



ON Semiconductor®

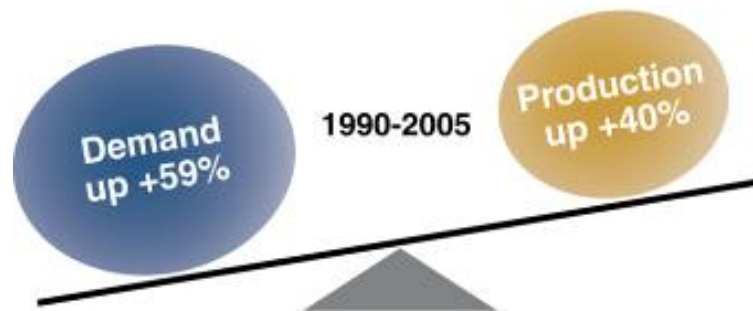
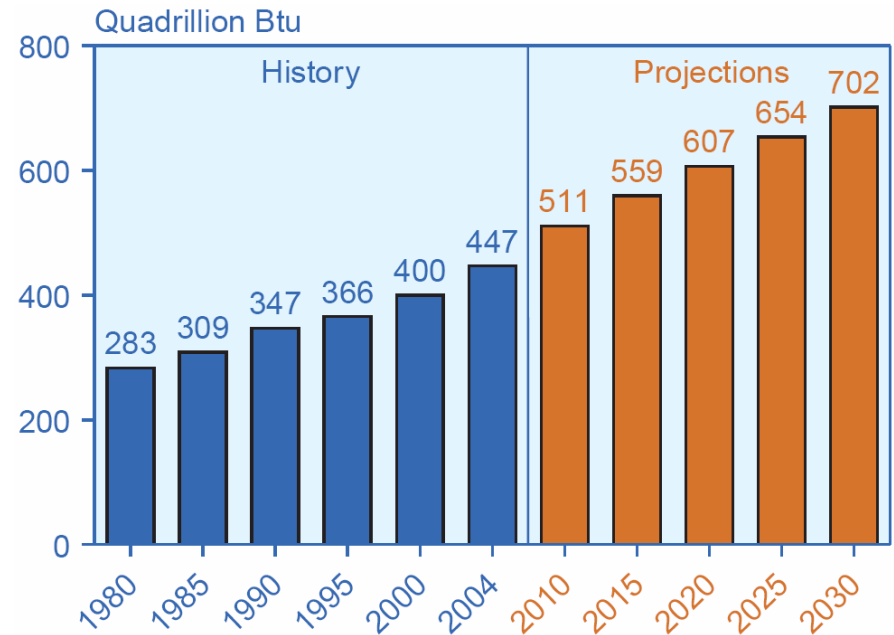
A Company Focused on Energy Efficiency

The Case for Energy Efficiency

Representative Countries & Energy Consumption

Country	Population in millions (2005)	Consumption in quads (2003)
China	1304	45.5
India	1104	14.0
United States	296	98.8
Indonesia	222	4.7
Brazil	184	8.8
Pakistan	162	1.9
Russia	144	29.1
Bangladesh	144	0.6
Nigeria	132	1.0
Japan	128	22.4
Mexico	107	6.8
Germany	82	14.2
Iran	70	6.0
Thailand	65	3.1
France	61	11.2
United Kingdom	60	9.8
Italy	59	8.0
South Africa	50	4.9
South Korea	48	8.6
Canada	32	13.5
Saudi Arabia	25	5.7
Taiwan	23	4.2
Australia	20	6.1

Quad = Quadrillion Btu



More Power Plants: *Status quo with resulting pollution*

Conservation: *Behavior change which results in the use of less energy*

Energy Efficiency: *use of technology to use less energy to perform the same task*

