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## APPROVING MANAGER

# SmartLessons

*real experiences, real development*

## Taking Advantage of a Window of Opportunity: The Rwanda Electronic Single Window for Trade Efficiency

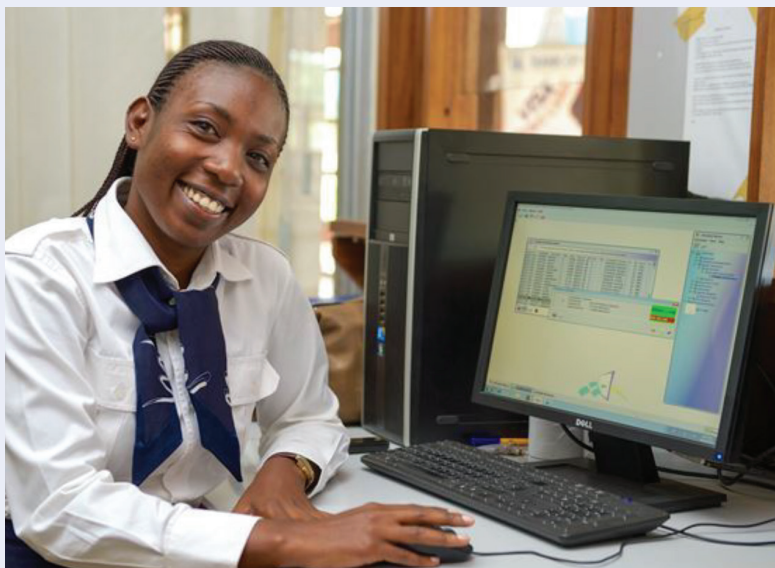
*Rwanda's government and private sector took a bold step towards achieving a critical reform agenda with the design and implementation of a single-window for international trade system. This implementation marked the first successful collaboration among Rwanda's numerous agencies that oversee the country's cross-border trade. Addressing the demands of a diverse group of stakeholders was certainly daunting, but effective stakeholder engagement and change management efforts have produced results that are exerting a major impact on the efficiency of goods into and transiting Rwanda.*

*Driving the Single Window project was an aspiration for greater collaboration at the level of government-to-government, business-to-business and government-to-business. Rwanda's membership in the East African Community, which is a Single Customs Territory was another critical factor. By addressing national needs and incorporating a regional focus and outreach in the management of cargo, the Rwanda Electronic Single Window has achieved success.*

### BACKGROUND

The genesis of the ReSW started in 2005 when the Rwanda Development Board (RDB) started spearheading automation initiatives for government service delivery. Being the agency that supported investors in Rwanda to establish businesses, they identified the challenges faced by investors in the process of clearing goods that they were either importing or exporting in and out of Rwanda. The key challenge rested on investors having to deal with multiple regulatory agencies that had overlapping roles or used manual procedures. To address the challenge, RDB conceptualized the Single Window for Trade. The initiative

was unsuccessful due to the high transaction costs that had been estimated by the government. Under this initiative the Single Window system would reside outside customs administration and hence customs procedures would be considered as being equal to other government agency procedures necessary for cargo clearance. This initiative also presented the possibility of duplication of processes and procedures, complex integration technologies and high capital implementation costs that would make the system inefficient and ineffective. In an effort to build on modernization initiatives then ongoing at Rwanda Revenue Authority (RRA)—the agency responsible for Customs Administra-



tion—the government opted for a Single Window environment that was customs-centric. This meant that the anchor system for the Single Window ecosystem would be the customs management system.<sup>1</sup>

After many delays arising from challenges in identifying the right model for the Rwanda trade environment, the government of Rwanda in 2011 started the implementation of the ReSW with support from TradeMark East Africa, based on three key pillars: enhanced collaboration between government agencies involved in the regulation of international trade in Rwanda; strengthened government-business relationships; and the use of Information and Communication Technology (ICT) to improve service delivery, communication and transparency in the trade environment for the benefit of all stakeholders.

The development of these three pillars and the subsequent choices made regarding the nature and functionality of the Single Window were based on an assessment of Rwanda's trade environment, according to which there were: multiple government agencies with overlapping mandates yet operating in silos; low levels of trust and few channels for communication between the government and business; trade systems and procedures that were predominantly manual rather than automated; and low levels visibility and transparency

<sup>1</sup> The terms Single Window Environment and Single Window Ecosystem refer to the engagement locus where trade actors operate and relate within agreed institutional frameworks, defined standards and protocols that are supported by ICT for the purposes of creating open, transparent, efficient and effective trade systems. It also refers to trade systems that have been integrated and have the capability of sharing information and other critical services to facilitate trade in Rwanda.

in how trade systems and procedures were developed, used and administered.

