



American Iron and Steel Institute

Technology Roadmap Program

(DE-FC36-97ID13554)

Joseph R. Vehec, Director

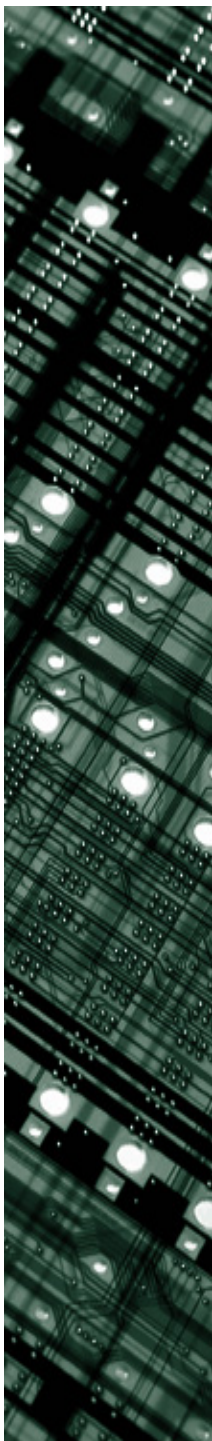
AISI-Doe 9th Industry Briefing Session

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**U.S.
Department
of Energy**

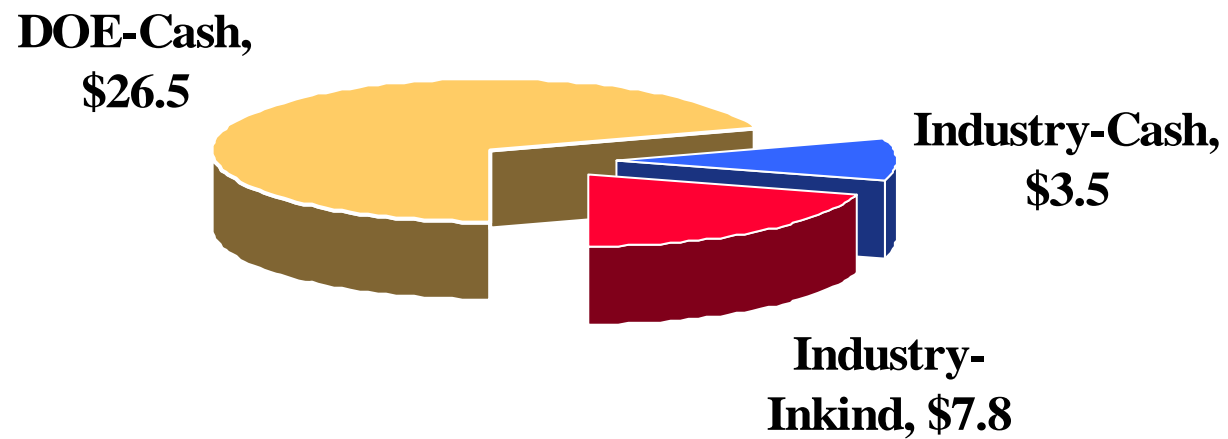




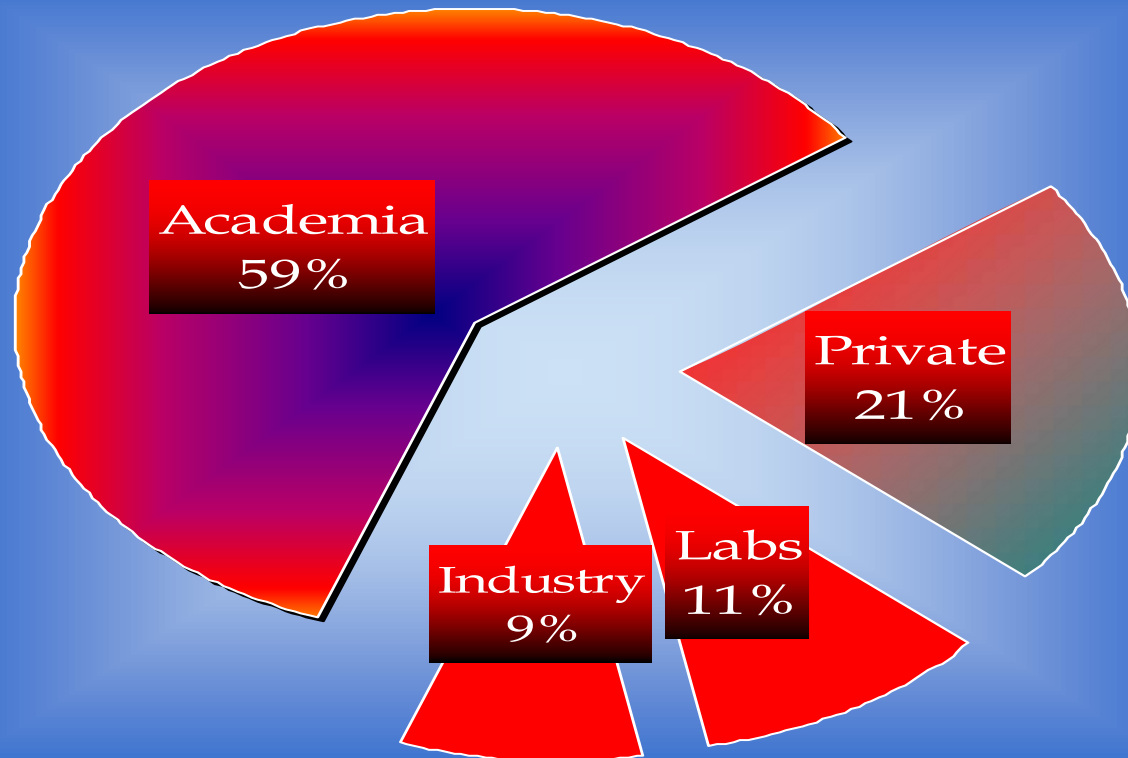
Technology Roadmap Program

- An ten year, \$38 million dollar collaborative agreement (*July, 1997*)
 - ❑ 47 individual projects
 - ❑ 60 Industry Partners
 - ❑ 28 Unique R&D organizations

