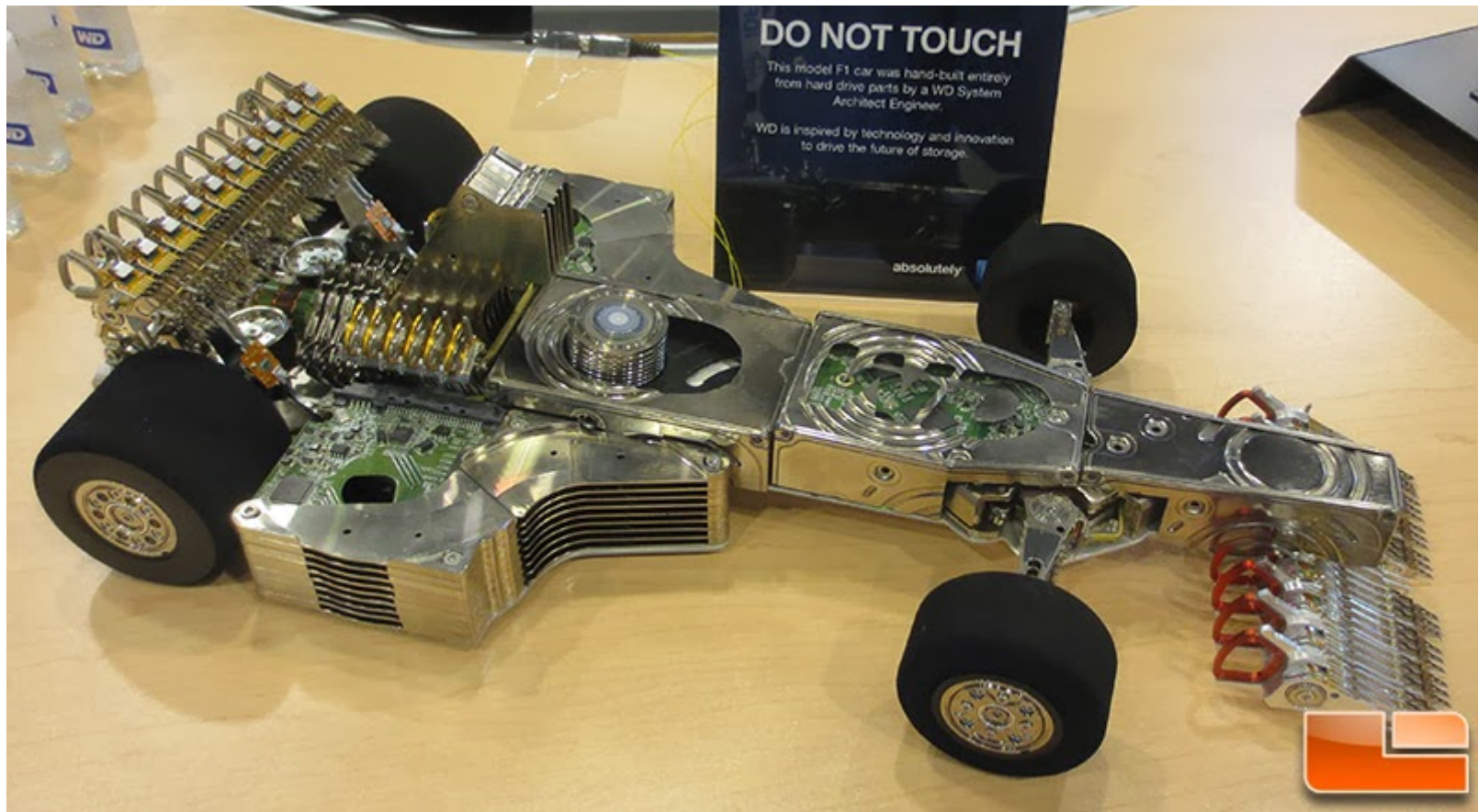


Mass Storage Systems

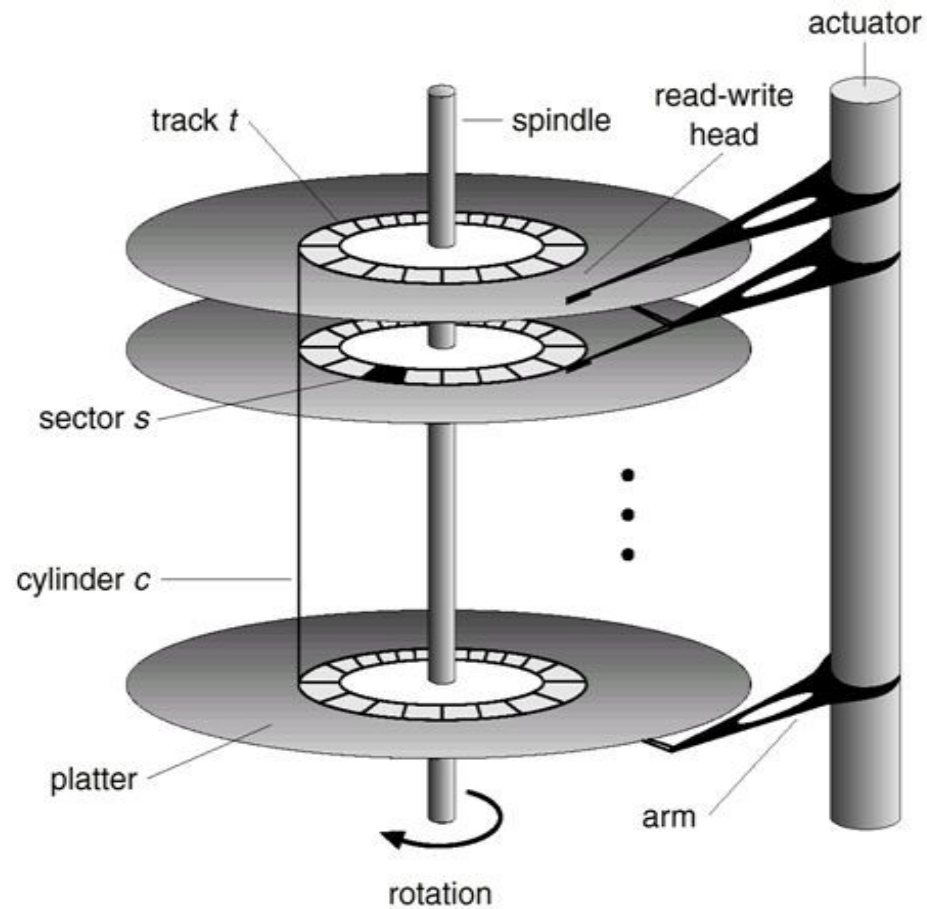


Hard Disks



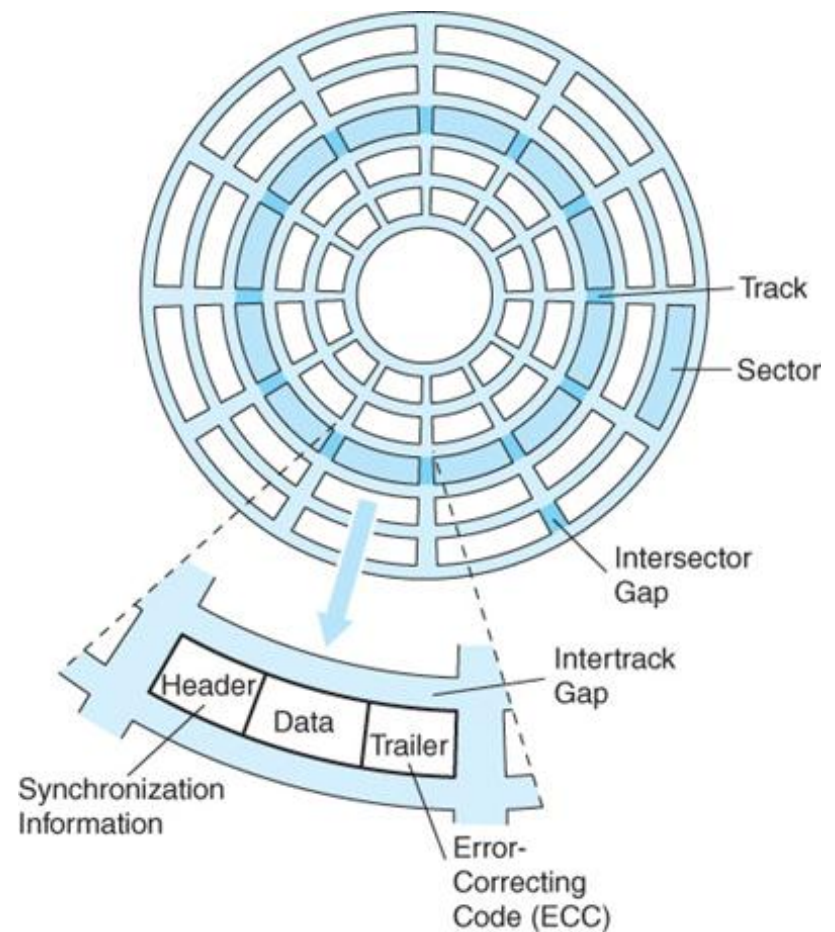
Hard Disks

