



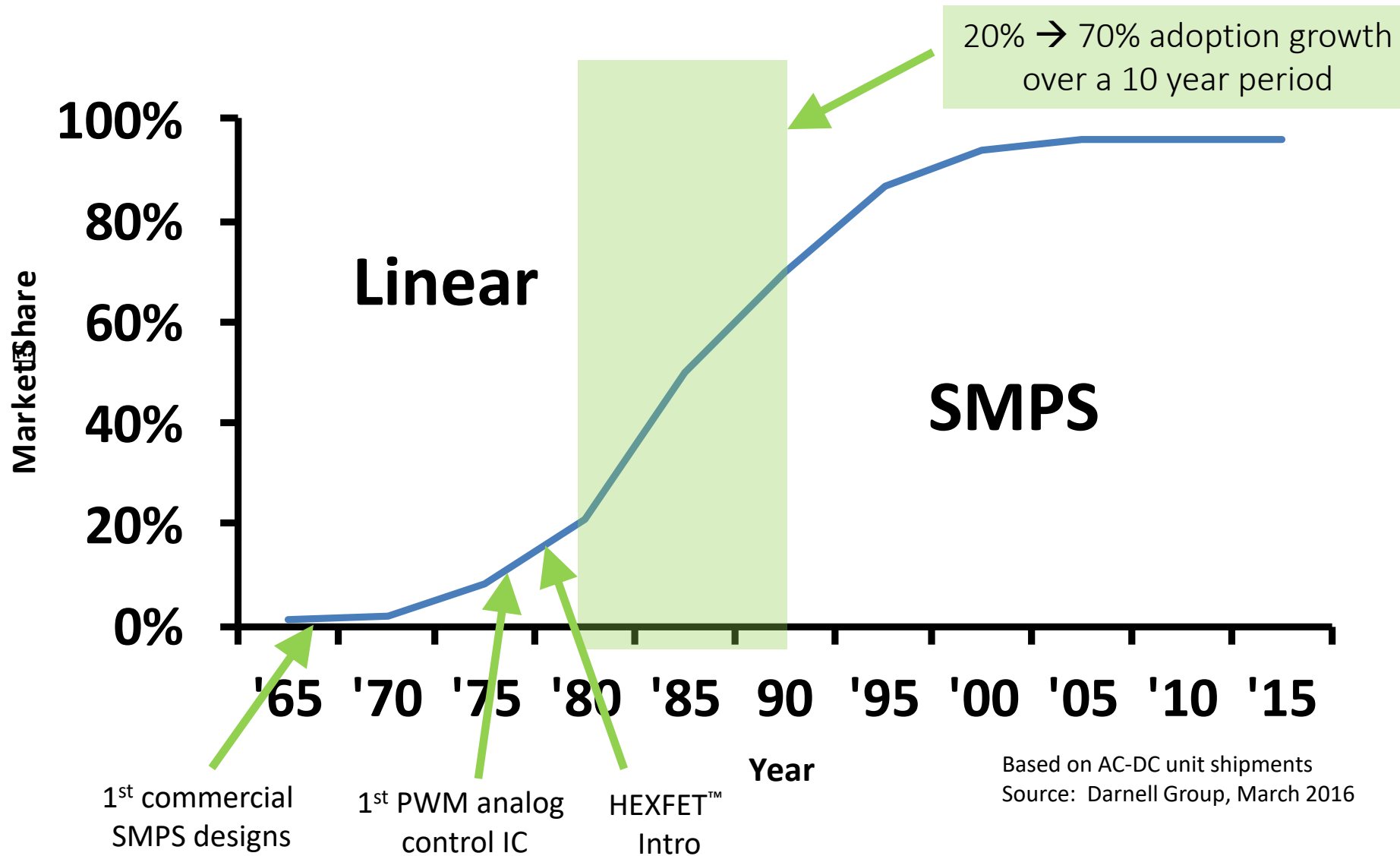
*Power Accelerated*

## **Do We Need to Progress Towards GHz Switching in High Power Systems and Applications?