ITU Conference

"Combating Counterfeit

Using Conformance And Interoperability Solutions"

28 June 2016, Geneva, Switzerland

INDUSTRY COOPERATION TO TACKLE COUNTERFEITING IN MOBILE COMMUNICATIONS

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Mobile Manufacturers Forum

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Outline

- About the MMF and 'Spot-a-fake-phone'
- Key Facts
- What to Prepare for
- Challenges for Manufacturers and Operators
- 'Joint Device Identifier Task Force' (JDIT)

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

SAR

GARI
GLOBAL ACCESSIBILITY REPORTING INITIATIVE

Counterfeit Devices

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

spotafakephone.com

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EN ES PT DE

www.spotafakephone.com

Spot a **Fake** Phone

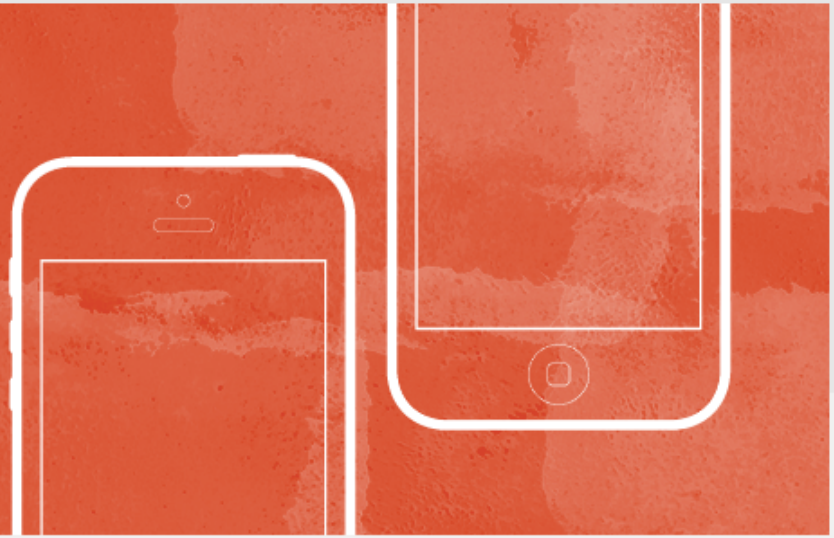
Home How To Tell Why buy Genuine Publications Report a Fake FAQ

Is your mobile phone

COUNTERFEIT?

Counterfeit phones and accessories are a multi-billion dollar business controlled by organized crime. Don't buy into it!

How to Tell



What's so bad about fake phones?

CONSUMER IMPACT

Buying a fake phone can pose a health risk to you and loved ones who use the device. Other drawbacks, such as network disruption and poor product quality makes buying genuine the clear choice.

NATIONAL IMPACT

With counterfeiters evading taxation, many countries are losing a great deal of revenue, including sales and value added taxes as well as various duties and associated government charges.

INDUSTRY IMPACT

Black market phones cost the mobile phone industry billions of dollars in lost sales every year. According to some reports counterfeit black market phones made up around 10 per cent of worldwide sales in 2010.

