



REPUBLIC OF SLOVENIA
MINISTRY OF FOREIGN AFFAIRS

Evaluation of Projects of Telemedicine and E-health Network in Cabo Verde for the period 2011–2017

Final Report



**MEDNARODNO RAZVOJNO
SODELOVANJE SLOVENIJE**
SLOVENIA'S DEVELOPMENT
COOPERATION

Ljubljana, March 2018

Contracting authority:	Ministry of Foreign Affairs <i>(Ministrstvo za zunanje zadeve)</i> Prešernova cesta 25 1000 Ljubljana Contact person: - Nataša Adlešič Barba, minister plenipotentiary
Title of evaluation:	Evaluation of projects of telemedicine and e-health network in Cabo Verde for the period 2011–2017 <i>(Evalvacija projektov telemedicine in e-zdravja na Zelenortskih otokih v obdobju 2011-2017)</i>
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Date and place of preparation:	December 2017 - March 2018, Ljubljana

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Abbreviations

Act	International Development Cooperation Act
Agreement	Agreement between the Government of the Republic of Slovenia and the Government of Cabo Verde on Development Cooperation (Ur.l.RS 33/2011)
BSG	Budget Support Group
CPS	Country Partnership Strategy
Direct beneficiary	An institution and/or individuals who are the direct recipients of aid (typically technical cooperation) aimed at strengthening their capacity to undertake tasks that are directed at final beneficiaries or that in other ways contribute to achieving the purpose of development cooperation
GPRSP	Growth and Poverty Reduction Strategy Paper
EC	European Commission
End user	An individual that benefits from the use of the assets provided through the project (in this case, medical staff)
EU	European Union
Final beneficiary	An individual or group of persons who benefit from the action at the level of the society (in this case, patients)
HRBA	Human rights based approach
ICT	Information-communication technologies
ITF	ITF Enhancing Human Security (formerly International Trust Fund for Demining and Mine Victims Assistance); also Project provider
IVeHF	International Virtual e-Hospital Foundation
LFA	Logframe approach
MDGs	Millennium Development Goals
MFA	Ministry of Foreign Affairs; refers to the Slovenian MFA unless stated otherwise
MoU	Memorandum of understanding
NGO	Non-governmental organisation
NCT	National Centre of Telemedicine
NKT	Nove Komunikacijske tehnologije
ODA	Official development assistance
OECD	Organisation for Economic Cooperation and Development
Project provider	Legal person, recipient of funds and responsible for the implementation of the projects being evaluated; in this document the term refers to ITF
Recipient country	Cabo Verde as the recipient country benefiting from the projects
Resolution	Resolution on International Development Cooperation
RS	Republic of Slovenia
UN	United Nations
USA	United States of America
USD	United States dollars
ZDM	Directorate for Multilateral Affairs, Development Cooperation and International Law

1. Summary

The subject of the evaluation are telemedicine and e-health projects provided through development cooperation by the Republic of Slovenia (RS) to Cabo Verde, which form the integrated telemedicine and e-health programme in the country. The objectives of the evaluation are to provide a review and analysis of the project results in the period between 2011 and 2017, to analyse their alignment with the needs of Cabo Verde, on one hand, and Slovenian development cooperation policy, on the other, and to provide recommendations for the development of future policies, projects and activities.

The report finds that Slovenian development cooperation directed €1.3 million of funds to Cabo Verde between 2011-2017 for telemedicine and e-health projects. Project activities addressed the health and education target areas stipulated in the Agreement between the Government of the Republic of Slovenia and the Government of Cabo Verde. While two project phases were planned initially (2011-2014), telemedicine projects were extended for an additional phase on the basis of bilateral satisfaction with the donation. The evaluator considered the three project phases as part of a cohesive telemedicine and e-health programme, as evidenced by the continuity and cohesion of activities throughout the evaluation period.

In general, we find that telemedicine projects financed by Slovenia were successful, effective and efficiently delivered. The telemedicine and e-health projects are found to be fully in line with the national priorities of Cabo Verde and both political leaders and medical professionals are very satisfied with the establishment of the national telemedicine programme. The high priority of the project on the national agenda translated into ownership of the program by all key stakeholders. The telemedicine network is integrated into the healthcare system of Cabo Verde, and the country committed to the project as demonstrated via financing of the national (coordinating) telemedicine centre, provision of adequate space for videoconferences in all telemedicine centre locations, and employment of two full time administrators for telemedicine. These measures, in turn, are key for ensuring sustainability of the national telemedicine programme.

The main outcomes of the projects are the reduction in the number of patient evacuations and necessary transfers to the main hospitals, leading to lower public health costs, and better treatment of patients. Additionally, the telemedicine projects contributed to improving Cabo Verde's medical capacity by training and educating doctors and nurses (via virtual library, video conferencing), positively influencing the quality of care and treatment of patients.

Despite the Republic of Slovenia disposing with relatively low resources for international development cooperation, Slovenia is considered to be an important donor in the recipient country and is recognized as a key partner in developing healthcare capacities. Politically, the Republic of Slovenia enjoys sufficient visibility, a result of clear division of development areas between different donors; indeed, Slovenia is the only financier of telemedicine. Project cooperation has also strengthened bilateral relations between the two countries, paving the way for potential further cooperation in other areas.

At the level of end users, Slovenia's visibility is much lower: because the country does not have proprietary expertise in the field of telemedicine solutions, doctors primarily recognise IVeHF to be the provider of the projects. The projects are also much better aligned with Cabo Verdean strategies (in the field of medicine) than with Slovenian ones (in the area of development cooperation). Namely, we find no explicit objectives of gender equality, environmental protection, eradication of poverty or protection of human rights; although some effects can be observed, they are secondary to improving quality of healthcare and relieving the national healthcare budget. This can in part be associated with the fact that the cross-cutting objectives of gender equality and environmental protection were incorporated in project designs of international development cooperation only in 2016.

Though the telemedicine programme can be considered a success, we find there to be, after the conclusion of phase III in 2018, a sufficient number of telemedicine centres to cater to the Cabo Verdean population. This, combined with low proprietary telemedicine expertise leading to suboptimal visibility of RS, leads us to recommend to the MFA that it discontinues with financing telemedicine in Cabo Verde. We propose, instead, to divert funding to other areas of cooperation or other developing countries, better in line with Slovenia's own competitive advantage and specialisation areas.

2. Introduction

2.1. Definition of the subject of evaluation

The subject of the evaluation are telemedicine and e-health projects provided through development cooperation by the Republic of Slovenia (RS) to Cabo Verde, which form the integrated telemedicine and e-health programme in the country. The projects in question started in 2012 – with preparation carried out in the previous year – and are being implemented by ITF Enhancing Human Security (hereinafter ITF or project provider) in three phases, with the last due to finish in 2018; the scope of the evaluation is limited to projects being implemented up to 2017 inclusive.

The projects involve(d) the purchase, delivery and integration of thirteen telemedicine centres (two of which have not yet been established) on all nine inhabited islands, as well as training of medical and technical staff that use the equipment. The purpose of telemedicine centres provided by Slovenia is to improve accessibility and quality of healthcare in Cabo Verde. Because the country is an archipelago of 10 islands with a relatively dispersed population of a little over 0.5 million, having specialists in all branches of medicine in all health centres is costly and difficult to establish given the (until recent) absence of an educational institution for medicine at the undergraduate level on Cabo Verde¹. The telemedicine centres provided through these projects aim to cover this gap by allowing teleconsultations and assistance to individual clinical disciplines in remote locations across Cabo Verde. In addition, they provide permanent virtual medical training, research and international cooperation with institutions across the world.

The projects under evaluation are based on the Agreement on Development Cooperation between the Government of the Republic of Slovenia and the Government of the Republic of Cape Verde (Agreement)², which entered into force on 2 July 2012. The Agreement lays down the target areas, as well as the principles governing development cooperation between RS and Cabo Verde.

The evaluation is founded on the guidelines issued by the Organisation for Economic Cooperation and Development (OECD)³, whereby the methodology is based on pre-set evaluation criteria and questions⁴. An evaluation of cross-cutting objectives – human rights based approach, gender equality and environmental protection – has also been integrated into the evaluation questions.

2.2. Purpose and objectives of evaluation

The purpose of the evaluation is to provide an assessment of the telemedicine and e-health projects implemented within the framework of Slovene development cooperation in Cabo Verde. The assessment was based on OECD key evaluation criteria - relevance, effectiveness, efficiency, impact and sustainability – as well as on an additional specific criterion defined by the Slovenian Ministry of Foreign Affairs (MFA) – Slovenian added value. The criteria provide the basis for the preparation of answers to evaluation questions and the development of recommendations.

¹ The University of Cabo Verde introduced pre-graduate medical education in October 2015, but since this cohort will not have yet graduated by end of 2017, there is no effect on the number of doctors (and specialists in particular) in the country.

² Official Gazette of the Republic of Slovenia, No. 33/2011

³ Source: OECD 2010 – Evaluating Development Cooperation, 2nd edition

⁴ See Terms of Reference for the evaluation of projects of telemedicine and e-health network in Cabo Verde for the period 2011-2017.

The **objectives of the evaluation** are:

- To review results and circumstances surround project implementation the said period, as well as its effectiveness in achieving target goals;
- To analyse the elements that have impacted project results;
- To analyse the needs of final beneficiaries and end users⁵ in the country involved;
- To prepare recommendations for the development of future policies, projects and activities.

Pursuant to OECD guidelines for development cooperation evaluation, evaluation recommendations provide the basis for improving future policies, programmes and projects. As the development cooperation policyholder, the MFA is responsible for the coordination of the implementation of recommendations provided. MFA (namely, the Directorate for Multilateral Affairs, Development Cooperation and International Law – ZDM) is also responsible for the implementation of the recommendations that concern its accountabilities and work activities.

2.3. Report structure and evaluation procedure

The report comprises four key parts. Chapter 3 defines the context of project implementation, covering a review of the policy context in Slovenia, the Cabo Verdean political context and donor landscape, and the background for the projects under evaluation. Chapter 4 defines the evaluation programme in more detail (set-up, preparation, project description), as well as the evaluation methodology, as derived from OECD methodology guidelines in development cooperation. Chapter 4 then assesses the intervention logic, i.e. the internal and external coherence of Slovenian development cooperation objectives and activities in Cabo Verde, namely telemedicine and e-health projects. This is followed by a detailed breakdown of methods, indicators and data sources based on criteria and evaluation questions as laid down by the contracting authority (MFA). Based on the data collected and analysed, chapter 5 sums up the key findings and conclusions of the evaluation – that is, provides answers to evaluation questions. Chapter 6 presents the recommendations and findings of the evaluator. Lessons learned are provided in chapter 7.

⁵ Final beneficiaries are defined as the individuals or groups of persons who benefit from the action at the level of society – in the case of the evaluation the final beneficiaries are patients benefiting from teleconsultations. End users, by contrast, are considered to be the users of the equipment gained through the projects – that is, medical staff (doctors and nurses).

3. Context

3.1. Public policy context in Slovenia

As per the International Development Cooperation Act (Act), the MFA is the coordinator of development cooperation policy in Slovenia. This involves planning development cooperation policies as well as their implementation, coordination and monitoring.

The telemedicine and e-health projects implemented in Cabo Verde through Slovenian development assistance are based on the Agreement on Development Cooperation between the Government of the Republic of Slovenia and the Government of the Republic of Cape Verde. The fundamental documents regulating Slovenian development cooperation in Cabo Verde are (in order of most broad to most concrete): Declaration of Foreign Policy of the Republic of Slovenia; Strategy of Foreign Policy of the Republic of Slovenia; International Development Cooperation Act; Resolution on International Development Cooperation until 2015 (Resolution); and Framework Programme of International Development Cooperation and Humanitarian Assistance of the Republic of Slovenia for the periods 2013-2015 and 2016-2019. The multitude of basic documents aims to ensure a coherent, concrete and targeted national approach to international development cooperation, one that is in line with the direction of national economic and social progress, and foreign policy priorities (for an assessment of external coherence of projects evaluated see chapter 4.2.2).

3.2. Cabo Verdean context

3.2.1. Political context

The Republic of Cabo Verde is an island country consisting of an archipelago of 10 main islands and several smaller islands and islets. It is a Sub-Saharan African country, located 570km of the coast of Western Africa, and is culturally similar with other West African sub-Saharan nations. The country covers an area of 4,030km² and is home to 539,560 inhabitants. In terms of size of economy and income, Cabo Verde is with a GDP per capita of \$ 2,998 considered a lower middle-income country. Cabo Verde represents a formidable recipient country of donor financing (see chapter 3.2.2); owing to its institutional capacity and political stability, implementation of development cooperation projects is easier, and ownership (and therewith sustainability of outcome) more likely.

Table 3.1: Cabo Verde and Slovenia - key indicators

	Area	Population	GDP / Capita	GDP / Capita (PPP)
Slovenia	20,270	2,064,845	\$ 21,305	\$ 32,884
Cabo Verde	4,030	539,560	\$ 2,998	\$ 6,553

Source: World Bank 2017

Sub-Saharan Africa is one of the priority regions for Slovenia in terms of international development cooperation, with most assistance allocated through multilateral channels. Bilateral assistance is project-based and prioritizes projects run by non-governmental organisations (NGOs) in least developed Sub-Saharan countries. The strategic focus on Cabo Verde stemmed from the country's high level of political stability and established bilateral relations with Slovenia. Cabo Verde was identified by Slovenian foreign policy as a country that is not a significant recipient of official development assistance (ODA), and where Slovenia currently has limited diplomatic presence through non-resident coverage.

Slovenia established collaboration with Cabo Verde in 2009 by initiating the Green Group⁶, which promotes closer cooperation on environmental issues within foreign policies. Cabo Verde is keen to strengthen economic cooperation with the European Union (EU), as the bloc accounts for more than 70%⁷ of imports, and the Cape Verdean escudo is pegged to the euro. This is also in-line with strategic priorities of Cabo Verde tied to improving the country's competitiveness through structural reform (infrastructure, human capital, etc.) and strengthening of the private sector (see chapter 4.2.2 for details).

The Cabo Verdean relationship with the EU is reinforced through the EU-Cape Verde Special Partnership and the EU-Cape Verde Partnership for Mobility. The nation is committed to promoting and implementing common EU values such as democracy, respect for the rule of law and human rights.

3.2.2. Donor landscape

Cabo Verde receives financial and technical development assistance from two streams: (i) bilateral donors, whose assistance is coordinated by the Cabo Verdean MFA, and (ii) multilateral donors (e.g. loans, technical assistance, budget support, etc.) coordinated by the Directorate of National Planning, Ministry of Finance and Planning. Aid effectiveness to Cabo Verde and alignment with national priorities has been strengthened with the implementation of the Paris Declaration Principles. Since 2006, major bilateral and multilateral donors have harmonized support to Cabo Verde by signing a Memorandum of Understanding ratifying a mutually agreed upon policy matrix based on the Growth and Poverty Reduction Strategy Paper (GPRSP). The Budget Support Group (BSG) is comprised of six donors: the African Development Bank, the EU, the Luxembourg Agency for Development Cooperation, the Government of Portugal, the Spanish Agency for International Development Cooperation, and the World Bank. Due to its political stability, Cabo Verde is an attractive partner for multilateral donors – as well as several EU Member States (Portugal, Luxembourg, Spain and the Netherlands), Brazil, Japan, China, and the US – wanting to build diplomatic rapport in Africa.

According to the OECD⁸, Cabo Verde received USD 133 million of gross ODA disbursements in 2016 compared to USD 175 million and USD 224 million in 2015 and 2014 respectively, a significant decrease from the USD 234 million and USD 240 million disbursements received in 2011 and 2012. The top five donors during the evaluation period were Portugal (annual average of 96.8 million), EU institutions (23 million), World Bank's International Development Association (21.9 million), Luxembourg (15.2 million), and Japan (14.6 million).

Health-related official development assistance to Cabo Verde during 2011-2016 amounted to USD 77.7 million. Portugal contributed more than half of this amount (mostly for scholarships and investments into equipment), while Slovenia was the third largest donor country (behind Luxembourg). The remaining funds for health development were from multilateral organizations⁹.

EU: assistance from the EU is mainly channelled through the European Development Fund and is based on two priorities, (i) poverty reduction through improvements to water and sanitation and health, and (ii) promotion of the 'EU-Cape Verde Special Partnership'. The Special Partnership intended to strengthen dialogue and promote policy convergence with the EU focuses on six sectors¹⁰:

⁶ Initiated by the Slovenian MFA, to establish informal collaboration amongst six small countries – Cabo Verde, Costa Rica, Iceland, Singapore, Slovenia, and the United Arab Emirates

⁷ Source: EEAS 2016 – Cape Verde and the EU

⁸ Source: OECD.Stat – Aid (ODA) disbursements to countries and regions (accessed 21.2.2018)

⁹ Source: OECD.Stat – Creditor Reporting System

¹⁰ Source: EC – International Cooperation and Development: Cabo Verde

- governance;
- security;
- information society;
- regional integration;
- normative and technical convergence towards EU standards; and
- the fight against poverty.

World Bank: involvement through the Country Partnership Strategy (CPS) comprises two programmes: (i) enhancing macro-fiscal stability to support sustained growth and poverty reduction; and (ii) improving competitiveness and private sector development. The strategy outlines priority areas for the three Bank Group institutions (World Bank, International Finance Corporation, Multilateral Investment Guarantee Agency) to help improve the development of the private sector environment and support new investments to boost productivity, jobs and incomes¹¹.

The African Development Bank: objectives pursued by the bank are in line with CPS and GPRSP, and focus action on two core pillars¹²: (i) enhancing and diversifying infrastructure for sustainable development; and (ii) strengthening economic governance in the public and private sectors.

Portugal: Portugal is due to strong historic ties the overall largest donor to Cabo Verde. Target countries for Portugal in terms of development are the five Portuguese speaking African countries (Angola, Cabo Verde, Guinea-Bissau, Mozambique, and Sao Tomé and Príncipe) and Timor-Leste. Sector priorities, linked to shared language and legal systems, are¹³: (i) interventions on education, infrastructure and professional training, and social development to support sustainable development and the fight against poverty; and (ii) governance, democracy and participation.

Luxembourg: Cabo Verde is the fifth largest recipient of Luxembourgish gross ODA, whose focus of aid is on the Sub-Saharan region. The Indicative Cooperation Program (ICP) between the two countries outlines the areas of intervention and development cooperation for each program period. The scope of the fourth Program (2016-2020) maintains previous targets of employment and employability support, and water and sanitation support, with the added priority axis of renewable energy support¹⁴.

Spain: consolidating its partnerships to a maximum of 23 countries to deliver aid that is more concentrated to the Latin America and Caribbean region, Spain closed its involvement in Cabo Verde as part of The Master Plan of the Spanish Cooperation 2013-2015¹⁵, despite previously being a part of the BSG¹⁶.

Netherlands: though it used to be amongst the largest donors to Cabo Verde, the Netherlands phased out its development cooperation relationship by the end of 2011 and is now focused on strengthening economic, cultural and political ties.

Brazil: Portuguese speaking African countries (PALOP) are the largest recipients of Brazilian aid, with particular focus on transferring knowledge and equipment in the area of health. Brazil and Cabo Verde formalized their cooperation with the Basic Agreement for Scientific and Technical Cooperation in 1977, and extended the partnership in 1980¹⁷. Projects address the following core areas: (i) government

¹¹ Source: World Bank 2014 – Cabo Verde: World Bank Group Discuss Country's New Partnership Strategy (2015-2017)

¹² Source: African Development Bank 2014 – Cabo Verde Country Strategy Paper 2014-2018

¹³ Source: Instituto Português de Apoio ao Desenvolvimento 2010 – Portuguese Development Cooperation 2005-2010

¹⁴ Source Lux-Development 2016 – Renewable Energy Support Program (Luxembourg in Cabo Verde Renewable Energy Sector)

¹⁵ Source: Spanish Agency for International Development Cooperation 2013 – The Master Plan of the Spanish Cooperation 2013-2016

¹⁶ Source: Spanish Agency for International Development Cooperation

¹⁷ Source: Agência Brasileira de Cooperação – Cabo Verde

regulatory capacity; (ii) local manufacturing capacity, and; (iii) pharmaceutical donations¹⁸. In 2010, Brazil shifted the bulk of investments away from Cabo Verde and to other PALOP countries.

Japan: Japan's second priority region for ODA is Africa. Most assistance is in the form of economic and social infrastructure, with the main priority area in Cabo Verde being water supply development.

China: Africa is the primary recipient of Chinese foreign aid; investment into Cabo Verde is due to stable bilateral relations with since 1976 expected to provide a blueprint for cooperation and investment in the continent. Priority economic sectors are infrastructure, service industries, tourism and real estate¹⁹.

United States: bilateral aid remains limited, with USA-Cabo Verdean involvement centred on military professionalization, counternarcotic efforts, and development projects in line with the Millennium Challenge Corporation²⁰.

Slovenia: bilateral relations between Slovenia and Cabo Verde strengthened through the signing of the Agreement on Development Cooperation between the Government of the Republic of Slovenia and the Government of the Republic of Cape Verde in September 2010. As of end 2017, Slovenia donates exclusively to the health sector; the bulk of financing (1.3 million EUR) is spent on the national telemedicine network (equipment and trainings), while a small portion also goes to financing scholarships of medical students in Slovenia.

3.3. Project context

The rationale for implementing telemedicine and e-health centres in Cabo Verde stems from its geographical features (population of a little over 0.5 million dispersed across an archipelago of 10 islands), coupled with the (former) absence of a medical education system – there has not been an educational institution for medical education or advanced medical training until 2015 – that leads to low number of clinical specialists. Telemedicine, which enables teleconsultations, presents a solution that is of relatively low cost (lower than transporting patients to nearby referential health centres) and high impact to quality of health care in the country.

At the same time, Cabo Verde has a well-developed information and communications technology network (all but three islands are connected with each other with optical cable, whilst all hospitals and health centres have internet access), which is a prerequisite for implementing telemedicine projects.

The purpose of telemedicine projects implemented through Slovene development cooperation is to contribute to further improvement of health care system in Cabo Verde and increase the quality and accessibility of health services through deployment of, and the establishment of a self-sustainable nationwide telemedicine and e-health program. The projects aim to reduce the number of patient transfers (to the main hospital in Praia and abroad) necessary, as well as to provide continuous training and education to doctors, nurses and other medical staff. Both intended results are also expected to reduce costs borne by medical centres, namely costs of transport (of medical staff to trainings and of patients to other centres) and of specialist doctors (thanks to telemedicine, every health centre does not require a specialist in every medical discipline).

¹⁸ Source: Russo et al. 2013 – Brazil-Africa technical cooperation in health: what's its relevance to the post-Busan debate on 'aid effectiveness'?

¹⁹ Source: The Diplomat 2016 – Cape Verde: A Blueprint for China's Positive Role in Africa

²⁰ Source: Congressional Research Service 2017 – Cabo Verde: Background and U.S. Relations

The project was implemented by ITF, in cooperation with International Virtual e-Hospital Foundation (IVeHF). In terms of project financing, the RS contributed 100% of the project cost, which amounted to €1,313,889. In the period of evaluation 2011-2017, the project provider established eleven telemedicine centres in all nine inhabited islands of the country and trained more than 50% of Cabo Verde's medical personnel.

Telemedicine and e-health centres, established with the support of Slovenian development cooperation, are the largest of its kind in Cabo Verde. Other telemedicine projects – much smaller in scope – have been supported by Portugal (namely, telemedicine programme in paediatric cardiology) and India.

4. Programme being evaluated

Programme objectives

The Integrated Telemedicine and E-health Programme in Cabo Verde was designed as a cooperation project to improve the healthcare system of Cabo Verde, and improve the quality of health services. The core objectives of the project were to set-up, operate and establish an organizational framework that will maintain a national telemedicine network, consisting of a number of telemedicine centres, to provide multi-specialty teleconsultations to patients throughout the archipelago, and continuous medical training and education of physicians, nurses and other healthcare professionals (see chapter 3.3).

Programme set-up

The Programme is based on the Agreement formalizing development cooperation between RS and Cabo Verde (see chapter 4.2.1), where healthcare is identified as a target area for cooperation. Joint MFA discussions between the two countries recognised telemedicine as a feasible project with significant positive development outcomes. The Slovenian MFA initially projected for two Programme phases, but extended the Programme financing for the third phase upon reaffirming bilateral relations with Cabo Verde in 2016 (see table 4.1). In addition to providing project funding, the MFA acts as the national coordinator for development cooperation to Cabo Verde; the role includes monitoring, assessment and issue & risk resolution. The Cabo Verdean MFA supported the project by appointing a national coordinator and technical specialists to support and monitor the development, while the Ministry of Health of Cabo Verde was the competent national authority with direct programme involvement.

