Conformity and Interoperability Training for AMS Region on Type Approval testing for Mobile Terminals, NGN testing, Homologation Procedures and Market Surveillance

Campinas-Brazil, 8-12 June 2015

#### Market Surveillance and enforcement

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#### Introduction and concepts

#### Purpose

- To ensure the ICT products placed on the market comply with all the requirements set out in the relevant legislation and regulations
- To ensure that ICT products placed on the market do not cause electromagnetic interference, harm the public telecommunications network, and endanger health, safety, environment or any other aspect of protection of public interests
- To take necessary action (e.g. prohibitions, withdrawals, recalls) to stop the circulation of products that do not comply with all the requirements set out in the relevant legislation and regulations, to bring the products into compliance and to apply sanctions.

#### A definition:

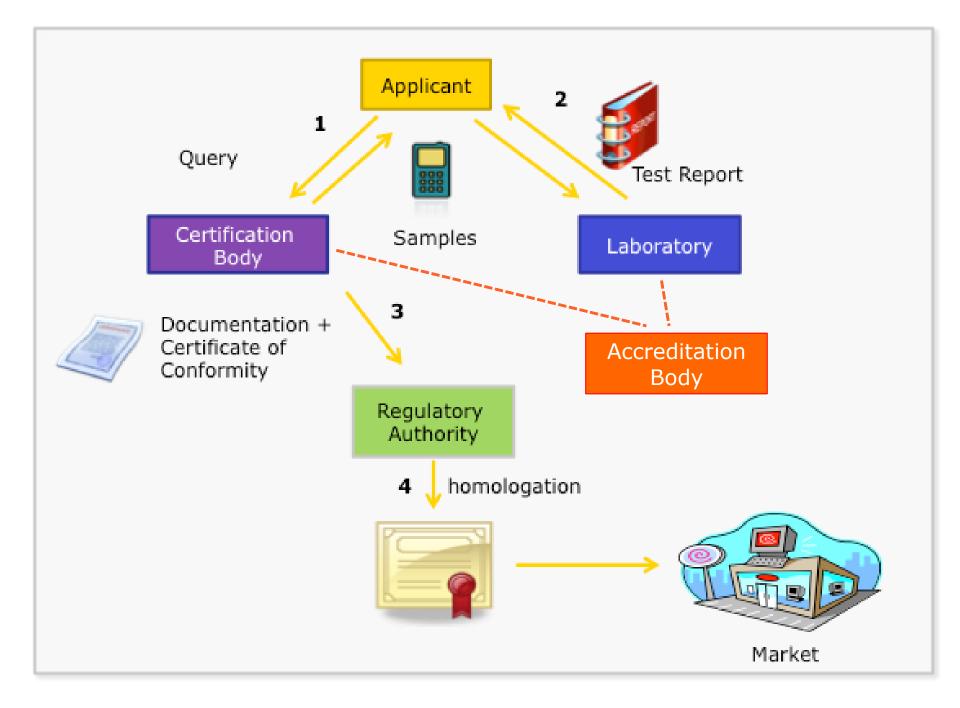
Market surveillance consists of the "activities carried out and measures taken by designated authorities to ensure that products comply with the requirements set out in the relevant legislation and do not endanger health, safety or any other aspect of public interest protection"

> \*Adapted from:<u>Market Surveillance</u> <u>Regulation European Commission n.</u> <u>765/2008, art 2</u>

## **Key Stakeholders**

- Regulators
- Accreditation Bodies (ABs)
- Certification Bodies(CBs)
- Manufacturers, importers, vendors and service providers
- Users





#### **Market Surveillance activities – Regulators**

- Market surveillance mandates in place in legislation and regulations
- Processes and procedures in place to conduct market surveillance
- Monitor appointed/recognized Accreditation Bodies to ensure continued ISO/IEC 17011 compliance
- Monitor designated/recognized Certification Bodies (CBs) to ensure their continued compliance with ISO/IEC 17065
- Ensure that the designated/recognized CBs conduct appropriate market surveillance activities in with ISO/IEC 17065

#### Market Surveillance activities – *Regulators(cont'd)*

- Specify additional market surveillance tasks for designated/recognized CBs such as:
  - Conduct audit of X % of equipment they certified annually
  - > CBs may use the following criteria to select audit samples:
    - past history of compliance
    - whether the sample comes from a new applicant
    - whether the sample is based on new technology
    - popularity of the technology
    - price of the sample relative to the average price of similar technology
    - potential harm to the network or people as a result of noncompliance



