



The Brazilian National Wholesale Trading System (SNOA): a virtual trading exchange system for telecom assets



Abraão Balbino e Silva
Wholesale Manager
Anatel / Brazil



Costa Rica
March/2014



The Brazilian Framework for Competition - **PGMC**



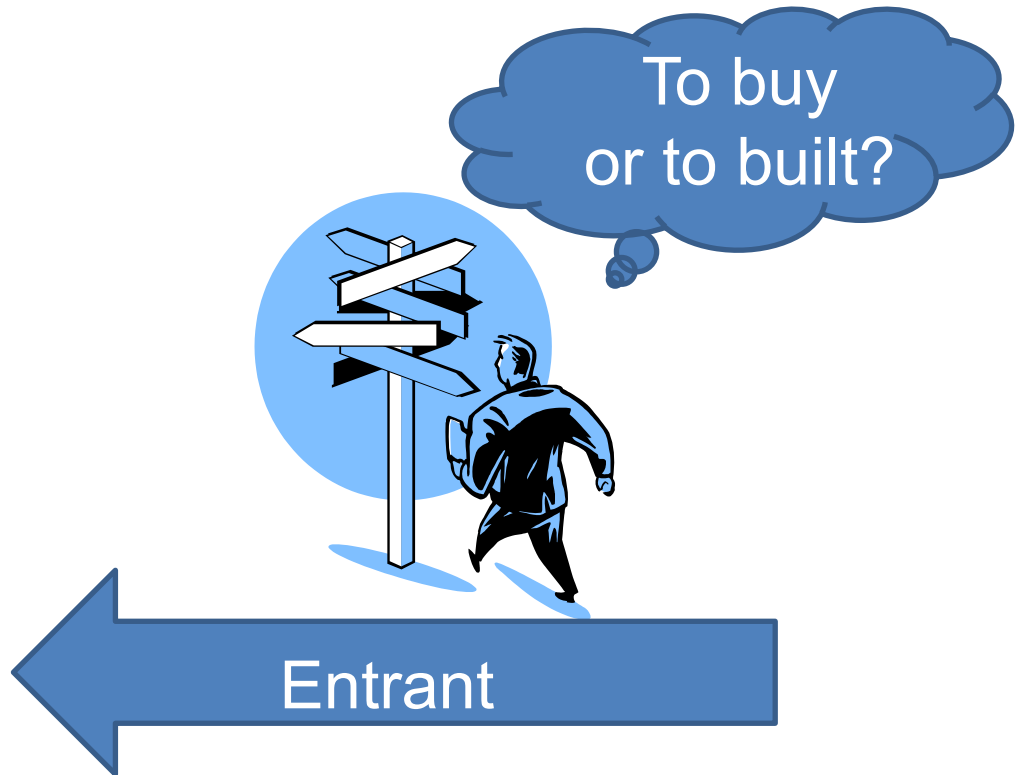
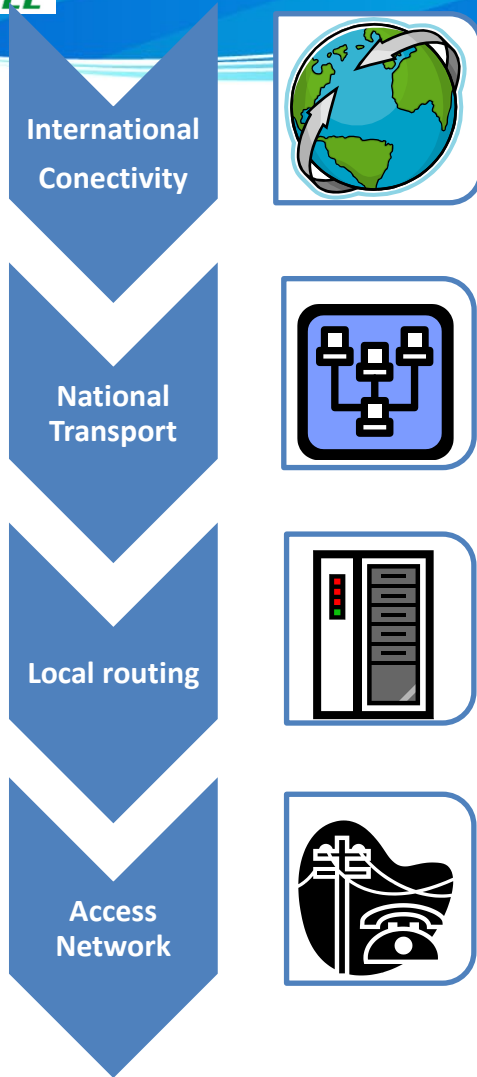
The Brazilian National Wholesale Trading System -
SNOA





PGMC

Value Chain of Broadband Services

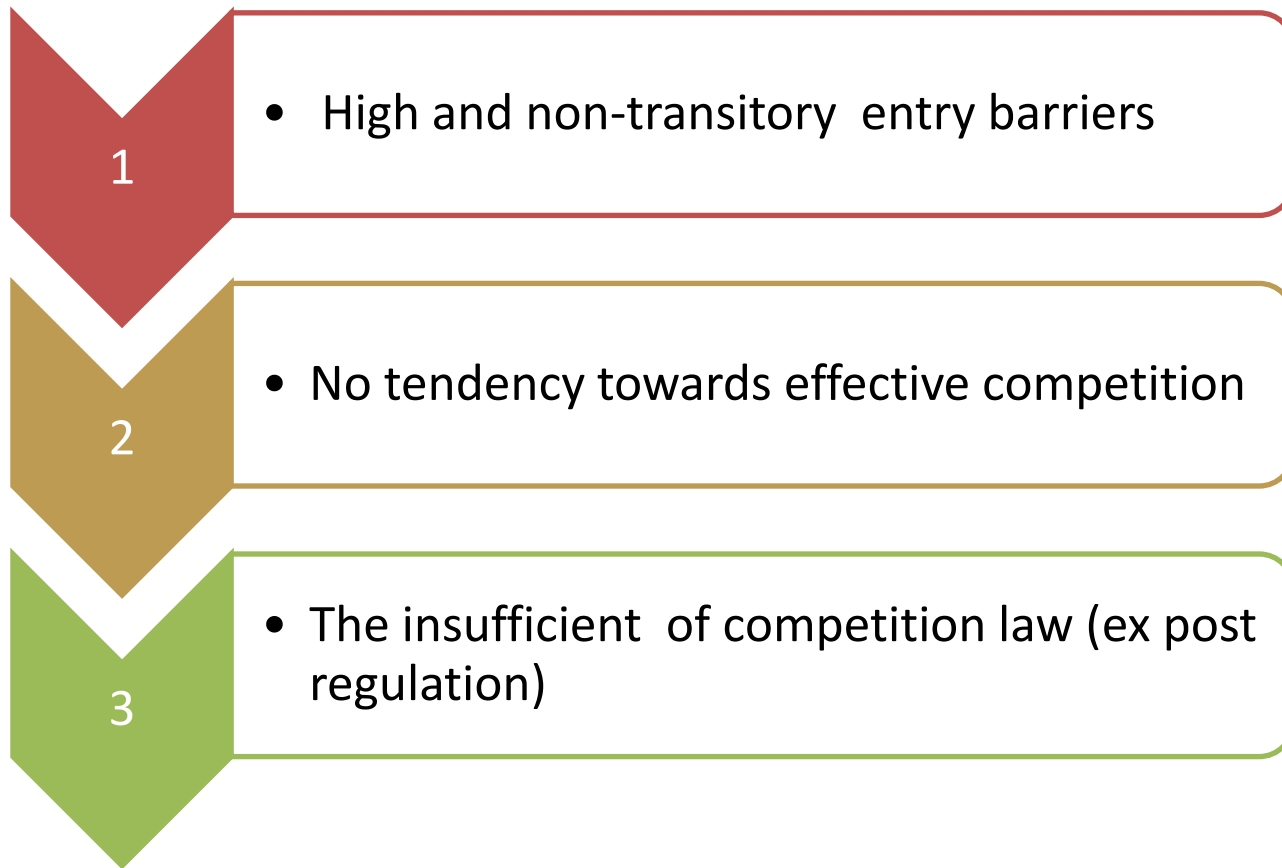


Defining the
Relevant Markets

Finding the
companies with
Significant Market
Power (SMP)

Applying *ex-ante*
regulatory
asymmetries to
SMP companies

3-Criteria Test



- **Local Access (Copper and Cable)**
- **Local and Long Distance Transport**
- **National Roaming**
- **Mobile Termination**
- **Passive Infrastructure (ducts and towers)**

Telefônica / Vivo



- Local Access
- Transport
- Passive Infrastructure
- Roaming
- Mobile Termination

Oi



- Local Access
- Transport
- Passive Infrastructure
- Roaming
- Mobile Termination

América Movil



- Local Access
- Transport
- Passive Infrastructure
- Roaming
- Mobile Termination

Telecom Italia



- Passive Infrastructure
- Roaming
- Mobile Termination

Algar Telecom



- Local Access
- Local Transport
- Passive Infrastructure

Copel



- Local Access
- Local Transport
- Passive Infrastructure

Local Access

- Offer Bitstream and Full Unbundling;
- Homologate the Reference Offer in Anatel
- Negotiate the products in SNOA



Transport

- Offer Leased Lines;
- *Peering*;
- IP Transit
- Homologate the Reference Offer in Anatel
- Negotiate the products in SNOA



