



## INNOVATIONS FOR SUCCESSFUL SOCIETIES

THE WOODROW WILSON SCHOOL OF  
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Interviewee: Joel Ntihakuka

Interviewer: Leon Schreiber

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SCHREIBER: Let's jump off with a quick personal introduction, some of your own background, how long you've been working with the RRA (Rwandan Revenue Authority) and which positions.

NTIHEMUKA: *My name's Ntthemuka. I'm with Rwandan Revenue Authority for the last almost 16 years. By May, I will be having 16 years here. I started in 2002 as a network engineer. I've grown within the department first, the IT department, until today where I'm now heading that department.*

SCHREIBER: So, you've been in the same department for 16 years?

NTIHEMUKA: Yes. IT.

SCHREIBER: If we go back to when you joined in 2002, if you can describe to someone like me coming from outside, I imagine it was a very different organization back then. What were some of the key challenges from the IT side, facing the RRA? In 2002, I think it was four years old. So, what were some of those challenges?

NTIHEMUKA: *By that time, as you mentioned, the RRA itself was very young, so all the processes were in a paperwork environment. So, we didn't have any baseline. Baselines weren't really in existence, if I can say that.*

SCHREIBER: What do you mean by baseline?

NTIHEMUKA: *Every business process I can say automation. There I'm talking about IT, so there were no baselines in terms of IT with our system infrastructure. So, most of the operations were done manually. Registration of the taxpayers was done manually, the whole processing, business processing. It was paperwork. Starting from that, you understand the challenges there. The ambitions were already there in the country. The country was already ambitious. There were a lot of initiatives starting from the Vision 2020. I think you've heard about that.*

SCHREIBER: Was Vision 2020 something that was important for the RRA?

NTIHEMUKA: *Sure, because whatever has been done into the country, not even specifically for the RRA, we were working with that vision. There was a clear lifeline in terms of the vision of the country from the leadership itself. I can say that the problem—the vision was already there, but we had to start from scratch with the minimum resources in terms of infrastructure, in terms even of skilled personnel. Those were, in the beginning, the challenges.*

SCHREIBER: Now, it was a mountain, I think, in front of you, if you read Vision 2020 and you think where the RRA needs to go to achieve that. How did you start? You say the whole business process was paper based. Did you choose specific areas to begin with digital? How did you initiate reforms?

NTIHEMUKA: *We understood that we had two major areas, even until now. Now, maybe areas have been added. But at that time, we focused on customs. Firstly, we started with customs business.*

*I think, I don't have figures, but you can check with other departments, with the department of planning. I think by that time customs were the first, in terms of collections of taxes, was higher than domestic taxes. I'm not sure but try to check.*

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*We focused on customs for many reasons because customs, at least it's a kind of international standard base, customs business process.*

*It's import, export, transit, so it was not too difficult at least to do some kind of model. For instance, we introduced immediately—in fact, even before that period, customs was a little bit—there was the information management system for customs—so the software was there, but with minimum operations.*

SCHREIBER: But even that minimum was more than the domestic sectors had.

NTIHEMUKA: *At least for customs, there was something. ASYCUDA (Automated System for Customs Data), which is a UN (United Nations) product, you know about it? So, it's a software developed by a United Nations branch to support some developing countries, most of the developing countries, at least to cope with the customs standards, to meet others.*

SCHREIBER: I heard from Mr. Musoni (William Musoni) that at least then the declaration part was automated. The other things were still paper, but at least the—

NTIHEMUKA: *The minimal was declaration.*

SCHREIBER: For you, you were like, "There's something at least."

NTIHEMUKA: *At least there is something. We try now to make it much more operational and improve it, enhance it. I was part of the department by that time. So, we focused on that, but in parallel, now we engaged ourselves into putting in place information management system for domestic tax. We started with stand-alone, just small systems like the first one was called SYSTAX.*

SCHREIBER: SYSTAX?

NTIHEMUKA: *It was really an in-house developed, in that time, an in-house developed tax information management system, just to have a database of taxpayers.*

SCHREIBER: That was the first one?

NTIHEMUKA: *This is the base. Although, maybe it was not properly scheduled, but really, if you want to be successful, you have to be perfect with your taxpayer registry, even today. I'm talking to you. We found that we're not as smart as we should be, and we are still improving the taxpayer registry. So, we had that stand-alone system, SYSTAX. Later on, VAT (value-added tax) was introduced in the country. I think it was in 2000?*

SCHREIBER: 2001.

