

Tietê Project



IBRD – Integrated Urban Water Management Study Tour

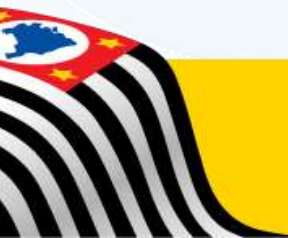
São Paulo – June 21, 2018



1. SABESP
2. Tietê river and the SPMR
3. Tietê Project – Timeline
4. Progress of Sewage Treatment
5. Challenges to the success of the Program
6. Prospects for Stage IV



1. SABESP



State of São Paulo



248.219,63 km²

Total population: 43.674.533

Urban population: 42.090.776

645 municipalities

Reference: Seade Foundation, 2017

Sao Paulo Metropolitan Region (SPMR)

39 municipalities

Total population: 20.717.505

Urban population: 20.488.411

Reference: Seade Foundation, 2017



STATUS:

Established in 1973 as a corporation (*Government of the State of São Paulo, private shareholders and municipalities*)

NET WORTH:

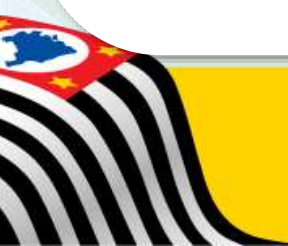
R\$ 17,5 billion*

EMPLOYEES:

13.901



* Referent to 30/12/2017



COMPANY OVERVIEW

- ◆ Sabesp is one of the largest water and sewage service providers in the world, based on the number of Customers
- ◆ Provides water to **24.9 million** people and sewage services to 21.6 million people
- ◆ Also sells wholesale treated water to 5 municipalities (**3.0 million** people)
- ◆ Serves the City of São Paulo and **367** out of 645 municipalities in the State
- ◆ Covers around **66%** of State's urban population, including the wholesale

MAIN OPERATIONAL INDICATORS⁽¹⁾

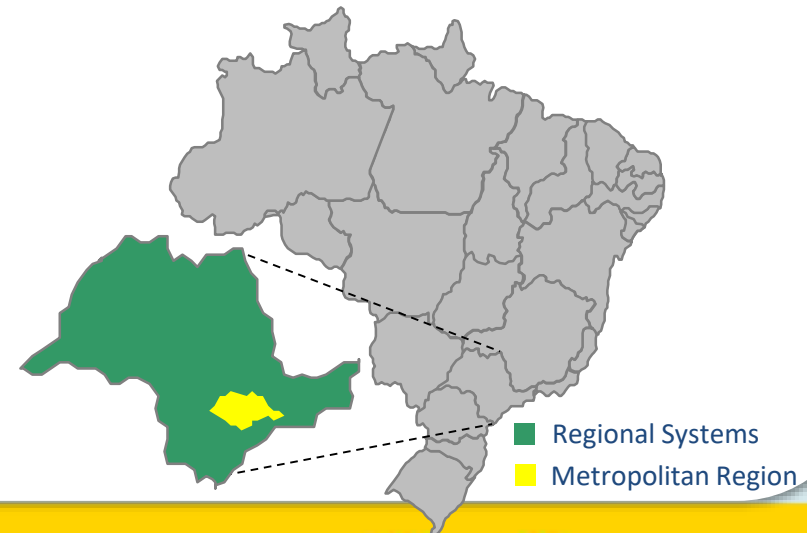
	Water	Sewage
Connections (million)	8.9	7.3
Coverage ⁽²⁾ (%)	99	89
Service ⁽³⁾ (%)	95	83
Treatment ⁽⁴⁾ (%)		75
Billed Volume (m ³ million)	2,075.9	1,617.2

(1) As of Dec 30, 2017

(3) Households connected

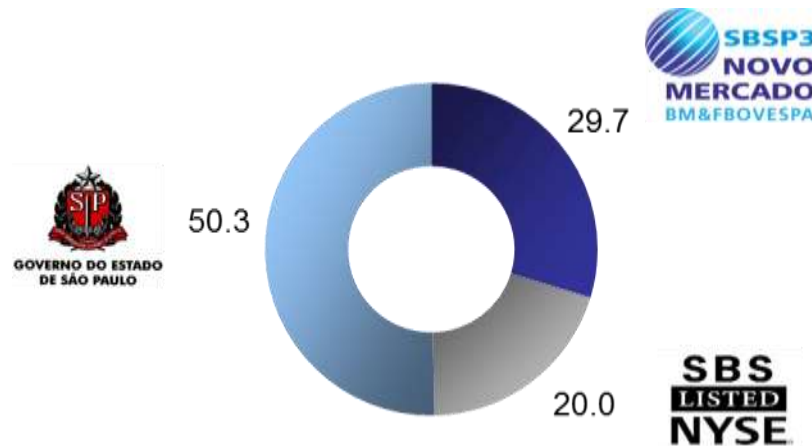
(2) Service Available

(4) Consumer units connected to the sewage treatment



- ◆ We are a mixed capital company, majority-owned by the State of São Paulo, with significant private ownership
 - ◆ State law requires the State of São Paulo to own at least 50% + 1 voting shares at all times
 - ◆ Currently the Government of São Paulo has 50.3% share
- ◆ 100% common shares
- ◆ Market Cap: R\$ 23.5 billion (as of December, 2017)
- ◆ Law nº 13.303/16 – Government-Controlled Companies Law

