

The impact of budget constraints on future defence technology investment



Asif Anwar, Advanced defence Systems Service
aanwar@strategyanalytics.com

Working with Global Leaders to Address Client Requests



Help Me Develop

Help Me Analyze

Help Me Understand





Help Me Understand

What's Happening?



- Wireless
- Consumer
- Automotive
- **defence**
- Telecoms
- **Enabling Technologies**

What's Likely to Happen?





Help through SA Knowledge Centers

Over Eighty Full-time Industry Analysts in Europe, the US, Korea, India, and China

Multimedia & Communications



Over Thirty Syndicated Services Delivering Research to Over 100+ Global Leaders

**Devices
Services
Contents
Apps
Apps**



Platforms

Systems

Technologies

Devices



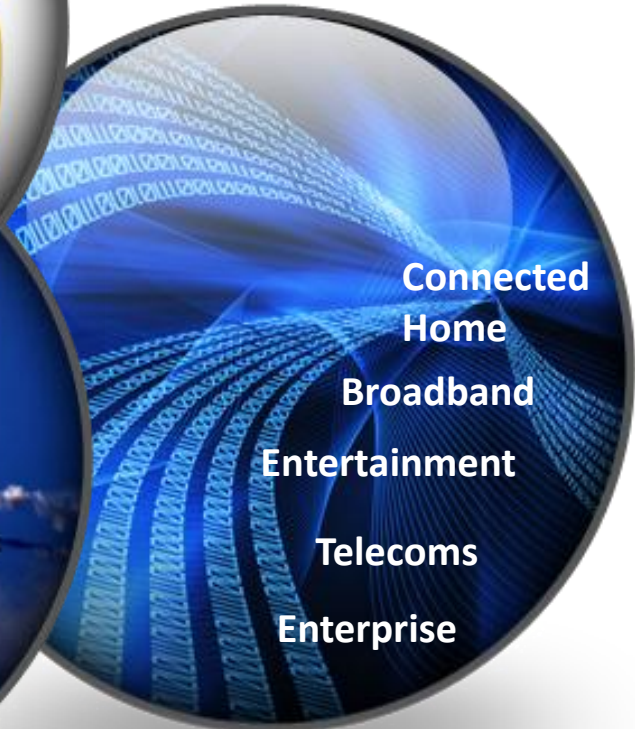
Connected Home

Broadband

Entertainment