NTIHEMUKA: *One. Okay. Very good. So, we tried also to develop another stand-alone system for VAT business information management system, and then other small information management systems were developed here and there. But in 2004, we said this is not the best way to go. We should have at least an integrated system where you can have the holistic view of a taxpayer.*

*So, we started in 2004 with an integrated information management system for domestic tax. By that time, we worked with a Canadian company, the legacy system,*

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*SIGTAS, which is the Standard Integrated Government Tax Administration System. SIGTAS.*

SCHREIBER: Okay. When you say legacy system meaning this was an off the shelf thing that already—what does it mean when you say legacy system?

*NTIHEMUKA: By that time, when we started with it, that was the official known information management system.*

SCHREIBER: What do you mean it was known?

*NTIHEMUKA: At least in Rwanda, we have an integrated tax administration management system.*

SCHREIBER: Okay. So, the backbone?

*NTIHEMUKA: Yeah. A kind of backbone. We introduced that system. The project started in 2004 with a Canadian vendor, and it was operationalized, I think, from 2006, if not 2005.*

SCHREIBER: Internally?

*NTIHEMUKA: It was not an online platform.*

SCHREIBER: Can we quickly pause there because I want to ask you about the process of getting it operational? You said it was a vendor. You purchased the software? Can you give me a bit of detail on how you got to the operational point?

*NTIHEMUKA: We call it a two-stage tender. We did an expression of interest, and then we got lots of potential suppliers. The Canadian one was the winner. After the evaluation of the different bid documents including the technical, experience, cost, etc... they were \_\_\_\_\_ qualified, and that's why a contract was granted to them. We tried to customize it. They have something (kind of prototype). The SIGTAS was their project. It was a product existing and maybe operational in other countries.*

SCHREIBER: So it was already called SIGTAS when you bought it?

*NTIHEMUKA: Yes. It was already called SIGTAS, by the vendor. It was just a matter to try to customize it a little bit to Rwanda's requirements, the Rwandan approach of requirements.*

SCHREIBER: Can you give me one example of what you customized?

*NTIHEMUKA: An example of customizing? Let's say, for example, in Rwanda, management of vehicles means registration and plate number allocation. This is managed by the tax administration. Such a module of vehicle registration was to be included into the tax information management system while in other Countries it was not. In other countries, maybe this is managed under other ministry, or even the police sometimes. I don't know what it is in South Africa. Let's say registered vehicle—I think it's police, even the plate number. In Rwanda, this was part of—*

SCHREIBER: It's municipalities.

*NTIHEMUKA: Oh, local municipalities, something like that. In Rwanda, this is a function that's under tax administration business, so maybe for the previous vendor, they didn't have that module of management of vehicles, acquisition, registration, even some*

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*tax related to vehicles. They have to add, customize. That's what I'm calling customizing because domestic tax really—yes, it's tax administration, but each country has its own specificities. That's what I'm talking about.*

SCHREIBER: So, in Rwanda, the RRA is the one that manages the vehicle license system?

NTIHEMUKA: Yes.

SCHREIBER: Okay. Interesting.

NTIHEMUKA: *It's true. That was an example of customization they had to do in regard to the SIGTAS.*

SCHREIBER: So you put out the tenders, you get the company, you customize the software with them. Next step is actually rolling it out.

NTIHEMUKA: *Yes. Training people, and by that time the project was an IT project, which was a mistake. Really, putting in place an information management system should not be an IT department managed project. IT guys, we are just enablers. Maybe we come later.*

SCHREIBER: That's interesting. We should reflect on that.

NTIHEMUKA: *At that time, that was the approach we had taken. I remember I was not in that position, but the project of SIGTAS was managed under the IT department. Even the head of IT was kind of the project manager, which is totally a bad approach. I can't advise today. A solution is just to enable business processing, and the business processing should be owned by the owners, meaning the domestic tax department.*

SCHREIBER: So at the very top?

