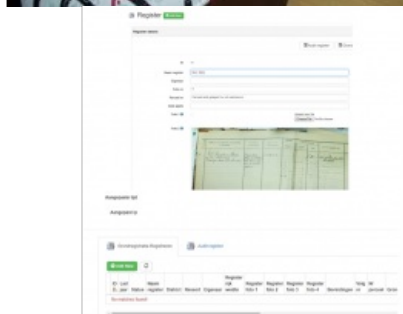## *COMBINING TECHNICAL AND CULTURAL CHANGE INITIATIVES*

Modernization of Suriname's Public Domain Cadastre

In 2017, Suriname's Ministry of Land Management decided to digitize and automate the process of citizen requests for land and the management of land, which had mainly been paper-based for the past decades. This article outlines how the approach of consciously addressing technical and cultural aspects in combination with modernizing the public-domain land administration in Suriname has enabled significant results within a time span of two years.

Suriname is a former Dutch colony that became independent in 1975. The country has a population of approximately 540,000 and comprises an area of just under 164,000 square kilometres. More than half of the population live in the coastal area and the rest in the interiors, with very often no claim nor title on the lands they live on. In Suriname, citizens are entitled to receive land on lease from the government for farming, agriculture or habitation. The process of requesting land has been paper-based for the past decades. The process of managing public and leased domain land in Suriname has also mainly been paper-based. Part of the process chain has been digitized and was brought separately into an institute in 2008.

Paper-based record keeping.

Cadastre Modernization

In 2017 the country's Ministry of Land Management decided to digitize and automate the process of citizens request for land and the management of domain land. The ministry received technical support from the e-Government unit to optimize the process and develop tools. The tools, systems and optimized process are well accepted and widely used. The open-source solutions built now enable digital storage of citizens' requests for land, and faster and more transparent enquiries into the status of a request. This development also contributes to the Sustainable Development Goals (SDGs) related to land, specifically SDG 1 'No poverty' and SDG 2 'Zero hunger'. Thanks to the digitization and automation of the process, all men and women in Suriname

now have equal rights to land with legally recognized documentation.

The Domain Office within the Ministry of Land Management has kept paper-based records for the past 45 years. In 2017, it committed to an integral approach to digitize and automate its processes. The geographically spread public offices were first connected via IT networks. The existing process was mainly text-based, outdated and interpreted differently by different process actors. Overall, the solution demanded software, hardware and network infrastructure guaranteeing real-time access, high performance and scalability.

Feedback was collected as the tool was being built.

To reduce costs and ensure fast and lasting results, the agile methodology was used to understand the process and then build the application. This method resulted in a fit-for-purpose system in which the accuracy of information grew with each iteration.

Process First, Then Tooling

Thanks to the process being modelled in Business Process Model and Notation (BPMN) and published via a web-based process portal, all stakeholders had a uniform understanding of the process and were more effectively and comprehensively collaborating towards improving and implementing the optimized process.

An open-source code generator was used to build the application and immediately show the results, receive feedback from the process actors and refine the application. The generated code cut down development time by more than 60%. The most significant benefit of working with a code generator was that it immediately showed the process actors how they would work in the new situation. Simply discussing how things could be creates a risk of misinterpretation and misperception, whereas immediately showing the actual results ensures clarity from the beginning.

The web-based process portal was easily accessible to all relevant stakeholders.

Cultural Improvement Initiatives

In the end, the optimization of the process and the development of the application took relatively less time than the time needed to transition the people from a paper-based working culture towards a digital workflow. The following areas needed thorough attention to successfully transform the culture from paper to digital:

- Connecting with all stakeholders
- Defining new roles with the process actors
- Continuous leadership ownership.

Built applications that can be used immediately.

Connecting with All Stakeholders

In the communication with stakeholders, it is important to make an extra effort to first make a connection with all relevant stakeholders at an early stage, even the ones that are indirectly involved. They should also be kept regularly informed about the initiatives, independent of the size of the organization. Keep in mind that people have different communication styles. A very simple and effective tool for understanding the information processing, thinking and decision-making styles of different personalities is the Myers-Briggs Type Indicator (MBTI). By identifying and using these insights in communication, it is possible to more effectively:

- elicit requirements
- deal with resistance to change
- share information
- stimulate teambuilding.

Defining New Roles with the Process Actors

As the process changes, some activities may become redundant and others will be done within the tool instead of on paper. Instead of making it an HRM exercise, sit with the relevant people to define new roles, such as coordinators within units or departments throughout the process. One important role that will be needed is that of 'Champions'. The champions will be the individuals who promote the tool, encouraging other process actors to use it and gathering feedback for further improvement. The champions participate in regular sessions with all the other champions to share findings, with the focus on handovers between the process chain. By better understanding what other units or departments within the process do, more quality of output can be achieved.

Regular update meetings were held with the whole team, including directors.

Continuous Leadership Ownership

It is possible that leaders may consider it unnecessary to be involved throughout the transformation, but this is actually one of the key

success factors. Having leadership involved in the process improvement workshops and the tool development sessions, and also using the application, sends a strong message to the process actors about the importance of the transformation.

Concluding Remarks

The approach of consciously addressing technical and cultural aspects in combination with modernizing the public-domain land administration in Suriname has enabled significant results within a time span of two years. The cultural initiatives ranged from role definition sessions to teambuilding and leadership involvement. The technical initiatives ranged from process improvement workshops and tool development sessions to infrastructure improvement initiatives. By actively and consciously looking at cultural and technical aspects, the reciprocal insights made it possible to significantly and rapidly address challenges.

Good land governance facilitates economic development and offers a means of escape from poverty (SDG 1: No Poverty). Every country has its own unique technical structures and culture. Taking into account challenges in both areas better equips reformers with tools and solutions to successfully modernize the country's land administration.

About Business Process Model and Notation

Business Process Model and Notation (BPMN) is a graphical representation of specifying business processes in a business process model. It is maintained by the Object Management Group (OMG). BPMN is also ratified as ISO 19510. The objective of BPMN is to support business process management for both technical and business users. The notation is intuitive to business users and enables representation of complex process semantics.

Collecting feedback from process actors.