Table 4.1: Telemedicine and e-health projects in Cabo Verde - RS project financing

Project phase	Year	Funds
Project development ¹	2011	16.392 €
Phase I	2012	648.583 €
Phase II	2013-2014	600.000 €
Phase III (c. 1)	2016	50.000 €
Phase III (c. 2)	2017-2018	100.000 €

¹Needs assessment and preparation of telemedicine project in Cabo Verde

Source: MFA – International Cooperation and Humanitarian Assistance Projects

As the donor, the MFA delegated the implementation of the projects via direct award to ITF, a non-profit organisation with prior experience in managing development programmes (including those funded by the MFA) and established partnerships with experts in the area of telemedicine. ITF contracted telemedicine organization IVeHF to be the main and direct implementer of all project activities, with active involvement by ITF as the project provider.

Programme preparation

The project proposal for the implementation of a three-year telemedicine and e-health programme was developed based on a "needs assessment and fact-finding mission" in 2011 evaluating the current state of healthcare and telecommunication infrastructure in Cabo Verde by ITF and IVeHF²¹. Jointly with the Cabo Verdean Ministry of Health, locations for 10 centres were identified based on distance, access difficulty and number of patients. This led to the telemedicine network structure of two consulting centres in the main

²¹ Source: ITF Final Narrative Report 2011

hospitals Agostinho Neto (HAN) and Baptista Sousa (HBS), and eight referring centres in regional hospitals and healthcare centres (see table 4.2). As part of Phase III of the programme, a new referring centre was added to the network in 2016, and the planning for two additional healthcare centres was completed in 2017²².

Table 4.2: Telemedicine Centres in Cabo Verde

Institution	Implementation	Island	Equipment ¹
Central Hospital Agostinho Neto	2013	Santiago	TC + VC
Central Hospital Baptista Sousa	2013	Sao Vincente	TC + VC
Regional Hospital Ramiro Figueira	2013	Sal	TC + VC
Regional Hospital Francisco de Assis	2013	Fogo	TC + VC
Regional Hospital Santiago Norte	2013	Santiago	VC
Regional Hospital Joao Moraes	2013	Santo Antao	TC + VC
Healthcare Centre Ribeira Brava	2013	Sao Nicolau	TC + VC
Healthcare Centre Sal Rei	2013	Boa Vista	TC + VC
Healthcare Centre Porto Ingles	2013	Maio	TC + VC
Healthcare Centre Porto Novo	2016	Santo Antao	TC
Healthcare Centre Mosteiros ²		Fogo	TC
Healthcare Centre Nova Sintra	2013	Brava	TC + VC
Healthcare Centre Tarrafal de S. Nicolau	2018	Sao Nicolau	TC
Healthcare Centre Santa Cruz	2018	Santiago	TC

¹TC= Teleconsultation Cart, VC= Videoconference system

²Cart moved from Santiago Norte Hospital (Santiago)

Source: ITF 2017

The Ministry of Health of Cabo Verde, via a Memorandum of Understanding (MoU) with ITF committed to providing the physical space and adequate personnel for the centres, as well as securing the availability of reliable internet and intranet (e-government network) connectivity²³.

Programme implementation

Project implementation primarily entails the provision, delivery and installation of telemedicine equipment, as well as training on its use to technical and medical staff. The equipment comprises the following components: tele trauma mobile carts (with integrated modules such as exam cameras, stethoscopes, ultrasound probes, EKGs, etc.), desktop computers and printers, and videoconferencing system elements (televisions and projectors, audio surround system, telepresence software, multi-conferencing unit, etc.).

The telemedicine centres have the following functions and uses: distant medical consultations, electronic patient database, virtual educational programmes, electronic medical libraries, and platforms for continuous medical education and international collaboration. Crucially, the centres are integrated into the national health system and e-government network to ensure ownership.

The procurement of equipment, along with simultaneous technical training of users was subject to an open international tender procedure²⁴ organised by ITF, with IVEHF providing detailed equipment specification lists. The selected tenderer Nove Komunikacijske tehnologije (NKT), acting in consortium with GlobalMed

²² Centres on the island of San Nicolau and Santiago are expected to be integrated into the telemedicine network in early 2018

²³ Connectivity to be established by the National Telecommunications Agency (ANAC) and Operational Nucleus for Information Society (NOSi)

²⁴ Tendering was done on an annual basis, i.e. 2012, 2013, 2016, 2017

and Supra Net Projekt, executed the equipment delivery (teleconsultation carts and videoconference equipment) installation, and training, and offered online support for users.

The second axis of project implementation is the execution of trainings. Technical trainings pertaining to equipment usage were performed in individual centres upon equipment installation by the telemedicine solution provider GlobalMed, while the educational conferences and seminars on telemedicine and e-Health were organized by ITF and IVeHF. This includes educational activities linked to the theoretical and practical applications of telemedicine and e-health (including training of leading personnel in Kosovo), as well as continuous training and education on clinical specialties with identified deficiencies from the international medical community.

Programme monitoring and continuation

The monitoring, evaluation and maintenance of the Programme is primarily carried out by the Ministry of Health of Cabo Verde, and to a lesser extent ITF, thus concentrating the use of donations from Slovenia on establishing the telemedicine network rather than its continuing operation. As per the MoU between ITF and the Ministry of Health of Cabo Verde, the continued operation of the telemedicine network are financed from the national healthcare budget, and the Ministry of Health bears the employee costs of personnel required for the administrative and technical support of the network. The National Centre of Telemedicine (NCT), established by the Ministry of Health, conducts bi-weekly monitoring, mainly intended to check that all equipment is functioning properly and to monitor the usage/frequency of teleconsultations by the medical staff. In most cases, malfunctions are addressed on site (minor issues) or by IT system engineers employed by the NCT, with IVeHF providing online support in-kind. More extensive maintenance, such as replacing screens or cameras, is also the domain of the Cabo Verdean Ministry of Health as the Programme owner.

4.1. Description of methods for data collection and processing

For the evaluation of telemedicine and e-health projects under Slovene development cooperation in Cabo Verde, we used various quantitative and qualitative research methods. Where possible, we verified the results obtained through the first research method (e.g. primary and secondary source analysis) with the use of one or two further methods (e.g. survey, field visit and interview).

As the first step in the evaluation processes we collected and reviewed project documentation and all relevant strategic documents, guidelines, legal acts and implementing regulations. In order to obtain additional information on the project background and rationale, implementation processes, stakeholders involved and detail of product delivered, we carried out an interview with the project provider.

In the preparation of the final report, we carried out on-site evaluation visits and conducted interviews with representatives of two sample telemedicine centres (one of which was the national telemedicine centre, the coordinating body for telemedicine in the country), the local Ministry of Health and Social Security and of the Ministry of Foreign Affairs and Communities in the country. We also prepared a survey for doctors and nurses, through which we intended to familiarise ourselves with the perception of- and attitude towards the telemedicine centres among end users, both in terms of their usefulness and added value, as well as practicality and usability. The evaluator presented the results of the field trip and interviews to the MFA (see detailed plan in Annex A.4).

The evaluator prepared the final evaluation report using the outcomes of the field visit, interviews with project provider and MFA in Slovenia, survey results and documentation.

Table 4.3: Identification of methods, potential problems in execution and proposed solutions

Method	Description of method	Possible problems in the execution of methods and proposals for solutions
<i>Analysis of primary and secondary resources</i>	The scope of the analysis are legal acts, implementing regulations, strategic documents, and guidelines that provide the basis for development cooperation implementation in Cabo Verde. The method is useful primarily for reviewing the intervention logic. Secondary sources will also include reports on Cabo Verde, on Cabo Verdean health and telemedicine landscape, on other countries in the region, as well as websites of other donors in Cabo Verde. These are primarily used for context analysis (political, donor) and for the assessment on whether to extend the programme into other Sub-Saharan countries.	<i>Problem:</i> cannot always provide enough details to prepare a substantiated opinion. <i>Solution:</i> use of additional methods, e.g. interviews with key stakeholders in planning and implementation of telemedicine projects (see below)
<i>Analysis of project documentation</i>	This involves a review of data on project implementation as prepared by the contracting authority and the project provider for the purpose of the evaluation. Data is organised with respect to the indicators defined in the methodological framework (see chapter 4.3) and used to calculate shares and ratios and, where relevant, for descriptive analyses. The method is useful primarily for reviewing the telemedicine and e-health project description (objectives, strategies, stakeholders, resources) and calculating project indicators.	<i>Problem:</i> insufficient data or poor data structure. <i>Solution:</i> use of additional methods, e.g. interviews with project provider and the contracting authority (MFA RS).
<i>Interview</i>	<p>The interview is a research procedure in which the researcher (evaluator) obtains data on the subject of research through a conversation with an interviewee. An interview may be structured (takes place according to a pre-set order of questions) or semi-structured (the evaluator allows the interviewee to a minor extent to depart thematically from the questions posed). Where the interview is perfectly structured, it can be carried out via telephone or email.</p> <p>The key stakeholders that were interviewed for this evaluation are: Slovenian MFA and project provider ITF as well as Cabo Verdean MFA, Cabo Verdean Ministry of Health, representatives of national telemedicine centre in Cabo Verde, and representatives of sample telemedicine centre in Sal (during the on-site evaluation visit).</p>	<p><i>Problem:</i> lack of willingness to cooperate. <i>Solution:</i> organisation of interviews in cooperation with the contracting authority.</p> <p><i>Problem:</i> loss of focus during the discussion. <i>Solution:</i> well prepared examiner.</p>

On-site evaluation visit	<p>This method is particularly useful when evaluating the results of infrastructural projects or otherwise tangible projects (e.g. purchase of equipment, machinery, execution of investments, etc.), where it makes sense to check the situation on site in the recipient country. The method includes an analysis of the execution of a project (e.g. whether infrastructure has gained an operating permit and has served its original purpose), interviews with representative end users of projects (doctors, nurses and technicians) and interviews with political stakeholders (Cabo Verdean MFA and Ministry of Health).</p>	<p><i>Problem:</i> lack of willingness to cooperate by recipients or local partners, language barriers. <i>Solution:</i> organisation of interviews in cooperation with the contracting authority and project provider, presence of local interpreter.</p>
Survey	<p>A survey is a research instrument used to integrate, collect and analyse statements by individuals in order to gain insight into their opinion and behaviour on a certain topic. A survey may be conducted on site (i.e. in direct contact with interviewees), by mail or online, whereby the last method is the most favourable in terms of resources and costs.</p> <p>In addition to questions of satisfaction, equipment usability, etc. (see Annex A.2), respondents were asked to complete some demographic questions, namely gender, employment and work location. The results of the survey can thus be divided by gender, which allows the evaluator to compare frequency of use, ease of use and satisfaction between male and female doctors.</p>	<p><i>Problem:</i> access to interviewees involved in the project, low response rate to online surveys, language barriers. <i>Solution:</i> preparation of address lists for interviewees in cooperation with the National telemedicine centre, translation of survey into Portuguese.</p>

4.2. Analysis of the intervention logic

The methodological framework for the evaluation is based on OECD rules and standards in development cooperation as well as European Commission Project Cycle Management Guidelines in international development cooperation projects²⁵. The latter upgrade OECD guidelines with a Logframe approach (LFA), which is a tool used to compare project achievements with the objectives set. As a principle of good practice, the LFA is used for all phases of project cycle management, i.e. not only evaluation, but also planning and implementation. A well-defined LFA provides a framework for evaluation as it clearly lays down the purpose and results of a programme or project, the tools for their evaluation (indicators and assessment methods) and the key implementation assumptions.

²⁵ Source: EC 2004 – Aid Delivery Methods, Project Cycle Management Guidelines

The LFA matrix, the outcome of an LFA approach to project planning, defines the general objective of a development cooperation programme or policy, the purpose of a programme and specific objectives that are indirectly related with project activities (see Figure 4.1). Necessary for the achievement of outcomes are inputs – that is, the human, financial and other resources utilised for the implementation of projects.

Each type of objective from the most concrete (activities) to the most general (overall objective) corresponds to a certain level of outcome. With activities we expect to achieve outputs (number of people trained, for instance), specific goals are expected to lead to results (increased knowledge or awareness of training participants in a certain area), whilst the purpose and overall objective ought to lead to impacts (e.g. changes in access to services). Evaluation criteria are used to determine the extent of success at each level of outcome: with relevance we establish whether the inputs we employed reflected the problems or needs (of the final beneficiaries, of the direct beneficiary, of the donating country and institution, etc.); through efficiency we find if the inputs were used to implement activities in an economical manner; the effectiveness tells us to what extent the project's specific objectives were achieved, while through impact we find if the purpose and overall objective were attained. Finally, sustainability concerns all levels of the LFA matrix. The relationship between the LFA matrix and the evaluation criteria is shown in Figure 4.2.

In the context of the evaluation of telemedicine and e-health projects implemented through Slovene development cooperation in Cabo Verde, we will evaluate:

- The *relevance* of project content to needs of recipient country and Slovenian foreign policy and strategy in the area of international development cooperation;
- The *effectiveness* of activities in achieving desired results;
- The *efficiency* with which the inputs were used to implement activities and achieve outputs;
- The *impact* of achieved outputs and results (namely, accessibility and quality of health);
- The *sustainability* of project outputs, results and impacts;
- The *Slovenian added value* to observed changes and implications for Slovenian international development cooperation (*outside of the LFA matrix*).

Figure 4.1: LFA matrix for development cooperation

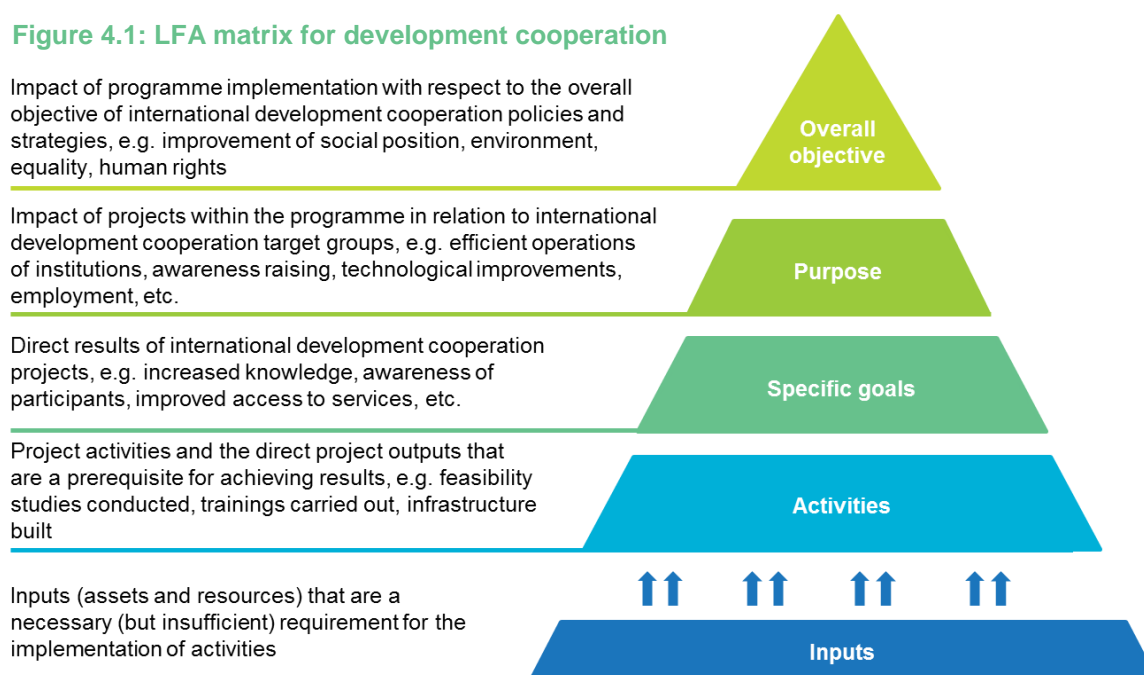
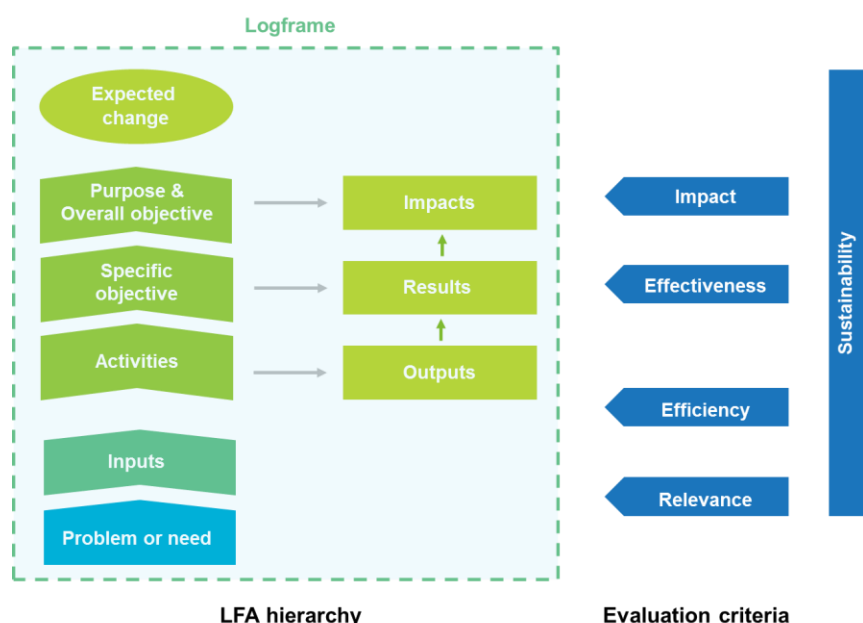


Figure 4.2: Integration of LFA matrix and basic OECD evaluation criteria



4.2.1. Internal coherence

The strategic document that regulates Slovenia's development assistance to Cabo Verde is the Agreement on development cooperation between the Government of the Republic of Slovenia and the Government of the Republic of Cape Verde.

The Agreement (Article 1) defines eight target areas of development cooperation between the Republic of Slovenia and the Republic of Cabo Verde:

- Enhancing good governance, the rule of law and social services;
- Fostering sustainable economic development;
- Environmental protection;
- Health;
- Support for education and the granting of scholarships;
- Empowerment of women;
- Promotion of cooperation of local self-governments;
- Promotion of cooperation between non-governmental organisations.

The Agreement indicates the purpose of development cooperation to be primarily the economic development of Cabo Verde, and the country's attainment of development goals (economic as well as social) with the support of other donors. However, the Agreement is rather broad, and we find that it fails to indicate a more focused objective of development assistance (e.g. improved welfare and standard of living of Cabo Verdean citizens); it also does not identify target areas of development cooperation that are to be prioritized. The eight target areas are defined in a way that the Agreement scope extends to all aspects of economic and social development, either explicitly or implicitly.

Considering the LFA methodology and evaluation criteria, the Agreement defines the financial source but fails to define activities (projects) and specific objectives or expected results, nor is this covered in any other basic document regulating development cooperation between Slovenia and Cabo Verde (such as, for instance, a programme or action plan). Hence, we find that there is no suitable framework from which a

logical life cycle of action pertaining to the Agreement can be inferred, presenting a significant deficiency for evaluating and monitoring results in terms of achievement of set objectives.

We conclude that there is coherence between the projects implemented and the above-mentioned strategic document that regulates development cooperation between Cabo Verde and Slovenia. The implemented projects of development cooperation of Slovenia fall into the health and supporting education categories. Nevertheless, we note that because of the wide range of aspects of economic and social development the Agreement pursues, most remain unaddressed by current bilateral development cooperation between RS and Cabo Verde. We would also like to raise awareness to the fact that by LFA methodology, a key document that would outline specific objectives (e.g. “strengthening access to health care through advanced technology”) and planned results is missing.

4.2.2. External coherence

External coherence is considered to be the alignment between the Agreement regulating Slovenia’s development cooperation with Cabo Verde and external guidelines, strategies and laws. The analysis below includes two strategic documents that were adopted before the Agreement (2012); it is followed by a review of three strategic documents adopted after 2012.

From the side of the recipient of development aid (recipient country), the assessment includes the National Development Plan of Cabo Verde and the Growth and Poverty Reduction Strategy Paper (GPRSP).

International Development Cooperation Act (adopted 2006)

The objectives of international development cooperation defined in the Act (Article 3)²⁶, largely coincide with the United Nations (UN) Millennium Development Goals (MDGs) and are in line with development priorities of Cabo Verde, however there is incoherence with some objectives, which are aimed at Least Developed Countries (e.g. ensuring peace and human security, reduction of neonatal and maternal deaths).

While both address political, social and economic development, objectives of the Agreement are much broader and hence it is difficult to establish coherence with the Act. For instance, the target area of ‘health’ does not necessarily refer to the specific Act objective of “fighting against HIV/AIDS, malaria and other diseases, as well as reduction of neonatal and maternal death rates”.

Resolution on International Development Cooperation (adopted 2008)

In addition to priority areas and core objectives correspondent to the Act, the Resolution (2008-2015) also defines criteria for the selection of substantive/thematic priorities. These factors, in addition to development strategies of recipient countries, include²⁷:

- guidelines by the European Commission, UN and other international organisations, as well as other international agreements and standards (e.g., development of good governance and improvement of institutional capacities, adaptation to climate change, regional cooperation and integration, development of traffic infrastructure, organic farming and provision of adequate food supply);
- positive experiences gained through previous projects;
- bilateral agreements [...] specifying the focus of bilateral cooperation.

²⁶ Source: Official Gazette of the Republic of Slovenia, 2006 – International Development Cooperation of the Republic of Slovenia Act

²⁷ Source: Official Gazette of the Republic of Slovenia, 2008 – Resolution on International Development Cooperation of the Republic of Slovenia

Guidelines of international organisations and strategies of the Republic of Slovenia have largely been taken into account in the objectives of the Agreement, specifically relying on OECD Development Assistance committee guidelines and the Special Partnership between the EU and Cabo Verde. A gap in coherence with general EU guidelines may be found in the Agreement's focus on education and omission of traffic infrastructure development, agriculture and food supply; however, it is not identified as a threat to external coherence.

The Resolution defines priority geographic areas to be European neighbouring countries, Western Balkans and Sub-Saharan Africa, concentrating on least developed countries. Hence, the selection of Cabo Verde is not perfectly coherent, given the level of Cabo Verdean development vis-à-vis the region and its status as a Middle Income Country.

On September 26 2017, a new Resolution came into force – the Resolution on International Development Cooperation and Humanitarian Aid.

Declaration of Foreign Policy of the Republic of Slovenia (adopted July 2015)

The Declaration specifies ten priority areas that Slovenia's foreign policy focuses on, the following three of which are also included in the objectives of development cooperation between the Republic of Slovenia and Cabo Verde as laid down in the Agreement²⁸:

- international economic, cultural, scientific and educational cooperation;
- actively championing the rights of children, women, national minorities and the most vulnerable groups;
- climate change and environmental protection.

However, not all objectives of the Agreement are covered within the scope of these three priority areas (e.g. enhancing good governance, no mention of health, promotion of cooperation between local self-governments and NGOs).

Strategy of Foreign Policy of the Republic of Slovenia (adopted 2015)

As an African country, Cabo Verde is farther afield in terms of strategic importance for foreign policy. The strategy highlights the need to intensify development cooperation in Sub-Saharan Africa in both the medium and long term, and build and strengthen diplomatic ties²⁹. We find that development cooperation with Cabo Verde is in line with Slovenia's foreign policy objectives for the African continent. However, we note that the Strategy does not define priority areas for cooperation and hence coherence of each individual development cooperation activity cannot be fully evaluated.

Framework of cooperation between Slovenia and Sub-Saharan Africa 2017-2021

In December 2017, the MFA approved the Framework of cooperation between Slovenia and Sub-Saharan Africa, defining steps to strengthen relations at both the regional and country-specific level³⁰. The paper lays down three thematic priorities for development cooperation, namely: peace and security, governance and human rights, and the environment and climate change. Specifically for Cabo Verde, the Framework identifies environmental issues (water, forests) as a potential area of cooperation, where Slovenia could transfer existing knowledge and experience. The horizontal goals of Slovene development cooperation which were introduced in 2016 (gender equality, human rights based approach and environmental protection) are well incorporated into the Framework; on the other hand, an explicit objective in the area of

²⁸ Source: Official Gazette of the Republic of Slovenia, 2015 – Declaration of Foreign Policy of the Republic of Slovenia

²⁹ Source: MFA 2015 – Slovenia: Safe, Successful, Globally Respected

³⁰ Source: MFA 2017 – Slovenija in Podsaharska Afrika- s kom in kako dalje (2017 – 2021)

health care cannot be detected (it may be categorised as one of the fundamental infrastructure sectors, though it is not explicitly named).

