Session 2:
Carbon based electronics. Graphene

Graphene shows properties in many points exceeding competing materials and thus - very interesting for future nanoelectronics application. Bi-layer graphene structures shows more advantages related to bandgap engineering than single layer.

Important advantage of Graphene as compared to CNT is much easier handling and better suitability to integration with CMOS.

Reproducible, effective technics has been already developed to produce good quality graphene layers. The quality, defect density is still considered as a problem to be solved to meet requirements for future circuits/device manufacturing

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Graphene as a fundament of the Information Technology – still questionable

Integration of Graphene based devices with silicon CMOS integrated circuits may pose a difficult challenges related to process compatibility and 3D topography.

Earlier than to nanoelectronic IC's Graphene may find it's way to broader nanoelectronic applications (MtM)