**

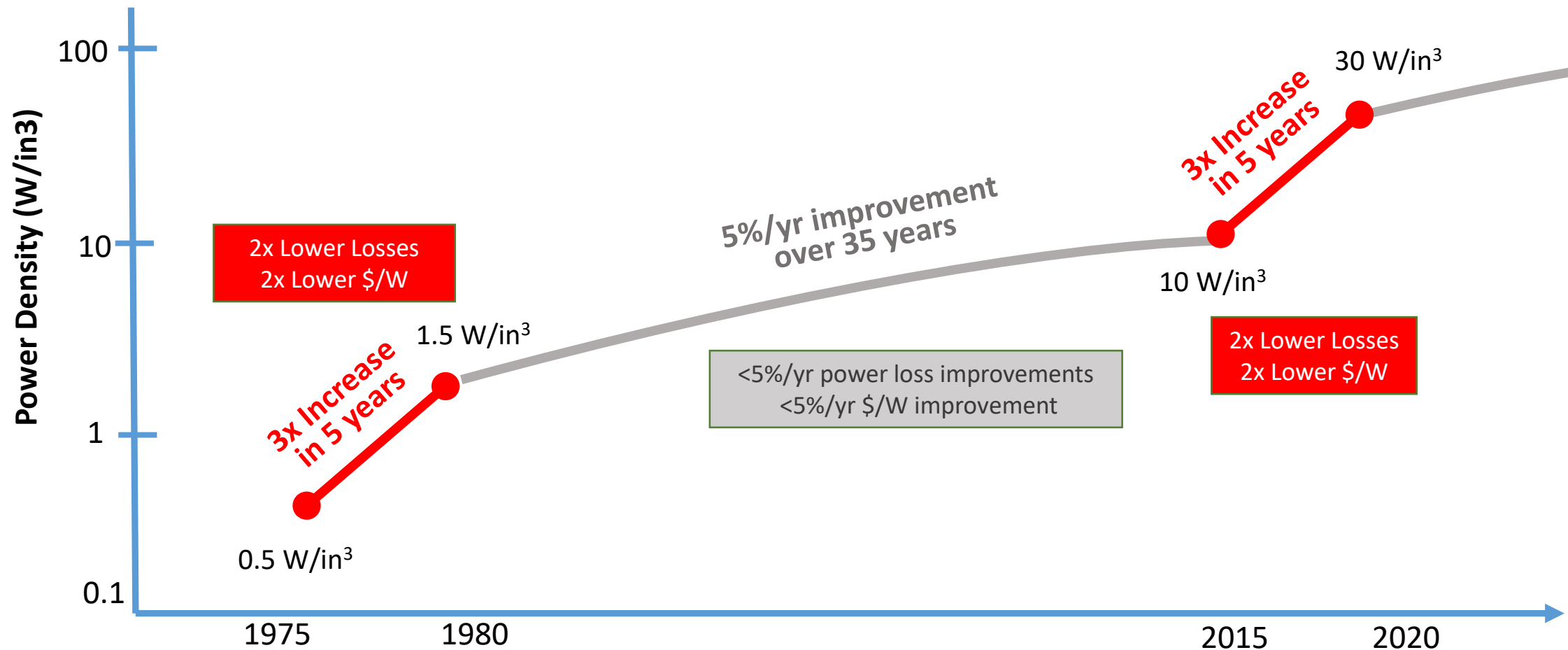
Gene Sheridan, CEO, [gene.Sheridan@navitassemi.com](mailto:gene.Sheridan@navitassemi.com)

