



EuroCPS

Cyber-Physical Systems



Exa Informatics

EuroCPS

Smart Anything Everywhere (SAE)

13th June 2016

Brussels



exa
informatics

- UK based SME
- Spin out from STFC (www.stfc.ac.uk)
 - UK national research lab into physics
 - National HPC and Future Computing facility
 - Scientific Computing Centre/Hartree Centre
- Expertise in
 - Cyber security/Trust
 - Edge computing
 - Internet of Things (IoT) - Smart Cities
 - Variety of Data (Risk Based) Analysis

- Provide user driven data filtering to support data privacy in Smart Cities

- Home
- Office
- Public Spaces

CATAPULT
Digital

- EuroCPS Project Partners

- Digital Catapult (<https://digital.catapult.org.uk/>)
- Intel, Dublin (<https://www.siliconrepublic.com/machines/intel-to-turn-dublin-into-worlds-first-internet-of-things-city>)



IBT³ = Innovation Branding through Trusted IoT

Motivation for the project

- Smart City Applications often rely on personal data
 - Often collected with minimal consent
 - Has value but has privacy challenges
- Reputation of space owners at risk & growing lack of trust
 - Little understanding of emerging tech (focus on brick and mortar)
 - Often application designers miss threats to privacy
- Large market potential
 - Big money in big data
- New EU Regulation

18 SEP 2015 NEWS Brits Trust NHS on Data Privacy but Not IoT Firms



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Most UK consumers trust their GP to keep healthcare data private, but they wouldn't want IoT data to be shared or stored with other third parties, according to KMPG.



The consultancy polled 1000 UK adults and found that almost three-quarters (74%) would be happy to have data from health monitoring wearables such as fitness bands report back to their GP.

Nearly half (48%) claimed they were fine with their medical records being added into a single

Protecting your enterprise
from threats you can't see
requires unified
security intelligence.



- Product to give **Control** over data to user
 - Share all detected data
 - User sets policies
- Enable Organisations to **trust** Smart City Apps
 - Sets policy bounds for platform
 - Enables protection of reputation
- To allow for System **Compliance**
 - Platform open to third party audit

- Focus on Wi-Fi probe requests for data
 - No integration with existing infrastructure required
 - Large volumes of data
 - Can be highly personal and present shock to user
- Initial product demo at Hannover Fair
 - Followed up with demo at Digital Catapult Trust and Consent event
 - Planned trial at the Digital Catapult

11:37:03.556118 253060504us tsft short preamble 12.0 Mb/s 2412 MHz 11g -60dB signal antenna 0
BSSID:Broadcast DA:Broadcast SA:08:70:45:73:f1:89 (oui Unknown) Probe Request (**Hotel Golden Tulip**) [1.0 2.0 5.5 11.0 Mbit]

- New EU Regulation will boost market demand
- Very large potential market
- Product can work with People and/or Sensors
- Future features, subject to funding, to include ability to audit
- Catapult
 - Strong support in gaining access to customers/industrial partners
- Intel
 - Highlighted technical limitations with Edison platform
 - Integrated & compared platform with other devices
 - Given them insights not previously available

CATAPULT
Digital

