The TTE Sandbox

In the midst of every crisis lies a great opportunity

Enabel

MINISTRY OF EDUCATION AND SPORTS

Belgium
partner in development

THE TTE SANDBOX

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This document provides information on the TTE Sandbox innovation, implemented by Enabel, the Belgian development agency and the Ministry of Education and Sports in Uganda. We hope this content will reach others in similar sectors and inspire communities to adopt, adapt and scale up these practices.

When I first heard about Enabel's Sandbox for teacher training in Uganda, I had difficulty imagining what it actually was. But then I thought about small children playing in a sandbox, and how that enables them to discover new ways to mold sand and how it stimulates their creativity to manipulate the sand in whatever way they feel like. With a quick internet search, I also learnt that in the computer science world, a sandbox is a closed testing environment designed for experimenting safely with web or software projects. It quickly became clear how relevant this is to teacher training and to the context of Uganda!

Teachers have to create and accompany learning processes in a safe environment. In today's world, this includes learning about digital tools and the many useful applications they can have. They can enhance learning, employability or opportunities for entrepreneurship, access to social and financial services, enable active citizenship and so much more. They are rightly part of the so-called "21st-century skills".

On top of that, teachers in Uganda, like elsewhere, have had to deal with the covid crisis and its many restrictions. All of a sudden there was a real urgency to switch as much as possible to distance learning. Fortunately, many digital tools were already available to make this happen, but it required a real push to get teachers and their trainers quickly up to speed with this enormous new potential.

Here I would like to congratulate Enabel for seeing the opportunity in this crisis and for their timely response in developing the TTE Sandbox and bringing it to where it could have an immediate and strategic impact on transforming teaching and learning in Uganda.

This is not to say that all of the work has been done. A key challenge in using digital tools is inclusivity. Whereas the tools have reached learners during the covid crisis that would otherwise have no means to learn, it remains a reality in the Ugandan context that not everyone has access to digital equipment and connectivity. So, we call on all of the institutions and partners involved in this digital ecosystem to keep on expanding access with specific attention to those that are harder to reach. This will allow the demonstrated benefit of the TTE Sandbox, as well as the many other digital tools that Enabel has invested in, to be brought to scale even further and contribute to Agenda 2030's ambition of leaving no one behind.

Together, we can make this happen.

Koen Van Acoleyen
Head of Cooperation
Embassy of Belgium in Uganda

SDG4

The framework of Enabel's work in Uganda mainly is SDG4, to "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all". It is within this framework that Enabel in Uganda also addresses Digitalization in Education (D4E). As a research paper from Educaid on D4E indicates, 'in addition to digital tools, digital transformation also provides opportunities to improve connectivity at all levels (pupils, students, teachers, trainers, school or institution management and ministries of education) and to increase efficiency and quality.

That's exactly what Enabel in Uganda aims for!

Enabel in Uganda

Enabel in Uganda wants to ensure that quality education is aligned with the D4D strategic note for the Belgian Development cooperation. Uganda received a grant from Belgium to finance the TTE project (to improve secondary teachers' Education in the National Teacher's Colleges) and the SSU project (to support to Skilling Uganda). Enabel supports 5 National Teachers' Colleges (NTCs) and 7 Vocational Training Institutes (VTIs) in terms of Digital for Development.

As part of the program extension dubbed the 'Bridging program', Uganda also received a grant from Belgium to support beneficiary organizations and ministries to improve service delivery using e-services. (SDHR project)

Links and QR codes to project flyers

TTE flyer: https://padlet.com/TeacherTrainingUganda/KMBoardTTE/wish/2122216569	
SSU flyer: https://padlet.com/TeacherTrainingUganda/KMBoardSSU/wish/2296502551	
SDHR flyer: https://padlet.com/TeacherTrainingUganda/SDHR/wish/2302446170	

Digitalization is a key priority

Digitalization is a Key Priority in the third National Development Plan (NDPIII) and the Digital Agenda of Uganda. The government is digitalizing some of its services and promoting the digital transformation of the NTCs and the VTIs. In the National Teacher Training colleges, before the Covid-19 pandemic, there was already a strong focus on D4E, which formed the foundation to ensure the continuity of learning during the crisis.

