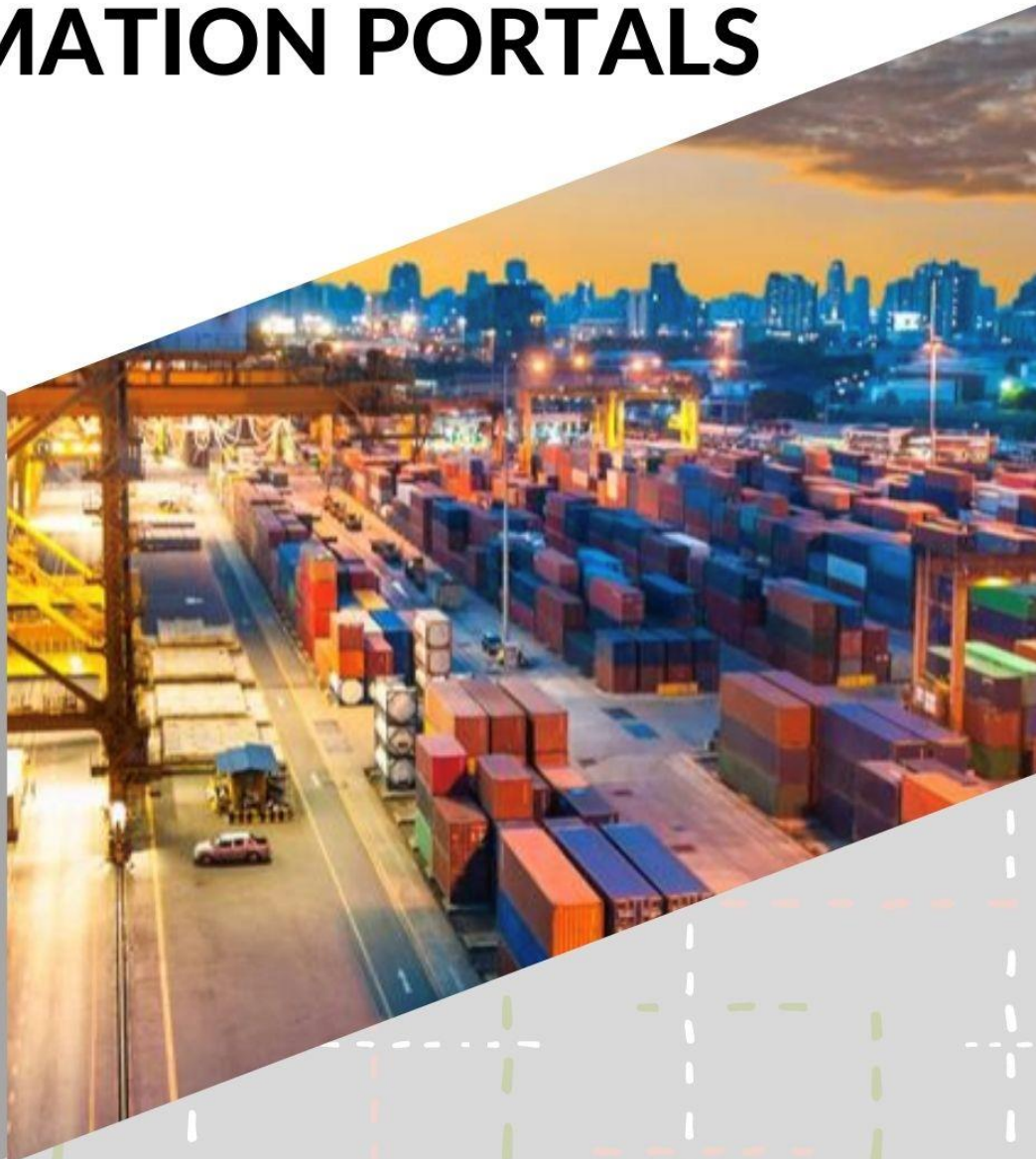


GUIDE TO ENHANCING TRADE INFORMATION PORTALS



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GUIDE TO ENHANCING TRADE INFORMATION PORTALS

Foreword

International trade requires traders to meet an array of regulatory requirements. To help traders obtain information related to such regulatory requirements, an increasing number of countries have developed trade importation portals (TIPs). A TIP is a website that publishes all trade regulatory information related to import, export, transit and trans-shipment of goods across borders of a particular country. While a TIP can provide a range of benefits, in particular regulatory transparency, keeping a TIP effective and sustainable poses certain challenges, including keeping the provided information up-to-date, complete, correct and consistent.

This Guide to Enhancing Trade Information Portals, developed by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) and International Institute for Trade and Development (ITD), in consultation with experts from governments and other international organizations, focuses on how to systematically enhance existing TIPs. It introduces a governance framework and guidelines on how to assess the current state of a TIP and generate recommendations for making it more effective and sustainable. The Guide also proposes measures to further advance TIPs in their services and functions, including providing reliable information in times of crisis, such as the COVID-19 pandemic.

It is hoped that this Guide contributes to improving the capacity of TIP operators in evaluating and generating recommendations for enhancing the effectiveness and sustainability of TIPs. It is recommended that users of this Guide also take the free e-learning course on enhancing TIPs to maximize the learning.



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The Guide was developed on the basis of the materials used in the Workshop on Enhancing National Trade Portals/Repositories (NTP/Rs), organized as part of the ESCAP-ARTNeT-ITD Online Course on Trade Facilitation for Sustainable Development. It greatly benefited from discussions and feedback from participants during the workshop, as well as from presentations by invited experts, including Pierre Bonthonneau and Victoria Tuomisto from International Trade Centre (ITC).

The Guide also benefited from reviews and comments by experts from international organizations, Governments, development partners and the private sector, including during a dedicated consultation session¹ held on 17 December 2020. UNCTAD and UNECE/CEFACT, including Bismark Sitorus, Kjartan Sørensen, Lance Thompson, Mary-Anne Egwunyenga and Bukola Omoniyi, made significant contributions. The members of UNNExT Advisory Groups on Trade Process Analysis and SME Trade Facilitation also provided valuable inputs, including Prabir De, Rajan Sharma and Sung Heun Ha. The inputs provided by Sok Kha, Kamrang Ke, Jose Siraj Murad and Samuel Bautista on the practical and operational aspects of TIPs based on their national experiences were extremely useful and appreciated.

Editing was done by Robert Oliver. The cover was designed by Yaoling Liu. Nattabhon Narongkachavana assisted in finalizing and formatting the Guide.

¹ <https://www.unescap.org/events/2020/consultation-draft-guide-enhancing-national-trade-repositories>

Executive summary

A Trade Information Portal (TIP) is a website that publishes all trade regulatory information related to import, export, transit and trans-shipment of goods across a country's borders. That information is normally consolidated from several regulatory agencies that perform trade control and facilitating functions. Its main users are comprised of importers, exporters or anyone involved in international trade. The TIP enables them to easily find and understand any requirements and procedures that must be followed to trade specific goods across borders.

Also referred to as a National Trade Portal (NTP) or a National Trade Repository (NTR), this type of portals is generally developed to enhance regulatory transparency and certainty for the private sector. Many countries have already developed some form of TIPs but their quality, completeness, relevance and effectiveness vary. The sustainability of the portals is also often questionable.

In light of these issues, this guide proposes a governance framework and guidelines that can be used for assessing the current (or "as-is" conditions) of an existing TIP and making improvements. The readers of this guide will learn how to evaluate and generate recommendations for enhancing the effectiveness and the sustainability of TIPs. The proposed framework and guidelines address the following three groups of critical success components.

1. Contents and services

An effective TIP must deliver high-quality contents and services. The contents in this type of portal must be accurate, timely, consistent, complete and useful to the target users, particularly traders and other actors along international supply chains. A TIP should also offer supporting services (i.e., features and functions), with good performance, which facilitate the delivery of the high-quality content.

2. Government process

Delivering high-quality content depends on an effective governance process. A TIP's ongoing operation and services must be managed. In addition, the governance process should allow for the systematic improvement of content via a plan-do-check-act (PDCA) improvement cycle based on quantitative metrics of TIP performance. This includes several key activities: planning; consolidating of contents from different regulatory agencies and publishing them on the TIP; providing on-going operations and services; evaluating and measuring the impact of services and contents, and continuously improving them.

3. Governance structure

There are at least four critical factors necessary for an effective and sustainable TIP governance structure. First, there must be strong leadership, preferably in the form of a high-level mandate. This political will must then be turned into routine management, especially by establishing an inter-agency collaborative platform to coordinate work among different regulatory agencies and engage the private sector in gathering and improving the TIP's content. A strong lead agency should also be officially mandated to take charge of managing and coordinating the work of the TIP platform. A capable team and resources, including an appropriate budget; and IT infrastructure and tools, especially under the lead agency must also be secured.

Within this framework, a TIP Maturity Roadmap Model (MRM) for highly effective TIPs is developed to further guide TIP management in progressing from one maturity level to the next, i.e., maturity level 0 up to level 5. Maturity level 5 indicates that the governance

structure and process for the TIP to deliver high-quality contents and services has been institutionalized, and coupled with a defect detection and prevention mechanism. At that level of maturity, technological and work process innovation must also be built into the TIP organizational structure.

This guide also proposes measures to further advance TIPs in their services and functions. A TIP can be expanded to cover regulatory requirements about trade in services and e-commerce, not just about trade in goods as in most typical TIPs. Other possible enhancement includes services and information about related news, trade statistics, and special requirements to facilitate trade in time of crisis e.g. in case of COVID-19 pandemic. Emerging technologies, especially artificial intelligence, could offer enhanced services, such as providing intelligent guidance to users on which agreements they should use to trade a particular product with a given trade partner. It should be noted that evolution of a TIP should depend upon the needs of target users and the context of each individual country.

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Abbreviations and acronyms

AHTN	ASEAN Harmonized Tariff Nomenclature
AI	artificial intelligence
AMS	ASEAN Member States
APEC	Asia-Pacific Economic Cooperation
APIs	Application Programming Interfaces
ARISE	ASEAN Regional Integration Support by the European Union
ARTNeT	Asia-Pacific Research and Training Network on Trade
ASEAN	Association of Southeast Asian Nations
ATIGA	ASEAN Trade in Goods Agreement
ATR	ASEAN Trade Repository
BIS	Bureau of Import Services
BPA	business process analysis
BPI	business process improvement
CAEC	Committee on ASEAN Economic Community
CMM	Capability Maturity Model
CMMI	Capability Maturity Model Integration
COVID-19	Corona Virus Disease 2019
DTI	Department of Trade and Industry
ESCAP	United Nations Economic and Social Commission for Asia and the Pacific
FAQ	frequently asked questions
GDPR	General Data Protection Regulation
HS	Harmonized System
ITC	International Trade Centre
ITD	International Institute for Trade and Development
MFN	most favoured nation
ML	maturity level
MOA	Memorandum of Agreement
MRM	Maturity Roadmap Model
MSMEs	micro, small and medium-sized enterprises
NTFC	National Trade Facilitation Committee
NTP	National Trade Portal
NTR	National Trade Repository
NSW	National Single Window
OCR	optical character recognition
PDCA	plan, do, check, act
PNTR	Philippine National Trade Repository
QA	quality assurance
QC	quality checks
Q&A	questions and answers

SASEC	South Asia Subregional Economic Cooperation
SEI/CMU	Software Engineering Institute of Carnegie Mellon University
SMEs	small and medium-sized enterprises
SPC	statistical process control
SPS	sanitary and phytosanitary
WTO TFA	World Trade Organization Trade Facilitation Agreement
TIP	Trade Information Portal
TMRM	TIP Maturity Roadmap Model for Highly-Effective TIPs
TOR	Terms of Reference
TRGAs	Trade Regulatory Government Agencies
TWG-PN	Ad-Hoc Technical Working Group on PNTR
UN/CEFACT	United Nations Centre for Trade Facilitation and Electronic Business
URL	uniform resource location
USAID	United States Agency for International Development
WB	World Bank
World Bank IFC	World Bank International Finance Corporation
WTO	World Trade Organization

1. Understanding the objectives and challenges of TIPs

This section introduces the primary scope and objectives of a TIP, and the benefits that come from its improvement. The significant challenges faced by a TIP in consolidating information from so many different sources, and making it effective and sustainable, are also discussed.

