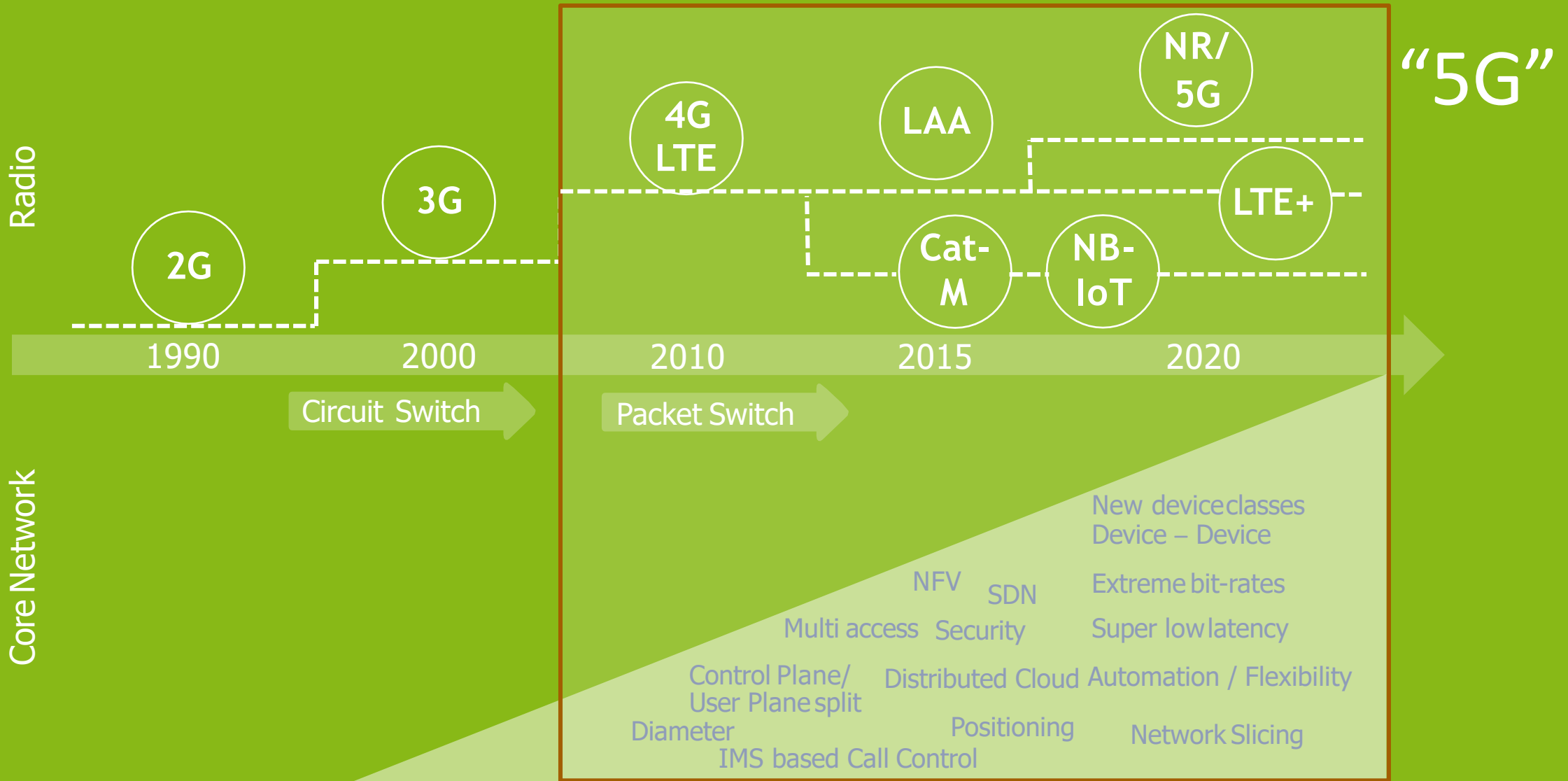


5G evolution or revolution?

