



HOW STANDARDIZATION ENABLES THE NEXT INTERNET EVOLUTION

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About this webinar



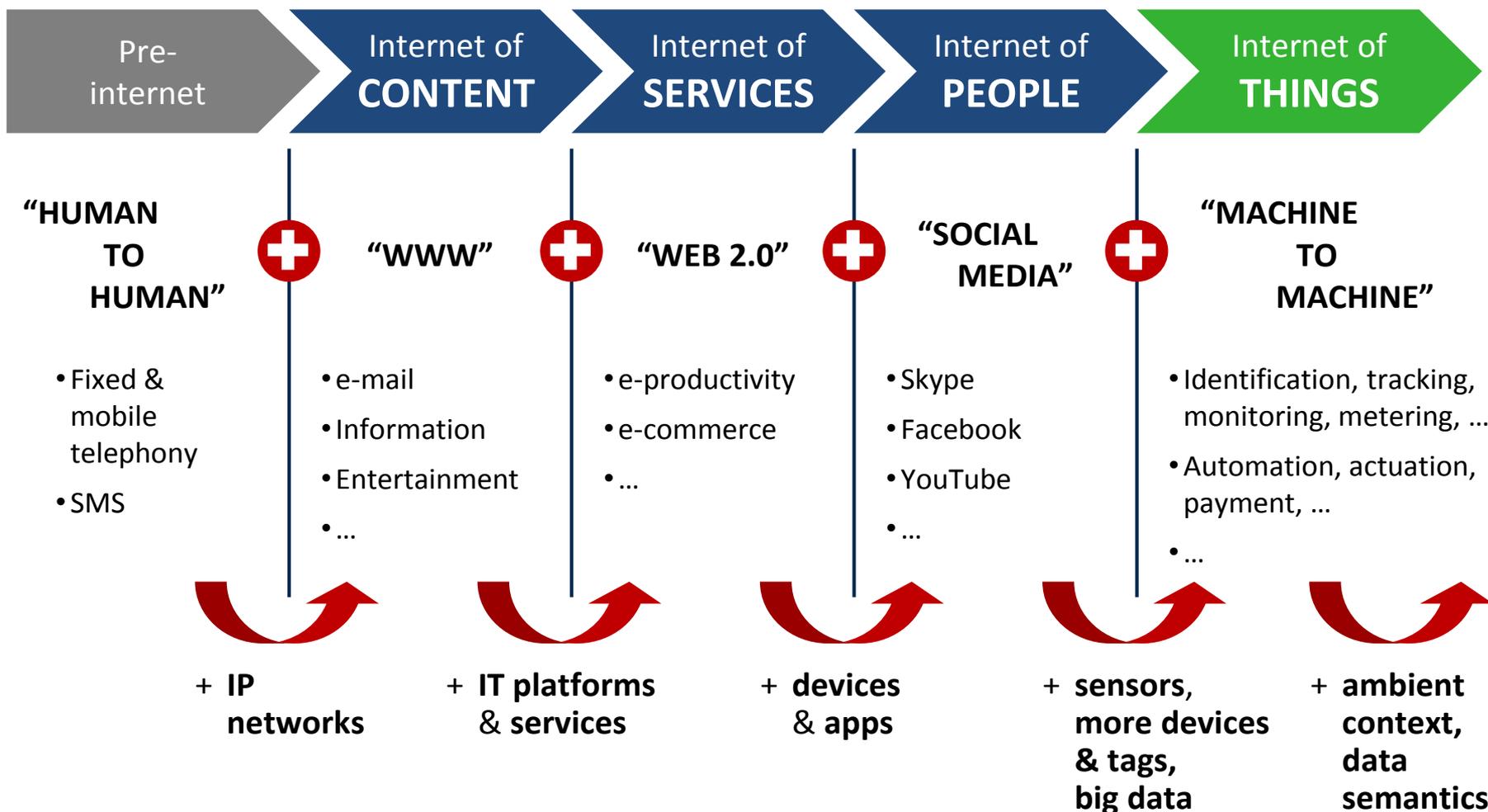
- TBC (repeat from the announcement)