APEC, Rap Session 2, March 28<sup>th</sup> 2017

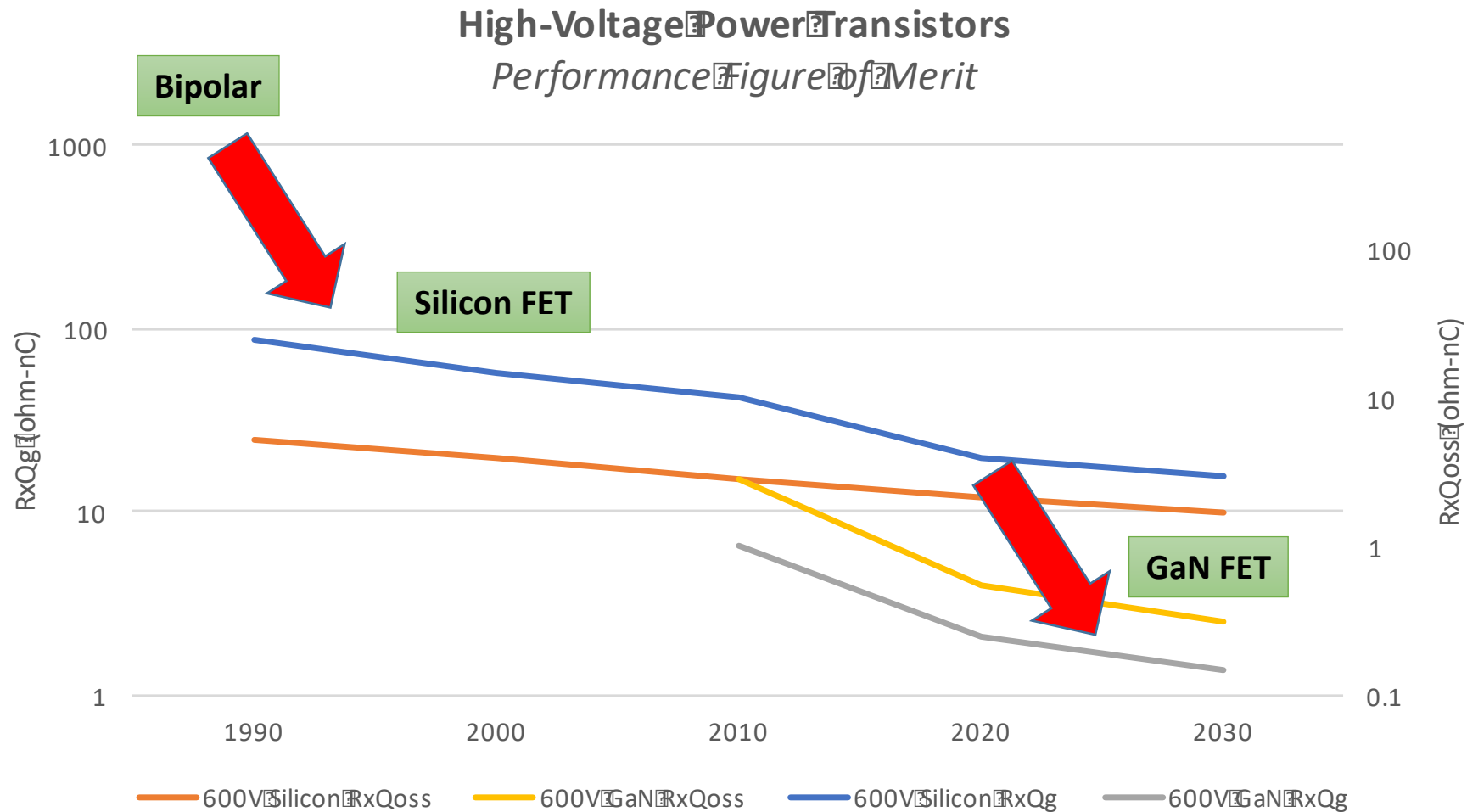
# Linear vs. SMPS Market Adoption



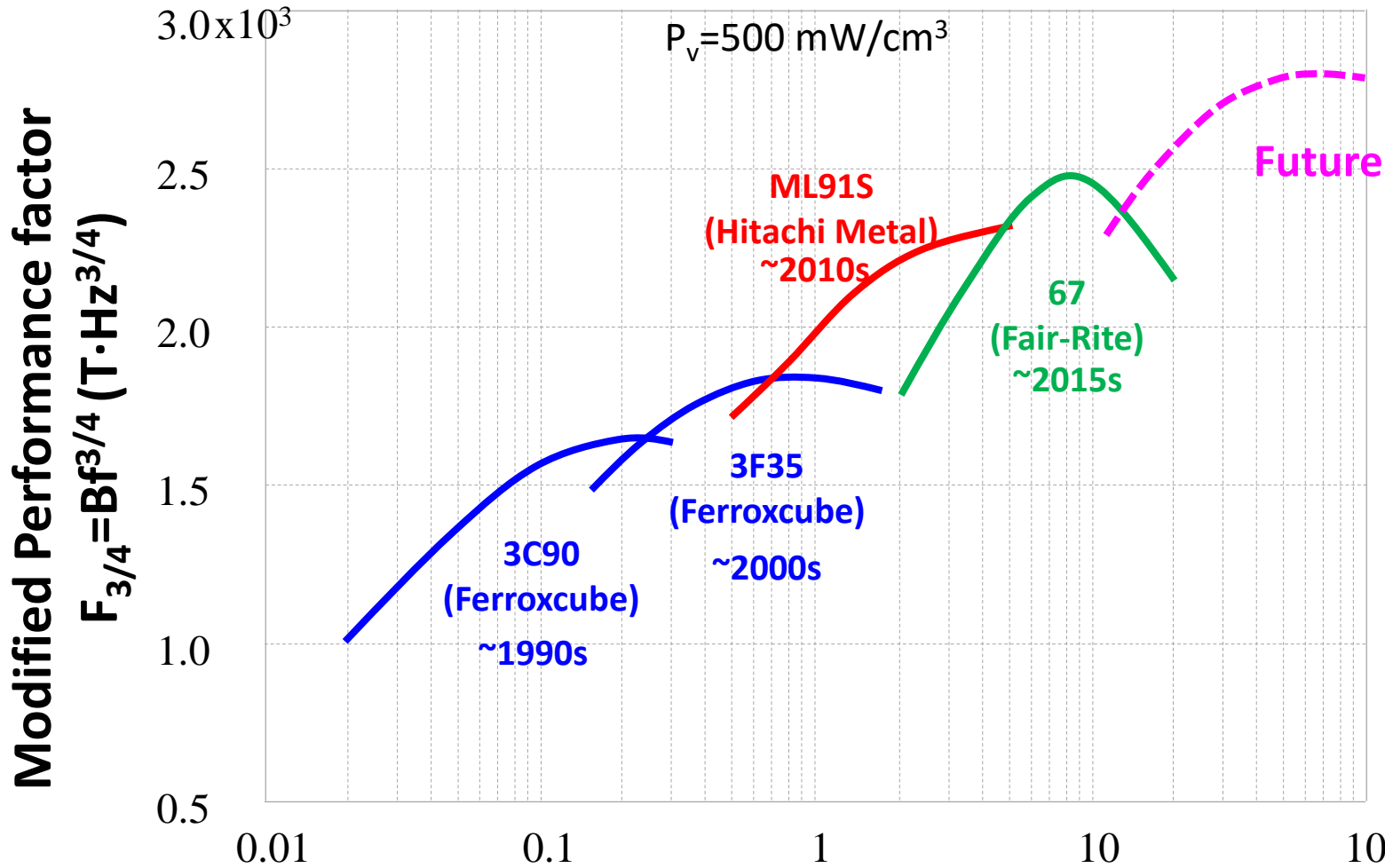
# Time for Another Disruption...



# Power Transistors – 10x Disruptions



# Magnetics Frequencies – 10x Every Decade



Y. Han, G. Cheung, A. Li, C. R. Sullivan and D. J. Perreault, "Evaluation of Magnetic Materials for Very High Frequency Power Applications," in *IEEE Transactions on Power Electronics*, vol. 27, no. 1, pp. 425-435, Jan. 2012.

A. J. Hanson, J. A. Belk, S. Lim, C. R. Sullivan and D. J. Perreault, "Measurements and Performance Factor Comparisons of Magnetic Materials at High Frequency," in *IEEE Transactions on Power Electronics*, vol. 31, no. 11, pp. 7909-7925, Nov. 2016.

# High-Frequency SMPS Market Adoption

