KNOWING WHAT WORKS

Central project evaluation
Digital Solutions for Sustainable Development, Rwanda
Project number 2017.2024.2

Evaluation report

On behalf of GIZ by Tatjana Mauthofer, Viola Kaufmann (Mainlevel Consulting) and Yvan Gatoto (independent consultant)

Published: August 2022

Contents

List of figures

List of photos

List of tables

Abbreviations

AIMS	African Institute of Mathematical Sciences Rwanda
BMZ	German Federal Ministry for Economic Cooperation and Development
DAC	Development Assistance Committee
DEM	Digital experience monitoring
DSSD	Digital Solutions for Sustainable Development Project
DTC	Digital Transformation Centre
ERP	(Rwandan) Economic Recovery Plan
FGD	Focus group discussion
GDPR	General Data Protection Regulation
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
GIZ-FMB	Fach- und Methodenbereich der Deutschen Gesellschaft für Internationale Zusammenarbeit GmbH / Sectoral Department
ICT	Information and communication technology
IoT	Internet of things
IT	Information technology
LMIS	Labour market Information System
LNOB	Leave no one behind (principle)
MINICT	Ministry of ICT and Innovation
MOI	Module objective indicator
OECD	Organisation for Economic Co-operation and Development
RISA	Rwanda Information Society Authority
SDG	Sustainable Development Goals (Agenda 2030)
SI	Special initiative
SMART	Specific, measurable, achievable, relevant, time-bound
SRMP	Smart Rwandan Master Plan
TVET	Technical and vocational education and training

The project at a glance

Rwanda: Digital Solutions for Sustainable Development (DSSD)

Project number	2017.2024.2
Creditor reporting system code(s)	15110 - Public sector policy and administration
Project objective	Structures and capacities for the development, implementation and dissemination of digital solutions for Rwanda and Africa related to the Sustainable Development Goals (SDG) are established in Rwanda.
Project term	July 2017 to December 2020
Project value	EUR 7,000,000 plus EUR 500,000 Covid-19 funds
Commissioning party	German Federal Ministry for Economic Cooperation and Development (BMZ)
Lead executing agency	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ)
Implementing organisations (in the partner country)	Ministry of ICT and Innovation (MINICT) Rwanda Information Society Authority (RISA)
Other development organisations involved	-
Target group(s)	Professionals at MINICT, RISA, sectoral ministries and downstream authorities; ICT companies, ICT graduates

1 Evaluation objectives and questions

This chapter aims to describe the purpose of the evaluation, the standard evaluation criteria, and additional stakeholders' knowledge interests and evaluation questions.

1.1 Evaluation objectives

Central project evaluations of projects commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ) fulfil three basic functions: they support evidence-based decisions, promote transparency and accountability, and foster organisational learning within the scope of contributing to effective knowledge management. The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH structures the planning, implementation and use of evaluations so that the contribution the evaluation process and the evaluation findings make to these basic functions is optimised (GIZ, 2018).

1.2 Evaluation questions

The project is assessed on the basis of standardised evaluation criteria and questions to ensure comparability by GIZ. This is based on the Organisation for Economic Co-operation and Development (OECD)/Development Assistance Committee (DAC) evaluation criteria (updated 2020) for international cooperation and the evaluation criteria for German bilateral cooperation (in German): **relevance, coherence, efficiency**, **effectiveness**, **impact** and **sustainability**.

Specific assessment dimensions and analytical questions have been derived from this framework. These form the basis for all central project evaluations in GIZ and can be found in the **evaluation matrix** (Annex). In addition, contributions to the 2030 Agenda for Sustainable Development and its principles are taken into account as well as cross-cutting issues such as gender, the environment, conflict sensitivity and human rights. Also, aspects regarding the quality of implementation are included in all OECD/DAC criteria.

Table 1: Knowledge interests by main evaluation stakeholder groups

Evaluation stakeholder group	Knowledge interests in evaluation/additional evaluation questions	Relevant section in this report
BMZ	• Accountability towards the public (success rate of German development cooperation projects) • Lessons learned about innovation projects	Included in **all criteria**
GIZ project team	• In how far did the project manage to find the right balance to strengthen the local digital (start-up) ecosystem without pushing other actors out of the market? • How can the DSSD project collaborate more with other GIZ projects towards achieving the Smart Rwanda Master Plan? • To what extent have the capacity building activities and trainings contributed to improved systems of different stakeholders (key partners in the public sector, private sector as well as academia)? • Learning and improving to integrate lessons learned in their upcoming activities (follow-up project, Digital Solutions for Sustainable Development II; other projects in the digital cluster in Rwanda)	Included in **relevance, coherence, effectiveness, impact, efficiency**

Evaluation stakeholder group	Knowledge interests in evaluation/additional evaluation questions	Relevant section in this report
GIZ corporate unit evaluation	• Accountability towards the public and commissioner (success rate of GIZ's projects) • Learning from evaluations to process the knowledge generated to facilitate decision-making • Informing key stakeholders who inquire about GIZ activities in certain regions and/or sectors	Included in **all criteria**
GIZ sectoral unit	• How coherent are the activities with other activities of the German Development Corporation, e.g. Make IT, Special Initiative (SI) Jobs? • How sustainable is the set-up of an infrastructure/are there ways to ensure its sustainability? • What are key learnings for other ICT projects in different contexts?	Included in **coherence, sustainability** and **conclusions and recommendations**
Key project partners (RISA, MINICT)	• Accountability and mutual learning	Included in **all criteria**

2 Object of the evaluation

This chapter aims to define the evaluation object, including the theory of change, and results hypotheses.

2.1 Definition of the evaluation object

Evaluation object: The object of the evaluation is the technical cooperation project, Digital Solutions for Sustainable Development (DSSD), categorised by the project number (PN: 2017.2024.2) and henceforth called 'the project'. The project's objective was that 'structures and capacities for the development, implementation and dissemination of digital solutions for Rwanda and Africa related to the Sustainable Development Goals (SDGs) are established in Rwanda'. The project was not part of a German development cooperation programme.

Temporal delineation: Object of this evaluation is the project with a term from 1/07/2017 to 31/12/2020. A follow-on project with running from 01/2021 to 12/2023 was not part of the evaluation assessment.

Financial delimitation: The project was financed by BMZ and implemented by GIZ. The total budget of the project was EUR 7,000,000 During the last phase (September 2020), the project received additional funding of EUR 500,000 by BMZ to contribute to the Rwandan Covid-19 mitigation strategy (Rwandan Economic Recovery Plan–ERP) through the development of an additional digital solution as well as policy and technical support to the Rwandan Biomedical Centre.

Geographical delimitation: The project focused on Rwanda as its main country of implementation. To a certain agree, the project presented and applied digital solutions in other African countries and therefore extended its geographical sphere of influence.

Political and sectoral context and the framework conditions: Rwanda's national development vision for 2020, drawn up in the year 2000, envisaged the country moving from a subsistence economy to a knowledge- and service-oriented society. The increased use of information and communication

technologies (ICT) is seen as a precondition for achieving the country's development goals. These aspirations are supported by a very well-developed digital infrastructure in the country.

Access to international broadband speed has increased by ten times over the past five years. High-speed cellular coverage (4G) could be increased to 96.6% in recent years. However, only about 37% of Rwandan households have an internet-enabled mobile phone (GIZ, 2020). To reach its overarching goal, Rwanda developed the Smart Rwanda Master Plan 2020 (SRMP) which was adopted in 2015 to promote the development of digital solutions and strengthen the institutional and human resource capacities of governmental key institutions (MINICT and its implementation agency RISA). Concurrently, sectoral ministries including but not limited to the Ministry of Agriculture (MINAGRI), Ministry of Justice (MINIJUST), Ministry of Education (MINEDUC), Ministry of Health (MoH) and Ministry of Trade and Industry (MINICOM), were supposed to implement an ICT strategy with the support of MINICT and RISA. In spite of the country's aspirations and solid basis to evolve into a digital hub, the potential of digital technologies has not yet been fully exploited due to weak structures, competencies and capacities (GIZ, 2017). This is true both for the introduction of digital-based management processes in the Rwandan economy and administration and for the creation and accessibility of digital products and solutions. Despite the existing innovation ecosystem, innovative ideas have only been sporadically supported, not following a systematic approach. The number of newly developed and adapted digital technologies for Rwanda and Africa has therefore fallen short of expectations (GIZ, 2017). The DSSD programme was put in place to support Rwanda's mission of becoming a knowledge and service-based economy and to primarily advise Rwandan institutions on the implementation of the SRMP. Through the strengthening of Rwanda's capacities and systems the country should be assisted in adopting a leading role in the implementation of SDG-relevant digital solutions for Africa (GIZ, 2017).

2.2 Results model including hypotheses

Contribution analyses (following Mayne, 2012) formed a cornerstone in this evaluation. A project's theory of change is central to a contribution analysis to make credible causal statements on interventions and their observable results. The theory of change is essential for assessing all six OECD/DAC criteria and, in particular, for selecting hypotheses for the contribution analysis under 'effectiveness' and 'impact'. At GIZ, a theory of change is visualised in results models and complemented by a narrative which outlines corresponding hypotheses. A results model is a graphical representation of the project. It describes the logical connection and interrelationship of results and how they contribute to the overall objective. A results model defines the intended positive results within the project, change hypotheses including multi-dimensional causalities, system boundaries, assumptions and risks, and external factors of the project. The results model of the DSSD project is displayed in Figure 1 below. The core activities and results of the DSSD project are displayed in boxes of different shades and colours. An 'A' in the corner of a box indicates that the box contains an activity, an 'O' indicates an output, an 'OC' an outcome and an 'I' an impact. The directed arrows that connect the boxes represent logical connections; a successful implementation of activity A is assumed to lead to the emergence of result O. Bold arrows represent the results hypotheses that were selected for the contribution analysis and that were analysed in detail during this evaluation.

Prior to the inception mission, the project did not have a results model. A first draft was created during the inception mission based on the information gathered during the first sessions with the team and a review of project documents. The preliminary results model was reviewed and adjusted together with the project team during an online working session to ensure a realistic representation of the project's activities and results. Inputs to reconstruct the results model were acquired from all team members during the session and also gathered in the following days of the inception week. Figure 1 shows the revised results model. It is embedded in the corresponding narrative, that is, the elaboration and formulation of underlying hypotheses and results pathways. The chosen hypotheses for the contribution analysis are described and evaluated in the effectiveness and impact chapters of this report. The **project's objective** is that structures and

capacities for the development, implementation and dissemination of digital solutions for Rwanda and Africa related to the SDGs are established in Rwanda. One international project leader, one international project staff member, eight national staff members in Kigali and one international integrated expert at the Rwanda Information Society Authority (RISA) were deployed in the project. Additional short-term experts and local partners were involved for the implementation of project activities. To achieve the above-mentioned objective, two main outputs have been pursued.

At output level

Output A aimed to strengthen the personnel and institutional capacities of the Ministry of ICT and Innovation (MINICT) and its implementing agency, the Rwanda Information Society Authority (RISA), in the implementation of the Smart Rwanda Master Plan (SRMP) and other digital strategies. The core activity of output A consisted in the provision of advice and training for employees of MINICT and RISA (A2). Training courses should be conducted in the area of policy-making, but also with a focus on very practical, hands-on skills such as website administration and content management. The allocation of an integrated expert (a technical and organisational advisor) to support RISA in its overall organisational (capacity) development constituted a core element of the advisory services provided. The role of the integrated expert was three-fold. The expert should (i) provide support in the definition of the human skill-set that was required in each department of RISA to achieve their goals. However, the expert should (ii) assess the existent skill-set within RISA and, based on this (iii) develop a training plan. Ultimately, a match of required and existing human skill-sets should be achieved within RISA. The training and advice were meant to enhance the digital capacities of RISA and MINICT staff to enable them to better coordinate and cooperate among each other and with the other sector ministries (O3) when it comes to the implementation of the SRMP and digital strategies in general. The training should follow a **training-of-trainers** approach, encouraging participants in the target institutions not only to apply their newly acquired knowledge, but also to act as multipliers within their institutions. The digital knowledge should thereby be replicated through peer learning within the target institutions (O1), which should then lead to enhanced ICT capacities within ministries across different sectors (O2). Training was intended to focus on the creation of capacities for the planning and promotion of technology innovations, thereby aspiring to improve abilities to accompany digital innovation processes in the target institutions.

As a result of the training and advisory services provided by the project, financing and implementation plans should furthermore be developed for the adaptation of the digital solutions developed under output B (O4).

In addition, RISA should receive advice to consult Rwandan institutions and establish **centres of excellence** in five topical areas at Rwandan universities (A1). The focus topics comprised big data analyses, internet of things (IoT), multimedia/digital lifestyle, cyber security and creative industries. These centres of excellence should serve as think tanks and provide recommendations for policy-making to the government (O9), which should then directly contribute to output A.

Under **output B**, the project supported the development of SDG-relevant digital solutions in the Digital Transformation Center (referred to as Digi Center or DTC in the following) and their application and dissemination in the Rwandan and African context. The activities and outputs under output B can be split into two sections; on the one hand, training should be conducted for the entire ecosystem; and on the other, concrete SDG-relevant digital solutions should be developed. The development of these solutions was expected to follow a two-folded approach; while eight solutions had to cover topics that were predetermined together with Rwandan sectoral ministries (**government challenges**), six additional solutions should target problems that were identified by the community (**community challenges**). All solutions within these two spheres had to be relevant to one or several SDGs, be in line with the SRMP and have the potential to be scaled to other African countries.

Figure 1: Current results model (March 2021), adapted during evaluation
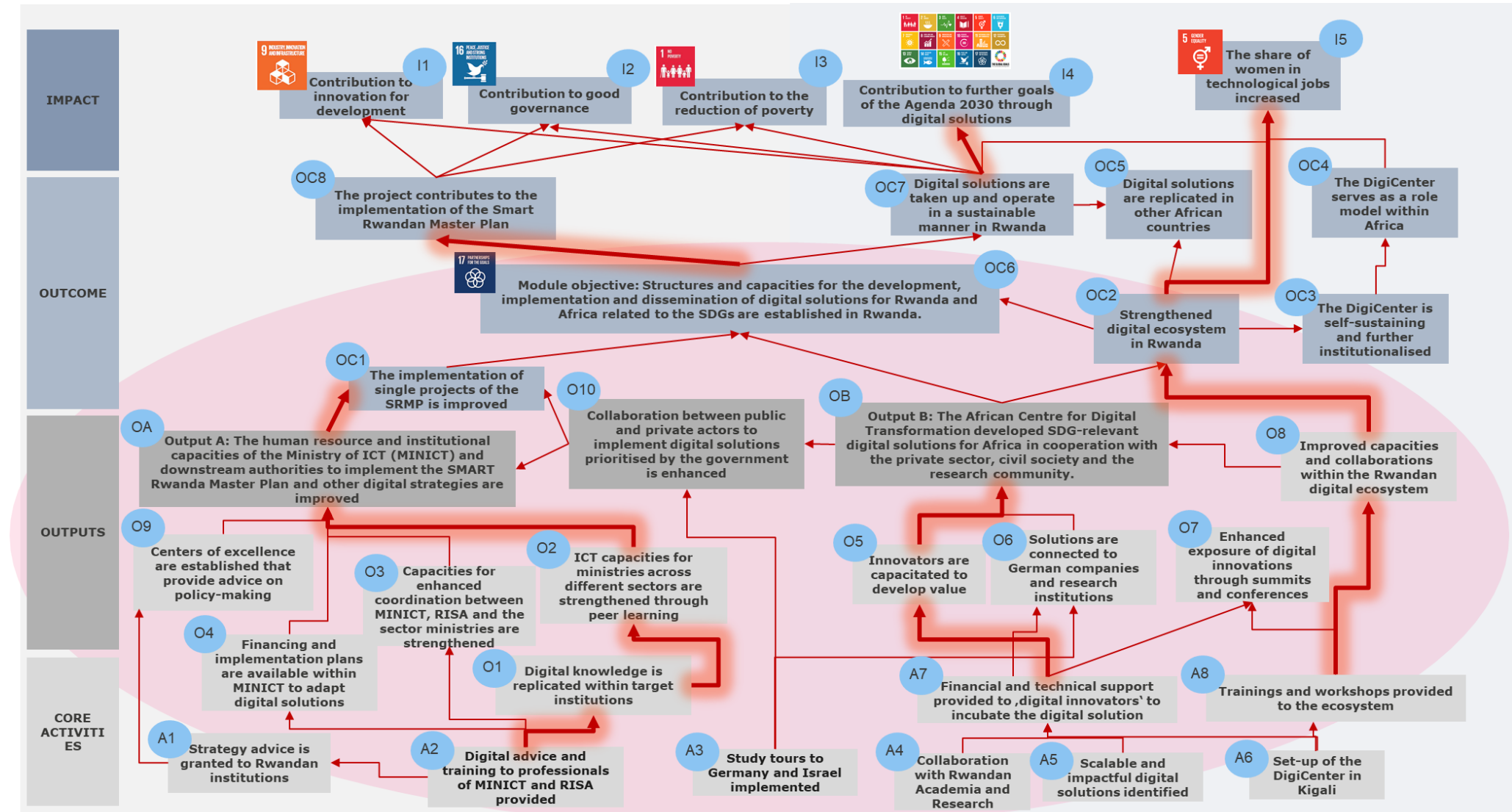
In addition, they should be related to a BMZ focus area in Rwanda: namely education, technical and vocational education and training (TVET), finance, trade, industry and private sector, government, administration, decentralisation or health.

The overall logic of intervention under output B was as follows: on the basis of the core activity of setting up the (physical) Digital Transformation Center in Kigali (A6), identifying scalable digital solutions (both government and community-driven) in relevant areas (A5) and in collaboration with Rwandan academia and research (A4), the project planned to provide relevant training to the digital ecosystem in Rwanda (including ICT companies, start-ups, ICT graduates and government employees) (A8). In line with (i) recent academic studies on the persistent 'digital gap' in Rwanda, which revealed that women still face barriers in accessing ICT (Mumporeze and Prieler, 2017) and (ii) the explicit aspirations of the Rwandan government in the SRMP to close this gap and promote socio-economic empowerment of women through ICT (Republic of Rwanda, 2015), the project put a focus on including women and men equally in the training that was offered in the DTC. This training should contribute to both improved capacities within the Rwandan digital ecosystem and to a closer collaboration among the digital (start-up) companies and ICT graduates, which was meant to directly contribute to a strengthened digital ecosystem and to output B. Adding to the training sessions for the overall ecosystem, specific financial and technical support should be granted to the selected providers of digital SDG-relevant solutions ('innovators') (A7). This should lead to enhanced capabilities to develop value, for example, through the identification and framing of a problem, the development of ideas for solutions, of a business plan and a first product (O5). At the same time, the project aimed to grant support to foster **match making** of digital solutions with companies and research institutions (O6), thereby equally contributing to output B.

One additional result that was identified together with the project team during the inception mission refers to an improved collaboration between public and private actors to implement digital solutions that were developed under output B (O10). This output constitutes an interconnection between output B (the development of SDG-relevant solutions) and the successful implementation of projects of the SRMP at outcome level (OC1).

At outcome/impact level

The above-mentioned outputs within the system boundary, that is within the direct sphere of influence of the project, should contribute to the project objective 'Structures and capacities for the development, implementation and dissemination of digital solutions for Rwanda and Africa related to the SDGs are established in Rwanda.' Results hypotheses identified at (mid-) outcome level related to output B comprised that the digital ecosystem in Kigali was strengthened (OC2) through improved capacities and collaboration within the Rwandan ecosystem (O8) and the successful development of SDG-relevant digital solutions in cooperation with external actors (OB). Within the system boundary (sphere of responsibility) of the project, an expected outcome was for strengthened capacity at governmental level (OA).

Outside of the system boundary, the project intended to contribute to a multitude of different outcomes and impacts. Through the strengthened digital ecosystem and better interconnectedness of stakeholders as a result of output B, the ground should be prepared for the Digital Transformation Center to become a self-sustaining and institutionalised entity within the Rwandan digital ecosystem rather than a DSSD project component (OC3). Also this would put it in a promising position to become a role model throughout Africa (OC4). Similarly, the developed digital solutions should be taken up and operated sustainably in Rwanda (OC5), meaning that the solutions do not further depend on project funds. Through the training sessions, meet-ups and events (A8) that were conducted under output B (which focused on including women and men equally to not exacerbate the aforementioned 'digital gap'), the project intended to contribute to the SDG 5 of increasing the share of women in technological jobs (I5) and to the BMZ marker for gender equality (GG – *Gleichberechtigung der Geschlechter*). In addition, project contributions to SDG 9 (innovation for development), SDG 16 (good governance/strong institutions) and BMZ marker for good governance (PD/GG – *partizipative Entwicklung/gute Regierungsführung*) and SDG 1/BMZ marker AO (end of poverty/*Armutsorientierung*) were intended.

3 Evaluability and evaluation process

This chapter aims to clarify the availability and quality of data and the process of the evaluation.

3.1 Evaluability: data availability and quality

This section covers the following aspects:
- availability of essential documents
- monitoring and baseline data including partner data
- secondary data

Availability of essential documents

The project provided the evaluation team with a series of documents that constituted an important data source for this evaluation. These comprise the project offer, including the project's results matrix, project progress reports, context, political and gender analyses and the project's capacity development strategy. All relevant project documents were made available and could be used during the evaluation mission. A complete list of documents and sources can be found in the List of References at the end of this report.

Monitoring and baseline data including partner data

The project team monitored progress made on indicators via three key documents. First, they used **Excel-based operation plans** which were updated on a yearly basis. Changes could be traced back easily as a new version was available each year. Second, the team used an **Excel-based monitoring plan** (action plan). Both the operation plans and the action plan were used for the planning of upcoming activities and the monitoring of the activities and achieved results. Third, since mid-2020, the DSSD project had use of a well-designed Excel-based sheet specifically for the monitoring of the **developed digital solutions**. In this sheet, the most recent status of the developed solutions was recorded in fine-grained intervals of two weeks each.

The monitoring system complied with various categories necessary for a results-based management system. **Baseline and target values** were available for all outcome and output indicators. With regard to the time and **frequency of data collection**, the following was observed: while the digital solutions monitoring sheet was updated on a biweekly basis, the action plan was updated on a quarterly basis in a joint team effort. One team member was in charge of monitoring and evaluation since the beginning of 2020. The table below illustrates that comprehensive data was available for 2020, more limited data was available for 2019 and only very limited monitoring data was available for 2018, as important staffing positions were only filled that year. According to interviews with the project team, the late hire of a project lead entailed a lack of structured monitoring until 2019.

