Alliance Advisory Q3 2002

Ford and GM announced on October 10th, 2002 an agreement in terms to a very intriguing Alliance. Under the Memorandum of Understanding (MoU) signed this quarter, Ford and GM agreed to:

- "Share a common design, engineering and testing of the new transmission;"

This incorporates a Standards Alliance component in the relationship. They will actually share hardware, while the transmission will be tailored and calibrated by each company to allow unique character and performance.

- "Jointly work with suppliers to develop and purchase components;"

This incorporates a Supply Chain Alliance component in the relationship. The combined volume of purchasing leverages economies of scale for the hundreds of thousands of dollars that will be spent on parts. Quality is increased and maintained by both the standardized components and volume sourcing as well.

- "Assemble their own transmissions at their respective manufacturing plants."

By allowing each other to focus on their own core competencies, each organization is still able to tool the transmissions for their own specifications and benefits. This also allows for the core competitive drivers to be recognized by each organization.

Alliance Sciences understands the motivations for this relationship to be:

1. Improved product for customers: According to the Press Release, the primary benefit to consumers is improved fuel efficiency. The new transmission would offer an estimated 4 percent to 8 percent improvement in fuel economy over traditional 4-speed automatic transmissions available in today's front-wheel-drive cars.

2. Leveraged engineering resources.

3. Increased engineering quality and Standards agreement.

4. Sourcing efficiencies and economies of scale.

We were privileged to have the two gentlemen, who structured this deal, Bob Purcell (GM) and Doug Szopo (Ford), provide us with further insight into this Alliance.

ROBERT C. PURCELL
Group Director, Planning and New Business Development
GM Powertrain
General Motors Corp

Robert C. Purcell was named group director of Planning and New Business Development for GM Powertrain on March 1, 2002. His responsibilities include all of the global planning and customer interface activities, outside sales, powertrain portfolio plan integration with the vehicle plans and business, and capacity and technology planning. He is also responsible for electric, hybrid and alternative fuel vehicles. He serves on the Energy and Environmental Strategy Board and is a member of the GM Planning Leadership team. Purcell began his GM career in the finance department in 1981 at Pontiac Motor Division. Following a number of assignments, he was promoted to the Buick Oldsmobile-Cadillac Group (B-O-C) financial staff in 1985 and in 1988 joined the B-O-C Powertrain Division as manager of finance and product planning. Two years later, he was named director of Powertrain Planning for the GM Engine Division and subsequently, GM Powertrain. He held this position until 1992 when he joined the North American Operations staff as director of Business Planning and Systems. In 1994, he became the executive director of the GM Electric Car Project and held this position until being named executive director of GM Advanced Technology Vehicles in 1996. Two years later, he became the executive director of GM Advanced Technology Vehicles Strategy and Operations. He was appointed executive director of North America Vehicle Innovation Programs in 2001. Purcell holds a bachelor's degree from the Massachusetts College of Art (Boston) and a master's degree in business administration from Indiana University.

JF: Bob – do I have the motivations for this Partnership right?

BP: Yes – at the vehicle level the primary benefit is fuel efficiency; at the Program level we're seeking lower costs and a better solution. Just to give you a little insight into the typical costs associated with development. We source about 1 Million units off a single truck platform per year. Our engineering costs can exceed $100M, while the capital to produce is over $200M as well. The cost to develop the Suburbans and Tahoes was $2B+. This arrangement is a good fit because it allows us to share cost on major components where there's not a distinct differentiation in hardware.

JF: This an alliance between market leading competitors; did Department of Justice anti-competitive practice regulations enter into the structure of the relationship? What role, if any, did DOJ anti-competitive regulations play?

BP: We determined early that anti-trust would not be an issue – not a monopolistic endeavor.

JF: Is there a precedent for this type of "coopetition" alliance within GM?

BP: Prior to this deal, GM had structured a 5 year co-dev agreement of advanced technology to work on standards for electric transmission, hybrid & fuel cells. This Alliance started from GM – both companies were obviously heading in this direction – trying to build a 6 speed transmission. We have actually supplied transmissions to Ford in the past. We work from a Proof of Concept stage – then move up to production design. Ford was not at production design stage yet for the 6 speed transmission. We have focused on determining specs to make sure this will work in both companies' vehicles.

JF: Do you manage this relationship via existing product development positions or through a broader "alliance" program?