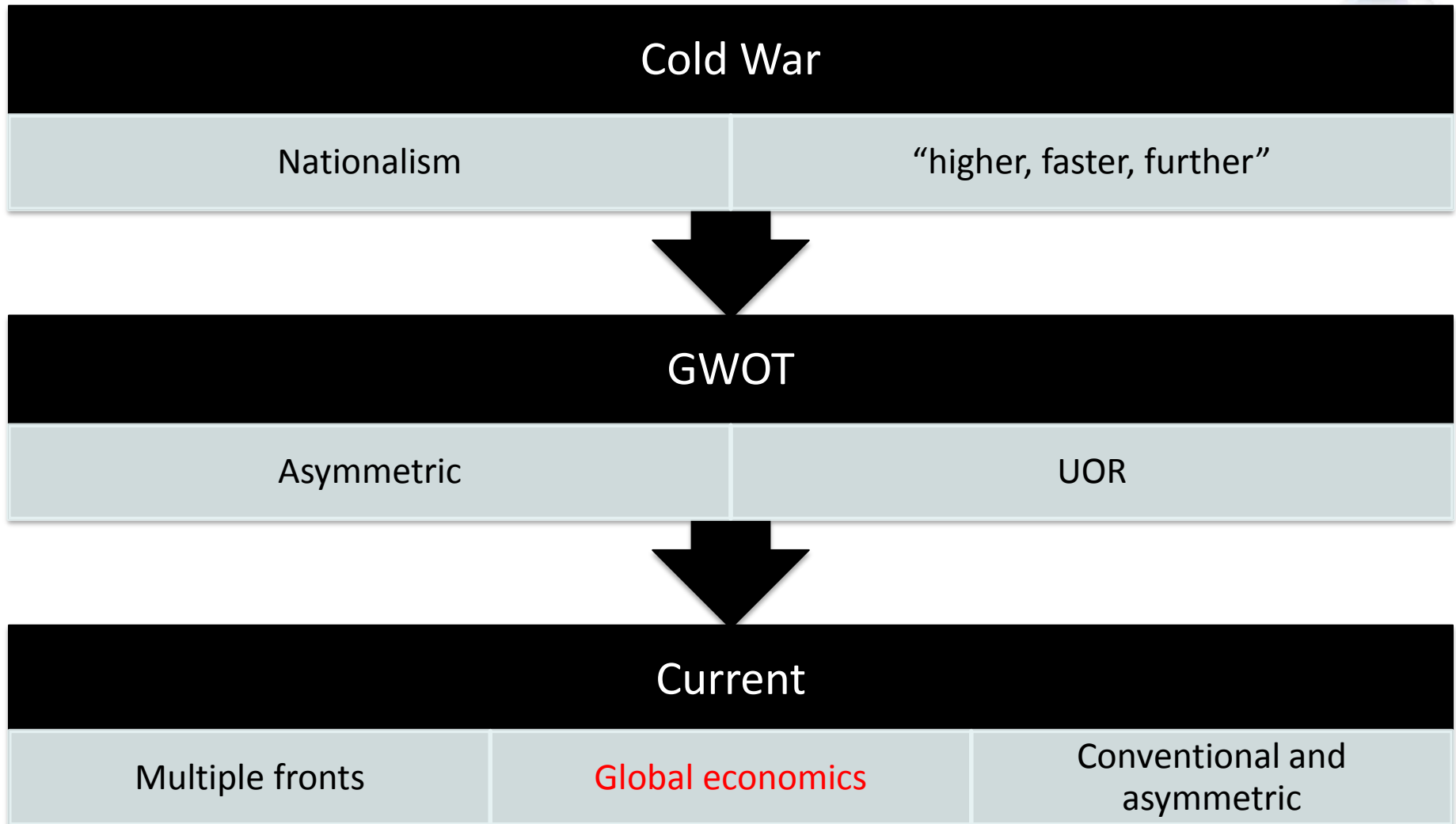
Telecoms

Enterprise

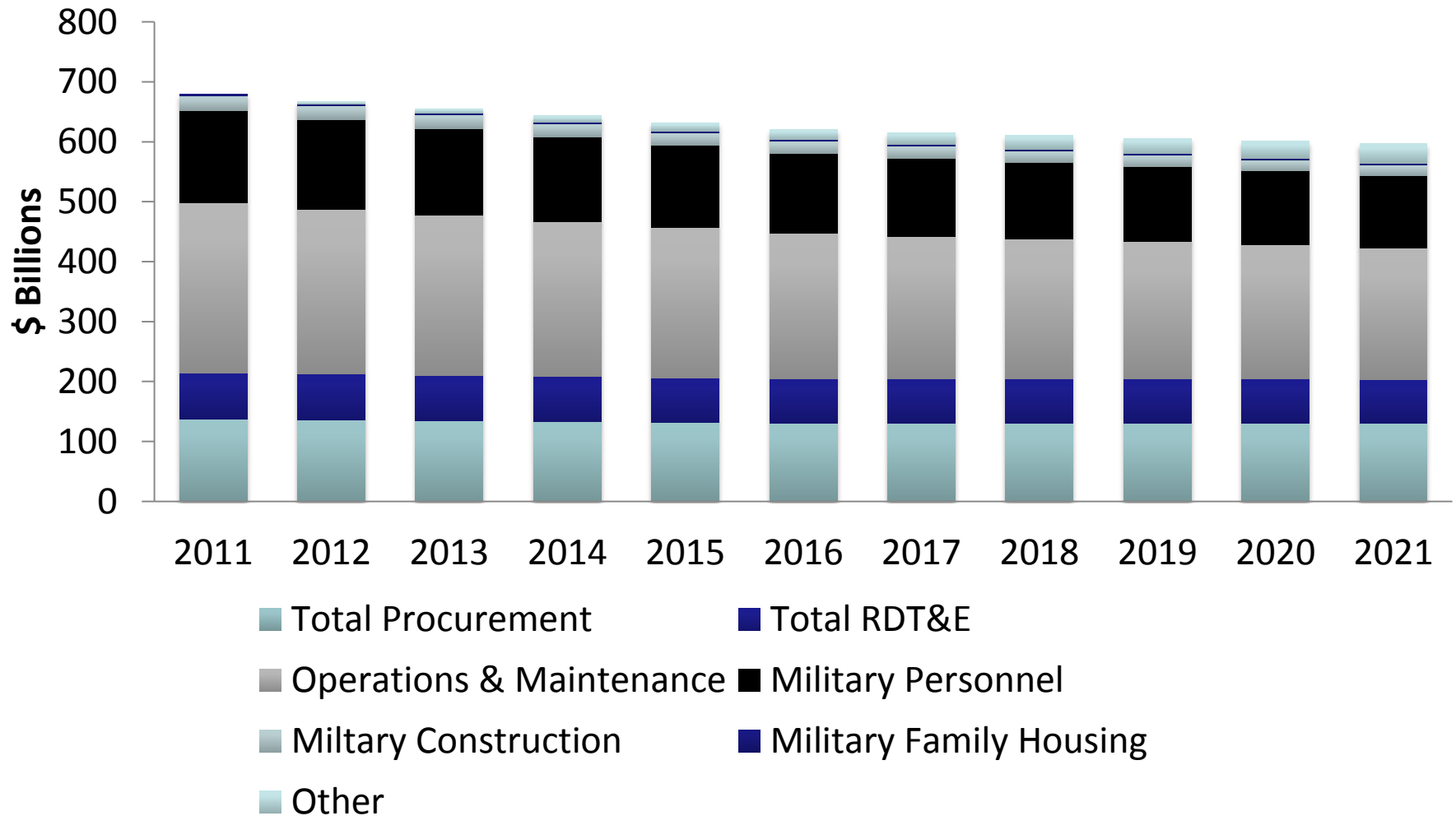




Defence budgets are being squeezed

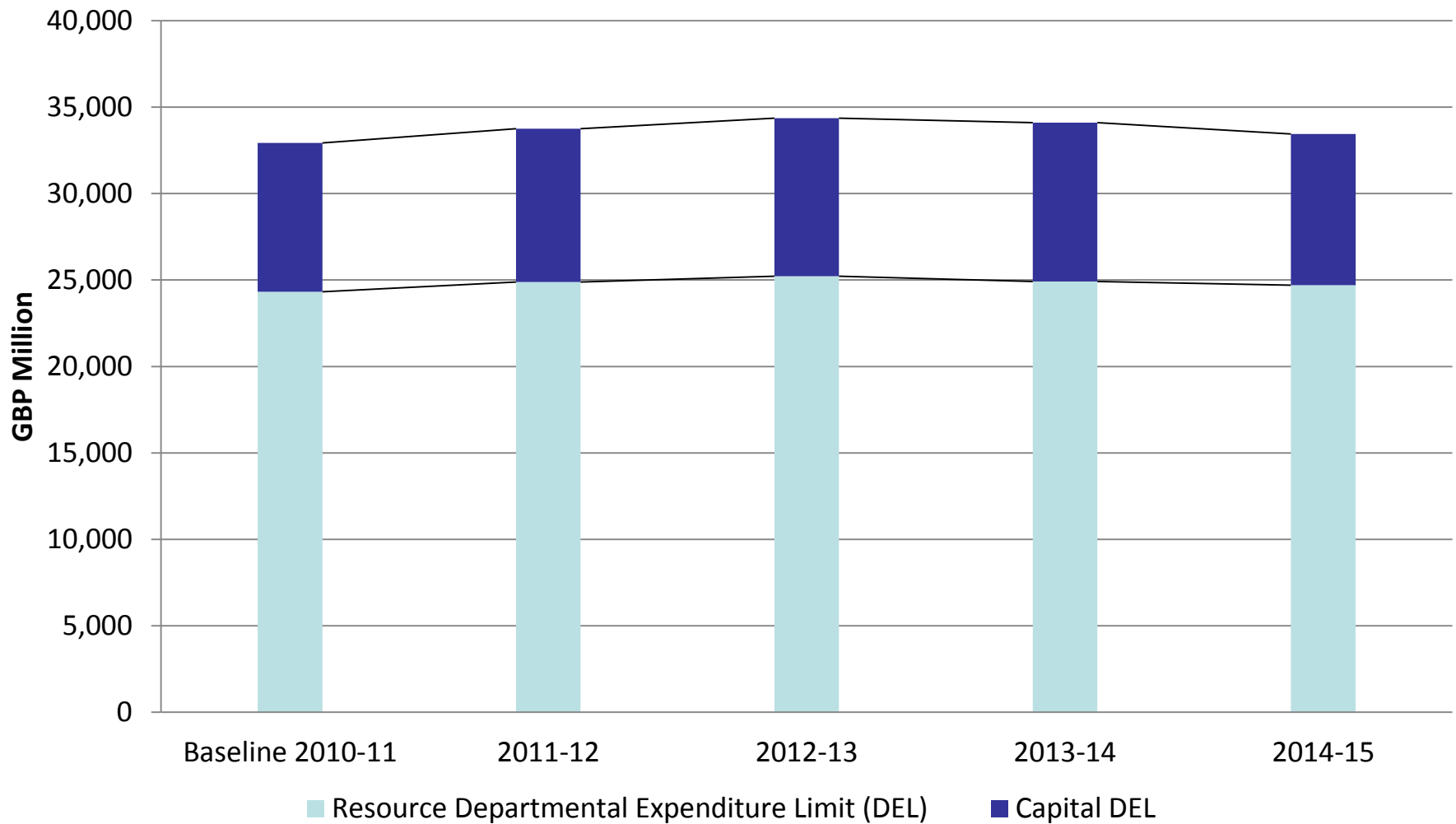


US defence spending slow down and mirrored globally





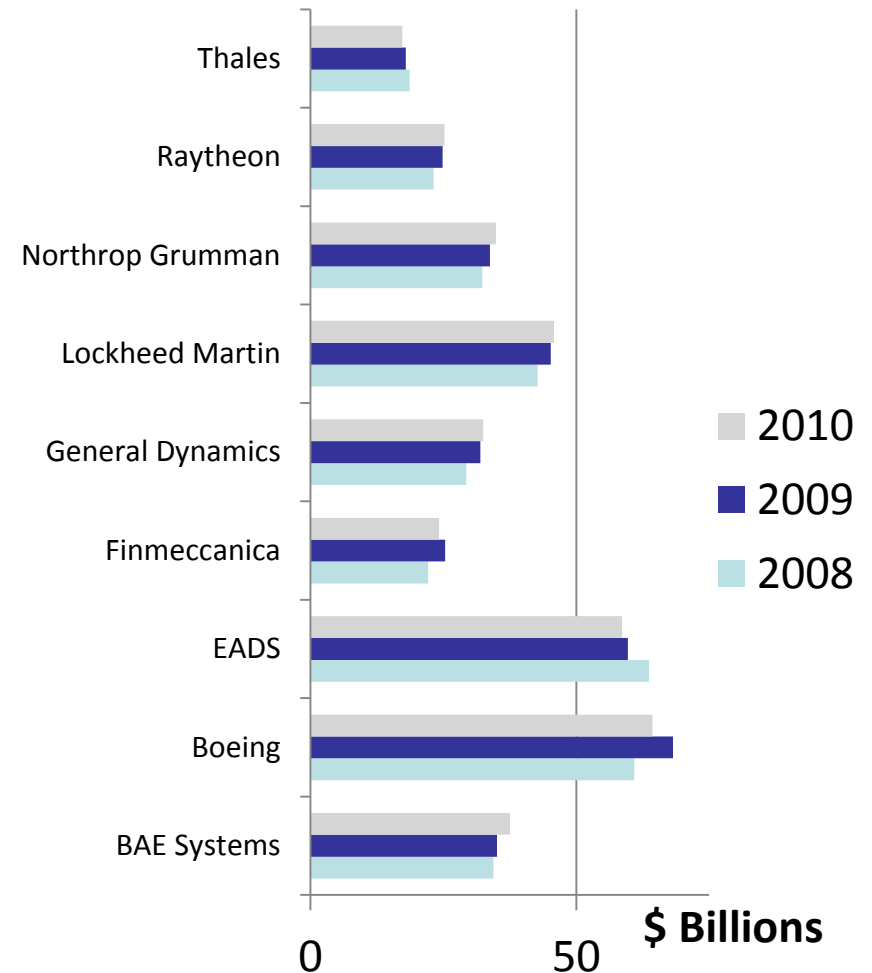
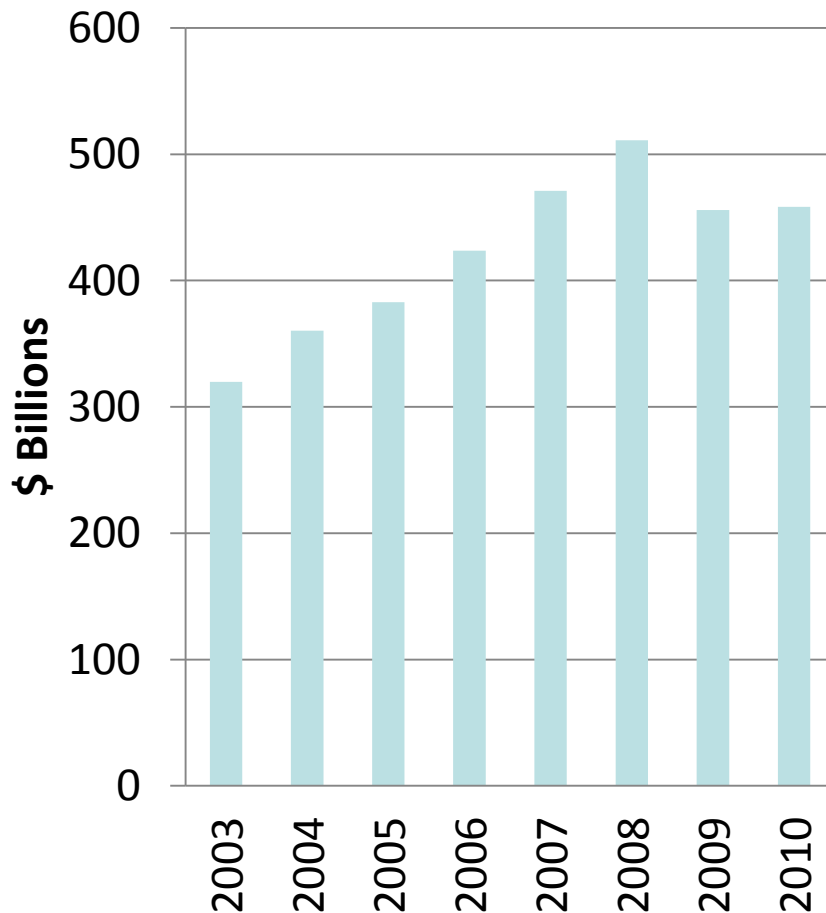
UK defence spending slowing down by 8%



Slowdown in defence reflected in industry revenues...