1.1 What is a TIP?

A TIP is a website that publishes all trade regulatory information related to import, export, transit and trans-shipment of goods across borders of a particular country. It is designed to make compliance with international trade regulations of a country as easy as possible by collecting all the regulatory information that may be relevant to a trader in one accessible location. The information available is typically about trade-related procedures, required regulatory documents and forms, restrictions and prohibitions, tariffs etc.

A Trade Information Portal (TIP) is an information resource provided by Governments to traders in order to obtain, from one single source, all the information that importers or exporters in a given country may require in order to comply with their regulatory obligations in relation to all the government agencies that control export, import or transit business...” – World Bank, *Developing a Trade Information Portal, 2012*.

A Trade Information Portal (TIP) is a website that aggregates and publishes all trade related regulatory information originating from the government agencies that perform control functions in relation to imports, exports, transits or trans-shipments. It allows importers, exporters or anyone involved in international trade to easily find and understand any legal requirements and procedures pertaining to specific commodities that are necessary to comply with national obligations for clearing goods at the border as well as before or after clearance. – UN/CEFACT, *Recommendations, Guidelines for Establishing a Trade Information Portal, 2020*.

One important feature of most portals is a search function that returns, for example, the trade procedures for given goods. The users should be able to select whether they are interested in import, export or trans-shipment procedures for specific goods. The search results then include information about trade-related regulatory procedures, required documents and forms, restrictions and prohibitions, and tariffs.

The Tajikistan Trade Portal is especially comprehensive when it comes to trade procedures and search options as shown in figure 1. Figure 2 shows a screen shot of Thailand’s National Trade Repository (NTR), at <http://thailandNTR.com>, as another example. Here, information is organized in tabs at the top of the page, including one for procedures and documentary requirements. The user can select different procedures, and some general information will be given, including flow charts describing regulatory procedures. However, this information is not goods-specific. Thailand’s NTR also has additional features, such as showing information about relevant administrative and court rulings, which can be searched by organization or Harmonized System (HS) code and other text descriptions as searching key words.

Figure 1. Screen capture of the Tajikistan Trade Portal (tajtrade.tj)¹³

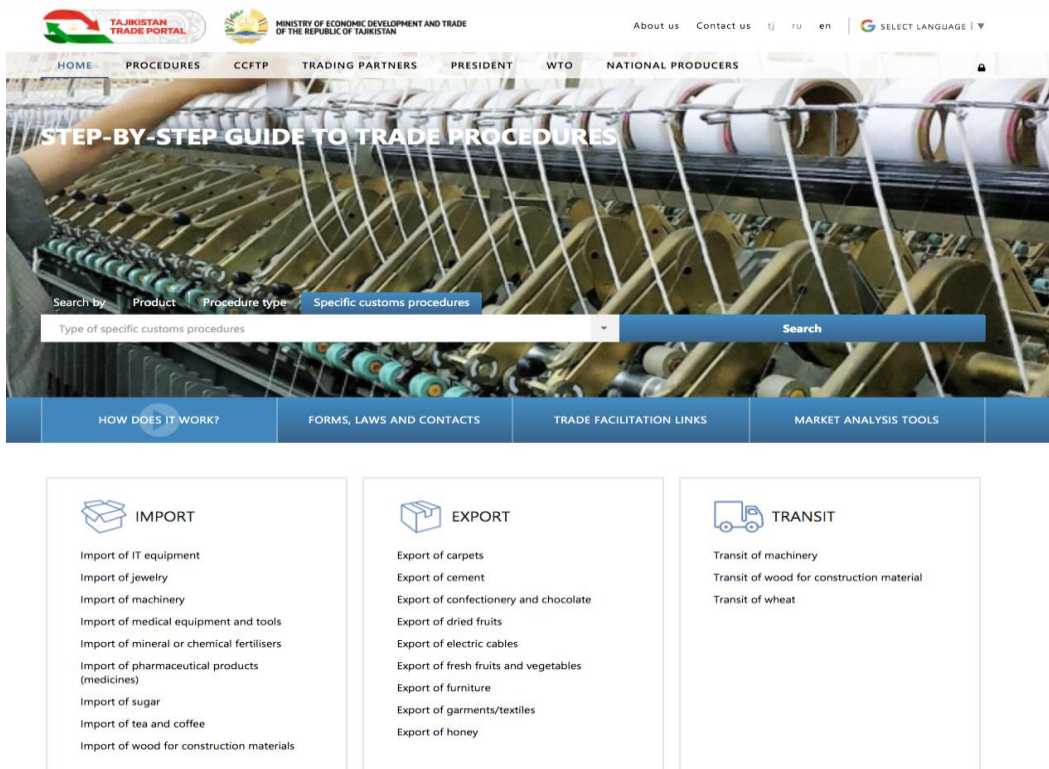
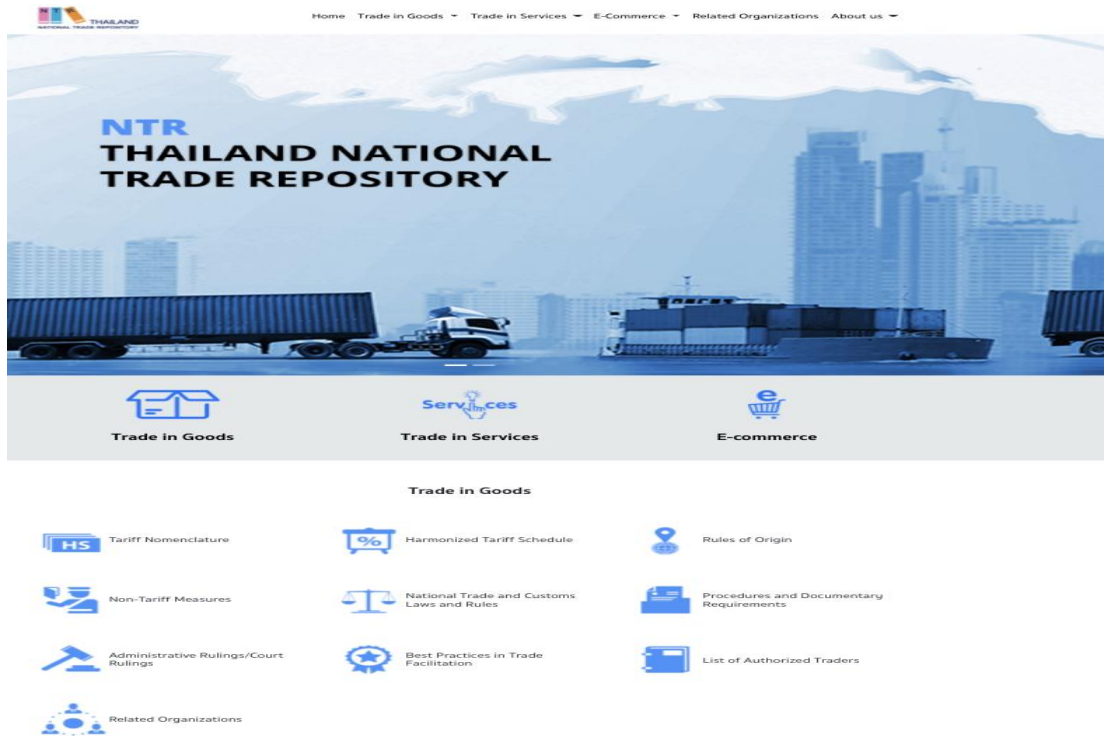


Figure 2. Screen capture of the Thailand National Trade Repository (thailandNTR.com)¹⁴



¹³ Accessed in early 2021

¹⁴ Accessed in early 2021

There is currently a fair degree of variance between TIPs in terms of the information they provide. Examples of more enhanced information provided on some portals includes, information about preferential trade agreements affecting particular goods, as well as import/export statistics which help firms make business decisions. Suggestions are made in this guide of what should be included, but we do not intend to be prescriptive. Appropriate content ultimately depends on the needs and context of each country's individual environment.

While most TIPs are country-level, there are some regional portals. For example, the European Union has established a "Trade Helpdesk¹⁵" for importers and trans-shipments. It also has a separate "Market Access Database" that covers exports, although these are currently being combined into the "EU Access2Markets Database". In contrast, each of the 10 ASEAN member states has developed its own national trade website, but this is paired with the "ASEAN Trade Repository", which allows these portals to be jointly searched by traders.

The "National Trade Repository (NTR)" is the terminology used among ASEAN members, while the term "TIP" is used in the literature of the World Bank and most other international organizations. In this guide, the term "TIP" will be used, but the concept discussed for TIPs are applicable for NTRs also.

1.2 Challenges

TIPs are seen as useful instruments for trade facilitation. The WTO Trade Facilitation Agreement (TFA) Article 1 on Publication and Availability of Information obliges countries to establish an information platform similar to a TIP, and most countries by now already have one. However, the quality of these portals varies widely. Some countries have comprehensive information laid out in an intuitive format that gets updated regularly (e.g., Tajikistan's trade portal at <http://tajtrade.tj>). Many others may not be as advanced. Some have inaccuracies or are inconsistent with other official sources. In fact, even the advanced portals do not include all the useful features the traders might expect. One of the major objectives of this guide is to describe how to evaluate the as-is conditions of a country's TIP and generate recommendations for improvement, including by demonstrating how countries' portals can be compared and good practices spread between them.

Several TIPs are not very advanced in providing quality contents or features and functions expected by the target audience, especially traders. TIPs face a major challenge in ensuring users can trust that the regulatory information they provide is accurate and complete, especially with respect to the traders' legal obligations. But that information originates in a range of government agencies, usually including the Customs Authority, Ministry for Trade, various regulatory agencies and others, which can lead to a diffusion of responsibility for managing the TIPs and make it hard from a governance perspective to consolidate all the needed information. Instead, such information is often provided in different silos, dispersed across several government websites. Even if it were to be compiled, overlapping authorities can lead to inconsistencies that require some centralized conflict resolution mechanism to resolve. Moreover, once it is established, a TIP must be maintained, with timely updates when procedures, regulations and tariffs are changed. The complicated regulatory information available from the TIP must also be organized in a way that can be easily understood by and is useful to the targeted audience.

