Economic Commission for Europe

UNECE Executive Committee

Centre for Trade Facilitation and Electronic Business

UN/LOCODE Advisory Group
2024 meeting
Hamburg, 16-17 April 2024
Item 7 of the provisional agenda
Future work

Project Proposal on UN/LOCODE

Summary

The secretariat has extremely limited resources to support the activities related to UN/LOCODE and could not afford to re-engineer the entire UN/LOCODE system, which was developed almost two decades ago. In this context, the secretariat prepared a project proposal for fundraising to support the sustainable development of UN/LOCODE.

The secretariat submits this document to the 2024 meeting of the UN/LOCODE Advisory Group for information.

Project title and project number: UN/LOCODE Ecosystem Initiative
Expected timing/ duration: 2024-2026

Objective and brief summary of the project:

The United Nations Code for Trade and Transport Locations (UN/LOCODE) is an international standard, developed, maintained and managed by the United Nations Economic Commission for Europe (UNECE) as a flag-ship deliverable, to identify locations uniquely and unambiguously. It is a five-character code where the first two characters represent the International Organization for Standardization (ISO) country/territory code (ISO 3166-1) followed by a three-character code unique within that country.

UN/LOCODE is specified in the UNECE Recommendation No. 16 and the UN/LOCODE directory is released twice per year and published on the UNECE website free of charge. It has been used widely, not only for international trade and transport but also in other areas, such as maritime security, environmental protection and sustainable fisheries.

This initiative will not only involve the implementation of a robust and efficient ICT system for UN/LOCODE but also meet future expectations and sustainable development needs. The proposed project aims to facilitate the establishment of the UN/LOCODE ecosystem and its sustainable development, including:

- a new reengineered ICT system, covering the whole UN/LOCODE data lifecycle, to maintain, generate and publish the UN/LOCODE directory twice per year.
- an enhanced collaborative mechanism of the UN/LOCODE community, to ensure the governance and development of the UN/LOCODE standard, by revising the UNECE Recommendation No. 16 (Rec. 16) and clarifying the policy issues.
- Capacity building and knowledge transfer for a consistent and standardized application of Rec. 16
- Expansion of the use of UN/LOCODE

A fully functioning and sustainable UN/LOCODE ecosystem will contribute to supporting the following objectives:

A1. A new re-engineered ICT system for the UN/LOCODE maintenance and publication (UN/LOCODE application)

It focuses on the UN/LOCODE application re-engineering effort, including architecture design, system development, deployment and maintenance, to ensure long-term viability and relevance. It aims to fully be compliant with OICT Minimal Security Requirements for Public Websites of the United Nations and Access Control for the United Nations Secretariat ICT Technical Procedure.

Given the mission-critical nature of the task to the Member States and the UN/LOCODE user community, the current UN/LOCODE application was developed almost two decades ago, including three subsystems on different technical platforms:

1). Subsystem 1: the web-based online Data Maintenance Request (DMR) application
2). Subsystem 2: the collaborative DMR validation application
3). Subsystem 3: the Directory generation and publication application

Since then, IT systems, including cyber security needs have evolved considerably. This resulted in a situation where subsystem 1 was flagged by the Office of Information and Communications Technology (OICT) as non-compliant with UN cybersecurity requirements, and the rest of the application has not been audited. This was reflected in the UNECE Executive Secretary Compact assessment for 2021 as well as in para. 24 of UNLOCODE-AG/2022/INF.2. As a fundamental policy, any application failing to meet the ICT standards set by the OICT cyber security audit is strictly prohibited from operating within the UN ICT infrastructure and environment.

In addition to adhering to the UN cybersecurity standards, the revamped UN/LOCODE application should embody an integrated system crafted with contemporary technologies, catering to evolving business demands. This includes enabling real-time lookup capabilities through API integration.

A1.1. Develop a new UN/LOCODE application in alignment with UN/OICT best practices.
A1.2. Seamlessly integrate data between subsystems 1 to 3 to optimize information flow and accessibility.
A1.3. Execute comprehensive user acceptance testing to validate the efficacy and usability of the application.
A1.4. Implement APIs to update/disseminate UN/LOCODEs in real-time mode in line with the UN/LOCODE API technical specifications.
A1.5. Migrate data from the legacy application.
A1.6. Provide towards the system maintenance, enhancement and ongoing cost to host the UN/LOCODE application.

A2. An enhanced collaborative mechanism of the UN/LOCODE community

Since 1981, Rec. 16 has been revised four times. The latest edition was approved in 2020. Since 2017, the UNECE secretariat has established the UN/LOCODE Focal Point Network, including the National Focal Points nominated by governments and the Institutional Focal Point nominated by international organizations, and the UN/LOCODE Advisory Group, including its subgroups: the UN/LOCODE Maintenance Team, to validate DMRs, and the UN/LOCODE Task Force to address the policy issues.

To ensure the governance and development of the UN/LOCODE standard, led by the UNECE secretariat, all stakeholders of the UN/LOCODE community, including the groups mentioned above and the UN/LOCODE user community, work in a collaborative way to validate DMRs, update the UN/LOCODE directory on a regular basis, clarify the policy issues and revise Rec. 16 if necessary.

