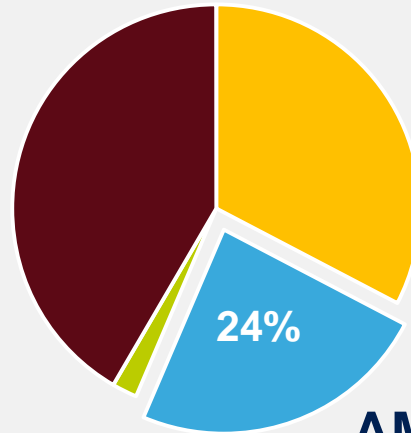# Meeting   ST - Universities

Catania, March 31, 2017
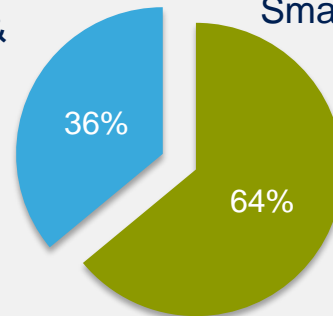
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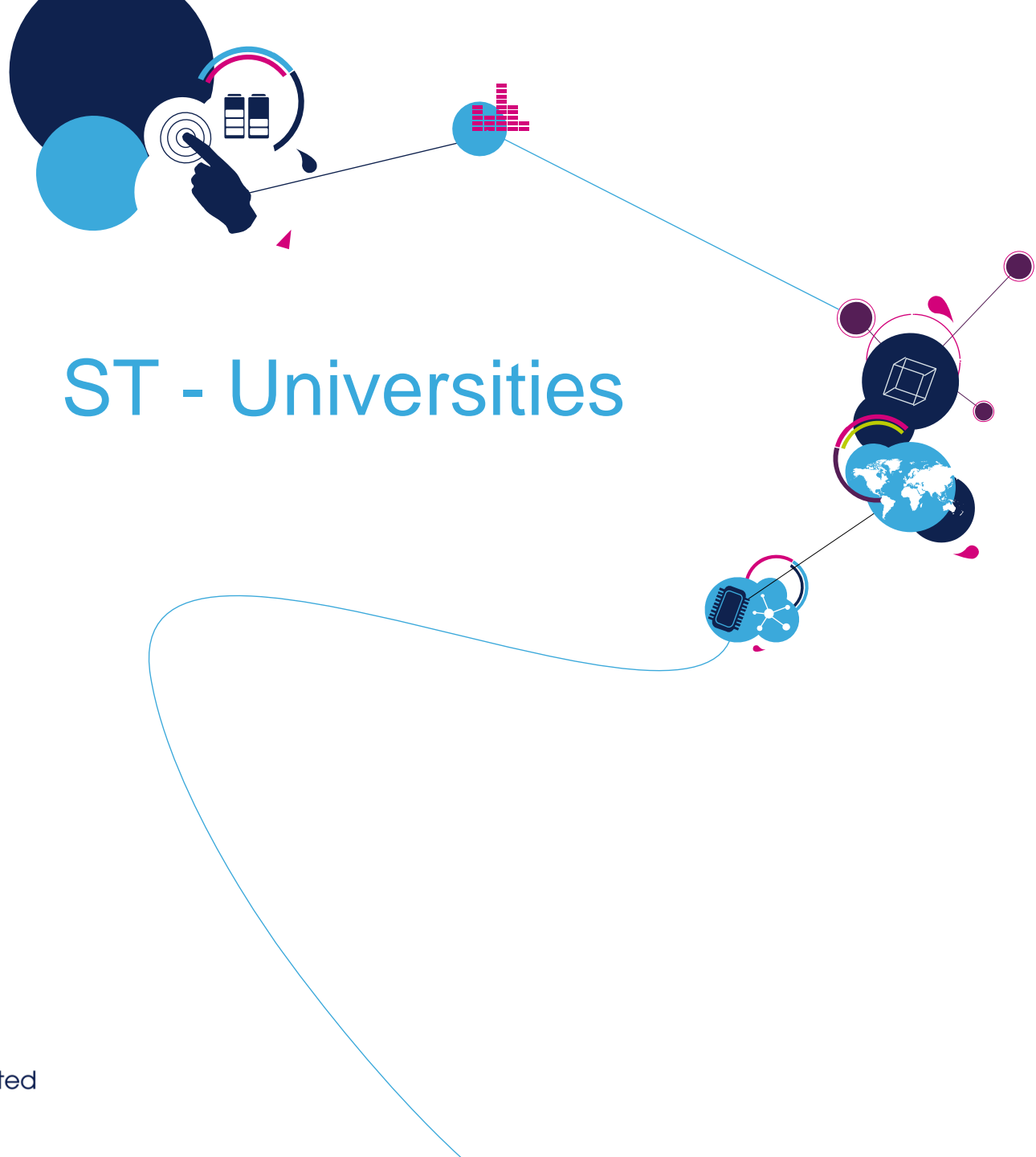
Contribution to ST revenues