## Market Surveillance activities – *Regulators(cont'd)*

- Liaise with border control department to track ICT equipment imported in their territories
- Consult with foreign regulators to share and discuss market surveillance results and experience



## Market Surveillance activities – Accreditation Bodies

- Maintain compliance with ISO/IEC 17011 by peer assessment as set out by ILAC for testing laboratories and IAF for certification bodies
- Ensure that the conformity assessment bodies which they had accredited remain compliant by reassessment and on-site surveillance according to ISO/IEC 17025 for testing laboratories and ISO/IEC 17065 for certification bodies



## Market Surveillance activities – Certification Bodies (CBs)

- CBs to maintain compliance with ISO/IEC 17065
- CBs to conduct appropriate market surveillance activities in accordance with ISO/IEC 17065
- CBs to conduct specific tasks as requested by the regulators



## Market Surveillance activities – Manufacturers, legal representative

- To ensure that equipment sold in the regulator's territory continues to meet the applicable standards throughout its entire life cycle.
- To provide audit samples to the regulator and CB on a timely basis



## Market Surveillance activities – Users /competitors

- Awareness of the Conformity Assessment in place
- Contact authorities about suspicious equipment



# Activities

# -Audit

-consultations on Market Surveillance Intelligence and Experience -Importing monitoring



## **Audits**

- Regulators, CBs and manufacturers conduct audits according to the regulators' requirements
- Audits can be random or targeted based on complaints or past surveillance results
- Audit samples may be obtained from:
  - the manufacturer
  - > the domestic representative of a manufacturer or supplier
  - the importer or distributor
  - the marketplace



#### **Consultations on Market Surveillance Intelligence and Experience**

- Sharing of information and consulting with other countries which have a market surveillance and enforcement program in place.
- Countries within the same region, sharing a common language and perhaps common spectrum management and frequency assignments for services
- Heads-up notice, or advance warning from collaborative partners on compliance problems with technologies and products which may have early deployment in a particular country or region.

#### **Consultations on Market Surveillance Intelligence and Experience (cont'd)**

- Alert the collaborative partners to the potential for non-compliance of such products or technologies when they are deployed more broadly and therefore can be targeted for inspection and audit.
- The Administrative Cooperation Group on R&TTE (ADCO) is example of collaborative group in the European Community
- ADCO has MoU with the Federal Communication Commission (USA) and Industry Canada (Canada)



## **Import Monitoring**

- Regulators need to have a method to track the equipment imported into their territories.
- "HS Code" is a standardized numerical method of classifying traded products developed and maintained by the World Customs Organization. but are free to adopt additional subcategories and notes
  - To ensure harmonization, the contracting parties must employ at least 4- and 6-digit provisions, international rules and notes, but are free to adopt additional subcategories and notes.



## **Import Monitoring**

- A regulator through the appropriate department in its territory can assign the HS Code to the ICT equipment and through its customs department can monitor the ICT equipment which is imported into its territory.
- HS Codes can be used by the regulator to stop the equipment from entering its territory if the equipment is determined to be non-compliant