Learn more

PUBLICATIONS WHO WE ARE Tweets

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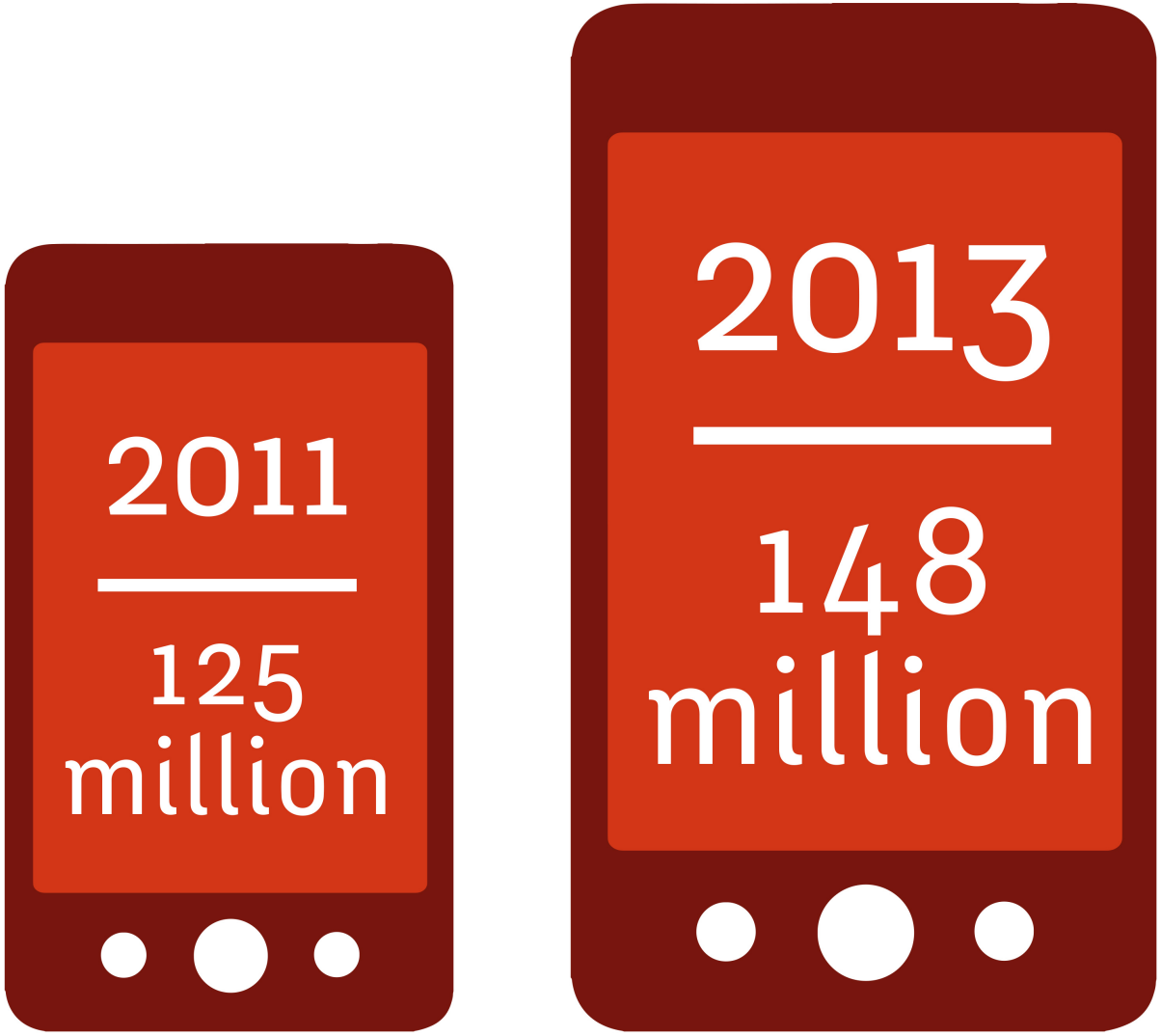
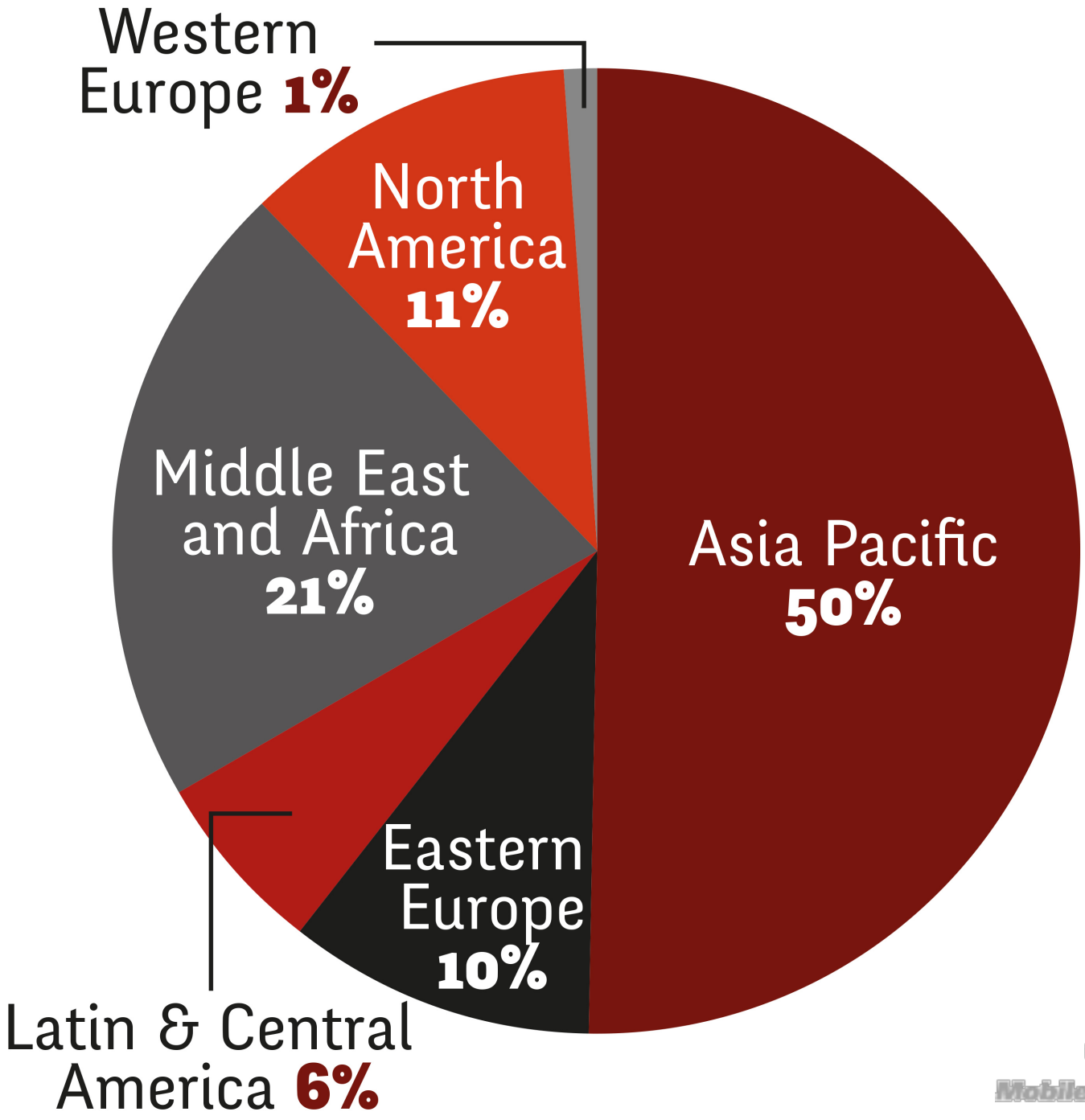
Key Facts



