

Internet of Things, Cloud & new technologies: Opportunity & legal challenge

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Unrestricted – C1



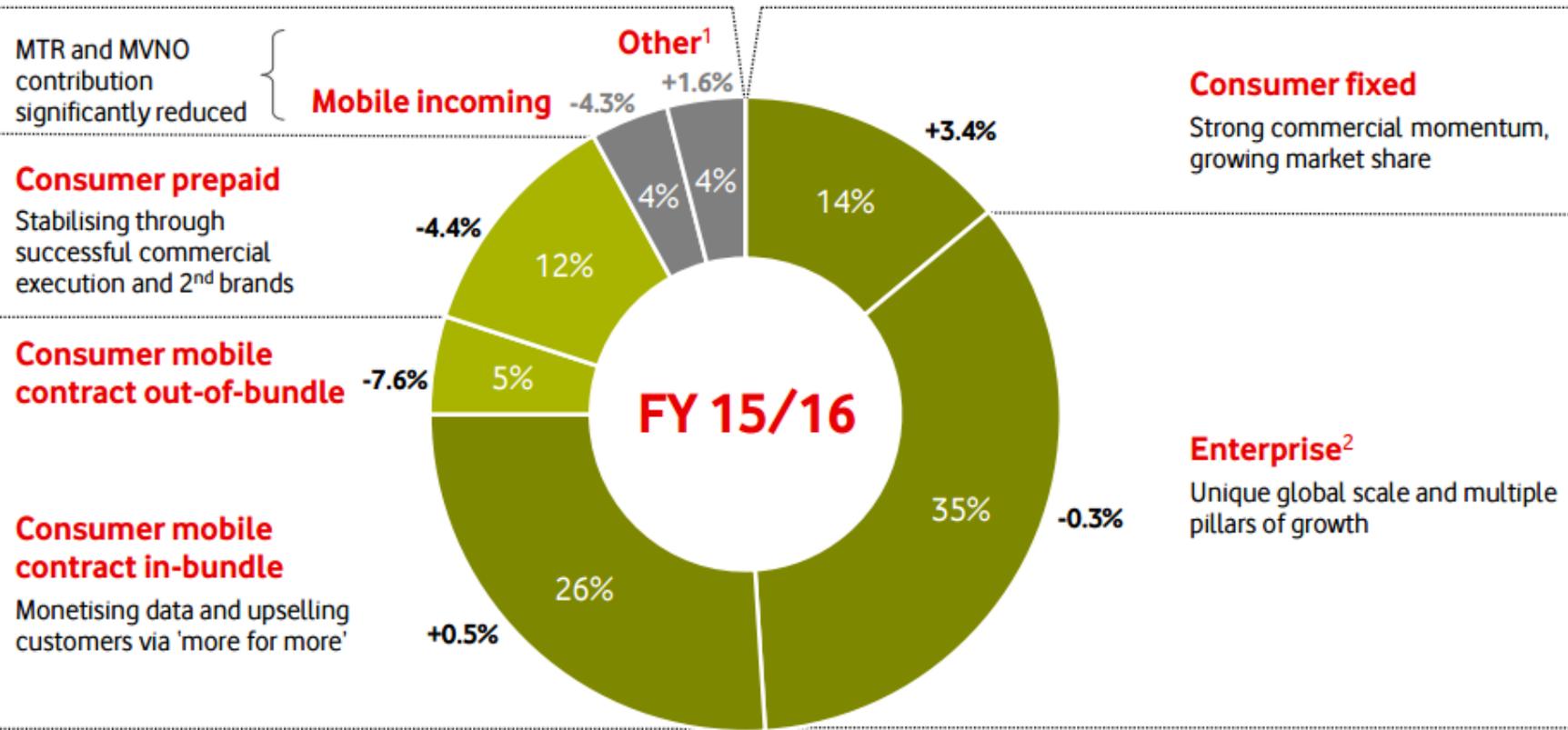
Agenda

- The complexity of global business - overview of:
 - Vodafone
 - Vodafone Global Enterprise
 - Vodafone Internet of Things and Cloud & Hosting
- IOT & Cloud and explained:
 - solutions components
 - legal challenges
- MooCall – a real example
- Conclusions