Table 2: Available monitoring data

Data source	Year	Quality of data
Operations plan	2020	Comprehensive data
	2019	Limited data and usability
	2018	Very limited data and usability
Action plan	2020	Comprehensive data
	2019	Limited data; incorporated in action plan 2020
DSSD developed solutions	2020	Comprehensive data from June onwards

Sources for verification were named for six out of ten indicators at outcome and output level. The project additionally compiled **documents for the outputs/outcome** and corresponding indicators to describe advances made (e.g. quarterly progress reports from April 2019 to September 2020, presentation on the current status of the project outputs, final report to BMZ). Several of the underlying monitoring and evaluation sheets were updated during the evaluation mission and shared with the evaluation team.

In addition, further **raw data** that was collected via surveys from people visiting the Digi Center, training participants at partner level (improvement of skills) and training participants at the DTC level (employability changes) was provided. **Aggregated data** of the outcomes of a survey among participants at machine learning training was equally shared. Additionally, the aggregated results of a survey that was conducted in the ecosystem within the framework of the appraisal mission for the follow-on phase were shared with the evaluation team.

Further to the planning and monitoring of activities and results agreed on with BMZ, it is worthwhile mentioning that the project developed an internal monitoring system for their **communications strategy**, which contains self-set goals and indicators to measure their progress. While this is neither part of the BMZ results matrix nor the current results model, the relevant collected data provided a valuable source of information to assess the coherence criterion.

According to the project team, **no relevant data from partners** such as MINICT or RISA was available at the partner institutions and, hence, unable for use by either the project or the evaluation. However, within GIZ, two joint monitoring activities with other GIZ projects were conducted; one collaboration was set up on machine learning training courses that were jointly conducted by DSSD and the GIZ project Fair Forward in the DTC. In order to prevent a duplication of work, DSSD collected the monitoring data for these training courses and shared them with the Fair Forward project team. A similar agreement existed with the SI Jobs, where DSSD and SI Jobs jointly conducted IoT training (INT_GIZ_5).

Baseline information: Based on the feedback received from the project, there was no external baseline study prior to the project start. Surveys started to be rolled out at the end of 2020, to capture the effects of the interventions retrospectively (see raw data mentioned above). Regarding the capacity assessment of RISA staff, the integrated expert conducted an initial needs assessment to set the ground for the required training modalities.

Despite the limited availability of monitoring data for the first two years of the project, the evaluation team found that the overall quality and scope of data provided was sufficient to conduct the evaluation assignment. Limitations were identified on the tracking/measurement of outreach/impact of digital solutions developed in the Digi Center, that is, their roll-out in other African countries, which was not systematically tracked (e.g. application/usage of Bazafarm in Tunisia, Cameroon or Chad).

3.2 Evaluation process

This section covers the following aspects:
- milestones of the evaluation process
- involvement of stakeholders
- selection of interviewees
- data analysis process
- roles of international and local evaluators
- remote evaluation

Figure 2: Milestones of the evaluation process

Evaluation start (launch meeting)	→	Inception mission (semi-remote)	→	Evaluation mission (remote)	→	Final report for publication
31 Aug 2020		19 Oct 2020 – 23 Oct 2020		15 Feb 2021 – 05 Mar 2021		August 2021
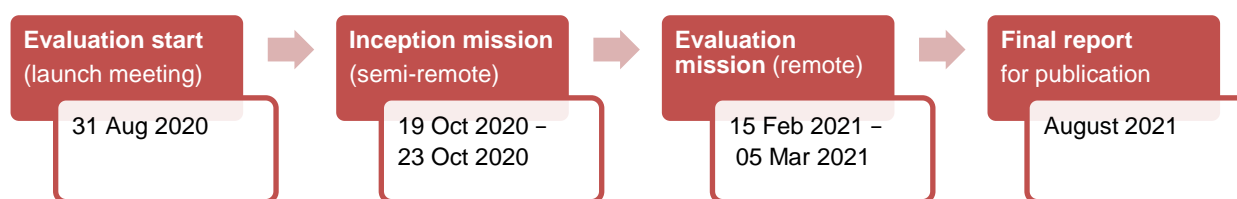
Involvement of stakeholders

The stakeholders' involvement in the evaluation is crucial to central project evaluations. The initial stakeholder identification was carried out during the inception mission together with the project team – a stakeholder mapping exercise was conducted and stakeholders' participation in the evaluation was discussed. The final decision on stakeholder selection was based on (i) the importance of the actor (primary/secondary); (ii) the (anticipated) added value of the information provided; and (iii) the feasibility of including the stakeholder within the time frame/agenda and Covid-induced restrictions of the evaluation mission.

Selection of interviewees

During interviews with the project team during the inception phase, key stakeholders to be interviewed were identified and the key criteria for selecting interviewees within those target groups were determined:

- virtual accessibility (internet and/or phone)
- representativeness of project partners (direct, complementary)
- representativeness of key target groups (innovators, training participants, members of the communities of practice, recipient governmental institutions)

Overall, **47 people** were interviewed, including six members of the project team, and two direct project partners.

Table 3: List of evaluation stakeholders and selected participants

Organisation/company/ target group	Overall number of persons involved in evaluation (including gender disaggregation)	No. of interview participants	No. of focus group participants	No. of workshop participants	No. of survey participants
Donors	2 (1w, 1m)	2	0	0	0
German Federal Ministry for Economic Cooperation and Development (BMZ), GIZ country office					
GIZ	11 (3w, 8m)	3	10	6	0
GIZ project team, GIZ Country Office, GIZ MakeIt Africa, GIZ SI Jobs, GIZ Eco-Emploi					
Partner organisations (direct target group)	5 (1w, 3m)	2	3	0	0
Ministry of ICT and Innovation, RISA					
Other stakeholders (e.g. public actors, other development projects)	8 (2w, 6m)	8	0	0	0
Rwanda Education Board (REB), Rwanda Agriculture Board (RAB), Rwanda Development Board (RDB),					

Organisation/company/target group	Overall number of persons involved in evaluation (including gender disaggregation)	No. of interview participants	No. of focus group participants	No. of workshop participants	No. of survey participants
Smart Africa Secretariat, Integrated Expert RISA, Westerwelle Foundation Startup Haus, 250 Startups					
Universities and think tanks	2 (2m)	2	0	0	0
AIMS, Fraunhofer Institute					
Final beneficiaries/indirect target groups (sum)	18 (7w, 11m)	5	13	0	0
Innovators (Bazafarm development team, Labour Market Information (LMIS) development team, Virtual Labs development team, GBIS development team, NutriSmart development team, Digital Walking Stick development team, augmented /virtual reality community of practice, My Money development team)	7 (3w, 4m)	3	4	0	0
Communities of practice (machine learning, augmented /virtual reality, internet of things)	3 (3m)	1	2	0	0
Training participants community level	4 (2w, 2m)	1	3	0	0
Training participants RISA	4 (2w, 2m)	0	4	0	0
Note: f = female; m = male					

Data analysis process

The evaluation team consistently applied data **triangulation** throughout the evaluation by always reverting to two or more data sources. If different sources support the same result, the credibility and validity of findings is increased. In order to ensure **quality and consistency in the data collection**, which was carried out remotely due to the ongoing Covid-19 pandemic, the following quality control measures were implemented:
- The evaluation team reviewed the available (technical) documents and monitoring and evaluation data in detail.
- Seven interview guides were drafted, earmarking the most important data that had to be obtained, and ensuring that the same questions were asked to different actors.
- In a preliminary analysis of the collected data, incomplete or incoherent data was identified. The data was validated and complemented through conducting complementary interviews with project team members.
- Lastly, a debriefing discussion was held with the team leader to validate preliminary findings.

To ensure **quality management** and an **efficient and comprehensive data analysis**, the evaluation team applied a uniform note-taking format for interviews and focus group discussions (FGDs). Compiled qualitative

findings from the documents, interviews and FGDs were then discussed within the team. To ensure consistent analysis of different data sources, a category system was developed, which was guided by the evaluation questions but open to adaptations and improvements during the analysis. In this way, the evaluation team could retrieve and contrast information collected from different sources on specific evaluation questions, and was able to summarise the findings in a comprehensive and clear manner.

Roles of international and local evaluators

The Mainlevel evaluation team consisted of two **international evaluators, Tatjana Mauthofer** and **Viola Kaufmann**, and one local evaluator, **Yvan Gatoto**. The tasks were divided between the consultants. The international evaluators were in charge of the evaluation design, including data collection tools; they were the focal point for GIZ and the project team; and they had the overall responsibility for implementing the inception and evaluation mission. Tatjana Mauthofer and Viola Kaufmann were primarily in charge of the data analysis and the final evaluation product. The local evaluator contributed with comprehensive technical, sectoral and local expertise. Yvan Gatoto was in charge of coordinating the interview schedule and conducting interviews and FGDs with specific stakeholders. The international and local evaluators conducted frequent catch-up meetings to reflect on findings gained through the interviews, conducted preliminary analyses, and shared learning experiences.

Remote evaluation

The Covid-19 pandemic affected the way evaluations were routinely conducted in the past. Considering that international travel restrictions and quarantine obligations remained in place and travelling/gathering in Rwanda, especially in Kigali, was not permitted at the time of the evaluation mission, the evaluation team had to conduct a fully remote evaluation. All interviews were conducted virtually (via MS Teams or Zoom) or via phone. Additional efforts were made on gathering more quantitative and secondary data to complement the qualitative data collection. While the process went smoothly and relevant data could be gathered, it should be mentioned that remote data collection is always a challenge when it comes to trust-building in interviews and, consequently, the openness of interview partners and focus group participants to share delicate or critical insights. Furthermore, not being on site makes it harder to 'read between the lines' of discussions.

4 Assessment according to OECD/DAC criteria

This chapter analyses and assesses the project Digital Solutions for Sustainable Development along the six OECD/DAC criteria: relevance, coherence, effectiveness, efficiency, impact and sustainability. A score of a maximum of 100 points is given to each dimension, accumulated in a total grade for the project.

4.1 Impact and sustainability of predecessor projects

No predecessor project is part of the evaluation because none existed.

4.2 Relevance

This section analyses and assesses the relevance of the project Digital Solutions for Sustainable Development.

Summarising assessment and rating of relevance

Table 4: Rating of OECD/DAC criterion: relevance

Criterion	Assessment dimension	Score and rating
Relevance	Alignment with policies and priorities	30 out of 30 points
	Alignment with the needs and capacities of the beneficiaries and stakeholders	30 out of 30 points
	Appropriateness of the design	17 out of 20 points
	Adaptability – response to change	20 out of 20 points
Relevance total score and rating		Score: **94 out of 100 points** Rating: Level 1: highly successful

The evaluation team found that the project was aligned with key strategies defined by the Rwandan government and, above all, contributed to the implementation of the Smart Rwandan Master Plan (SRMP). While digitalisation is not a core strategic topic of the German development cooperation with Rwanda, it was identified as one of its cross-cutting priorities. Through its project-inherent focus on developing SDG-relevant digital solutions, a great alignment with core strategies and goals of the Agenda 2030 could equally be attested.

The project design also successfully addressed the core needs of the immediate target groups, that is, governmental partners, private sector companies (specifically young innovators) and other digital ecosystem players such as academia or ICT graduates. All core activities were discussed with the project steering committee, which comprised relevant governmental actors, to ensure alignment of the project activities with the partners' needs and priorities. Training courses for RISA were based on a sound needs assessment. While no such assessment was conducted among digital innovators, the interviewed sample broadly confirmed an alignment with their actual needs.

The evaluation team further concluded that the project design, which fostered the emergence of adequate digital solutions on the one hand (output B) and the readiness/creation of receptive structures and an enabling environment on the other (output A), was adequate to achieve the chosen project objective. However, the

formulation of some indicators at output and outcome level was ambitious, that is, not feasible in an efficient manner with the given project design and context.

Last but not least, the project's reaction to change, above all to the outbreak of the Covid-19 pandemic, and a switch to largely remote collaboration is overall rated as good.

In total, the relevance of the project is rated as Level 1: highly successful, with 94 out of 100 points.

Analysis and assessment of relevance

This section analyses and assesses the relevance of the DSSD project. The relevance criterion covers the following dimensions: (i) the alignment of the project design with relevant policies, priorities and strategic frameworks; (ii) the extent to which the project design matches the needs of the target groups; (iii) the relevance of the project design and results logic; and (iv) the adaptability of the project's design and activities to changes in the environment. The relevance criterion was mainly assessed through the analyses of project data. Additional strategic documents and data from stakeholders were also considered. The analysis followed the analytical questions from the evaluation matrix (see Annex 1).

Relevance dimension 1: Alignment with policies and priorities

The first dimension of the relevance criterion analyses whether the aspired results of the project at outcome and impact level (according to the defined results model) are in line with political priorities, relevant strategic reference frameworks – both at national and international levels – and with relevant strategies of German Development Cooperation published by the BMZ. The high political relevance on both sides becomes clear through the very origins of the project, whose core topic, the setting up of a Digital Transformation Center, was decided on in bilateral discussions between the Rwandan president Paul Kagame and the German minister for economic development and cooperation, Dr Gerd Müller (INT_other_1).

German documents relevant to the strategic reference frameworks include the BMZ country strategy (BMZ, Priorities in Rwanda), the Marshall Plan with Africa document (BMZ, 2016) and the BMZ Digital Agenda (BMZ, 2017). Some of the core strategic areas of BMZ in Rwanda comprise good governance, private sector development, TVET (BMZ, Priorities in Rwanda), with which the project design was well aligned, through its (i) interventions that will strengthen core governmental entities; (ii) close collaboration with ICT companies and the private sector; and (iii) focus on capacity development of digital innovators and governmental staff. Further alignment with BMZ core topical areas was ensured through the project's requirement to design digital solutions that not only intend to make a contribution to at least one SDG, but also contribute to at least one BMZ core intervention area in Rwanda. While digitalisation itself is not one of the explicit core areas of the BMZ Strategy for Rwanda, it is perceived as a cross-cutting topic (INT_other_3). This is apparent in the BMZ Digital Agenda, which provides a guiding framework for the implementation of digital projects and, among others, pursues the strategic objective of harnessing digital innovation through the German development cooperation (BMZ, 2017), and in Germany being the biggest international donor of the Smart African Secretariat that Rwanda hosts (INT_other_3). The Marshall Plan with Africa lists digitalisation as a basic need, on a level with food, security and access to education, and as a significant contribution to fulfilling the central promise of the Agenda 2030 to leave no one behind (BMZ 2016).

For Rwanda, relevant strategic frameworks comprise, first and foremost the Smart Rwandan Master Plan (SRMP) (Republic of Rwanda, 2015), but also the national strategy for transformation 2017–2024 (MINECOFIN, 2017), the Future Drivers of Growth document (World Bank/Government of Rwanda, 2020) and the Vision 2050 (MINECOFIN, 2020). The project is completely aligned with the SRMP, specifically in driving policies to create an innovation-friendly environment and private sector-led growth and innovation (Republic of Rwanda, 2015; INT_partner_1). Macro indicators of the SRMP aim at an increased proximity between

governmental entities and citizens, inclusiveness and empowerment (through skills development), which the project was equally aligned with (INT_partner_2). The Vision 2050, which outlines the envisioned development of Rwanda over the next three decades, explicitly puts enhanced human capabilities, innovation and technological capabilities, […] and effective and accountable institutions of governance' at the centre (MINECOFIN, 2020). The project's approach of conducting capacity development at governmental level (INT_partner_2) and fostering technological capabilities of start-ups/graduates/innovators is equally aligned with this focus.

The evaluation team found that the project is furthermore aligned with the Agenda 2030 goals. The alignment of the digital innovations with specific SDGs is ensured during the selection process of topics on which solutions are developed, that is the selection of topics for hackathons. The project design was additionally particularly aligned with contributions to Industry, Innovation and Infrastructure (SDG 9) through the set-up of a Digi Center and capacitiy development measures with young innovators of the Rwandan digital ecosystem (output B) and Peace, Justice and Strong Institutions (SDG 16) through the provided support to governmental entities (output A).

Relevance dimension 1 – Alignment with policies and priorities – scores **30 out of 30 points.**

Relevance dimension 2: Alignment with the needs and capacities of the beneficiaries and stakeholders

In order to analyse the needs and derived benefits of the project's target groups, the project's main target groups were identified in a first step to ensure an objective and overall assessment. These include:

- **Governmental partners:** This target group consisted of the project's direct beneficiaries (MINICT and RISA) whose needs are centred on: (i) building internal capacities to implement SDG-relevant solutions in line with the SRMP; and (ii) supporting sectoral ministries in their digital transformation strategies, altogether in line with SRMP.
- **Private sector actors:** This group consisted of digital innovators (ICT start-ups and graduates) who required financial and technical support to build SDG-relevant solutions for both government partners and community-related challenges, as well as relevant networks to advance their work within the Rwanda digital ecosystem.
- **Digital ecosystem players:** This group involved stakeholders working towards innovation and digital transformation in Rwanda. The group comprises actors in academia, ICT graduates and incubators.

Government partners, particularly MINICT and RISA, highly confirmed the alignment of DSSD with their institutional needs. The project activities started shortly after RISA was set up as the government institution under MINICT in charge of advancing the government's innovation and digital transformation agenda. RISA constituted the direct recipient of the project capacity building activities, institutional support and technical advice (INT_partner_2, INT_partner_1). The fact that MINICT and RISA were part of the DSSD project's steering committee greatly contributed to an alignment between the project activities and the institutional capacities and needs (INT_partner_1, INT_partner_2, INT_other_4, FGD_GIZ_2). Moreover, the initial capacity needs assessment, which was conducted by the project to assess the human and institutional capacities within MINICT/RISA, allowed the project's capacity building to be fully aligned with the target groups' needs (INT_other_4, FGD_GIZ_2).

The development, dissemination and implementation of SDG-relevant solutions was in line with sectoral ministries and downstream authorities, of which the project conducted a needs assessment to ensure that the solutions developed (i) contributed to SDG-relevant challenges; and (ii) corresponded to the internal needs of the sectoral ministries and downstream authorities (INT_partner_4, INT_partner_6, INT_partner_5, FGD_GIZ_2).

The project operated in a highly fragmented digital ecosystem, with minimal collaboration between governmental institutions and early-stage private actors (FGD_GIZ_2, INT_partner_4, INT_partner_2). The latter, which was comprised of digital innovators, confirmed that project activities were aligned with their need to be connected to relevant government entities to develop meaningful SDG-relevant solutions (INT_ben_3, INT_ben_1) (INT_ben_2). While no explicit needs assessment was conducted at the level of ecosystem training participants to ensure that the training offers matched their needs/the requirements on the market, the alignment of the training with the capacity needs of digital innovators to develop user-centric solutions was equally confirmed (FG_ben_5). This happened through training courses and workshops in design thinking and emerging technologies (FG_ben_8, FGD_GIZ_2, INT_external_2), financial support that was awarded through hackathons (FGD_GIZ_2, FGD_GIZ_2, INT_external_4, INT_partner_4) as well as the creation of a space for innovators to access tools and equipment needed to better understand emerging technologies (FGD_GIZ_2, FG_ben_8, INT_external_2, FG_ben_4).

From an ecosystem perspective, the project equally managed to successfully align with ecosystem players' needs and capacities ranging from academia to digital innovation support programmes and ICT graduates that gained skills in practical innovation areas and advanced technologies such as machine learning, IoT, and data science (INT_external_4, INT_ben_10, FG_ben_11, INT_external_2). These skills were deemed important and, in their format, different from university curricula as they were not taught based on curricula but based on hands-on expertise from the industry (INT_ben_10, FG_ben_11). Unlike other training providers which reportedly 'only look at the university degree and do not see the skill-sets people have for a job', the project considered the actual skill-set a person brought in before being accepted into the training courses (FG_ben_11), thereby addressing a high-potential target group whose needs are usually neglected.

Looking at the requirements to ensure gender inclusiveness, the evaluation team found that these requirements were taken into account through an equal representation of men and women when selecting training participants. It was further incorporated as an assessment criterion in the selection of ICT start-ups that developed digital solutions (INT_ben_1, INT_ben_3). Furthermore, the project worked closely and co-designed workshops (i.e We Code and Miss Geek) with organisations that advocate for the involvement of girls in technological fields (i.e. Girls in ICT) (FGD_GIZ_2, INT_external_4, FGD_GIZ_2, INT_ben_1, INT_partner_1, INT_ben_3) which successfully aligned with the beneficiaries' needs. With respect to the project's inclusiveness and consideration of marginalised/vulnerable groups' needs, especially on the central promise of the Agenda 2030 to **leave no one behind**, the project's physical space (DTC) is accessible by wheelchair (FGD_GIZ_2). However, there was no further emphasis on the inclusion of certain cases of marginalised groups such as visually impaired or other advanced cases of disabilities (INT_GIZ_3, FGD_GIZ_2). A particular challenge relating to these groups is that a lot of the people are offline, making it hard to reach them – especially during times of Covid-19 (INT_external_4). The project tried to bridge this gap by contributing to the Digital Ambassador Program but did not specifically target it in the DTC. Nevertheless, the project addressed the needs of particularly vulnerable people through the development of digital solutions for vulnerable groups (such as female refugees and people with visual impairments) (INT_GIZ_4).

The evaluation team notes potential areas for improvement on important factors such as the continuity of skills after trainings (INT_ben_10, INT_external_2), the need for funding and for longer-term structured support for developed prototypes (FGD_GIZ_2).

> Innovative ideas do not emerge in a three-day hackathon but need long-term collaboration with other stakeholders (INT_external_5).

However, based on the aforementioned findings, the evaluation team confirms the relevance of project activities and interventions, and concludes that they were well aligned with the target groups' needs.

Relevance dimension 2 – Alignment with the needs and capacities of the beneficiaries and stakeholders – scores **30 out of 30 points.**

Relevance dimension 3: Appropriateness of the design

The basis for the assessment of the appropriateness of the design is the revised results model (see above) as well as interviews and FGDs that were conducted with the GIZ project team and project partners (RISA, MINICT, other digital GIZ projects in Rwanda). The analysis follows the analytical questions from the evaluation matrix (see Annex).

The overall design of the project was assessed as logical by all interviewed stakeholders (FGD_GIZ_2, INT_other_3, INT_external_5, FGD_GIZ_2, INT_partner_2). Enhanced interlinkages and connections between the different players in the digital ecosystem in Rwanda – first and foremost start-ups/ICT companies, academia and political entities – was identified as the core requirement to achieve the project objective of enhanced structures and capacities for the development, implementation and dissemination of digital SDG-relevant solutions in Rwanda (INT_external_5). One of the major strengths and unique selling points of the project was therefore the ability to bring governmental entities in touch with innovators and the private sector (INT_GIZ_3; INT_external_5, INT_partner_2). This interlinkage between the government and the private sector is reflected in the two project outputs. While **output A** focuses on strengthened governmental capacities to implement the SRMP and other digital strategies, **output B** puts a focus on boosting the capabilities of private sector companies and academia to develop digital innovations, which is considered a complementary and adequate approach by the evaluation team. Looking at these project outputs, the following conclusions can be drawn.