Today the first in a series of 4

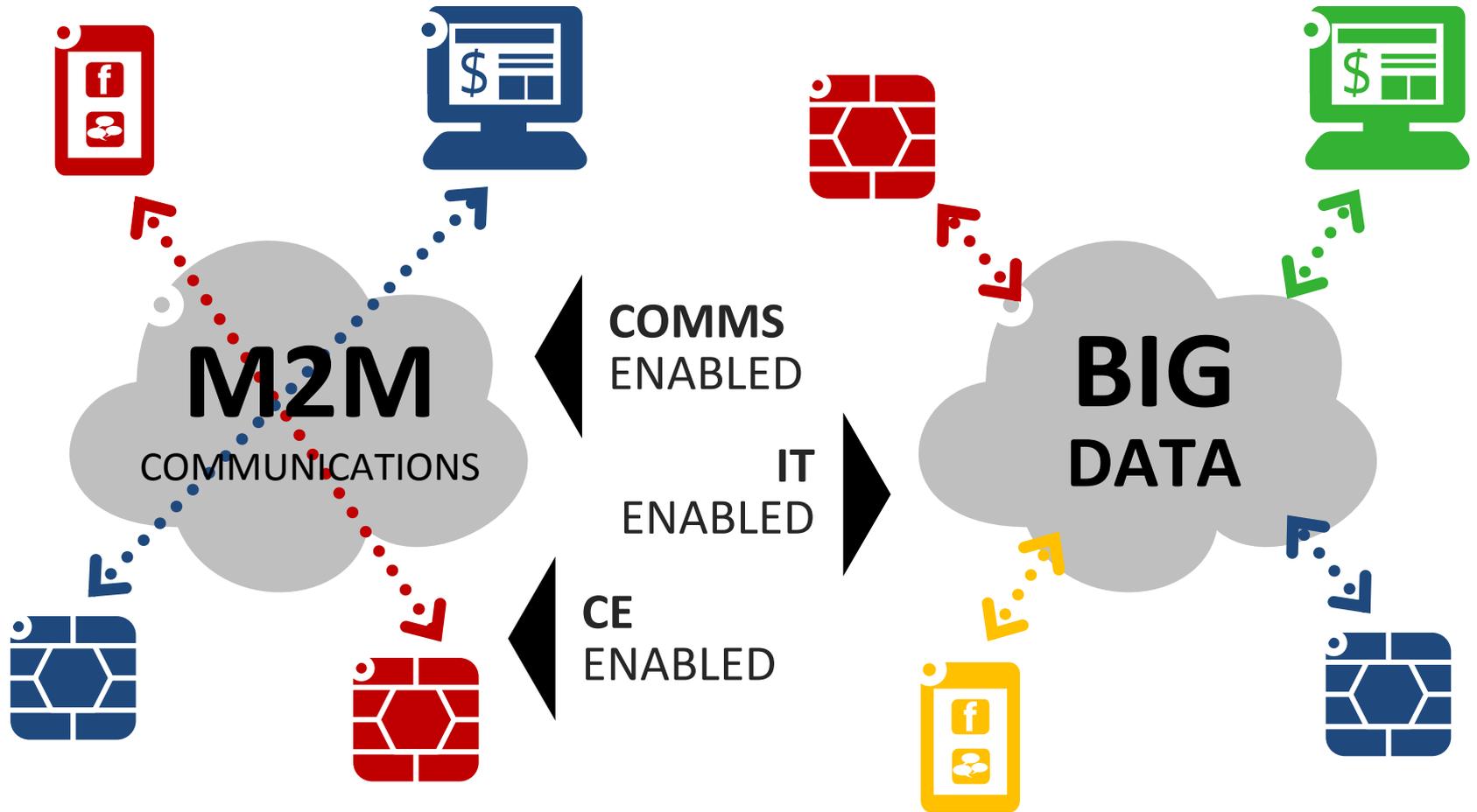
- Part 1 looking at M2M business opportunities, challenges and drivers for standardization