A2.1. Organize meetings for the UN/LOCODE Advisory Group for decision-making, policy advice and recommendations towards the further improvement of the UN/LOCODE ecosystem supporting future expectations, at least an annual meeting.

A2.2. Make ongoing efforts to expand the UN/LOCODE Focal Point Network and encourage the active engagement of Focal Points in the activities related to UN/LOCODE.

A2.3. Support the UN/LOCODE Maintenance Team to process DMRs through weekly maintenance meetings and address ad-hoc requests.

A2.4. Support the UN/LOCODE Task Force to coordinate, research and report its findings and recommendations to the UN/LOCODE Advisory Group.

A2.5 Conduct and coordinate the project team to revise Rec. 16 through the UN/CEFACT Open Development Process.

A3. Capacity building and knowledge transferring

We aim to enhance the usability, applicability, and impact of ECE Recommendation 16, thereby contributing significantly to the advancement of its objectives and the promotion of international cooperation, and harmonization in the respective domain.

A3.1. Organize six capacity-building and training sessions in different regions, with the user community and national focal points.

A3.2 Develop online tutorials and electronic training courses and publish them on the UNECE website.

A4. Expansion of the use of UN/LOCODE

UN/LOCODE plays a pivotal role in supporting sustainable practices within various sectors, including fisheries management and maritime transportation, by enabling effective monitoring and regulation of activities.

So far, there are four UN/LOCODE child codes used in different sectors and industries:

1) BIC Container Facility Code
2) IMO Port Facility Number
3) SMDG Master Terminals List
4) UPU International Mail Processing Centre Code

Besides international trade and transport, the use of UN/LOCODE has been expanded in other areas. For example, UN/LOCODE is key to implementing the FAO Agreement on Port State Measures (PSMA) and Global Record of Fishing Vessels, Refrigerated Transport Vessels, and Supply Vessels (Global Record), the FAO's initiative against illegal, unreported, and unregulated (IUU) fishing in line with the 2030 Agenda for Sustainable Development. It is under discussion to make the use of UN/LOCODE mandatory to identify PSMA-designated ports and to provide a solution with UN/LOCODE to identify small fishing ports for FAO Global Record.

A4.1 Conduct pilot projects for data interoperability between the UN/LOCODE application and other business systems through API, i.e. the IMO GISIS.

A4.2 Establish a dedicated subgroup under the UN/LOCODE Task Force to task a solution with UN/LOCODE to identify small fishing ports in support of FAO's initiative against IUU fishing.

A4.3 Execute research and analysis on trade statistics, and trends in data schemes related to the UN/LOCODE and report the findings and recommendations to the UN/LOCODE Advisory Group for decision.

A4.4. Establish a new subgroup under the UN/LOCODE Advisory Group on the sustainable development of the UN/LOCODE to provide ongoing technical guidance, support, and knowledge exchange of best practices.

Expected results of the project:

EA1. A new re-engineered UN/LOCODE application officially launched that addresses data quality, DMR validation and directory publication needs.

EA2. Expanded UN/LOCODE Focal Point Network; high-quality UN/LOCODE directory on time; revised Rec. 16

EA3. Effective UN/LOCODE capacity-building initiatives that foster knowledge exchange, share best practices and facilitate meaningful outreach efforts.

EA4. Solutions for sustainable fisheries; a pilot project of data interoperability between the UN/LOCODE application and the IMO GISIS; whitepaper on sustainable development of UN/LOCODE.

Target group and beneficiaries of the project:

Target groups include government officials from the Ministries of Trade, Transport and Maritime, UN/LOCODE Focal Points, experts from International Organizations, NGOs, Academia, and User Communities. Beneficiary countries are the UN member States.

Justification of the project and its relationship to the programme of work:
UN/LOCODE is a UNECE flagship product. The re-engineering effort of the UN/LOCODE application is intricately tied to our broader program of work due to its pivotal role in international trade facilitation. The current UN/LOCODE system developed nearly two decades ago, faces critical cybersecurity vulnerabilities, as highlighted by the OICT audit report. These vulnerabilities necessitate a comprehensive overhaul to align with the evolving IT landscape and adhere to the UN's stringent cybersecurity requirements. The proposed project addresses these concerns by implementing OICT-recommended best practices, enhancing application security, and ensuring compliance with UN standards. Furthermore, the project aligns with the UN's Sustainable Development Goals, particularly in supporting initiatives like the FAO Agreement on Port State Measures and the Global Record against illegal fishing. By integrating these functionalities and improving data lifecycle management, the re-engineered UN/LOCODE application will significantly contribute, to ensuring robust, secure, and efficient global trade operations in line with the United Nations' overarching objectives. The UN/LOCODE application will remain an important area as indicated in the Programme of Work 2022 – 2023 of the UN/LOCODE Advisory Group on the United Nations Code for Trade and Transport Location. (ECE/TRADE/C/CEFACT/2022/23).

Estimated total: $ 500,000