Output A, which focused on capacity buildings in relevant government entities (MINICT and RISA) to implement the SRMP and other digital strategies, appeared as very relevant for achieving the project objective. The development and implementation of favourable governmental policies is considered a prerequisite for an innovation-friendly environment and for innovation to thrive in the country (INT_partner_1). The evaluation team found that core activities under this output were (i) the placement of an integrated expert at RISA to ensure alignment of training contents with the needs of RISA (INT_other_4, FGD_GIZ_2); (ii) the provision of financial resources/external consultants to push the development of innovation-conducive policies (INT_partner_1).

Output B, which put a focus on the development of SDG-relevant digital solutions in the Digital Transformation Center and their application and dissemination in the Rwandan and African context through training and the development of concrete digital SDG-relevant solutions, was equally relevant for achieving the project objective. Capable private sector companies/academia are an evident prerequisite to achieve the development and dissemination of digital solutions. Additionally, qualified service providers are highly relevant to the government as 'the government needs qualified entrepreneurs to bring forward digitalisation in the government' (INT_other_3) – thereby again turning a spotlight on the interconnectedness, not only between outputs and project objective but also between the outputs. Apart from the specific support provided to digital innovators, the collaboration of different actors, both from the private and governmental sphere, was identified as a core activity under this output (INT_GIZ_3).

Major weaknesses that were identified under this output were, however, (i) its broad scope with regard to the number of different solutions to be implemented in different sectors, and (ii) its limited mandate to actually 'incubate' solutions, which clearly conflicts with the intended goal of the output to develop digital solutions for Africa, that is, scale the solutions in other countries. Given that the Digital Transformation Center was not set up as an incubator of digital solutions but rather considered by the project as one segment in the 'assembly line' towards a final digital product, the support of singular solutions could not go in depth. The next logical step

for especially community solutions that came out of the Digital Transformation Center would have been to scale on the local market. Scaling on a global/intercontinental level would have been the next step (INT_GIZ_3).

Even though the overall project design is considered logical and straight forward with clear objectives, the latter point reveals that there were also certain weaknesses in the design. The evaluation team found that the defined objectives and some of the indicators were very ambitious and, to some extent, not realistic. Substantially supporting a governmental institution that had recently been set up from scratch, developing a large number of digital solutions to be implemented in different sectors and with a broad variety of stakeholders, and even scaling various of those solutions to other African countries appears as overly ambitious for a project with a scheduled term of three years, which was limited to 1.5 years of actual implementation time given the delays in contracting a head of project and the outbreak of the global pandemic in early 2020 (INT_GIZ_3, FGD_GIZ_2).

The system boundary was, from the evaluation team's point of view, largely well-chosen and plausible. As outlined above, merely the scaling of solutions should have been left outside of the project's direct sphere of influence. Due to the project's direct collaboration with relevant project partners and target groups (RISA, MINICT, innovators) the project could set up relevant activities that contributed to achieving the intended objective.

Relevance dimension 3 – Appropriateness of the design – scores **17 out of 20 points.**

Relevance dimension 4: Adaptability – response to change

One of the first challenges the project had to deal with were difficulties to fill important team positions, such as the project lead. The project reacted to this by applying for a no-cost extension of six months (GIZ, 2021a). Regarding the set-up of the Digital Transformation Center, the original project design foresaw a significant partner contribution by the Rwandan Government through the provision of a rent-free space in the Kigali Innovation City. Due to delays in the construction of the Innovation City, this turned out to be unfeasible when the project head came in. Given the importance of the Digi Center as the cornerstone of various project activities, the project reacted to this change by setting up their own centre (GIZ, 2017; GIZ, 2020; INT_GIZ_3). While the evaluation team considers this is an adequate response to the changed conditions (i.e. the shortfall of significant planned partner contributions), because GIZ actually set up the physical space of the Digi Center, instead entails that a design/strategy needs to be developed to ensure its continuity and sustainability after the end of the project.

The major change that the project experienced was, however, the adaptability to the global pandemic of Covid-19 which affected the project activities that were conducted at the Digital Transformation Center (FGD_GIZ_2, FG_ben_8, INT_ben_3, FG_ben_4). In a first step, the project had to shift the implementation of training to 70% distance learning and 30% in-person training (INT_external_4, FGD_GIZ_2, FG_ben_9, FG_ben_7). However, this was hindered by external factors such as internet connectivity, as well as access to tools and equipment, which were physically available at the Digi Center but not online (INT_external_4, FGD_GIZ_2, FG_ben_9, FG_ben_7, INT_ben_10). To overcome these barriers, training participants in practical courses such as machine learning were provided access to the Digi Center in smaller groups (FGD_GIZ_2) or provided with rental kits to facilitate the practical exercises at distance (FGD_GIZ_2, FG_ben_8). The creation of communities around emerging technologies was severely affected by the pandemic (FG_ben_9) given that active engagement from participants slowly decreased with time as sessions shifted towards digital spheres. The overall impact of the pandemic also extended to the solution development, as prototype testing with potential users or beneficiaries of the solutions was severely restricted due to prescribed reductions of movement between regions:

For our product, the problem during Covid was to reach the beneficiaries. The challenge is to go to the beneficiaries and present the solution to them. Presenting the product online is a challenge especially to the visually impaired people. DSSD helped to keep working on the solution by making weekly follow-ups. This way they could assess the progress of the solution (FG_ben_6).

We were planning to do the testing, but because the (refugee) camps are closed, we could not test our product. The project has helped us by finding ways to get to the users of our solution (female refugees) by connecting us with another GIZ project that would help us reach to the users (INT_ben_3).

Furthermore, the project reacted to the Covid-19 outbreak with an application to receive additional funds from BMZ to enable them to continue with important project activities and cover Covid-induced additional costs. The additional funds were used to develop an innovation policy to support the Ministry of Health and the development of a 'Corona website', a **one-government data warehouse system** for the promotion of data-driven decision-making during the pandemic (Final report to BMZ, March 2021).

Another important change worth considering in this evaluation appeared to be linked to the changing leadership roles from the governmental partners' side which required the project activities to align with the vision of the new leadership and ensure continuity of structures and capacities to remain in line with the new vision (FGD_GIZ_2).

Overall, the evaluation team concludes that the project managed to adapt to all changes in a suitable manner.

Relevance dimension 4 – Adaptability – response to change – scores **20 out of 20 points.**

Methodology for assessing relevance

Table 5: Methodology for assessing OECD/DAC criterion: relevance

Relevance: assessment dimensions	Basis for assessment	Evaluation design and empirical methods	Data quality and limitations
Alignment with policies and priorities	Smart Rwandan Master Plan, National strategy for transformation 2017–2024; Future Drivers of Growth, BMZ Country Strategy; BMZ Digital Agenda; Marshall Plan with Africa	**Evaluation design:** Analysis follows the analytical questions from evaluation matrix (see Annex 1) **Empirical methods:** Qualitative content analysis of key documents (project data, strategic documents); Semi-structured interviews with BMZ representatives, GIZ country manager and project leader	No limitations identified
Alignment with the needs and capacities of the beneficiaries and stakeholders	**Direct target groups:** • Representatives from relevant governmental institutions (MINICT, RISA, sectoral ministries, downstream authorities) • Digital innovators (private sector – ICT companies, academia – ICT graduates) • Actors within the digital ecosystem (private sector – ICT companies, academia – ICT graduates, government) **Indirect target group:**	**Evaluation design:** Analysis follows the analytical questions from evaluation matrix (see Annex 1) **Empirical methods:** Semi-structured interviews and FGD with samples of direct target groups and representative of organisations (start-upstart-up incubators, research institution); Contrasted with need assessments of project proposal; Analyses of evaluation	No limitations identified

		data on conducted trainings, events, and workshops	
	• Farmers, cooperatives, people in need of blood transfusions, visually impaired people, female refugees, researchers, young parents/ caregivers, health workers, investors, Rwandan population		
Appropriateness of the design*	Results matrix, offer to BMZ, updated results model	**Evaluation design:** Analysis follows the analytical questions from evaluation matrix (see Annex 1) **Empirical methods:** Semi-structured interviews with project team, project partners, GIZ sectoral department and stakeholders	No limitations identified
Adaptability – response to change	Change offer (2018); progress reports/final report; key changes identified during project timeline	**Evaluation design:** Analysis follows the analytical questions from evaluation matrix. **Empirical methods:** Key informant interviews with project team, key project partners and target groups **Deductive approach:** Verification of identified changes and adaptations **Inductive approach:** Open questions to detect additional changes and necessary adaptations.	No limitations identified

* The project design encompasses the project's objective and theory of change (GIZ results model, graphic illustration and narrative results hypotheses) with outputs, activities, instruments and results hypotheses as well as the implementation strategy (e.g. methodological approach, capacity development strategy, results hypotheses).

4.3 Coherence

This section analyses and assesses the coherence of the project. It is structured according to the assessment dimensions in the GIZ project **evaluation matrix** (see Annex 1).

Summarising assessment and rating of coherence

Table 6: Rating of OECD/DAC criterion: coherence

Criterion	**Assessment dimension**	**Score and rating**
Coherence	Internal coherence	50 out of 50 points
	External coherence	45 out of 50 points
Overall score and rating		Score: **95 out of 100 points** Rating: **Level 1: highly successful**

Within the landscape of digital projects implemented by GIZ and its partners in Rwanda, the project has taken up a pioneering role. To a certain extent, synergies between the project activities and the project system boundaries were exploited. Furthermore, the evaluation team found that the project was well aligned with two guiding principles in the sector, namely the Principles for Digital Development and the EU General Data Protection Regulation (GDPR).

With regard to external coherence, the evaluation team concludes that the project fit well into the overall donor and digital landscape, not least due to the project team's own initiatives and efforts to align with the existing ecosystem. The project proactively sought contact and exchange with other donors and actors in the sector to find a 'niche'. However, there were no structured transition points in place for DSSD project beneficiaries to move on to other donors/agents in the digital ecosystem.

In total, the coherence of the project is rated as Level 1: highly successful, with 95 out of 100 points.

Analysis and assessment of coherence

This section analyses and assesses the coherence of the DSSD project. The coherence criterion comprises two dimensions, namely (i) the internal coherence, which primarily analyses the extent to which the design and implementation of the project fit with the instruments and other German development cooperation initiatives and relevant (inter)national norms and standards; and (ii) the external coherence, which looks specifically at the complementarity and coordination of the project with other donors and the joint use of structures and common systems. The coherence criterion was mainly assessed through interviews with relevant stakeholders and the project team as well as reviews of relevant documents.

Coherence dimension 1: Internal coherence

Looking at the degree to which the project design and implementation fit into the overall framework of German development cooperation, it became evident during the evaluation that the DSSD project is perceived as a pioneer within the cluster of digitalisation projects in Rwanda (INT_other_3). The DSSD project, being the first of its kind, kicked off the digitalisation projects within GIZ Rwanda. Following projects that BMZ will initiate in the near future will specifically link some of the core strategic topics of the BMZ country strategy (specifically climate adaptations/smart cities and TVET) with digitalisation and draw on lessons learned and experiences of the DSSD project (INT_other_3). Most evidently, this can be seen in various GIZ digitalisation projects, such as MakeIT and SI Jobs, being based or conducting core parts of their activities in the physical space of the Digital Transformation Center that was set up by the project (INT_other_3, INT_GIZ_3).

At the activity level, overlaps and topical congruencies between different projects within the cluster were made use of. As an example, DSSD and the GIZ project Fair Forward collaborated by jointly conducting machine learning training in the Digital Transformation Center. A similar agreement existed with the SI Jobs, where training on IoT was jointly conducted (INT_GIZ_5). Some evaluation interviewees throughout the evaluation and that occasionally referred to activities as belonging to DSSD that actually belonged to MakeIT/SI Jobs just because the activities took place in the same physical space. These statements confirm that the cluster projects are perceived as 'the Digi Center' by external stakeholders that are not directly involved in the projects (INT_ben_10, INT_ben_2). Offers by DSSD were furthermore promoted by other GIZ projects (FG_ben_11).

> DSSD brought a new and agile model which is not like the usual GIZ projects which is very IT like and rightfully so, but this has also pushed everyone to think beyond their own projects and explore synergies amongst projects (INT_GIZ_3).

To a certain degree, synergies were furthermore exploited with regard to the system boundaries / mandates of the different projects. As outlined previously, the DSSD project only supported ideas/digital solutions up to a certain level of maturity (minimal viable product) (FGD_GIZ_2). The mandate of MakeIT, which is also based in

the DTC, goes beyond this. Within the framework of the 'Open Innovation Program', MakeIT was mandated to take over solutions that were developed under the DSSD project up the maturity of a prototype, a **minimum viable product** and support them with tools and structures, funding, support to develop a business strategy with the aim of scaling to the market and reaching financial sustainability (FGD_GIZ_2).

> [The Digi Center] is a space that really supports innovators and young entrepreneurs and fosters collaboration. DSSD has a unique way of providing relevant tools for start-ups. Another added value of DSSD is around connections […] – different programmes from GIZ collaborating together helps us as entrepreneurs on different levels (INT_ben_2).

For the follow-on project of the DSSD, the collaboration of projects within the digital cluster will be shaped further to ensure that overall synergies and complementarities as well as the transition points from one project to another are strengthened (INT_GIZ_3). Potential for enhanced synergies is currently being explored in a structured manner; to this purpose, indicators and topical overlaps of the different digital projects are being mapped to ensure that activities of all projects during the follow-on project of DSSD are aligned and contribute to various project indicators at the same time (INT_GIZ_3).

Looking at overarching international standards for digitalisation projects, the **Principals for Digital Development,**[1] which GIZ has endorsed, stand out as a relevant standard for digitalisation projects in international development cooperation. The evaluation team found that the project

Figure 3: Principles for digital development

was aligned with those principles to a great extent, specifically with regard to (i) user-centred designs; (ii) an alignment with the existing ecosystem; (iii) the use of open standards and open-source; (iv) collaborative approaches; and (v) privacy and security issues.
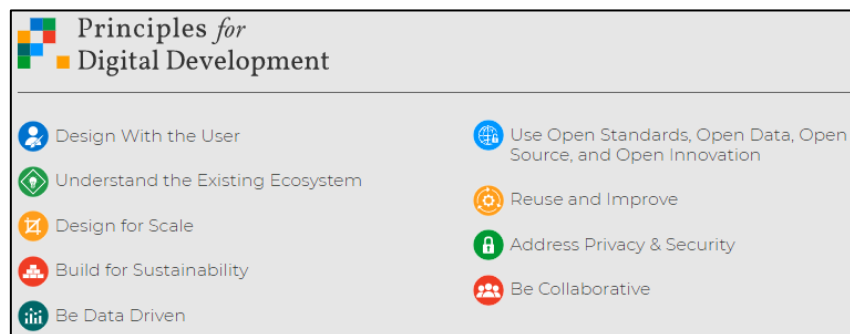
The latter links to another highly relevant guiding norm, namely data privacy and data protection as defined in the European GDPR. The GDPR is currently being used as the standard guideline for data protection in Rwanda as the Rwandan Government enacts its own data protection law that was presented to the parliament in October 2020. The project ensured alignment of the developed solutions with data privacy requirements through (i) awareness raising during hackathons, where, for example, in the case of 'Innovate for women' a module looked specifically at GDPR concerns; and (ii) throughout the implementation of solutions, ensuring that only the minimum necessary personal data was collected through digital tools, limited access rights to personal data were granted and that codification/anonymisation of personal information was conducted whenever possible and necessary (INT_GIZ_4).

Coherence dimension 1 – Internal coherence – scores **50 out of 50 points**.

Coherence dimension 2: External coherence

Ensuring external coherence – that is, finding a niche for the Digi Center that would complement and strengthen the local ecosystem rather than competing against other local providers and, in the worst case, drive them out of the market – was one of the main priorities during the planning phase and the initial phase of implementation (Int_other_1; progress report February 2019). Based on the outcomes of these efforts, the

---

1

project was explicitly not set up as an incubator of digital solutions, but rather considered itself as one part of an 'assembly line' that SDG-relevant solutions would go through on their way to the market (INT_GIZ_3). This attempt was successful, as it was perceived as unique in the Kigali digital landscape, particularly with regard to its focus on emerging technologies (FG_ben_8). With that in mind, the project made great effort to gain visibility and connect to other players in the ecosystem, such as the Westerwelle Foundation Startup Haus Kigali, 250 Startups and the ICT Chamber.

The implications for the solutions that were developed in the Digi Center were, however, that a 'transition point' from the DSSD to another actor would be required. This would (sticking with the same metaphor) constitute the next step of the assembly line. Looking at the coherence in this regard (i.e. the 'precision fit' between the different actors) the evaluation team found that this worked very well for the government solutions, which were designed and implemented together with the respective government entities and where the governmental entities could smoothly take over upon completion of the development. However, for community solutions and solutions developed throughout training sessions, there were yet few structured transition points from the DSSD to other actors within the Kigali digital ecosystem (outside of the GIZ digital project portfolio). Such transition points would help innovators to further develop their initial products, elaborate a suitable business model and scale to the market. This applied in particular to training participants which started to develop solutions during training but reported to have lacked mentoring or institutions to turn to after the sessions were done.

> It would have been beneficial to connect us with impact hubs or accelerators or AIMS [African Institute of Mathematical Sciences], but nothing was mentioned during the trainings. People need to find out themselves (INT_ben_10).

> Support would be needed for the trainees after the training, providing professional internships or recommend companies with which DSSD has partnerships to get experience (FG_ben_11).

With regard to external coherence with other donor organisations, the project defined a communication strategy to make other stakeholders aware of their works and foster collaboration. They furthermore fostered regular exchange meetings. A working group with all donor organisations was established in late 2019 to improve coordination and avoid duplication of activities (Final report to BMZ, March 2021). A close collaboration was specifically pursued with the Japan International Cooperation Agency (JICA), with whom regular (ad hoc) meetings were held to exchange knowledge on the sector, align the ecosystem support and, wherever possible, identify handover points (INT_GIZ_3). In addition, efforts were brought together through the joint work on specific digital solutions, such as the digital ecosystem mapping tool Innovate Rwanda, which the DSSD developed jointly with 250 Startups (an initiative of JICA), and the ICT Chamber of Rwanda (INT_GIZ_3, INT_GIZ_4). Through events at the Digi Center, which were largely (co-) organised by political partners or other external actors in the ecosystem (e.g. a workshop with JICA and the ICT Chamber or meet-ups with communities of practice and relevant governmental entities, such as the National Industrial Research and Development Agency), the coherence of the project with the efforts of partners becomes evident (DTC Event List, 2019/2020).

In order to further support partner efforts and achieve visibility, the project signed a grant agreement at the beginning of the project for the Rwanda Digital Ambassadors program of the Digital Opportunity Trust (dot. Rwanda, led by MINICT), which aims to increase the number of digitally literate citizens and their use of digital devices to access e-government and e-business services and bridge the ICT skills gap (Grant agreement, 2018). These efforts are seen as highly complementary by the evaluation team.

Coherence dimension 2 – External Coherence – scores **45 out of 50 points.**

Methodology for assessing coherence

Table 7: Methodology for assessing OECD/DAC criterion: coherence

Coherence: assessment dimensions	Basis for assessment	Evaluation design and empirical methods	Data quality and limitations
Internal coherence	Principles for Digital Development, EU GDPR, project results matrix and results model, project progress reports	**Evaluation design:** Analysis follows the analytical questions from evaluation matrix (see Annex 1) **Empirical methods:** Qualitative content analysis of project monitoring data and review of relevant guidelines; Semi-structured interviews with GIZ country director, other GIZ projects in the digital cluster, project leader	No limitations identified
External coherence	Project progress reports, final report	**Evaluation design:** Analysis follows the analytical questions from evaluation matrix (see Annex 1) **Empirical methods:** Qualitative content analysis of project monitoring data; Semi-structured interviews with GIZ country manager, project leader, project team, political partners and downstream authorities, innovators of the DTC	No limitations identified

4.4 Effectiveness

This section analyses and assesses the effectiveness of the project. It is structured according to the assessment dimensions in the GIZ project evaluation matrix (see Annex 1).

Summarising assessment and rating of effectiveness

Table 8: Rating of OECD/DAC criterion: effectiveness

Criterion	Assessment dimension	Score and rating
Effectiveness	Achievement of the (intended) objectives	25 out of 30 points
	Contribution to achievement of objectives	20 out of 30 points
	Quality of implementation	19 out of 20 points
	Unintended results	20 out of 20 points
Overall score and rating		Score: **85 out of 100 points** Rating: Level 2: successful

The evaluation team found that two project objective indicators were fully achieved by the end of the project, one objective indicator was achieved to some extent. While the development of digital solutions with relevant governmental entities as well as the development of implementation and financing plans could be confirmed, the scaling/application of solutions in other African countries could only be partially confirmed.

The assessment of three hypotheses through contribution analyses allowed for a more detailed examination of the effectiveness of trainings for the targeted governmental entities and the community in the Digital Transformation Center, and the effectiveness of support provided to innovators to develop their SDG-relevant solutions. Evidence was found that the skills of the training participants increased through the intervention. However, the replication of knowledge within RISA did not happen. Similarly, training participants from the ecosystem particularly confirmed to have kept on applying their skills if they had a direct follow-up use case for it. Whenever this was not the case, knowledge tended to be lost, and solution development stopped. Digital innovators that were directly supported through the Digi Center perceived the provided support as helpful, especially with regard to establishing relationships with governmental entities, yet the funding was perceived as too little to develop an actual product beyond a pilot/minimum viable product.

The overall quality of implementation was assessed as good, with clear roles and responsibilities within the project team and a close collaboration with national partners. Unintended positive results of the project comprised the speed at which relevant policies were developed as well as the unintended emergence of communities of practice within the Digi Center.

In total, the effectiveness of the project is rated Level 2: successful, with 85 out of 100 points.

Analysis and assessment of effectiveness

Corroborated under the 'effectiveness' criterion, the evaluation aimed to analyse the extent to which the project achieved its desired objectives, measured by the module objective indicators (evaluation dimension 1) and the degree to which the project activities and instruments have contributed to the achievement of its objectives (evaluation dimension 2). The latter is majorly based on a contribution analysis, for which three key causal relations were selected to be scrutinised in-depth. Additionally, the assessment of the effectiveness also covered unintended results (evaluation dimension 3).

