

Horizon 2020

INVESTMENT COMPONENT | MeHSIP-PPIF

MeHSIP-PPIF

Mediterranean Hot Spot Investment Programme
Project Preparation and Implementation Facility

Tim Young



A TA operation funded by the
European Union - FEMIP Support Fund



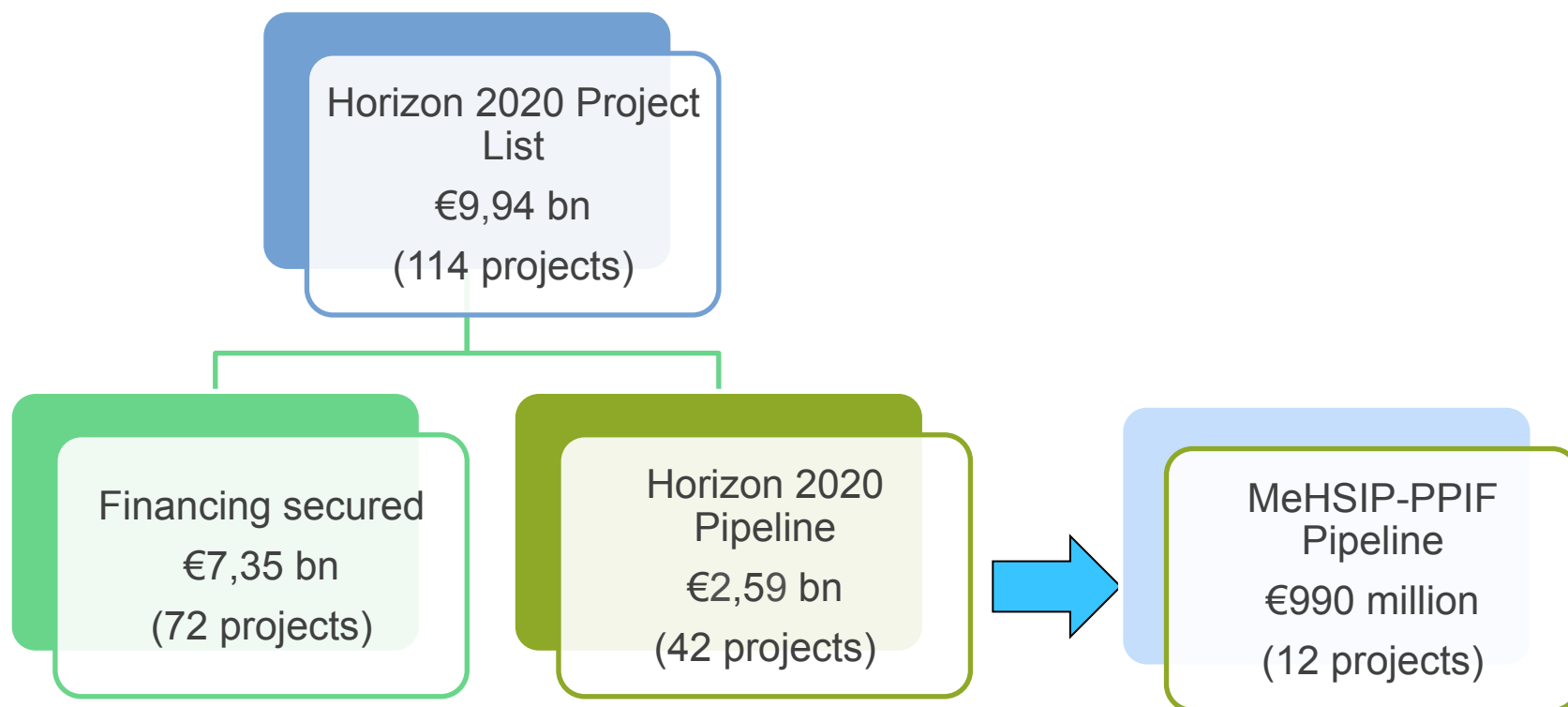
Section A

Horizon2020 Pipeline & **Investment** Opportunities

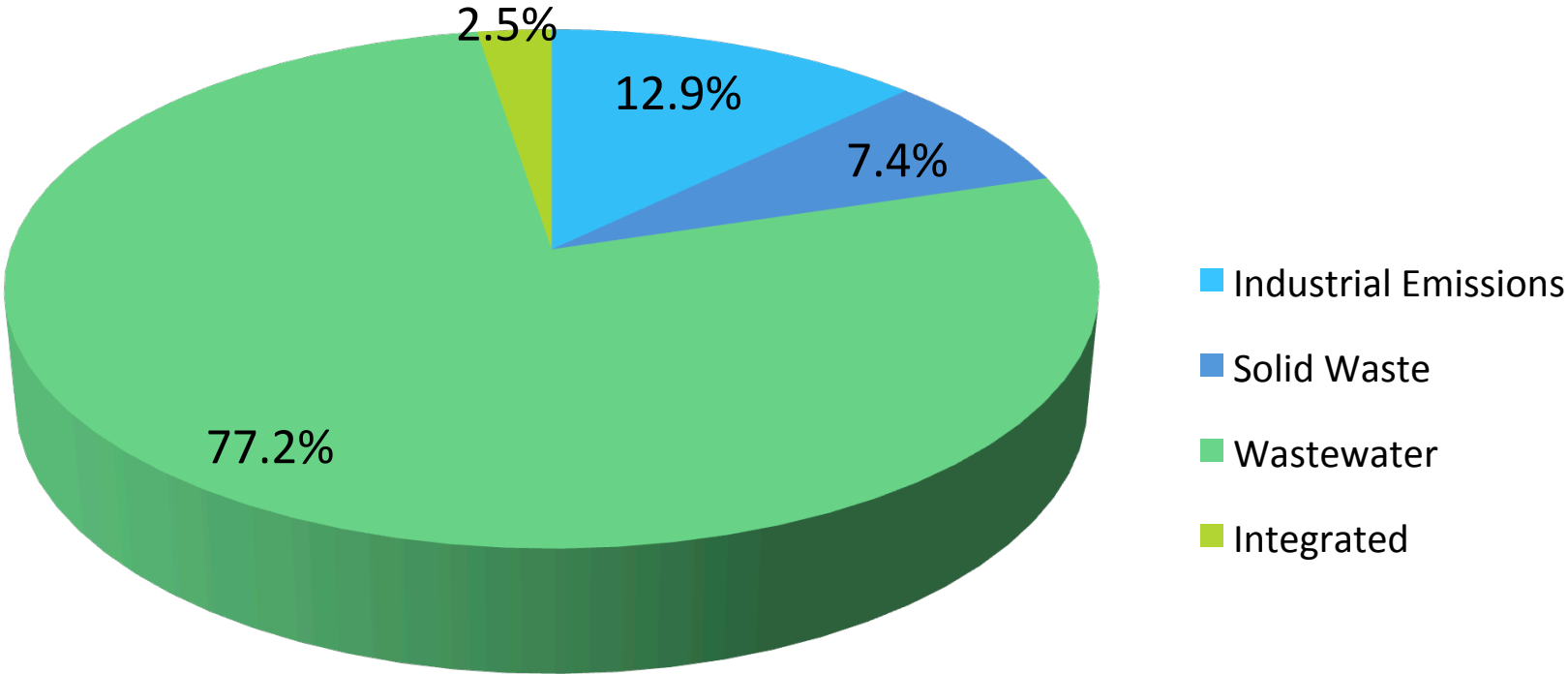


H2020 Project List: 114 projects (planned, ongoing or completed) mostly originating from NAP