counterfeit/substandard handsets sold globally

WHAT IS THE IMPACT?



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What to Prepare for

Personal Safety

- Protect 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

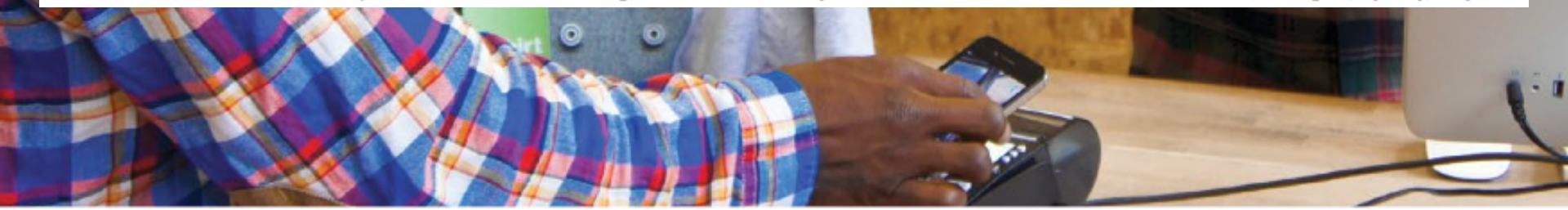
Source: Juniper Networks Global Threat Center