24%

AMG

Sensors & Actuators

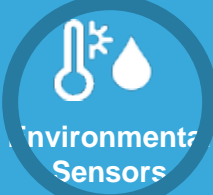Analog and Smart Power

36%

64%

AMG Portfolio

Sensors and Actuators

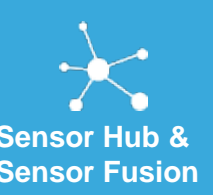Motion Sensors • Environmental Sensors • Microphones • Actuators • Sensor Hub & Sensor Fusion

Analog and Smart Power

Industrial: Motion Control ICs • Industrial Analog ASSP • Energy Management ICs • Digital Power Conversion ICs • AC-DC Power Supply • Lighting ICs
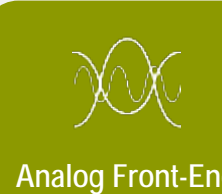
Custom Analog: PMIC for Data Storage & Server • Portable Power Management

General Purpose Analog: Analog Front-End • RF ICs

Application Strategic Focus

IoT applications are changing the way we work and live by saving time and resources, and opening new opportunities for growth, innovation and knowledge creation

Smart Industry

Factory Automation
Motion Control
Industrial Robots
Industrial Lighting

Smart Home

Home & Building
Automation
Smart Appliances
Smart LED Lighting
Heating & Energy
Control
Security System

Smart City

Traffic control
Smart Transportation
Smart Metering
Street Lighting

Smart Things

Wearable
Smartphones
Tablets
Smart consumer

Shaping our future with analog, sensors, smart power and connectivity to drive the evolution of IoT

Internet of Things

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Proposed subjects for stages

1) Innovative solutions for new state of the art of battery chargers / adapters.
2) Intelligent Power Switch and Industrial communication link products.
3) Nano ampere design: architectures and circuit solutions, new components, models, simulations.
4) High Power and High Frequency DC-DC converter: Architectures and Design solutions including parasitic effect, package strategies, boards constraints and thermal issues.
5) New components for satellite devices: how to increase robustness versus TID and SET
6) Top level simulations: tools and strategies to increase application coverage and speed up design.

Proposed subjects for stages

7) Digital Physical Implementation: Place and Route Flow Timing Driven from netlist gate level: floor–planning, power planning, placement optimization, Clock tree analysis and synthesis, parasitic extraction and static timing analysis (STA) back annotated .

8) Analog Front-End and Macro modeling to be focused on behavioral modeling for analog circuits.

9) Analog Back-End to be focused on layout optimization for Power Modules, Micromodules, EMI analysis (including SiC devices).

10) CAD Technology: development of methodologies for the simulation and modeling of semiconductors devices, with focus on power components

11) Environment sensors with associated Circuit Conditioning and MEMS oscillators.

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