

EDCTP

Joint Programme Public version



**European & Developing Countries
Clinical Trials Partnership
(EDCTP)**

Joint Programme of the Action

Public version

EXECUTIVE SUMMARY	4
I. CONTEXT	7
II. OBJECTIVES, ACTIVITY AREAS AND BASIC DATA	12
III. BACKGROUND, STRATEGIES AND ACTION PLANS PER ACTIVITY AREA	14
III.1 ACTIVITY AREA 1: NORTH NORTH (&NORTH SOUTH) NETWORKING AND COORDINATION	14
<i>III.1.1 Background</i>	14
<i>III.1.2 North North (European) Networking and coordination</i>	15
A Mechanisms for increased coordination	16
B Structures to promote European networking.....	18
C Funding European networking.....	18
<i>III.1.3 North South Networking</i>	19
III.2 ACTIVITY AREA 2: SOUTH NETWORKING AND COORDINATION	20
<i>III.2.1 Background</i>	20
<i>III.2.2 Direct stakeholders</i>	20
<i>III.2.3 Strategies</i>	21
<i>III.2.4 Governing bodies involved</i>	21
III.3 ACTIVITY AREA 3: SUPPORT OF CLINICAL TRIALS.....	23
<i>III.3.1 Introduction</i>	23
<i>III.3.2 Rationale and objectives</i>	23
<i>III.3.3 Scientific scope of EDCTP</i>	23
<i>III.3.4 Disease-specific strategies</i>	24
A Malaria	24
B Tuberculosis.....	26
C HIV/AIDS.....	28
III.4 ACTIVITY AREA 4: CAPACITY BUILDING IN DEVELOPING COUNTRIES	32
<i>III.4.1 Introduction</i>	32
<i>III.4.2 National contributions</i>	32
<i>III.4.3 Rationale and strategy</i>	32
<i>III.4.4 Capacity building objectives</i>	34

Acronyms used:

AO	EDCTP African Office	IRS	Indoor Residual Spraying
AMANET	African Malaria Network Trust	ITN	Insect Treated Bednets
ARV	Antiretroviral Treatment	JP	Joint Programme
AU	African Union	MMV	Medicine for Malaria Venture South African hosting organisation (Medical Research Council)
C&A	Communication and Advocacy	MRC	Mother to Child Transmission
CB	Capacity Building	MTCT	National Ethics Community
CDC	Centre for Disease Control	NEPAD	New Partnership for Africa's Development
CMS	Content Management System	NIH	National Institute of Health (USA)
CT	Clinical Trials	NN	North North Networking
DC	Developing Country	NP	National Programme Dutch hosting organisation (Nederlandse Organisatie voor Wetenschappelijk Onderzoek)
DCCC	Developing Countries Coordinating Committee	NWO	Partnership Board
DSMB	Data Safety Monitoring Board	PB	Principal Investigator
EA	EEIG Assembly	PI	Public Private Partnership
EAC	East African Community	PPP	Public Relations
EC	European Commission	PR	Poverty Related Disease
ECOWAS	Economic Community Of West African States	PRD	Price Waterhouse Coopers
EDCTP	European and Developing countries Clinical Trials Partnership	PWC	Quality Assurance
EEIG	European Economic Interest Group	QA	Quality Control
EMVI	European Malaria Vaccine Initiative	QC	Research and Development
ENNP	European Network of National Programmes	R&D	Randomised Clinical Trials
ENO	European Networking Officer	RCT	South Africa
EPI	Expanded Immunisation Programme	SA	Southern African Development Community
ES	EDCTP Secretariat	SADEC	Standard Operation Procedure
ESDH	EDCTP Secretariat Den Haag	SOP	Selection Review Committee
EU	European Union	SRC	South South Networking
GCLP	Good Clinical Laboratory Practice	SS	Sub Saharan Africa
GCP	Good Clinical Practice	SSA	United Nations
GMS	Grant Management System	UN	Value Added Tax
HR	High Representative	VAT	World Health Organisation – Regional Office for Africa
HTM	HIV, Tuberculosis, Malaria	WHO/AFRO	
I(C)T	Information and (Communication) Technology		
IAS	International Accounting Standards		
IPR	Intellectual Property Rights		
IRB	Institutional Review Board		

EXECUTIVE SUMMARY

With the overall goal to reduce poverty in developing countries by improving the health of the populations, the European & Developing Countries Clinical Trials Partnership aims through European research integration and in partnership with African countries to develop new clinical interventions to fight HIV/AIDS, malaria and tuberculosis.

The European and Developing Countries Clinical Trials Partnership (EDCTP) is a partnership between 14 EU countries and Norway on one hand, and African countries on the other. It aims to join relevant European national research programmes and their African partnerships to develop new clinical tools against AIDS, malaria and tuberculosis. The Joint Programme is based on Article 169 of the European Treaty. The European Commission (EC) will co-fund this Joint Programme. The EDCTP will have an important pilot function as a first application of Article 169, the most advanced instrument for the integration of European research.

The **context** of the programme is the dramatic health situation in many developing countries, and the concerted action of the EU to fight the poverty-related diseases AIDS, malaria and tuberculosis.

The **programme objective** is to accelerate the development of new or improved drugs and vaccines against these diseases, with a focus on phase II and III clinical trials and on sub-Saharan Africa.

The **activities** of the EDCTP include four main topics:

1. Activities linked to networking and coordination of European national programmes and the activities carried out in the developing countries
2. Research and training development activities to
 - a. Support for clinical trials in the developing countries
 - b. Strengthening of capacities in the developing countries
3. Activities to ensure the development, visibility and sustainability of the EDCTP Programme
4. Basic activities for the EDCTP Programme such as secretariat services information management

In this report, these **activities** are presented under four main areas:

1. Networking and coordination of European national programmes and with their partners in the south
2. Networking and coordination of African national programmes
3. Supporting relevant clinical trials
4. Strengthening the African capacity in this field

The **European National Programmes** are defined as publicly funded activities within one country that can contribute to the EDCTP. The application of Article 169 implies the national commitment of each member state to mobilise their publicly funded organisations active in the field of the EDCTP, and to maintain the levels of support at minimally equal levels throughout the programme.

The **Governance** of EDCTP is assured by:

- A European Economic Interest Group (EEIG-EDCTP), the legal entity implementing the programme and managing the EC funding. The EEIG is governed by its Assembly, in

which all participating European states are represented. The executive body of the EEIG is the Secretariat, which assures the day-to-day management.

- Partnership structures external to the EEIG, which comprise:
 - (1) The Partnership Board (PB), a scientifically independent expert panel that develops the strategic planning of the EDCTP;
 - (2) The Developing Countries Coordinating Committee (DCCC), which consists of representative African scientists and ensures the input and commitment of the African countries and researchers;
 - (3) The European Network of National Programmes (ENNP), which consists of representatives of the European national programmes and develops proposals to coordinate and joint national activities and funding.

The Partnership structures and the EC hold permanent seats in the EEIG Assembly. The role and operations of each body are determined in the EEIG statutes and the Internal Regulations.

The **budget** of the EDCTP is €400M for 5 years. The national participation of the Member States towards the Joint Programme is estimated at least €200M. A financial contribution of the European Commission in the sum of €200M will be made to increase the impact of EDCTP. Additional co-funding is sought from other sources, whether public or private.

Specific strategies and action plans have been developed for each of the seven activity areas.

- 1. *European (north-north) and north-south networking*** will focus on three levels:
 - A Project level: linking of existing projects and framing new EDCTP calls into the coordinated national programmes
 - B Institutional level: forging alliances between European institutes and their African partners to promote joint strategies activities in training, research and capacity strengthening within the scope of the EDCTP
 - C National funding agency level: promoting the coordination and pooling of resources of the funding agencies among others through joint calls and policies.

The basis of this networking will be an extensive inventory of all relevant ongoing activities and their synergies, to start with at each national level.

- 2. *African (south-south) networking*** will aim at:
 - A Creating a network of African scientists and institutions engaged in EDCTP-relevant activities, to create an inventory their activities, to exploit the potential synergies, and to identify the needs and strategies for capacity strengthening
 - B Securing the support of the scientific, clinical and political authorities in the African countries and regional organisations, and in general the co-ownership by Africa of the EDCTP.
 - C Ensuring that the EDCTP effectively addresses the needs and priorities of the researchers, health systems and the populations.
 - D Strengthening the regulatory environment for clinical trials in Africa
 - E Developing a network of Reference laboratories in Africa

3. *Supporting relevant clinical trials*

Many studies in which the EDCTP is involved will focus on pre-registration phase trials (Phase IIb, III), in exceptional case early studies in humans (Phase I and IIa) and post-registration surveillance. The strategies will be implemented through coordinating and

creating synergies between existing activities and through new calls based on the EDCTP principles.

The following disease priorities have been withheld based on a situation and needs analysis. Not all of these are fundable under this activity, but should partly or wholly be integrated in the capacity strengthening component.

- a. *Malaria drugs:*
 - Treatment of uncomplicated and drug-resistant falciparum malaria
 - Treatment of severe malaria
 - Treatment of malaria in pregnant women
- b. *Malaria vaccines:*
 - Protection of young children
 - If becoming available, protection of pregnant women
- b. *Tuberculosis drugs:*
 - New drugs or regimens, which shorten or simplify tuberculosis treatment
 - New regimens for treatment and prevention of tuberculosis associated with HIV
 - Surrogate markers of treatment response
- b. *Tuberculosis vaccines:*
 - Effective tuberculosis vaccine(s), including those for use in patients co-infected with HIV/AIDS
- e. *HIV/AIDS drugs (Antiretroviral Treatment, ART)*
 - Simple and standard ART for adults and children
 - New treatment
 - Prevention of mother to child transmission
- f. *HIV/AIDS Vaccines*
 - Clinical development of prophylactic and immuno-therapeutic vaccines
- g. *Microbicides*
 - Conducting Phase II and Phase III trials
 - Collecting safety data in uninfected and infected adolescent age group
 -

4. Capacity Building

Capacity building will build on individual and on institutional strategies, which however will be closely interrelated.

