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Thales Overview & Cybersecurity on Critical Infrastructure Protection

April 2018

A.Toaiari

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Gruppo Thales

L'intelligenza di tutti per un mondo più sicuro

Ogni volta che devono essere prese decisioni critiche, Thales ha un ruolo da svolgere. In tutti i mercati - aerospaziale, spazio, trasporti, difesa e sicurezza – **le soluzioni Thales aiutano i clienti a prendere le decisioni giuste al momento giusto**.

Le tecnologia di livello mondiale, l'esperienza combinata di **62.000** dipendenti e le sedi, in **56 paesi**, hanno fatto di Thales **un'azienda chiave nel mantenere la pubblica sicurezza**, il controllo di infrastrutture vitali e la tutela degli interessi di sicurezza nazionale dei paesi di tutto il mondo.

Dipendenti
64,000
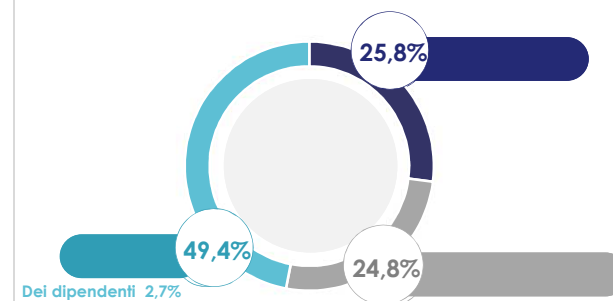
Presenza internazionale
56 paesi

Ricerca e sviluppo
707 milioni di euro

Struttura del fatturato

Defence 50%   Civil 50%

Fatturato nel 2016
14,9 miliardi di euro

Shareholders
(al 31 DICEMBRE 2016)

25,8%

49,4%

24,8%

Dei dipendenti 2,7%

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Businesses

AEROSPACE

SPACE

GROUND TRANSPORTATION

DEFENCE

SECURITY

EACH OF THE MARKETS THAT THALES SERVES PLAYS A VITAL ROLE IN SOCIETY.

Thales operates as a **single organisation**, drawing on the talent and technologies of the entire Group to act as prime contractor, systems integrator, equipment supplier and value-added service provider on both civil and military programmes.

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Thales Italia overwiev

500 PEOPLE

4 SITES

4 BUSINESS AREAS
- Security & Defence
- Transportation
- Air Operations
- Avionics

150M€ REVENUES/YEAR

Vergiate

Gorgonzola

Firenze

Roma

- **mercato della sicurezza**, con competenze nella protezione e sorveglianza d'infrastrutture critiche (aeroporti e siti sensibili) e nella cybersecurity;

- **mercato della difesa**, con competenze nelle reti e nei sistemi di comunicazione;

- **mercato dei trasporti**, con competenze nei sistemi tecnologici per metropolitane, tramvie e ferrovie e nel ticketing;

- **mercato della gestione del traffico aereo**, con competenze nei sistemi di atterraggio, navigazione e sorveglianza.

- **Mercato Avionico**

Rail signalling systems

Military tactical systems

Cyber Security

Critical in Infrastructure protection

Air Traffic Management   Commercial avionics

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Land and Air Systems (LAS)

Thales Italia offer:

> Landing, navigation and control systems

> In flight care systems

> Traditional and satellite navigation systems

> Surveillance systems and airport ground traffic control

- Tacan for USAF, Pakistan, Alenia Aermacchi
- Navaids products for Marshall (UK MOD)
- China – Air traffic management system
- Enav – Air traffic management system
- Air Force (DVOR/DME Gioia del Colle, Tacan upgrade, ILS Mobile, MLS Ghedi)
- ILS "Deployable" for Italian Air Force and USAF

COMPETENCE CENTER

Navaids Solutions

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SIX Domain – Security and Defence activities

Thales Italia offer:

> Security, supervision, control and information management systems for sensitive and critical infrastructures (ports, airports, oil&gas infrastructures, roads)

> Products, solutions and services for cybersecurity

> Infrastructural and tactical telecommunication systems and networks

- ◆ Dubai Airport T3 C2/C3 - Integrated security solution
- ◆ Lyon Airport & JFK NY – AOCC
- ◆ Oman and Bahrain Airports – Integrated security
- ◆ Agip Kashagan - O&G security
- ◆ ENI Zubair Iraq –O&G security
- ◆ Poste and ENAV Pysical Security
- ◆ RIFON and RNI MOD networks and Services
- ◆ Enteprise & Institutional customers (incuding MoD)– Secure info & trust mgmt. & Cybersecurity consulting
- ◆ CBRN vehicles and labs for MOD
- ◆ MOI security networks