To be completed

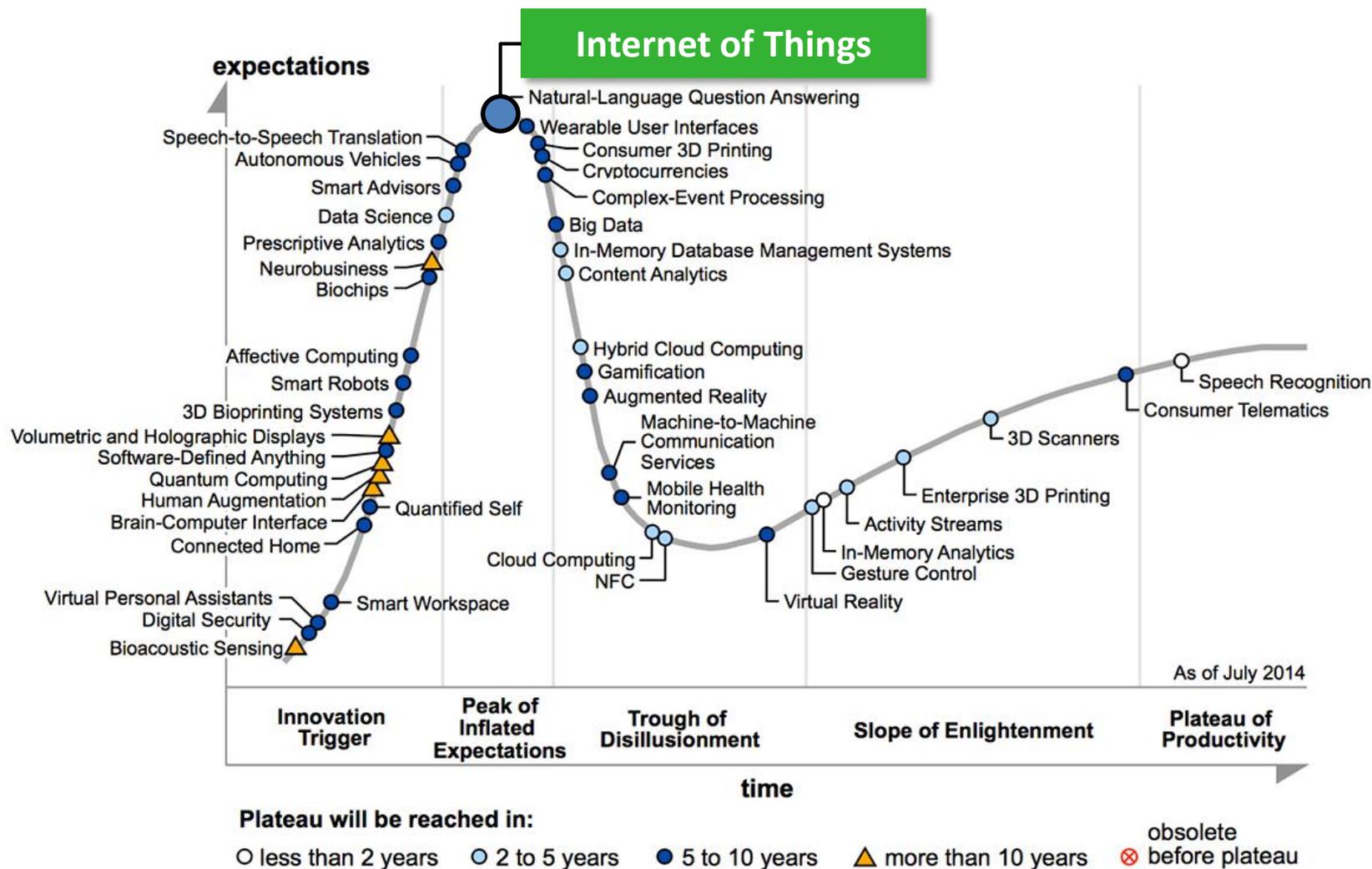
The next step in internet evolution



When communications, IT and CE industries meet



Topping Gartner's hypecycle



Source: Gartner, July 2014

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The IOT is going to be big (though nobody really knows how big...)



