

ITU Workshop on "Combating Counterfeit Using Conformance and Interoperability Solutions"

Geneva, Switzerland

28 June 2016

Regulatory Proposal in Colombia to control IMEIs in mobile
networks (unformatted, invalid, cloned, non-approved,
non- registered)

Hugo Romero

Advisor

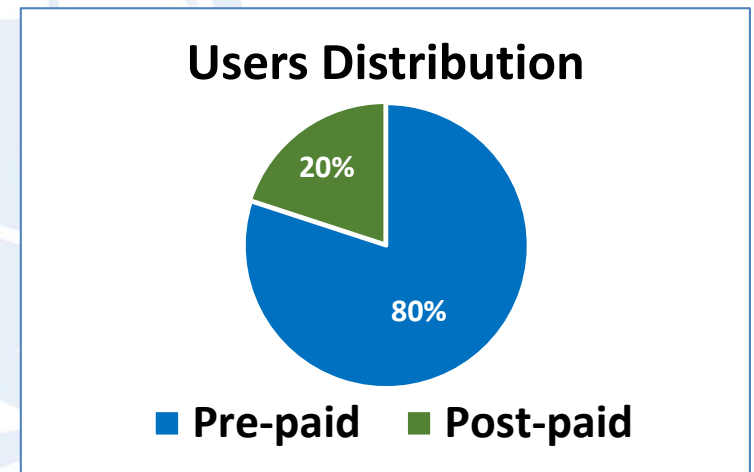
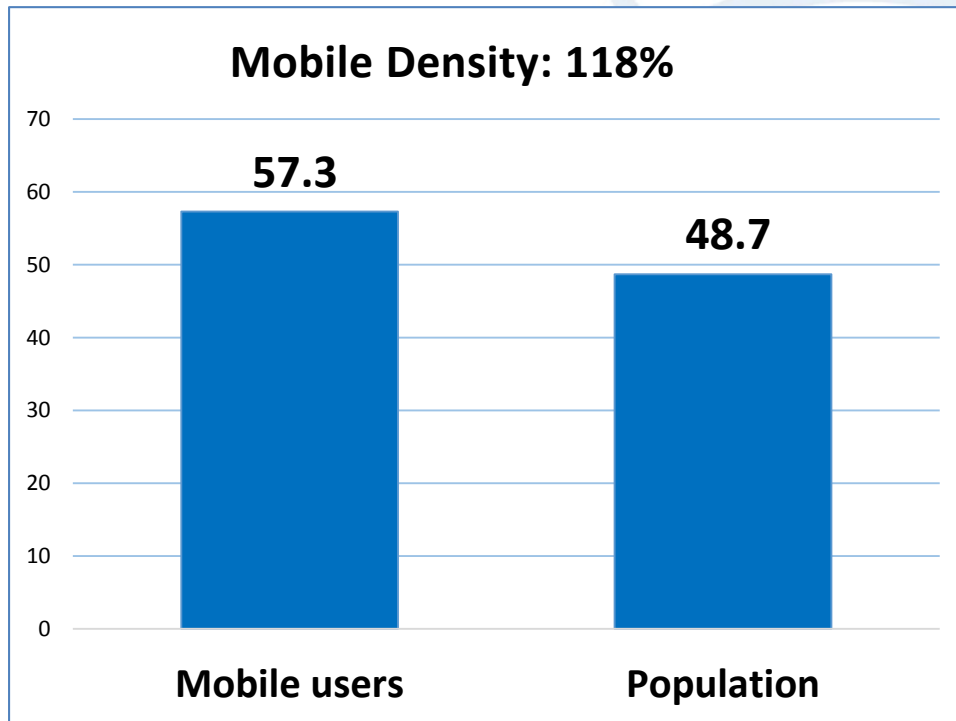
Commission for Communications Regulation –CRC- of Colombia