National Roaming

- Offer National Roaming
- Homologate the Reference Offer in Anatel
- Negotiate the products in SNOA



Regulatory Assimetries Applied

Mobile Termination

- Reduce MTRs according to Cost Models
- Bill&Keep with non SMP companies
- Homologate the Reference Offer in Anatel
- Negotiate the products in SNOA



Passive Infrastructure

- Offer the spare capacity of towers and ducts
- Homologate the Reference Offer in Anatel
- Negotiate the products in SNOA



NET
O MUNDO É DOS NETS

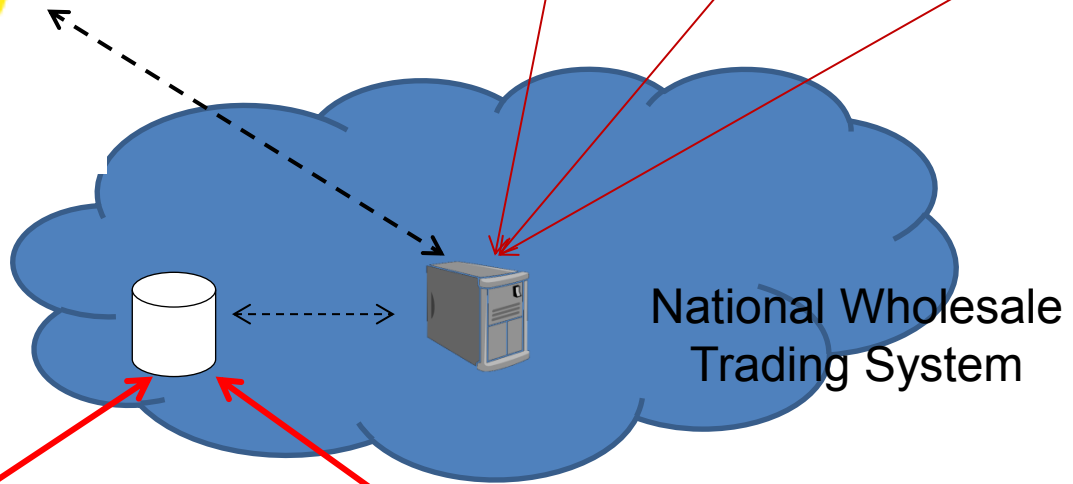


Sorcomtel
Algar
Telecom

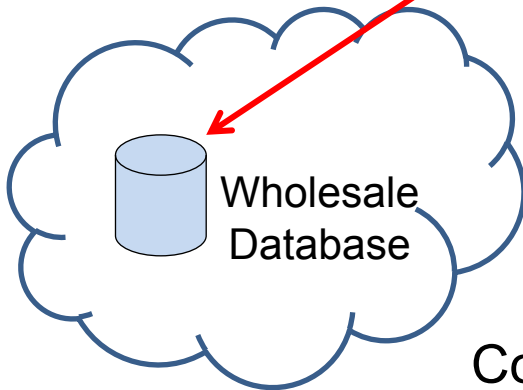




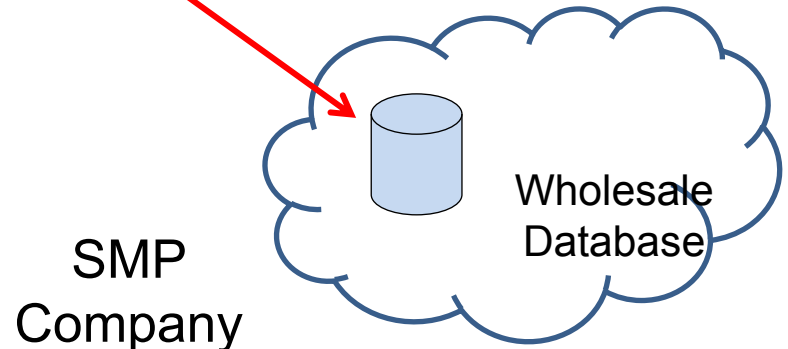
Buyers



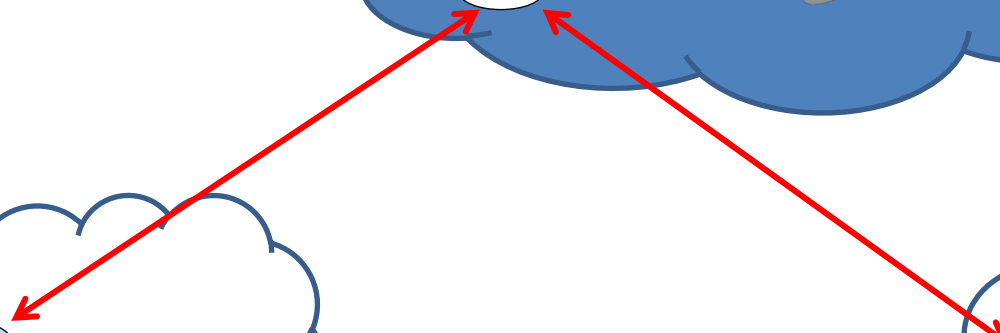
National Wholesale Trading System



SMP Company



SMP Company

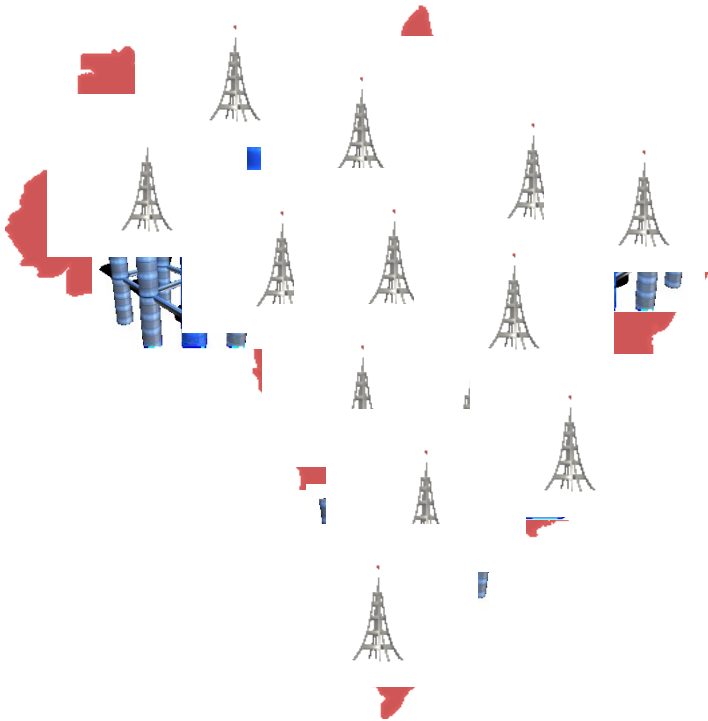




SNOA

What is the SNOA?

SNOA is the Brazilian National Wholesale Trading System. This platform is a virtual trading exchange system for telecom assets.



- 1 Towers
- 2 Switching Centers
- 3 Served Area by the Switching Center
- 4 IXP – Internet Exchange Points
- 5 Points of Interconnection

What is the SNOA?

You know where is the infrastructure!

The SNOA concentrates all entries infrastructure required for the purchase of wholesale products.



Tower register
Fonte: Google

What is the SNOA?

You know where is the infrastructure!

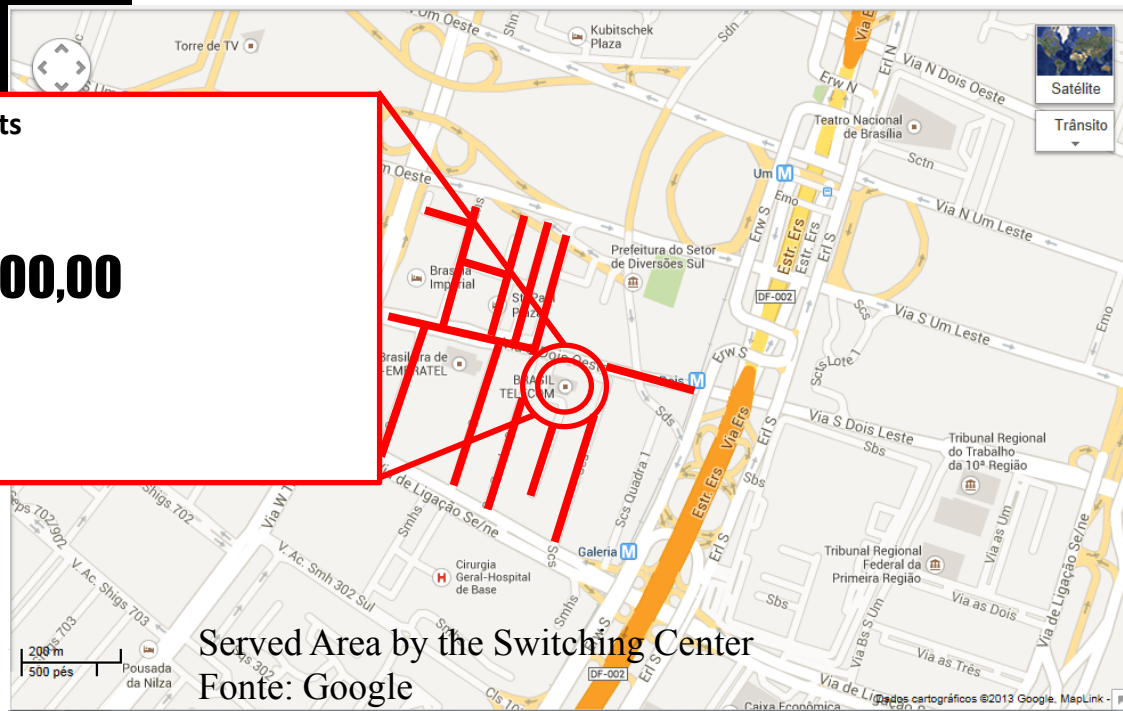
The SNOA concentrates all entries infrastructure required for the purchase of wholesale products.