- a. *Individual training*
 - Training of trainers
 - Training in the context of trials and site development
 - Research and exchange fellowships to build individual scientific leadership
 - Development of joint courses between EU and African institutes
- b. *Institutional capacity strengthening*
 - Improving infrastructure of (potential) clinical trial sites
 - Prepare and strengthen selected sites in Africa for Phase I/II trials
 - Developing methods and capacity for Phase II/III trials in African sites
 - Strengthening human resources in sites and institutes
 - General scientific, logistic and managerial support to African institutes
 - Enhancing capacity for GCP, GCLP and ethics
 - Capacity development of information and data management in African institutions

I. Context

Context

The global health crisis

Every year, millions of lives and billions of productive life-years are lost to ill health in developing countries. Over the past decades, the HIV pandemic, drug-resistance in major infectious and parasitic diseases such as tuberculosis and malaria, and the degradation of the health systems in many countries, have turned a dramatic situation into a catastrophic one. Many ecological, social and economic factors contribute to the current global health crisis, but poverty is a main denominator.

The international response

The global health crisis is a threat to global health, development and peace. Although slowly, the international community is reacting with increasing concern. International and multilateral organisations, states and funding organisations have pledged political and financial commitment through many initiatives. The most visible is the Global Fund to fight AIDS, malaria and tuberculosis (GFAMT) which generates and channels additional funding, mainly to purchase drugs and commodities for national governments. Nearly a hundred other global initiatives, often in the form of public-private partnerships (PPP) now focus on the same three diseases. They also address issues including research and development of new drugs and tools.

The European response

The European Union (EU), through the European Commission (EC), and individual member states are major contributors to most of the initiatives. European countries, institutes and individuals also collaborate with their counterparts in the developing countries in the fields of disease control, health care and health research.

The European Commission has launched the programme "Accelerated action for HIV/AIDS, malaria and tuberculosis in the context of poverty reduction". This provides a broad policy framework to approach poverty-related diseases based on: (i) improving existing interventions, (ii) increasing affordability of key pharmaceuticals, and (iii) developing new interventions. All three interventions are synergistic and require coordinated action in policy areas such as trade, development and research. Meanwhile, considerable efforts are being maintained in other fields as well, such as neglected diseases and health systems.

Concerted European Research on HIV, tuberculosis and malaria

Within the European Research Framework Programme, the main strategy is now to develop new effective preventive and therapeutic interventions against these three diseases. This will be achieved by two mechanisms: (i) developing new promising candidates through pre-clinical and early phase human testing through the Life Sciences Programme and (ii) establishing a clinical trials programme to support phase II and III clinical trials in Africa through the EDCTP. The Sixth Framework Programme (FP6) (2002–2006) aims to bring the leading European and Developing Countries researchers and institutions together to work effectively on a common goal by integrating different approaches and disciplines through a substantial increase in EC funding for this specific area.

EDCTP

The EDCTP aims at developing, through European research integration and in partnership with African countries, new clinical interventions to fight HIV/AIDS, malaria and tuberculosis.

Clinical research and clinical trials for poverty related diseases, not sufficiently addressed so far, has now been identified as a main priority. Previously, new tools for the prevention and treatment of the three diseases risked remaining stuck in the development pipeline. Because of the restricted market opportunities, the pharmaceutical industry may not be expected to take the necessary investment risks on its own. In addition, many EU member states and their partners in the developing countries have substantial collaborative research activities in this field. Unfortunately, these programmes are often fragmented and uncoordinated. They are also under funded and lack capacity in the field. New and specific requirements, such as the need for multi-centre protocols, a demanding regulatory environment and universal ethical standards are additional reasons for a well-coordinated, intensified effort in a genuine and innovative partnership with the developing countries.

The EC, the member countries and Norway, and partners from the developing countries, examined in the preparatory period to the FP6 how to join and coordinate their efforts to accelerate the development of new interventions through clinical trials against AIDS, malaria and tuberculosis. An "Accompanying measure" (2002-2003), uniting authorities and scientists from interested countries, concluded that:

1. By applying Article 169 of the European Treaty, national programmes may develop into a "Joint Programme" which can be co-funded by the EC.
2. To start, the programme should focus on the clinical development of new products for treatment and prevention (i.e. drugs, vaccines, and microbicides) for the three target diseases. Priority should be to sub-Saharan Africa where the needs are the most important and urgent.
3. The most appropriate instrument to implement the programme was the creation of a European Economic Interest Group (EEIG) as the legal structure, with all participating European member states represented. To ensure scientific excellence and the co-ownership of the African constituency, the EEIG should rely on an expert Partnership Board with equal representation from North and South, and a Developing Country Coordination Committee (DCCC) representing the African scientific community.
4. As the member states committed themselves to contribute at least €200M worth of activities to the Joint Programme and to maintain their national budgets at least at the 2003 level, the EC committed to contribute up to €200M additional funding.

Subsequently, the EU Commission drafted a document later approved by the European Council of Ministers and the European Parliament (a "co-decision" as required for article 169). The EEIG-EDCTP, established on 26 June 2003, has a Secretariat in The Hague, the Netherlands and in Cape Town in South Africa.

This document provides a public version of the strategic plan of EDCTP over the period 2004-2008, the lifetime of the FP6. Evidently, the initiative is expected to continue the longer term, with further contributions and increased integration and coordination from all participants, and possibly expanding into other areas of health research for development.

Challenges for EDCTP

Apart from the scientific and public health challenges EDCTP takes on, it also needs to address challenges of political, administrative and institutional nature. The following challenges were identified and discussed during the preparation and during the first 15 months of the existence of EDCTP:

1. The European National Programmes vary in organisation, scope, focus, and collaborative links, scientific and managerial culture. National, institutional and personal agendas play an important role, and there are varying financial, administrative and legal constraints to coordination, let alone integration.

Within EDCTP, a National Programme currently means the entirety of all publicly funded activities within one country that can contribute to EDCTP. The co-decision implies that the national commitment of each member state is to mobilise their publicly funded organisations active in the field of EDCTP, and to maintain the levels of support throughout the programme. Each country needs to create appropriate mechanisms to coordinate and preferably arrange their activities in a “National Programme”.

So far, EDCTP started with an inventory of relevant activities and funding sources. As a follow up, discussions are underway on how countries can contribute to an integrated and coordinated European “Joint Programme”.

2. As Article 169 is being applied for the first time, some uncertainty exists on how National programmes may integrate to achieve its goals. However, based on a clear mission to enhance European research integration in partnership with African countries, the political and administrative structures and mechanisms need to be developed during the action.

EDCTP has moreover the particularity that the “National Programmes” are largely taking place in third (African) countries. A genuine, equal partnership with the African scientists and countries is therefore a *condition sine qua non*; the more as the subject of clinical trials require a strong ethical and regulatory environment.

3. The African National Programmes are even less structured than the European programmes. Shortage of national resources, they over depend on external collaboration and funding, which are rarely coordinated and often even competing. While there are many scientists and health experts, the institutional capacities are usually weak, working conditions poor and career perspectives bleak.

While North-North networking is the legal basis for the application of Article 169, and North-South and South South networking essential for the objectives of EDCTP, a clear, common understanding of and a consistent commitment to its idea is required from all participants.

4. To have added value EDCTP should position itself clearly and strongly within the FP6, the EU accelerated action, and the multitude of international global health initiatives. This benefit not only consists of its scientific niche, but also of the genuine partnerships and the lean efficiency of its management and operations. While focussing on its specific mission and focus, it needs to fit into the larger research and health needs of the developing countries.
5. The political, scientific and collaborative agenda of EDCTP is demanding. The governance structure of the EDCTP may seem complex, and the stakeholders have different backgrounds, priorities and cultures. While all share the same values and overall goal, bringing these together in a true joint effort will require commitment of all participants and a competent leadership.

Integration of European Research

Most of the public sector research in Europe is carried out at national levels. A better and more closely coordinated implementation of national programmes may have an important effect on both the impact and results of the research, particularly because of:

- The scale of the financial and human resources mobilised

- The diverse and complementary aspects covered by the national programmes
- The rapid results which could be expected from combining the existing initiatives

In addition, a joint programme includes measures to support the coordination of national research activities and programmes, particularly the networking of national research programmes. This may include activities such as exchanges of information, mutual opening of programmes, different forms of joint activities such as joint calls for proposals and evaluations, training schemes and campaigns to disseminate results.

Article 169

The most powerful means of networking research programmes is joint implementation of whole programmes or large parts of programmes. The application of Article 169 of the Treaty opens up the possibility for the European Community in implementing the Sixth Framework Programme, for *"participation in research and development programmes undertaken by several Member States"*.

Article 169 enables the Community to participate in research programmes undertaken jointly by several Member States. The originality of Article 169 is related to the fact that the proposal comes from the Member States. The political players are Member States' policy makers and the operational actors are the programme managers of national programmes.

EDCTP and Article 169 of the European Treaty

The European and Developing Countries Clinical Trials Partnership (EDCTP) is a partnership between 14 EU countries and Norway on one hand, and African countries on the other. It aims to join relevant European national research programmes and their African partnerships to develop new clinical tools against AIDS, malaria and tuberculosis.