28.1 BILLION

“UNITS” IN 2020

\$7.1 TRILLION

GLOBAL SOLUTION
REVENUES BY 2020

Source: IDC, May 2014



26 BILLION

“UNITS” BY 2020

\$300 BILLION

SERVICES REVENUES
IN 2020

\$1.9 TRILLION

GLOBAL ECONOMIC
VALUE IN 2020

Source: Gartner, March 2014



25 BILLION

M2M “CONNECTIONS”
BY 2022

OF WHICH

2.6 BILLION

ARE CELLULAR

\$1.2 TRILLION

GLOBAL OPPORTUNITY
BY 2022

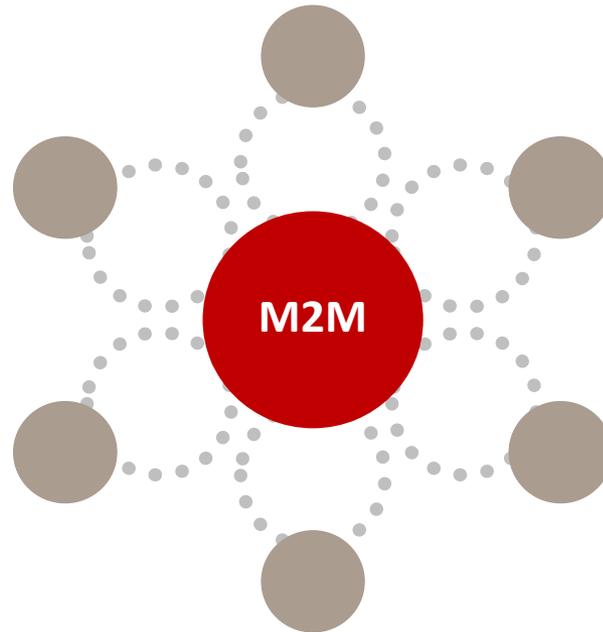
Source: Machina Research, January 2013

Why now?

Lower **hardware costs** and ubiquitous **mobile access** enabling more intelligence and seamless connectivity

M2M standardization addressing the need for end-to-end architecture and interoperability, facilitating applications development, and global services rollout

Network operators, enterprises, utility providers and public administrations **transforming** the way they **interact** with their customers, suppliers and partners



Proliferation of **mobile devices** and **M2M endpoints** creating a customer base for deploying new applications