¹⁵ <https://trade.ec.europa.eu/tradehelp/>.

The challenges in making a TIP effective and sustainable can be summarized as: low quality content that is difficult to understand and engenders mistrust by traders; difficulties in continuously coordinating government agencies and the diffusion of responsibility; lack of ongoing adequate resources, including funding, personnel and technical expertise; conflicting authorities; and information in different silos.

1.3 Objectives

However, if these challenges can be overcome, then a TIP can provide a range of benefits, especially in improving transparency. TIPs are designed to reduce the time, effort, uncertainty and cost for traders to access regulatory information. This can be especially useful for small or marginalized businesses that may otherwise struggle with the intimidating process of accessing foreign markets. These are also the sectors in which female entrepreneurs are typically concentrated in developing countries¹⁶, creating an opportunity to meet the United Nation's sustainable development goals (SDGs).

Aggregating trade information from many regulatory agencies can also be very useful for business analysts and policymakers responsible for understanding and identifying bottlenecks in trade procedures. This type of unified source makes it far easier to understand current practices, especially regarding how different agencies' practices interact – and therefore make it easier to suggest simplifications.

Transparency also promotes accountability, by making the Government's regulations readily available for all to see. As Internet adoption continues, the benefits of providing online assistance to traders will only grow. This is especially true in trade, where digital platforms can overcome the long distances between business participants. TIPs therefore seem set to become a major feature in most modern trade facilitation strategies. But this promise depends on their continuous enhancement, and on keeping them as user-centric, effective and sustainable as possible.

¹⁶ Practical Strategies and Measures in Incorporating Gender Dimension in Trade Facilitation Yumiko Yamamoto Associate Professor, Okayama University, Japan, 2020 - <https://www.unescap.org/sites/default/files/Day%2016%20Practical%20Strategies%20and%20Measures%20in%20incorporating%20Gender%20Dimension%20in%20TF%20by%20Yumiko.pdf>

2. Adopting a framework for effective and sustainable TIPs

This section proposes a framework to be used as a roadmap for establishing and continuously improving a TIP. In this, it emphasizes the qualities that a TIP's content must possess, and the governance structure and process required for an effective and sustainable TIP. It is noted here that this framework does not aim to provide a one-size fit-all solution but rather a generic model that can be adapted for each individual country's environment and needs.

Basically, TIPs should include all the information that all the actors along international supply chains need, in order to fulfill their regulatory obligations for trading with a given country. This information should include clearance of goods for import, export or transit.

First, an important qualification should be made when referring to a TIP as an information website. The term "website" may create the illusion that a TIP is just a one-time website development project. On the contrary, establishing and sustaining an effective TIP is about a long-term challenge which requires a long-term commitment.

It needs strong high-level political will, a capable lead agency and good cooperation from all relevant regulatory agencies to harmonize and continuously consolidate regulatory information, as well as ensure appropriate quality and improvement over time. Achieving this type of cooperation requires a clear mandate being assigned to a specific lead agency to take responsibility for managing the TIP. A strategic directive should be established to mandate each government agency concerned to act as an information facilitator for businesses and citizens.

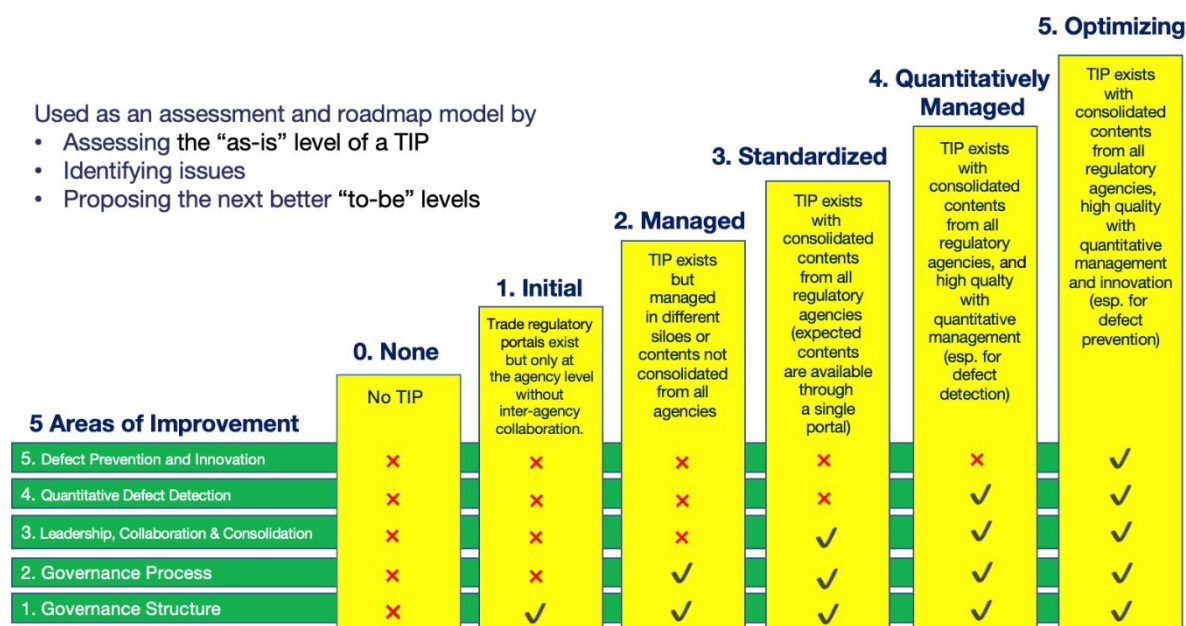
2.1 TIP Maturity Roadmap Model (MRM)

The maturity of TIP governance varies widely between countries. In some countries, some forms of information portals may exist, but a national-level trade information portal may either not be in place or needs to be improved. It is more common that trade information is already available on the Internet, but perhaps in different silos - scattered among different websites hosted by various government agencies. An attempt should therefore be made to consolidate that information into a common portal.

More developed TIPs may be mostly consolidated, but the available information is incomplete, incorrect or out-of-date. Many countries have made commendable efforts in gathering the needed information from regulatory agencies, but have encountered some difficulty that prevents them from making their TIPs comprehensive, relevant and useful to traders. In several cases, even if all the needed information has been gathered, there is still a need for improvement.

These stages of maturation can be represented by the Capability Maturity Model (CMM), as initially developed by Software Engineering Institute of Carnegie Mellon University. As figure 3 shows, the proposed TIP Maturity Roadmap Model (MRM) offers six maturity development levels for a TIP, from maturity level 0 to maturity level 5. The MRM can be used as an assessment tool as well as a development roadmap for further enhancing a TIP.

Figure 3. TIP Maturity Roadmap Model for effective and sustainable TIPs



Maturity Level 0 (none-existent level) indicates that no trade regulatory information portal exists, even at the agency level. However, this is quite rare as most government agencies (including those responsible for trade) already publish their regulatory information independently, even if no formal TIP project exists in their country.

Maturity Level 1 (initial level) means that regulatory agencies separately publish trade-related regulatory information without inter-agency cooperation or a formal effort to consolidate regulatory information into a single portal.

Maturity Level 2 (silo-managed level) means that the regulatory contents have been consolidated from several, but not all, relevant regulatory agencies, and then published in a consolidated web portal. In some countries, multiple websites may be developed and managed separately to consolidate information from different government agencies, which means different silos of information still exist at this stage of development. Therefore, users may still need to look at several portals in order to find their required information.

Maturity Level 3 (national standardized level) means that all regulatory information from all relevant agencies has been aggregated and published in a single, national-level portal, making it easily accessible for traders and other users.

Maturity Level 4 (quantitatively-managed level) means that the TIP possesses all the characteristics of Maturity Level 3, with the additional capability of using quantitative management¹⁷ for (a) managing, (b) consolidating/publishing, (c) operating, (d) evaluating/measuring, controlling and improving the quality of the contents, working processes and services provided by the TIP.

¹⁷ The quantitative approach to management involves the use of quantitative techniques, such as statistics and information models, to improve decision-making (Chrissis, Konrad and Shrum, 2011).

This involves establishing quantitative metrics for several quality attributes of the TIP’s content, notably covering its accuracy, usefulness and completeness – e.g. how often is the published content reviewed and updated, and the percentages of regulatory information from each involved regulatory agency consolidated and published in the TIP. These metrics must be integrated into the TIP’s working processes to facilitate continuous improvement. Specifically, a defect detection mechanism for systematically or automatically measuring and detecting any defects in the quality of the contents and services must be established for the TIP.

Maturity Level 5 (optimizing level) means that the country’s TIP, with all key characteristics of Maturity Level 4, has the additional capability of systematic and continuous improvement for higher quality of its contents and services, especially with defect prevention enabled by technology and process innovation.

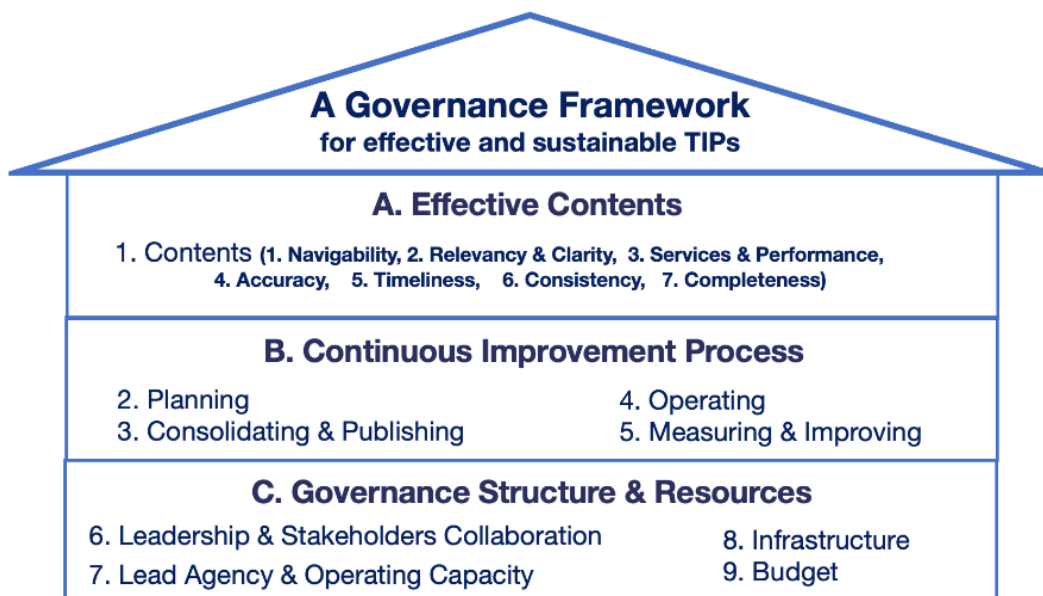
Specifically, a defect prevention mechanism must be established. It must have the ability to analyze root causes of defects in the contents and services, and then be able to resolve the root causes, using technology and process innovation to increase the quality and impacts of the TIP. Regularly and systematically receiving feedback related to the quality of contents and services from the private sector and all relevant agencies is one of the working processes that should be coupled with quantitative measurement and continuous improvement mechanisms. Essentially, this level of maturity is not a static state – instead it is about ongoing continuous improvement by having the capacity to effectively innovate itself including in the governance process.

