP).</p>
	<p><b>Dependency on OAMs availability and performance for answering to search results:</b> No risk on the dependency on OAMs availability and performance for answering to search results is associated to Option 4, as the EEAP would perform searches in the EEAP central index. However, as search results include links to the documents (regulate information) stored on OAMs, investors will be dependent on the availability of these documents at OAM level. This dependency exists, with the same severity, in all EEAP options.</p>
	<p><b>Lack of awareness:</b> Potential investors may lack awareness on the EEAP; therefore raising their awareness, via e.g. a marketing campaign, will be key to ensure that the objectives of the EEAP are reached and its related benefits acknowledged by the investors. On the contrary, if investors are not aware of and thus do not use the EEAP, this would result in just a legal compliance exercise with no benefits for EU citizens.</p>

## 4.4 Conclusions

This sub-section summarises the evaluation of the efficiency and effectiveness of each EEAP option as well as the risks associated to the technical implementation of each EEAP option, based on the results from sub-sections 4.1, 4.2 and 4.3.

Table 10 displays the result of the assessed efficiency and effectiveness of each EEAP option, using a score ranking from ● (lowest) to ●●●●●● (highest).

**Table 10 Overall evaluation of EEAP Options**

	Total Costs (in thousand EUR)	Efficiency	Level of Complexity	Impact on OAMs	Effectiveness
OPTION 1a	7,577	●●●●●	1.5	1.6	●●●●●●
OPTION 1b	7,943	●●●●	1.6	1.6	●●●●●
OPTION 2a	9,446	●	2.0	2.3	●●
OPTION 2b	9,420	●●	1.5	2.3	●●●●
OPTION 3	8,401	●●●	2.0	2.5	●
OPTION 4	6,559	●●●●●●	1.8	2.0	●●●●

As a result, Option 4 and Option 1 are evaluated as the most efficient options to implement the EEAP while Option 1a and 1b were considered as the most effective ones.

**These cost estimates have been prepared for the sole purpose of this study and taking into account a number of assumptions and simplifications. Therefore, the actual cost of the implementation of the EEAP by ESMA and other stakeholders may be different and will depend on the final state of the requirements as well as other factors, e.g. the market conditions, strategies to run implementation projects by each counterparty, contractual arrangements between ESMA, OAMs and their providers.**

While selecting the preferred EEAP option, three risks associated to the technical implementation of each EEAP option should be taken into account, i.e. synchronisation of data/metadata (1), dependency on OAMs availability and performance for answering to search results (2) and potential investors lacking awareness on the EEAP (3).

First, one of the main risks associated to the technical implementation of Option 1, 2 and 4 is the synchronisation of data/metadata. The search results performed via the EEAP may lead to delay in providing the information due to the time necessary for the synchronisation of documents' and issuers metadata between OAMs and the EEAP (Option 1), for the synchronisation of issuers' metadata between OAMs and the EEAP (Option 2) and for the indexation of updated documents and issuers metadata made available by the OAMs to the EEAP web crawler (Option 4). Given that the volume of metadata is higher in Option 1 (metadata on all documents) than in any other option, this risk will be the most severe for Option 1.

Secondly, it should be noticed that the risk of dependency on OAMs availability and performance for answering to search results exists in all EEAP options: as search results always include links to the documents (regulated information) stored by OAMs, investors will be dependent on the availability of these documents at OAM level. However, in Option 2 and 3 this risk has additional implications. For Option 2, each search request made via the EEAP triggers a search request to one or more OAMs, which can result in long response time to an investor's search request as well as incomplete search results in the case an OAM platform is temporarily unavailable. This risk is even more severe for Option 3, as each search request made via the EEAP triggers a search request to all OAMs.

Thirdly, the risk related to the fact that potential investors may lack awareness on the EEAP applies equally to all EEAP options.

