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# Swiss TPH Strategy 2021-2024

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# 1 Purpose, Vision and Mission

## 1.1 Purpose

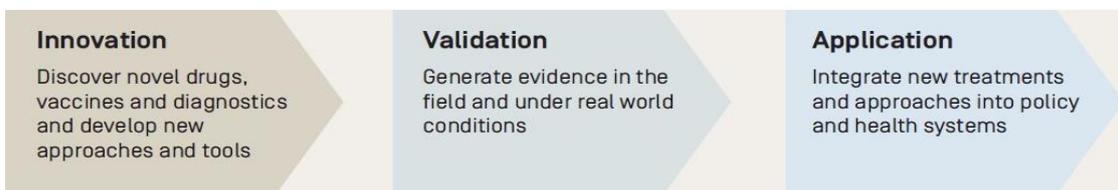
The Swiss Tropical and Public Health Institute (Swiss TPH), founded in 1943, is a public institution based on the local and federal laws of Switzerland. As an associated institute of the University of Basel, a contract between Swiss TPH and the University of Basel defines its scope of work. Since 1 January 2017, Swiss TPH is governed under a bi-cantonal treaty between Basel-Stadt and Basel-Landschaft. At the national level, the State Secretariat for Research, Education and Innovation provides oversight of the scope of work of Swiss TPH. Since its foundation, Swiss TPH has pursued a three-pronged approach consisting of:

- Research
- Education
- Services

For more than 75 years, Swiss TPH has grown and developed its portfolio of activities, and strengthened local, national and international partnerships and networks. By the end of 2021, the headquarters will operate under a single roof<sup>1</sup> in a multi-functional building named “Belo Horizonte” in an innovation and life science cluster located in Allschwil, canton Basel-Landschaft. The travel clinic that provides travel advice, vaccination and medical consultations will remain at its current location in the centre of Basel-Stadt.

Swiss TPH is internationally renowned for its unique ability to provide high-quality research, education and services in the field of public, international and global health. **Research** is directed at discovering fundamental new insights into the mechanisms of infectious and non-communicable diseases, advancing basic science in infection biology of poverty-related diseases, fostering application and validation of novel drugs, diagnostics and vaccines, and improving translational outputs and implementation of health-promoting interventions and treatments. **Education** and training is directed at providing educational programmes for researchers, health care providers and future leaders at all levels in the field of global health. **Services** are directed at strengthening health systems and improving health service delivery, placing particular emphasis on low- and middle-income countries. Additionally, Swiss TPH serves as national reference centre for tropical and travel medicine, provides a reference diagnostic laboratory for human parasitic diseases and supports “service-for-research” projects.

Swiss TPH covers the entire value chain from **innovation** (e.g. discovery through fundamental research and promotion and testing of hypotheses), to **validation** (e.g. testing of new tools and strategies in real-world settings) to **application** (i.e. strengthening individual and public health actions, systems and policies and delivery at scale).



Swiss TPH operates locally, nationally and internationally and has three main sources of core funding:

- University of Basel
- Governments of Basel-Stadt and Basel-Landschaft
- State Secretariat for Research, Education and Innovation (SERI)

<sup>1</sup> Swiss TPH has seven buildings spread between Socinstrasse, Eulerstrasse and Missionsstrasse in Basel-Stadt: This hampers interdisciplinary work and co-creation.



With a core funding of about 20%, Swiss TPH relies in a very important way on research, consultancy and service mandates from a broad range of agencies. The most important partners providing funding are the Swiss Agency for Development and Cooperation (SDC), the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund), the Bill & Melinda Gates Foundation (BMGF), the Swiss National Science Foundation (SNSF) and the European Union (e.g. European Research Council [ERC] and Horizon 2020/Horizon Europe Programmes).

For the 4-year strategic period 2021-2024, Swiss TPH is working towards higher and sustained core contributions. In line with the recommendations put forth by the External Review Board, core funding should contribute at least one third of the overall budget<sup>2</sup>. The main part of funding comes from competitively acquired research grants, national and international tenders for health research and development and the provision of medical and diagnostic services.

Swiss TPH is committed to the achievement of the 2030 Agenda for Sustainable Development, placing particular emphasis on Sustainable Development Goal (SDG) 3 (“Ensure healthy lives and promote well-being for all at all ages”) and Universal Health Coverage (UHC).

## 1.2 Vision

To make the world a healthier place.

## 1.3 Mission

Swiss TPH is dedicated to improving the health and well-being of people – locally, nationally and internationally – through excellence in research, education and services.

# 2 Strategic Goals of Swiss TPH

Swiss TPH pursues three **Strategic Goals**:

- Excellence in science
- Taking science to impact
- Mutual learning for sustainable development

## 2.1 Strategic Goal #1: Excellence in Science

**We generate knowledge on disease- and health systems and develop new tools and interventions.**

Swiss TPH pursues basic, translational and operational research. The research ranges from the laboratory and desk to the field, addresses infectious and non-communicable diseases, focuses on molecules, genes, cells, individuals, communities and populations, uses modern digital approaches, and cross-fertilises methodologies across different diseases, health and social-ecological systems.

Long-standing partnerships built on mutual trust are a central feature of our activities and impact. Excellence in basic research, coupled with a vast experience in personalised, public and global health, are our key assets to deepen the understanding of disease- and health systems in different contexts, and to help discover new drugs, diagnostics, vaccines and other interventions to improve global health.

***Outcome: By the end of 2024, Swiss TPH is among the top 5 research institutions in global health worldwide.***

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<sup>2</sup> According to the latest figures (31 December 2018), the core funding of Swiss TPH is at 22% of the overall budget, while competitively acquired funding makes up the remaining 78%.



## 2.2 Strategic Goal #2: Taking Science to Impact

**We inform health policies, strengthen health systems and implement tools and interventions for high-quality health services and public health at a local, national and global scale.**

Based on its broad experience and proven track record in cutting-edge research, capacity building and implementation, Swiss TPH constantly innovates, validates and applies new interventions in a systems approach to improve the health and well-being of individuals, communities and populations. Interventions are data-driven, evidence-based, rigorously validated and ethically approved before any broader role-out. Swiss TPH guides global health action through a process of partnership, capacity building, dialogue, mutual trust and service delivery.

Swiss TPH is a reference centre for the diagnosis of parasitic diseases and provides travel advice, treatment and vaccination. It holds a unique position of recognition by the Swiss Government and the World Health Organization (WHO)<sup>3</sup> as a hub for policy research, advice and dissemination. Additionally, due to the long-standing partnerships in many of the countries where it operates, Swiss TPH frequently contributes to policy development for Ministries of Health and other stakeholders.

***Outcome: Swiss TPH is one of Europe's leading service providers in the field of global health. Emerging thematic priorities in global health are identified and innovative solutions are developed and advanced.***

***Outcome: By the end of 2024, national confirmation of Swiss TPH's standing as the premium travel and tropical medicine clinic in Switzerland for travellers, clinicians and the media.***

## 2.3 Strategic Goal #3: Mutual Learning for Sustainable Development

**We share knowledge and practical expertise with partners, students, professionals, beneficiaries, organisations and society.**

Swiss TPH operates in a spirit of mutual learning for sustainable development, building capacity at the level of individuals, institutions, systems and networks. Our employees are keen learners, educators and trainers and share discoveries, innovations, knowledge and practical expertise with students, partners, beneficiaries and other stakeholders. In turn, this process drives excellence in research and education and spurs innovation and sustainable development that contributes to the organisational learning of Swiss TPH and its partner institutions.

