



Design API Coalition (DAPIC)

Don Cottrell
cottrell@si2.org

EDA Challenges

The Big

Coping with the Large

The Bad

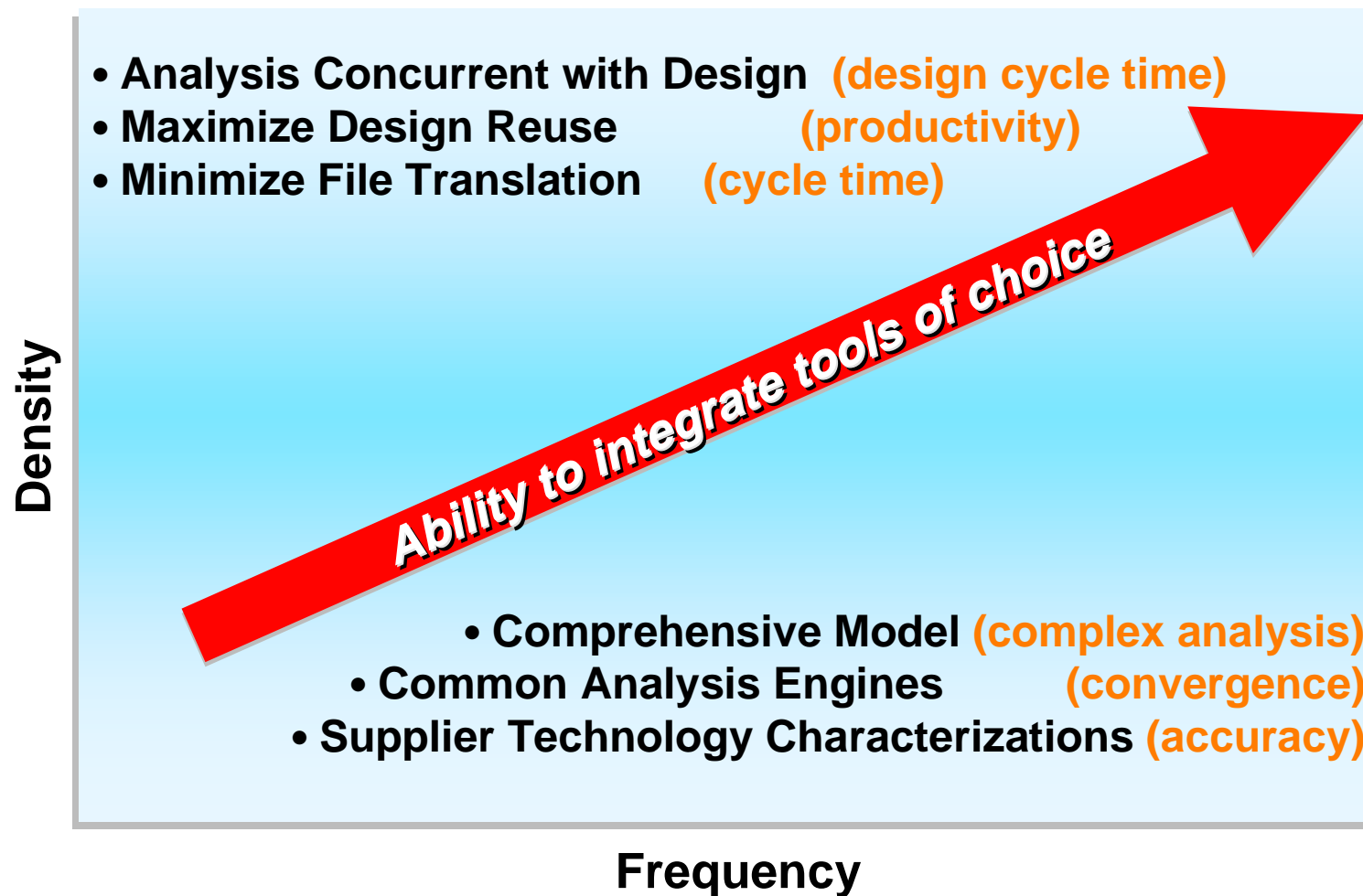
Managing the Diverse

The Ugly

Harnessing the Physics of Small



EDA Needs



Common Infrastructure is Key

- To enable design reuse and IP portability
- For showcasing the full performance of VDSM
- Enabling full performance VDSM flows is superceding the importance of any particular EDA tool
- A natural ingredient of market maturity (e.g., applications like SAP complement DB providers like Oracle)



And ...

