

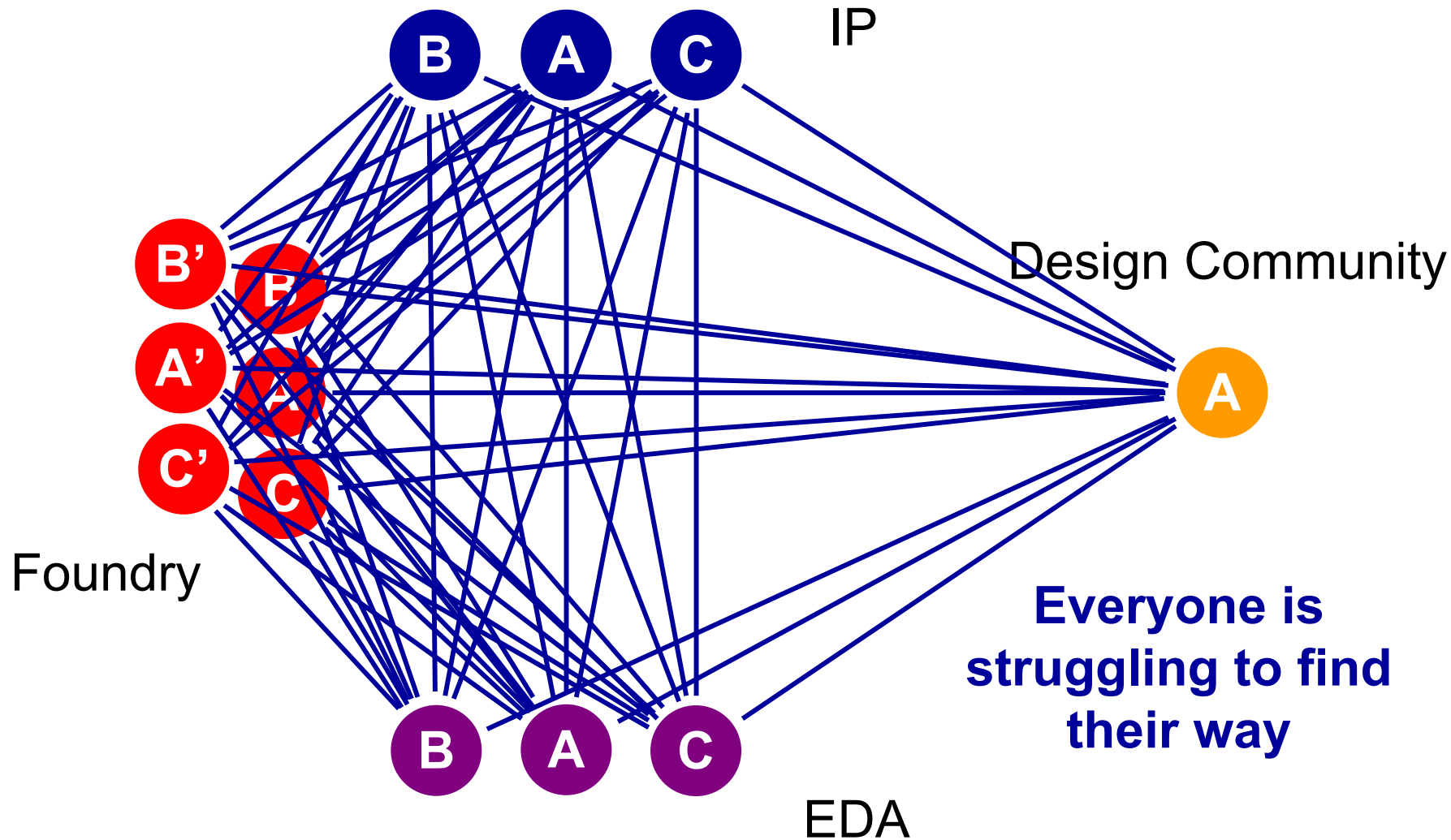
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It's OK to develop standards for custom design