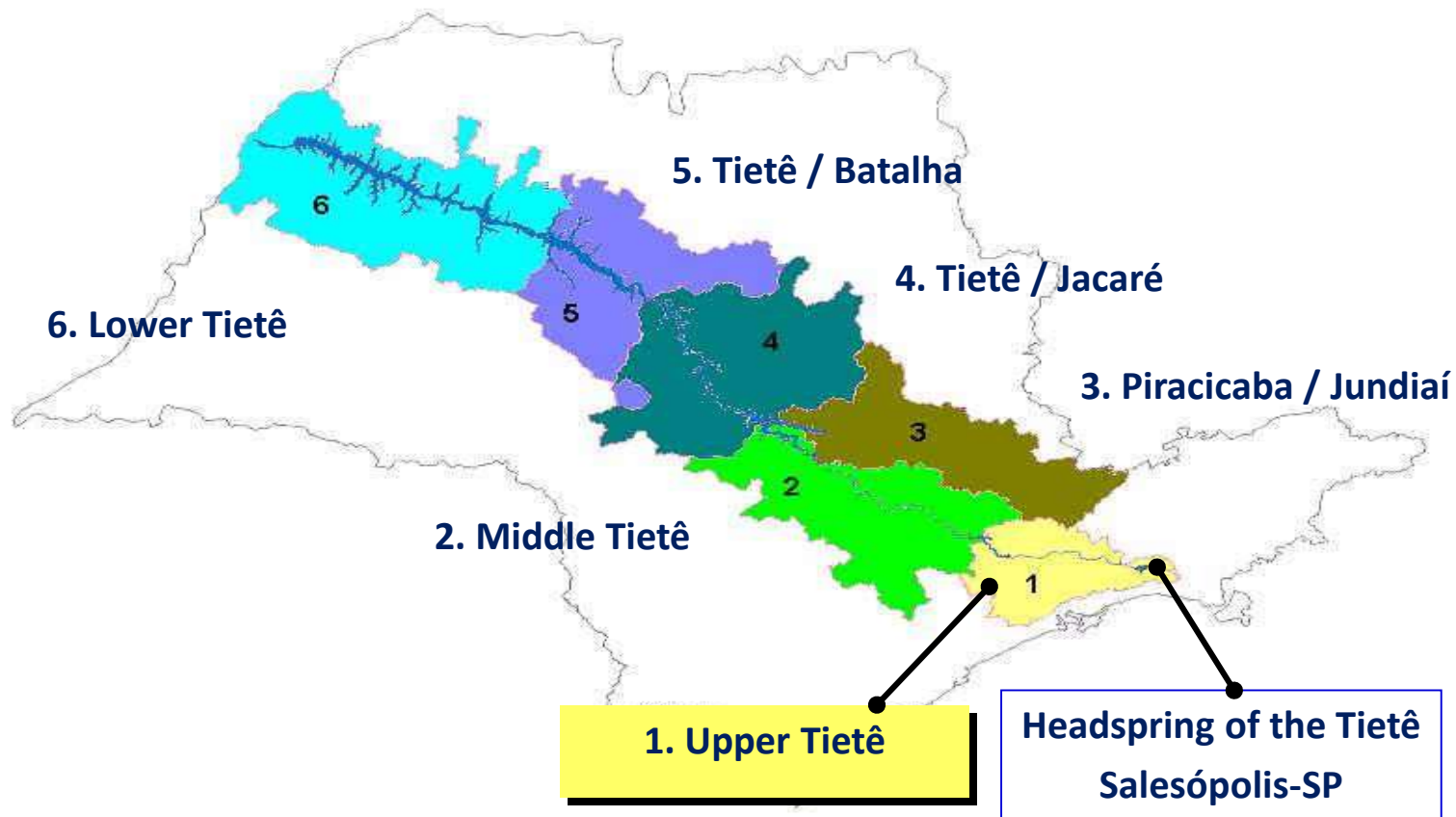
OWNERSHIP STRUCTURE % ⁽¹⁾



(¹) December/2017

2. TIETÊ RIVER AND THE SPMR

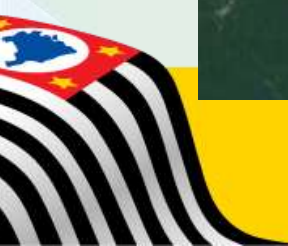
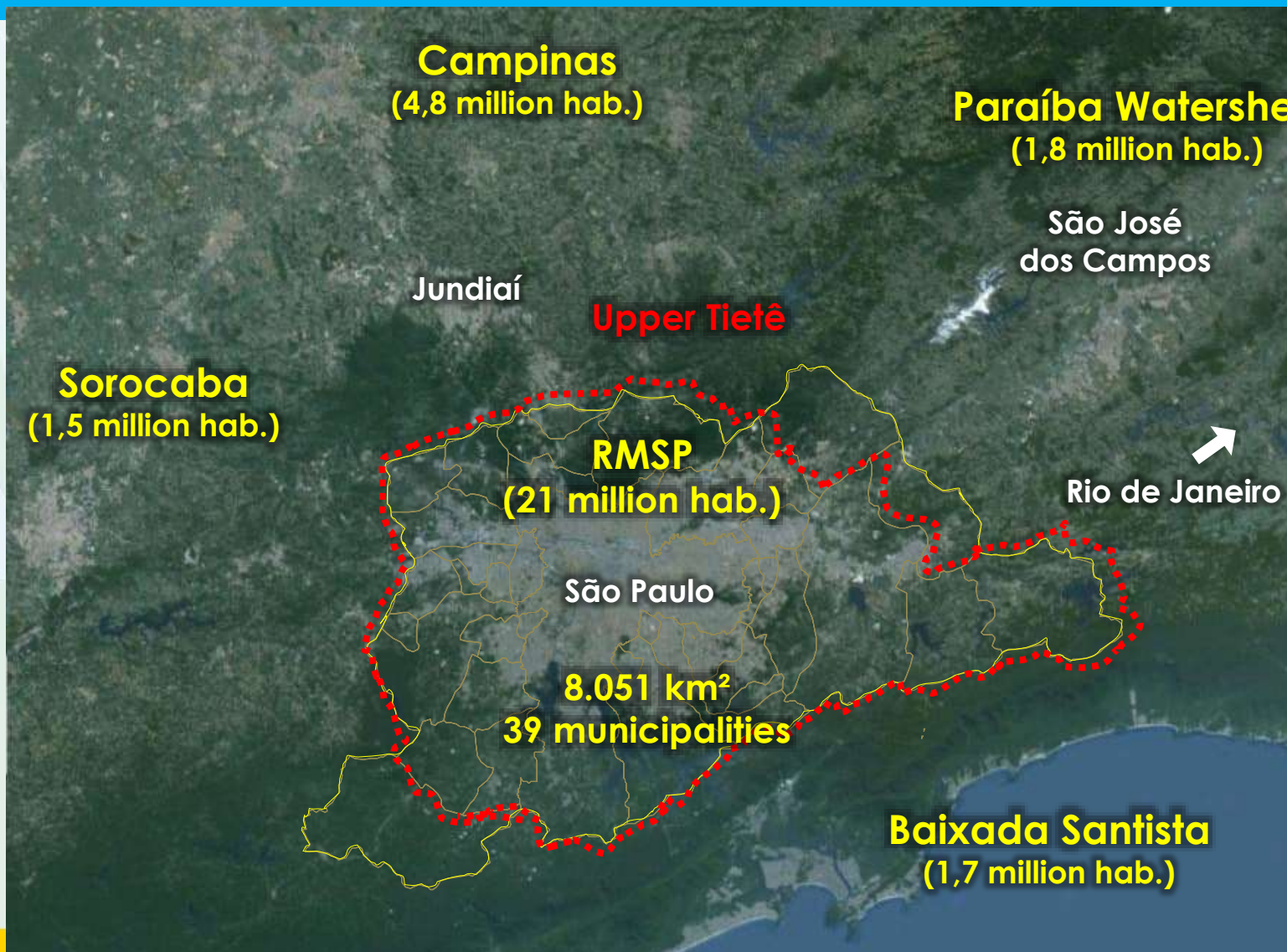




Watershed: area drained by a river and its affluents

Fonte: www.rededasaguas.org.br



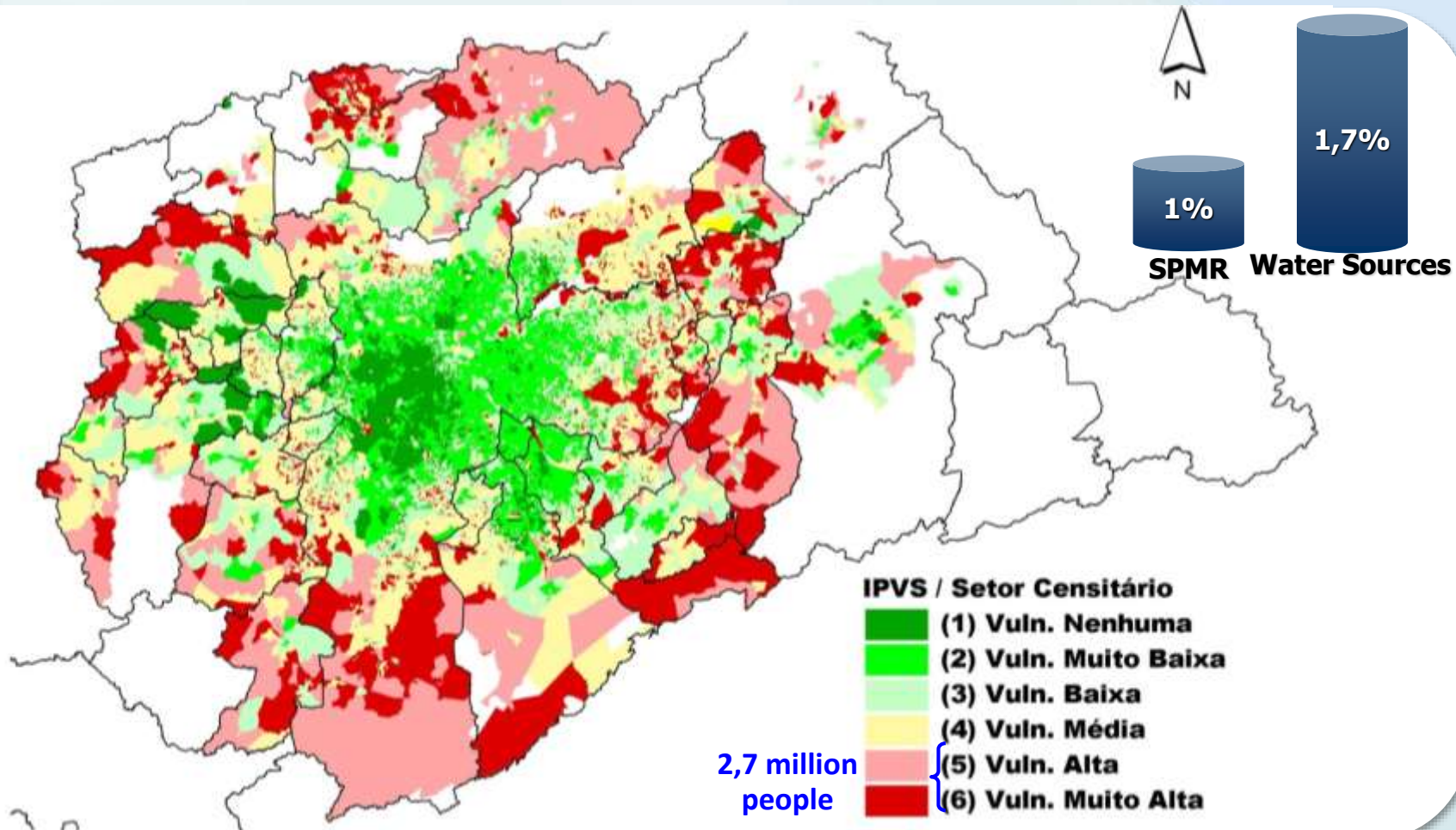


Migration to peripheral areas and occupation of water sources - SPMR



SPMR (peripheral population): +vulnerable, +growth and –sanitation

Annual population growth rates 2000-2010



"Formally Structured Regions"

- Consolidated infrastructure
- Lower population growth
- Higher per capita income
- Higher per capita water consumption

"Peripheral Regions"

- Poor infrastructure
- Difficulties to instal **water and sanitation infrastructure**
- Higher population growth
- Lower per capita income
- Lower per capita average consumption
- Occupation of areas of water sources