***Outcome: By the end of 2024, Swiss TPH is the leading Swiss institution in graduate and postgraduate education in health and recognised for its role in institutional and programmatic capacity building in global health.***

# 3 Strategic Topics<sup>4</sup>

The three **Strategic Goals** will be pursued through eight interrelated and transversal **Strategic Topics (STOs)**<sup>5</sup>. The Swiss TPH STOs have been updated in this strategy document to reflect key emerging issues in global health linked to the Sustainable Development Goals (SDGs).

Poverty-related diseases remain important causes of mortality and morbidity worldwide, partly because of the emergence of drug resistance. Non-communicable diseases have become a major concern globally, with the poor being affected disproportionately. The co-occurrence of infectious and non-communicable diseases

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<sup>3</sup> Swiss TPH hosts three WHO Collaborating Centres, namely (i) Epidemiology and control of helminth infections; (ii) Health technology management and eHealth; and (iii) Modelling, monitoring and training for malaria control and elimination.

<sup>4</sup> Note that in the preceding 4-year Swiss TPH strategy (2017-2020), these were "Key Areas of Activities" (KAAs).

<sup>5</sup> Specific objectives and expected outputs of the Strategic Topics are summarised in **Annex 1**.



poses new challenges for prevention, diagnosis and patient management. These transitions occur in an increasingly globalised world, where rapid urbanisation and frequent migration impact the economic, physical and social-ecological environment that have important ramifications on human and animal health and well-being. While new technologies enable a personalised approach to patient care and health prevention in high-income countries, these technologies lead to many new challenges for health systems in low- and middle-income countries, and highlight the changing demands with respect to access to health care and health equity.

Progress towards achievement of our strategic goals is monitored through qualitative and quantitative indicators and measurable outputs for each STO that are regularly reviewed and refined. The eight STOs for the Swiss TPH strategy period 2021-2024 are the following<sup>6</sup>:

### **3.1 STO #1: Infection Biology and Molecular Epidemiology**

**Generating new insight into the biology and molecular epidemiology of poverty-related infectious diseases.**

In the field of the life sciences, Swiss TPH places particular emphasis on malaria, tuberculosis and other poverty-related infectious diseases. We use state-of-the-art basic research methodologies to dissect the biological processes underlying pathogen survival, host-pathogen interactions, drug resistance and host immunity. Swiss TPH employs innovative molecular and genomic epidemiological studies, combined with computational approaches, to understand the evolution, diversity and transmission dynamics of pathogens, vectors and host populations, as well as the dynamics of pathogen transmission. Our discoveries generate novel insight into infection biology and disease epidemiology and drive innovation for the development of new drugs, diagnostics and vaccines.

### **3.2 STO #2: Diagnostics, Vector Control, Vaccines and New Drugs**

**Developing, validating and applying drugs, diagnostics, vaccines, vector control measures and computational tools for the improvement of global health.**

Swiss TPH conducts product-oriented research and contributes to the entire value chain of related research and development (R&D) processes. It undertakes preclinical and clinical product development of drugs, diagnostics and vaccines for poverty-related infectious diseases. Swiss TPH has a record of accomplishment in designing, conducting and monitoring clinical trials for vaccine candidates, novel diagnostic tools and new or repurposed drugs against parasites, viral and bacterial pathogens and for establishing vector control measures. Swiss TPH promotes the clinical development and post-approval validation of newly developed vaccines, drugs, diagnostic tests and vector control tools.

### **3.3 STO #3: Personalised and Digital Health**

**Defining markers for disease control and surveillance and conducting research using cohorts and biobanks by means of longitudinal characterisation of participants.**

Systems epidemiology integrates genetic, molecular, computational, imaging and other technologies that allow for the broad characterisation of individuals' health phenotypes and living contexts. These methods form the basis of personalised health research that aims to individualise and improve the prediction, prevention and management of infectious and non-communicable diseases. Swiss TPH is extending the concept of personalised medicine to the public and global health context by establishing a research, resource and teaching platform for personalised health within Switzerland, Europe and low- and middle-income countries. To maximise the public health and clinical utility and to minimise harm and avoid unnecessary costs of personalised health, there is a need for population-based data in near real-time. Information and clinical decision support systems based on digital health technologies are tested, validated and scaled-up in view of optimising routine health care delivery in low- and middle-income countries.

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<sup>6</sup> The Strategic Topics will be scrutinised and continuously developed throughout the 4-year strategic period (2021-2024), and hence, may slightly change their heading over the course of the current strategic period.



### **3.4 STO #4: Environment and Health**

**Improving the health and well-being of people by addressing determinants of health in human-environmental systems.**

Swiss TPH aims for sustainable prevention, surveillance and control of infectious and non-communicable diseases and improving environmental conditions for the benefit of public and global health by conducting interdisciplinary and translational research. Swiss TPH assesses environmental exposures such as indoor and outdoor air pollution, radiation, climate change, noise, pesticides and water pollution with innovative ecological and system-based approaches such as “One Health” and “EcoHealth”. Swiss TPH conducts research on the complex interplay of risk and protective factors affecting the health and well-being of people, and apply state-of-the-art exposome approaches towards improving mechanistic and causal understanding of these processes. We bring our expertise into relevant national and international policy boards and commissions to assure a science-to-policy translation.

### **3.5 STO #5: Society and Civic Engagement**

**Striving for social justice in health and engaging with people in the process.**

Swiss TPH strives for social justice and equity in health by providing leadership and excellence in research, project design and implementation. Our formative and applied research, implementation and evaluation engages stakeholders, including citizens, in co-creation processes while adopting a gender, age, diversity and human rights perspective. Our research is conducted at the intersection of social, cultural, political and structural determinants of health, along the life course in different societies. We engage with public health policies and programs from a local to global level with a focus on sexual and reproductive health, disease control and elimination, sustainable health systems. We tailor evidence-based policies and programs for sustainability across different social-ecological systems.

### **3.6 STO #6: Health Systems and Interventions**

**Translating evidence and strengthening health systems and policies.**

Swiss TPH shows leadership in health systems strengthening in the context of the 2030 Agenda for Sustainable Development and the drive to achieve Universal Health Coverage. Swiss TPH generates and translates evidence into health policy and planning through research, services, policy dialogue and capacity building to integrate interventions into diverse health systems, as well as to tackle systemic challenges like health workforce development and supply chain issues. In recognition of the importance of real-world data for decision-making, Swiss TPH draws on a wealth of expertise and applies mixed method analyses, intervention studies and clinical trials to understand the impact of existing and innovative interventions both on and in the system. The thematic foci include aspects such as health information systems and digital health interventions, health insurance, financing and resource allocation, health workforce development, and medicines management alongside interventions that target specific health conditions and aim towards the control and elimination of disease and enabling equitable access to health services.

### **3.7 STO #7: Mobility, Migration and Outbreak Investigation**

**Assessing the healthcare needs in mobile populations, internally displaced people and international refugees, while maintaining an institutional expert group for outbreak investigation.**

Swiss TPH plays an important role in traveller’s health, while increasingly building up its expertise in migration health and capacity for outbreak investigation. Swiss TPH conducts observational and interventional research related to improving traveller’s health. Generated evidence flows into guidelines and policies as well as into teaching courses on travel and tropical medicine in Switzerland and abroad. Swiss TPH continues to build expertise in migration health and expands its scope to transit countries, internally displaced populations and fragile settings. Research on migration health focuses on “causes of fever”, the role of non-communicable diseases and mental health issues, especially in vulnerable populations. Swiss TPH aims to develop a multidisciplinary expert group for specific outbreak investigations that can rapidly assess and investigate relevant questions in an outbreak setting, and generate evidence for advising governments, national and international organisations in adequate management measures.