A more detailed description of this MRM is given in section 6.

2.2 Critical success components

To support the above maturity model, this framework also offers nine critical success components, categorized into three groups, and describe the critical factors for making a TIP effective and sustainable.

Figure 4. Nine critical success factors for effective and sustainable TIPs



As figure 4 shows, the first group is about “Effective Contents” expected to be available in a TIP. There are seven quality attributes of the contents and services that should be offered. These quality attributes are:

- (a) Navigability/Accessibility – how easy it is to access the information/contents as requested or expected by the traders/users;
- (b) Relevancy/Clarity – how relevant the content is to the needs of traders (relevancy), the ease with which the contents can be understood (or understandability);
- (c) Services and Performances provided by the portal;
- (d) Accuracy – the accuracy of the information;
- (e) Timeliness – how quickly the information is updated whenever the regulatory requirements are changed;
- (f) Consistency – the information provided is consistent with the information accessible from other official sources;
- (g) Completeness – the available information consolidated from all regulatory agencies covering all relevant trade regulatory information.

The second group concerns the “Continuous Improvement Process”. This includes key activities such as planning, consolidating and publishing the contents and services, operating and measuring/improving processes to make the TIP continuously more effective. It includes coordinating and consolidating processes for getting updates from the relevant agencies regarding any regulatory changes, operating processes and services like users’ feedback or helpdesk, measuring the TIP’s performance, and improving process. An effective and sustainable TIP requires a governance process that is not only capable of accurately, completely and consistently capturing or consolidating the as-is conditions of trade regulations, but also identifying gaps and issues as well as implementing recommended improvements. This should be practiced as an institutionalized system of continuous improvement, which is similar to the plan-do-check-act (PDCA) management concept¹⁸, which has been adopted by many industry and business sectors.

The third group of critical success factors covers “Governance Structure and Resources”. This has to do with making sure a TIP has a high-level policy mandate and leadership, strong inter-agency/stakeholder collaboration and strong management. It also includes practical aspects such as making sure that infrastructure/tools, adequate budgets, and a good management and operating team are secured by a capable lead agency.

The following sections elaborate further on this framework, especially how all these seven quality attributes of the contents can be measured and improved.

¹⁸ Shewhart, W. A. (1986). *Statistical method from the viewpoint of quality control*. New York: Dover. ISBN 978-0486652320. Reprint. Originally published in 1939, Washington, D.C.: Graduate School of the Department of Agriculture.

3. Consolidating and publishing effective contents

This section describes in more detail the contents that are expected to be available on a TIP. Expected contents will be effective and useful if they are of high quality and relevant. Key quality characteristics expected from an effective TIP include, for example, accuracy, completeness and usefulness. This section discusses those quality attributes and how to evaluate or measure them, as well as using benchmarking to generate ideas for improvement.

3.1 Expected contents

Because many quality attributes are qualitative in nature, one of the assessment methods will rely on formalized expert reviews. This can involve several domain experts scoring a TIP on a scale – for example, a 6-point or 10-point scale – for the different “quality attributes” outlined in the previous section. The subjective scores given by different evaluators can then be consolidated by, for example, averaging or consensus. Additionally, scores should be compared to the scores given on the same aspects to other “benchmark” TIPs. The TIPs that are scored are used to gain some idea of the relative standing of the TIP under assessment. In order to make such a comparative analysis, the type of contents that should actually be presented in a TIP need to be specified.

When comparing several TIPs, it will be noticed that there is a fair amount of variation in the information presented. Most TIPs have a product name or HS-code-based search engine that allows users to find regulatory procedures and tariffs about specific goods. Most also include lists of levies, exemptions from trade agreements and forms for customs clearance. Other features exist only on some TIPs. For example, some TIPs present import and export statistics to help firms make business decisions, and the ASEAN NTRs include a special section on non-tariff measures.

This guide advocates using checklists of recommended contents. As shown in table 1, this section first covers two checklists of expected contents based on a UN/CEFACT guide to establishing trade information portals.¹⁹ The first list is related to general aspects of trade regulations, such as (a) the necessary forms for permits, certificates and customs operations (b) links to relevant sites and agencies, (c) references to the legal basis of those regulations, (d) penalty provisions and (e) lists of codes. The second list includes information related to dealing with generic and specific products, such as the practical procedures for product-specific customs clearance, associated fees, technical standards that may apply differently to different goods and how to fulfill them, preferential tariffs and so forth. Many of these measures depend on appropriate classification, so the rules for goods classification and customs valuation also need to be explained. Many TIPs present this type of information as part of their product search functions. Although these two checklists are by no means exhaustive, they represent the contents mostly expected to be available in any useful TIP.

¹⁹ For a more comprehensive description, refer to the UN/CEFACT (2020) guidelines on establishing trade information portals.

Table 1. Lists of recommended contents in a TIP

Expected contents as related to general aspects
A1. Laws, regulations, decrees, instructions, notifications and any other legal instruments relating to trade.
A2. Forms and/or electronic messages used to apply for permits, licences, customs clearance etc.
A3. Information on how to connect to governmental electronic systems related to international trade, e.g., a Single Window, individual ministries and other regulatory agencies.
A4. Penalty provisions for breach of formalities.
A5. Procedures for appeal or review.
A6. Notifications or guidance notes.
A7. Lists of codes required in various documents, e.g. country codes, units of measurement, currency codes etc.
Expected contents related to generic and specific products
B1. Procedures comprising the practical steps for discharging regulatory obligations with customs authorities and other regulatory agencies, including those required by a Single Window, where applicable.
B2. Commodity/goods classification in the format used by each country (most countries have adopted the Harmonized System format) and associated tariff rates.
B3. Fees and other charges associated with each commodity, goods or regime.
B4. Preferential tariffs or special requirements for trading with countries that are parties to a Trade Agreement or Free Trade Agreement, or other forms of preference.
B5. Rules for the classification of products for customs valuation purposes.
B6. Special measures applicable to specific commodities or products, e.g., quotas, exemptions, prohibitions or restrictions for sanitary/phytosanitary (SPS) or other reasons.
B7. Non-tariff measures such as requirements for obtaining a license, permit, certification, registration, submitting to an inspection or testing, or other procedures.
B8. Technical standards required for specific categories of products, either mandatory (technical regulations) or recommended.
B9. Information on advance rulings that may be made publicly available.

3.2 Expected quality

As figure 4 shows, the contents available on TIPs should possess at least seven “quality attributes”. These attributes comprise the characteristics of the contents that should be evaluated when assessing their as-is conditions, and then to be able to propose to-be improvement recommendations. Some ideas for evaluation and measurement are offered in more detail are:

- **Navigability/Accessibility (Ease of access):** This is about how easy it is for a user to find the content he/she is looking for and how long does it take; how many mouse clicks it needs; how many pages must be navigated; and how intuitive it is of that navigation. Many of these aspects are related to the ergonomics or how user-friendly the TIP website is.
- **Relevancy/Clarity (Ease of understanding):** Once the information is found, how easy it is to understand, how relevant is it to traders’ needs, and how well it is presented, written, and explained.
- **Accuracy:** How accurate is the information? Inaccurate information can be a major problem for traders, especially when dealing with legal obligations.

- **Services and performance – usefulness and performance indicators:** This covers various services a TIP may offer for navigating or accessing its contents (e.g., the search functions or FAQs). The technical performance of a TIP website e.g., loading speed and number of visitors²⁰, are also included in this category.
- **Timeliness/up-to-date:** How often is the information updated?
- **Consistency:** The information published on the TIP should be consistent with the information given by other government sources.
- **Completeness:** Whether a TIP includes all the necessary information from all regulatory agencies, and in enough detail to enable a trader to understand and fulfill their obligations.

To enable the evaluation of most of the quality attributes mentioned above – especially accuracy, timeliness, consistency and completeness – some key baselines and necessary mechanisms must be investigated and established. For example, the total number of relevant regulatory agencies of the country must be known. Knowledgeable domain experts or authoritative representatives from each of those agencies must actively participate in the TIP working process to establish authoritative baselines – e.g., establish or judge whether all, or what percentage, of regulatory information from a particular regulatory agency have been aggregated and published on the TIP. These issues are examined further in Section 6.

3.3 Assessing navigability and relevancy/clarity

This section discusses how to evaluate the “ease of access” and “ease of understanding”. The remaining indicators are discussed in the subsequent sections. Please note that relevancy is a quality attribute categorized together with clarity (ease of understanding) in this guide due to their linkage. However, relevancy can be evaluated as a separate quality attribute, if it is considered as an important attribute in the context of a specific TIP. If decided to assess relevancy, it can be assessed in a similar way as proposed for ease of access and ease of understanding as elaborated in this section.

There are a few things to note on these quality attributes that this guide is attempting to evaluate. First, some attributes can overlap in their meanings and contexts. For example, for users with limited time, not being able to find or access certain information (poor navigability) is indistinguishable from that information simply being unavailable (incomplete). The second important note is that most of these attributes are very qualitative or subjective in nature. It is quite difficult to come up with any objective numeric measure of how easy it is to find or understand some pieces of information. Therefore, evaluation of these quality attributes depends very much on the subjective perspective of the evaluator. From these observations, it is necessary to use one’s reasonable judgement when evaluating, e.g., the accessibility and understandability of the contents presented in a TIP.

In addition, it is strongly recommended to use a team of relevant domain experts, each of whom conducts the following assessment and whose results are then combined. Such reviewers may include a mix of representatives from competent government agencies and private sector actors. The latter are especially important for ensuring that evaluations correspond with the needs and perspectives of traders. Given the goal of promoting inclusive growth, having a diverse team of evaluators is enormously beneficial.

²⁰ For example, the number of hits for each web page.

As stated at the beginning of this section, a 6-point score could be used to quantify the assessment. Here, quality attributes of the content of a TIP may be evaluated by reviewers with scores ranging between 0 and 5 for “Ease of access” and “Ease of understanding” – where 5 means excellent, 1 means very poor and 0 means non-existent or unusable) with the following criteria.

Navigability/Accessibility (Ease of access) means the ease with which a user can find the content he/she is looking for. It can be evaluated subjectively by each individual reviewer, but with a specific quantitative scale, e.g., with a 6-point scale:

- 0: Extremely difficult or not available at all.
- 1: Very difficult to find.
- 2: Somewhat difficult to find.
- 3: Easy to find.
- 4: Very easy to find/gain access to.
- 5: Extremely easy/very fast to find the information that the user needs.

Clarity/Understandability (Ease of understanding) means the ease with which a user can read and understand the content, or the user-friendly level of the content. Each reviewer can evaluate it with the following scale:

- 0: Extremely difficult to understand.
- 1: Very difficult to understand.
- 2: Some difficult to understand.
- 3: Moderately easy to understand.
- 4: Very easy to understand.
- 5: Extremely easy to understand.

Each reviewer can use subjective judgement in evaluating and measuring each quality with scores that could, of course, be different from other reviewers. However, it could be fair and applicable when the subjective judgement of each individual is consistent when evaluating and measuring the same quality aspect offered on different TIPs.

This section provides a table in which these scores can be entered.

We recommend evaluating several TIPs in addition to the one under assessment. Such “benchmark” TIPs can be used as a point of comparison for scores and as inspiration in later brainstorming sessions for generating recommendations.