Agenda

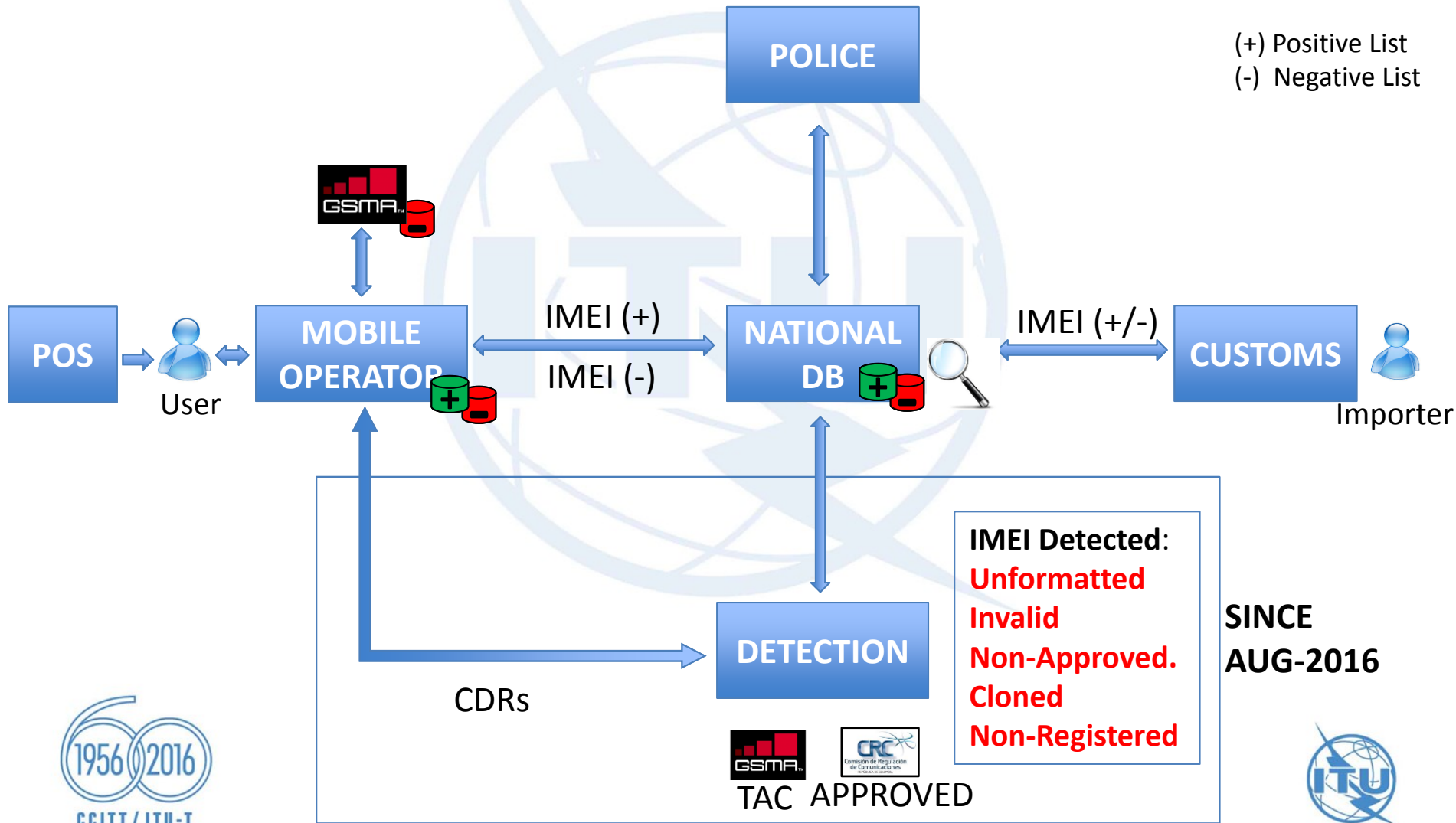
- **Colombia Scenario**
- **Framework & IMEI Control Process against theft of mobile devices**
- **Timeframe of measures**
- **Purpose of Measures & IMEI Control Process**
- **Types of IMEIs to detect and control**
- **Proposal for IMEI Control Process**
- **Main comments received from sector about proposal**

