Transistor density over Time Fab (nm) O null **O** 4 **O** 5 **O** 6 **O** 7 0 8 0.2 **O** 12 **1**4 **O** 16 0.1 **28** 0 00 0 **O** 40 **O** 55 **O** 65 08 **O** 90 0.02 **130** 0 **150** 0.01 Transistor Density (B/mm2) **O** 180 O 220 **O** 250 O 350 **O** 500 0 Vendor 0.002 O AMD Intel AAA 40.0.0 8000 600 ▲ NVIDIA 0.001 AA AAA A **A** 0.0002 **A A** 0.0001 **A A** 0.00002 0.00001 2011 2012 2013 2014 2015 2016 2017 2018 2019 2024 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2020 2021 2022 2023 Launch