Figure 6: Consumer attitudes to paying with a phone

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

believe that the smartphone will replace their entire purse by 2020

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



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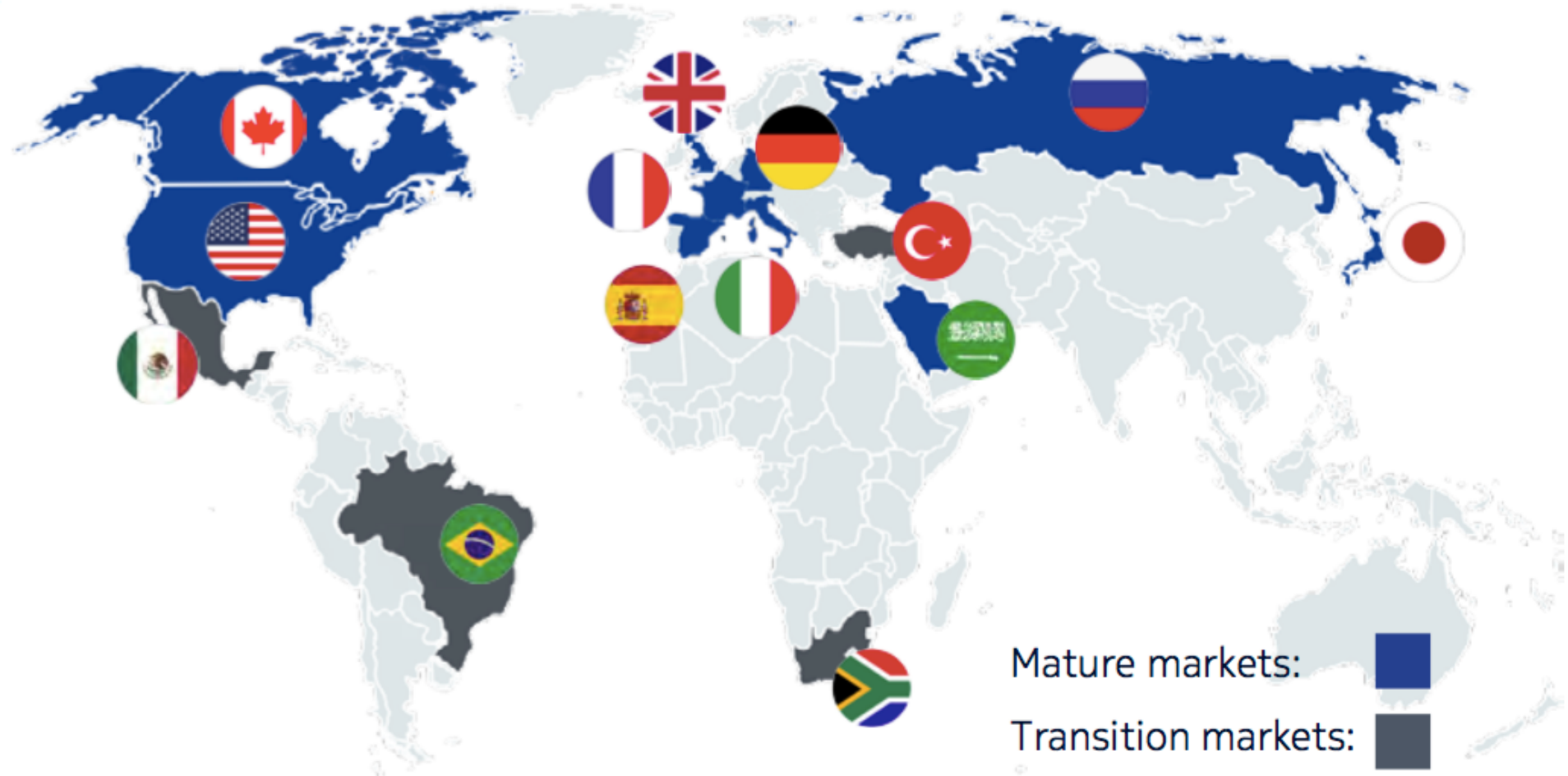
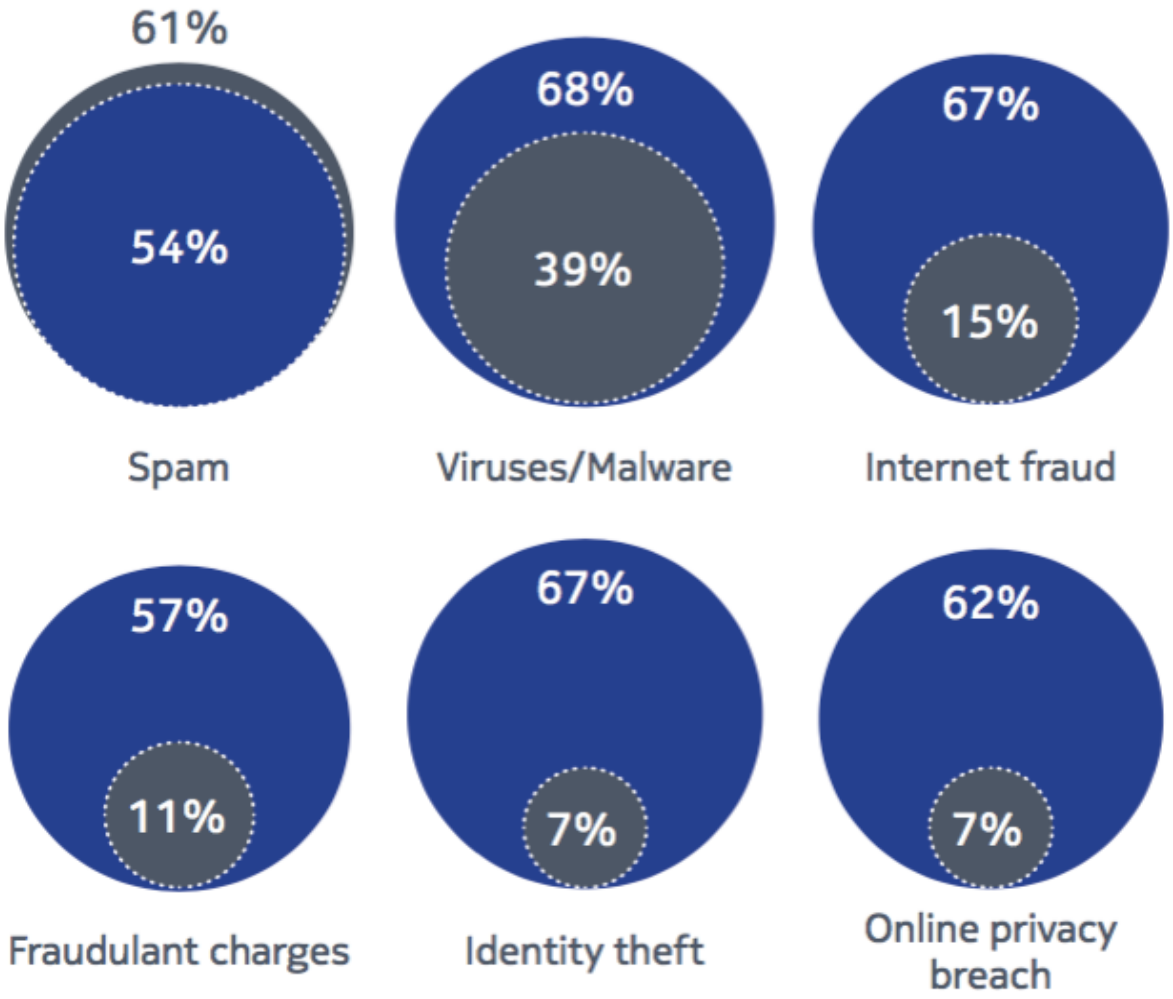
Nokia 2016 Acquisition and Retention Study



20k online respondents, 14 markets, 140 in-depth consumer interviews

Users worry about ...