The Joint Programme of the EEIG-EDCTP is based on Article 169 of the European Treaty. The application of Article 169 implies the national (European) commitment of each member state to mobilise their publicly funded organisations active in the field of the EDCTP, and to maintain the levels of support at minimally equal levels throughout the programme. Thus, EDCTP aims to complement the European Member States' National Programmes to carry out essential research and competence building programmes. The European Commission (EC) co-funds this Joint Programme.

The basis for EDCTP is through increasing European research integration to accelerate the development of new clinical interventions to fight HIV/AIDS, malaria and tuberculosis. Thus, EDCTP aims to complement the European Member States' National Programmes to carry out essential research and competence building programmes, and to gain from the diverse and complementary aspects covered by the national programmes. This may include activities such as exchanges of information, mutual opening of programmes, different forms of joint activities such as joint calls for proposals and evaluations, training schemes and campaigns to disseminate results. European Member States are expected to contribute with a minimum of 50% of the estimated resources needed to carry out such activities.

Vision of EDCTP:

By 2012, European research within these target diseases may operate as joint programmes with pooling of resources and thus maximizing the benefit of their research.

Developing a joint programme requires a committed political process by the Member States. Thus, after a few years, European research within these target diseases may increasingly operate as joint programmes with pooling of resources and by that maximizing the benefit of their research. This requires political will at the national, institutional and project levels. People involved in the politics of research, national funding bodies and the research communities need to participate in these processes. Therefore, EDCTP should also be viewed as an instrument to enhance the collaborative efforts and thus to maximize the efficacy to develop new interventions. In this regard, the EDCTP addresses issues of research politics that may have a wider implication and are about the ongoing development of a "European Research Area".

EDCTP aims to achieve these objectives through active participation in the European political and research environment and through "North-North-Networking" activities. Specifically, EDCTP aims to play a key role in promoting this research integration among its member States. These measures include:

1. The Member States are represented in the highest organ of the organisation, the EEIG-Assembly. Each Member State's representative shall work ensure that their country fulfils the obligations made by joining the EEIG-EDCTP.
2. One of the main tasks of the Executive Director includes leading EDCTP in fulfilling the objectives of an EEIG established under Article 169 to achieve closer European integration of the member states national projects.
3. EDCTP has a specific section (North-North-networking Office) in its secretariat to enhance this collaboration and integration.

The member states shall work towards Joint implementation of research programmes through a joint work programme. This includes:

- Allocation of financial resources, based on a joint financial plan (JPA and JPB) agreed between the Member States
- Redirection of some core activities in existing national programmes to make them more complementary
- Publication of joint calls for proposals in the case of programmes implemented by means of calls for proposals.

Collaboration with international scientific and funding organizations

EDCTP aims to develop new and important interventions to combat HIV, tuberculosis and malaria. This shall also be done in collaboration with international scientific organizations and with funding agencies and organizations. Examples of such organizations are WHO, The Melinda and Bill Gates Foundation, IAVI, EMVI, etc. These organizations share some scientific and developmental goals of EDCTP and collaborating with them may benefit the development of new interventions was unsuccessful and has been withdrawn

II. Objectives, activity areas and basic data

With the **overall goal** to reduce poverty in developing countries by improving the health of the populations, EDCTP aims through European research integration and in partnership with African countries to develop new clinical interventions to fight HIV/AIDS, malaria and tuberculosis.

The **specific objectives** are threefold:

- Coordinating and integrating the European national programmes on EDCTP-related activities into a Joint Programme
- Strengthening clinical research capacities in sub-Saharan Africa, especially for conducting clinical trials against poverty-related diseases
- Supporting clinical trials of new or improved drugs and vaccines against HIV/AIDS, malaria and tuberculosis in Africa, with a focus on phase II/III trials.

To pursue its mission, the EDCTP will operate in seven main **activity areas**:

1. Networking and coordination of European national programmes
2. Networking and coordination of African national programmes
3. Supporting relevant clinical trials
4. Strengthening the African capacity in this field
5. Advocacy and fundraising
6. Management
7. Information management.

These activities will be implemented through the following management structures:

- A European Economic Interest Group (EEIG-EDCTP), the legal entity implementing the programme and managing the funding.
The EEIG consists of:
 - (1) A governing body, the Assembly, in which all participating European states are represented.
 - (2) An executive body, the Secretariat, which assures the day-to-day management.
- Partnership structures external to the EEIG, which comprise:
 - (1) The Partnership Board (PB), a scientifically independent expert panel that develops the strategic planning of the EDCTP;
 - (2) The Developing Countries Coordinating Committee (DCCC), which consists of representative African scientists and ensures the input and commitment of the African countries and researchers
 - (3) The European Network of National Programmes (ENNP), which consists of representatives of the European national programmes and develops proposals to coordinate and joint national activities and funding.

The Partnership structures and the EC hold permanent seats in the EEIG Assembly. The role and operations of each body are determined in the EEIG statutes and the Internal Regulations.

The total budget of the EDCTP is €400M for 5 years. At least €200M are the existing national activities brought into the Joint Programme, while the EC brings in up to €200 additional funding. Co-funding will also be sought from other sources. The following Table is a summary of the budget.

Actual spending for Period 1 and 2 and forecast for Periods 3-6 for EC and NP funding									
	Year	1		2	3	4	5	Total	
	Period	1 ACT	2 ACT	3 F `CAST	4 F `CAST	5 F `CAST	6 F `CAST		
Network north north	EC	2.499	333.263	3.952.032	4.826.650	4.280.000	1.605.555	15.000.000	
Network south south		838	323.604	1.496.830	2.024.600	1.820.000	1.334.128	7.000.000	
Clinical trials		30.478	694.771	17.032.188	29.922.493	29.582.797	25.737.273	103.000.000	
Capacity building		10.942	542.610	7.947.494	11.120.380	18.170.595	12.207.979	50.000.000	
Advocacy & fundraising		1.643	400.739	754.398	2.378.093	2.340.000	2.125.127	8.000.000	
Management		164.073	799.700	2.524.410	3.947.686	3.855.000	3.709.131	15.000.000	
Information management		584	55.867	458.280	477.900	514.368	493.000	2.000.000	
Total EC			211.058	3.150.554	34.165.632	54.697.802	60.562.760	47.212.193	199.999.999
Network north north	NP's							0	
Network south south								0	
Clinical trials		72.221.963	82.020.768	57.502.894	41.452.739	25.241.590	7.619.746	286.059.700	
Capacity building		37.464.181	15.557.673	17.927.618	17.972.618	17.211.424	7.100.000	113.233.514	
Advocacy & fundraising								0	
Management								0	
Information management								0	
Total NP's			109.686.144	97.578.441	75.430.512	59.425.357	42.453.014	14.719.746	399.293.214
									0
Network north north	combined	2.499	333.263	3.952.032	4.826.650	4.280.000	1.605.555	15.000.000	
Network south south		838	323.604	1.496.830	2.024.600	1.820.000	1.334.128	7.000.000	
Clinical trials		72.252.441	82.715.539	74.535.082	71.375.232	54.824.387	33.357.019	389.059.700	
Capacity building		37.475.123	16.100.283	25.875.112	29.092.998	35.382.019	19.307.979	163.233.514	
Advocacy & fundraising		1.643	400.739	754.398	2.378.093	2.340.000	2.125.127	8.000.000	
Management		164.073	799.700	2.524.410	3.947.686	3.855.000	3.709.131	15.000.000	
Information management		584	55.867	458.280	477.900	514.368	493.000	2.000.000	
Total combined			109.897.202	100.728.995	109.596.144	114.123.159	103.015.774	61.931.939	599.293.213

III. Background, strategies and action plans per activity area

III.1 ACTIVITY AREA 1: North North (&North South) Networking and coordination

III.1.1 Background

European networking and integration is a vital component of EDCTP and is even its “raison d’être” as an article 169-initiative. EDCTP aims primarily at strengthening the effectiveness, the efficiency and the quality of the European-African activities in its field. Secondly, EDCTP aims to influence, enhance and coordinate the mobilisation and orientation of national research funding. The coordination of national programmes furthermore promotes the financial and operational sustainability of the EDCTP, as integration of European research activities and partnerships will, if successful, become irreversible.

Current Funding

All EDCTP member states are currently funding research and capacity strengthening programmes aimed at developing new clinical interventions against HIV/AIDS, malaria and tuberculosis in developing countries. These include basic and product-oriented research, clinical and implementation research.

Currently, all activities recorded by the Member States as relevant to the EDCTP have been included in the definition of the EDCTP relevant National Programmes. Although still fragmented and uncoordinated, the Joint Programme was initially defined by the sum of all these potential contributions. The Member States’ national public investments in clinical interventions research in the area of HIV/AIDS, malaria and tuberculosis as reported by the NPs amount to more than € 1 billion over the next 5 years. Table 2 shows that about €399.293.214 million of these research activities are related to the development of clinical products (drugs, vaccines, microbicides) for the three target diseases. This includes basic research, support to organisations with similar research priorities as EDCTP, funding of clinical trials, training and capacity building activities.

For Clinical Trial and Capacity Building the amount was €259.630.536. These are sums that may be of direct relevance to EDCTP related activities.

Current funding and European networking

EDCTP aims to refine and focus this inventory on activities that directly contribute to its objectives (clinical trials, capacity building, North-South networking), to coordinate these activities and exploit the synergies, and to forge these into an increasingly coherent Joint Programme. This gradual process of identification, coordination and integration will be guided by a procedure for “accreditation” of national activities and programmes that are eligible for inclusion in the Joint Programme thus becoming NP contributions to the EDCTP programme. The eligibility criteria will be based on direct relevance for the EDCTP objectives, commitment to collaboration and integration, and compliance with scientific and ethical standards.

