



***BRAZILIAN***

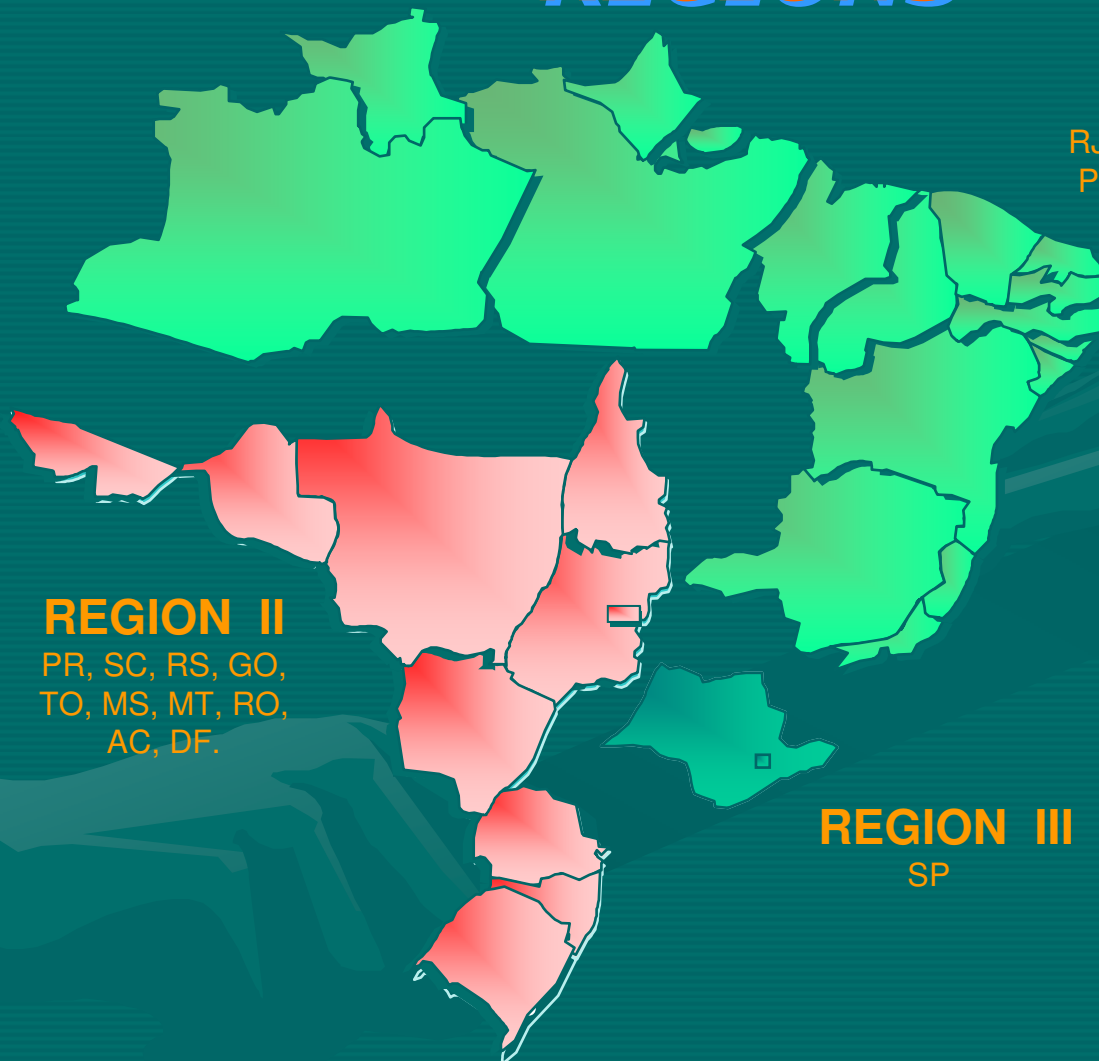
***TELECOMMUNICATIONS***

***AGENCY***





# ***FIXED AND MOBILE SERVICE REGIONS***



## **REGION I**

RJ, ES, MG, AM, RR, AP,  
PA, MA, BA, SE, PI, CE,  
RN, PB, PE, AL.

## **REGION II**

PR, SC, RS, GO,  
TO, MS, MT, RO,  
AC, DF.