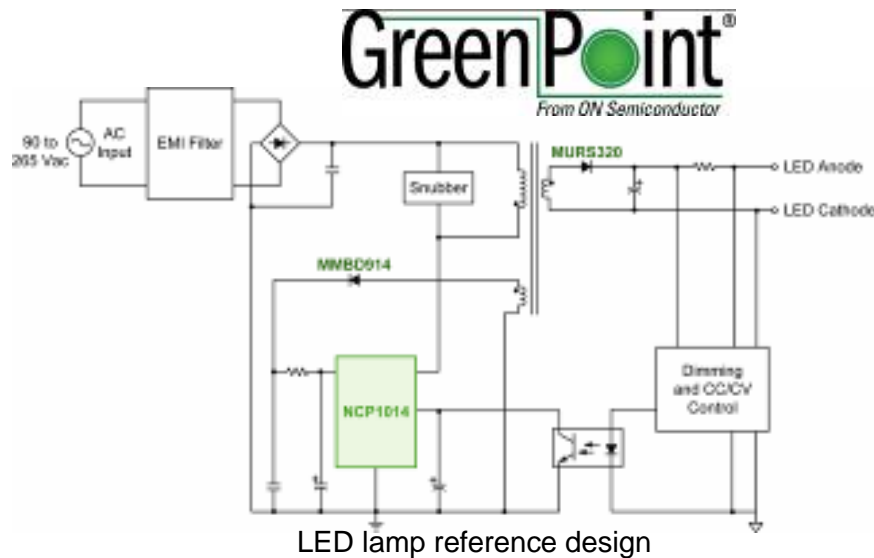


Energy Efficiency through Technology Innovation



- Standard lamp from retail store
- Halogen bulb; no electronics in power supply
- 42 W input → 17.8 Lux/W

- Modified lamp
- Cree LED module; NCP1014-based power supply
- 11 W input → 72.9 Lux/W



The LED lamp produces more light than halogen bulb for ¼ of power.

ON Semiconductor is a Premier Supplier of High Performance, Energy Efficient Silicon Solutions for Green Electronics