NTIHEMUKA: *Yes. It's like we brought the domestic tax now and say "You guys will be doing this, this way by using the system." And at the end, we found that a lot of gaps here and there because an IT guy, he's not supposed to be the expert in tax administration in terms of business policy requirements, process and processing. We must be there, and we shall understand at the end the requirement from the owners.*

SCHREIBER: I see. If I'm hearing you correctly, it means that in finalizing the system together with the Canadian company, there were perhaps things overlooked by the IT people, certain requirements in the regulations or functions. Then when the actual tax guys started using it, they came to you and said "But where's this?"

NTIHEMUKA: *To be brief, it means the business requirement, which is prepared by IT department, will be having lots of things missing and loopholes, which is not good for a software to be developed.*

SCHREIBER: A little bit of a lack of coordination.

NTIHEMUKA: *It's not coordination. Lack of ownership. I prefer to use that word. Lack of ownership from the domestic tax management. The Commissioner from domestic tax, he must be the owner of that project. You can go far, even Commissioner General must be the owner, so that at least IT will be there to support the department, implement this, bring infrastructure in place.*

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*We are sure of everything, but not really to be the owner of the thing. By that time, this had been done, and we have learned from that. That's how SIGTAS was introduced.*

SCHREIBER: The regional offices, which I assume also would get the program, did they have internet connections by this time, the infrastructure side?

NTIHEMUKA: *No, that was one of the big challenges. What was the problem? Now, SIGTAS is there in place, but in Kigali, where we have the servers, the infrastructure. By that time, we didn't have any internet. No, the internet was there, but we didn't have infrastructure to take advantage from internet to build on it.*

*Even the system itself was not developed from that angle, although it was web-based. But the infrastructure to make it operational from remote side was not there. It was not there.*

SCHREIBER: So the regional offices continued to use paper?

NTIHEMUKA: *Exactly. They continued to work as in a silo. Consolidations towards innovation. And we identified that issue in 2007. Now we say, "No. We have an integrated system. How should we facilitate it in regional offices? To use the same platform?" That's when IT really was very helpful and a tool, to really be an enabler to business.*

*We started with a few sites, even within Kigali, we had a few sites, like VAT was a site, income tax, it was another department's site. We tried now to build our own RRA network, IT network infrastructure, to facilitate remote sites also.*

SCHREIBER: So the network involved cables?

NTIHEMUKA: *Yes. Cables. I remember at that time we used the existing technology. I was using—there I know because I was the one who did it, I was using leased line.*

SCHREIBER: Leased line technology?

NTIHEMUKA: *It's a modem-based technology.*

SCHREIBER: The one with the sound?

NTIHEMUKA: *You call also. That was the technology, it was leased line, modems. But it was not successful because the bandwidth was small, and I introduced later on in 2007, I started to introduce another advanced technology called frame relay technology.*

SCHREIBER: Frame relay?

NTIHEMUKA: *Frame relay technology, that was much improved. It improved a little bit. So, it was much more efficient than the leased line. Now, the real success comes when the government invested much into the infrastructure in terms of telecommunications.*

SCHREIBER: Going beyond RRA.

NTIHEMUKA: *From 2007, in fact, the government within the Vision 2020 I was talking about—the leadership of the country, starting from the head of state. I can say that he was even leading really—that was a kind of investment. The government invests in technology.*

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SCHREIBER: Technology infrastructure.

NTIHEMUKA: *Yes. Infrastructure throughout the country. I remember in end 2006, fiber optic was already in place at least in Kigali. So, we jumped to the fiber optic. In fact, Rwandan Revenue Authority is among the first—if not the first—to test that kind of technology in terms of data exchange. Because we knew what we wanted, and we have taken advantage to facilitate even the service providers to test their network.*

*We tested it to interconnect sites through fiber optics. The infrastructure was growing along the country. As it was growing, we were catching up and connecting. And till today, we have in each and every corner, we have that fiber optic.*

SCHREIBER: Let me just write that down. In which year, roughly, would you say the SIGTAS system was fully operational in all of offices?

NTIHEMUKA: *I can say in 2008-9. At least SIGTAS was accessible from each and every corner of the country through the fiber optic technology.*

SCHREIBER: 2008-9?

NTIHEMUKA: *'08-'09. However, it was almost four, five years already working with SIGTAS, but by that time, the internet facilitation had also become a reality in this country. Now, the question immediately raised, we said SIGTAS is not the right option, is not addressing the issue of service delivery. By that time, we were focusing on the taxpayer account management, but now the idea was service delivery.*

SCHREIBER: So moving from internal to external?