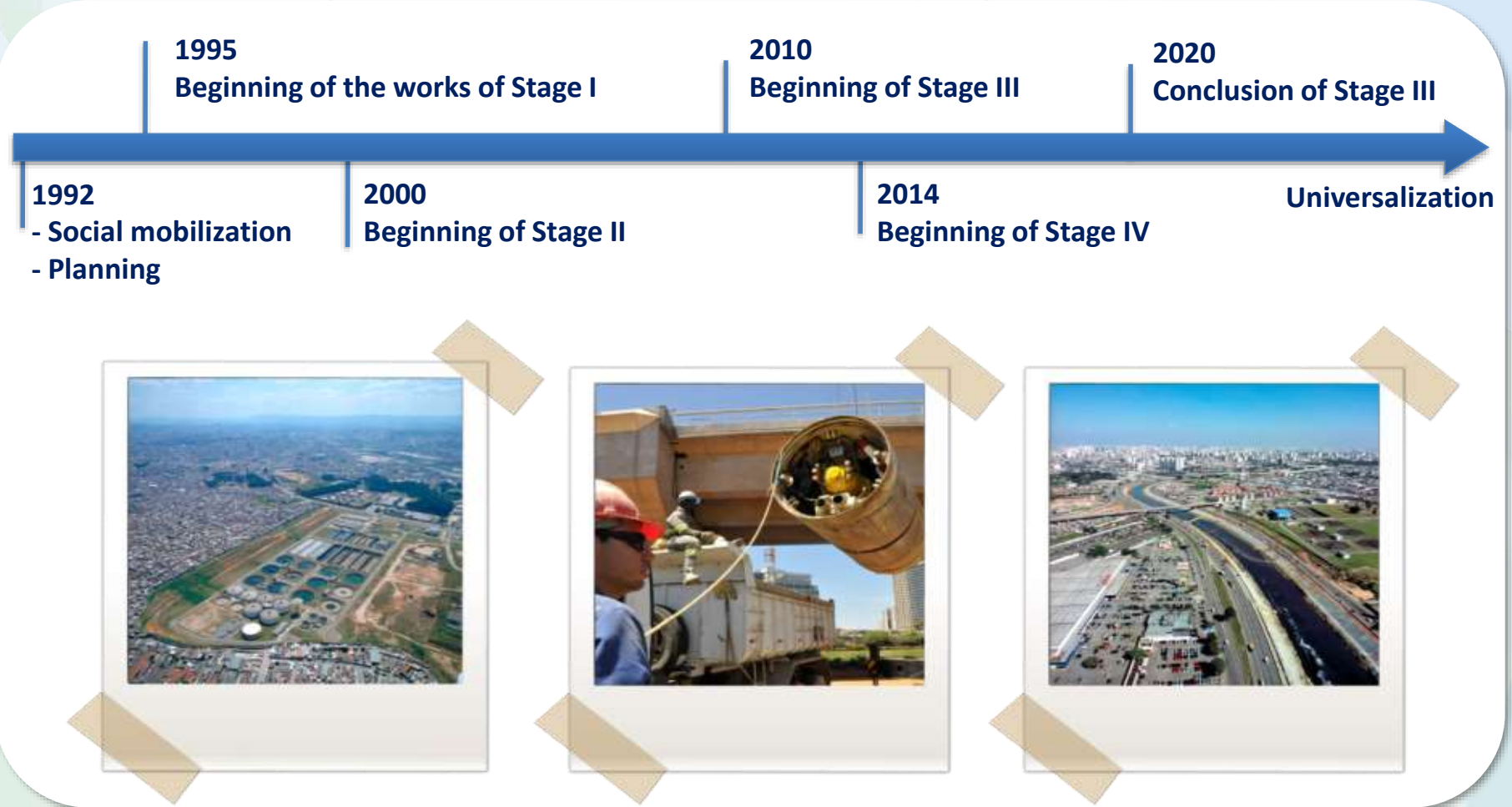


3. TIETÊ PROJECT

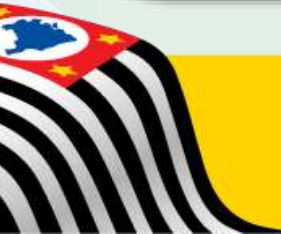
Stages I, II e III



Largest environmental sanitation program in Brazil



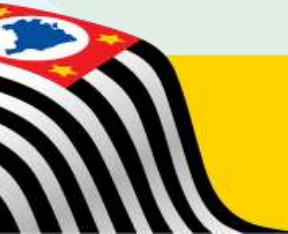
Investments over time



Tietê Project – Stages I and II

Focus: Consolidation of the Sewer Master Plan

- Main Treatment System: 5 STPs
- Interception System Pinheiros



1992 to 2008

Investments: **US\$ 1,6 billion**

Sewage collection rate in the RMSP rises from **70%** to **84%**

Treatment of sewage rate in the MRSP rises from **24%** to **70%**

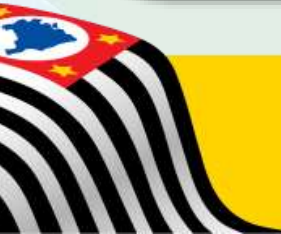
Increase in population with treated sewage: **8.5 million** people

Expansion of the collection and transportation of sewage

- 550 km of interceptors and trunk sewers
- 2.900 km of sewerage collecting system
- 1.010 thousand house connections

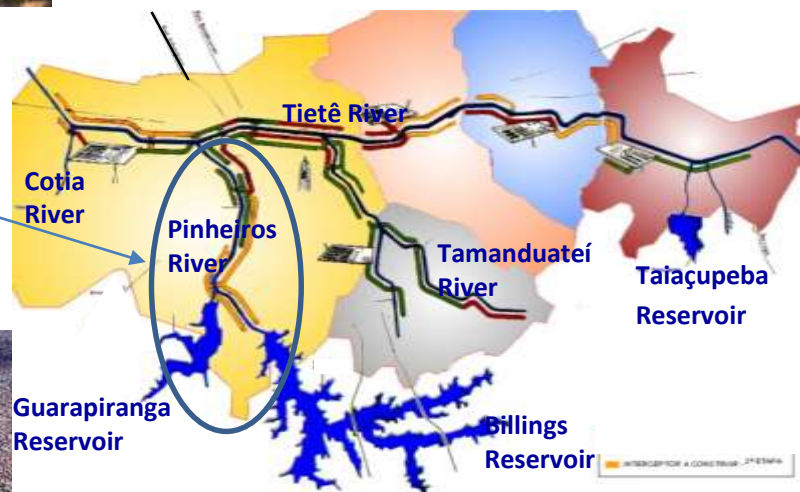
Doubling of the Sewage Treatment Capacity (from **8,5** to **18** m³/s)

- Construction of 3 STPs (ABC, Parque Novo Mundo and São Miguel) and Expansion of Barueri STP



Sewage Treatment Plants – SPMR

Main System



Tietê Project | Pinheiros Sewer System

from Billings/Guarapiranga (Water Sources) to Barueri STP – along the Marginal Pinheiros



Tietê Project | Pinheiros Sewer System

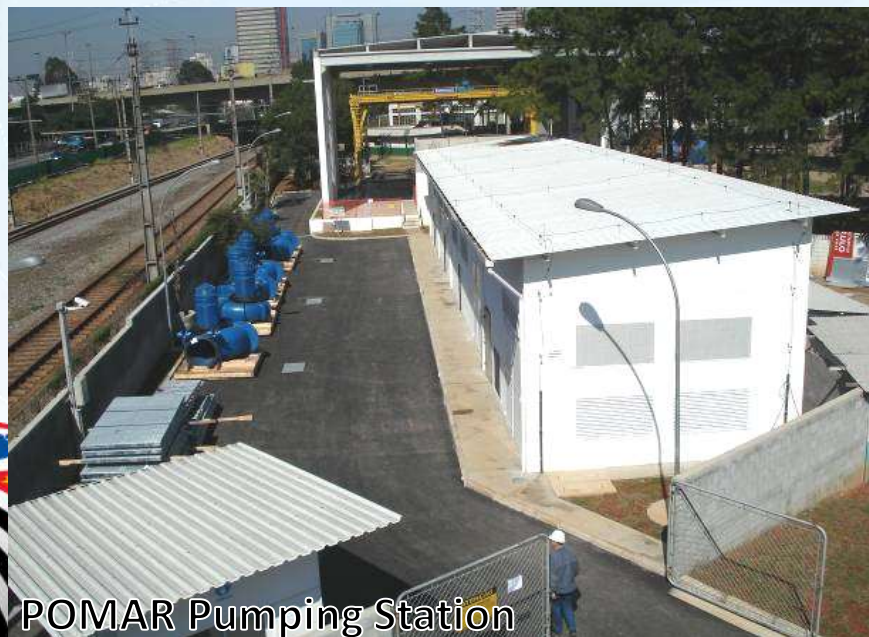
from Billings/Guarapiranga (Water Sources) to Barueri STP – along the Marginal Pinheiros



IPI.6 Interceptor



IPI.6 Interceptor



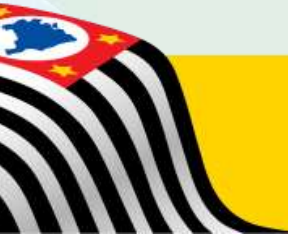
POMAR Pumping Station



PINHEIROS Pumping Station

Tietê Project – Stage III

Focus: Expansion of the Sewage System
(including small and local treatment systems)



Objective: expansion of the sewage collection and treatment system in the Upper Tietê Basin (SPMR)

