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NANOPROSPECT –SE POT CLASIFICA NANOTEHNOLOGIILE?

UE 2020

5 KETs=Key Enabling Technologies

1. Nanotechnology
2. Micro and Nanoelectronics
3. Photonics
4. Biotechnologies,
5. Advanced Materials

Strongly
correlations

Nanotechnology ?



A significant part of the **new goods and services** that will be available in **2020** are yet unknown ,but the main driving forces behind their development will be the deployments of the **key enabling technologies** (KETs). Those nations and regions mastering the these technologies will be at the forefront of managing the shift to a low-carbon, knowledge-based economy, which is a precondition for ensuring welfare, prosperity and security of its citizens. **The deployments of KETs in EU is not only of strategic importance but indispensable for Europe**

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Nanoelectronica

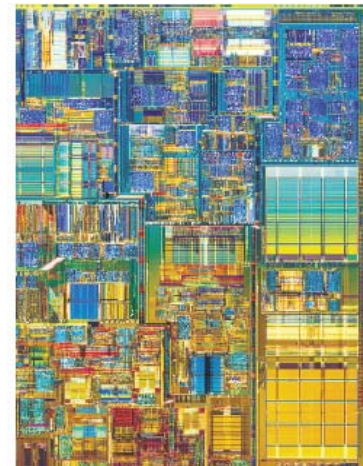
NEMS, nano FETs, electronica moleculara, circuite VLSI , senzori, SETs, circuite cu elctroni balistici

- road map
- ENIAC: platforma tehnologica europeana pentru nanoelectrica

More Moore...

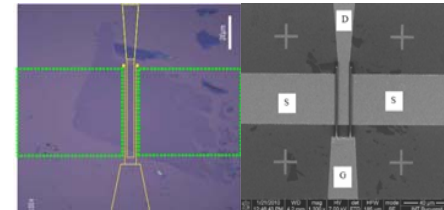


1950-1960

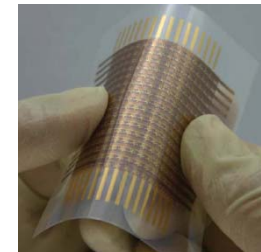


2008

More than Moore...



devices
on one
atom
thick
materials



-3D
integration

-stretchable
electronics

2010

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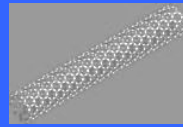
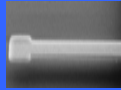
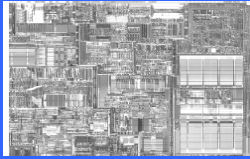
Nanomedicina

Tehnologia CMOS

NEMS

nanofire

nanotuburi de carbon

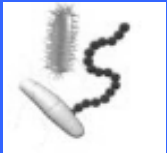


1 μm

100 nm

10 nm

1 nm



BACTERII



VIRUSURI



PROTEINE



ADN

•Road map

•Platforma europeana de nanomedicina

•Biosenzori –detectia timpurie a diferite boli

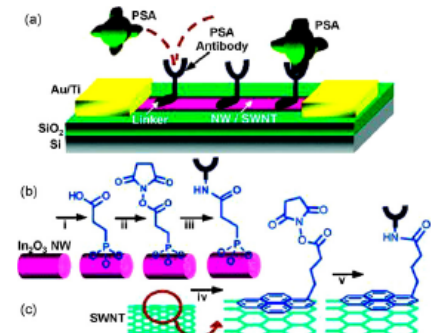
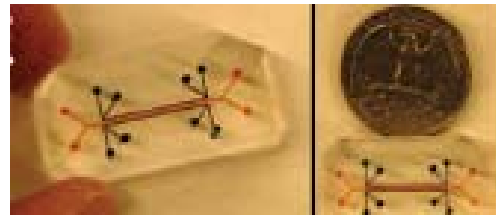
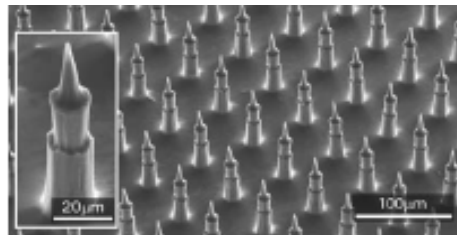
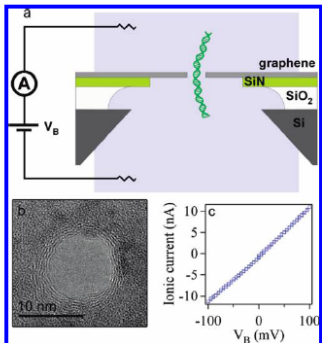
•Secventiere AND

•Medicamente tintite

•Terapii tintite

•Tesuturi si organe artificiale

•Sisteme inspirate de lumea vie(bioinspired systems)



Nanotechnology ?