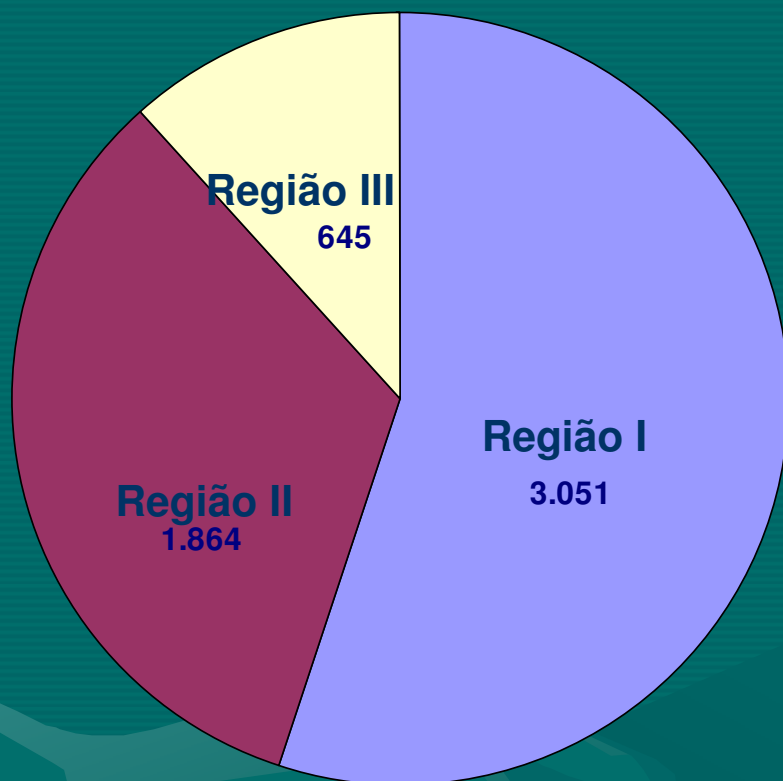
## **REGION III**

SP

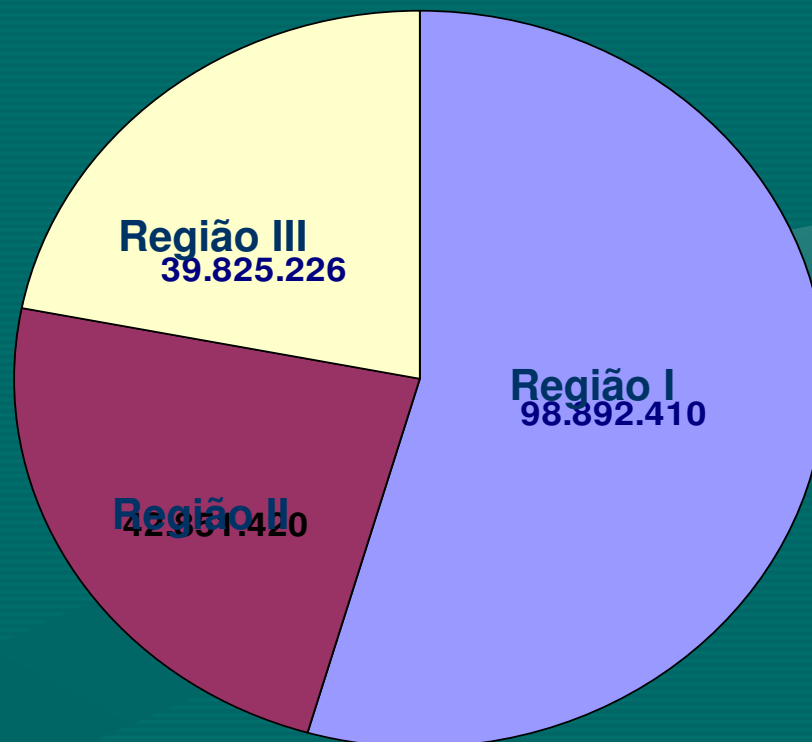


# MUNICIPALITIES/POPULATION

## MUNICIPALITIES



## POPULATION



### Total Brazil:

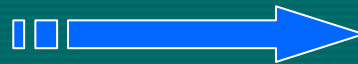
5.560 Municipalities  
181.569.056 Inhabitants

Fonte: IBGE - 2004



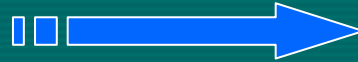
# **BRAZILIAN REGULATORY MODEL**

**POLICY**



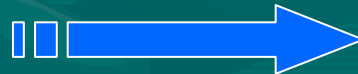
**GOVERNMENT**

**REGULATION**



**ANATEL**

**OPERATION**



**PRIVATE  
ENTERPRISES**



# ***NATIONAL TELECOMMUNICATIONS AGENCY - ANATEL***

- **ANATEL is in charge to manage the Telecommunications services**
  - **Provide access to all the population**
  - **Promote Technological and industrial development in a competitive environment**
  - **Expand and use networks and services**
  - **Harmonic condition with social development of Brazil**