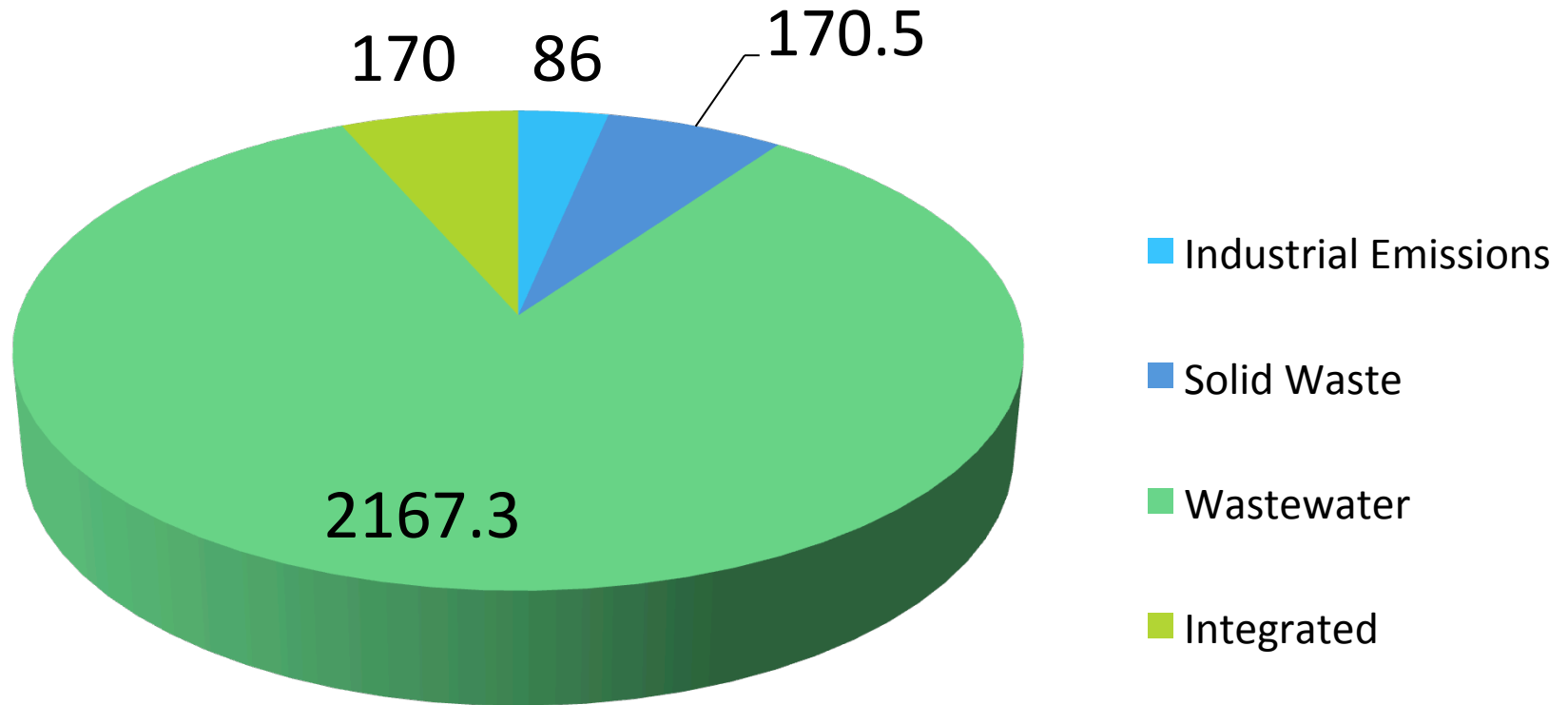
H2020 Pipeline: 42 projects (€2,59bn) yet to secure funding/financing



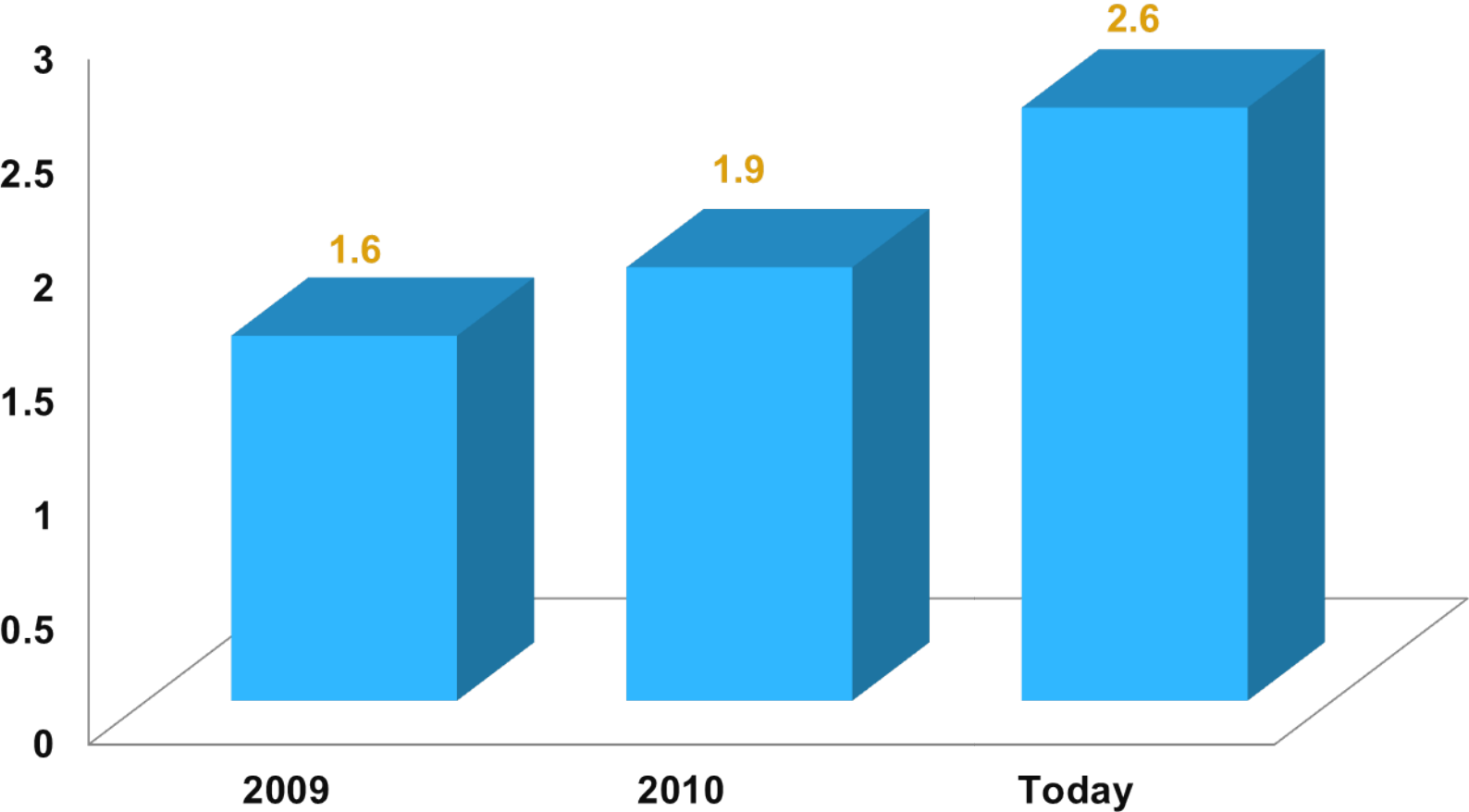
H2020 Project List (all projects): distribution by target sector



H2020 Pipeline (not secured funding): current investment needs (m EUR)



Evolution of Horizon 2020 Pipeline - investment needs (in billion EUR)



