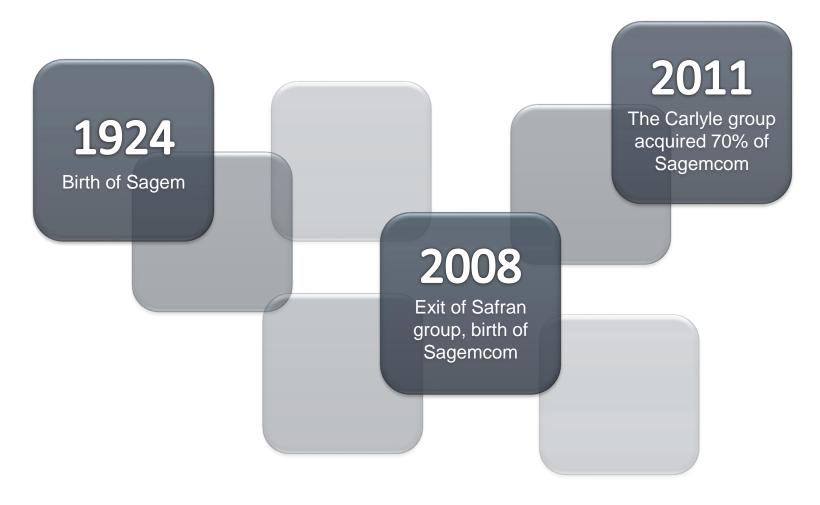


Sagemcom

SAGEMCOM presentation

Club ER_20 Sept 2016

About Sagemcom - History



Sagemcom: figures

Turnover: \$1.4 billion

30% of employee shareholding

4000 employees in more than 40 countries

500 engineers

in our R&D center in Rueil-Malmaison (France)

23 million terminals shipped every year

The values of Sagemcom group

AGILITY Mobilized for the best **CLIENT** The client at the center **CENTRIC** of our actions **EFFICIENCY** Performance as a daily challenge **TEAM POWER Talent committed to** the most ambitious projects **CREATIVITY** Differentiate to create values

Sagemcom's positioning

Sagemcom's ambition is to remain a leader in customized communications terminals with high added value.

Sagemcom operates on three markets:

BROADBAND



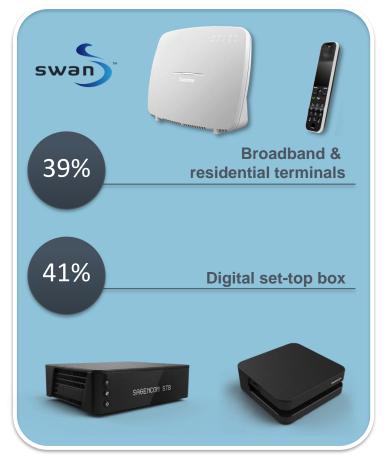
ENERGY & TELECOM





INTERNET OF THINGS

Sagemcom group turnover distribution



Turnover: \$1.4 billion



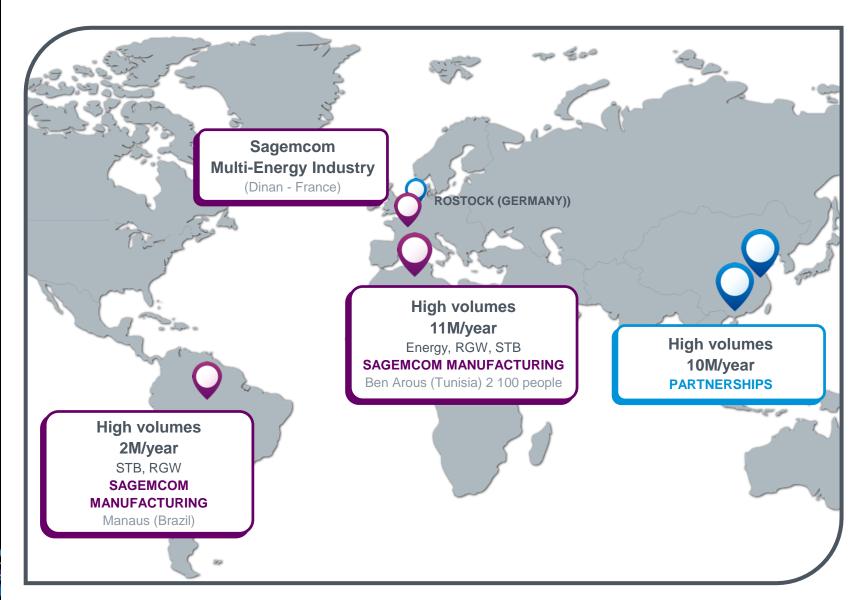
ENERGY & TELECOM

SAGEMCOM BROADBAND

Our R&D organization

500 engineers in Rueil-Malmaison (France) 550 all around the world **Germany:** Hamburg, Rostock, Walderbach, **France Bocholt** (500 engineers) Canada: Montreal Austria: Vienna China: **US:** Texas Shenzhen, (100 engineers) Tunisia: Tunis (450 engineers) Mexico: Test platform Peru: Test platform Columbia: Test platform Australia: Test platform **Brazil:** Curitiba Chili: Test platform

Our manufacturing bases



Sagemcom Energy&Telecom: our strengths

50 years experience in telecom infrastructure design and deployment



20 years experience in energy and smart metering

A unique competence in development, customization and integration of hardware and software solutions

A strong local footprint thanks to our engineers, technicians and project managers.

SAGEMCOM E&T International Presence



Energy&Telecom: our range of products



Energy Department

• End-2-End portfolio,

meter and

• G3 and Prime PLC

communication

including

- · Connect everything, everywhere
- · Security for critical

• Multi Utility solutions

HES and AMR

- All metering tasks, all services
- Leading gateway solution provider

Customer focused Metering systems

- Flexible and scalable for your needs
- Proven in nearly all major European rollouts

Communication Solutions

- infrastructure

Grid control and management

- · Supply and Demand
- Stabilizing

Energy and Site Management

- · Complete site control and management
- Energy cost reduction
- · Prepared to manage massive information

SMART (SITE

- - Reinforcement
- Remote Monitoring Systems (RMS)
 - ESM-Vision
- Power solution
 - · Power Solutions for Telecom and Rural

End to End Rural Electrification solution

- Power solutions
- Distribution
- Metering & payment
- Management
- Digital Terrestrial **Television**

NIS Department

Fiber backbones

/Base Station

Intelligent Traffic

Home/Building/Curb

• Fiber to the

Systems

• Fiber Rollout

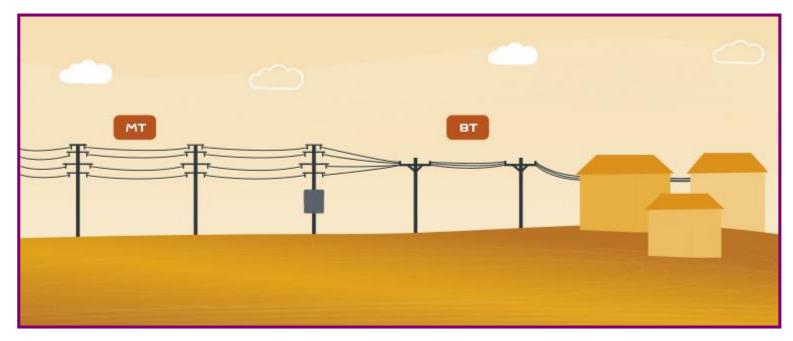


- Smart Site
 - Radio Site Construction
- - Grid Extension for Rural Electrification

- Managed Services
- Sites and Networks Audit
- Energy design and optimization services

On Grid solution: Grid extension for rural electrification

- Full turnkey solution for grid extension (Low and Medium Voltage), including:
 - Engineering
 - Civil works
 - Logistics
 - Installation & commissioning of:
 - Power transformer
 - Cables,
 - · Pylon and protection