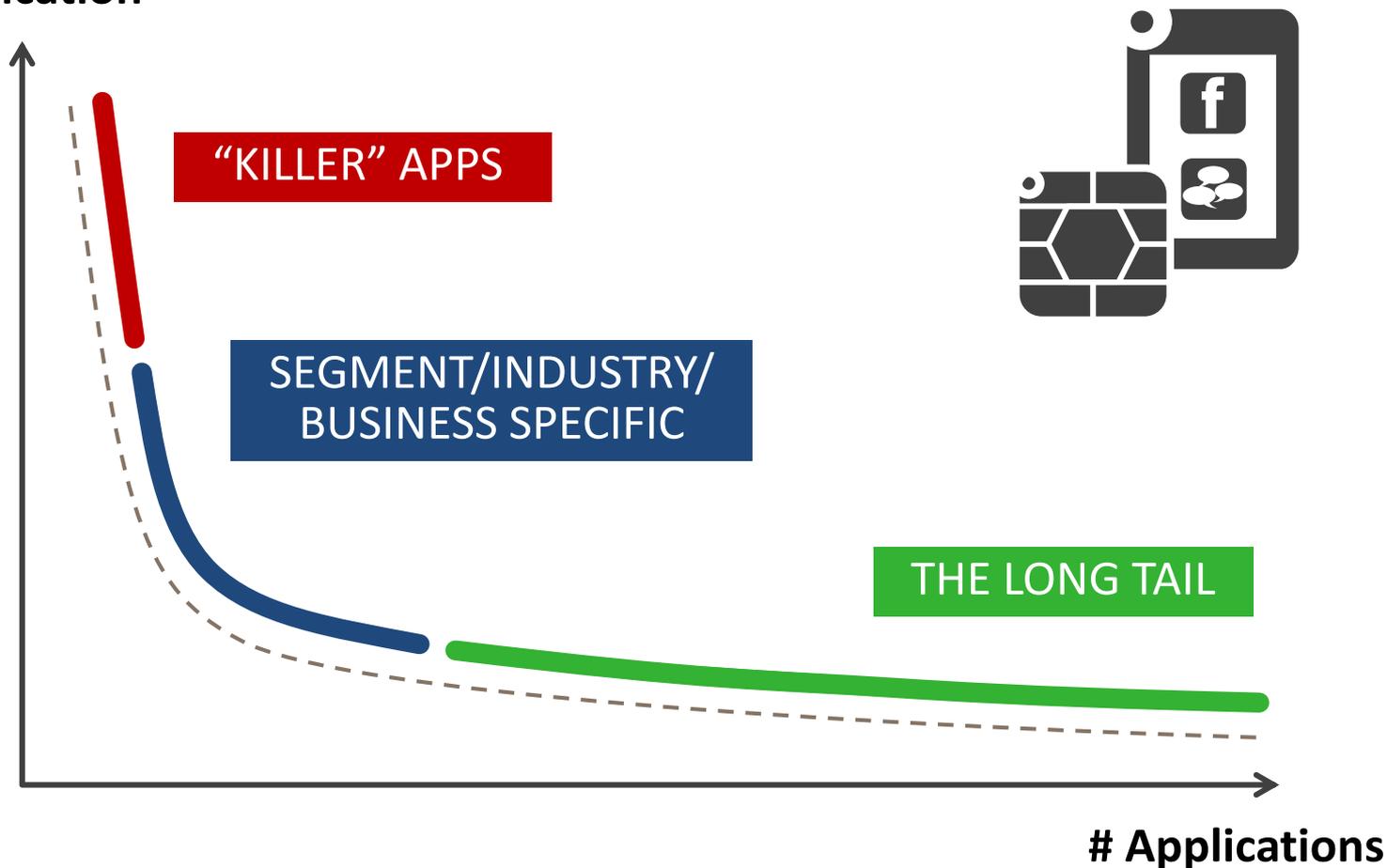
Abundance of **data** and **information** combined with a growing understanding of how collective data can be used to add greater efficiency to our lives

Consumers and business users looking for new **services** and **applications** to enrich the way they live, work, commute, shop and care for their community and environment