MAIN COMPETENCES

- Airports Security & Operations
- Critical Infrastructure Protection
- Cybersecurity
- MoD Networks and Systems

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Critical Information Systems and Cybersecurity

A complete range of solutions…

Critical Systems and Software Services

Cybersecurity Technologies and Solutions

Thales e-Security

Cybersecurity Consulting and Evaluation

Critical IT Outsourcing

Cybersecurity Operation

… for end-to-end data security

March 2017
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Ground Transportation Systems (GTS)

Thales Italia offer:

> Tramway and railway signalling

> Security, supervision, control and information management systems for transportation infrastructures

> Contactless solutions for integrated fare systems

> Tunnel Security

> Telecommunication , Passengers information , SCADA , TVCC , onboard systems

> Assets Security and Energy saving

- ◆ Dubai Metro Green and Red Line - Telecom and Security system

- ◆ Metro Cairo L3 – Telecom and Security system

- ◆ Lusail LRT – Ticketing for tramway lines

- ◆ Catania-Circumetnea Metro Line –Security and signalling systems

- ◆ Palermo - tramway system

- ◆ Taiwan – Danhai Tramway Line

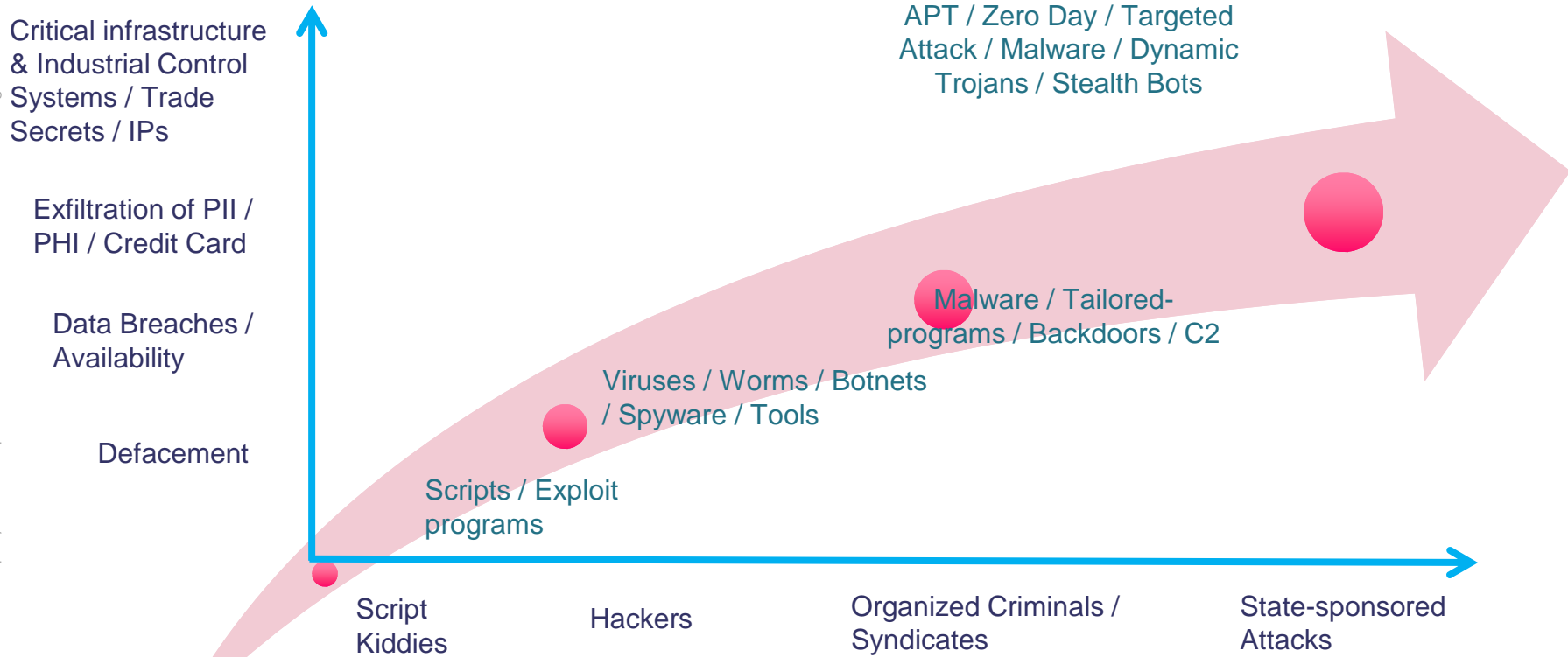- ◆ Mexico – Ticketing system for BRT Line 6