- 1
- 2
- 3

Reports

% requests handled: **95%**

Average price of Circuits: **R\$ 100,00**



What is the SNOA?

You know how much to invest!

All the Reference Offers are available in one place!



1 It concentrate all the Reference Offers in one *website*



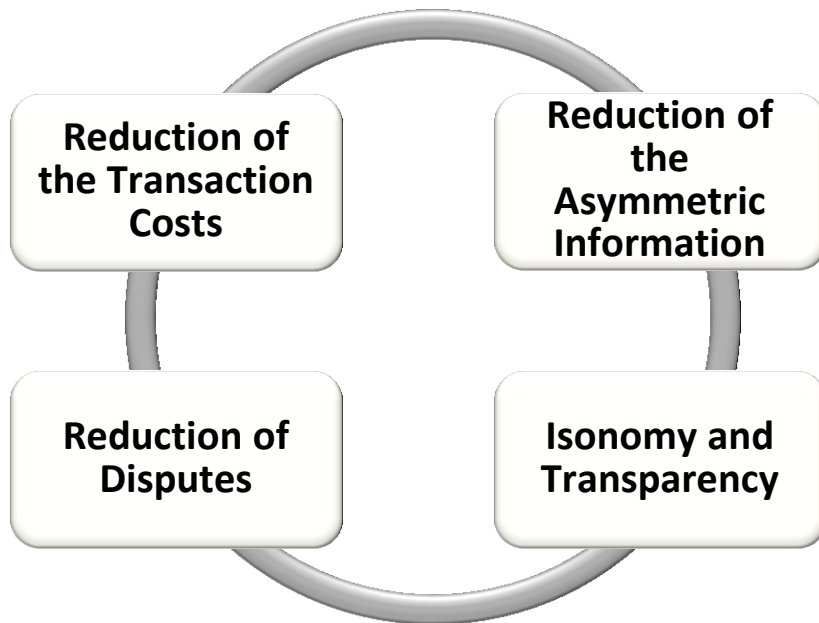
2 You can check all the practiced prices per regions and municipalities



3 You can be aware of all the discount conditions practiced



Benefits of SNOA



**The SNOA is also a management system!
It provides performance indicators by each SMP and allows the regulatory authority to track all the trading products from the beginning of the request until its delivery. You can follow each step of the purchased product, the deadlines, where the product will be installed and its practiced prices.**



Governance

The system is managed by a Wholesale Board formed by the SMP Companies and the non SMP companies with parity of votes between these two groups. In case of conflict in this Governance, Anatel is the instance for final decision.

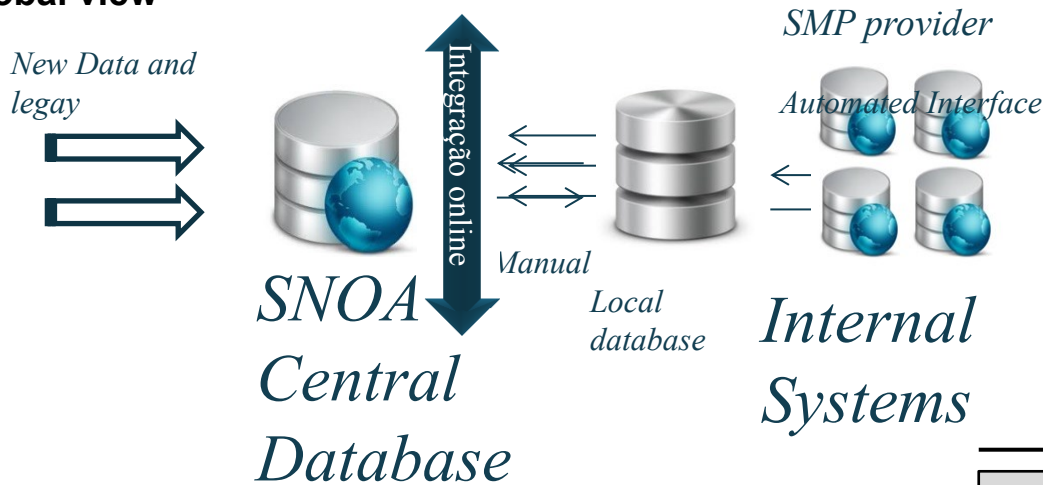


- The system is funded by the SMP Companies (US\$ 10 million for five years);
- The technical aspects are defined by a group coordinated by Anatel.

