

S3: Promises and Realities of IoT: Roll Out of Digital Transformation



7th October, 2019

IoT: A European Journey

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FCC Radio Frequency
Identification
Workshop
(07/10/2004)

Brussels, 15.3.2007
COM(2007) 96 final

**COMMUNICATION FROM
THE COMMISSION**

**Radio Frequency
Identification (RFID) in
Europe: steps towards a
policy framework**



The Commission will continue to closely monitor the move towards the "Internet of Things", of which RFID is expected to be an important element. At the end of 2008, the Commission will publish a Communication analysing the nature and the effects of these developments, with particular attention to the issues of privacy, trust and governance. It will assess policy options, including whether it is necessary to propose further legislative steps to both safeguard data protection and privacy and address other public policy objectives.





“How do new things come to be? Creations are neither miracles nor magic, but the consequence of many small, often meandering, steps. Sometimes creators head in one direction only to become lost or reach a dead end, yet — if they continue to hope — they still end up somewhere interesting.

All this is true of my work on the Internet of Things.

How the IoT Was Won

The only thing for which I can perhaps claim sole credit is the name: three ungrammatical words that now label computing’s future.”

First European IoT Conferences

- Berlin (DE), June 2007
- Lisbon (PT), November 2007

Nice (FR), 6-7 October 2008

- ☐ French Presidency of the European Union Conference (managed by ITEMS International)
- ☐ “*The Internet of Things, the Internet of the Future*”
- ☐ Ministerial Declaration
- ☐ The Conference considered developments in areas such as Mobile internet and Radio Frequency Identification (RFID), and how the services they enable are likely to affect users in their daily lives in fields such as health, education and energy management

COM(2009)0278

A 14-point Action Plan

- Governance
- Privacy & data protection
- The right to the "silence of the chips"
- Emerging risks
- Vital resource
- Standardisation
- Research
- Public Private Partnership
- Innovation
- Institutional awareness
- International dialogue
- Environment
- Statistics
- Evolution

EU IoT Expert Group (22-23/09/2010-14/11/2012)

- Public consultations with stakeholders from science, civil society and industry (2010)
- Exploring scenarios that lawmakers need to consider when facing a world where ever more physical objects are connected to the Internet
- Topics:
 - Architectures
 - Identification
 - Privacy and Security
 - Ethics
 - Standards
 - Governance



