



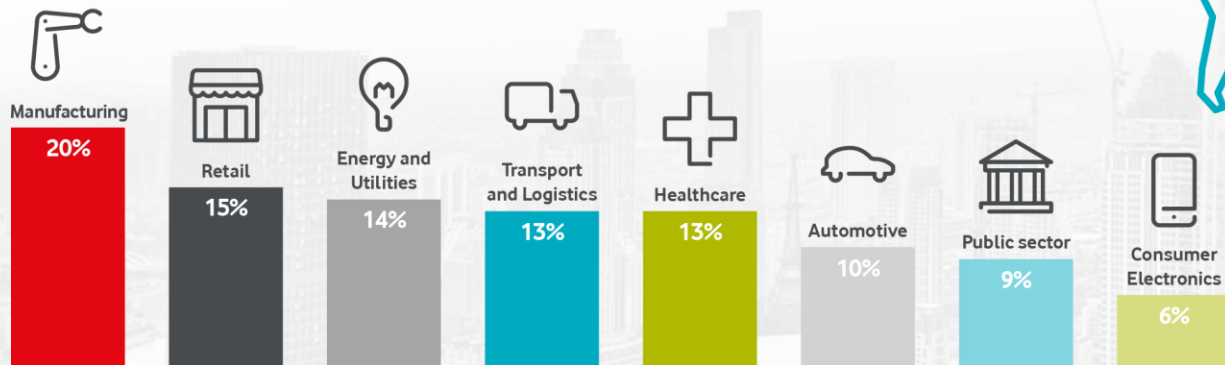
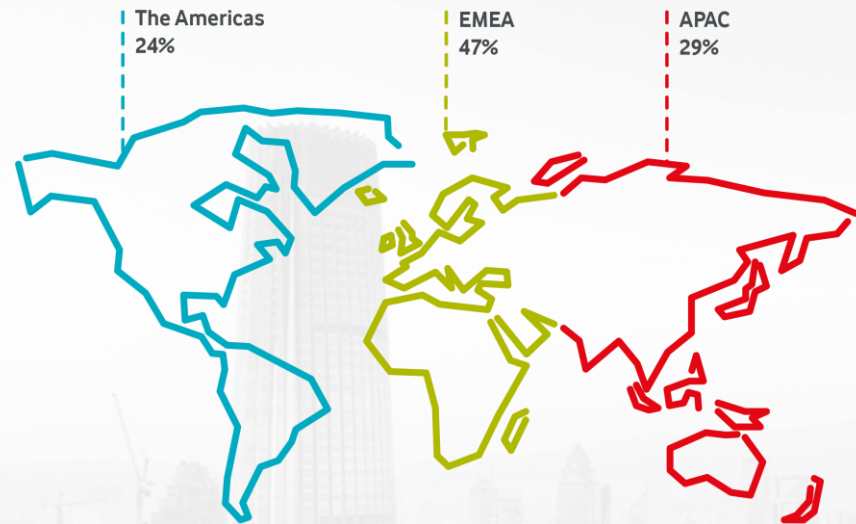
**Vodafone IoT
Are you Ready?**