Go to Links or scan QR codes

Training Competent Teachers for the 21st Century:
https://issuu.com/tteugandaenabel/docs/29092020_finalcapdoc

Video D4D:
https://www.youtube.com/watch?v=JyY_VxT6lBQ&t=30s

The Covid-19 pandemic

The World Health Organization (WHO) declared the COVID-19 Pandemic on March 11, 2020. Since then, the pandemic has been spreading rapidly, leaving no country unaffected and causing considerable human and economic losses. In Uganda, the first case of COVID-19 infection was confirmed on March 21, 2020.

Uganda's 15 million learners constituting about 40% of the country's total population were sent home on March 2020. During the country's 22-month school closure, which ended in January 2022 — one of the longest pandemic-related shutdowns in the world — Enabel managed to ensure the continuity of learning in 5 NTCs and 7 VTIs in Uganda and inspired 5 partner countries of Enabel to use similar tools and approaches.

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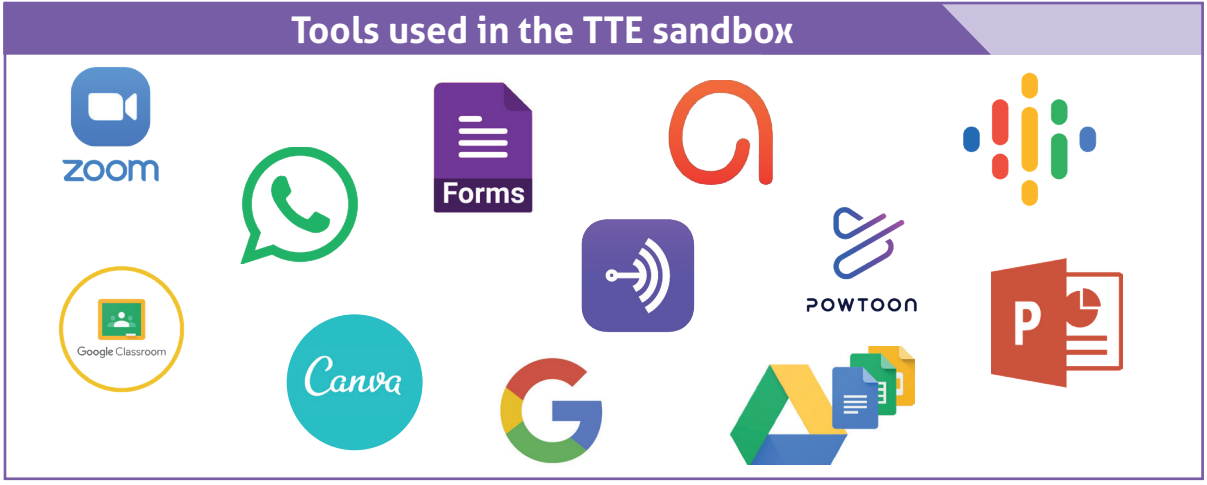
Enabel's Distance Learning Strategy:
https://www.youtube.com/watch?v=VWGRCEgUctk

The TTE Sandbox

The TTE Sandbox as a testing ground for Educational Technology (EdTech), was co-created with the 5 NTCs. It clearly answered the needs that arose from the closure of schools in March 2020. The action focused on ensuring communication between college and students, piloting new ways of results-based management and improving 21st-century skills of lecturers so that they are able to ensure the continuity of learning (via WhatsApp, Google Classroom, Zoom, ...).