The relevant activities, and their funding and implementation systems, will form the basis for the networking and coordination of national activities in the EDCTP Joint Programme, co-funded by the EC-DG Research. The table below lists the amount of funding spent of EDCTP relevant activities in the MS. This information was split into four categories: Basic Research, Clinical Trials, Capacity Building and Contributions to organisations that have

similar priorities to EDCTP. The categories Clinical Trials and Capacity Building contribute directly to the EDCTP activities.

Table 2. NP contributions to EDCTP relevant activities *					
Country	Basic research	Clinical trials	Capacity building	Contributions to organisations that have similar priorities to EDCTP*	Total
Austria	283.713	0	4.445.000	0	4.728.713
Belgium	1.076.716	2.706.200	19.268.584	0	23.051.500
Denmark	5.399.716	21.511.284	17.815.000	0	44.726.000
France	1.148.140	14.234.456	808.512	0	16.191.108
Germany	10.826.086	35.996.467	0	0	46.822.553
Greece	0	0	0	0	0
Ireland	0	93.000	0	31.226.000	313.190.000
Italy	277.216	11.269.564	21.304.525	0	32.851.305
Luxembourg	0	394.076	1.276.520	0	1.670.596
Netherlands	1.961.844	1.979.500	23.376.284	44.127.387	71.445.015
Portugal	2.716.813	785.657	371.886	0	3.874.356
Spain	0	0	7.200.000	0	7.200.000
Sweden	8.299.696	1.764.902	4.573.203	3.982.020	18.619.821
UK	4.373.716	55.765.284	6.000.000	23.004.000	89.143.000
Norway	150.250	106.000	6.794.000	600.000	7.650.250
TOTAL	36.513.903	146.165.390	113.233.515	102.939.407	399.293.213

NB: Based on information provided by the MS in 2003

III.1.2 North North (European) Networking and coordination

Objectives for National Programme (NP) networking and coordination

The objectives for NP networking and coordination at the European level are:

- Coordination of research objectives, strategies and activities in the participating states
- Cooperation to promote efficiency, complementarity's and avoid duplication
- Creation of synergies and added value
- Collaboration and brokering between NPs

Evolution towards a Joint Programme

Creating a European Joint Programme out of the individual NPs requires a step-wise approach in which (parts of) the NPs are gradually linked and coordinated. In theory, different degrees of trans-national cooperation can be distinguished, with increasing degrees of cooperation:

- I. Separate programming and re-sourcing, sharing of information (*networking*)
- II. Separate programming and re-sourcing, early coordination of effort (*tuning*)
- III. Joint programming, separate re-sourcing (*coordination*)
- IV. Joint programming, pooled re-sourcing (*integration*).

In principle, these degrees of cooperation could apply to entire NPs. However, the potential for enhanced cooperation is likely to vary within each NP, depending on the actors (see below, different levels within NPs).

All EDCTP Members have agreed to participate at the short and medium term to steps I, II, and III, thus to coordinate of (parts of) NPs. Most have expressed readiness to work towards degree IV cooperation, i.e. towards pooling resources and integration of NPs, on the longer term but acknowledge that a number of administrative, legal and financial constraints are first to be analysed and overcome.

A Mechanisms for increased coordination

Based on experiences and a first analysis of the complex collection of (legal, organisational and scientific) formats of the NPs, it is obvious that a single strategy will not suffice and certainly not fit all. Therefore, the European networking strategy will have to act simultaneously on the various levels of funding, decision-making and operations, recognizing the diversity of the systems. "Joint Programmes" can be created at the macro, meso- and micro-level, while an overall policy and mechanisms should ensure coordination and gradual integration of these three levels.

The following levels have been identified:

- A. Funding Agency level
- B. Institutional level
- C. Project level

For each level, specific objectives and methods for networking and coordination are formulated, keeping close eye on the coherence of the supported activities and their contribution to the overall coordination of NPs.

Funding Agency Level

Definition

This level consists of bodies characterised by:

- Handling public funds by national, regional or local authorities
- Having, within the political mandate, control over these funds and funding strategies
- Having the ability to launch (thematically) focused calls within the EDCTP focus
- Having the potential to mobilise additional funds or redirect existing ones.

In general, these bodies distribute funds for research through competitive calls, primary (core) funding or secondary funding of institutes, or commissioned projects and programmes. At this level, current funding capacities are mostly committed for the next few years. In most countries, generating new funds or redirecting existing ones to EDCTP-relevant activities will take time and may require elaborate political and administrative decision-making. However, this is a strong argument to design common strategies to influence these processes at the national level as early as possible.

A few countries may be able to commit new resources in the initial phase of the EDCTP, and the speed and extent to which others may join them will be variable. Pragmatic approaches will therefore be needed, possibly with sub-sets of countries moving more rapidly or in different ways than others.

Objectives

Networking and coordination of NP activities at the Funding Agency level aims at:

- Establishment of durable coordination structures across the relevant funding agencies in Europe targeting (parts of) the EDCTP strategy (with respect to e.g. disease fields, regional focus);
- (Supporting the) implementation of joint, trans-national funding activities.

Expected outcomes

Networking funding agencies level will be the most advanced and probably most effective strategy to coordinate and integrate national programmes, and be the best guarantee for sustainability of the EDCTP. Furthermore, through information sharing and benchmarking, the efficiency and quality of European funding procedures will be improved.

Institute Level

Definition

Networking at this level refers to national activities that are or have:

- Publicly funded, at least for a substantial part;
- Relatively autonomous with respect to institutional strategies and activities
- Potential to (re) direct funds to joint activities contributing to EDCTP and/or
- Ability to mobilise new funds for this purpose;
- Possibilities to engage in international cooperation with similar institutions.

In most countries, these activities are executed by some specialised institutes, academic departments, agencies or networks.

Objectives

Networking at the Institute level aims at:

- Establishing or strengthening coordination and harmonisation among relevant European institutions in Europe and their African partners;
- Joint implementation of EDCTP-relevant activities (training, research, capacity strengthening)
- Influence and advocacy of networking at funding agency and project level.

Expected outcomes

Networking relevant activities at the Institute level will ensure coordination amongst important actors in the research field. In fact, several European networks already exist at the institutional level, showing the readiness and ability of the actors to engage in networking activities. This level of networking must lead to enhanced trans-national initiatives that fulfil part of EDCTP's mission, such as joint training programmes, common scientific and ethical standards, coordinated collaboration with and capacity strengthening of African partners, creation of thematic consortia, jointly established and with shared institutional infrastructures.

Project Level

Definition

This level refers in principle to national activities that are:

- Publicly funded as a project or assignment
- Executed by a team of researchers from different member states and their African partners
- Scientifically autonomous, but possibly related to a strategy defined at institutional or funding agency level.

Typically, these are ongoing research projects fully or partly relevant to EDCTP including research, training or capacity building, with a major part-taking place in Africa.

Objectives

Networking relevant activities at the Project level aims at:

- Advancing coordination and synergy between investigators collaborating with the same partner or country in Africa;
- Advancing coordination and synergy between investigators working within the same thematic area;
- Strengthening the focus of ongoing and future projects on EDCTP objectives

Expected outcomes

Networking relevant activities at the Project level can lead at the short term lead to increased coordination between researchers and research groups, enhance their awareness of and motivation for the EDCTP concept, and create a breeding ground for promoting networking at the institutional and funding agency level.

B Structures to promote European networking

To initiate and promote the European networking, the EDCTP has established the European Network of National Programmes (ENNP). All EEIG member states have appointed European Networking Officers (ENOs) to represent and coordinate the countries' participation in the networking and coordination activities. These have been mandated by their national representatives to the EEIG to discuss and coordinate the participation of their country in the European networking activities.

The ENNP tasks include:

- Update the inventory of relevant national activities and partnerships relevant to EDCTP
- Identify gaps, overlaps and potential synergies between the national programmes
- Analyse and compare national funding mechanisms and develop proposals for harmonisation
- Develop proposals for European networking strategies and action plans at the three levels, including tools, consortia, incentives and possibly the allocation of funding

The ENNP shall be supported by an ENNP Manager at the EDCTP Secretariat. The ENNP Manager will also broker other networking between countries and ensure the coordination of the ENNP with the PB, the DCCC and the Assembly.

C Funding European networking

EDCTP will facilitate the networking by providing guidance & logistical and financial support. EDCTP is not to control, but to steer and create leverage in the national programmes and funding. The EDCTP funds for this component will mainly focus on providing incentives for actors at the three different levels to engage in joint, trans-national activities, such as:

- Harmonising funding mechanisms, overcoming institutional or national constraints to joint calls
- Brokering coordination and exchange between national programmes, e.g. workshops on specific diseases or sub-regions, joint strategy development, benchmarking
- Creation of and support to consortia
- Supplementing budgets of trans-national collaborative projects to improve coordination and exploit synergies.

EDCTP funding for European networking should aim at achieving a benefit to existing structures and avoid overlap or replacement of existing national or European mechanisms.

Funding may be made available through calls for proposals, by commissioning projects or by supporting existing networks or projects

III.1.3 North South Networking

Currently there are many interactions between European scientists and their counterparts in Africa. These collaborations are often based on national agendas, determined by a joint history, personal relations, national aid and foreign policies, institutional affiliations. Scientists from different EU countries often collaborate independently with the same African scientists or institutions. The coordination is usually weak. Many resources are concentrated in relatively few, but strong or attractive institutes.

Apparently, coordination of European research collaborations in Africa would be of benefit to all partners, and strengthen the visibility and impact of European collaborative. By encouraging multiple site activities and ensuring closer collaboration between NPs in the north, new N-S collaborations can be created. One of the priorities of EDCTP is therefore to initiate closer collaboration and networking of European and DC programmes.