Presented by Cristina Izquierdo
26/10/2017



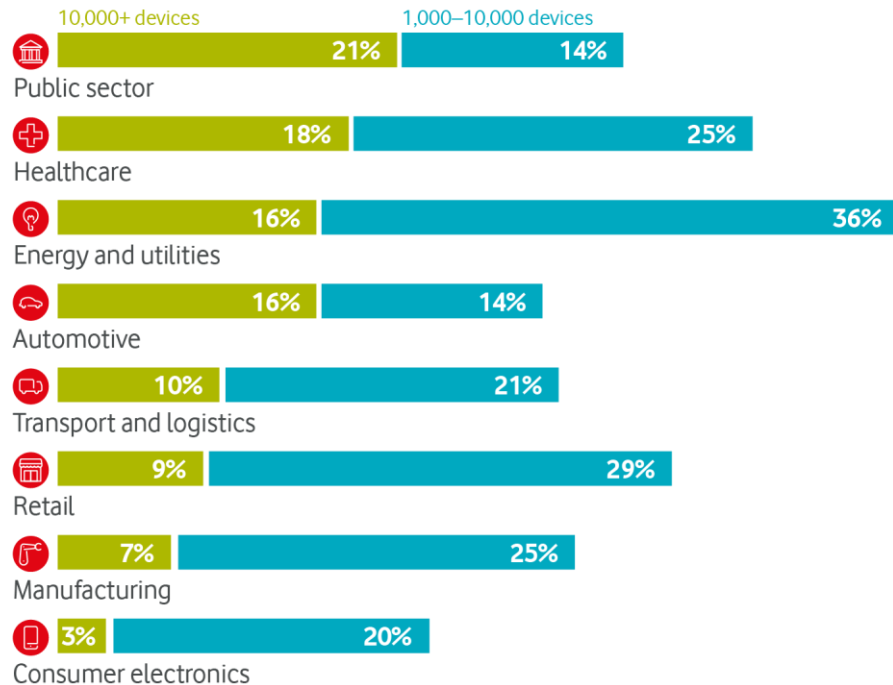
About the IoT Barometer 2017/18

- Fifth year conducted
- Global survey: 1,278 responses
- Independent research conducted by Circle Research
- Insight from leading analyst



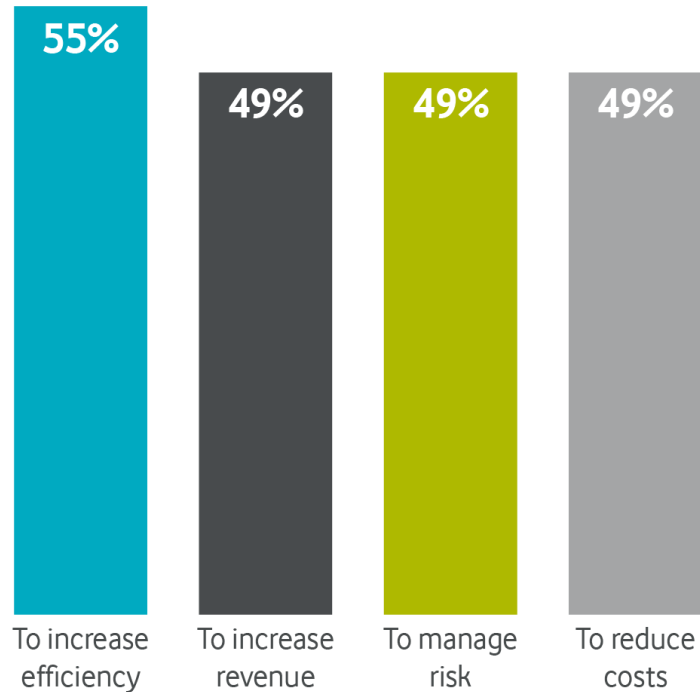
Organisations using IoT are doing more of it

- 84% of adopters agree that “Our adoption/use of IoT solutions has grown in the last 12 months.”
- 12% of adopters now have at least 10,000 connected devices.
- The share with over 50,000 connected devices has doubled, from 3% to 6%.

