



William M. Spreitzer was appointed technical director of the General Motors Intelligent Vehicle Highway Systems (IVHS) program office at the GM Research and Development Center, in Warren, Michigan, on March 1, 1991. He began working for GM in 1957 and has worked in various capacities including Department Head and, in March 1987, was named Manager, planning for the entire GM Research Laboratories. In 1989, he was appointed Manager of vehicle / highway systems coordination until his current appointment with the IVHS program office.

In 1984, Mr. Spreitzer received the Roy W. Crum award from the Transportation Research Board

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PARTNERS IN FINANCE

- IVHS is real
 - IVHS is large
 - IVHS is here
 - IVHS is a partnership--in financing as well as in the work itself.

What is IVHS?

It is highways and appurtenances and signs and communications and vehicles all together that "see and hear and feel and smell and think and plan and decide and talk." It is the application of advanced technology to significantly improved ground transportation, public and private, urban and rural, trucks and buses and taxis and car- and vanpools, and automobiles--old and new.

IVHS needs little, if any, new technology. It is largely the application of off-the-shelf technology (electronics, sensors, communications, computer hardware and software) to new and different highway improvements. It is where the silicon and germanium and chips and lasers meet the cement and asphalt, gravel, and conventional control devices.

IVHS is real

With the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), IVHS is real. Six hundred and sixty million dollars worth over six years plus another \$400 million from the Clinton Administration--all in federal dollars--to "jump start" the process. Some of this federal support is 100-percent money, earmarked for specific programs or for high-risk ventures. Other of it is 80 percent federal--20 percent other matching money. Other dollars are 50/50 and (in some cases) private capital is the largest part of some field operational tests or deployments like the privatized toll roads in Southern California.

Kentucky has been a leader in seeking some of this federal initiative--for example, your role in the Advantage I-75 commercial vehicle operations program.

IVHS is large

IVHS is big, big stuff--larger than the Interstate Highway Program which began in 1956 and is not yet "officially" completed.

The "Strategic Plan for IVHS in the United States" completed by the Intelligent Vehicle Highway Society of America (IVHS America) in 1992 estimates the U.S. IVHS market in R, D and D at \$227 billion over the next 20 years--75-to-80 percent of that market in consumer purchases and private sector investments. These numbers do not include large-scale deployments of IVHS in interstate, primary and connector and secondary roadways. It is assumed those will be additional funds from the traditional Federal-aid Highway Program.

Other estimates peg the world-wide market at \$300 to \$450 billion over the next 30 years and these estimates are considered to be conservative. When one remembers that the U.S. transportation-related expenditures are approaching \$800 billion per year, \$10 billion a year is a conservative estimate.

IVHS is here

IVHS is not really new. When people ask me "How long have you been working in IVHS," my reply is, "Oh, twenty-five to thirty years." My work has been in roadside communications, driver-aid information and routing, applications of the Citizens Band (CB) Radio ("10-4 Good Buddy"), advanced vehicle control systems, navigation, and automated vehicle control as examples.

A survey conducted in early 1990 estimated (conservatively again) that, at that time, there were 750 people in the U.S. working full time on

IVHS related subjects. That was government, industry, universities all-together and now, with ISTEAs, the numbers are assuredly higher.

We see these numbers increasing still further as the federal program develops, as operational tests expand, as international standards and cooperative activities are formulated and as market forces for both infrastructure improvements and advanced vehicle features grow. Another example of the heightened interest in IVHS is meeting attendance. Just one such track is represented by the IVHS America annual meetings and meetings of its predecessor organization Mobility 2000. Attendance has grown from a handful in 1989 to over 2,500 attendees in 1993. Next step is an IVHS World Congress with the first such annual meeting planned for November 30 to December 2, 1994, in Paris, France.

Partnerships

Finally, IVHS is a partnership--public and private, government and industry and universities, domestic and international, work and finance. None of us have any corner on needs or opportunities or brains. We need one another. We complement one another.

As the previous administration in Washington worked strategically to move initiative for transportation investment back to the states and regions, these actions prompted a rejoinder from Congressman Mineta of California. He pointed out that the responsibilities were being sent back from Washington but without the associated and needed funding. He called that "the shift and the shaft." Those of you who attended that AASHTO meetings that year will remember his luncheon comments.

Needless to say, things have changed considerably and there are a number of examples of partnerships--public/private partnerships in programs, projects, and operational tests; coalitions in objectives--economic, operational, environmental and demand management, and (importantly) partnerships in financing.

From current experience, that was the case with TravTek, an operational field test in Orlando, Florida, conducted by a partnership comprised of General Motors, the American Automobile Association (AAA) on the private side, and the U.S. Department of Transportation Federal Highway Administration, State of Florida and City of Orlando on the public side.

The TravTek Program ran from 1990 to early 1993. The overall cost is about \$12 million and was split roughly 50 percent public/50 percent private. It was governed by a one-page memorandum of understanding and an agreement which included a work plan. That work plan described who was responsible for what and determined who paid for what.

We had many contractors and other contributors--public and private. It was a tremendous success and finished "on schedule and under budget." As a partnership in financing, it can serve as a good model for

future programs. If we can help in describing the details of applying it to your example, please let me know.

For you folks in the public sector, we corporate moguls aren't so bad after all. Especially when we can pool our needs, objectives, assets, and capabilities to reach common goals.