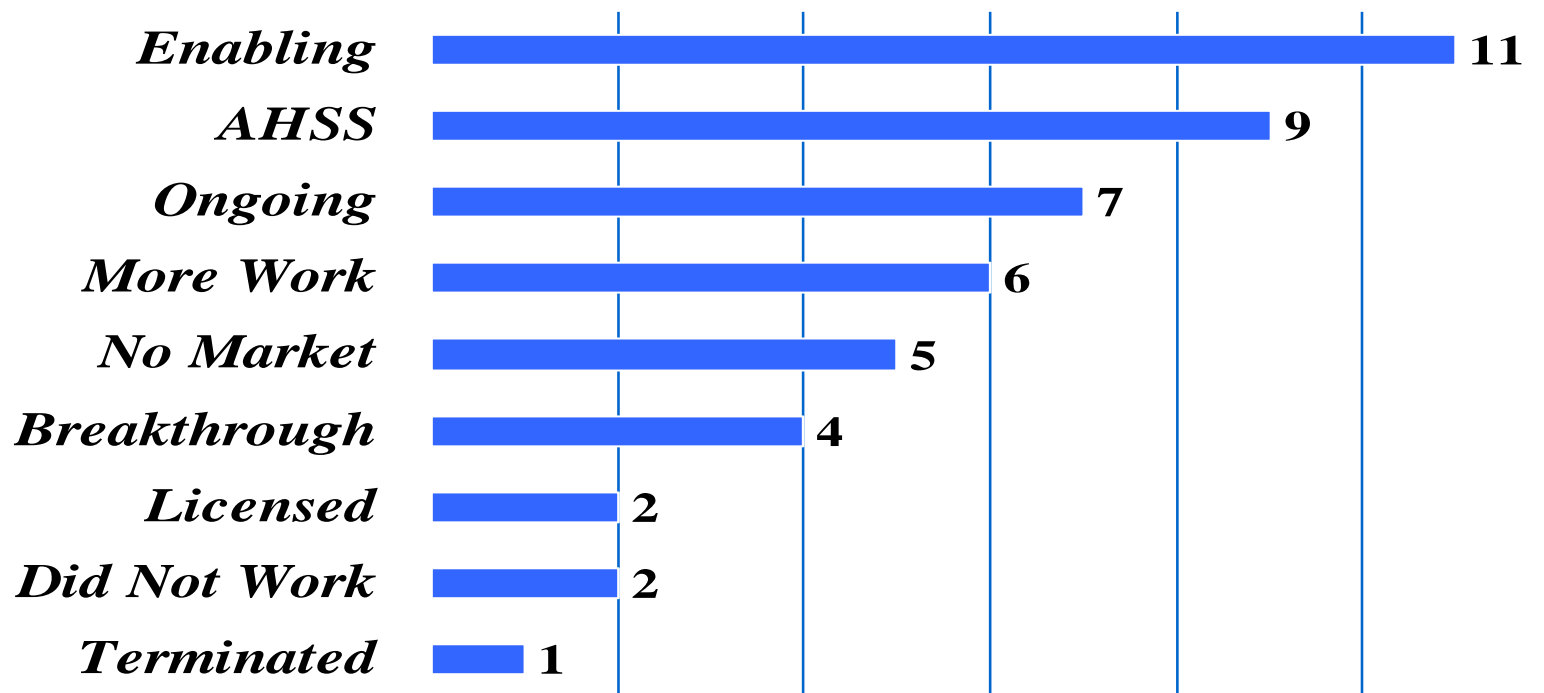
Total Investment - \$38 million



Subcontract Recipients (28)



Technology Transfer (47 projects)





Achievements

- Supported 56 post-baccalaureate students
- Published 132 technical Papers
- Licensed 2 technologies
- Recorded >\$250,000.00 in Royalties



Status

Recently completed:

- 0034 – Real Time Melt Temperature Measurement in a Vacuum Degasser
- 9944 – Approved Criteria for Acceptable Yield Point Elongation

All remaining projects (7) to be completed by year end



Milestones

- TRP 9757 (UAL) – Performed initial on-line hot metal test of a revolutionary inclusion removal baffle system at Timken.
- TRP 9942 (PVS) – Processed 6,300 gallons of Feed Solution (Spent Pickle Liqueur + Strontium Carbonate) through the spray roaster.
- TRP 9946 (CANMET) – Began investigation of TRIP steel samples.



Milestones

- TRP 9953 (Utah) – Successfully demonstrated suspension hydrogen reduction of fine iron oxide concentrates in a laboratory bench-scale facility.
- TRP 9955 (UMR) – Modeled and verified the proposed dual, interconnected reactor system for carbonate sequestration by steel making slag.
- TRP 9957 (Columbia) – Identified and solved challenges associated with high temperature and pressure experiments on the dissolution rate of serpentine minerals .



Summary

- ✧ Technology Roadmap Program goals to:
 - *Increase the competitiveness of U.S. Steel Industry*
 - *Save energy*
 - *Enhance the environment*
 - *Provide Real Returns on Investments.*

HAVE BEEN REALIZED!