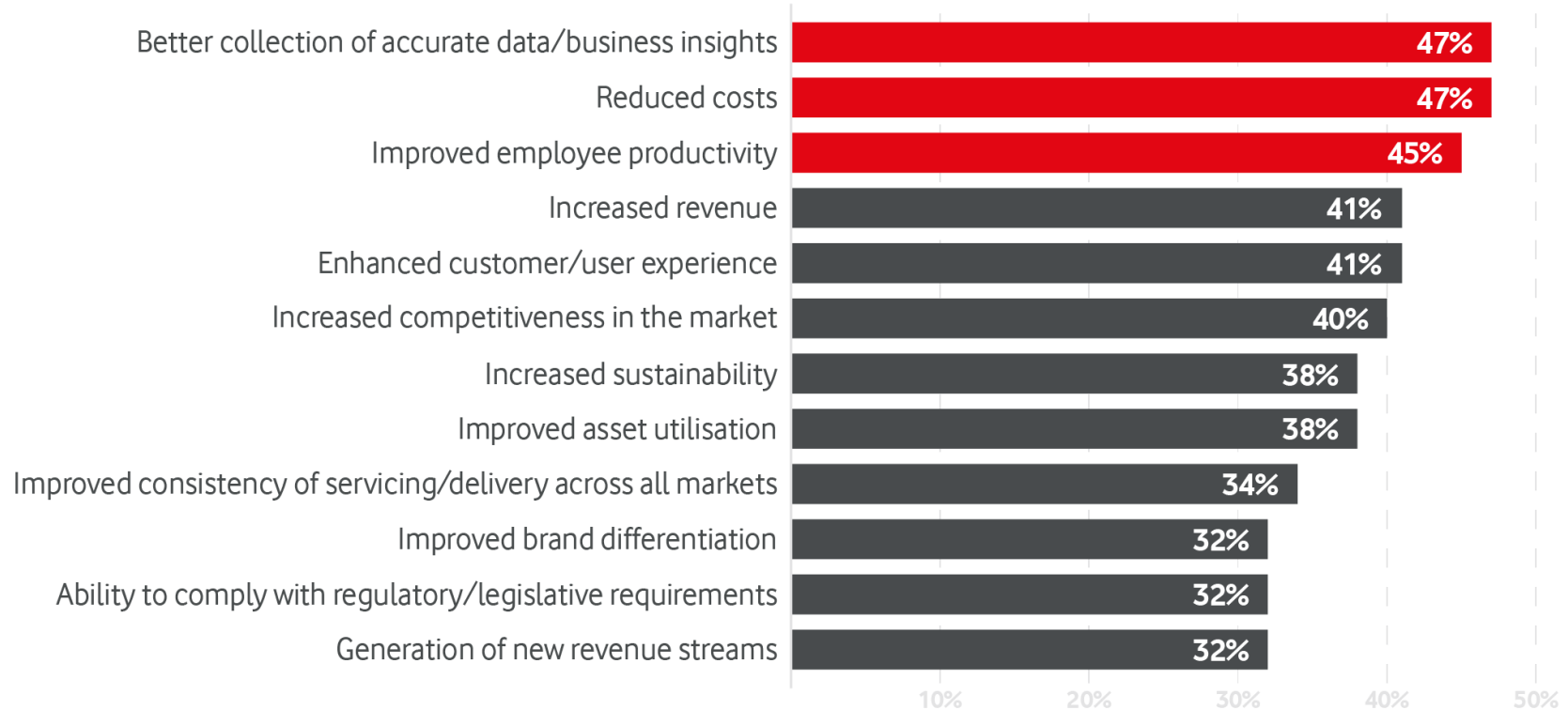


Adopters are looking to IoT to deliver benefits business-wide

- Adopters are using IoT to cut costs, reduce risk and increase revenue.
- But the main focus is on increasing efficiency (55% of adopters).



Adopters report a wide range of benefits



Vodafone IoT Barometer 2017/18

Download the full report from:

<http://iot-mktg.vodafone.com/barometer2017>



Vodafone and the IoT

1,400
IoT
profession
als

54m
IoT
connection
s

+44%
average data
usage

800,000
Automotive
Telematics
Subscriptions

20%
Average YoY
revenue growth

#1
Rated by
Industry
Analysts

Over **300**
new customers
Each week



Enterprises
need
support
to digitalise
their
business



From this...



To this...



