ATP's Investment in Component-Based Software Technology Generates Large Economic Benefits¹

Component-Based Software Development

- Component-Based Software is a relatively new software production paradigm that focuses on building large software systems from readily available components.
- The goal of component-based software is to reduce the cost of developing software systems while increasing software reliability and interoperability.
- Between 1994 and 2000, ATP funded 24 projects in this emerging field.

Project Outcomes

- 18 projects were completed; 2 were still underway at time of study, 4 failed to complete.
- Two out of three projects funded produced commercial products.
- Almost four out of five projects were led by startups or small firms.

National Economic Benefits Are Large

The investments were highly successful from a social perspective. They yielded actual and projected benefits estimated at \$1.5 billion on the combined ATP (public) and private investment of \$93 million. Private investment included substantial post-ATP industry funding for product development.

Total Net Benefit to the nation²

Net Present Value (year \$2000)

Benefit to the nation of every dollar invested

Benefit-cost Ratio

Rate of return on investment to the nation

Internal Rate of Return

Factsheet 1.B9 (March 2003)

² These estimates represent total benefits to the nation (to the public and to companies funded) relative to ATP and industry investment costs.





¹ Recently published ATP contractor study -- Research Triangle Institute *Benefits and Costs of ATP Investments in Component-Based Software* (NIST GCR 02-834), November 2002. Research based on a conservative quantitative analysis, using estimated benefits from 8 of the 19 completed projects relative to costs incurred on all 24 projects.