GEMALTO M2M

Enable machine to machine communication

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security to be free

M2M Forum
Assago 14 May 2013

Chi è GEMALTO ?

GIUGNO 2006,

GEM PLUS & **AX ALTO**

![gemalto logo]

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Our Company

World leader in digital security

Our company

?2.2bn
Revenue 2012

10,000+
Employees

Our clients

190
Nationalities

3,000+
Financial institutions

450
Mobile Network Operators

80
eGovernment programs

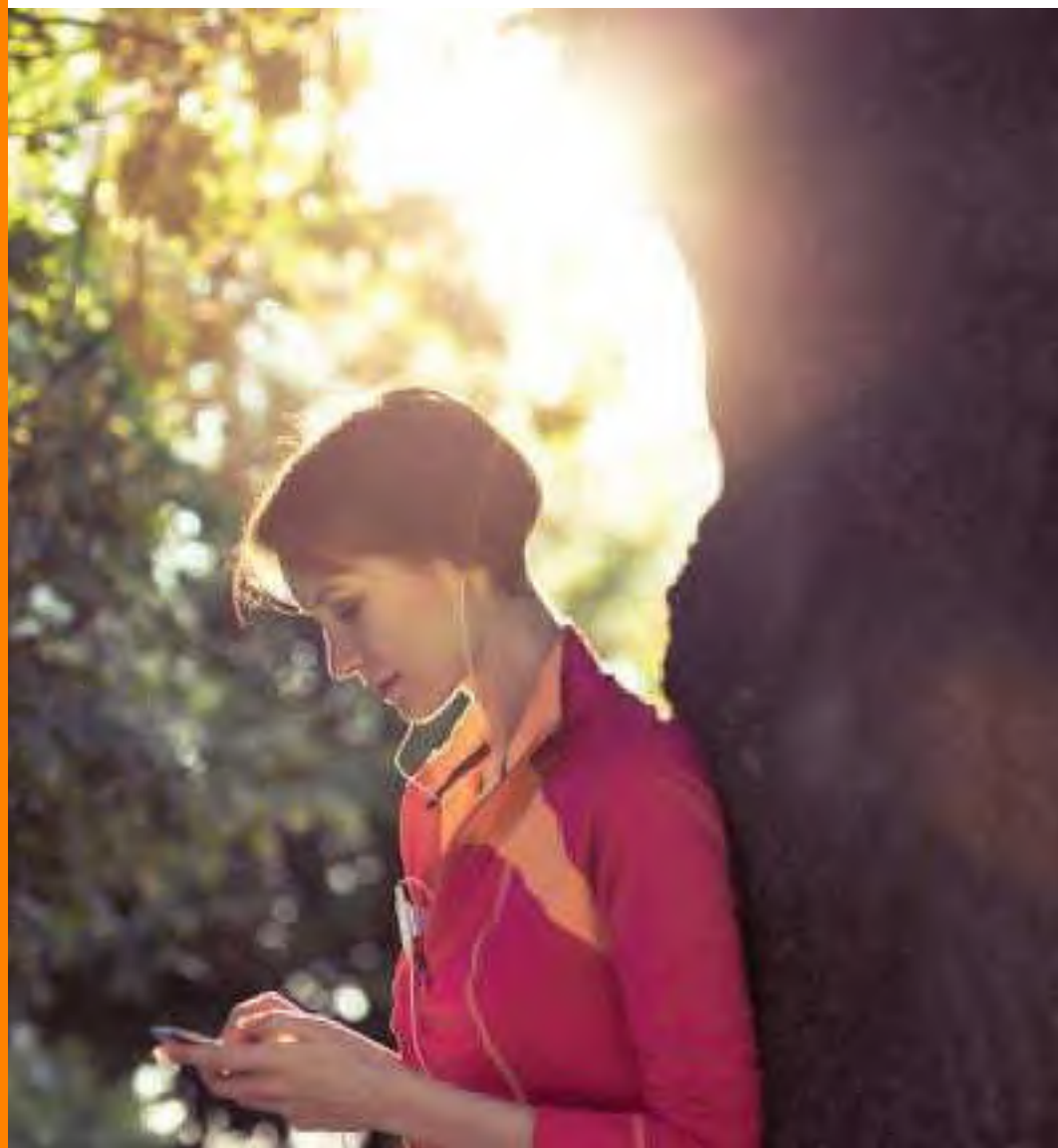**Our innovation**

?177m
Invested in R&D 2012

1,700
Digital engineers

4300
Patents and patent Operators

110
New innovation first programs

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Our offer

Our markets

Digital security for people

FINANCIAL SERVICES & RETAIL

GOVERNMENT

TRANSPORT

IDENTITY AND ACCESS

TELECOMMUNICATIONS

MACHINE-TO-MACHINE

Clients

- Financial Institution
- Banks
- Retailers
- Payment and loyalty card issuer
- Government
- Healthcare and Healtcare insurance provide
- Government service providers
- Mass transit autorities
- Transport operators
- Healthcare provider
- Governments
- Defence and Police organization
- Banks
- Mobile Network Operators
- Financial Institutions
- Content and service providers
- Consumert brands
- Retailers
- **Integrators**
- **Mobile Network Operators**
- **Equipment Manufactures**

Solutions

- Secure operating system and application for a wide range of contact and contactless payment
- Mobile financial solutions and services
- Strong authentication and transaction signing solution and associated services for online banking and eCommerce
- Software and application enhancing the security ,efficiency and convenience of a wide range of electronic   ID documents
- End to end solutions for eVoting and other eGovernment initiatives
- Contactless electronic ticketing solutions for public transportation
- Payment and ticketing on mobile handsets using NFC
- Identity and access management (AM) solution using secure software embedded in various form connected and unconnected electronic ID badges and portable services
- Strong online authentication solutions offering secure access and control of digital and physical resources
- Secure operating systems and applications embedded in a range of SIM and UICC cards.
- Client-server software for remote management of mobile devices.
- Services, including Near-Field Communication (NFC), roaming optimization, mobile money, mobile payment, mobile marketing and personal data management
- A wide range of products and services including **Cinterion Wireless Modules AND MACHINE IDENTIFICATION MODULES (MIM)?**
- M2M service enablement and delivery as well as subscription and device management platforms and services, for applications and devices