Colombia Scenario



Framework & IMEI Control Process against theft of mobile devices

(+) Positive List
(-) Negative List



TIMEFRAME OF MEASURES

**2011: IMEI
PENALIZATION**

2011: POSITIVE/NEGATIVE DATA BASE

2012: AUTH. FOR COMMERCIALIZATION

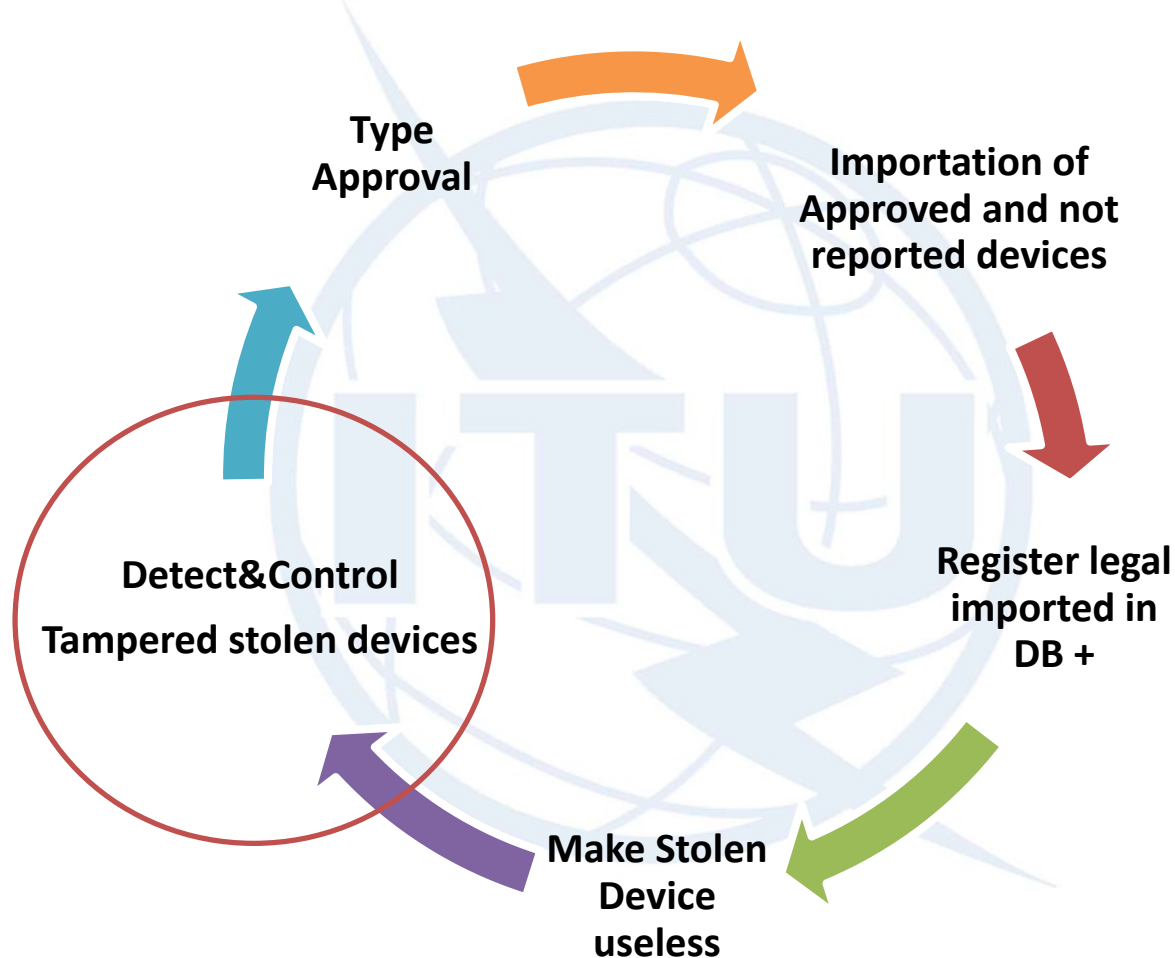
2013: CONTROL TO NON-REGISTERED