Overview: Moving-Head Disk Mechanism

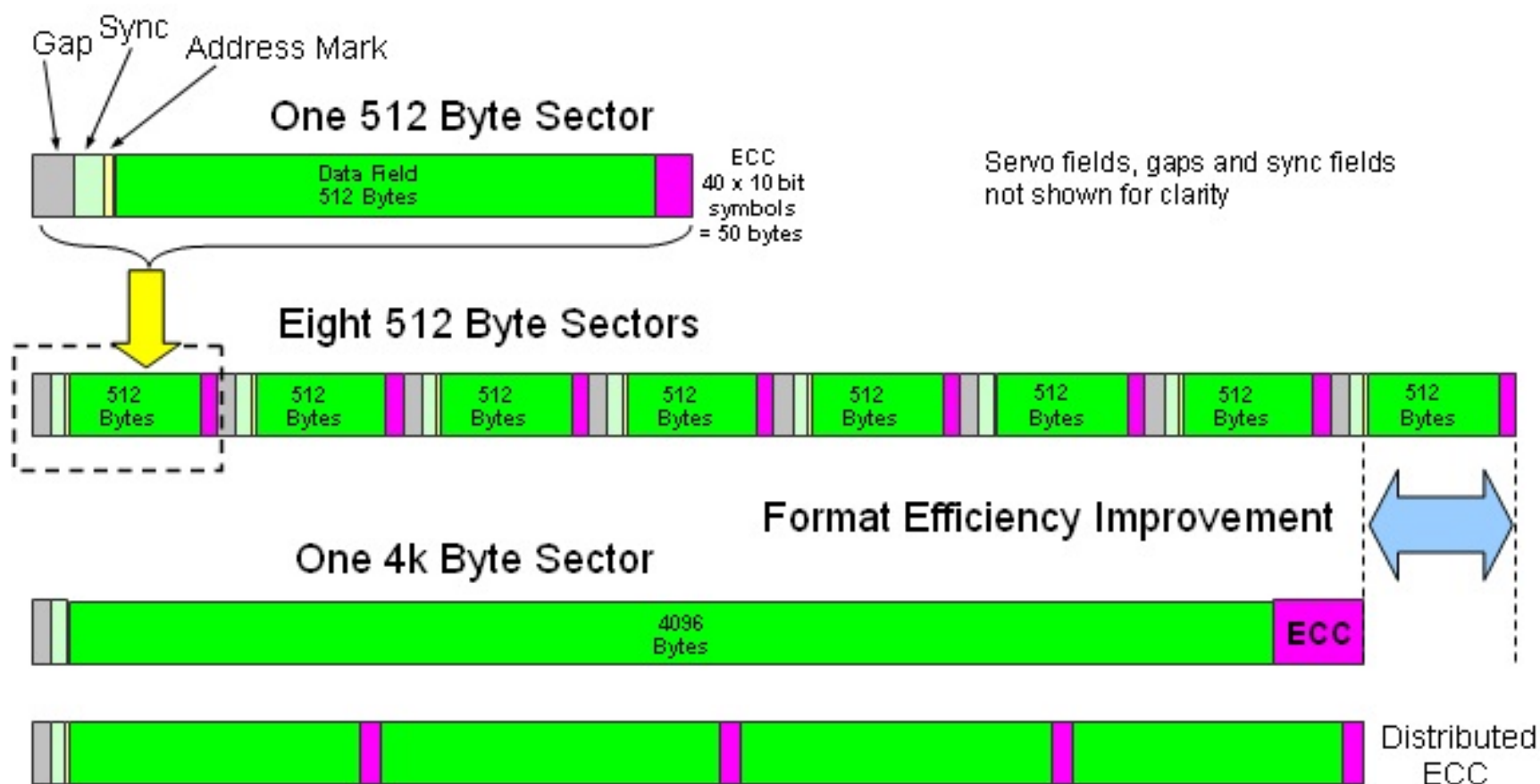


Structure

- Components
 - Platter (Head)
 - Track
 - Sector
 - Inter sector gap
 - Inter track gap