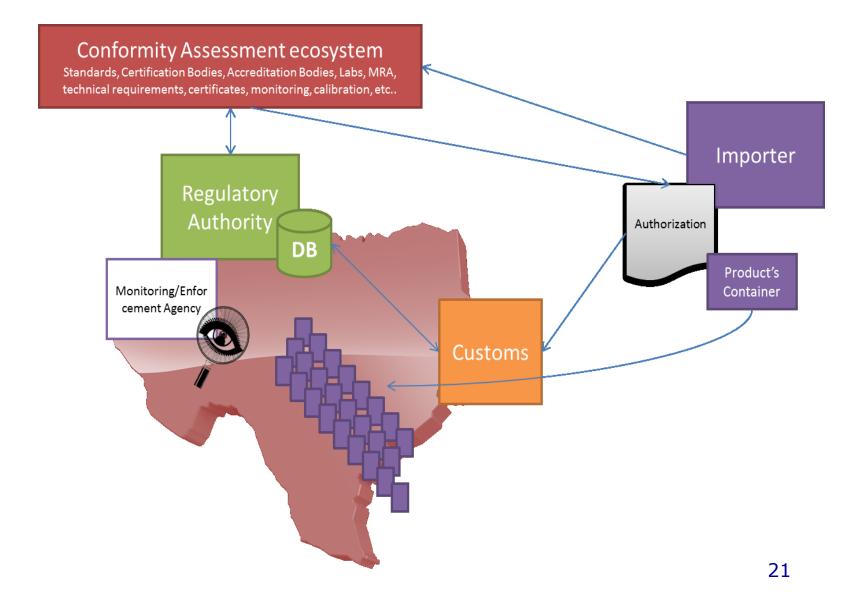


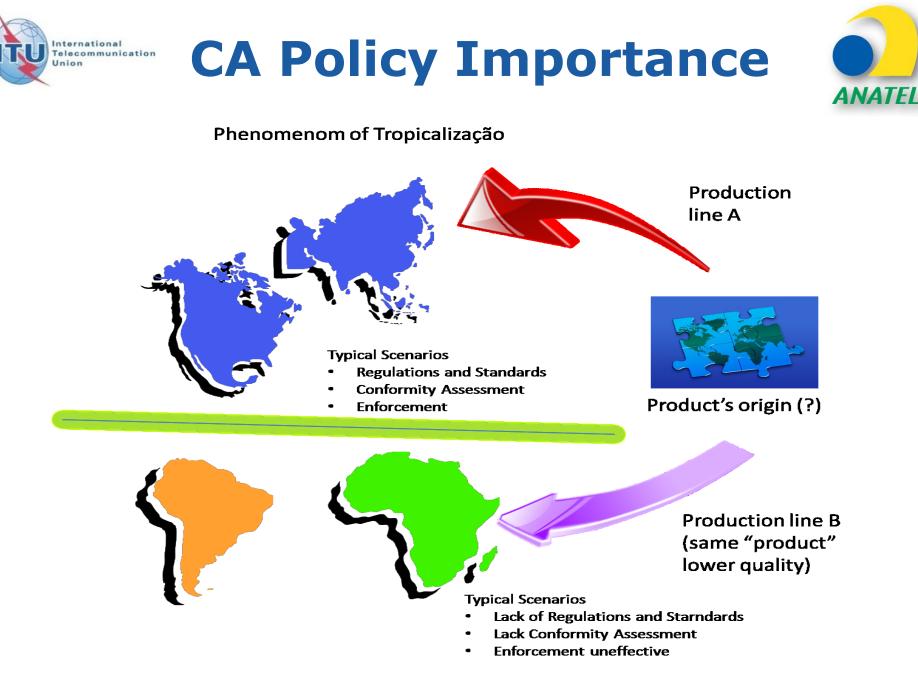
#### Enforcement

- Revocation of certification, registration
- Recall
- Monetary penalties
- Seize
- Border control



# **Blocking the entrance of Counterfeit Devices.**





# **CA Policy Importance**

- Radiofrenquency Interference -> service disturbance -> market instability
- Safety
- Minimum Quality requirements oblivion

#### Global, Regional and National Perspectives

#### Multi Layer Initiatives: a working case

- International ITU Actions:
  - PP14 Resolution on Counterfeit and on C&I.
  - ITU-T SG11 (Q8/11) <u>Technical Report</u>.
  - ITU-D interaction with ITU-T to implement the necessary actions on developing countries.
- Cooperation with other organizations.
- **Regional:** CITEL CCPI Correspondence Group on Counterfeit terminals discussions.
- National: Brazil SIGA and Custom Integration.

# What we should look for

#### • Multi Level Actions and Cooperation.

- Bilateral and Regional cooperation.
- International best-practices and recommendations.
- Reduce End-user impact (Good Faith user)
  - Good user communication is crucial.
  - Weave for legacy terminal (turnover).
- National multiple actions to combat Counterfeit
  - Structured CA Policy and Custom Integration.
  - Solution to Remove Counterfeit from the network.
- Reliable reference databases to our solutions
  - <u>Secure unique identifier (IMEI) PP14 Res. Counterfeit</u>