To that end, the DCCC and the ENNP will develop a close interaction. The respective inventories of European and African National programmes will be linked to identify and analyse the existing links, promote synergies and discourage overlaps, and broker new opportunities. The Annual EDCTP Forum will provide a platform for scientists from Europe and Africa to share information and views, and to create and strengthen collaborative links.

III.2 ACTIVITY AREA 2: South Networking and coordination

III.2.1 Background

The products and outcomes of the EDCTP are almost entirely destined for the African populations and research communities. They must be ethically, socially and economically in line with the national and local health policies and standards. In addition, most activities will take place in African countries, and rely on the study sites, institutions, expertise and human resources. The “African contribution” to the EDCTP needs to be determined and is substantial. Thus, coordination and strengthening of research within Africa is an essential part of EDCTP’s mission.

Although the European stakeholders in EDCTP, scientists, institutes and funding agencies, have ample opportunities to meet and collaborate, this is much less so for their African counterparts. Therefore, EDCTP aims to promote interactions among African stakeholders at three levels (health policy makers, health research institutions and research-funding agencies). Although, the African funding agencies today play a less predominant role, their future function is essential to develop sustainable health research in Africa. Thus, networking efforts in Africa will need to be adapted to the specific situation in Sub-Saharan Africa.

III.2.2 Direct stakeholders

Health policy makers

Most countries in Africa have specific disease control programmes for HIV/AIDS, malaria and tuberculosis, located in the national ministries of health. In some countries, these programmes include an operational research component.

Since EDCTP is to contribute to products that can be used by national control programmes, it should include national or regional disease control managers in its African constituency. The African “National Programmes”, as counterpart of the European National Programmes of EDCTP, will thus consist of scientific and implementation agencies. The latter will ensure input on policies, strategies and regulations regarding the public health aspects of the target diseases, and disease control and health care in general. Also, (sub-) regional organisations such as WHO-Afro, the New Partnership for African Development (NEPAD), the African Union (AU), ECOWAS, SADEC, and EAC should be represented in the African constituency.

Health research institutes

Many public health research institutions in Africa are not a part of a university, but of the Ministry of health structure. Most of the public health research and training in public health, medicine and at postgraduate levels takes place at universities. Other institutions belong to international, usually north-driven networks (MRC, Pasteur, CDC, and NIH).

Although most health research institutions are engaged in studies on the three EDCTP diseases, only a few do clinical trials of drugs or vaccines or are engaged in research training. Most of these rely on external funding and international collaborations and many could be eligible as EDCTP-funded trial sites. Networking with good African institutions and with institutions in Europe will be a fundamental element for developing multi-centre trials and harmonisation of protocols and standards. However, it is also important to network those institutions that are in need of capacity strengthening to run trials.

African Health Research Funding Agencies

African private foundations and public-private partnerships remain very limited. However there is increasing awareness and involvement of African governments in supporting health related issues. The New Partnership for Africa's Development (NEPAD), which is a pledge by African leaders to eradicate poverty and to place their countries on a path of sustainable growth and development, affirms this. Because of limited resources most African countries use their health resources on delivering health services and on operational and health systems research.

African Regulatory Bodies

Medicinal product regulatory authorities need to be supported to ensure that the efficacy, safety and quality criteria for medicinal products (innovative and generic) are high, while at the same time not frustrating efforts aimed at addressing question of public health utility. All clinical trials of both non-registered products (drugs or vaccines) and new indications of registered products must be reviewed by a competent regulatory authority. It is in the interest of EDCTP to assess the regulatory environment in countries where EDCTP supported studies will be conducted. EDCTP plans to support such bodies through the facilitation of information and expertise transfer through regional networking and by encouraging matching support from European national counterparts.

III.2.3 Strategies

The objectives of African (South-south) networking are to:

- Contributing to the capacity strengthening objectives of the EDCTP
- Improving and promoting interaction between scientists, institutions and health policy makers
- Encourage the development of African national and Regional EDCTP related networks.
- Create inventory of the relevant national activities
- Analysing gaps, overlaps and potential synergies
- Contributing with the ENNP to the North-South networking
- Assess the African National environment and support the development of a common Regulatory Framework
- Improve contacts between African editors of medical and scientific journals and create a pool of African reviewers

To achieve the above stated objectives, different approaches are envisaged. The DCCC, with support from the secretariat will promote networking through various activities such as meetings, workshops, exchange visits, dedicated websites, resource sharing, and the Annual Forum meeting (see above). The Haut Représentant, the secretariat and with the support of DCCC members, will strive to gain the support of national, regional and international authorities.

III.2.4 Governing bodies involved

Developing Countries Coordinating Committee (DCCC)

A key part of the Governance structure of the EDCTP, the DCCC, an advisory body to the EDCTP programme, comprises 15 African scientists with expertise in the three disease areas. Its main task is to ensure a strong and representative input from African experts and countries into the EDCTP. The DCCC will have a major contribution in the strategy development for capacity building and African networking. The DCCC also has responsibility of ensuring active participation by African countries and institutions in line with the spirit of partnership envisaged by the EDCTP.

The DCCC is not, and cannot yet be organised as representing African national programmes. Initiated at an *ad hoc* basis, the DCCC has already strengthened its representation from a wide African forum of scientists. This process of gaining respectability and recognition from the African scientific community and participating countries, as a visible, credible and representative body in the EDCTP, is to be continued over the next years, either on a national or at a regional basis.

In addition to the above-mentioned objectives, the DCCC will contribute to the African networking by:

- Strengthening the normative frameworks (regulatory, legal, ethic) for clinical trials
- Priority setting for joint training activities (workshops, fellowships, etc.)
- Preparation of scientific forums national, sub-regional, African and international levels;
- Priority setting in the African health research agenda
- Development of criteria for the clinical trials sites, laboratories of reference, specialised centres (for disease or product), and training institutes.
- Specific sub-regions (eastern, western, southern and central Africa) approaches and initiatives

African Office

The African office (AO) of the EDCTP-EEIG will also serve as a focal point for African networking and provide support to the DCCC in this effort.

The Haut Représentant

The Haut Représentant of the EDCTP will play a crucial role in promoting and facilitating African networking particularly (but not only) at the level of governments, and regional and sub-regional organisations.

III.3 ACTIVITY AREA 3: Support of Clinical Trials

III.3.1 Introduction

III.3.2 Rationale and objectives

Tools for the control of poverty related diseases are few in number and often not adapted for use in resource-poor settings. Generally, efforts are lacking to encourage the development and evaluation of new tools. Consequently, the development of the necessary capacities to conduct clinical trials has also been neglected.

Many studies in which EDCTP is likely to focus its actions is expected to involve pre-registration phase trials (Phase IIb, III). In some exceptional cases also early studies in humans (Phase I and IIa) and “post-registration”, programmatic effectiveness trials, may also form part of EDCTP activities where these elements are required to bring an intervention to the stage of implementation. EDCTP will also broaden its actions to include capability strengthening towards surveillance and long-term assessment of the impact of tools implemented via the joint programme.

Research and development (R & D) of new drugs, vaccines or other preventive or therapeutic preventions is a long and expensive process with a high risk of failure at any stage of the development chain. There is very rarely room for repeating expensive investigations, which also holds true for clinical trials of candidate products. All investigations must be conducted with correct procedures and adequate care. They must respect international convention in clinical research. Towards this end, EDCTP aims to develop the necessary infrastructure to ensure ethical conduct of studies, ICH-compliant data management, and completion of studies in accordance with the requirements of recognised international registration agencies that will allow registration of new tools.

It should be noted that, while EDCTP will not specifically fund activities in development phases earlier than clinical stages, it will encourage R&D through brokerage, interaction with public, private for- and not-for-profit sectors, and with more upstream programmes including those financed by the European Commission and the EU Member States (MS). More importantly, it will promote and support development by offering a platform that can absorb new products for further study in humans. Nevertheless, EDCTP views the process as a chain of events that transform candidate products into adapted interventions and bring them into the hands of the consumers. EDCTP adheres to the principle that the process must be viewed as one. The ultimate aim of development is to produce information that is most relevant to the use of a new product in practice by the end-users and control programmes in DCs. The process has complex political, economic and social dimensions whose relative contributions may be difficult to disentangle. However, this is a critical phase if EDCTP wants research results to be taken up and translated into policy and practice (see also Decision No 1209/2003/EC of the European Parliament and of the Council, specifically (among others) recitals nr. 11 and 16).

III.3.3 Scientific scope of EDCTP

To achieve its goal, not only will EDCTP fund studies, but will also: build/enhance capacities and overall capabilities for clinical trials in DCs; create synergies across programmes (especially in Europe, and in the South); act as a broker for more research into product development, and encourage trans national research that will inform policy.

The EDCTP is not involved in: discovery research, pre-development, or pre-IND development. EDCTP involvement starts after approval for first-in-human studies has been granted to a product. Nevertheless, EDCTP will need to keep abreast of new developments

in the late discovery or pre-clinical stages and will continuously interact with scientists, developers and the broader scientific environment to formulate strategic plans around promising candidates. Therefore, EDCTP is not a tools developer, but a partner and a platform for clinical studies to ensure complete clinical development and transfer of such technologies to DCs.

The type of clinical trial that EDCTP will be involved in results from a balanced consideration of elements related to: the disease area, product indication, product portfolio, and their relationship to disease control and public health priorities.

III.3.4 Disease-specific strategies

A Malaria

Despite the benefits of global economic development, more people are dying now from malaria than 30 years ago. The rising mortality rate among African children is attributed to malaria, and specifically to increasing anti malarial drug resistance. The response to this crisis has been inadequate. Because of inappropriate anti malarial drug policies, inadequate surveillance of the disease, lack of research and communication, and the cost of treatment, the existing anti-malarials known to be active against resistant parasites are typically unavailable at the community level. Thus, the only anti-malarials readily available to most of the developing world (chloroquine and sulfadoxine-pyrimethamine) are those to which resistance has already developed. The situation is worsening.