Once assessments are complete, the scores of different evaluators are consolidated, for example, by arithmetically averaging. Additionally, there should be multiple sessions of brainstorming among reviewers in order to consolidate the findings, including benchmarking and ideas for improvement of the TIP under assessment.

Since a significant portion of the contents is related to particular goods, it is a good idea to contextualize the evaluation by placing it in a concrete business scenario. For example, “a specific product being imported by sea from a neighboring country” can be selected as a concrete business scenario to be assessed. It is not only worth using goods that are of economic or strategic interest to the country under assessment, but also those with some special provisions such as goods involving food safety regulations, phytosanitary certificates

or preferential tariffs. This is to ensure that relatively specialized or specific information should be found or not found, useful or not useful, for example, in the TIP under assessment. This is an important user-centric concept since TIP should be designed with the traders as its intended users.

A separate document available online provides an assessment case study of the Philippines TIP that evaluated and provided improvement recommendations by benchmarking with three other TIPs – the European Union, Indonesia and Tajikistan. Table 2 presents a small example of benchmarking two quality attributes (ease of access, and ease of understanding) for three expected types of contents (B1, B2 and B3) available in the four TIPs. The table uses ID for Indonesia NTR (intr.insw.go.id), PH for the Philippines NTR (www.pntr.gov.ph), EU for EU Helpdesk (trade.ec.europa.eu/tradehelp/) and TJ for Tajikistan Trade Portal (tajtrade.tj).

The quantitative scores in table 2 have been consolidated by arithmetic average among several reviewers. Please note again that benchmarking and evaluating different quality attributes for several content types is aimed at generating ideas for improvement, in this case, for the Philippines. Therefore, after brainstorming and consolidation sessions conducted among the reviewers, the findings and specific improvement recommendations for Philippines NTR were generated and reported (again, referring to the Philippines TIP assessment report in the separate document).

Table 2. An example of benchmarking TIPs of four countries

Expected Contents	Assessed Attributes	ID	PH	EU	TJ
B1. Procedures comprising the practical steps for discharging regulatory obligations with Customs and other agencies including those required by a Single Window, where applicable	Ease of access	2	5	4	5
	Ease of understanding	3	4	4	5
B2. Commodity classification in the format in use in each country (most countries have adopted the Harmonized System format) and associated tariff rates	Ease of access	5	5	5	2
	Ease of understanding	4	4	5	2
B3. Fees and other charges associated with each commodity or regime	Ease of access	1	3	2	5
	Ease of understanding	1	3	2	5

4. Evaluating TIP services and performance

This section will help you understand and evaluate called services (e.g. features and functions) and performance of those services that are expected to be offered in an effective TIP. This is one of the seven quality attributes categorized under “effective contents” defined in the framework as discussed in section 2.

4.1 Usefulness

The expected features and functions available in a TIP should cover navigation services such as the search functions, a site map, FAQs and multiple languages support. Table 3 provides a list of recommended services that a TIP could provide²¹. This list is based on the World Bank’s recommendations for establishing a trade information portal. As before, this list is not prescriptive and can be adapted to the needs of individual TIPs.

All these features and functions are meant to make the contents more accessible and easier to navigate. But unlike the “ease of access” discussed in the previous section, here we are taking a more technical perspective. We will therefore focus on the “usefulness” of each service²² in this section’s evaluation and in order to generate some improvement ideas.

Table 3. A list of recommended services (features and functions) offered by a TIP

- C1. Language selection/support: Since traders from other countries are also intended users, the site could be made available in the local language, plus English and other widely-spoken languages.
- C2. Sitemap or other site navigation tools.
- C3. A list of frequently asked questions.
- C4. Information about commonly used terminology.
- C5. Search features for goods, e.g., using the HS code or name of the goods as key words.
- C6. Search features for procedures.
- C7. Search features for legal documents.

In order to improve each of the services listed in table 3, evaluating and measuring the “usefulness” of each service is necessary. As in section 3, the expert review technique is used. These expert review exercises will be conducted by a group of reviewers/evaluators, and the findings and scores consolidated with average results and brainstorming. All the evaluators should agree to use a standardized scale, for example with scoring between 0-5 for all of the features and functions in table 3.

The scoring criteria for “usefulness” of each service can be generally agreed and defined among the evaluators as follows:

²¹ This list is by no means exhaustive nor mandatory. There is no intention to imply that they are all equally important, however these are just services found in many good TIPs.

²² “Usefulness of a service”, and “Relevancy or Usefulness of the content” are two different quality attributes, but partially overlap in their meanings. In this section, the emphasis is on "Usefulness of a service".

- 0: Useless or not available at all.
- 1: Not very useful.
- 2: Partially useful.
- 3: Moderately useful.
- 4: Very useful.
- 5: Extremely useful.

Even though most of the services listed in table 3 are quite qualitative and subjective, more detailed concrete and objective criteria can be agreed on for some services before the evaluation. For example, for C1, Language selection/support, the evaluators may agree ahead of time to give the TIP under assessment the score of 5 if it supports five or more languages, 4 if it supports four languages, and 3 if it supports three languages etc.

The scoring criteria for other services such as Sitemap, FAQs and Search features can be evaluated subjectively by each individual evaluator. They would only agree to use the same, 0-5 scaling. It should be emphasized again here that the quantitative results are not really the ultimate goal – the ideas for improvement that are gained during this exercise are the main benefit.

Table 4 provides an example of a benchmarking matrix in which the scores given for the “usefulness” of seven services (C1-C7) for four different TIPs can be entered. Referring to the Philippines TIP and Indonesia TIP assessment reports (in separate documents available online) for examples of benchmarking and improvement recommendations related to these services.

Table 4. An example benchmarking assessment table for usefulness

Expected Services	Quality attribute	TIP1	TIP2	TIP3	TIP4
C1. Language selection and more than one language, i.e., local language and other languages.	Usefulness				
C2. Site map/site navigation	Usefulness				
C3. FAQ’s	Usefulness				
C4. Information about commonly used terms	Usefulness				
C5. Search goods	Usefulness				
C6. Search regulatory procedures	Usefulness				
C7. Search legal documents	Usefulness				

4.2 Evaluating performance

The technical performance of a TIP must also be evaluated. For example, the website loading speed and the response time of the helpdesk are important to making the TIP practically usable for traders. Since the TIP needs to be accessible by traders all over the world, traders should also be able to use different types of browsers or low-cost mobile devices to access the TIP and its services, not only on desktop computers.

There are many technical performance indicators that could be monitored and used to improve a TIP. To simplify this discussion, four performance items are discussed here as examples.

Table 5 summarizes these performance items, namely webpage loading speed, Helpdesk feedback response time, Multiple browsers support, and Mobile friendliness (column 1). Table 5 also provides a simplified description of the performance indicators (column 2), scoring criteria (column 3) and available tools for measurement (column 4).

As shown in table 5, the webpage loading speed can be easily measured with available performance-checking websites such as “webpagetest.org”. In particular, given that there are some bandwidth limitations for MSMEs in developing countries, the information available in each TIP’s webpage should not include too much large-scale or data-intensive items, otherwise loading the data can take too much time. The acceptable loading speed of the TIP should be in the range of 5 to 25 seconds for each page.

The performance of the helpdesk service is another example that could be evaluated and measured quantitatively, e.g., by how many days it takes the TIP’s helpdesk to respond to a specific user query. If the helpdesk takes too long to reply, it could delay the trader or render the answer irrelevant.

Different browsers are used by different people and in different parts of the world, so to maximize navigability/accessibility the TIP should support as many major browsers as possible. To check different browsers supported by a TIP, the website PowerMapper.com, for example, could be utilized. PowerMapper.com rates a website’s compatibility with at least five major browsers, e.g., Chrome, Microsoft Edge, Internet Explorer, Firefox and Opera.

The increasing adoption of smartphones and mobile devices among the younger generation, and especially micro-businesses, must be considered. Any good TIP should, therefore, support and offer contents that are compatible with mobile devices. The mobile friendliness of a TIP can be tested by using a site like searchgoogle.com.

Table 5. Some performance indicators for measuring the services of TIPs

Performance Items	Performance indicators	Scoring	Available tools for measurement
D1. Webpage loading speed	Measuring the loading speed of the TIP portal where the loading time of the TIP website in the range of 5-25 seconds should be acceptable, otherwise it is too inefficient.	<ul style="list-style-type: none"> • 5 – loading time <= 5 seconds • 4 – 5-15 sec. • 3 – 5-25 sec. • 2 – 25-35 sec. • 1 – 35-45 sec. • 0 – > 45 sec. 	The website https://www.webpagetest.org can be used to measure the loading speed of a TIP portal.
D2. Helpdesk feedback response time	If an email asking some questions is sent out to the helpdesk of this TIP - how long does it take to get the response back.	<ul style="list-style-type: none"> • 5 – if the answer comes within 1 day • 4 – if the answer comes within 2 days • 3 – if the answer comes within 3 days • 2 – if the answer comes within 4 days • 1 – if the answer comes within 5 days 	E-mail software application.

Performance Items	Performance indicators	Scoring	Available tools for measurement
		<ul style="list-style-type: none"> • 0 – if no answer comes within five days, or the helpdesk is not available at all for the TIP 	
D3. Multiple browsers support	The portal supports multiple browsers i.e., Chrome, Microsoft Edge, Internet Explorer, Firefox and Opera.	<ul style="list-style-type: none"> • 5 – the portal is accessible by all five browsers • 4 – if the portal is accessible by four of the browsers • 3 – if the portal is accessible by three of the browsers • 2 – if the portal is accessible by two of the browsers • 1 – if the portal is accessible by one browser • 0 – none of the browsers are compatible 	The website www.PowerMapper.com can be used to check the TIP website's browser compatibility on a desktop computer.
D4. Mobile-friendly	The website is accessible on mobile web-browsers.	<ul style="list-style-type: none"> • 5 – the portal is accessible and easily readable on a mobile device • 0 – not compatible on a mobile device. 	The website https://search.google.com/test/mobile-friendly can be used to test mobile friendliness.

There are several other TIP's performance indicators that could be measured and used for further investigating and generating ideas for improvement. The major advantage of the metrics discussed in this section is that they are easy to execute and can be performed even from outside the TIP organization. Performance indicators and quality attributes that could only be evaluated by the internal organization of TIP itself will be discussed further in the next section.

5. Measuring and improving high-impact quality attributes

The first three quality attributes of the contents expected in a good TIP, namely navigability/accessibility (ease of access), clarity/understandability (ease of understanding), services and performances (usefulness) have been discussed in the previous two sections of this guide. In this section, the other four quality attributes are discussed further, especially how to manage, evaluate and improve them to make the TIP more effective and higher valued. Those quality attributes concern accuracy, timeliness, consistency and completeness.

5.1 High-impact quality attributes

It is well-recognized that the contents published in a TIP should be at a high-quality level, otherwise the TIP may not offer good value to the trading community. Navigability/accessibility, understandability and performance, including features and functions provided in the TIP, are important and are not too difficult to evaluate even from outside the TIP organization.

Other qualities are much harder for outsiders to evaluate, especially those that require access to metadata or system administrators' privileges, or insight knowledge about the internal TIP governance process, e.g., statistical reports about each webpage or the most frequently visited pages.