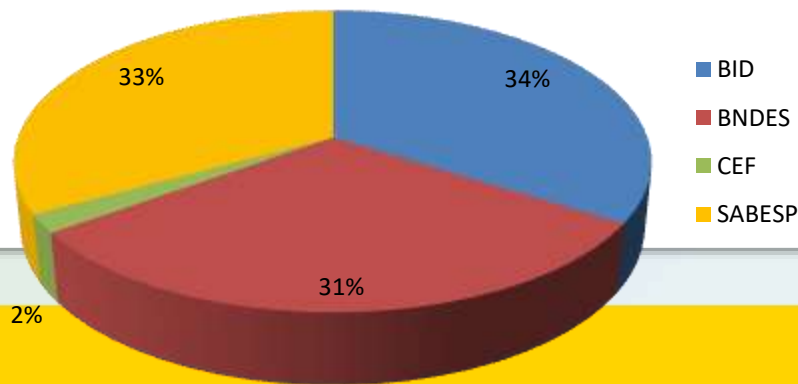
Time: 2010 – 2020

Expected Results

- Sewage Collection rate in the SPMR: 87%
- Treatment of sewage collected rate in the SPMR: 84%
- Increase in treated sewage: **8 m³/s**
- Increase in population with treated sewage: **5 million**

Investimento Estimado: US\$ 2 bilhões

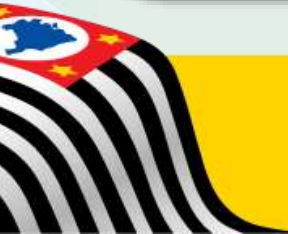
Financial Composition



Components	Goal	Advance
Trunk Sewers and Interceptors <i>(km)</i>	580	384
Sewage Collection System <i>(km)</i>	780	547
Service Connections <i>(units)</i>	200 mil	678 mil
STPs <i>(increase of capacity L/s) (*)</i>	9.300	60%

() Expansion of 3 STPs of Main System (ABC, Parque Novo Mundo and Barueri) and Implementation of 5 new STPs in Localized Systems (Far North of SPMR)*

Overall Advance: 67,7%



Tietê Project | Stage III - Increasing of the capacity of Barueri STP

$Q=12 \text{ m}^3/\text{s}$: completed and $Q=16 \text{ m}^3/\text{s}$: in phase of completion / pre-operation



4. PROGRESS OF SEWAGE TREATMENT

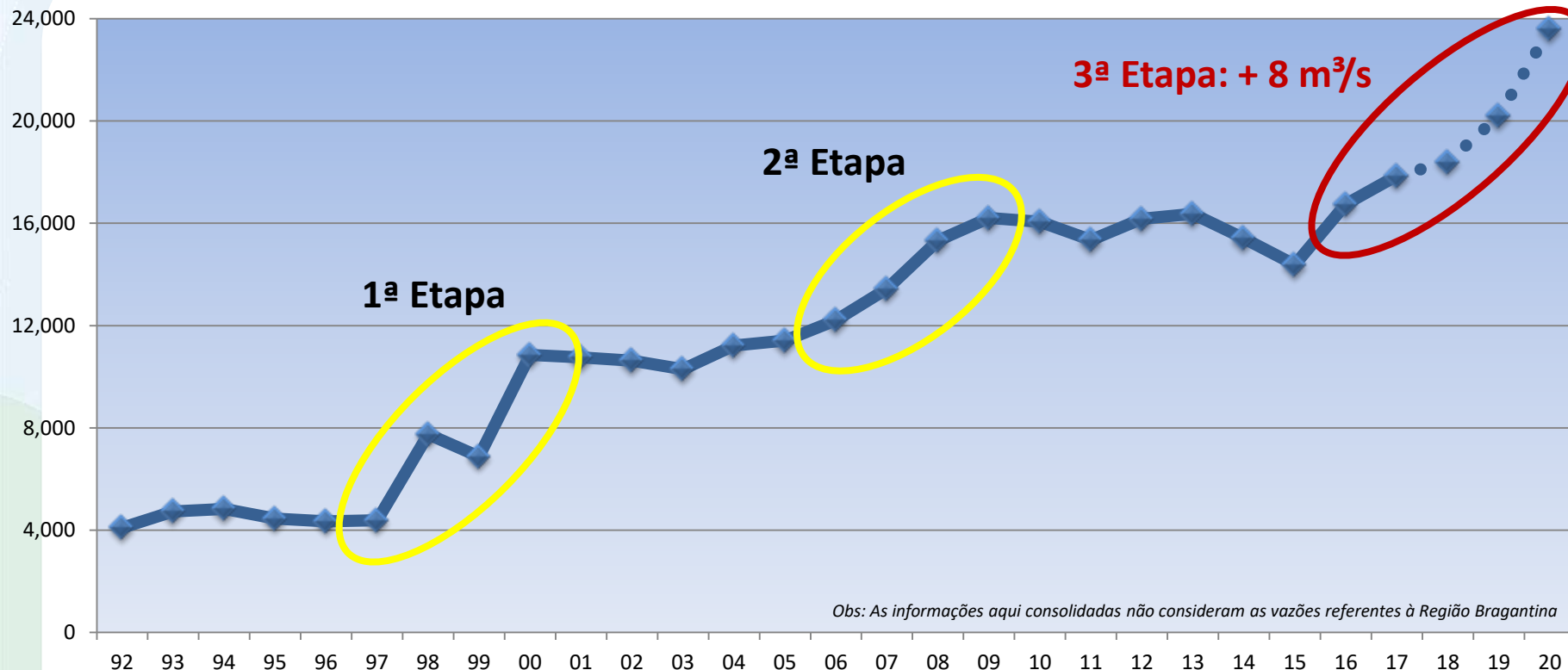
Results achieved – Challenges Stage III



Progress of sewage treated in the STPs - SPMR

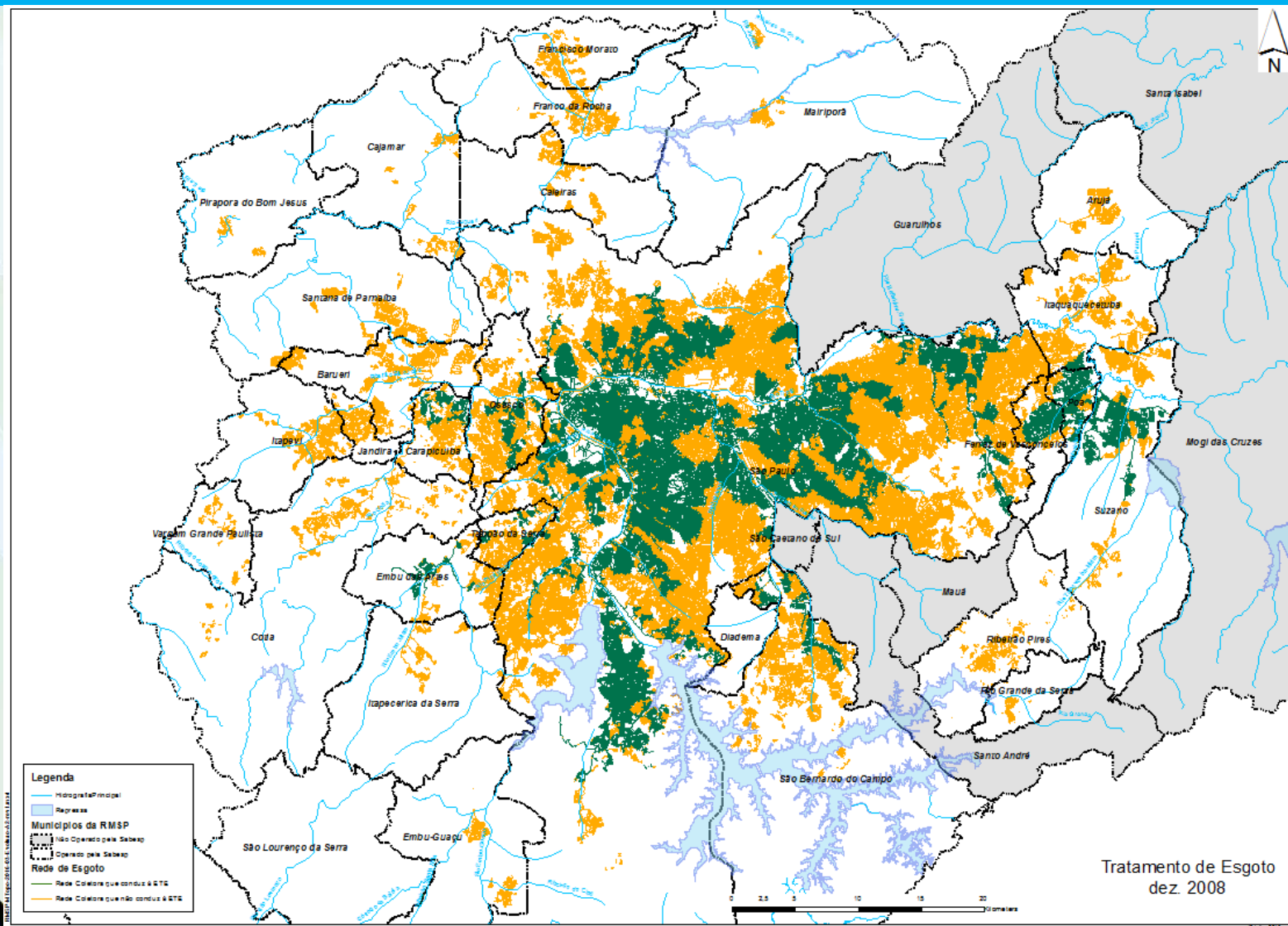
(secondary treatment - $Q_{current} = 18,3 \text{ m}^3/\text{s}$)