Furthermore, by issuing a CP on the EEAP, ESMA intended to sustain its CBA analysis with responses from stakeholders. While the status of most respondents prevented them from providing users' views, the answers received underlined that the search for historical financial statements will be the most common type of regulated information searched through the EEAP.

With regards to the benefits of the EEAP, respondents considered that a harmonization of regulated information will improve the quality of the information accessed by investors, as it will harmonize the classification of regulated information, enable searching and access from end users to this information at European level. Other benefits will be an increased interest from users towards companies' activities, easier cross-market searches for regulated information and easing of investment decisions. As such, respondents agreed that the main beneficiaries of the EEAP will be end users.

ESMA recalls that despite ESMA's best efforts to receive additional input to its CBA analysis from end users, it did not receive input from this category of stakeholders. Consequently, ESMA regrets that their views were not better reflected in these RTS as they are expected to be the main beneficiaries of the EEAP.

Considering the above, and taking into account the information gathered through the consultation process and the fact that most of the respondents (OAMs) costs and benefits had been already considered in the CBA published in the CP, ESMA considers that the conclusions reached in this document remain valid.

**Based on the knowledge we have today, EU initiatives like ECLI, ECRIS and BRIS reflect a broader technology trend to "enterprise search solutions" (EEAP Option 1 and Option 4). This is also confirmed by Gartner external study<sup>47</sup> stating that the enterprise search market is expanding and growing driven by multiple factors such as advanced and extended capabilities that, combined with improved content semantics and content analytics, are improving result relevancy and use.**

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<sup>47</sup> Gartner, Inc., Market Trends: Smart Computing and Analytics, Rejuvenate the Enterprise Search Market, 2014-2017, Tom Eid, 6 February 2014.

# Annex IV- Draft Regulatory Technical Standards



EUROPEAN COMMISSION

Brussels, [...]  
C(20..) yyy final

**COMMISSION DELEGATED REGULATION (EU) No .../..**

**of [ ]**

Draft

**COMMISSION DELEGATED REGULATION (EU) .../..**  
of [...]

**supplementing Directive 2004/109/EC of the European Parliament and of the Council with regard to regulatory technical standards on access to regulated information at Union level**

**(Text with EEA relevance)**

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Directive 2004/109/EC of the European Parliament and of the Council of 15 December 2004 on the harmonisation of transparency requirements in relation to information about issuers whose securities are admitted to trading on a regulated market and amending Directive 2001/34/EC<sup>48</sup>, and in particular Article 22 thereof,

Whereas:

- (1) In order to ensure fast access to regulated information on a non-discriminatory basis and make that information available to end users, the European Securities and Markets Authority (ESMA) has an obligation to develop and operate a European Electronic Access Point (EEAP). The EEAP should be conceived as a web portal accessible through ESMA's website and, given its centralising role, should not assume the functions of official appointed mechanisms (OAMs) in respect of storage of regulated information. The EEAP should provide access to regulated information stored by all OAMs, avoid the duplication of data storage and minimise the risks of security of data exchange.
- (2) In order to facilitate the search for regulated information and fast access to that information, the EEAP should enable the end user to search by reference to the identity of an issuer, the home Member State or the type of regulated information. At the same time, the EEAP should enable the end user to access to regulated information requested by the end user through hyperlinks to OAMs' websites where this information is stored.
- (3) The proper functioning of the EEAP and its connection with OAMs depend on the security, effectiveness, efficiency and adaptability of the supporting communication technologies. The HTTPs protocol should be used by the EEAP and OAMs to connect with each other. However, given the continuous developments in communication technologies and the need to ensure the integrity and security of the exchange of metadata on regulated information, ESMA and the OAMs should cooperate in identifying and implementing alternative communication technologies in the future. Furthermore, where ESMA considers, according to objective technical criteria, that cooperation required for that purpose is ineffective, ESMA should be able to specify alternative communication technology to be implemented by the EEAP and OAMs.
- (4) In order to enable cross-border searches and accurate search results, an OAM should use a unique identifier for each issuer of securities admitted to trading on a regulated market. Harmonisation of the unique identifiers used by OAMs should enable end users of the EEAP to identify more readily the issuers in respect of whom the end users seek information. Moreover, given the integration of financial markets at international level, the unique identifiers to be used by OAMs should be accepted internationally, be suitable to be assigned