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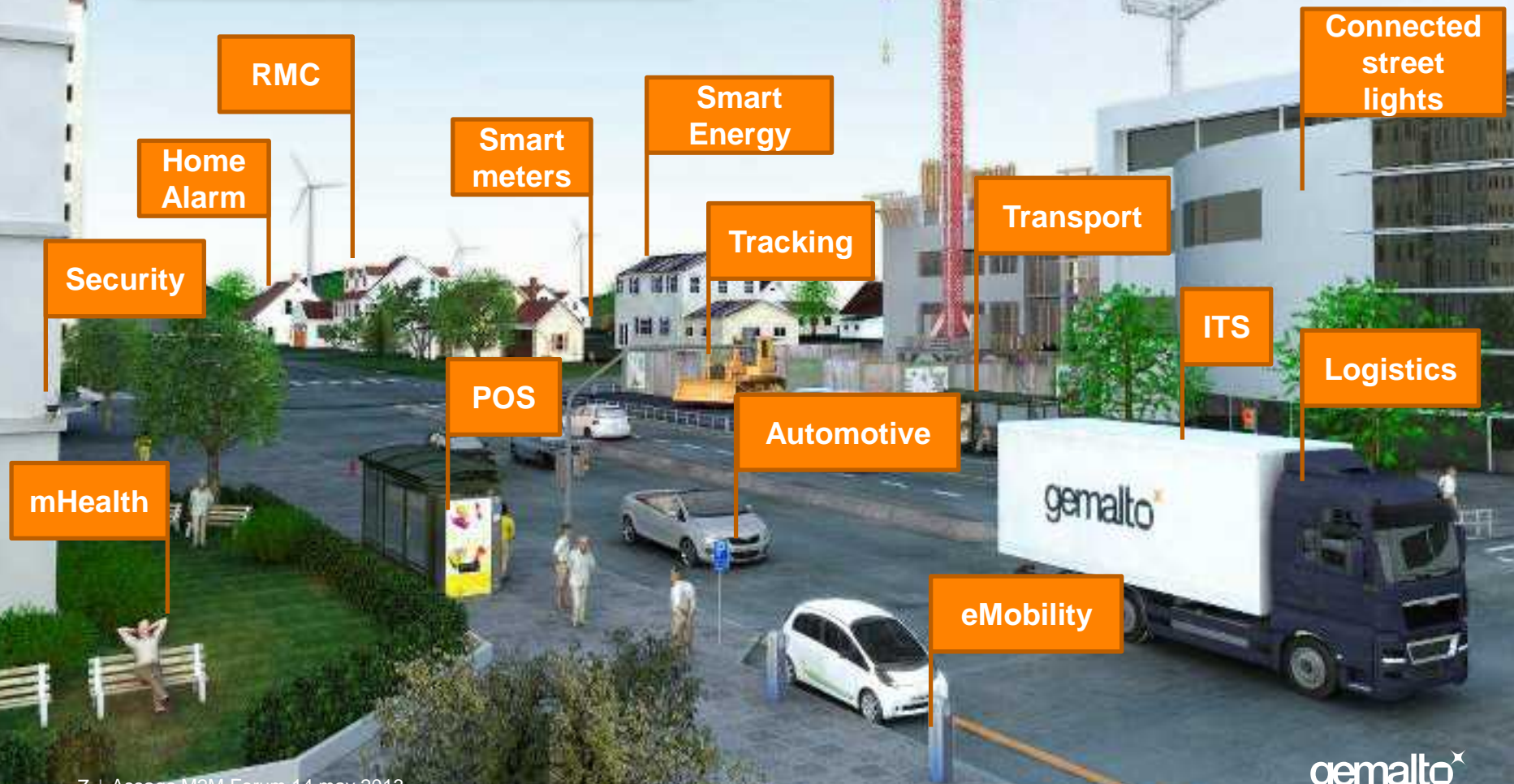
✦ **1 giugno 2008: passaggio del testimone**

SIEMENS
Wireless Modules

CINTERION
WIRELESS MODULES

Con gemalto
Machine to Machine

......la gara continua

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Machine to Machine

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Those are the trends in M2M.

2013

LTE Rollout will start and Automotive is the first vertical.

Embedded Processing will change the way we design M2M applications.
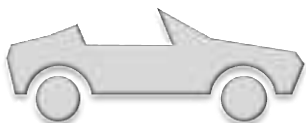
Service Adoption will drive market much more than technology.

Independence from specific cellular network technologies will become a key M2M requirement.

Flexible SIM Management services will facilitate new businesses and logistic models.

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Answers: Cinterion® Modules Product Families

2013

Cinterion® Automotive

Products
ALS3, AHS3
AHS2, AGS2

LTE HSPA+ GPRS GPRS

Cinterion® Advanced

Products
PHS8, PLS8
PXS8, PCS3

LTE Multi M. HSPA+EV-DOHSDPA1xRTT

Cinterion® Evolution

Products
BGS5, EHS5
EHS6, EHS8
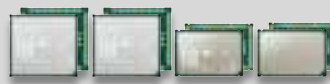
HSPA HSPA HSPA GPRS

Cinterion® Value

Products
BGS2 R2
EHS5 R1

HSPA GPRS

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Answers: Global Coverage and Optimized Regional Variants