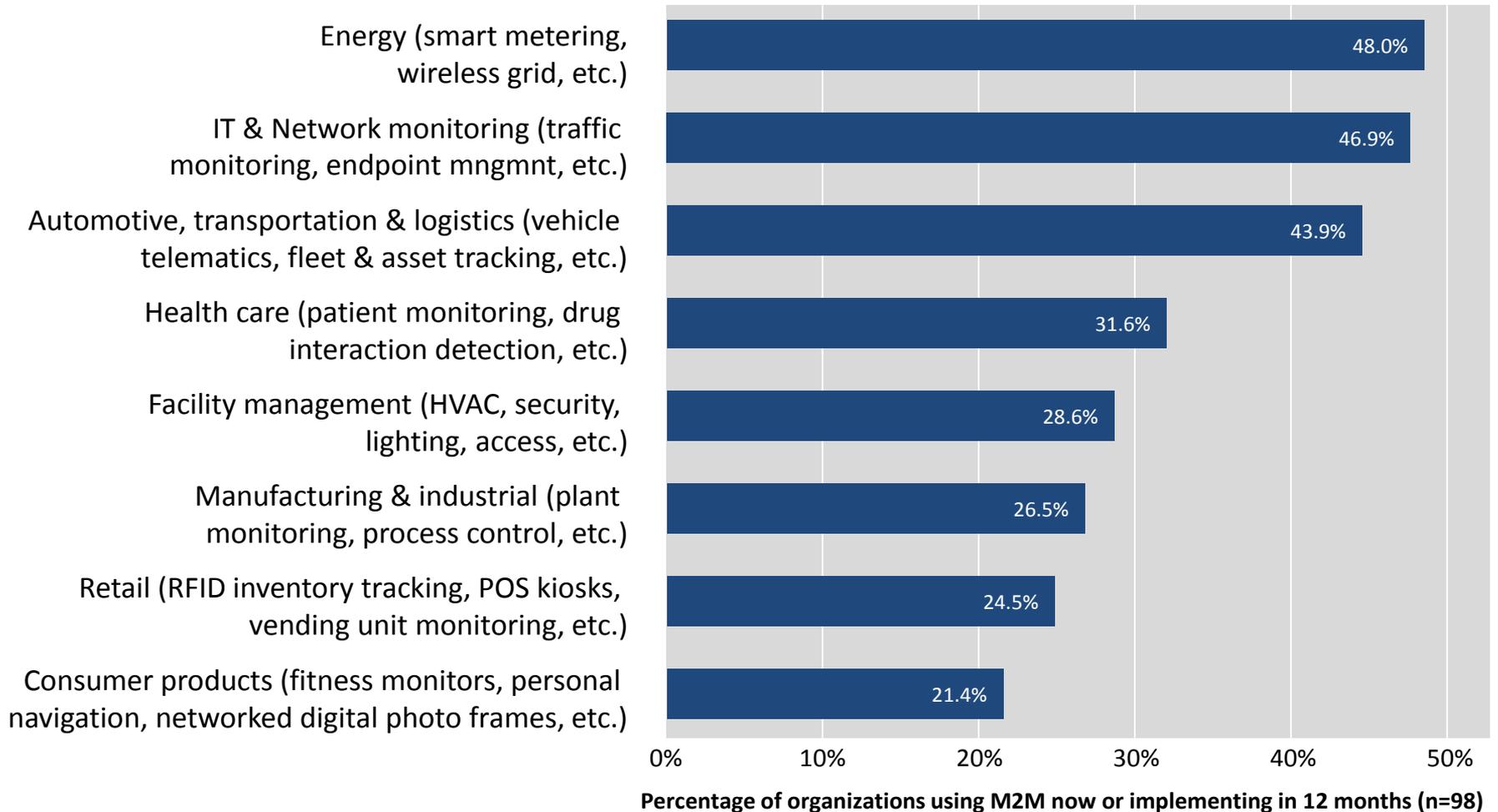
A long tong tail of applications



#Assets per Application



Where is M2M used today?