Some of the challenges are:

- **Accuracy:** How can traders know that the provided contents are correct or accurate?
- **Timeliness:** Are the contents up-to-date? There may be some new rules that have just been enacted, but are not yet reflected on the portal.
- **Consistency:** In some cases, contents of the same nature may appear in multiple webpages or even in multiple websites. but they are conflictual – so which is correct?
- **Completeness:** How can traders know that all the information received already covers all required obligations?

These quality attributes are very important and at the same time quite challenging in evaluation. The evaluators need to have some baseline or reference information to compare to in order to assess whether the particular information available on the TIP is accurate, up-to-date, consistent, and complete. Actual trade practitioners or directly relevant officers from the specific agencies can provide such references or may join the effort as evaluators. These quality attributes are also very difficult to achieve or improve. The legal aspects, especially with regard to accuracy and timeliness of the contents published on a TIP, might be quite serious for traders, as they risk being subject to penalties or fines for acting upon incorrect or incomplete information. If the contents in a TIP are about laws, regulations and notifications, users must be made confident that by acting according to the information provided on the TIPs, they will be compliant with the laws/regulations.

5.2 Institutionalizing a high-quality governance process

To increase accuracy and ensure timeliness as well as consistency and completeness of information published on a TIP, a high-quality governance process or a high maturity level must be institutionalized in the routine work of the TIP management. Achieving a high maturity involves developing a continuous improvement mechanism coupled with quantitative management. This concept is usually referred to as the “Plan-Do-Check-Act” (PDCA) improvement cycle in management literature²³. For a TIP, this process includes:

- Planning and working collaboratively with all regulatory agencies in consolidating and publishing all regulatory information from these agencies, e.g., laws, rules and regulations, procedures and documents required, forms, estimated cost and time related to international trade. The right sources of information are needed i.e., knowledgeable representatives from the regulatory agencies must participate actively during the consolidation, publication and reviewing processes.
- Enhancing the quality of the operating or working process to improve the quality of contents, e.g., conducting regular expert review exercises to verify the correctness and validate the completeness of the information. These consolidation and publication processes should be conducted by knowledgeable representatives or domain experts from each regulatory agency.
- Establishing quantitative measures that reflect the quality attributes of the contents, i.e., measuring accuracy, timeliness, consistency, completeness and usefulness of the contents by the TIP’s internal management with input from domain experts and key business stakeholders.
- Routinely receiving feedback from traders and users of the TIP. For example, after they have obtained and used the information from the website, if they faced any penalties or difficulties. Any feedback or suggestions should be compiled and utilized.
- Continuously improving the contents and services offered by the TIP with quantitative process control and defect detection mechanisms (for Maturity Level 4) and with technology and process innovation for defect prevention (for Maturity Level 5).

²³ Deming, W. Edwards (1986). *Out of the crisis*. Cambridge, MA: Massachusetts Institute of Technology, Center for Advanced Engineering Study.

5.3 If it can be measured, it can be improved.

Throughout the operations of a TIP, the lead agency should continuously solicit measurements of the content's quality, e.g., regarding its accuracy or timeliness. In the first order, this should include tracking the number of cases reported and resolved within a given time period. Other measurements of the degree of accuracy of the TIP could be:

- A measure of the degree of involvement of each of the participating government agencies and organisations. This could use indicators such as: full and complete information published on TIP, partial information published on TIP, contribution under preparation.
- An indicator of the degree of information fully available online, partially available online or only available in paper format.
- An indicator of the availability and responsiveness of contact points for obtaining further information (details, special cases, etc.).

Other examples of how accuracy and timeliness of information available on a TIP can be evaluated and measured are:

- Identifying and counting the number of HS codes and their tariff rates published on a TIP that have been reviewed and found to be inaccurate or not up-to-date. This review process could be conducted by knowledgeable representatives from regulatory agencies in collaboration with relevant private sector businesses, or by other innovative techniques.
- Tracking the number of documents, descriptions, procedures, documentary requirements, related laws and regulations that have been verified and found to be inaccurate or not up-to-date.

When specific defects can be detected, the lead agency will know exactly where to amend and improve. Then, some specific improvement plan and activities could be conducted. This type of defect detection mechanism needs to be carried out on a regular basis.

An example of how to quantitatively measure **the consistency of information** is to evaluate and count the number of times that conflicting information is available on multiple sources, e.g., from different official webpages or websites. Resources and knowledgeable domain experts must be secure and to regularly conduct such evaluation. When inconsistent information is identified, the existing conflicts must be reconciled and resolved by the right authorities.

Examples of how to quantitatively measure **the completeness of information** are:

- The number and names of participating regulatory agencies providing information for the portal must be compiled. This could be useful for comparing with the total number and names of all regulatory agencies involved in international trade.
- Complete or partial information from each participating agency that is published on the TIP.

Again, specifically identifying those missing agencies, or any types of content that have not yet been consolidated, could lead to the specification of improvement recommendations for the next development stage.

Examples of how to quantitatively measure **the relevancy (or usefulness) of content** include:

- Which information items (or specific webpages) that are frequently accessed should be tracked. These pages should be regularly checked for accuracy and timeliness.
- Frequently searched keywords for which no information could be matched. This type of information could be used to provide improvement recommendations, e.g., the required but not-found information should be sought out, consolidated and published in the portal.
- Statistics about use of the TIP that are requested by several users, e.g., a statistical analysis to capture some users' behaviour could be useful in generating ideas for making improvements.

5.4 Publishing a disclaimer

It is highly recommended that each country's TIP seeks ways to achieve the high standard of quality in its information. However, when such quality cannot be guaranteed, the TIP should strive to provide an appropriate disclaimer informing traders of the extent to which the management guarantees the information's quality. Where applicable, the management could choose to share some of the metrics it has collected, like which regulatory agencies are not contributing or any missing information. Such transparency by the TIP management allows the business community to adjust their expectations and instills trust.

6. Maturity Roadmap Model for ensuring highly effective TIPs

This section extends the discussion in section 2.1 about the proposed TIP Maturity Roadmap Model (MRM), which will be used as an assessment and roadmap model for ensuring a highly-effective and sustainable TIP.

It must be emphasized again that establishing a TIP involves much more than just developing a website; it is about establishing and sustaining an institution. An effective institution is needed to deliver effective contents in order to manage and deliver good services for an effective and useful TIP for traders. This is because the quality of a TIP's content depends on the effectiveness and sustainability of the governance structure and process used to deliver it. This premise is recognized in most industries²⁴. Therefore, to deliver a highly-effective TIP, a highly-effective governance structure and process must be established.

The MRM for highly-effective TIPs has adopted some key concepts from the original SEI/CMU's Capability Maturity Model (CMM).²⁵ The proposed MRM has six maturity levels. Each maturity level builds on the previous levels by adding new functionality that allows increased capability and quality.

This section evaluates the key characteristics of each maturity level and the key capabilities that must be established in order for a TIP to advance to the next maturity level.

6.1 Key characteristics of each maturity level

Referring to figure 3 and the discussion in section 2.1, some examples of each maturity level are given below.

- **Maturity level 0: none level**

ML-0 is a development stage of a country that has no information portal related to trade regulatory procedures. Currently the countries at this maturity level are quite rare, since most of the trade-related regulatory agencies typically publish some of their information independently.

- **Maturity level 1: initial level**

Trade information portals exist but only at the agency level. ML-1 is a development stage of a country in which trade regulatory information is provided in several web portals at the agency level. There is no consolidation of trade information from the regulatory agencies into a common trade information portal.

For example, the country may have a web portal for customs regulations, which is separate from other portals run by other regulatory agencies. As of 2021, this is the case

²⁴ Chrissis, M. B., M. Konrad and S. Shrum (2011). *CMMI: Guidelines for Process Integration and Product Improvement* (third edition). Addison-Wesley Professional.

²⁵ Software Engineering Institute, 2010.

in Mongolia: www.customs.gov.mn/en/, www.inspection.gov.mn/ and www.mofa.gov.mn/.

- **Maturity level 2: managed level**

National-level trade information portal(s) exist but with only partial consolidation from the relevant regulatory agencies.

For example, a portal established by an agency named TDAP of Pakistan (www.tdap.gov.pk/) has consolidated information about import/export procedures from several regulatory agencies but establishment of the portal is still in progress.²⁶ So, the information available is partially complete. In some countries, a consolidated trade information portal has been established by business entities, not by the Government. Those portals do not cover all trade regulatory information of the countries concerned.

- **Maturity level 3: standardized level**

A national-level trade information portal exists with consolidated contents from all or almost all of the relevant regulatory agencies.

The case of Thailand's NTR (www.thailandNTR.com) as an initiative under the ASEAN Trade Repository is an example. Its aim is to consolidate most of the regulatory information from almost all government agencies, but several areas still need improvement.

- **Maturity level 4: quantitatively managed level**

TIP exists with consolidated contents and quantitative management for the quality of contents, especially a defect detection mechanism.

M-4 includes the key characteristics of ML-3, plus the capacity to systematically evaluate and measure the quality of a portal's contents and services. The governance structure and working process of the TIP at this maturity level must apply the concept of quantitative management to the quality of contents and services as well as the working process of the TIP. A defect detection mechanism should be put in place to automatically or semi-automatically detect the defects related to the quality of contents, services and process.

For example, Tajikistan's trade information portal (www.tajtrade.tj) has some characteristics that are close to ML-4. However, it should be noted that this assessment was made from outside the TIP governance structure.

There is a limit to which the capabilities associated with this maturity level (and maturity level 5) can be observed from outside the TIP organization. Since it is really important to assess and provide improvement recommendations in detail, it should be conducted by the TIP internal organization.

²⁶ Investigated in November 2020.

- **Maturity level 5: optimizing level**

TIPs at this maturity level combine the key characteristics of ML-4 with technology and process innovation especially for defect prevention.

The TIP organization at the maturity level 5 has institutionalized the process capability to enable all relevant agencies to work collaboratively in planning, consolidating, publishing, reviewing, auditing and providing contents and services that are continuously and systematically improved. Innovation in process and technology could be consistently implemented to prevent defects such that the highest quality of contents and services can be offered.

6.2 Moving to a higher maturity level

This maturity roadmap model can be used as a tool to assess the as-is maturity level of a country's TIP, and then to suggest a next higher maturity level as the to-be target level for improvement. The following subsections elaborate further on critical success components and key recommendations for moving from each maturity level to the next.

6.2.1 If a country's TIP is at the ML-1 or ML-2, then the next improvement target is ML-3. Critical success components and key recommendations to achieve ML-3 are given below.

A. Governance structure: A national-level governance structure shall be established.

A.1. A high-level policy mandate and leadership are needed with at least the following recommendations:

- A legislative or a high-level policy mandate is needed. In most situations, only a ministerial or department policy level may not be strong enough;
- The work of establishing and ensuring the sustainability of the TIP should be aligned or incorporated with an active national trade facilitation committee (NTFC);
- If multiple TIPs exist, a high-level mandate or policy agreement to consolidate multiple or siloed TIPs into a single platform has to be established.