Section B

MeHSIP-PPIF

Project Preparation



PHASE I

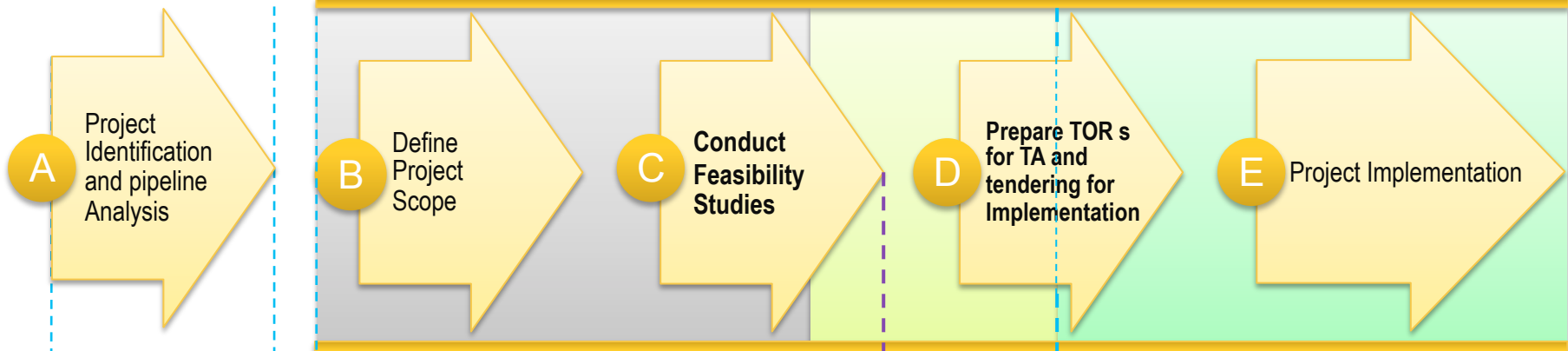
PHASE II

PHASE III

IDENTIFICATION

PREPARATION

IMPLEMENTATION



8-10 months

18-24 months

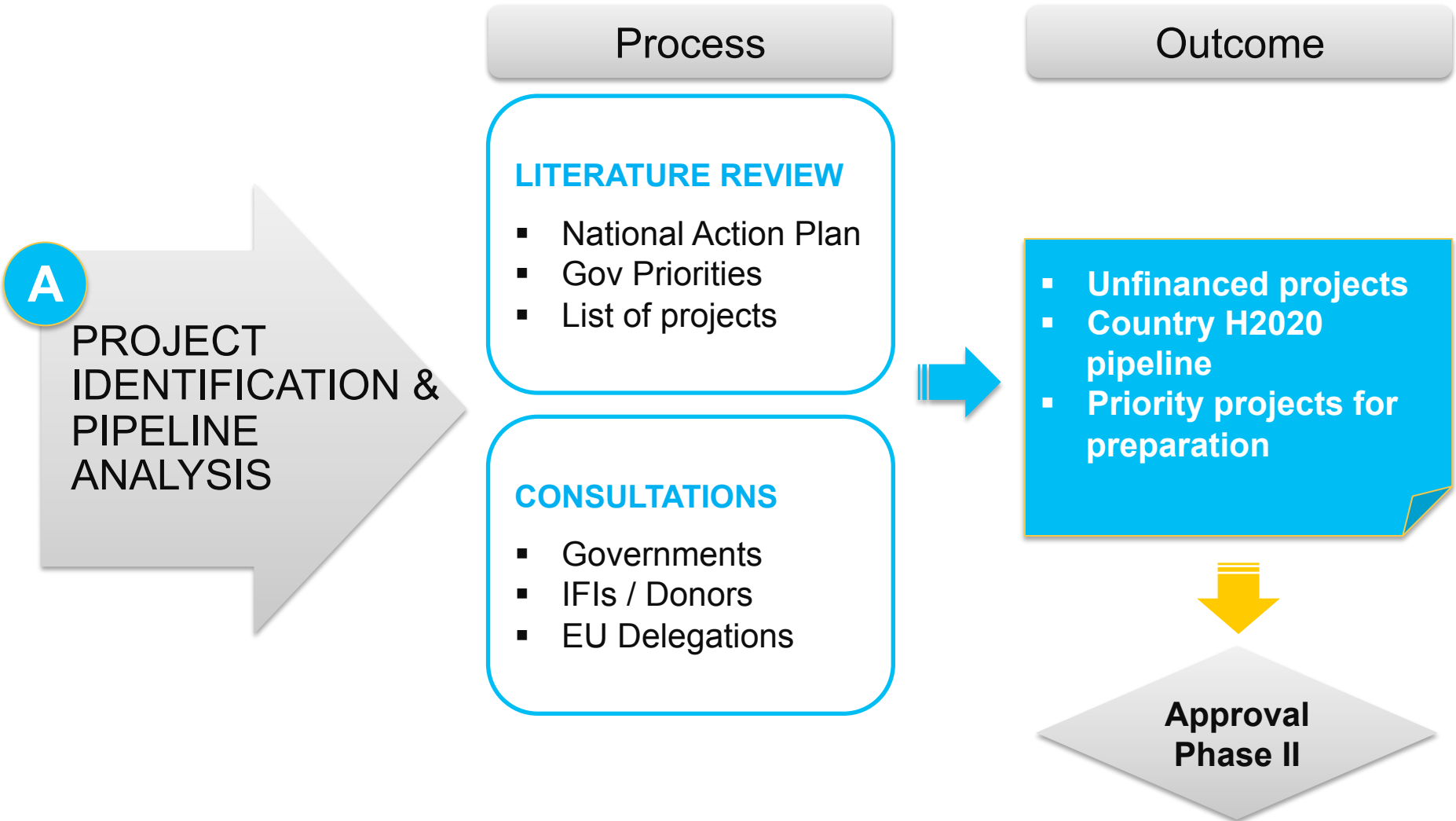
36-48 months

- Consultations with:
- Gov Counterpart
 - IFIs
 - EU

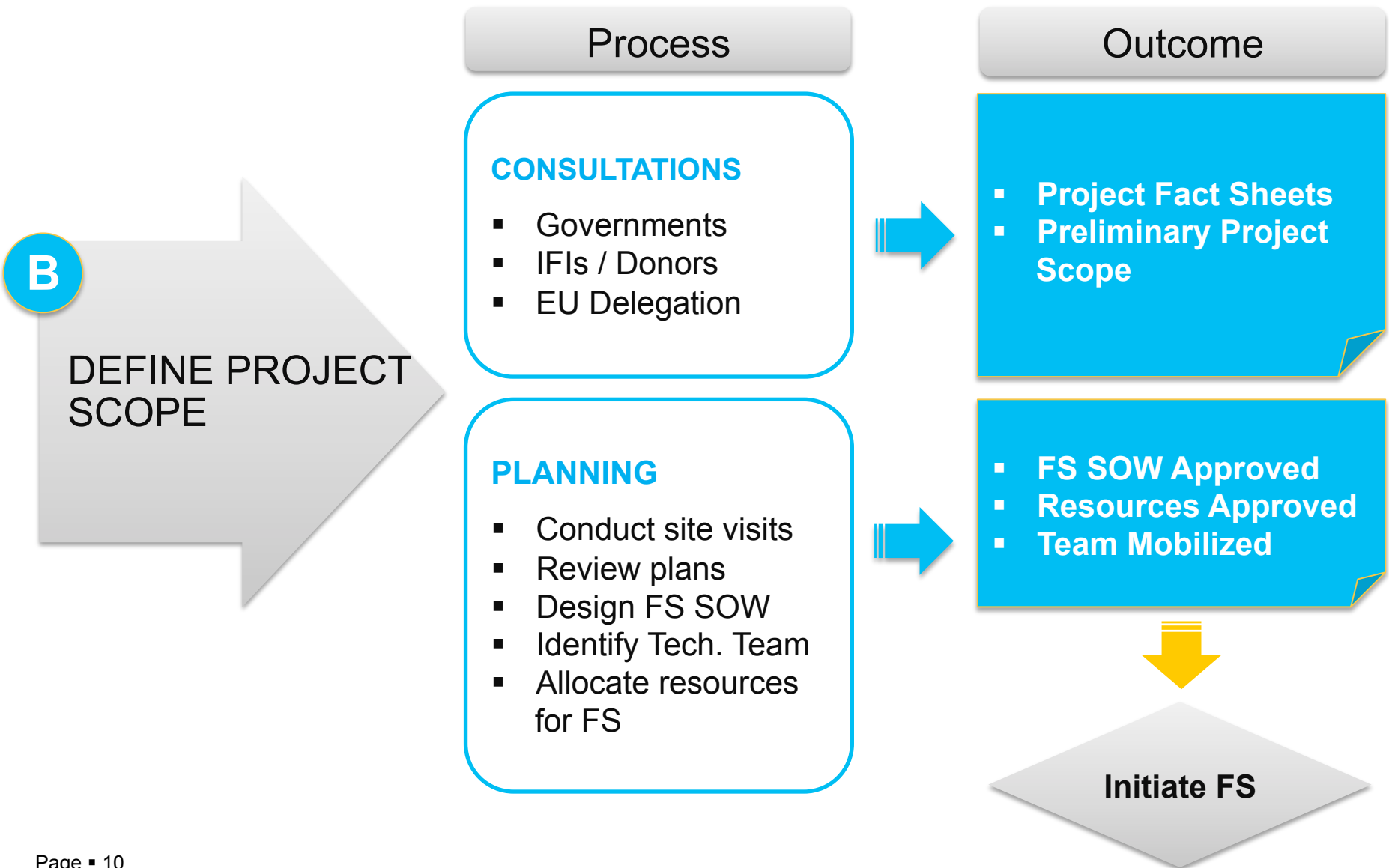
- Approval of Feasibility Study
- Appraisal
- Loan Ratification