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<sup>48</sup> OJ L 390. 31.12.2004, p. 38.

to any issuer, be consistent in time, have a limited financial impact on issuers and OAMs, and take into account future developments in this area. Therefore, OAMs should use legal entity identifiers as the unique identifier for issuers of securities admitted to trading on a regulated market.

- (5) Harmonisation of the format used to exchange information between the EEAP and the OAMs is necessary in order to ensure the effective functioning of the EEAP. Accordingly, the identification of the appropriate format for exchange of information should take into account the security exchange and validation attributes of the most common standard formats used on the market. As the EEAP should not assume the functions of OAMs in respect of storage of regulated information, the format for exchange of regulated information should determine the metadata on regulated information to be enabled by an OAM to ensure a focussed search and fast access to regulated information by end users.
- (6) The specification of the common list of types of regulated information should enable investors to have a better understanding of the information which is subject to the requirements of accuracy, comprehensiveness and timely dissemination by issuers under Directive 2004/109/EC. The common labelling and classification of regulated information by OAMs for the purpose of end users seeking to access regulated information via the EEAP should enable the end users to focus their search requests on the types of information of interest to them and should give rise to efficiencies for investors in their decision making processes.
- (7) Visualisation or downloading of documents containing regulated information by end users are subject to OAMs' pricing policies in accordance with their national law. However, OAMs should not charge the EEAP for the delivery of metadata on regulated information.
- (8) The requirement to use legal entity identifiers as the unique identifier for issuers of securities admitted to trading on a regulated market should apply from 1 January 2017 in order to provide OAMs and issuers sufficient time to implement the legislative and technological changes required. Moreover, the requirement to classify regulated information should apply only to regulated information published on or after 1 January 2017 in order to provide OAMs and issuers sufficient time to implement the legislative and technological changes in relation to the storage and tagging of information enabling the correct functioning of the EEAP required for 1 January 2018.
- (9) This Regulation is based on the draft regulatory technical standards submitted by ESMA to the Commission. In developing those draft regulatory technical standards, ESMA has taken into account the technical requirements for the system of interconnection of central, commercial and companies registers established by Directive 2012/17/EU<sup>49</sup> of the European Parliament and of the Council.
- (10) In accordance with Article 10 of Regulation (EU) No 1095/2010 of the European Parliament and the Council<sup>50</sup>, in developing the draft regulatory technical standards on which this Regulation is based, ESMA has conducted open public consultations, analysed the potential related costs and benefits and requested the opinion of the Securities and Markets Stakeholder Group established by Article 37 of that Regulation,

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<sup>49</sup> Directive 2012/17/EU of the European Parliament and of the Council of 13 June 2012 amending Council Directive 89/666/EEC and Directives 2005/56/EC and 2009/101/EC of the European Parliament and of the Council as regards the interconnection of central, commercial and companies registers (OJ L 156, 16.6.2012, p. 1).

<sup>50</sup> Regulation (EU) No 1095/2010 of the European Parliament and the Council establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/77/EC (OJ L 331, 15.12.2010, p. 84).

HAS ADOPTED THIS REGULATION:

*Article 1*

**The European Electronic Access Point (EEAP)**

The European Securities and Markets Authority (ESMA) shall set up as a web portal, the European Electronic Access Point, to regulated information (EEAP) to enable end users to search for regulated information stored by official appointed mechanisms (OAMs). The web portal shall be accessible through the ESMA's website.