Concern and personal experience of the security issues
This chart highlights the security threats that consumers globally stated as concerning, overlaid by personal experiences of them.



1. Viruses / Malware
2. Internet fraud
3. Identity theft
4. Online privacy breach
5. Fraudulent charges
6. Spam

Issues consumers are worried about

Issues personally experienced

Acquisition and Retention Study 2016, Nokia

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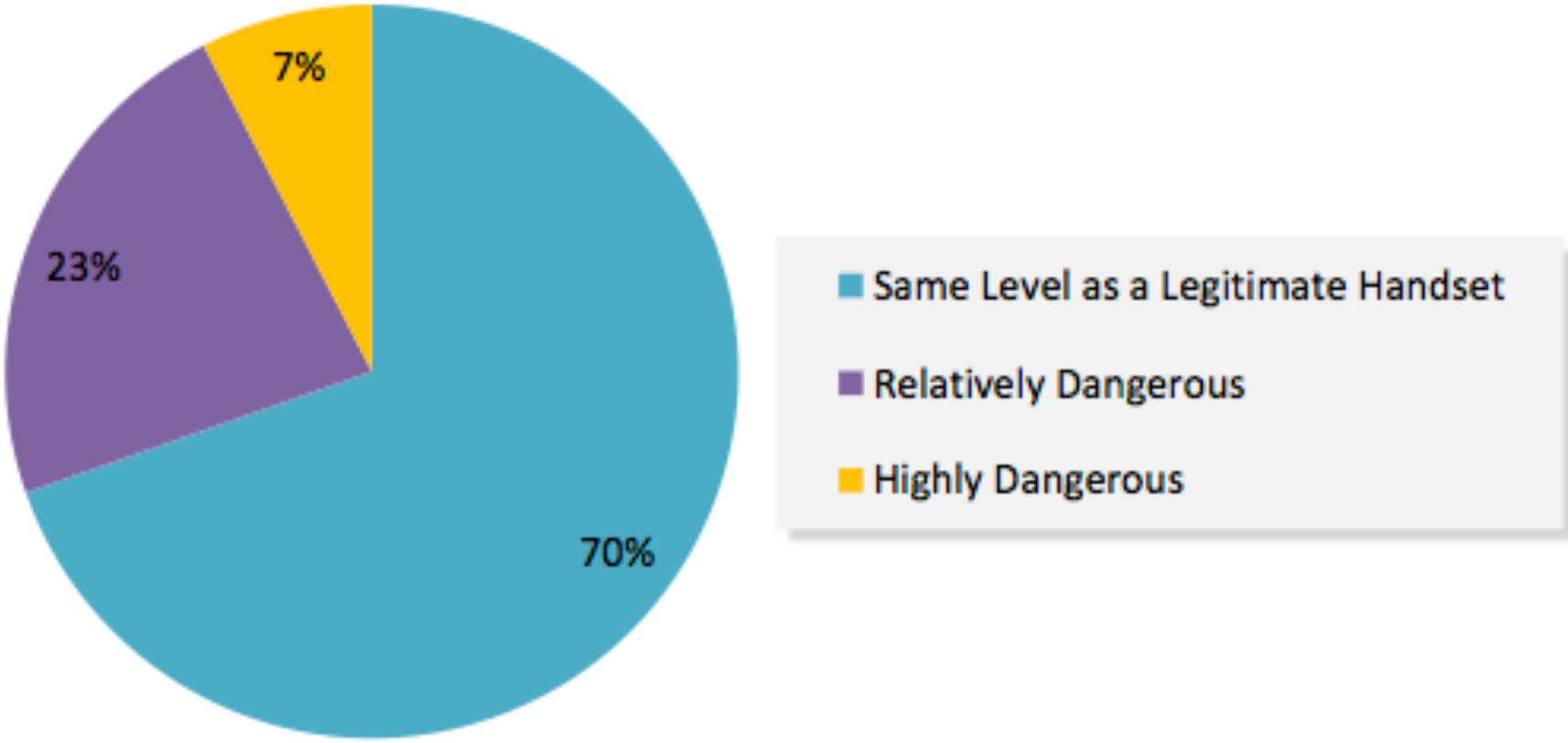
Challenges for Manufacturer and Operators