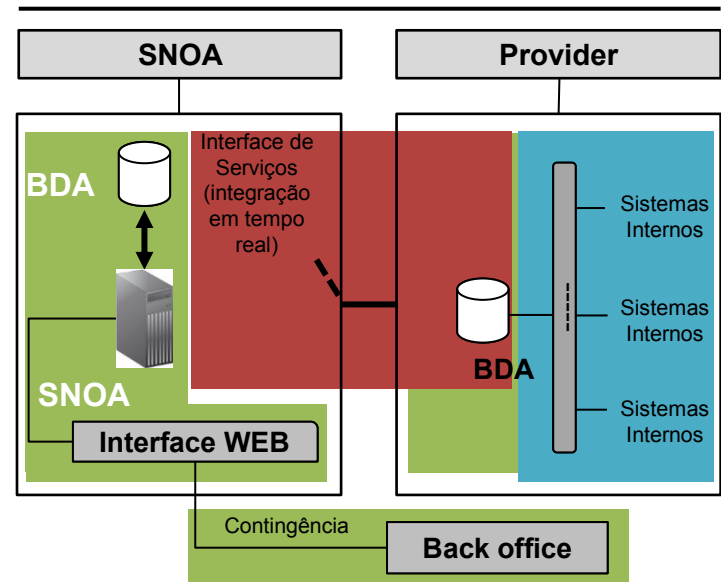


Phases of the project

Global view



General View



Phase I – SNOA & Central Wholesale Database

- Legacy contracts, Reference Offers, Infrastructure Information

Fase II – Local Wholesale Database

- Webservice Interface
- Local Wholesale Database

Fase III – Internal Legacy Systems

- Automated Interfaces with Internal Legacy Systems

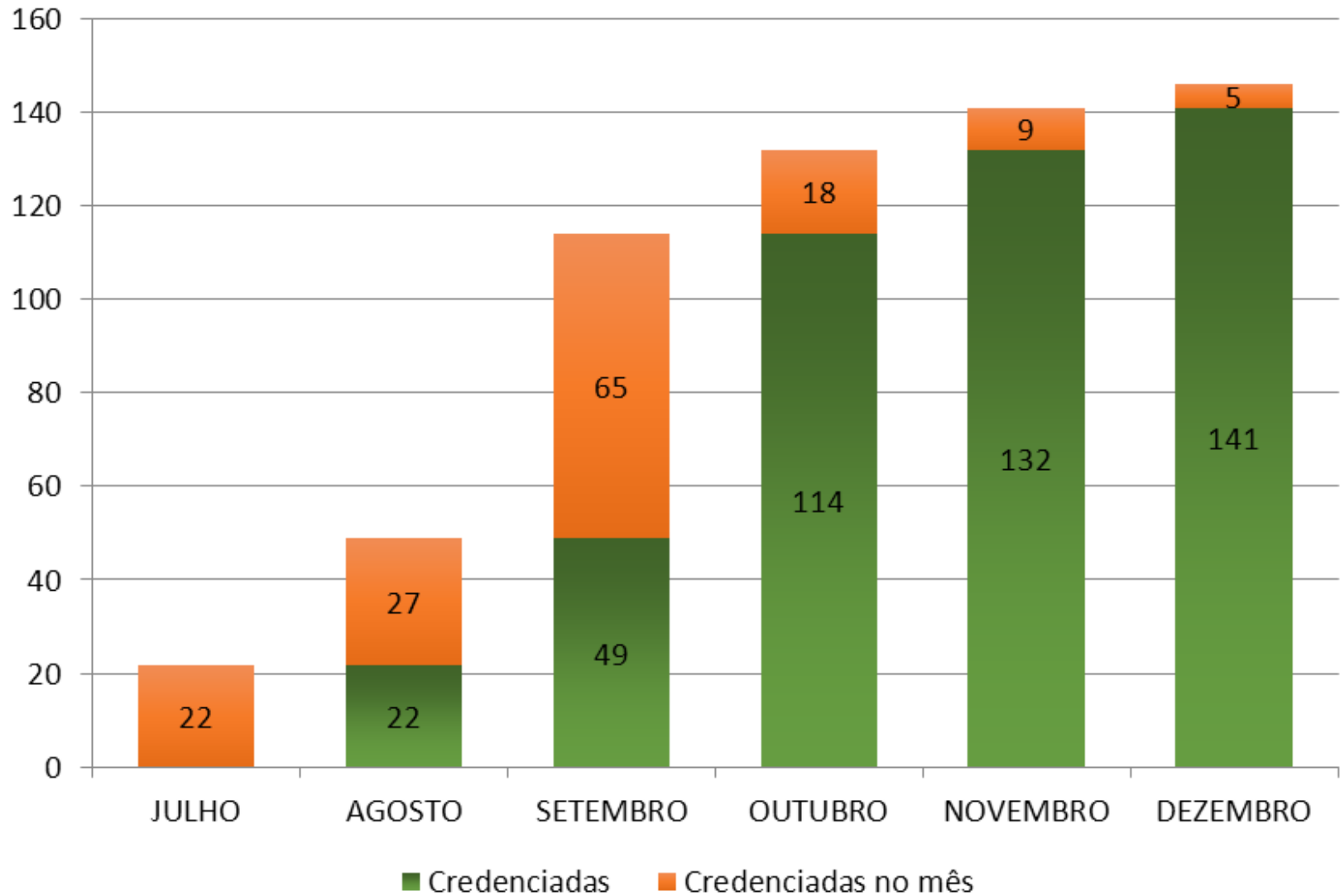
- Fase I
- Fase II
- Fase III



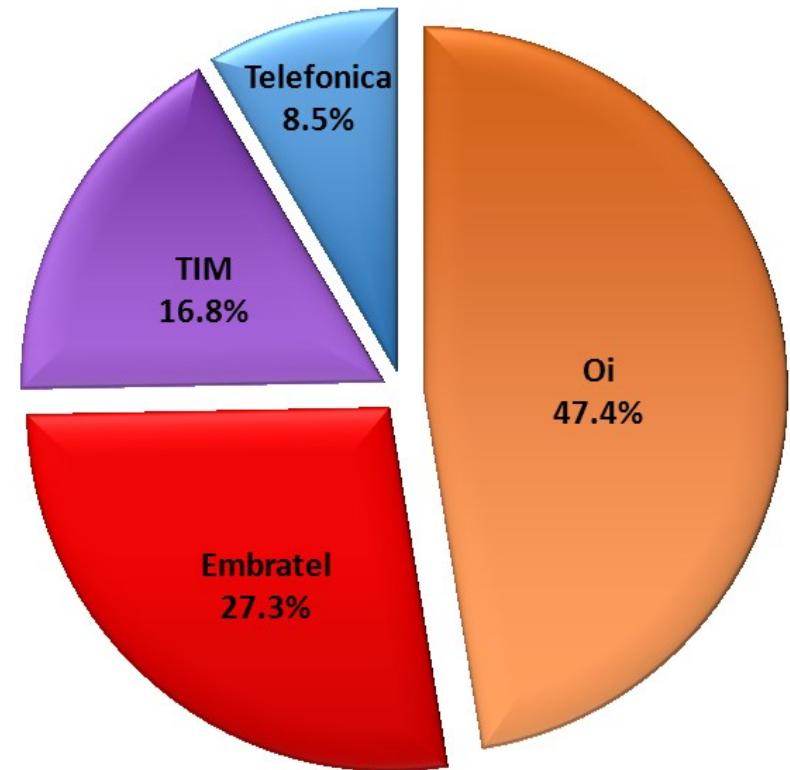
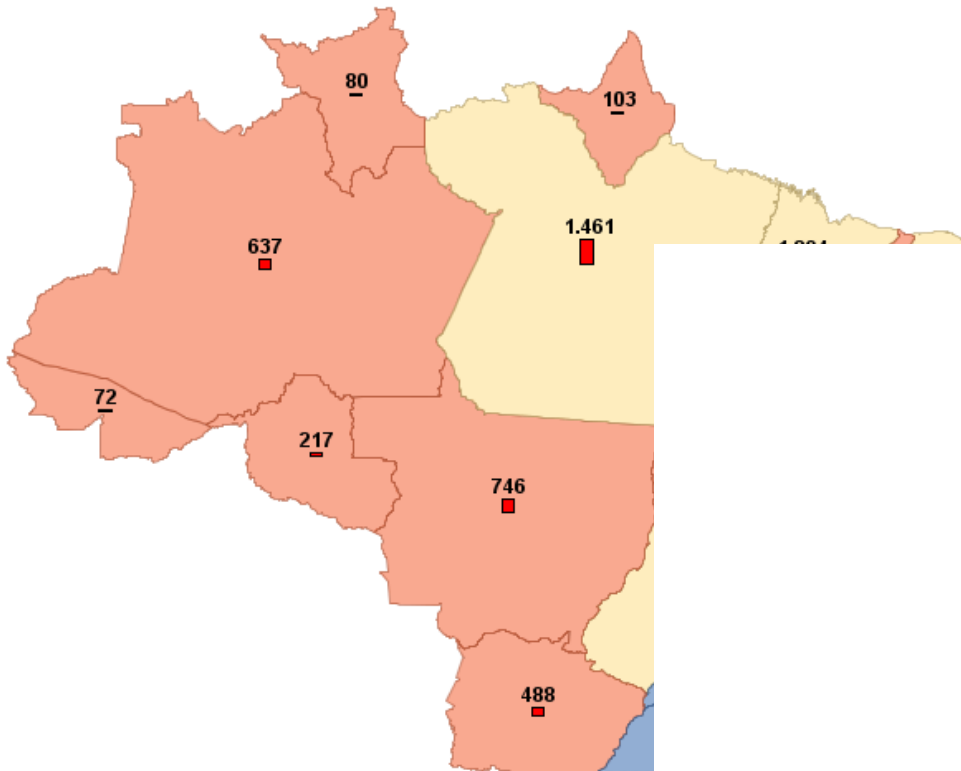
The first 6 months of SNOA



Accredited Companies



40.813 towers
registered





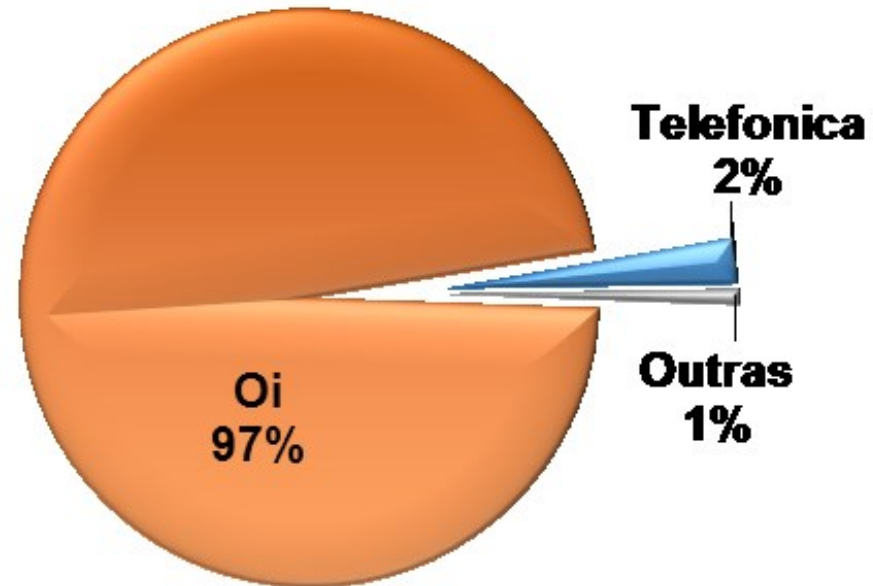
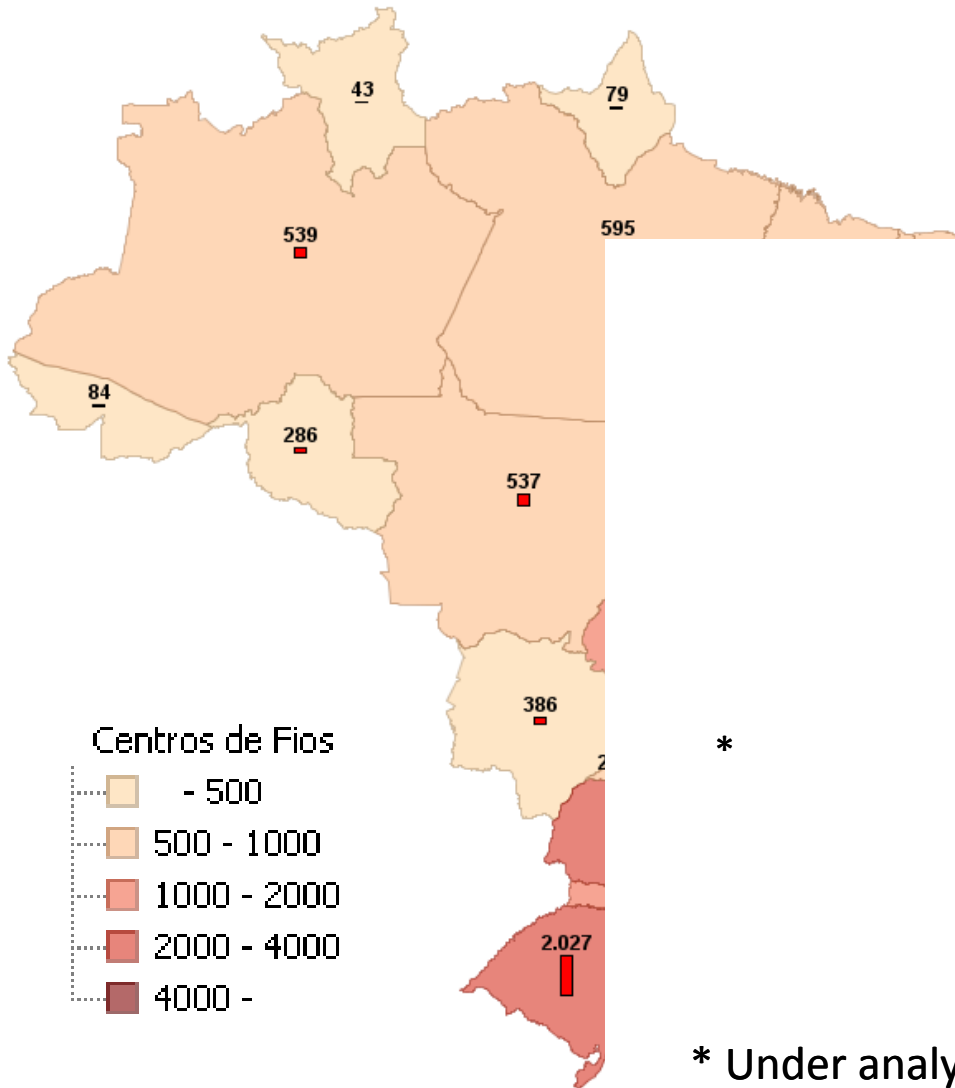
Towers





