



UN/FLUX CASE STORIES

UN Fisheries Language for Universal Exchange

The UN Fisheries Language for Universal Exchange Implementation (UN/FLUX) in Spain

The Reasons Why Spain Decided to Implement UN/FLUX

Spain has a large fleet with almost 9.000 fishing vessels which fish all in territorial waters but also in European waters and beyond such as in the Mediterranean, the Atlantic, Pacific and Indian Oceans. Spain is the main producer of fish in the EU, with more than 900.000 t annual catches. Reporting on these catches generates an average exchange of more than 40 fishing messages per minute or around 9 mio messages per year.

Both, the Spanish fishing fleet and its communication systems, have been in the forefront in terms of use of technology and modern and digital information systems with the main purpose to maintain its high level and position in the fishery sector.

Spain has realized that the development of a system of standardized electronic messages is a crucial precondition for establishing reliable data on catches and for the sustainable management of the fish stocks, avoiding complex, unreliable and unilateral exchanges. Thus, Spain gladly welcomed the obligation by the EU Regulation that all fishery messages shall be exchanged based on the UN/FLUX standard and has contributed to the implementation of this regulation.

Agency in Charge

The Spanish FLUX system is integrated in its Fisheries Monitoring Center (FMC), which

is located in the Subdirección General de Control e Inspección – SGCI- (Dirección General de Ordenación Pesquera y Acuicultura/Secretaría General de Pesca/Ministerio de Agricultura, Pesca y Alimentación).

Policy Officers (Coordinator & Technical Responsible for each domain) from the SGCI working together with IT experts belonging to a SGCI external contractor.

The Legal and Regulatory framework(s)

The standard UN/FLUX is applied within the scope of the Control Regulation (EU) Nº 1224/2009, its Implementing Regulation (EU) Nº 404/2011. The legal implementation documents correspond with each domain (with references and directly linked to the General Standard (FLUX BRS: P1000-1) and specific standards for each domain).

UN/FLUX implementation is an ongoing process. The continuous update and feedback from the fishing sector implies a continuity plan for considering all these changes in the implementation process, updating each business rule and the fishing information that must be exchanged in each condition and domain. Any kind of update in the fishing legal reference is linked to the feedback of the implementation process.



UN/FLUX CASE STORIES

UN Fisheries Language for Universal Exchange

The Phase of the Current Implementation.

The Spanish UN /FLUX domain has been implemented in the following extent (date of status: 28/02/2019):

ACDR ¹ -	100 % with the European Commission FLUX node (code XEU)
VMS 2.0 -	Based on transmitted volume: 88% Based on number of nodes: 40% (both EU & Non EU end nodes).
FLEET -	100 % with the European Commission FLUX node (code XEU).
Fishing Activities	Based on transmitted volume: 6% Based on number of nodes: 5%
Sales Notes	Based on transmitted volume: 17% Based on number of nodes: 14%

In referring to the UN/FLUX standard domains are per Figure 1 Spain has implemented the following domains



Figure 1 UN/FLUX standard domains²

ACDR	Aggregated Catch Data Report Message
VMS	Vessel Position Domain Messages
Fleet (Vessel)	Register of fishing vessels
Fishing trip/activity	Messages to fishing activities
Sales	Messages relating to first sale

As a Member State of the European Union, Spain is following priorities and deadlines established by EU: 1º ACDR 2º VMS, 3º FLEET, 4º FISHING ACTIVITY & SALE NOTES

The main factors have been the reassignment of business and IT experts to be fully engaged in the implementation

¹ Aggregated Catch Data report (ACDR)

² ToSSF/2019/INF.4





UN/FLUX CASE STORIES

UN Fisheries Language for Universal Exchange

process and the allocation of a budget to this project.

The implementation and roll out of the UN/FLUX system and the need to maintain in parallel the previous (old) exchange system was a restrictive issue that had impact on the human resources and budget that could be assigned to the UN/FLUX implementation.

In the EU framework, changing from bilateral connection (End Point to End Point) to a Star-like connections (with the EU as a central node) implies significant changes in the network and implementation process, increasing coordination efforts and business communications.

Timeframe of UN/FLUX Implementation

All data exchange domains are already operational and in production in the Spanish system (Vessel, Fishing Activities, Vessel Positions, Sales and Aggregated Catch Data Reporting). Spain is ready to start the implementation in those domains where European Commission and the European Fisheries Control Agency (EFCA) are drafting the corresponding implementation documents (Fishing Licenses and Electronic Inspection Reports).

In general, the implementation required for the implementation depends on the level of adaptation of the Spanish electronic systems gathering all fisheries information across all domains, the amount of messages to be exchanged, the frequency of this

exchange (monthly, daily, hourly...) and the complexity of the domain's implementation document: procedures to be implemented (reporting & query), number of entities/fields to exchange and business rules to verify the data quality. That said, the Spanish implementation process is "still ongoing and alive" since it is already foreseen to integrate upcoming new domains such as licenses and inspection reports in UN/FLUX and we will also strengthen already-integrated domains such as VMS Pull/QUE mechanism and increased of potential overload (burden of message exchanges).