COMPETENCE CENTERS

- Tramway Solutions

- Ticketing Solutions

- Rail, metro and tunnel infrastructure protection

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Cyber Security Landscape – Sophistication of Attacks

Critical infrastructure & Industrial Control Systems / Trade Secrets / IPs

APT / Zero Day / Targeted Attack / Malware / Dynamic Trojans / Stealth Bots

Exfiltration of PII / PHI / Credit Card

Malware / Tailored-programs / Backdoors / C2

Data Breaches / Availability

Viruses / Worms / Botnets / Spyware / Tools

Defacement

Scripts / Exploit programs

Script Kiddies

Hackers

Organized Criminals / Syndicates

State-sponsored Attacks

The chessboard for hackers has changed: evolving from private and individual targets, now to threatening government and national critical infrastructure on a global scale

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Threats We are Facing Every Day

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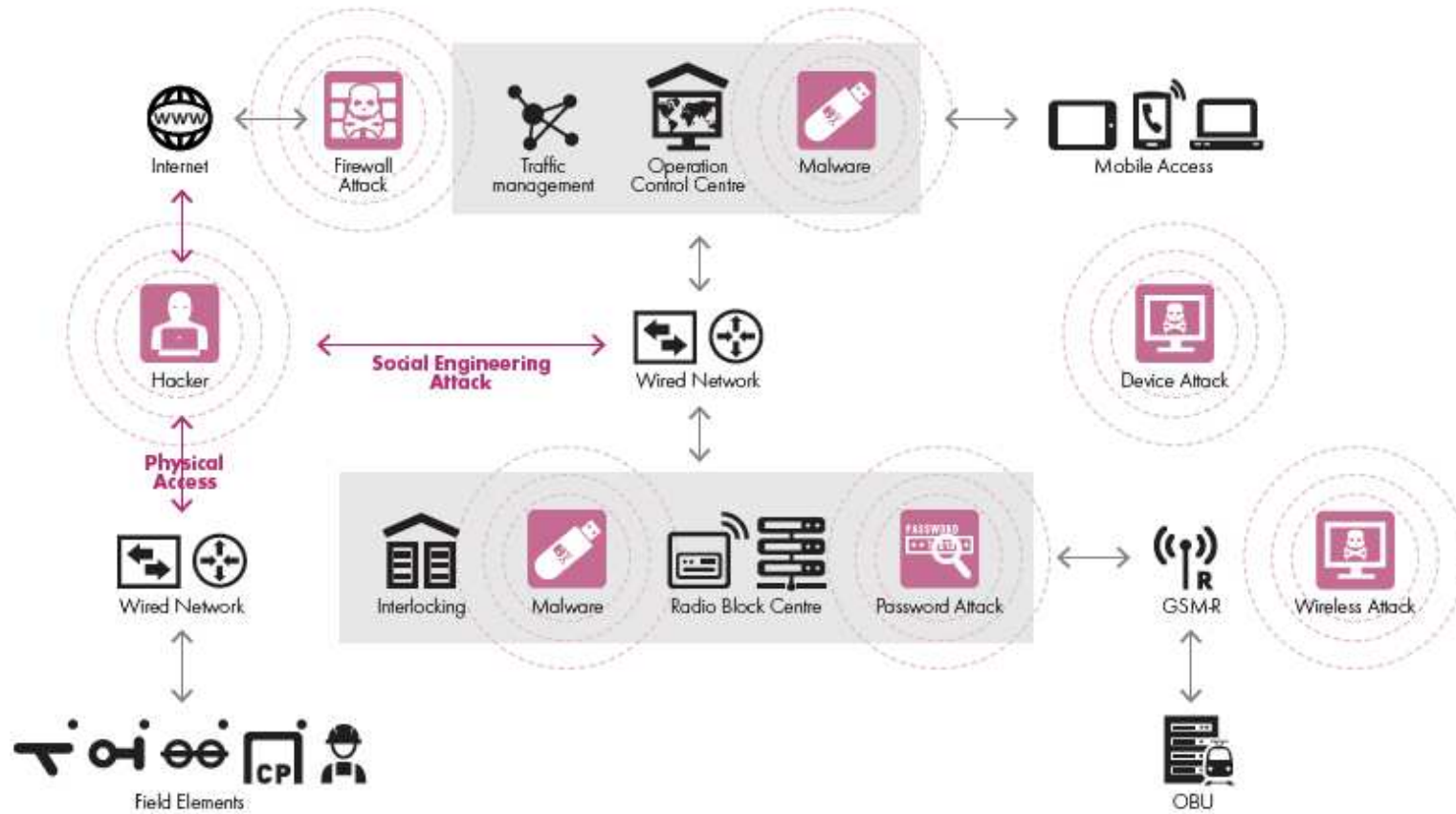
Project Honeytrain

