



# Accellera Breakfast and Panel Discussion:

UVM 1.2 Roundtable with John Aynsley



# UVM Roundtable Panelists

- **Amol Bhinge, Senior SoC Verification Manager, Freescale**
- **Colin McKellar, Senior Director of HW Engineering, Imagination**
- **John Aynsley, CTO, Doulos**
- **Mohamed Elmalaki, Design Verification Architect, Intel**
- **Rich Newton, Senior Manager Design Automation, Ericsson**

# Migration to UVM ..... Journey so far !

- Managing global SoC verification team in Austin, Israel and India (100+)
  - Taped out a flagship product with 2B transistors in 2013 using internal methodology, with one of the IP teams (SoC IP team) adopting UVM.
  - Chose migration to UVM 1.1 for the next generation product to be taped out in 2014
- Why UVM? When should we migrate? Who should migrate? Is there a magical tool?
  - Usual Schedule, Quality, Resources and Complexity (SQRC) equation
- Benefits to overcome SQRC challenges
  - Cleaner environment with better support from vendors including third party IPs/VIPs
  - Possibly fine-tuned simulation and debugging performance
  - Attracting and retaining talent.
- Challenges
  - No clear direction on register modeling enforcing co-existence of multiple formats
  - Reuse for stimuli from IP to sub-system to SoC to silicon and vice versa
  - Several IPs not yet moved to UVM making it impossible to reuse their collateral
  - Co-existence with internal methodology
  - Reading between lines : may not be plug-n-play among implementations
- **Migration to UVM was a blessing in several contexts but not yet absolute victory.**

# Mohamed Elmalaki

Design Verification Architect – *Intel Corp*

UVM WG Contributor – *Accellera*

## UVM Direction

### Freeze Features

Very high bar for any extra feature to be added to UVM base library. Strict backward compatibility

### Focus on Quality

Increase testing/Enhance Documentation/IEEE Standardization

### Encourage Community Contributions

Build *over* UVM rather than *into* UVM. e.g.: MLWG, AMS, Emulation

# Rich Newton, Ericsson

IP Systems ASIC Group, San Jose, CA

- Group moving to UVM for next project
  - Currently using in-house SV class library
- Concerns
  - UVM style – which is “best”?
  - Performance
    - UVM\_REG scalability
    - Logging, config db
  - Moving target of standardization