NTIHEMUKA: *Yes. How to delivery tax service to the taxpayer. By the time SIGTAS was now at least optimized in terms of usage, another push came saying—because by that time, people have to queue at our offices every return filing period, in deadline periods. So unfortunately, I don't have some photos here, but people come in the morning, they queue to receive their declaration form, they fill manually, they sign, they stamp.*

*After queuing, they will be again queuing to submit the paper. Filing could even take two to three to four days because you come today, you queue, but at the end, you can find yourself at 6:00 p.m., you've not been served.*

SCHREIBER: So what we're saying is that despite getting SIGTAS up and running, the practical impact on the people filing was not being felt in terms of service delivery?

NTIHEMUKA: *Exactly. In terms of service delivery. Then, we said we have to take one step ahead and allow people to file online. The idea came that way, and in 2010, we thought about the online filing and online payments. That was now really the vision.*

SCHREIBER: In 2010, that became the new vision?

NTIHEMUKA: *Yes. Online filing and payments, because people were not paying at RRA, rather they paid on the banks premises. At that time banks were also introducing online and mobile banking services. So we had to also even push some partners or stakeholders to go in that way, especially banks. And then we introduced the E-tax.*

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SCHREIBER: Please tell me every detail you can about that process, starting with the strategic thinking. You mentioned now it's an idea that's coming, but how did you make it real? Was there a committee set up to think through the options?

NTIHEMUKA: *As I said, SIGTAS was running, but immediately, we have seen the gap within the SIGTAS. SIGTAS was not an internet-based solution, although it could maybe be enhanced. But we said we have the need of going to the internet, it was obvious. Now, it was up to IT to see the infrastructure in place, the resources—resources mean human resource, skills and expertise—the service providers, how is the market of internet service providing, so that at least [we assess] that idea of putting E-filing and E-payment online.*

*A kind of assessment was done of our internet operation in Rwanda, but since the government was also supporting, there was not a big problem by that time. The fiber was already there. At least, we evaluated the infrastructure able to facilitate that move, and that's when we introduced the E-tax and E-filing. Based on the experience we had with SIGTAS, as I told you, the ownership of the SIGTAS as a new product was under the IT department.*

*We said this time the E-tax as a project should be owned by domestic tax, so that at least it would comply with the business requirements and the user requirements. So that IT will be there as a partner to support, to put in place the systems and ensure it is operational. We focused on that. That's why now, at least the E-tax had been taken as a project under domestic tax, although IT department played 80% of the role, because even understanding the process, what is feasible, potential challenges.*

*IT has a big role, though we tried this time to engage at the early stage the owner which is domestic tax office, the same way customs—we didn't talk much about customs. Customs has been using a customs expert from UN to have customs systems at site. IT was supporting. So, that's what we did with E-tax, and it was introduced in 2011. What we did, we said we cannot buy a kind of prototype because there was, and there is, lots of things which are unique on policy level, in practice, and the culture of people, the structure, their mentality, the capability of citizens.*

*So, we said let's do something which is really developed, and I can use again the word customized this time, to the Rwandan environment. because tax administration is really dynamic. It's not always static like people may think. There are lots of dynamics in tax administration, especially in terms of law. Tax laws are not always static. They are dynamic, changes, new ones, change of existing laws, because every small policy, rules, regulations, which is introduced or revised, must affect the system.*

*This is another challenge of a system which is bought from overseas because how do you follow those dynamics as a system operation. It means you have to have a system which is also flexible on which you have access rights to do at least some changes in your capabilities.*

SCHREIBER: You much have the license to change?

NTIHEMUKA: *License and access to the source code itself. We thought in that way, getting the source code from vendor it's not easy. Basically, a vendor never gives that.*

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SCHREIBER: They will make you pay for that.

NTIHEMUKA: *Even if you pay, they prefer that for you to be relying because that's better than selling one product. But good enough, we tried to negotiate. Again, we launched the offer of the online E-filing, and E-payment. Only that.*

SCHREIBER: E-filing and E-payment? Was this a tender?

NTIHEMUKA: *Yes. We did a tender. We developed terms of reference.*

SCHREIBER: E-filing and E-payment.

