

ITU Regional Workshop for the CIS countries
“Organizational and Technical Development of the ICT”

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COUNTERFEIT DEVICES: IMPACTS ON QUALITY OF SERVICE AND CONSUMER HEALTH

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Mobile Manufacturers Forum

Outline

- About the MMF
- Key Facts
- Health and Safety Implications
- Our Response
- Suggestions

About MMF

International non-profit association with scientific purpose of telecommunications equipment manufacturers with an interest in the safety of mobile or wireless communications, focusing on:

EMF &
Health

EMF & Health

SAR



G A R I
GLOBAL ACCESSIBILITY
REPORTING INITIATIVE



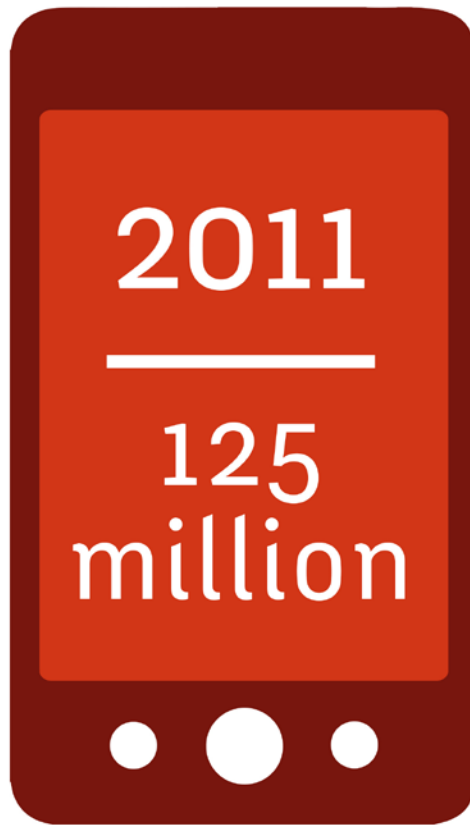
Counterfeit
Devices

MMF Members: Alcatel Mobile Phones, Apple, Cisco, Ericsson, Intel, LG, Microsoft, Motorola Mobility, Motorola Solutions, Samsung, Sony (+ companies participating in one or more of MMF's initiatives)



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Key Facts



counterfeit/substandard
handsets sold globally

WHAT IS THE IMPACT?