National Programmes contribution to the malaria components

Vaccines:

Within the next 5 years, a minimum of 6 European developed malaria vaccines will enter into clinical trials simultaneously in Europe and Africa, funded through the NP of 5 European countries' joined in the European Malaria Vaccine Initiative (EMVI). The available NP funds for these trials are about €13 million. All in all the clinical trials involve 9 European NPs, 5 African clinical trial centres, and wide spread dissemination of training, skills and knowledge via the African Malaria Network Trust (AMANET).

Drugs:

With respect to drug treatment, the currently available data show that 24 clinical trials are planned or taking place involving 8 NP and 18 African nations. The total budget for these trials is approximately 3.9 million euros and some are done in European collaboration while others are projects of individual NP with 1 or more DC countries.

Other areas of malaria research carried out by the NPs and contributing to the EDCTP principles include studies on malaria and pregnancy (currently involving 2 European and 2 African countries with a budget of 460.000 euros).

Based on the currently available information the total amount of money that is available for malaria in the coming 5 years in the NP is approximately 28.5 million euros. In the future more data on the NP will be collected and NP will be further aligned with the EDCTP priorities.

It is important for EDCTP to thoroughly evaluate and coordinate the malaria orientated research activities that are funded by the NP to ensure that these activities become a group effort. These activities could lead to a change in total NP budget available for clinical

trial related projects on malaria. At present 8 out of the 15 NP are involved in clinical trial related activities concerning malaria. The EDCTP hopes to achieve that the number of NP involved in EDCTP associated malaria research will increase and that the number of North-South and South-South collaborations can be expanded and strengthened using the information regarding current collaborations that are funded through the NP.

EDCTP Priorities for research activities in malaria

The number of effective and affordable drugs available to treat malaria is still limited. Furthermore, the emergence and spread of drug-resistant parasites and insecticide-resistant mosquitoes have rendered inadequate some of the traditional mainstays of malaria control.

Despite these obvious constraints to the development of new interventions against malaria, significant improvement has been achieved with the increasing availability of Chinese products belonging to the artemisinin family. This has led to the identification of new and effective anti malarial combination regimens. However, most of these compounds are not widely available because they do not conform to international standards of production and development. These developments should be completed as a priority.

Vaccines are at the centre of public health intervention in developed and developing countries, and are like to remain a publicly funded or subsidised health promoting intervention, especially benefiting the vulnerable segments of society in resource constraint countries. Hence, a substantial global increase in malaria vaccine development has taken place over the past five to ten years.

We are now witnessing a renewed interest in anti malarial drug and vaccine discovery and development. The pipeline of new products that may be undergoing clinical development is richer now than ever before. Similarly, increasing attention is being given to the availability of adequate trial sites in DCs and to the training of staff to conduct GCP trials. Thus, we have promising options for collaboration and to expedite developments, whilst improving capacities in endemic countries.

The levels of malaria control that are needed may not be achieved with the use of single interventions. In this context, evaluation of combined strategies will help inform policy of the most cost effective package of interventions for malaria control in a given epidemiological setting.

Against this scenario, the EDCTP aims to address:

- The challenges of building/strengthening malaria clinical research capacity
- The support of clinical trials of drugs and vaccines in the treatment and/or prevention of malaria in developing countries, and combined interventions
- Linking/networking existing projects/activities

The availability of effective drugs for treatment of uncomplicated and complicated/severe malaria and also for use in young children and pregnant women is a foremost need. Currently malaria control relies on case management (diagnosis and treatment). The current anti malarial drug portfolio is limited and cross-resistance between closely related congeners restricts further treatment options. Nearly all of the anti-malarials we use today were developed more than 30 years ago. There has been little pharmaceutical industry interest in anti-malarials despite the enormous need. Therefore, the main areas of clinical development can be defined as:

- Drugs for use in the target population young children and in pregnant women

- Drugs for uncomplicated falciparum malaria. They should act against resistant *Plasmodium falciparum* and have prospects for a long life span of effective use
- Drugs for treatment of severe malaria. They should act against resistant *Plasmodium falciparum*

The need for development and implementation of effective malaria vaccines is of utmost importance. In this context, the main need is for:

- Malaria vaccines, which protect young children (particularly if amenable to delivery through the Expanded Programme on Immunisation, EPI).
- Vaccines that protect pregnant women from the severe complications of malaria would also be of great public health value.

We recognise that in most endemic countries, several moderately efficacious strategies need to be deployed at the same time. This may include vector control tools such as insecticide treated bed-nets (ITN) or indoor residual spraying (IRS) with deployment of drugs. There is a need to understand the impact of combination of malaria control strategies, particularly the presence of synergism or redundancy to better inform deployment of the most cost effective control strategy. Such studies are not within the mandate of the EDCTP, but could be promoted through partnerships or other channels.

B Tuberculosis

To successfully control tuberculosis, effective medical and biomedical tools, and trained health staff should be available. Better drugs (shorter, more effective therapeutic regimens), better vaccines, and improved diagnostic tests for tuberculosis are required. There is a clear need for new scientific advances to address gaps in available interventions against tuberculosis.

The increasing co-infection with HIV in the large pool of tuberculosis infected but non-diseased persons (estimated 2 billion world-wide), has led to the escalating rates of tuberculosis currently seen in developing countries. Drugs that can rapidly kill latent (persistent) organisms, or vaccines that can prevent their activation in the presence of HIV, are greatly needed. Of all potential interventions, such an advance will have the greatest impact on tuberculosis control.

To contribute to the development of new interventions, EDCTP will establish a comprehensive basis for implementing priority-driven tuberculosis clinical trial activities. In addition to investing directly in clinical trial activities, the goal of better tuberculosis control will also be achieved by supporting human and institutional capacity building.

National Programme contributions to tuberculosis

Regarding tuberculosis, 2 clinical trials evaluating vaccine candidates are currently taking place in a joined effort by 3 European nations with 2 African countries (budget 477,000 euros). In the field of drug therapy, about 18 clinical trials are currently taking place involving 5 European and 11 African countries (budget about 1,9 million euros). Some of these projects are already done in collaboration, but efforts are necessary to network and coordinate these initiatives.

A large part of tuberculosis funding (over 27 million euros) cover several tuberculosis activity areas such as vaccines and drug treatment and the present information does not allow us to break this down to the actual activities.

Based on the currently available information, the amount of money that is available for tuberculosis in the coming 5 years in the NP exceeds 30 million euros. It is important for EDCTP to thoroughly evaluate and coordinate the tuberculosis orientated research activities that are funded by the NP to ensure that these activities become a group effort. In the future, more data on the NP will be gathered and the NP will be further aligned with the priorities of EDCTP. The available data indicate that clinical trial related activities are part of the NP of only 6 of the participating EU countries. EDCTP hopes that the number of NP with research activities on tuberculosis that are associated with EDCTP will increase. Finally, EDCTP intends to use the information regarding current collaborations that are funded through the NP to expand and strengthen North-South and South-South collaborations.

EDCTP Priorities for research and associated activities in tuberculosis

Despite the major challenges facing biomedical scientists in developing new interventions to control tuberculosis, there already exist early candidates or innovative applications of existing tools enabling EDCTP to expand clinical trials infrastructure in appropriate locations to evaluate such new vaccine or drugs. In this context, EDCTP considers to:

- Select candidate tools for evaluation in consultation with renowned experts in the field, and to devise a clinical trials strategy that will lead to evidence-based interventions in the short term.
- Develop strong clinical trial collaboration, based on a regularly updated joint strategy between European research institutions networked with partners in DCs.
- Support the development of state-of-the-art tuberculosis clinical and diagnostic laboratory infrastructure in partner countries. The objective is to provide sophisticated support to clinical trials for the licensing of new agents or for the evaluation to high standards of current tools applied in innovative new strategies, and to enable the gathering of reliable epidemiological and surveillance data to support clinical trial design and conduct.
- Strengthen DCs human resource capacity for the conduct of clinical trials through local training programmes on good clinical and laboratory practice.
- Provide supplementary funding to existing sites for therapeutic and vaccine trials.
- Ensure sustained capacity once trials have started and to prepare for the expansion of the clinical trials network.

Drugs

The treatment of tuberculosis is recognised as one of the five most cost-effective health interventions in the world today. But, the treatment period is long (6-8 months), and often results in patients interrupting their therapy schedule. Treatment schedules need to be shorter and simpler, if the problems of non-compliance and of ineffective service provision are to be overcome.

About 60% of the world's population are infected with tuberculosis. Co-infection with HIV is exploiting this group, leading to activation of latent infection and to an accompanying rapid escalation in the incidence of tuberculosis. Therefore, it is central to a tuberculosis control strategy to improve success rates in tuberculosis/HIV co-infected individuals. These patients often relapse after initial bacterial clearance. A new approach is needed to not only improve the initial clearance, but also reduce relapse rate after treatment. New anti-tuberculous regimens are needed, in association with compatible anti-retroviral treatments.

Another EDCTP focus area concerns the fact that clinical trials of tuberculosis drugs are time consuming, lasting up to 5 years on average. Therefore, there is a need for surrogate

markers of drug efficacy to enable early decisions on the potential of new drug regimens. This activity was part of first call and will not be prolonged,

Vaccines

The general aim of tuberculosis vaccine trials is to produce affordable and accessible vaccines. Research on the development of novel vaccination strategies has been intensified in many European research institutions in the recent past. These strategies comprise subunit vaccines, DNA vaccines and live attenuated vaccine strains. Several of these new candidates have entered pre-clinical testing and gave promising results in animal tuberculosis models. After further testing, these vaccine candidates will enter phase I/II trials soon and phase III trials as soon as in 2006. Further European research efforts in the pre-clinical phase are already well networked and new developmental work is dealt with under a special section of the 6th framework program (FP6) of the EU.