Litros/seg

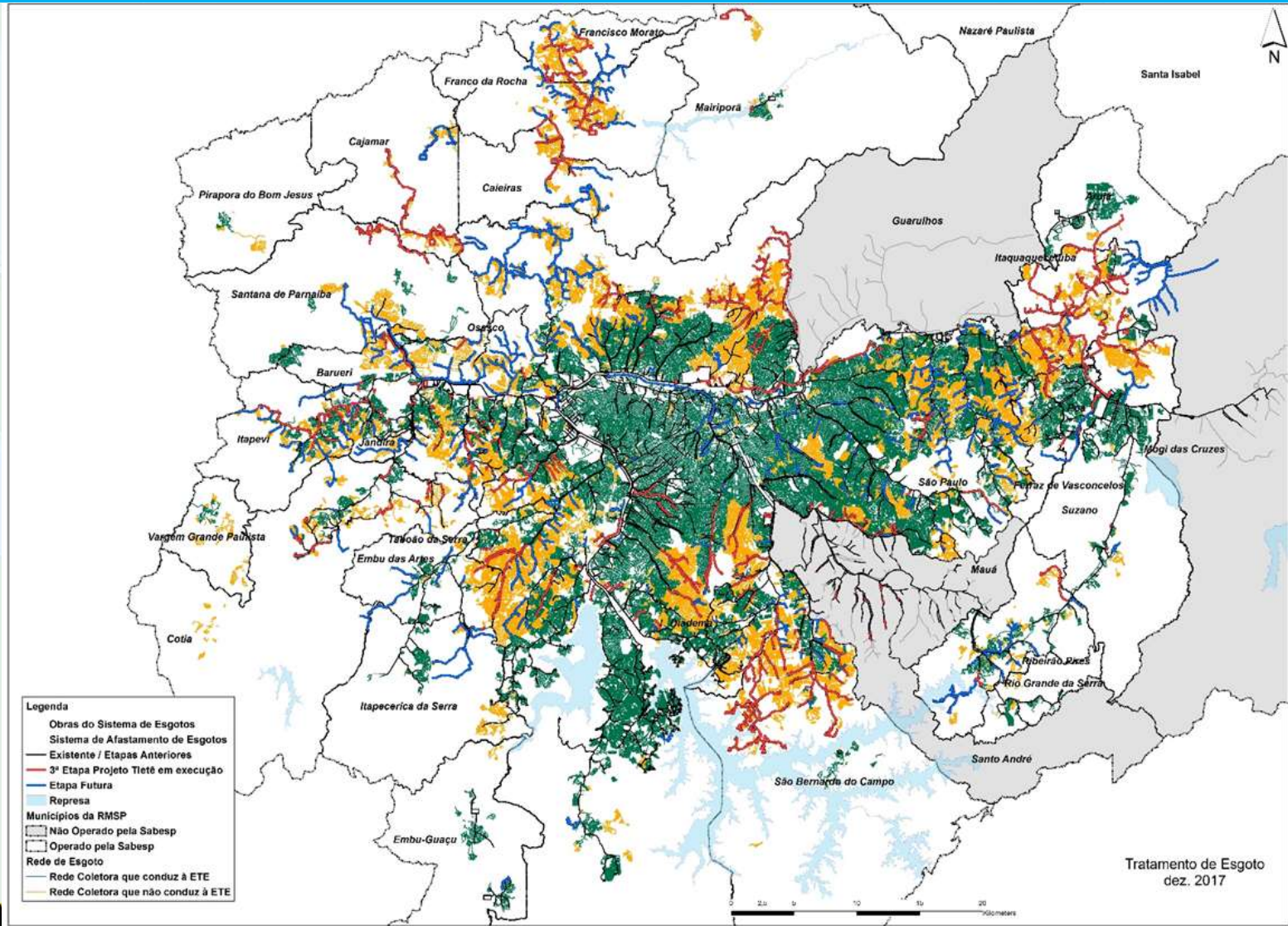


There was an increase of 300% of the treated sewage flow resulting from the Stages I and II of the Tietê Project

Progress of Sewage Treatment (situation 2008)

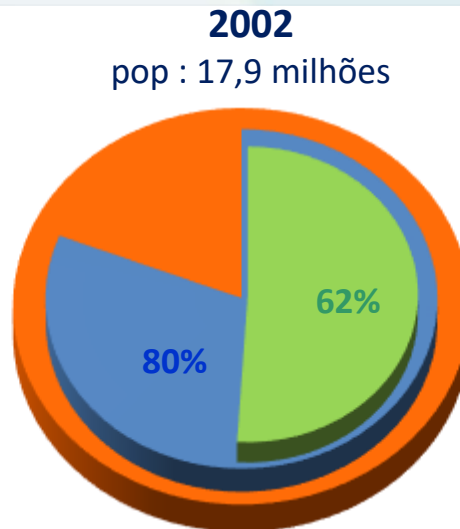
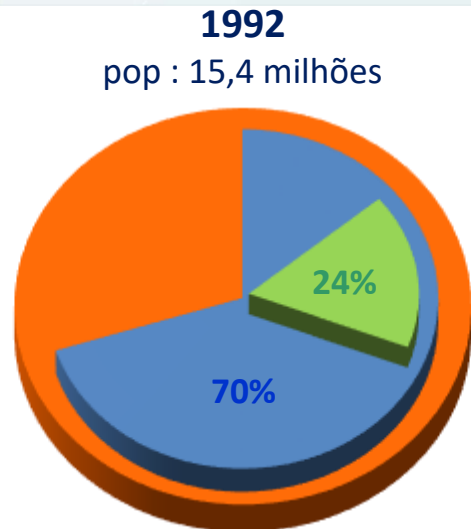


Progress of Sewage Treatment (situation 2017)



Tietê Project | Progress of the Collection and Treatment Rates

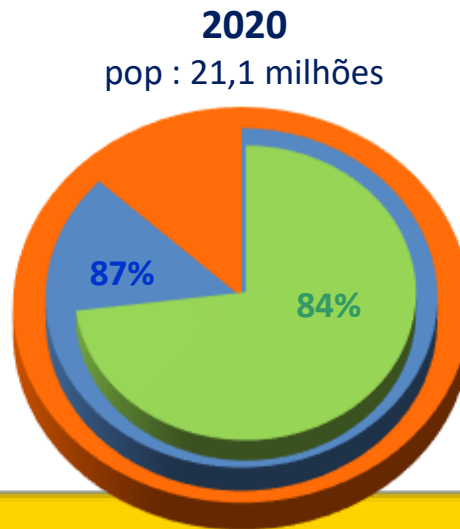
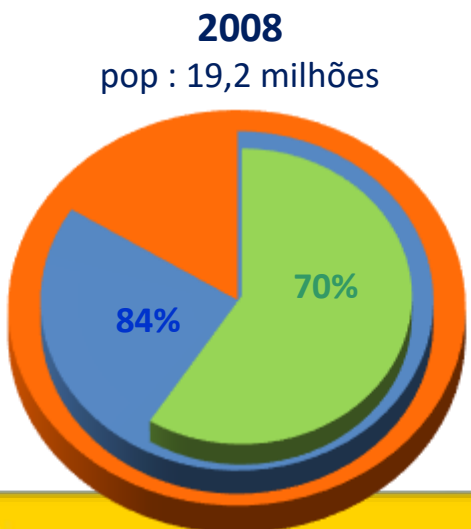
challenge: deficit recovery and growth (*peripheral + water supply*)



 Total de esgoto gerado na RMSP

 Coletado

 Tratado

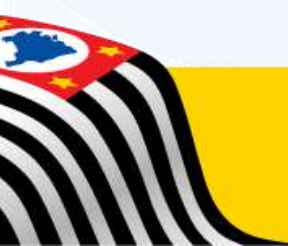
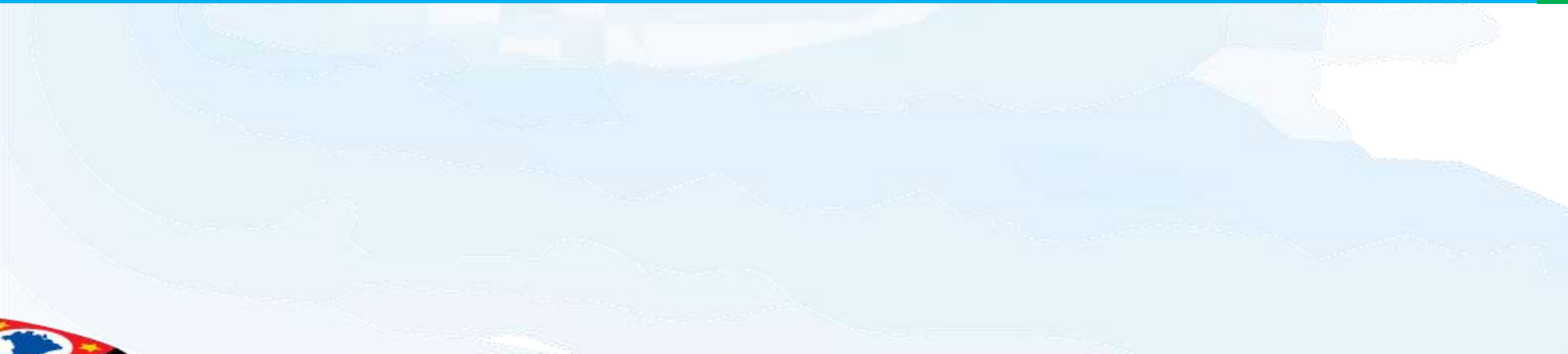