### 3.8 STO #8: Statistical and Mathematical Modelling

**Generating evidence on disease and health through the development and application of computational, statistical and mathematical modelling of biological disease and epidemiological data.**

Quantitative sciences are at the core of biological disease and public health research globally and continue to grow in importance. Swiss TPH develops and applies quantitative approaches throughout the value chain of innovation, validation and application to address questions in health and understand disease dynamics at the host, population and systems level. Swiss TPH contributes model-based evidence to decision makers at the national and global policy level. Swiss TPH has a record of accomplishment in space-time and geo-spatial analyses of exposures, risk factors and patterns of disease, and in mathematical and simulation modelling of infectious diseases, specifically malaria, tuberculosis and other poverty-related diseases. Swiss TPH analyses myriad disease and epidemiological data, with a focus on causal inference using observational, longitudinal and clinical trial data.

## 4 Working Environment

Swiss TPH is a diverse and dynamic organisation that benefits from working across departments, cultures and topics and applies the knowledge it gains to the people and countries where services and projects are implemented. To this effect, Swiss TPH places a high value on the **Guiding Principles** that underpin how we work and on the **Core Competencies** that provide essential technical and intellectual expertise to support Swiss TPH's vision, mission and strategic goals and topics.

### 4.1 Guiding Principles

Five **Guiding Principles (GPs)** shape Swiss TPH's work towards achieving the three strategic goals.

#### 4.1.1 GP #1: Cooperation

**Swiss TPH fosters strategic partnerships and alliances.**

Swiss TPH forms strategic alliances with centres of excellence<sup>7</sup> at the local, national and international level, based on clearly defined roles and responsibilities. Projects, programmes and policies are developed and implemented in partnership<sup>8</sup>. Swiss TPH respects equity, ecological principles, the highest ethical, scientific and technical standards, and global human rights for access to health, education and other social services. Swiss TPH pursues all activities in a spirit of mutual trust, bringing together networks of research and public health experts in Switzerland and abroad and promoting civic dialogue.

#### 4.1.2 GP #2: Courage

**Swiss TPH is a courageous and learning organisation.**

Swiss TPH is fast at adapting to changes in technologies and science, orienting itself towards worldwide benchmarks. It aims to drive digital transformation in all fields of activities. The agile, dynamic and multidisciplinary teams at Swiss TPH allow it to efficiently and effectively address the relevant issues in health, environment and society. Swiss TPH allocates its talents where they fit best and where the strengths of its employees readily unfold, promoting an environment characterised by interdisciplinary work, co-creation, shared decision-making, and learning from successes and challenges.

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<sup>7</sup> See list of local, national and international strategic alliances and centres of excellence in **Annex 2**.

<sup>8</sup> See list of long-term partnerships in **Annex 2**.



### 4.1.3 GP #3: Impact

#### **Swiss TPH has a local, national and global presence and influence.**

Swiss TPH translates science into action by directly engaging a diverse set of stakeholders, including policy-makers, researchers, students, patients and the general public. Bringing science from bench to people and health systems is at the core of Swiss TPH's operations. Its local, national and global presence is assured through Swiss TPH's long-standing partnerships<sup>9</sup> in East, West, and Central Africa, Southeast Asia, Eastern Europe and Latin America, assuring strong cooperation and coordination with the local partners which is reinforced by offices and management structures. Thanks to the reciprocal nature of the established local networks and strong coordination, Swiss TPH has a regional and global influence.

### 4.1.4 GP #4: Sustainability

#### **Swiss TPH strives for solid financial structures and environmental consciousness.**

Working towards the sustainable development of Swiss TPH, an increased core funding (aimed at one third of the annual budget) and positive operating results are essential to realise future strategic investments in infrastructure, research, life-long education and services. Planning of strategic investments and transparent and clear cost control are indispensable components of maintaining the financial stability of Swiss TPH. Consolidating the considerable growth over the past 20 years involves further investments in employees, policies, processes and management tools. At the same time, with all its activities around the globe, Swiss TPH is conscious about the environment and aims at significantly reducing its own environmental footprint by 2024.

### 4.1.5 GP #5: Inclusion and Diversity

#### **Swiss TPH embraces people, culture and diversity.**

Diversity, commitment to inclusive participation and creativity are at the roots of the further development of Swiss TPH as an organisation. Swiss TPH employees interact internally and externally, facilitated through a large network of partners and clients all over the world, in a responsible way, respecting the social, cultural and ecological contexts and knowledge systems of individuals, communities and networks.

## 4.2 Excellence in Governance<sup>10</sup>

Swiss TPH constantly improves the skill sets and performance of its employees and students within the frame of a diverse and multicultural environment. The objective of the management and support functions are to work with joy in an agile, collaborative and open-minded spirit towards maximising effectiveness and efficiency of our activities. Our aim is to be a dynamic, transparent, flexible and adaptive organisation.

All managerial and administrative activities focus on ensuring a trustworthy communication and transparent processes within and outside of Swiss TPH. Efficient procedures are maintained through standardisation, integration and digitalisation with an institution-wide, competency-based allocation of roles and responsibilities.

### 4.2.1 Attractive and Fair Employer

#### **Swiss TPH aims to attract passionate employees.**

Swiss TPH is an inspiring employer that offers an employee-oriented culture in an environment of modern working conditions, inclusion and diversity, development and passion for our STOs.

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<sup>9</sup> Swiss TPH alliances and partnerships are listed in Annex 2

<sup>10</sup> Specific objectives for Excellence in Governance are listed in Annex 3.

#### **4.2.2 Decisive Business Intelligence**

**Swiss TPH provides accurate and timely financial and analytical information for decision management support.**

The provision of accurate and timely financial and analytical information for managing and steering Swiss TPH strategically and operationally are achieved by promoting transparency, fairness, economic consciousness, best practice of accounting standards, strategic asset allocation and solid risk assessment.

#### **4.2.3 Evolutionary Business Service Provision**

**Swiss TPH evolves ICT towards business service provision and technological fitness for the future.**

Swiss TPH ensures functionally rich, stable, reliable, well-protected and well-performing information and communications technology (ICT) services based on agreed requirements, standardised processes, defined service quality and in accordance with all relevant rules and regulations. The fast and increasing change in ICT, new requirements from research and education, and the general move towards digitalised services is approached with a substantial degree of flexibility to change. In addition, ICT service provision is adapted in a timely but controlled way to sustain the future success of Swiss TPH.

#### **4.2.4 Integrated Services and Infrastructure**

**Swiss TPH provides optimal services and infrastructure for the core business.**

Swiss TPH infrastructure fulfils the needs of physical workplaces (office, laboratory and teaching facilities) and provides a conducive and productive working environment. This is accomplished by efficiently and effectively managing a wide range of function and support services, including building management, safety and security, reception services, telecommunication systems and other essential support duties.

#### **4.2.5 Efficient Supply Chain Services**

**Swiss TPH provides efficient, compliant and standardised sourcing and supply chain services.**

Swiss TPH implements a centralised supply chain support, which endorses the essential business functions in the sourcing process. The support is efficient and compliant to national, international, ethical and legal obligations.

#### **4.2.6 Balanced Project Portfolio**

**Swiss TPH strives for a sustainable project portfolio and management.**

Swiss TPH cultivates a sustainable, well-balanced and strategically relevant project portfolio. Project and grant services, a central research management and development structure, liaises with internal and external partners, increases the visibility of Swiss TPH to international stakeholders, and builds capacity in grant applications and project management.

#### **4.2.7 Healthy and Safe Work Environment**

**Swiss TPH is highly committed to health, safety, security and environmental protection.**

Swiss TPH provides safety and security for people, physical assets, data, IT infrastructure and intellectual property by building on a proactive health, safety, security and environmental protection culture among managers and all employees. It integrates preventive measures into all research, education and service activities.