EDCTP should provide the platform for the clinical trials for the best candidates and establish optimal conditions to ensure highest scientific standards and compliance with international ethical requirements. EDCTP will also be ready to fund the most promising candidates, focusing on those that will have the best chances to perform better than BCG, and to obtain approval for their testing in human populations. These approaches could include prime-boost schemes, based on initial vaccination with BCG followed by a new vaccine. This will require an evaluation in animals of the role of BCG strain variability and quality of BCG vaccine products currently or previously used in vaccination programmes.

Potential research sites and areas in developing countries suitable for major tuberculosis vaccine trials should be evaluated for epidemiological and sociological background data and their capacity to support accompanying and follow-up microbiological and immunological determinations of correlates of protection.

Given the above-mentioned scenario, EDCTP will focus its tuberculosis portfolio on:

- New drugs or drug regimens which can shorten the duration of tuberculosis treatment or will simplify therapeutic regimens, and will improve patient compliance;
- Innovative new regimens specifically addressing the needs for treatment/prevention of tuberculosis in HIV-infected/diseased persons;
- Newer, more effective tuberculosis vaccine(s), including a post-exposure vaccine that will be effective in populations with a high burden of HIV/AIDS;
- Surrogate markers of treatment response
- More sensitive and specific rapid tuberculosis diagnostic tests may be evaluated in the context of drug and vaccine trials.

C HIV/AIDS

The HIV/AIDS epidemic continues to expand rapidly in many parts of the developing world, including in sub-Saharan Africa, with devastating demographic effects. The most urgently needed measures are those that will slow the spread of infection. Progress with the development of HIV vaccines has been disappointing. While trials of candidate vaccines are of the highest priority, they are unlikely to be available for testing in the next 5 years. Nonetheless, it will be important to develop capacities to conduct clinical trials, in anticipation of future candidate vaccines.

More promising, on a shorter time scale, is the possibility that vaginally applied microbicides may protect women against HIV infection. Candidate microbicides have various modes of action and several products are ready for evaluation in Phase II/III trials

in the next years. The expertise necessary for the evaluation of vaccines and microbicides has substantial overlap and there are common capacity development needs. These will be a priority for EDCTP to address.

In recent years, effective anti-retroviral therapies have been developed and applied in DCs that, while not curing the infection, have dramatically prolonged survival and lowered morbidity and mortality in those HIV-infected. Few infected individuals in DCs currently have access to these therapies, in large part because of their cost. A pressing public health priority is to find ways of making these therapies widely available in developing countries. The development and evaluation of simpler and cheaper regimens would greatly facilitate their deployment in DCs. In parallel with such expanded access, it will be important to monitor the emergence of resistance against these drugs.

National Programmes contribution to the Action: HIV/AIDS

At present there is only 1 clinical trial on a potential HIV vaccine funded by a NP. However new vaccine candidates are likely to come out of the pipeline soon.

Regarding treatment of HIV, 14 clinical trials are currently taking place or planned. Eight European and 11 African nations are involved these projects (budget about 18,5 million euros). With respect to microbicides, 8 clinical trials are planned within the next 5 years, involving 2 NPs and 5 African nations (budget about 23 million euros).

In addition to projects on vaccines, treatment and microbicides, 3 NPs and 7 African countries are involved in studies on the intervention against mother to child transmission. Some of the NP activities concerning HIV are joined efforts. Presently, 9 out of the 15 NPs are involved in HIV clinical trial related activities. There is a need for identification of synergies and the coordination of NP in this area.

The resources that are available for clinical trails on HIV in the NP in the coming 5 years may exceed 91 million euros. In the future, more data on the NP will be gathered and NP will be become increasingly aligned with EDCTP principles. Therefore, EDCTP predicts that the total HIV related budget available in the NP will change.

EDCTP Priorities for research and associated activities in HIV/AIDS

Drugs

Opportunities for implementing successful ARV interventions in developing countries are improving, especially where there is effective integration into the national health system. EDCTP plans to maintain and build Europe's leading role in drug therapy. The main trials needed in developing countries, especially in Africa are to address regimes with lower overall drug exposure (initially to reduce costs and complexity, and reduce resistance) and to address optimal starting times and monitoring and managing drug use both in children and among adults.

HIV drugs have been used to prevent HIV transmission from mother to child (MTCT) and for the treatment of HIV infected individuals. Both have led to major improvements in developed countries but these improvements have yet to be translated into similar benefits in Africa. To date, most progress in Africa has been made in the area of MTCT.

The difficulties of providing antiretroviral therapy (ART) in resource poor countries, however, are not solely due to the high cost of the drugs, which have been reduced considerably in recent years, both by the reductions in price agreed by pharmaceutical companies and by the introduction of generic drugs. The costs of laboratory monitoring of antiretroviral therapy are also high and the difficulties of providing long-term therapy to

patients are similar to those relating to the management of other chronic diseases. Treatment failure can also be caused by toxicity, poor adherence, insufficient potency, and poor pharmacokinetics or pre-existing mutations.

In future, global drug research will aim at developing:

- Less toxic drugs
- Drugs that are active on drug-resistant strains
- More once-daily regimens
- Drugs against new HIV targets

While for malaria and tuberculosis there is still an important need to develop new products, for HIV the more urgent need is to develop strategies - relevant to the developing world - to deliver and monitor antiretroviral therapies which are already (or will be) available in industrialized countries.

Relatively few cohorts of HIV infected individuals have been followed in a systematic way in African countries. As a prelude to conducting therapeutic trials, it will be necessary to develop the capacity to conduct such cohort follow-up.

The general objectives for the EDCTP in the area of drugs will therefore be:

- Simplification and standardization ARV regimens in adults and children.
- Development of new treatment strategies
- Prevention of Mother to child transmission of HIV
- Treatment of opportunistic infections is part of trials in JPB

Vaccines

There are few, if any, current research sites in Africa with the capacity for Phase III studies of HIV vaccines. Also, few sites have the necessary knowledge of disease transmission (epidemiology and sociology) and laboratory capacity to support Phase II or III HIV vaccine trials. Developing and co-ordinating this capacity will be an initial priority for the EDCTP.

To conduct clinical trials in developing countries with candidate vaccines against HIV, both therapeutic and preventive, a short term objective is to identify and follow-up suitable cohorts for such trials. In particular, the analysis of the immune response of HIV-infected individuals against HIV antigens that will be used as vaccines should be a priority. These studies should be conducted in parallel with epidemiological studies aimed at determining the prevalence and incidence of HIV infection in the cohort. Furthermore, these studies will be useful to build infrastructures and to transfer technology to local staff, a key issue for the organisation and the future correct conduct of the trial.

A longer-term objective (which should, however, be initiated early) is to develop the capacity to conduct Phase III trials of candidate vaccines. This will require substantial development of infrastructure and human resources. Furthermore, National Regulatory Authorities should be closely involved in this planning. Vaccine research protocols should be submitted to and approved by national ethical review boards, to ensure protection of the individuals and the communities who participate in the trials.

The EDCTP objectives for vaccine development are to:

- Develop the capacity to measure HIV incidence in defined cohorts
- Prepare selected sites to conduct Phase II trials with candidate vaccines
- Conduct of Phase II studies at African sites

- Pursue clinical development of promising prophylactic and immuno-therapeutic vaccines

Microbicides

Microbicide research is relatively new, and a concerted effort is required to find the best strategies in microbicide development. Strengthening capacity for phase II and III clinical trials can be achieved in the short term, creating a strong connection and continuation of the existing co-operations and programmes for microbicides that are funded by the EU. Suitable cohorts should be identified in which trials are possible, to assess the protection that microbicides offer to HIV-negative women against infection and to assess any reduction in infectiousness among HIV-positive women.

As part of product development, studies will be required on product acceptability and extended to consumer education so as to address issues of attitudes and perception. The role of men in this regard will also be a key issue for political commitment and social mobilisation for future success of microbicides at the population level.

Medium to long-term (to microbicides) objectives should focus on ethical and safety issues, both by national regulatory agencies and ethical committees during development of clinical trial protocols.

Objectives are to:

- Generate safety data on uninfected women and men and also in HIV-infected persons
- Develop capacity for Phase II/III trials
- Conduct Phase II/III trials

III.4 ACTIVITY AREA 4: Capacity Building in developing countries

III.4.1 Introduction

Capacity building in the DC is one of the main objectives of the EDCTP. EDCTP supported research activities should meet the needs of DCs. Before any implementation, new interventions will have to prove to be successful under conditions prevalent in these countries and be able to alleviate health problems of the populations there. Large trials following international quality and ethical standards require extensive and costly infrastructural and organisational set-ups in the DCs. As such, insufficient local capacity, both in terms of infrastructure and staff (e.g. medical staff, ethical committees), is often a bottleneck in the development of new interventions.

European Member states are currently promoting capacities in Sub-Saharan Africa through their National Programmes. Currently, these programmes are not well coordinated. Finding synergies across such programmes is a priority for the EDCTP and will be pursued both at the project, institution, and programme level. Close involvement of the African institutions will be key.

III.4.2 National contributions

The total sum spent on capacity building in the member states during 2003-2008 is 113.233.515 euros. The majority of countries have supplied EDCTP with specific information about these projects. This information will be used for networking and coordination activities. Because not all countries have supplied enough detailed information over their contribution over 2004 it is not possible to display a more detailed analysis of the capacity building contribution of the participating member states in this JPA.