Overall revenues

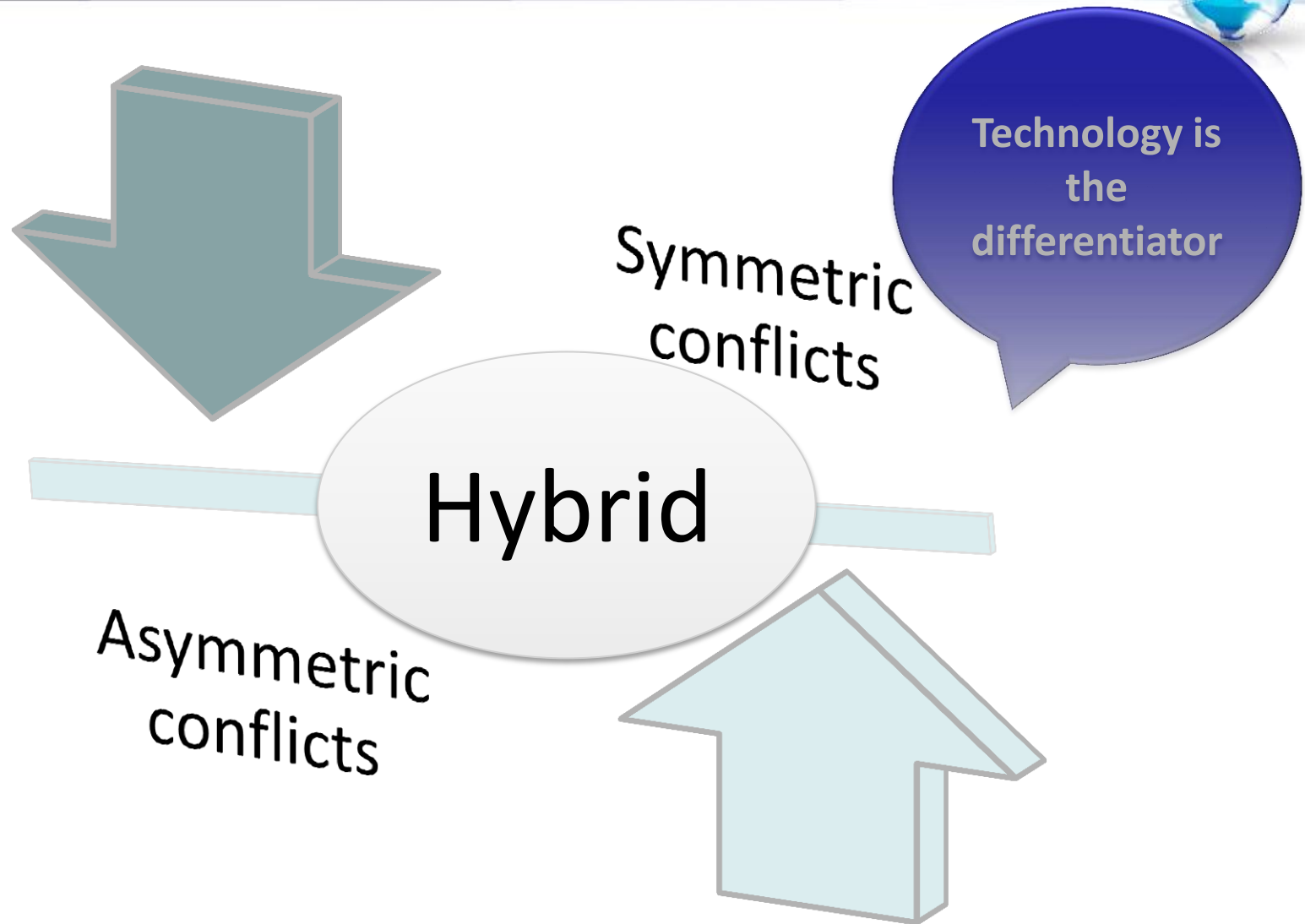




...and stock market performance



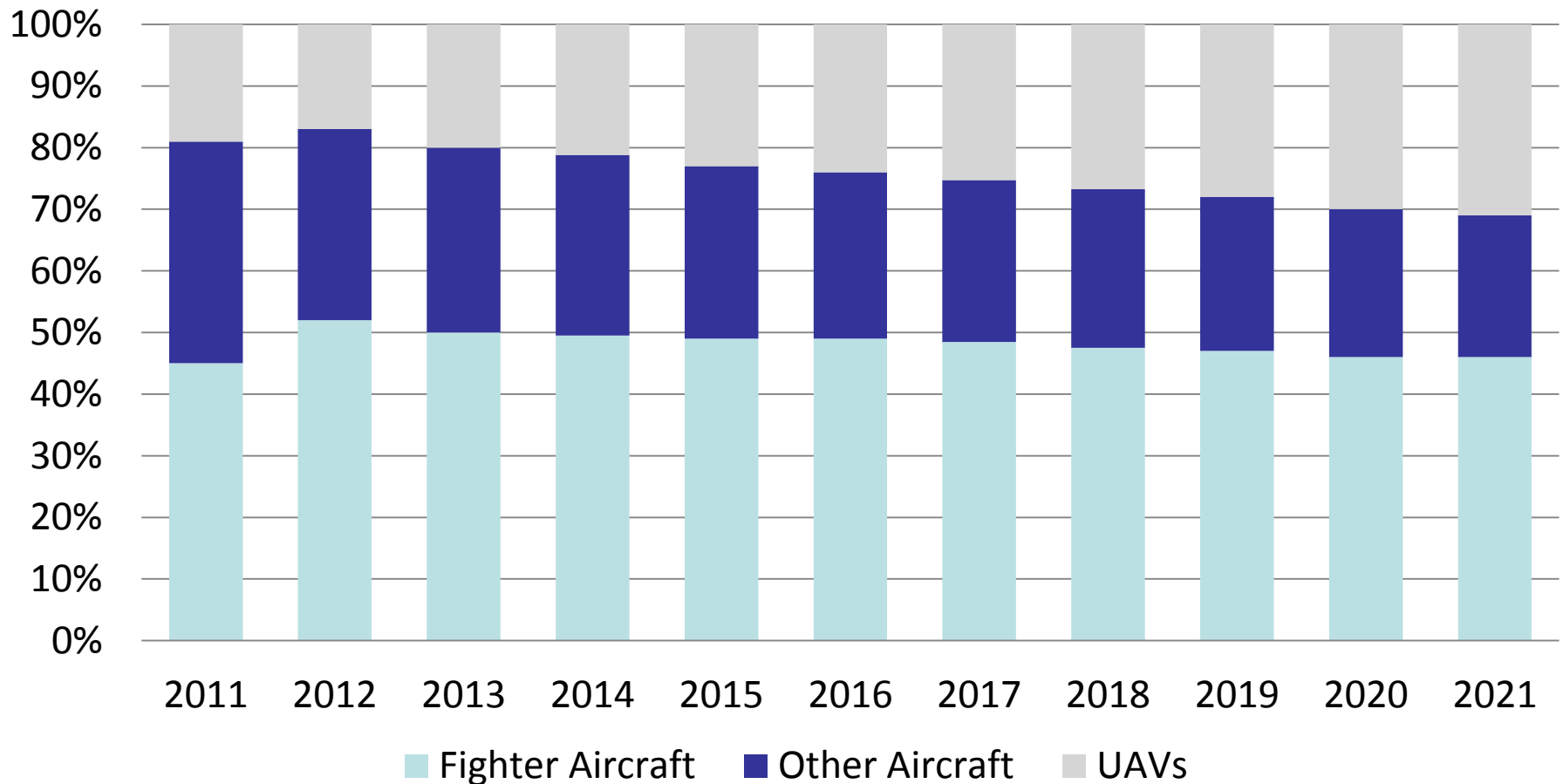
Defining global conflict scenarios



What does this mean for defence platforms?