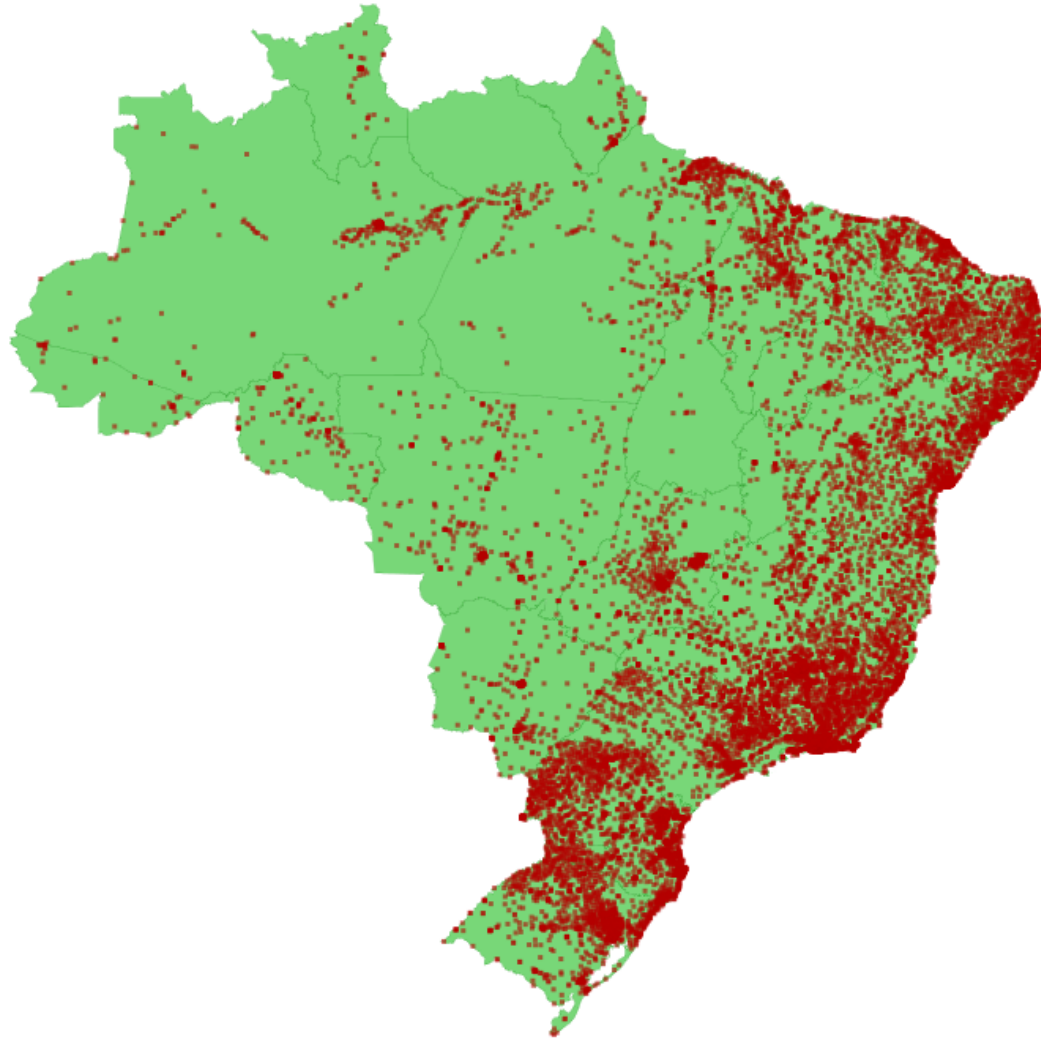
Switching Centers

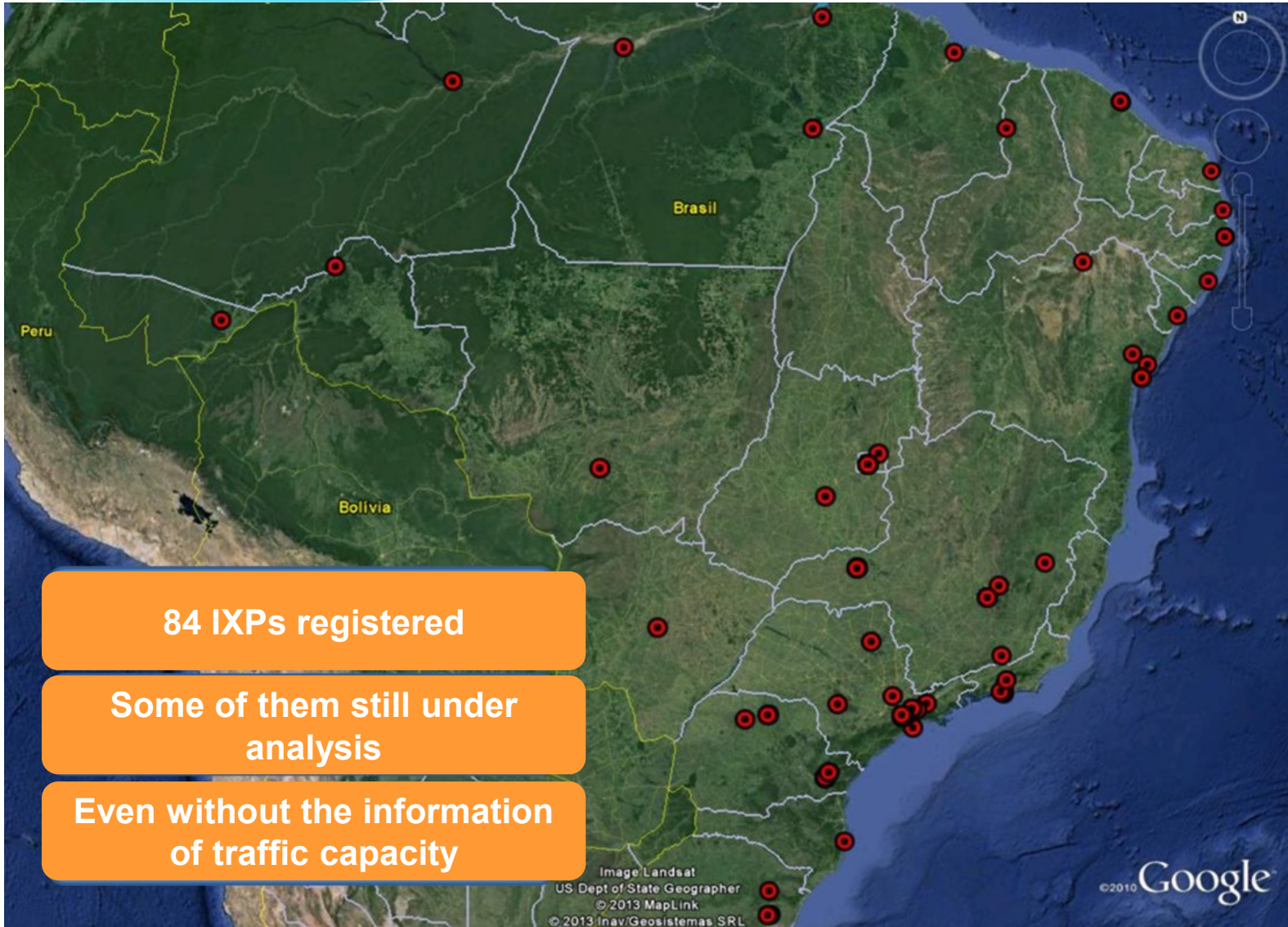
28.702 Switching Centers registered





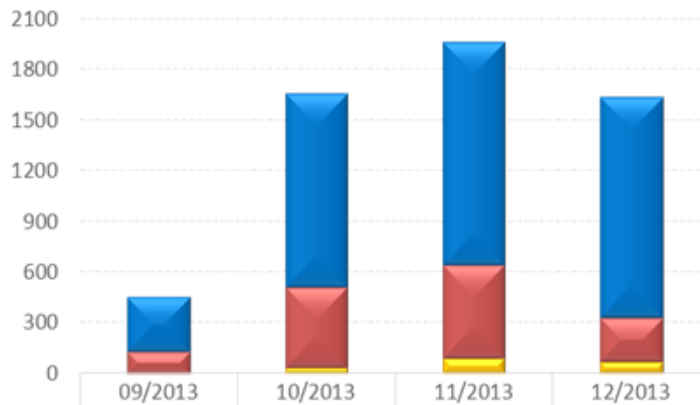
Switching Centers



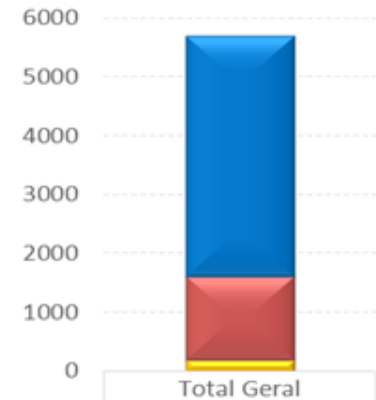




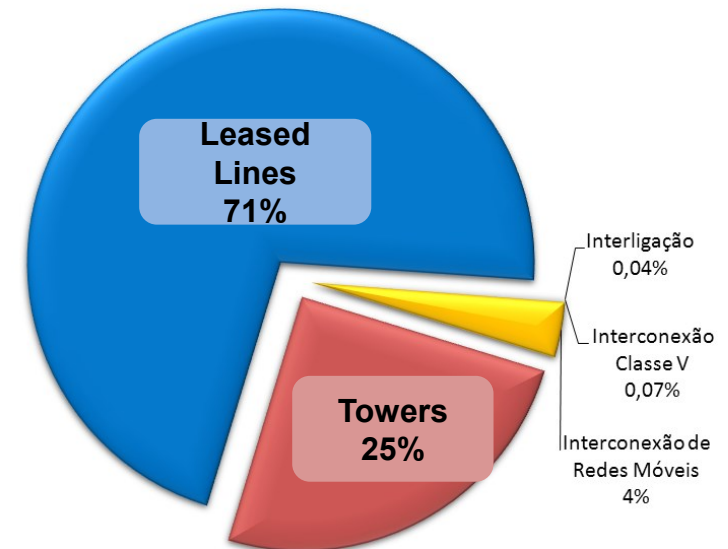
REQUESTS MADE



	09/2013	10/2013	11/2013	12/2013
Leased Lines	320	1142	1314	1301