III.4.3 Rationale and strategy

1. EDCTP's guiding principle is to invest in research capacity to support national health objectives towards needs-based and field relevant outcomes.
2. EDCTP will be looking for assurances that all applications for capacity building will be sustainable. In particular, EDCTP will be looking for evidence that investments proposed consider factors necessary to attract and retain scientific leadership for conducting clinical trials in Africa and beyond EDCTP's involvement. Thus, EDCTP values:
 - a. An emphasis of training in Africa
 - b. The training of trainers approach
 - c. Training conducted in the context of institutions, with consideration of infrastructure requirements
 - d. The use of research fellowships to build individual scientific leadership capacity.
3. EDCTP understands that capacity building takes time and while EDCTP wishes to expedite progress, EDCTP will look for assurances that all activities will be used as training opportunities towards African scientific leadership.
4. Within proposals, EDCTP would like to see an appraisal of applicant's current status vis-à-vis these requirements alongside their requests for capacity building. In addition, EDCTP wishes to see how these investments will benefit health systems. For example, EDCTP envisages capacities for clinical trials being able to contribute to components such as disease control programme management, disease and resistance surveillance, reference laboratories, improved quality control, clinical

care and diagnostic laboratory capacities. Operational links and a defined scope of work with disease control programmes will therefore be encouraged.

5. EDCTP supported sites should assist with capacity development at other institutions or host individuals supported by EDCTP capacity building initiatives.
6. EDCTP will build capacity to do clinical trials in developing countries by supporting the development of sustainable capabilities at sites as part of the product evaluation projects that the programme is funding.
7. EDCTP will encourage specific clinical trial capacity building initiatives through the National Programmes of member states.
8. EDCTP will support the development of specific key capabilities to do clinical trials through direct investment in programs designed to strengthen those capabilities in developing countries. Where credible initiatives already exist to develop these capabilities, EDCTP will invest in those initiatives rather than developing its own initiative in the field.
9. EDCTP will promote the strengthening of health systems in developing countries through the indirect benefits of developing clinical trial capacity. EDCTP will be careful not to compromise health service delivery through the conduct of clinical trials. Thus, applicants for EDCTP funding should demonstrate that activities in support of clinical trials would not distort resources away from health systems but strengthen these systems.

Summary of the capacity building activities that the EDCTP plans to undertake			
Capabilities	Project-related capacity building	General capacity building	Health system benefits
Laboratories	Build infrastructure, expertise and Good laboratory practices (not pre-clinical GcLP)	Develop laboratory skills and expertise	Improved diagnosis Resistance surveillance
Libraries	Availability of literature	Improving knowledge management (literature access to selected journals, etc.)	Improve online resource for health research
IT and data analysis	Requirement at trial site Project specific capabilities	Improvement in communication and easy access to information Improvement of data handling and analysis Build training capacity in bio statistics	Upgrade in site infrastructure Availability of data management expertise and infrastructure
Clinical research monitoring	Training clinical research monitors	Develop research monitoring skills at local sites	Increase of clinical research excellence according GCP guidelines
Project management, including financial control and project administration	Training and the development of support systems	Establishing management skills and develop control administration	Disease control program management according internationally accepted level
Personnel involvement	Training in human volunteer management, data storage and maintenance of confidentiality	Support and develop selected staff associated with trial sites	Effective use of human capacity at clinical trials
Community participation	Establishment and/or strengthening of community participation and communication	Establishing counselling and communication skills	Ownership and improved compliance
Local scientific leadership to conduct trials	Training for fellowship (senior and junior), PhD and MSc	Support and develop scientific leadership	Create and strengthen both human and institutional capacity in African institutions
Proposal development in African sites	Training, mentorship and linkages	Develop skills in African institutions to attract funding themselves	Increase in application rates to conduct clinical trials
Baseline studies Demography, epidemiology	Demographic and epidemiological characterisation of target populations –		Disease surveillance capacity This is support of baseline studies to prepare cohorts for the clinical

	establishment of cohorts		trials
Ethics	Investigator and project staff training Institutional review capacity	Support existing ethics capacity building initiatives	National ethical review capacity and standards
Clinical trial methodology (Proposal development, Protocol development, clinical trial design and implementation, GCP, Bioethics, research data management and statistical analysis)	Developed at site level in the context of specific projects ICH-GCP training		Facilitate the development of general clinical care facilities where none exist, develop clinical trial facilities in support of existing clinical facilities. Sustainability must be negotiated with local health authorities.

III.4.4 Capacity building objectives

EDCTP will pursue the following capacity building objectives:

- 1) *Upgrade sites including training for specific staff*
- 2) *Training of senior and junior fellows, PhD and MSc students*
- 3) *Improve compliance with internationally accepted standards for ethical review*
- 4) *Support proposal development and baseline studies*

Objective 1: Upgrade sites including training for specific staff

Following a call for proposals, sites will be selected through a peer review process to meet the target numbers of sites to be developed to specific levels. It may also be necessary to select a small number of sites which are clearly appropriate to develop to focus initial activities to kick-start the capacity development process and to ensure that some sites are online early to conduct high priority trials. Sites may be upgraded to higher levels based on implementation of specific developmental programmes, such as identification of training needs, staff development, and scientific and administrative resources needed to undertake and sustain a developmental or multi-project research programme. Furthermore, it is necessary to develop a step-wise plan to address these needs; such as training on GLP/GCP, data system development, population-based site development including characterization and epidemiological data on these diseases.

Training opportunities for staff that are connected to a site that is funded by an EDCTP capacity building grant include:

- i. Information Technology (IT) and Bio-statistical training: for each trial. Training aims to strengthen data management, communication, data analysis and computer networking.
- ii. Training of Internal Clinical Research Monitors
- iii. Training of nurses/clinicians/scientists to gain experience in human volunteer management, data storage and maintenance of confidentiality.
- iv. Laboratory staff: the training of at least one QA/QC staff member and the ongoing training of laboratory staff in general and specialized techniques, standardisation of assays and GLP.
- v. Financial and project management: the training of program managers on essentials of good accounting procedures and project management skills.
- vi. The training of community representatives for advocacy of intended trials in local communities or trial sites.

Objective 2: Training of senior and junior fellows, PhD and MSc students

1. *Develop human resource capacity through training.* Scientific capacity is limited by the lack of suitably qualified researchers. EDCTP funded sites will play a key role as locations where practical experience in clinical trial conduct can be obtained and in

mentoring individuals or sites as part of the capacity building process. To address this challenge, the EDCTP may support the following initiatives:

- a. *Senior EDCTP Fellowships*. These fellowships aim to develop scientific leadership and to prepare principal investigators that will be based in Africa. The fellowships will include a component to fund the research conducted by the senior fellow in a developing country site.
- b. *Junior EDCTP Fellowships*. The junior fellowships aim to allow for continuity and sustainability of activities related to clinical trials. Junior fellowships optimise the use of EDCTP-funded trial sites as training opportunities. Junior fellows will be doctoral qualified scientists attached with prior approval to a trial site.
- c. For each clinical trial, efforts will be made to identify suitable projects for PhD and MSc students. The aim is to produce at least one MSc and one PhD per funded trial.

2. *Integrated training program in clinical trial methodology*. The aim is to develop a sustainable and high quality-training program in clinical trial methodology at southern institutions. This program will include the following topics:

- I. Proposal development
- II. Clinical trial design and implementation
- III. GCP
- IV. Bioethics
- V. Research data management
- VI. Statistical analysis

The program should offer a variety of delivery mechanisms for training, including formal postgraduate qualifications, short courses and distance learning. The program should have a strong clinical trial site linkage, including:

- i. Links to existing and potential EDCTP-funded sites;
- ii. Placement of students at CT sites;
- iii. Practical assignments at CT sites; and
- iv. Association between EDCTP fellows and training programs

The program should promote networking through:

- i. Partnerships with Northern institutions for appropriate course content and faculty;
- ii. Agreements/MOUs with research sites for placement of students/assignments and contributions from investigators at those sites
- iii. Preference should be given to a program that is based at a network of universities from various African regions with standardized course content and exchange of faculty. Some universities may already be strong in certain aspects and will take the lead in developing and offering those components
- iv. Accreditation mechanisms to ensure that course content and delivery is of high quality.

Objective 3: *Improve compliance with internationally accepted standards for ethical review*

It is important to strike a balance between the public health interest, the interests of the innovative pharmaceutical industry, those of the generic pharmaceutical industry, and ethical values. Currently, many African countries lack ethical guidelines; some even lack regulatory bodies.

EDCTP may support other organisations to carry out ethics training in Africa. EDCTP wishes to promote the establishment and strengthening of national ethical

committees (NEC) through the African Office of the EDCTP. The NECs shall be encouraged to create their own regulatory bodies without necessarily receiving funding from EDCTP for continued activity.

Training activities should take advantage of partners already active in the field to have integrated, coordinated and complementary interactions and eventual co-funding through an agreement or memoranda of understanding. Strengthening of NEC will not be limited to training but will be extended to support in their ongoing functioning and activities. Networking of NECs will be encouraged and supported. Additional support in the form of online literature access, documents, access to web sites on ethics and GCP will be provided.

In countries where NEC does not exist, local institutional review boards should be encouraged to contribute to the formation of a NEC. Where neither a NEC nor local institutional review boards exists the EDCTP will find out appropriate body or scientists in each country to be contracted to initiate the formation of the NEC.

The EDCTP may support coordination of activities in clinical trial ethics through the formation of a coordinating committee with representation from all the role players

Objective 4: *Support proposal development and baseline studies*

1. For each funded clinical trial, provision should be made for the mentorship of at least one junior PI. Support will be given to develop proposals and to enable scientists from Africa to attract funding independently.
2. For sites lacking recent epidemiological data, epidemiological studies will be conducted to update relevant data accompanied. This will enable less developed sites to develop proposals for funding.