Cabo Verde: Growth and Poverty Reduction Strategy Paper II (adopted 2008)

The GPRSP is the Government's medium-term development strategy outlining sector development policies and strategies, aligned with the MDGs. The second paper outlined the following strategic domains for the four-year term between 2008 and 2011³¹:

- I. good governance reforms;
- II. human capital development (in terms of alignment with market needs and quality);
- III. fostering competitiveness;
- IV. construction and improvement of infrastructure;
- V. guaranteeing social cohesion.

These domains were identified based on persistent weaknesses, such as costly basic services (telecommunications, water, transport, energy), the need to improve education and professional training to better align with labour market needs, and administrative bottlenecks and persistent system weaknesses stemming from underdevelopment. The paper addresses most of the targets identified by the Agreement, however notably omits health, and only addresses environmental protection in relation to infrastructure. While the second strategic pillar of the paper (human capital) addresses education and training, it fails to specify a strategy for the health sector³², thus a key non-compliance with the core project area of Slovenian development cooperation with Cabo Verde (coherence is greater with national strategic documents in the area of health – see answer to evaluation question 1.2).

Cabo Verde: Growth and Poverty Reduction Strategy Paper III

The GPRSP III, for the period 2012 to 2016, incorporated the Government's Program for the eighth legislature and the agenda for economic change to create a strategy focused on developing a strong, diversified economy. Similarly to the preceding Paper (GPRSP II), the GPRSP III is the Government's commitment to promoting sustained economic growth and development, and to contributing to the reduction of poverty and inequality. The five axes for intervention outlined in GPRSP III are³³:

- I. infrastructure;
- II. human capital development;
- III. support to the private sector;
- IV. good governance;
- V. development of global partnerships.

Gender and environmental issues are stated as cross-cutting objectives along all five axes, but are not explicitly referenced in the strategy. The objective of the paper is to combat poverty by developing a competitive economy that is integrated in the international market, specifying seven priority clusters to accelerate growth and shared prosperity, specifically: tourism, agri-business, air transportation, maritime economy (including transport and fisheries, financial services, information and communications technology, and the creative economy (e.g. local cultural products and services). In terms of coherence, there appears to be diverging focus, with the Agreement focusing most target areas on the public sector and social welfare, while the GPRSP III prioritizes the development of a competitive private sector and economy. We find that

³¹ Source: MF 2010 – Global Report on the Progress of Execution of the Growth and Poverty Reduction Strategy (GPRSP II)

³² IMF Country Report (2010) found that there was not sufficient strategic emphasis on healthcare to achieve health MDGs. Identified areas requiring special attention were obstetric and childcare, as well as improving access to healthcare (improving infrastructure in remote rural areas).

³³ Source: MF 2012 –Growth and Poverty Reduction Strategy III (2012-2016)

the incoherence stems from the GPRSP III focus on Cabo Verdean economic development, and reduced emphasis on areas of social development.

4.3. Evaluation matrix

Below is a presentation of the evaluation matrix showing evaluation criteria, questions and therewith related indicators and information sources. A detailed methodological framework that includes a description of each indicator is provided in Annex A.2.

Table 4.4: Evaluation matrix

Criteria	Evaluation questions related to each criteria	Indicators for questions for each criteria	Methods for collecting information and data source (in brackets)
	<i>1. To what extent are the objectives of the project harmonised with the requirements of the beneficiaries, the needs of the state, global priorities and the policies of partners and Slovenia itself?</i>	Summary of evaluation questions 1.1-1.4	All methods listed for questions 1.1-1.4
1. Relevance	<i>1.1. What is the significance of projects for end users and to what extent do they meet their needs and interest?</i>	<ul style="list-style-type: none"> ▪ K1.1.1 – Level of satisfaction with projects from the side of end users ▪ K1.1.2 - Level of alignment of projects with needs of end users 	<ul style="list-style-type: none"> ▪ Survey (end users – doctors and nurses)
	<i>1.2 Are the objectives and outputs of the projects in line with Cabo Verdean policies and strategies in the field of medicine? Are they in line with the requirements of local communities? Are there any similar projects by other donors?</i>	<ul style="list-style-type: none"> ▪ K1.2.1 – Level of coherence between objectives and outputs of the projects and Cabo Verdean policies and strategies in the field of medicine ▪ K1.2.2 – Level of coherence in the understanding of Cabo Verdean needs in the field of medicine between the Slovenian MFA and Cabo Verdean MFA ▪ K1.2.3 – Level of complementarity between Slovenian development cooperation in Cabo Verde and that of other donors 	<ul style="list-style-type: none"> ▪ Analysis of secondary resources ▪ Analysis of project documentation ▪ Interview (representatives of MFA) ▪ Field visit interview (representatives of Cabo Verdean MFA and Ministry of Health)
	<i>1.3. Are the objectives and outputs of the projects in line with Slovenia's international</i>	<ul style="list-style-type: none"> ▪ K1.3.1 – Level of coherence between the objectives and outputs of the projects with 	<ul style="list-style-type: none"> ▪ Analysis of project documentation

	<p><i>development cooperation (ending poverty, reducing inequalities and achieving sustainable development, thematic and geographical priorities, the principles of international development cooperation, cross-cutting objectives)?</i></p>	<p>Slovenia's international development cooperation</p> <ul style="list-style-type: none"> ▪ K1.3.2 – Level of coherence in the understanding of Slovenia's development cooperation priorities between project provider and Slovene MFA 	<ul style="list-style-type: none"> ▪ Analysis of secondary resources ▪ Interview (representatives of MFA, project provider)
	<p><i>1.4. How are the development cooperation principles applied:</i></p> <ul style="list-style-type: none"> • <i>To what extent has the principle of international development cooperation ownership been taken into account by the Republic of Slovenia?</i> • <i>To what extent has the principle of international development cooperation inclusive partnership been taken into account by the Republic of Slovenia?</i> • <i>To what extent has the principle of transparency and mutual responsibility been taken into account?</i> 	<ul style="list-style-type: none"> ▪ K1.4.1 – Level of incorporation of ownership into project approach, implementation and outputs ▪ K1.4.2 – Level of incorporation of partnership into project approach, implementation and outputs ▪ K1.4.3 – Level of incorporation of transparency and mutual responsibility into project approach, implementation and outputs 	<ul style="list-style-type: none"> ▪ Analysis of project documentation ▪ Interview (representatives of MFA, project provider) ▪ Field visit interview (representatives of Cabo Verdean MFA and Ministry of Health, representatives of sample health centres) ▪ Survey (end users – doctors and nurses)
2. Effectiveness	<p><i>2. To what extent have the project activities reached, or will reach, the objectives of the projects?</i></p>	<p>Summary of answers to evaluation questions 2.1-2.2.</p>	<p>All methods listed for questions 2.1-2.2</p>
	<p><i>2.1. To what extent have the objectives of the projects been, or will be, achieved? To what extent have the target groups been, or will be, reached?</i></p>	<p>Output:</p> <ul style="list-style-type: none"> ▪ K2.1.1 – Number of established telemedicine and e-health centres ▪ K2.1.2 – Number of medical staff using telemedicine and e-health equipment 	<ul style="list-style-type: none"> ▪ Analysis of secondary sources ▪ Analysis of project documentation ▪ Interview (representatives of MFA, project provider) ▪ Field visit interview (representatives of Cabo

		<ul style="list-style-type: none"> ▪ K2.1.3 – Number of teleconsultations conducted (number of patients benefiting from the project) ▪ K2.1.4 – Number of video conferences conducted, by type ▪ K2.1.5 – Number of medical staff trained for the use of telemedicine and e-health equipment ▪ K2.1.6 – Number of workshops and/or trainings conducted for the use of telemedicine and e-health equipment ▪ K2.1.7 – Branches of medicine benefiting most from e-health and telemedicine centres by rank <p>Result:</p> <ul style="list-style-type: none"> ▪ K2.1.8 – Share of health centres owning telemedicine and e-health equipment ▪ K2.1.9 – Share of medical staff trained to use new equipment ▪ K2.1.10 – Share of patients benefiting from the use of telemedicine and e-health equipment 	<p>Verdean MFA and Ministry of Health, representatives of sample health centres)</p> <ul style="list-style-type: none"> ▪ Survey (end users – doctors and nurses)
	<p><i>2.2. Which are the main factors impacting the (non)fulfilment of the objectives (strengths and weaknesses to be stated)?</i></p>	<ul style="list-style-type: none"> ▪ K2.2.1 – Factors hindering fulfilment of project objectives ▪ K2.2.2. – Factors facilitating the fulfilment of project objectives 	<ul style="list-style-type: none"> ▪ Interview (representatives of MFA, project provider) ▪ Field visit interview (representatives of Cabo Verdean MFA and Ministry of Health, representatives of sample health centres)
<p>3. Efficiency</p>	<p><i>3. How efficiently have the available resources been used to carry out various activities aimed at achieving the planned results in terms of quantity, quality and time?</i></p>	<p>Summary of answers to evaluation questions 3.1-3.3</p>	<p>All methods listed for questions 3.1-3.3</p>

	<p><i>3.1 How efficiently have the available resources been used to carry out various activities aimed at achieving the planned results in terms of quantity, quality and time? Do the outputs justify project expenditure?</i></p>	<ul style="list-style-type: none"> ▪ K3.1.1 – Project cost, per component ▪ K3.1.2 – Share of expenditure for project management ▪ K3.1.3 – Average expenditure per end user ▪ K3.1.4 – Average expenditure per patient ▪ K3.1.5 – Deviation from project timeline (timeliness of project completion) ▪ K3.1.6 – Deviation from project budget ▪ K3.1.7 – Level of satisfaction of end users with efficiency of execution ▪ K3.1.8 – Level of satisfaction of end users with quality of execution ▪ K3.1.9 – Frequency of equipment malfunction 	<ul style="list-style-type: none"> ▪ Analysis of secondary sources ▪ Analysis of project documentation ▪ Interview (representatives of MFA, project provider) ▪ Survey (end users – doctors and nurses) ▪ Field visit interview (representatives of Cabo Verdean MFA and Ministry of Health, representatives of sample health centre)
	<p><i>3.2. Could there have been any less costly solutions/alternatives for the establishment of telemedicine centres and/or technical solutions that would ensure the sustainable fulfilment of objectives?</i></p>	<ul style="list-style-type: none"> ▪ K3.2.1 – Deviation from best practice cost of e-health and telemedicine solutions 	<ul style="list-style-type: none"> ▪ Input from team health expert ▪ Analysis of secondary sources
	<p><i>3.3. Have the services, the capacities created and the potential been appropriately used?</i></p>	<ul style="list-style-type: none"> ▪ K3.3.1 – Frequency of use of e-health and telemedicine equipment ▪ K3.3.2 – Familiarity of end users with equipment use 	<ul style="list-style-type: none"> ▪ Interview (project provider) ▪ Field visit interview (representatives of sample health centres) ▪ Survey (end users – doctors and nurses)
<p>4. Impact</p>	<p><i>4. To what extent have the main objectives of the project been achieved, namely the targeted user impact? What have been the positive/negative, direct/indirect, intentional/non-intentional, primary/secondary effects?</i></p>	<p>Summary of answers to evaluation questions 4.1-4.2</p>	<p>All methods listed for questions 4.1-4.2</p>

	<p><i>4.1. Taking into account the most recent needs/requirements and knowledge standards, to what extent are the achieved overriding effects appropriate? In which aspects have the projects improved health care? Do they still contribute to, e.g. better accessibility of health care on individual islands? What are other effects, including negative ones?</i></p>	<ul style="list-style-type: none"> ▪ K4.1.1 – Extent of improvement of quality of health care to be attributed to e-health and telemedicine projects ▪ K4.1.2 – Extent of improvement of access to health care, and in particular equality in access, to be attributed to e-health and telemedicine projects ▪ K4.1.3 – Number of new jobs as a direct result of e-health and telemedicine projects ▪ K4.1.4 – Contribution of e-health and telemedicine projects to capacity building and digital literacy of end users ▪ K4.1.5 – Negative effects of e-health and telemedicine projects ▪ K4.1.6 - Impact of telemedicine projects on household budget 	<ul style="list-style-type: none"> ▪ Interview (representatives of MFA, project provider) ▪ Field visit interview (representatives of Cabo Verdean MFA and Ministry of Health, representatives of sample health centres)
	<p><i>4.2. Do the projects integrate the human rights based approach and contribute to gender equality and environmental protection? If so, how?</i></p>	<ul style="list-style-type: none"> ▪ K4.2.1 – Contribution of projects to gender equality ▪ K4.2.2 – Contribution of projects to environmental protection ▪ K4.2.3 – Integration of human rights-based approach 	<ul style="list-style-type: none"> ▪ Interview (representatives of MFA, project provider) ▪ Field visit interview (representatives of Cabo Verdean MFA and Ministry of Health, representatives of sample health centres)
	<p>5. Sustainability</p> <p><i>5. To what extent do positive effects of the projects continue once the financing of the majority of the international development cooperation activities has been concluded? How does the environmental and economic sustainability of the projects show?</i></p>	<p>Summary of answers to evaluation questions 5.1-5.2</p>	<p>All methods listed for questions 5.1-5.2</p>
	<p><i>5.1. What risks and opportunities can be observed with regard to sustainable effectiveness of the</i></p>	<ul style="list-style-type: none"> ▪ K5.1.1 – Number and strength of mechanisms put in place to ensure sustainability of results 	<ul style="list-style-type: none"> ▪ Analysis of project documentation

	<i>projects? How likely are they to occur? According to forecasts, will the effectiveness of the projects improve or decrease in the future?</i>	<ul style="list-style-type: none"> ▪ K5.1.2 – Effectiveness of mechanisms put in place to ensure sustainability of results ▪ K5.1.3 – Existence of other (unplanned or unforeseen) factors strengthening or inhibiting sustainability ▪ K5.1.4 – Likelihood of improvement or deterioration of effectiveness of the projects in the future 	<ul style="list-style-type: none"> ▪ Interview (representatives of MFA, project provider) ▪ Field visit interview (representatives of Cabo Verdean MFA and Ministry of Health, representatives of sample health centres) ▪ Survey (end users – doctors and nurses)
	<i>5.2. In terms of financing, human resources and overall organisation, to what extent are the health centres capable and prepared to maintain the positive effect of the projects, without any long-term support?</i>	<ul style="list-style-type: none"> ▪ K5.2.1 – Annual cost of maintaining e-health and telemedicine equipment to the health centre ▪ K5.2.2 – Number of people dedicated to the organisation and functioning of e-health and telemedicine centres across Cabo Verde ▪ K5.2.3 – Assessment of stakeholders on the ability of health centres to continue sustaining e-health and telemedicine centres and the achievement of their objectives ▪ K5.2.4 - Assessment of stakeholders on the ability of e-health and telemedicine centres to sustain any improvements in gender equality and environmental protection 	<ul style="list-style-type: none"> ▪ Analysis of project documentation ▪ Analysis of secondary sources ▪ Interview (project provider) ▪ Field visit interview (representatives of Cabo Verdean MFA and Ministry of Health, representatives of national telemedicine centre)
6. Slovenian added value	<i>6.1. What is the added value of Slovenia's engagement and to what extent does the implementation of such projects impact the strengthening of (political, economic, research etc.) relations between the two countries?</i>	<ul style="list-style-type: none"> ▪ K6.1.1 – Assessment of the added value of Slovenia's development cooperation with Cabo Verde ▪ K6.1.2 – Assessment of the special features of Slovenia's development cooperation with Cabo Verde 	<ul style="list-style-type: none"> ▪ Analysis of secondary sources ▪ Interview (representatives of MFA, project provider) ▪ Field visit interview (representatives of Cabo Verdean MFA and Ministry of Health, representatives of sample health centre)
	<i>6.2. What are possible other areas of cooperation pursuant to the Agreement, taking into account the existing development</i>	<ul style="list-style-type: none"> ▪ K6.2.1 – Optimal development cooperation thematic area between Slovenia and Cabo Verde 	<ul style="list-style-type: none"> ▪ Analysis of primary sources ▪ Analysis of secondary sources ▪ Interview (representatives of MFA, project provider)

	<i>needs of Cabo Verde and the orientations of Slovenian development cooperation?</i>		<ul style="list-style-type: none"> ▪ Field visit interview (representatives of Cabo Verdean MFA)
	<i>6.3. From Slovenia's point of view, would it be reasonable to extend the projects to other countries in Africa?</i>	<ul style="list-style-type: none"> ▪ K6.3.1 – Assessment on whether to extend telemedicine projects to other African countries 	<ul style="list-style-type: none"> ▪ Analysis of secondary sources ▪ Analysis of primary documentation

5. Findings and conclusions (answers to evaluation questions)

Evaluation criterion 1: Relevance

Evaluation question 1: To what extent are the objectives of the project harmonised with the requirements of the beneficiaries, the needs of the state, global priorities and the policies of partners and Slovenia itself?

We find the telemedicine program to be fully in line with the national priorities of Cabo Verde, as both political leaders and medical professionals are very satisfied with the establishment of the national telemedicine programme. The high priority of the project on the national agenda translated into ownership of the program by all key stakeholders. The telemedicine network is integrated into the healthcare system of Cabo Verde, and the country committed to the project as demonstrated by the financing of the national (coordinating) telemedicine centre, the provision of adequate space for videoconferences in all telemedicine centre locations, and employment of two full time administrators for telemedicine.

The Resolution outlines a number of thematic priorities of Slovene development cooperation, as guided by international obligations. Telemedicine projects follow one of the nine objectives – good governance and institution building – indirectly, though it is not their primary purpose. Their main objective of improving quality of healthcare and reducing associated costs, on the other hand, is not listed as a priority in the Resolution. Healthcare is more explicitly outlined in the Act, but with a focus on “AIDS and other diseases affecting less developed countries”, whilst the provision of telemedicine services is geared towards specialist clinical branches. Telemedicine projects are therefore found to be poorly aligned with strategic documents in the area of development cooperation policy of RS. The projects also do not contribute sufficiently to achieving cross-cutting objectives, as they only implicitly apply or rather permit for the possibility of reducing poverty, gender inequality and achieving sustainable development; cross-cutting objectives were, however, not yet defined in the strategic documents adopted before the project start.

Evaluation question 1.1: What is the significance of projects for end users and to what extent they meet their needs and interest?

The significance of projects for end users, that is medical professionals such as doctors, nurses and technical staff, is that the provision of telemedicine tools grants them the ability to provide clinical health care from a distance and offers them access to highly specialized clinical trainings and advanced medical libraries.

The conducted survey of medical professionals revealed a high level of satisfaction with the telemedicine and e-health network. Overall, 97% of respondents were satisfied with the introduction of telemedicine centres (39% of these very satisfied and 58% satisfied), whilst only 3% were not very satisfied. The largest share of dissatisfaction is in relation to the electronic library (4% not at all satisfied, 15% not very satisfied), while the highest satisfaction was with videoconference capabilities (70% satisfied, 26% very satisfied). The teleconsultation component was identified as satisfactory, with 26% respondents very satisfied and 63% satisfied.

On the basis of these results, the evaluator deems the level of satisfaction with projects from the side of end users to be strongly positive, as certain elements which are outside the scope of the projects, such as internet connectivity issues, were found to be influencing factors on the overall project perception.

The survey confirmed that the projects were very highly aligned with the needs of the Cabo Verdean healthcare system. Telemedicine centres were deemed very necessary by 81% of respondents and necessary by the remaining 19%. Specific project elements were also confirmed to correspond highly with

the needs and interest of medical professionals, with videoconferencing capabilities assessed as very necessary by 76% of respondents, and teleconsultations by 56% (the remaining respondents deemed these as necessary). The electronic medical library was the only project element where a share of respondents (4%) thought that it was not a necessary component of telemedicine, however given that 60% of medical professionals classified the e-library as very necessary this does not threaten the high level of project alignment with needs of end users but rather reflects personal preferences.

Overall, 69% of medical professionals claimed that the established telemedicine centres correspond perfectly to the needs of the Cabo Verdean health system, 22% claimed they somewhat correspond to needs, and 9% claimed they do not correspond to needs at all. The later response is associated with the fact that the provided telemedicine equipment does not support certain medical specialties such as ophthalmology and otorhinolaryngology, despite there being an identifiable need for these specialties to be more accessible to patients throughout the archipelago. These clinical specialties require additional components for telemedicine carts, the cost of which was beyond the available funds for the projects.

Thus, through the survey, the evaluator established that the telemedicine projects had a profound impact on the medical community in Cabo Verde, as the project was designed with a high level of consideration of the wants and needs of doctors and nurses within the realm of available project financing³⁴.

Evaluation question 1.2: Are the objectives and outputs of the projects in line with Cabo Verdean policies and strategies in the field of medicine? Are they in line with the requirements of local communities? Are there any similar projects by other donors?

The two components of the telemedicine programme in Cabo Verde are to create an infrastructure for telemedicine and e-health, and at the same time create a new cadre of leadership of physicians, nurses and other healthcare professionals. As per the project design, the primary objective is to reduce cost of health care through reducing the number of unnecessary patient transfers and providing remote medical education.

The expected project outputs were the following: the establishment of a sustainable telemedicine network; training and education of personnel from hospitals, Ministry of Health and other institutions to create human capacity leadership and ensure sustainability; workshops and seminars for continuous telemedicine education; establishment of virtual education program series; establishment of electronic medical library, establishment of electronic publication of educational modules; and trainings and phasing of practices through workshops by experts in various medical disciplines.

The Cabo Verdean National Health Development Plan 2008-2011 is divided into eight so-called programmes (aspects of national health), one of which includes improving technology resources as complementary to diagnostics and treatment. The eight programmes are: provision of health services (broad programme with 26 components); promotion of health; development of human resources; improving health infrastructure; sustainability of financing; pharmacy development; strengthening of health information system and research in health; and development of the institutional framework. Objectives thus range from improving health care for population groups most exposed to risk factors, strengthening public-private

³⁴ The survey was conducted online and was distributed to medical professionals via a shared link. In total, 153 persons accessed the survey, of which only 28 completed the full survey while an additional 14 submitted partial responses. The statistical significance of this survey is thus limited due to the small sample size; however, the high non-response rate could be interpreted as a lack of engagement and consequently satisfaction by the end users.

partnerships in health, to preparing responses to possible epidemics and ensuring an adequate legal framework.

Rather than presenting a national health priority, telemedicine thus represented one of the means of achieving other objectives set out in the national health plan, including strengthening human resources and ensuring sustainability of financing³⁵.

In contrast to national strategic documents, both ministries consider telemedicine to be the priority in the field of medicine. The main reason for its fundamental importance to public health cited is lower need for transfer of patients between islands thanks to remote diagnostics, and corresponding improvement to quality of healthcare and reduction of costs borne by the national health budget. Another source of lower costs are the video conferencing centres, through which doctors and nurses can participate in trainings, conferences and consultations remotely, with little need to travel between islands or abroad.

A slight discrepancy could thus be observed between the level of importance of telemedicine as highlighted by key political stakeholders interviewed (Minister of Foreign Affairs, Minister of Health) and as defined in national strategic documents. The reason most probably quite simply lies in the desire for Slovenia to keep funding the programme.

The largest donor to the health sector in Cabo Verde between 2011 and 2017 was Portugal, with other donors to the sector including Brazil, Luxembourg, Cuba and Slovenia. Slovenia is the only donor to the national telemedicine programme, with other countries financing equipment, capacity building of public administration and scholarships of Cabo Verdean medical students abroad. Also impacting public health are projects in the area of sanitation and water supply, financed by Austrian, Japanese and Luxembourgish development agencies, among others. This suggests that Slovenian development aid in Cabo Verde is complementary to that of other donors.

Evaluation question 1.3: *Are the objectives and outputs of the projects in line with Slovenia's international development cooperation (ending poverty, reducing inequalities and achieving sustainable development, thematic and geographical priorities, the principles of international development cooperation, cross-cutting objectives)?*

The objectives of the telemedicine projects, as defined in the ITF program presentation (2011) were to achieve improved treatment outcomes, increased patient satisfaction, improvement of knowledge and expertise of medical staff through provision of continuous education, and reduction of health care costs through reduced number of unnecessary patient transfers from local health centres to national hospitals. The planned outputs for achieving these objectives are listed in answer to evaluation question 1.2.

These project objectives and outputs were defined on the basis of Slovenia's international development cooperation with Cabo Verde, which is principally governed by the Agreement on development cooperation between the Government of the Republic of Slovenia and the Government of the Republic of Cape Verde, and more generally by the Resolution on International Development Cooperation. In the Agreement, eight target areas of development cooperation are defined, with the implemented telemedicine projects focusing on the health and supporting education categories. The telemedicine projects are however, not strongly aligned with the Resolution, as none of the nine objectives cover the main aim of telemedicine projects, i.e. improving quality of healthcare and reducing associated costs. Healthcare is more explicitly outlined in the Act, but with a focus on "AIDS and other diseases affecting less developed countries", whilst the provision of telemedicine services is geared towards specialist clinical branches. The projects indirectly pursue good

³⁵ For the purpose of the relevance criterion we examine the national plan ex-ante, that is before Slovenia started financing the telemedicine programme, as our intention is to observe the coherence of project design with existing Cabo Verdean strategies.

governance and institution building which *is* one of the nine objectives outlined in the Resolution. This is because the provision of telemedicine equipment and assistance with the preparation of a national telemedicine plan to be integrated into the national health system reinforces institutional capacity and governance.