END of Preparation

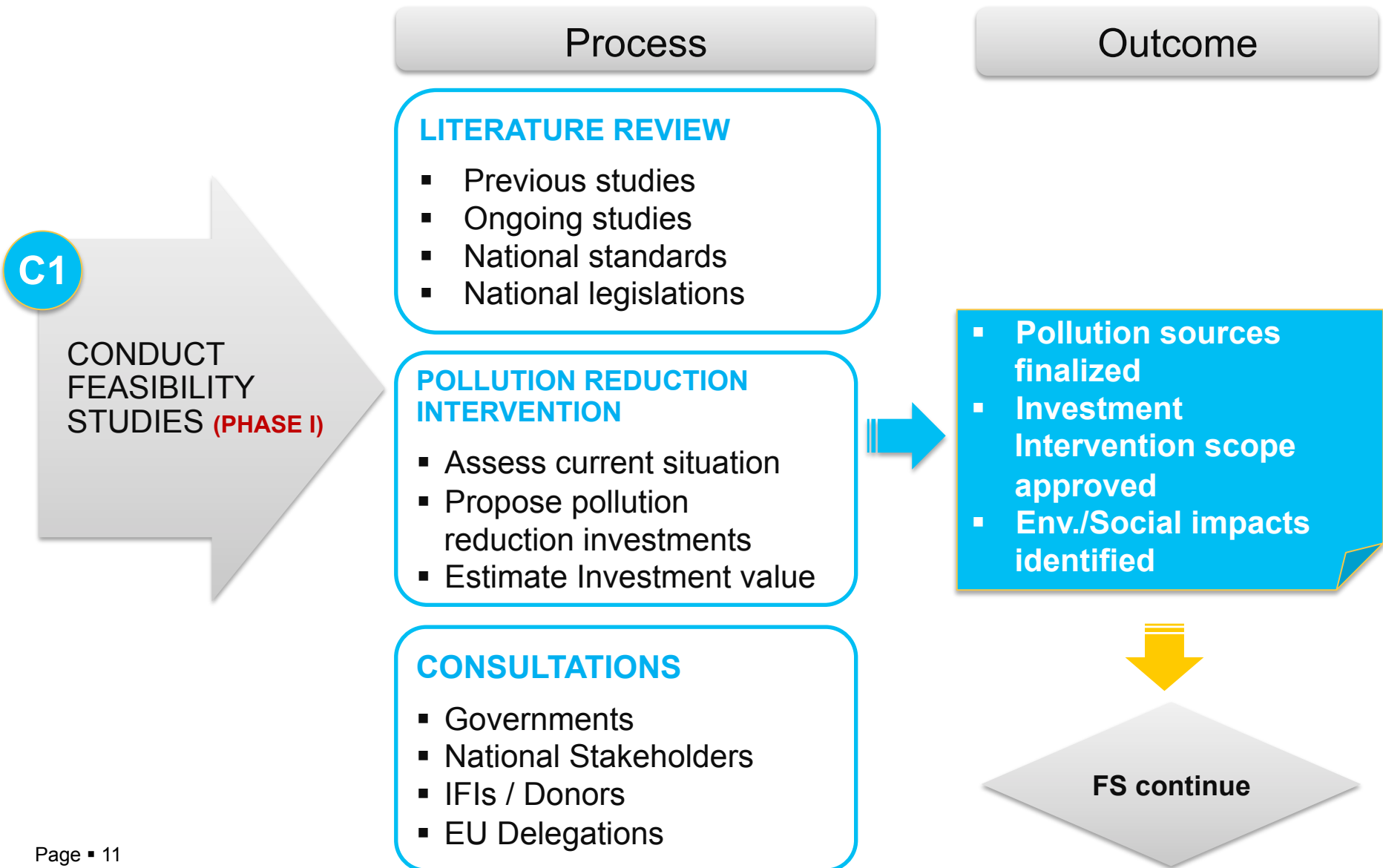
PHASE I (8 to 10 Months)



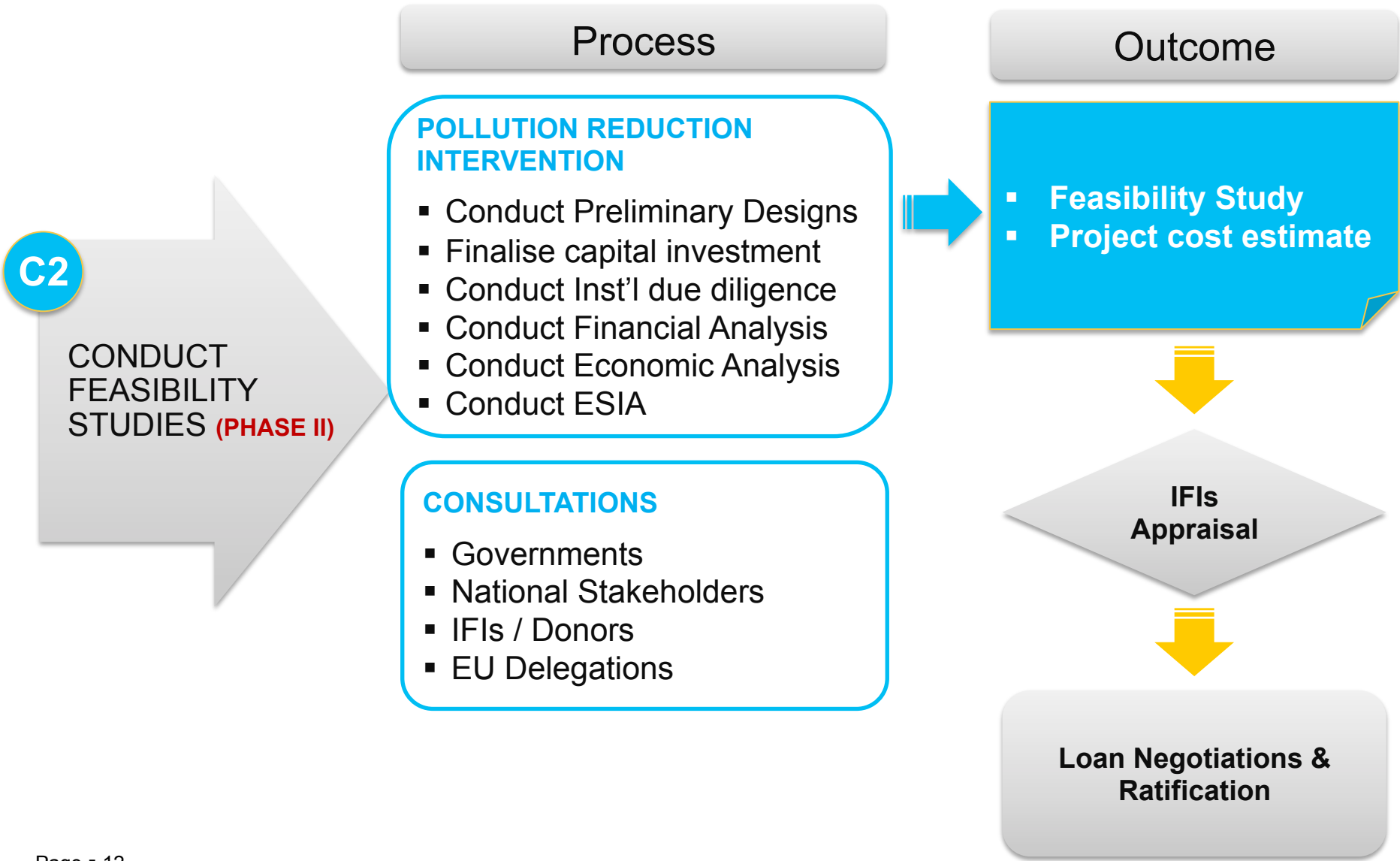
PHASE II (18 to 24 Months)