Networks must adapt

From IoT on consumer network

- Best efforts
- Consumer based
- Low priority
- Local and unmanaged

To IoT on a dedicated network

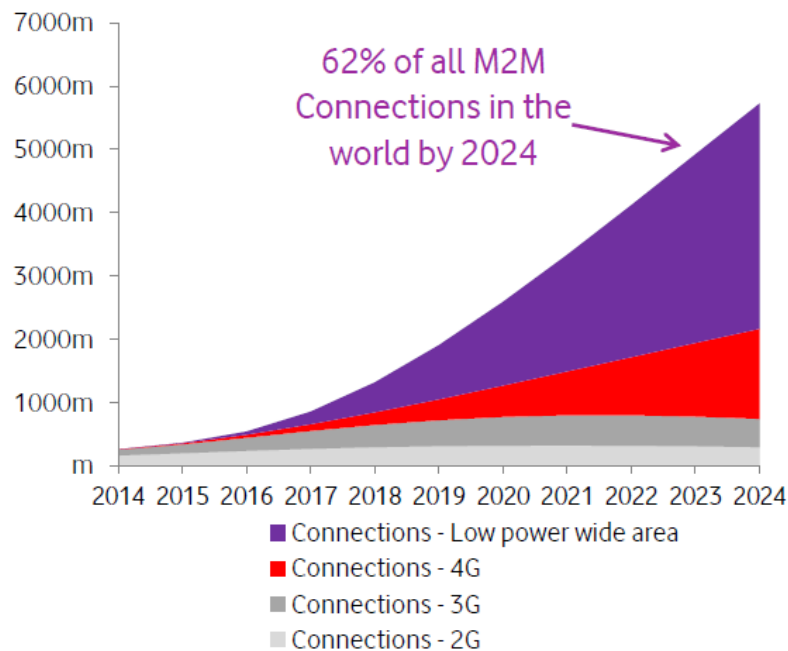
- Machine critical
- Predictable
- Performance
- Availability
- Manage
- Platform



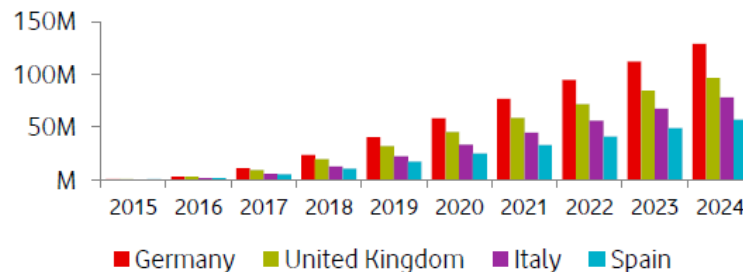
Analyst view

Machina Research Forecasts

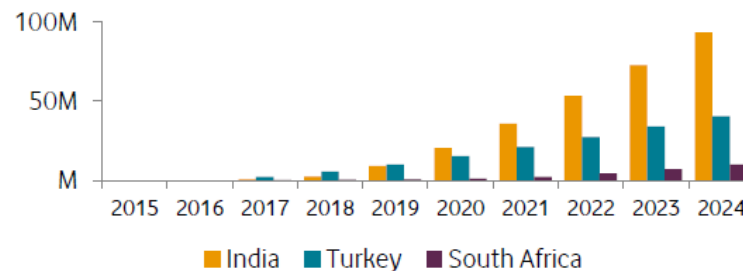
Global M2M Connections



LPWA Connections in EU4

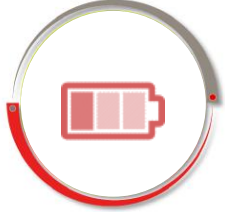


LPWA Connections in AMAP3



NBIOT

NB-IoT is a Low Power Wide Area wireless network technology is specifically for connecting devices with low bandwidth requirements, using low power whilst providing increased penetration using LTE and licenced spectrum. Many millions of devices will be connected via LPWA.



