## **Next Generation Digital Implementation Flow**



50B devices by 2020



250M+ tablets in 2014



3.3 ZB traffic with 25% CAGR

Internet of Things

Mobility

**Cloud Computing** 

## **INNOVUS**

**Digital Chip** 

10nm

16/14nm

22/20nm

Greener, faster, smaller 100 -> 500 blocks > 1 billion transistors Heterogeneous layers



10% Area reduction

5 days → 1 day



Floor-planning

Place

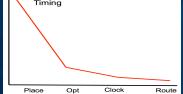
Opt

Clock

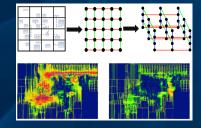
Route

5-10M+ instance
Up to 10x tat gain
10-20% better PPA

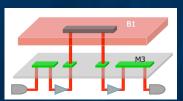
**Smooth Flow** 



Super-fast algorithms (routing)



Interconnect synthesis



Zhuo Li cādence