#### 4.2.8 Active Communication

**Swiss TPH pursues active communication with stakeholders, clients, donors and funders.**

Swiss TPH implements internal and external communication measures, which further strengthen its local, national and international reputation as a centre of excellence in global health for research, education and services. Communication activities include event management, content creation (print and online), social media management, media relations, marketing and internal communications.

#### 4.2.9 Measured Impact

**Swiss TPH continuously improves its activities through monitoring, feedback mechanisms and impact measures.**

The strategic performance and impact of Swiss TPH is monitored and evaluated regularly by means of impact assessments and various key performance indicators referencing achievements with internal and external (e.g. Sustainable Development Goals and Universal Health Coverage) objectives. A quality improvement process is in place that is in line with the principles and standards of European Foundation for Quality Management (EFQM).

### 4.3 The Core Competencies

The innovative potential of Swiss TPH is rooted in a set of core competencies. Eight **Core Competencies (CCs)**<sup>11</sup> facilitate Swiss TPH's work and enhance effectiveness towards achieving the three Strategic Goals and the eight STOs. Swiss TPH has a broad and comprehensive set of CCs, which is constantly evolving due to the changing needs in global health. For the period 2021-2024 the following CCs are required to fulfil the STOs:

#### 4.3.1 CC #1: Cohorts and Biobanks

**Excellence in managing citizen and patient cohorts and biobanks.**

Swiss TPH respects national and international data protection and safety guidelines. Swiss TPH integrates modern personalised data, which captures methods such as sensing, imaging, eHealth and –omics approaches into large established cohorts. The goal is to provide and facilitate internationally competitive personalised health and medicine research from bench-to-patient and individual-to-health systems.

#### 4.3.2 CC #2: Laboratory Sciences

**Broad expertise in laboratory-based biological and immunological research that supports basic and translational science and capacity building in the field of infectious and non-communicable diseases.**

Swiss TPH has a broad portfolio of expertise and hosts a diverse set of methodologies in scientific research through a diagnostic laboratory for tropical infectious diseases (National Reference Centre for Imported Parasitic Diseases), an animal core facility (with unique *in vivo* parasite life cycles) and laboratories for basic and translational research. Laboratory-based research at Swiss TPH focuses on malaria, tuberculosis, trypanosomiasis, leishmaniasis and parasitic worm infections using approaches encompassing molecular and cellular biology, genetics, immunology, evolutionary biology and drug development. This expertise is leveraged for scientific collaborations inside Swiss TPH and with local, national and international academic and industry partners.

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<sup>11</sup> Specific objectives and expected outputs of the Core Competencies are summarised in **Annex 4**.



### 4.3.3 CC #3: Epidemiology and Clinical Trials

**Excellence in the design, conduct and evaluation of epidemiological studies and clinical trials, including monitoring and evaluation.**

Competence in epidemiology and clinical trials are the foundation of many Swiss TPH activities. Swiss TPH designs, implements, manages and analyses observational and intervention studies in an interdisciplinary manner, and has broad expertise in big data modelling and forecasting. Swiss TPH is also known for its capacity for conceptualising, conducting and monitoring clinical phase I-IV trials for the development of new drugs, vaccines and diagnostics in low- and middle-income countries. Swiss TPH's strength is the rigorous adherence to a quality management system to protect the rights, safety and integrity of study participants. Swiss TPH applies the highest ethical and regulatory standards to ensure credibility of the data obtained.

### 4.3.4 CC #4: Health Social Sciences and Qualitative Methods

**Excellence in health social and behavioural sciences and humanities, including qualitative and mixed methods to achieve innovation in basic, translational and operational health research.**

Swiss TPH acts as a 'learning platform' where its tools and instruments in health social sciences and qualitative methods lead to a better understanding of people's vulnerability and resilience in health, and providers' and stakeholders' perceptions and attitudes of health and care. Swiss TPH explores fundamental human dimensions of health within different cultural and political contexts and societal dynamics. Transdisciplinary approaches and participatory methods are key to encourage people's engagement and participation in health issues and to achieve change jointly. In this way, qualitative methods contribute to the improvement of health to the strengthening of sustainability of health system change, and to the promotion of a healthy life course of individuals and populations globally. Swiss TPH's people-centred approach fosters stakeholder and civic engagement in health and health systems research and programmes. Intersectional scientific approaches together with people's contextual experiences become integrated into projects and processes from planning to implementation. This includes the study of new collaborative forms of communication, negotiation and decision-making between stakeholders, technical experts and scientists, community representatives, and people who are involved and affected.

### 4.3.5 CC #5: Computational Health Sciences

**Excellence in data handling paired with an in-depth knowledge of underlying processes and requirements in research, education and services.**

Swiss TPH strives to continuously improve its knowledge and expertise with regard to information technologies with the support of general health information from –omics data to overall decision-making and the higher-order thinking through algorithms and automated processing. Swiss TPH's efforts facilitate flexible and innovative research approaches, up-to-date education support and excellent services. Swiss TPH strengthens the respective IT communities in-house and fosters collaboration with strategic partners such as the Centre of Scientific Computing (sciCORE) at the University of Basel.

### 4.3.6 CC #6: Education and Learning

**Swiss TPH fosters life-long learning for change.**

Swiss TPH provides teaching and training on the BSc, MSc and PhD levels as well as in postgraduate advanced Master, Diploma and Certificate Studies as part of the commitment to continuous education and life-long learning. Swiss TPH's teaching offers strengthen the learning experience of students at the University of Basel. Swiss TPH is a driving force in national and international teaching networks. Hundreds of new students enrich the Swiss TPH Alumni network every year – a valuable resource for further research, training and service activities. Swiss TPH's teaching activities respond to the rapidly changing environment by addressing the newest health challenges, using the latest teaching developments that are tailored to the specific needs and demands of the next generation of students.



#### **4.3.7 CC #7: Data, Quality and Project Management**

##### **Excellence through targeted high quality research and implementation data.**

Swiss TPH uses the EFQM business excellence model as a framework to define and continuously improve its processes and outcomes along the entire value chain from innovation to validation and application. Producing, monitoring and verifying high-quality research and implementation data is crucial and enables Swiss TPH and its project partners to reach ambitious project targets. As an innovative and learning institution, Swiss TPH conceptualises and designs its research and service implementation projects based on the mutual understanding of the requirements of partners and stakeholders. Swiss TPH is committed to implementing small and large-scale projects at a high quality and to the satisfaction of its partners and clients. Swiss TPH excels in continuously improving and adapting its processes towards higher quality targets, evaluating its outcomes at all levels using advanced scientific methodology and, finally, communicating its findings to its stakeholders and the international research community.

#### **4.3.8 CC #8: Policy Advice**

##### **Impact through policy advice and practice based on best evidence.**

Swiss TPH provides strategic advice to local, regional, national and international health authorities and develops tailor-made solutions for a variety of clients, including UN agencies, bilateral or multilateral development agencies, non-governmental organisations, foundations and the private sector. Swiss TPH applies evidence-based approaches and solutions, including systematic reviews, to effectively enhance the performance of health systems and increase access to health services, in particular in low- and middle-income countries.

