Click here for silicon !! This should be the motto of the EDA industries. With the increasing pressure to produce more designs with less time and fewer resources, the design community needs as much help as they can get. To achieve this goal, one of the most important factors is compatibility between EDA tools.

In one ASIC division at Agilent, the issue of integrating in-house and commercial EDA solutions into a usable design flow is a full-time job. Here, new methods are introduced to complement a family of existing techniques which are "silicon proven" and trusted by designers. In fact, the design flow itself is well established and, in most large chip companies, contains many in-house strategies. However, because silicon and design technology always changes, a matter of normal business is periodically adapting the flow to a new advancement or requirement in the tools or procedures. Some of the complications which arise when introducing a new tool/technique into the flow are due to instability of the "new" solution, incompatibility among tools from different sources, the disruption of methodology and accustomed procedures, and time lags due to customer/technical support shortcomings.

Without compatibility and standardization of tool interfaces, the burden of integrating new off-the-shelf EDA tools must be handled by an internal tool/methodology group. Here, because significant time and resources is needed to integrate the new tool, compared to the price tag on the invoice, the effective cost can more than double. This problem is particularly annoying when a new version of an EDA tool does not have compatibility with the previous version of the same tool or causes integration shells to break. If an EDA tool is already in an established design/test flow, incompatibility between versions is bad. Tools not working "out of the box" - well, this is worse than bad.

In the future, one of the most important factors that influence a buying decision of an EDA tool will be plain usability. If the new and greatest tool is not compatible with the present tool flow then it would require significant investment on the design houses to integrate the new tool. The tradeoffs, of course, include the level of productivity facilitated by the working solution and the criticality of new or missing technique.