

ONLINE PANEL: THE FUTURE OF MILITARY RADAR



Moderator

Eric Higham, Technical Editor, ***Microwave Journal***®

Panelists

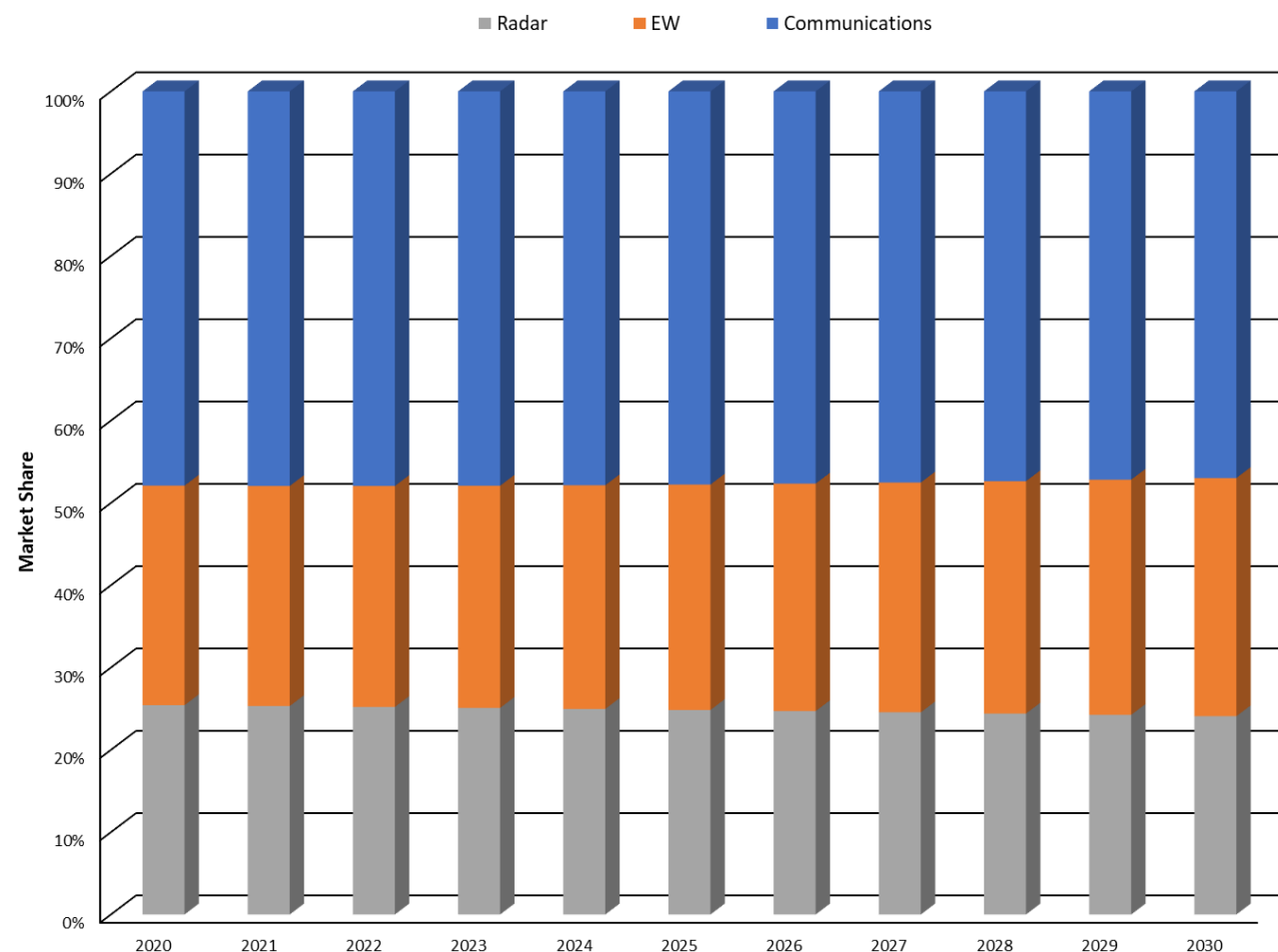
Rodger H. Hosking, Director of Sales, **Mercury Systems**

Tim Fountain, Global Market Segment Manager RADAR & EW, **Rohde & Schwarz**

Peter Delos, Senior Principal Engineer, Aerospace and Defense Group, **Analog Devices**