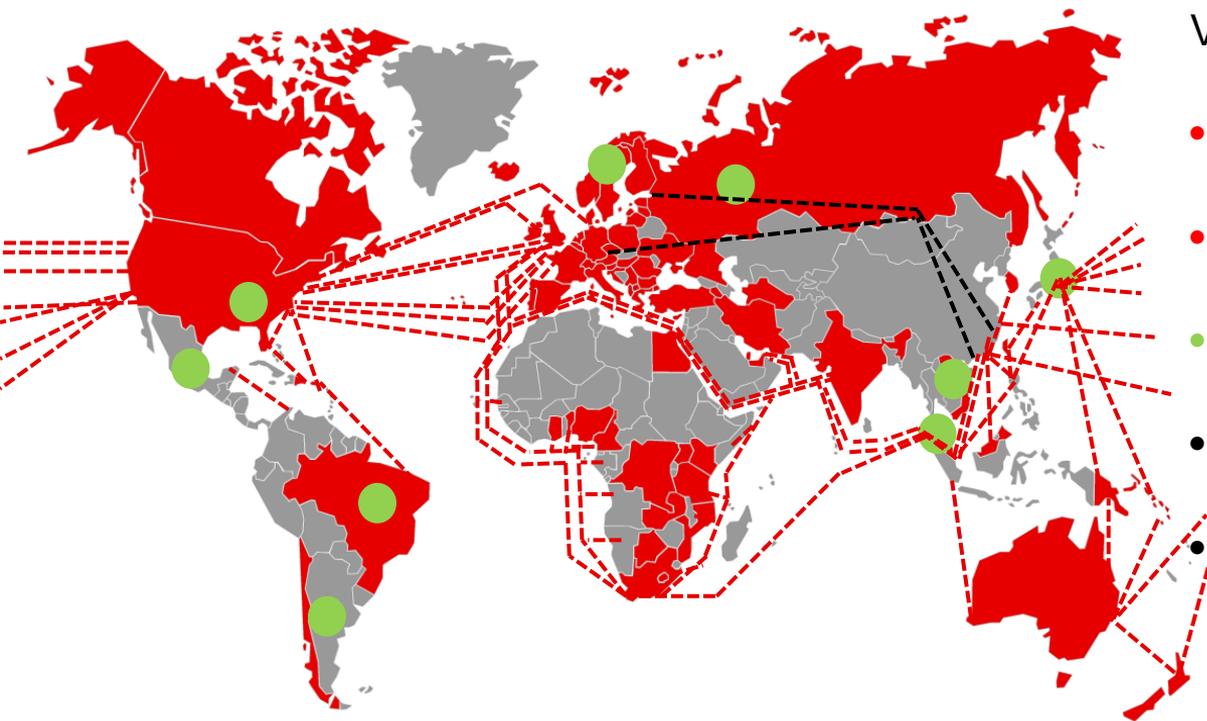


Vodafone's focus: consumer and enterprise





Vodafone's footprint



Vodafone delivers its services through:

- **Vodafone local markets**
- **Partner Markets**
- **Licensed legal entities**
- Roaming partners
- Vodafone Carrier Services



Vodafone: Global Enterprise

Vodafone
Global
Enterprise

Vodafone
Carrier
Services

Cloud &
Hosting
Services

Vodafone
IoT

Security

#1

GARTNER
RANKING

500000000

IOT CONNECTED
MACHINES

650

EMPLOYEES
DEDICATED
TO CLOUD
SERVICES

28

COUNTRIES
WHERE
PRIVATE
CLOUD
AVAILABLE

100000000

CONNECTED
VEHICLES

49

COUNTRIES

1400

IOT
EXPERTS

> 1Mio

km's of fibre network



Components of an IoT Solution

Sensors

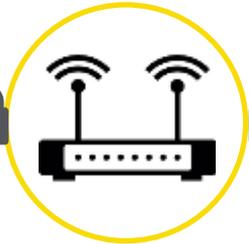
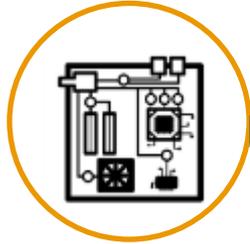
Routers

Connectivity

Hosting

Management
Platform

Application



Sensors detect heat, light, humidity etc.