Towers	129	478	552	268
Mobile Interconnections	6	32	93	68
Peering		3	1	
IP Transit	1	1		

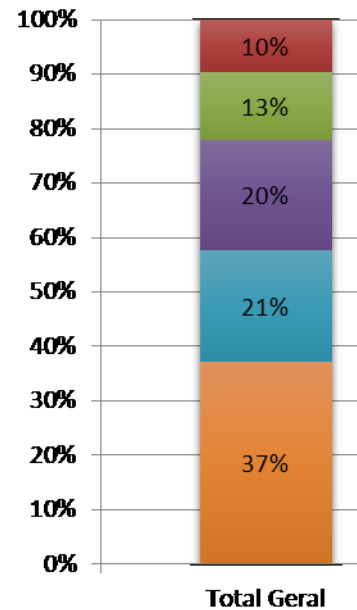
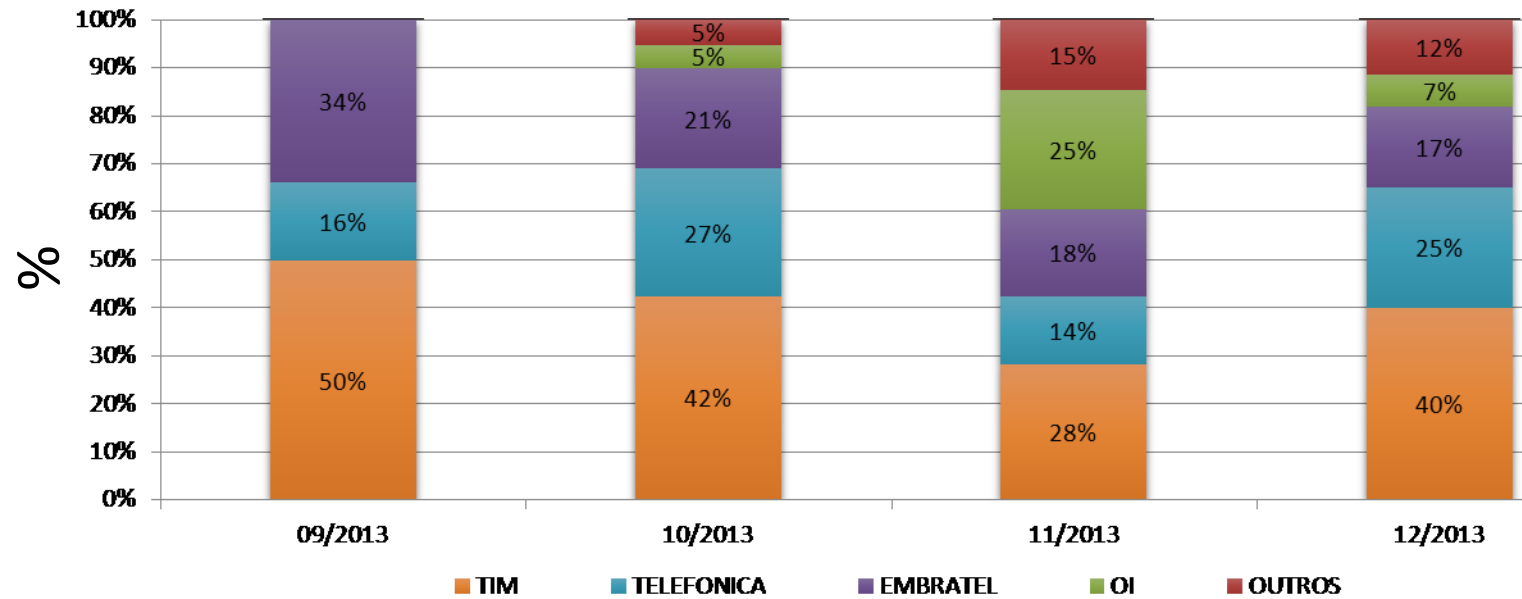
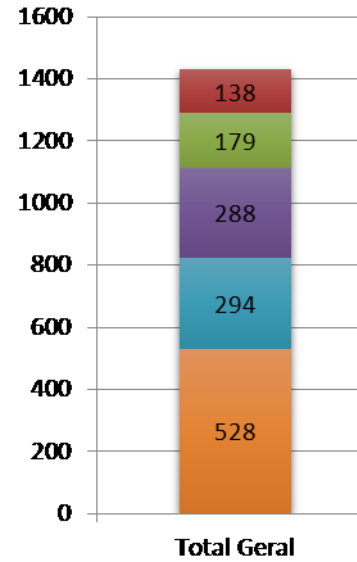
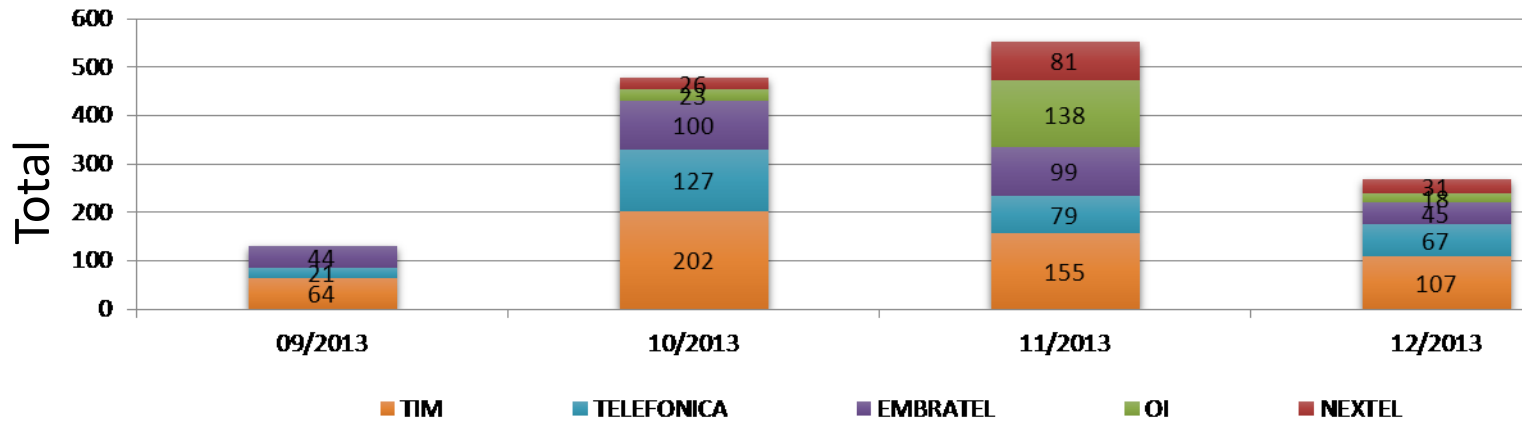


	Total Geral
Leased Lines	4077
Towers	1427
Mobile Interconnections	199
Peering	4
IP Transit	2