#### **Regional Approach** Examples of joint measures on regional level

#### Inter-American Telecommunication Commission (CITEL)

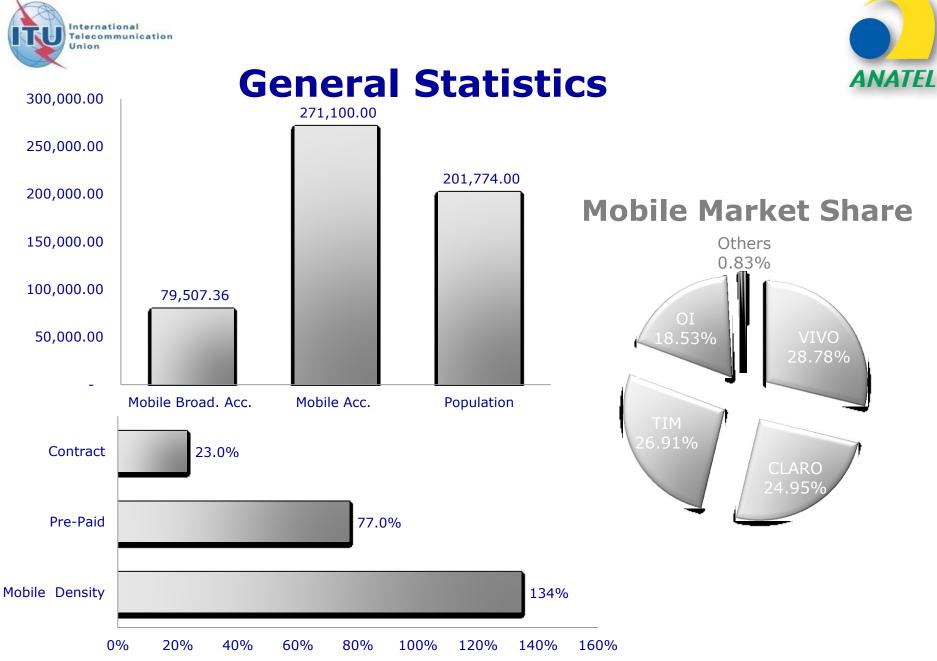
- CITEL PCC.I recommended in 2009 member states to "consider creating databases as part of an overall anticounterfeit and fraud program".
- In May 2014, the group approved <u>Resolution 222</u> (XXIV-14) - "strengthening regional measures to combat the spread of counterfeit, substandard and unapproved mobile devices"
- Res. 222 created a correspondence group to:
  - develop definitions;
  - evaluate the scope and nature of the problems detected;
  - recommend technical and regulatory solutions;
  - document best practices from around the world;
  - and to promote the sharing of information and the exchange of experiences among Member States and associate members of CITEL

#### **Regional Approach** Association of the Communications and Telecommunications Regulators of the Community of Portuguese Speaking Countries (ARCTEL-CPLP)

- At the ITU GSR 2012 proposed actions at the regional level consisting of:
  - Sharing of IMEI blacklist databases through bilateral or multilateral agreements
  - Establishment of regulatory fiscal + customs mechanisms to ensure greater on borders
  - Industry compliance with recommendations preventing IMEI changing or duplication
  - Campaigns to raise public awareness of the importance of reporting the theft and loss of mobile terminal devices.

## **A National Perspective**

 An example form the Mobile market





#### SIGA - Sistema Integrado de Gestão de Aparelhos.



- O "Sistema Integrado de Gestão de Aparelhos SIGA" aims to control counterfeit, cloned and unauthorized mobile devices.
- The project is based on Anatel Regulatory framework that dictates that operators can only allow on the network authorized devices.
- The Project is lead by Anatel with the participation of all relevant actors (Anatel, Operators, ABR-Telecom, Manufactures, GSMA, among others).
- The system is operated by ABR-Telecom and is active since march 2014 collecting the relevant information from all mobile networks on Brazil.
- The system is generating the reports and alarms necessary to map the Brazilian scenario so that Anatel can define the next actions.





#### **SIGA Premises**

- **Centralized solution:** built jointly and integrated to all Brazilian mobile operators;
- Automated solution: allowing the input of information with low human intervention;
- Scalable, Dynamic and Flexible: expandable system, rules adjusted over time;
- Multiple sources of info: CDRs (call data record), operators systems, international databases;
- **Reliable and secure:** Minimize impacts on regular end users; 32





#### **Challenges Faced on SIGA**

- **Identification and definition** of actions for for each scenario.
- Reduce end-user impact.
- Construct a reliable reference database.
- Define **Legacy** Terminal actions.
- <u>Actions effective only on terminal already on</u> <u>the network.</u>
  - How to control the entrance of Counterfeit?



#### Enforcement – A case study

#### **Post Market Surveillance** Current Regulation and perspectives

Objectives:

**(** To identify if equipment in the market is the same as it was approval in the lab/CB.

When we should start the surveillance?