\$6 billion
in lost sales
per year

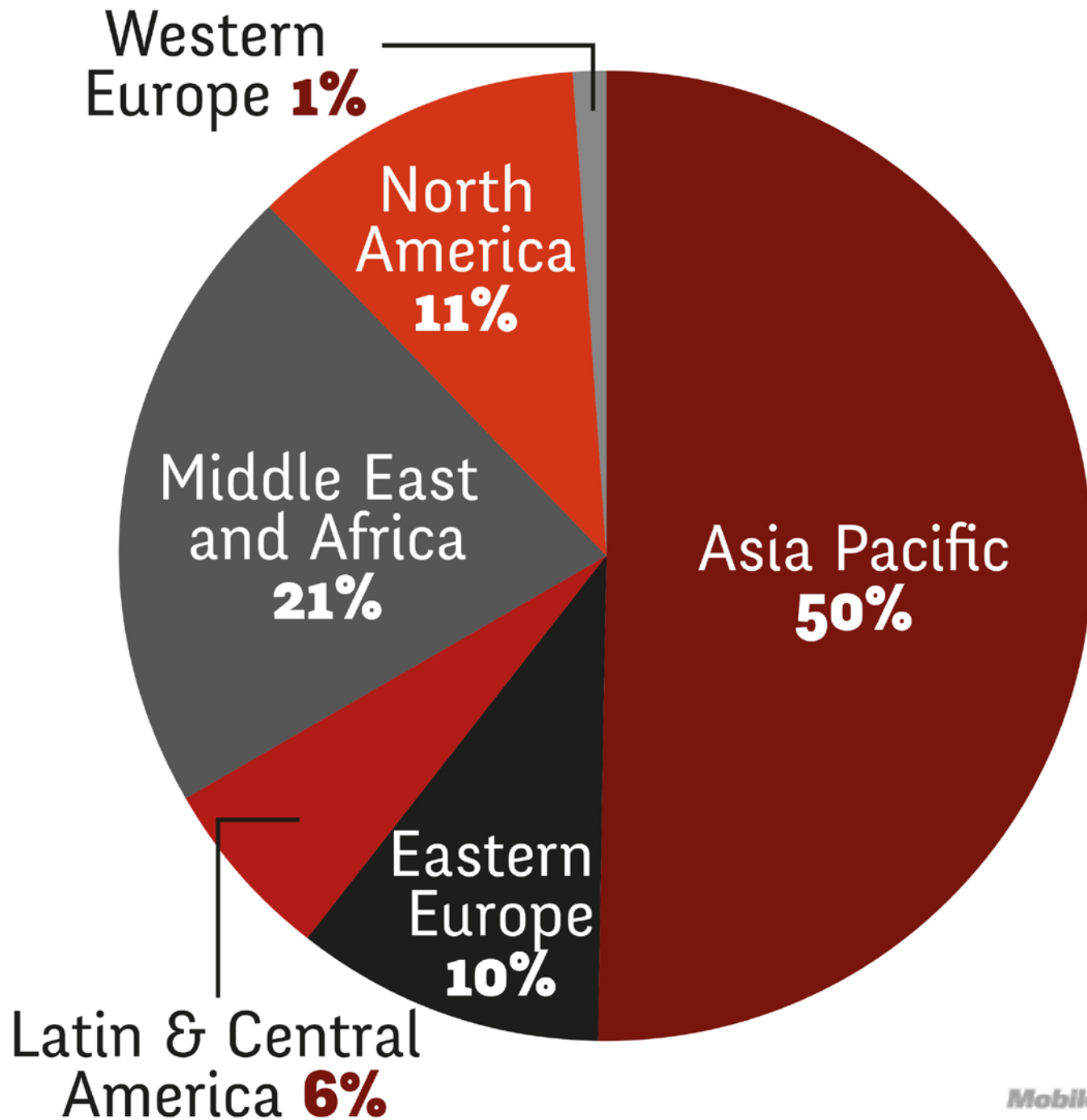


An infographic featuring a red silhouette of India. Two large, downward-pointing grey arrows are overlaid on the map. The left arrow contains the text 'USD\$1.5 billion in lost sales'. The right arrow contains the text 