+ 5,7 milhões de pessoas (1992-2020)





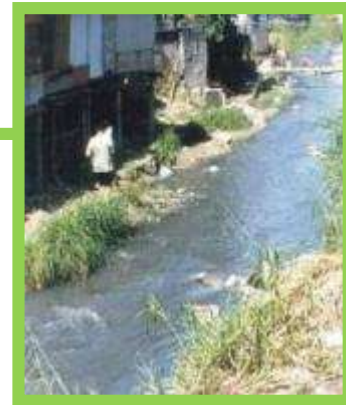
5. CHALLENGES TO THE SUCCESS OF THE PROGRAM



❑ Interface with Housing, Urbanization and Drainage

Programs of the Municipalities and the State

(regularization, redevelopment, unoccupying of valley funds)



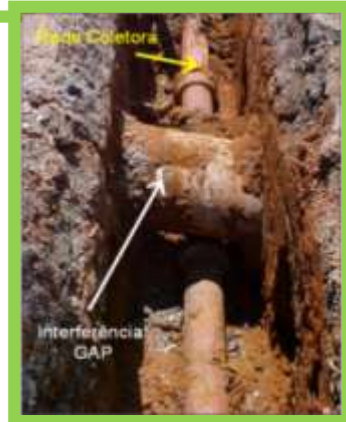
❑ Interferences and Releases - Highway System, City Halls

and Concessionaires

❑ Environmental and Domain Permits

❑ Accession of the population to the sewage network

(network connection)

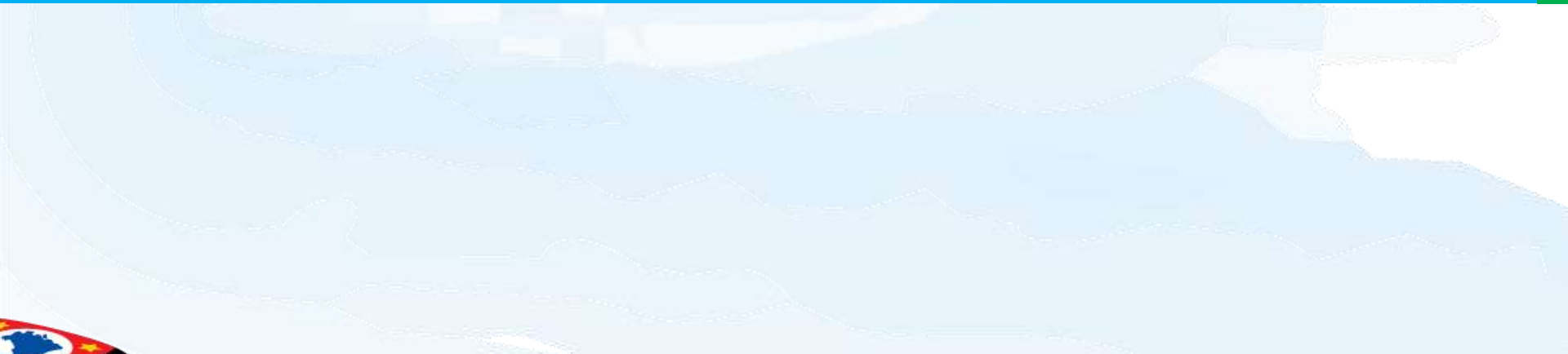


❑ Level of efficiency of suppliers and builders





6. PROSPECTS FOR STAGE IV



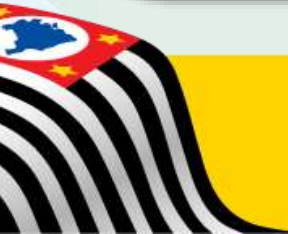
Objetive: Universalization of the collection and treatment of sewage in the Metropolitan Region of São Paulo

Estimated investments: US\$ 2.5 billion

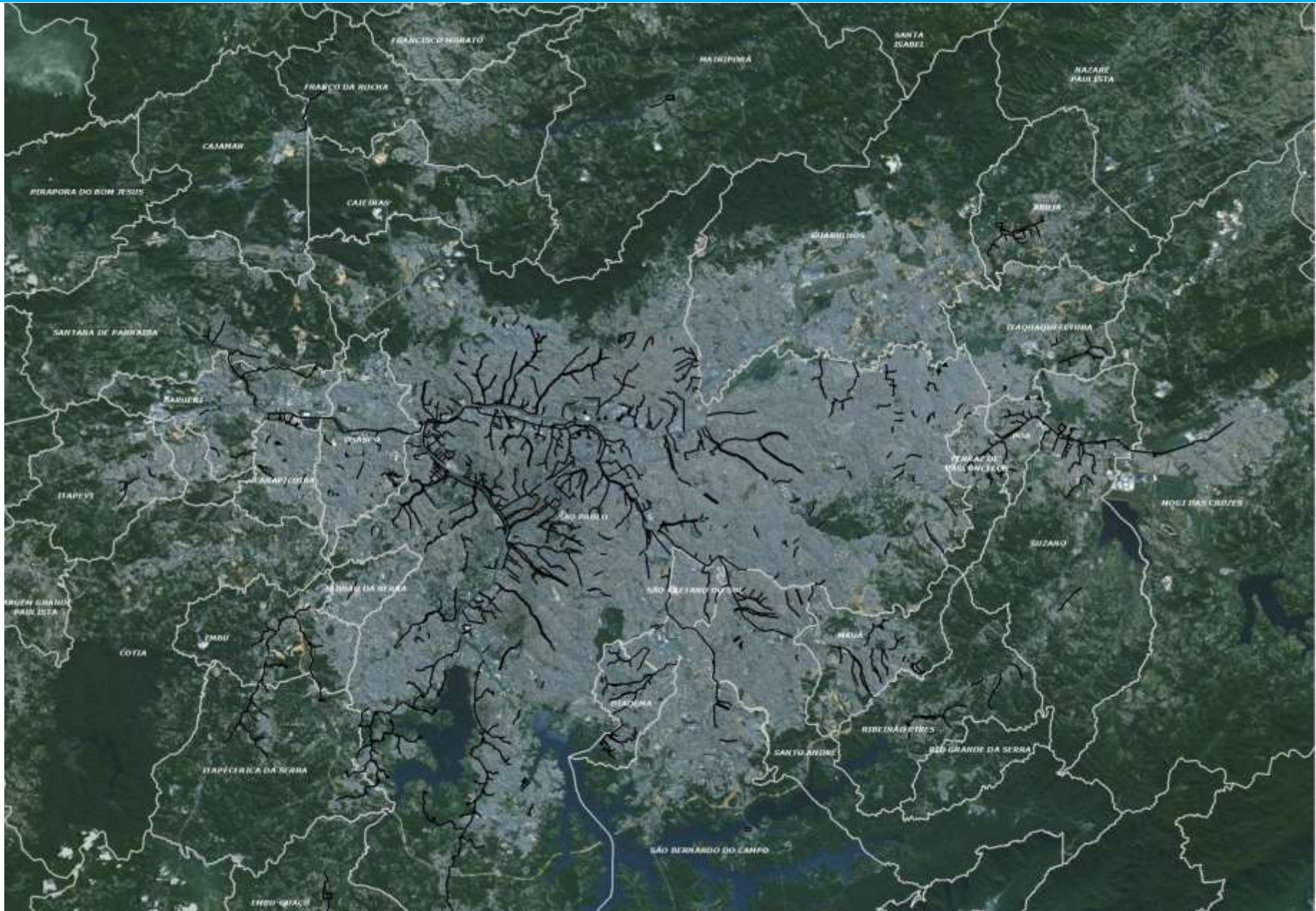
- US\$ 400 million – *CEF-FGTS*
Works started (ITi.7, Várzeas do Tietê e SES Laranjeiras)
- US\$ 500 million – *program under negotiation with the IDB*

QUANTITIES ESTIMATED	
COMPONENT	TOTAL
STPs (increase of capacity - L/s)	9.000
Trunk Sewers and Interceptors (km)	600
Sewage Collection System (km)	Em avaliação