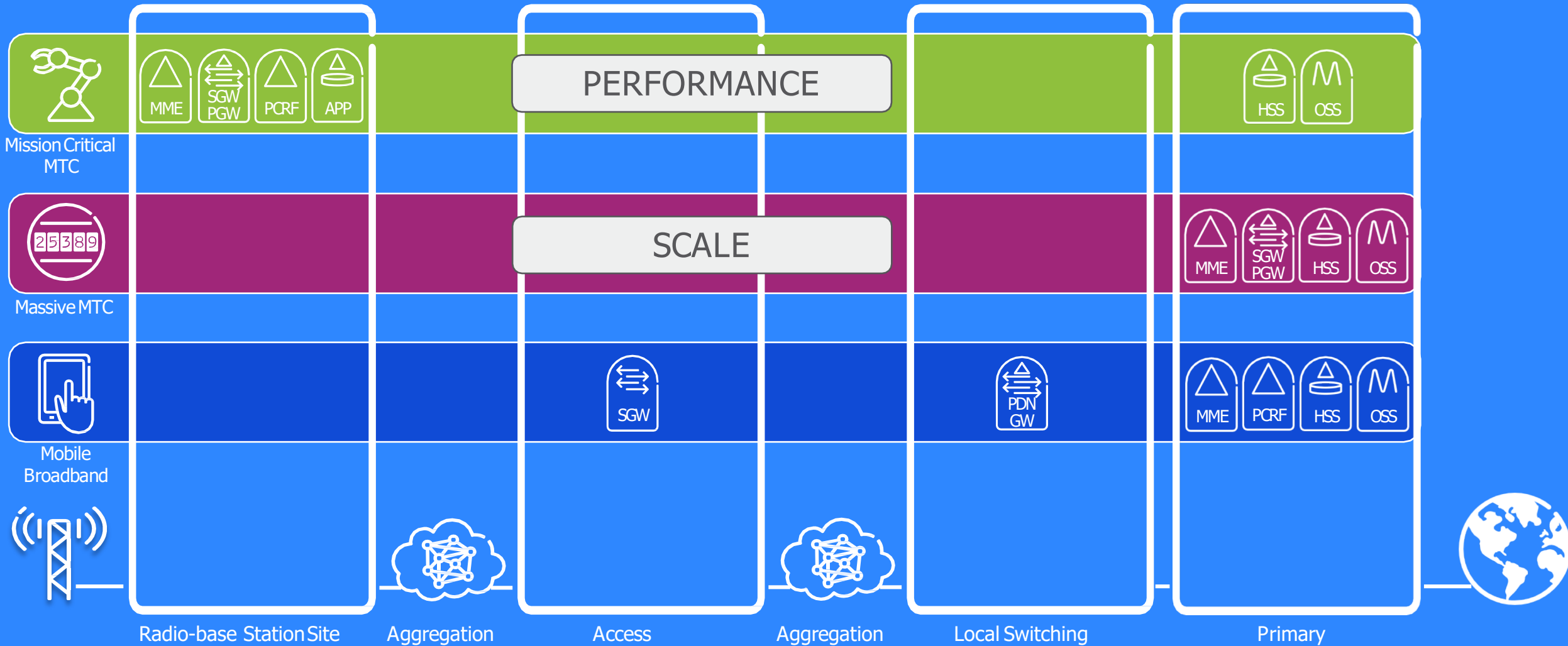


Gabriel Solomon, Head of Government & Industry Relations, Europe & Latin America

The evolution towards 5G



NETWORK SLICING



New policy objectives



- **Near ubiquitous coverage**

- Indoor, roads and rail, geographic targets

- **Consistent levels of quality and experience**

- Minimum speeds, throughput

- **The industrial internet**

- Public and private sector efficiencies, disintermediation, innovation

To achieve political targets, what policy levers are available to extend the threshold of competition?

An inconveeneint truth?



“We can only spend each Euro once - either on spectrum or network build-out. My suggestion would be on buildout.”

- DT CEO Tim Hoettges

“Governments should consider spectrum policy as means of delivering critical national infrastructure rather than a source of tax revenue”

- Ericsson CEO Börje Ekholm

Implications



- **Extending market performance parameters**
 - France 4G renewal: ubiquitous 8 Mpbs by 2020, 30 Mpbs by 2023
 - Germany 5G auction: 100 Mpbs to 98% of the population by 2022
 - Italy etc?

- **Reconsider assignment principles to extend market performance**
 - Auctions with obligations
 - Spectrum fees as an investment fund
 - Fee waivers for investments “vive la French”
 - Annual fee structures to incentivise investment