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Developing an electronics ecosystem for the smart economy

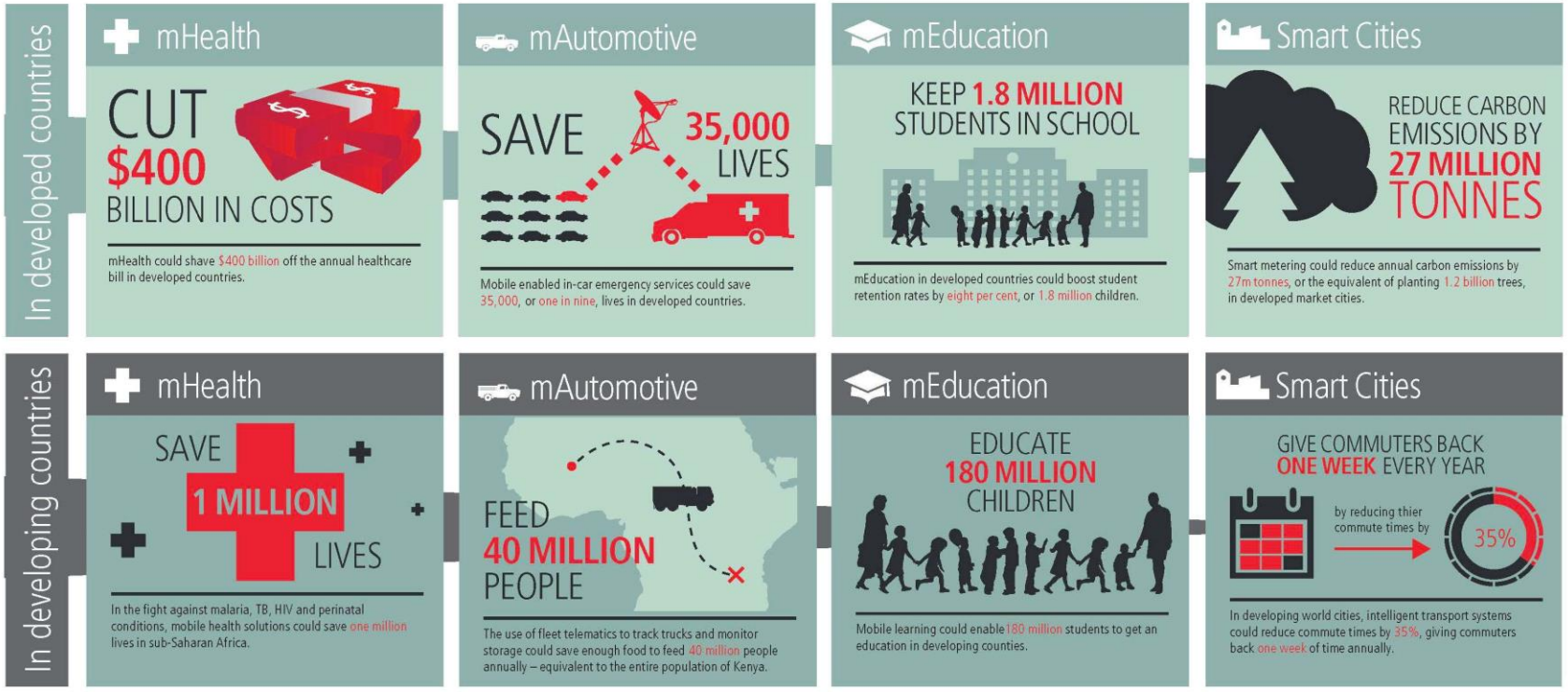
4th April 2013

What do we mean by smart economy?

Source: Forrester Research

Benefits of mobile in the smart economy

The mobile data explosion and the rise of connected devices will transform the socioeconomic future of people globally over the next five years.



Source: GSMA

A snapshot of key UK expertise and technology in the smart economy

- Cloud computing and data centres
- Smart communications, smart devices, mobile content
- Mobile applications
- Semiconductors, electronics systems
- Consumer electronics
- Power electronics

Semiconductors – a key element of the modern age

- Semiconductors are the foundation of modern electronics: radio, computers, telephones, and many other devices
- Global semiconductor market was valued at around US $298 billion in 2010
- UK is home to over 40% of Europe's electronics design industry
- In 2011, UK semiconductor distribution market estimated at US $154 million (9% of total European market), third largest in Europe
- The wider UK electronics market, the 5th largest in the world, currently employs around 250,000 people in 11,500 companies, and estimated to be worth around £23 billion a year