Consumer



Smart Grid



Computing



ON Semiconductor®

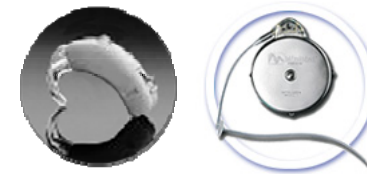


Automotive



Lighting

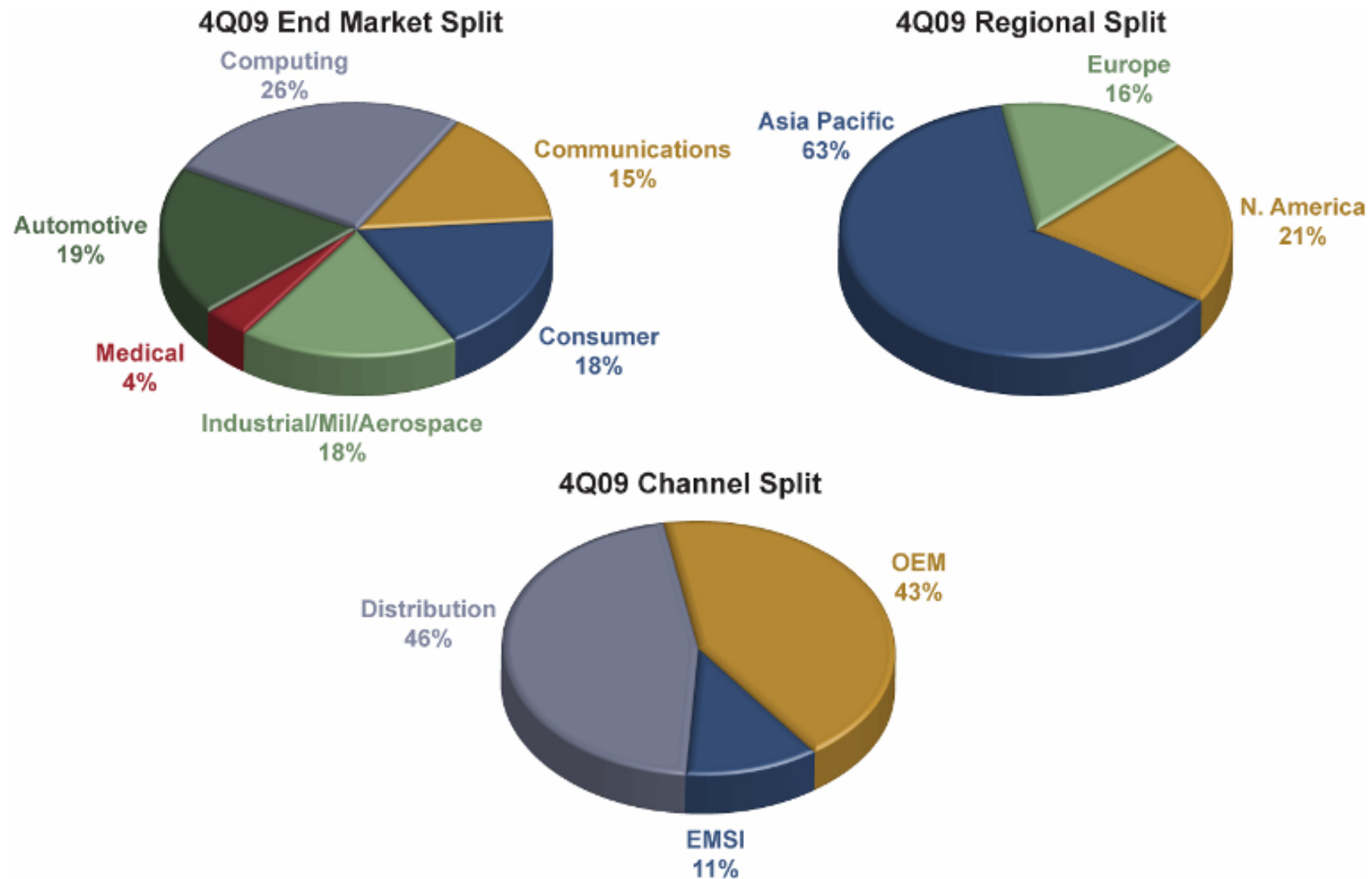
Wireless



Medical



Diverse Segment and Regional Profile



LED Lighting

Mobile

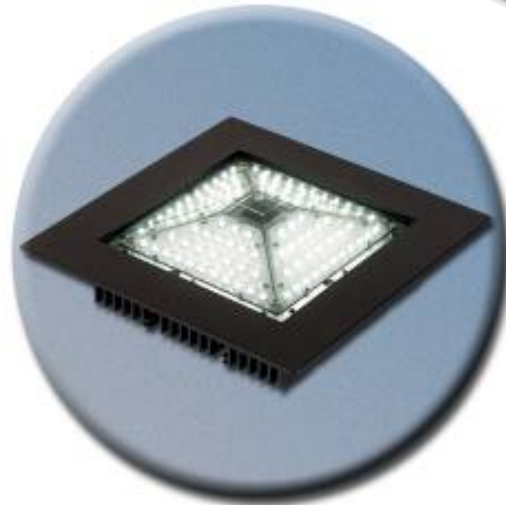


LCD Backlighting

Automotive

Architectural

General

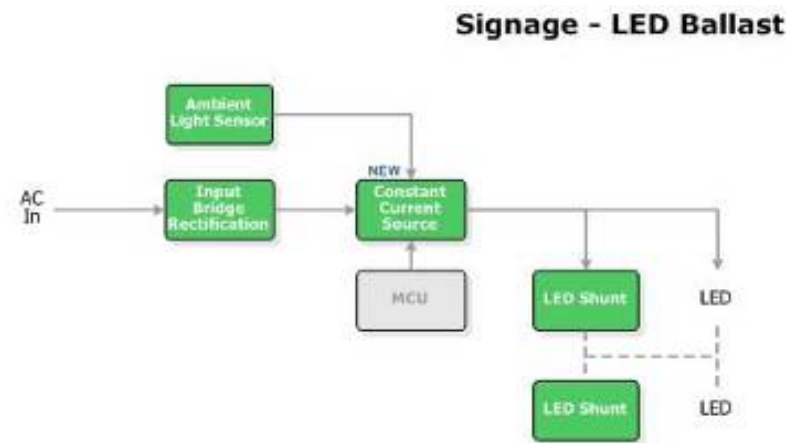


