effort, SEI's Barbacci responded. For the same reason, the two programs will cooperate on appropriate projects, he added.

For the commercial efforts, "the difference is one of time frame," MCC's Grande said. MCC is aiming to develop its prototype to 10 years, while SPC "is addressing near- to mid-term issues," SPC's Foidl explained.

"MCC is looking for a few revolutionary ideas that may or may not become a reality. We look at SPC as something that is required for MCC to be successful," Grande continued. "No argument," Foidl responded.

**Staffing.** The panel's moderator, Robert Jones of Hughes Aircraft, asked the participants, "Where do you get the people? Are we biting off more than we can chew?" Barbacci answered, "We're really drawing people from the same pool."

Foidl pointed out that the SPC's participating companies have guaranteed to assign to the consortium a minimum number of in-house people to help staff SPC's 172 positions. However, as Grande said, these same companies are giving people to MCC and STARS as well. At MCC, he said, the companies originally planned to supply 80 percent of the staff. They were talked down to 50 percent, but the actual figure is closer to 20 percent, he added.

Furthermore, Grande continued, "It has been very difficult to get your hands on the irreplaceable, the experts, the very good people in the company." Thus, despite the parent companies' commitments, the initiatives still need to attract large numbers of well-qualified researchers.

The other panelists concurred. At the SEI, the staffing plan calls for the hiring of a new software engineer each week, Barbacci noted. Foidl only half-joked that the SPC was accepting resumes.

**Benefits.** A member of the audience asked what the benefit was to the companies of participation in the SPC and MCC. "Why share among competitors?" he asked. Foidl responded, "The same thing that causes them to compete: the profit motive." It is cheaper to research cooperatively than to duplicate an effort across several dozen companies, he explained.

However, competition between the member companies will still exist because antitrust considerations have limited the consortiums to research work only. Proprietary information cannot be transferred between the companies and the SPC, Foidl explained.

The result, Grande added, is that each company will have to act on—by itself—the information and technology transferred to it from the SPC or MCC. "The management of it is what will make or break the company," he said. Foidl picked up the argument by stressing that each company will use the tools differently. "The challenge to the company is to take the promised, guaranteed tool and enhance it for their application in the marketplace," he said. The SPC will not support any enhanced versions, so the companies will have to make their enhancements wisely, he added.

The SPC will not extend its efforts to software work outside the realm of the interests of the aerospace consortium's companies. "SPC will not go after SEI or SDI work," said, because the member companies already compete among themselves for work on programs like STARS and SDI. Furthermore, work for the government initiatives, competition is not an issue because of the coordination in the Department of Defense. However, STARS's Giese said in response to an audience question, the issue of rivalry and cooperation between the military services involved in the research remains a "delicate" matter. That careful response drew knowing chuckles from many in the audience.

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