Reducing inequalities and ending poverty do not seem to have been explicit objectives of the projects, nor can direct unplanned effects be established as Cabo Verde has universal access to healthcare, with cost of patient transfers covered by the state. One population group that does benefit are parents that would have had to accompany their sick child to a hospital in the absence of telemedicine, a cost borne by the household. Horizontal themes - gender equality, environmental protection and human-rights based approach - were also not direct objectives of the projects, though some unplanned benefits can be observed (see answer to evaluation question 4.2 for details). Here it must be noted that cross-cutting objectives were not yet priorities of development cooperation at the time telemedicine projects started to be implemented.

In terms of coherence with geographic priorities, according to the representatives of the Slovene MFA, the telemedicine projects in Cabo Verde are in line with geographic priorities of Slovene development cooperation, with Africa being a priority region for establishing visible project based cooperation with one to two countries. Yet according to the Resolution, although Africa is one of the priority regions, "priority will be given to projects aimed at the least developed countries of the continent", which Cabo Verde is not (indeed, it is a lower middle-income country). Slovenia's diplomacy has increasingly been emphasizing cooperation with Sub-Saharan Africa to strengthen political and economic ties (Framework of cooperation between Slovenia and Sub-Saharan Africa 2017-2021). Whilst projects like the telemedicine programme in Cabo Verde strengthen bilateral relations and facilitate cooperation in other areas, they are not in line with the thematic priorities outlined in the framework (see chapter 4.2.2).

Following from the above analysis, we conclude that alignment between telemedicine projects and Slovenia's development cooperation is weak. Notwithstanding, both the Slovene MFA and the project provider agree that telemedicine projects in Cabo Verde are in line with Slovenia's development cooperation priorities.

Evaluation question 1.4: How are the development cooperation principles applied? To what extent has the principle of international development cooperation ownership been taken into account by the Republic of Slovenia? To what extent has the principle of international development cooperation inclusive partnership been taken into account by the Republic of Slovenia? To what extent has the principle of transparency and mutual responsibility been taken into account?

The OECD DAC (2006) defines **ownership** as "The effective exercise of a government's authority over development policies and activities, including those that rely - entirely or partially - on external resources. For governments, this means articulating the national development agenda and establishing authoritative policies and strategies" (Good Practice Guidance for Development Cooperation).

Whereas to examine coherence it is necessary to look at national programmes and strategies in place at the time of project design, a consideration of ownership demands assessment of these strategic documents (or changes thereof) after project implementation.

The National Health Development Plan of Cabo Verde for the period 2012-2016 sees novel technologies - telemedicine and e-health included - as one of the 15 strategic measures for achieving national health objectives (which remain more or less unchanged from the previous national health development plan). This implies telemedicine was not a priority objective for national health after its launch, nor did it become a priority measure for achieving national health objectives.

The Cabo Verdean Ministry of Health did, with the support of IVeHF and ITF, prepare a document regulating telemedicine in the country (Programa nacional de telemedicina - National Telemedicine Programme), which sets out objectives of telemedicine, organisation and human resources employed for its administration, as well as rules and procedures. As an illustration, it is worth noting the rule that teleconsultations are mandatory before any patient can be transferred to another island (with exceptions including life-threatening conditions that need urgent care). Further, the local Ministry of Health established and financed a National telemedicine centre with three employees responsible for managing, coordinating and monitoring telemedicine in the country, two of which are dedicated to the programme full time.

It follows that telemedicine is highly integrated into the national health system, its policies and strategies, and high ownership can be observed. Based on discussions with the Minister of Foreign Affairs and Minister of Health in Cabo Verde, we note a high level of ownership, as although the ministers register Slovenia as the financier of telemedicine projects, they consider them a fundamentally national programme.

How medical professionals perceive the ownership of the telemedicine network was determined by asking survey respondents to identify who should cover the costs of repair if any equipment were to break. Almost half of respondents identified the Ministry of Health of Cabo Verde as the sole responsible for any additional costs incurred from the telemedicine network. An additional 22% of respondents suggested that Cabo Verde should principally be responsible for the maintenance of the network, and Slovenia as the donor to a smaller extent. Overall, the survey confirmed the established high level of ownership and successful integration of the telemedicine network into the healthcare system of Cabo Verde, as only 4% of doctors and nurses suggested the network should be maintained by the donor.

Partnership in the context of development cooperation as such has no established single definition, but is generally understood as having positive connotations of equality, respect, ownership, and reciprocity; with principles including balance of power, joint decision-making and shared responsibility. In the framework of telemedicine projects in Cabo Verde this would require the involvement of key stakeholders of both Slovenia and Cabo Verde - project provider, Slovenian MFA, Cabo Verdean MFA, Cabo Verdean Ministry of Health and health experts, as well as external project implementers (IVeHF) - at all stages of the project.

Indeed, both ministries for foreign affairs expressed interest in the telemedicine program before the inception phase, whilst the team responsible for needs assessment and identification of health centres to benefit from telemedicine included representatives from ITF, IVeHF as well as local medical experts named by the Ministry of Health. Though project implementation was not in the domain of local teams, they have been trained for the use of equipment and have become responsible for further trainings of new users. Based on the survey results, 86% of doctors and nurses associate the telemedicine projects as an outcome of partnership between Cabo Verde and Slovenia, with only a small share (15%) believing it is solely a Cabo Verdean project.

Based on the above we find there to be high level of partnership in project approach, implementation and outputs. All key stakeholders in Cabo Verde have expressed satisfaction with the level of their involvement in project design and implementation. The involvement of the Slovenian side, on the other hand, may be suboptimal as visibility of RS is low (see evaluation question 6.1), suggesting the involvement of ITF (as opposed to IVeHF), as well as representatives of Slovenia as the donor country, in project conception and its implementation ought to have been greater.

The principle of **transparency and mutual responsibility** addresses the mutual accountability between the Slovenian and Cabo Verdean parties involved in the conceptualisation and implementation of telemedicine projects, on the one side, and transparency of all stages in the national telemedicine programme, on the other. Mutual responsibility and accountability entail both financial responsibility to the project, as well as organisational and institutional responsibility. The latter is closely related to the principles

of partnership and ownership, for which we find high compliance. Namely, the telemedicine programme is integrated into the national health development plan and is regulated through a dedicated national programme document. The programme also has clear institutional structures and dedicated human resources who are responsible for programme monitoring and data collection.

In terms of financial responsibility, though telemedicine equipment, together with its installation and trainings, have been fully financed by RS, the Republic of Cabo Verde bears other costs related to the establishment of the telemedicine programme (namely the formation of the National Telemedicine Centre including space and team) and the running costs thereof (namely, salaries of two full time employees of the National Telemedicine Centre). Though all key Cabo Verdean stakeholders interviewed (Minister of Health, Minister of Foreign Affairs, and representatives of National telemedicine centre and telemedicine centre in Sal) expressed a desire for further financing of the telemedicine programme by RS, it was clear that the programme would be able to continue in the absence thereof as other donor countries would step in. This does not suggest sufficient responsibility from the side of Cabo Verde, but rather an extensive dependency on foreign funding for this public health measure. It follows that there is only a medium level of incorporation of mutual responsibility.

Transparency, too, is required from all parties and stages of the telemedicine programme planning and implementation. Key preconditions in this area were transparent selection of project partners, transparent procurement of equipment and sufficient available information on the project from all key stakeholders. The selection procedure of project partners was not an open process, but rather an agreement between the Slovenian ITF and American IVeHF from which the project followed (not the other way around). Procurement, on the other hand, was an open process communicated both on the ITF website and the Slovenian e-procurement portal. Finally, information on the national telemedicine programme in Cabo Verde is available on the Slovenian MFA and ITF website, but not on websites of the Cabo Verdean MFA or Ministry of Health.

Overall, the evaluation concluded that development principles were considered throughout the project, which is particularly evidenced in the high level of national ownership and bilateral partnership. At the same time, low transparency and medium mutual responsibility were found in certain project elements, such as in the project partner selection procedure, and Cabo Verdean courting of other donors to sustain the telemedicine network.

Evaluation criterion 2: Effectiveness

Evaluation question 2: *To what extent have the project activities reached, or will reach, the objectives of the projects?*

The project objectives were reached in reference to the installation of telemedicine centres, and the actual number of trainings and educational sessions exceeded the anticipated length and frequency. IVeHF estimates that in total during the programme duration they trained 50% of the Cabo Verdean medical workforce, or more than 400 individuals.

The evaluation found that despite the core project objectives being reached, the telemedicine capabilities are underutilized, particularly teleconsultation carts. According to the statistical reports by the National Telemedicine Centre, the number of teleconsultations have consistently been falling from 2015 onwards (aggregate), despite a new centre being installed in December of 2016.

The share of medical staff trained on the use of telemedicine equipment is significantly greater than the share of staff that actually use these capabilities. Estimations suggest that only 80 medical staff use the centres, an approximate 10% engagement rate, which we find to be insufficient given the identified high

turnover rate of medical professionals. Interviews with Cabo Verdean stakeholders revealed that training and educational programs were not sufficient to support the effective utilization and engagement of end users, with significant gaps of knowledge remaining, particularly in terms of technical knowledge, by the end of the evaluation period.

The evaluator concludes that the results of the projects have not yet reached their full potential, as evidenced by a fall in the utilisation of teleconsultation carts after 2015 and a relatively high share of professionals not (yet) engaged. The evaluation also finds that the number of people using telemedicine and e-health equipment extends beyond strictly medical staff to include universities and ministries: for instance, the Master in Health Management programme is done via videoconference so students do not have to travel between islands. These additional uses present an opportunity to expand the reach of the project and boost utilization of the provided equipment.

Evaluation question 2.1: *To what extent have the objectives of the projects been, or will be, achieved? To what extent have the target groups been, or will be, reached?*

Project objectives (see indicator 1.3) as such, for the most part do not specify defined, quantifiable goals, however certain implicit expectations for regular teleconsultation use were established in the project documentation, and set minimum amounts of trainings to be conducted. There was no specific objective tied to the number of telemedicine centres or a priori focus on any specific clinical specialty, with clinical programs developing over time and based on identified needs.

The project was executed in three phases, with three individual instances where equipment was delivered, installed, and technical training provided by the equipment manufacturers (GlobalMed). Phases I and II saw the establishment of 10 telemedicine centres: the first 6, introduced in January 2013, were in the six national and regional hospitals, followed by the 4 in smaller health centres serving population sizes under 15,000. Though not foreseen, an ad-hoc need for teleconsultation capabilities was identified in Mosteiros, which led to the transfer of the teleconsultation cart from Santiago Norte Hospital, resulting in an additional medical establishment beyond the project scope to be included in the telemedicine network.

Upon agreement that the telemedicine projects will continue for a third phase, an additional centre was established as component one of phase III in the beginning of 2017, bringing the total number of formally established telemedicine centres during the evaluation period to 11. While not yet implemented, a key objective of component 2 of phase III (deadline for implementation March 2018) is the establishment of two additional centres (in Sao Nicolau and Santiago), which will enable better healthcare access to at least 38,400 Cabo Verdean citizens. The telemedicine projects will jointly allow citizens of all nine populated islands to have better access to clinical diagnosis, treatment, and overall healthcare via 14 medical centres with some form of telemedicine capabilities (teleconsultation carts and/or videoconference system), which is approximately half of all health centres in Cabo Verde.

In total, during the evaluation period, 2,159 teleconsultations were conducted in Cabo Verde, the first teleconsultation being performed on May 15 2013, in the clinical field of dermatology. The share of female patients ranged between 51% (2016) and 59% (2017), suggesting equitable distribution of teleconsultation services between genders.

Table 5.1: Annual Teleconsultations

	2013*	2014	2015	2016	2017
Number of teleconsultations	67	549	611	491	441

* starting on May 15 when the first teleconsultation was made

Source: NCT Annual Statistical Reports

In the first 12 months of use, that is between May 2013 and May 2014, 122 teleconsultations from 10 different medical fields were made, with two dermatologists and a trauma surgeon accounting for 57.3% of all teleconsultations in 2013³⁶. An exponential increase in usage was detected between 2013 and 2014 due to the Ministry of Health of Cabo Verde passing a decree on November 18 2013 dictating that all medical evacuations must be preceded by a teleconsultation (only exception being life-threatening situations). Yet the total number of teleconsultations decreased following a peak in 2015 – this despite an additional telemedicine centre being installed in late 2016 – suggesting potential non-compliance with the aforementioned decree. Between 2014 and 2017, the number of teleconsultations fell by more than 100 (almost 20 %). The decreasing number of teleconsultations suggests that the centres are being less utilized over time, which is a concerning trend considering that two more centres will be installed in 2018. Furthermore, some of the original centres such as the one in Brava and Maio never exceeded 50 consultations per year. The telemedicine centre in Porto Novo, St. Antao (installed in December of 2016) also recorded only 10 consultations in its first full year of operation. Centres that initially displayed encouraging numbers (such as Boavista, Fogo, Sal) all saw the number of teleconsultations taper off over time, while the Joao Moais centre in S. Antao saw the number of teleconsultation drop between 2016-2017 from 117 to 5, spurring significant concern that teleconsultation usage depends heavily on individual engagement with the technology.

Teledermatology, telecardiology and teletrauma represent the most consistently accessed specialties, with certain level of variation year-to-year due to fluctuations in the number of doctors, their specialties, and clinical needs. In total, 24 branches of medicine can meaningfully use teleconsultation equipment, excluding ophthalmology and otorhinolaryngology for which the provided teleconsultation carts do not have adequate capabilities³⁷.

Table 5.2: Teleconsultations by clinical specialties – Top 5

	2013	2014	2015	2016
Dermatology	33%	10%	7%	5%
Cardiology	18%	17%	13%	15%
Orthopedics	18%	9%	7%	8%
Neurology	7%	19%	27%	28%
General surgery		10%	6%	
Psychiatry	7%			
Urology				9%

Note: breakdown of teleconsultations for 2017 is not available by clinical specialties, and is thus excluded from analysis. The table only indicates shares of teleconsultations for the top 5 specialties in each given year.

Source: NCT Annual Statistical Reports

Branches of medicine that exclusively benefit female patients, such as gynaecology and obstetrics consistently accounted for 1-3% of teleconsultations.

Another key objective was providing training to staff to i) improve medical capacities in Cabo Verde, particularly pertaining to deficit medical specialties and ii) ensure national ownership and high usage rates of telemedicine equipment. The project provider ensured these needs were met by providing additional regional seminars when the introductory intensive seminar on Telemedicine was attended by only 40% of

³⁶ The evaluator has not yet received data from the National telemedicine centre on the number of medical staff using teleconsultation carts in other years – see Annex A.3 *Limitations of the study* for more details.

³⁷ Further consideration to bear in mind is that teleconsultations may be less accurate than physical ones, which can significantly impact the project effectiveness. This hypothesis, albeit out of scope of this evaluation, is worth testing with an indicator such as Share of wrongly diagnosed illnesses in teleconsultations versus physical examinations. Given that no such data currently exists, this could be a recommendation for extending statistical records by the National Telemedicine Centre.

medical staff or around 400 medical professionals. Three additional regional seminars were organized on the island of Fogo, Santiago (Norte) and in Sao Vicente, however were very poorly attended by medical staff from Sal, Sao Nicolau, Brava, Maio and Boa Vista (2-3 representatives). The evaluator finds that the number (share of) staff trained varies significantly between telemedicine centres and indicates that project effectiveness varied between centres, particularly due to lack of participation from medical staff of smaller/peripheral islands in trainings other than initial technical seminars on equipment use (which were executed on site, and consequently well attended). Technical trainings on equipment usage at the 4 smaller centres were in total attended by 53 experts (11 in Brava, 7 in Maio, 18 in Sao Nicolau, 17 in Boa Vista).

An important element of safeguarding the effectiveness of the overall project was by providing training for staff that will be leaders of telemedicine in Cabo Verde, which included 32 medical professionals (doctors and nurses) with at least one representative from each telemedicine centre. As part of the leadership training, IVeHF facilitated the development of clinical programmes for various medical specialties, which were later transferred to staff via clinical programme trainings³⁸.

IVeHF estimates that in total during the programme duration they trained 50% of the Cabo Verdean medical workforce, however it is difficult to estimate the exact number beyond this estimation, as aggregate information is available for individual workshops/seminars/trainings and a simple summation would result in significant overcounting (e.g. 112 medical professionals attended the HINARI medical library training and 80 members received trauma and critical care lectures, where the expectation is that there is significant overlap in individuals that attended both workshops).

Additional workshops and trainings conducted by international and Cabo Verdean medical experts exceeded the initially planned activities. In total 27 virtual lectures were conducted by the end of phase II, 19 more than planned, and 16 clinical programme trainings were conducted (compared to the planned 4). International specialists were present for 14 virtual lectures and four clinical programme trainings.

During an interview with MFA of Cabo Verde, it was identified that the turnover of medical staff in Cabo Verde, particularly on smaller islands, is very high due to frequent rotations and high international mobility. This suggests that the actual number of current staff that is trained could be significantly lower than the anticipated half. Combining the low usage rates with frequent staffing changes leads the evaluator to conclude that the effectiveness of the project is threatened should this trend continue, and that there is a need for more targeted training and educational support to engage doctors with telemedicine and e-health systems.

Evaluation question 2.2: *Which are the main factors impacting the (non)fulfilment of the objectives (strengths and weaknesses to be stated)?*

According to the project provider, the main challenge the programme faces, one which impacts both effectiveness and sustainability, is poor technical knowledge of local staff. In case of technical issues, such as with the network or signal, they require outside support. One mitigation measure would be to conduct trainings for technical staff so they are able to address technical issues independently.

Further, the success of the national telemedicine programme is a factor of individual motivation, especially from the leadership of hospitals and health centres. Concretely, if new hospital managers do not see the benefits of telemedicine, they will be less likely to demand teleconsultations be conducted or communicate the benefits of telemedicine to doctors, which may be what caused the substantial fall in the number of teleconsultations at HBS hospital in 2017.

³⁸ Clinical trainings were out of project scope as they were financed by IVeHF.

The main challenge to achieving project objectives is suboptimal (and declining) use of teleconsultation carts by doctors. According to representatives of the National telemedicine centre and the telemedicine centre in Sal, this is due to resistance to change (without extra payment) and lack of time for set-up. Another long-term challenge is the frequent rotation of doctors, as well as their departure from the national health network in favour of private health clinics. This, in turn, necessitates periodic "information campaigns" within health centres on the benefits of telemedicine, as well as more trainings for their use. An additional challenge are (albeit infrequent) disturbances in internet connectivity and electricity.

The driving factor of success of the national telemedicine program is strong political support (see also answer to evaluation question 1.4 concerning ownership), which is visible in rules regulating the adoption of telemedicine. Importantly, a coordinating body - in this case, the National telemedicine centre and its employees - is key in ensuring telemedicine continues to be used and improved. Furthermore, although internet connectivity presented some setbacks during the evaluation period (see evaluation question 3.1), the country is generally well-covered, making use of telemedicine viable. Digital literacy, too, is sufficiently high among medical staff to ensure equipment is not idle due to difficulty of use.

Evaluation criterion 3: Efficiency

Evaluation question 3: How efficiently have the available resources been used to carry out various activities aimed at achieving the planned results in terms of quantity, quality and time?

The implementation of the projects was overall efficient, with no major difficulties or deviations that would compromise the execution of the project activities. The cost analysis showed that the share of IVeHF costs in the total budget (labour, travel expenses, etc.) was very high at 27%, while project management by ITF accounted for 5% of expenses. Incurred costs exceeded the planned expenditure by 5%, principally due to higher equipment costs that were not foreseen when preparing the project budget.

Telemedicine equipment was found to be functional and of high quality, with most frequent malfunctions connected to network errors. Equipment issues were addressed systematically via bi-weekly equipment checks, and the maintenance and replacement of parts was within the domain of the Ministry of Health of Cabo Verde, with ITF coordinating support when applicable.

The telemedicine equipment that was provisioned is deemed intuitive and user friendly by telemedicine expert Parsek, and is highly rated in terms of value for money. However, the survey found the share of respondents that do not understand the functioning of equipment to be very high. The lack of familiarity of end users with equipment constrains the potential and capacities of telemedicine. Furthermore, this negatively reflects on the effectiveness of training and education programs, even after considering the high turnover of medical staff (see evaluation question 2.1).

Evaluation question 3.1: How efficiently have the available resources been used to achieve the planned effects or outputs in terms of quantity, quality and time? Do the outputs justify project expenditure?

Total project costs incurred between 2011 and 2016 amounted to €1,317,249, with an estimated €49,527 spent in 2017 related to project activities planned for 2018, and thus not of consequence for this evaluation³⁹.

The cost analysis per project component in Table 5.3 below, reveals that a significant portion of total project funds were funnelled through IVeHF, either directly as IVeHF staff expenses or indirectly for conducting

³⁹ The evaluation only considers financial reports for the years when the project provider incurred costs or executed project activities.

workshops and educational training programs, needs assessment and program development, and monitoring, which was performed jointly with ITF.

Table 5.3: Actual project costs (per project component)

Project component (in €)	2011	2012	2013	2016	2017*	2011-2016	
						Value	Share (%)
Needs assessment, research and program development	16,392	10,000	4,069			30,461	2%
Workshops and educational training programs		57,925	95,846			153,771	12%
ITF administration costs		32,429	30,000	3,445	3,500	65,874	5%
IVeHF staff expenses (including travel)		110,631	232,668	6,838	6,462	350,138	27%
Technology and telemedicine equipment		409,004	169,198	38,925	37,855	617,127	47%
Monitoring		28,594	71,285		1,710	99,878	8%
Total	16,392	648,583	603,066	49,208	49,527	1,317,249	

**Costs for 2017 are estimates provided by ITF, and do not include all year-end costs incurred*

Source: Annual Financial Reports

Equipment cost, the single largest project component, accounted for 47% of the project value and can further be broken down by components: teleconsultation carts (63%), videoconferencing system (33%) and e-library (4%); or into equipment (77%) and associated costs (23%) encompassing transport, logistics, installation, training and warranty. In total, the two key project components of workshops and educational training programs, and technology and telemedicine equipment accounted for 59% of the project budget, the remaining resources were used for developing, running, and monitoring the projects.

Project management costs in the context of this evaluation are understood as expenditures attributable to the management, supervision, grant management and general execution by the project provider ITF. These costs were set at 5% of project value for phases I and II (2012, 2013), and 7% for phase III (2016, projected for 2017/2018). This does not account for costs associated with needs assessment, research and program development, which was a project component conducted jointly by ITF and IVeHF.

The overall project efficiency was negatively impacted by the delay of installation of equipment for 10 telemedicine centres in phase I and II. Delays in the first installation were due to the strike of Portuguese port workers, while the second installation was delayed due to the inability/delay of NOSi (Núcleo Operacional da Sociedade de informação- the IT infrastructure provider) in ensuring adequate internet connection. In both instances, deviations from the project timeline were not associated with the project provider - the first instance was ruled a force majeure while in relation to the second instance the technical providers of Cabo Verde did not fulfil their contractual obligation in time due (claimed inability to procure required technical components) to establish a reliable internet and intranet connection at the four telemedicine centres in question.

The late establishment of reliable connectivity between the national and regional centres (and with telemedicine centres elsewhere across the world) had an impact on the execution of trainings and the anticipated system use after the completion of phase II. Due to delays in installation, where equipment specialists were waiting on-site in Cabo Verde, initial trainings on the use of equipment had to be shortened

so as to not incur additional costs. Overall, a stable and reliable connection of all telemedicine centres was established only in November 2013, several months after originally intended.

In terms of evaluating efficiency of project activities, the lack of, or insufficient consideration of risks associated with logistics and network connectivity resulted in some level of inefficiency pertaining to equipment installation, however sufficient mitigation strategies were adapted to not threaten the overall project outputs. Furthermore, the third phase of the telemedicine programme suggests a certain level of learning and adaptation of adequate mechanisms, as phase III has thus far been completed according to plan, with no delays in installation of the project timeline as a whole.

The Ministry of Health of Cabo Verde states that the most important element for completing the project efficiently and according to the timeline was organisation and political support.