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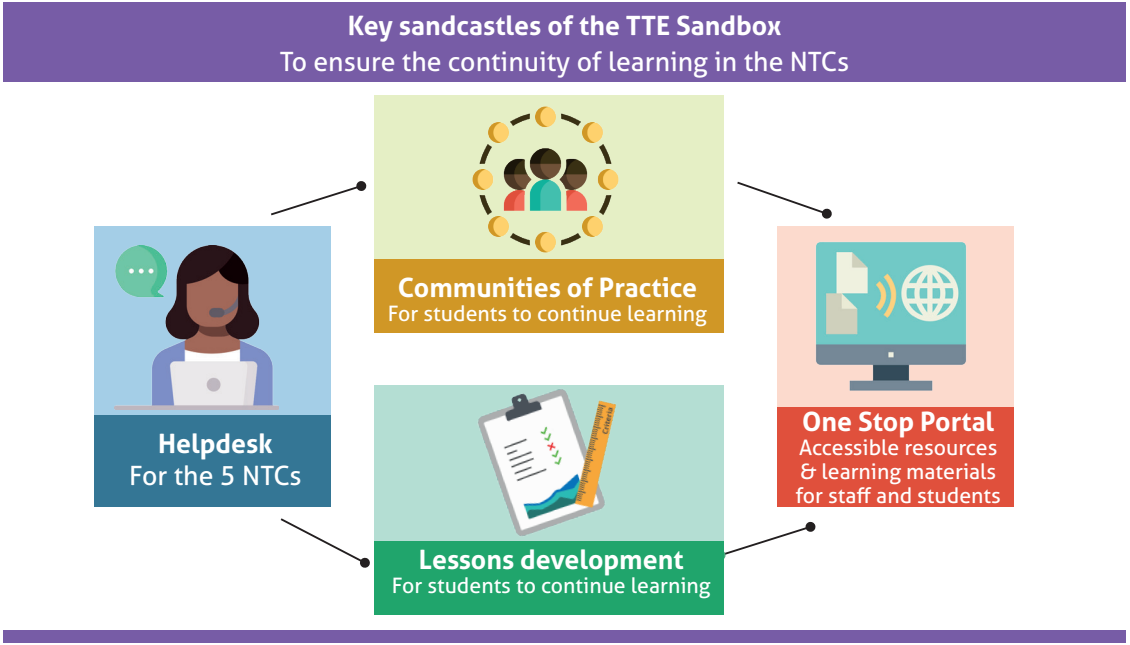
The TTE Sandbox explained:
https://padlet.com/teachertrainingуganda/Sandbox/wish/663118528

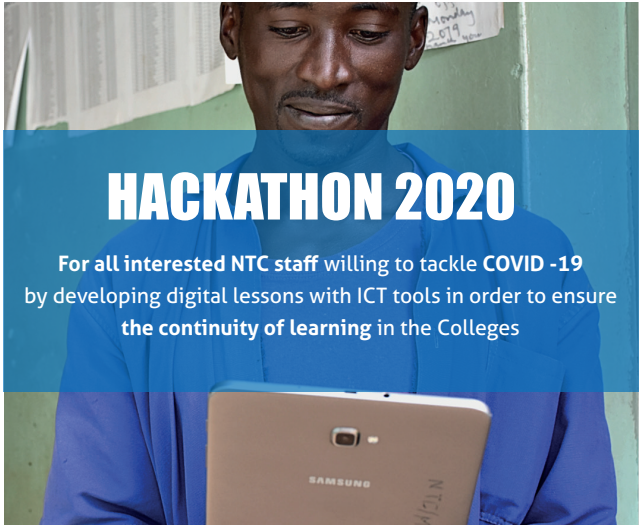
The TTE Sandbox

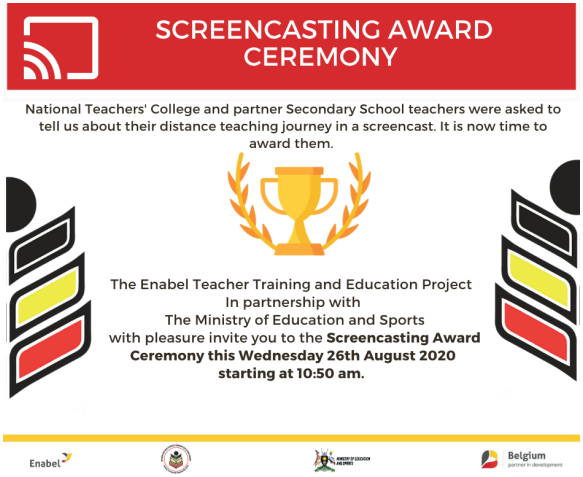
The TTE Sandbox was launched to ensure that communication is maintained between NTC management, staff and students with a bulk SMS system, complemented with an annual video conference subscription for each college (Zoom). A series of Community of Practice (CoP) sessions (20) for lecturers and ICT masterclasses (4) for students were organized in 2020, showcasing new digital tools and a 'Help-desk' was established; a peer-to-peer support system that consisted of lecturers from each of the NTCs.