Effectiveness dimension 1: Achievement of the (intended) objectives

The information presented below provides an overview of the achievement of the project objective as measured by the indicators in the results matrix. This required a comparison of the current status and the targets of the outcome indicators. To set the basis for this assessment, indicators were examined with regard to their SMART-ness (specific, measurable, achievable, relevant, time-bound). Two out of three project objective indicators were assessed as SMART. The evaluation basis for assessing this dimension was the project's internal monitoring data and final report to BMZ, which was complemented by qualitative data that was collected through interviews and discussions with key target group and project team members.

Module objective indicator 1: Eight more projects of the Smart Rwanda Master Plan are implemented in cooperation between the Rwanda Information Society Agency (RISA) and the sectoral ministries.

The first module objective indicator aimed at measuring the quantitative number of SRMP projects that were implemented by RISA and the responsible sectoral ministries with support of DSSD. According to the project monitoring data and discussions with the team, eight projects, namely Gov.rw, GCC, Labour Market Information System (LMIS), Digital Ecosystem Mapping (DEM) tool, Virtual Lab, Smart Agri, GBIS and the Covid-Portal were implemented. Interviews with relevant stakeholders of the solutions (such as RDB, RAB and REB) confirmed this. MOI 1 is therefore assessed as fully achieved.

Module objective indicator 2: 8 Implementation and financing plans have been prepared in the responsible sectoral ministries for eight SDG-relevant solutions which were developed in the digitalisation centre and benefit in particular women and youth.

According to the project monitoring data, implementing and financing plans were developed for eight solutions (Virtual Lab, Smart Agri, LMIS, DEM Tool, Digital Walking Stick, Nutri, My Money, Blood Bank), thereby meeting the target number. On the side of the implementing partners, the degree of participation of responsible sectoral ministries was perceived as high (INT_partner_2, INT_partner_6, INT_partner_4). With regard to the benefit of the selected solutions to women and/or youth, interviewed stakeholders agreed that youth almost automatically benefited given that the majority of solutions were developed by start-up companies which almost exclusively comprise of young entrepreneurs (INT_partner_2, INT_GIZ_4). Virtual Lab is furthermore specifically designed for young users (school students). With regard to benefits to women, specifically Nutri, the Digital Walking Stick and My Money target women as users. MOI 2 is thus assessed as fully achieved.

Module objective indicator 3: Three of the 15 implemented SDG-relevant digital solutions are applied in other African countries.

The third module objective indicator aimed at assessing the extent to which solutions that were developed under the DSSD project were applied in the pan-African context. According to the project offer, the 'application' in other countries is defined as solutions being piloted in another country (GIZ, 2017); other project documents, such as the project progress report (01/2020), however, refer to the 'scaling' of three digital solutions. The project counted the DEM tool, Bazafarm and Nutri as applied in other African countries (INT_GIZ_5). The DEM tool source code was shared with companies from Ghana and Ethiopia and could hence be piloted by them (INT_GIZ_4). Nutri has been published on Google Playstore (as 'Dietup') and has so far been downloaded by 104 users outside of Rwanda. Among these downloads, two downloads happened on the African continent (one in Nigeria, one in Egypt) (Project monitoring data). Bazafarm, which is currently being rolled out in Rwanda and user trainings are going on, was presented to the STES (Seed Technology Engineering and Science) group in Tunisia, Cameroon and Chad (GIZ 2019a; INT_GIZ_5). No records are available that the tool is being applied by/through the STES group in those countries. As previously outlined in the discussion of the project design, the evaluation team is aware of the fact that MOI 3 is ambitious and very hard to achieve with the given project design. The indicator is assessed as achieved to some extent and will be treated as achieved to 50% throughout the evaluation.

Table 9: Assessed and adapted objective indicators for specific modules (outcome level)

Project's objective indicator according to the (last change) offer	Assessment according to SMART* criteria	Specified objective indicator (only if necessary for measurement or understanding)
8 more projects of the SRMP are implemented in cooperation between the RISA and the sectoral ministries. Base value (05.01.2020): 0 Target value (05.01.2020): 8 Current value (21.01.2021): 8 Achievement in % (date): 100% Source: Results Matrix	• Specific: yes • Measurable: yes • Achievable: yes • Relevant: yes • Time-bound: yes	Completed solutions: Gov.rw, GCC; LMIS; DEM tool; Vlab, Smart Agri, Covid-Portal, GBIS
8 implementation and financing plans have been prepared in the responsible sectoral ministries for eight SDG-relevant solutions which were developed in the digitalisation centre and benefit in particular women and youth Base value (05.01.2020): 0 Target value (05.01.2020): 8 Current value (21.01.2021): 8 Achievement in % (date): 100% Source: Results Matrix	• Specific: yes • Measurable: yes • Achievable: yes • Relevant: yes • Time-bound: yes	Solutions for which plans have been prepared: Vlab; Smart Agri, LMIS, DEM Tool, Digital walking stick, Nutri, My Money, Blood Bank
Three of the 15 implemented SDG-relevant digital solutions are applied in other African countries. Base value (05.01.2020): 0 Target value (05.01.2020): 3 Current value (21.01.2021): 3 Achievement in % (date): 50% Source: Results Matrix	• Specific: the term 'applied' is not specific. It is unclear if it refers to the scaling/implementation of a solution in another country merely the pitching/presentation of it abroad • Measurable: yes • Achievable: to a limited degree. Scaling is not considered feasible within the given time of the project • Relevant: yes • Time-bound: yes	In the final report, the indicator was changed to 'Three of the 15 implemented SDG-relevant digital solutions are applied in other African countries'

* SMART: specific, measurable, achievable, relevant and time-bound

As can be seen in Table 9, the first two indicators are considered SMART, whereas the third project objective indicator is neither specific nor realistically achievable within the given project time and set-up. The evaluation team therefore does not consider that the third indicator adequately operationalises the project objective. In empirical terms, the team comes to the conclusion that project objective indicators 1 and 2 were fully achieved by the end of the project. Project objective indicator 3 was partially achieved by the end of the project.

Effectiveness dimension 1 – Achievement of the (intended) objectives – scores **25 out of 30 points.**

Effectiveness dimension 2: Contribution to achievement of objectives

In this section, the chosen results hypotheses for the contribution analysis are scrutinised to illustrate how outputs contributed to project outcomes. The evaluation and project teams selected the hypotheses together during the inception phase based on (i) their perceived significance within the overall project implementation; (ii) the interests of the project team and the evaluation team; and (iii) the feasibility to assess and evaluate the links with the given time and resources of the evaluation. Following Mayne (2012), the validated results model including risks and assumptions guided the analysis. In collaboration with the project team, the evaluation team

identified three causal links from output to objective during the inception mission. Evidence for the underlying hypotheses was then collected through a mixed-methods approach based on interviews with project stakeholders and surveys, which were conducted by the project team with the target group (governmental staff, digital innovators, event participants). In the following, findings are compiled in a contribution story to find plausible explanations for either confirming or rejecting the chosen hypotheses. In addition, case studies to showcase and promote the potential impact of developed solutions were taken as an additional valuable source of information to assess the potential to achieve impacts.

Table 10: Selected results hypotheses for effectiveness

Hypothesis 1 (activity – output – outcome)	Digital advice and training are provided to professional staff members of MINICT and RISA. The digital knowledge (such as elements of design thinking or specific capacities with regard to content management) that is thereby generated is replicated within the target institutions and leads to enhanced ICT capacities across different sectors. The strengthened capacities contribute to enhanced human and institutional capacities at MINICT, RISA and downstream authorities to implement (projects of) the SRMP
Main assumptions	The establishment of the RISA authority will be completed, and the required financial resources will be available for the planned timeline. A core team of 40 employees from the digital development sector is moving from the Rwanda Development Board to RISA
Risks/unintended results	RISA as a newly established organisation yet has to establish its operational capacities and absorption capacity for advice/training may be limited. MINICT may equally have limited absorption capacities due to a very limited number of staff members (6) in the ICT sector
Alternative explanation	-
Confirmed/partly confirmed/ not confirmed	Partly confirmed

The first examined hypothesis refers to the pathway of change of activities under output A; key underlying project activities comprised the provision of digital advice and training to enhance human and institutional capacities at the primary stakeholder level (MINICT and RISA). The capacities obtained through training should be replicated within RISA, MINICT and to the sectoral ministries that are supported by MINICT and RISA and thereby contribute to improved implementation capacity for SRMP projects.

Interviewed partners confirmed that the training provided had an overarching goal of increasing and enhancing the individual capacity development of professional staff at RISA and aimed at upskilling departmental capacities within the institution (INT_partner_1, INT_partner_2). The training sessions evolved around important subjects deemed essential to manage the content (such as enterprise architecture, project management and data integration), and matched departmental needs within the institution (INT_partner_2). Participants in training courses confirmed to have gained advanced skills needed to run their day-to-day activities within their respective roles, and leaders within RISA confirmed that the provision of tailor-made training courses has been 'a very important contribution to where RISA stands today' (INT_partner_2). Findings have shown that the focus of the training was primarily on individual capacity development of the professional staff within MINICT/RISA which successfully contributed to RISA being a key agency in driving digital transformation at governmental level (FGD_partner_3, INT_partner_2, INT_partner_1). It is important to mention that other project activities such as study tours to Germany/Israel, which involved government partners and other actors within the Rwandan digital ecosystem, but also specific training courses, were perceived as particularly influential towards a change of mindset for government partners in adopting a culture of embracing 'failure' as part of the digital transformation journey (FGD_GIZ_2, INT_external_5). Based on the above findings, the evaluation team confirms that the digital advice and training that were provided to MINICT/RISA has enhanced their internal capacities to advance the digital transformation in the country.

Moreover, the evaluation team assessed the contribution of training to the share of knowledge within MINICT/ RISA and the replication of this knowledge across sectoral ministries. The interviews showed that the replication of knowledge was deemed rather unsuccessful due to multiple factors. First, a lack of active participation in training: participants needed to simultaneously attend the training while ensuring a smooth operation within their respective roles, which was seen as a detrimental factor (FGD_partner_3) to the acquisition of skills that could be shared with others. Second, the training/overall implementation timeline proved to be short in light of the hands-on practice and regular application of the learned skills that is required for the training contents to sink in (FGD_partner_3, INT_other_4, INT_partner_1). Lastly, an uncertain continuity of skills and capacities resulting from trainees finding jobs outside of RISA (INT_other_4) was observed as a hindering factor to a sustainable and successful replication of obtained knowledge. Moreover, the evaluation team found that although the trained professional staff were applying the obtained skills within their line of work, the skills were not replicated in other RISA departments (INT_partner_1, INT_partner_2, FGD_partner_3, INT_other_4) or extended to other sectoral ministries (FGD_partner_3, INT_partner_2). A new and more intentional approach to decentralise digital transformation to other sector ministries is being considered for the follow-on project, whereby Chief Digital Officers from sectoral ministries will be trained and will support the digital transformation within their respective ministries (INT_partner_2).

Considering the evidence given above, the evaluation team finds that the capacities that were gained within MINICT/RISA were applied at an individual level, but not replicated within MINICT/RISA and other downstream authorities. The evaluation team also acknowledges that although the implementation of single projects of the SRMP was successful (see objective indicator 1), a direct connection with improved capacities through training could not be proven. The contribution hypothesis is therefore assessed as partly achieved.

Table 11: Selected results hypotheses for effectiveness

Hypothesis 2 (activity – output – outcome)	Financial and technical support provided to 'digital innovators' to incubate the digital solutions increase innovators' capacities to develop value and, altogether, leads to the development of SDG-relevant digital solutions for Africa
Main assumptions	The support structures and training contents match the needs of the innovators to develop digital solutions
Risks/unintended results	The financial support provided is not sufficient to develop fully fledged solutions that can have an impact on pan-African level
Alternative explanation	-
Confirmed/partly confirmed/ not confirmed	Partly confirmed

In this section, the evaluation team assessed the contribution of the financial and technical support provided by the DSSD project to the innovators to enable them to develop value, that is, come up with a suitable, user-/problem-centred, SDG-relevant and scalable idea for a digital solution and implement it. Following a case study approach, the evaluation specifically considered two digital solutions that were implemented in the framework of the DSSD project, namely LMIS and Bazafarm, to assess the results hypothesis. These digital solutions were jointly chosen with the project team as case studies for this evaluation. An in-depth understanding of the case study solutions was obtained through the inclusion of all stakeholders of the solutions that were identified as relevant together with the project team and based on a snowball system approach.

From a financial perspective, the interviews confirmed that the financial support rendered to digital innovators has allowed them to develop the solutions to the level of a **minimum viable product**, but that the financial support was not substantial enough to go beyond a working prototype version and test at larger scale (INT_partner_1, INT_external_4, FGD_GIZ_2, INT_external_1, INT_ben_1, INT_ben_2, INT_external_2,

FG_ben_9, FGD_GIZ_2). From a technical perspective, the evaluation team considered the following as main factors that confirm the hypothesis:

- **User-centric training:** The training courses provided allowed the innovators to be able to develop solutions that matched the beneficiaries' needs and looked at solving SDG-relevant challenges (e.g. food security) on one hand, or contributing to long-term goals such as good governance and/or innovation for development on the other (INT_ben_1, INT_ben_2, INT_partner_6). Moreover, training aimed to challenge the mindset and predominant culture of replicating existing solutions, which fundamentally goes against the principles of innovation that always starts from a challenge perspective (INT_external_5).
- **Facilitating relationships between the government and digital innovators:** The chosen case studies required an active and close collaboration with the relevant government authorities (Rwanda Development Board for LMIS; and Rwanda Agricultural Board for Bazafarm). This assumption was confirmed through highlighting the project's successful contribution curating these connections and providing sufficient support to facilitate a smooth and close collaboration between government entities and digital innovators (INT_ben_1, INT_ben_2, FG_ben_6, INT_partner_6).

Lastly, the evaluation team scrutinised the application of the developed SDG-relevant solutions from an African perspective. The findings have shown that even though most solutions have a strong vision to create larger-scale impact (FGD_GIZ_2) and would be scalable to other African countries, the adaptation of the solution to the needs of another country would require additional resources and funding that were not within the scope of the project (FGD_GIZ_2, INT_GIZ_3). In this line of thought, the evaluation team has furthermore identified that stakeholders expressed concern on **the adequateness of hackathons** as a platform to select and provide support to the digital solutions. Hackathons were not necessarily deemed adequate as they might hinder (i) the scalability of the digital solutions as hackathons do not look at the development plan behind the idea/minimum viable product (INT_partner_1, INT_external_4, FGD_GIZ_2, INT_external_1, INT_ben_1, INT_ben_2, INT_external_2); and (ii) have a potentially negative influence on the innovation mindset among the community of innovators if they already come in with existing solutions that are simply being adapted to the topic of the hackathon, rather than being open to innovative approaches (see sustainability dimension) (INT_external_5).

Based on the findings outlined above, the evaluation team's conclusion is that there was substantial evidence to partly confirm the hypothesis. SDG-relevant digital solutions for Africa have been developed and have been piloted (implemented) in Rwanda with the help of the financial and technical support provided by DSSD. However, rolling them out at a larger scale and, in a next step, scaling them up to other African countries, will yet require additional support and funding as well as additional time.

Table 12: Selected results hypotheses for effectiveness

Hypothesis 3 (activity – output – outcome)	Training and community meetings provided for the Rwandan digital ecosystem (particularly ICT start-ups and innovators, ICT graduates, interested participants from governmental entities) lead to improved capacities and enhanced collaborations within the ecosystem, which at outcome level contributes to strengthening the digital ecosystem in Rwanda
Main assumptions	The existing ecosystem/innovation scene (e.g. K-Lab, Fab-Lab, Impact-Hub) acts as partners of the Digital Transformation Center and their existing business models are not jeopardised
Risks/unintended results	-
Alternative explanation	Other actors in the digital ecosystem equally contribute to strengthening it; a more dynamic ecosystem can hence not be traced back to a single intervention, such as the DSSD
Confirmed/partly confirmed/ not confirmed	Confirmed

The pathway of change that was observed under this results hypothesis aimed to understand if training sessions and community meetings that were provided at the Digital Transformation Center led to improved capacities and an enhanced collaboration within the Rwandan digital ecosystem. In defining key stakeholders within the digital ecosystem, the evaluation engaged ICT graduates, start-ups and innovators as well as incubators to verify the assumptions that (i) capacities were improved based on the mode of delivery and quality of the provided training and workshops; (ii) meaningful connections and collaborations among digital innovators were fostered; and (iii) the overall digital ecosystem was strengthened as a result of the skills and collaborations among innovators.

When assessing the contribution of training and workshops towards improved digital ecosystem capacities, the evaluation team found that the content of the training courses was deemed to be concise and well aligned with the needs of the participants. In some cases, this has not only resulted in knowledge being used in the daily activities of the participants but has also led to the sharing of knowledge with others in the ecosystem (FG_ben_11). It is important to point out that this effect was only observed for training participants coming from academia, that is, being involved in teaching, whose job it was in any case to share knowledge with students and who could therefore directly insert the obtained knowledge into the curricula.

While some training participants reported that the length and intensity of the training courses – which was viewed as short for practical subjects such as emerging technologies – as well as the lacking continuity of support to solutions that were developed as part of the training, had a negative impact on a lasting improvement of capacities (INT_ben_10, FG_ben_11). Other participants reported that the training influenced (for instance) their choice for graduate school programmes and unlocked opportunities for further professional and/or academic pursuit in emerging technologies, hence creating a basis for further work in the area of emerging technologies (FG_ben_11).

> The participation in the machine learning training took away barriers as it helped me to apply for other training courses where a test had to be done (FG_ben_11).

Overall, the training was reported to form a basis for the different actors of the digital ecosystem to learn more and convene around the topics of emerging technologies as well as other topics that advance digital transformation in Rwanda (INT_external_4, INT_external_2, FG_ben_8). While the training courses themselves might not have had a significant effect on fostering collaboration and exchange between participants (FG_ben_11), the communities of practice that were established at the Digi Center helped to establish those connections between people through meet-ups (FG_ben_8). While training participants agreed that it would be beneficial to have a community to exchange on challenges and good practices (FG_ben_11), training participants were often unaware of the existence of the communities of practice in the Digi Center where they could further exchange on topics such as machine learning. The communities of practice were equally not involved in the training, not even if it targeted their sector (such as virtual realities) (FG_ben_8). Interviews also pointed out that communities of practice around specific topics were operating in silos and that this hindered interactions and exchange of best practices among these different communities (FG_ben_8, FG_ben_9).

The collaboration between innovators and communities of practice worked more smoothly and an effective exchange of knowledge was fostered:

> Some of the start-ups that would come for meet-ups were not aware of opportunities and policies by the government, and the efforts of the government to promote IoT. There was very much information that the members of the community were able to get from the meet-ups (FG_ben_8).

The triggering of a more active, strengthened digital ecosystem was equally confirmed through statements of government partners, academia, training participants and digital innovators (INT_external_5, INT_external_4, FG_ben_9):

> DSSD has positioned itself to bring together the communities through different meet-ups. For example, in a block chain meeting where even the minister was the guest speaker, you could really see the interaction – innovators could speak on their challenges and the minister could learn about the gaps in support. With more time, the communities will even get more shape and more coordination (INT_partner_2).

> DTC is a place to create communities, especially in sectors that are very new in terms of the digital technology (INT_partner_1).

Moreover, the evaluation found that the training and workshops not only triggered an ecosystem interest in emerging technologies but also positioned the Digi Center as a whole as the go-to place for emerging technologies among different actors in the digital ecosystem including government institutions, digital incubators, and ICT communities of innovators (FG_ben_8). To further foster and institutionalise these efforts, a website has been set up (Innovate Rwanda) that will in the near future connect innovators to each other and with potential investors, as well as provide tools that the innovators can use for communication (INT_partner_2, INT_GIZ_3).

In spite of certain shortfalls with regard to continuous support and connecting training participants and communities of practice within the DTC, the evaluation team comes to the conclusion that based on the gathered evidence, the contribution hypothesis can be confirmed.

Effectiveness dimension 2 – Contribution to achievement of objectives – scores **20 out of 30 points.**

Effectiveness dimension 3: Quality of implementation

Under this dimension, the quality of implementation in the sense of team set-up/leadership/collaboration in the team, work culture and collaboration with partners will be assessed.

With regard to the team set-up, it became clear during the evaluation interviews that all required skills profiles were covered in the project team. Clear profile descriptions existed, work was split between team members in a reasonable way and team members reported to always have had a person to turn to if they encountered a challenge (INT_GIZ_4, INT_GIZ_5). Communication within the team was furthermore ensured through a weekly team meeting, that is, stand-ups multiple times a week during Covid-induced remote work (INT_GIZ_5). However, the collaboration and communication with partners was perceived as rather challenging, and a focal point had been assigned to whom the team members could turn when facing challenges (INT_GIZ_4).

Regarding the collaboration of partners, it is worth mentioning that at the beginning of the project a workshop was conducted with 60 national institutions (such as AIMS) to define what development meant for everybody. The results were used as a framework to prioritise topics and ensure that existing initiatives would not be replicated (INT_external_4). It should furthermore be noted that a steering committee was set up (comprised of MINICT, GIZ, RISA, Innovation City) which held meetings every six weeks and had to sign off core activities. The project also held biweekly meetings with MINICT (INT_GIZ_3). In spite of this close collaboration, project partners reported that some of the decisions felt rushed and that they felt overwhelmed with being 'faced with last minute decisions on very important aspects' (INT_partner_1). While there may still be room for improvement, the evaluation team concludes that the short implementation time and dynamic environment justifies certain imperfections in this regard.

Effectiveness dimension 3 – Quality of implementation – scores **19 out of 20 points.**

Effectiveness dimension 4: Unintended results

The evaluation team found that throughout the implementation, the project yielded some positive unintended results. These results highlighted the role that the project has played in (i) supporting the policy development of the Rwandan Government; and (ii) successfully building communities (AI (artificial intelligence) communities, blockchain communities) around these emerging technologies (INT_partner_1, INT_external_2, FG_ben_8):

- Even though the support in developing relevant policies was within the intended scope of project results, the project also managed to significantly **speed up the policy development**. Within a short time, they were able to kick-start and develop policies that otherwise would have taken two to three years to get through (INT_partner_1). This is considered a great win that will also help the follow-on project to support the ecosystem in general.
- Though the aforementioned **communities of practice** (e.g. on AI or blockchains) were not planned for in the original project design but 'sprung out of the DSSD' (INT_partner_1), the project managed to support them and thereby make an important contribution to enhanced collaborations within the Digi Center.