Signage

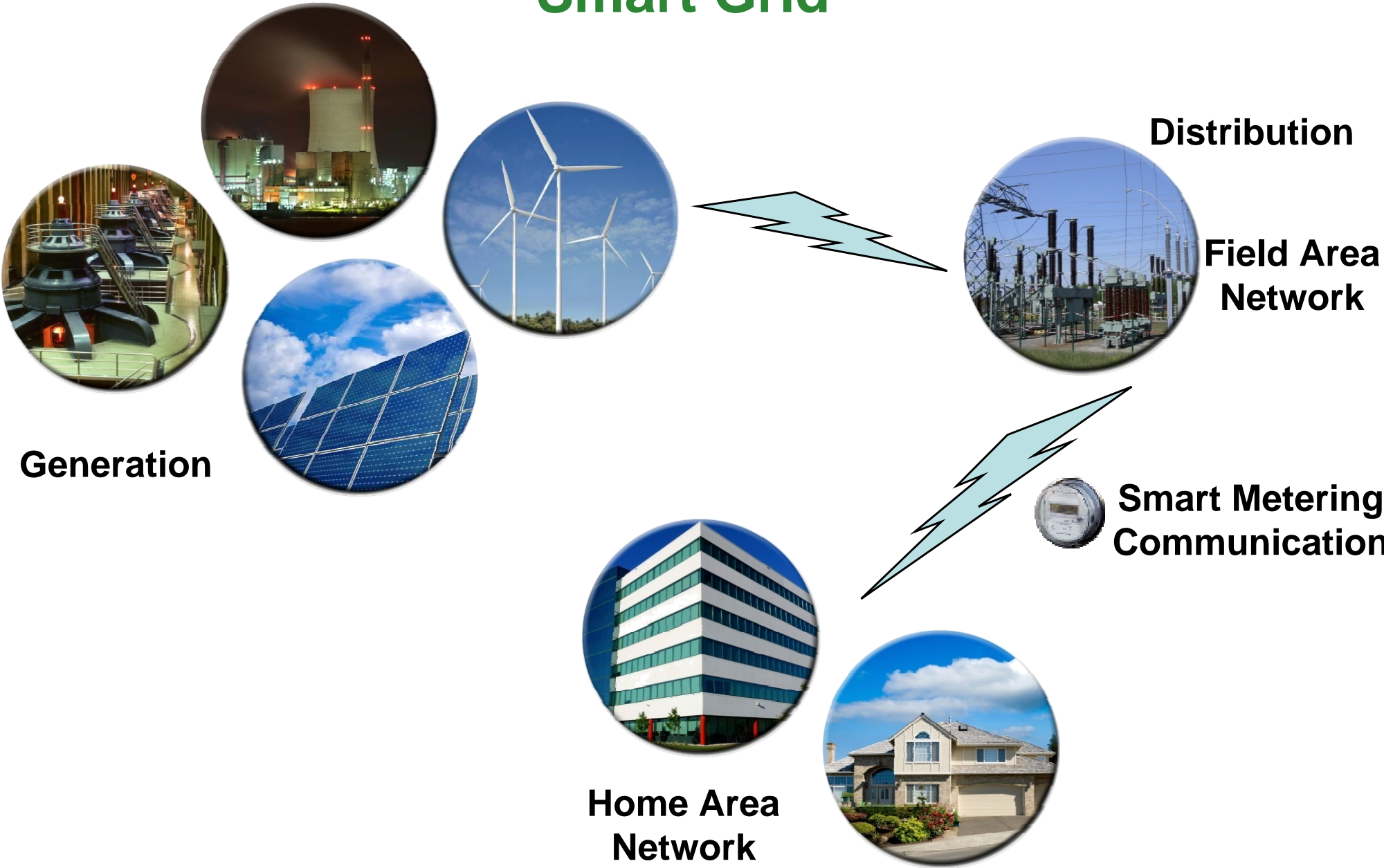


LED Lighting Content

- LED Drivers (120 and 240 Vac, Medium Voltage AC and DC, Battery Powered)
- Ambient Light Sensors
- Communication (PLC modems)
- Thermal Managers
- AC-DC and DC-DC Controllers
- Charge Pumps and Inductive Boost Drivers
- Constant Current Regulators
- Protection and Shunts
- MOSFETs and Rectifiers