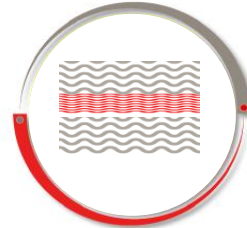
**10+ Years
Battery Life**



**Deep
Penetration**



**Mass
Deployment**

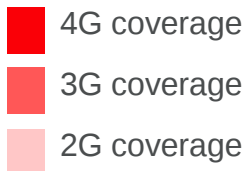


**Low
Bandwidth**



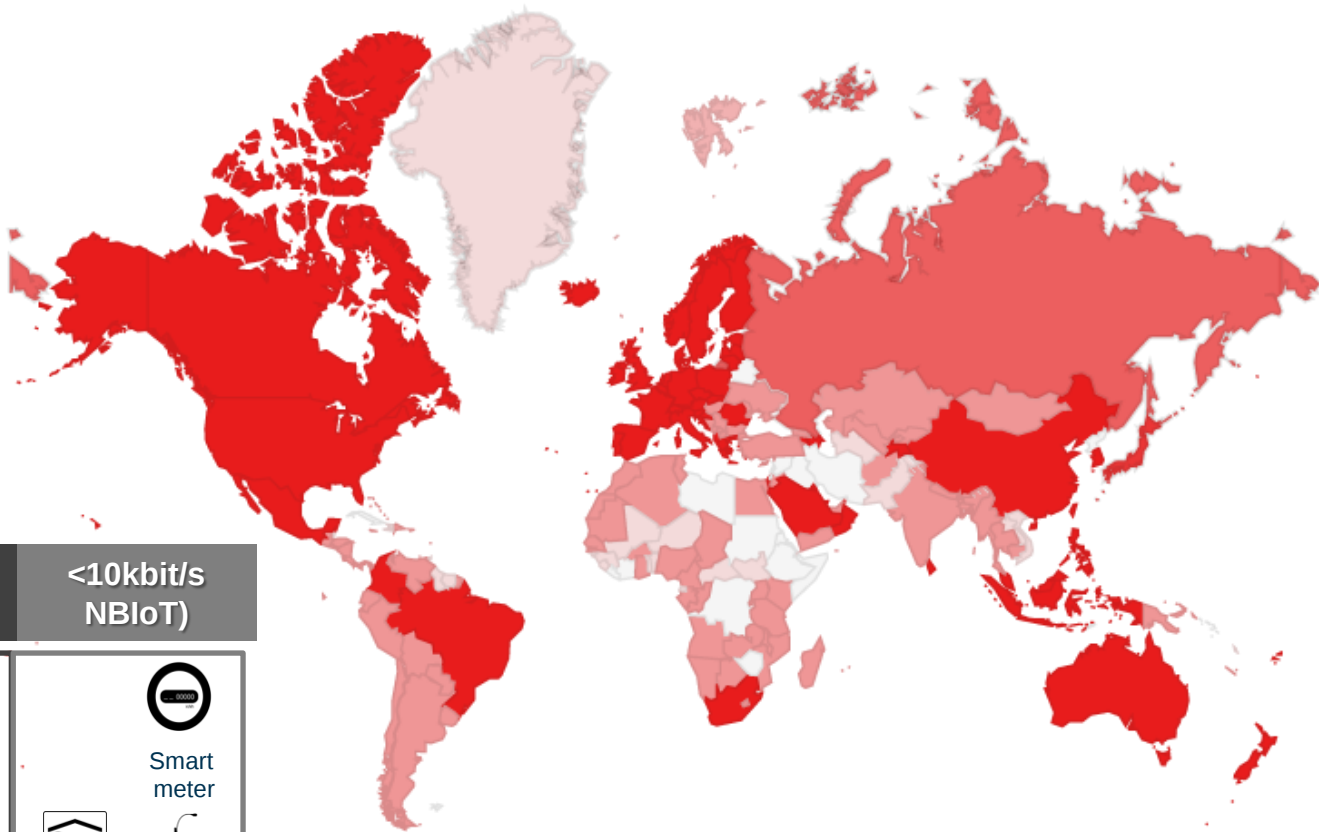
**Device
Cost**





De 2018-2020

- NBIoT
- Satellite



1Mbit/s+ (5G-4G-3G)	~100kbit/s (2G)	<10kbit/s NBIoT)
 SmartConnected phone car  CCTV	 SmartSmart grid watch  object tracking	 Smart meter  Smart parking street lights