- A hedge to protect proprietary infrastructure creates consumer concerns over placing too much at stake with that supplier, resulting in limited commitments
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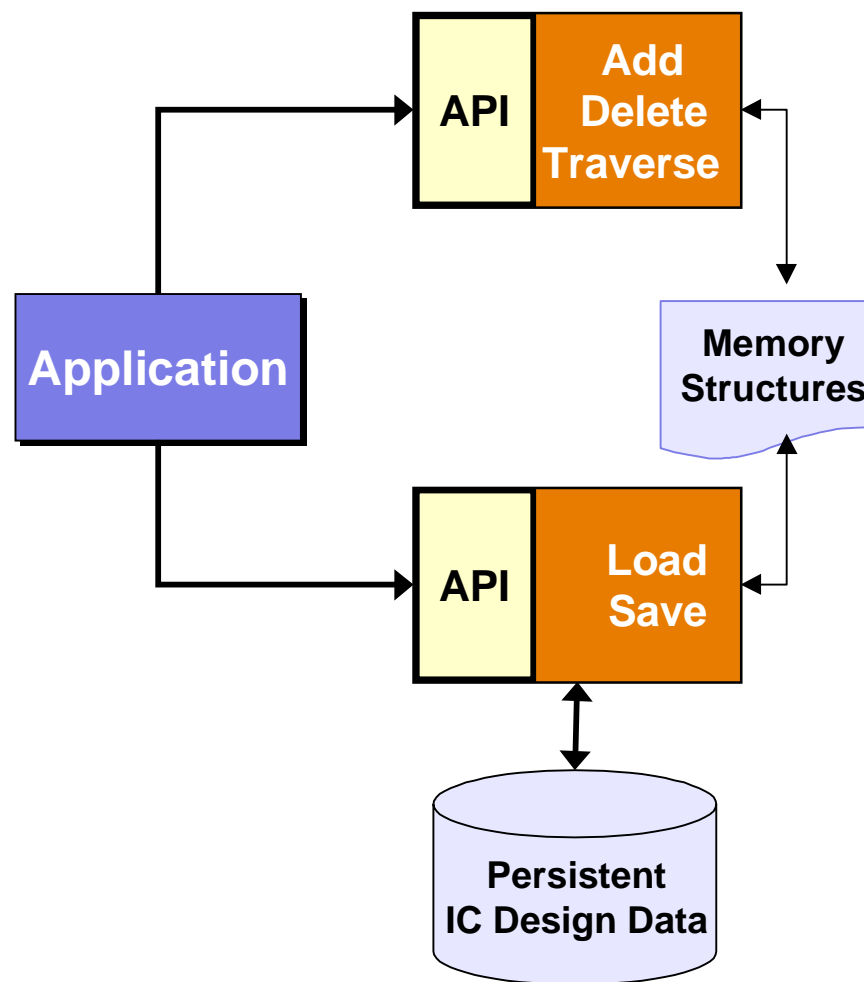
DAPIC Goals

- **Ease integration of internal and external tools**
- **Better utilize startup technology and university research**
- **Ease collaborative development with partners**
- **Ease integration of external IP**
- **Lessen internal development**
- **Provide infrastructure for *tighter* design flows**