The implementation of the ReSW officially began in the middle of 2011 at the first of several meetings of key government and private sector stakeholders. Through these meetings, Terms of Reference for the Project Steering Committee (PSC) and the Project Implementation Team (PIT) were developed; within the same period the two teams were established and constituted with representation from the government and private sector. RRA was selected to be the principle implementation agency. By the end of 2011 the process of identifying suitable single service providers to develop the system had been completed. The RRA customs management system is based on the United Nations Conference on Trade

and Development's (UNCTAD) ASYCUDA World Customs Management Platform. UNCTAD supported the technical implementation of the Single Window, which cost US\$2 million less than other commercial versions that were also considered.

In early 2012 the pilot phase of the Single Window System began, and what followed was a gradual roll out to all customs areas in Rwanda. In February 2013 the system was officially launched. With the core work ongoing, TMEA was supporting the other government agencies involved in clearance of goods to automate their backend systems and procedures for licensing or issuance of permits as well as mandatory import or export inspections.

These systems are now popularly known as the Single Window Information for Trade Systems (SWIFTs). The targeted agencies are: Rwanda Development Board; Rwanda Standards Board; Rwanda Agriculture and Livestock Inspection Services; National Agriculture Export Board; Rwanda Agriculture Board – Veterinary Services; and The Ministry of Health Pharmaceutical Unit. The aim was to enhance the efficiency of the Single Window by integrating these systems to enable direct information/data exchange so as to eliminate paper-based permits during clearance of goods. The development and integration of these systems began in 2014; to date four systems have been successfully integrated with the Single Window System.

In mid-2015 TMEA and RRA commissioned an independent evaluation and assessment of the Single Window to establish the impact and benefits of the systems.

The evaluation indicated that as much as US\$18 million has been saved in trade costs and reduction of delays. Since 2015 there are ongoing improvements to the system, including upgrades of the Customs Management System (CMS) and development of mobile enabled applications to support cross border traders.

TMEA began providing support to Rwanda Revenue Authority (RRA) efforts to upgrade its customs management system (CMS), a first step towards establishment of a Single Window environment. During that upgrade, TMEA helped set up, with private sector participation, an interagency task force to advance implementation of the Single Window environment. The task force developed a framework for other government agencies to participate in the implementation of a Single Window system. The implementation had three aspects:

1. **The institutional Framework** – this was the setting up of a governing body to manage the Single Window initiative and a technical body to manage implementation. The governing body was the ReSW Steering Committee whose terms of reference included oversight of the implementation, development of a collaboration strategy to ensure that trade agencies and the private sector work together to ensure the objectives of the Single Window are met. It was also entrusted with the responsibility of directing and approving the activities of implementing the Single Window. Below the Steering Committee was the Project Implementation Team, whose terms of reference were to carry out needs and technical assessments to identify requirements and gaps in the ReSW environment, manage vendors and service providers contracted to deliver components of the Single Window system, and ensure the Single Window would be operational. Both structures were made up of representatives of government agencies and the private sector.

2. **The Technical Framework** – this was the system environment set up to enable information sharing between agencies, and also enhance visibility of clearance processes. The Steering Committee opted for a Customs-centric Single Window Platform on the rationale that most clearance processes reside with customs and because the government had already invested in

upgrading the customs management system. The Single Window operates in two ways: government agencies and the private sector are offered direct access to the customs platform to carry out approvals in the Customs Management System; and back end systems of government agencies are directly integrated with the ReSW to enable the information sharings through web services.

3. **The Change Management Framework** – To support the implementation of the Single Window, sensitization and awareness needed to be enhanced, so the PIT developed a communications plan that was used to make the general public aware of what was being developed by highlighting their benefits. Coupled with the communications plan was a training plan that focused on offering training to build capacity in the use of the Single Window System.

The implementation was phased in with “quick wins” identified and government agencies prioritized based on their relative importance to the cargo clearance process.