NTIHEMUKA: *Yes. Electronic filing and electronic payment.*

*That was the big challenge to address because the problem was, every month, people have to move. As I was saying to you, filing could even take three to four days.*

SCHREIBER: Every month?

NTIHEMUKA: *Yeah. If you are in a monthly regime, like VAT, we have two categories. I think you have made already the different tax types. An example of VAT, you have a category of taxpayers who process their return on a monthly basis. Think about that person. Every month, you have to come to queue, to take the form, to fill the form, attach annexes, and attach other things.*

SCHREIBER: It took you four days a month every month?

NTIHEMUKA: *Yeah. Just for filing and paying. You queue for filing and you queue also for the bank for payment processing. We said this is not the way Rwanda should go. It was not the vision for the country. Our tax administration should also follow. Good enough, I think we did a good job on that. We developed. For E-tax, we didn't continue with the Canadian company.*

SCHREIBER: You didn't?

NTIHEMUKA: *No, the winner of that tender was now an Indian company. We started to develop a platform, online platform, easy to use, following the maximum standard possible for online applications. It was operationalized.*

SCHREIBER: You developed it together with the Indian company?

NTIHEMUKA: *With the Indian company, yes. So, our developers were sitting together, business analysts, trying to understand the business, put in place the requirements, and we have put in place our platform for electronic filing and electronic payment. It was operationalized in two phases. We started with large taxpayers. You see you have to pilot with few people and train them, how to work. It was a success.*

SCHREIBER: Which year was this?

NTIHEMUKA: 2011.

SCHREIBER: It was a success.

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- NTIHEMUKA:** *It was a success. People were not coming back to RRA to queue from the office. We have taken advantage of having different cyber café around the city, so even the cyber café owners, we trained them because we knew every taxpayer does not have a computer at home. The ICT literacy in Rwanda, although the vision of the government efforts is big, ICT literacy is still low, even until today. So, we tried to engage cyber café owners.*
- We train them how to log in, how to find, how to attach annexes, to submit your declaration, how to pay online. The service of online payment now, you understand it's a kind of outsourced service through the bank.*
- SCHREIBER:** Through every bank?
- NTIHEMUKA:** *Every bank. Yes. The ideal for us was to involve every bank, no one excluded. So, we didn't exclude.*
- SCHREIBER:** When you say outsourced, it means if I go to the website to pay my taxes, I log into the RRA website—
- NTIHEMUKA:** *Portal, yes.*
- SCHREIBER:** —but it's linked to the banks' websites.
- NTIHEMUKA:** *It's linked somewhere so you can use internet banking. You can even go with cash to the bank. Now, we are on the level to discourage cash processing. It's another state, but by that time we tried to put all mechanism together for those who don't have even—some taxpayers maybe they didn't have any bank accounts, so they still did process payment with cash by going physically to the bank.*
- SCHREIBER:** Sorry. How much is a flat regime? How much do you actually pay on that flat rate?
- NTIHEMUKA:** *We have different categories. It's based on the turnover. If you've been told about the turnover? In Rwanda, from zero to two million Rwandan francs as turnover, those people are exempted from tax. They are out of tax net.*
- SCHREIBER:** That's per year?
- NTIHEMUKA:** *Per year. Out of tax net, but if your turnover is more than two million francs to four million, they income tax is 60,000FRW/year paid on a quarterly basis of 15,000FRW.*
- SCHREIBER:** Annual basis?
- NTIHEMUKA:** *Yeah. 60,000. It means 15,000 per quarter.*
- SCHREIBER:** Okay. And they're required to pay every quarter?
- NTIHEMUKA:** *Yeah. They are required, so they are registered and they have personal income tax. Most of them are small business operators.*
- SCHREIBER:** Personal income tax?
- NTIHEMUKA:** *Yeah. We call it PIT. From four million to, I think it's seven million, it's 120,000 per year. We have different categories up to 50 million. If you have a 50 million turnover per year, your income tax is 3% (lump sum regime).*

SCHREIBER: Okay. More than 50 million.

NTIHEMUKA: *No. Up to 50 million. 3% of your turnover is a lump sum.*

SCHREIBER: Once a year?

NTIHEMUKA: *No. Per year, but payable four times.*

SCHREIBER: Payable per quarter.