US DoD Budget Air Platform Expenditure



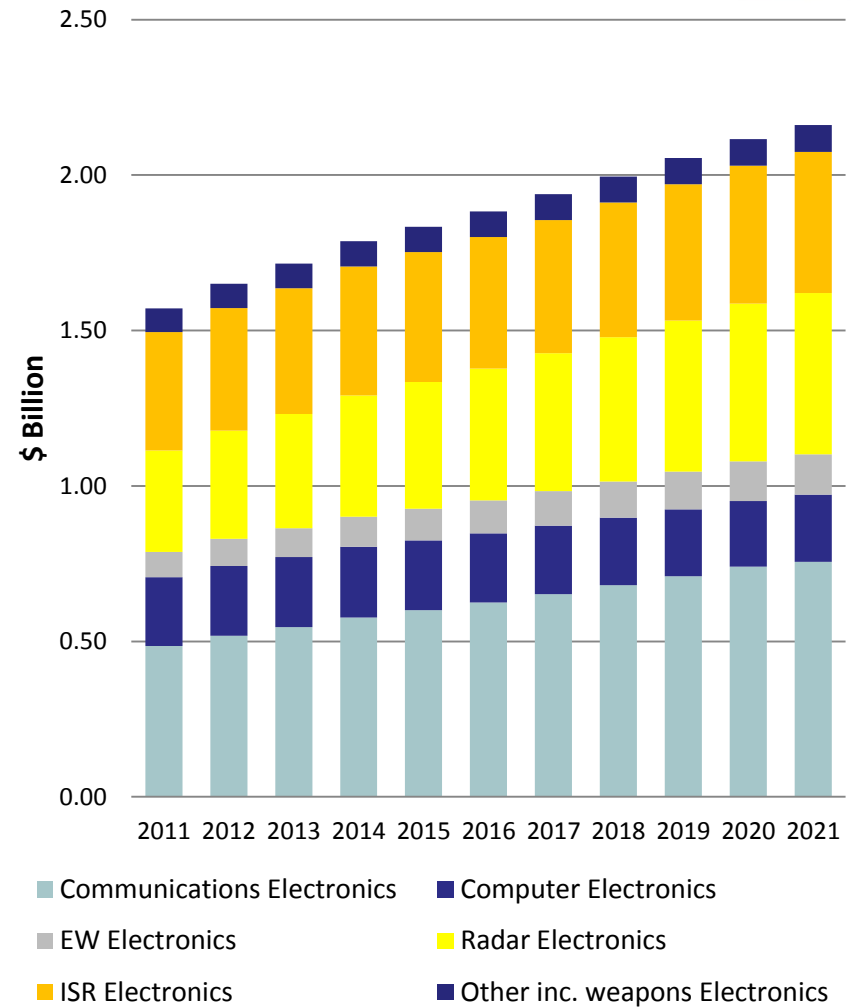
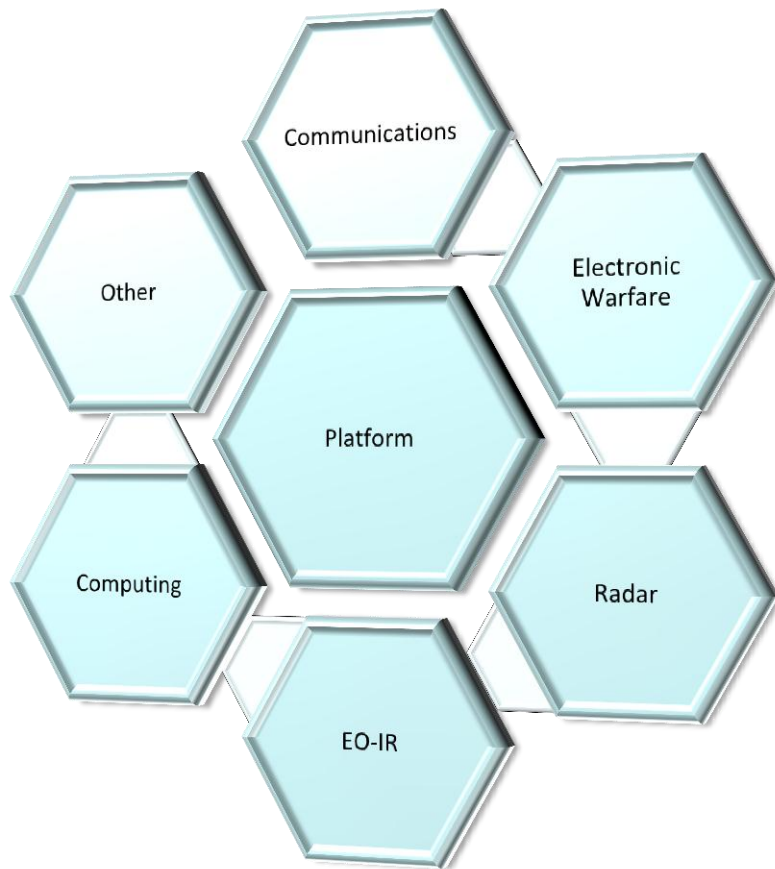