Lasted for 6 weeks
2,745,267 attacks.

Hacking the railway

⊙ 30th May 2017

☰ Rail News, Technology

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Our 3 Cyber Security Pillars

- Hierarchical deployment of different **levels of Security** controls
- Implemented through design (**secure by design**) and operations
- A **single failure** (equipment, human) would **not propagate** to subsequent levels
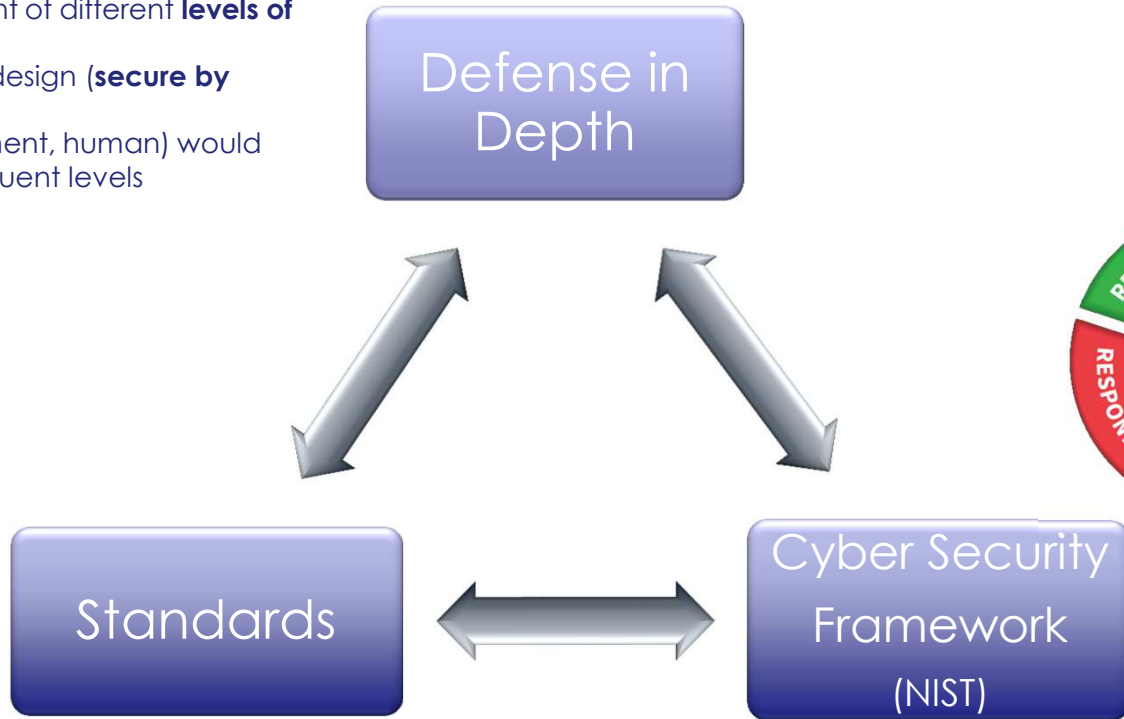
- IEC 62443
- Common Criteria
- FIPS 140
- ISO 2700x (ISMS related)

Defense in Depth

Standards

Cyber Security Framework

(NIST)

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