Among the tangible outcomes from implementation of the ReSW are:

- A reduction in the average time to clear imported goods through customs from 264 hours (11 days) in 2012 to 34 hours (1.5 days) in 2014. Export clearance times dropped from 67 hours (about 3 days) to 34 hours (about 1.5 days).
- The elimination for importers of the US\$50 fee associated with securing a tax exemption certi-





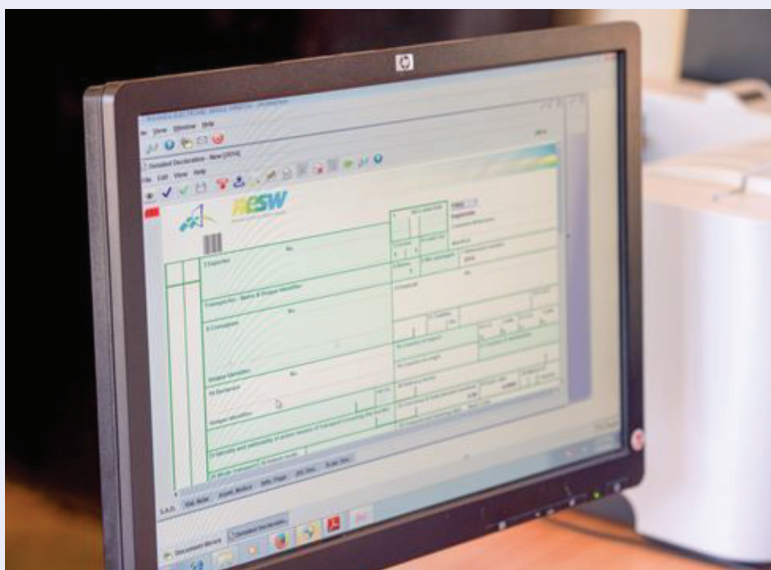
cate and a combined savings to-date of as much as US\$2.6M, based on the number of certificates issued between 2013 and 2014.

- An increase in the productivity of transporters and other logistics providers' assets as a result of shorter turnaround times for clearance of goods as well as savings associated with lower parking fees, demurrage costs, warehousing rent and storage penalties. The money value of higher productivity likely exceeds a combined US\$6M a year.
- Increased cooperation among Rwandan agencies involved in customs and shipments. For instance, RRA and the Rwanda Standards Board (RSB) developed a shared risk profiling mechanism that facilitates a robust risk-based assessment of goods.
- Improved efficiency in the form of expedited, more transparent transactions and communication between government and the private sector. Also, real time monitoring of the progress of goods through the system is now possible and there is reduced scope for corruption as a result of fewer face to face interaction between system actors. According to Fred Seka, Chairman of the Association of Freight Forwarders in Rwanda, "Under the single window a good broker is one who complies with the stipulated requirements set out in the automated environment and is competent in the use of ICT to process trade clearance transactions."

## LESSONS LEARNED

***Lesson 1: A systems thinking and phased approach in the design and implementation of ICT4T interventions is a promising pathway to success.***

A single-window environment comprises complex and multistep interactive and dependent processes and numerous actors so what was needed was a holistic solution that would meet the needs of all stakeholders in Rwanda. Systems thinking enabled all the relevant actors to develop an understanding of how they influence and affect one another within Rwanda's wider trade ecosystem and how their actions di-



rectly affect the cost of doing business and the price of goods in the market.

This in turn made it easier for the government agencies and corporations involved to compromise and pursue a common good above their own narrow interests.

TMEA project teams also needed to strategize project implementation as the stakeholders were at varying levels of preparedness for a Single Window Environment. Some agencies lacked even basic ICT infrastructure as well as the funding to install it.

In response, the team decided to break the project implementation into three phases: the aforementioned upgrade, in cooperation with RRA, of the customs management system; development of a Single Window system based on the automated systems for Customs data (ASYCUDA) World Platform and the granting of access to RSB and the Rwanda Development Board; and development, concurrently with implementation of phase two, of ICT and back end infrastructure for those agencies that lacked it.

This approach meant that the trade environment changed relatively gradually and that the complex interaction among stakeholders did not destabilize progress and become a source of weakness.

***Lesson 2: The ReSW is first and foremost a stakeholder-driven solution and secondarily, a technology-driven solution.***

Many observers refer to ReSW as a technology but the project team has learned hard lessons about how to characterize such solutions. Viewing ReSW as a

technology-driven solution fosters the mind-set that technology can resolve the issues hampering clearance of goods. This mind-set was particularly evident during the benchmarking exercises and site visits made by the team to other countries that have implemented Single Window systems. To begin with, the impulse was to source solutions that have worked in other countries and transplant them “as is” into the Rwandan environment.

This approach met a lot of resistance particularly from smaller trade agencies and Small and Medium Enterprises (SMEs). Their objections were based on the assessment that such solutions were not designed for their specific environment and would assume that for example a phytosanitary agency in Singapore is similar in structure, nature and resourcing as that in Rwanda. Ultimately the approach taken was to let stakeholders drive the process through consensus. The upshot: a Single Window ecosystem is only as good as the government and private sector actors involved in setting it up. Further, the technology can serve an enabling role but does not by itself represent a solution. That said, because the ReSW implementation was driven by stakeholders, the technological component is robust, agile and suited to their needs. This stands in contrast to an implementation that obliged stakeholders to conform to the specifications of an off-the-shelf solution or application.