Europe is taking a two-pronged approach



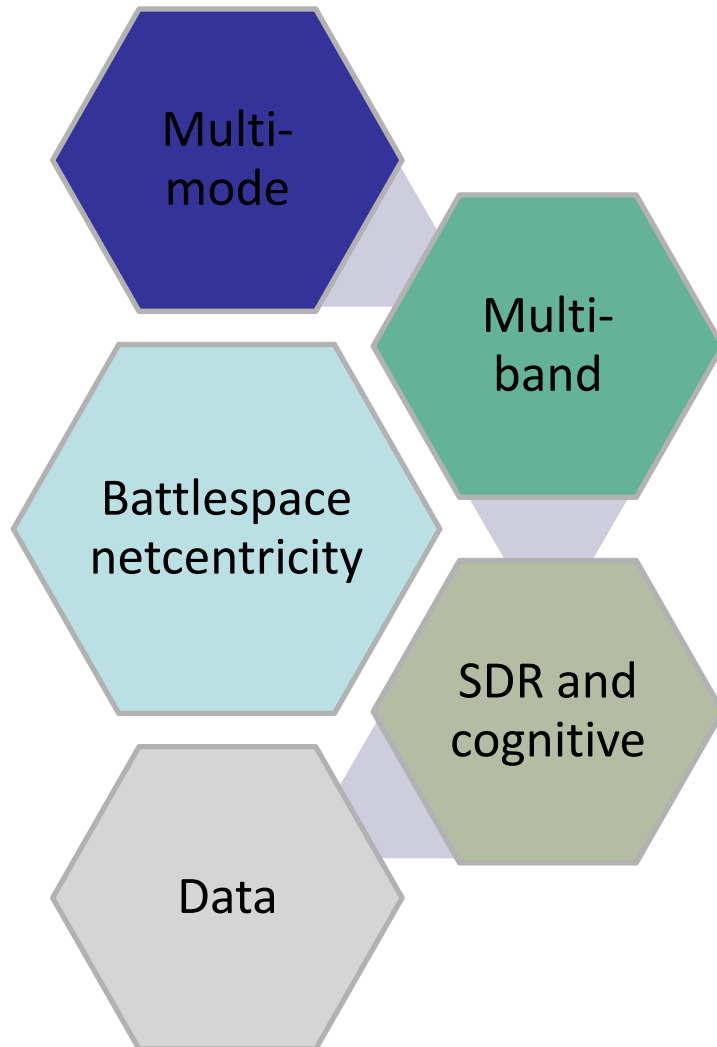


Platform mission envelope expands

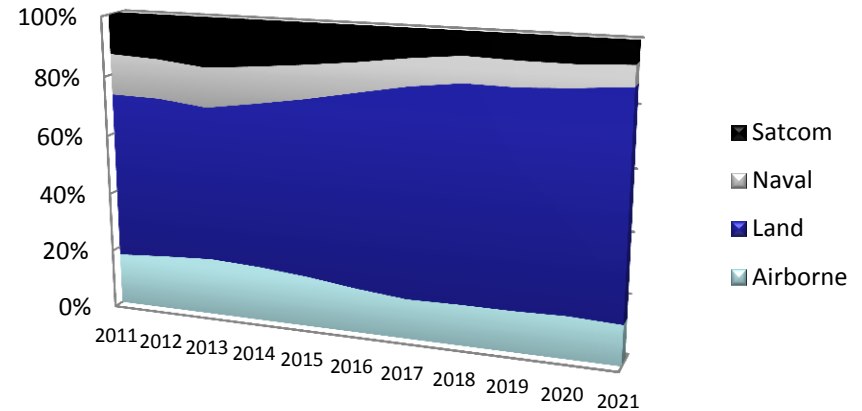




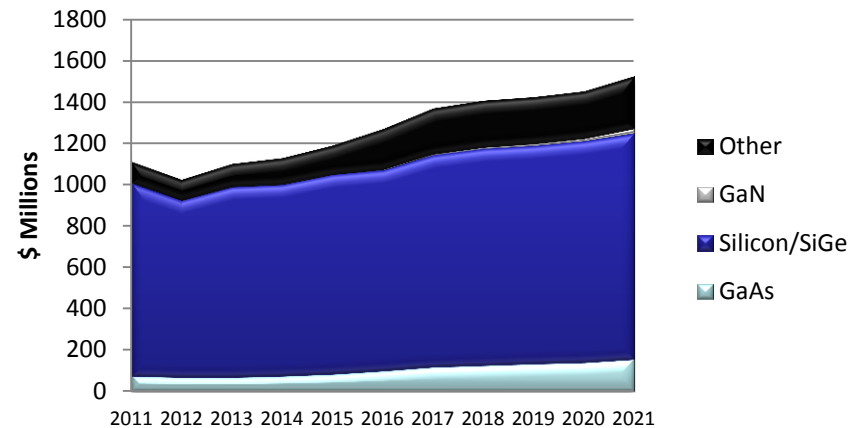
Communication systems trends



Defence Radio Market



Defence Radio Semiconductor Demand



Some recent examples from European companies

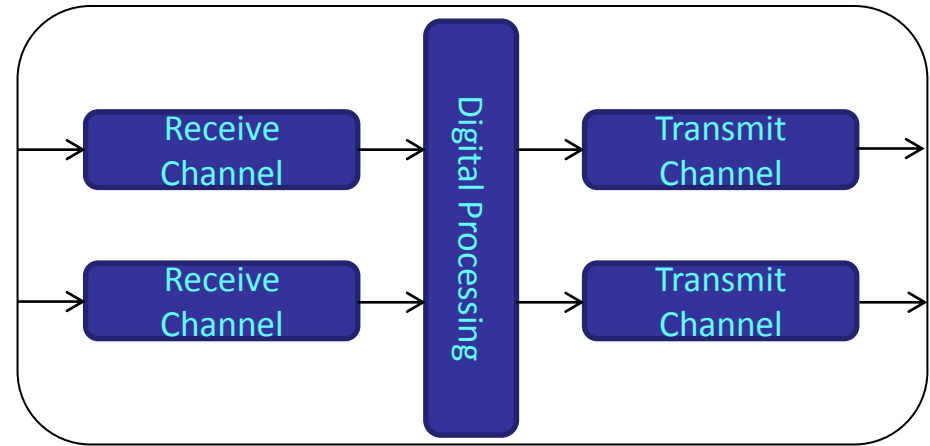
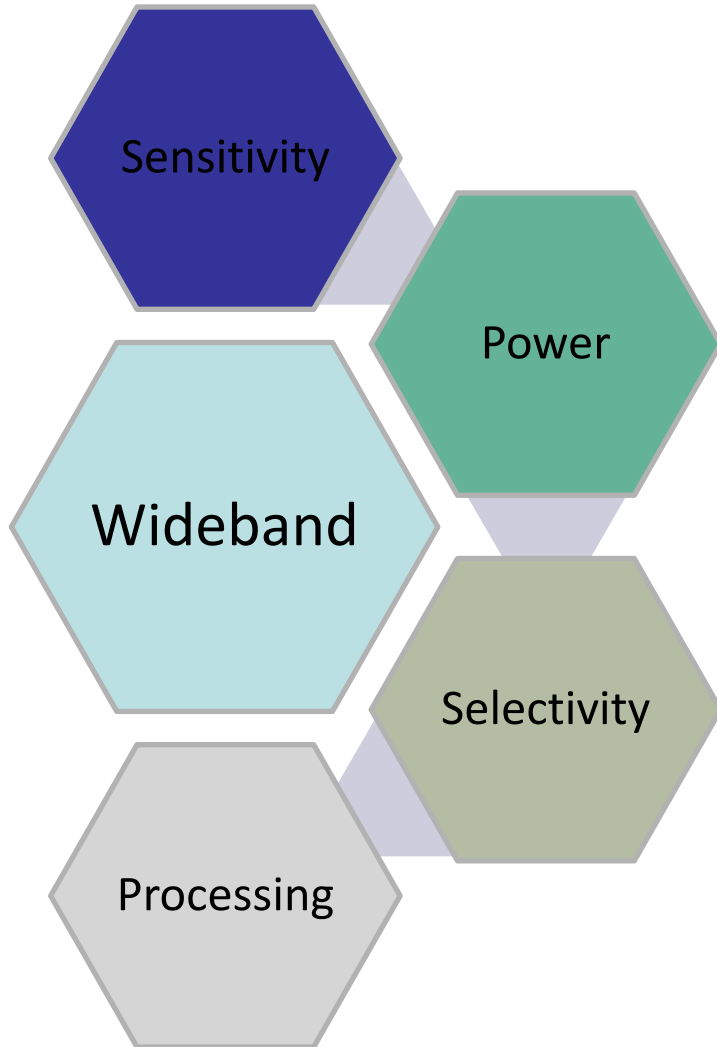