EHS5-US
3G: 850/1900
2G: 850/1900

EHS5-E
3G: 900/2100
2G: 900/1800

EHS6 / EHS8
3G: 800/850/900/1900/2100
2G: 850/900/1800/1900

BGS2 / BGS5
2G: 850/900/1800/1900

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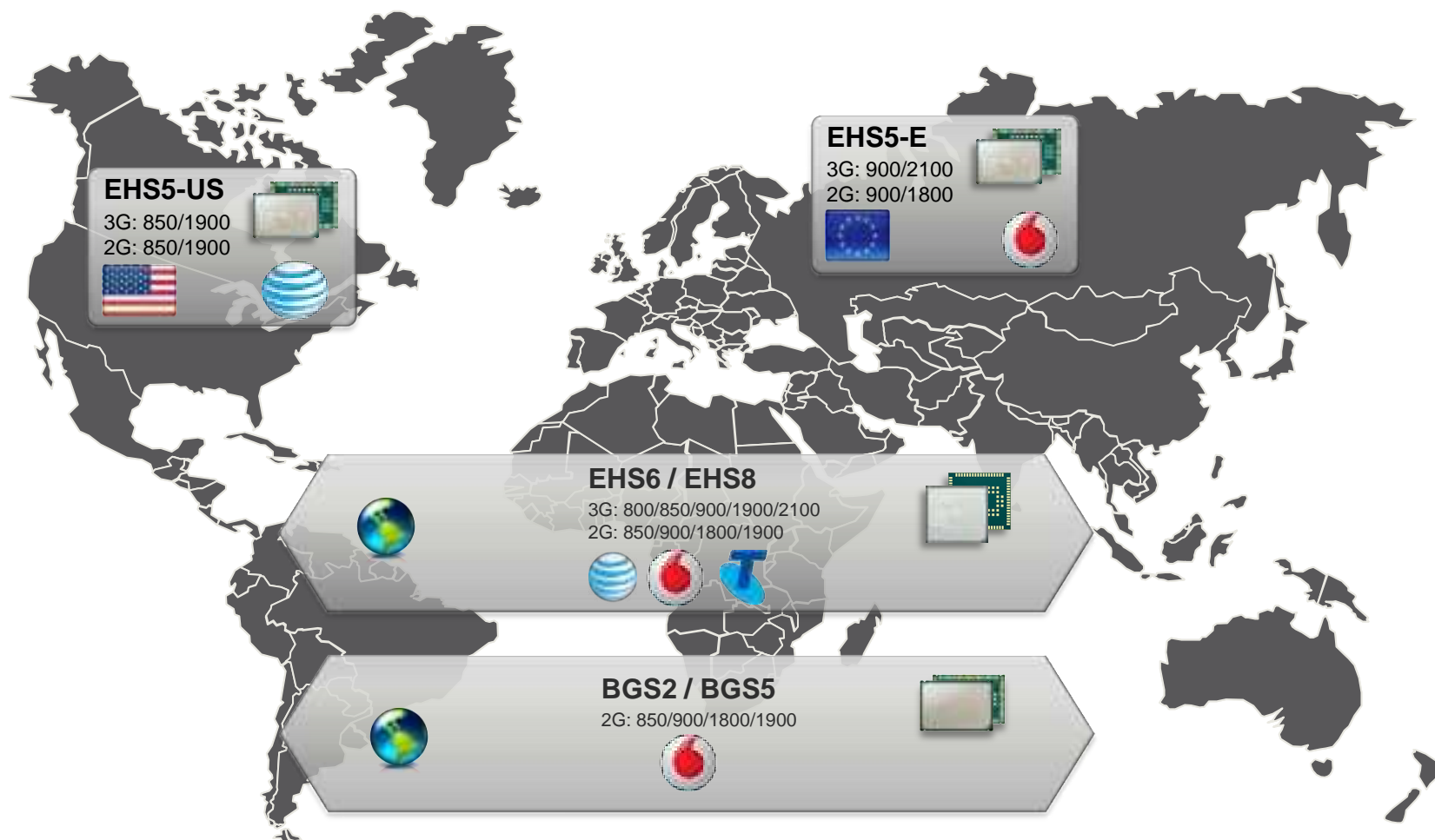
Answers: Single footprint, multiple choices