2015: IMEI DIAGNOSTIC

2016: IMEI CONTROL IMPLEMENTATION

2016: IMEI CONTROL ACTIONS

PURPOSE OF MEASURES & IMEI CONTROL PROCESS

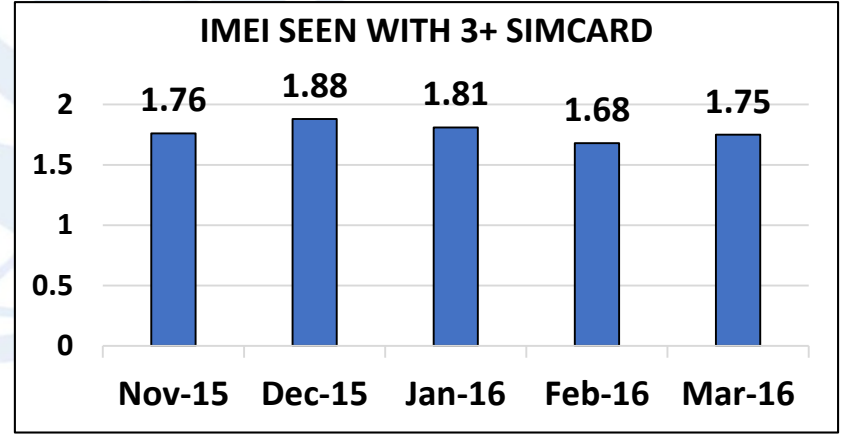
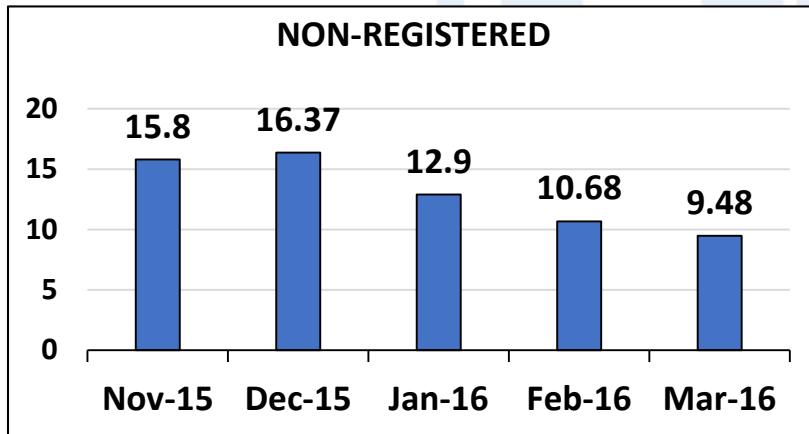
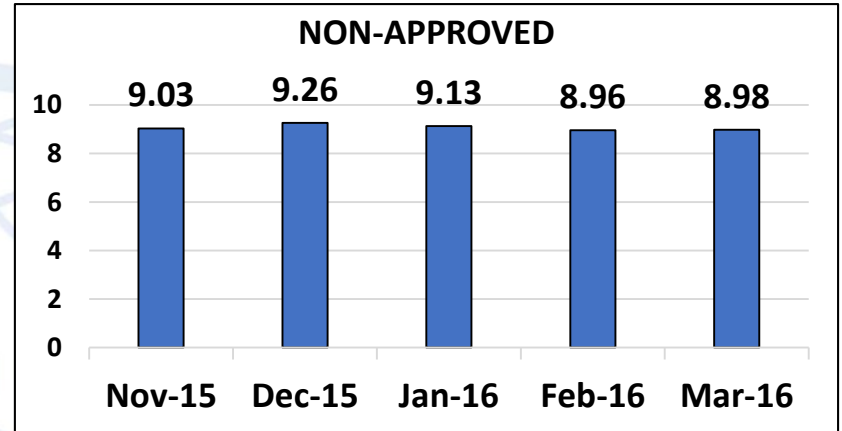
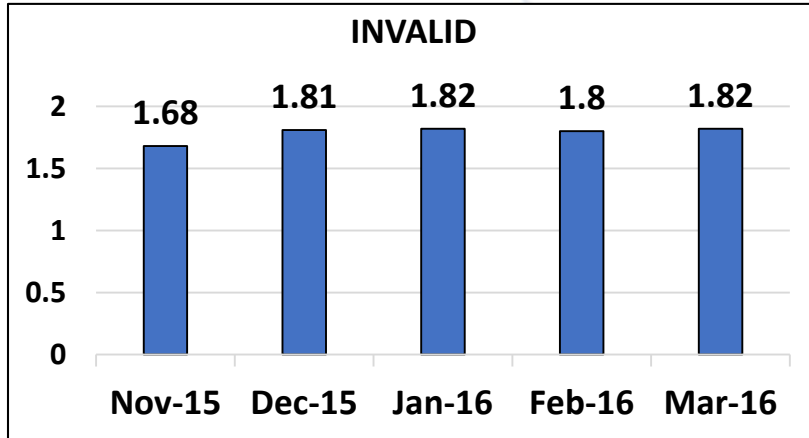