The UK semiconductor sector – sample companies in the value chain

Smart communications – a sample of the extensive supply chain

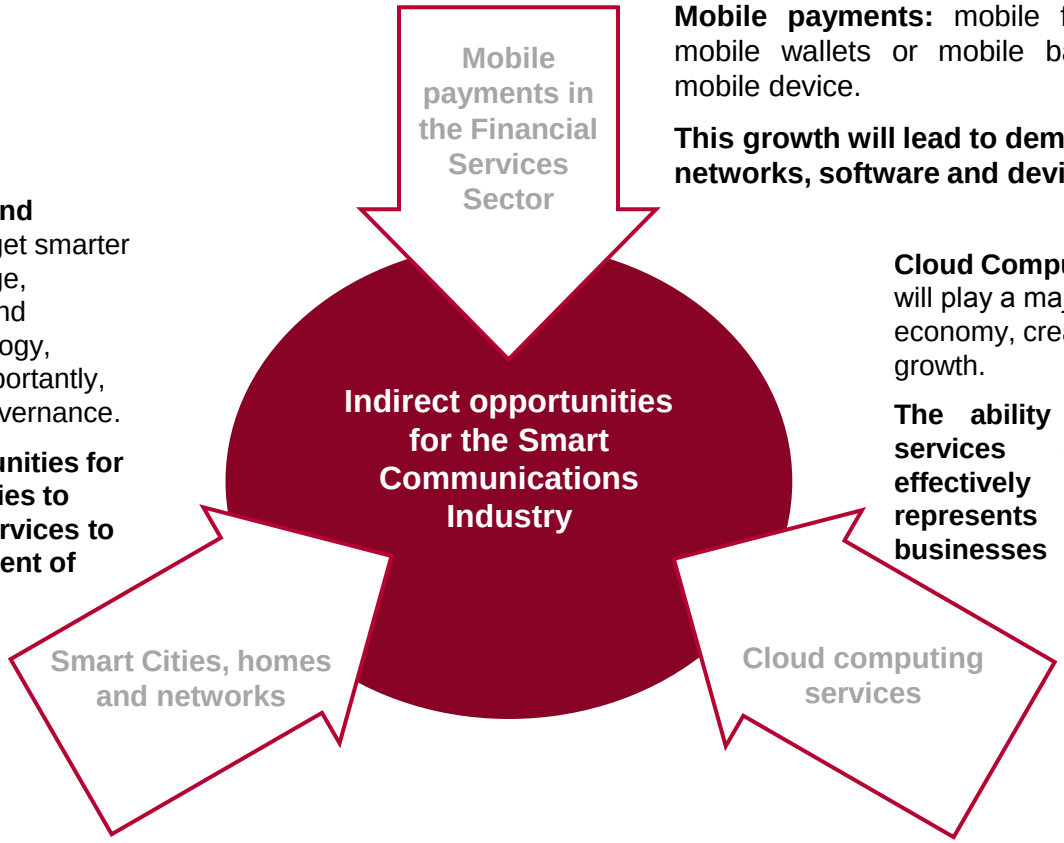
Cloud computing and data centres

- UK is Europe's largest market for cloud computing, set to more than double over next two years, from current £2.4bn to £6.1bn by 2014
- Global cloud computing market will reach US$25.07bn in 2013, or 4% of total ICT market
- UK is world's second largest data centre market, and many 'green' data centres (facilities optimised for energy efficiency and environmental impact)
- Explosive growth in UK SME cloud adoption – currently 18% have adopted cloud, further 30% intend to adopt cloud in next 12 months
- By 2015, half of all government spending on IT will be on public cloud computing services

Smart cities, communications and networks

Smart Cities Homes and Networks - cities will get smarter in terms of energy usage, planning, information and communication technology, buildings and, most importantly, the people and their governance.

This presents opportunities for supply chain companies to provide goods and services to support the achievement of government targets.



Mobile payments: mobile financial services such as mobile wallets or mobile banking performed using a mobile device.

This growth will lead to demand for increased secure networks, software and device development

Cloud Computing - Cloud computing will play a major role in tomorrow's economy, creating new jobs and growth.

The ability to deliver data and services securely, efficiently, effectively and at low cost represents opportunities for businesses

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The future of global cities – smart cities, smart management

- Smart Energy: renewable energy and smart grid infrastructure
- Smart City Planning: electric vehicle charging, smart grids, bus rapid transit, parking infrastructure, and congestion charging
- Smart ICT: telematics, navigation, smart metering, and Internet technologies
- In energy, 'smart metering' has been identified as one of the top growth opportunities going forward
- Smart meters will enable future trend of home automation, to completely automate and control the use of household electrical equipment
- European Commission has set 2020 as the target to complete the installation of smart meters

More opportunities in smart communications: M2M

- Emerging applications in healthcare, smart grid, and consumer electronics
- M2M value chain: module vendors, mobile network operators, mobile virtual network operators (MVNOs), software providers, system integrators
- 15.2 million connected M2M SIMs in Western Europe in 2010
  - UK was one of the largest markets compared to France and Germany with estimated 4.3 million connected SIMs
- It is projected that by 2015 there will be 582 million connected M2M SIMs in Western Europe, with the UK remaining one of the largest markets.
- M2M enables connected/smart cities through transportation, industrial automation, utilities and energy, healthcare, retail, security, telecoms (connected/smart homes)

Agenda

- The internet of things, M2M
  Jose Scodiero, ARM
- Semiconductor technology for smart healthcare and smart lighting
  Dr. Keith Strickland, Plessey Semiconductors
- Not everything is made of silicon: a 'new technologies' approach for the smart economy
  Peter Kember, Kember Associates
- Smart ecosystems in Britain – an energy case study
  Robert McNamara, SmartGridGB
- Questions and answers to the speakers panel


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