At the inception of the telemedicine and e-health programme, it was envisioned as a two year engagement (2012-2013) by the Slovene MFA that was not to exceed €1.2 million. The programme extension for component one of phase III increased the planned project budget to a total of €1,250,000. The actual project outflows exceeded the budget by €67,249 or 5% of total value. Divided by components, needs assessment spending exceeded projected cost by 80%, technology costs by 8%, IVeHF costs by 5%, and ITF project management by 4%; in turn, workshops and educational training programs were 1% below estimated costs, and monitoring under by 8%.

Table 5.4: Deviation from project budget (per project component)

Project component	Planned cost	Incurred cost	Δ incurred / planned	% of total deviation
Needs assessment, research and program development	16,900 €	30,461 €	13,561 €	80%
Workshops and educational training programs	155,655 €	153,771 €	-1,884 €	-1%
ITF administration costs	63,500 €	65,874 €	2,374 €	4%
IVeHF staff expenses (including travel)	333,738 €	350,138 €	16,400 €	5%
Technology and telemedicine equipment	571,100 €	617,127 €	46,027 €	8%
Monitoring and evaluation	109,107 €	99,878 €	-9,229 €	-8%
Total	1,250,000 €	1,317,249 €	67,249 €	5%

Source: own calculations based on project documents and Annual Financial Reports

The majority (69%) of the deviation from project budget is linked to higher equipment costs for the first six telemedicine centres, where the actual provision of equipment exceeded expected costs by 13% or €46,154. The higher costs were due to unforeseen additional logistics costs that the project budget did not initially account for, but were ad hoc approved by the MFA.

The execution of the projects was according to medical professionals done very efficiently, as 74% of respondents were very satisfied, and 22% somewhat satisfied with the overall efficiency. Installation of equipment was on average deemed slightly less efficient, however still very positive (60% very satisfied). Trainings and other educational activities were also assessed as efficient by medical professionals (71% very satisfied), however 8% of doctors voiced dissatisfaction with the efficiency of this specific project component. The representatives of the national telemedicine centre, too, expressed satisfaction with the efficiency of project implementation, highlighting the efforts of IVeHF, in particular, for fast project delivery.

The satisfaction with the quality of execution was on average just below the level of satisfaction with efficiency: 63% of respondents were very satisfied and 33% satisfied. A similar distribution of satisfaction

is detected concerning the quality of installation and operation of the telemedicine network, and the trainings and educational programmes. The evaluator understands that these deviations from the highest level of satisfaction are based on issues with equipment (sound issues, connectivity, etc.) and non-applicability of the current telemedicine system to all medical fields (limitations of current accessories available on teleconsultation carts).

The quality of project implementation was, according to the representatives of the national telemedicine centre, also very satisfactory. Constraints of telemedicine capabilities were according to annual statistical reports for the most part linked to instability of electricity supply and problems with state network technical quality. These issues were said to occur sporadically, yet on a continuous basis over the project duration. In 2015, constraints due to equipment malfunctions were experienced in Mindelo (issues with monitor) and S. Felipe (issues with HDMI input), however were over time addressed by national telemedicine technicians with online support provided in-kind by the equipment manufacturer, and as such incurred no additional costs to the project. Malfunctions were generally identified promptly due to bi-weekly equipment checks, maintenance and replacement of parts was within the domain of the Ministry of Health of Cabo Verde.

Equipment malfunctions were according to medical professionals on average a monthly occurrence, with significant variation between centres. For instance 65% of respondents in HAN never experienced equipment malfunctions, 24% experienced them monthly, and 12% annually, while in HBS malfunctions were never experienced by only 25% of respondents, while the remaining 75% experienced them weekly, monthly, and annually in the same proportion. In regional hospitals on Fogo, Santiago and telemedicine centre in Boa Vista issues with equipment were detected monthly, while S. Nicolau and regional hospital on Santo Antao indicated annual frequency with telemedicine equipment⁴⁰.

The evaluator notes that the perception of equipment malfunctions by the survey respondents included internet-related problems, which as such distort (inflate) the indicator of equipment malfunction frequency. Excluding these from the assessment, it was identified that the most common malfunction types were issues with sound quality, the dermatology camera, electrocardiography (ECG) and echocardiography (ECHO) accessories for teleconsultation carts.

Evaluation question 3.2: *Could there have been any less costly solutions/alternatives for the establishment of telemedicine centres and/or technical solutions that would ensure the sustainable fulfilment of objectives?*

According to the equipment analysis conducted by Parsek, a provider of professional information technology solutions and digital communication services in health, the selected telemedicine equipment that was provided in all project phases was of good quality. GlobalMed (the manufacturer of teleconsultation carts) and Polycom (videoconferencing solutions) are globally acclaimed equipment manufacturers, with dominant market shares and established use cases. Polycom, in particular, provides superior customer support with its products, which is seen as a key element of ensuring the sustainability of telemedicine network operability in Cabo Verde. NKT, through which the integrated telemedicine solution was procured, is a Gold Solution Advisor for Polycom, and as such receives competitive rates on equipment. The analysis by Parsek thus concluded that the equipment itself for telemedicine centres could not have been obtained at a lower cost (without sacrificing quality), however the cost effectiveness of transportation, installation and

⁴⁰ No medical professionals from the centre in Sal, Maio, Porto Novo (Santo Antao), Mosteiros (Fogo) and Brava responded to the survey, meaning that the survey does not account for any (non) issues experienced in these centres. Equipment malfunctions for these centres were assessed solely based on Annual Reports by the NCT.

training, which accounted for 23% of equipment expenditure, cannot be adequately assessed for efficiency based on the available project documentation.

Given that each telemedicine equipment manufacturer offers a unique solution that is not prone to interconnectivity with other systems, Parsek evaluates the project provider decision to procure identical equipment throughout the different project phases as adequate and cost efficient.

Furthermore, IVeHF was identified as the only project partner with sufficient technical and implementation process knowledge, and past experience in establishing comparable networks (Kosovo, Albania). As such, the cooperation with IVeHF is assessed to have positively impacted the execution and outcomes of the project. A reliable assessment of options on the telemedicine market – particularly with respect to expertise and knowledge transfer capabilities (a role taken on by IVeHF) – would require formal consultations or Requests for Information through an official tendering procedure before project start.

Evaluation question 3.3: *Have the services, the capacities created and the potential been appropriately used?*

In general, 22% of surveyed medical professionals indicated that they never use telemedicine and e-health equipment, 19% said they use it monthly, 30% use it weekly, 15 % daily, and 15% use it hourly. The e-medical library is identified as being the most divisive element in terms of adoption, recording both the highest share of hourly users (17%) and lowest engagement with the equipment (35% of respondents never use it). In contrast, 24% never use TC equipment and only 13% never engage with the videoconferencing system, suggesting that medical professionals are most engaged with videoconferences. This is in line with the fact that most frequent reasons for using telemedicine equipment are videoconferences (19%) and consultations between doctors (21%).

Based on the survey results, it can be concluded that teleconsultation carts are on average used weekly by nurses and doctors, while the most common frequency of videoconference engagement was monthly (54%). The evaluator notes that frequency indicators from the survey skew upwards, as most respondents were from referencing centres (HAN and HBS) where weekly teleconference rotations for specialists are generated, and doctors participate in monthly specialist videoconferences. It is expected that the frequency of use amongst non-respondents will be significantly lower.

Overall, this indicator confirmed significant disparities in engagement by doctors and nurses, with highly engaged users utilizing various telemedicine components daily, while others only engaging when mandated (weekly rotations, monthly meetings), and some not engaging with the technology at all. This relates to the effectiveness findings that the telemedicine capabilities are underutilized.

Survey results further support the identified disparity in use of telemedicine equipment amongst medical professionals, and perpetrate the notion that this is due to various levels of technological skills and familiarity with the equipment. In general, 22% of medical professionals do not understand the functioning of telemedicine equipment or do not find its use intuitive, while 72% find it easy to use. Users are the most familiar with using the electronic library (95% find it intuitive), and find the videoconferencing the least user friendly (24% do not find it intuitive). Teleconsultation equipment was deemed intuitive by 82% of respondents, but 13% could not understand the functioning at all.

Overall, the evaluator finds the share of respondents that do not understand the functioning of equipment to be too high, and notes that the lack of familiarity of end users with equipment constrains the potential and capacities of telemedicine. Furthermore, this negatively reflects on the effectiveness of training and education programs, even after considering the high turnover of medical staff.

Evaluation criterion 4: Impact

Evaluation question 4: *To what extent have the main objectives of the project been achieved, namely the targeted user impact? What have been the positive/negative, direct/indirect, intentional/non-intentional, primary/secondary effects?*

The impact of telemedicine projects was principally institutional, as Cabo Verde provides universal access to health care and the cost of treatment of patients and their transfer to the main hospital is borne by the state. Thus, the telemedicine projects had no impact on accessibility and equality of access. The projects had a direct positive impact on the quality of public health in terms of increasing the capacity and knowledge of doctors (remote attendance of international conferences and congresses, regular consultations, access to e-libraries) and nurses (two-year master's program via video conferencing).

The projects had very limited, unintended impact on gender equality and environmental protection, which were identified as cross-cutting issues of development cooperation from 2017 on. Reducing unnecessary patient evacuations (by air, sea or land) due to teleconsultations reduces pollution and environment-threatening CO₂ emissions (albeit at a miniscule rate), which are reduced when unnecessary patient evacuations are eliminated. In terms of gender equality, impact is small and linked to individual cases. For instance, telemedicine provided better gynaecological care and lowered the number of necessary transfers (and associated risks) of pregnant women from one island to another, increased the capacity of nurses who are mostly female, and alleviated costs associated with mothers accompanying children for evacuations and monitoring. Further, the projects did not contribute to ensuring human rights, as access to healthcare is universal in the country.

The evaluator concludes that wider use of video conferencing equipment should be encouraged as it does not compete with primary use but rather prevents equipment from being idle. Promoting other uses of video conferencing equipment can increase the impact of the project due to wider reach and benefits to different segments of the public. Direct impact could be achieved by enabling other public services (police, public administration) to use video conferencing equipment to hold meetings, attend international conferences and so on.

Evaluation question 4.1: *Taking into account the most recent needs/requirements and knowledge standards, to what extent are the achieved overriding effects appropriate? In which aspects have the projects improved health care? Do they still contribute to, e.g. better accessibility of health care on individual islands? What are other effects, including negative ones?*

Over the last 40 years, Cabo Verde has experienced consistent and stable progress in healthcare, which is reflected in the Competitiveness Index and Human Development Index. While tangible improvements in healthcare indicators can be seen over the project time frame, i.e. between 2011 and 2017, these were mainly with respect to the eradication/combating of diseases common in lower income countries such as malaria, tuberculosis, HIV, which as such are not targets of telemedicine. The core impact of the telemedicine network is expected to be in relation to clinical treatment of ailments and diseases common in developed countries. Here, an (albeit non-measurable) improvement to quality of treatment may be expected, as medical staff will benefit from improved knowledge and expertise thanks to access to trainings and the online medical library. Further affecting difficult of evaluation of potential project impact is the timeframe of assessment; according to IVeHF healthcare experts, relevant analysis will only be possible two years after the implementation of the education and telemedicine programme.

In terms of evaluating the improvement of healthcare due to the telemedicine projects, a stark contrast was observed between Slovene stakeholders in the project (MFA, project provider) and Cabo Verdean stakeholders (Cabo Verdean MFA, Ministry of Health, National telemedicine centre and telemedicine centre

in Sal) with respect to the question of equality of access. Whereas the former group highlighted an improvement in equality of access to health as a direct result of telemedicine, the latter emphasized that the country has universal access to health care and telemedicine had no influence on that.

All health costs, including treatment of patients and their transfer to the main hospital, are borne by the state. Any reduction of number of patient transfers thus relieves primarily the state budget, not the household one. An important exception is the paediatric branch, where the patients (children) are transferred to the hospital at no cost to the family, but any parent accompanying the child must cover his or her own costs. For these families this is a significant relief to irregular household expenses as the cost of plane tickets ranges from €90 to €150, half of the average net income in the country. The cost of ferries is much cheaper (under €20) but transport is unreliable.

New jobs that are a direct result of e-health and telemedicine projects stemmed from the Ministry of Health establishing a National telemedicine centre, staffed with three employees responsible for management, coordination and monitoring of telemedicine in the country. Two employees are fully dedicated to the telemedicine programme, and one (the director) is a full-time cardiologist only responsible for management. It follows that two jobs are a direct results of e-health and telemedicine projects. One of the employees is female and one is male, implying full gender equality (albeit at a miniscule sample size).

Contribution of e-health and telemedicine projects to capacity building and digital literacy of end users was only marginal. According to the local stakeholders interviewed, digital literacy is not a problem in Cabo Verde, with most highly educated people (doctors included) familiar with the use of smartphones, internet and other digital technology. The medical capacity in Cabo Verde between 2010 (prior to the beginning of the telemedicine project) and 2015 (after the successful completion of phase I and II) increased both in terms of number of doctors (from 292 to 410) as well as nurses (543 to 654), however direct causality with the telemedicine projects cannot be established.

The evaluator could not identify any negative effects of telemedicine projects. Some interviewees complained that doctors are not paid extra for teleconsultations, though as long as these are conducted during the doctor's regular work hours, the medium (physical presence vs. teleconsultation) ought not to impact the work burden and consequently the doctor's pay.

Evaluation question 4.2: *Do the projects integrate the human rights based approach and contribute to gender equality and environmental protection? If so, how?*

The human rights based approach (HRBA) identifies human rights principles and standards as both the means and goals of development cooperation. All development cooperation activities based on HRBA aim to have direct impact on the realisation of human rights, representing a structured approach where human rights are directly integrated into development activity. HRBA also gives importance to processes; in a HRBA, participation, equality and non-discrimination, and accountability are integrated into all stages of the project, from initial analysis, through planning, to implementation, monitoring and evaluation. Concretely, the HRBA can be assessed through the following criteria: (i) contribution to the realisation of human rights; (ii) identification and motivation of decision-makers (at the local, regional or national level); (iii) addressing of vulnerable groups of the population; (iv) active inclusion of the target group in the project (planning, implementation and monitoring); and (v) promotion of awareness of rights of the target group.

We find that the telemedicine projects do not have an explicit positive (or negative) effect on human rights, such as right to food, safe water, health care, shelter or elementary education. Though health care is the subject of the telemedicine projects, their objective is reducing costs borne by the state and improving the quality and convenience to the patient. Access, on the other hand, is already universal; this includes both access to general practitioners and to medical specialists. It follows that the projects did not contribute to

the realisation of the *right* to health care (criterion (i)). We nevertheless note a disproportionate positive effect on vulnerable groups, though this is a result of circular reasoning (i.e. the sick and disabled may be classified as a vulnerable group and are at the same time by default the target group of projects in the health sector) (criterion (iii)).

Here it must be noted that the MFA considers the projects to have a positive impact on respecting human rights stemming from improved efficiency of health care service. The MFA also considers the projects to have a particularly strong effect on less mobile vulnerable groups of the population.

In terms of the process alone, we find that decision-makers at the national level were included in the project planning and implementation stages (positive valuation of criterion (ii)). The target group, on the other hand, was not involved in the process (negative valuation of criterion (iv)), neither do we detect measures in place to raise awareness of the rights of the target group (negative valuation of criterion (v)).

In 2016, international development cooperation of RS incorporated the cross-cutting issues of gender equality and environmental protection into all project designs. The evaluator notes that cross-cutting issues became part of project design for Phase III (starting in 2017), and hence the telemedicine programme contribution to these causes cannot be critically evaluated prior to this time nor can it be claimed that there is incoherence with project goals.

Project documentation and national health strategies indicate that telemedicine does not aim to reduce gender inequalities, neither do they report any unintended positive impacts of telemedicine on gender equality. The contribution of telemedicine projects to gender equality is found to be small and connected to individual instances. According to the project provider, the implementing partner incorporated gender equality in the selection of programme leadership, though this cannot be seen from project documentation (possibly because it would suggest gender discrimination). Through discussions with key stakeholders, we detected a small number of unintended positive impacts of telemedicine on gender equality. The strongest impact is related to benefits of telemedicine to the gynaecological and obstetric (and urological) medical branches: owing to teleconsultations, pregnant women benefit from higher quality treatment (thanks to direct contact to specialists on other islands) and do not need to be exposed to unnecessary health risks associated with transport to the main hospital. Another positive outcome disproportionately impacting women is lower number of paediatric patient transfers - as mothers are the primary care givers in Cabo Verde, this reduces the negative impact on both their budget and their work or domestic time. Video conferences, too, potentially benefit women more as the equipment is primarily used for a remote two-year training programme for nurses, who are mostly women. These trainings can be considered to empower women.

According to project documentation and national health strategies telemedicine does not aim to contribute to environmental protection or resource conservation, neither do they report any unintended positive impacts thereof. An unintended positive impact can nevertheless be identified: patient transfers (by air, sea or land) cause pollution and environment-threatening CO₂ emissions, which are reduced when unnecessary patient evacuations are eliminated.

Evaluation criterion 5: Sustainability

Evaluation question 5: To what extent do positive effects of the projects continue once the financing of the majority of the international development cooperation activities has been concluded? How does the environmental and economic sustainability of the projects show?

There are two key ex-ante mechanisms put in place to ensure sustainability of the project – political support and formal commitment by the Cabo Verdean government, manifested in full integration of the telemedicine

programme into the national health system, and ongoing training and awareness raising for medical staff in order to achieve know-how, trust, and ownership of the programme. Whilst the first has proved to be crucial and indispensable for the overall success of the project, as it ensured required infrastructure, dedicated staff, resources, as well as a legal and procedural framework, the impact of the latter is somewhat diminished by the high churn rate of medical staff.

In order to mitigate this risk, more trainings and information campaigns should be organized in order to fully seize all the opportunities of telemedicine network in the long run, both in terms of technical literacy of technical staff and potential users as well as improved awareness of the wider benefits of using telemedicine. Particularly important is to ensure well acquainted local trainers who will enable the functioning of the network also without external support.

As the telemedicine programme only fully started in 2014, it was not yet possible to assess whether the actual effectiveness of the telemedicine projects (measured as a number of teleconsultations carried out, share of evacuations post-consultation, number of trainings carried out by videoconferencing etc.) will improve or deteriorate in the future. Nevertheless, it is clear that the establishment of the National Telemedicine Centre in Praia as well as a dedicated, motivated team of experts there is crucial for this. The National Telemedicine Centre is not only the reference point for the medical know-how, but also an important coordinating and monitoring body, ensuring transparency and further development of the programme.

In terms of financial sustainability, the future financing of all major cost items (particularly maintenance and staff costs) as well as potential upgrades and expansion of the telemedicine network are not an issue. Whilst operating and maintenance costs will most likely be financed directly from the national budget, there is a higher likelihood that external support would be needed to finance any expansion and upgrading of the telemedicine network. The field visit showed that, in case the Slovenian assistance would cease, it is highly likely that other international donors would step in.

Sustainability of secondary effects of the project pertains to environmental impact, i.e. reduced CO2 emissions due to fewer patient evacuations, and impact on gender equality, such as better access to gynaecological care and improved knowledge of nurses, which in Cabo Verde is a predominantly female profession (see answer under question 4.2). It is very likely that the programme will also achieve these effects in the future since the telemedicine project has a sound sustainability outlook both thanks to political commitment and secure funding of the programme itself.

Evaluation question 5.1: *What risks and opportunities can be observed with regard to sustainable effectiveness of the projects? How likely are they to occur? According to forecasts, will the effectiveness of the projects improve or decrease in the future?*

According to the project documentation as well as interviews with the Slovenian MFA, the project provider, the Cabo Verdean Ministry of Health, and the sample health centres, there are two key tools put in place to ensure sustainability of the project:

- a. Political support to the project and formal commitment: The main tool to ensure project sustainability is political support by the Cabo Verdean government from the start of the project, which in turn materialized strong legal and institutional foundation of the telemedicine network. One of the key official documents was a 3-year national Telemedicine and e-Health plan prepared by the project provider for the Cabo Verdean Ministry of Health. The plan determines the requirements in terms of physical infrastructure for telemedicine centres, number of dedicated full time employees required, equipment required as well as training needs for users (i.e. medical and technical staff). Furthermore, by signing the Memorandum of Understanding, the Cabo Verdean

Ministry of Health committed itself to ensure sustainability of the proposed telemedicine network by integrating it into the national health system and provide financial resources for a continuous functioning of the telemedicine programme after completion of the project.

- b. Training and awareness raising for medical staff: The use of new equipment inevitably requires adequate training for users, as well as a continuous dialogue with doctors and other health experts to gain their trust and ownership over the telemedicine programme.

According to the medical and technical staff working within the telemedicine network in Cabo Verde, a key factor hindering the sustainability of the project is a high churn rate of medical staff. This phenomenon, which was not foreseen in the project design, significantly reduces the level of awareness concerning the benefits of the network, as well as the ability of staff to use the equipment. Another challenge is the insufficient pool of technical knowledge in the area of advanced information-communication technologies in Cabo Verde. This raises concerns with regards to the long-term functioning of the equipment without external support and external financing (see also answer to evaluation question 5.2).

Ex-ante mechanisms to ensure sustainability of the project are considered by the evaluator well designed and sufficiently strong.

The field visit showed that political support and formal commitment clearly materialized in the provision of required infrastructure, dedicated staff, resources, as well as a legal and procedural framework for the functioning of the telemedicine network. In this regard, the establishment of the National Telemedicine Centre in Praia as well as a dedicated, motivated team of experts there is crucial for the long-term success of the project. The National Telemedicine Centre is not only the reference point for the medical know-how, but also an important coordinating and monitoring body, ensuring transparency and further development of the programme.

The monitoring role of the National Telemedicine Centre becomes all the more necessary, given the fact that national report show a fall in the number of teleconsultations between 2015 and 2017. As this phenomenon has not been accompanied by a rise in the number evacuations (the share remaining relatively stable between the years - see answer to evaluation question 2.1), this trend is not too worrying. Nevertheless, careful monitoring is all the more required in order to detect potential problems that may impact long-term sustainability of the programme (e.g. reluctance of doctors to abide by the rule of obligatory use of teleconsultations in all non-life threatening situations prior to evacuation).

As regards future functioning of the programme once the project has been completed, the interviews during the field visit clearly showed that, particularly to a high level of political support, the provision of adequate funds, either from the national budget or through other donors, is not to be considered an obstacle. Nevertheless, it is difficult to determine whether the actual effectiveness of the telemedicine projects (measured as a number of teleconsultations carried out, share of evacuations post-consultation, number of trainings carried out by videoconferencing etc.) will improve or deteriorate. The telemedicine programme has only fully started in 2014, however, a longer time series of data would be required to make justified future assumptions.

According to the medical staff in sample health centres, more trainings and information campaigns should be organized in order to fully seize all the opportunities of telemedicine network in the long run, both in terms of technical literacy of potential users as well as improved awareness of the wider benefits of using telemedicine. Particularly important is to ensure well acquainted local trainers who will enable the functioning of the network also without external support.

Evaluation question 5.2: *In terms of financing, human resources and overall organisation, to what extent are the health centres capable and prepared to maintain the positive effect of the projects, without any long-term support?*

The project documentation did not provide any details on the annual maintenance costs of telemedicine equipment. It is however clear that these costs were indeed incurred. According to the interview with the staff of the National Telemedicine Centre, maintenance costs so far related to broken or damaged equipment (as the equipment is relatively new, costs related to outdated software or significant malfunctions have not yet been incurred).

According to the national telemedicine reports and interviews at the National Telemedicine Centre as well as the Ministry of Health, the operating costs mainly relate to staff costs. The telemedicine network has three dedicated employees, all working at the National Telemedicine Centre in order to ensure the monitoring, coordination and overall organization of the programme. Two of these are full-time employees and represent a direct cost of the programme, whilst the team leader is otherwise a full-time cardiologist at the main hospital in Praia (HAN). Apart from that, a number of doctors and administrators contribute to the smooth functioning of the network across Cabo Verde. Each of the eleven existing telemedicine centres has an informal leader, who is a member of the medical staff. The leader guides and assists the users of the teleconsultation equipment. As this role is not official, this is normally the person who is the most motivated and technically savvy to take on these tasks. As for the Ministry of Health, two officials are responsible for the administrative work related to the telemedicine programme. They perform their duties in parallel to other assignments.

Other significant cost item encompass upgrading or purchasing of new equipment (i.e. teleconsultation carts) in order to support further development of the telemedicine network. As the project is still ongoing, this has not yet been the case.