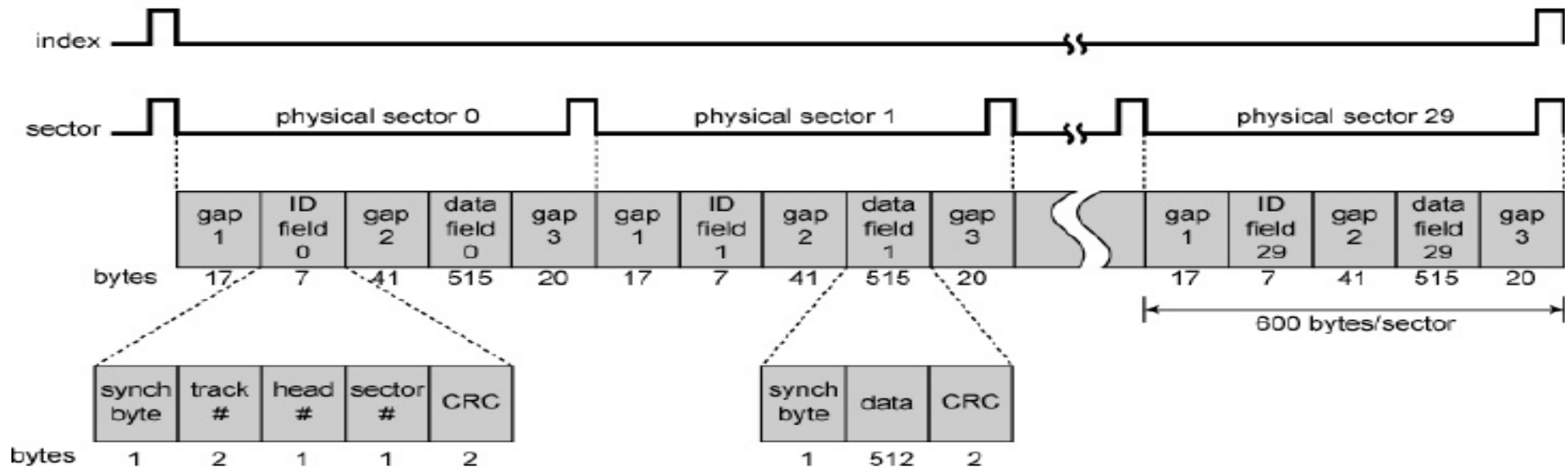


Sector formats

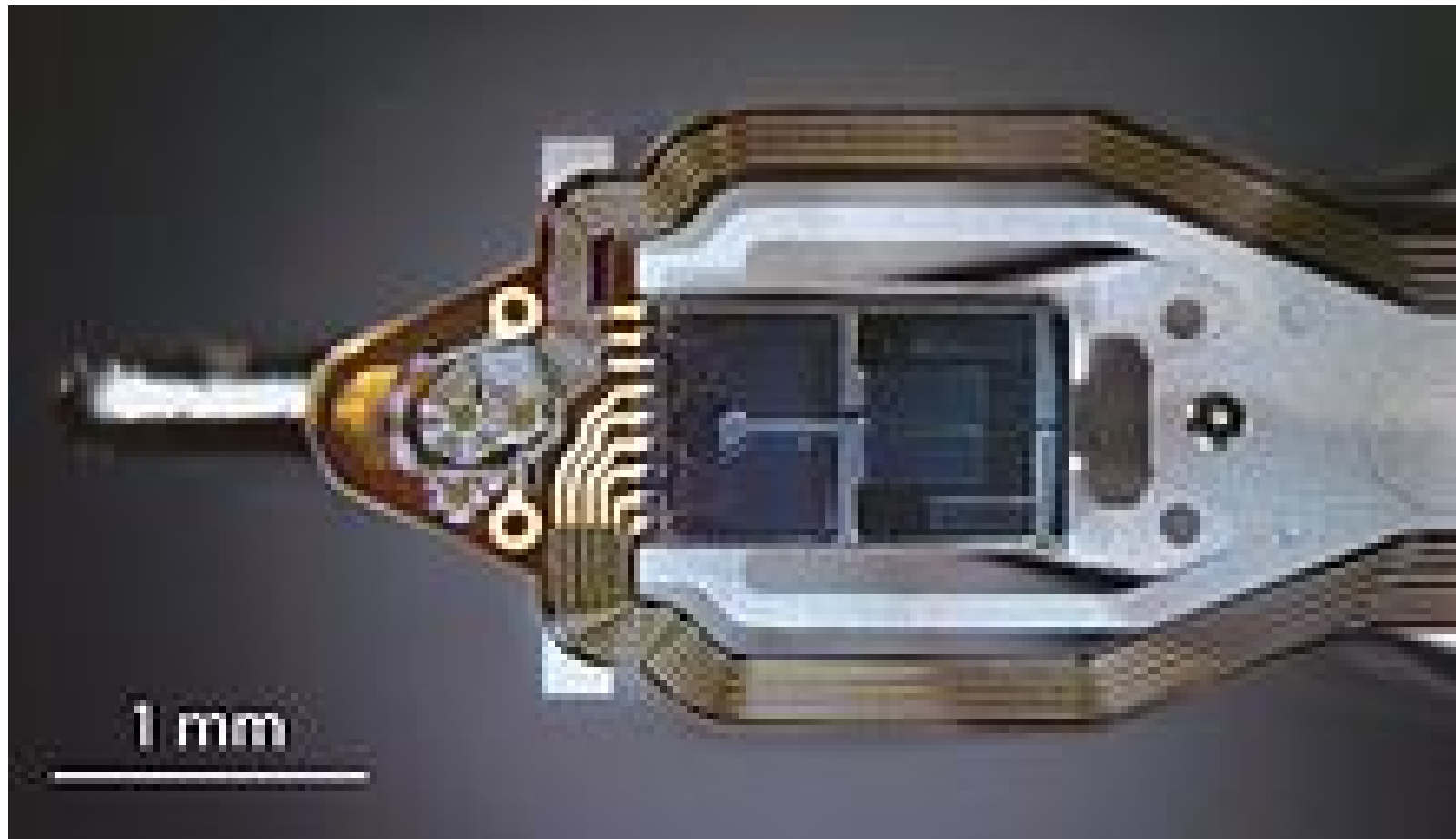


Sector internals

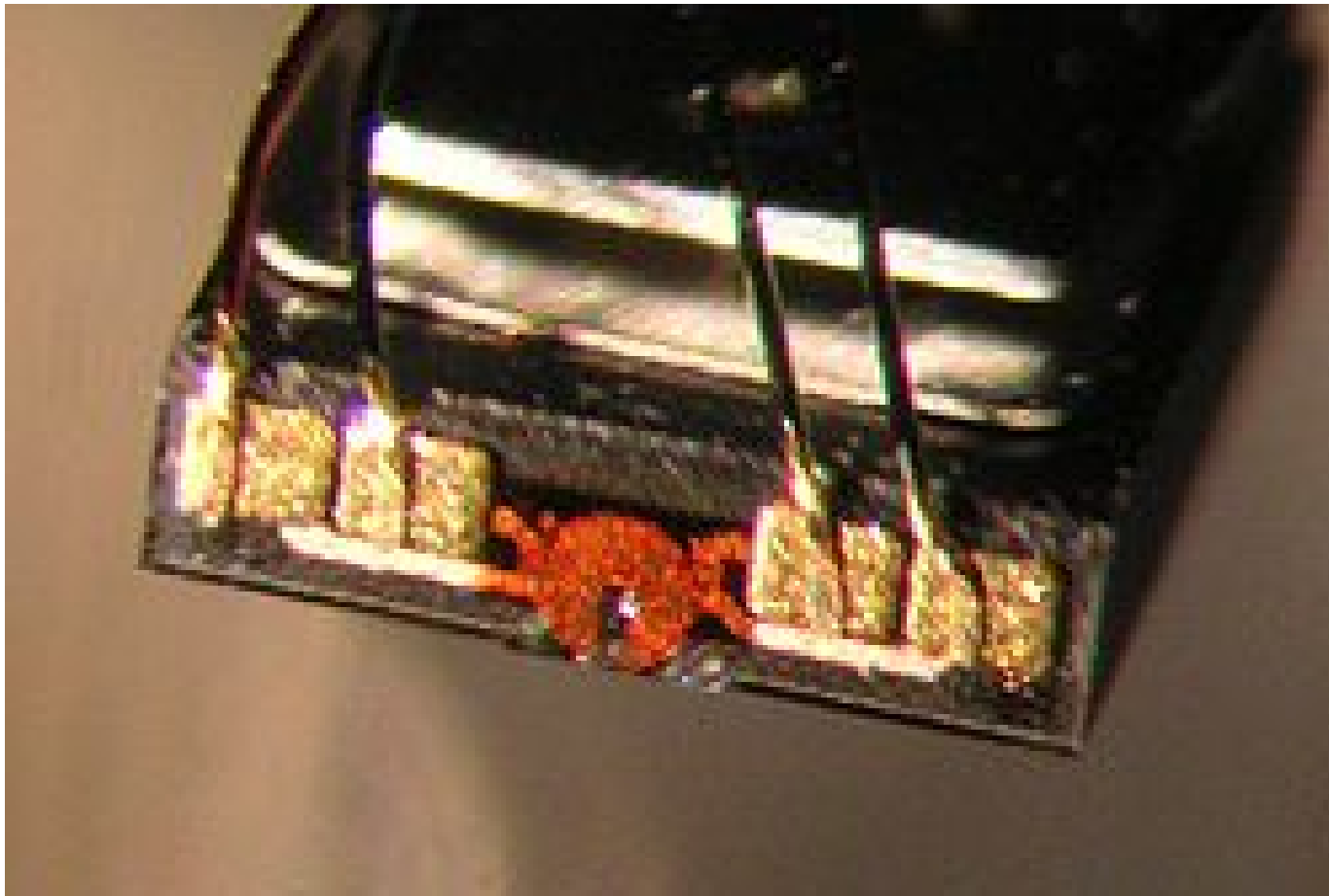
Winchester Disk Format Seagate ST506