'USD\$545 million in lost taxes'. The word 'INDIA' is written in white capital letters across the center of the red map.

USD\$1.5
billion
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INDIA

USD\$545
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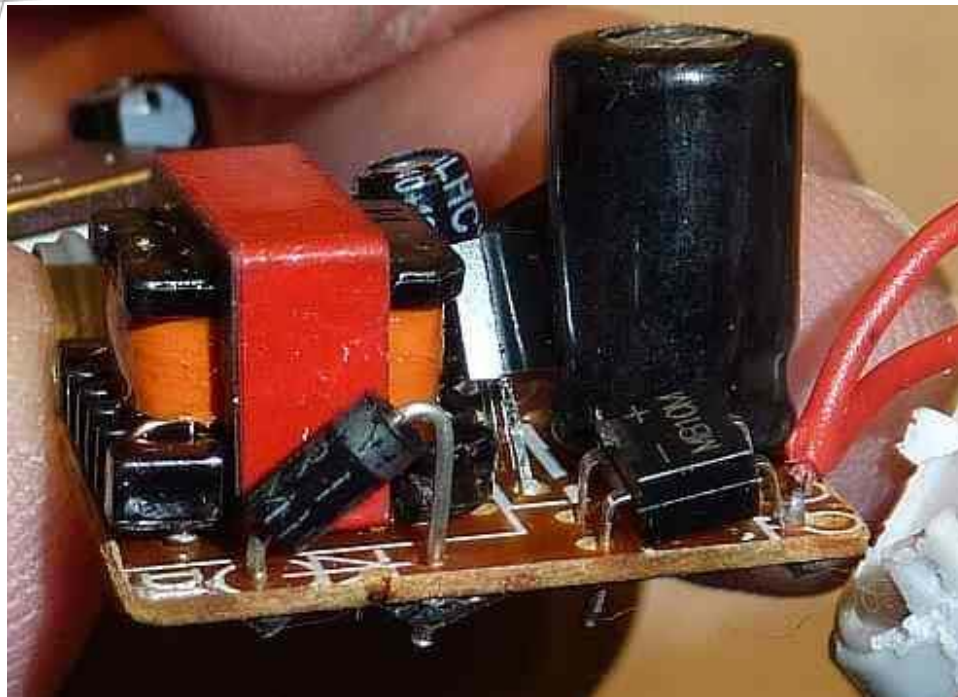