### ***Lesson 3: The ReSW is a going concern and not a project with a shelf life.***

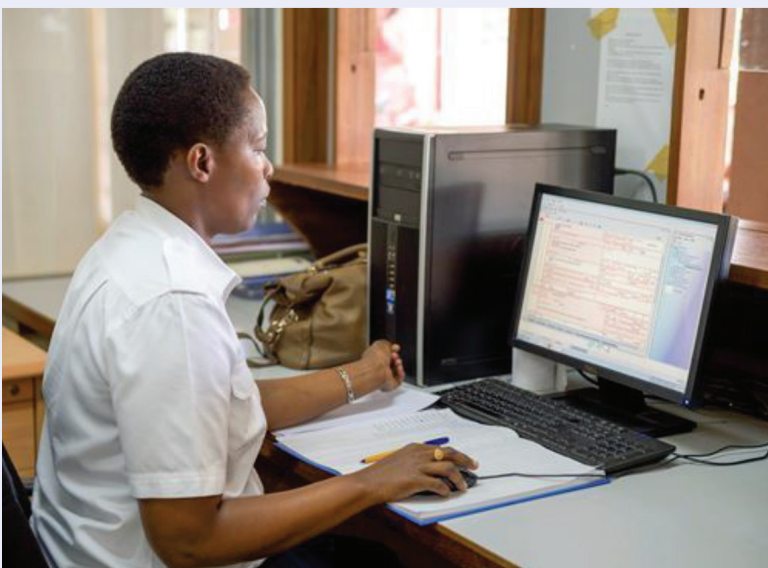
Projects typically have a start date and an end date. The implementation of Rwanda’s Single Window shows the limitations of this paradigm, which focuses on the project donor and implementing team, which set project timelines, rather than the beneficiaries of the project. While a timeline is an important part of project management, it was important in Rwanda to demonstrate to the stakeholders that the project was not finite. Thus, during the design phase two critical elements were incorporated; an intervention sustainability strategy and an institutional framework intended to guarantee continuous improvement of the country’s Single Window system.

The intervention sustainability strategy ensures that the stakeholders are committed to continuing to provide resources to support the ReSW. The institutional frame-

work for continuous improvement is intended to foster and encourage future improvements that are a necessary part of systems development and architecture and which ensure that emerging needs are addressed. For example most of the subsystems development in Rwanda’s Single Window ecosystem have already undergone demand-driven enhancements in response to changes in business and ICT requirements. This institutional framework was formed by retaining the project structures established at the inception of the project – the Project Steering Committee (PCC), the Project Implementation Team (PIT) and the project charter have all been transformed into a working institutional framework that oversees the further development and improvements of the country’s Single Window ecosystem.

### ***Lesson 4: ICT4T Interventions aimed at simplifying trade procedures have a high internal rate of return (IRR) and return on investment (ROI).***

TMEA’s total investment in the ReSW project, about US\$7M, covers the phases and components that have been implemented to date. The breakdown of the interventions ensured that there were multiple streams of benefits accruing over the different phases and building incrementally toward the results mentioned above. An independent evaluation commissioned by TMEA established that the Rwanda economy has saved an estimated US \$15M-US \$20M annually if the economic benefit of time savings in clearance and the reduction of cargo clearance costs are factored in. Every dollar invested in the ReSW has yielded a three-fold return in form of savings.





## CONCLUSION

The ReSW experience demonstrates the value of collaboration among trade stakeholders, adoption of appropriate ICT infrastructure to facilitate trade and political good will and leadership. Such an approach as demonstrated here in the ReSW will be distinguishable from solutions that are based on analyses that either do not capture the entire complex realities and phenomenon in the trade environment.

Part of the success of the ReSW model has been its adoption by other countries. At the beginning of the project planning for the Burundi and Uganda National Electronic Single Window Projects, the technical and management teams from these countries conducted site visits in Rwanda to learn from its experience at first hand. Representatives of a number of West African countries have also visited Rwanda.

The government of Rwanda considers the ReSW initiative ongoing, and continuous improvement is considered critical. Currently the Single Window is undergoing enhancements and upgrades that include: development of mobile enabled applications to support cross border and other small scale traders who have no access to conventional devices like laptops and desktop computers; the development of a single sign-in webpage for the Single Window to offer traders the option of using SWIFTs directly or to access them via the Single Window; the development of other critical customs functions that will support the Single Window to make services available across borders – to enhance the ability of the customs system to share information electronically with other customs management systems in the East African Community trading bloc. Upgrades are expected to continue into 2018.

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