Read/Write Head



Read/Write Head



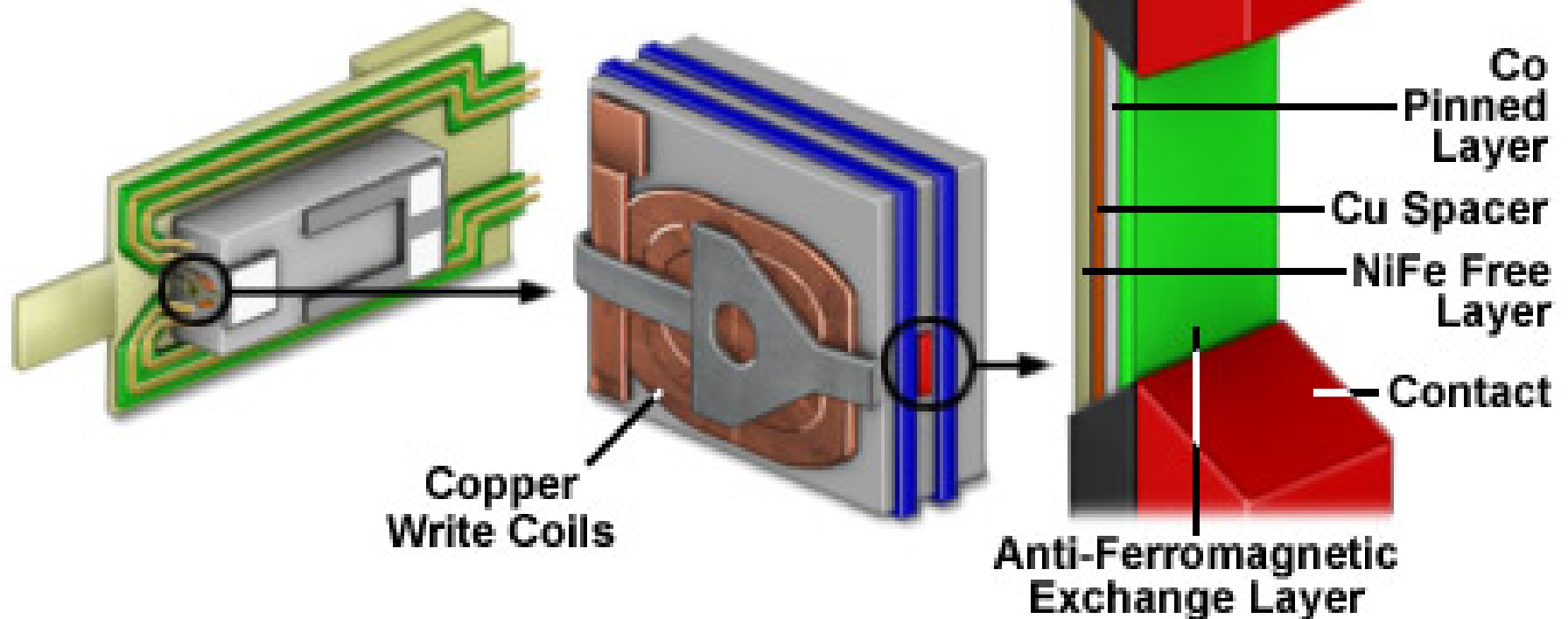
Read/Write Head Schematics

GMR Head Structure

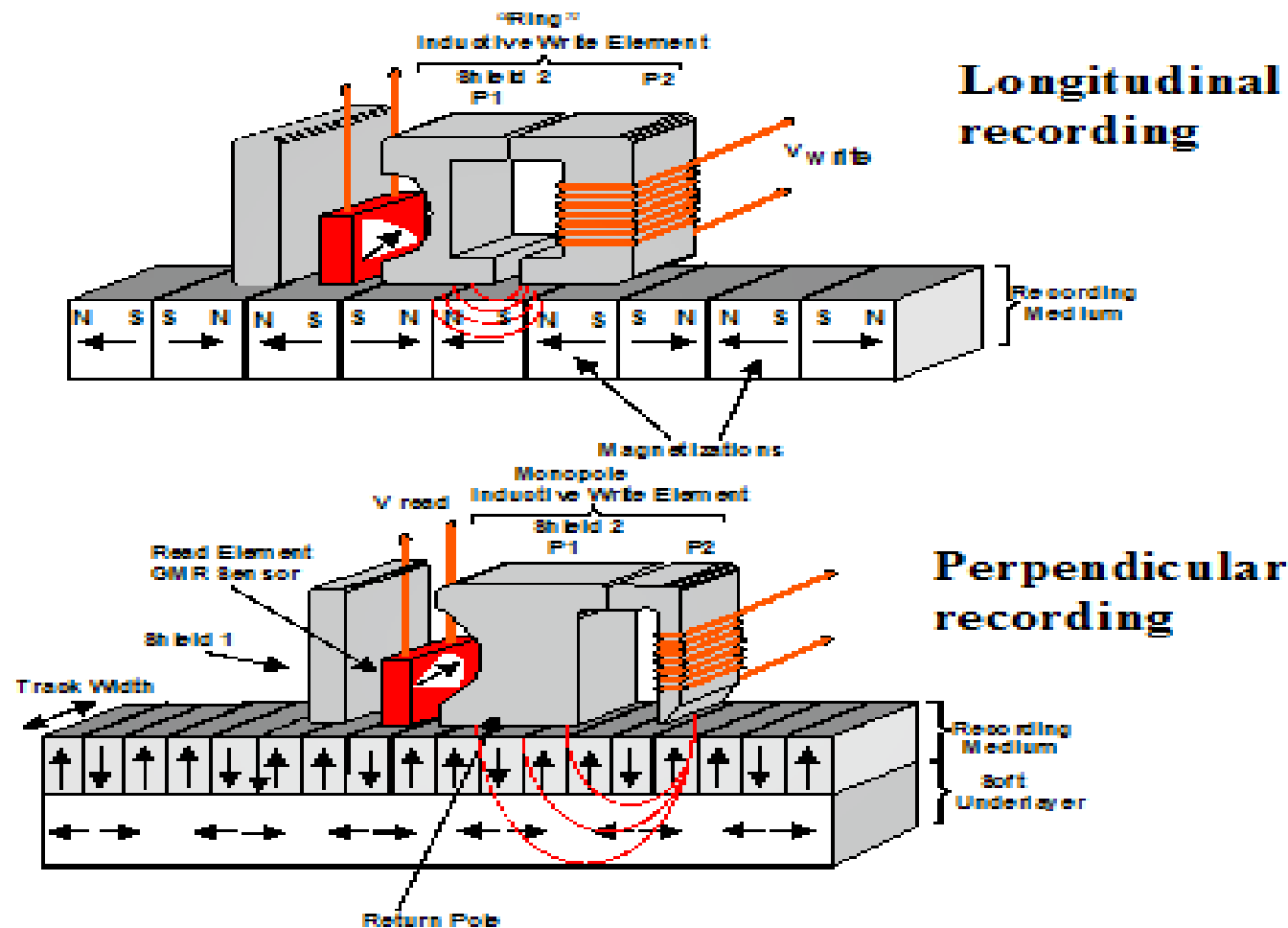
Integrated Lead Suspension
/ Pico Slider