Hackathon and Screen-casting Challenge

A virtual hackathon and a screen-casting challenge were organized to stimulate the lecturers' involvement to use the different technologies to design their digital lessons and when the lesson content was developed, it was then uploaded to a one-stop portal (Padlet) for easy access. Through a partnership with MTN the portal was Zero-rated (no data involved to download lessons).





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TTE Sandbox:
https://padlet.com/teachertraininguganda/Sandbox

E-Learning Readiness

A Study on e-learning readiness conducted in NTCs, with IPSOS in December 2020 demonstrated how effective this innovation was in supporting the NTC lecturers to ensure the continuity of learning in Uganda:

62%

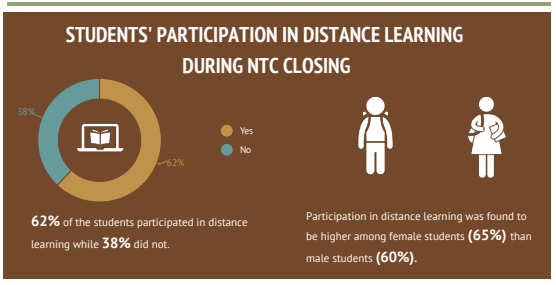
of **students** indicated that they participated in distance learning (**77%** for Year 2, **47%** for Year 1)

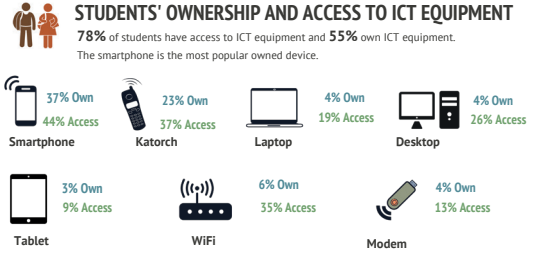
77%

of the **NTC lecturers** were able to access the one-stop portal where all resources for distance teaching were uploaded. **56%** rated it as extremely useful.

60%

of the **lecturers** accessed the help desk, composed of ICT Champions and ATL Mentors, and **98%** found it useful in facilitating e-learning.





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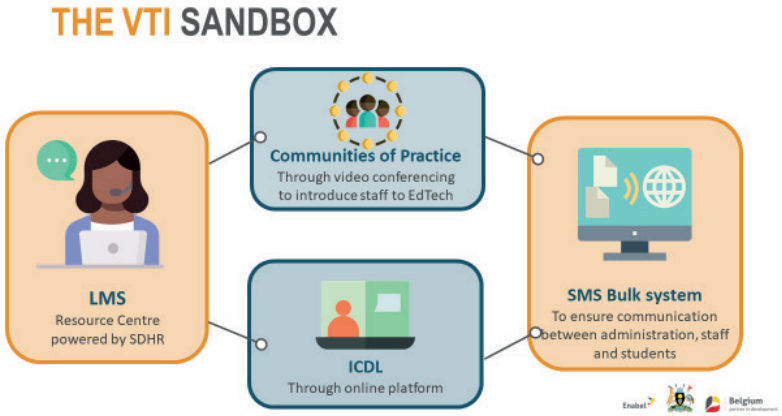
E-Learning Readiness Survey:
https://padlet.com/TeacherTrainingUganda/KMBoardTTE/wish/2122235189

Scaling up of the TTE Sandbox

In 2021, during the second wave of the Covid-19 pandemic, the Sandbox was scaled up to 7 VTIs. To ensure that communication was maintained between VTI management, staff and students an SMS bulk system was put in place and Zoom was introduced to the institutions. A series of Communities of Practice sessions (14) were organized in 2021, showcasing new EdTech applications and a virtual 'Help-desk' was installed to share all resources in a centralized place. Two hackathons were organized to whetten teachers' appetite for digitalization and an online International Computer Driving License (ICDL) was launched to increase the digital literacy of instructors.



