Quick review of EU-supported 3D-IC projects

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CoolCube™

In the past few years, the CEA LETI has been working on a new way to integrate transistors in 3D: Clermidy et al. [2015], Michailos et al. [2016], Brunet et al. [2016], Vinet et al. [2016], Batude et al. [2015]. Their goal is to manufacture 3D monolithic chips using innovative stacking techniques. However, they still face the problem of partitioning and gates repartition on the tiers.

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FP7 Projects:

- **FAB2ASM**: *Efficient and Precise 3D Integration of Heterogeneous Microsystems from Fabrication to Assembly*[2].
- **JEMSIP_3D**: *Joint Equipment and Materials for System-in-Package and 3D-Integration*[3].
- **NANOPACK**: *Nano Packaging Technology for Interconnect and Heat Dissipation*[4].
- **ELITE**: *Extended Large (3D) Integration TEchnology*[5].

Horizon 2020 projects:

- **TAKE5**: *Technology Advances and Key Enablers for 5 nm*[6]. This projects aims at the development of the 5nm node. Even though scaling is worth exploring, the 3D integration path is not to be left aside.
- **NeuRAM3**: *NEUral computing aRchitectures in Advanced Monolithic 3D-VLSI nano-technologies*[7].
- **METRO4-3D**: *Metrology for future 3D-technologies*[8].

[1] http://cordis.europa.eu/project/rcn/111144_fr.html
[2] http://cordis.europa.eu/project/rcn/94309_en.html
[3] http://cordis.europa.eu/project/rcn/201936_en.html
[4] http://cordis.europa.eu/project/rcn/85245_en.html
[5] http://cordis.europa.eu/project/rcn/85238_en.html
[6] http://cordis.europa.eu/project/rcn/203403_en.html
[7] http://cordis.europa.eu/project/rcn/199168_en.html
[8] http://cordis.europa.eu/project/rcn/199865_en.html

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