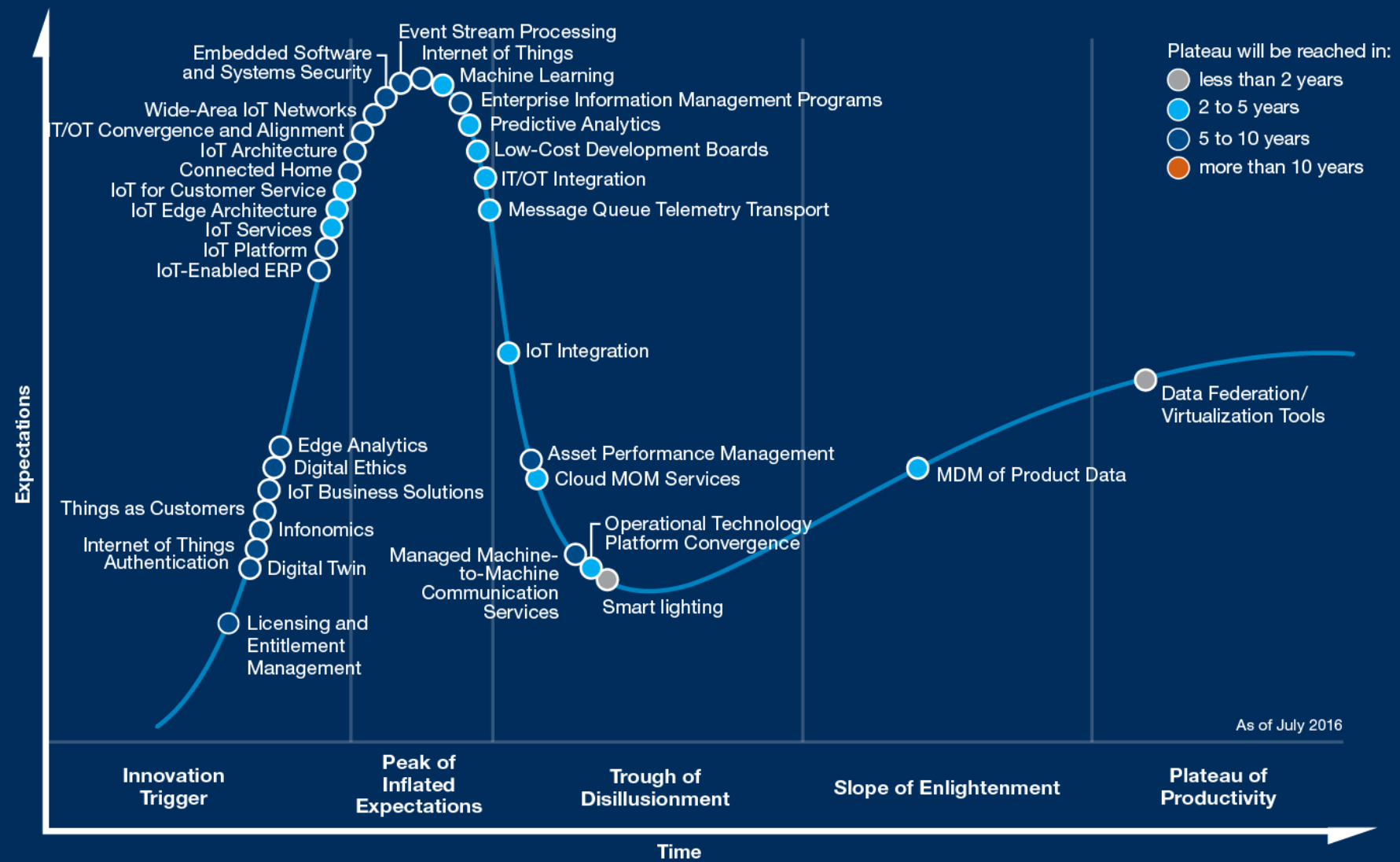
THEN CHINA CAME...



- It started on Aug. 7, 2009 when Chinese Premier Wen Jiabao made a speech in the city of Wuxi calling for the rapid development of Internet of Things technologies. It included this equation: **Internet + Internet of Things = Wisdom of the Earth.**
- Wen Jiabo followed up with a speech on Nov. 3 at the Great Hall of the People in Beijing, in which he encouraged breakthroughs in key technologies for sensor networks and the Internet of Things.



Gartner Hype Cycle for the Internet of Things, 2016



gartner.com/SmarterWithGartner

Source: Gartner
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Gartner®



Alliance for Internet of Things Innovation

AIOTI (March 2015): *“We aim to strengthen the dialogue and interaction among Internet of Things (IoT) players in Europe, and to contribute to the creation of a dynamic European IoT ecosystem to speed up the take up of IoT.”*

	WG 05	WG 06	WG 08	WG 09	WG 10	WG 11	WG 12	WG 13
WG 01 IoT Research	Smart Living Environment for Ageing Well	Smart Farming and Food Security	Smart Cities	Smart Mobility	Smart Water Management	Smart Manufacturing	Smart Energy	Smart Buildings and Architecture
WG 02 Innovation Ecosystems								
WG 03 IoT Standardisation								
WG 04 IoT Policy								
SME Interests								
Distributed Ledger Technologies								

