Elements For Cyber Security

We Are Entering An Intelligent World

All Things Sensing

Devices

All Things Connected

Telecommunications Pipe

All Things Intelligent

Cloud/Big Data/ AI
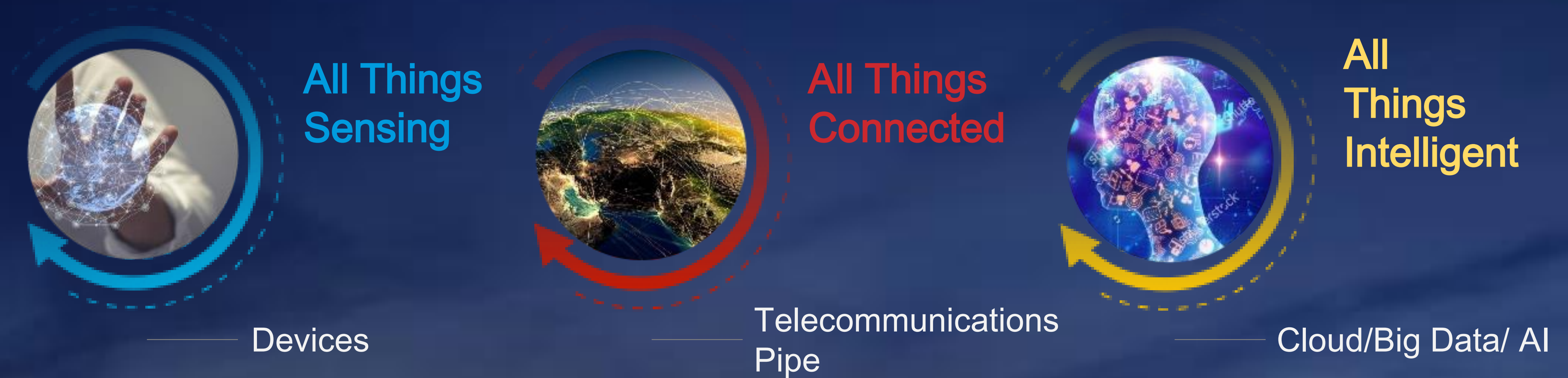
The Next Five Years Will See The Advancement Of Digitisation Or As Some Are Calling It Industry 4.0. Real-time, On Demand. All Online, Do It-yourself And Social
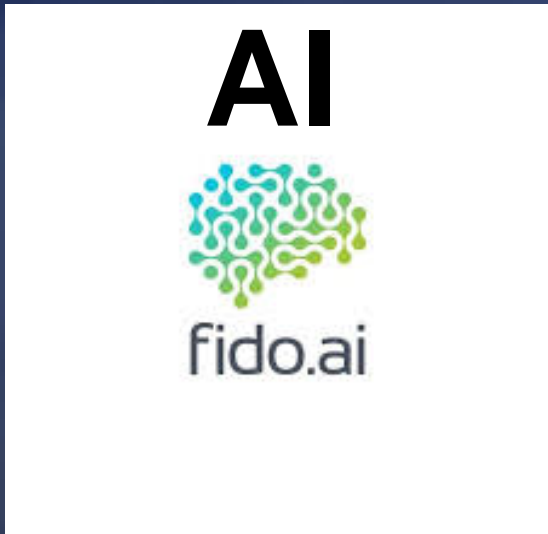
Everything on Mobile   **Everything Connected**   **Everything Virtualized**

A connected world is just a beginning

Next Wave of
Digital Society

It Doesn't Matter What Research You Look At, There Will Be More…

Internet consumption continues to grow.

× 2
More Internet users

× 3.2
More time on the Internet

× 4
More ICT applications

More data and services are generated.

× 20
More data

× 10
More cloud services

× 6.7
More Internet traffic

Driving the development of the information super highway.