> Our machine learning community is relying on machinery. Before we could not afford them and just see them on YouTube and dream to have them; but when the DSSD came it helped a lot. Some managed to create ER/VR start-ups thanks to that, others were not so exposed to the technology and now they are aware' (FG_ben_8).

Effectiveness dimension 4 – Unintended results – scores **20 out of 20 points.**

Photo 1: Virtual reality lab at the Digital Transformation Center, Kigali

Methodology for assessing effectiveness

Table 13: Methodology for assessing OECD/DAC criterion: effectiveness

Effectiveness: assessment dimensions	Basis for assessment	Evaluation design and empirical methods	Data quality and limitations
Achievement of the (intended) objectives	Objective indicators – comparison of current status and targets of the outcome indicators (all examined for their SMART*-ness) Perceptions from key stakeholders	**Evaluation design:** The analysis follows the analytical questions from the evaluation matrix (see Annex 1) **Empirical methods:** Qualitative content analysis of key project documents and relevant external documents; Review of monitoring data; Semi-structured interviews with key stakeholders, (project team management, team members, key partners) and further project stakeholders	No limitations identified
Contribution to achievement of objectives	Examination of hypothesis 1-3 identified during inception mission	**Evaluation design:** Contribution analysis **Empirical methods:** Semi-structured interviews with representatives at the governmental level; Semi-structured FGD with innovators, workshop and training participants, members of working groups at the Digital Transformation Center; Case study illustration for hypothesis 2	No limitations identified
Quality of implementation	Team set-up, leadership, collaboration in the team, work culture, collaboration with partners	**Evaluation design:** The analysis follows the analytical questions from the evaluation matrix (see Annex 1) **Empirical methods:** Semi-structured interviews with key stakeholders (project team management, team members, key partners)	No limitations identified
Unintended results	Additional results that were identified during inception mission have further been verified, during data collection a deductive and inductive approach was followed	**Evaluation design:** Most Significant Change Technique **Empirical methods:** Semi-structured interviews and FGD with project team and stakeholders; Validation interviews with project team	No limitations identified
* SMART: specific, measurable, achievable, relevant and time-bound			

4.5 Impact

This section analyses and assesses the impact of the project. It is structured according to the assessment dimensions in the GIZ project evaluation matrix (see Annex 1).

Summarising assessment and rating of impact

Table 14: Rating of OECD/DAC criterion: impact

Criterion	Assessment dimension	Score and rating
Impact	Higher-level (intended) development changes/results	20 out of 30 points
	Contribution to higher-level (intended) development results/changes	30 out of 40 points
	Contribution to higher-level (unintended) development results/changes	30 out of 30 points
Impact score and rating		Score: **80 out of 100 points** Rating: Level 3: moderately successful

Despite the clear focus of the project on SDGs and hence, on impact level, the project activities were instead based at the micro and meso level. However, there was evidence for contributions regarding innovation for development (SDG 9), to which the project contributed through the support of innovators, governmental entities, and its pioneering role within GIZ, and to good governance (SDG 16) through the successful implementation of specific solutions at governmental level and shifts in mentality towards a more citizen-centred approach.

While specific digital solutions should equally contribute to certain SDGs, the DSSD project support was only meant to accompany the innovators up to the point of having a minimum viable product, where, for the vast majority of solutions, no impact to overarching development results could be expected and observed. Nevertheless, the evaluation found potentials for contributions to overarching developing results. Last but not least, spill-over effects to other African DTC through a role model/blueprint role could be observed.

The evaluation of potential contributions and changes at impact level revealed that structures and capabilities to develop digital solutions, alongside the project's efforts to connect skilled digital innovators with governmental entities, has contributed and keeps on contributing to the successful implementation of the SRMP. Based on the case studies of two digital solutions, it could furthermore be confirmed that those solutions are on track towards operating sustainably in Rwanda and thereby have the potential to contribute to their set SDGs in the long term. A specific focus of the DSSD project activities on promoting women in technological jobs could not be confirmed for the results hypothesis that scrutinises the link between a strengthened digital ecosystem/strengthened capacities and a higher share of women in technological jobs. Nevertheless, female innovators and training participants confirmed a switch in mentality towards an entrepreneurial mindset, which puts them into a position of creating their own jobs.

For unintended results, the evaluation team found that the project managed to enhance the visibility not only of German development cooperation in Rwanda, but also awareness on emerging technologies in the country. Furthermore, RISA took up the procurement process for innovations based on the example provided by the project.

In total, the impact of the project is rated Level 3: moderately successful, with 80 out of 100 points.

Analysis and assessment of impact

The evaluation team also applied a contribution analysis to assess impact. Both evidential contributions at impact level and potential for impact of the project were identified during the evaluation. As a basis, the situation prior to the GIZ engagement in the project's intervention area was established through recall questions during interviews and discussions and compared with the actual situation and expected impacts. Dimensions 1 and 2 of the impact criterion are closely interlinked and should hence be considered jointly.

Impact dimension 1: Higher-level (intended) development changes/results

During the reconstruction of the results model, overarching development results to which the project intended to contribute were identified (in accordance with the project proposal), and are shown in the results model. At higher outcome/impact level, results identified comprise contributions to innovation for development (SDG 9), contributions to good governance (SDG 16), the reduction of poverty (SDG 1) and enhanced gender equality (SDG 5). Some contributions could empirically be observed during the evaluation **(evidence-based contributions)**, whereas for other intended impacts, merely a potential for contributions is seen for the future (**plausible contributions**), but no actual contribution could be attested. These points will be scrutinised in the following paragraphs.

First of all, interviews have shown that within the target group, an **entrepreneurial mindset** was triggered, contributing to enabling beneficiaries to independently develop innovative approaches for societal/development challenges. By enabling the target group to (i) perceive challenges in society/challenges to development through a problem-centred mentality; and (ii) find an innovative, market-oriented solution to them, the evaluation team finds that the seeds for innovation are planted in the heads of young innovators and graduates:

> We are no longer the testers of solutions, we are entrepreneurs (INT_ben_3).

> Previously I thought I needed a whole team to do something; now I know that I as an individual can also come up with something (INT_ben_10).

The shift in the mindset of beneficiaries was accompanied by technical skills developments and the establishment of relations with governmental entities, hence generating a stable basis for a lasting contribution of the project to **innovation for development (SDG 9)**.

An additional contribution to SDG 9 can be observed both within GIZ Rwanda and GIZ worldwide. As mentioned initially, DSSD has kick-started the digital project cluster within GIZ in Rwanda. Other projects in the digital cluster (MakeIT, Fair Forward) all started from the DSSD project (FGD_GIZ_2). The DSSD project has therefore moved from being a single project to 'leading efforts on digital transformation in Rwanda' (FGD_GIZ_2). During the second phase, the collaboration between the GIZ projects will be deepened, enhancing the potential to **gain further momentum in the digital transformation strategy of the Rwandan Government**. At global level, the project has also been in exchange with and mentored other Digital Transformation Centers that are being launched across the continent, thereby **preparing the ground for scaling** developed solutions to other African countries and hence contributing to the **strengthening of innovations at pan-African level**.

In this context, one should note the **spill-over effects** of the learning from the DTC to other DTCs that are being launched across the African continent. The project has taken on a mentoring role and, despite their differentiating modular set-up, serves as a blueprint (INT_other_3).

Regarding contributions to strong institutions and **good governance (SDG 16)**, specific solutions that were developed in collaboration with the Rwandan Government (e.g. RISA) have had an impact on strengthening

and streamlining the institutions and the government abilities in Rwanda. On an exemplary basis, for the website gov.rw, RISA confirmed that:

> We used to have more than 200 websites developed in silos because they were developed individually, they were having a lot of demand of maintenance. People at all institutions were responsible to manage and maintain them. Content ended up being hacked. DSSD was able to develop a multitenant platform. The work previously done by 200 can now be done by very few people (INT_partner_2).

The long-lasting impact of those digital innovations will need to be apparent over time, as impact depends greatly on the continuous use the solutions. However, the evaluation team found that digital solutions developed together with the Rwandan Government directly contributed to the implementation of the SRMP through an enhanced digitalisation of the Rwandan Government. Thus, important preconditions were set for more transparency, efficiency and overall improved governance.

Interviews furthermore revealed that training and workshops conducted with RISA staff members on design thinking and innovation methodologies contributed to developing a problem-centred/more **citizen-centred** mentality. Similar to the problem-centred mentality previously outlined at the level of innovators, a more citizen-centred way of thinking helps governmental staff to 'start with the problem' and not with the solution; that is, scrutinise what a political solution could look like to tackle specific problems in Rwandan society (INT_external_5). Though reliable mechanisms to replicate knowledge have not yet been achieved within RISA, the evaluation team concluded that through a changed mentality within selected current staff members, the ground is being prepared for more impactful contributions to good governance in the future.

With regard to **gender equality (SDG 5)**, specifically enhancing the share of women in the technological sphere, the evaluation team found that while it was a challenge for the project to 'find' people that could be included in training and hackathons due to a limited number of employed women in digital spheres, especially in the governmental sector, those who did participate and were interviewed during the evaluation hinted towards a change in mentality and, to a certain extent, breaking gender stereotypes in the minds of people. This contribution will be scrutinised in more detail in the corresponding results hypothesis (dimension 2: Contribution to higher-level (intended) development results/changes). In general terms, the evaluation team sees efforts of the project to enhance gender equality at output level, that is, by including a large share of women in the project activities. However, the large-scale effects at impact level are still very limited.

Regarding the impact achieved through specific **developed digital solutions**, especially community solutions, it is noteworthy that the project was designed as a pilot project at the micro and meso levels. As outlined in the critical assessment of the project design, the development of the majority of digital (community) solutions in the Digi Center was only foreseen up to a certain development stage, that is, the minimum viable product. Further scaling would require (i) significant direct funding which is outside of the accessible scope of a GIZ project (i.e. outside of the monetary limit that is permitted for direct funding of individual (start-up) companies by BMZ regulations); and/or (ii) structured transition points of the developed digital solutions to other stakeholders (such as other GIZ projects or incubators/hubs) in the Rwandan digital ecosystem. With that in mind, the current overall contributions of specific developed digital solutions at impact level are expected to be rather low at this point in time. Despite their being the most advanced, the case study solutions mentioned below are nascent and it is still too early to speak of actual impact-level contributions. Should scaling mechanisms be found and established for those solutions, the potential for contributions to the mentioned SDGs is, however, high.

Through the case study of the agricultural solution Bazafarm, which provides a tool to farmers to get reliable data regarding their soil condition, the weather and further information required to ensure adequate planning for the next planting season, a potential to contribute to **enhanced food security and sustainable agriculture (SDG 2)** could be identified (INT_ben_2; FG_ben_6).The LMIS case study showed potential contributions to good governance (SDG 16) as well as productive employment (SDG 8). Both solutions will be analysed in

more detail in the corresponding results hypothesis (dimension 2: Contribution to higher-level (intended) development results/changes) below.

Based on these findings, the evaluation team assesses the contributions at impact level as moderately satisfactory within the given time and scope defined by the project design and context.

Impact dimension 1 – Higher-level (intended) development changes/results – scores **20 out of 30 points.**

Impact dimension 2: Contribution to higher-level (intended) development results/changes

To understand (potential) contributions to overarching results, similar to the effectiveness criterion, a contribution analysis was chosen. Key data sources were GIZ management and team, other projects from the digital project cluster in Rwanda, the BMZ representative as well as the political partners' perspective. In addition, case studies to showcase and promote the potential impact of developed solutions were taken as an additional valuable source of information to assess the potential to achieve impacts.

Three hypotheses from the results model were examined in more detail to explain causal relationships between projects outcomes and impacts.

Table 15: Selected results hypotheses for impact

Results hypothesis 1 (outcome – impact)	Established structures and capacities for the development, implementation and dissemination of digital SDG-relevant solutions in Rwanda contribute to the successful implementation of the Smart Rwandan Master Plan
Main assumption	The governmental entities in charge, particularly RISA, are willing and continue to be willing to revert to innovators for the implementation of projects relevant to the SRMP
Risks	-
Alternative explanation	-
Confirmed/partly confirmed/ not confirmed	Confirmed

To better analyse the contribution story of this hypothesis, the evaluation team assessed whether the structures and capacities established by the project to advance digital SDG-relevant solutions were guided by the SRMP and would ultimately contribute to the aspired long-term development results of transforming Rwanda into a service-based economy.

To ensure that the government solutions developed under the DSSD project were well aligned with the relevant priorities of the SRMP, the topics for the corresponding hackathons were selected in close collaboration with the steering committee (FGD_GIZ_2). Their actual contribution towards the implementation of the SRMP was further ensured through a collaborative development process, training of relevant users, and the development of implementing and financing plans with the corresponding government institutions (INT_partner_5, INT_partner_4, INT_partner_6, INT_partner_2). There is, therefore, evidently strong potential for contributions towards the implementation of the SRMP.

The evaluation team also understood that achieving the digitisation journey that the Rwandan Government aims for, and which constitutes the overarching objective of the SRMP, requires enhanced capacities to develop value, but also an enhanced collaboration among the ecosystem players, including governmental entities. The government requires capacitated private sector companies to create (digital) value (INT_partner_1). As outlined previously, the project was deemed to have proactively activated the collaboration among different digital ecosystem players (INT_partner_1), created valuable capacities among innovators and

governmental entities and established trustful relationship and a co-creation approach between government entities and digital innovators (INT_ben_1, INT_partner_4).

> There is no way we could have developed a solution for RDB or any government institution if we did not have DSSD. The trust was not possible, and DSSD has opened doors for innovators to be trusted to develop solutions (INT_ben_1).

The path to successfully implementing the SRMP is time-sensitive and although the project has taken the lead in laying a good foundation towards the needed impact, a follow-on project will help to ensure fruition (INT_partner_1, FGD_GIZ_2, INT_ben_1, INT_partner_4).

Based on the findings above, the evaluation team concludes that the hypothesis is confirmed.

Table 16: Selected results hypotheses for impact

Results hypothesis 2 (outcome – impact)	Digital SDG-relevant solutions that are taken up and operate sustainably in Rwanda contribute to the achievement of specific goals of the Agenda 2030
Main assumption	Supported innovators elaborate accurate business models and find ways to fund and scale their solution on the (local) market
Risks	Sufficient funding that is required for scaling and therefore for achieving impact is not available to the innovators
Alternative explanation	Other actors/incubators/mentoring offers within the ecosystem, including other GIZ projects within the digital project cluster, contributed to the development/scaling of solutions
Confirmed/partly confirmed/ not confirmed	Confirmed

To streamline the contribution analysis of this hypothesis, the evaluation team particularly considered Bazafarm and LMIS as the chosen case studies to verify whether they contributed to the achievement of specific goals of the Agenda 2030. Given that a fundamental prerequisite for digital solutions developed in the Digi Center was for them to be aligned with at least one SDG, the solutions have a potential to contribute to specific SDGs. This perception was shared by interviewees, who confirmed that higher-level results were expected to be brought about by the digital solutions developed in the Digi Center (INT_ben_10, INT_partner_6).

Taking the LMIS case study as an example, interviewed direct beneficiaries of the solution confirmed that the upgrade from the previous version to the current has brought about various advantages; (i) it helped them to easily source information and data on the Rwandan labour market from multiple relevant data sources (e.g. TVET schools, universities could input data on their own), (ii) it allowed them to better scrutinise the reports generated by the system and present them to relevant government institutions for policy-making, and (iii) the current platform was deemed to be more user-friendly from both the administrator's perspective but also from the front-end user perspective (INT_partner_6). Through an enhanced availability of bundled and easily accessible, relevant information on the labour market to take evidence-based policy decisions (INT_partner_6, INT_ben_1, FGD_GIZ_2), the evaluation team confirms a contribution of the digital solution to the goal of good governance (SDG 16) as well as productive employment for all, as outlined in SDG 8.

Regarding the second case study solution, Bazafarm, interviews have shown that data generated by the IoT devices embedded in Bazafarm, which predict soil and weather conditions, have a strong potential to contribute to better farming practices (INT_ben_2, FGD_GIZ_2, INT_partner_5). Based on this, a strong alignment and potential contribution to the central promise of the Agenda 2030 of achieving zero hunger (SDG 2) can be confirmed. While the alignment with SDG 2 is without doubt a given, the implementation and roll-out of the solution to a broad market had only just started at the time of the evaluation. It is therefore impossible to

determine the long-term actual impact at the time of writing this report; the evaluation team merely makes conclusions about the potential based on multi-stakeholder interviews and triangulated perceptions.

The above evidence formed the basis for the evaluation team to confirm that in the long term, the developed digital SDG-relevant solutions are likely to contribute to the achievement of Agenda 2030 specific goals and long-term development results.

Table 17: Selected results hypotheses for impact

Results hypothesis 3 (outcome – impact)	A strengthened digital ecosystem, especially with regard to strengthened capacities, in Rwanda helps to increase the share of women in technological jobs
Main assumption	The digital divide between men and women persists in Rwanda. Supportive structures help women to get access to technological job areas
Risks	New digital solutions potentially exacerbate the gap (digital divide) between urban and rural areas, men and women
Alternative explanation	The Rwandan Government puts efforts into the promotion of women in tech that are unrelated to the DSSD project
Confirmed/partly confirmed/ not confirmed	Partly confirmed

For this hypothesis, the evaluation team found that it was rather hard to ascertain from a gender angle the contribution of the digital ecosystem towards creating more jobs in the sense of employment relationships in technological fields. There was no psycho-social economic assessment conducted of women's needs that would ensure targeted intervention leading them towards technological jobs and, similarly, no specific assessment was conducted later on to understand a potential pathway of female training participants towards the labour market under the DSSD project (INT_partner_1). What did become clear throughout the interview was, however, that women were strongly supported in creating 'their own job', that is, becoming entrepreneurs:

> I first joined DSSD during the We Code program. It's through that training that I got the chance to start my very own company and have worked again with DSSD, to develop my solution. My involvement in the trainings has very much forged my current career path where I am not only a female tech-preneur, but also work on different projects separately from the skills I gained in the We Code program'(INT_ben_3).

> [The training] has given me that confidence; being able to do something. Now if I believe something is correct, I am not afraid to go out there and show it to someone. Before, after my undergraduate, I was not thinking this way; I thought that maybe I need to get a job; right now, I am thinking of myself as an entrepreneur; somebody who can develop something, and people appreciate it (INT_ben_10).

The findings illustrated that training and workshops used a gender equal representation approach to encourage women to attend and nurture their interest in technological fields (FG_ben_11, FG_ben_8). Moreover, the project activities collaborated closely with female-led initiatives such as 'We Code' and 'Girls in ICT' (INT_partner_1, INT_GIZ_5). From a broader perspective, evidence was collected that supported the relevance of having female coaches as role models to female training participants (INT_ben_10; FG_ben_11).

> The training helped me a lot as a woman; people doing the trainings were women, the ones that were presenting were women, which was really encouraging. Knowing that you can challenge and do what men can do – we can be an example to so many women and young girls out there that have fear as men dominate (INT_ben_10).

These quotes illustrate that rather than helping women to get into paid labour, which was not so much in the focus of the project, the project has contributed to a much more impactful skill: the capability to create labour for themselves and, in the long run, potentially even for others. The evaluation team concluded that while there was insufficient evidence that linked the strengthening of the digital ecosystem to an increased involvement of women in technological jobs, convincing evidence was collected throughout the evaluation mission that

confirmed the interlinkage between training and the breaking of gender stereotypes and women's ability to become entrepreneurs – that is, create labour for themselves.

Impact dimension 2 – Contribution to higher-level (intended) development results/changes – scores **30 out of 40 points**.

Photo 2: Innovators at Digital Transformation Center, Kigali

Impact dimension 3: Contribution to higher-level (unintended) development results/changes

At the level of impacts, the evaluation team identified various unintended positive effects not accounted for in the original project design:

- Being the first digital project of its kind in GIZ, the project has taken up a **pioneering and mentoring role** among other projects in Rwanda and Africa. The project not only collaborated closely with various GIZ projects but also provided direction and mentoring to other DTCs in the Africa department (INT_GIZ_3).
- The Digital Transformation Center enhanced the **presence and visibility of the German Development Cooperation** in Rwanda. Partners and political entities have proactively started to approach the DSSD project since its set-up to jointly develop digital solutions (GIZ, 2021a; FGD_GIZ_2; INT_GIZ_3).
- Through its efforts to gain visibility, network with other stakeholders in the ecosystem and identify synergies, the project has contributed to an increased **awareness on emerging technologies** in the digital ecosystem in Rwanda (INT_partner_1).
- While the intended result of the project was to find a solution for a government website, RISA reportedly was inspired by the applied procurement process and has now initiated a **changed public procurement process for innovation**. A draft is currently being discussed to accommodate a more flexible procurement of government solutions (INT_partner_2).
- Last but not least, as mentioned earlier, evidence was collected throughout the evaluation mission that confirmed an enhanced ability of women to become entrepreneurs, i.e. create labour for themselves.

Impact dimension 3 – Contribution to higher-level (unintended) development results/changes – scores **30 out of 30 points**.

Methodology for assessing impact

Table 18: Methodology for assessing OECD/DAC criterion: impact

Impact: assessment dimensions	Basis for assessment	Evaluation design and empirical methods	Data quality and limitations
Higher-level (intended) development changes/results	Overarching development results described in the project proposal and programme description	**Evaluation design:** The analysis follows the analytical questions from the evaluation matrix. (Annex 1) **Empirical methods:** Analysis of key documents: semi-structured interviews with GIZ management and team, other donors in the field, BMZ representatives, project partners, project team, other stakeholders	The project design which does not focus on scaling of developed digital solutions may hinder the assessment of actual impacts
Contribution to higher-level (intended) development results/changes	Examination of hypothesis 4- 6, identified during inception mission	**Evaluation design:** Contribution analysis **Empirical methods:** Key informant interviews; Semi-structured FGD with different stakeholders; case study illustration for hypothesis 5	See above
Contribution to higher-level (unintended) development results/changes	Evidence for widespread impact on final beneficiary level Perception of project team, key partners and target group	**Evaluation design:** Most significant change questions **Empirical methods:** Analysis of monitoring data; semi-structured interviews with project team, key partners, and the target group	No limitations identified

4.6 Efficiency

This section analyses and assesses the efficiency of the project. It is structured according to the assessment dimensions in the GIZ project evaluation matrix (see Annex 1).