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Health and Safety Implications

Product Safety



- What was found in a **fake charger**:
 - Key safety standards not met
 - Poor soldering and component choices;
 - Broken connections;
 - Poor-quality electrical output

Source: <http://www.edn.com/electronics-blogs/rowe-s-and-columns/4426482/2/Powerless--Fake-iPhone-charger-and-why-you-should-avoid-it>

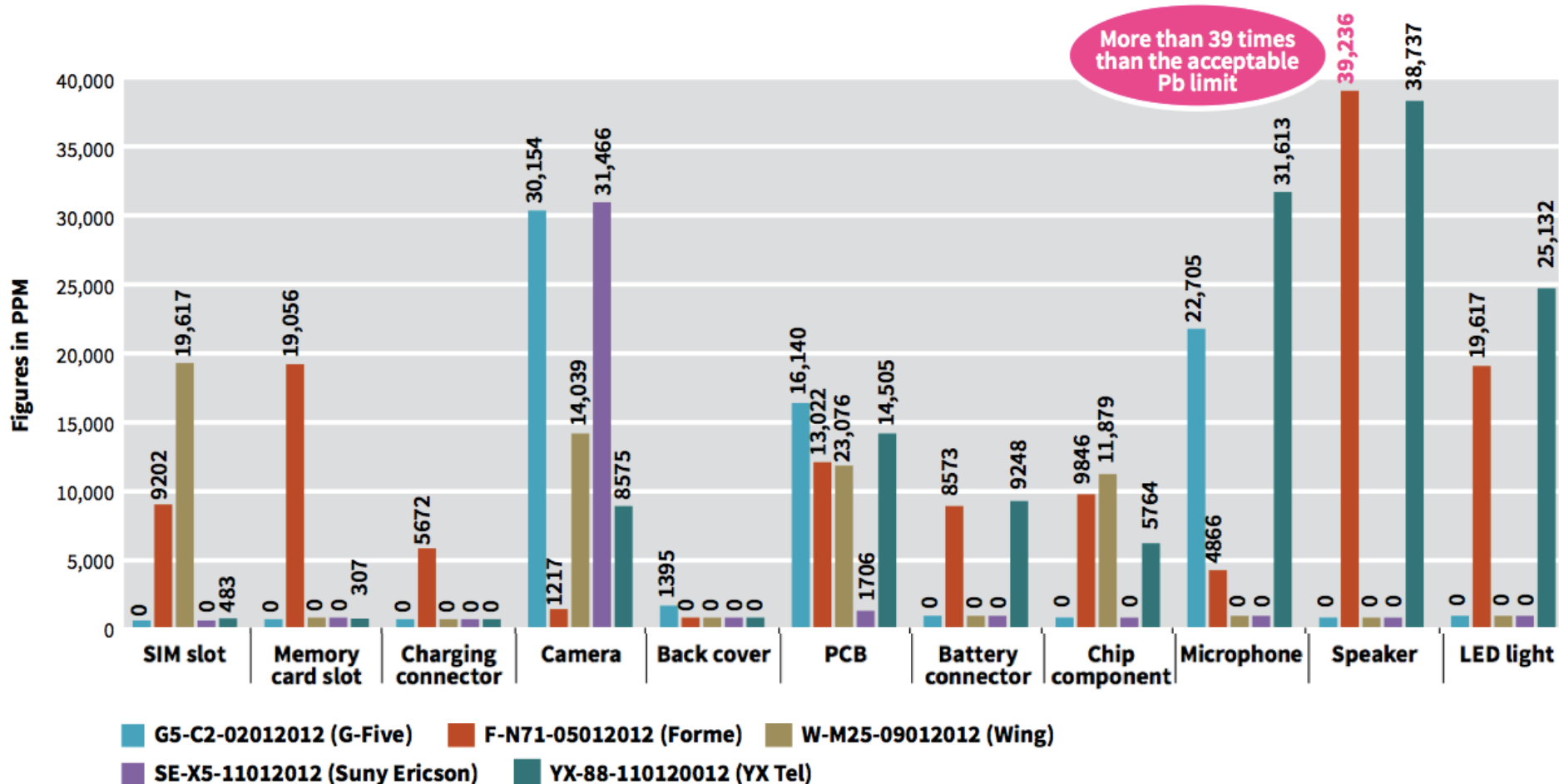
➤ **Potential electrical hazard**

Fake Product, Real Consequences



Hazardous Substances

FIGURE B: High Lead (Pb) content found in all handsets tested - clearly amplifying their substandard character



Personal Safety

- Personal and private information
 - mBanking
 - Health information
 - Contacts
 - Business and personal info/emails
 - Internet of Things

- Smartphone malware increases dramatically
 - In 2011: 472% up
 - 55% of this spyware
 - 44% of this SMS trojans



Figure 6: Consumer attitudes to paying with a phone

48%



of smartphone owners would rather use their phone to pay for goods and services

Source: Ericsson ConsumerLab Analytical Platform, October 2014

Base: 5,024 iPhone/Android smartphone users in Johannesburg, London, Mexico City, Moscow, New York, San Francisco, São Paulo, Shanghai, Sydney, Tokyo



Cisco VNI

**Global Mobile Data Traffic Forecast (2014-2019),
published February 2015**



Visual Networking Index

In February 2015, Cisco released the Cisco® VNI Global Mobile Data Traffic Forecast, 2014–2019. This infographic provides some of the global and regional highlights from the updated study.

Cisco VNI, 2014-2019: Mobile Users Growth, Global



5.2 billion global mobile users by 2019,
up from 4.3 billion in 2014, a CAGR of 4.3%

Cisco VNI, 2014-2019: More Mobile Users



Cisco VNI, 2014-2019: Mobile Connected Devices per capita




 More than 11 billion mobile-connected devices by 2019, approximately 1.5 per capita for the world