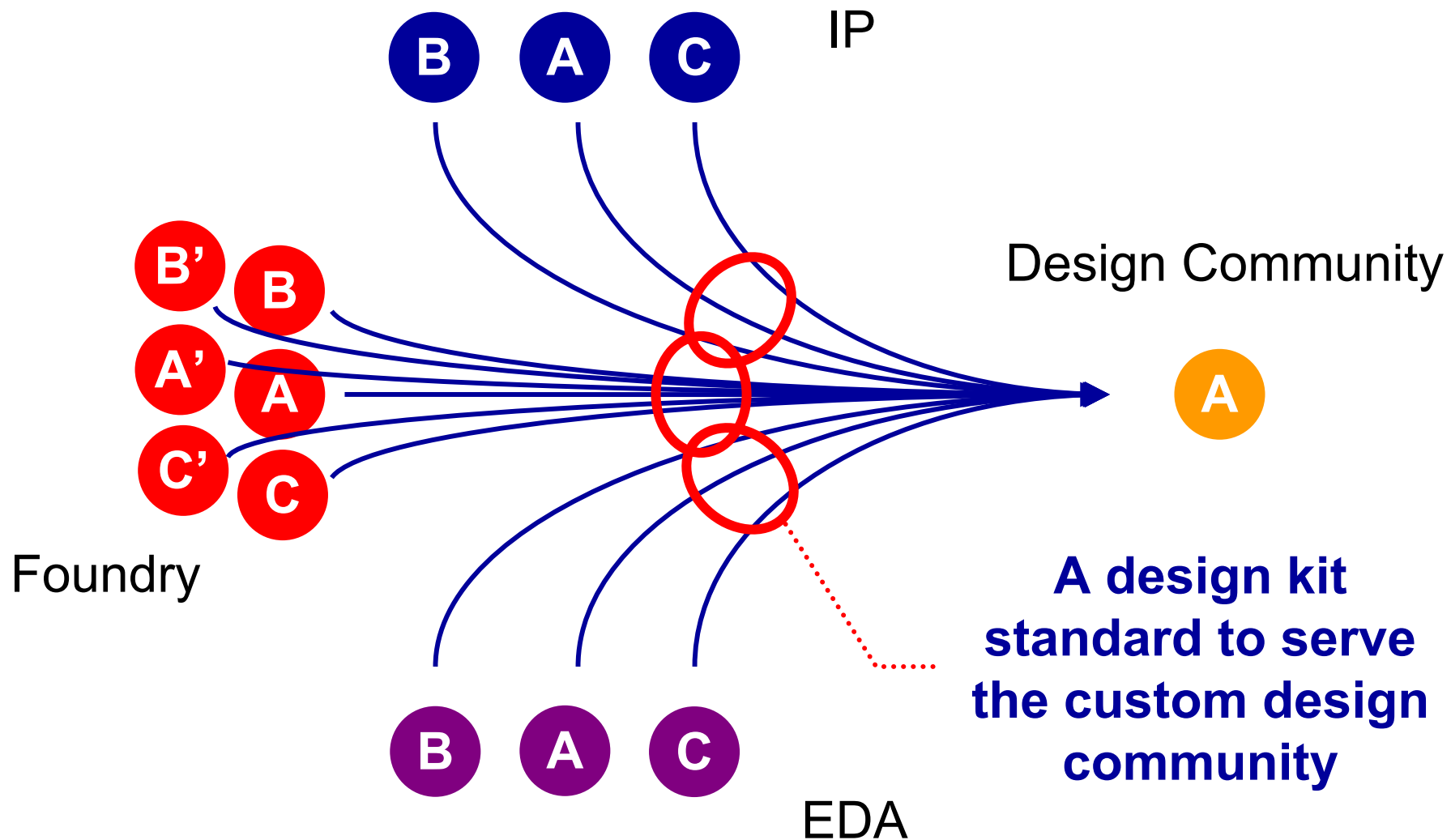
**Nick English
November, 2003**



The 30,000 Foot View: A Jungle



The 30,000 Foot View: Future



Silicon World:

5 Basic Components

- **Components**
 - Transistor
 - Diode
 - Res
 - Cap
 - Ind
- **But... Standards?**
 - GDSII?
 - HSPICE?
 - Artist?
 - Calibre?
 - Virtuoso?
 - Cadence PDK?
- **Lack of standards at elemental level**
 - Creates huge inefficiencies
 - Inhibits progress in the custom design world

“We’re proposing a stronger foundation”



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OK Objective

Put a Strong Foundation to the IC Design Process

**Reduce Redundant Work by Multiple Companies
and the Inefficiencies and Nuisances**

**Work in Areas of Minimal Competition Between
Vendors**

**Continue Standardization Efforts
That are helping the industry**



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Things to work on

- **Design function, nomenclature and categories**
- **Design kit elements and formats**
- **Tool & technology fit**
- **Design type and applications**
- **Management of all this stuff**
 - **Ownership**
 - **Qualification**
 - **Revision Control**
 - **Distribution**



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Who Cares?