Europe and MEA

LTE: PLS8-E
3G UMTS:
PHS8-P, -E

Americas

LTE: PLS8-US
3G UMTS:
PHS8-P, -US, -US
3G CDMA:
PXS8, PVS8, PCS3

Asia Pacific

LTE: t.b.d.
3G UMTS:
PHS8-P, -E, -K, -J
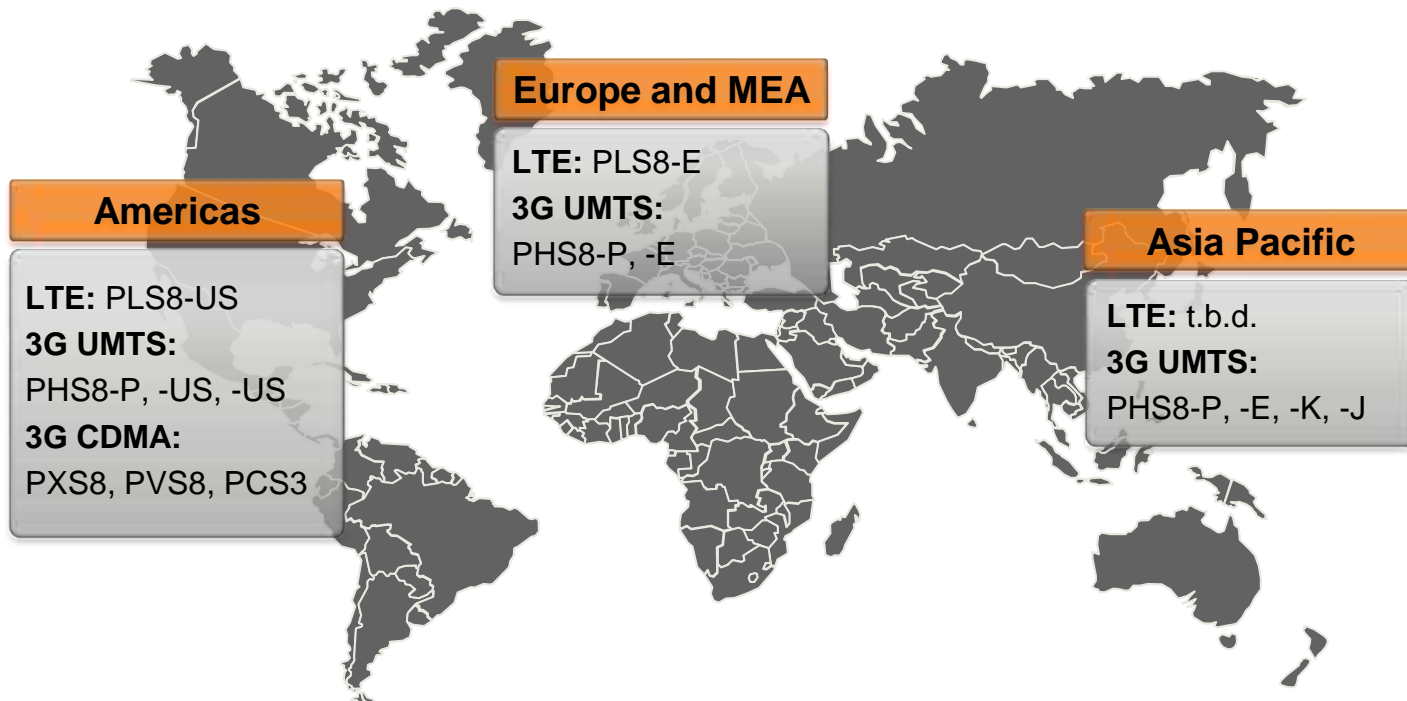
PCS3	PVS8	PHS8-K	PHS8-J	PHS8-E	PHS8-USA	PHS8-US	PHS8-P	PXS8	PLS8	→
1xRTT	EV-DO	HSPA+	HSPA+	HSPA+	HSPA+	HSPA+	HSPA+	Multi Mode	LTE	→

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Answers: MIM = M2M SIM

70% of M2M devices use consumer grade SIM!!