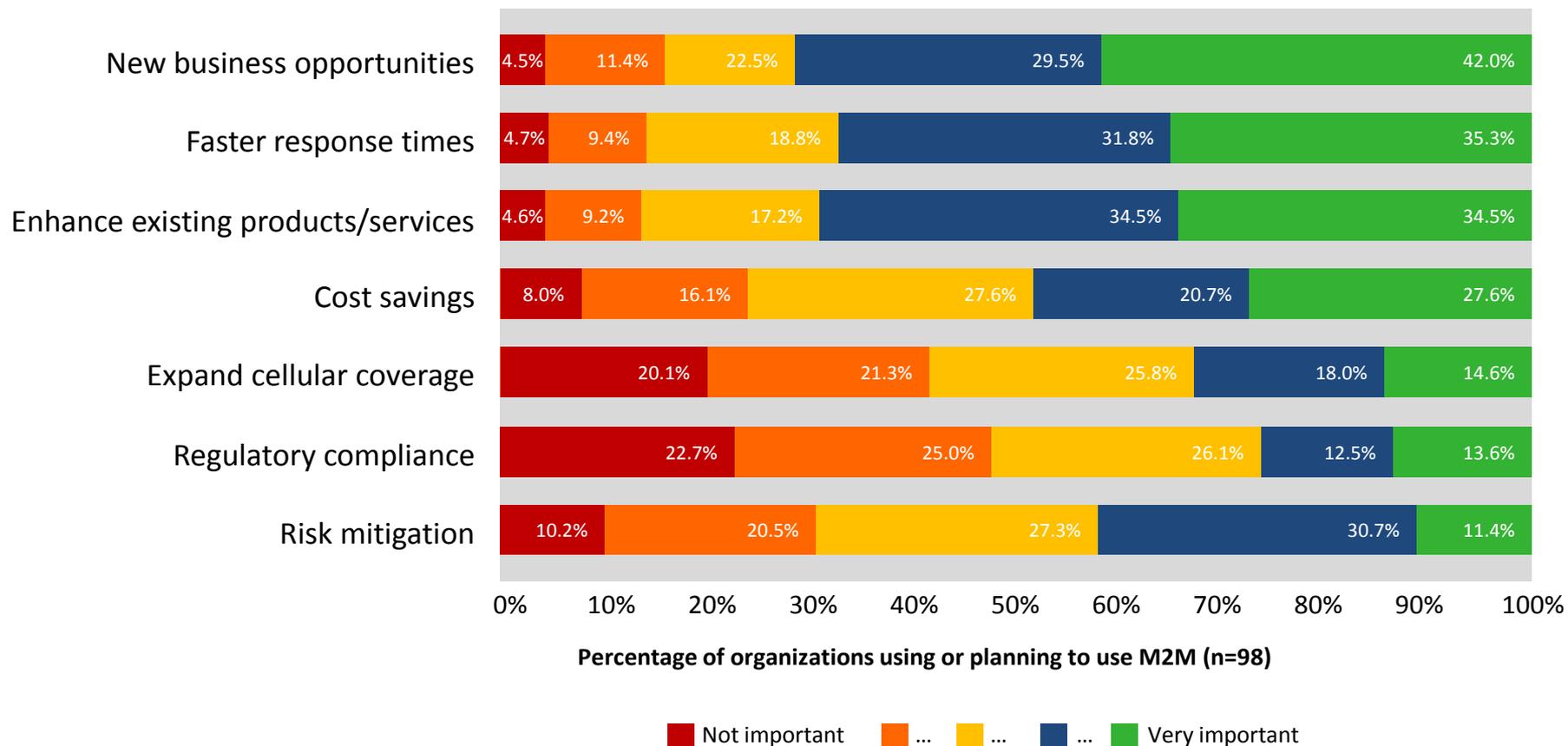


Source: TechRepublic & ZDnet, 2013

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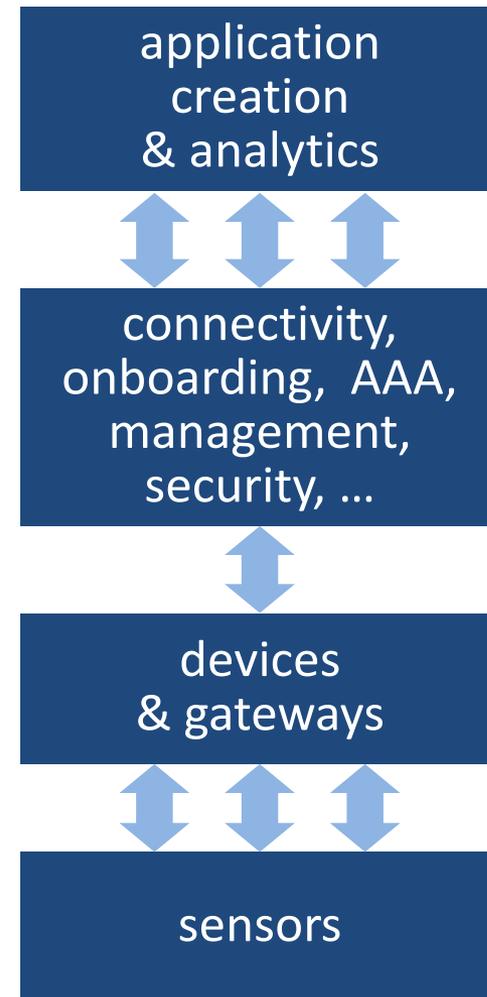
Businesses say it's about developing new opportunities