× 4
More broadband connections

× 10
Faster broadband speed

× 5
More smart devices
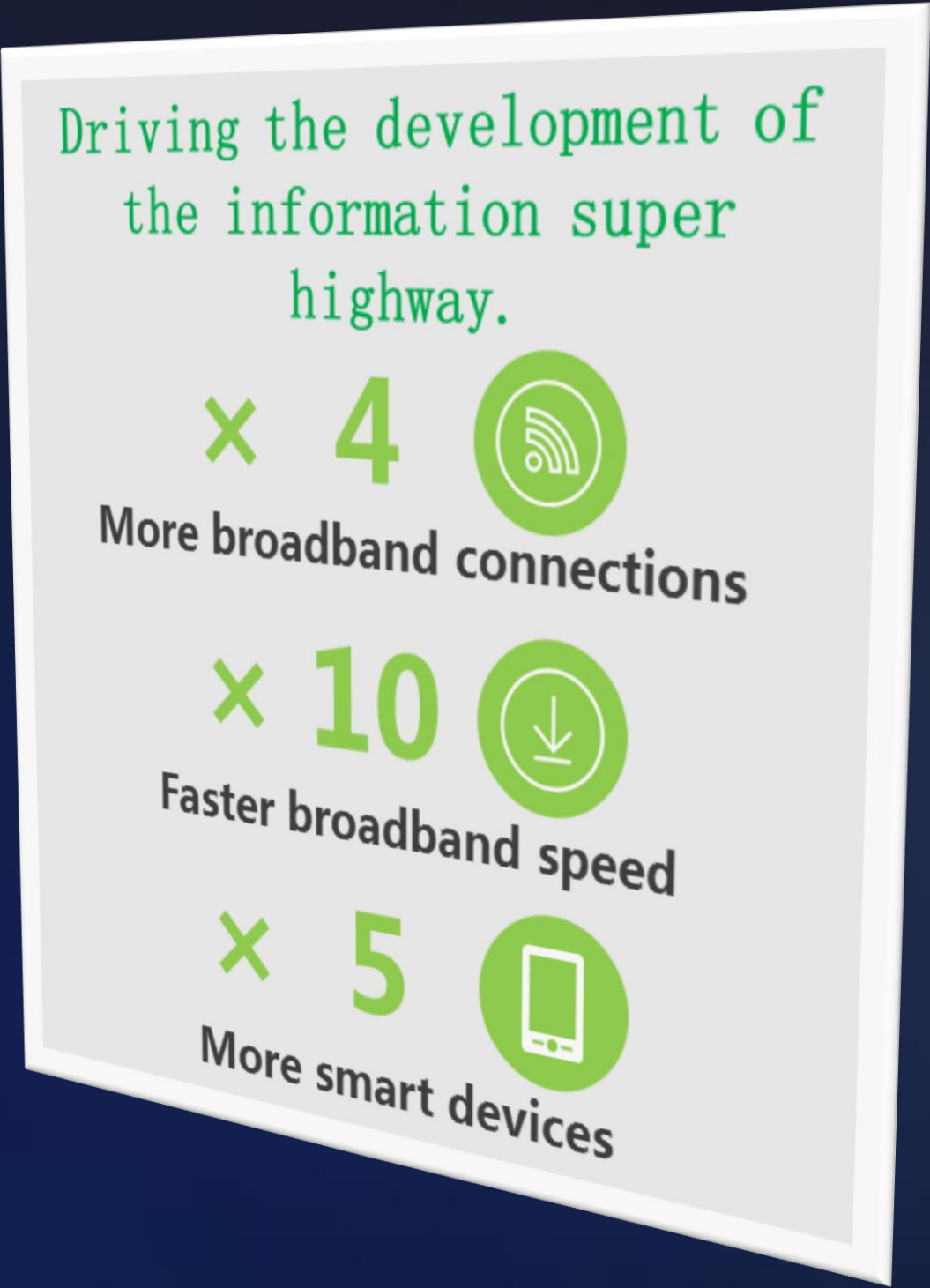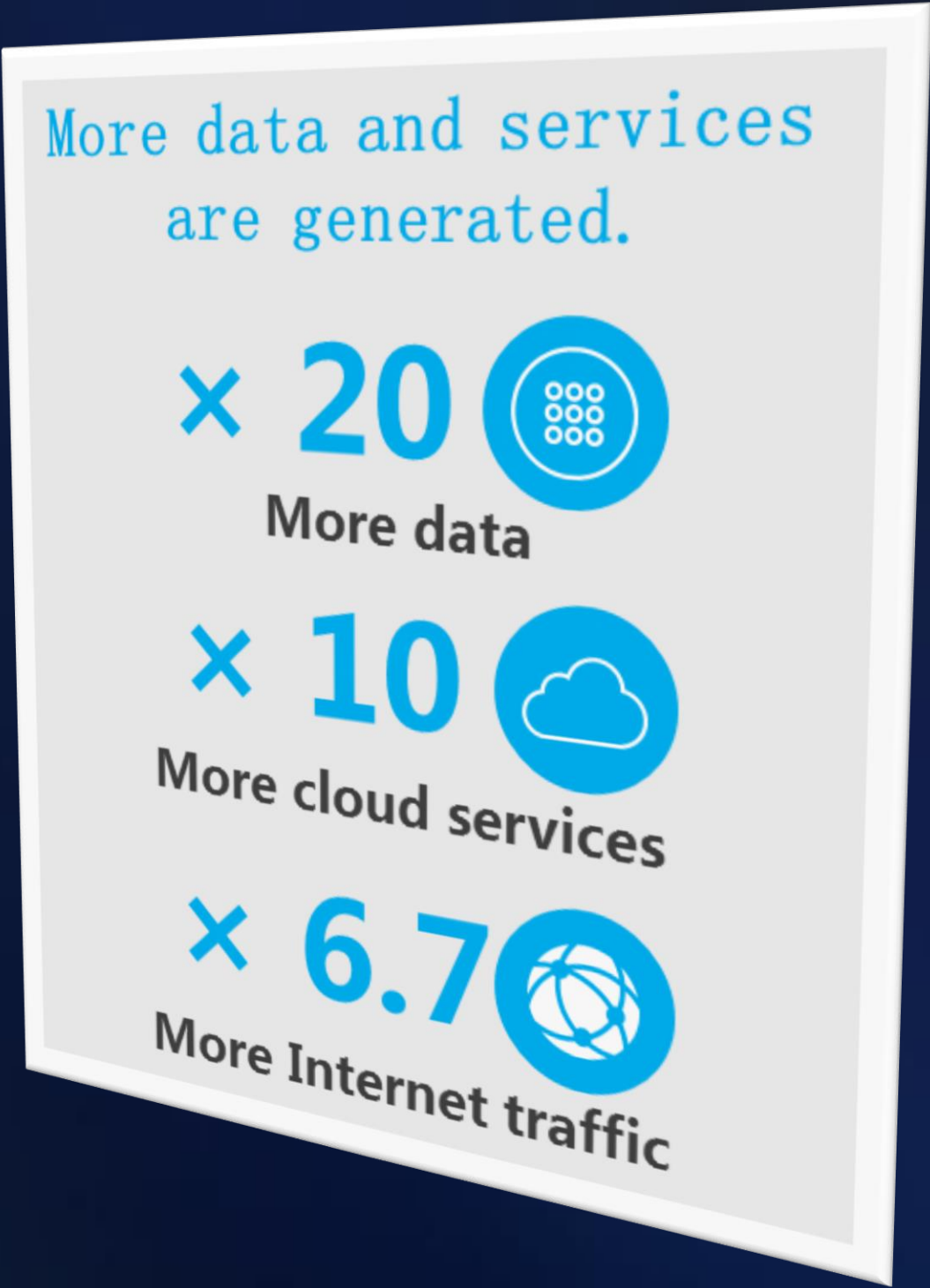
2012 ——————————→ 2022