## **5 Annex**

### **5.1 Annex 1: Specific Objectives and Expected Outputs of Strategic Topics**

Strategic Topic	Specific objectives	Expected Outputs
<p><b>STO #1:</b> <b>Infection Biology and Molecular Epidemiology</b></p>	<p>The specific objectives for the 4-year strategy period (2021-2024) are:</p> <ul style="list-style-type: none"> <li>• To gain fundamental new insight into the biology, evolution, transmission and epidemiology of poverty-related infectious diseases</li> <li>• To develop knowledge and tools supporting the discovery and evaluation of new drugs, vaccines, diagnostics and other disease control measures aiming to improve the health and well-being of people living in disease-endemic areas</li> </ul>	<p>By the end of the 4-year strategy in 2024, we expect the following outputs:</p> <ul style="list-style-type: none"> <li>• Identified and characterised molecular mechanisms underlying pathogen survival, virulence, transmission and drug resistance</li> <li>• Determined host factors affecting disease susceptibility and immunity</li> <li>• Investigated host-pathogen interactions at the genetic and phenotypic level using large-scale epidemiological studies</li> <li>• Improved the understanding of disease transmission dynamics and drug resistance evolution in the field through the generation and analysis of molecular and genomic datasets</li> <li>• Developed and implemented new tools, including cellular infection models and molecular typing methods, to expedite basic and applied research and to assess the effectiveness of control measures against poverty-related infectious diseases</li> </ul>

<p><b>STO #2: Diagnostics, Vector Control, Vaccines and New Treatments</b></p>	<p>The specific objectives for the 4-year strategy period (2021-2024) are:</p> <ul style="list-style-type: none"> <li>• To design candidate vaccines, drugs, diagnostics, and vector control tools for neglected and poverty-related diseases</li> <li>• To improve disease control and patients' treatments and quality of life through clinical research with a focus on diagnostics, vaccines, drugs and medical devices</li> <li>• To develop and implement innovative trial and study designs and high quality standards to accelerate registration of, and access to, diagnostics, new vaccines, drugs and medical devices</li> </ul>	<p>By the end of the 4-year strategy in 2024, we expect the following outputs:</p> <ul style="list-style-type: none"> <li>• Developed and evaluated new drug and vaccine candidates, further treatment options, diagnostics, medical devices and vector control tools</li> <li>• Deepened the understanding and identified, developed and determined new tools for identification and pre-clinical validation of such candidate products</li> <li>• Conducted field trials to evaluate and strengthen vector control and diagnostics tools</li> <li>• Conducted phase I-III clinical trials to evaluate the safety and efficacy of new drugs, medical devices and vaccines</li> <li>• Conducted phase IV clinical trials to demonstrate the safety, feasibility and effectiveness of health interventions</li> <li>• Conducted interdisciplinary studies to enhance adherence to new treatments and vaccines, and to mitigate implementation constraints</li> </ul>
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<p><b>STO #3:</b> <b>Personalised and Digital Health</b></p>	<p>The specific objectives for the 4-year strategy period (2021-2024) are:</p> <ul style="list-style-type: none"> <li>• To apply personalised and digital health as well as exposome methods (e.g. –omics, imaging, sensing, exposure modelling; Mendelian randomization, molecular mediation) to improve causal understanding of factors influencing well-being, aging as well as disease aetiology and progression at the individual and population level</li> <li>• To develop and implement a wide range of processes and procedures that facilitate digital transformation for the improvement of precision epidemic forecasting, health services, for health care financing, health research and health promotion</li> <li>• To evaluate the implementation of personalised health from a public health perspective (e.g. access, quality and social-equity)</li> <li>• To further profile and validate clinical decision support so to improve quality of care and health systems performance</li> </ul>	<p>By the end of the 4-year strategy in 2024, we expect the following outputs:</p> <ul style="list-style-type: none"> <li>• Maintained and scientifically exploited the SAPALDIA cohort and biobank and contributed with this resource to national and international personalized health and exposome research projects to assure stable funding</li> <li>• Collaborated with local experts to strengthen Swiss TPH and the University of Basel as a systems epidemiology hub in Switzerland (e.g. biomedical engineering, radiology, ophthalmology, toxicology, respiratory health, mental health and health economics)</li> <li>• Established the Basel area health and demographic surveillance system (HDSS) for population-based research that is in direct contact with and serves the well-being and health needs of people living in Basel-Stadt and Basel-Landschaft</li> <li>• Assured the scientific lead and contributed to the piloting, scaling-up and implementation of a the “Swiss Health Study – For me – For all”; the first national citizen cohort and biobank, including at least 100,000 citizens and jointly run by the network of Swiss public health partners as a resource for human biomonitoring, exposome research and health systems research</li> <li>• Established internationally harmonised and comparative cohorts and biobanks with key partner institutes in Côte d’Ivoire, Lao PDR and Peru, among others, to broaden disease understanding by broadening the studied phenome and exposome and in particular improved understanding of both, communicable and non-communicable diseases as well as their interrelation, taking host-parasite interactions and host susceptibility into consideration</li> <li>• Statistically analysed and modelled molecular and genetic data to inform transmission and disease dynamics, epidemiological patterns, and development and spread of drug resistance</li> <li>• Clinical decision support systems established, validated and integrated in routine health service delivery in low- and middle-income countries</li> </ul>
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<p><b>STO #4:</b> <b>Environment and Health</b></p>	<p>The specific objectives for the 4-year strategy period (2021-2024) are:</p> <ul style="list-style-type: none"> <li>• To understand the interplay between predictors of health in the human environment system</li> <li>• To understand social practices in the human environment system and its relevance for improving environmental conditions</li> <li>• To improve environmental conditions for the benefit of public health in related to the Sustainable Development Goals</li> </ul>	<p>By the end of the 4-year strategy in 2024, we expect the following outputs:</p> <ul style="list-style-type: none"> <li>• Developed and established new theories and concepts of health capable of demonstrating synergistic benefits of integrated approaches</li> <li>• Conducted case studies demonstrating the advantage of systemic approaches to improve people's health and well-being in rural South Africa, the highlands of Peru, pastoralist societies in Ethiopia and other settings</li> <li>• Established sustainable environmental health studies in the South/East and Europe, including Switzerland</li> <li>• Developed and made use of innovative exposure assessment tools</li> <li>• Engaged in transdisciplinary co-production of knowledge between academic and non-academic actors for societal problem solving</li> <li>• Transferred knowledge from scientific community to the public</li> <li>• Provided expertise and engaged in translational and policy activities in Switzerland and on a global scale</li> </ul>
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<p><b>STO #5:</b> <b>Society and Civic Engagement</b></p>	<p>The specific objectives for the 4-year strategy period (2021-2024) are:</p> <ul style="list-style-type: none"> <li>• To generate evidence on social processes relevant for health over the life course, with a focus on gender, diversity, and human rights</li> <li>• To translate this knowledge and generalise it into policies and sustainable implementations by engaging stakeholders (including citizens) and to inform a research agenda with application experience</li> <li>• To contribute to capacity building and education and training in all the above fields</li> </ul>	<p>By the end of the 4-year strategy in 2024, we expect the following outputs:</p> <ul style="list-style-type: none"> <li>• Acquired and conducted research projects on the intersection between social, cultural and structural determinants of health along the life course in different societies in the fields of (i) sexual and reproductive health; (ii) disease control and elimination (e.g. NTDs, NCDs and vaccination); (iii) strengthening of sustainable healthcare systems; and (iv) non-disease-oriented interventions (community-driven interventions, health promotion and prevention, health literacy, UHC), globally and in Switzerland</li> <li>• Informed the portfolio of large implementation mandates by newly generated evidence on social processes applying the principle of civic engagement is expanded</li> <li>• Conducted education and training activities on all levels (graduate/postgraduate/professional)</li> </ul>
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<p><b>STO #6:</b> <b>Health Systems and Interventions</b></p>	<p>The specific objectives for the 4-year strategy period (2021-2024) are:</p> <ul style="list-style-type: none"> <li>• To demonstrate the impact of Swiss TPH activities on the health-related Sustainable Development Goals, population health and policy-making in specific areas, using a systems approach</li> <li>• To showcase prioritised areas and raise their visibility at global, regional and national fora (e.g. Health Systems Global, Social Health Protection Network - P4H, Roll Back Malaria Partnership, Global Health Initiatives, WHO)</li> <li>• To document Swiss TPH's contributions to UHC by further profiling specific thematic foci such as social protection, health workforce development and/or medicines management</li> <li>• To develop and apply health systems thinking principles and relevant indicators in the validation and evaluation of health interventions as well as health systems strengthening initiatives relating, for example, to communicable and non-communicable disease control and elimination efforts</li> <li>• To advance progress towards equitable and inclusive access to services and infrastructure and effective achievement of programmatic targets (e.g. elimination targets)</li> <li>• To consolidate the methodological expertise in health systems, policy, and health interventions research</li> </ul>	<p>By the end of the 4-year strategy in 2024, we expect the following outputs:</p> <ul style="list-style-type: none"> <li>• Created a guidance document for assessing the impact of Swiss TPH activities on health policy and population health as well as integrating and displaying relevant measurements in the assessment and presentation of the institute's performance</li> <li>• Identified and prominently featured 3-4 key areas on Swiss TPH website and other communication materials</li> <li>• Achieved strong presence at policy fora (e.g. Health Systems Global [HSG] technical working groups, RBM Partnership to End Malaria, Global Schistosomiasis Alliance, Coalition for Operational Research on Neglected Tropical Diseases [COR-NTD]).</li> <li>• Established effective collaboration across departments to reinforce the strategic importance of health systems action and generate further opportunities</li> <li>• Proposed and implemented a concept for a mixed external/internal HSS review</li> <li>• Identified commonly required methodological competences and developed knowledge hubs and tool kits for application across different projects and initiatives, e.g. health survey tool kit</li> </ul>
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<p><b>STO #7:</b> <b>Mobility, Migration and Outbreak Investigation</b></p>	<p>The specific objectives for the 4-year strategy period (2021-2024) are:</p> <ul style="list-style-type: none"> <li>• To develop and provide diagnostic and medical services locally, nationally and internationally – and support research and public health service activities among mobile populations including migrants and refugees at the national, regional and international level</li> <li>• To deepen the understanding of key determinants of population dynamics and to design effective interventions in the context of changing disease patterns and diverse health systems</li> <li>• To develop innovative means for reducing health and social inequalities and promote access to quality health services (public and private)</li> <li>• To develop strategies for surveillance and mitigation of the health risks related to movements of humans, vectors and pathogens within and between countries</li> <li>• To focus on surveillance and response to emerging and re-emerging human and livestock pathogens, arthropod vectors, emerging antimicrobial drug resistance in human and livestock pathogens</li> </ul>	<p>By the end of the 4-year strategy in 2024, we expect the following outputs:</p> <ul style="list-style-type: none"> <li>• Identified common treatable and preventable diseases among migrants and refugees at the national, regional and international level</li> <li>• Understood common problems relating to provision of and access to healthcare of migrants, refugees and vulnerable populations</li> <li>• Performed research to promote the establishment of diagnostics, clinical decision algorithms and targeted interventions to improve the health of migrants and refugees</li> <li>• Developed a Migration Medicine database at Swiss TPH from descriptive and cohort studies, as a basis for evidence-driven policy advice</li> <li>• Developed and setup a diverse teaching and training portfolio of activities regarding migration medicine</li> <li>• Employed established databases and diagnostic setups to initiate the development of disease surveillance systems for outbreaks and for identification of relevant interventions</li> <li>• Established a multidisciplinary outbreak surveillance and response team at Swiss TPH, aiming at maximising available resources both in-house, locally, nationally and internationally</li> </ul>
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<p><b>STO #8:</b> <b>Statistical and Mathematical Modelling</b></p>	<p>The specific objectives for the 4-year strategy period (2021-2024) are:</p> <ul style="list-style-type: none"> <li>• To advance the understanding of the aetiologies of communicable and non-communicable diseases and contribute to the development of treatments through causal inference with genomic, epidemiological and clinical trial data</li> <li>• To develop and disseminate high-quality methodology for quantitative studies spanning the range of epidemiological and public health research throughout Swiss TPH</li> <li>• To contribute in innovating new tools and approaches of disease and risk surveillance allowing rapid public and global health measures that are readily tailored for a given setting</li> </ul>	<p>By the end of the 4-year strategy in 2024, we expect the following outputs:</p> <ul style="list-style-type: none"> <li>• Developed advanced methods for dealing with bias and for causal inference in randomized controlled trials and cohort studies</li> <li>• Developed novel statistical methodologies for the analysis of exposome and phenome data</li> <li>• Performed space-time modelling for disease burden estimation, intervention impact and disease surveillance and air pollution exposure estimation</li> <li>• Developed and applied mathematical and simulation models to support strategic planning for malaria and neglected disease control and elimination programmes</li> <li>• Developed modelling and simulation methodology to inform development of new interventions (preclinical to population implementation, including drug resistance)</li> <li>• Advanced statistical methodology for modelling exposome and phenome data related to non-communicable and communicable diseases</li> </ul>
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## 5.2 Annex 2: Strategic Alliances and Partnerships

