

The Implementation of the Once-Only Principle in a Maritime Domain

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The once-only principle in the context of the public sector means that citizens and businesses supply data only once to a public administration. The role of public administrations is to internally share these data also across borders so that no additional burden falls on citizens and businesses. One of the most important initiatives in Europe to explore and demonstrate the once-only principle in practice is the TOOP project. TOOP is currently developing a federated IT architecture in order to demonstrate how the once only principle can be applied by the European Member States. This technical solution will be practically tested within three pilot areas. The article presents these areas with a particular focus on a maritime domain. The application of the once-only principle in maritime transport primarily concerns the need for simplification in the area of ship and crew certificates, which are currently issued and maintained in a paper format and stored by national maritime administrations. Barriers and opportunities to implement the once and only principle in Europe are described as well.

Keywords: TOOP, the once-only principle, e-Government, maritime transport, crew certificates, ship's certificate.

1. INTRODUCTION

Almost a decade ago, i.e. in 2009, the Malmö Ministerial Declaration on eGovernment¹ was adopted. The recommendations and postulates formulated therein recommended improving the conditions for access and re-use of information and databases from the public sector. Member States at that time commonly declared that joint action should be taken to reduce the administrative burden on EU citizens and entrepreneurs. Since then, a huge amount of funding has been devoted to the development of a Digital Single Market, the integral part of which are electronic services provided by public administration in the EU.

Adopted in 2016 The "EU eGovernment Action Plan 2016-2020"² identified a number of principles

that Member States should follow in future initiatives related to the development of public eServices in Europe. One of the indicated principles is 'the once-only principle'. 'The once-only principle' states in relation to the public sector that citizens and entrepreneurs should provide information required by the public administration only once. On the other hand, public administrations should exchange this information (if permitted and in compliance with data protection rules), thus eliminating additional administrative burdens for citizens and businesses. Several Member States have already implemented the 'the once-only principle' at national legislation level. In Poland, the once-only principle has been regulated in the Code of Administrative Procedure, Article 220 of which indicates that a public administration body should not require a certificate or statement to confirm facts or legal status, if they are possible to determine on the basis of public registers held by other public entities or exchange information with another public entity. An example of implementation of the once-only principle in the e-government system in Poland is the Point of Single Contact (biznes.gov.pl), which,

¹ Ministerial Declaration on eGovernment. Available at: <https://ec.europa.eu/digital-single-market/sites/digital-agenda/files/ministerial-declaration-on-egovernment-malmo.pdf>

² EU eGovernment Action Plan 2016-2020. Available at: <https://ec.europa.eu/digital-single-market/en/news/communication-eu-egovernment-action-plan-2016-2020-accelerating-digital-transformation>.

thanks to the integration with the CEIDG (Central Registration and Information on Business) register, directly collects data on entrepreneurs conducting individual business activity.

However, the implementation of ‘the once-only principle’ at European (cross-border) level remains a challenge, thus contributing significantly to the development of a Digital Single Market in Europe.

The objective of this article is to present the work related to the implementation of the Once-Only Principle in the cross-border aspect under the Once-Only Principle Project (TOOP). In particular, the actions related to the implementation of ‘the once-only principle’ in maritime transport will be described.

2. THE IMPLEMENTATION OF ‘THE ONCE-ONLY PRINCIPLE’ IN THE PUBLIC SECTOR - THE TOOP PROJECT

Upon the initiative of 51 organisations from 21 EU Member States, the Once-Only Principle Project (TOOP) was launched on 1 January 2017. Its aim is to examine and demonstrate ‘the once-only principle’ across the borders of EU countries in the area of relations between enterprises and public administration. The TOOP project in Poland is implemented by the Institute of Logistics and Warehousing. The venture is financed by the European Union under Horizon 2020 Research and Innovation Programme. The expected result of the TOOP project is to improve the exchange of data between businesses and public administrations on a pan-European scale, which will ultimately contribute to the efficiency of the Digital Single Market.