*Article 2*

**EEAP communication technologies, availability and support level**

1. The security and integrity of the metadata on regulated information exchanged between OAMs and the EEAP shall be guaranteed. The EEAP and each OAM shall use the HTTPS protocol to connect with each other.
2. ESMA shall cooperate with the OAMs to identify and implement an alternative communication technology to be used instead of HTTPS protocol and to define the timeline for its implementation.
3. Where ESMA considers, according to objective technical criteria, that the cooperation required under paragraph 2 is ineffective for the purpose of ensuring security and integrity of the exchange of metadata on regulated information, ESMA may specify a communication technology to be used instead of the HTTPS protocol.
4. The EEAP shall be easily scalable and adaptable to changes in the volumes of search requests and metadata to be delivered by OAMs.
5. The EEAP shall be available to end users at least 95% per month..
6. The EEAP system shall be backed up on a daily basis.
7. Service support from ESMA to EEAP end users and to OAMs shall be provided within ESMA working hours, as defined by ESMA Executive Director and published on ESMA website.

*Article 3*

**Search function**

1. The following search criteria shall be offered on the EEAP:
  - a. the name of the issuers from whom regulated information originated;
  - b. the unique identifier of issuers as set out in Article 7;
  - c. the home Member States of the issuer as defined in Article 2(1)(i) of Directive 2004/109/EC;
  - d. the classification of regulated information as set out in Article 9(2);

2. The EEAP shall enable end users to search for issuer names in all available language versions of the issuers' names stored by OAMs.
3. The EEAP shall provide search results in accordance with the search criteria selected by end users. The search results shall be in the form of a list of metadata as laid down in by Section A in the Annex.

#### *Article 4*

##### **Facilitation of access through the EEAP**

1. The metadata on regulated information referred to in Section A of the Annex shall include hyperlinks to the specific webpage of OAM websites where the visualisation or, as the case may be, the downloading of documents containing regulated information shall be accessible to end users. Those webpages shall include hyperlinks to all language versions of the documents containing regulated information as disseminated by issuers and stored by OAMs in accordance with Article 21(1) of Directive 2004/109/EC.
2. The EEAP shall, insofar as practicable, provide access to its search facility to end users using web-browsers, including web-browsers operated by mobile devices.

#### *Article 5*

##### **OAM communication technologies, support and maintenance**

1. Each OAM shall ensure at least 95% availability per month of its connection with the EEAP.
2. Each OAM shall provide service support to the EEAP during its working hours in order to maintain its connections to the EEAP, and in order to enable incident escalation. Those support services shall be provided in a language customary for electronic communications.

#### *Article 6*

##### **Facilitation of access by OAMs**

1. Each OAM shall ensure that metadata on regulated information can be retrieved by the EEAP.
2. Each OAM shall deliver to the EEAP the metadata on regulated information stored by them in accordance with Article 21(1) of Directive 2004/109/EC.
3. The metadata shall include hyperlinks to the OAM webpages on which the visualisation or, as the case may be, the downloading of documents containing regulated information shall be accessible to end users. All language versions of such documents, disseminated by issuers and stored by an OAM in accordance with Article 21(1) of Directive 2004/109/EC, shall be made available.
4. Where any document containing regulated information is modified, the OAM concerned shall immediately update the metadata on that document.
5. OAMs shall not charge the EEAP for the delivery of metadata on regulated information.

#### *Article 7*

### **Unique identifier used by OAMs**

Each OAM shall use legal entity identifiers (LEI) as the unique identifiers for all issuers.

#### *Article 8*

### **Common format for the delivery of metadata**

1. Each OAM shall use an XML-based format to deliver metadata on regulated information to the EEAP.
2. Each OAM shall deliver metadata on regulated information to the EEAP in the format laid down in Section A of the Annex.