Source: Informa , IDC , Gartner , SA , OVUM, Huawei MI

An Inflection Point For New Growth Is Coming

1st cloud service
Amazon — **11 years** — **>40 million** businesses

1st mobile video service
DoCoMo, Japan — **16 years** — **>2 billion** subscribers

1st IPTV service
Video Networks, UK — **18 years** — **>150 million** households

1st M2M connection
Siemens — **22 years** — **>8 billion** IoT connections

1995   1999   2001   2006   2017
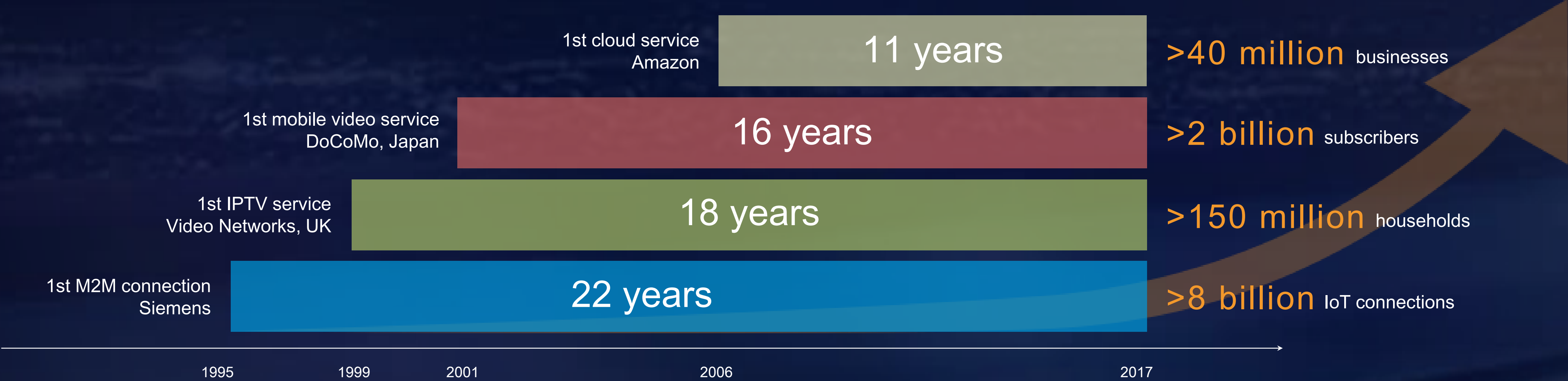
From Smart To Intelligent: A Personal Assistant