- **Designer community**
- **Library & IP developers**
- **Internal DA groups**
- **EDA tool providers**
- **Foundries**



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OK Participating Companies

- **1st Silicon**
- **ADA**
- **AMIS**
- **Artisan**
- **AWR**
- **Barcelona**
- **Cadence**
- **Chartered**
- **Cira Nova**
- **Conexant**
- **HPL**
- **IC Methods**
- **Mentor**
- **Motorola**
- **National**
- **NEC**
- **Philips**
- **Qualcomm**
- **Sagantec**
- **Silterra**
- **Silvaco**
- **Skyworks**
- **Sony**
- **Synopsys**
- **Texas Instruments**
- **TSMC**
- **Virage Logic**



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OpenKit Technology Reference

- **180 - 130nm BiCMOS process technology with copper interconnect**
- **Broad range of supported devices to use in setting standards for all design styles**
- **Initial focus on custom digital design using CMOS devices**
- **Rapidly cover analog and RF by setting standards for the broader set of devices**
- **The roadmap is intended to track the ITRS roadmap with 3 design class & device category releases per technology node.**

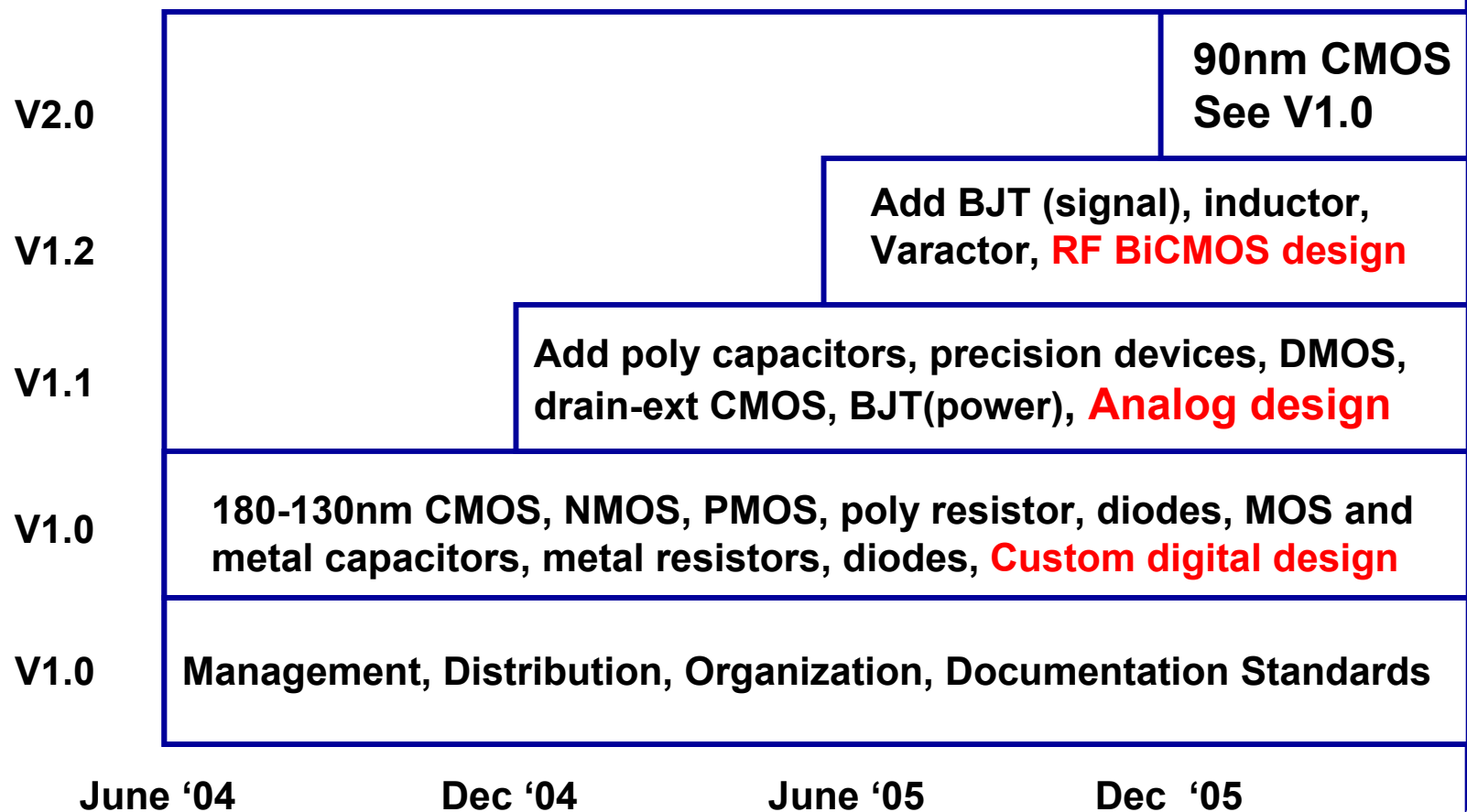


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OpenKit Roadmap thru '05

Version



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Time To Take Action

- Time to find a better way
- Time to stop subscribing to the old beliefs
- Time to establish a foundation that everyone can build on
- Time to empower the Custom IC designer

OK !



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Q&A and Invitation

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