Inductive
Write Head

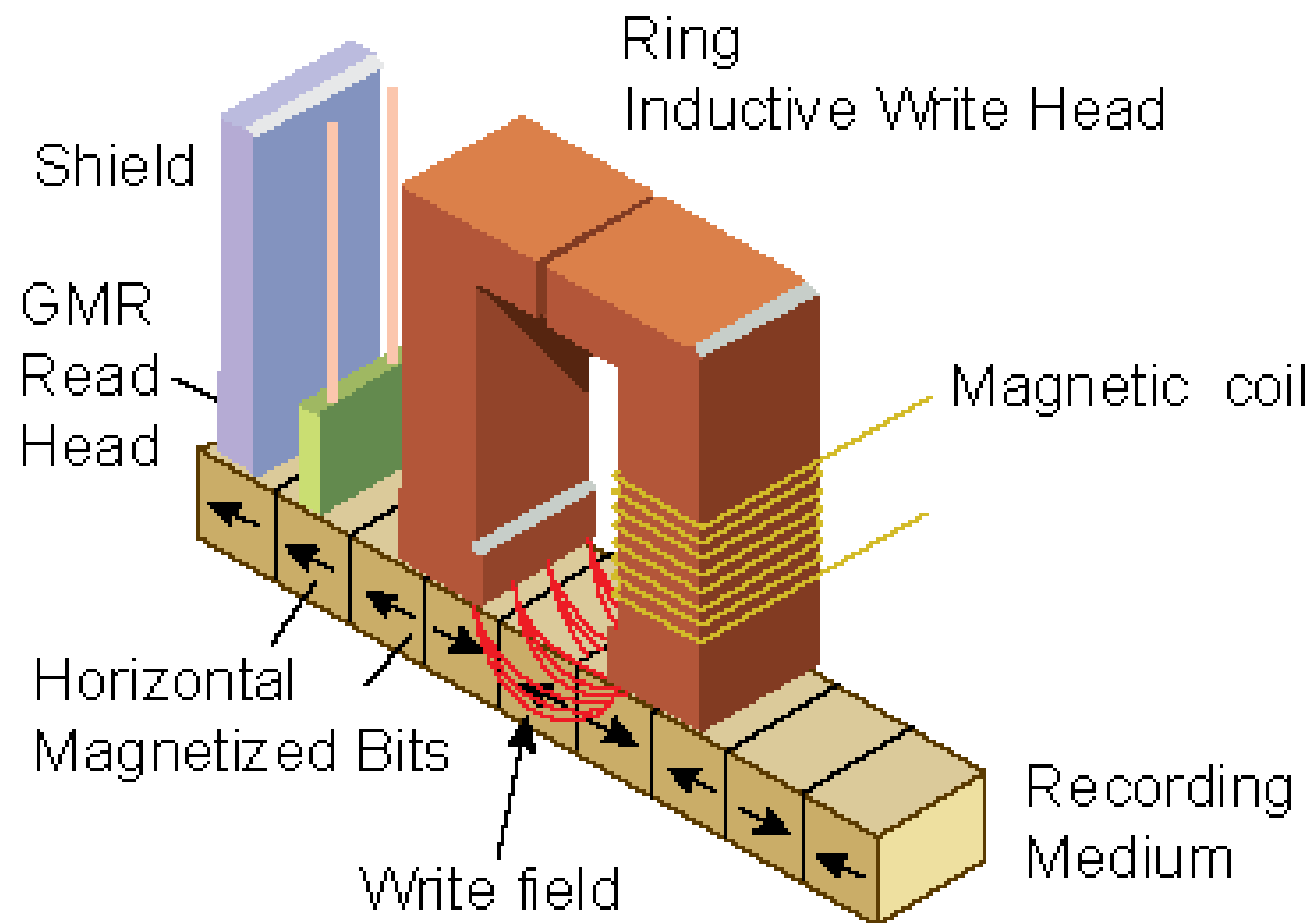
GMR Read Head



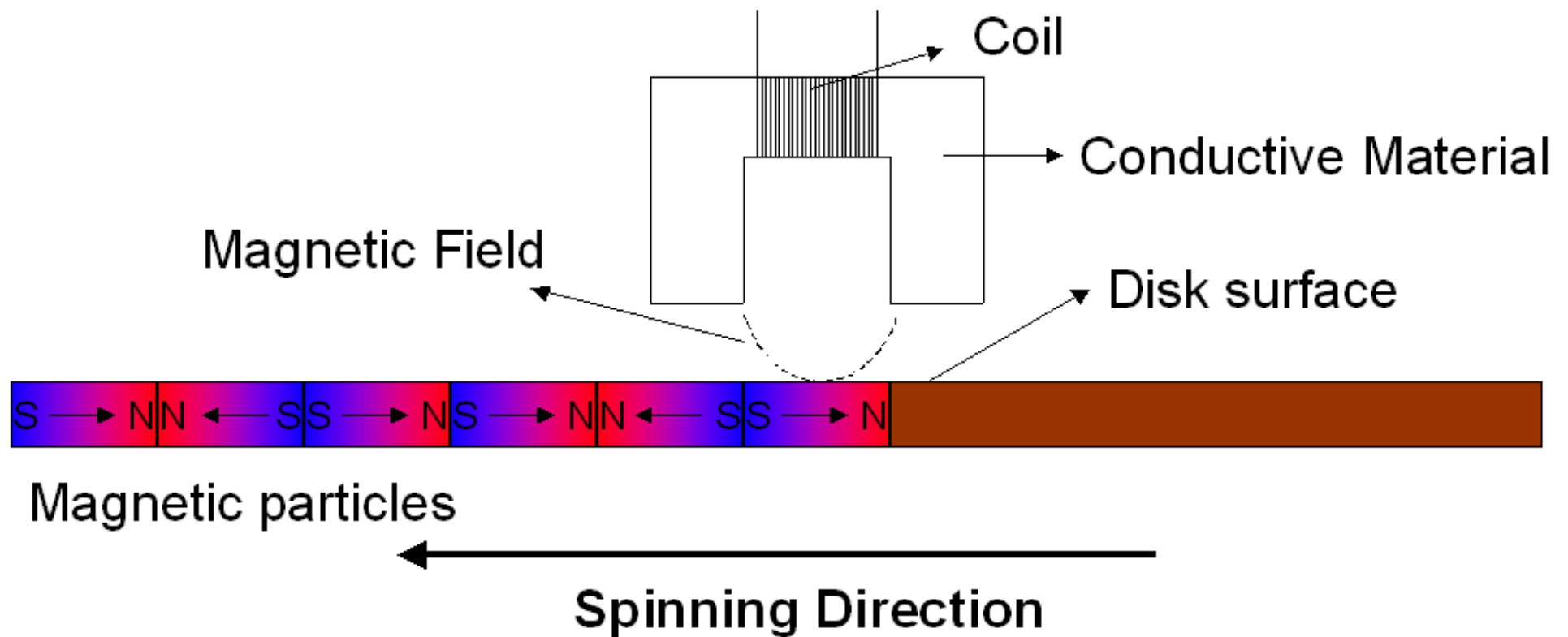
Magnetic recording