Of particular importance for Swiss TPH are the long-term partnerships established over decades at the local, national and international level. These partnerships are reflected in Memoranda of Understandings (MoUs) and other framework agreements. Additionally, Swiss TPH integrates three WHO Collaborating Centres.

At the **local level**, the long-term associations are:

- University of Basel and its priority areas of “Life Science” and “Sustainability and Energy” and the Centre for African Studies
- The recently established Botnar Research Centre for Child Health

At the **national level**, the strategic alliances are:

- École polytechnique fédérale de Lausanne (EPFL)
- Swiss Universities (Bern, Geneva, Lausanne, Luzern, Lugano, Neuchâtel and Zurich) that provide the umbrella of the Swiss School of Public Health (SSPH+)
- Federal Office of Public Health, Federal Office of Environment and the Swiss Personalised Health Network (SPHN), where we integrate the needs of basic research, clinical medicine, health economics and health systems research. Based on Swiss TPH’s leading role in running the only Swiss-wide SAPALDIA cohort and biobank for more than 25 years, Swiss TPH coordinates a network of national public health experts that builds a civil reference biobank for promoting Switzerland’s excellence in personalised and public health.
- Product development partnerships, such as Medicines for Malaria Venture (MMV), Drugs for Neglected Diseases *initiative* (DNDi), Foundation for Innovative Diagnostics (FIND)
- Other partnerships and alliances with non-governmental organisations (NGOs) such as SolidarMed, Médecins Sans Frontières (MSF), International Committee of the Red Cross (ICRC), Swiss Red Cross, Medicus Mundi Schweiz, etc.

At the **international level**, Swiss TPH is a founding member with senior staff serving on the Board of Governors and/or Board of Trustees of key institutions in different parts of Africa:

- Ifakara Health Institute (IHI) in Bagamoyo, Dar es Salaam and Ifakara, Tanzania
- Centre Suisse de Recherches Scientifiques en Côte d’Ivoire (CSRS) in Abidjan, Côte d’Ivoire
- Centre de Support en Santé Internationale (CSSI) in N’Djamena, Chad

Other strategic and global partnerships with long-term collaboration, or intention to deepen such connections, are between Swiss TPH and two other institutions in Southeast Asia and Latin America:

- Lao Tropical and Public Health Institute (Lao TPHI) in Vientiane, Lao PDR
- Universidad Peruana Cayetano Heredia (UPCH) in Lima, Peru

Additionally, Swiss TPH acts as the “Leading House” for Africa, as mandated by the State Secretariat for Education, Research and Innovation (SERI). These deeply rooted partnerships, along with networks, public-private and product development partnerships and strategic alliances, on a local, national and international level greatly shaped Swiss TPH over the past 75 years.