PHASE II (18 to 24 Months) *continued*



PHASE II - 18 to 24 Months *(continued)*



Phase II *Continued*

Phase III- 36 to 48 months

D

PREPARE
TORs FOR TA

End of Preparation

TENDERING FOR
IMPLEMENTATION

E

PROJECT IMPLEMENTATION

Lessons from the field

CONSULTATIONS

- Ensure stakeholders buy-in
- Ensure focused and effective support
- Catalyse pollution abatement

Donor cooperation

- Avoids overlapping of support
- Ensures efficient use of resources
- Ensures an integrated approach
- Facilitates understanding of context and challenges

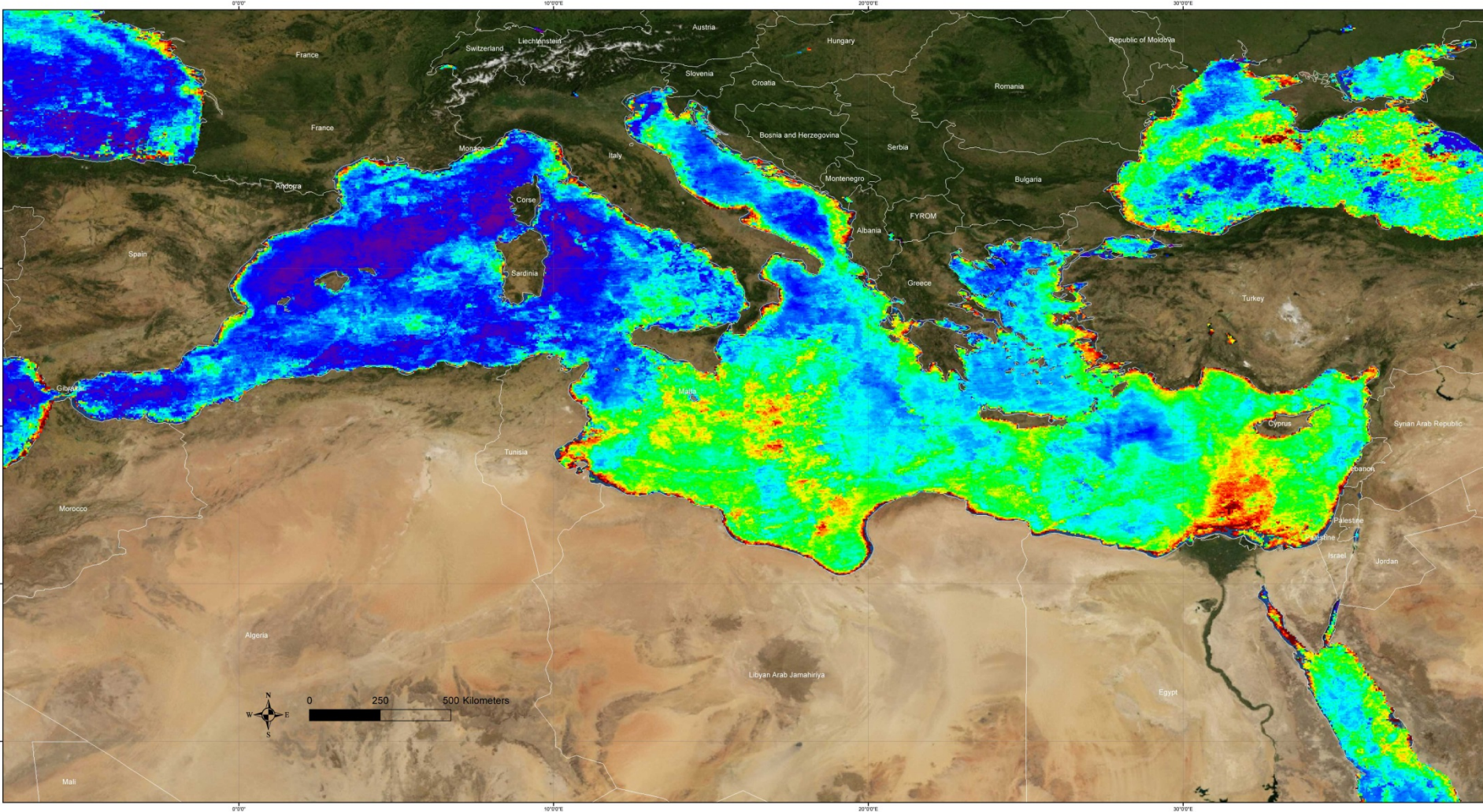
OWnersHIp

- Reflects the real dimensions/limitations of any assistance
- Enhances intervention efficiency
- Ensures smoother implementation of projects
- Enhances sustainability

Section C

Case Study...Egypt





Chromophoric Dissolved Organic Matter Index

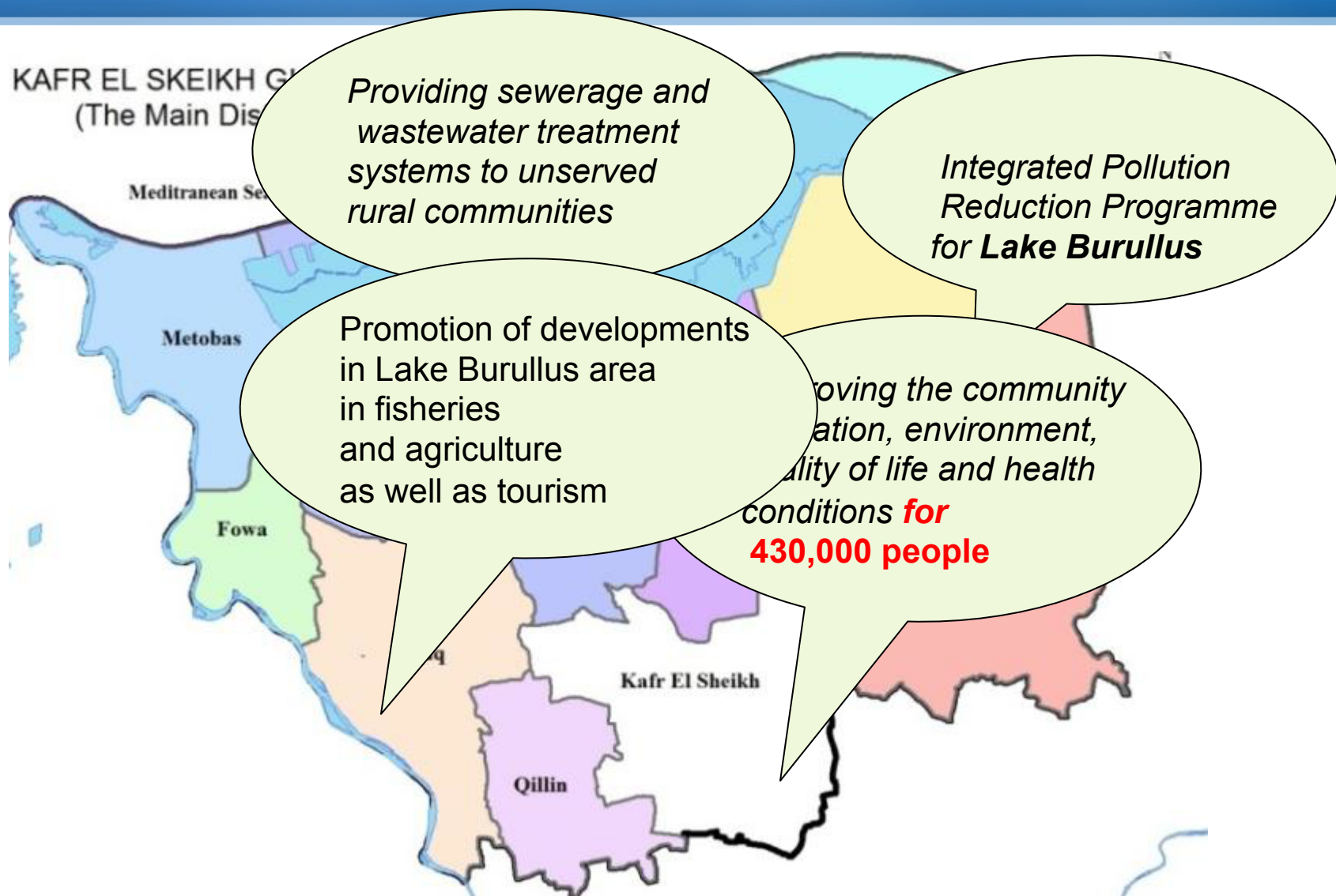


Map composition processed by the Remote Sensing Team of the National Observatory of Athens (NOA-ISARS)
Satellite data © NASA, <http://oceancolor.gsfc.nasa.gov>