As a result of the TOOP project, a unique IT architecture will be created, which, using the developed and proven technical solutions, will connect registers and information systems of public institutions of the EU Member States. The IT architecture model prepared within the TOOP project is shown in the following figure. According to this model, IT architecture will be of a federated nature, which means that it will act as an intermediary between the register providing data in one country and an IT system that consumes data in another country. In the case of countries with a national OOP level, it will be possible to use it for the connection to the TOOP project architecture.

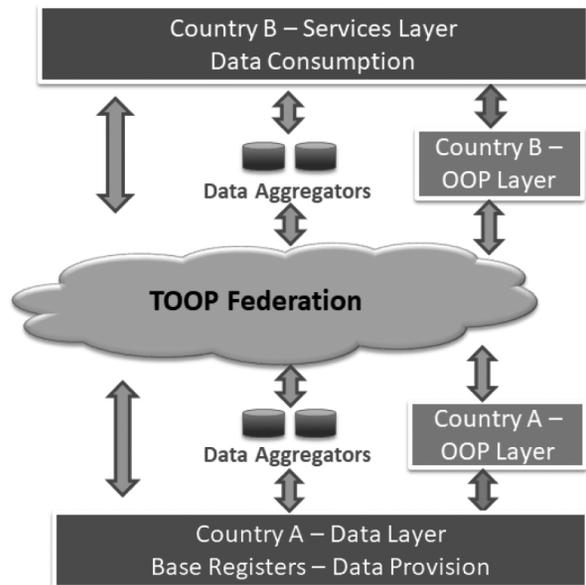


Fig. 1. D2.1 Simple model of TOOP architecture.

Source: Tepandi, J., Verhoosel, J.P.C., Zeginis, D., Wettergren, G., Dimitriou, J., Rotuna, C., Carabat, C., Albayrak, Ö., Yilmaz, E., Lampoltshammer, T., Täks, E., Prentza, A., Brandt, P., Kavassalis, P., Leontaridis, L., Streefkerk, J.W. (2017) Generic Federated OOP Architecture (1st version), http://toop.eu/sites/default/files/D21_Federated_OOP_Architecture.pdf

This technical solution will be tested in three pilot areas: cross-border e-services for business, company data updates and ship and crew online certificates. Six usage cases have been identified, within the scope of which the above-mentioned IT architecture will be implemented.

Pilot 1 Cross-border e-Services for Business

Under Pilot 1- Cross-border e-Services for Business the focus was placed on three thematic areas: public procurement, obtaining licences and permits for companies and company data. All three usage cases are analysed in terms of the implementation of IT architecture on a pan-European scale.

It is assumed that in the area of public procurement, and in particular the procurement above the EU thresholds, the TOOP solutions will facilitate the procedures related to contractors' compliance with the conditions for participation in the tender procedure. The infrastructure created in the IT architecture design will enable automatic completion of the ESPD (the European Single Procurement Document), which is one of the documents required to be presented by the contractor participating in the tender procedure. This will make the process of verifying documents

submitted by contractors participating in public procurement procedures quicker and easier.

The established TOOP infrastructure will also be used to facilitate the provision of cross-border licensing and authorisation services for companies planning to conduct business activity in a Member State other than their home country. Through the created IT architecture, business data will be automatically transferred from one EU country register to another without the need for retransmission by the entrepreneur. This will not only save costs and time, but will also improve data consistency.

Data and permits for companies are the third use case of the first pilot area for TOOP. In this case, TOOP solutions will make it easier for entrepreneurs to obtain approvals for doing business in other EU Member State which is not their home country. This applies to consents, authorisations, licences and other additional permits required to carry out already registered business activity in another EU country. Thanks to this solution, entrepreneurs will be able to focus more on economic expansion, while public administration will save time and costs.

Pilot 2 Update of company data

The thematic areas on which pilot 2 was focused are the data from the register of entrepreneurs and connections among registers for entrepreneurs.