**1** months after approval or, if necessary, on demand.

Observe the second s

Which kind of equipment? In the beginning, users' equipment.

- What tests should be repeated? In the beginning, EMC tests because it is the one which makes the equipment most expansive and safer.
- OA simple way to put a post marketing procedure in place would be to compare the internal pictures form circuitry to the collected sample.

## **Post Market Surveillance**

- Since 2001, the Certification Bureau could notice that the non-compliance of products in the market has been improved day-by-day, and it was necessary to change the applicable Regulation, because the status quo wasn't sufficient.
- In the beginning, the no approval equipment where essentially those which have no sample.

But nowadays there are lots of different ways to break the law, such as:

ONO approval – without label;

ONO approval - with fake label;

ONO approval - with other's label;

Opproval - with sample, but not in accordance with the requirements.

#### Even and odds

Short term – enforcing rules; working force increase; consequently more products arrested in the market.

Dong term - less working force acting in the field; more working force on the post market surveillance - intelligence work.

# **Enforcement activities**

#### **Objectives**

To Identify and combat defining preventive actions to protect the market;

To favor fair competiton between all equipment manufactures; Protect the internal market and the end-user;

#### Ways

1) Pre-Market Surveillance

(Type Approval):

- to grant access to market by compliance demonstration;

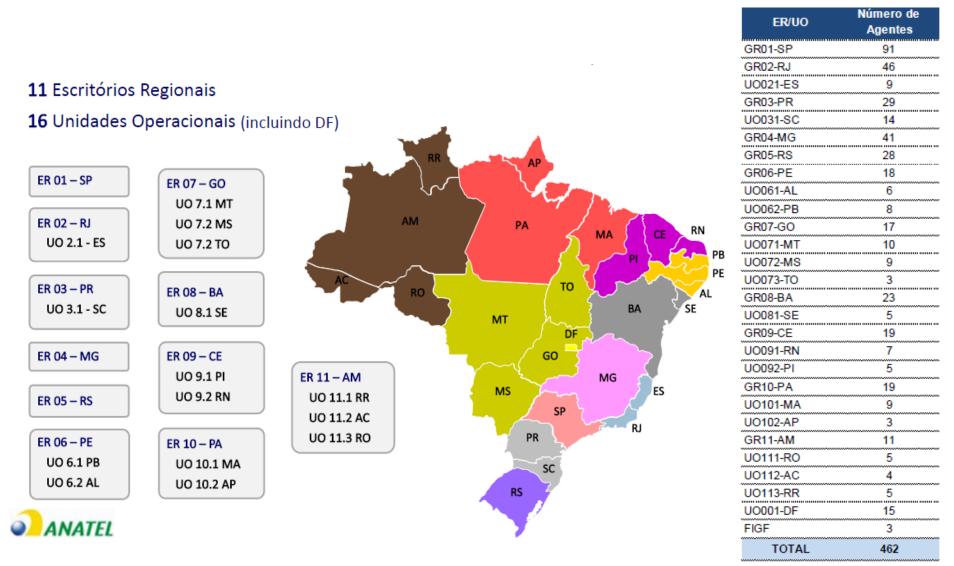


#### 2) <u>Pós-market</u>:

- demanded;

- Continuos validation the equipment follows up-to-date regulations/standards;

## **Working Force on enforcement**



Fonte: POF 2013

## **Working Force**

Área de Atuação	Horas	Percentuais			
STFC	192.258,00	29,63%	Mês	Planejadas	Pontuais
SMP	73.829,08	11,38%	Janeiro	146	247
TVA	11.420,00	1,76%	Fevereiro	278	247
SCM	31.101,96	4,79%	Março	425	247
Demais Serviços	0,00	0,00%	Abril	443	247
Redes	14.308,54	2,21%	Maio	586	247
Certificação	10.706,09	1,65%	Junho	285	247
Uso de Recursos de Espectro	220.119,37	33,92%	Julho	3.193	247
Uso de Recursos de Órbita	648,85	0,10%			
Uso de Recursos de Numeração	6.488,54	1,00%	Agosto	442	247
Recolhimento e Aplicação de Tributos	54.882,02	8,46%	Setembro	533	247
Ordem Econômica	0,00	0,00%	Outubro	520	247
Fiscalização de Conteúdo	29.198,43	4,50%	Novembro	789	247
Outros	3.893,12	0,60%	Dezembro	942	248
Total	648.854,00	100,00%	Total	8.582	2.965