#### *Article 9*

### **Common list and classification of regulated information**

1. The common list of types of regulated information shall include the following information:
  - a. annual financial and audit reports which shall include all information required to be disclosed under Article 4 of Directive 2004/109/EC,
  - b. half-year financial reports and audit reports or limited reviews including all information required to be disclosed under Article 5 of Directive 2004/109/EC,
  - c. payments to governments which shall include all information required to be disclosed under Article 6 of Directive 2004/109/EC,
  - d. choice of home Member State which shall include the information required to be disclosed under in Article 2(1) (i) of Directive 2004/109/EC,
  - e. inside information which is required to be disclosed under Article 6 of Directive 2003/6/EC,
  - f. notifications concerning voting rights which shall include all information required to be disclosed under Article 12 of Directive 2004/109/EC,
  - g. acquisition or disposal of the issuer's own shares which shall include all information required to be disclosed under Article 14 of Directive 2004/109/EC,
  - h. total number of voting rights and capital which shall include all information required to be disclosed under Article 15 of Directive 2004/109/EC,
  - i. changes in the rights attaching to the classes of shares or securities which shall include all information required to be disclosed under Article 16 of Directive 2004/109/EC,
  - j. all information not falling within a) to i) but which the issuer, or any other person who has applied for the admission of securities to trading on a regulated market without the issuer's consent, is required to disclose under the laws, regulations or administrative provisions of a Member State adopted under Article 3(1) of Directive 2004/109/EC.
2. Each OAM shall classify all regulated information in accordance with Section B of the Annex.

*Article 10*

**Entry into force and application**

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

Articles 7 and 9 shall apply from 1 January 2017.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels,

[For the Commission

The President]

[For the Commission

On behalf of the President]

[Position]

ANNEX  
Section A

**Information Exchange – Format of the Metadata to be delivered**

<b>Metadata field</b>	<b>Metadata field characteristics</b>
Issuer name (in all languages used by the issuer)	Free text alpha-numeric field, UTF-8 encoding
Issuer's Home Member State	2-digit country code, ISO 3166-1
Unique identifier	LEI code, ISO 17442:2012, Alpha-numeric field, 20 characters
Type of regulated information	Taxonomy in accordance with the common list of regulated information as set out in Section B of this Annex
Uniform Resource Locator(URL)	Alpha-numeric field. The hyperlink shall enable access to all documents containing regulated information in accordance with Article 4(1) according to search criteria.

**Section B**

**Classes and sub-classes of regulated information**

<b><u>Classification of regulated information</u></b>	<b><u>Legal basis</u></b>
<b>1. <u>Periodic regulated information</u></b>	
a. Annual financial and audit reports;	all information disclosed under Article 4 of Directive 2004/109/EC
b. Half yearly financial reports and audit reports / limited reviews;	all information disclosed under Article 5 of Directive 2004/109/EC
c. Payments to governments;	all information disclosed under Article 6 of Directive 2004/109/EC
<b>2. <u>Ongoing regulated information</u></b>	
d. Home Member State;	all information disclosed under Article 2(1)(i) of Directive 2004/109/EC
e. Inside information;	all information disclosed under Article 6 of Directive 2003/6/EC
f. Major shareholding notifications;	all information disclosed under Article

	12 of Directive 2004/109/EC,
g. Acquisition or disposal of the issuer's own shares;	all information disclosed under Article 14 of Directive 2004/109/EC
h. Total number of voting rights and capital;	all information disclosed under Article 15 of Directive 2004/109/EC
i. Changes in the rights attaching to the classes of shares or securities;	all information disclosed under Article 16 of Directive 2004/109/EC
<b>3. <u>Additional regulated information required to be disclosed under the laws by Member State</u></b>	
j. Additional regulated information required to be disclosed under the laws by Member State	all information not falling within the preceding sub-classes but which the issuer, or any other person who has applied for the admission of securities to trading on a regulated market without the issuer's consent, has disclosed in accordance with a requirement under the laws, regulations or administrative provisions of a Member State adopted under Article 3(1) of Directive 2004/109/EC."