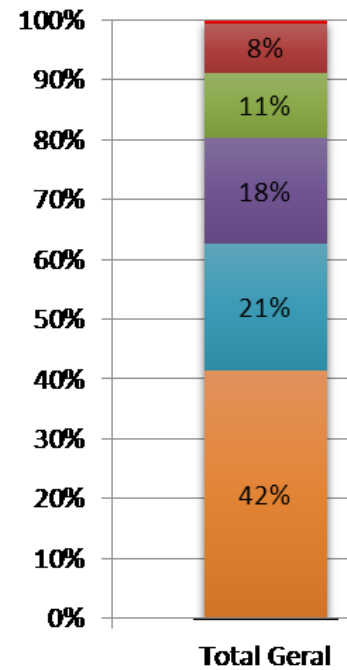
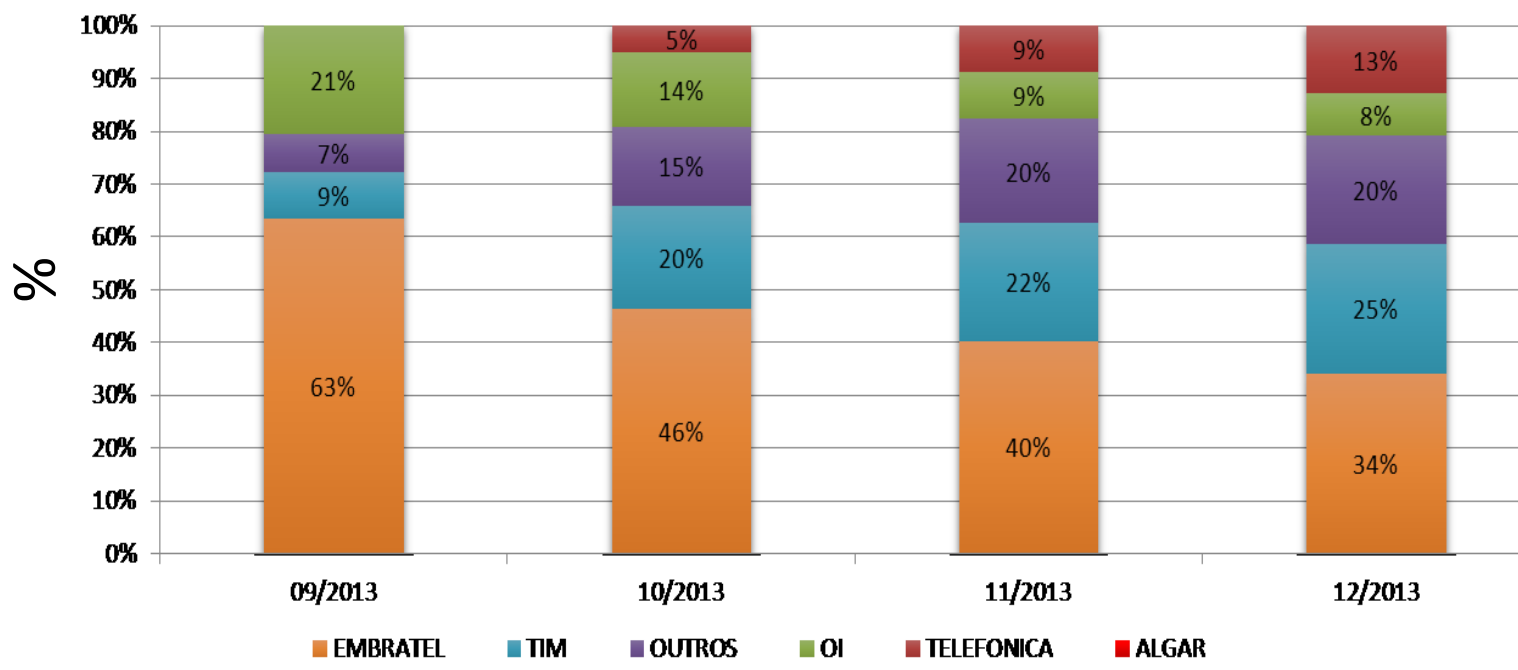
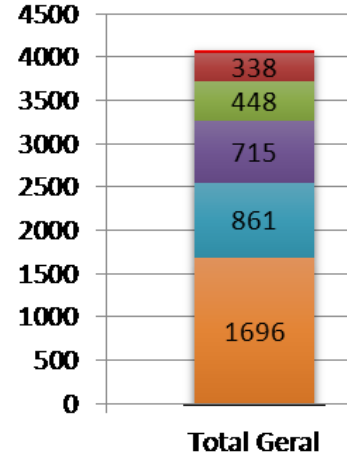
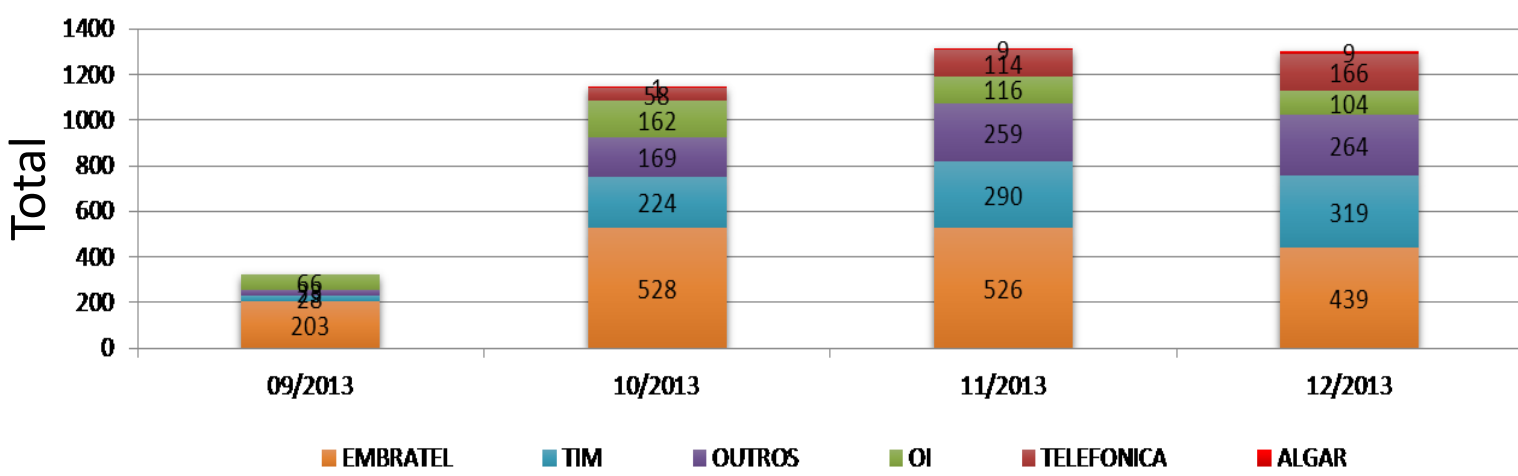