You Call
with the device

The device
Enables you

The device
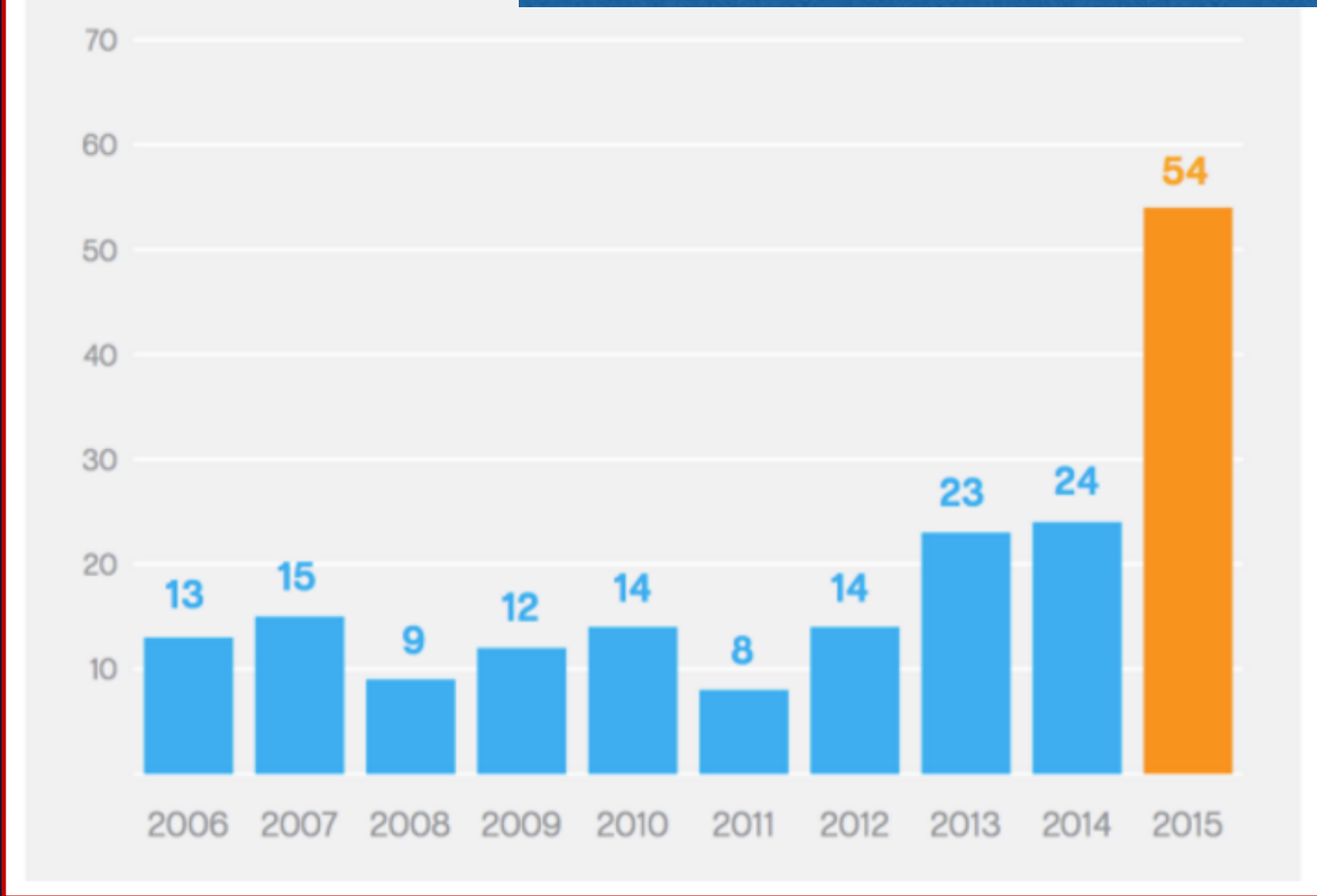