Off Grid solution: End to end solution for rural electrification



Smart village built around ESM-Power/R includes:

- Power Station for different services or applications
 - Households connection
 - Industrial/Telecom sites connection
- Power distribution for different applications:
- End users (prepaid) meters
- Meters for distribution monitoring
- End to end monitoring and control thanks to ESM-Vision
- Management of QoS per application
- Maintenance & operations

Off Grid solution: End to end rural electrification solutions

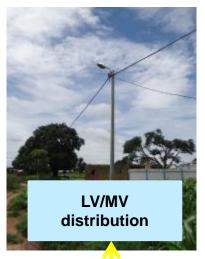
Rural station



Power station management

Energy management

Distribution



Metering



- Prepaid,Limiters,
- Smart rural meters

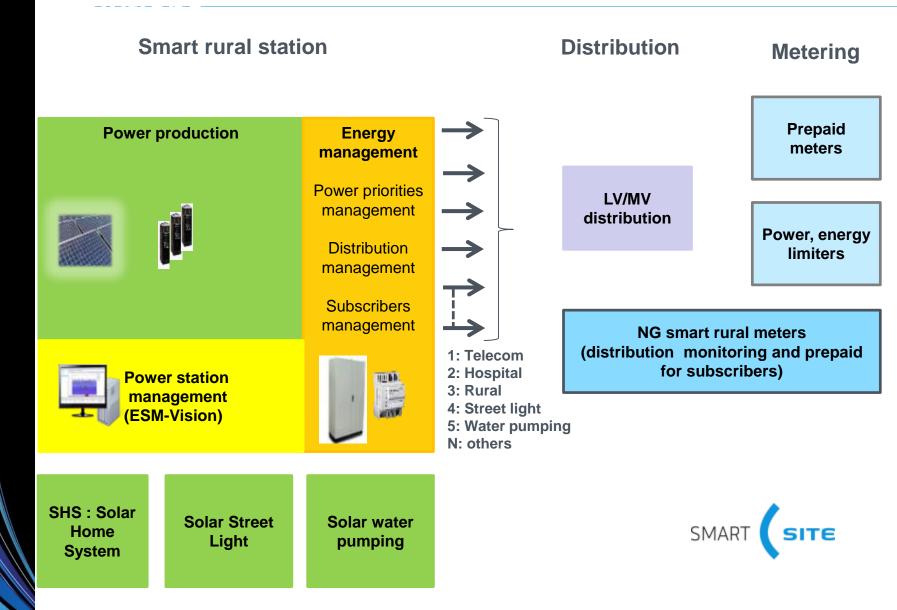
Rural Equipment







Off Grid solution: End to end rural electrification



Sagemcom Energy & Site Monitoring Solutions

Energy, security, fuel



Monitoring



SERVER



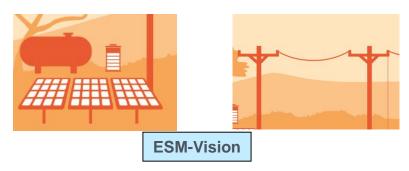
Local Interfaces:

Ethernet – RS485 WMBUS – DRY LOOP SITES - SERVER connection

Ethernet – 2G/3G - SMS

ESM-Power / R: Multi-application stations

Production & Distribution



Thanks to ESM-Vision, it's possible to manage QoS per application

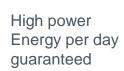
As an example:

- Telecom sites
- Hospital
- Rural distribution
- Irrigation, pumping water

High power High priority



Low power High priority



Medium power Best effort



Applications







Other: pumping water,...

ESM-Power / R : Pre-payment

- User requests a recharge with mobile money service
- User receives back, the recharge code to input on the meter





Code generation



Mobile Money request processing

Meter recharge request by user with Mobile Money Based of amount of prepaid kWh, generation of an STS code or equivalent Recharge code sending by Mobile Money on user mobile Recharge code input in the meter by the user



Sagemcom

Thank you for your attention