MAIN CONTRACTORS - TOWERS





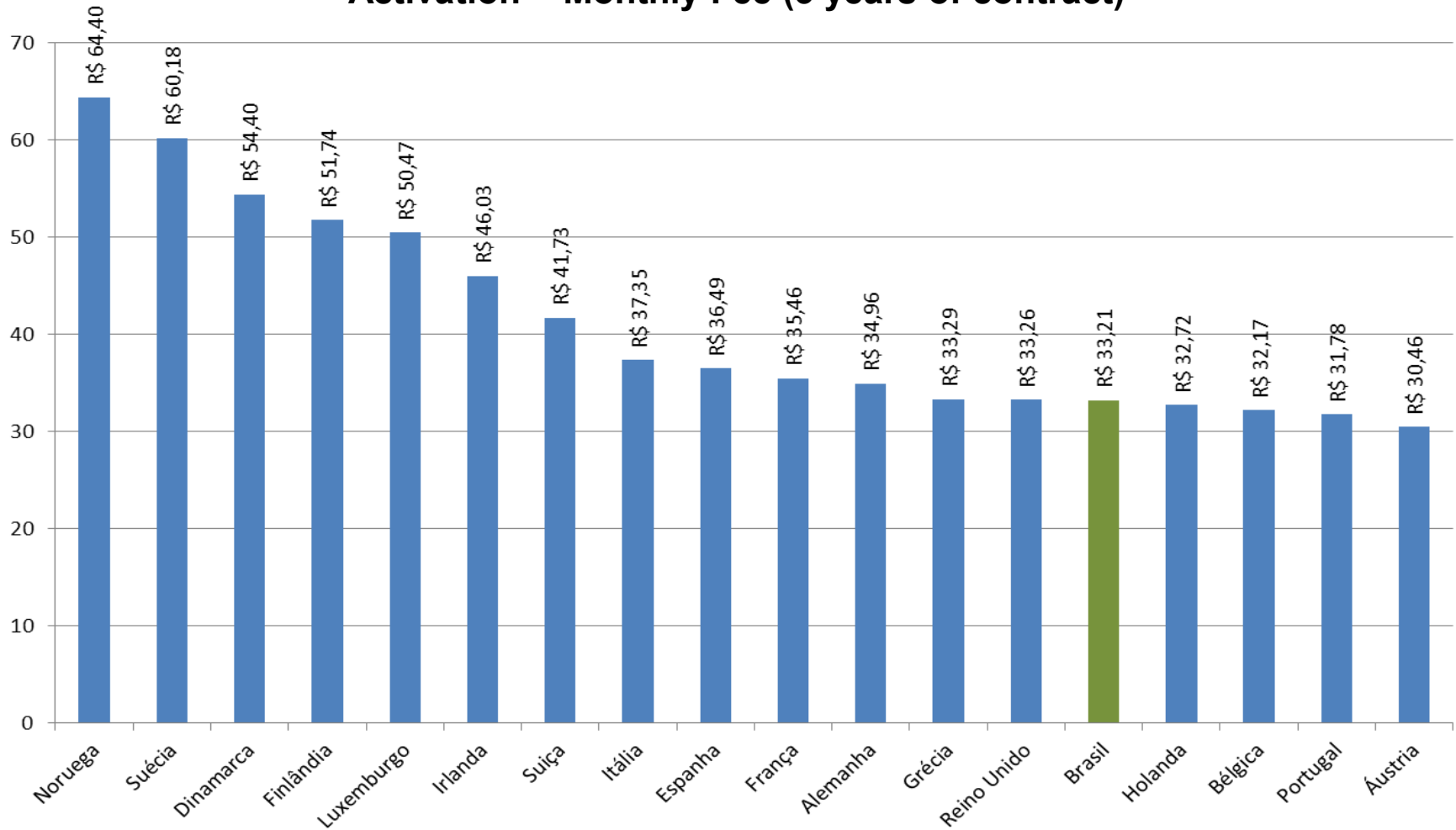
MAIN CONTRACTORS – LEASED LINES





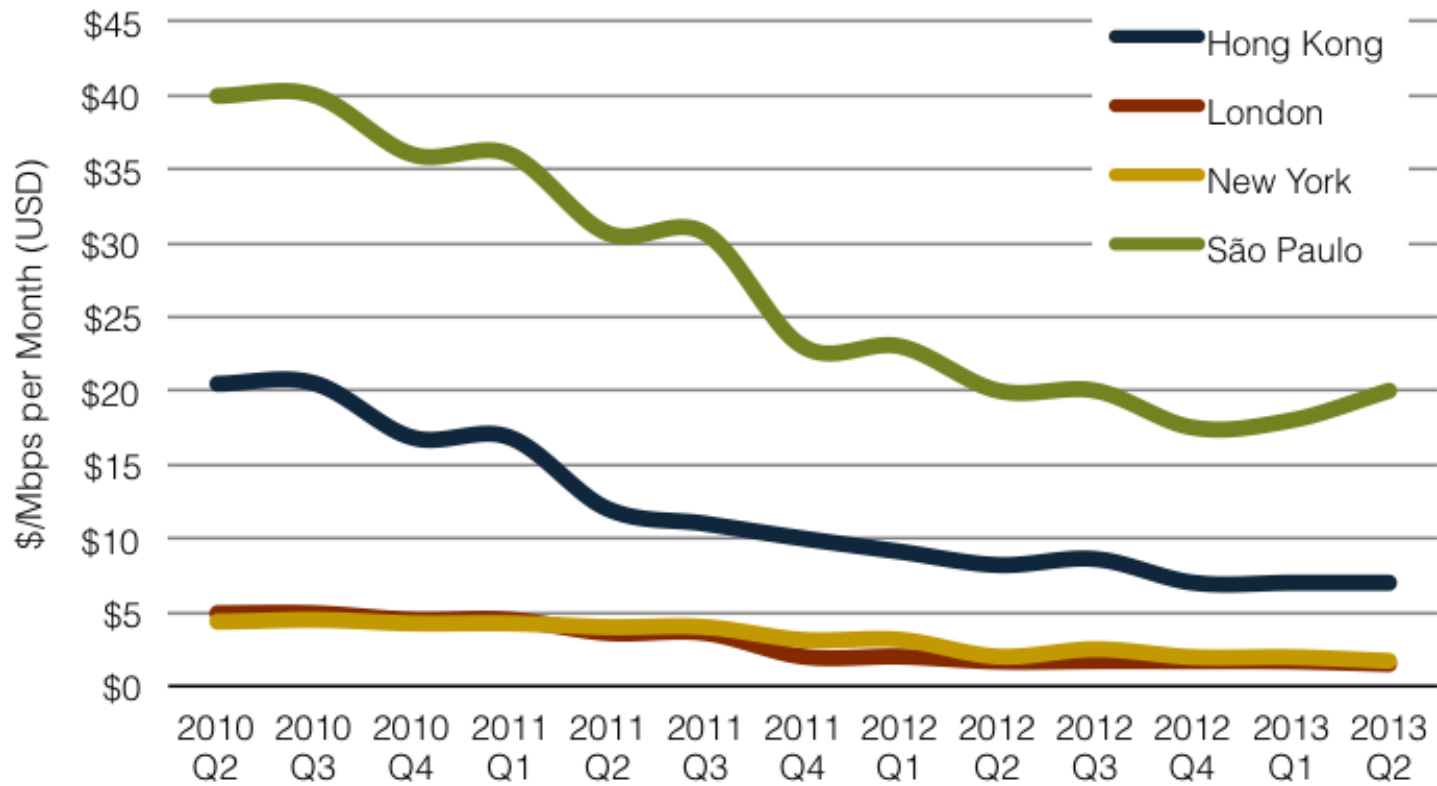
PRICES OF FULL UNBUNDLING

Activation + Monthly Fee (3 years of contract)





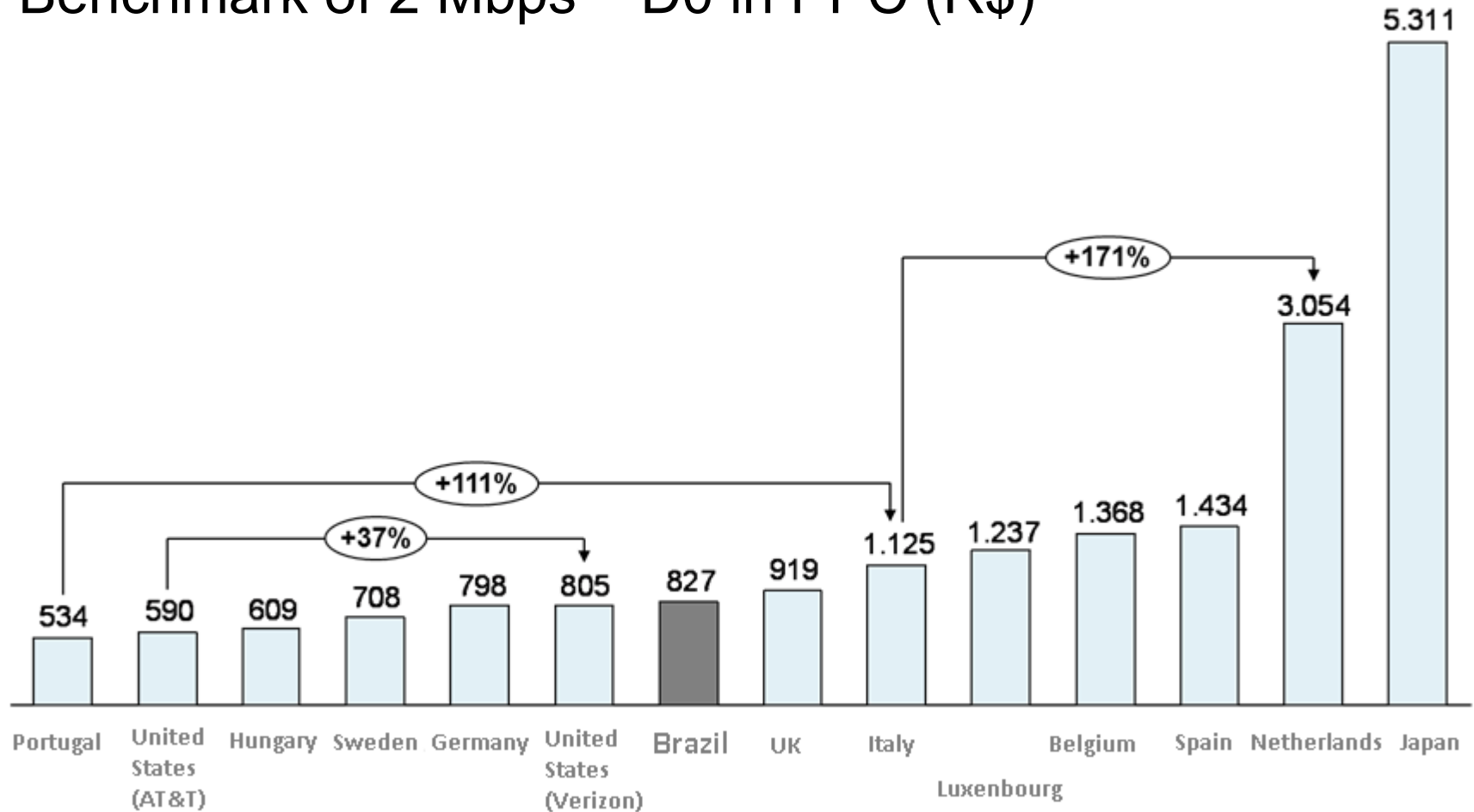
PRICES OF IP TRANSIT





PRICES OF LEASED LINES

Benchmark of 2 Mbps – D0 in PPC (R\$)



Fonte: BM, EC, Análise Advisia



- Include the power poles
- Phases 2 and 3
- Improve the Report Module
- Finish the Replicability Regulation



Thank you!

Abraão Balbino e Silva
asilva@anatel.gov.br
Wholesale Manager
Anatel / Brazil





See you in Brazil!!