Cisco VNI, 2014-2019: Mobile Connected Devices per capita

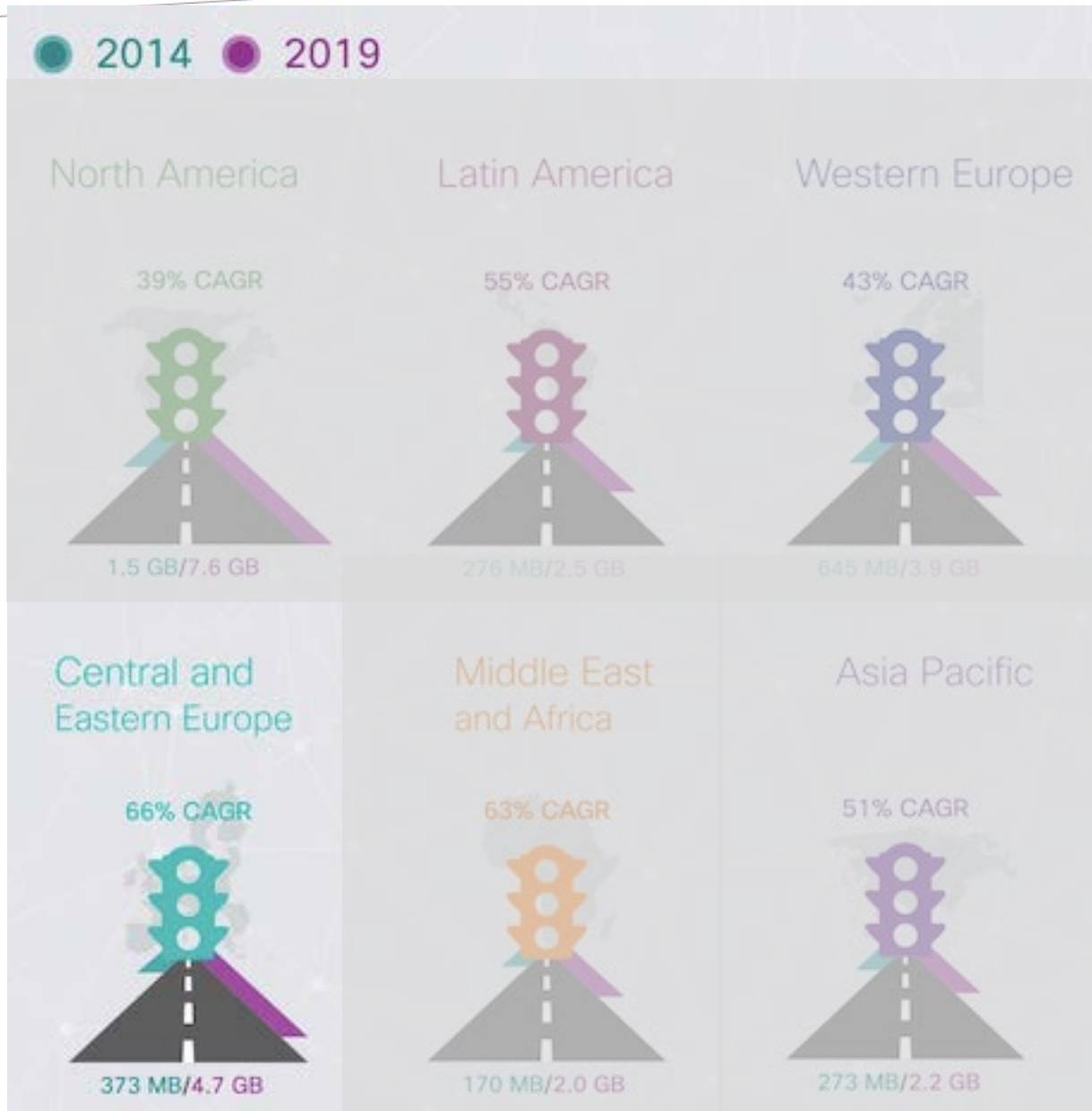


Cisco VNI, 2014-2019: Mobile Traffic Per End-User Connection



 By 2019, the average traffic per mobile-connected end user device will reach 2.8 GB per month, up from 359 MB per month in 2014 (a 51% CAGR).

