

# “The PHY Layer is dead”

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# Statement – Mischä Dohler <sup>[1/2]</sup>

- Technology-Buzz Examples:
  - UWB
  - MIMO
  - Cognitive Radio
- Wireless capacity has approximately increased by a factor of a million since 1957 [Cooper]:
  - 5x due to better modulation schemes,
  - 1600x through reduced cell sizes.

# Statement – Mischa Dohler <sup>[2/2]</sup>

- Issues which relate to PHY but are not dead:
  - hardware,
  - information theory.
- Issues where PHY is (still) pertinent:
  - interference, complexity, etc.
  - money making through standards.
- Conjecture:
  - Breakthroughs are spatially uniformly and temporally Poisson distributed; they depend weakly on the amount of people behind the work.