A.2. Interagency and business stakeholder collaboration:

- All relevant regulatory agencies must be mandated in their routine management, e.g., by legislation, institutionalized executive orders, or national/regional commitments, to engage in this inter-agency collaborative platform.
- A NTFC could act as the steering committee. It would then assign interagency working groups with knowledgeable representatives with consolidating, aggregating and reviewing content for quality assurance, improving contents and suggesting improvement of the TIP's services.

A.3. Strong lead agency

- A lead agency with an official and high-level policy mandate must be tasked to manage the collaboration, establishment, operation and maintenance of the TIP platform.

Depending on the context, different agencies could take on this role. In some countries the Department of International Trade, responsible of trade promotion and facilitation has led the TIP management. Other candidates include the Department of Trade Negotiation or the Customs Authority. A Department of Trade Negotiation normally possesses expertise in trade negotiation policy, international trade rules and laws. The Customs Authority has expertise in customs operations and potentially in related areas. In a few countries, a business entity e.g. the trading association, has been placed in charge of operating the TIP. This is very much depending upon the different environment and needs of each individual country.

B. Governance process: A national-level governance process must be practiced. Some recommended activities are:

- Planning – scoping and planning tasks must be carried out, especially when involving interagency and business stakeholder collaboration in order to capture and consolidate the as-is procedures, forms, rules/regulations etc. from all regulatory agencies;
- Consolidating – collaboration on capturing and consolidating information must occur, both in the initial establishment of the TIP and during its ongoing operation;
- Organizing/publishing the contents on the portal – this task could be accomplished by the technical web staff of the portal;
- Operating – ongoing and maintenance tasks must be performed by technical staff, and services like the helpdesk or Q&A must be operated;
- Evaluating – the task of reviewing the quality of the contents and services could be carried out by the TIP operation team, but with the active engagement of the interagency working groups, domain experts and trader community;
- Improving – the task of collecting and implementing improvement recommendations must be carried out on a regular basis.

6.2.2 If the country's TIP is at ML 3, then the next improvement target is ML4.

As mentioned above, in building on top of critical success components of ML-3 (sustainable governance structure and process), the following management mechanism and process capability should be institutionalized in order to further enhance quality and effectiveness of the TIP.

- Quantitative management must be adopted for monitoring, controlling and improving the quality of contents and services, as well as the quality of the working process – i.e., establishing a systematic process²⁷ for evaluating and quantitatively measuring the quality attributes of the contents offered by the TIP (for examples refer to section 3, 4 and 5).

Specifically, a defect detection mechanism should be established as a quantitatively managed work process. This means that the capability to detect any defects in the

²⁷ For example, a statistical process control (SPC) for monitoring and controlling the quality of services and process performance for delivering those services (Florac and Carleton, 2016).

quality of contents and services offered by a TIP must be established. For example, defects related to inaccuracy, not up-to-dateness, inconsistency and irrelevancy of the contents, services and performances offered by a TIP will be detected on a regular basis.

Some recommended mechanisms for achieving this include:

- Interagency working team meetings should be regularly conducted in order to capture, consolidate and review as-is end-to-end procedures, rules/regulations and other regulatory information;
- Another team of domain experts may provide expert reviews and feedback on a routine basis;
- A content certification scheme could be established, e.g., by certified auditors, to raise the level of accuracy, timeliness and completeness of the contents and signal the trustworthiness of the information to traders;
- Regularly receiving feedback and alerts from the trading community, for example via surveys, focus groups and a “report issue” page on the TIP website.

6.2.3 If a country’s TIP is at ML 4, the next improvement target is ML5.

Building on top of ML-4 (strong governance structure and quantitatively managed process with defect detection mechanism), the following management mechanism and process capability should be institutionalized in order to achieve a highly effective and sustainable TIP.

- **Root-cause analysis and defect prevention mechanism.** Some management mechanism and process capability must be institutionalized and practiced, so that a deeper understanding of defects can be cultivated and innovative ideas for preventing their recurrence can be developed. Statistical methods should be used to analyze the quality of content and its defects. The focus must be on finding and resolving the root causes of issues.
- **Technology and process innovation (with change management).** To eliminate the root causes of defects or to achieve higher quality contents, services and performances of a TIP, the capability to systematically and continuously innovate and change – both in technology and in the working process – must be developed.

Some recommendations, tips and techniques are as follows:

- Mechanisms for ensuring the accuracy, timeliness and completeness of the contents could be built into the consolidation and publication process. For example, some technical systems could be put in place so that whenever information is updated by a particular source (for example, on the public website or internal platform of a relevant regulatory agency), the TIP is updated automatically;
- Quantitatively measuring the number of visits, number of users, and number of the same users who revisit each part of the portal, e.g., using cookies, or memberships, and then using this information to direct the efforts of the TIP management;
- Personalizing the contents to suit the needs of different groups of users, e.g., importers, exporters, customs brokers, freight forwarders, female traders, SMEs, or large enterprises;

- Business process analysis (BPA) techniques can be used to capture as-is, end-to-end trade procedures, and the findings integrated into the TIP. Making the results of a BPA analysis available on the TIP also makes it a conveniently platform on which pain points or bottlenecks in the regulatory procedures can be identified, and improvement recommendations generated. Such recommendations will be reviewed by the institutionalized governance structure and the PDCA process of the TIP platform. They can then be submitted to the right authority, e.g., NTFC or the Cabinet, endorsed, mandated and funded for implementation and further impact analysis by each individual agency.

It should be emphasized here again that a TIP must be adapted to the needs of each country's individual environment and requirements. This TIP may not be the same from one country to the next. The proposed model in this guide has been made intentionally abstract and non-prescriptive to facilitate such adaptation.

7. Possible enhancement of TIPs

This section discusses additional services that may be provided through TIPs. How TIPs evolve should depend upon the needs of target users and the resource availability to each individual country. In addition, evolution of TIPS should take into account their position relative to information portals being developed. Seven possible areas for enhancement of TIPs are proposed and described below.

7.1 TIP for trade in services and e-commerce

Most TIPs currently publish regulatory information related to trade in goods, but they may be expanded to cover information on other areas in the future, notably trade in services. Information about e-commerce laws and related regulations can also be added to a TIP.

The Thailand National Trade Repository, www.thailandntr.com, is an example of a TIP that currently offers regulatory information about trade in goods, trade in services, and e-commerce-related rules, laws, and regulations.

7.2 Other information and services provided by a TIP

In addition to extending the areas it covers, a TIP may also provide additional content within those areas. For example, a TIP can be used to publish updated news and announcements related to specific trade rules, laws and regulations in such a way that users and traders will keep on revisiting the portal. Trade statistics can also be added. These statistics could be derived from national or international sources, and may be available via APIs or generated via a Single Window (if available). Addresses and contact details of various agencies' offices and border stations, links to other related national and international organizations' websites, and information about business visas for international traders may also be useful information for the target audience.

7.3 Enhancing crisis resilience

Crisis often involves rapid changes to the international trading environment, representing a major challenge for trade-dependent businesses. For example, the COVID-19 pandemic saw the introduction of stringent sanitary procedures at international borders virtually overnight. A TIP provides a ready-made platform for rapidly communicating such regulatory changes to the private sector and for providing other crisis-specific services. In the example of the COVID-19 pandemic, TIPs could be used to provide reliable information and guidance related to global and national COVID-19 developments. It could also help in creating new software applications and services for providing specific information about procedures and documentary requirements for better facilitation of imports and exports of medical equipment, vaccines, personal protection equipment (PPE) and other related goods in the fight against COVID-19. By allowing traders to rapidly learn about and adjust to regulatory upheaval, TIPs can play a major role in enhancing the resilience of international supply chains.

7.4 Regional collaboration

Several regional economic forums have collaborated on developing regional portal, which integrate information from several countries. The ASEAN Trade Repository, SASEC Trade Information Portal and EU Access2Markets Database are examples of those regional initiatives.

This requires close collaboration. Such collaboration must extend from the initial design stage by adopting some common understanding, connectivity and data exchange formats, to enable interoperability between national trade information portals. A small set of common technical standards and approaches need to be agreed, e.g., links or Application Programming Interfaces (APIs), common database structures and/or some forms of data harmonization.

7.5 Enhanced services with social media tools

Digital marketing tools and social media could be leveraged to promote and better manage the TIP. Several social media platforms, e.g., Facebook, Twitter and Line, could be used to promote the TIP website, specific news items and events, and special updated information to specific groups of target audiences.

Web analytics tools, e.g., Google Analytics, can be adopted to evaluate, measure and understand the users and their behaviour on the TIP website. Several statistics, such as which parts and contents of the portal are mostly visited and how long each user stays in each page, will be useful for further enhancing the TIP. This information would be useful both in improving the contents and improving the performance of content delivery, especially for the correct and specific audience.

7.6 Compliance with data privacy protection laws

With the growing concern over privacy violations on digital platforms, many countries have enacted laws designed to protect the right to privacy of natural persons, including the European Union, Japan, Singapore and Thailand.

Most of these laws have implications outside the issuing country's territory – for example, personal data of European Union citizens, no matter where captured, processed or used, are always protected by the European Union data protection law (the European Union GDPR).

In order to be internationally accessible, TIPs must comply with these data privacy regulations. If there is any usage of personalized technology in the TIP, such as cookie technology, cookie consents must be developed so that consent requests are explicitly informed and given via an unambiguous opt-in and opt-out action selection. TIPs must strictly follow and comply with these laws, e.g., security measures must be in place, and guidelines and procedures for data privacy breaches and incident responses must be well established.

7.7 Emerging technologies

Several emerging digital technologies have the potential to offer additional benefits to further enhance TIPs. For example, several possible applications of artificial intelligence can be explored. The following are some good potential applications:

- Artificial intelligence (AI) could be applied to rules of origin from different trade agreements, so that the TIP can provide guidance to users on which agreements they should use to trade a particular product with a given trade partner.
- An intelligent search engine which can understand natural language could be developed. Similarity text searches and relevant rankings are two examples that can add greater intelligence and more capability to the search function of a TIP;
- Machine translation capability (for example, using a Google translate plug-in as done by Tajikistan) can help to automatically translate the portal into many languages;
- Chatbot services for interactive text communications between users can be added to a TIP. When a list of textual FAQs has been compiled, these text files can be turned into more interactive text communication. The users could write questions and the chatbot would be able to understand the inputs and provide answers based on the FAQ entries without human intervention.
- Character recognition software, sometimes called Optical Character Recognition (OCR) software, could be used to recognize images of text and turn them into a searchable text file. This could be useful in a situation where a large volume of paper rules, regulations and documents must be transformed into a searchable electronic text file.