Strategic relevance will be given to build up regional hubs. This approach aims at having fewer study sites, but with higher presence of local and expatriate interdisciplinary teams. The aim is to build a platform with long-term regional presence, where expertise can be grouped more effectively to maximise synergies between research projects and clinical trials, optimise cost-effectiveness, provide training opportunities and contribute to improved impact and sustainability of large projects. Hence, the advantages of the currently available Swiss TPH networks and partnerships will be maximised for this development, to foster research, education and services in the countries where Swiss TPH is active.

### **5.3 Annex 3: Specific Objectives for Excellence in Governance**

Excellence in Governance	Specific Objectives
<p><b>Attractive and Fair Employer</b></p>	<ul style="list-style-type: none"> <li>• To further develop working conditions by effectively implementing flexible working models taking into account aspects arising from our new, multifunctional building “Belo Horizonte”: agility, creativity, diversity, employee health, family friendliness and future generations of employees</li> <li>• To align the capabilities of our employees to the changing needs of Swiss TPH by conducting a variety of strategic continuous education and career development activities</li> <li>• To advance leadership by further developing the leadership curriculum and principles with focus on strategic, managerial and constructive feedback skills</li> <li>• To support managers and employees to induce necessary institutional change and development to enhance efficiency in daily business</li> <li>• To increase operational excellence through modern, fast and integrated tools and higher degrees of standardisation and digitalisation</li> <li>• To strengthen the employer attractiveness by living our employee-focused corporate culture combined with excellence in research, services, and education</li> </ul>
<p><b>Decisive Business Intelligence</b></p>	<ul style="list-style-type: none"> <li>• To maintain cost awareness, cost-effectiveness and promote economic consciousness</li> <li>• To further develop effective, efficient and integrated planning and steering tools and processes</li> <li>• To further improve the cost accounting setup and procedures to maximise transparency and fairness, precise cost assessment and real time reports based on a data warehouse</li> <li>• To maintain best practice of the Swiss GAAP FER standards and further improve the bookkeeping, debtor and creditor processes</li> <li>• To review long-term investment policy and strategic asset allocation</li> <li>• To enhance risk assessment and audit capacity by identifying, quantifying and mitigating risks that affect the strategy of Swiss TPH</li> </ul>
<p><b>Evolutionary Business Service Provision</b></p>	<ul style="list-style-type: none"> <li>• To further develop a future-oriented ICT infrastructure in the new building “Belo Horizonte” and ensure the highest possible reliability of our operations</li> <li>• To standardise and consolidate the IT landscape and to periodically verify and evaluate existing procedures, continuing to incorporate digitalisation aspects</li> <li>• To assess the effect and relevance of technologies and trends by monitoring and actively scouting ICT innovations with an emphasis on digitalisation</li> <li>• To regularly identify the internal needs for IT products and IT services</li> <li>• To establish a sustainable Research-IT that can efficiently support our data-rich and technologically challenging research activities</li> <li>• To establish a sustainable ICT cost allocation model, which shows costs in a source-related and transparent manner</li> </ul>

<p><b>Integrated Services and Infrastructure</b></p>	<ul style="list-style-type: none"> <li>• To achieve a smooth and efficient move and consolidation of Swiss TPH into the new building Belo Horizonte</li> <li>• To integrate efficient and effective services (e.g. reception of guests and goods, access, distribution, and facility management services) in the new building</li> <li>• Sustainably achieve an agile, stimulating, inspiring, flexible, safe and healthy working environment that allows for interdisciplinary work and co-creation</li> <li>• To operate the new building in an energy-efficient and sustainable manner</li> </ul>
<p><b>Efficient Supply Chain Services</b></p>	<ul style="list-style-type: none"> <li>• To introduce a central supply chain support function, achieving the highest possible level of coordination, quality standard and economies of scale for purchases, services and contracting</li> <li>• To align ethically and legally compliant sourcing and supply chain services with cantonal, federal and international standards and laws</li> <li>• To integrate reporting, follow-up of purchases, contracting and storing into a lean and efficient process and support environment</li> </ul>
<p><b>Balanced Project Portfolio</b></p>	<ul style="list-style-type: none"> <li>• To identify, develop and foster funding opportunities through international relations</li> <li>• To facilitate proposal development and competitive grant application within Swiss TPH and with international partner organisations</li> <li>• To support institutional coordination and consortia activities including consortia lead</li> <li>• To exert contract and grant management and to efficiently carry out Swiss TPH's function as the "Leading House" for sub-Saharan Africa, mandated by the State Secretariat for Education, Research and Innovation</li> <li>• To introduce a standardised project cycle quality and management system throughout Swiss TPH</li> </ul>
<p><b>Healthy and Safe Work Environment</b></p>	<ul style="list-style-type: none"> <li>• To achieve and maintain health, safety, security and environmental standards, which comply with all ethical and legal requirements</li> <li>• To promote, regularly assess and improve the health and security of the personnel and the communities in which we operate, building up and maintaining the acceptance of Swiss TPH's presence and activities</li> <li>• To provide safe workplaces, free from recognised hazards that are likely to cause injury or illness</li> <li>• To ensure data security, safe data management and preventive sensitisation measures, assuring the required legal and ethical standards for data and IT infrastructure</li> <li>• To ensure business continuity by further developing the incident and crises response management</li> <li>• To optimise the use of resources, to strive for sustainability and the continual reduction of the environmental impact from our activities</li> </ul>

<p><b>Active Communication</b></p>	<ul style="list-style-type: none"> <li>• To position Swiss TPH as a leader in research, education and services in the area of global health</li> <li>• To foster good communication and relationships with funders, donors, project partners, clients, and other beneficiaries and attract new ones</li> <li>• To promote interaction and exchange across cultures and systems and establish Swiss TPH internally and externally as an agile, diverse and dynamic institution</li> <li>• To develop a systematic fundraising function and activities in order to increase non-earmarked funding</li> </ul>
<p><b>Measured Impact</b></p>	<ul style="list-style-type: none"> <li>• To assemble and disseminate Swiss TPH's achievements in innovation, validation and application, derived from our three strategic goals and the eight STOs</li> <li>• To assess the impact of Swiss TPH within the local, national and international environment, including the public and civil society</li> <li>• To assure the flow of internal and external information and effectiveness of communication</li> <li>• To contribute to the strengthening of the partnerships and human resources</li> <li>• To regularly assess employee and partner satisfaction – from the student body to employees and collaborators to the directorate</li> <li>• To establish a diversified and balanced set of key performance indicators (KPIs), which measure the outcome of activities of Swiss TPH and refer to measurable components influencing the Sustainable Development Goals and the STOs</li> <li>• To maintain a constant quality improvement process (EFQM) that also supports other quality standards and norms within Swiss TPH</li> </ul>