BP: We made sure to have the Operations Mgr's involved early in the negotiations. This is important so that you don't agree to anything in the MoU that is not feasible. Harvey (Won – Dir. Of Transmission Engineering) and his team were involved in the agreement from the start. We also involved people from purchasing, the financial community, legal community and manufacturing people since we're building in two plants and there are shared development processes. Ford matched these functional owners so we could garner alignment on both sides. We also quickly established high level agreements together – that we would have shared components and different customizations. I guess the other thing I think of on this topic is remembering an article I once read from Forbes or Fortune on "Why CEOs Fail"; it's not from a failed strategy, but from inability to execute.

Editor's note: *An oft-cited and wonderful quote, "In the majority of cases – we estimate 70% – the real problem isn't bad strategy, it's bad execution" – Fortune Magazine, "Why CEO's Fail". The former CEO of Porsche, Peter Schutz, also stated it well, "Flawed decisions well implemented will bring more to the bottom line than the best decision that is not implemented".*

JF: What are the challenges associated with making an R&D / co-development alliance successful?

BP: I should probably begin by shedding a little light on our industry. There are only several hundred people that build transmissions in the world – and most are in the Society of Automotive Engineers. This is a distinct community and most of the members of this community know each other – many are friends. So it's not like we're venturing into completely foreign territory. However, there is a great challenge to continue to generate cost savings throughout the lifecycle and to

keep the design common. If we begin to diverge from the engineering or the process, we will lose efficiencies of sourcing. To aid us in this endeavor, we've established an Engineering Review Board – any changes will have to be mutually agreed to by the board. One additional thing we will have to keep in mind is that there is a high level of esprit de corps – there's a lot of pride on both sides.

JF: What systems or platforms are used to manage and measure the progress of the alliance?

BP: We have a vehicle development process and a similar process discipline at the system level. This has to synchronize with Ford's processes and sourcing processes. With regard to the tools to manage the alliance process itself, it's primarily composed of the people we've committed on both sides – my GVP, Doug's GVP, Doug and I will serve as a management committee to monitor progress of this relationship.

Doug Szopo
Director of Global Powertrain Strategy and Business Office

Mr. Szopo has worked for the past 30 years with Ford Motor Company. Mr. Szopo began his career as an engineer in the Dearborn engine plant. Throughout his career, Mr. Szopo has served Ford in engineering, quality management, manufacturing and plant engineering management, as well as serving as a plant manager. Mr. Szopo also worked as the design manager for the 3 liter Duratec engine in Cleveland. Mr. Szopo worked as plant manager and contributed in various powertrain engineering & planning assignments. Mr. Szopo currently serves as the Director of Global Powertrain Strategy and Business Office.

JF: This an alliance between market leading competitors; did Department of Justice anti-competitive practice regulations enter into the structure of the relationship? What role, if any, did DOJ anti-competitive regulations play?

DS: Our lawyers took a look at the anti-trust considerations, but this was not a concern.

JF: Is there a precedent for this type of "coopetition" alliance within Ford?

DS: This one is modeled to some degree after the PSA relationship with Peugot around the area of diesel engines. That one's a cooperative relationship; we don't own anything. Peugot designs and manufactures smaller diesel engines that Ford uses, while Ford designs 4 and 6 cylinder diesel engines for them. We basically split development 50/50, and then sell to each other at cost, sometimes amortizing the investment. In both partnerships we jointly share cost and also

leverage economies of scale, the only difference is the Ford and GM will manufacture their own transmissions.

JF: Do you manage this relationship via existing product development positions or through a broader "alliance" program?

DS: We're finding that every alliance is very different. All of them need care and nurturing – we're focusing on how to maximize the effectiveness of these Alliances by capturing best practices within some replicable and consistent processes. We're incorporating a small steering team that will likely meet quarterly and include members from the design office, purchasing and transmissions group. With regard to management involvement, in some Alliances we'll have seats on the Board, and we always have a group VP involved.

JF: What are the challenges associated with making an R&D / co-development alliance successful?

DS: Joint R&D and co-sourcing: making sure that up front, the whole organization and particularly the teams that take this on must look at the costs and benefits to ensure they're clearly established. Avoid push back up front, from the initial discussions of the proposed relationship. It is critical to manage change across external constituencies as well.

JF: What systems or platforms are used to manage and measure the progress of the alliance?

DS: We primarily monitor the costs through internal processes – Job 1 plus we will manage 90 day targets. We will also leverage our existing roadmaps and quality management processes.

About the Alliance Advisory

Alliance Sciences publishes the Alliance Advisory every quarter to report on alliance activity and provide real world insights on effective organizational partnering. Interviews with alliance executives at leading organizations are featured, as well as recently announced partnership and alliance deals. Resources are also provided to provide additional value and utility for the newsletter's readers. The Alliance Advisory can be found online at www.alliancesciences.net. Subscription is free and is available online at our corporate site and at the newsletter site.