Total Defense Electronics System Procurement

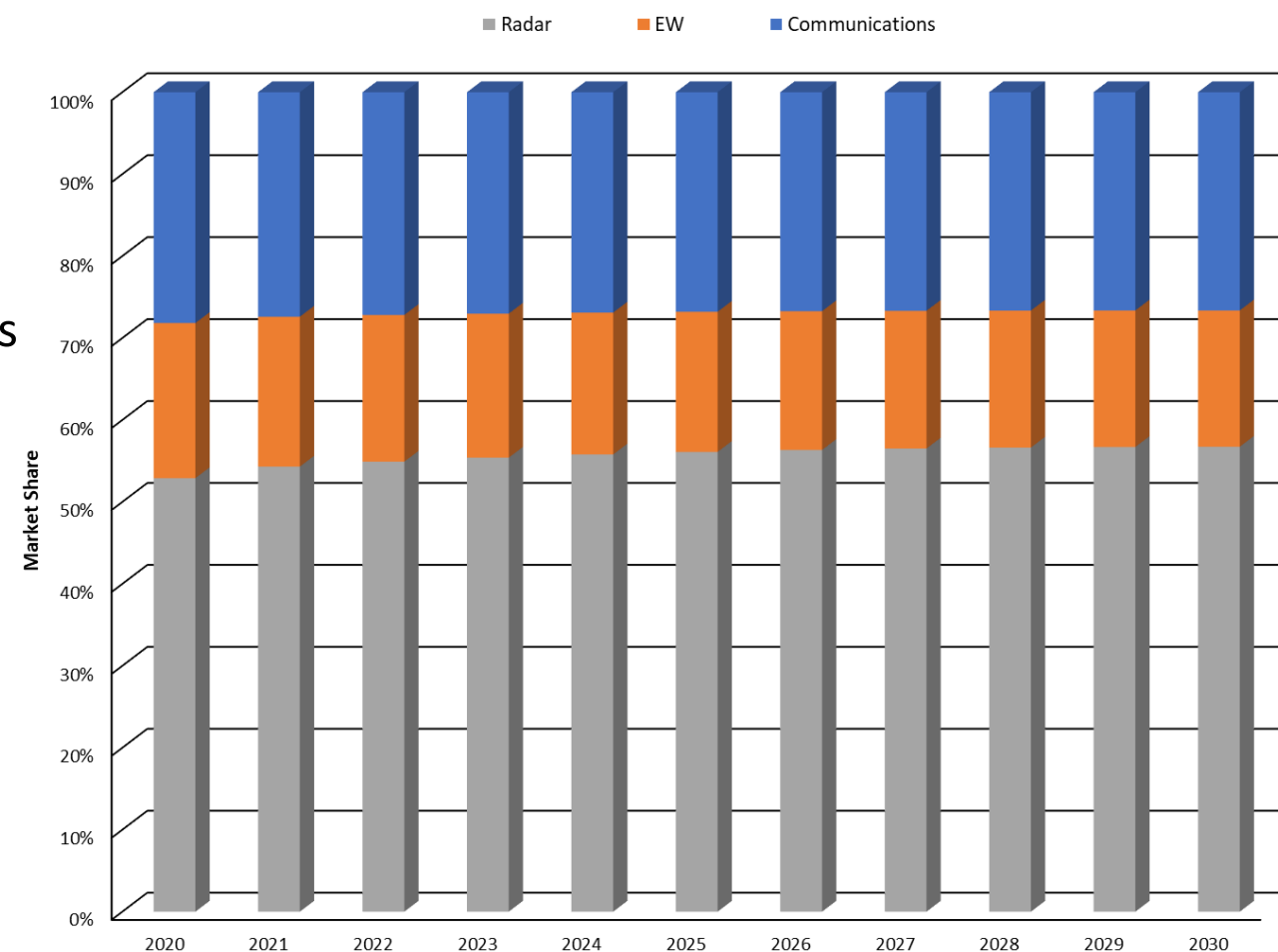
- Forecast ~\$90 billion in 2030
 - This is everything for the system
 - Enclosures, cables, connectors, PCBs, etc.
- Radar is smallest of “the big 3”
 - Communications is just below 50%
 - Tactical radios
 - EW is approaching 30%
 - High power, low volume systems
 - Radar represents ~25%
 - Phased arrays are becoming “must haves”



Source: Strategy Analytics/Internal

Looking *Only* at Semiconductor Revenue...