As explained under the answer to question 5.1, the future financing of the telemedicine network is not considered to be an issue by the evaluator as the financing will be ensured either through the national budget or with the assistance from other donors. Whilst operating and maintenance costs will most likely be financed directly from the national budget, there is a higher likelihood that external support will be needed to finance the expansion and upgrading of the telemedicine network. The field visit showed that, in case the Slovenian assistance would cease, it is highly likely that other international donors would step in. Indeed, Portugal has already prepared its own telemedicine project in Cabo Verde, though it did not lead to implementation. In 2018, the Minister of Health of Portugal has again publically expressed an interest in financing the continuation of the telemedicine programme in Cabo Verde⁴¹.

According to the project provider and all interviewees in Cabo Verde, external assistance will be required also in order to ensure technical capacity required for the maintenance of the equipment due to lack of local technical knowledge and expertise. In order to mitigate this issue, more trainings and educational programmes for technical staff are needed.

Sustainability of secondary effects of the project pertains to environmental impact, i.e. reduced CO2 emissions due to fewer patient evacuations, and impact on gender equality, such as better access to gynaecological care and improved knowledge of nurses, which in Cabo Verde is a predominantly female profession (see question 4.2). It is very likely that the programme will also achieve these effects in the future since the telemedicine project has a sound sustainability outlook both thanks to political commitment and secure funding of the programme itself (see also answer to evaluation question 5.1).

⁴¹ Source: Ministry of Health and Social Security Cabo Verde (17.1.2018)– Ministers of Health of Portugal and Cabo Verde reinforce cooperation

Evaluation criterion 6: Slovenia's added value

Evaluation question 6.1: *What is the added value of Slovenia's engagement and to what extent does the implementation of such projects impact the strengthening of (political, economic, research etc.) relations between the two countries?*

Slovenia was and is the only external financier of telemedicine, which is an important feature of the public health system in Cabo Verde, positively impacting both the national health budget and the quality of health care. In this regard, Slovenia made a valuable contribution to the health sector, and thereby the social development of the country. Owing to the telemedicine projects, Slovenia and Cabo Verde have a stronger bilateral relationship and potential to further develop other areas of cooperation.

As telemedicine was identified as one of the measures to achieving national health objectives already in the National Health Development Plan 2008-2011, it is likely it would have been implemented in the absence of financial support from RS. It must be noted, though, that the Slovene MFA and project provider estimate that the national telemedicine programme would not have been funded without financial support from RS, arguing that there have been individual telemedicine projects implemented by Portugal and Brazil before 2011 that did not turn into a large-scale comprehensive programme. Yet, thanks to its relatively strong institutions, rule of law and strategic location, Cabo Verde receives financial support from a number of donor countries and international institutions (see chapter 3.2.2 Donor landscape). Though no other country has contributed to the national telemedicine programme financially by the end of 2017, Portugal has prepared its own telemedicine project in Cabo Verde, though it did not come to fruition. In the time of writing, Portugal has again expressed interest in financing the continuation of the programme (see also answer 5.2).

In terms of manner of implementation and programme effectiveness, it is not possible to conclude for certain in the absence of experimental conditions. Nevertheless, as telemedicine projects were implemented by the American IVeHF with the American GlobalMed and Croatian Supra Net Projekt, providing the equipment (through the Slovene supplier NKT d.o.o.), it is unlikely that projects by a different donor country would yield different results.

Apart from the uniqueness of the projects in question, Slovenian development cooperation does not seem to have any specifics compared to development cooperation from other donor countries or international institutions. One feature that sets it apart from some (but not all) other donors is flexibility and low demands in terms of administrative work. A weakness noted by some correspondents is the language barrier - Slovene representatives did not speak Portuguese, whilst their Cabo Verdean counterparts did not speak fluent English. Whilst this did not, according to the interviewees, cause major issues, language barriers may have important implications for project fluidity and efficiency.

Evaluation question 6.2: *What are possible other areas of cooperation pursuant to the Agreement, taking into account the existing development needs of Cabo Verde and the orientations of Slovenian development cooperation?*

Slovenia's visibility in telemedicine projects was mainly concentrated on the political level; at the level of end users, it was much lower. The evaluator thus recommends considering projects in areas where Slovenia has a lot of knowledge and competitive advantage, and which represent a strategically important area for Slovenia in the future. The MFA may consider, for instance, aligning the areas of cooperation with Slovenia's competitive advantage and specialisation priorities, such as digitization (smart systems and IT platform solutions), efficient governing of natural and traditional resources for the future, sustainable tourism, smart production capacities, health and pharmaceutical industries, and mobility.

Bringing together these core strategic areas, other cooperation areas defined in the Agreement and inputs from interviews with key stakeholders (namely MFA of Cabo Verde, ITF, and MFA of Slovenia), we assess that (if Slovenian development cooperation with Cabo Verde continues) the Slovenian MFA should consider focusing on information and communications technologies (ICT)⁴².

ICT has several applications, which can be modified to pursue any of the target areas from the Agreement, with an overarching effect of enhancing good governance (target area (a) of the Agreement and priority area identified in Resolution). ICT projects may include e-government, trainings for technicians (particularly in a train-the-trainer form) or provision of e-learning applications (target area (e) of the Agreement). The latter, in particular, may also promote gender equality, as more women than men in Cabo Verde are outside the labour force and may benefit from remote schooling capabilities (target area (f)).

Slovenia has a strong pipeline of companies that are developing proprietary technology and possess deep expertise, which would allow for greater Slovenian value added throughout the project and increase the visibility of Slovenia as a leader in digital solutions. For instance, Slovenia may consider continuing its presence in Cabo Verde the field of medicine by providing projects that fall under the scope of informatisation of health systems, or it may explore ICT solutions that contribute to other target cooperation areas, dependent on development needs from the side of the recipient country.

Evaluation question 6.3: *From Slovenia's point of view, would it be reasonable to extend the projects to other countries in Africa?*

As determined in answers to evaluation questions 1-5, the telemedicine projects funded through Slovene development cooperation in Cabo Verde are found to be relevant to the needs of the recipient country, relatively effective in achieving target goals (though still far from reaching their full potential) and efficiently implemented, but did not achieve wider impact, whilst continued growth may be too dependent on foreign aid. As shown above, we find a low value added of the implemented projects for Slovenia.

In terms of content and objectives, the telemedicine projects display a medium level of coherence with Slovenia's international development cooperation policy and do not reflect the capacity, knowledge and comparative advantage of Slovenia. Indeed, both the implementing partner and the equipment supplier are American, suggesting both technical and substantive knowledge are American, with the Slovenian project provider and equipment procurer acting as intermediaries. To our knowledge, there was, at the time of project conception, an intention to develop telemedicine in Slovenia as well, which would facilitate the transfer of Slovene knowledge and expertise, yet this never came into effect. Based on our evaluation we thus note relatively low benefits of the implemented telemedicine projects on Slovenia both in terms of visibility (the most recognised by local stakeholders are the IVeHF experts) and in terms of local revenue (the project provider received a mere 5% of project cost).

From this, we conclude that it would not be reasonable, from Slovenia's point of view, to extend telemedicine projects to other countries in Africa, at least until Slovenia gains sufficient proprietary knowledge and expertise in the field. Instead, we recommend exploring specialties and sectors where Slovenia has a competitive advantage and is technically strong, taking into consideration the local needs of the recipient country.

⁴² This is a high level finding based on an overview of Slovenia's areas of competitive advantage, international cooperation policy, similarity with telemedicine projects and needs of recipient country. A more comprehensive ex-ante analysis before any concrete project planning is strongly recommended.

6. Recommendations

6.1. Key recommendations

Responsibility	Finding	Recommendation
MFA, ITF	By the end of phase III of the telemedicine and e-health network project, almost half of all health centres in Cabo Verde will have telemedicine capabilities. Adding additional centres to the telemedicine network would only improve access to secondary and tertiary medical care marginally, without significant effects on the quality of care provided.	The projects established a telemedicine network of sufficient scope and reach, which is why we recommend the MFA discontinues with the provision of telemedicine equipment after the completion of phase III, which is anticipated to be by the end of 2018.
MFA	<p>The visibility and value added of RS was low, with no learning or transfer of knowledge due to lack of internal familiarity with telemedicine. The execution of the telemedicine and e-health network relied on foreign experts and know-how. Visibility of RS was to a large extent limited to the political level, with end users associating the project with IVeHF.</p> <p>Slovenian development cooperation does not seem to have any specifics compared to development cooperation from other donor countries or international institutions.</p>	<p>We suggest concluding the existing telemedicine project in Cabo Verde and not extending them to other countries in Africa unless Slovenia develops its own capacity.</p> <p>Instead, we recommend exploring specialties and sectors where Slovenia has a competitive advantage and is technically strong.</p>

6.2. Other recommendations

N. & responsibility	Finding	Recommendation
MFA	In 2016, international development cooperation of RS implemented the component of cross-cutting issues of gender equality and environmental protection into project designs. As these cross-cutting objectives were	The MFA must ensure project alignment with Slovenian strategic documents concerning international development cooperation in the project design phase.

	added to the telemedicine projects as an ad hoc element, that is after the completion of phase I and II, they as such were not well integrated into the project design.	
MFA	Level of effectiveness of projects (measured by among others the number of teleconsultations and growth thereof) was unclearly articulated between different stakeholders, as was the impact on gender equality and human rights.	The project design phase requires clear definition of project objectives (quantified where possible) and expected impact for all stakeholders. The objectives ought to refer not only to the expected outputs (e.g. number of teleconsultation carts delivered and number of doctors trained), but also to expected results (e.g. change in total number of teleconsultations carried out in the country) and impacts (e.g. reduction in number of patient transfers, reduction in number of transfers of patients that are children, national savings resulting from lower patient transfers).
MFA	Though the telemedicine projects implemented are coherent with the Agreement, they cover only two of the eight target areas, whilst the remaining six remain unaddressed. At the same time, the objectives of the Agreement are broad and unquantified, with no accompanying strategy that would articulate specific targets.	We propose that future agreements with programme countries are based on a more narrow set of target areas in order to provide more focused development cooperation. Where the agreement covers a broad range of topics, we recommend it be supported by a strategic document that specifies priority areas, objectives and expected short-and-medium term results, herewith establishing a framework for development projects and their evaluation vis-à-vis specific goals.
ITF	Current capabilities are underutilized, particularly teleconsultation carts. The number of teleconsultations has fallen between 2015 and 2017 in most health centres, most significantly in the national hospital HBS and Santo Antao.	For better monitoring and assessment, project documentation should define quantifiable targets at the beginning. Monitoring of project results should be benchmarked against these target values, and accountable institutions for fulfilling targets identified. If deviations occur, ITF as the project provider should advise the national telemedicine centre on mitigation measures and, for some period after project delivery, monitor the implementation of these.
ITF	Churn rates of medical staff in Cabo Verde, particularly on smaller islands, is very high due to frequent rotations and high international mobility. Low utilization rates and frequent staffing changes threaten the effectiveness of the project.	Project activities should better account for dynamics observed in the target users, and mitigation strategies appropriately developed in order to safeguard overarching project objectives.

MFA	<p>Telemedicine projects have proven to be successful and well-accepted among the target population. According to the project provider and all interviewees in Cabo Verde, external assistance will be required in order to ensure technical capacity required for the maintenance of the equipment due to lack of local technical knowledge and expertise</p>	<p>If choosing to remain in the country, the MFA may consider implementing train the trainer programmes for technical staff in the area of ICT, both related to telemedicine and wider. This form of trainings and educational programmes for technical staff will strengthen the sustainability of the already provided telemedicine centres, maintain established bilateral relations, and capitalize on Slovenian expertise (though may, as any other Slovenian projects in Cabo Verde, face language barriers).</p>
MFA, ITF	<p>In terms of project financing, costs of IVeHF experts accounted for 27% of the total budget, more if we include their contribution to the needs assessment and program development, trainings, and monitoring and evaluation. Even though the market for telemedicine expertise is not very saturated, lower prices could have been negotiated through an open tender rather than a direct partnership agreement.</p>	<p>For future projects we propose to ITF to conduct a public tendering process or consultations (in the form of, for instance, Requests for Information) to determine market price for a service. In this way, a lower cost of experts may be achieved.</p>

7. Lessons learned

The key finding of this evaluation is that the telemedicine and e-health projects in Cabo Verde are recognised by the recipient to be an important contribution to the healthcare system, both in terms of quality of treatment and optimisation of health budget. The teleconsultation carts reduce the number of patient evacuations necessary, thereby reducing health costs borne by the state, whilst the videoconferencing system and e-library contribute to improved knowledge and expertise of medical staff. The projects are also aligned with the Cabo Verdean national health strategies and are well accepted by both the political leadership (the Minister of Health and Minister of Foreign Affairs interviewed) and the end users of the telemedicine equipment – doctors, nurses and technicians. Finally, the projects have strengthened bilateral relations between Slovenia and Cabo Verde beyond the activities of the Green Group.

Telemedicine and e-health projects are less aligned with Slovenian development cooperation policy and – because of a lack of domestic capabilities in telemedicine and consequent commissioning of an American implementing partner – exhibited low visibility of Slovenia.

In line with the above findings, we recommend concluding financing telemedicine in Cabo Verde after the completion of Phase III in 2018 in favour of thematic areas that are more aligned with both the Slovenian development cooperation agenda and (existing or planned) competitive advantage. We also propose the MFA adopts a more strategic approach to project design, which can better promote Slovenian objectives in the area of development cooperation.

Annex

A.1. Terms of Reference

1. Background

In 2011, the Government of the Republic of Slovenia defined Cabo Verde as an international development cooperation programme country. The decision was based on the Resolution on International Development Cooperation of the Republic of Slovenia for the period up to 2015, which defines Africa as the priority region and affirms Slovenia's commitment to establish an active bilateral development assistance programme in one or two African countries. Cabo Verde was selected as a politically stable country that has established bilateral relations with Slovenia, is keen on stronger economic cooperation with the European Union, collaborates with Slovenia within the Green Group⁴³, is not among important recipients of official development assistance, and in which Slovenia has limited diplomatic presence through non-resident coverage.

On 22 September 2010, the two countries signed the Agreement on development cooperation between the Government of the Republic of Slovenia and the Government of Cabo Verde (hereinafter: Agreement), which entered into force on 2 July 2012. Between 2011 and 2017, the cooperation focused on two out of 8 target areas, as stipulated in the Agreement, namely: 1/ health with e-health and telemedicine projects and 2/ support for education and the granting of scholarships through a scholarship intended for two Cabo Verdean citizens taking part in undergraduate medical studies in Slovenia (first enrolment in 2013-14).

Telemedicine and e-health projects, carried out by ITF Enhancing Human Security, focus on the deployment of a telemedicine and e-health network in Cabo Verde by providing telemedicine and e-health equipment to eleven (+ 2 planned) pre-selected hospitals on all 9 inhabited islands; by establishing an uninterrupted medical education platform (videoconferencing and electronic medical libraries); by providing medical and technical staff training (medical doctors, nurses and IT experts), responsible for the management and maintenance of the telemedicine network, which at present includes 11 centres across the entire country; and by the inclusion of the network into the national health system, thus guaranteeing its sustainability. Using the telemedicine network, two advisory hospitals with telemedicine centres on each of the two main islands, i.e. São Vicente (Mindelo) and Santiago (Praia), provide tertiary care to all islands. This allows daily 'teleconsultations' and distance assistance to individual clinical disciplines (dermatology, cardiology, trauma orthopaedy etc.) on remote locations across Cabo Verde, permanent virtual medical training, research, and international cooperation with institutions all over the world, all based on state-of-the-art telemedicine equipment. The telemedicine and e-health projects represent the most important set of Slovenia's international development cooperation activities on the African continent.

2. Rationale, purpose and objectives of the evaluation

The evaluation is undertaken for the Ministry of Foreign Affairs (hereinafter MFA) in order to obtain an overall assessment on the projects of telemedicine and e-health network of the Slovenian development cooperation in Cabo Verde. It will allow a consideration of future strategic orientations of Slovenia's international development cooperation on Cabo Verde.

The evaluation objectives are as follows:

⁴³ Slovenia initiated the creation of the Green Group, which brings together six small countries, i.e. Iceland, Costa Rica, Singapore, Slovenia, Cabo Verde and the United Arab Emirates. In the past, the Group was focused on the activities relating to the environment and sustainable development; in addition, it fostered enhanced cooperation among its members in bilateral relations, as well as economic, research, academic, and other areas.

- verification of results and of project implementation in the said period, as well as its effectiveness;
- analysis of the elements that have impacted project results;
- analysis of field requirements; and
- preparation of recommendations for the development of future policies, projects and activities.

3. Scope of evaluation

The evaluation will examine the projects of telemedicine and e-health of the Slovenian development cooperation in Cabo Verde in the period 2011–2017, including recommendations for the next period will be drafted.

4. Issues to be addressed and evaluation questions

4.1 Cross-cutting objectives and evaluation questions

An evaluation of the cross-cutting objectives is to be integrated into the evaluation criteria and questions. The programmes and projects will be evaluated in relation to cross-cutting objectives including human rights based approach, gender equality and environmental protection.

4.2 Evaluation criteria and evaluation questions

The evaluation's main objective is to produce an overall assessment of the projects of telemedicine and e-health of the Slovenian development cooperation in Cabo Verde. The evaluation should focus on the evaluation questions listed below. However, the evaluation team is encouraged to address all issues that are relevant for the success of the project.

Relevance

To what extent are the objectives of the project harmonised with the requirements of the beneficiaries, the needs of the state, global priorities and the policies of partners and Slovenia itself?

- What is the significance of projects for end users and to what extent they meet their needs and interest?
- Are the objectives and outputs of the projects in line with Cabo Verdean policies and strategies in the field of medicine? Are they in line with the requirements of local communities? Are there any similar projects by other donors?
- Are the objectives and outputs of the projects in line with Slovenia's international development cooperation (ending poverty, reducing inequalities and achieving sustainable development, thematic and geographical priorities, the principles of international development cooperation, cross-cutting objectives)?
- How are the development cooperation principles applied:
 - To what extent has the principle of international development cooperation ownership been taken into account by the Republic of Slovenia?
 - To what extent has the principle of international development cooperation inclusive partnership been taken into account by the Republic of Slovenia?
 - To what extent has the principle of transparency and mutual responsibility been taken into account?

Effectiveness

To what extent have the project activities reached, or will reach, the objectives of the projects? It is to be presented whether the results have encouraged the fulfilment of project intentions/, or if they will do so in the future.

- To what extent have the objectives of the projects been, or will be, achieved? To what extent have the target groups been, or will be, reached?
- Which are the main factors impacting the (non)fulfilment of the objectives (strengths and weaknesses to be stated)?

Efficiency

How efficiently have the available resources been used to carry out various activities aimed at achieving the planned results in terms of quantity, quality and time?

- How efficiently have the available resources been used to achieve the planned effects or outputs in terms of quantity, quality and time? Do the outputs justify project expenditure?
- Are there have been any less costly solutions/alternatives applying to health centre establishment and technical solutions aimed at sustainable objective fulfilment?
- Have the services, the capacities created and the potential been appropriately used?

Impact

To what extent have the main objectives of the project been achieved, namely the targeted user impact? What have been the positive/negative, direct/indirect, intentional/non-intentional, primary/secondary effects?

- Taking into account the most recent needs/requirements and standard of knowledge, to what extent are the achieved overriding effects appropriate? In which aspects have the projects improved health care? Do they still contribute to, e.g. better accessibility of health care on individual islands? What are other effects, also negative ones?
- Do the projects integrate the human rights based approach and contribute to gender equality and environmental protection? If so, how?

Sustainability

To what extent do positive effects of the projects continue once the financing of the majority of the international development cooperation activities has been concluded? How does the environmental and economic sustainability of the projects show?

- What risks and opportunities can be observed with regard to sustainable effectiveness of the projects? How likely are they to occur? According to forecasts, will the effectiveness of the projects improve or decrease in the future?
- In terms of financing, human resources and overall organisation, to what extent are the health centres capable and prepared to maintain the positive effect of the projects, without any long-term support?

Slovenia's added value

The effect of the projects on the relations between the Republic of Slovenia and the partner country and the potential for the deployment of similar development cooperation projects in the wider region.

- What is the added value of Slovenia's engagement and to what extent does the implementation of such projects impact the strengthening of (political, economic, research etc.) relations between the two countries?
- What are possible other areas of cooperation pursuant to the Agreement, taking into account the existing development needs of Cabo Verde and the orientations of Slovenian development cooperation?
- From Slovenia's point of view, would it be reasonable to extend the projects to other countries in Africa?

5. Methodology

The evaluation will be carried out through a combination of desk study and field work methods, including interviews with the MFA of the Republic of Slovenia and of Cabo Verde, the implementing institution, other

donors and partner organizations, and beneficiaries in Cabo Verde. The evaluation team will propose a detailed methodology in the inception report.

6. Evaluation process and time schedule

The main task will be carried out as a desk study supported by oral interviews and electronically received comments and field mission to Cabo Verde. The whole evaluation procedure is estimated to take no more than 4 months (including reporting).

The implementation of evaluation will be carried out in three phases:

1. The inception phase: a kick-off meeting; submitting background documentation (in English and Slovene) and reviewing them as a desk study; preparing an inception report with a detailed implementation plan; and approving the inception report by the MFA;
2. The field phase: includes a briefing by the evaluation team; collecting, consolidating and analysing data; a debriefing workshop to discuss the initial results of the evaluation. A field mission will be carried out to Cabo Verde;
3. The reporting phase comprises the final analysis of data; writing the draft evaluation report; quality assurance of the report; the submission of the draft evaluation report for comments; addressing the comments; writing the final evaluation report.

Time schedule of the evaluation process:

- kick-off meeting (until 8 December 2017);
- inception and desk-study phase (until 22 December 2017);
- interviews and field missions (until 20 January 2018);
- reporting (until 3 March 2018);
- approval of the final report and presentation of the evaluation results (until 16 March 2018).

7. Reporting

The evaluation team will submit to the MFA the following deliverables:

Inception evaluation report (until 22 December 2017)

The desk study results are included in the inception report as a concise analysis of the policies and other documents studied for the evaluation. The desk study report must also contain a plan for the field study, i.e. what kind of questions need to be clarified by interviews, who will be interviewed in the MFA, who will be interviewed in the partner institutions and in the field, an outline of the questions to be asked in the interviews, etc. The inception report must include detailed work methodologies, a work plan and detailed division of labour within the evaluation team, a list of major meetings and interviews, detailed evaluation questions linked to the evaluation criteria in an evaluation matrix (part of tender documentation), and reporting plans, including proposals for tables of contents of the reports. The inception report should identify gaps in received documentation and other potential limitations. It should be in English.

Presentation on the field findings (until 20 January 2018)

Presentation of the field findings must be given in Ljubljana. During the debriefings, the key findings and recommendations could be presented as a power point presentation.

Draft final evaluation report (until 3 February 2018)

The draft final report amalgamates the desk study and the field findings. The evaluation report presents findings, conclusions, recommendations and lessons learnt separately, with a clear logical distinction between them, and it integrates the evaluation results on crosscutting objectives.

The MFA and the relevant stakeholders will submit comments on the draft final report to the evaluation team. The comments will be submitted two weeks after receiving the draft report. The commentary round is only to correct misunderstandings and possible mistakes, not to redraft the report.

Final evaluation report (until 3 March 2018)

The final report must be submitted within two weeks after receiving the comments. The final report must follow the report outlines agreed on during the inception phase. The maximum length of the final report text is 50 pages. The report must be submitted to MFA for formal approval in electronic version in English and Slovene.

Presentation of the evaluation findings (until 16 March 2018)

The evaluation team is expected to give a Power Point presentation of the evaluation findings.

The reporting schedule is included in the contract.

8. Quality assurance mechanisms

The main components of an evaluation report are as follows: executive summary; introduction; context; programme being evaluated; findings; conclusions; recommendations; lessons learned; annexes. The quality checklist for evaluation report is part of tender documentation.

9. Expertise requires

Independent consultants and/or experts are commissioned to carry out the evaluation. The following expertise is required for the evaluation team as a whole (evaluators and the team leader):

- prior experience in project evaluation;
- expertise and prior experience in the area of health, expertise and prior experience in the area of telemedicine and e-health are an asset;
- knowledge of English and Slovene language, knowledge of Portuguese language is an asset;
- organisational skills and project management with prior experience for the team leader.

In the evaluation team different expertise, skills, and experience among team members should complement each other. Required documentation: curriculum vitae, references and examples of evaluation reports recently completed.

10. Budget

The budget of the evaluation is maximum EUR 30,000 incl. VAT.

11. Mandate

The evaluation team is entitled and expected to discuss matters relevant to this evaluation with pertinent persons and organisations. However, it is not authorised to make any commitments on behalf of the Government of the Republic of Slovenia.