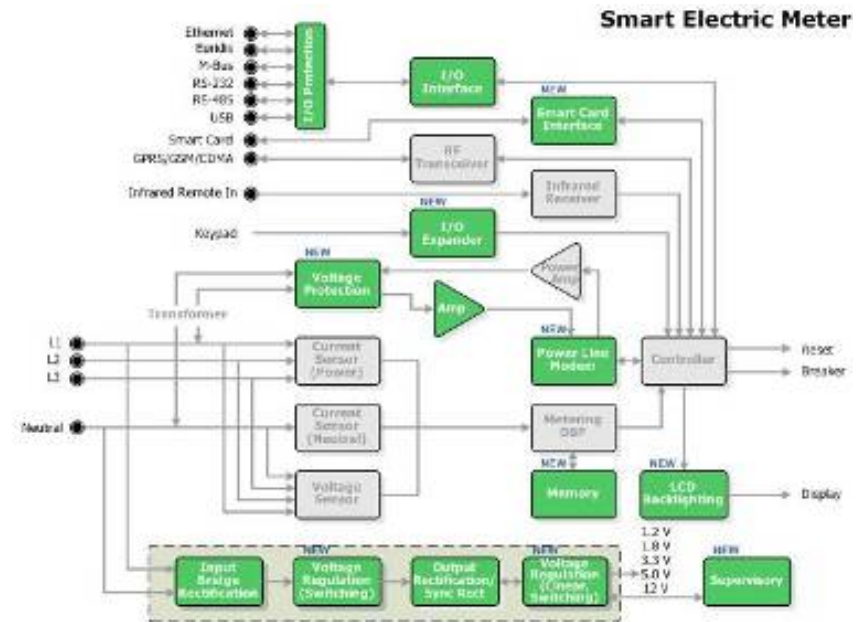


Smart Grid



Smart Grid Content

- Power Factor Controllers, AC-DC and DC-DC Controllers
- Voltage Regulators
- MOSFETs, Rectifiers, and Triacs
- Power Line Carrier Modems
- Filtering, I/O and Data Protection
- Line Drivers and Signal Amplifiers
- LCD Backlight Drivers
- EEPROM Memory
- Smart Card Interfaces