**Understands you**

Magic

1997
Feature Phone

2007
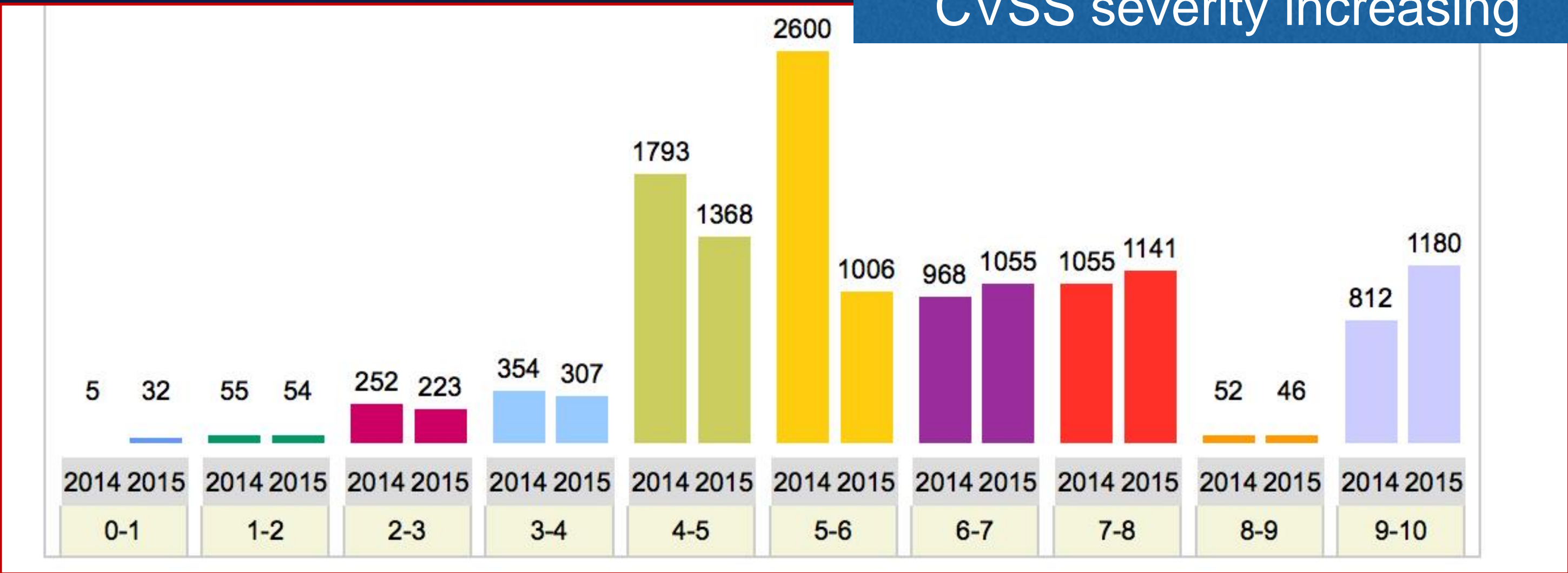Smart Phone