Vodafone Equity and Brand footprint

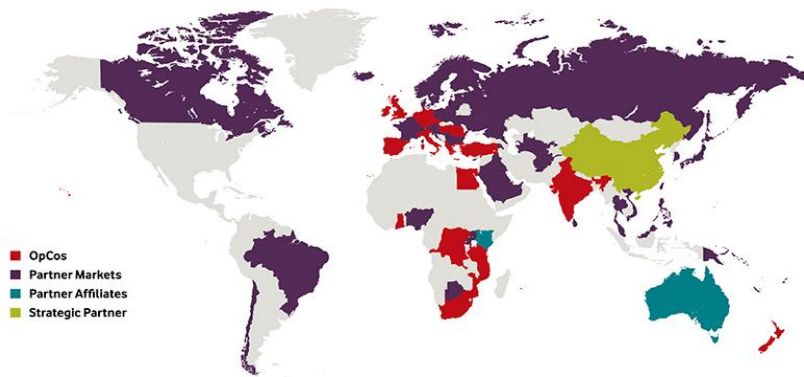
EUROPE

Operating Companies

 Albania (99.9%)	 Czech Republic (100%)
 Germany (100%)	 Greece (99.9%)
 Hungary (100%)	 Ireland (100%)
 Italy (100%)	 Malta (100%)
 Netherlands (100%)	 Portugal (100%)
 Romania (100%)	 Spain (100%)
 Turkey (100%)	 UK (100%)

Partner Markets

 Austria	 Belgium	 Bulgaria
 Channel Islands	 Croatia	 Cyprus
 Denmark	 Estonia	 Faroe Islands
 Finland	 France	 Iceland
 Latvia	 Lithuania	 Luxemburg
 Macedonia/FYROM	 Norway	 Poland
 Serbia	 Slovenia	 Sweden
 Switzerland		



- OpCos
- Partner Markets
- Partner Affiliates
- Strategic Partner

RUSSIA AND CIS

Partner Markets

 Armenia
 Russia
 Turkmenistan
 Ukraine
 Uzbekistan

AMERICAS

Partner Markets

 Brazil
 Canada
 Chile

CENTRAL ASIA, MIDDLE EAST, AFRICA

Operating Companies

 Democratic Republic of Congo (51%)	 Egypt (54.9%)	 Ghana (70%)
 Lesotho (80%)	 Mozambique (85%)	 Qatar (23%)
 South Africa (65%)	 Tanzania (65%)	

Partner Markets

 Afghanistan	 Bahrain	 Benin	 Botswana	 Iraq
 Jordan	 Kuwait	 Nigeria	 Saudi Arabia	 Uganda
			 UAE	

Partner Market Affiliates

 Kenya (40%)

ASIA AND AUSTRALIA

Operating Companies

 India (100%)	 New Zealand (100%)
--	--

Partner Markets

 Fiji	 French Polynesia	 GUAM PACIFIC
 Malaysia	 Papua New Guinea & Solomon Islands	 Sri Lanka

Alliance Partnerships

 Hong Kong	 Japan	 Philippines	 Singapore
 South Korea	 Taiwan	 Thailand	 Vietnam

Partner Market Affiliates

 Australia (50%)

Strategic Partners

 China

Numbers in brackets show Vodafone's equity ownership.