Summarising assessment and rating of efficiency

Table 19: Rating of OECD/DAC criterion: efficiency

Criterion	Assessment dimension	Score and rating
Efficiency	Production efficiency (Resources/outputs)	60 out of 70 points
	Allocation efficiency (Resources/Outcome)	23 out of 30 points
Efficiency score and rating		Score: **83 out of 100 points** Rating: **Level 2: successful**

According to the evaluators' analysis of the project's production efficiency, there are no robust indications that outputs A or B could have been maximised by applying a different approach with the same volume of resources. Given the loss of a planned significant partner contribution under output B (i.e. the provision of a rent-free location for the Digital Transformation Center) the project had to invest a significant share of the budget into setting up and maintaining the location. A positive factor supporting project efficiency was the use of local resources and the exploitation of synergies with other projects. Factors that hindered an efficient implementation included the delayed project start, the too broad focus of the solutions to be developed and the high number of actors with whom and sectors in which solutions should be developed, as well as a (still unstructured) process with regard to scaling.

In total, the efficiency of the project is rated level 2: successful, with 83 out of 100 points.

Analysis and assessment of efficiency

The key issue that is addressed under the criterion efficiency is the question of whether the project's use of resources was appropriate with regard to achieving both the outputs and the outcome (project objective). It was examined whether the level of resourcing (such as funding, expertise) led to satisfactory results. Combining and comparing information on project costs and results provides more insights than looking at these two components separately. Focusing purely on results would limit the use of data in strategic decision-making; focusing purely on costs could distract from the recommendations that aim to ensure quality in the results.

A distinction is made between two types of efficiency: production and allocation efficiency. While the former evaluates the transformation of inputs to outputs, the latter evaluates the transformation of inputs to results at outcome level. This includes the analysis of the extent to which even more results at output level could have been achieved with the same overall use of funds. It is therefore not a question of investigating how costs could have been saved but, rather, of how existing resources could have been used better to achieve the desired results.

Following GIZ's guidelines on assessing efficiency, this central project evaluation applied the 'follow-the-money' approach as a standard method for analysing the project's production efficiency.

The evaluation team used an Excel tool developed by the GIZ Corporate Unit Evaluation to standardise the efficiency analysis of the project. The Excel tool takes into account GIZ's recommendations on analysing a project's efficiency. It refers to sources that are available in the project.

Efficiency dimension 1: Production efficiency

The following assessments are based on information extracted from the costs-commitments report and further discussions with the project team and project management using the 'follow-the-money' approach (Palenberg, 2011: 46). The project costs and commitments are presented in Table 20.

Table 20: Overview of costs

Module objective	Structures and capacities for the development, implementation and dissemination of digital solutions for Rwanda and Africa related to the SDGs are established in Rwanda
BMZ costs	€6,397,960.61
Co-financing	€0.00
Partner contribution	€0.00
Total costs	€6,397,960.61
Residual	€148,834.81

As the project was commissioned before the (Gemeinsamen Verfahrensreform), the project data did not allow for a comprehensive budget – actual comparison. Datasets are only available from 2019 on. While the actual and the budgeted costs matched in 2019, the global Covid-19 pandemic led to lower expenditures than originally planned for in 2020 due to delays in project activities (INT_GIZ_3).

Maximum principle and reallocation of funds

Indicator achievements at output level are high and satisfactory. The majority of output indicators has been achieved according to the project's monitoring data. The achievement rates of the different output indicators are displayed in the Table 21:

Table 21: Overview of output achievement

	Indicator	Target	Achievement	Achievement in %
Output A	**A 1:** The organisational structure and procedures of RISA, including clearly defined responsibilities and job descriptions, are approved.	1	1	100
	A 2: 6 studies of the MINICT and downstream authorities on applying emerging technologies to implement the SMART Rwanda Master Plan (e.g. big data, blockchain, artificial intelligence) are prepared taking into consideration the applicable gender dimension (digital divide) and the use of data and information (e.g. user profiles) disaggregated by gender investments.	6	7	117
	A3: In 10 cases, RISA received advice on technical and process issues and advised 5 sectoral ministries (focus on partner ministries of German development corporation priority areas) in developing or implementing their ICT strategies in the respective sectors.	10	11	110
	A 4: 70% of MINICT employees and subordinate authorities who have participated in at least 3 training sessions or other competency development activities of the project (e.g. study tours, on-the-job mentoring) assess their capacity to implement the SRMP on a four-tier questionnaire scale as 'improved' or 'greatly improved'.	70	75	107
Output B	**B 1:** 15 SDG-relevant digital solutions are developed by the Center, 8 in cooperation with the sectoral ministries and 6 as ideas based on a public competition, and at least 10 (out of the 14). Digital solutions should be related to one of the BMZ sectors for Rwanda (education, TVET, finance, trade, industry and private sector, Government administration, decentralisation, health).	15	17	121
	B 2: Digital solutions (including approach, technical solution, implementation plan) developed in Rwanda are presented to other African countries via 10 events and/or platforms of pan-African networks (e.g. Smart Africa Secretariat).	10	10	100
	B 3: 8 digital solutions have been developed in cooperation with German, European or Rwandan companies, civil society organisations and/or research institutions.	8	17	213

Table 21 reveals that, in multiple cases, output indicators were overachieved. The significant overachievement of indicator B3 is explained in that all digital solutions were either developed with a Rwandan governmental entity (governmental solutions) or the Rwandan civil society (community solutions) (INT_GIZ_3). Based on the achievement of output indicators, the evaluation team assessed the costs allocated to each output. The GIZ efficiency tool allows project costs to be mapped for outputs, which is displayed in absolute values and in percentages in Table 22:

Table 22: Distribution of costs to outputs

Distribution of costs to outputs	Output A	Output B
Costs including commitment	€2,537,877.94	€3,115,250.04
Co-financing	€0.00	€0.00
Partner inputs	€0.00	€0.00
Total costs	€2,537,877.94	€3,115,250.04
Total costs in %	**42**	**52**

Table 22 shows that the cost distribution between outputs was somewhat balanced between the two outputs, with output B accounting for 10% more of the overall budget than output A. The divergence between the two outputs, that is the higher share of costs under output B, is primarily explained through cost implications of the set-up and maintenance of the DTC. Output B was fundamentally based on the availability of a Center. While the provision of such Centre was originally planned as a contribution by a Government of Rwanda partner, who was meant to provide a rent-free space in the Kigali Innovation City, delays in the construction (until the beginning of 2021) of said Innovation City led to a situation where the project had to find an alternative space for the Centre (Progress report 01/2020; INT_GIZ_3). Against this backdrop, one million euros were spent on the set-up and maintenance (e.g. rent) of the Digital Transformation Center alone (INT_GIZ_3). Furthermore, various costs under output B could not be clearly split from overall costs for GIZ processes, such as the DTC administration and internet costs. While a significant share of the overall project budget was spent on the Digi Center, it also entailed efficiency gains. Other projects using the Digi Center for training sessions and meetings paid rent. However, the DSSD project itself did not need to pay rent for external meeting rooms, for instance in hotels, as they could equally revert to the well-equipped facilities of the Digi Center (INT_GIZ_3). Overarching costs amounted to 6% of the overall budget. As they are below 10%, they are considered low according to GIZ guidelines (GIZ, 4 September 2019, Efficiency tool manual).

Table 23: Personnel costs per output

Experts and volunteers	Output A	Output B
Seconded staff (PMA/AMA)	46%	46%
National personnel (NP)	27%	54%
Head Office staff (IMA/PMI)	60%	40%
Development workers (EH/DW) and volunteers (V)	70%	30%
Integrated experts (IF/IE)	100%	0%

In addition to the mapping of costs to outputs, the Excel tools enables an analysis of how much was spent on human resources below each output. This is displayed in the following table:

Table 23 reveals that the team of national personnel was primarily assigned to output B, whereas the integrated expert that was based at RISA was entirely assigned to output A. The focus of national personnel on output B was explained by the fact that the support of and advice to digital solutions that were being developed at the Digital Transformation Center were very labour intensive (INT_GIZ_3).

Besides the retrospective analysis of cost-allocations, questions on the efficiency of the project were posed to the project team and partners to understand qualitative factors that supported or impeded the production efficiency of the DSSD project. On the side of supporting factors, the following conclusions could be drawn.

- **Use of local resources:** In line with the credo of the Rwandan Government to produce locally to foster job creation in the country, the project made sure to produce and procure locally whenever possible. The project collaborated with mostly local training providers and reverted to a locally used platform for job advertisements, 'Jobs in Rwanda', to promote training courses in the Digi Center (FGD_GIZ_2). Only knowledge and services that were not available in Rwanda were contracted and flown in from abroad. Examples of such specialised knowledge are providers of specific training topics (e.g. the innovation training provided by the Fraunhofer Institute) or specialised consultants on the development of policies for digitalisation (INT_GIZ_3).
- **GIZ-internal use of DTC:** As mentioned previously, other projects using the Digi Center paid rent. Additionally, the DSSD project did not need to pay rent for external meeting rooms, for example in hotels, as they could revert to the Digi Center facilities.

Looking at factors that impeded efficiency, the following stood out:

- **Delayed project start:** A year and a half were lost contracting a head of project. When the current head of project started in late 2018, the Digital Transformation Center had not been set up and no digital solutions had been developed (INT_GIZ_3).
- **Broad focus:** Too many solutions to be achieved with numerous external actors and in various sectors led to efficiency losses. The project work thus became very fragmented and synergies between the solutions, that is, through a reuse of already-developed increments or learning experiences, could barely be exploited. For the follow-on project, a more streamlined approach through the focus on fewer sectors (smart cities) and fewer solutions is therefore expected (FGD_GIZ_2, INT_GIZ_3).

Efficiency dimension 1 – Production efficiency – scores **60 out of 70 points**.

Efficiency dimension 2: Allocation efficiency

In terms of the allocation efficiency, the evaluation team assessed to what extent the project's use of resources was appropriate with regard to achieving its objective based on the Excel tool analysis. Evidence provides indications on how the outcomes could have been maximised. In contrast to the production efficiency, allocation efficiency describes the transformation of inputs to outcomes. At project objective level, indicators MOI 1 and MOI 2 have been achieved and MOI 3 was partially achieved. Table 24 summarises the results already described in more detail in the effectiveness section 4.4:

Table 24: Summary of results from effectiveness section

MOI 1: 8 more projects of the SRMP are implemented in cooperation between the Rwanda Information Society Agency (RISA) and the sectoral ministries.	MOI 2: Implementation and financing plans have been prepared in the responsible sectoral ministries for 8 SDG-relevant solutions which were developed in the DTC and benefit in particular women and youth.	MOI 3: 3 of the 14 (15) implemented SDG-relevant digital solutions are applied in other African countries
100%	100%	50%

Through a **holistic approach** of including a broad range of governmental stakeholders, MOI 1 and MOI 2 were successfully achieved. Given the achievement rates, the allocation efficiency appears to be very satisfactory. The third indicator, which hints towards scaling digital solutions in other African countries, is linked to allocation efficiency issues. As structured processes/receptive digital structures in other African countries and GIZ projects are still hard to find, the project had to spend time looking for projects that happened to need a solution, which was then developed in the DTC (INT_GIZ_3). A more structured global approach is required, which might eventually be available as further Digital Transformation Centers in other African countries are launched. As for now, efforts towards scaling were reported as a somewhat unstructured and therefore little efficient search for projects or entities that could take on the developed solutions (INT_GIZ_3).

As outlined in the coherence chapters, **synergies and transition points** with other projects were identified and, in various areas, exploited, which led to an enhanced allocation efficiency. The Digi Center is perceived as a 'one-stop-shop for innovators with different projects coming into the Center' (FGD_GIZ_2). Nevertheless, structured 'points of transition' from one project to the next (e.g. from DSSD to MakeIT) to enable the solutions to scale and become sustainable have not yet been created.

Efficiency dimension 2 – Allocation efficiency – **scores 23 out of 30 points**.

Methodology for assessing efficiency

Table 25: Methodology for assessing OECD/DAC criterion: efficiency

Efficiency: assessment dimensions	Basis for assessment	Evaluation design and empirical methods	Data quality and limitations
Production efficiency (Resources/outputs)	Transformation of inputs to outputs based on: • GIZ efficiency tool • The project's cost-commitment report • The results matrix • Comparison of planned budget figures with actual figures • Contracts for possible procurements as well as possible co-financing	**Evaluation design:** • The analysis follows the analytical questions from the evaluation matrix (see Annex 1) • Follow-the-money approach. **Empirical methods:** Semi-structured interviews and FGD with project management and project team; Quantitative analysis of efficiency tool; Document analyses	• Costs can only be attributed to outputs in retrospective • No detailed allocations per activity/output exist • Data included in evaluation are only estimations
Allocation efficiency (Resources/Outcome)	Transformation of inputs to outcome based on: • GIZ efficiency tool • Cost-commitment report of the project • The results matrix • Comparison of planned budget figures with actual figures • Contracts for possible procurements as well as possible co-financing	**Evaluation design:** • The analysis follows the analytical questions from the evaluation matrix (see Annex) • Follow-the-money approach. **Empirical methods:** • Semi-structured interviews and FGD with project management and project team • Quantitative analysis of efficiency tool • Document analyses	• Risk for less robust findings due to anecdotal evidence

4.7 Sustainability

This section analyses and assesses the sustainability of the project. It is structured according to the assessment dimensions in the GIZ project evaluation matrix (see Annex 1).

Summarising assessment and rating of sustainability

Table 26: Rating of OECD/DAC criterion: sustainability

Criterion	Assessment dimension	Score and rating
Sustainability	Capacities of the beneficiaries and stakeholders	15 out of 20 points
	Contribution to supporting sustainable capacities	26 out of 30 points
	Durability of results over time	27 out of 50 points
Sustainability score and rating		Score: **67 out of 100 points** Rating: Level 3: moderately successful

Regarding stakeholder capacity to sustain project results over time, and the project's contribution to strengthen these capacities, the evaluation team found that individual's capacities at RISA were strengthened but not, as originally intended, at institutional level through a training-of-trainer's approach. Furthermore, the evaluation team found that even though RISA confirmed their willingness to take over the Digital Transformation Center after the end of the follow-on project, the capability of doing so was generally assessed as low. As no business model for the Center has been found or is likely to be found in the future, it will depend on external funding, rendering its sustainability perspectives low. Capabilities of training participants were assessed as quite good, provided that the trainees had a way of putting the obtained skills into practice straight away. The enhanced skills were equally confirmed for innovators, specifically of government solutions, and members of communities of practice. It will be important to find ways to accompany these solutions during the follow-on project to ensure sustainability, especially for innovators of community solutions that are not linked to a specific supportive governmental entity.

In total, the sustainability of the project is rated level 3: moderately successful, with 67 out of 100 points.

Analysis and assessment of sustainability

This section analyses and assesses the sustainability of the project. It is structured according to the assessment dimensions in the GIZ project evaluation matrix.

Sustainability dimension 1: Capacities of the beneficiaries and stakeholders

The first dimension assesses the extent to which the project beneficiaries and stakeholders have the institutional, human and financial resources as well as the willingness to sustain the results of the project over time.

With regard to the sustainability of the capacities of **RISA** staff and RISA as an institution, it is worth remembering that RISA was just being established when the project started. The project was mandated to support the organisational development and skills development of staff members. The increase in **individual capacities** is rated as positive by training participants (FGD_partner_3). Trainers furthermore confirmed a change in mentality towards a more problem-/user-centred mindset, which increases the likelihood for a

sustainable application of the obtained skills (INT_external_5). Looking at **institutional learning**, the capacities of trained governmental staff to share and replicate the obtained knowledge within their institution was seen as low (INT_other_4, INT_partner_2). An explicit goal of the follow-on project is thus to further strengthen these capacities (Final report to BMZ March 2021).

Even though RISA confirmed their willingness to take over the physical infrastructure of the **Digital Transformation Center**, anchored in the Technology Enabled Innovation Policy that is currently in progress, other stakeholders do not share this view. Both MINICT and RISA are perceived as quite stretched with their tasks and having neither sufficient management capacities, nor sufficient financial resources (INT_other_3, FGD_GIZ_1, INT_GIZ_3) or the political willingness to take over the DTC after the (follow-on) project closes (INT_other_4). The priorities of the Rwandan Government are perceived as volatile (GIZ, 2020) as having shifted over the past few years, leading to less overlaps with the DSSD intervention, specifically less interest in the start-up scene (INT_other_4). The capacities and willingness of RISA to sustain the Digi Center over time is therefore assessed as low by the evaluation team.

With respect to **digital innovators and training participants** frequenting the Digi Center, the evaluation team found that it had become evident during the evaluation that the mindset, confidence and behaviour of innovators had positively changed, thereby increasing the likelihood of sustainability of the developed solutions (FG_ben_6, FG_ben_5; INT_ben_3; FG_ben_7).

> We are no longer the testers of solutions, we are entrepreneurs. We have been able to engage with different stakeholders. How we code is now different, because we code from the end users' perspective (INT_ben_3).

The skills developed through training were generally perceived as sustainable by those participants who could apply the training content right away (FG_ben_11). According to a survey that the project conducted among machine learning trainees in 2020, 51% confirmed that the obtained skills would increase their chances on the job market, 24% confirmed to use the skills to improve their work in their current job and 14% stated to have decided to set up their own business after the training. These figures equally hint at a sustainable application of the obtained skills (GIZ 2021). According to interviews conducted during the evaluation, those who did not find a way to apply their skills in practice after the training (e.g. through an internship or follow-up support by the DTC), however, tended to discontinue applying the new skills, hence jeopardising their sustainability (INT_ben_10, INT_external_2).

The **community of practice** participants confirmed that knowledge and individual human capacities obtained through training and peer exchange of knowledge at meet-ups would last, but that tools to apply them would need to be provided (FG_ben_8).

Sustainability dimension 1 – Capacities of the beneficiaries and stakeholders – scores **15 out of 20 points.**

Sustainability dimension 2: Contribution to supporting sustainable capacities

The second sustainability dimension assesses the extent to which the project has made a contribution to the above-named capacities of stakeholders to sustain positive results over time.

At governmental level, a structured analysis of the existing skills and skill needs among staff members was conducted by the integrated expert at RISA and the governmental chief innovation officer. Based on this assessment, training plans were set up and training sessions were conducted (INT_other_4). No such needs assessment was conducted to assess the existing capacities of the target group at the Digi Center (young innovators) (INT_GIZ_5).

With regard to **RISA**, as mentioned previously, the project was mandated to support the organisational development and skills development of staff members. Both are interrelated; that is, a proper organisational

structure is a prerequisite for the sustainability of skills. For RISA to achieve sustainability of capacity developments, a 'train the trainer' approach was aimed for to ensure the sustainable replication of knowledge. Establishing such a mechanism was unsuccessful because of the limited implementation time and low skill-sets that were found at RISA at the beginning of the assignment (INT_other_4). A 5-year strategy to improve business processes of RISA outlining how to grow as an institution and streamline their operations was formalised at the end of the first phase (INT_partner_2). Given the interrelatedness of both core topics, the evaluation team sees the latter as a major contribution to ensuring sustainable capacity development in the long run. The organisational development itself is still at an early stage; but RISA staff are 'flooded with tasks' without proper prioritisation (INT_other_4) and therefore lack time to properly focus on skills development. Especially the anchoring of a long-term integrated expert at RISA was perceived as positive in this regard, as he can bring in skills by providing on-the-job examples that have a higher likelihood of being absorbed by other staff members than classroom training does (INT_other_4).

At the level of MINICT, the project successfully supported the development of relevant policies on digitalisation which will help MINICT to support and sustain a favourable environment for digital innovations (INT_external_5).

With regard to **training participants**, the evaluation team found that efforts were made by the project to connect training participants with government institutions; that is, align the solutions that were to be developed with the actual needs in the government (INT_ben_10), thereby enhancing the probability of those solutions to be taken over and increasing the probability of sustainability. The project furthermore supported the development of sustainable capacities through the targeted procurement of specialised training providers, such as Fraunhofer Institute, which contributed to the change in mentality outlined above (user-centred design/ adaptation of services to clients) (INT_external_5). Longer-term support/mentoring of training participants and/ or well-structured transition points to other projects/agents in the ecosystem or companies to do internship could enhance the sustainability (INT_ben_10, INT_external_2).

For **digital innovators**, it is important to differentiate between innovators of governmental solutions and community solutions. While the project excelled at connecting innovators of governmental solutions to governmental entities, the support of community solutions in this context did not go quite far enough to ensure sustainability of the developed solutions (FG_ben_6). It will be an important task for the follow-on project to find ways how the project can accompany promising companies/digital solutions to ensure their sustainability (INT_partner_1). This would also counteract a risk to sustainability that was identified during the evaluation; many innovators are very focused on hackathons and follow a 'hackathon tourism', spending a lot of time in pitches and adapting their ideas to the respective hackathon themes, rather than using the time to develop their actual ideas (INT_external_5). While DSSD managed to partly counteract this tendency by accepting winners of hackathons into the Digi Center (rather than simply handing out the prize money), longer-term support and/ or linkages to other agents could further tackle this risk.

Sustainability dimension 2 – Contribution to supporting sustainable capacities – scores **26 out of 30 points**.

Sustainability dimension 3: Durability of results over time

The efficiency analysis has shown that a significant share of the project budget was spent on the set-up of the DTC. The core question when looking at the durability of results over time therefore primarily centres on the question of whether or not a model will be found to sustain the cost-intensive infrastructure of the Center after the follow-on project ends.

If the **Digital Transformation Center** is to be anchored in the Rwandan governmental structures (i.e. taken over by RISA), its sustainability greatly depends not only on the current limited skills and capabilities of RISA, but also on the political framework and government priorities (INT_other_4, FGD_GIZ_2). Even though the

Rwandan Government sees innovation as a core strategy of their development, a Covid-induced lack of tax incomes may drive the Government towards focusing more on core activities than on innovation/start-up promotion (FGD_GIZ_2). Based on the results of the evaluation, it is unlikely that RISA will take over the DTC after the project ends. Furthermore, it was expressed by the project team that there is no **business case** for the Center – that is, no way of making it self-sustaining, as it was not designed based on these parameters. Instead, the aspiration for the follow-on project will be the procurement of funding from external sources (INT_GIZ_3). Given that the DTC has become a blueprint for GIZ (INT_other_3) and further Centers are being launched in other African countries, finding ways to sustain the Rwandan Center over time should be of upmost importance.

With regard to the **developed policies**, it became clear during the evaluation that they are broadly perceived as sustainable (INT_external_5, INT_partner_1). However, for them to gain momentum and generate sustainable impact, they will need to be complemented with additional initiatives to kick-start the policies in practice and ensure their sustainability (INT_partner_1).