	U-MIM Quad	M2M^Plug 85	M2M^Plug 105	^Full M2M Quad	^Full Auto Quad
Drivers	Miniaturization M2M consumer electronics	Fit any equipment M2M industrial	Fit any equipment Extended endurance M2M industrial	Industrial grade Extended endurance M2M industrial	Auto grade Extended endurance Automotive std
Temperature resistance range	GSM standard	-35° / +85°	-40° / +105°	-40° / +105°	-40° / +105°
M2M qualification (JEDEC)			●	●	●
eXtented Life mechanism	As an option	●	●	●	●
Enhanced silicon		●	●	●	●
Burn-in					●
Data retention	10y / 25°C	10y / 85°C	10y / 85°C	10y / 85°C	**17y / 80°C**
Automotive req compliancy			🚗	🚗🚗	🚗🚗🚗

Rugged MIMs for a rugged industry

XL eXtended Life - eXtended Life - eXtended Life -

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Answers: Subscription Management

70% of M2M devices use consumer grade SIM!!

Complexity
-Technical
- Regulation
- Business models
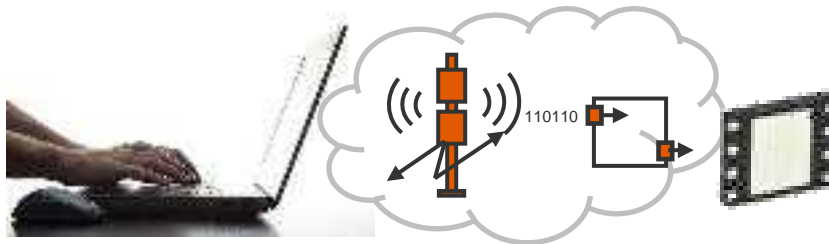
When you solder, don't get stuck.

Flexible Operator Subscription Selection

Multi MNO profile

Factory Last Stage Personalization

Personalization
•MNO can be chosen
• profile/subscribtion selected & activated OTA or OTI

HLR provisioning
. Needs to be dynamic

Mobile Number Portability
. Needs to be synchronized

Personalization
•Perso @ SIM factory with several sets of IMSI/KI and security algos

•Activation of one out of several by OTA

HLR provisioning
. May need to be dynamic

Personalization
•Part of perso at SIM factory
•Part of perso at last stage before sales channel introduction

MONO MNO MODEL

MULTI MNO MODELS

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Answers: App Management Platform