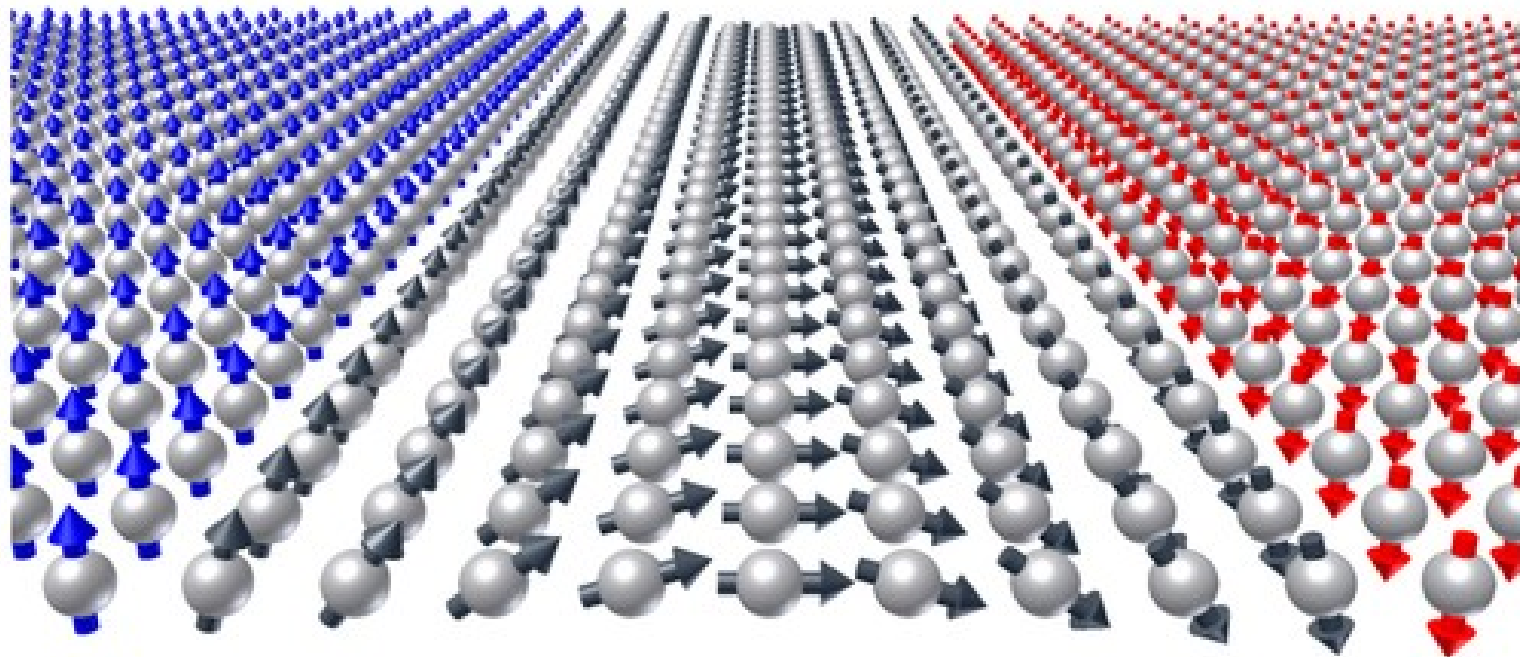
Magnetism schematics



Read/Writing Head



Bits organization