Satellite composition depicting colored dissolved organic matter (CDOM) in the Mediterranean as recorded by the MODIS Aqua satellite sensor during March 2010. Along with natural processes, human activities affect CDOM levels in the water; therefore higher values of the CDOM index (yellow to dark red) may indicate pollution Hot Spots.



Kafr El-Sheikh Project (KES)



Horizon 2020

INVESTMENT COMPONENT | MeHSIP-PPIF

The Needs



A TA operation funded by the
European Union - FEMIP Support Fund









The Needs

Health

- Risk of contamination of water supplies
- hygiene

Environment

- Groundwater contamination
- Surface water contamination
- Contaminated areas within towns

Economic

- Water sources for fisheries industry affected
- Sickness reduces availability for employment
- High costs

Horizon 2020

INVESTMENT COMPONENT | MeHSIP-PPIF

The Solution



A TA operation funded by the
European Union - FEMIP Support Fund



Project Concept

Master Plan

- Strategic document
- Based on administrative boundaries
- Population based on census

Cluster optimisation

- Field visits
- Review cluster boundaries
- Technical considerations
- Prioritise clusters
- update master plan

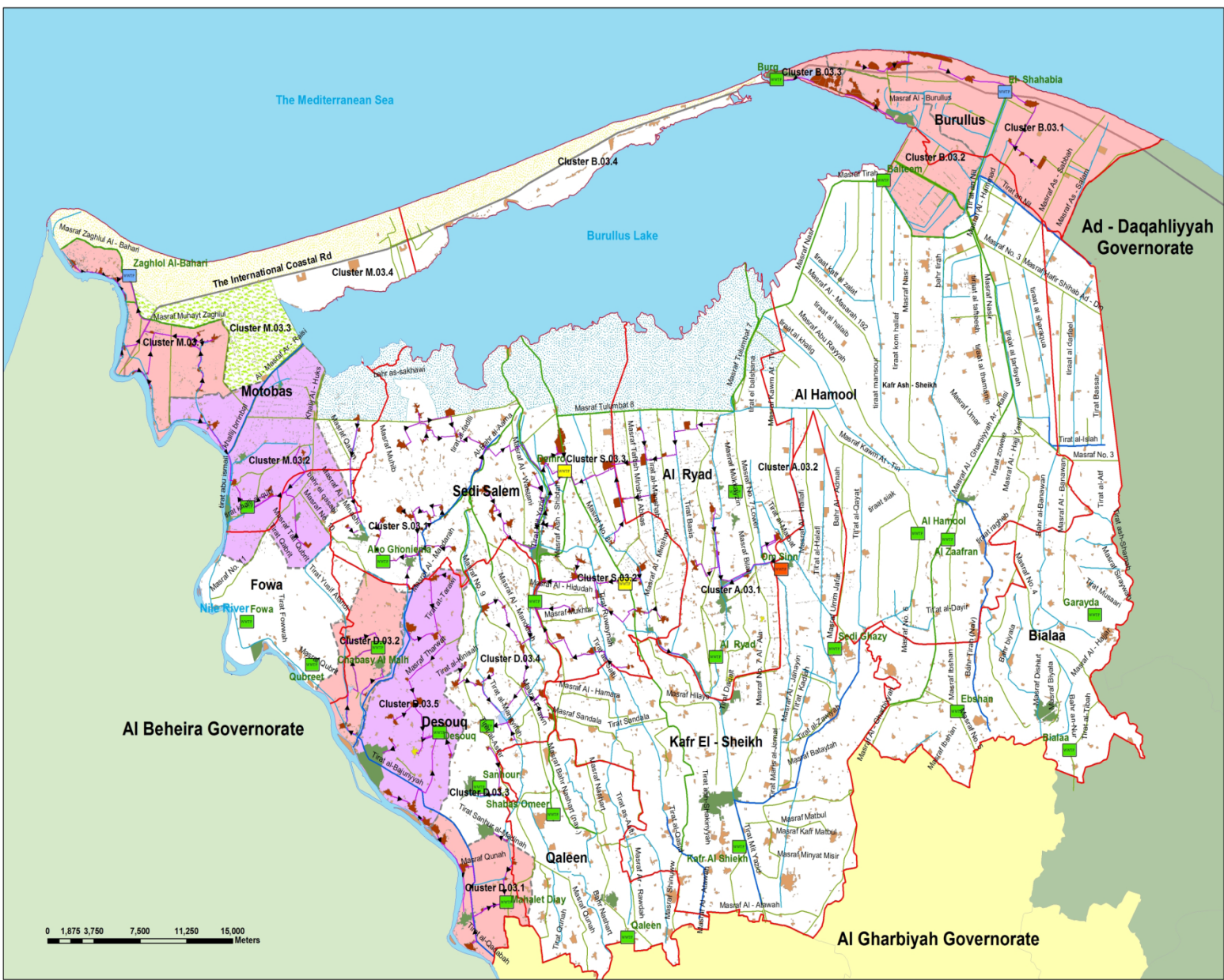
WWTP optimisation

- Initial basis for WWTP
- Existing plant capacities
- Extend existing plants
- Optimise new plants



Legend

- WWTP**
- Existing
- Proposed By Atkins' Chemiconics
- Proposed by Masterplan
- under construction
- FM_FINAL_Horizon2020
- Canals**
- Canal greater than 25 meters
- Canal from 10 to 25 meters
- Drains**
- Drain greater than 25 meters
- Drain from 10 to 25 meters
- Major Roads
- Clusters Horizon2020**
- Selected clusters
- Phase A
- URBAN AREAS**
- served
- under construction
- under design
- proposed sewerage system
- proposed on-site system
- Beach Area
- Cultivated Area
- Fish Farms
- water ways
- District Boundary



5			DRAWN		
4			DESIGNED		
3			CHECKED		
2			APPROVED		
1					
0					
No.	AMENDMENT	DATE			

CHEMONICS EGYPT CONSULTANTS
 6 Dokki Street, Dokki, Giza, Egypt
 Phone: +20-237.60.07.64
 Fax: +20-237.49.24.72
 www.ChemonicsEgypt.com



**HOLDING COMPANY
FOR WATER & WASTEWATER**

Horizon2020

INVESTMENT COMPONENT | MeHSIP-PPIF

Feasibility Study of "Wastewater Expansion for Kafr El Sheikh Governorate"	SCALE	1 : 210000
Classification of Clusters (for preferred option)	DRAWING No.	3.6.1
	DATE	May 2012

Project Maturity

Good Definition

- Justifying the needs
- Project Scope
- Project Components
- Benefits
- Coverage

Project Promoter

- Government Counterpart
- Eligible for sovereign loans
- Authorised to sign loan agreements

Good Feasibility

- Examined options
- Field surveys (topo, sampling, etc..)
- Eco & Fin analysis
- ESIA
- Time Plan
- Budget & Costing
- Implementation Plan
- Implementation arrangements

What is a good FS? KES Process

Examine Options

- Optimise WW systems
- Examine Treatment Processes
- Type of Pipe material
- Alternative sewer pipeline routes
- Gravity/force mains/pumping stations