Mobile App   **Browser**

Unique Services

We enable:
- the gate to the vertical
- on any device
- with a platform tool box

- Look & Feel
- UI Code
- Workflow
- App Logic

- App Algorithms
- Maps
- User Mgmt
- App Data Mgmt

M2M

- Roles
- Alarms
- Biz Rules
- Web Services

- Device data
- Device Mgmt
- Data Store
- Connectivity

Developper can use:
- any language
- any device
- any vertical

M2M Application

De-fragment the app world

SensorLogic

Common Services
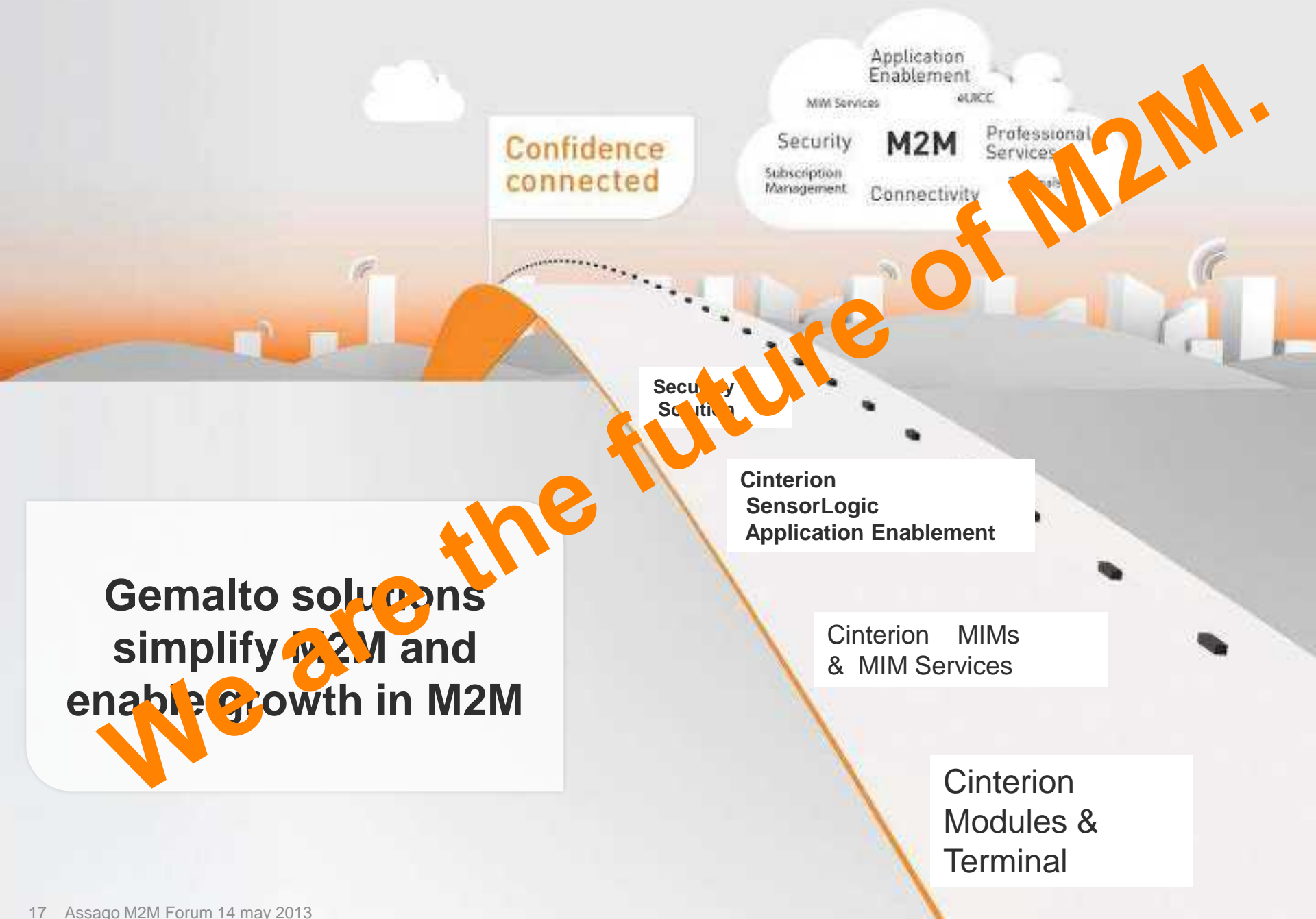
SensorLogic
SERVICE DELIVERY
PLATFORM

Sensors   **Machines**   **Devices**   **Vehicles**

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Confidence connected

Application Enablement

MIM Services

eUICC

Security

M2M

Professional Services

Subscription Management

Connectivity

We are the future of M2M.

Security Solution

Cinterion SensorLogic Application Enablement

Cinterion MIMs & MIM Services

Cinterion Modules & Terminal

Gemalto solutions simplify M2M and enable growth in M2M

GEMALTO M2M

We deliver confidence connected

GRAZIE
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