For the **digital solutions** that were developed under the DSSD project, the evaluation team found that solutions for the Government have a high likelihood to be sustainable as a close alignment with the requirements of the respective governmental entities was ensured. All activities, starting from the hackathon for a solution, were planned together with the partner to address their actual needs. The development process equally followed a broadly participatory approach and financing and maintenance plans have been established for various solutions to ensure sustainability (INT_partner_2, FGD_GIZ_2). Furthermore, relevant staff members were trained to use the solutions, open-source software was reverted to avoid high costs and the matchmaking with local companies additionally contributed to having moderately priced maintenance services in the future (INT_partner_2). The governmental solutions are therefore assessed as highly sustainable. For community solutions, it is harder to ensure financing and options for scaling (INT_partner_2). But funding gaps and financial constraints limit their ability to expand and scale the community solutions and endanger the sustainability of the developed solutions (INT_partner_1).

> From a start-up standpoint, we need seed funding to be able to kick-off the activities (…) To ensure sustainability we wouldn't rely on the funding of DSSD but we need investment to ensure the start-ups grow and leverage on the connections in other countries (INT_ben_2).

Sustainability dimension 3 – Durability of results over time – scores **26 out of 50 points**.

Methodology for assessing sustainability

Table 27: Methodology for assessing OECD/DAC criterion: sustainability

Sustainability: assessment dimensions	Basis for assessment	Evaluation design and empirical methods	Data quality and limitations
Capacities of the beneficiaries and stakeholders	The durability, stability, and long-term resistance of the obtained/ strengthened capacities are analysed: • Capacities of RISA to apply and replicate obtained knowledge • Capacities of RISA to sustain the physical Digi Center • Capacities of innovators and training participants to apply the obtained knowledge	**Evaluation design:** • Prognosis of durability of the results by partners and GIZ team **Empirical methods:** • Semi-structured interviews with RISA and MINICT • FGD with innovators, training participants, community of practice • Validation interviews with project team • Document analyses • Comparison with results from other evaluation criteria (Impact, effectiveness)	• Short period between project end and evaluation allows very limited fact-sights • Direct follow-up of second project phase makes it unlikely that tangible measures to ensure durability have already been taken
Contribution to supporting sustainable capacities	The contributions of the projects to ensure that the capabilities of the target groups are sustainably strengthened	See above	See above
Durability of results over time	• Stakeholder perceptions • Findings from the assessment of impact and effectiveness • Information from preparation and implementation of financing plans within relevant ministries of Germany/Rwanda and companies/civil society organisation/research institutions	See above	• Short period between project end and evaluation allows very limited fact-sights • Direct follow-up of second project phase makes it unlikely that measures to ensure durability have already been taken • Stakeholders might refer to second project phase when discussing long-term success

4.8 Key results and overall rating

In order to summarise key results that became evident during the evaluation and provide an overall rating of the DSSD project, the following section is guided by the project outputs, summarising successful results and less successful results for each one.

For output A, which aspired to enhance the organisational structure and capabilities of specifically RISA and downstream authorities to implement digital strategies, particularly the SRMP, the evaluation team found that individual capacities were increased, but institutional learning (i.e. replication of knowledge within the institution) lags behind. The institution was generally perceived as stretched and overwhelmed with tasks, limiting their ability to take in additional training contents. Training furthermore took place during working hours, while staff members were still required to attend to emails and other work tasks coming in. The integrated expert was assessed as beneficial here as he could conduct on-the-job rather than classroom training. The

policy development which took place under this output was perceived as highly successful, especially with regard to the speed with which the policies were developed. Key stakeholders expressed the desire to see accompanying interventions of the policies in the follow-on project.

For output B, which intended to develop SDG-relevant solutions in the DTC, it became evident during the evaluation that the final beneficiaries' perception of the DSSD project and the DTC was generally very positive. Innovators that were supported by the project particularly valued the linkage to governmental entities, which would have hardly been possible without the project's intervention of building a trustful relationship. Innovators confirmed an ongoing support of the project team even during the Covid-19 pandemic. Training participants confirmed enhanced capabilities. Though long-term support, mentoring or a guided transition to other actors in the ecosystem was not facilitated by the project, hence somewhat jeopardising the sustainability of the obtained skills.

Key success factors of the project that were identified comprised the proactive identification and, to some extent, collaboration with stakeholders, both within GIZ and outside, the establishment of links between young innovators and governmental entities in the DTC, an increased visibility of the German Development Cooperation and awareness for emerging technologies in Rwanda.

A core weakness, on the other hand, is the sustainability perspective of the Digital Transformation Center. It is yet unclear how the physical infrastructure and overall administration of the Center will be maintained after the end of the follow-on project. With regard to the prominent role of the project, which serves as a pioneer both within Rwanda and for other DTCs across the African continent, the evaluation team considers that this issue will urgently need to be solved in the second project phase. In general, the evaluators nevertheless conclude that the project was overall successful. Table 28 summarises the final ratings provided to each of the OECD-DAC criteria.

Table 28: Rating and score scales

100-point scale (score)	6-level scale (rating)
92–100	Level 1: highly successful
81–91	Level 2: successful
67–80	Level 3: moderately successful
50–66	Level 4: moderately unsuccessful
30–49	Level 5: unsuccessful
0–29	Level 6: highly unsuccessful
Overall rating: The criteria of effectiveness, impact and sustainability are knock-out criteria: If one of the criteria is rated at level 4 or lower, the overall rating cannot go beyond level 4 although the mean score may be higher.	

Table 29: Overall rating of OECD/DAC criteria and assessment dimensions

Evaluation criteria	Dimension	Max	Score	Total (max.100)	Rating
Relevance	Alignment with policies and priorities	30	30	**94**	Level 1: highly successful
	Alignment with the needs and capacities of the beneficiaries and stakeholders	30	30		
	Appropriateness of the design*	20	17		
	Adaptability – response to change	20	20		
Coherence	Internal Coherence	50	50	**95**	Level 1: highly successful
	External Coherence	50	45		
Effectiveness	Achievement of the (intended) objectives	30	25	**85**	Level 2: successful
	Contribution to achievement of objectives	30	20		
	Quality of implementation	20	19		
	Unintended results	20	20		
Impact	Higher-level (intended) development changes/results	30	20	**80**	Level 3: moderately successful
	Contribution to higher-level (intended) development results/changes	40	30		
	Contribution to higher-level (unintended) development results/changes	30	30		
Efficiency	Production efficiency	70	60	**83**	Level 2: successful
	Allocation efficiency	30	23		
Sustainability	Capacities of the beneficiaries and stakeholders	20	15	**67**	Level 3: moderately successful
	Contribution to supporting sustainable capacities	30	26		
	Durability of results over time	50	26		
Mean score and overall rating		100	**84**		**Level 2: successful**

5 Conclusions and recommendations

5.1 Key findings and factors of success/failure

To facilitate learning from the outcomes of this evaluation, this section corroborates key factors of success and central weaknesses of the project. Efforts and positive achievements in the key factors of success (which sometimes overlap) have the potential to leverage current achievements, mitigate current or future risks, or be applied to other similar projects.

Factors of success

✓ **Engagement of relevant stakeholder groups:** The project identified and engaged all relevant stakeholders to ensure a 'good fit' of the DSSD initiative and the Digital Transformation Center into the overall digital landscape in Kigali and to identify first synergies. This not only led to enhanced efficiency but also to enhanced visibility of the DTC, and particularly led to more widespread visibility of the German development cooperation in this sector.

✓ **Proactive role of GIZ:** Within the multi-donor set-up, the GIZ project took up a very proactive and coordinating role, which was beneficial for the DSSD project and the overall digital ecosystem.

✓ **Experience of the project management and cluster coordinator:** During the evaluation, it became apparent that the project management had a sound understanding of the context and the digital landscape in Rwanda. A cluster-approach mindset of the project leader helped find additional potentials for synergies within the GIZ digital sector portfolio, which will be exploited to a greater extent in the second project phase.

✓ **Linkages between governmental entities and private sector companies:** A core strength of the project was enabling connections and collaborations between governmental entities in need of digital solutions and potential providers of such solutions. DSSD connected the actors and accompanied the process, thereby ensuring a trustful relationship-building.

Factors of weakness

- **Slow start and roll-out of the project:** The project had a slow kick-off which pushed back the timeline of vital project activities, such as the development of first solutions, back by over a year.

- **Political context:** An important part of the project, the physical Digital Transformation Center, was planned to be provided through partner contributions from the Rwandan Government. As these did not happen as expected, the project had to find an alternative, suitable location to rent. While this constituted a good way to deal with the external changes, it bears the risk of significantly jeopardising the sustainability due to high rent/ maintenance costs and volatile government priorities.

- **Transition points to other actors in the ecosystem:** While it is evident that DSSD could not possibly provide continuous support to all beneficiaries (especially with regard to training participants), structured transition points to other agents in the ecosystem that could take up the mentoring and/or help training participants apply their skills and incubate their solutions were missing in the first phase. This endangers the sustainability of skills obtained through the training. Equally, an interlinkage between the training and the existing communities of practice would have contributed to the same goal.

- **Fragmented project design:** Being a 'pilot project', the DSSD project aspired to fulfil ambitious goals (co-creation of digital solutions with various ministries and in multiple sectors; development of solutions from the government *and* from the community sector; scaling of solutions to other African countries). While the project generally managed to deal with these requirements well, the design required a fragmented approach which led the project to 'do a bit' in each area instead of being able to focus on a few core areas (such as the government solutions, that is, linking companies to governmental entities).

Findings regarding 2030 Agenda

Universality, shared responsibility and accountability

With regard to shared responsibility, the evaluation has shown great coherence with the strategies and lines of intervention of relevant institutions, specifically RISA, where the project identified capacity gaps and aspired to fill them through targeted advice and training. Additionally, strong efforts were made to ensure collaboration with other actors in the digital ecosystem. This applies to both the identification of potential synergies, which will be explored in more depth in the follow-on project, and the joining of efforts when it comes to monitoring training sessions that are jointly conducted with other GIZ projects. Relating to the division of tasks, as mentioned previously, the evaluation team identified room for improvement for establishing structured 'points of transition' for innovators.

For the project in general, it was identified that the project first and foremost made contributions to and/or has promising aspects for making contributions to (i) innovation for development (SDG 9) and strong institutions and good governance (SDS 16). The team also noted limited contributions on gender equality (SDG 5). Potentials for contributions to SDGs are furthermore seen in the digital solutions that are developed in the DTC. Through these, future contributions could potentially be made to enhanced food security and sustainable agriculture (SDG 2), reduced inequalities (SDG 10), no poverty (SDG 1), zero hunger (SDG 2) and quality education (SDG 4). Currently, the solutions are, however, at a point where it is impossible to speak of actual impact-level contributions.

Inclusiveness/leave no one behind

With regard to the central promise of the Agenda 2030 to leave no one behind, the evaluation team found that the inclusion of the most vulnerable population was not in the focus of project activities. In the DTC, the project primarily focused on people having advanced knowledge of IT-related topics and access to internet. In order to foster enhanced inclusiveness of the most vulnerable, the project did, however, support the Rwanda Digital Ambassadors program of the Digital Opportunity Trust (dot. Rwanda, led by MINICT) aiming to increase the share of digital literate citizens and their use of digital devices to access e-government and e-business services and bridge the ICT skills gap (Grant agreement, 2018). Additionally, various of the solutions that were developed in the Digi Center specifically targeted the most vulnerable, such as visually impaired people or female refugees:

> When I faced the challenge of testing my product with the in-camp refugees, there was a possibility to test with urban refugees. However, I did not do that because urban refugees do not face challenges similar to in-camp refugees. My product has in-camp refugees at heart, as they are the most vulnerable from an already vulnerable group of people (INT_ben_3).

Findings regarding follow-on project

The evaluation team found that it made a lot of sense for the follow-on project, which was already initiated in January 2021, to (i) build on the achievements of the first phase; (ii) make adjustments based on learnings from the first phase; and over time (iii) find suitable ways of ensuring the durability and sustainability of core project results, primarily of the physical infrastructure of the Digital Transformation Center.

5.2 Recommendations

Recommendations for similar project interventions and the design of new projects (directed to GIZ – sectoral department):

- As Rwanda aspires to position itself as a digital testbed in Africa, it is evident that numerous actors work around the topic of promoting innovation and providing skills trainings. The coherence and collaboration between actors in the digital ecosystem is considered highly important in terms of context-sensitivity, as existing providers should not be driven out of the market, and also with regard to enhanced efficiency and effectiveness throughout the entire implementation. The evaluation team hence suggests to formulate at least one indicator in a way that promotes exploited synergies with other actors.

- The evaluation revealed that the project design which required a number of digital solutions to be developed in a multitude of sectors has proven to lead to efficiency losses as it did not enable replications/ direct learning and synergies between the different innovators. It is recommended to focus on fewer sectors and enable a more in-depth support instead.

- It has proven to be efficient that multiple digital cluster projects operate directly from and are based in the DTC as it (i) decreases costs that would otherwise arise from renting office space and meeting rooms; and (ii) increases synergies between the GIZ projects and physical closeness to the target group(s). The evaluation team therefore recommends to follow this procedure in other countries where DTCs are implemented.

Recommendation on the general project implementation and the follow-on project (directed to the project team):

- **Structured transition points to other projects/institutions:** While it is obvious that DSSD cannot provide long-term mentoring and support to all users of the Digital Transformation Center, the provision of guidance to training participants and innovators, which external actors turn to or where they apply once the support of DSSD is over, would support the sustainability of obtained knowledge and help promising pilot solutions not to get lost.

- **Closer collaboration within the DTC:** Training participants were not aware of the existence of communities of practice. Actively promoting the communities of practice in training sessions would not only help the communities grow, but also tackle, to a certain extent, the challenge described above, as it would help training participants to further exchange on the topics they have been trained in.

- The evaluation team endorses the planned approach for the follow-on project of **mapping indicators** and **aligning activities** of GIZ projects within the digital cluster to ensure structured and institutionalised synergies.

- **Enhanced diversity among innovators and training participants:** Most training participants/frequenters of the Digi Center have a MINT background (Mathematics, Information Sciences, Natural Sciences and Technology). Start-ups do, however, benefit from diversity as it promotes innovation. Wherever feasible, the evaluation team hence encourages the project team to foster and promote diverse, interdisciplinary teams of innovators.

- **Sustainable model to ensure durability of DTC:** The evaluation team highly recommends to explore ways throughout the follow-on project in which the Digital Transformation Center can be made sustainable without relying on external donor-driven funding.

List of references

GIZ standard project documents

GIZ (2017): *Offer to BMZ.* Eschborn: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.

GIZ (2018): *Änderungsvorschlag Digitale Lösungen für nachhaltige Entwicklung, Ruanda*. Eschborn: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.

Other GIZ project documents

GIZ (2018): Grant agreement Digital Opportunity Trust; Agreement for the project "Rwanda Digital Ambassadors Program".

GIZ (2019): *Integrated Peace and Conflict Analysis (IPCA)*. Eschborn: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.

GIZ (2019a): *Progress report I.* Eschborn: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.

GIZ (2020): *Progress report II.* Eschborn: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.

GIZ (2021): Internal project document 'Evaluation of ML Trainings'. Kigali, Rwanda: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.

GIZ (2021a): *Final report to BMZ*. Eschborn: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.

Other GIZ documents

GIZ (2017): *Guide for Central Project Evaluations,* Eschborn: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.

GIZ (2017a): *One Mainstreaming Analysis ICT4Rwanda, GIZ Rwanda.* Eschborn: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.

GIZ (2018): *GIZ's Evaluation System – Central Project Evaluations for BMZ Business,* Eschborn: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH [online] www.giz.de/en/downloads/GIZ_EVAL_EN_ZPE_BMZ%20business.pdf [14.08.2019].

GIZ (2020): *Project proposal: Digitale Lösungen für Nachhaltige Entwicklung II in Ruanda.* Eschborn: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.

Further references

Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung (BMZ) (2006): *Evaluierungskriterien für die deutsche bilaterale Entwicklungszusammenarbeit: Eine Orientierung für Evaluierungen des BMZ und der Durchführungsorganisationen,* BMZ.

Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung (BMZ) (2016): *Africa and Europe – A new particuship for development, peace and a better future. Cornerstones of a Marshall Plan with Africa*. Available online: https://www.bmz.de/en/countries/marshall-plan-with-

africa#:~:text=The%20Marshall%20Plan%20with%20Africa%20focuses%20on%20the%20single%20most,milli
on%20new%20jobs%20every%20year.&text=This%20helps%20to%20generate%20more,both%20self%2Dsus
taining%20and%20sustainable.

Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung (BMZ) (2017): *Digital Agenda*.
Available online:
https://www.bmz.de/en/issues/wirtschaft/nachhaltige_wirtschaftsentwicklung/ikt/digitale_agenda/index.html

Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung (BMZ) (no year): *Priorities in Rwanda*.
Available online: https://www.bmz.de/en/countries_regions/subsahara/ruanda/zusammenarbeit/index.html

European General Data Protection Regulation (no date): *Complete guide to GDPR compliance.* Available
online: https://gdpr.eu/

Mayne, John (2012): *Contribution analysis: Coming of age?* Available online:
https://doi.org/10.1177%2F1356389012451663

Mumporeze, Nadine and Prieler, *Michael (2017): Gender digital divide in Rwanda: A qualitative analysis of
socioeconomic factors.* Available online:
https://www.researchgate.net/publication/317243441_Gender_digital_divide_in_Rwanda_A_qualitative_analysi
s_of_socioeconomic_factors

Organisation for Economic Co-operation and Development (OECD) (n.d.): *Evaluation Criteria*, OECD [online]
www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm (accessed 16 February
2020).

Palenberg, Markus A. (2011): *Tools and Methods for Evaluating the Efficiency of Development Interventions,*
BMZ.

Principles for Digital Development (n.d.). Available online: https://digitalprinciples.org/

Republic of Rwanda (2015): *Smart Rwandan Master Plan*. Available online:
https://minict.prod.risa.rw/fileadmin/user_upload/minict_user_upload/Documents/Policies/SMART_RWANDA_
MASTERPLAN.pdf

Rwandan Ministry of Finance and Economic Planning (MINECOFIN) (2020): *Vision 2050.* Available online:
https://www.nirda.gov.rw/uploads/tx_dce/Vision_English_Version_2050_-31_Dec_2020.pdf

Rwandan Ministry of Finance and Economic Planning (MINECOFIN) (2017): *7 Years Government Programme:
National Strategy for Transformation (NST1) 2017–2024.* Available online:
https://www.nirda.gov.rw/uploads/tx_dce/National_Strategy_For_Trsansformation_-NST1-min.pdf

World Bank and Government of Rwanda (2020): *Future Drivers of Growth.* Available online:
http://documents1.worldbank.org/curated/en/522801541618364833/pdf/Future-Drivers-of-Growth-in-Rwanda-
Innovation-Integration-Agglomeration-and-Competition.pdf

Annex: Evaluation matrix

OECD-DAC Criterion RELEVANCE (max. 100 points)

Assessment dimensions	Filter – Project Type	Evaluation questions	Evaluation indicators	Data collection methods (e.g. interviews, focus group discussions, documents, project/partner monitoring system, workshop, survey, etc.)	Data sources (list of relevant documents, interviews with specific stakeholder categories, specific monitoring data, specific workshop(s), etc.)	Evidence strength (moderate, good, strong)
The project concept (1) is in line with the relevant strategic reference frameworks. Max. 30 points	Standard	Which strategic reference frameworks exist for the project? (e.g. national strategies incl. national implementation strategy for 2030 Agenda, regional and international strategies, sectoral, cross-sectoral change strategies, if bilateral project especially partner strategies, internal analysis frameworks e.g. safeguards and gender (2))	List of strategic reference frameworks	Documents identification according to snowball principle; document analysis	Marshall Plan with Africa (Africa–Europe – A new partnership for development, peace and a better future) (BMZ); Digital Agenda (BMZ); Smart Rwandan Master Plan (Government of Rwanda); National strategy for transformation 2017 – 2024 (Ministry of Finance and Economic Planning 2017); Future Drivers of Growth (World Bank/ Government of Rwanda)	strong
	Standard	To what extent is the project concept in line with the relevant strategic reference frameworks?	Comparison of objectives and goals between project and frameworks	Document identification according to snowball principle; document analysis	Project proposal, ZAK preparation; strategic reference documents (see above)	strong
	Standard	To what extent are the interactions (synergies/trade-offs) of the intervention with other sectors reflected in the project concept – also regarding the sustainability dimensions (ecological, economic and social)?	Assessment of cross-sectoral interactions	Document analysis of the project concept	Project proposal, ZAK preparation	strong
	Standard	To what extent is the project concept in line with the Development Cooperation (DC) programme (If applicable), the BMZ country strategy and BMZ sectoral concepts?	Comparison of objectives and goals between project and BMZ documents	Document analysis of the project concept and BMZ strategy	Project proposal, BMZ Digital Agenda, Marshall Plan with Africa	strong
	Standard	To what extend is the project concept in line with the (national) objectives of the 2030 Agenda? To which Sustainable Development Goals (SDG) is the project supposed to contribute?	Comparison with relevant SDGs	Document analysis of the project concept and Agenda 2030	Project proposal, Agenda 2030	strong
The project concept (1) matches the needs of the target group(s). Max. 30 points	Standard	To what extend is the project concept subsidiary to partner efforts or efforts of other relevant organisations (subsidiarity and complementarity)?	Perception of key partners	Donor document identification according to snowball principle; Interviews	Project proposal, progress reports, interviews with representatives of key partners at governmental level (MINICT, RISA, sectoral ministries)	moderate
	Standard	To what extent is the chosen project concept geared to the core problems and needs of the target group(s)?	Comparison needs identified and perspectives of target group	Document analysis; Interviews	Document analysis of project planning document; Interviews with target group representatives from the public sector, private sector and academia	strong
	Standard	How are the different perspectives, needs and concerns of women and men represented in the project concept?	Gender sensitivity of the project	Document analysis of project planning documents; Interviews	Document analysis of project planning document; Interviews with target group representatives from the public sector, private sector and academia	good