Increase Consumer Awareness

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



Source: ARCchart

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Encourage Cooperation

- 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

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Policy-Supporting 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

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Policy-Supporting Research

- Counterfeit Phone Purchase Program

  - Objective: obtain and evaluate counterfeit phones to understand risks, sources, and quality of those phones
  - Focused on
    - malware,
    - health & safety,
    - components,
    - performance
  - Two phases: China, non-China
  - Completion: Q1 2015

Counterfeit Phone Purchase Program: Overview

- Phase I:
  - 20 phones (9 counterfeit (CF) 'Windows', 2 refurbished non-CF 'Windows', 9 other 'brands')
  - Focus on China / China production
- Phase II:
  - 6 phones (3 CF phones, 3 refurbished non-CF 'Windows')
  - Focus on non-China (Turkey, The Netherlands, US Customs – China production)
- Testing in phase I + II:
  - malware, UI/physical appearance, compatibility, non-destructive and destructive safety testing

Counterfeit Phone Purchase Program: Malware Testing Results

- 11 out of 20 CF phones contained pre-installed malware, designed to

  - Read, manipulate, or send SMS;
  - Access or manipulate device settings;
  - Make payments or calls, access the Internet;
  - Install apps;
  - Access user data; and
  - Adware

International Telecommunication Union

*FINAL ACTS**

OF THE PLENIPOTENTIARY CONFERENCE
(Busan, 2014)

Decisions and resolutions

Resolution COM 5/4 (Busan, 2014; excerpt)

- Be aware that non-compliant telco / ICT devices should be considered unauthorized for sale and/or activation on telco networks;
- Notice that tampering with unique device identifiers diminishes effectiveness of solutions;
- Prevent or detect the tampering of unique telco / ICT devices identifiers (all membership);
- Formulate appropriate strategies, policies and legislation (governments);
- Encourage participation in industry programs combating counterfeit telco / ICT devices (members states).

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Joint Device Identifier Task Force (JDIT)

JDIT Background

- established by MMF and GSMA
- first face-to-face meeting: April 2016
- to align and drive the industry's management and development of mobile device identifiers
- to promote best practice to optimise the value and use of mobile device identifiers to resolve issues of concern including
  - device identification and verification,
  - service provision,
  - combatting device counterfeiting and theft,
  - increase protection of mobile devices, mobile networks and their users.

JDIT Scope of Work

- Work stream I:
  - Recommendations on current system, processes and engineering implementations
- Work stream II:
  - Studies on strategic issues and longer term solutions to industry needs including new form factors and IoT devices

JDIT's First Priority and Measures

- Mobile device identifiers, their use and administration in the mobile ecosystem
- Measures to work on:
  - consensus building and harmonisation;
  - producing guidance on mobile device identifier formats and their evolution;
  - contributing to the development and maintenance of a harmonised legal framework pertaining to mobile device identifiers ownership, use and revocation;
  - facilitate collaborative industry efforts to combat the counterfeiting and theft of mobile devices; and
  - **liaise with external organisations**.

Further Information

Download MMF brochure:

"Counterfeit / Substandard Mobile Phones – A Resource Guide for Governments"

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