Automotive

**In-Vehicle
Networking**

**Collision
Avoidance**



**Power
Management**

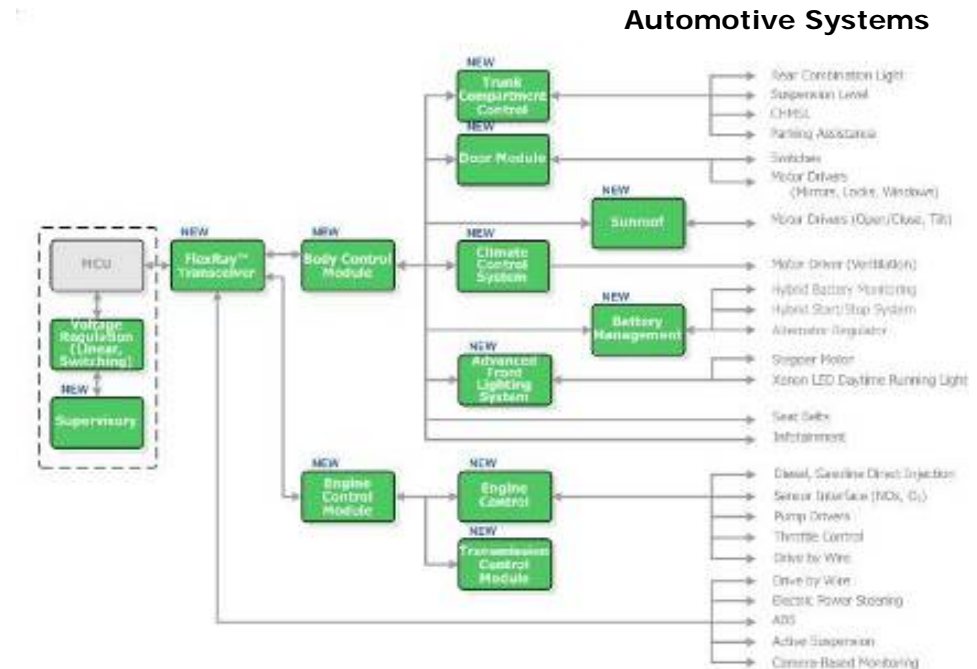
Powertrain

**Body
Electronics**

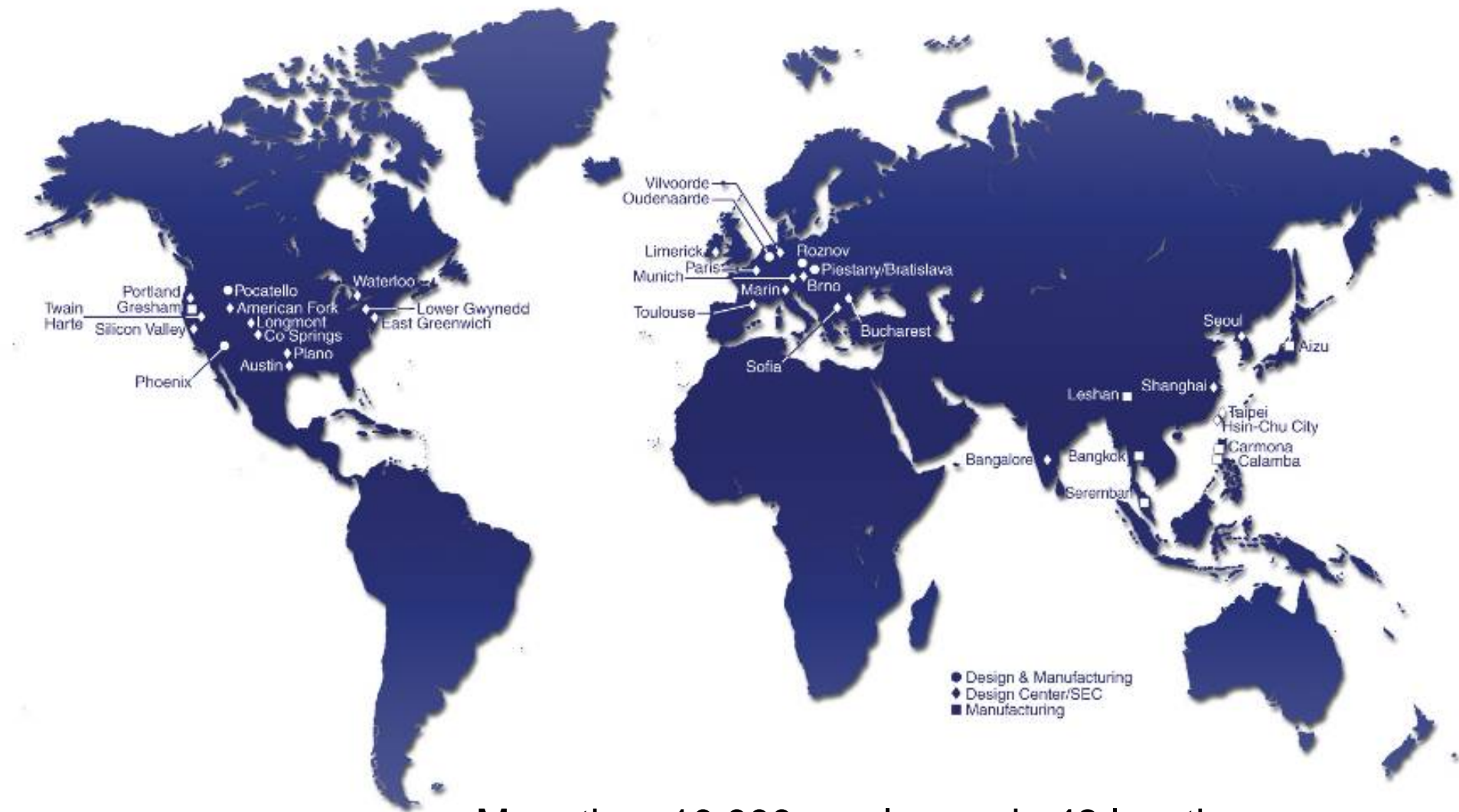


Automotive Content

- Mixed-Signal ASICs
- Networking Transceivers
- LDOs, SMPS
- Drivers, Predrivers
- Motor Drivers (Stepper, BLDC)
- DC-DC Regulators
- IGBTs, (Self-Protected) MOSFETs
- High Voltage Rectifiers
- LED Lighting Controllers
- I/O, Circuit, and Data Protection
- Signal Amplification
- Robust Standard Logic



Global Operations and Support



More than 10,000 employees in 48 locations



ON Semiconductor Romania

(former Catalyst Semiconductor Romania)

HR Structure:

- **75** Employees, **67** Engineers
- Over the years, **72** students and young graduates got their first job at ON Semi Romania ; **33** of them are still working at ON Semi Romania



Cooperation with Universities:

- Very good relationship with Universities, mainly with UPB/ETTI
- Yearly sponsorship for Tudor Tanasescu Contest
- Student Lab for Mentor Graphics EDA tools

Desiderata:

- Change in Curricula
- Change in Labor Legislation



Questions?

