

# Design Automation

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# Design Automation

- Recreate an active UK-based “Development Club”
- Concentrate on high-level design and use of reconfigurable building blocks
- Implement a multi-site working environment

# Design Automation - Development

- Re-establish UK-wide collaborative approach
  - within a European and RoW environment
- Focus on innovative tools and flows
  - Development teams have access to common standard frameworks
  - Plus targeted early access to relevant state-of-the-art commercial tools
- Establish a UK EDA tool development forum
  - Workshops, etc. to discuss tool development
  - Identify key development areas in conjunction with Design Vision themes
- $\beta$ -test environment (following  $\alpha$ -test in development team)
  - Open access to UK members
  - Established groups can benefit from each other's experiences
- Assistance for teams commercialising their tools

# Design Automation - Complexity

- **Recognise** that front-to-back design is not a single discipline!
  - Small teams can only ever produce competitive designs using large smart building blocks!
- Smart partitioning and (re)configurability are essential for effective modern system design
- ESL tools are most likely to benefit future UK industry
  - Emphasis on the highest possible levels of design e.g. algorithmic
- UK universities have established groups that are strong in the individual disciplines required for complex SoC design
- Collaborative design teams, environment and infrastructure is the only way forward!

# Design Automation - Collaboration

- UK is very well placed to begin this process
  - Access to common set of commercial EDA tools
  - Infrastructure which can be used to make additional tools required by Common Vision available
  - High degree of compatibility with industry
- Initial emphasis needs to be on
  - Design challenges / goals
  - Effective collaboration and design partitioning
  - NOT on basic infrastructure
- UK Design Vision orientated and supported “light” collaborative design management tools could realise the potential of the combined UK design expertise