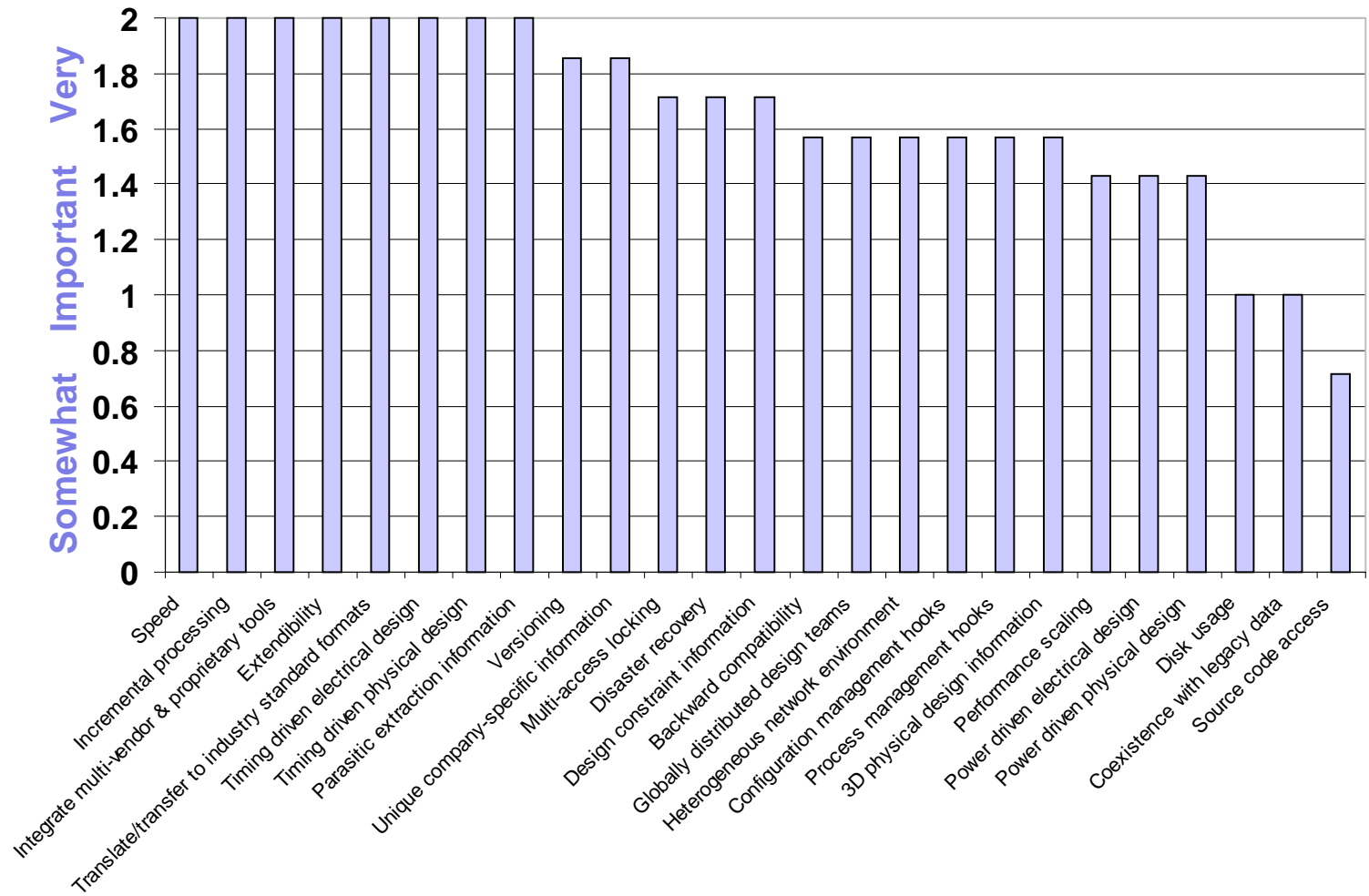


DAPIC Model

- One open data access API specification
- Free access
- Open, unbiased change management
- No requirement for a particular database implementation
- API to become an accredited standard
- Available compliance test process



Prioritized Database Requirements



This Was the CHDStd Goal

- **Attempts to develop CHSTD as an accepted industry standard have had disappointing results to date**
 - No “natural” adoption
 - No commercial access