Data from the register of entrepreneurs correspond to the first case considered in the scope of IT architecture implementation for TOOP. Ultimately, the IT infrastructure will ensure trouble-free use of public administration services of EU countries for entrepreneurs operating across borders within the EU. Automatic data exchange between the registers of public administrations of other Community countries will enable the economic units in question to carry out their business activities on a large scale.

The objective of the second use is to develop a 'notification system' which will electronically inform the public administration of EU countries about any changes in registers of entrepreneurs. Thanks to that entrepreneurs will not have to inform public administration in other EU countries about the changes concerning their companies.

3. THE ONCE-ONLY PRINCIPLE IN MARITIME DOMAIN

As indicated above, the objective of the TOOP project is a practical demonstration of the implementation of the cross-border once-only principle in three pilot areas. In view of the subject matter of this publication, the third pilot area, namely the implementation of the once-only principle in the area of information exchange between national maritime administrations will be discussed in detail below. The application of the once-only principle in maritime transport primarily concerns the elimination of the need to provide ship and crew certificates, which are currently issued and kept in the paper form by national maritime administrations. Ship and crew certificates are issued by various organisations, including Maritime Administration, a Recognised Organisation. According to International Maritime Organisation (IMO) Conventions, these certificates should be "available in its original form on board the ship on which the holder is serving". The ship owner and, in practice, the master of the ship thus acts as an intermediary between the certificate issuer and the entity that requires its presentation, i.e. the Port State Control Officers (PSCOs). We are therefore faced with a situation where the entrepreneur (in this case the ship owner) is charged with providing information that is already in the possession of the public administration. In this case PSCOs will be able to access the database of certificate issuers directly with the view to implementation of the once-only principle. This will eliminate the administrative burden imposed on ship owners due to the need to provide ship and crew certificates.

It is assumed that thanks to the implementation of the solution developed under the TOOP project, the following problems will be eliminated:

1. The need to deliver the same certificates by the ship at every entry to the port, an example of such a certificate is the Tonnage Certificate, which is used to calculate e. g. port receivables.
2. The Port State Control (PSCO) may not have sufficient time to inspect the certificates thoroughly during the stay of the ship in the port, which may increase the risk of maritime accidents.
3. Unauthorised certificates are not withdrawn from the market, which can lead to various abuses.
4. Paper certificates are easy to falsify.

5. Paper certificates are sent by courier service, which involves costs, and in extreme cases it may mean that the ship has to wait at the port for the delivery of the documents, which generates additional costs.

It is assumed that the technical solution implemented and tested under the TOOP project will be used in the following two use cases:

1. Online Ship Certificates
2. Online Crew Certificates

The idea of pilotage, planned for the implementation under the TOOP project, has been presented in the following figure. Thanks to the TOOP solution, Port State Control will receive electronic access to certificates coming directly from the database of their issuers.

Figure 3 shows the process model that will be piloted under the TOOP project.



Fig. 2. The concept for pilot Online Ship and Crew Certificates.

Source: Leontaridis L., Prentza A., Stasis A., Demiri L., Mitzman D., Ehastu M., Niinepuu D., Piswanger C.-M. John K., (2017). Pilot Requirements and Service Design (confidential).