* Participating members of the Conexus Mobile Alliance



Global IoT Platform

Sus operaciones
en un vistazo

Control del estado
de las SIMs

Recibir alertas y
notificaciones

Detalles de uso e
informes de
ejecución



Crear un diagnóstico

Solicitar SIMs
(y dispositivos)

Control de Accesos



Devices must be IoT
ready

**From devices
used by
humans**

- Local certified
- Single configuration
- Non Programmable
- Managed by user

**To IoT devices
Ready to use
in Machines**

- Certified globally
- Preconfigured for purpose
- Programmable- open
source
- Remotly managed



¿Con que dispositivo?

Personas

Botón SOS, Push To Talk.
Control de Presencia y rondas
Hombre al suelo, angel de la guarda
Geozonas, POIs, IP68



Activos

Batería distintas autonomias
GPS, tacografo,
identificación,
temperatura, humedad,
acelerometro
Geozonas, POIs



Hubs/sensore

Varios puertos Eth, puerto serie, zigbee, BlueTooth
Programable, Gestionable remotamente, Robusto
Fuentes de alimentación
sensores



Connected to Main IoT platforms and partner ecosystem

From do it yourself

Internal resources
Local hosted
Internal skills

**To IoT applications
Ready to use**

Partners ecosystem
Connected to the Cloud
Vertical apps
Big data



Vodafone Business Place- Solutions

REMOTE MANAGEMENT CONTROL SYSTEMS



MOBILE ASSET TRACKING



CONNECTED CABINETS



AUTOMOTIVE



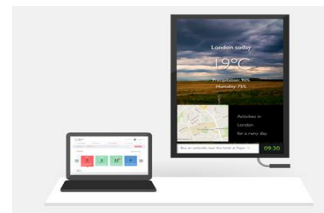
LIFTEYE



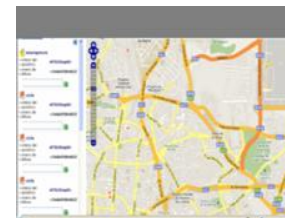
TRUCKS



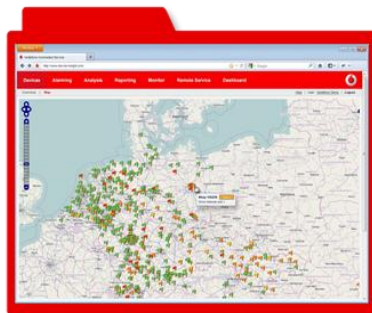
DIGITAL SIGNAGE



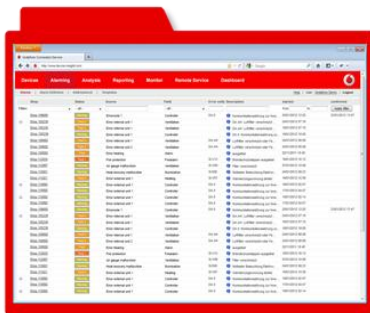
TELEASISTENCIA



Vodafone and IoT platforms



MAPPING



ALARMING



DASHBOARD



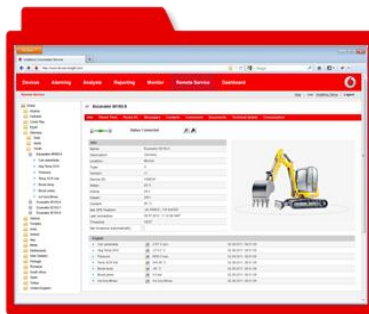
ANALYSIS



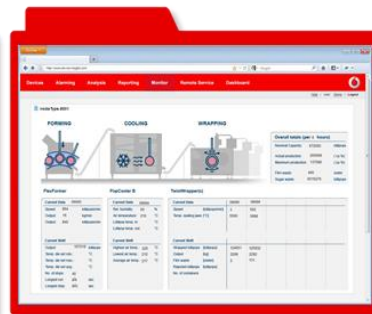
REPORTING



MONITOR



REMOTE SERVICE



CUSTOMISE



A hand is shown holding a small, glowing yellow object, possibly a light or a small flame, against a blurred background of a sunset or sunrise over water. The hand is positioned in the center, with the fingers gently gripping the object. The background features a warm, golden glow from the low sun, reflecting on the water's surface. The overall mood is hopeful and aspirational.