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Annex I (a). A template for a country's TIP assessment report

A Country TIP Assessment Report

Author Name(s)
Reviewer Name(s)

1. Brief description of policy related to a country's TIP

2. Overview of the country's TIP

3. Benchmarking the country's TIP

3.1. Assessment by benchmarking with other TIPs

Expected Contents	Assessed attributes	TIP1	TIP2	TIP3	TIP4
B1. Procedures comprising the practical steps for discharging regulatory obligations with Customs and other agencies including those required by a Single Window, where applicable.	Ease of access				
	Ease of understanding				
B2. Commodity classification in the format in use in each country (most countries have adopted the Harmonized System format) and associated tariff rates.	Ease of access				
	Ease of understanding				
B3. Fees and other charges associated with each commodity or regime.	Ease of access				
	Ease of understanding				
B4. Preferential tariffs or special requirements for trading with countries that are parties to a Trade Agreement or Free Trade Agreement or other form of preference.	Ease of access				
	Ease of understanding				
B5. Rules for classification of products for Customs valuation purposes.	Ease of access				
	Ease of understanding				
B6. Special measures applicable to specific commodities or products, e.g., quotas, exemptions, prohibitions or restrictions for sanitary/phytosanitary (SPS) or other reasons.	Ease of access				
	Ease of understanding				
B7. Non-tariff measures such as requirements to obtain a licence, permit, certification, registration, submit to an inspection or testing, or others.	Ease of access				
	Ease of understanding				
B8. Technical standards required for specific categories of products, either mandatory (technical regulations) or recommended.	Ease of access				
	Ease of understanding				
B9. Information on advance rulings that may be made publicly available.	Ease of access				
	Ease of understanding				

3.2. Recommendations

Expected Contents	Recommendations for improvement
B1. Procedures comprising the practical steps for discharging regulatory obligations with Customs and other agencies including those required by a Single Window, where applicable	
B2. Commodity classification in the format in use in each country (most countries have adopted the Harmonized System format) and associated tariff rates.	
B3. Fees and other charges associated with each commodity or regime.	
B4. Preferential tariffs or special requirements for trading with countries that are parties to a Trade Agreement or Free Trade Agreement or other form of preference.	
B5. Rules for classification of products for customs valuation purposes.	
B6. Special measures applicable to specific commodities or products, e.g., quotas, exemptions, prohibitions or restrictions for sanitary/phytosanitary (SPS) or other reasons.	
B7. Non-tariff measures such as requirements to obtain a licence, permit, certification, registration, submit to an inspection or testing, or others.	
B8. Technical standards required for specific categories of products, either mandatory (technical regulations) or recommended	
B9. Information on advance rulings that may be made publicly available.	

4. Services and performance

4.1 Services

4.1.1 Assessment by benchmarking with other TIPs

Expected Services	Quality attribute	TIP1	TIP2	TIP3	TIP4
C1. Language selection and more than one language, i.e., local language, and other languages.	Usefulness				
C2. Site map/site navigation	Usefulness				
C3. FAQ's	Usefulness				
C4. Information about commonly used terms	Usefulness				
C5. Search by goods	Usefulness				
C6. Search by regulatory procedures	Usefulness				
C7. Search by legal documents	Usefulness				

4.1.2 Recommendations

Expected Services	Recommendations for improvement
C1. Language selection and more than one language, i.e., local language, and other languages.	
C2. Site map	
C3. FAQ's	
C4. Information about commonly used terms	
C5. Search by goods	
C6. Search by regulatory procedures	
C7. Search legal documents	

4.2 Performance

4.2.1 Assessment by benchmarking with other TIPs

Performance	TIP1	TIP2	TIP3	TIP4
D1. Loading speed of the TIP website				
D2. Helpdesk feedback response time				
D3. Multiple browsers supported				
D4. Mobile friendly				

4.2.2 Recommendations

Performance	Recommendations
D1. Loading speed of the TIP website	
D2. Helpdesk/feedback response time	
D3. Multiple browsers supported	
D4. Mobile friendly	

5. Governance structure and governance process

6. Summary of recommendations

7. Conclusion

Annex I (b). Guidelines for completing a template for a country TIP assessment report

The template as shown in Annex I (a) could be used for developing a report of assessing and generating improvement recommendations for a country's TIP. An individual or an assessment team could use the framework and guidelines provided in this guide together with this report template to conduct the assessment. However, it should be noted that a trade information portal must be adapted to the needs of each country's individual environment and requirements. Therefore, this proposed template may be adjusted to each country's needs as appropriated.

1. Brief description of policy related to the country's TIP

- Background information should be provided including whether the country has a clear policy for having a TIP or not and a brief description on it.

2. Overview of the country's TIP

- General description about the country's TIP under assessment should be included here. This observation should include, for example, a description of the major services or groups of services, key features and functions, the type of contents that are available, and which agency/agencies are in charge of this initiative etc.
- The overview could be drafted after gathering the information from several sources, e.g.:
 - Gathering information from several documents and sources;
 - Watching a promotional VDO about the assessed TIP if available;
 - Navigating through this TIP's web portal at least visiting major pages.

3. Benchmarking the country's TIP

Assessment of the country's TIP will be carried out by benchmarking or comparing the contents or service items of the country's TIP similar to other good TIPs. The aim is to come up with ideas for proposing improvement recommendations for the country's TIP after seeing good examples from different TIPs.

Therefore, the assessment team may select some other good TIPs as references. For example, tajtrade.tj - Tajikistan Trade Portal, trade.ec.europa.eu/tradehelp/ - EU Helpdesk, and www.pntr.gov.ph - the Philippines National Trade Repository are good candidates for benchmarking. Therefore, shown in the lists below – in this case, TIP1 may designate the country's TIP under assessment, then TIP2, TIP3, and TIP4 may designate the Tajikistan Trade Portal, EU Helpdesk and Philippines TIP, respectively.

If several persons participate as assessment team members, each participant will navigate through all TIPs and look for the expected contents, e.g., B1 and B2 (as shown in the lists below), then provide his/her own quantitative score for each of those quality attributes, e.g., Ease of Access, Ease of Understanding.

After all participants have completed their scores, arithmetic means for the entire tables will be calculated.

The following quality attributes with quantitative scoring will be used for evaluating certain quality attributes:

- **Ease of Access** means how easy it is to access to the specific content, e.g., taking considerable time, many mouse clicks, or very quick with just few mouse clicks to find the expected content.
 - 0 – Extremely difficult or not available at all
 - 1 – Very difficult to find
 - 2 – Some difficulty to find
 - 3 – Moderately easy to find
 - 4 – Very easy to find/access to
 - 5 – Extremely easy/very fast to find

- **Ease of Understanding** means how easy it is for a user to read and understand the content, or how friendly the content presents itself.
 - 0 – Extremely difficult to understand
 - 1 – Very difficult to understand
 - 2 – Some difficulty to understand
 - 3 – Moderately easy to understand
 - 4 – Very easy to understand
 - 5 – Extremely easy/very fast

The assessment team may choose a more concrete scenario for navigating through these TIPs. For example, the team may select “a specific product for import” or “a specific product for export”. Some criteria for this selection that could be considered include the following:

- Complicated regulations and procedures should be involved e.g., at least with one permit or one certificate needed for each shipment;
- If it is in the country’s economic interest;
- Even better, if the participants have some related regulatory knowledge that could help the group conduct the assessment.

3.1 Assessment by benchmarking with other TIPs

Using the table shown in section 3.1 in the template, each individual navigates through all four TIPs for the same content item (expected contents column of the table) e.g., B1. (procedures comprising the practical steps for discharging regulatory obligations with customs and other agencies, including those required by a Single Window, where applicable).

Then each participant will assign a score for “Ease of access” (0-5) and “Ease of understanding” (0-5) in each row of the table.

After each participant has completed the table below then an average score for each cell will be calculated by bringing in the tables of all participants.

3.2 Recommendations

After benchmarking with all TIPs, brainstorming sessions among participants will be conducted to consolidate the findings and generate ideas for improving the country's TIP. The consolidated recommendations for the country's TIP will be drafted. The participants should review and finalize the recommendations by filling in the table of section 3.2.

4. Services and performances

Similar guidance as in Section 3 above, the additional information is below.

- The following quality attribute with quantitative scores could be used.
 - **Usefulness** means how useful and easy it is to be used.
 - 0 – Useless or not available
 - 1 – Not very useful
 - 2 – Partially useful
 - 3 – Moderately useful
 - 4 – Very useful
 - 5 – Extremely useful

4.1 Services

4.1.1. Assessment by benchmarking with other TIPs

Using the table shown in section 4.1.1. as the template, each individual navigates through all four TIPs for the same services (features and functions) e.g., C1. (Language selection and more than one language, i.e., local language, and other languages).

Then each participant will assign a score for “Usefulness” (0-5) in each row of the table.

After each participant has completed the table below then an average score for each cell will be calculated by bringing in the tables of all participants.

4.1.2. Recommendations

After benchmarking the country's TIP with other TIPs, the following actions will be taken:

- Brainstorming among participants in the assessment member to generate ideas for enhancing the country's TIP;
- Drafting the recommendations for the country's TIP;
- Improving and finalizing the recommendations by participants.

4.2 Performance

4.2.1 Assessment by benchmarking with other TIPs

Some performance indicators will be measured as follows

- **Loading speed** – The website <https://www.webpagetest.org> will be used to measure the loading speed of the TIP. A loading time of the TIP website in the range of 5-25 seconds should be acceptable, otherwise it is too inefficient or not very convenient.
 - 5 – loading time \leq 5 seconds
 - 4 – (5-15] seconds
 - 3 – (15-25] seconds
 - 2 – (25-35] seconds

- 1 – (35-45] seconds
- 0 – > 45 seconds
- **Helpdesk feedback response time** – If an e-mail question is sent to the helpdesk of the TIP, how long does it take to receive a response?
 - 5 – if the answer comes back within 1 day
 - 4 – if the answer comes back within 2 days
 - 3 – if the answer comes back within 3 days
 - 2 – if the answer comes back within 4 days
 - 1 – if the answer back within 5 days
 - 0 – if no answer back within 5 days, or if the helpdesk is not available at all to the TIP.
- **Multiple browsers support** – the website “Power Mapper” will be used to check the TIP website’s browser compatibility on a computer desktop. The portal should supply multiple browsers, i.e., Chrome, Microsoft Edge, Internet Explorer, Firefox and Opera:
 - 5 – the portal accessible by all 5 browsers
 - 4 – if the portal accessible by 4 browsers
 - 3 – if the portal accessible by 3 browsers
 - 2 – if the portal accessible by 2 browsers
 - 1 – if the portal accessible by 1 browser
 - 0 – none are compatible
- **Mobile-friendly** – the website can be accessed on a mobile web browser:
 - 5 – the portal is accessible and easily readable on a mobile device
 - 0 – not compatible with a mobile device.

4.2.2 Recommendations

After benchmarking with all assigned TIPs, the following actions will be taken:

- Brainstorming among participants in the assessment team to generate ideas for further enhancing the country’s TIP;
- Drafting the recommendations for the country’s TIP;
- Improving and finalizing the recommendations among participants of the country’s TIP.

5. Governance structure and governance process

- Using the framework, including the Maturity Roadmap Model as described in sections 2.1 and 6 of this guide, to assess the current or as-is maturity level of the country’s TIP on the aspects concerning its governance structure and process. For example, assessment of the as-is conditions at the level of political leadership and mandate – e.g., its strength, interagency collaboration and how effective it is – the mechanism for consolidating and publishing contents on the portal, and the mechanism for improving the quality of the contents and delivering greater impact.
- Using the concept of MRM particularly from section 6, to generate recommendations to improve the governance structure and governance process towards the next higher maturity level - at least one step up – and to make the TIP more effective and with a higher impact.

6. Summary of recommendations

Summary of recommendations to enhancing the country's TIP under assessment should be included here.

7. Conclusion

Conclusion from the assessment team members' findings should be described here.

Note

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