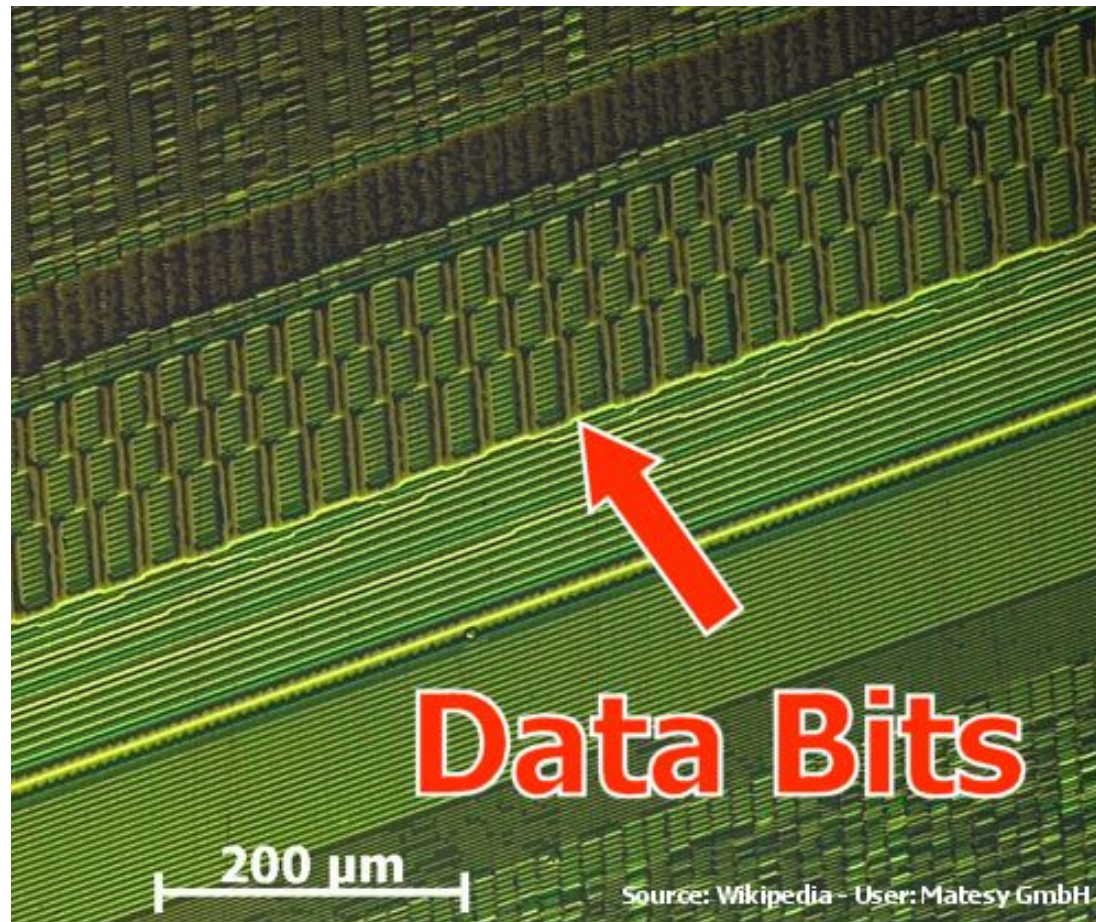


Domain 1

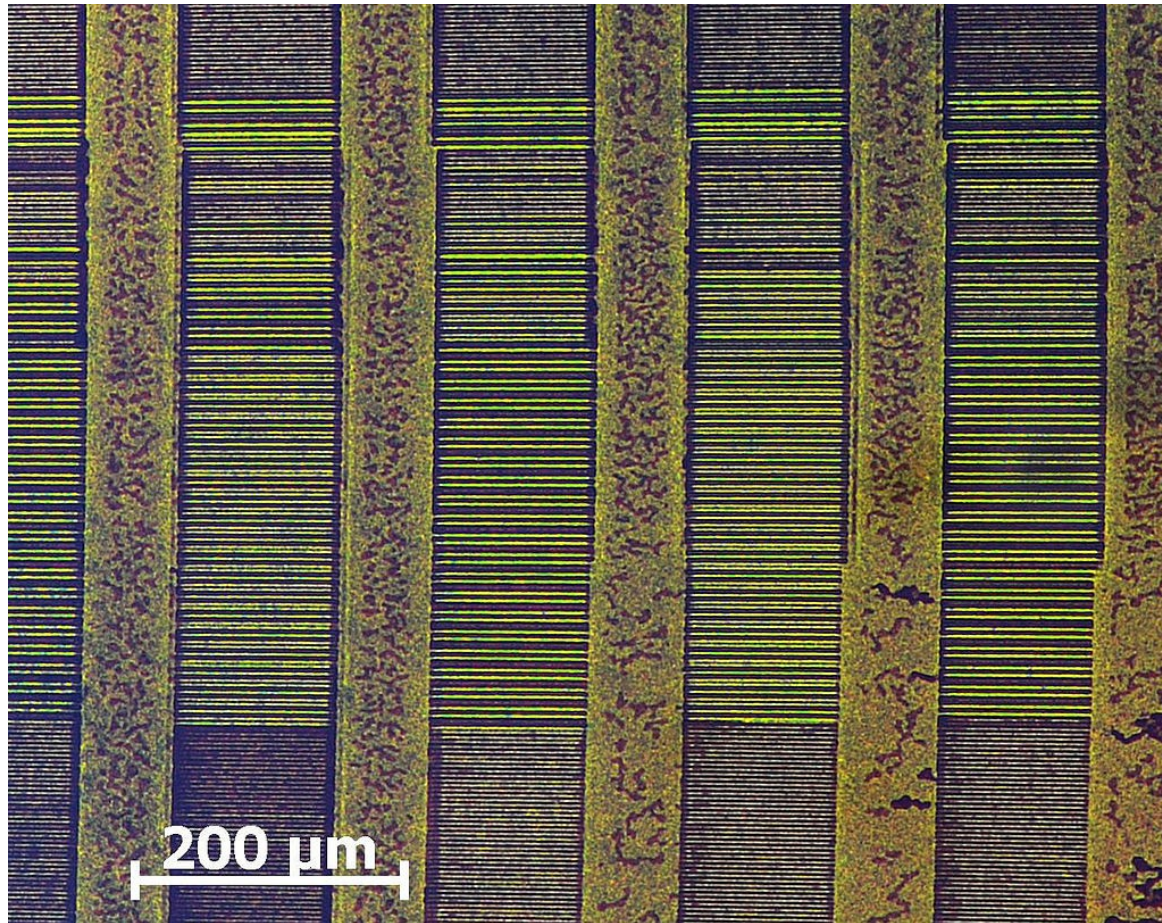
Domain wall

Domain 2

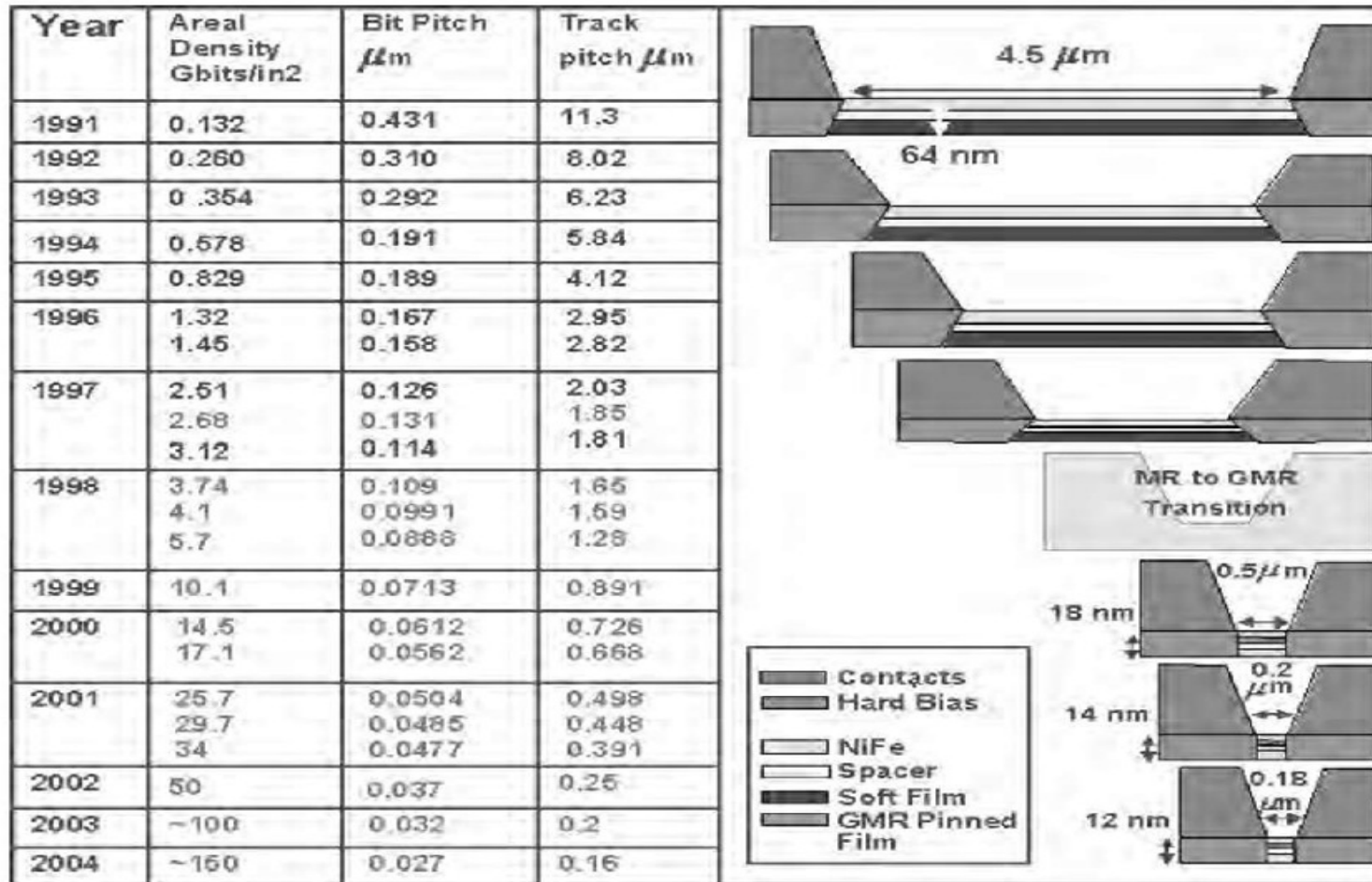