- Cassidian is developing a solution for IP-based mobile ad-hoc networks (MANET)
 - Mobile IP Node
 - Detect and find available bandwidth and frequency resources
 - Create secure communications networks around UHF, VHF and Satcom resources
-
- Elektrobit also highlighting its Tactical Wireless IP Network
 - Utilize MIMO
 - Roadmap towards higher bandwidth and cognitive radios

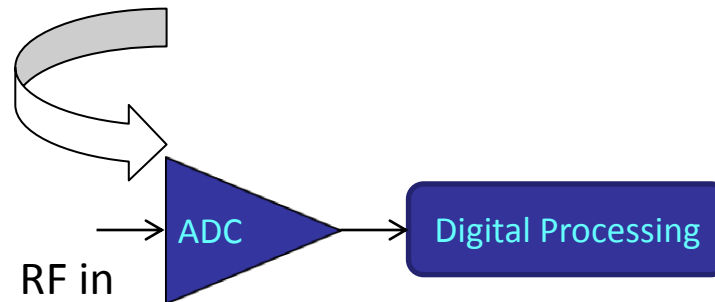




EW systems trends

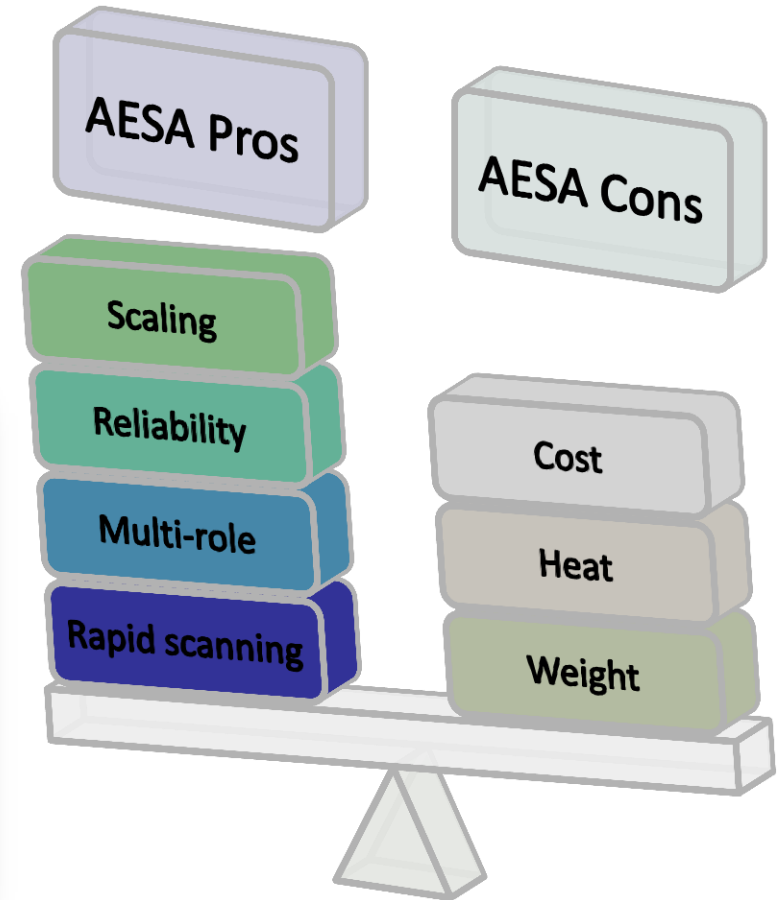
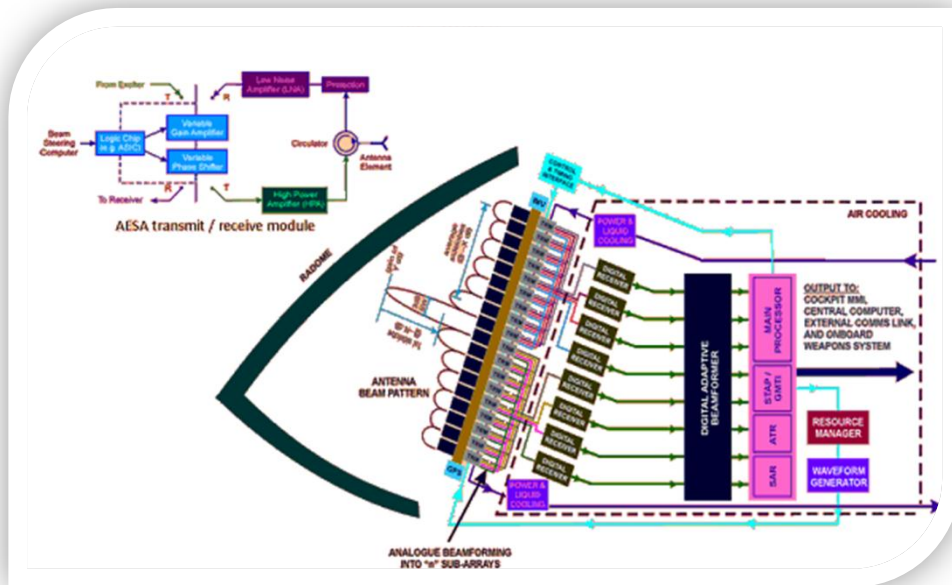
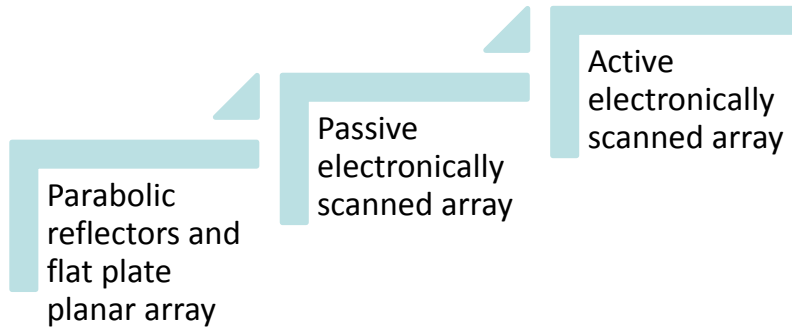