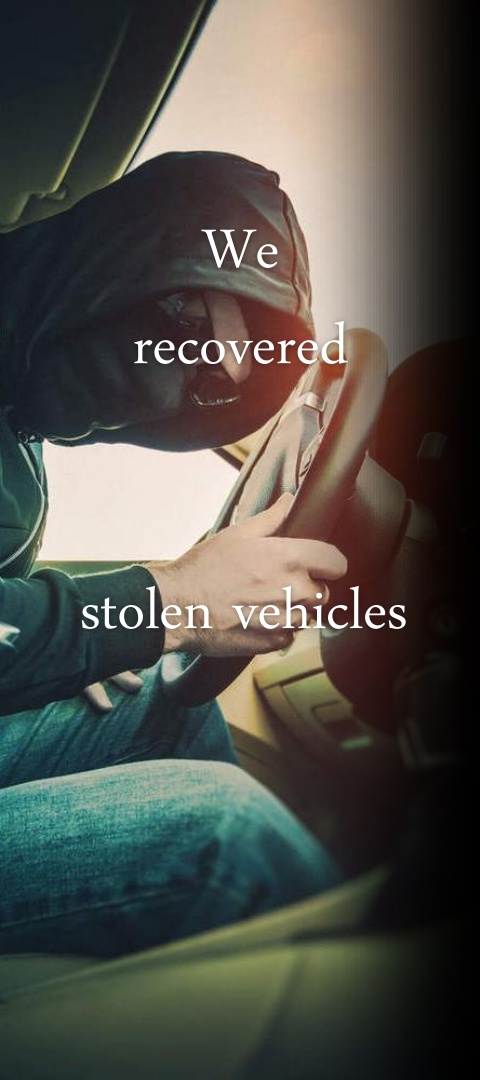
Imagine the possibilities

Easy to
use

Secure
performance

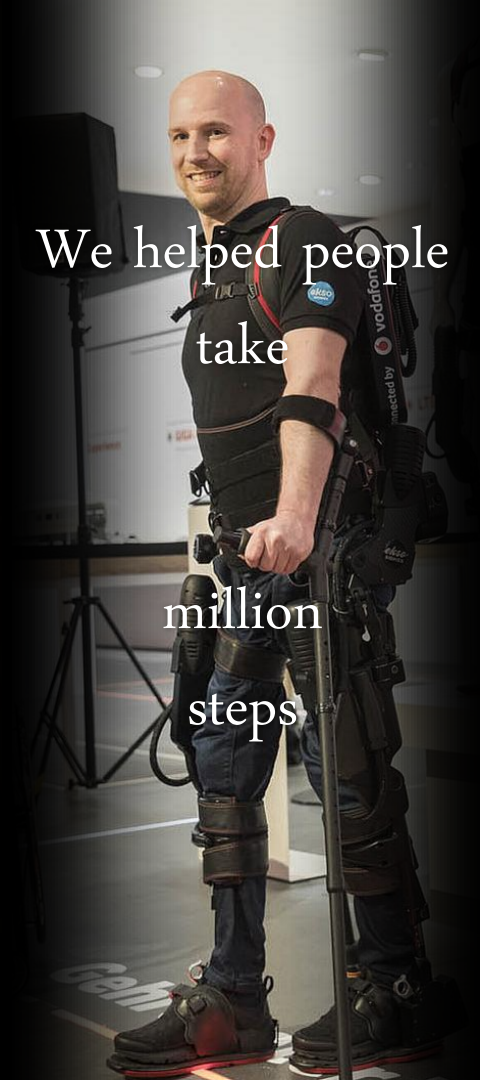
Scalable





We
recovered

stolen vehicles



We helped people
take

million
steps



We saved

thousand calves



We
monitored

high risk
pregnancies