Bits imaging



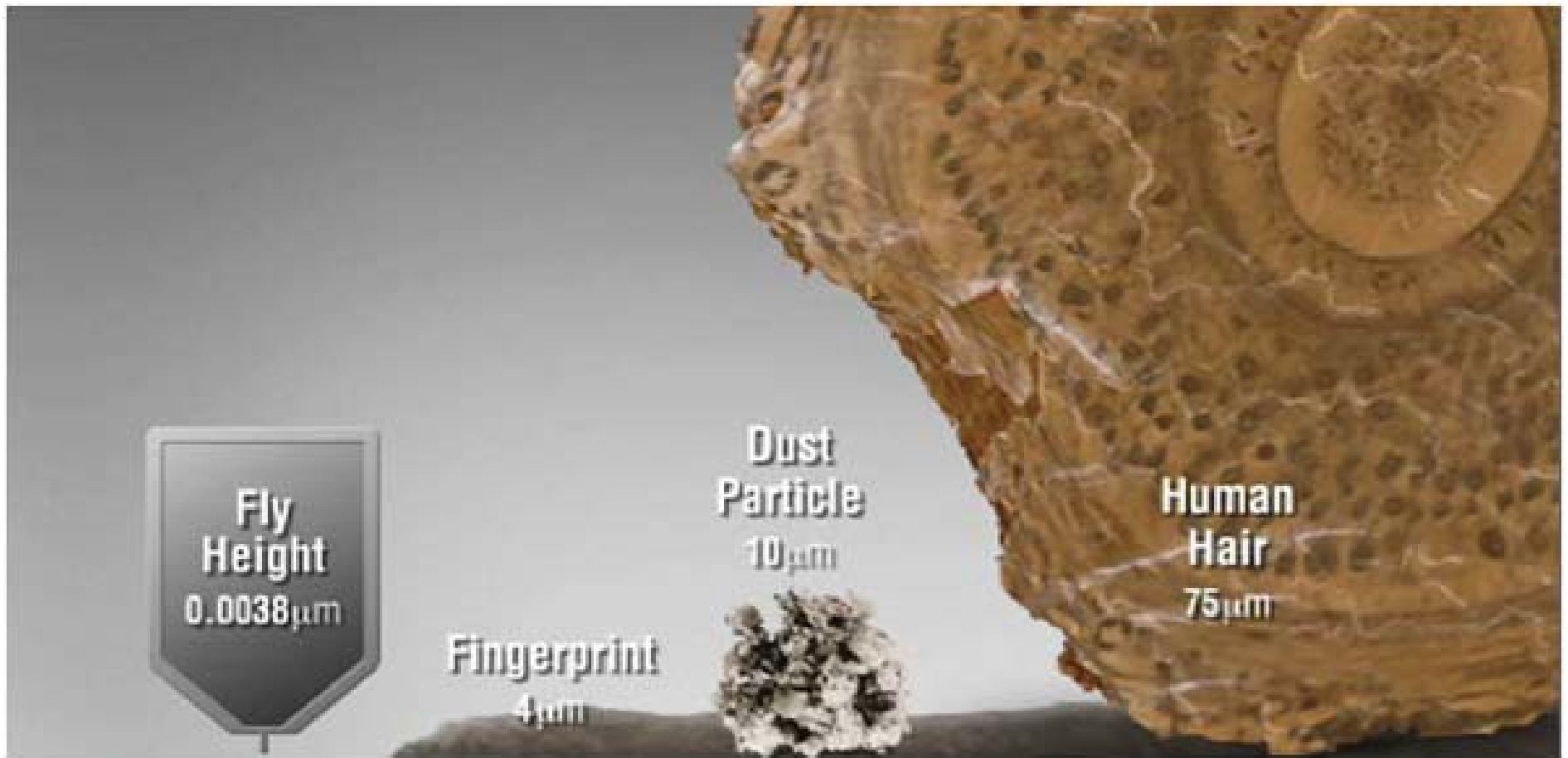
Floppy disk bits



Head size evolution



Head fly height



Hard Disks