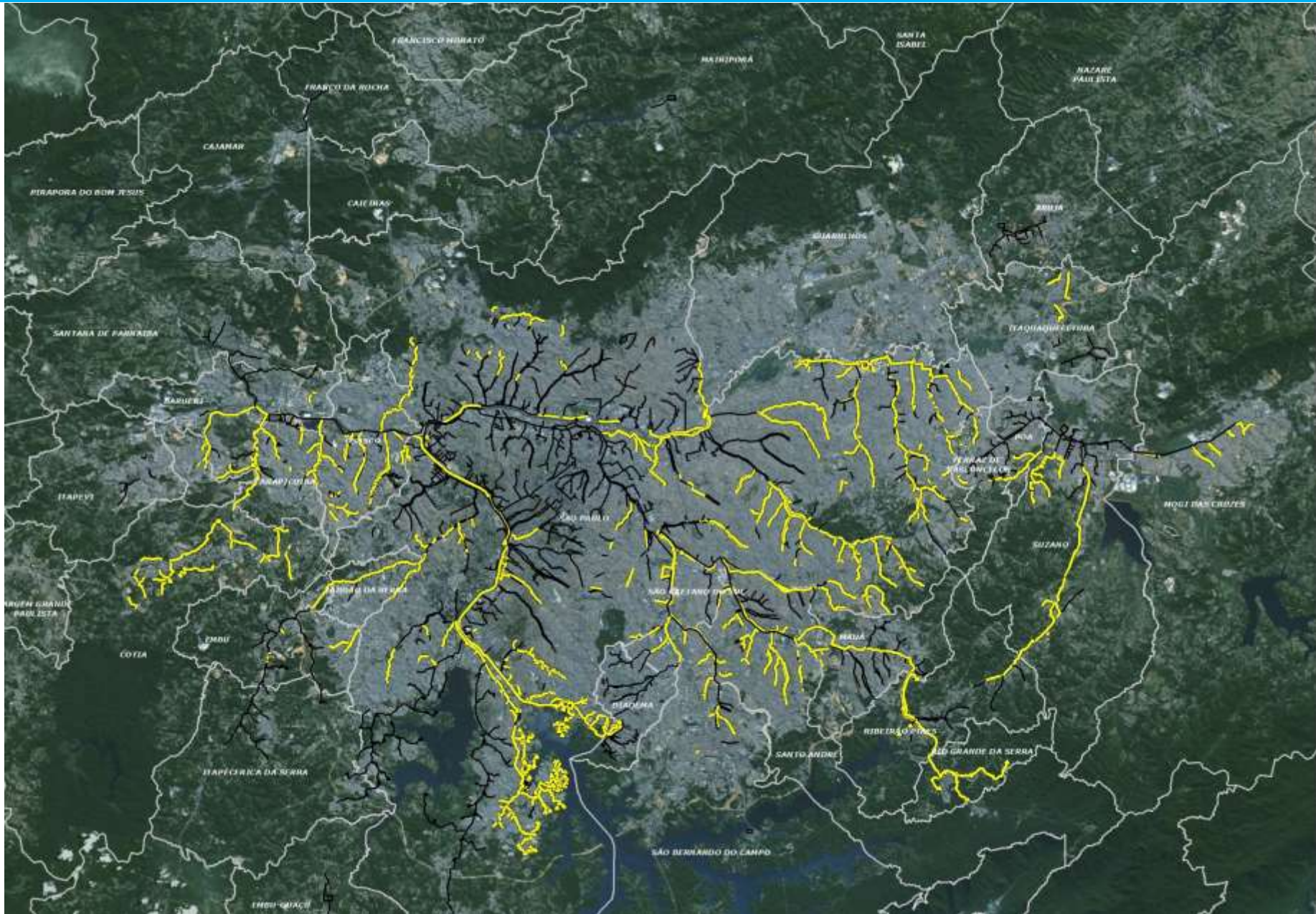
- Área Operated by Sabesp
- Financing CEF: 180 km of trunk sewers and interceptors