12. Reference and resource material

Projects of Slovenian Development Cooperation in Cabo Verde

http://www.mzz.gov.si/en/foreign_policy_and_international_law/international_development_cooperation_and_humanitarian_assistance/projects/africa/cabo_verde/

Act, the Resolution and other documents on the Slovenian Development Cooperation

http://www.mzz.gov.si/en/foreign_policy_and_international_law/international_development_cooperation_and_humanitarian_assistance/documents/

Evaluation Policy and Guidelines of Slovenian Official Development Cooperation
http://www.mzz.gov.si/en/foreign_policy_and_international_law/international_development_cooperation_and_humanitarian_assistance/international_development_cooperation_of_slovenia/evaluation_of_official_development_cooperation/

OECD DAC Evaluating development co-operation: summary of key norms and standards

<http://www.oecd.org/dac/evaluation/dcdndep/41612905.pdf>

A.2. Description of the evaluation methodology used

1. Relevance

Evaluation question 1.1: What is the significance of projects for end users and to what extent do they meet their needs and interest?

Indicator	Indicator description	Method	Data/information source
K1.1.1 – Level of satisfaction with projects from the side of end users	Users of telemedicine and e-health equipment will be asked how satisfied they are with the centres on a scale of 1 (not at all satisfied) to 4 (very satisfied). The indicator will look at the average satisfaction level from all survey respondents.	Survey	Answers to survey from end users – doctors and nurses
K1.1.2 - Level of alignment of projects with needs of end users	Through the survey to doctors and nurses we will determine whether they considered the telemedicine centres necessary and whether the benefits they bring reflect their needs (from 1-not necessary to 4-corresponds perfectly to needs)	Survey	Answers to survey from end users – doctors and nurses

Evaluation question 1.2: Are the objectives and outputs of the projects in line with Cabo Verdean policies and strategies in the field of medicine? Are they in line with the requirements of local communities? Are there any similar projects by other donors?

Indicator	Indicator description	Method	Data/information source
K1.2.1 – Level of coherence between objectives and outputs of the projects and Cabo Verdean policies and strategies in the field of medicine	Beneficiaries (representatives of the Cabo Verdean ministries, competent for health and for foreign affairs, and representatives of sample medical centres) will be asked to list their view on national priorities in the area of public health. The value of the indicator will be determined based on the following key:	<ul style="list-style-type: none"> ▪ Analysis of secondary sources ▪ Analysis of project documentation ▪ Field visit interview 	<ul style="list-style-type: none"> ▪ Project documentation ▪ Strategic documents of Cabo Verde ▪ Representatives of Cabo Verdean MFA and Ministry of Health

	<ul style="list-style-type: none"> - Projects cover or address a top 3 priority → high alignment - Projects cover or address a top 5 priority → medium alignment - Projects do not cover a top 5 priority → low alignment <p>The indicator will also incorporate the alignment that can be interpreted from Cabo Verdean national strategic documents, using the same key as above.</p>		
K1.2.2 – Level of coherence in the understanding of Cabo Verdean needs in the field of medicine between the Slovenian MFA and Cabo Verdean MFA	The priorities in the area of public health named by the Cabo Verdean side (indicator K1.2.1) will be compared to those listed by the representatives of the Slovenian MFA (responsible for development cooperation with Cabo Verde)	<ul style="list-style-type: none"> ▪ Interview ▪ Field visit interview 	<ul style="list-style-type: none"> ▪ Representatives of MFA ▪ Representatives of Cabo Verdean MFA and Ministry of Health
K1.2.3 – Level of complementarity between Slovenian development cooperation in Cabo Verde and that of other donors	Based on both document analysis and an interview with representatives of the Cabo Verdean MFA, we will determine to what extent the projects financed through Slovenian development cooperation complement those of other donors in the country.	<ul style="list-style-type: none"> ▪ Analysis of secondary sources ▪ Analysis of project documentation ▪ Field visit interview 	<ul style="list-style-type: none"> ▪ Official donor websites ▪ Project documents ▪ Representatives of Cabo Verdean MFA

Evaluation question 1.3: Are the objectives and outputs of the projects in line with Slovenia's international development cooperation (ending poverty, reducing inequalities and achieving sustainable development, thematic and geographical priorities, the principles of international development cooperation, cross-cutting objectives)?

Indicator	Indicator description	Method	Data/information source
K1.3.1 – Level of coherence between the objectives and outputs of the projects with Slovenia's international development cooperation	The indicator addresses external coherence, namely that between the projects in question and Slovenia's strategic documents on foreign policy and development cooperation (Act, Resolution). The evaluator will assess the level of coherence on a four-point scale (very aligned, aligned, poorly aligned, not at all aligned). The outcome of the analysis will be verified through an interview with representatives of Slovene MFA and the project provider.	<ul style="list-style-type: none"> ▪ Analysis of project documentation ▪ Analysis of primary sources ▪ Interview 	<ul style="list-style-type: none"> ▪ Strategic documents (Act, Resolution) ▪ Project documents ▪ Representatives of MFA
K1.3.2 – Level of coherence in the understanding of Slovenia's development cooperation priorities between project provider and Slovene MFA	The indicator will compare Slovenia's development cooperation priorities as expressed through national strategic documents on foreign policy and development cooperation (Act, Resolution) and by representatives of the Slovene MFA on the one hand, with those described by the project provider. Alignment will be assessed on a four-point scale – from very aligned to not at all aligned.	<ul style="list-style-type: none"> ▪ Analysis of primary sources ▪ Interview 	<ul style="list-style-type: none"> ▪ Project provider ▪ Representatives of MFA

Evaluation question 1.4: How are the development cooperation principles applied? To what extent has the principle of international development cooperation ownership been taken into account by the RS? To what extent has the principle of international development cooperation inclusive partnership been taken into account by the RS? To what extent has the principle of transparency and mutual responsibility been taken into account?

Indicator	Indicator description	Method	Data/information source
K1.4.1 – Level of incorporation of ownership into project approach, implementation and outputs	Indicator will be assessed on a four-point scale according to the following key: <ul style="list-style-type: none"> - High – ownership is clearly articulated in projects documents, and both expressed 	<ul style="list-style-type: none"> ▪ Analysis of project documentation ▪ Analysis of secondary sources ▪ Interview 	<ul style="list-style-type: none"> ▪ Project documents ▪ National strategies ▪ Representatives of MFA, project provider

	<p>and visible in discussions with project beneficiaries (nation and end users)</p> <ul style="list-style-type: none"> - Medium – ownership is explicitly articulated by the provider and beneficiaries, but no evidence is provided - Low – some ownership can be implicitly interpreted from project documentation or interviews - None – no mention of ownership in any sources, nor can it be inferred 	<ul style="list-style-type: none"> ▪ Field visit interview ▪ Survey 	<ul style="list-style-type: none"> ▪ Representatives of Cabo Verdean MFA and Ministry of Health, representatives of sample health centres ▪ Answers to survey from end users – doctors and nurses
K1.4.2 – Level of incorporation of partnership into project approach, implementation and outputs	<p>The indicator will be assessed on a four-point scale according to the following key:</p> <ul style="list-style-type: none"> - High – partnership requirements clearly articulated in projects design, and also practiced in relation to key project stakeholders (organizations and end users) - Medium - partnership requirements clearly articulated in projects design, but only partially implemented, i.e. not all relevant stakeholders fully involved (key organizations and end users) - Low – partnership requirements not included in project design, however, certain elements of partnership can be implicitly interpreted from project documentation or interviews <p>None - no mention of partnership in any sources, nor can it be inferred</p>	<ul style="list-style-type: none"> ▪ Analysis of project documentation ▪ Field visit interview ▪ Survey 	<ul style="list-style-type: none"> ▪ Project reports ▪ Representatives of Cabo Verdean MFA and Ministry of Health, representatives of sample health centres ▪ Answers to survey from end users – doctors and nurses
K1.4.3 – Level of incorporation of transparency and mutual responsibility into project approach, implementation and outputs	<p>The indicator integrates both the responsibility of the Slovene MFA and project contractor (transparency of project tendering provider, transparency of project selection procedure, responsibility for project implementation etc.)</p>	<ul style="list-style-type: none"> ▪ Secondary source analysis ▪ Field visit interview ▪ Interview 	<ul style="list-style-type: none"> ▪ ITF and MFA public websites ▪ Representatives of Cabo Verdean MFA and Ministry of Health,

	<p>and that of the beneficiary of funds – Cabo Verde.</p> <ul style="list-style-type: none"> - High – information on project tendering and selection procedures is available to all interested parties equally (both in Slovenia and in Cabo Verde); the beneficiary of funds indicates responsibility by carrying half of the project costs - Medium – some information on project tendering and selection procedures are publically available, while some are provided only to a select few (pre-chosen) potential bidders; project beneficiary covers some costs, but no more than 30% of total costs of project. - Low – limited and incomplete information on project tendering and selection is available online and hard to find; project beneficiary covers no cost but contributes in-kind. - None – information on project tendering and selection if not available online; project beneficiary covers no cost of project. 		<p>representatives of sample health centres</p> <ul style="list-style-type: none"> ▪ Representatives of MFA, project provider
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2. Effectiveness

Evaluation question 2.1: To what extent have the objectives of the projects been, or will be, achieved? To what extent have the target groups been, or will be, reached?

Indicator	Indicator description	Method	Data/information source
K2.1.1 – Number of established telemedicine and e-health centres	The number of telemedicine and e-health centres, established with the support of development cooperation of RS will be supplemented by contextualisation (rationale, look ahead) provided by the project provider and the Slovene MFA as well as the Cabo Verdean health ministry and representatives of national telemedicine centre.	<ul style="list-style-type: none"> ▪ Analysis of project documentation ▪ Analysis of secondary sources ▪ Interview ▪ Field visit interview 	<ul style="list-style-type: none"> ▪ Project documents ▪ National telemedicine reports ▪ Representatives of MFA, project provider ▪ Representatives of Cabo Verdean Ministry of Health ▪ Representatives of sample health centres
K2.1.2 – Number of medical staff using telemedicine and e-health equipment	The number of users shall be established on the basis of project implementation data. If such data does not exist, an estimate shall be provided by the representatives of sample health centres. If possible, data shall be presented both at the aggregate level as well as broken down by years of project implementation and by gender.	<ul style="list-style-type: none"> ▪ Analysis of project documentation ▪ Analysis of secondary sources ▪ Field visit interview 	<ul style="list-style-type: none"> ▪ Project documents ▪ National telemedicine reports ▪ Representatives of sample health centres
K2.1.3 – Number of teleconsultations conducted (number of patients benefiting from the project)	The number of consultations shall be established based on project implementation data. It shall be further contextualized by the representative of the national telemedicine centre. If possible, data shall be presented both at the aggregate level as well as broken down by years of project implementation and by gender of patient.	<ul style="list-style-type: none"> ▪ Analysis of project documentation ▪ Analysis of secondary sources ▪ Interview ▪ Field visit interview 	<ul style="list-style-type: none"> ▪ Project documents ▪ National telemedicine reports ▪ Project provider ▪ Representatives of National telemedicine centre
K2.1.4 – Number of video conferences conducted, by type	The number of video conferences shall be established based on project implementation data. It shall be further contextualized by the representative of the national telemedicine centre.	<ul style="list-style-type: none"> ▪ Analysis of project documentation ▪ Analysis of secondary sources ▪ Interview 	<ul style="list-style-type: none"> ▪ Project documents ▪ National telemedicine reports ▪ Project provider

	If possible, data shall be presented both at the aggregate level as well as broken down by years of project implementation.	<ul style="list-style-type: none"> Field visit interview 	<ul style="list-style-type: none"> Representatives of National telemedicine centre
K2.1.5 – Number of medical staff trained for the use of telemedicine and e-health equipment	<p>The number of users shall be established based on project implementation data and further contextualized by the representatives of the national telemedicine centre and of the Ministry of Health.</p> <p>If possible, data will be shown by gender.</p>	<ul style="list-style-type: none"> Analysis of project documentation Field visit interview 	<ul style="list-style-type: none"> Project documents Representatives of national telemedicine centre Representatives of Cabo Verdean Ministry of Health
K2.1.6 – Number of workshops and/or trainings conducted for the use of telemedicine and e-health equipment	The indicator shall be established based on project implementation data and further contextualized by the representatives of the national telemedicine centre and the sample referential health centre.	<ul style="list-style-type: none"> Analysis of project documentation Field visit interview 	<ul style="list-style-type: none"> Project documents Representatives of sample health centres
K2.1.7 – Branches of medicine benefiting most from e-health and telemedicine centres by rank	<p>A list of branches of medicine benefiting most from e-health and telemedicine centres will be formed on the basis of implementation data. Data will be contextualized and complemented through field visit interviews with representatives of Cabo Verdean Ministry of Health and representatives of national telemedicine centre.</p> <p>Data will be broken down by rank and most frequent conditions (if appropriate).</p>	<ul style="list-style-type: none"> Analysis of project documentation Analysis of secondary sources Field visit interview 	<ul style="list-style-type: none"> Project documents National telemedicine reports Representatives of national telemedicine centre Representatives of Cabo Verdean Ministry of Health
K2.1.8 – Share of health centres owning telemedicine and e-health equipment	Indicator value shall be calculated by dividing the value of indicator K2.1.1 with the total number of national health centres obtained through secondary source analysis and confirmed at interview with representative of Cabo Verdean Ministry of Health.	<ul style="list-style-type: none"> Analysis of secondary sources Field visit interview Calculation of ratios 	<ul style="list-style-type: none"> Representatives of Cabo Verdean Ministry of Health
K2.1.9 – Share of medical staff trained to use new equipment	Indicator value shall be calculated by dividing the value of indicator K2.1.5 with the total number of medical staff obtained at an	<ul style="list-style-type: none"> Field visit interview Calculation of ratios 	<ul style="list-style-type: none"> Representatives of Cabo Verdean Ministry of Health

	interview with the representative of Cabo Verdean Ministry of Health.		
K2.1.10 – Share of patients benefiting from the use of telemedicine and e-health equipment	Indicator value shall be calculated by dividing the value of indicator K2.1.3 with the total number of annual medical treatments obtained at an interview with the representative of Cabo Verdean Ministry of Health. In case official data will not be available, we will use an estimate provided at the interview.	<ul style="list-style-type: none"> Field visit interview Calculation of ratios 	<ul style="list-style-type: none"> Representatives of Cabo Verdean Ministry of Health

Evaluation question 2.2: Which are the main factors impacting the (non)fulfilment of the objectives (strengths and weaknesses to be stated)?

Indicator	Indicator description	Method	Data/information source
K2.2.1 – Factors hindering fulfilment of project objectives	Potential factors hindering the fulfilment of project objectives will be identified through interviews with the representatives of the donor country (Slovene MFA), recipient country (Cabo Verdean Ministry of Health, MFA, and representatives of sample health centres) and the project provider.	<ul style="list-style-type: none"> Interview Field visit interview 	<ul style="list-style-type: none"> Representatives of MFA, project provider Representatives of Cabo Verdean MFA and Ministry of Health Representatives of sample health centres
K2.2.2. – Factors facilitating the fulfilment of project objectives	Potential factors facilitating the fulfilment of project objectives will be identified through interviews with the representatives of the donor country (Slovene MFA), recipient country (Cabo Verdean Ministry of Health, MFA, and representatives of sample health centres, involved in the project) and the project provider.	<ul style="list-style-type: none"> Interview Field visit interview 	<ul style="list-style-type: none"> Representatives of MFA, project provider Representatives of Cabo Verdean MFA and Ministry of Health Representatives of sample health centres

3. Efficiency

Evaluation question 3.1.: How efficiently have the available resources been used to carry out various activities aimed at achieving the planned results in terms of quantity, quality and time? Do the outputs justify project expenditure?

Indicator	Indicator description	Method	Data/information source
K3.1.1 – Project cost, per component	Based on an analysis of project documentation, we will calculate project costs per component/cost type. Data shall be broken down by years of project implementation.	<ul style="list-style-type: none"> Analysis of project documentation 	<ul style="list-style-type: none"> Analysis of secondary sources
K3.1.2 – Share of expenditure for project management	Based on an analysis of project documentation, we will calculate the project management cost expressed as a percentage of the overall project expenditure. In case the granularity of data will not enable such a calculation, an estimate will be prepared based on an interview with the project provider and the Slovene MFA. Data shall be presented both at the aggregate level as well as broken down by years of project implementation.	<ul style="list-style-type: none"> Analysis of project documentation Interview 	<ul style="list-style-type: none"> Project financial reports Project provider, representatives of Slovene MFA
K3.1.3 – Average expenditure per end user	The indicator will be calculated by dividing the value of indicator K3.1.1 with the value of indicator K2.1.2.	<ul style="list-style-type: none"> Calculation of ratios 	<ul style="list-style-type: none"> N/A
K3.1.4 – Average expenditure per patient	The indicator will be calculated by dividing the value of K3.1.1. with the value of K2.1.3.	<ul style="list-style-type: none"> Calculation of ratios 	<ul style="list-style-type: none"> N/A
K3.1.5 – Deviation from project timeline (timeliness of project completion)	We will assess the timeliness of project completion based on an analysis of project application(s) and reports, by calculating the deviations from the original timetable. The findings will further be contextualized at an interview with both the representatives of the Slovene MFA as well as the project provider.	<ul style="list-style-type: none"> Analysis of project documentation Interview 	<ul style="list-style-type: none"> Project reports Representatives of MFA, project provider

K3.1.6 – Deviation from project budget	We will assess compliance with set budget based on an analysis of project application(s) and reports, by calculating the deviations from the original budget. The findings will further be contextualized at an interview with both the representatives of the Slovene MFA as well as the project provider.	<ul style="list-style-type: none"> ▪ Analysis of project documentation ▪ Interview 	<ul style="list-style-type: none"> ▪ Project reports ▪ Representatives of Slovene MFA, project provider
K3.1.7 – Level of satisfaction of end users with efficiency of execution	Both an interview with the representatives of sample health centres as well as a survey for the end users of telemedicine and e-health equipment (doctors and nurses) will be used to assess the level of satisfaction of end users with efficiency of execution of the project. Satisfaction level will be assessed on a four-level scale (very satisfied, somewhat satisfied, not satisfied, not at all satisfied).	<ul style="list-style-type: none"> ▪ Field visit interview ▪ Survey 	<ul style="list-style-type: none"> ▪ Representatives of sample health centres ▪ Answers to survey from end users – doctors and nurses
K3.1.8 – Level of satisfaction of end users with quality of execution	Both an interview with the representatives of sample health centres as well as a survey for the end users of telemedicine and e-health equipment (doctors and nurses) will be used to assess the level of satisfaction of end users with quality of execution of the project. Satisfaction level will be assessed on a four-level scale (very satisfied, somewhat satisfied, not satisfied, not at all satisfied).	<ul style="list-style-type: none"> ▪ Field visit interview ▪ Survey 	<ul style="list-style-type: none"> ▪ Representatives of sample health centres ▪ Answers to survey from end users – doctors and nurses
K3.1.9 – Frequency of equipment malfunction	The indicator will be established based on project documentation (if such reports exist), as well as an interview with the representatives of sample health centres and survey for end users of telemedicine and e-health equipment. The assessment will be made on a four-level scale (daily, weekly, monthly, and annually). Furthermore, most common malfunction types will be identified.	<ul style="list-style-type: none"> ▪ Analysis of project documentation ▪ Field visit interview ▪ Survey 	<ul style="list-style-type: none"> ▪ Project documentation ▪ Representatives of sample health centres ▪ Answers to survey from end users – doctors and nurses

Evaluation question 3.2.: Could there have been any less costly solutions/alternatives for the establishment of telemedicine centres and/or technical solutions that would ensure the sustainable fulfilment of objectives?

Indicator	Indicator description	Method	Data/information source
K3.2.1 – Deviation from best practice cost of e-health and telemedicine solutions	Project team members, who are expert in the field of e-health and telemedicine will analyse project documentation and prepare an expert opinion regarding the alignment of implemented solutions with best practices in this field in terms of cost-benefit.	<ul style="list-style-type: none"> Input from team health experts Analysis of secondary sources 	<ul style="list-style-type: none"> Project documentation Articles on other telemedicine solutions and systems implemented elsewhere

Evaluation question 3.3.: Have the services, the capacities created and the potential been appropriately used?

Indicator	Indicator description	Method	Data/information source
K3.3.1 – Frequency of use of e-health and telemedicine equipment	The frequency of use will be assessed using three sources: interview with the project provider, interview with the representatives of sample health centres and survey for end users. The frequency will be assessed on a four-level scale (hourly, daily, weekly, monthly).	<ul style="list-style-type: none"> Interview Field visit interview Survey 	<ul style="list-style-type: none"> Project provider Representatives of sample health centres Answers to survey from end users – doctors and nurses
K3.3.2 – Familiarity of end users with equipment use	This indicator looks at how user-friendly and intuitive doctors and nurses consider the equipment to be. Answers will be provided at the interview with representatives of sample telemedicine centres and from the survey to end users. Survey respondents will be asked to identify how user friendly the telemedicine centres are (scale 1-cannot understand functioning to 4-perfectly intuitive); the survey will provide the definition of user friendliness to avoid confusion or misunderstanding.	<ul style="list-style-type: none"> Field visit interview Survey 	<ul style="list-style-type: none"> Representatives of sample health centres Answers to survey from end users – doctors and nurses

4. Impact

Evaluation question 4.1.: Taking into account the most recent needs/requirements and knowledge standards, to what extent are the achieved overriding effects appropriate? In which aspects have the projects improved health care? Do they still contribute to, e.g. better accessibility of health care on individual islands? What are other effects, including negative ones?

Indicator	Indicator description	Method	Data/information source
K4.1.1 – Extent of improvement of quality of health care to be attributed to e-health and telemedicine projects	The improvement of quality of health care is a descriptive indicator showing changes in the quality of health care that can be attributed to e-health and telemedicine projects. The indicator will be assessed based on an interview with the Slovene MFA and the project provider. Their views will further be compared against the opinions of the Cabo Verdean MFA and Ministry of Health, as well as representatives of sample health centres.	<ul style="list-style-type: none"> Interview Field visit interview 	<ul style="list-style-type: none"> Representatives of MFA, project provider Representatives of Cabo Verdean MFA and Ministry of Health, representatives of sample health centres
K4.1.2 – Extent of improvement of access to health care, and in particular equality in access, to be attributed to e-health and telemedicine projects	<p>The indicator will be determined based on interviews with the Slovene MFA and project provider, as well as Cabo Verdean MFA, Ministry of Health and representatives of sample telemedicine centres.</p> <p>Special emphasis will be placed on horizontal themes – human rights based approach and gender equality.</p>	<ul style="list-style-type: none"> Interview Field visit interview 	<ul style="list-style-type: none"> Representatives of MFA, project provider Representatives of Cabo Verdean MFA and Ministry of Health Representatives of sample health centres
K4.1.3 – Number of new jobs as a direct result of e-health and telemedicine projects	The number of jobs created as a result of the e-health and telemedicine projects will be an educated guess provided by key stakeholders in project implementation (Slovene MFA, project provider, as well as representatives of Cabo Verdean MFA and Ministry of Health).	<ul style="list-style-type: none"> Interview Field visit interview 	<ul style="list-style-type: none"> Representatives of MFA, project provider Representatives of Cabo Verdean Ministry of Health
K4.1.4 – Contribution of e-health and telemedicine projects to capacity	The contribution to capacity building and digital literacy of end users is a descriptive indicator of examples of changes, which can	<ul style="list-style-type: none"> Interview Field visit interview 	<ul style="list-style-type: none"> Representatives of MFA, project provider

building and digital literacy of end users	be attributed to e-health and telemedicine projects. The indicator will be assessed based on an interview with the Slovene MFA and the project provider. Their views will further be compared against the opinions of the Cabo Verdean MFA and Ministry of Health, as well as representatives of sample health centres.		<ul style="list-style-type: none"> Representatives of Cabo Verdean MFA and Ministry of Health Representatives of sample health centres
K4.1.5 – Negative effects of e-health and telemedicine projects	<p>Potential negative effects of e-health and telemedicine projects will be identified through interviews with the Slovene MFA, project provider, Cabo Verdean MFA and Ministry of Health, and representatives of sample health centres.</p> <p>Examples of possible negative effects may include availability of medical staff, electricity costs of medical centres, employee costs, etc.</p>	<ul style="list-style-type: none"> Interview Field visit interview 	<ul style="list-style-type: none"> Representatives of MFA, project provider Representatives of Cabo Verdean MFA and Ministry of Health Representatives of sample health centres
K4.1.6 – Impact of telemedicine projects on household budget	This qualitative indicator will look at potential positive or negative impact of telemedicine projects on household disposable income and potential sources thereof.	<ul style="list-style-type: none"> Field visit interview 	<ul style="list-style-type: none"> Representatives of Cabo Verdean MFA and Ministry of Health Representatives of sample health centres

Evaluation question 4.2.: Do the projects integrate the human rights based approach and contribute to gender equality and environmental protection? If so, how?