NTIHEMUKA: *Yeah. We have quarters. We have another category of 240,000. Now, if the turnover is more than 50 million per year, there you have what we call—real regime. It means you are obliged to keep your accounting books. These people, under 50 million, they are not obliged to keep their accounting books because even managing an accountant and whatever, they can't afford. That's the idea behind the law.*

SCHREIBER: Well, very smart.

NTIHEMUKA: *Most of our taxpayers, they are between these categories. Those are people that don't have internet themselves. Their ICT and computer literacy is low. We thought now for those. Because, as I said, E-tax and E-filing, the objective was improvement of service we provide. No one must— spend much time to pay tax.*

*Why someone who is doing his transport business on his motorcycle because they are between these categories? Why should he spend one day paying tax? They don't have internet, what can we do for them? How are they going to enjoy the technology for service we provide?*

*That's where I think it's a unique model. We introduced the mobile declaration approach. Today, I have some figures I can share with you, because we are in March—*

SCHREIBER: It's the end, right?

NTIHEMUKA: *Almost the end of the annual income tax. 50,000 of our returns are done through mobile. No, 50%, sorry. 50%.*

SCHREIBER: You have about 150,000 registered taxpayers?

NTIHEMUKA: *Until today, we've grown 69,000 almost 70,000. Take percentages. So, 50%, they're processing their tax return on the telephone. This was introduced in 2013, so one year after the E-filing. In 2012, we introduced the mobile declaration. It was also an element to improve the compliance. For some people, he'd come here, he'd queue for one day. At the end, we find these people are discouraged and do not file.*

*They get prepared to deal with penalties or whatever. Compliance also was low, but with the introduction of mobile declaration it was really a success. The idea was saying okay. Everybody who has Internet access from his office, from home, he can file. But what about our guy who is waiting for the customer on his motorcycle. We said the only technology he has in hand is his mobile. So, while he's sitting somewhere, he can take two or three minutes and process the filing.*

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*We introduced the mobile declaration, which is really a very helpful tool to those small and medium guys, who does not have annexes to be attached to the declaration. This is a specific thinking in Rwanda, we have introduced. I don't know if other countries have that.*

SCHREIBER: I think it's very new.

NTIHEMUKA: *By that time, we didn't say no one has a smartphone. We introduced a technology that does not require a smartphone. Even from a very small phone, you can process—you've been told about it?*

SCHREIBER: Yeah. Just very briefly. Please go on.

NTIHEMUKA: *Yeah. You just do \*800#, you call, there you have your menu, you select language. Most of our people are good at Kinyarwanda language.*

SCHREIBER: What are the options you get now?

NTIHEMUKA: *Here, now, that's what I want to show you. Now, we have four kind of taxes that can be processed here, no three, because another tax type has been introduced. I'll tell you later, but at least from the beginning, you have thinking about those people who are in transport activity, especially moto— motor taxi. I don't know if you have enjoyed moto—*

SCHREIBER: I have indeed.

NTIHEMUKA: *In Kigali?*

SCHREIBER: Yes, I did.

NTIHEMUKA: *South Africa, do you have—?*

SCHREIBER: No.

NTIHEMUKA: *You don't have that. So those guys are really—*

SCHREIBER: They're everywhere.

NTIHEMUKA: *They're everywhere giving good service. They don't care about traffic jams.*

SCHREIBER: No, you just weave your way through. It's the best if you're late.

NTIHEMUKA: *It's really practical, so we introduced that also. Not only transport, but any other small business operators. That's how we have grown with using technology as an enabler to service many of our customers. It's one of the pillars of the RRA. Among the four pillars where we have tax optimization. You have service delivery. We have compliance, improve the compliance, and strengthen the institution, means training, using the internet... Really, we are a public service. It means our service delivery should be the best as much as we can. That's the way our technology is, IT, where we play our role.*

SCHREIBER: I think it's a fantastic story, honestly. Just to check where we sit today, SIGTAS still exists for the internal things?