16 Actions/ mounth on Pos-market surveillance

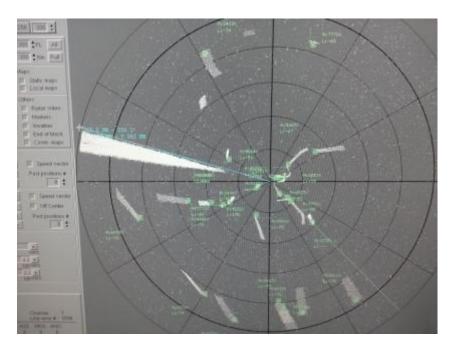
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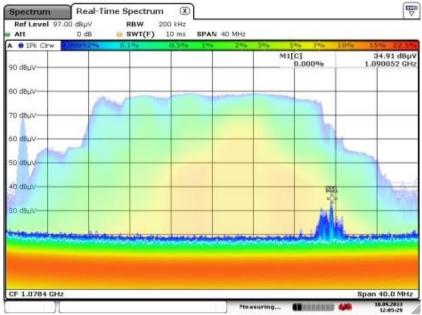
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## Interference case in the field: aeronautical navigation system disturbance



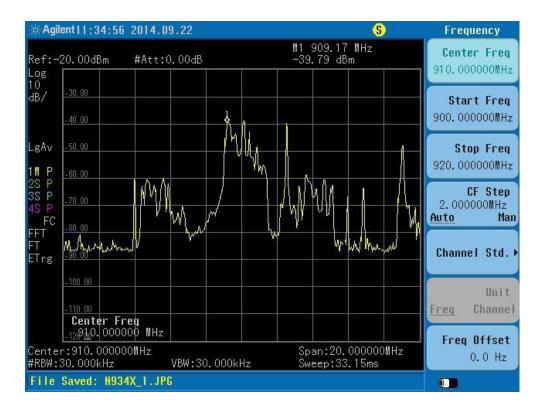


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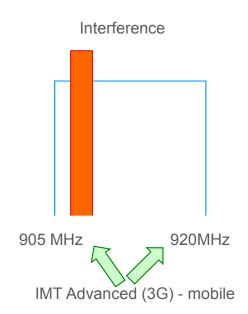


Wireless Camera

## Interference case in the field: interruption on mobile communications



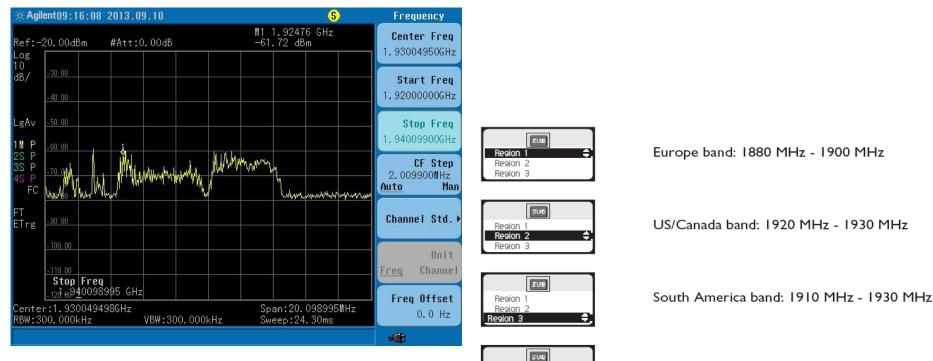
**Electronic baby sitter** 





Unlicensed RF equip

#### Interference case in the field Try to asses the impact to communications in your country having the possible configurations below?



Region 2 Region 3 Region 4

Wireless Phone DECT (European Standard)