Cisco VNI, 2014-2019: Mobile Traffic Per End-User Connection



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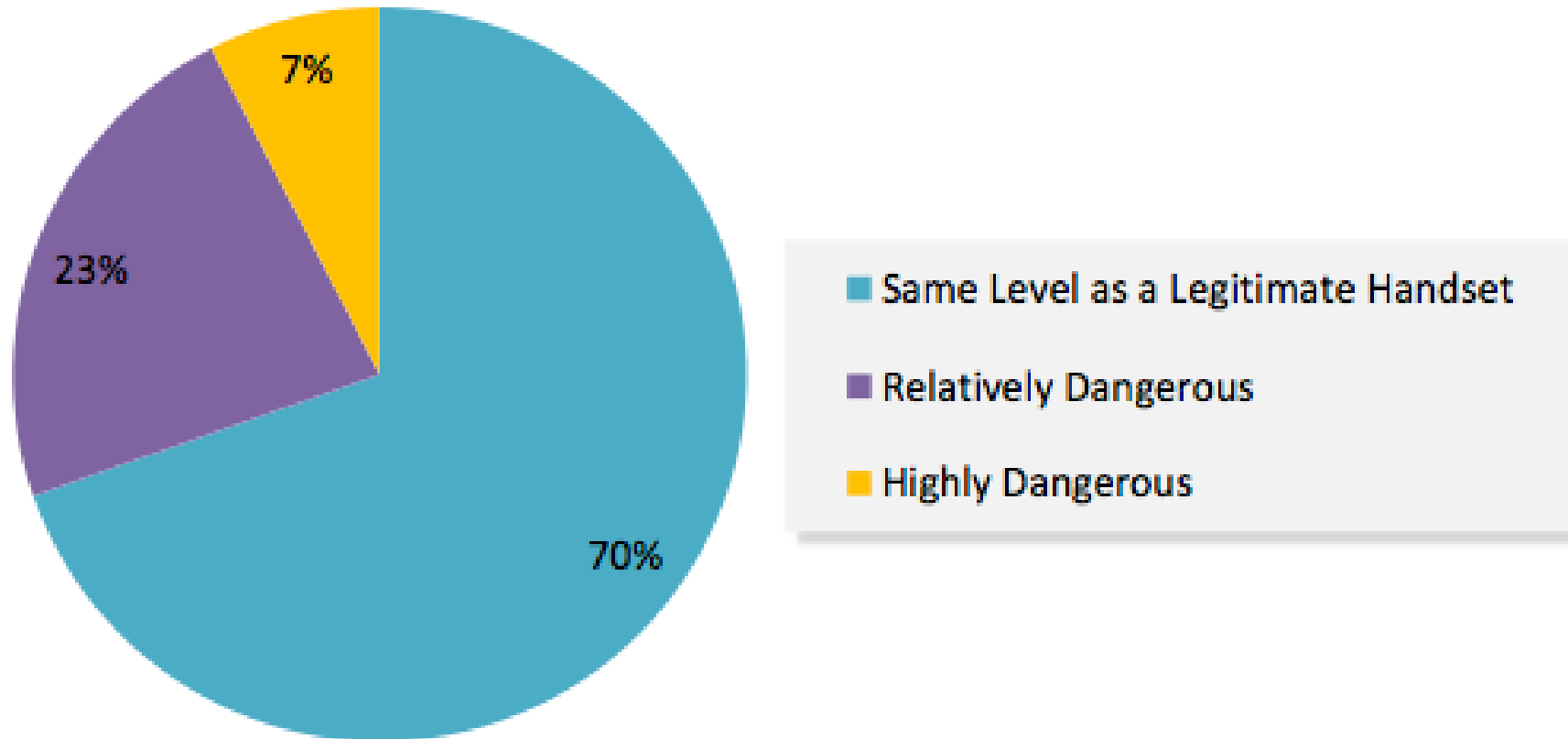


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Our Response

Increase Consumer Awareness

- 70% wrongly believed that the counterfeit devices were of the same quality as the



Scope of Activity

- Work with stakeholders to
 - develop communication campaigns
 - build awareness
 - support reforms in key markets
- Build partnerships
- Engage in institutional collaboration
- Identify and define regulatory best practices
- Propose standards to improve product security
- Research impact and compliance

Communications

- Global & regional communications strategies
- Social media campaigns
- Media briefings
- Fact sheets
- Consumer website:
www.spotafakephone.com

Research

- **Network performance testing** on standard 3GPP testing protocols found significant impact as
 - **Fakes drop 1 in 4 calls**
 - **Fakes delay handover** on average by 41%
 - **Fakes even fail in every 3rd handover**
 - **Fakes operate poorly**, on average at only half the distance away from a base station than an original device
 - **Fakes have limited data speeds** (despite packaging claims)
- **Note: results are important for enhancing QoS**
- **Accredited labs tested EU RoHS compliance and found:**
 - **Too high levels of Lead, Cadmium, Bromine, and Chromium**



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Suggestions

Consumer Education

- Communication strategy (national & regional level)
- **Enable consumers** (manufacturers, operators link to a trustworthy source; Check Your Device)
- Social media campaigns
- Media briefings
- Fact sheets

Data and Resource Pool (e.g.)

- **Definitions** of 'counterfeit' and 'sub-standard'
- **Scale** of the problem
- Assessment of **technical capabilities of mobile networks** to address counterfeit issues
- **On-going initiatives** addressing import, sale and use of counterfeit and sub-standard devices
- Policy actions and **agreements in place**
- **Status quo** of the **regulatory framework**
- **Statement** of what kind of **support** is required and requested to address counterfeit

IMEI

- Consider **black/white listing** of devices
- Consider **device fingerprint**
- Improve IMEI numbering
- Tamper-proof IMEI
- IMEI-related legislation
 - make IMEI re-programming an offence

World Customs Organisation: Interface Public Members

Contact Us: IPM@WCOIPM.ORG +32 22 09 95 02 Rue du Marché 30, B-1210 Brussels, Belgium

 IPM Web Interface



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THE WCO TOOL IN THE FIGHT AGAINST COUNTERFEITING

The [World Customs Organization web and mobile platform](#) allowing rights holders to share relevant product information and the [only global security solution gateway](#) allowing customs officers to verify the authenticity of products online.