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- NTIHEMUKA:** *Yes. As I told you, this is our story. Yes, E-filing and payment, good, successful, but the business of tax administration does not stop there. You have what we call "back office" functions. What we call back office functions, it's registration of new vehicles, as I told you, plate number management, ownership management. These should be part of the tax. It was managed under SIGTAS. On a second level, we found we have lots of gaps. Audit business, when it comes to an audit, there is a whole business process for audit. It was there, even into SIGTAS, it was not operationalized.*
- SCHREIBER:** Oh, really? So, it was still paper based?
- NTIHEMUKA:** *So we said all those back offices should be also introduced into the E-tax project. That's where we started what we call phase two of the E-tax. Phase one was E-filing and E-payment. Phase two, we called it E-tax enhancement, but really what was the objective was to include missing modules, motor vehicle management, audit, function, appeals, refunds, enforcement information management system. All those are key functions within the tax administration.*
- SCHREIBER:** And most of them now are still on SIGTAS?
- NTIHEMUKA:** *Even not operational in SIGTAS. To be honest, they've not been operationalized.*
- SCHREIBER:** Either on SIGTAS or still manual?
- NTIHEMUKA:** *Manual. This is the phase where we are. We are developing and expect to have complete tax administration information management system with all functions, what I can call front end and back end functions. We are working on that. We believe the project will be ending in—*
- SCHREIBER:** Six months?
- NTIHEMUKA:** *No, we started in 2014.*
- SCHREIBER:** In six months as in it will be finished?
- NTIHEMUKA:** *Yeah. By December, we will be having the remaining modules because some of them are already completed like motor vehicle management. It's already taken out from SIGTAS, fully in E-tax. The audit model is already tested and approved. We are introducing the piloting, the appeal module is under tests, the enforcement module is under tests, user acceptance tests.*
- The rest will be the full picture of tax account management. See one taxpayer and have the full picture. This is how it's done with VAT. This is how it is done in income tax. This is how it is done with, pay as you are. This is how it's done in excise if he's subject to excise duty. That's the vision we have today, and we are still working on it.*
- SCHREIBER:** Very impressive vision and progress towards that vision.
- NTIHEMUKA:** *Because if you want, one morning you can just take your phone and say how am I standing in VAT? What are the requirements? How is it possible that the Revenue Agency is saying I have a liability of one million in VAT? Then you take that operation. You guys, you are saying I owe you one million. Why? We see; we check. That's where we want to go.*

SCHREIBER: At which point was E-filing and E-payment and everything fully—you said you did the pilot with the big companies, with large taxpayers in 2012?

NTIHEMUKA: '11- '12.

SCHREIBER: And then fully rolled out when?

NTIHEMUKA: *I can't say fully rolled out. That's why I talked to you about the mobile declaration because we have taken the mobile part as part of E-tax. That ability is the same. So, we can consider 2013, after introducing even that facility to small taxpayers. There you can say E-tax, E-filing, and E-payment was fully operational to all taxpayers large, medium, even small. If I consider that part of mobile declaration.*

SCHREIBER: Can you give me a brief overview of the custom side? You mentioned that they had this one element that was digital back in the day, but I'm sure there was a lot of work there as well.

NTIHEMUKA: *For customs, as I said before, we have something, but also the concept of online technology, so how can really the technology of existing solutions be utilized? In customs, we talk about importers, exporters, they can take advantage also. The idea also was to put it online. We improved the system in place in 2013 also, but it was taken under a project called Rwanda Electronic Single Window.*

*The success of E-tax introduced by tax administration, of course building on top of the big vision of the government because the government is the one who invested in the infrastructure and supporting the idea of using technology, so the leadership in fact, we said so what about customs? They are still processing from specific offices where you have connections to the system, what you call the office for clearing agencies. We said also they have to take advantage of the internet. At the same time, we said let's do the same. They must also be able to process their declarations, or import or export from internet*

SCHREIBER: Payment.

NTIHEMUKA: *The vision is doing business facilitation in Rwanda. Every stakeholder including Tax administration must play its role accordingly.*

*You are coming as an investor, you see facilitation from internet, you will be able to file, to fulfill your obligation vis-a-vis the tax administration. On top of doing business, we thought about customs, and we introduced two concepts together: The E-filing and payment plus the electronic single widow concept. What was the electronic single window concept in Rwanda? That was for the whole government, not only for tax administration.*

*Although, tax administration has been tasked to put in place the mechanism. It was simple thinking. We said okay. What does it mean electronic single window in Rwanda? It was a concept to facilitate all stakeholders into the customs business process to have a single portal. We ask ourselves who are the stakeholders? The first one is the customs administration. That means the customs information management system should be there. The second partners are importers and exporters. Those are the beneficiaries on the first level.*

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*The third category is for customs by the law, you must use a clearing agent. So, clearing agencies are also stakeholders. You have to think about them and their electronic single window. Fourth level is the private sector partners, private and public-sector partners, including even central government bodies which are ministries.*

*How do ministries come in the game of import and export? Each and every ministry is subject—a ministry or a minister is the one under its authority or power—who deals with what we call the exemptions. An exemption in customs is a big chapter of the business based on different factors, managed under each and every ministry.*

SCHREIBER: Right. So, exemptions from tariffs, for example?