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Padlet VTIs:
https://skillinguganda.padlet.org/enabel/repository

Human Centered Design

In 2020/1 Enabel started to radically focus on ICT in Teaching & Learning and in management practices, it was an unprecedented move in the educational system in Uganda. The Sandbox has since become an impactful innovation that is found in the intersection between desirability, feasibility, and viability and in alignment with the core values of the Belgian development agency and the Ministry of Education and Sports. Human Centered Design as a guiding framework inspired this approach.

For example, through the partnership with MTN, 25 instructional videos were created with and for instructors of the 7 VTIs. All the videos are online.

“The TTE sandbox is definitely a DIGITAL adventure. It is also the success story of a HUMAN adventure. Innovation started by getting close to users: the Sandbox answered the needs of teachers, and solutions were co-created together with the teachers. Its success lies in this human design centre approach.

Virgine Hallet
Country Portfolio Manager

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How to videos:
https://www.youtube.com/playlist?list=PLgnfcBtveF5NeDPSERijR2ri5etJ2Okxh

Positive Classroom Culture

Research indicates that teachers create the mood and tone of the room. Positive classroom cultures that invite authentic learning can lead to more opportunities for students to positively connect with content, their peers, and their teacher. The Sandbox created innovative, open, creative and trustworthy digital places for students to grow, take risks, and feel comfortable in their own patterns of learning. The ability for lecturers, instructors and students to connect, grow and innovate not only with class content but also with each other, was the kind of culture the Sandbox developed in digital classrooms (via WhatsApp, Google Classroom, Zoom, ...) during the pandemic.

> **Bolla Norbert, for example, is a music lecturer and one of the winners of the hackathon. His use of WhatsApp to deliver learning won him the award. 'What initially started as a way to keep in touch with students, Bolla says, turned into an effective lesson delivery tool'. During the closure of the schools, 29 students out of a class of 38 were taught every day at 3:00pm.**

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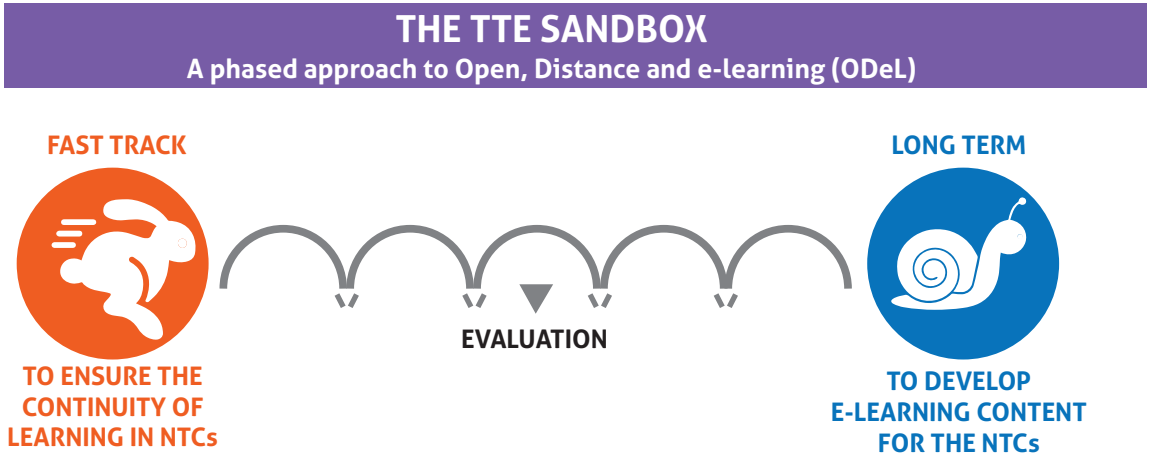
Sandbox video:
https://www.youtube.com/watch?v=UlZqgGUaE3o&t=4s

E-Learning Courses

The TTE Sandbox as a testing ground for EdTech, has proven impactful and scalable. It is useful for teachers, instructors and students to equip them with 21st-century skills for them to be able to adapt to a constantly changing society. During the pandemic not only digital lessons were created, but also full-fletched e-Learning courses were co-created with and for the lecturers in 2020/21.