# ORGANIZATION OF SERVICES

## ***PUBLIC REGIME***

- – Fixed Switched Telephone Service – STFC
- Continuity and Ubiquity

## ***PRIVATE REGIME***

- – Personal Mobile Service – SMP
- - Multimedia Communication Service – SCM
- - Trunking - SME
- Freedom of Prices and Minimum Intervention of the Government

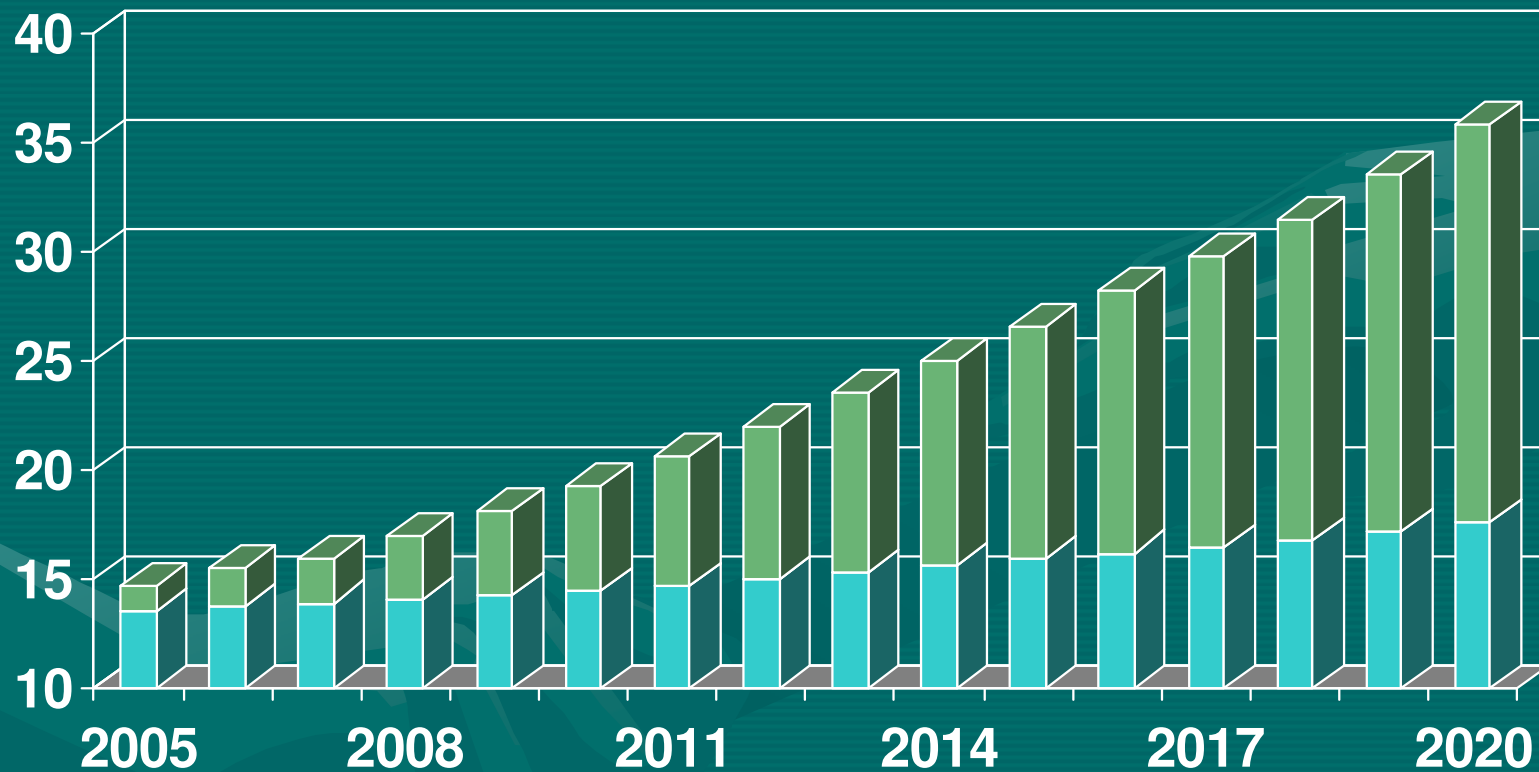
## ***VALUE ADDED SERVICES***

- There are not a telecommunications services and are freely explored



# Demand 2005 - 2020

## USER TRAFFIC - CATEGORY B (Megabytes / Users / Month)

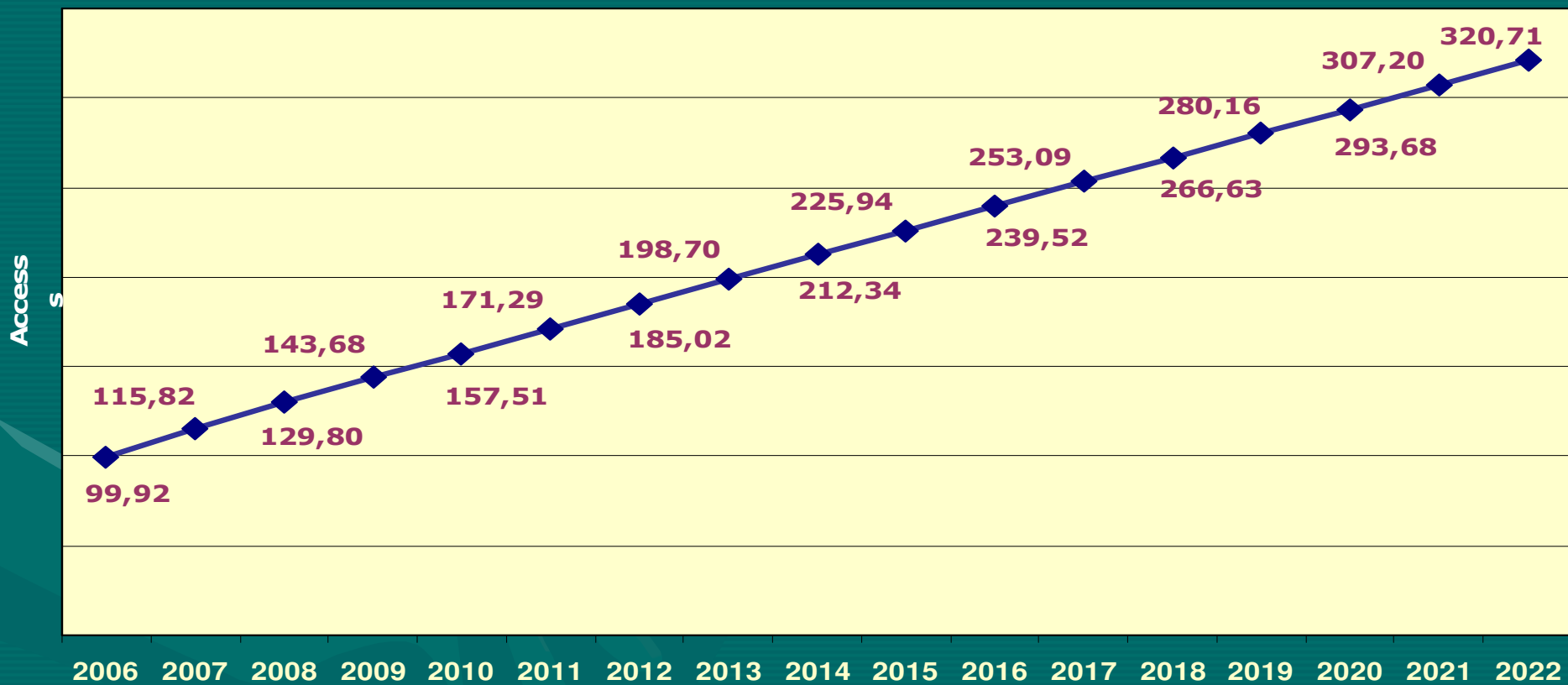


Data: ITU