Indicator	Indicator description	Method	Data/information source
K4.2.1 – Contribution of projects to gender equality	Potential observed contribution of e-health and telemedicine projects to gender equality will be identified through interviews with the Slovene MFA, project provider, Cabo Verdean MFA and Ministry of Health, and representatives of sample health centres.	<ul style="list-style-type: none"> Interview Field visit interview Analysis of project documentation 	<ul style="list-style-type: none"> Representatives of MFA, project provider Representatives of Cabo Verdean MFA and Ministry of Health

	<p>Contributing factors may include improving access to health care for women and girls, improving education of female medical staff, creating new employment opportunities for women, and so on.</p> <p>The indicator will also consolidate outcomes of effectiveness indicators, as divided by gender.</p> <p>The indicator will be provided on a four-point scale: 1-none, 2-passive contribution, 3-weak active contribution ("significant" according to OECD criteria) and 4-strong active contribution ("principal" according to OECD criteria). We have purposefully added a fourth category ('passive contribution') to take account of potential impacts on gender equality in the absence of project targets.</p>		<ul style="list-style-type: none"> ▪ Representatives of sample health centres ▪ National telemedicine reports
K4.2.2 – Contribution of projects to environmental protection	<p>Potential contribution of e-health and telemedicine projects to environmental protection will be identified through interviews with the Slovene MFA, project provider, Cabo Verdean MFA and Ministry of Health, and representatives of sample health centres.</p> <p>Contributing factors may include, for instance, reducing CO₂ emissions through reducing the need to transport patients between islands.</p> <p>The indicator will be provided on a four-point scale: 1-none, 2-passive contribution, 3-weak active contribution and 4-strong active contribution. We have purposefully added a</p>	<ul style="list-style-type: none"> ▪ Interview ▪ Field visit interview 	<ul style="list-style-type: none"> ▪ Representatives of MFA, project provider ▪ Representatives of Cabo Verdean MFA and Ministry of Health ▪ Representatives of sample health centres

	fourth category ('passive contribution') to take account of potential impacts on environmental protection in the absence of project targets.		
K4.2.3 – Integration of human rights-based approach	<p>.</p> <p>The indicator determines to what extent the projects (1) contribute to the realisation of human rights and the awareness thereof, and (2) integrate participation, equality and non-discrimination, and accountability into all stages of the project. Both aspects will be evaluated on a four-point scale: strong, medium, weak, and none (contribution / integration).</p>	<ul style="list-style-type: none"> ▪ Interview ▪ Field visit interview 	<ul style="list-style-type: none"> ▪ Representatives of MFA, project provider ▪ Representatives of Cabo Verdean MFA and Ministry of Health ▪ Representatives of sample health centres

5. Sustainability

Evaluation question 5.1.: What risks and opportunities can be observed with regard to sustainable effectiveness of the projects? How likely are they to occur? According to forecasts, will the effectiveness of the projects improve or decrease in the future?

Indicator	Indicator description	Method	Data/information source
K5.1.1 – Number and strength of mechanisms put in place to ensure sustainability of results	To determine potential for sustainability the project evaluator will search the project documentation for a description of mechanisms or approaches undertaken to ensure sustainability of results. This will be further complemented by interviews with the Slovene MFA and project provider, as well as the Cabo Verdean Ministry of Health and sample telemedicine centres.	<ul style="list-style-type: none"> ▪ Analysis of project documentation ▪ Interview ▪ Field visit interview 	<ul style="list-style-type: none"> ▪ Project plans and reports ▪ Representatives of MFA, project provider ▪ Representatives of Cabo Verdean Ministry of Health ▪ Representatives of sample health centres
K5.1.2 – Effectiveness of mechanisms put in place to ensure sustainability of results	We will aim to establish whether or not the mechanisms were effective through interviews with the project provider, Cabo Verdean	<ul style="list-style-type: none"> ▪ Interview ▪ Field visit interview 	<ul style="list-style-type: none"> ▪ Project provider ▪ Representatives of Cabo Verdean Ministry of Health

	Ministry of Health and representatives of sample telemedicine centres.		<ul style="list-style-type: none"> Representatives of sample health centres
K5.1.3 – Existence of other (unplanned or unforeseen) factors strengthening or inhibiting sustainability	The indicator will be determined through discussions with the Slovene MFA, project provider, and Cabo Verdean MFA, Ministry of Health and representatives of sample telemedicine centres.	<ul style="list-style-type: none"> Interview Field visit interview 	<ul style="list-style-type: none"> Representatives of MFA, project provider Representatives of Cabo Verdean MFA and Ministry of Health Representatives of sample health centres
K5.1.4 – Likelihood of improvement or deterioration of effectiveness of the projects in the future	To determine future trends of telemedicine activities and outcomes in Cabo Verde, we will ask all interviewees how likely, given the sustainability mechanisms and other factors influencing outcome they identified, it is that the project effectiveness (as determined through indicator 2) will change, either for the better or for the worse.	<ul style="list-style-type: none"> Interview Field visit interview 	<ul style="list-style-type: none"> Representatives of MFA, project provider Representatives of Cabo Verdean MFA and Ministry of Health Representatives of sample health centres

Evaluation question 5.2.: In terms of financing, human resources and overall organisation, to what extent are the health centres capable and prepared to maintain the positive effect of the projects, without any long-term support?

Indicator	Indicator description	Method	Data/information source
K5.2.1 – Annual cost of maintaining e-health and telemedicine equipment to the health centre	The annual running cost connected to the national telemedicine centre and regional centres will be gathered from project documentation. If data is not available, we will ask the representative of the national telemedicine centre to provide an estimate.	<ul style="list-style-type: none"> Analysis of project documentation Field visit interview 	<ul style="list-style-type: none"> Financial reports Representative of national telemedicine centre
K5.2.2 – Number of people dedicated to the organisation and functioning of e-health and telemedicine centres across Cabo Verde	The indicator shows the number of full time employees of the national health centre (as seen from secondary sources). At the interview with the Ministry of Health and national telemedicine centre we will ask for an	<ul style="list-style-type: none"> Analysis of project documentation Field visit interview 	<ul style="list-style-type: none"> National telemedicine reports Representatives of Ministry of Health and

	estimate of the number of other people (employees of the ministry, of hospitals, of regional health centres) are involved in the organisation and functioning of telemedicine centres in Cabo Verde (though not the use thereof).		national telemedicine centre
K5.2.3 – Assessment of stakeholders on the ability of health centres to continue sustaining e-health and telemedicine centres and the achievement of their objectives	We will determine the ability of health centres to sustain telemedicine centres and the achievement of the projects' objectives through discussions with all interviewees, taking into consideration their background and motivation.	<ul style="list-style-type: none"> ▪ Interview ▪ Field visit interview 	<ul style="list-style-type: none"> ▪ Representatives of MFA, project provider ▪ Representatives of Cabo Verdean MFA and Ministry of Health ▪ Representatives of sample health centres
K5.2.4 - Assessment of stakeholders on the ability of e-health and telemedicine centres to sustain any improvements in gender equality and environmental protection	The indicator will join results of both the gender equality indicators (K4.2.1 and K4.2.2) and the sustainability indicators (namely K5.2.3) to determine likelihood of continuous improvement (or at a minimum sustained improvement) to gender equality and environmental protection.	<ul style="list-style-type: none"> ▪ Interview ▪ Field visit interview 	<ul style="list-style-type: none"> ▪ Project provider ▪ Representatives of Cabo Verdean MFA and Ministry of Health ▪ Representatives of sample health centres

6. Slovenia's added value

Evaluation question 6.1.: What is the added value of Slovenia's engagement and to what extent does the implementation of such projects impact the strengthening of (political, economic, research etc.) relations between the two countries?

Indicator	Indicator description	Method	Data/information source
K6.1.1 – Assessment of the added value of Slovenia's development cooperation with Cabo Verde	To determine the value added of Slovene development cooperation for Cabo Verdean social and economic development, we will ask the Cabo Verdean MFA, Ministry of Health and representative of national telemedicine centre for their view on Slovene added value – would similar projects be financed	<ul style="list-style-type: none"> ▪ Interview ▪ Field visit interview 	<ul style="list-style-type: none"> ▪ Representatives of MFA, project provider ▪ Representatives of Cabo Verdean MFA and Ministry of Health

	otherwise, would they yield the same results, would they be implemented in the same manner etc. We will compare this to the input we will receive through interviews with the Slovene MFA and the project provider.		<ul style="list-style-type: none"> Representative of national telemedicine centre
K6.1.2 – Assessment of the special features of Slovenia's development cooperation with Cabo Verde	The indicator compares Slovenia's development cooperation in Cabo Verde with other donor countries. The main input shall be provided by the Cabo Verdean MFA; discussions will be based on a preliminary review of other donors' projects in the country.	<ul style="list-style-type: none"> Analysis of secondary sources Field visit interview 	<ul style="list-style-type: none"> Websites of other donor' organisations for international cooperation Representatives of Cabo Verdean MFA

Evaluation question 6.2.: What are possible other areas of cooperation pursuant to the Agreement, taking into account the existing development needs of Cabo Verde and the orientations of Slovenian development cooperation?

Indicator	Indicator description	Method	Data/information source
K6.2.1 – Optimal development cooperation thematic area between Slovenia and Cabo Verde	<p>The indicator looks at opportunities to extend RS development cooperation with Cabo Verde to other areas of the Agreement.</p> <p>Findings will be based on:</p> <ul style="list-style-type: none"> Cabo Verdean national strategies and priority measures in the particular area of the Agreement <p>Development cooperation priorities outlined in RS strategic documents (Act, strategy on foreign policy, Declaration etc.)</p> <p>Opportunities identified by the Cabo Verdean MFA and the Slovenian MFA, as well as by the project provider based on their knowledge of the country</p>	<ul style="list-style-type: none"> Analysis of primary sources Analysis of secondary sources Interview Field visit interview 	<ul style="list-style-type: none"> RS and Cabo Verdean strategic documents Internet Representatives of the MFA, project provider Representatives of the Cabo Verdean MFA

Evaluation question 6.3.: From Slovenia's point of view, would it be reasonable to extend the projects to other countries in Africa?

Indicator	Indicator description	Method	Data/information source
K6.3.1 – Assessment on whether to extend telemedicine projects to other African countries	The assessment will be provided based on the findings from evaluation criteria 1-6. (relevance, effectiveness, efficiency, impact, sustainability, Slovenian value added).	<ul style="list-style-type: none"> ▪ Interview ▪ Analysis of secondary sources 	<ul style="list-style-type: none"> ▪ Representatives of MFA, project provider ▪ Internet

A.3. Limitations of the study

Key limitations in the process of the evaluation are linked to the poor quality and limited data availability. The National Telemedicine Centre of Cabo Verde did not provide complete, accurate, comparable data, and so estimations and extrapolations had to be conducted by the evaluator. Furthermore, the field visit and survey, critical inputs for the evaluation, suffer from small sample size bias. A field visit was only conducted to telemedicine centres in HAN and Sal, while only 28 respondents completed the survey, limiting the statistical significance of findings.

Data limitations partially pertain to evaluation questions 2.1, 3.1 and 3.3.

In addition, the evaluator recognizes that all inputs from Cabo Verde (project documentation, interviews, field visits) are subject to limitations associated with the language barrier. The evaluator used available resources to interpret inputs provided in Portuguese, however reserves the right to imprecisions and omissions in the evaluation stemming from translations.

A.4. Evaluation work plan

Activity / Week (W)	Team members involved*	W1 (4.12-8.12.2017)	W2 (11.12-15.12.2017)	W3 (18.12-22.12.2017)	W4 (25.12-29.12.2017)	W5 (1.1.-5.1.2018)	W6 (8.1.-12.1.2018)	W7 (15.1.-19.1.2018)	W8 (22.1.-26.1.2018)	W9 (29.1.-2.2.2018)	W10 (5.2.-9.2.2018)	W11 (12.2.-16.2.2018)	W12 (19.2.-23.2.2018)	W13 (26.2.-2.3.2018)	W14 (5.-9.3.2018)	W15 (12.3.-16.3.2018)
Project kick-off meeting	PČK, ARK, GS, TJ, VB															
Review of project documentation and strategic documents	ARK, MK															
Interview with project provider	PČK, ARK, MK, TJ															
Preparation of survey for doctors in Cabo Verde	ARK, MK															
Preparation of inception report	ARK, MK, GS															
Alignment of methodology and work plan with MFA	PČK, ARK, GS															
Field visit	ARK, GS															
Interviews with stakeholders in Cabo Verde	ARK, GS															
Presentation of field visit findings	PČK, ARK, GS															
Interviews with MFA representatives	PČK, ARK, GS															
Analysis of survey results and findings from interviews	PČK, ARK, GS, TJ, VB															
Preparation of draft final report	ARK, GS, MK															
Alignment with MFA	PČK, ARK, GS															
Preparation & delivery of final report in English and Slovenian	PČK, ARK, GS, MK															
Presentation of evaluation findings	PČK, ARK, GS															

Key deadlines as per contract are:

- 8 December 2017: Kick-off meeting
- 22 December 2017: Inception report
- 20 January 2018: Presentation of findings from field visit
- 3 February 2018: Draft final report
- 3 March 2018: Final report in English and Slovenian
- 16 March 2018: Presentation of evaluation findings

** Project team members:*

- *PČK - Polona Čufer Klep, senior manager and team leader*
- *GS- Gregor Skender, senior consultant*
- *ARK- Aja Ropret Knez, senior consultant*
- *MK- Maja Kunstelj, consultant*
- *VB- Vedran Boškić, health and e-health expert*
- *TJ- Tomo Jarc, health and e-health expert*

A.5. Information sources

Primary Documentation

Institution	Used primary sources
MFA	Official correspondence, Audit reports, Project documentation, Financial planning documentation
ITF	Project proposal, Inception reports, Final reports, Contracts, Monitoring visit reports, Financial documents
NTC	Annual statistical reports

Interviews

	Date	Interviewee
NTC	8.1.2018	Vanda Azevedo, Head of National Telemedicine Centre
Telemedicine Centre Sal	10.1.2018	Helder Almada, specialist in gynaecology and telemedicine centre leader
Ministry of Health CV	12.1.2018	Arlindo do Rosário, Minister of Health and Social Security
MFA CV	12.1.2018	Luís Filipe Tavares, Minister of Foreign Affairs and Communities
ITF	26.1.2018	Martin Silič, Project Manager, ITF
MFA RS	26.1.2018	Matej Kramberger, Embassy of the Republic of Slovenia to Russia – MFA representative involved in project planning
MFA RS	29.1.2018	Alenka Suhadolnik, Director General, Directorate for Economic and Public Diplomacy, Ministry of Foreign Affairs of the Republic of Slovenia – MFA representative, head of Development cooperation sector at time of project inception.

In addition to the aforementioned interviews, continuous electronic communication was held with the contracting authority and the project provider. Answers to evaluation questions were also received electronically from Mitja Hegler (former project manager at ITF involved in project planning and implementation of initial phases).

The online survey for end users (medical professionals including doctors, nurses and technicians) of Cabo Verde was published between 15.1.2018 and 30.1.2018. It was distributed to all medical staff via the National Telemedicine Centre, with a request for further distribution, and we received 28 complete and 14 partial responses. In total, 153 medical professionals accessed the survey.

Additional Information Sources

1. African Development Bank 2014 – Cabo Verde Country Strategy Paper 2014-2018 (https://www.afdb.org/fileadmin/uploads/afdb/Documents/Project-and-Operations/2014-2018_-_Cape_Verde_Country_Strategy_Paper.pdf)

2. Agência Brasileira de Cooperação – Cabo Verde
(<http://www.abc.gov.br/Projetos/CooperacaoSulSul/CaboVerde>)
3. Congressional Research Service 2017 – Cabo Verde: Background and U.S. Relations
(<https://fas.org/sgp/crs/row/R44756.pdf>)
4. EC – International Cooperation and Development: Cabo Verde
(https://ec.europa.eu/europeaid/countries/cape-verde_en)
5. EC 2004 – Aid Delivery Methods, Project Cycle Management Guidelines
(https://ec.europa.eu/europeaid/sites/devco/files/methodology-aid-delivery-methods-project-cycle-management-200403_en_2.pdf)
6. EEAS 2016 – Cape Verde and the EU (https://eeas.europa.eu/headquarters/headquarters-homepage/19890/cape-verde-and-eu_en)
7. IMF 2010 – Cape Verde: Global Report on the Progress of Execution of the Growth and Poverty Reduction Strategy GPRSP II (<https://www.imf.org/external/pubs/ft/scr/2010/cr10367.pdf>)
8. Instituto Português de Apoio ao Desenvolvimento 2010 – Portuguese Development Cooperation 2005-2010 (https://pascal.iseq.utl.pt/~cesa/templates/cesa/images/relatorio_coopPT.pdf)
9. Lux-Development 2016 – Renewable Energy Support Program – Luxembourg in Cabo Verde Renewable Energy Sector (http://www.ecreee.org/sites/default/files/eventatt/luxembourg_renewable_energyprogram_support_29050216.pdf)
10. Ministry of Health (17.1.2018) – Ministers of Health of Portugal and Cabo Verde reinforce cooperation (<http://www.minsaude.gov.cv/index.php/rss-noticias/1075-ministros-de-saude-de-portugal-e-cabo-verde-reforcam-cooperacao>)
11. MF 2010 – Global Report on the Progress of Execution of the Growth and Poverty Reduction Strategy (GPRSP II) (https://www.mf.gov.cv/index.php/legislacao-new/doc_download/719-decrp-iii-final-en)
12. MFA 2015 – Strategy of Foreign Policy of the Republic of Slovenia – Slovenia: Safe, Successful, Globally Respected (http://www.mzz.gov.si/fileadmin/pageuploads/Zakonodaja_in_dokumenti/dokumenti/strategija_ZP_ang.pdf)
13. MFA 2017 – 6th Africa Day international conference opens at Brdo
(<http://www.mzz.gov.si/en/newsroom/news/article//38488/>)
14. OECD 2010 – Evaluating Development Cooperation, 2nd edition
(<https://www.oecd.org/development/evaluation/49898953.pdf>)
15. OECD.Stat (21.2.2018) – Aid (ODA) disbursements to countries and regions
(<http://stats.oecd.org/Index.aspx?DataSetCode=Table2A#>)
16. OECD.Stat – Creditor Reporting System Database
(<https://stats.oecd.org/Index.aspx?DataSetCode=CRS1>)
17. Official Gazette of the Republic of Slovenia 2015 – Declaration of Foreign Policy of the Republic of Slovenia(http://www.mzz.gov.si/fileadmin/pageuploads/Zakonodaja_in_dokumenti/dokumenti/DECLARATIO_N_ON_FOREIGN_POLICY_-_FINAL.pdf)
18. Official Gazette of the Republic of Slovenia 2006 – International Development Cooperation of the Republic of Slovenia Act (<https://www.uradni-list.si/glasilo-uradni-listrs/vsebina?urlid=200670&stevilka=2999>)

19. Official Gazette of the Republic of Slovenia 2011 – Agreement on Development Cooperation between the Government of the Republic of Slovenia and the Government of the Republic of Cape Verde (<https://www.uradni-list.si/glasilo-uradni-list-rs/vsebina/103549>)
20. Official Gazette of the Republic of Slovenia 2008 – Resolution on International Development Cooperation of the Republic of Slovenia (<https://www.uradni-list.si/glasilo-uradni-list-rs/vsebina?urlid=200873&stevilka=3199>)
21. Official Gazette of the Republic of Slovenia 2017 – Resolution on International Development Cooperation and Humanitarian Aid of the Republic of Slovenia (<https://www.uradni-list.si/glasilo-uradni-list-rs/vsebina/2017-01-2441/resolucija-o-mednarodnem-razvojnem-sodelovanju-in-humanitarni-pomoci-republike-slovenije-remrshp>)
22. Russo, G., Cabral, L. and Ferrinho P. 2013 – Brazil-Africa technical cooperation in health: what's its relevance to the post-Busan debate on 'aid effectiveness'? (<https://doi.org/10.1186/1744-8603-9-2>)
23. Spanish Agency for International Development Cooperation (<http://www.aecid.es/EN/aecid>)
24. Spanish Agency for International Development Cooperation 2013 – The Master Plan of the Spanish Cooperation 2013-2016 (http://www.aecid.es/CentroDocumentacion/Documentos/Planificaci%C3%B3n/iv_master_plan_spanish_cooperation.pdf)
25. The Diplomat 2016 – Cape Verde: A Blueprint for China's Positive Role in Africa (<https://thediplomat.com/2016/10/cape-verde-a-blueprint-for-chinas-positive-role-in-africa/>)
26. World Bank 2014 – Cabo Verde: World Bank Group Discuss Country's New Partnership Strategy 2015-2017(<http://www.worldbank.org/en/news/press-release/2014/12/18/cabo-verde-world-bank-group-country-partnership-strategy>)
27. World Bank 2017 – Key country indicators (<https://data.worldbank.org/indicator/AG.SRF.TOTL.K2>)

A.6. Statement of quality assurance

In preparing the evaluation report, Deloitte has closely followed the specifications of the project tender, as defined in the Terms of Reference (see Annex A.1). All evaluation objectives were achieved:

- 'Verification of results and of project implementation in the said period, as well as effectiveness' can be seen particularly from criterion 2 – effectiveness, but also from all other project criteria, i.e. relevance, efficiency, impact, sustainability and Slovenian value added.
- An 'analysis of elements that have impacted project results' has been incorporated, where possible, into all answers to evaluation questions. For the identification of factors affecting project outcomes, interviews with the key stakeholders were crucial.
- An 'analysis of field requirements' was conducted through the evaluation visit at the beginning of January. Two of our team members not only visited telemedicine centres to see the equipment delivered, but also held interviews with key political leaders (Minister of Health and Minister of Foreign Affairs), with all three employees of the National telemedicine centre, and with representatives of the telemedicine centre in Sal.
- A 'preparation of recommendations for the development of future policies, projects and activities' was done on the basis of the evaluation and can be seen in a consolidated manner in chapter 6. Recommendations are divided into key and other recommendations for clarity and each recommendation is assigned the stakeholder responsible.

Deloitte closely followed the OECD guidelines defining the main components of an evaluation report and proposed outline, which were also part of the tender documentation. We referred to OECD and other international institutions' guidelines where needed.

To ensure veracity (to the maximum extent possible) we triangulated our findings through more methods and interviewed stakeholders with different stakes and viewpoints to avoid presenting biased results. We also commissioned a subcontractor (Parsek d.o.o) for the appraisal of the quality of telemedicine equipment.

A.7. Evaluation brief

The Ministry of Foreign Affairs contracted an external evaluator to perform an independent evaluation of telemedicine and e-health projects provided through development cooperation by the Republic of Slovenia (RS) to Cabo Verde. The aim of the evaluation was to determine project results in the period between 2011 and 2017, to gain insight into their alignment with the needs of Cabo Verde, on one hand, and Slovenian development cooperation policy, on the other, and to reach recommendations for the development of future policies, projects and activities.

The projects:

- Were implemented by ITF in three phases between 2011-2017, with III. Phase expected to conclude in 2018
- Amounted to €1.3 million of funds (distributed by RS to Cabo Verde)
- Are based on the Agreement between the Government of the Republic of Slovenia and the Government of Cabo Verde.
- Form the integrated telemedicine and e-health programme in the country
- Include teleconsultation carts, videoconferencing centre and e-library, as well as trainings for the use thereof
- Aim to reduce number of patient evacuations and number of travels by medical staff, leading to lower public health costs, and improve quality of health care

Findings

- The telemedicine projects were successful, *effective* and *efficiently delivered*.
- They are found to be fully *in line with the national priorities* of Cabo Verde and both political leaders and medical professionals are very satisfied with the establishment of the national telemedicine programme.
- The high priority of the project on the national agenda translated into *ownership* of the program by all key stakeholders, which is key for ensuring *sustainability* – integration into the healthcare system of Cabo Verde, financing of the national (coordinating) telemedicine centre, provision of adequate space for videoconferences, and employment of two full time administrators for telemedicine.
- Project cooperation has also strengthened bilateral relations between the two countries, paving the way for potential further cooperation in other areas.
- Low visibility of RS among end users; because Slovenia doesn't have own know-how in telemedicine, the implementing partner and equipment provider were both American

To conclude, though the telemedicine programme can be considered a success, the evaluator finds there to be, after the conclusion of phase III in 2018, a sufficient number of telemedicine centres to cater to the Cabo Verdean population. This, combined with low proprietary telemedicine expertise leading to suboptimal visibility of RS, leads to the recommendation that the MFA discontinues with financing telemedicine in Cabo Verde but to instead divert funding to other areas of cooperation or other developing countries, better in line with Slovenia's own competitive advantage and specialisation areas.

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