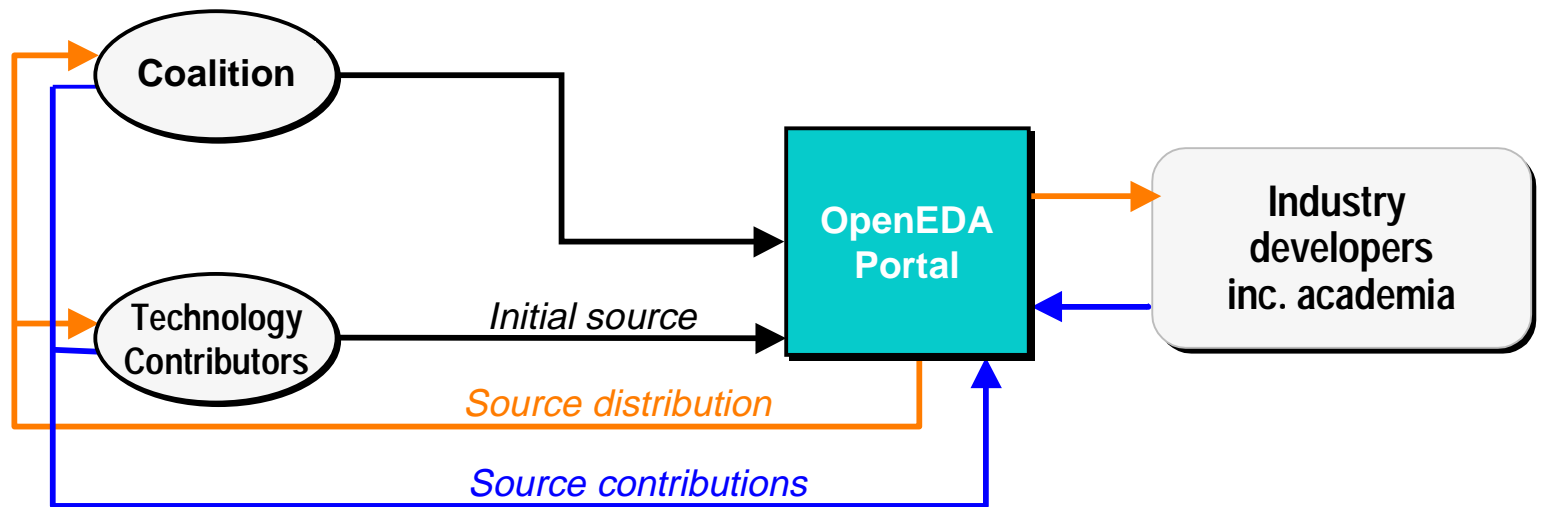
- **Commercial EDA is driven by the commodity marketplace**

- **Implementing to the CHDStd is a significant business decision**
 - Expense vs. Revenue
 - Autonomy
 - Competitive advantage



DAPIC Direction

- Commercial availability is of top priority
- Available support - reasonable cost and equitable
- Public open-source - available to all
- Equitable non-biased change management



What Does Open Source Mean?

- **Anyone** can download the Standard version
- **Anyone** can modify source for use internally and propose changes to the Standard version
- **Anyone** can embed the Standard version in commercial product and redistribute
- **Anyone** can create a derivative and redistribute in a commercial product
 - however, changes must be posted and they must not refer to it as the Standard version
- **Anyone** can purchase services such as frequent updates, binaries, and technical support for a reasonable fee



Open: A Win-Win Business Strategy

EDA Supplier

Gives

- Infrastructure technology
- Focus on methodology - not just tools
- Cooperation on interoperability
- Increased resources on new products/services

Gets

- Longer term partnerships

EDA Consumer

Gives

- Migration to newer tools
- Access to silicon and design content via open infrastructure
- Spends more \$ on tools and services - less on integration

Gets

- Innovative solutions with fewer constraints



Infrastructure Roadmap Vision