**GOAL: Clean and
Controlled market**

TYPES OF IMEIs TO DETECT&CONTROL

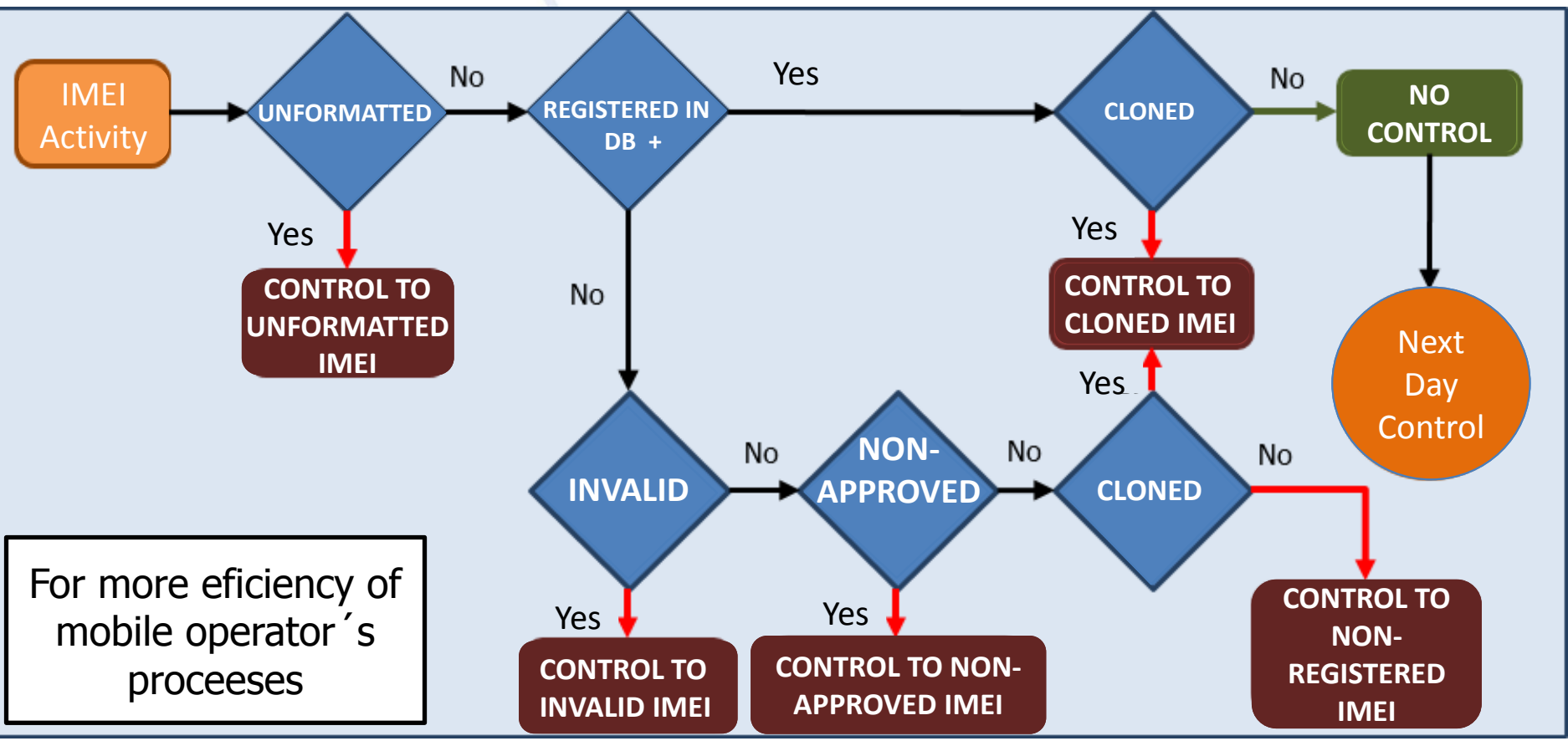
IMEI Type	Characteristic
UNFORMATTED	Less than 14 digits, includes alphabetic characters
INVALID	Right length. Has not been assigned to any manufacturer by GSMA
NON-APPROVED	Has not been approved by CRC to operate in Colombia
NON-REGISTERED IN DB+	Unknown user/origin
CLONED	Same IMEI in several devices. Presents call collisions or Velocity/Distance conflicts

IMEI DIAGNOSTIC (NON-EXCLUDING DATA)