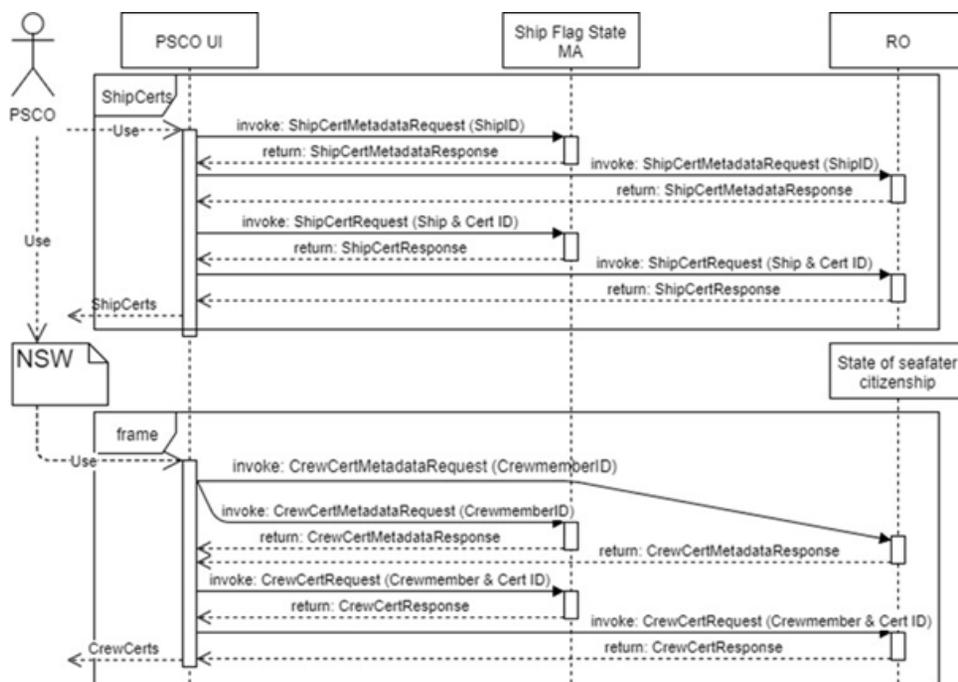


Fig. 3. The business process model for the Online Ship and Crew Certificate pilot use case

Source: Leontaridis L., Prentza A., Stasis A., Demiri L., Mitzman D., Ehastu M., Niinepuu D., Piswanger C.-M. John K., (2017). Pilot Requirements and Service Design (confidential).

In the case of a ship certificate, the final process will be as follows:

1. PSCO sends a request for the certificate of the concerned ship.
2. The request goes to the Flag State of the ship.
3. The Flag State (ship register) sends back the information on ship certificate. The information contains:
 - certificate data in XML or PDF format,
 - the Recognized Organisation (RO) list, which can provide additional data on the ship.
4. PSCO receives information on the certificate. If RO list has been provided, PSCO can also acquire data directly from the ROs.

As far as a crew certification is concerned, the implementation of the process includes the following steps:

1. PSCO collects a crew list from the National Single Window (NSW).
2. PSCO sends a request to the Flag State based on the crew members' ID number.
3. The Flag State (crew register) provides data which contain:
 - certificate data in XML or PDF format,
 - a list of other organisations that may provide additional information on the ship.
4. PSCO sends the request to the State of Crew Member Citizenship (crew register).
5. The State of Crew Member Citizenship (crew register) provides data which contain:
 - certificate data in XML or PDF format,
 - a list of other organisations that may provide additional information on the ship.
6. PSCO receives data on ship's crew certificates.

It is assumed that the implementation of the once-only principle in the scope of exchange of information on crew and ship certificates should bring the following benefits:

1. The reduction of the inspection time of PSCO on board of the ship by 1.5 h. By making the certificates available online, PSCO will be able to verify the certificates before the ship is inspected.
2. Improvement of maritime safety by giving ship crews more time to rest before leaving the port.
3. Time and cost savings for the ship's crew due to the absence of the need to provide the certificates.

4. Cost savings for the ship owner, as there will be no need to send paper certificates to the ship.
5. Limitation of the possibility of ship detention due to lack of certificates.
6. Reduction of the time needed for the Flag State to approve the crew by making the certificates available on-line.
7. Reduction of the risk of certificate falsification by ensuring direct availability of the data from the certificate issuer database.

The possibility of digitalisation of ship and crew certificates has been analysed for many years at both the European Union and International Maritime Organisation (IMO) level. However, the efforts made so far to digitise these certificates have been hampered by barriers stemming primarily from differing standards for electronic signatures. The technical solution developed under the TOOP project has for the first time created the possibility of electronic certificates, because it is based on making data available directly from the certificate issuer database, without the need to use electronic signatures.