For example, here's the General Teaching Methods (GTM) course: 8663 students enrolled and 7789 certified up to date:

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General Teaching Methods (GTM) course:
https://www.open.edu/openlearncreate/course/view.php?id=4105

Here's the Technology Enhanced Learning (TEL) course: 6305 students enrolled, 5831 certified and completed the course.

The NTCs now have their own Moodle environment, lecturers have up to date created 53 modules!

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Technology Enhanced Learning (TEL) course:
https://www.open.edu/openlearncreate/course/view.php?id=7290

Digital Hubs

In 1 NTC and 7 VTIs digital innovation hubs were established in 2022. A crucial feature of an innovation hub is the ability to promote innovation by providing a learning environment that supports the exchange and development of ideas. There are four key dimensions of an innovation hub;

- existence of a collaborative community that is largely voluntary and self-directed,
- diverse, heterogeneous membership,
- physical and digital spaces designed to promote creative, collaborative work, and
- bringing the global entrepreneurial culture to a particular location.

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Digital Safari:https://bit.ly/3UXTmLt

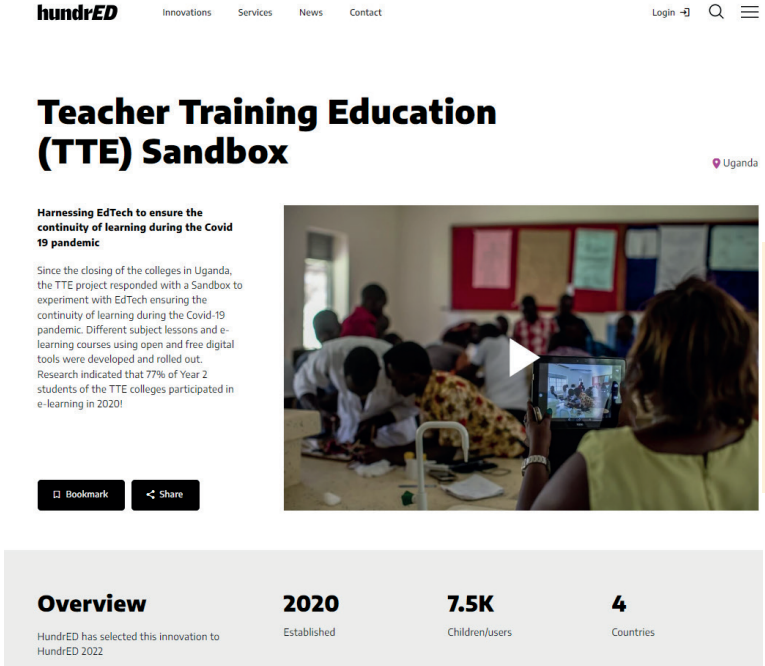
Scalability

Tools from the Sandbox (e.g. Moodle, Padlet, Podcasting, Screen casting etc.) have also been spreading to other Enabel partner countries impacting on the continuity of learning in **Morocco (1 eLearning course)**, **Rwanda (17 courses)**, **Burundi (6 courses)**, **Mozambique (4 courses)** and **Belgium (1 course in HQ)** during the pandemic. As the saying goes, 'in the midst of every crisis, lies great opportunity'. Indeed, the Covid crisis was a great opportunity for Digital for Development in general or Digital for Education more specifically.

The world in which the Belgian Development Agency operates is changing rapidly. Through innovation, Enabel supports impactful solutions as a relevant and agile partner in this fast-changing environment. IDIA, the International Development Innovation Alliance, defines innovation as 'a new solution with the transformative ability to accelerate impact'. The Sandbox with its new approaches, methods, products and services has been brought into use and scaled up in Uganda and other partner countries of Enabel with the intention to create and accelerate positive change.

HundrED and D4D prize

On 4th November 2021, the Teacher Training Education Sandbox was selected as one of HundrED's most impactful and scalable innovations for the Global Collection of 2022. As education innovators, we have shown that we are not overwhelmed by the crisis but have risen to the occasion and put students and their education first.