2017
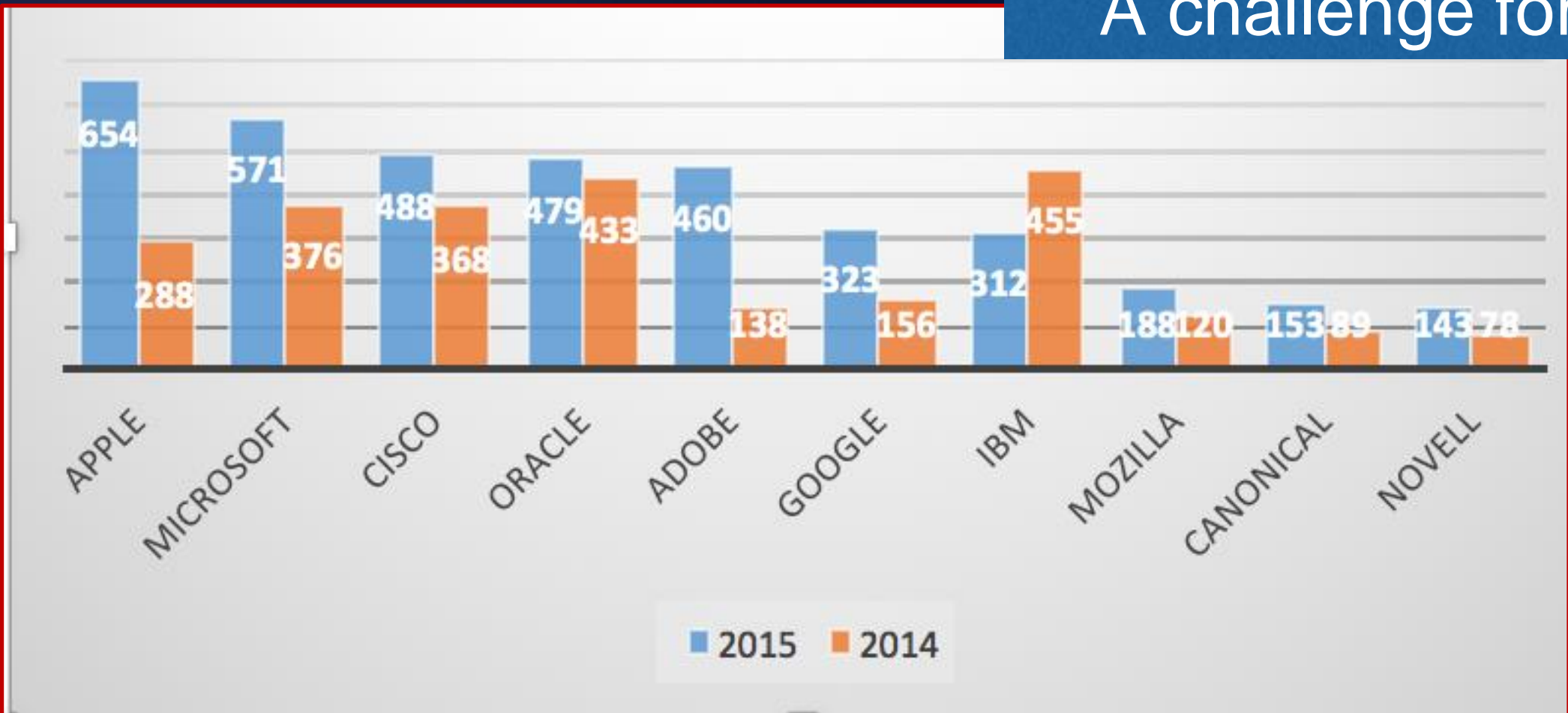Intelligent Phone

But What About Security ?