Considering the case of Spain in particular, VMS was the domain which took the least effort in terms of development (1-2 months) because UN/FLUX came with an interface, the North Atlantic Format (NAF) Connector, which drastically sped up the process of relaying VMS traffic through UN/FLUX. In this case also, base requirements were minimal in favor of speeding up the number of exchanges between parties. In this domain, more developed EU requirements are coming into force during the next months (VMS QUE/Pull mechanism).

Fishing activities domain over FLUX took 18 months total, including 8 months the implementation part for two-way exchange interpretation (reporting of Fisheries Activities reports & query for Fisheries Activities reports) and verifications "business rules". On Business Rules there is still an implementation maintenance work





UN/FLUX CASE STORIES

UN Fisheries Language for Universal Exchange

to do, since business rules interpretation are discussed within the EU working group, adopting/consolidating new scenarios and legal requirements.

Sales Notes took also high efforts not only on adapting pre-existing systems to collect and verify all needed data and processes over the Spanish's distributed territorial competency but also on National normative/legal regulations (to allow certain data key elements to be collected and registered for traceability issues i.e. fishing trip's reference on all documents including transportation across the European Union).

Fleet domain had to tackle the high size of Spanish fleet files and the overload of FLUX TL software, as well as the transcription of national characters to the standards.

Spain has been struggling to meet the legal times and phases fixed by the European Commission and has complied with the legal deadlines established for each domain, despite all constraints mentioned above. The implementation of two-way exchanges and the business rules for the validation of the transmitted & received fishing activity & sales messages has taken longer time than originally expected.

Main Benefits of Using UN/FLUX

The establishment of a standardized electronic exchange of fishing data has very significant benefits for Spain. Considering the presence of the Spanish fishing fleet all over the world, the use of a

common approach in any fisheries data exchange with a single universal standard for all fishery stakeholders, minimizes complex exchanges and improves fisheries management.

In the EU context, changing from an individual and bilateral connection network (End Point to End Point) to a Star-like exchange architecture, centralized maintenance of operations and allowed for a control of the flows and monitoring of exchanges.

This results in more effective time for analyzing automatic and transparent data and, thus, enhancing the fight against illegal practices and improves the implementation of the Agreement on State Port Measures (PSMA) with third countries.

Figures and statistics on the use of UN/FLUX

As of now Spain started to exchange UN/FLUX messages in the vessel positions domain with a few parties and the EFCA and only with one party in fishing activity & sales domain, maintaining the "old" communication system with the rest of the parties.

Considering that only Ireland exchanges UN/FLUX messages with Spain in the Fishing Activity domain, the amount of fish (tons) covered by UN/FLUX is considered very low and only covers around 2% of Spanish catch of currently 126 fishing vessels. However, Spain reports its





UN/FLUX CASE STORIES

UN Fisheries Language for Universal Exchange

aggregated catch (ACDR) data through UN/FLUX to the European Commission.

Lessons learned about opportunities and challenges

Spain does recognize the importance that the implementation of UN/FLUX will have in the protection and sustainable management of the fisheries resources. Spain clearly sees the need to automatically access electronic data from fishing vessels (vessel ID and positions, fishing operations and fishing data). For that reason, the a global exchange standard such as UN/FLUX will result in direct environmental & socio-economic benefits, for example for coastal communities that rely on fisheries for economic development, livelihood and food security.

Spain is prepared to enter UN/FLUX data exchanges with all stakeholders and parties. Unfortunately, given the low proportion of parties currently exchanging messages based on this standard, we are not yet able to conclude any environmental and socio-economic improvement.

Link to the Sustainable Development Goals (SDGs)foo³.

As stated above, UN/FLUX will help in transmitting & receiving transparent and

real time effective fishing data. Thus, it will improve the control and surveillance of any illegal, unreported and unregulated (IUU) fishing and the uptake of fish stocks within biologically sustainable levels (SDG 14). It will assist in traceability of fish products as it integrates catch & sale data domain and, in the long term, will assist in a best consumption and production law enforcement (SDG 12).

Further Information

For further information on the UNECE Team of Specialists on Sustainable Fisheries, kindly navigate to:

www.unece.org/uncefact/unflux

³ UN/FLUX is directly linked to the SDG 14 (Life Below Water), namely Target 14.4, which focuses on ending illegal and illicit fishing and overfishing, and destructive fishing practices and implementing science-based management plans by 2020; SDG 12 (Responsible Consumption and Production), especially Target 12.2,

that focuses on achieving sustainable management and efficient use of natural resources; SDG 2 (Zero Hunger): FLUX helps to ensure that adequate animal protein will be available for the current and future generations, thus contributing to end hunger, achieve food security and improve nutrition