4. BARRIERS AND OPPORTUNITIES TO IMPLEMENT 'THE ONCE AND ONLY PRINCIPLE' IN EUROPE

The previous part of the article outlines the benefits of implementing the once-only principle, based on the exchange of information on ship and crew certificates. However, we must be aware that the implementation of the once-only principle in Europe faces numerous barriers.³ These barriers can be divided into four main groups:

- (1) technical ones,
- (2) organizational and administrative ones as well as political ones,
- (3) legal ones,
- (4) demand-related ones.

Technical barriers to the implementation of the once-only principle stem primarily from the types of data that are exchanged between eGovernment systems in different EU countries. Four types of technical problems can be indicated:

³ Kalvet, T., Toots, M., Krimmer, R. (2017) Drivers and Barriers for OOP (1st version). Available at: http://toop.eu/sites/default/files/D27_Drivers_and_Barriers.pdf

- related to data (low quality, incompatibility, various models),
- related to databases (unclear ownership, fragmentation, security),
- related to interoperability (diversity of systems, semantics),
- related to ICT infrastructure (maturity of eGovernment systems in individual countries, availability of eServices).

The basic organizational problem is the need to change the functioning organisational structures in individual countries, which often also requires reorganization of business processes. Sharing the costs of a functioning system is also a barrier. The inertia of the public administration regarding the implementation of changes, and thus the low political will for initiatives related to the implementation of the once-only principle is also quite significant. It is also motivated by the low awareness of the benefits that this principle brings both for entrepreneurs/citizens and the public administration itself. There is also a strong concern among some countries about the exchange of data which are considered sensitive.

Legal aspects play an important role in the implementation of the once-only principle, as its primary objective is to ensure the exchange of data between public administration systems, while maintaining all applicable legislation. Despite the existence of a number of legal acts that promote interoperability at the European level (e. g. GDPR, Service Directive, eIDAS), there is a need to create the legal basis for the functioning of the once-only principle in the European aspect. The first step in this respect is the prepared Proposal for a Regulation on establishing a Single Digital Gateway, which directly indicates that “The regulation should support the use of the “once-only” principle for the purpose of the exchange of evidence between competent authorities in different Member States”⁴.

A barrier that affects all initiatives in the EU concerning the implementation of digital services of a cross-border nature is the low demand for digital services by citizens and entrepreneurs. This

problem also applies to the use of digital services based on the once-only principle in individual countries. The demand varies from country to country and it is affected by factors such as:

- the awareness of the benefits of implementing the once-only principle,
- the availability of digital services,
- the easiness of using digital services,
- ICT capabilities,
- the number of internet users.

5. SUMMARY

The document entitled *Study on eGovernment and the Reduction of Administrative Burden* indicates three ways to reduce administrative burdens in Europe: the implementation of ‘the once-only principle’, simplification and personalisation strategies, and digital-by-default strategies. The implementation of ‘the once-only principle’ should be the first step towards reducing administrative burdens, as this principle lays the foundations for the other two strategies. Without the implementation of ‘the once-only principle’, it will not be possible to simplify administrative procedures for citizens and businesses, nor will it be possible to digitalize them. Numerous measures are being taken in Europe to put ‘the once-only principle’ into practice, but they primarily focus on the implementation of this principle at the national level. For the first time, the TOOP project undertook to develop a technical solution that will enable the implementation of the once-only principle at the European (cross-border) level. What is important, this solution will be practically tested by the countries participating in the project.

The fact that implementation of the once-only principle is becoming a priority in the EU, as evidenced by the fact that this principle is included in the Proposal for a Regulation on establishing a Single Digital Gateway should be assessed positively. Combining the efforts undertaken at the European Commission level within the framework of proposed legislative initiatives and in the Member States under the projects such as the TOOP project should bring visible benefits for citizens and entrepreneurs in the near future. The scale of these benefits can be very huge, as is shown by estimates indicating that the implementation of the once-only principle in Europe could generate annual savings of €5 billion.

⁴ Proposal for a Regulation of the European Parliament and of the Council on establishing a single digital gateway to provide information, procedures, assistance and problem solving services and amending Regulation (EU) No 1024/2012. Available at: https://ec.europa.eu/info/law/better-regulation/initiatives/com-2017-256-0_en

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