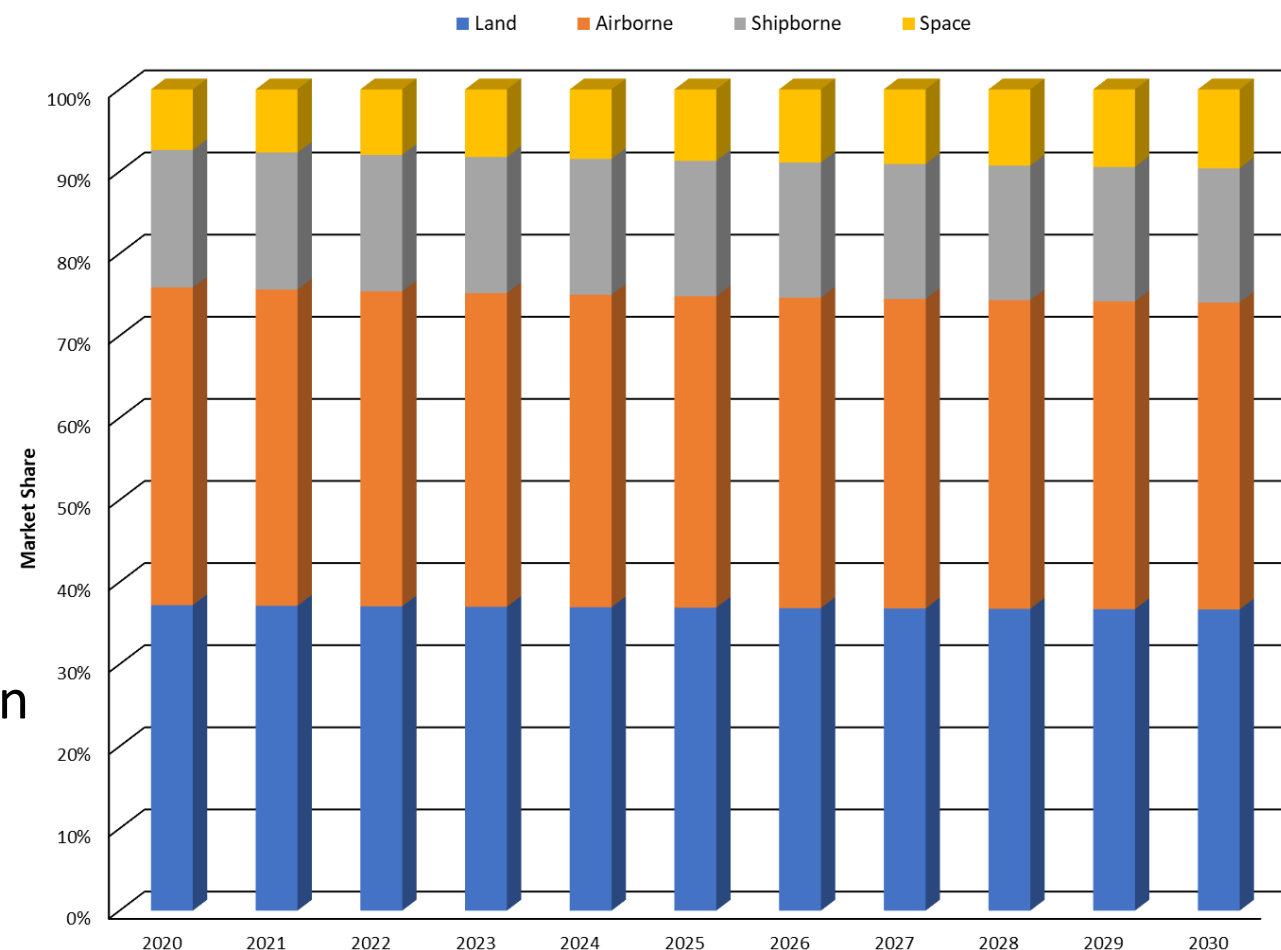
- Radar accounts for ~55% of semi revenue
 - Phased array architectures create volume
 - GaN devices are capturing PA share in AESAs
 - Don't forget GaAs in some of the lower power PAs
 - Definitely don't forget silicon in most everything else!