Router connects sensors

Connect via mobile fixed or satellite

Data hosted in secure cloud servers

Portal allows customers to analyse data

Data used to cause an action

- Product liability
- Export regulations
- Sanctions
- WEEE regulations
- IPR
- Security

- Licensing
- Intercept
- Competition
- Security
- Tax

- Privacy
- Ownership
- Security
- Lawful access
- Liability

- Liability
- Licensing
- Privacy



Components of a Cloud solution

Use cases

Sensors, modems
& connectivity

Hosting

Management Platform &
Application



Co-location <ul style="list-style-type: none">• Rack space• Connectivity	Storage & Back-up <ul style="list-style-type: none">• Data storage• Data security	Cloud <ul style="list-style-type: none">• Compute• IaaS/ PaaS/SaaS	Managed Services <ul style="list-style-type: none">• non-standard Services
<ul style="list-style-type: none">• Mietrecht• Sicherheit/ Zutritt• Versicherung• Verantwortlichkeit	<ul style="list-style-type: none">• Datenzugriff• Produkthaftung• WEEE Richtlinie• Gewährleistung	<ul style="list-style-type: none">• Datenschutz / ADV/• Nutzungsvoraus.• Datensicherheit• Haftung	<ul style="list-style-type: none">• Service Level-Vereinbarungen• Monitoring/ Reporting



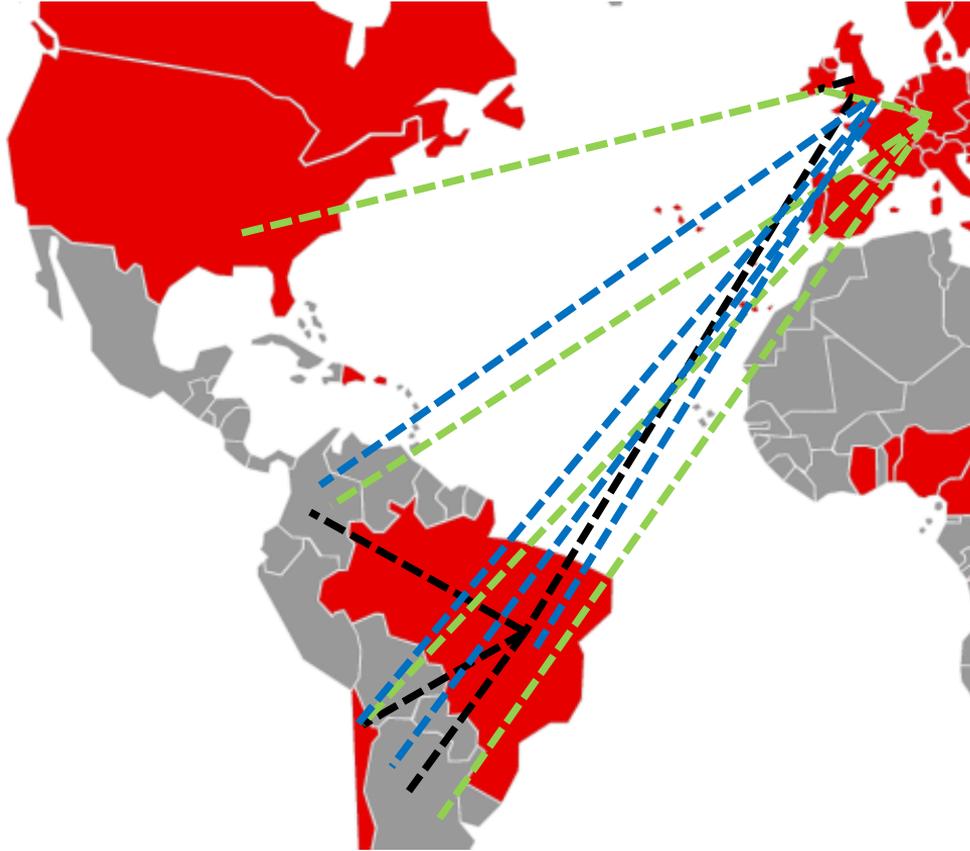


Decreasing
calf
mortality

Life



Moocall – what if?



IoT Legal issues:

- Cross border billing and taxation - licensing
- Regulatory:
 - permanent roaming in Brazil
 - Others?
- Lawful intercept
- Export/import regulation
- Branding:
 - Argentina

C&H Legal issues:

- Data access
- Place of data storage
- Data protection
- Access availability



Conclusions

- New technologies create huge opportunity but are developing quicker than Regulators respond:
 - Many new technologies IoT, Cloud, autonomous machines (AM), artificial intelligence (AI)
 - Technology categories are merging e.g. IoT with AM and AI
 - Novel technologies, contracting structures and data flows challenge regulators
- Highly globalised businesses that are agile and fast moving:
 - Suffer from the fragmented approach to law and regulations (complex and uncertain)
 - Will continue to move data into a highly globalised cloud
 - Will challenge notions of data privacy
- Challenges for in-house legal teams include:
 - Keeping close legal supervision of new businesses and technologies in a cost effective way
 - Tracking developments in regulation and law in a highly globalised world
 - Integrating legal support and compliance activities





Thank you
Questions?