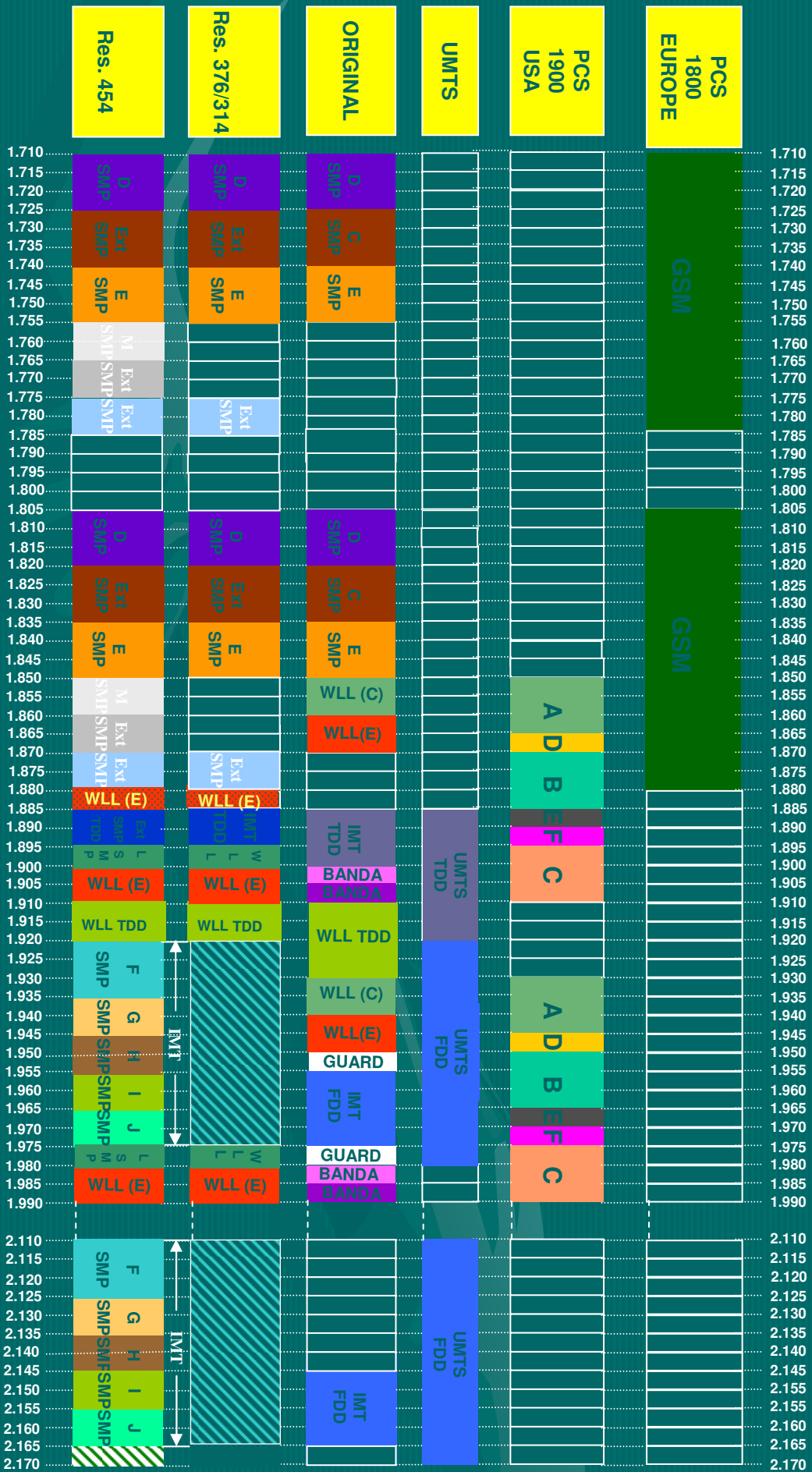


# Access of SMP





# SMP Radio frequencies over 1800 MHz



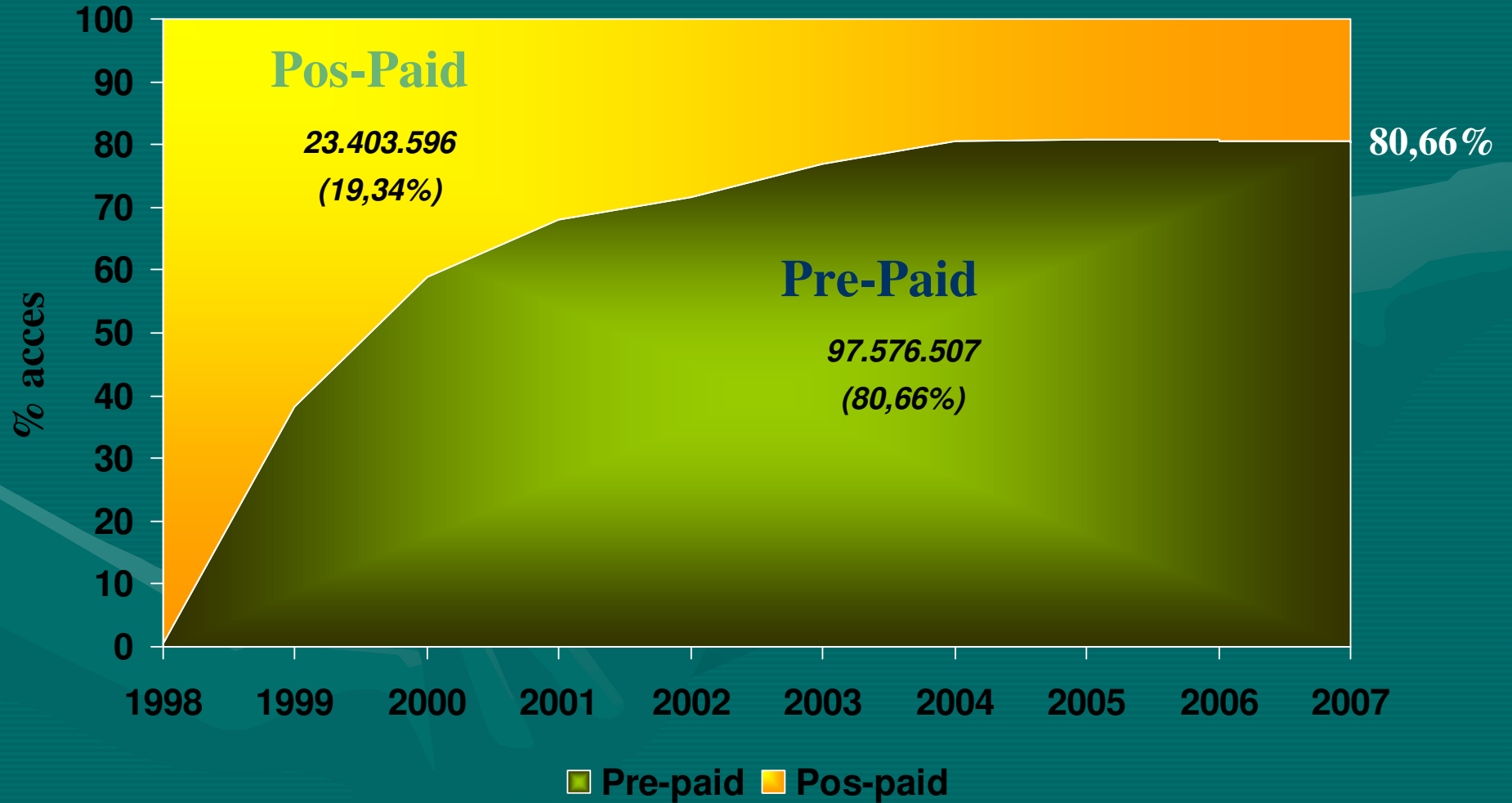
# IMT-2000



**IMT 2000**



# Pre paid X pos paid (%)





# ANATEL Bidding Process of IMT-2000

- Before

- 1811 municipalities without mobile service
- 2 and 2,5 generation
- 4 competitors of SMP
- Low penetration of broadband services
- Positive revenues localities only

- After

- Four players in IMT-2000
- 100 % municipalities in 2 years
- 60% 3G in four years
- ~US\$ 3 billion for license
- ~US\$ 2 billion of negative cash flow (15 years) business plan in municipalities lower than 100 K inhabitants.



# Main Results

- Four players can share the frequency of one SMP in 4.700 municipalities
- One global network in 4.700 municipalities
- 2.700 broadband (3G) mobile networks in municipalities lower than 30 K pop.
- US\$ 2 billion of negative results covered by private enterprises that will build the networks
- Government reduction in a bidding process
- Contribution to cover main citizens with wireless high speed data communication



# Social Benefits

- Each of four competitor has the obligation to build a broadband network in 25% of municipalities under 30.000 pop. chosen to have 3G
- Each user can access all networks to benefit voice and high speed data applications (roaming)
- After 2 years of operation the network could be used by other SMP providers to offer their services (competition)
- Private and State partnership to provide citizenship to all the population with great amount of investment
- Other initiatives in a Wimax bidding process (2,5 GHz and 3,5 GHz band) using analogous scheme

*Bruno de Carvalho Ramos*

*Mobile Communications Manager*

*Anatel*

*+55-61-2312-2443*



**ANATEL**

**[www.anatel.gov.br](http://www.anatel.gov.br)**