[BROCHURE](#)

www.wcoipm.int

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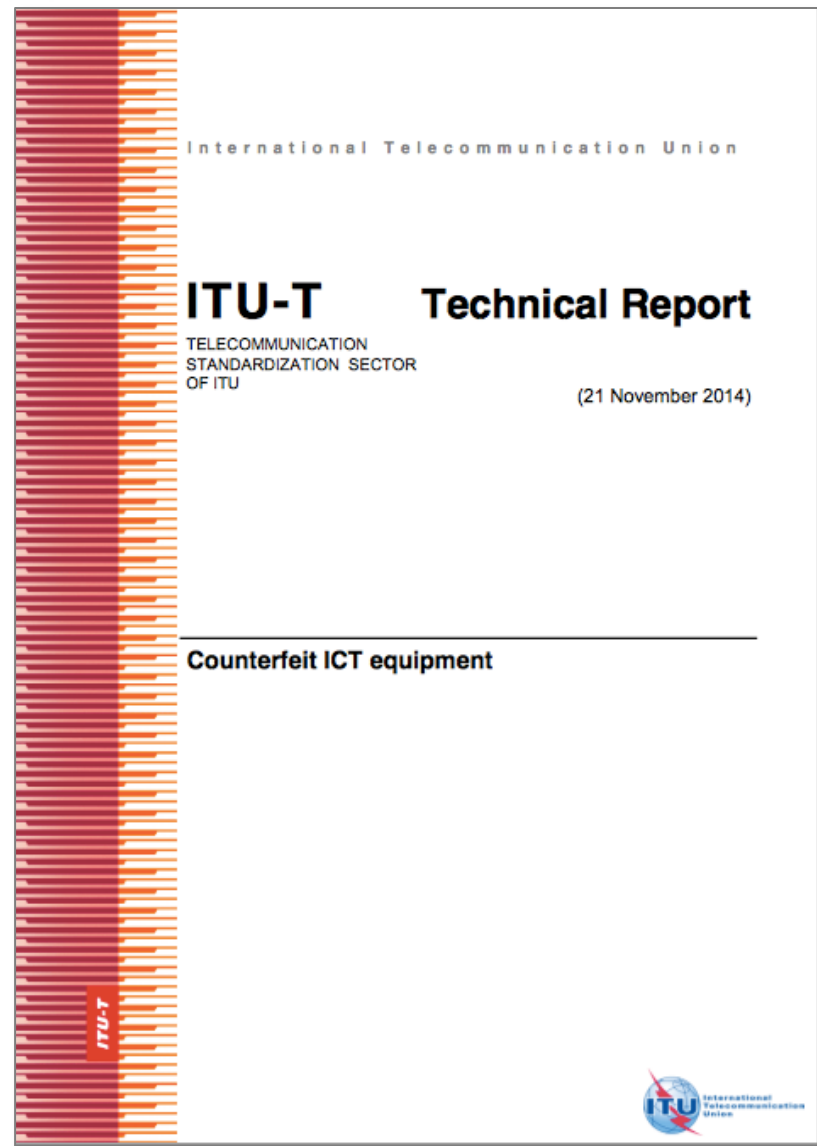


Advantages of IPM: Customs Officers

- ✓ Give instant access to actionable product information
- ✓ Contact and exchange with Rights Holders in real-time
- ✓ Assist in the rapid detection of counterfeit goods
- ✓ Obtain instant product authentication through IPM's network of Security Solutions Providers
- ✓ Provide a real training tool for field officers

www.wcoipm.int

ITU-T Activities



Further Information

Download MMF brochure:
“Counterfeit / Substandard
Mobile Phones – A Resource
Guide for Governments”



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