Zero days are increasing

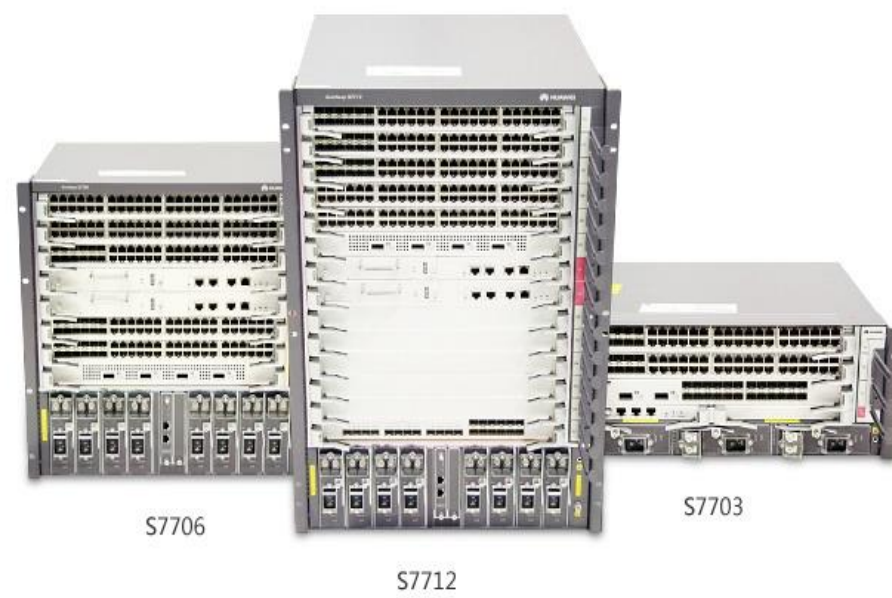CVSS severity increasing

A challenge for all vendors

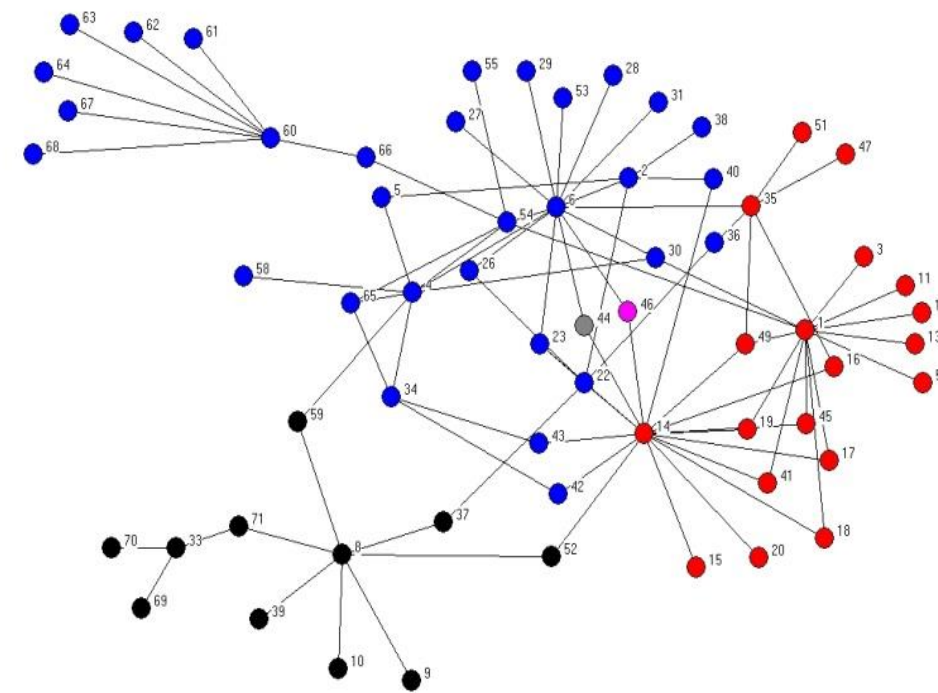So What Are We To Do? How Can We Plan For A Future Where We Cannot Understand Everything?

?

Whether A Buyer Or A Seller Of ICT We All Need To Take A Holistic View

Devices

S7706

S7703

S7712

Network Architecture

People

Operator

In Summary Every Part Of Huawei, And Every Person, Is Included In Our "Built-in" Strategy.

Built-in cyber security assurance

- Strategy, Governance and Control
- Standards and Processes
- Laws and Regulations
- Human Resources
- Research and Development
- Verification: Assume nothing, believe no one, check everything
- Third-Party Supplier Management
- Manufacturing
- Delivering Services Securely
- Issue, Defect and Vulnerability Resolution
- Audit

Area	Focus
Strategy, Governance and Control	Having an overall strategy and the accountability to make it happen
Standards and Processes	Using the best standards and approaches to protect against threats and risks
Laws and Regulations	Making your products and operations legally compliant in every country you operate in
Human Resources	Getting the right people, in the right roles with the right behaviour to limit insider issues
Research and Development	Designing, building, testing products in a secure way that builds on the above building blocks
Verification: Assume nothing, believe no one, check everything	Many eyes, many hands many checks. Tiered independent approach to security verification
Third-Party Supplier Management	Getting your suppliers to take security seriously – How do you know what is in the box?
Manufacturing	Manufacturing products that secure each step along the way – right through to delivery
Delivering Services Securely	Ensuring installation, service and support is secured. No tampering, fully auditable
Issue, Defect and Vulnerability Resolution	As issues arise, solving them quickly and ensuring customers technology is secured
Audit	Using rigorous audit mechanisms to ensure every part of your business conform to the strategy

In Summary

Technology will not wait on laws or standards. Innovation will not stop. Your competitors will not stop chasing you

You cannot forecast all of the future innovation and strategically plan with certainty, but you can plan for uncertainty

The conversations you have internally must be the same conversations you have externally. Externally with your suppliers, service providers and law makers.

By taking a holistic approach to cyber security and privacy whilst there is no guarantees of safety there is a substantially reduced risk profile to the unknowns that can cause harm

Thank You