Wideband receiver





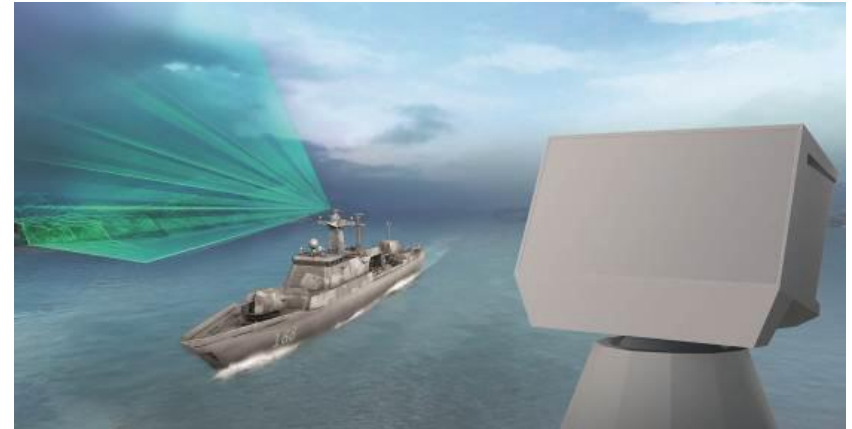
Radar system trends



European suppliers extending AESA radar beyond the fast-jet

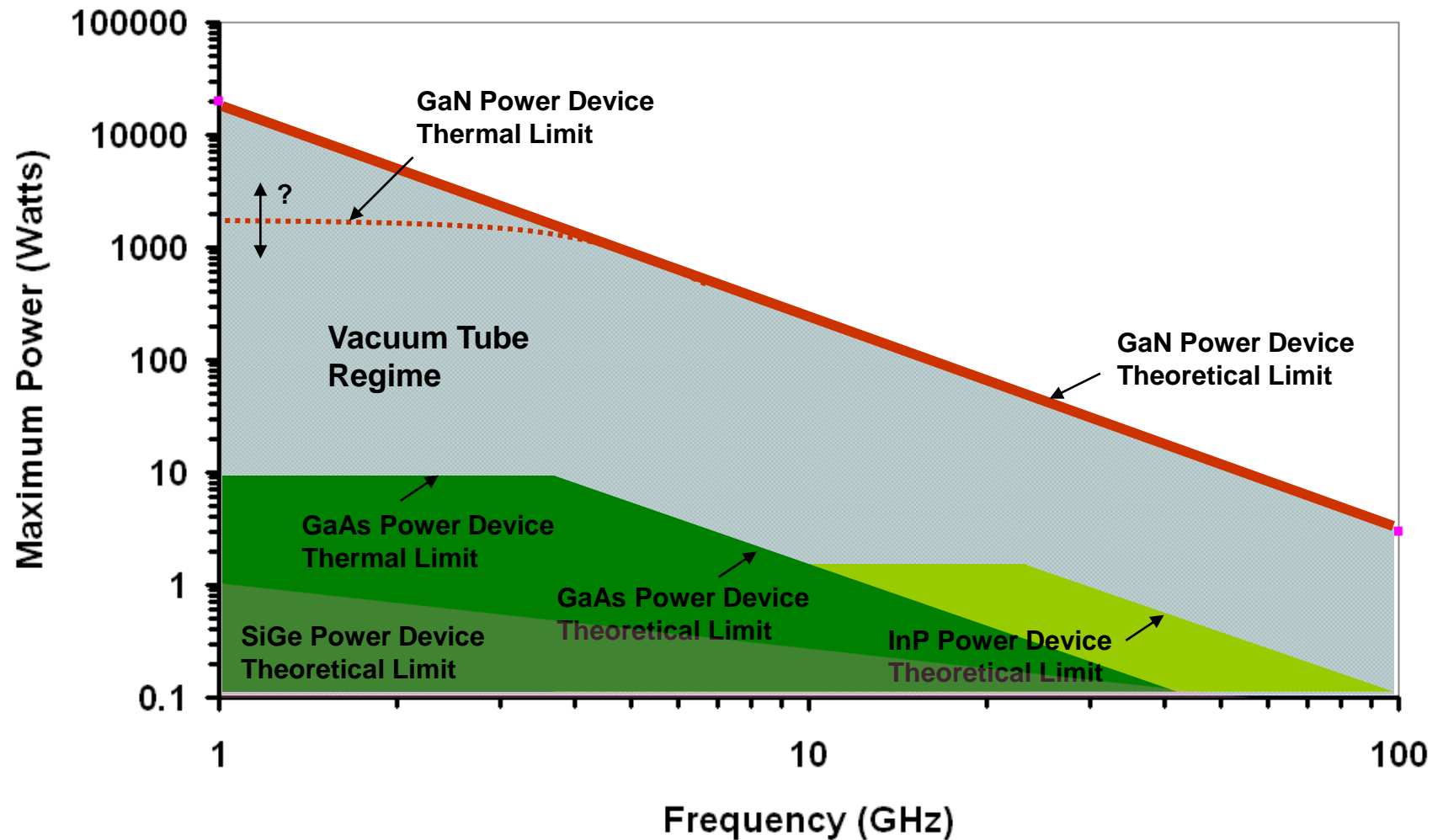


- Cassidian recently launched the TRS-4D surveillance and target multifunction naval radar
 - AESA radar combined with mechanical rotation in azimuth
 - Using GaN transmit modules
-
- BAE Systems has developed a suite of AESA radars
 - Naval, Sampson
 - Air defence (naval platforms), ARTISAN
 - Land radar, EWACS
 - Technology utilizing GaAs T/R modules





What are the enabling technologies?





Conclusions

- Budgets and systems
 - SWaP-C
 - Emphasis on cheaper, faster, better
 - Upgrading capabilities
- Common requirements from electronics systems
 - Broadband
 - Power
 - Linearity
 - Digitization
- Opportunities for broad range of technologies
 - Complementary



THANK YOU FOR YOUR ATTENTION

QUESTIONS??

For further information on this analysis or other research, see

<https://www.strategyanalytics.com/default.aspx?mod=saservice&a0=96&m=5#0>

Asif Anwar, aanwar@strategyanalytics.com , +44 1908 423635

Stephen Entwistle, sentwistle@strategyanalytics.com , +44 1908 423636

Mark Holden, mholden@strategyanalytics.com , +44 1908 423602

Serge Rozenblum, srozenblum@strategyanalytics.com , +33 1 53 40 99 51

Hakan Gustafsson, hgustafsson@strategyanalytics.com , +49 89 51 51 35 35