Asia band: 1900 MHz - 1920 MHz

### ICT PRODUCTS IMPORTANTION Typical motivations

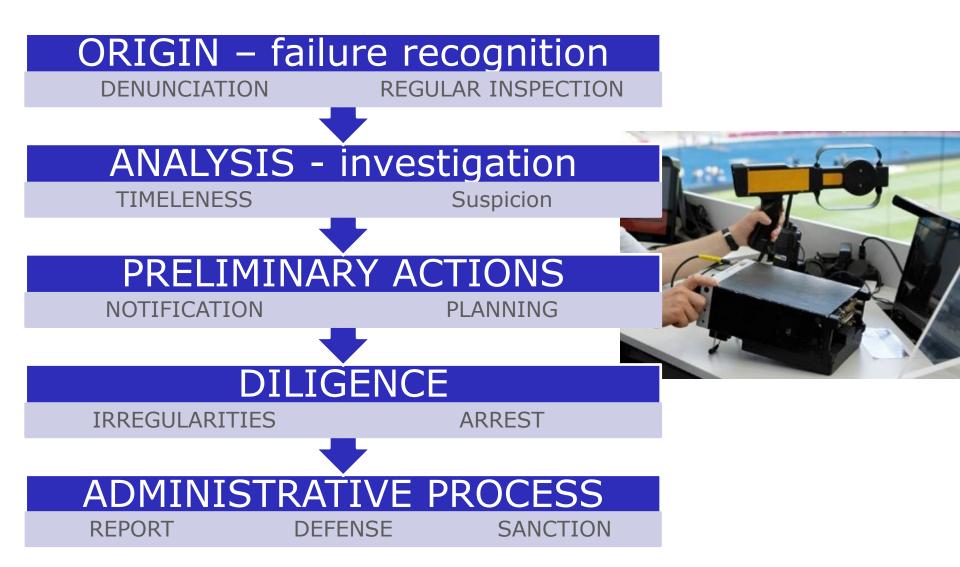


## **CUSTOMS**`Inspection

- 90 % from the incoming products to Brazil are inspected:
  - FEDEX, DHL, UPS, TNT, others.
- Postal inspections in SP, PR and RJ
- Shipping inspections under demand

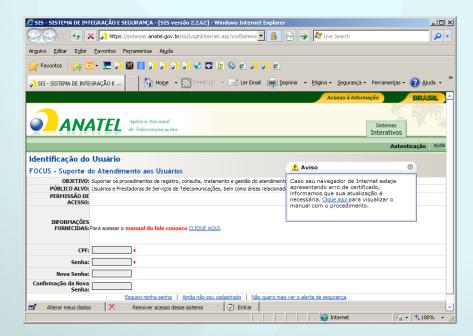


# **ENFORCEMENT** typical workflow



### DENUNCIATION







# Search in the Homologation and Certification Management System (SGCH)

	Acesso à Informação 🔰 🖉 BRASIL
ANATEL	Agéncia Nacional de Telecomunicações Interativos
🖄 Menu Principal 🔻	SGCH »» Consultar Produtos Homologados/Certificados menu ajuda
Consultar Produtos Homol	logados e (ou) Certificados
Essa consulta é limitada a 300	) registros. Para consultas mais específicas, selecione os critérios abaixo.
Tipo de Consulta:	Certificados e Homologados 💌
Nº Certificado:	
Nº Homologação:	
Solicitante:	Todos os Solicitantes
Nome Solicitante:	C Iniciando com C Contendo
Fabricante:	Todos Fabricantes
Nome Fabricante:	C Iniciando com C Contendo
Serviço/Aplicação:	Todos os Serviços
Tipo do Produto:	Todos os Tipos
Palavra-chave Modelo:	
Faixa de Frequências (MHz):	a
Tecnologia:	Nenhum
🖉 Limpar 💆 Confirmar	

http://sistemas.anatel.gov.br/sgch/

#### DILIGENCE

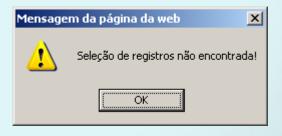


### IRREGULARITIES

#### EQUIPMENT NOT AUTHORIZED

- Homologation process has not started;
- Processing;
- Suspending;
- Divergent model;
- Not trackable;





### IRREGULARITIES

#### NOT HOMOLOGATED EQUIPMENT FOUND OPERATING

- No label
- counterfeited label (Crime)





## IRREGULARITIES

HOMOLOGATED (Authorized)

#### FAUTLS BEARED BY

- Supplier
- Factory
- Label



#### **TECHNICAL ISSUES**

- Configurations, parameters, etc.
- Markings (e.g. Resolution506, cables etc);
- Declarations;
- Requirements (e.g. Espectrum allocation);

### **NOTIFICATION - Agent**

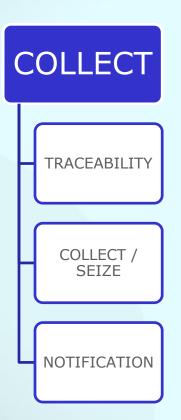
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#### SEIZE