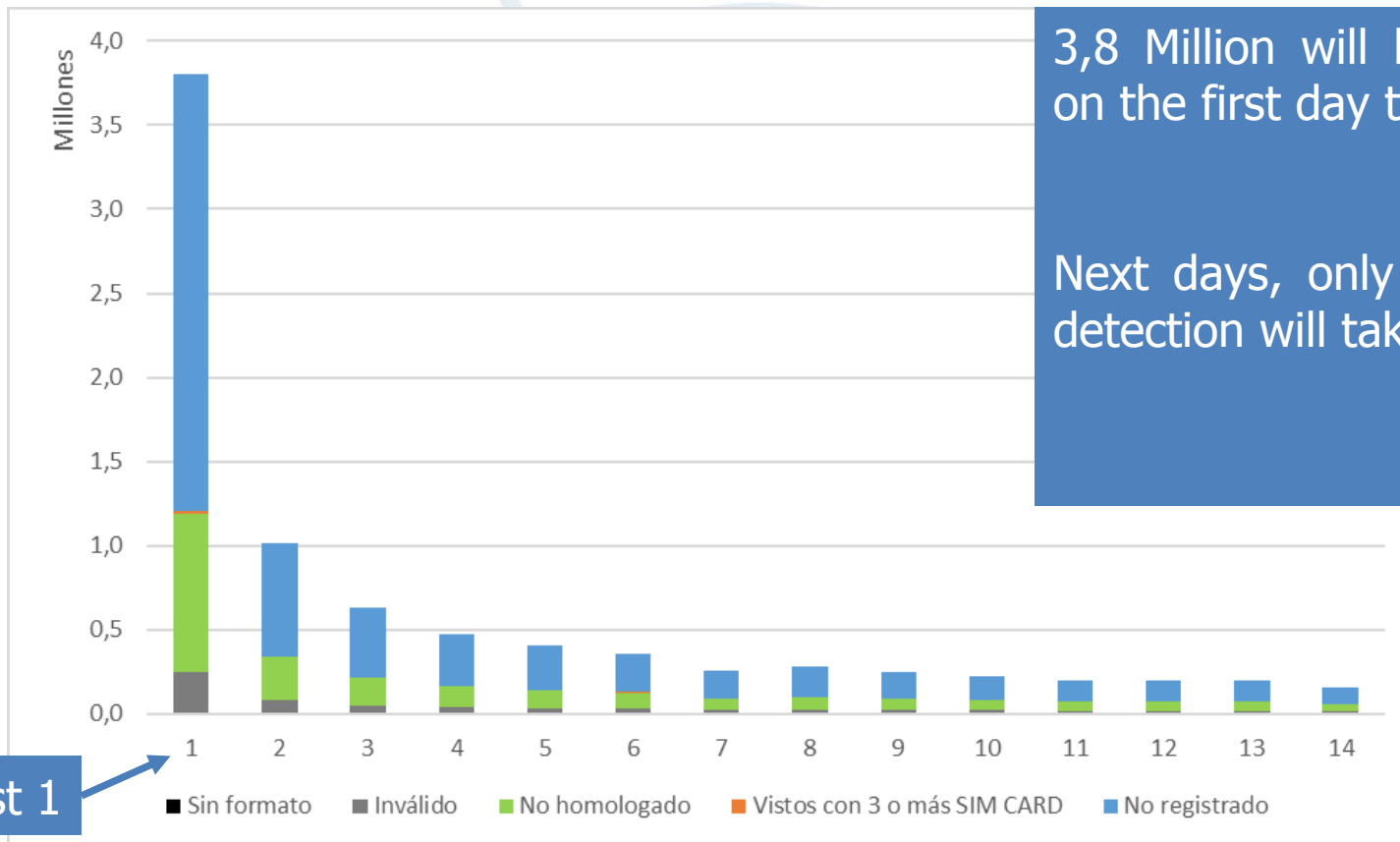
IMEI-SUBS PAIRS: 52.4 M
UNIQUE IMEI: 42.4 M

PROPOSAL FOR CONTROL PROCESS : FLOW CHART



For more efficiency of mobile operator's processes

PROPOSAL FOR CONTROL PROCESS : SIMULATION OF DAILY CONTROL



August 1

Simulation with data of february 2016

PROPOSAL FOR CONTROL PROCESS:

TYPE OF IMEI	PROPOSED ACTION
Unformatted	Notification to users + acces denial Operators must implement a functionality in the network
Invalid	Notification to users + blocking in 60 days
Non-approved	Notification to users + blocking in 120 days Device can be homologated
Cloned	Notification to users + control in 30 days Control based on IMEI-IMSI Check (EIR)
Not Registered	Notification to users + blocking in 20 days

MAIN COMMENTS FROM SECTOR ABOUT PROPOSAL

COMMENTS RECEIVED IN CRC REGULATION PROCESS

TIMES FOR IMPLEMENTATION

CONTROL TO NON HOMOLOGATED (NON-APPROVED)

DIAGNOSIS OF DUPLICATED

IDENTIFICATION OF GENUINE DEVICE





CCITT / ITU-T