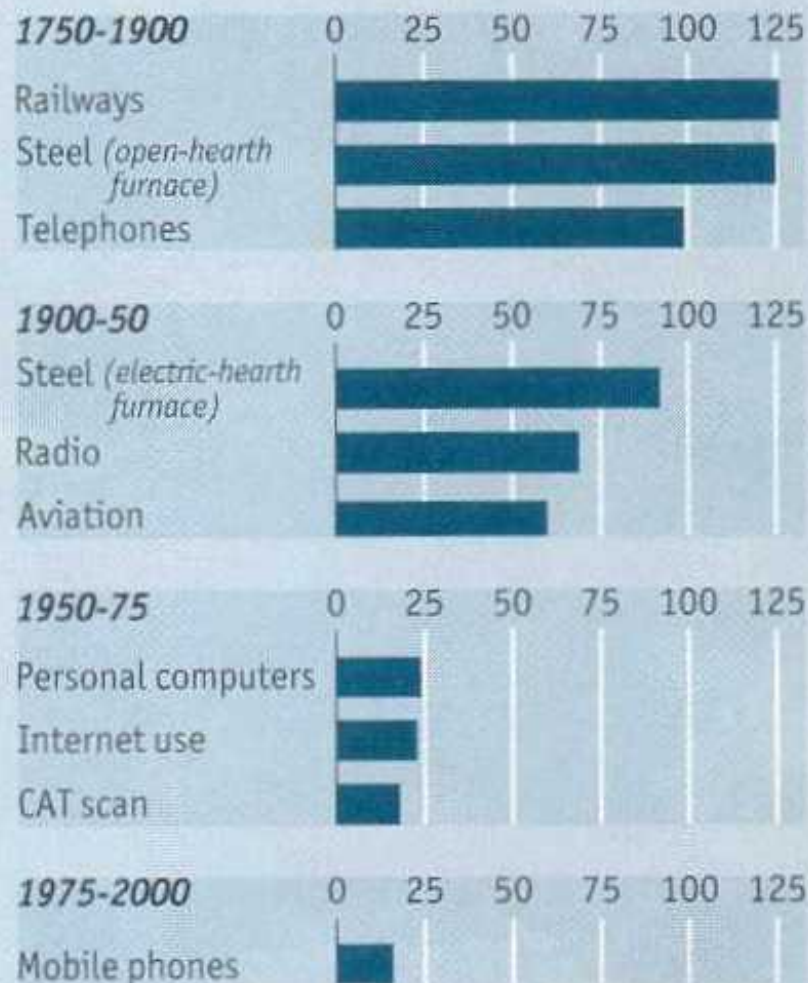


## High-tech leapfrog

1

Number of years after invention for selected technologies to reach 80% country coverage



Source: World Bank

## Technological adaptive capacity may restrict the diffusion of future technologies

Technology application	Most of Africa, Middle East, Oceania	Latin America, South Africa, Turkey, Indonesia	China, India, Russia, Eastern Europe	Industrial countries
	<b>Technologies likely to be mastered by 2020 (✓)</b>			
Cheap solar energy	✓	✓	✓	✓
Rural wireless communication	✓	✓	✓	✓
Genetically modified crops	✓	✓	✓	✓
Filters and catalysts	✓	✓	✓	✓
Cheap autonomous housing	✓	✓	✓	✓
Rapid bioassays		✓	✓	✓
Green manufacturing		✓	✓	✓
Ubiquitous RFID tagging		✓	✓	✓
Hybrid vehicles		✓	✓	✓
Targeted drug delivery			✓	✓
Improved diagnostic and surgical techniques			✓	✓
Quantum cryptography			✓	✓
Ubiquitous information access				✓
Tissue engineering				✓
Pervasive sensors				✓
Wearable computers				✓

Requires increased technological sophistication

Source: Silbergitt and others 2006.

Note: RFID = radio-frequency identification.

# Obstacles to technological progress

- Technological inheritance  
(availability of infrastructure)
- Education and R&D
- Technophobia