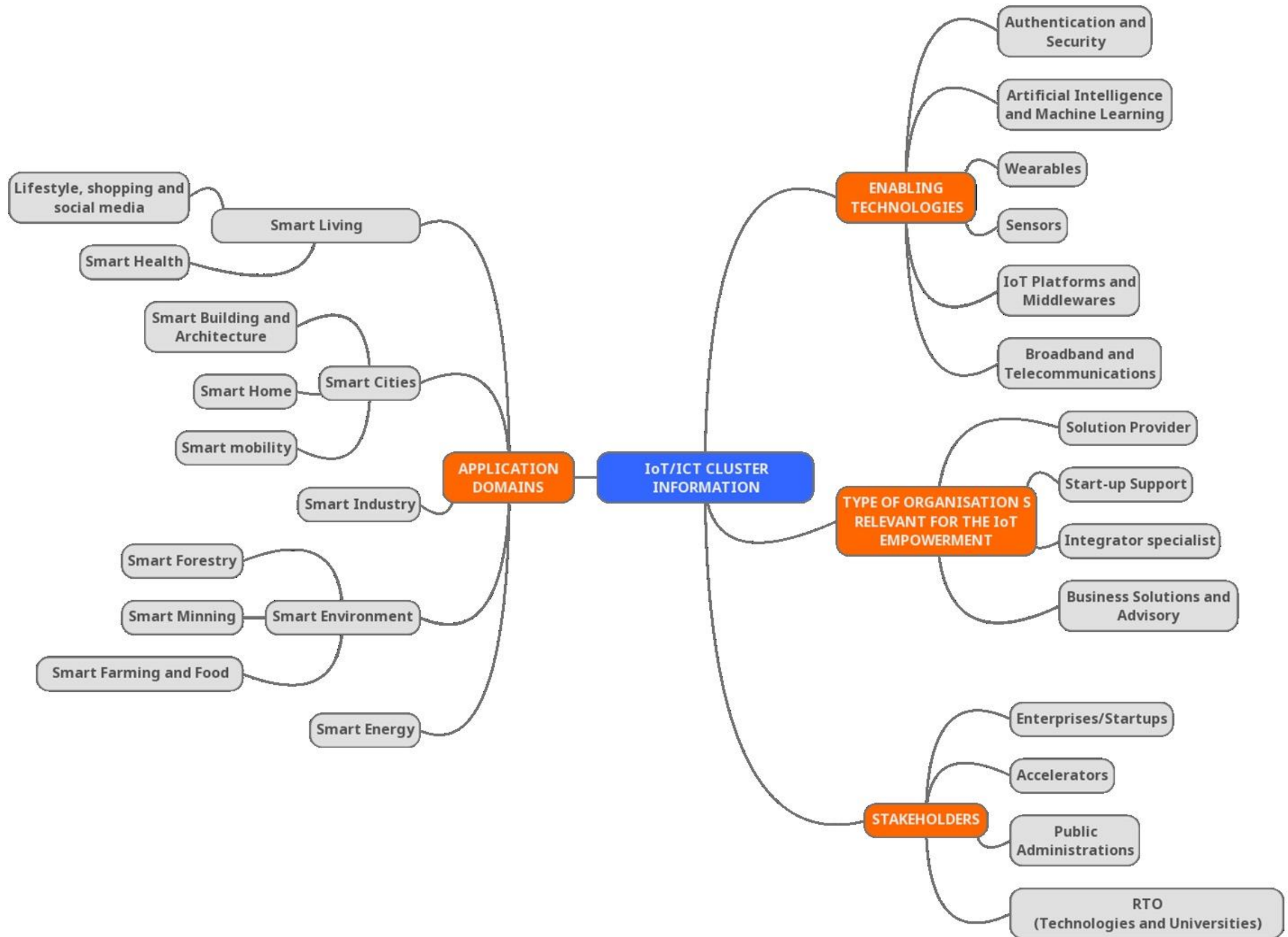
Staff Working Document: “Advancing the Internet of Things in Europe”

19 April 2016

accompanying the document “Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions:

Digitising European Industry (DEI) – Reaping the full benefits of a Digital Single Market COM(2016) 180”

- ❖ A single market for the IoT
- ❖ A Thriving IoT Ecosystem
- ❖ A Human-centered IoT Approach





Research & Innovation

- Large scale pilots
- IoT Security & Privacy
- Next Generation Internet



Policy

- DEI (19 April 2016)
- Liability Staff Working Document (25 April 2018)
- NIS Directive (9 May 2018)
- GDPR (25 May 2018)
- Cyber Security Act (27 June 2019)



Stakeholder Engagement

- ENISA
- AIOTI
- IERC
- Smart Cities
- IoT Week (April 9)

Thank you !

Internet of Things – European Commission

<http://ec.europa.eu/digital-agenda/en/internet-things>

Horizon 2020

EU Framework Programme for research & innovation:

http://ec.europa.eu/research/horizon2020/index_en.cfm

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