Source: Strategy Analytics/Internal

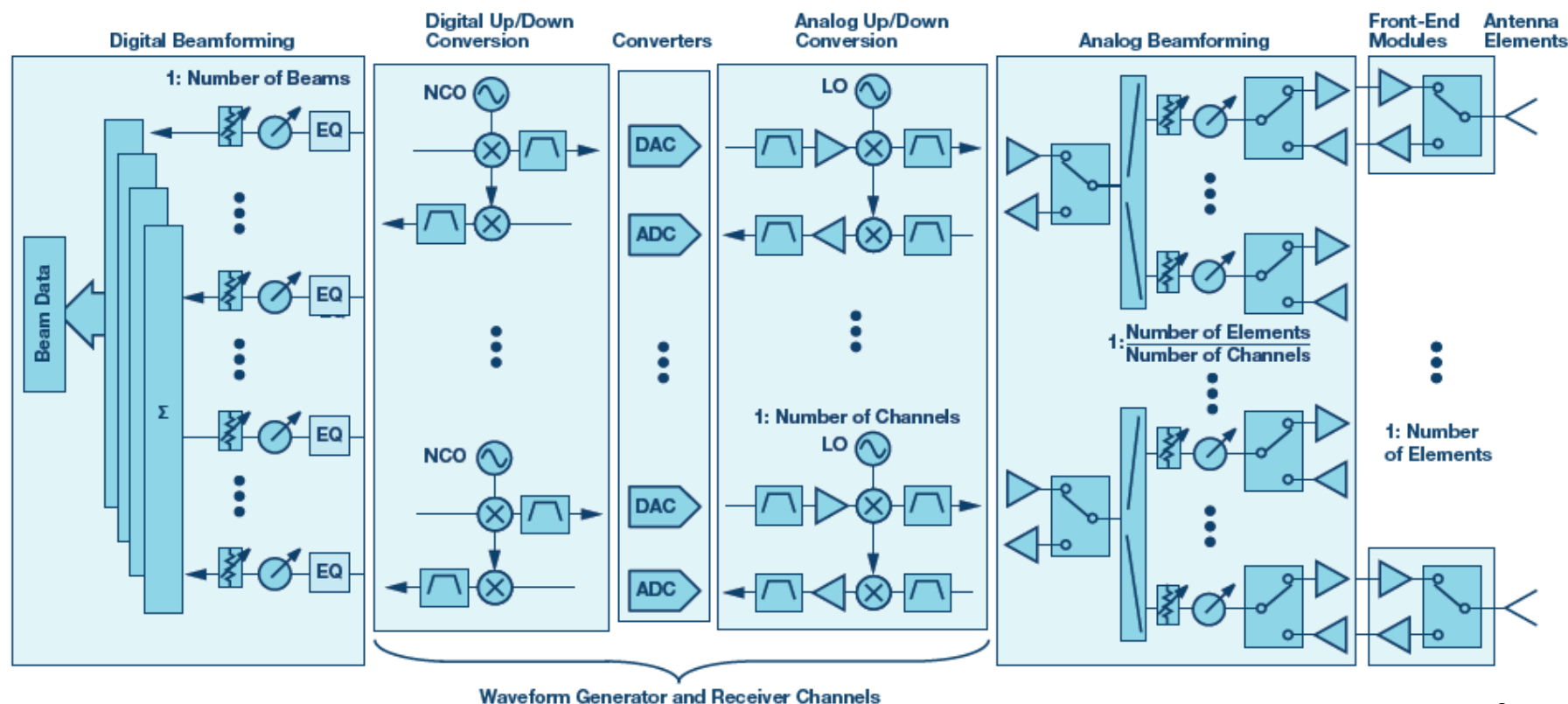
A Little Deeper Dive...

- Land/Airborne applications are the largest
 - Approaches 75% of the total revenue in 2030
- Fire control and surveillance applications are the largest
 - Accounting for ~80% of total revenue
 - Fire control maps to airborne applications
 - Surveillance maps to land applications
- Phased arrays are critical to this segmentation



Source: Strategy Analytics/Internal

Phased Array Radar Block Diagram



Source: ADI

- Radar represents a very rich environment for semis...and packaging...and testing...and software...

What is the Future of Military Radars?

- US strategy is evolving to a “more with less” or Mosaic warfare approach
 - More sensors, more capability, more autonomous assets
 - 5th (and 6th) gen fighters will become sophisticated disaggregated command centers
- Hypersonics weapons are here!
 - Substantial efforts (and spending) are underway to improve offensive and defensive capabilities
 - What does that defensive network look like?
- So...let's talk about the technologies and techniques that will enable these trends and drivers

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