## 5.4 Annex 4: Specific Objectives and Expected Outputs of Core Competencies

Core Competency	Specific Objectives	Expected Outputs
<p><b>CC#1:</b> <b>Cohorts and Biobanks</b></p>	<ul style="list-style-type: none"> <li>• To remain a national and international leader in the management of cohorts and biobank</li> <li>• To apply cohort and biobank know how to state-of-the-art epidemiological research for improving health and diseases in different geographical and cultural settings across the globe</li> </ul>	<ul style="list-style-type: none"> <li>• Established biobanking processes and infrastructure in the new building respecting national and international biobanking guidelines</li> <li>• Established an epidemiological study clinic for epidemiological research in the new building</li> <li>• Completed a Swiss Health Study pilot phase as input into the future funding of a national citizen cohort under the scientific lead of Swiss TPH</li> <li>• Established comparative cohorts and biobanks in key partner countries, like Lao PDR, Côte d'Ivoire and Peru</li> </ul>
<p><b>CC#2:</b> <b>Laboratory Sciences</b></p>	<ul style="list-style-type: none"> <li>• To maintain and expand expertise and facilities for example in the field of next generation sequencing (NGS)</li> <li>• To promote internal and external collaborations to potentiate the research outputs of Swiss TPH, for example, by refining Intranet tools to ease access to available knowledge and methodologies for staff involved in the field of laboratory sciences at Swiss TPH and a dedicated webpage to increase visibility of the unique expertise to promote attractiveness as well as research partnerships</li> <li>• To support various STOs and CCs, for example, through molecular tools for epidemiological studies and diagnostic techniques for clinical trials</li> </ul>	<ul style="list-style-type: none"> <li>• Measured internal excellence in laboratory sciences by publications and successfully acquired external funding</li> <li>• Increased output by making use of synergisms</li> <li>• Expanded the research portfolio through the addition of new units and establishment of new technologies</li> <li>• Increased our attractiveness as partner of cooperation</li> <li>• Increased our attractiveness as employer for scientists to maintain and attract talents</li> </ul>

<p><b>CC#3: Epidemiology and Clinical Trials</b></p>	<ul style="list-style-type: none"> <li>• To further develop methodological expertise in observational and intervention epidemiology as well as clinical trials</li> <li>• To generate high quality quantitative evidence as a basis for public health and clinical decision making within the mandate of Swiss TPH</li> <li>• To protect the rights, well-being and safety of study and trial participants, and to ensure the integrity of data generated in epidemiological studies and clinical trials</li> </ul>	<ul style="list-style-type: none"> <li>• Conducted epidemiological studies to assess the efficacy and effectiveness of interventions to health problems affecting populations around the globe and studied risk factors for communicable and non-communicable diseases and health problems</li> <li>• Conducted quality clinical trials on drugs, vaccines, and diagnostics for communicable and non-communicable diseases in resource-limited settings</li> </ul>
<p><b>CC#4: Health Social Sciences and Qualitative Methods</b></p>	<ul style="list-style-type: none"> <li>• To establish the Working Group 'Health Social Sciences and Qualitative Methods' at Swiss TPH</li> <li>• To further disseminate cutting-edge behavioural and health social sciences approaches and provide expertise in and assure the quality application of qualitative methods in research, education and training, evaluation and programme implementation</li> <li>• To make behavioural/social sciences/qualitative methods an integral part of the change management processes to support the aim of a bottom-up/co-creative culture in Swiss TPH</li> </ul>	<ul style="list-style-type: none"> <li>• Conducted a concise expert mapping, disseminated findings, and developed a concise strategy and monitoring of health social sciences/behavioural sciences-related activities</li> <li>• Refined dissemination by running quarterly dissemination events on health social sciences and developing and distributing documents about qualitative research methods (guidelines/manuals, MOOCs, and construction of a website that showcases what we are doing</li> <li>• Integrated social sciences/qualitative methods into internal projects and change management to support the bottom-up and co-creative culture established as mainstream across Swiss TPH</li> </ul>
<p><b>CC#5: Computational Health Sciences</b></p>	<ul style="list-style-type: none"> <li>• To scout for new technologies to support all areas from research to education and services</li> <li>• To increase the impact of already existing IT communities</li> <li>• To evaluate new and strengthen existing strategic partnerships on specific IT topics</li> </ul>	<ul style="list-style-type: none"> <li>• Built up expertise and implemented new cutting edge technologies with regards to impact and feasibility for Swiss TPH and its projects</li> <li>• Established strong IT communities with increased impact on the overall digital transformation within Swiss TPH</li> <li>• Established strong and close cooperation with sciCORE with regards to High Performance Computing in general and high security patient data handling via BioMedIT in particular</li> </ul>

<p><b>CC#6:</b> <b>Education and Learning</b></p>	<ul style="list-style-type: none"> <li>• To provide high quality teaching, while drawing on expertise, experience, evidence and best practice in research and service delivery for higher education</li> <li>• To be a leading participant in influential national and international education and training networks, particularly SSPH+, tropEd and CARTA</li> <li>• To explore, innovate and adopt new initiatives and developments in the area of learning and training in order to guarantee a sustainable implementation of didactical teaching offers in the field, in class-rooms, and online in response to a rapidly changing global learning and education environment</li> <li>• To further strengthen the student careers and the quality of student supervisions at the BSc, MSc, PhD and professional postdoctoral levels</li> <li>• To serve as a resource and service for internal (employees) and external (partners) education and training aspects</li> </ul>	<ul style="list-style-type: none"> <li>• Top-scoring student evaluations in all teaching and training offers led by Swiss TPH (at BSc, MSc, and PhD level as well as in the post-graduate courses and programmes (CAS, DAS and MAS)</li> <li>• PhD students integrated into teaching as a valuable source of competences and experiences</li> <li>• Existing networks sustained and strategically relevant new networks established</li> <li>• A global community of PhD students that excel scientifically and that remember their PhD time at Swiss TPH and the University of Basel as a well-supported and rewarding academic training experience</li> <li>• Teaching offers at all levels adhered to the global trends and digital transformation processes in teaching</li> </ul>
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<p><b>CC#7:</b> <b>Data and Quality Management</b></p>	<ul style="list-style-type: none"> <li>• To foster excellence in all research and implementation activities by providing tailor-made quality management support processes and systems</li> <li>• To implement processes that will ensure recording and processing of data leads to significant strategic decisions as well as to comprehensible and accurate interpretation and reporting</li> <li>• To deepen and extend institutional exchanges and mutually learn within a quality improvement network</li> </ul>	<ul style="list-style-type: none"> <li>• Built up a Business Excellence Matrix to yearly track expected outputs of all STOs, GPs and CCs</li> <li>• Improved main Swiss TPH quality management instruments such as the External Review and the yearly Project Leader Retreat</li> <li>• Introduced the EFQM model into all departments and support towards living a EMQM mind set</li> <li>• Won a publically tendered cross-departmental EFQM award</li> <li>• Improved the project database in terms of processes and quality entry and information of the data</li> <li>• Collaborated with the University of Basel to build a comprehensive system to manage, share and publish data</li> <li>• Developed a feasibility process as basis for the decision to accept or reject a client's project</li> <li>• Validated the MACRO data management software system</li> <li>• Revived and maintained the Swiss TPH Quality Management working group</li> <li>• Established a quality cooperation between Swiss TPH and research institutions as well as implementation hubs</li> </ul>
<p><b>CC#8:</b> <b>Policy Advice</b></p>	<ul style="list-style-type: none"> <li>• To promote, apply and further develop evidence-based approaches and solutions, including systematic reviews, for enhancing health systems performance and population access to essential health services</li> <li>• To provide operational and strategic advice to local, regional, national and international health authorities</li> <li>• To develop tailor-made, effective and sustainable solutions to Swiss TPH partners, including UN agencies, bi- and multilateral development agencies, global health initiatives, non-governmental organizations, foundations and the private sector</li> </ul>	<ul style="list-style-type: none"> <li>• Substantiated track record of the advisory role of Swiss TPH to local, regional, national and international health authorities and substantiated</li> <li>• Evidence-based approaches and systematic reviews produced by Swiss TPH have contributed to influence and shape policy and practice in health promotion and disease control as well as health system strengthening</li> <li>• Experiences, results, achievements and innovative solutions- of Swiss TPH are communicated and translated to policy and practice and contribute to full-fill the mandate of Swiss TPH</li> </ul>