	Standard	To what extent was the project concept designed to reach particularly disadvantaged groups (LNOB principle, as foreseen in the Agenda 2030)? How were identified risks and potentials for human rights and gender aspects included into the project concept?	Disadvantaged groups are considered in key project documents	Document analysis of project planning documents; Interviews	Document analysis of project planning document; Interviews with target group representatives from the public sector, private sector and academia	good
	and IKT	To what extent has the utilisation of digital solutions contributed to expanding the cooperation with partners or beneficiaries, i.e. through additional participation possibilities?	Cooperation with partners or beneficiaries has increased through digital solutions	Document analysis of project progress report; interviews and focus group discussions	Document analysis of project progress reports (quarterly reports and BMZ reports); Interviews/FGDs with representatives of governmental partners and innovators at the Digital Transformation Center	moderate
	Standard	To what extent are the intended impacts regarding the target group(s) realistic from today's perspective and the given resources (time, financial, partner capacities)?	The needs assessed regarding the target group are realistic	Interviews	Document analysis of project planning document; Interviews with target group representatives from the public sector, private sector and academia	good
The project concept (1) is adequately designed to achieve the chosen project objective. Max. 20 points	Standard	Assessment of current results model and results hypotheses (theory of change) of actual project logic: - To what extent is the project objective realistic from today's perspective and the given resources (time, financial, partner capacities)? - To what extent are the activities, instruments and outputs adequately designed to achieve the project objective? - To what extent are the underlying results hypotheses of the project plausible? - To what extent is the chosen system boundary (sphere of responsibility) of the project (including partner) clearly defined and plausible? - Are potential influences of other donors/organisations outside of the project's sphere of responsibility adequately considered? - To what extent are the assumptions and risks for the project complete and plausible?	The results model represents the project logic in an adequate way	Analysis of results model	Project's original and updated results model/theory of change; Interview with FMB, Interview with project management	good
	Standard	To what extent does the strategic orientation of the project address potential changes in its framework conditions?	Changes in legislation Changes in project set-up	Document review; Interviews	Document analysis of project progress reports (quarterly reports and BMZ reports); Interview with project management	good
	and IKT	Which digital solutions are used in the project and what significance do these digital solutions have in the framework of the results model?	List of used digital solutions The results model considers digital solutions in an adequate manner	Document review; Analysis of results model; Interviews	Document analysis of project concept and project progress reports; review of results model/theory of change	strong
	Standard	How is/was the complexity of the framework conditions and guidelines handled? How is/was any possible overloading dealt with and strategically focused?	Risks/bottlenecks outside the sphere of responsibility mentioned by project staff	Document review; Interviews	Interview with project management and focus group discussion with project staff	moderate
The project concept (1) was adapted to changes in line with requirements and re-adapted where applicable. Max. 20 points	Standard	What changes have occurred during project implementation? (e.g. local, national, international, sectoral, including state-of-the-art of sectoral know-how)?	List of changes occurred	Document review; Interviews	Interview with project management and focus group discussion with project staff	strong
	Standard	How were the changes dealt with regarding the project concept?	Activities conducted to address changes	Interviews	Interview with project management and focus group discussion with project staff	strong

OECD-DAC Criterion EFFECTIVENESS (max. 100 points)

Assessment dimensions	Filter – Project Type	Evaluation questions	Evaluation indicators	Data collection methods (e.g. interviews, focus group discussions, documents, project/partner monitoring system, workshop, survey, etc.)	Data sources (list of relevant documents, interviews with specific stakeholder categories, specific monitoring data, specific workshop(s), etc.)	Evidence strength (moderate, good, strong)
The project achieved the objective (outcome) on time in accordance with the project objective indicators.(1) Max. 40 points	Standard	To what extent has the agreed project objective (outcome) been achieved (or will be achieved until end of project), measured against the objective indicators? Are additional indicators needed to reflect the project objective adequately?	Achievement of project objective indicators	Review of monitoring data; analysis of survey data and progress reports; Triangulated with interviews	Action and monitoring sheets; raw survey data; Interviews with the project management; Interviews with key implementing partners	strong
	Standard	To what extent is it foreseeable that unachieved aspects of the project objective will be achieved during the current project term?	Partners and project team confirm that unachievable aspects are likely to be achieved	Interviews	Project management and staff; key implementing partner interviews	good
The activities and outputs of the project contributed substantially to the project objective achievement (outcome).(1) Max. 30 points	Standard	To what extent have the agreed project outputs been achieved (or will be achieved until the end of the project), measured against the output indicators? Are additional indicators needed to reflect the outputs adequately?	Achievement of output indicators	Review of monitoring data; analysis of survey data and progress reports; Triangulated with interviews	Action and monitoring sheets; raw survey data; Interviews with the project management; Interviews with key implementing partners	strong
	Standard	How does the project contribute via activities, instruments and outputs to the achievement of the project objective (outcome)? (contribution analysis approach)	Evidence for hypotheses established/rejected	Document review; Interviews	Review of monitoring data, operational plans, action plan; Interviews with capacity building participants, innovators, stakeholders from the digital ecosystem and stakeholders at governmental level	strong
	Standard	Implementation strategy: Which factors in the implementation contribute successfully to or hinder the achievement of the project objective? (e.g. external factors, managerial set-up of project and company, cooperation management)	Open question on hindering and supporting factors	Interviews; Focus Group discussion	Interviews with all key stakeholders, FGD with project team	strong
	Standard	What other/alternative factors contributed to the fact that the project objective was achieved or not achieved?	Alternative factors are identified	Interviews; Focus Group discussion	Interviews with all key stakeholders, FGD with project team	good
	and IKT	To what extent has the utilisation of digital solutions contributed to the achievement of objectives?	List of utilised digital solutions; Key partners and the project team confirm that utilised digital solutions contributed to achievement of project objective	Interviews; Focus Group discussion	Interviews with all key stakeholders, FGD with project team	
	Standard	What would have happened without the project?	Perception of project staff and partners	Interviews; Focus Group discussion	Interviews with all key stakeholders, FGD with project team	good
No project-related (unintended) negative results have occurred – and if any negative results occured the project responded adequately. The occurrence of additional (not formally agreed) positive results has been monitored and	Standard	Which (unintended) negative or (formally not agreed) positive results does the project produce at output and outcome level and why?	Additional results are identified	Interviews; Focus Group discussion	Interviews with all key stakeholders, FGD with project team	good
	Standard	How were risks and assumptions (see also GIZ Safeguards and Gender system) as well as (unintended) negative results at the output and outcome level assessed in the monitoring system (e.g. 'Kompass')? Were risks already known during the concept phase?	Assessment of monitoring system on risks	Analysis of monitoring system on risks; Document analysis	Excel-based monitoring sheet; results matrix; project proposal	moderate

additional opportunities for further positive results have been seized. Max. 30 points	Standard	What measures have been taken by the project to counteract the risks and (if applicable) occurred negative results? To what extent were these measures adequate?	Risk mitigation measures identified and applied	Analysis of monitoring system on risks; Document analysis; Interviews	Excel-based monitoring sheet; Interview with project team	moderate
	Standard	To what extend were potential (not formally agreed) positive results at outcome level monitored and exploited?	Risk management and monitoring	Analysis of monitoring system on risks	Excel-based monitoring sheet	moderate

OECD-DAC Criterion IMPACT (max. 100 points)

Assessment dimensions	Filter – Project Type	Evaluation questions	Evaluation indicators	Data collection methods (e.g. interviews, focus group discussions, documents, project/partner monitoring system, workshop, survey, etc.)	Data sources (list of relevant documents, interviews with specific stakeholder categories, specific monitoring data, specific workshop(s), etc.)	Evidence strength (moderate, good, strong)
The intended overarching development results have occurred or are foreseen (plausible reasons). (1) Max. 40 points	Standard	To which overarching development results is the project supposed to contribute (cf. module and programme proposal with indicators/identifiers if applicable, national strategy for implementing 2030 Agenda, SDGs)? Which of these intended results at the impact level can be observed or are plausible to be achieved in the future?	Overarching development results the project is contributing to	Analysis of document; interviews	Review of the updated results model and continuous adaptation; interview with project management and BMZ representative	moderate
	Standard	Indirect target group and 'Leave No One Behind' (LNOB): Is there evidence of results achieved at indirect target group level/specific groups of population? To what extent have targeted marginalised groups (such as women, children, young people, elderly, people with disabilities, indigenous peoples, refugees, IDPs and migrants, people living with HIV/AIDS and the poorest of the poor) been reached?	Identified vulnerable groups also benefited from the project intervention; Perception of partners on impact for final beneficiaries	Interviews, Focus Group Discussion	Focus group discussion with project team, interview with project management, interviews as FGDs at governmental and ecosystem level	moderate
The project objective (outcome) of the project contributed to the occurred or foreseen overarching development results (impact).(1) Max. 30 points	Standard	To what extent is it plausible that the results of the project on outcome level (project objective) contributed or will contribute to the overarching results? (contribution analysis approach)	Evidence for hypotheses established/rejected	Interviews, Focus Group Discussion	Review of monitoring data, operational plans, action plan; Interviews with capacity building participants, innovators, stakeholders from the digital ecosystem and stakeholders at governmental level	good
	Standard	What are the alternative explanations/factors for the overarching development results observed? (e.g. the activities of other stakeholders, other policies)	Alternative factors explained	Interviews	Focus group discussion with project team, interview with project management, key project stakeholders	moderate
	Standard	To what extent is the impact of the project positively or negatively influenced by framework conditions, other policy areas, strategies or interests (German ministries, bilateral and multilateral development partners)? How did the project react to this?	Influence of framework conditions	Interviews, Document analysis	Focus group discussion with project team, interview with project management, key project stakeholders	moderate
	Standard	What would have happened without the project?	Counterfactual situation; Improvements or specific changes are identified by the target group as something that would not have happened without the project	Interviews, Focus Group Discussion	Focus group discussion with project team, interview with project management, key project stakeholders	moderate
	Standard	To what extent has the project made an active and systematic contribution to widespread impact and were scaling-up mechanisms applied (2)? If not, could there have been potential? Why was the potential not exploited? To what extent has the project made an innovative contribution (or a contribution to innovation)? Which innovations have been tested in different regional	Additional impacts identified; Synergies leveraged	Interviews, Focus Group Discussion	Focus group discussion with project team, interview with project management, key project stakeholders	moderate

		contexts? How are the innovations evaluated by which partners?				
No project-related (unintended) negative results at impact level have occurred – and if any negative results occured the project responded adequately. The occurrence of additional (not formally agreed) positive results at impact level has been monitored and additional opportunities for further positive results have been seized. Max. 30 points	Standard	Which (unintended) negative or (formally not agreed) positive results at impact level can be observed? Are there negative trade-offs between the ecological, economic and social dimensions (according to the three dimensions of sustainability in the Agenda 2030)? Were positive synergies between the three dimensions exploited?	Evidence for widesprad impact established	Interviews, Focus Group Discussion	Focus group discussion with project team, interview with project management, key project stakeholders	moderate
	Standard	To what extent were risks of (unintended) results at the impact level assessed in the monitoring system (e.g. 'Kompass')? Were risks already known during the planning phase?	Degree of assessment in monitoring tools	Document analysis of monitoring documents	Analysis of monitoring system	moderate
	Standard	What measures have been taken by the project to avoid and counteract the risks/negative results/trade-offs (3)?	Mitigation measures mentioned	Document analysis, interviews	Analysis of monitoring system, Interview with project team	moderate
	Standard	To what extent have the framework conditions played a role in regard to the negative results? How did the project react to this?	Role of framework conditions in negative results	Document analysis, interviews	Analysis of monitoring system, Interview with project team	moderate
	Standard	To what extent were potential (not formally agreed) positive results and potential synergies between the ecological, economic and social dimensions monitored and exploited?	Synergies of sustainability dimensions	Document analysis, interviews	Focus group discussion with project team, interview with project management, key project stakeholders	moderate

OECD-DAC Criterion EFFICIENCY (max. 100 points)

Assessment dimensions	Filter – Project Type	Evaluation questions	Evaluation indicators (pilot phase for indicators – only available in German so far)	Data collection methods (e.g. interviews, focus group discussions, documents, project/partner monitoring system, workshop, survey, etc.)	Data sources (list of relevant documents, interviews with specific stakeholder categories, specific monitoring data, specific workshop(s), etc.)	Evidence strength (moderate, good, strong)
The project's use of resources is appropriate with regard to the outputs achieved. [Production efficiency: Resources/outputs] Max. 70 points	Standard	To what extent are there deviations between the identified costs and the projected costs? What are the reasons for the identified deviation(s)?	Das Vorhaben steuert seine Ressourcen gemäß des geplanten Kostenplans (Kostenzeilen). Nur bei nachvollziehbarer Begründung erfolgen Abweichungen vom Kostenplan.	Efficiency Tool; interviews	Efficiency-tool, project management	good
	Standard	Focus: To what extent could the outputs have been maximised with the same amount of resources and under the same framework conditions and with the same or better quality (maximum principle)? (methodological minimum standard: Follow-the-money approach)	Das Vorhaben reflektiert, ob die vereinbarten Wirkungen mit den vorhandenen Mitteln erreicht werden können.	Efficiency Tool; interviews	Efficiency-tool, project management	good

	Standard		Das Vorhaben steuert seine Ressourcen gemäß der geplanten Kosten für die vereinbarten Leistungen (outputs). Nur bei nachvollziehbarer Begründung erfolgen Abweichungen von den Kosten. Die übergreifenden Kosten des Vorhabens stehen in einem angemessen Verhältnis zu den Kosten für die Outputs. Die durch ZAS Aufschriebe erbrachten Leistungen haben einen nachvollziehbaren Mehrwert für die Erreichung der Outputs des Vorhabens.	Efficiency Tool; interviews	Efficiency-tool, project management	good
	Standard		Die übergreifenden Kosten des Vorhabens stehen in einem angemessen Verhältnis zu den Kosten für die Outputs.	Efficiency Tool; interviews	Efficiency-tool, project management	good
	Standard		Die durch ZAS Aufschriebe erbrachten Leistungen haben einen nachvollziehbaren Mehrwert für die Erreichung der Outputs des Vorhabens.	Efficiency Tool; interviews	Efficiency-tool, project management	good
	Standard	Focus: To what extent could outputs have been maximised by reallocating resources between the outputs? (methodological minimum standard: Follow-the-money approach)	Das Vorhaben steuert seine Ressourcen, um andere Outputs schneller/besser zu erreichen, wenn Outputs erreicht wurden bzw. diese nicht erreicht werden können (Schlussevaluierung). Oder: Das Vorhaben steuert und plant seine Ressourcen, um andere Outputs schneller/besser zu erreichen, wenn Outputs erreicht wurden bzw. diese nicht erreicht werden können (Zwischenevaluierung).	Efficiency Tool; interviews	Efficiency-tool, project management	good
	Standard	Were the output/resource ratio and alternatives carefully considered during the design and implementation process – and if so, how? (methodological minimum standard: Follow-the-money approach)	Das im Modulvorschlag vorgeschlagene Instrumentenkonzept konnte hinsichtlich der veranschlagten Kosten in Bezug auf die angestrebten Outputs des Vorhabens gut realisiert werden.	Efficiency Tool; interviews	Efficiency-tool, project management	good
	Standard		Die im Modulvorschlag vorgeschlagene Partnerkonstellation und die damit verbundenen Interventionsebenen konnte hinsichtlich der veranschlagten Kosten in Bezug auf die angestrebten Outputs des Vorhaben gut realisiert werden.	Efficiency Tool; interviews	Efficiency-tool, project management	good
	Standard		Der im Modulvorschlag vorgeschlagene thematische Zuschnitte für das Vorhaben konnte hinsichtlich der veranschlagten Kosten in Bezug auf die angestrebten Outputs des Vorhabens gut realisiert werden.	Efficiency Tool; interviews	Efficiency-tool, project management	good
	Standard		Die im Modulvorschlag beschriebenen Risiken sind hinsichtlich der veranschlagten Kosten in Bezug auf die angestrebten Outputs des Vorhabens gut nachvollziehbar.	Efficiency Tool; interviews	Efficiency-tool, project management	good
	Standard		Die im Modulvorschlag beschriebene Reichweite des Vorhabens (z.B. Regionen) konnte hinsichtlich der veranschlagten Kosten in Bezug auf die angestrebten Outputs des Vorhabens voll realisiert werden.	Efficiency Tool; interviews	Efficiency-tool, project management	good
	Standard		Der im Modulvorschlag beschriebene Ansatz des Vorhabens hinsichtlich der zu erbringenden Outputs entspricht unter den gegebenen Rahmenbedingungen dem state-of-the-art.	Efficiency Tool; interviews	Efficiency-tool, project management	good
	Standard	For interim evaluations based on the analysis to date: To what extent are further planned expenditures meaningfully distributed among the targeted outputs?	siehe oben	Efficiency Tool; interviews	Efficiency-tool, project management	good
The project's use of resources is appropriate with regard to achieving the projects objective (outcome).	Standard	To what extent could the outcome (project objective) have been maximised with the same amount of resources and the same or better quality (maximum principle)?	Das Vorhaben orientiert sich an internen oder externen Vergleichsgrößen, um seine Wirkungen kosteneffizient zu erreichen.	Interviews	Project team and management	good

[Allocation efficiency: Resources/Outcome] Max. 30 points	Standard	Were the outcome-resources ratio and alternatives carefully considered during the conception and implementation process – and if so, how? Were any scaling-up options considered?	Das Vorhaben steuert seine Ressourcen zwischen den Outputs, so dass die maximalen Wirkungen im Sinne des Modulziels erreicht werden. (Schlussevaluierung) Oder: Das Vorhaben steuert und plant seine Ressourcen zwischen den Outputs, so dass die maximalen Wirkungen im Sinne des Modulziels erreicht werden. (Zwischenevaluierung)	Interviews	Project team and management	good
	Standard		Das im Modulvorschlag vorgeschlagene Instrumentenkonzept konnte hinsichtlich der veranschlagten Kosten in Bezug auf das angestrebte Modulziel des Vorhabens gut realisiert werden.	Interviews	Project team and management	good
	Standard		Die im Modulvorschlag vorgeschlagene Partnerkonstellation und die damit verbundenen Interventionsebenen konnte hinsichtlich der veranschlagten Kosten in Bezug auf das angestrebte Modulziel des Vorhaben gut realisiert werden.	Interviews	Project team and management	good
	Standard		Der im Modulvorschlag vorgeschlagene thematische Zuschnitte für das Vorhaben konnte hinsichtlich der veranschlagten Kosten in Bezug auf das angestrebte Modulziel des Vorhabens gut realisiert werden.	Interviews	Project team and management	good
	Standard		Die im Modulvorschlag beschriebenen Risiken sind hinsichtlich der veranschlagten Kosten in Bezug auf das angestrebte Modulziel des Vorhabens gut nachvollziehbar.	Interviews	Project team and management	good
	Standard		Die im Modulvorschlag beschriebene Reichweite des Vorhabens (z.B. Regionen) konnte hinsichtlich der veranschlagten Kosten in Bezug auf das angestrebte Modulziel des Vorhabens voll realisiert werden.	Interviews	Project team and management	good
	Standard		Der im Modulvorschlag beschriebene Ansatz des Vorhabens hinsichtlich des zu erbringenden Modulziels entspricht unter den gegebenen Rahmenbedingungen dem state-of-the-art.	Interviews	Project team and management, FMB, BMZ	good
	Standard	To what extent were more results achieved through cooperation/synergies and/or leverage of more resources, with the help of other ministries, bilateral and multilateral donors and organisations (e.g. co-financing) and/or other GIZ projects? If so, was the relationship between costs and results appropriate or did it even improve efficiency?	Das Vorhaben unternimmt die notwendigen Schritte, um Synergien mit Interventionen anderer Geber auf der Wirkungsebene vollständig zu realisieren.	Interviews	Project team and management, other donors	good
	Standard		Wirtschaftlichkeitsverluste durch unzureichende Koordinierung und Komplementarität zu Interventionen anderer Geber werden ausreichend vermieden.	Interviews	Project team and management, other donors	good
	Standard		Das Vorhaben unternimmt die notwendigen Schritte, um Synergien innerhalb der deutschen EZ vollständig zu realisieren.	Interviews	Project team and management, other GIZ projects	good
	Standard		Wirtschaftlichkeitsverluste durch unzureichende Koordinierung und Komplementarität innerhalb der deutschen EZ werden ausreichend vermieden.	Interviews	Project team and management, other FZ/TZ actors	good
	Standard		Die Kombifinanzierung hat zu einer signifikanten Ausweitung der Wirkungen geführt bzw. diese ist zu erwarten.	n.a.	n.a.	
	Standard		Durch die Kombifinanzierung sind die übergreifenden Kosten im Verhältnis zu den Gesamtkosten nicht überproportional gestiegen.	n.a.	n.a.	
	Standard		Die Partnerbeiträge stehen in einem angemessenen Verhältnis zu den Kosten für die Outputs des Vorhabens.	n.a.	n.a.	
	and IKT	To what extent has the utilisation of digital solutions contributed to gains in efficiency? To what extent have digital solutions offered opportunities for upscaling?				

OECD-DAC Criterion SUSTAINABILITY (max. 100 points)						
Assessment dimensions	**Filter – Project Type**	**Evaluation questions**	**Evaluation indicators**	**Data collection methods** (e.g. interviews, focus group discussions, documents, project/partner monitoring system, workshop, survey, etc.)	**Data sources** (list of relevant documents, interviews with specific stakeholder categories, specific monitoring data, specific workshop(s), etc.)	**Evidence strength** (moderate, good, strong)
Prerequisite for ensuring the long-term success of the project: Results are anchored in (partner) structures. Max. 50 points	Standard	What has the project done to ensure that the results can be sustained in the medium to long term by the partners themselves?	Perception of the partners	Interviews, survey data from training participants	Participants of trainings and advisory services at governmental level; trained multipliers at RISA and MINICT	good
	Standard	In what way are advisory contents, approaches, methods or concepts of the project anchored/institutionalised in the (partner) system?	Degree of institutionalisation of results	Document analysis; Interviews	Representatives of key stakeholders at governmental level (MINICT, RISA); review of key strategic documents related to the SRMP	good
	Standard	To what extent are the results continuously used and/or further developed by the target group and/or implementing partners?	Use and application of capacities gained	Interviews; Focus group discussions	Interviews with key partners at governmental level and innovators/training and working group participants of the Digital Transformation Center	good
	Standard	To what extent are resources and capacities at the individual, organisational or societal/political level in the partner country available (long-term) to ensure the continuation of the results achieved?	Improved competences of governmental professionals, innovators and training participants	Interviews; Focus group discussions	Interviews with key partners at governmental level and innovators/ training and working group participants of the Digital Transformation Center	good
Forecast of durability: Results of the project are permanent, stable and long-term resilient. Max. 50 points	Standard	If no follow-on measure exists: What is the project's exit strategy? How are lessons learned for partners and GIZ prepared and documented?	n.a. (project continues)	n.a.	n.a.	
	Standard	To what extent are the results of the project durable, stable and resilient in the long-term under the given conditions?	Perception of partners and GIZ team	Focus group discussion, Interview	Interviews with key partners	moderate
	Standard	What risks and potentials are emerging for the durability of the results and how likely are these factors to occur? What has the project done to reduce these risks?	Perception of partners and GIZ team	Focus group discussion, Interview	Interviews with key partners	moderate

Photo credits and sources