The Mediterranean Sea

Burullus Lake

Ad - Daqahliyyah Governorate

- Existing WWTP
- Proposed New WWTP

Al Beheira Governorate

Al Gharbiyah Governorate

Zaghlol Al-Bahari

Burg

El-Shahabia

Balteem

Motobas

Demro

Al Hasafa

Abo Ghoniema

Sedi Salem

Al Ryad

Nile River

Chabasy Al Malh

Desoug

Sanhour

Al Agouzeen

Mahalet Diay

Under Design by NOPWASD

Bahr Tirah (Nav)

Tirat al-Bajuriyyah

Tirat al-Qadabih

Tirat al-Qasbi

Tirat al-Zawiyyah

Tirat al-Islah

Tirat al-Nav

Tirat al-Islah

Tirat al-Nav

Tirat al-Nil

Tirat al-Nil

Masraf Muhayt Zaghlol

Masraf Muhayt Zaghlol

Masraf Muhayt Zaghlol

Masraf Muhayt Zaghlol

Masraf Muhayt Zaghlol

Masraf Muhayt Zaghlol

Masraf Muhayt Zaghlol

Masraf Muhayt Zaghlol

Masraf Muhayt Zaghlol

Masraf Muhayt Zaghlol

Masraf Muhayt Zaghlol

Masraf Muhayt Zaghlol

Masraf Muhayt Zaghlol

Masraf Muhayt Zaghlol

Masraf Muhayt Zaghlol

Masraf Muhayt Zaghlol

Masraf Muhayt Zaghlol

Masraf Muhayt Zaghlol

Masraf Muhayt Zaghlol

Masraf Muhayt Zaghlol

Masraf Muhayt Zaghlol

Masraf Muhayt Zaghlol

Masraf Zaghal

Masraf Zaghal

Masraf Zaghal

Masraf Zaghal

Masraf Zaghal

Masraf Zaghal

Masraf Zaghal

Masraf Zaghal

Masraf Zaghal

Masraf Zaghal

Masraf Zaghal

Masraf Zaghal

Masraf Zaghal

Masraf Zaghal

Masraf Zaghal

Masraf Zaghal

Masraf Zaghal

Masraf Zaghal

Masraf Zaghal

Masraf Zaghal

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Imbab

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

Masraf Qasim

What is a good FS? KES Process

Examine Options

- Optimise WW systems
- Examine Treatment Processes
- Type of Pipe material
- Alternative sewer pipeline routes
- Gravity/force mains/pumping stations

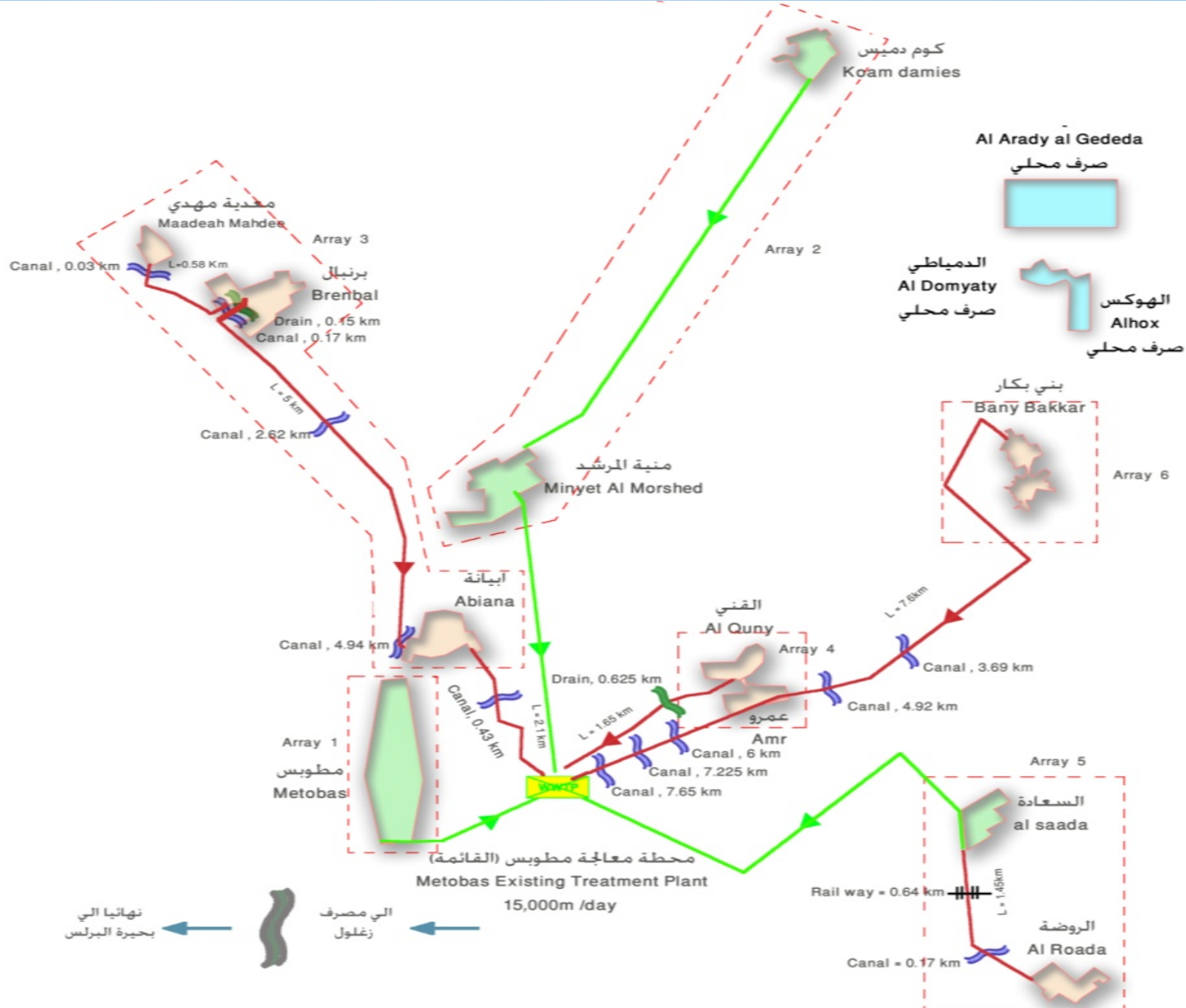
Field Surveys

- Topographic surveys
- Geotechnical investigations
- Water sampling
- Assessing existing operations as part of the system

Routing of Sewerage Network among Villages and Connection with the Wastewater Treatment Plant in Cluster M.03.2 (Motobas)

مركز: مطوبس
 رقم منطقة الخدمة: M.3.2
 تعداد السكان الخدم عام (2012): 17,717 نسمة
 تعداد السكان المقترح خدمته عام (2012): 44,908 نسمة

-  Proposed WWTP
-  Existing WWTP
-  Served Villages
-  Villages Proposed For Service



What is a good FS? KES Process

Examine Options

- Optimise WW systems
- Examine Treatment Processes
- Type of Pipe material
- Alternative sewer pipeline routes
- Gravity/force mains/pumping stations