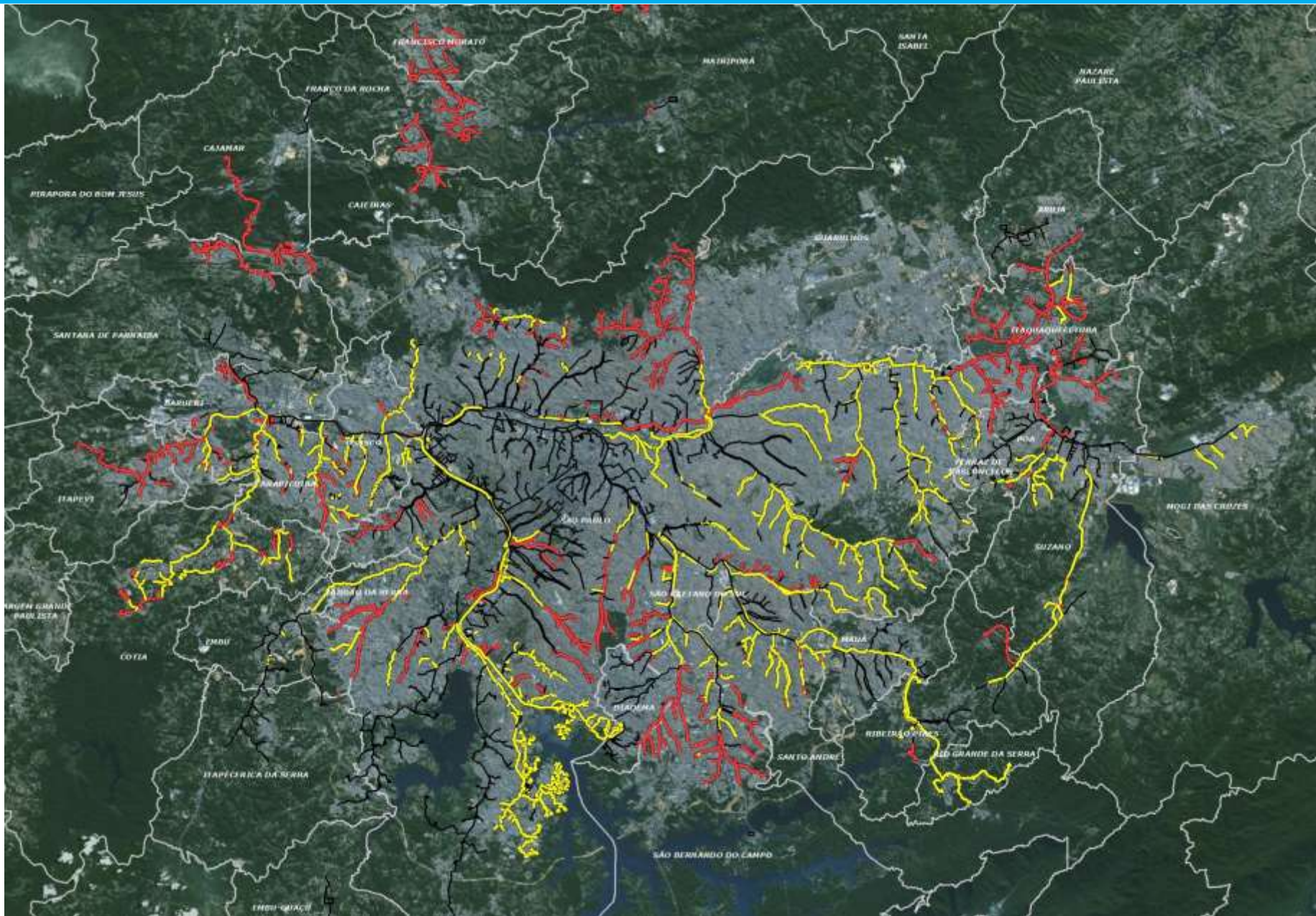


Tietê Project | Expansion of the SPMR Main Sewerage System

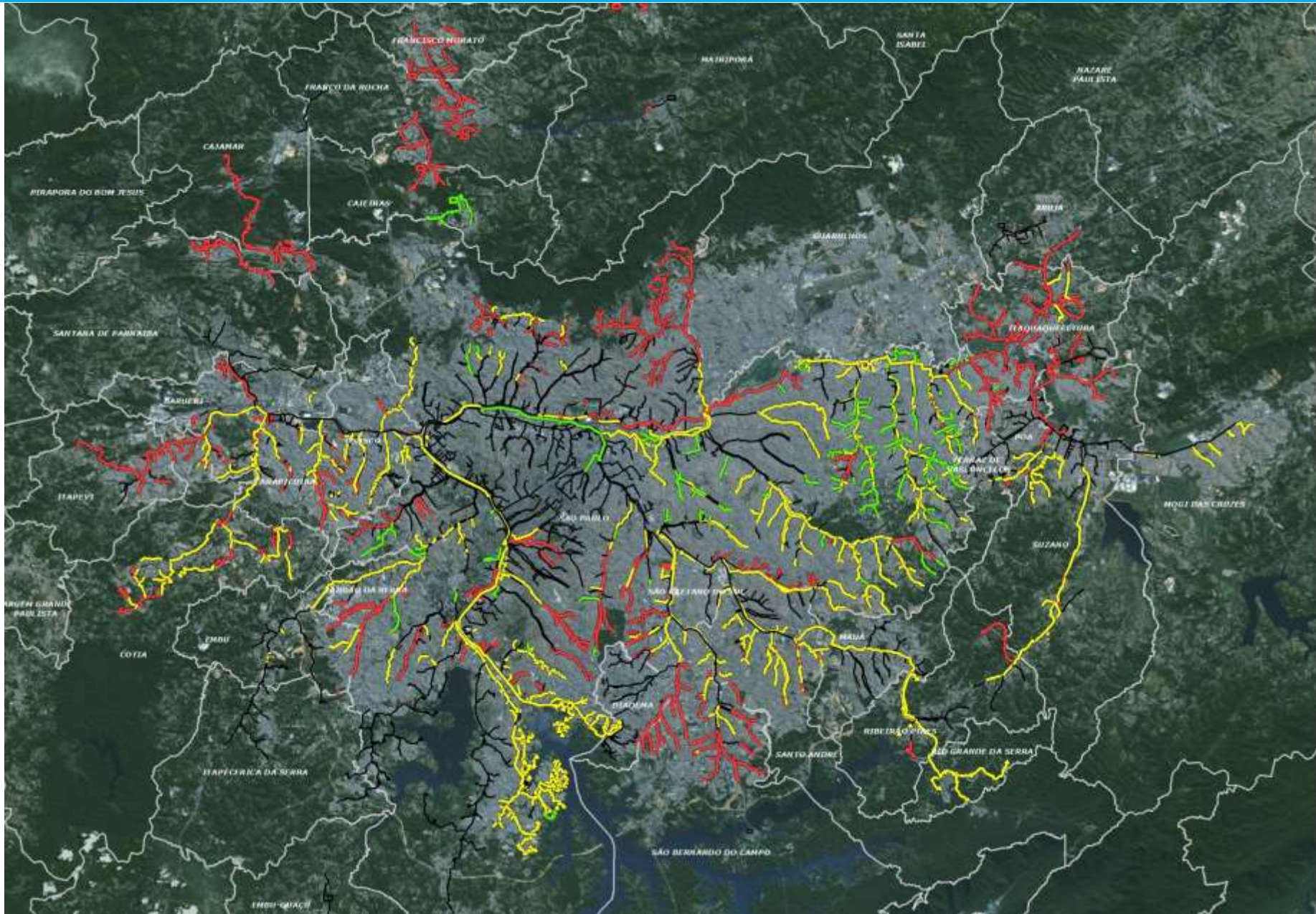


 Pre-existing  Stages I and II

Tietê Project | Expansion of the SPMR Main Sewerage System

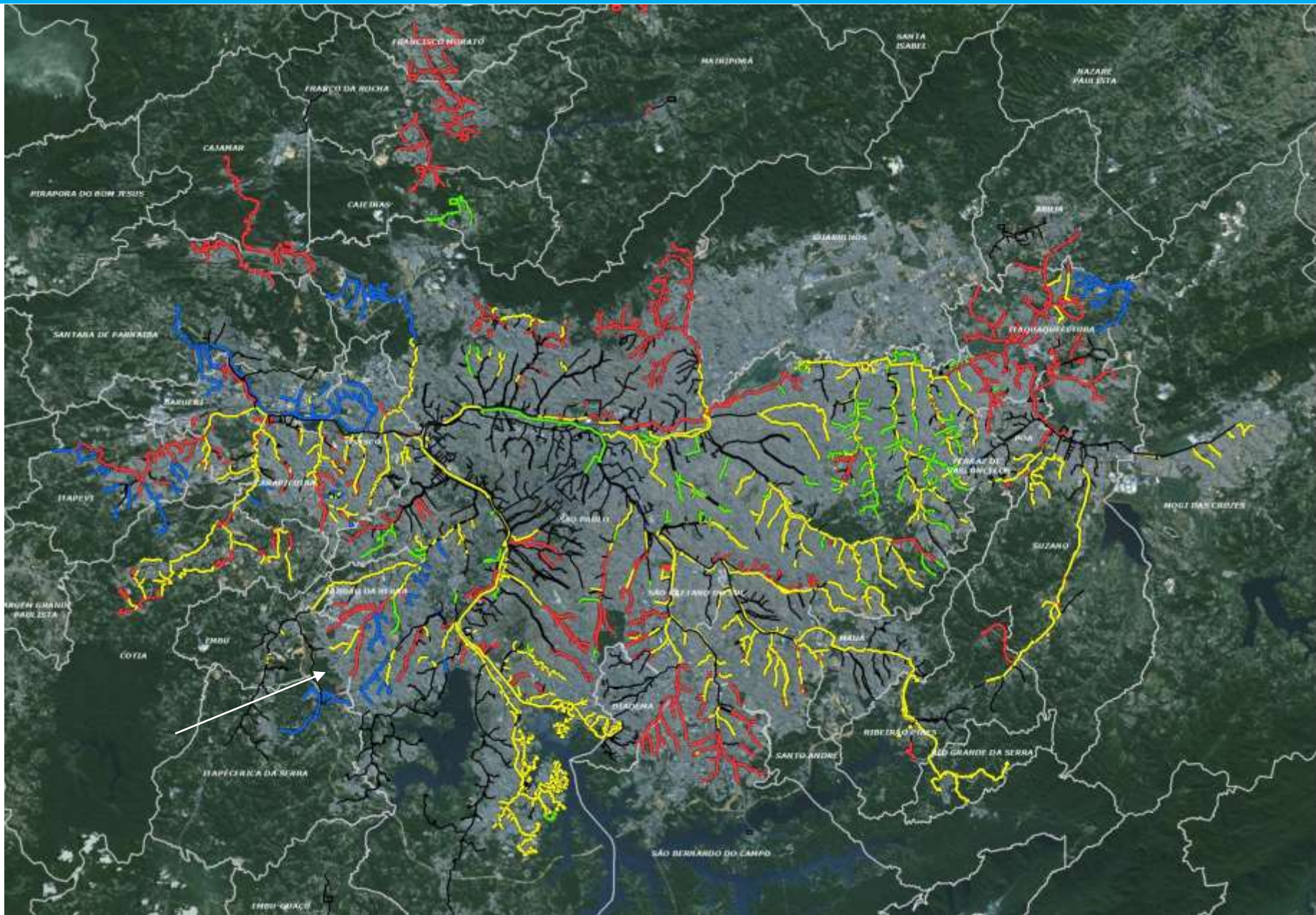


 Pre-existing  Stages I and II  Stage III

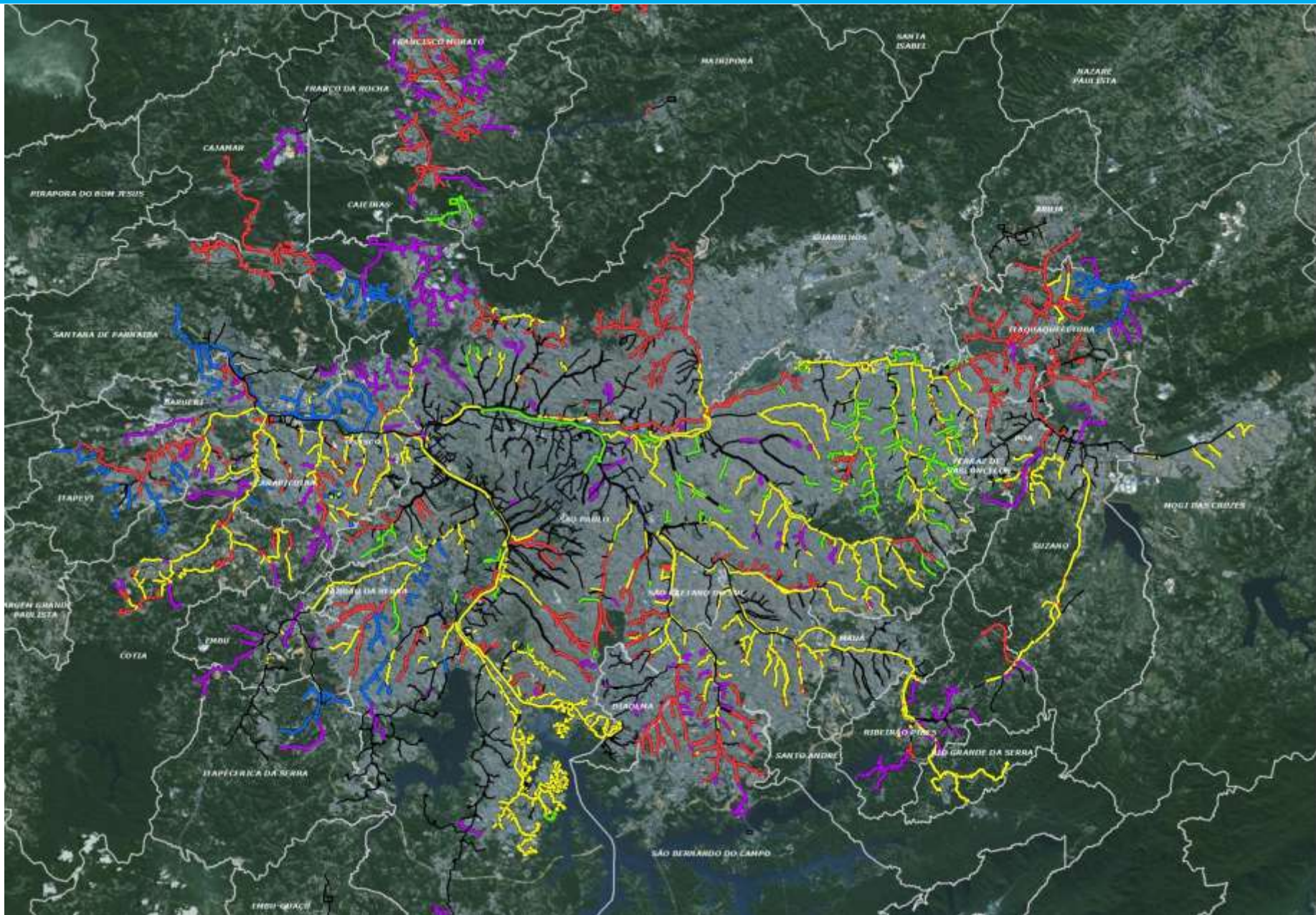


Pre-existing
 Stages I and II
 Stage III
 Stage IV CEF

Tietê Project | Expansion of the SPMR Main Sewerage System



Tietê Project | Expansion of the SPMR Main Sewerage System



- Pre-existing
- Stages I and II
- Stage III
- Stage IV CEF
- Stage IV IDB
- Stage IV to finance

THANK YOU!

Andréa Ferreira

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