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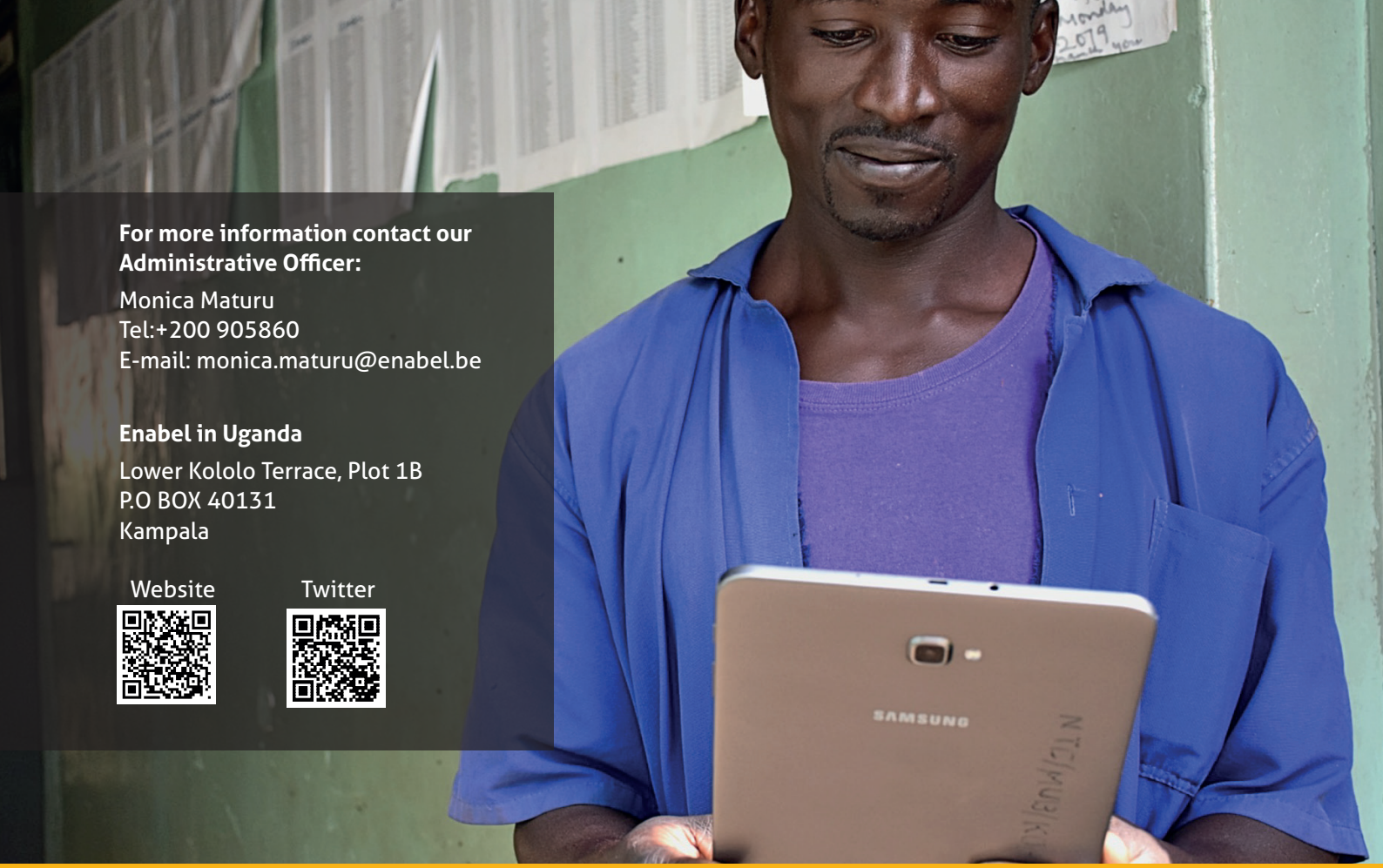
HundrED award: https://hundred.org/en/innovations/teacher-training-education-tte-sandbox

The TTE Sandbox was selected for the D4D prize, category iStandout.



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