NTIHEMUKA: Yeah. Exemptions from customs duty.

SCHREIBER: If you bought something, you import something, you may qualify for—

NTIHEMUKA: *If it's qualified or not, it's up to the ministry to approve or to disapprove. It's something which is related to diplomatic agreement between countries, it means it's Ministry of Foreign Affairs who will deal with that. If it's something related to medicines, import and export of medicine, it's Ministry of Health. It it's something related to agriculture--*

SCHREIBER: So fertilizers or something.

NTIHEMUKA: *—all the ministries, you immediately see how they are business partners, so they should have also access to that single window, whether bigger or not. But they should also—the whole process should be turned around one automated system. That's where we brought the idea of Rwanda Electronic Single Window, which is totally different in other countries. They may define their electronic single window only on the financial spectrum of business, and they say okay. For banks and whatever and other financial institutions, they can be an electronic single window based on financial business only. It's just a concept. It's not something you can say oh, Rwanda they have done an electronic single window. But our electronic single window, it's around customs business, and now we developed and we didn't go outside to the existing system. We continued the project—it has been done with UNCTAD (United Nations Conference for Trade and Development).*

*So, they have introduced what they call ASYCUDA World (Automated System for Customs Data). It's a new version of their product, in terms of the system. This is no longer called ASYCUDA, they have ASYCUDA++, which is automated system for customs data. They have put in place an enhanced one which is called ASYCUDA World. It's simple to say it is an internet-based platform, simple as that. But you have customs information management system, clearing process, import, export, transit, exemptions, certificates. .*

SCHREIBER: So is it fair to say, to summarize it by saying the electronic single window runs on the ASYCUDA World platform?

NTIHEMUKA: Simple as that.

SCHREIBER: Right. I think we can wrap it up. Maybe one final question. This has been wonderful, and I'm very grateful for it. I wonder your concluding thoughts here. Two or three of

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the key factors that enabled you to make all this progress that we've been talking about today. We've touched on the government vision.

*NTIHEMUKA: Should I cut two? I can say all these ideas other people may have, they have even better. But how to make them realistic, we have full support of our government, full support from the high level of the institution, very high level, head of state. So, full support of making technology an enabler in Rwanda. This was one, that political support, to be short. Second, it's the infrastructure in place. You might have good ideas, good vision, but if you don't have key infrastructure in place, you can't.*

SCHREIBER: Which is also the government enabling you, in a way.

*NTIHEMUKA: Exactly. It's almost the same. So, it's government enabling in one way by making appropriate investments and pricing support. Because all this, we said, yes you might have infrastructure like some countries. Maybe they have even better infrastructure, which I don't know, but they have not at least, maybe, gone up to where we are, although we didn't use too much money, maybe. But most important thing I think was that, key factors, and we tried to understand very early through the vision that this is the way to go.*

*No need to do lots of deviation. So, put in place projects to address real problems, not just to say South Africa is running this. Let me do that. Australia's doing this. Reality in Australia, it's not necessarily the reality in Rwanda. Something which is working in Rwanda may not work in Congo, it's an example because it's a near country, a neighbor country. I think for us that high level of support and guidance and political leadership; there's a serious leadership behind the improvement of all these things.*

*Because you may have this idea, what about if banks don't follow? The E-payment will not work, although you have this service. It means—that's what I want to show you that the leadership, it's key.*

SCHREIBER: The leader needs to go and convince the banks that we will go along with this.

*NTIHEMUKA: Yes. Otherwise, you'll be just a beneficiary. You will not be able to implement some of your vision, in fact, you may find it difficult.*

SCHREIBER: Thank you so much.

*NTIHEMUKA: Thank you, sir.*