End-to-end network view



“ANY APP”
“ANY NETWORK”
“ANY DEVICE”



A fragmented ecosystem



Based upon: Matt Turk, Sutian Dong, FirstMark Capital, 2013

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Current state of affairs



To date, the machine connectivity (M2M) and smart systems opportunity has largely been comprised of “simple” remote services applications and related tracking/location services..... future technology development will be focused on **collaboration between devices, people and systems**, but will **require new technology and architecture**.



... a key challenge for the industry remains the complexity of **developing, deploying, and managing M2M applications** ... This is a challenge both for mobile network operators that are trying to offer profitable services tailored to the M2M market, as well as for application developers and service providers that are trying to **reduce costs, speed time to market, and simplify robust application deployments**.



For many years M2M was held back by the lack of a low cost, global access medium, the fragmented nature of the ecosystem, the lack of any single killer application driving demand and **the complex nature of M2M solutions leading to high-cost development and systems integration**.

Why standardization is needed



Improved **Functionality-Cost-Quality** (FCQ) tradeoffs



More **partnering choices** and **opportunities** for M2M/IOT industry stakeholders



Enhanced **experience** through security, interoperability, device management and interaction with underlying networks



Improved Functionality- Cost-Quality (FCQ)



- Anticipate massive growth in devices, applications, traffic and profile/usage data
- Develop a 'horizontal' M2M platform, scalable by design
- Improve end-to-end product quality
- Optimized network use, performance & traffic volumes
- Facilitate sourcing, development, integration and monetization of M2M solutions & components
- Reduce investments, time-to-market and onboarding costs of new devices and applications
- Efficient administration and management



Partnering choices and opportunities



- More suppliers from which you can source M2M solution components
- More providers who can develop and integrate M2M solutions and applications
- Partnering with other stakeholders to store, discover, access, exchange and share data and content
- Partnering with wireline and wireless service providers and extract more value from underlying networks
- Cross-vendor device configuration and management



Enhanced experience



- Optimize networks, protocols and platforms for huge loads of small messages; reduce M2M signaling overhead
- Abstract devices and applications from underlying access networks and technologies
- Deal with small power, memory and application footprints
- Interoperability between devices, platforms, data formats, protocols and applications
- Remote provisioning, control, management and billing of devices and applications; lightweight protocols for minimal power consumption
- Privacy, security & access control; authentication, authorization, encryption, data protection, ...

Introducing the oneM2M Partnership

In July 2012, seven of the world's leading ICT Standards Development Organizations launched a global partnership to:

- Cooperate in the production of globally applicable, access-independent M2M Service Layer specifications, including Technical Specifications and Technical Reports
- Ensure the most efficient deployment of M2M communications systems

www.oneM2M.org

oneM2M provides...



- Common set of Service Layer capabilities
- Access independent view of end-to-end services
- Open /standard interfaces , APIs and protocols
- Security, privacy, and charging aspects
- Reachability and discovery of applications
- Interoperability, including test and conformance specifications
- Identification and naming of devices and applications
- Management aspects (including remote management of entities)

Conclusion + announce next webinars



To be completed

Thank You!



Q&A