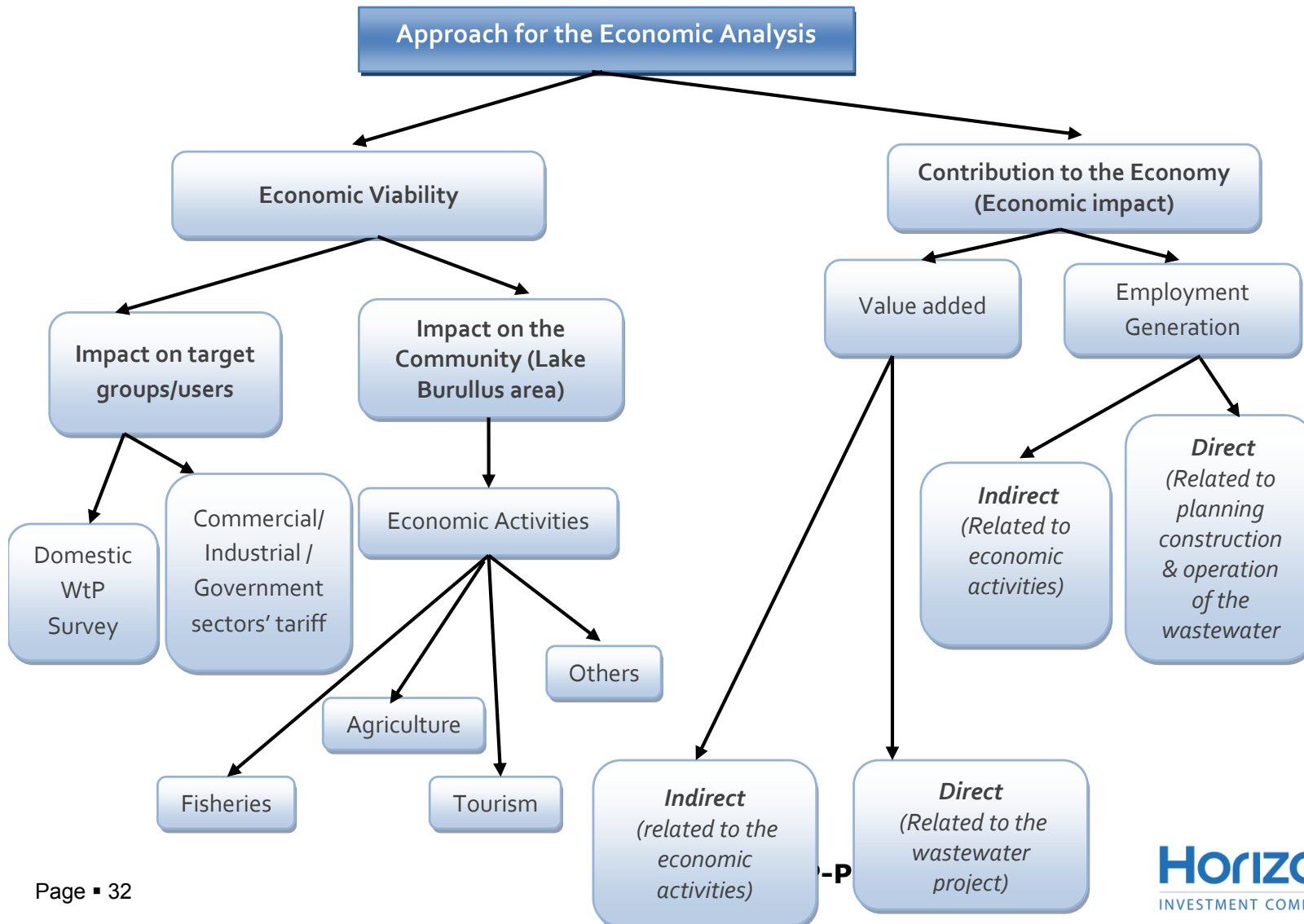
Field Surveys

- Topographic surveys
- Geotechnical investigations
- Water sampling
- Assessing existing operations as part of the system

Fin & Eco Analysis

- Good technical definitions
- Good cost estimates
- Good knowledge market values
- Good knowledge of population willingness to pay
- Good knowledge of County's economic situation
- Good and realistic time planning
- Knowledge of IFI conditions
- Economic and Financial rate of returns

The chart below summarizes the approach adopted by the study:



What is a good FS? KES Process

Time & Implementation Plan

- Requirement for DD & Tendering processes
- Requirements for Construction & Operation
- Optimize Procurement Arrangements
- Structure and Number of Contracts (WWTP & Networks)
- Understanding of capacity / skills of Local Contractors

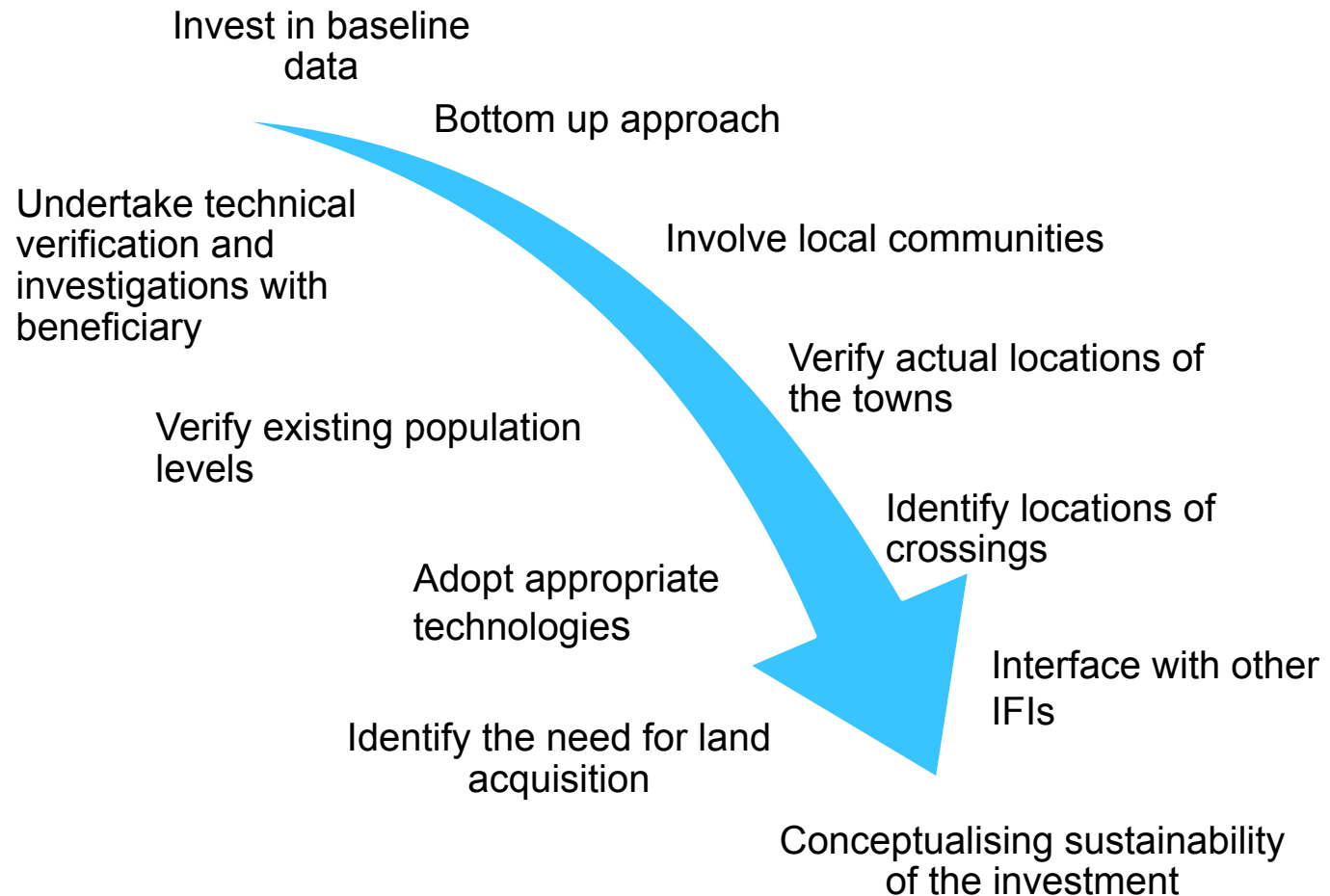
Budget & Costing

- Good Preliminary Designs
- Accurate engineering estimates
- Good market knowledge
- Good estimation of manpower requirements
- CAPEX
- OPEX

Implementation Arrangements

- Assessing Promoters skills
- Understanding institutional interrelations
- Identifying gaps
- Understanding contracts administration
 - Conventional tenders (Networks)
 - DBO contracts (WWTP)
 - Operation

Key Elements to Success – KES case



Parting words...

Please remember that...

*... a well prepared project provides the best foundation
for private sector participation!*

Horizon 2020

INVESTMENT COMPONENT | MeHSIP-PPIF

Thank you for your attention.



A TA operation funded by the
European Union - FEMIP Support Fund