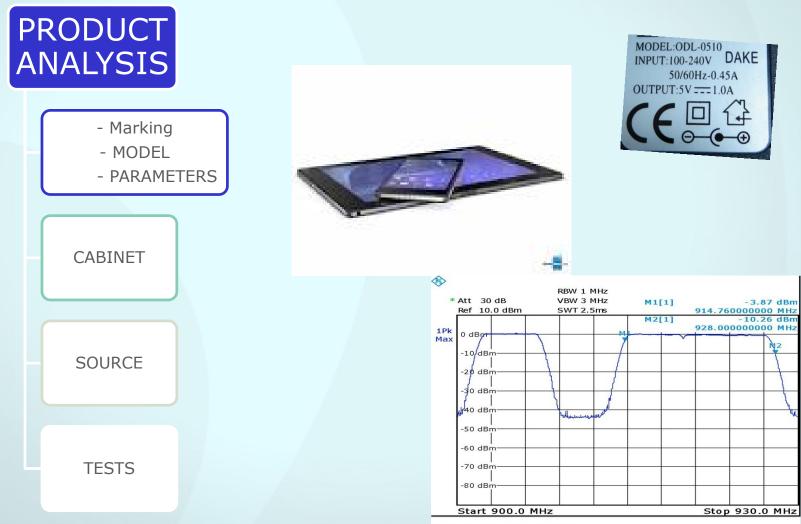
Seal





		Tel :: (11) 2104-6800 - orait cr01.06/manel.gov.br	
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1.3.	Serviço Explorad	Assunto: Reposição de produtos coletados no comércio – Homologação 3538-12-3111	
1.5.	Endereço para C	Senhor (a) Representante,	
	Município Informações Co	<ol> <li>A Agência Nacional de Telecomunicações – Anatel, no Estado de São Paulo, no uso das antibuições conferidas pela Lei nº. 9.472, de 16 de julho de 1997 e pela Resolução nº. 612, de 29 de abril de 2012, e em conformidade com o diploma legal sobre produtos de telecomunicações, Anexo à Resolução nº. 242, de 30, de novembro de 2000, e Anexo à Resolução nº. 323, de 07, de novembro de 2002, vem informar e solicitar:</li> </ol>	
	CONFORMIDA	2. Em atividade de fiscalização, realizada no din 25 de março de 2015 foram coletados Cabos para Transmissito de Dados - Categoria I, modelo: LAN CABLE CAT. ℓ UTP 23AWG(4PRS, homologação 3538-12-3111 deste fabricante, para avaliação da homologação, confidme descrito a seguir:	ALIAÇÃO
- SE	GUNDO INCIS EPOSIÇÃO DO	2.1. Entidade: Camila Ceres Prado Monteiro EPP - CNPJ nº, 04.293.844,0001-29 Material: 1 (uma) caixa de 305 m de cabo para transmissão de dados Nota Fiscal de fornecimento pela Multilaser: 001042485de 11/11/2014 Termo de Identificação: 00225920150054	JSTOS COM LIDADE DO
	BRICANTE OU: REPOSIÇAO D.	2.2. Entudade: A Sonção Elerronica Liña - CNPJ nº, 00.559.915/0001-31 Material: 1 (uma) caixa de 305 m de cabo para transmissão de dados	NATEL.
		3. Assim, nos termos do inciso II, do item 8.3.2 da Resolução nº. 323, solicitamos que sejam repostas sem ónus aos comerciantes descritos acima, 01 (hum) exemplar para cada entidade do Cabo para Transmissión de Dados – Categoria I, modelo: LAN CABLE CAT. 6 UTP 23AWG/4PRS, tendo os mesmos requisitos técnicos descritos no referido Certificado de Homologação Anatel.	
	<b>Identificação do</b> Nome do Agente	<ol> <li>Estamos à disposição para quaisquer esclarecimentos que venha a necessitar, através do telefone (0XX11) 2104-8800 ou na Geréncia Regional da Anatel em São Paulo, sito à Rua Vergueiro, 3073 - Vila Mariana - São Paulo, SP.</li> </ol>	
3.4.	Nome do Agente	Atenciosamente, <i>Harrison Alexandre Regional</i>	

ANATEL Agencia Hacional



Date: 30.NOV.2012 10:35:54

#### LAN CABLE – Aluminum instead of Copper



#### TABLET



MIDIA coverage

#### ROUTER





#### MARKETED

7 errors game; SHIELD? EMC, Safety requirements?