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Supply Chain M-TAC Concept Paper

Sector-specific M-TACs should be chartered so as to have an industry group identify a set of problems that gate the performance of one or more domestic supply chains (supply chain defined as a minimum of three tier levels) and then to contract with MEP centers to perform projects with SMMs that help to resolve those problems. MEPs centers could be the host. MEP centers should be M-TACs' exclusive service delivery partner (though centers may use subcontractors, as needed). In this document, we propose the goals and governance of M-TACs with reference to the automotive and aerospace sectors, but our design principles apply to all sector-focused M-TACs. Past MEP supply chain efforts have, in reality, been supply *base* efforts – between an OEM customer and one or a few first-tier suppliers, and have suffered from a one-size-fits-all approach and by competition among centers. Our proposed approach addresses these design shortfalls.

We propose, for obvious reasons, that automotive be the focus of an M-TAC. The industry directly (NAICS codes 3361 and 3363) employs more than 800,000 of the nation's 11.9 million manufacturing workers. Its facilities and labor force are heavily clustered in two regions:

- Great Lakes region: Michigan, Indiana, Ohio, and Illinois together host 342,000 jobs (42% of US total), ranking 1, 2, 3, and 5; and
- Southeast region: Kentucky, Tennessee, South Carolina, and North Carolina together host 126,000 (16% of US total), ranking 4, 6, 7, and 8.

Four other states – Wisconsin, Missouri, Georgia, and Alabama – are also significant automotive states, together hosting nearly 70,000 jobs (9% of US total). Georgia and Alabama could be part of the sector's southeast regional cluster, while Wisconsin and Missouri could be part of the sector's Great Lakes regional cluster.

The industry has an acknowledged lead national association, the Original Equipment Suppliers Association (OESA), located for obvious reasons near Detroit. OESA has access to product planning and purchasing executives at member OEMs (including all US- and non-US-based automakers), and Tier Ones. It is a logical host site for an automotive M-TAC. Another possibility would be The Center for Automotive Research in Ann Arbor.

However, governance of the M-TAC cannot be vested in the lead association alone. The goal of M-TACs should be to *help select and fund projects that address critical problems that block the growth and competitiveness of additional US-sited production*. Because this is not necessarily the #1 goal of either auto OEMs or their Tier One suppliers, the selection of supply chain problems and the design of projects to solve those problems should be made jointly by a council made up of the lead association as the M-TAC host and by center directors chosen so as to represent the sector's SMM supply base (e.g., 1-2 directors from each of the industry's two main regional concentrations), with center directors holding at

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least 51% of council votes. The lead association host would bring forth a list of supply chain challenges, with clear measurable goals with which to evaluate whether the challenges are being met, and the council would select from that list and/or add to it based on input from the SMM suppliers (relevant because supply chain issues go both up and down the supply chain). Based on the location of the SMM suppliers in the supply chain(s) experiencing the problem, the M-TAC would contract with one or more MEP centers to work with the SMMs in the chain(s). The MEP center(s) would be contracted to accomplish a goal (e.g., increase capacity by X units, reduce new product time to market by Y days) without dictating any particular approach to achieving the goal. (Many past MEP national account projects have dictated the process and even the tools to be used with all suppliers.)

The role of the M-TAC would be to coordinate and manage the improvements for the supply chain to ensure that the entire supply chain achieves the defined goal. Among other things, this would prevent customers and suppliers from just moving problems up or down the supply chain, as when an OEM tells its suppliers to hold just-in-case inventory. In this role, the M-TAC would coordinate efforts between the MEP centers participating in a given supply chain problem resolution effort. The MEP centers would manage the improvements at the SMM and between the SMM and its suppliers. The M-TAC and the MEP centers would work together to bring in new technology and commercialization tools where and when necessary to achieve the defined project goals. The budget model is that a maximum 30% of the program's funding would go to the host organization for staffing, outreach to OEMs and Tier Ones, and overhead, while 70% would be made available to provide a 50% cost share for MEP center projects with SMMs in the supply chains experiencing problems. The 30% going to the host would require no matching funds, while the 70% flowing to centers would require a 1-to-1 match. Thus a $1 million M-TAC would result in supply chain-member SMMs paying MEP centers $700,000 of a total budget of $1.7 million.

In aerospace, the model could be much the same. The industry's 496,000 workers (NAICS 3364) are concentrated in eight states, though in somewhat less intense regional agglomerations than is the case in automotive:

- Washington, California, New Mexico, and Arizona together host 213,000 jobs (43% of US total), ranking 1, 2, 4, and 6; and
- A much less geographically cluster set of four states – Kansas, Connecticut, Florida, and Alabama –together host 93,000 jobs (19% of US total), ranking 3, 5, 7, and 8.

As in auto, there is a lead national trade group, the Aerospace Industries Association (AIA). AIA could host that sector's M-TAC and be part of its council, with AIA and MEP center directors developing and selecting from a list of supply chain challenges. As in auto, the aerospace M-TAC would then contract with MEP centers for 1-to-1-funded projects to address those challenges.

In auto, aerospace, and other M-TAC sectors, to ensure against self-dealing by centers with directors on the sector's council, the M-TAC and its council would select the centers whose project work was to be 50% funded based on the location of the SMM suppliers in the supply chain in which projects would be undertaken. To ensure that associations hosting M-TACs do not use funds to support their OEM and

Tier One members, only companies (not *establishments*) with 500 or fewer employees would be eligible for supply chain projects benefiting from M-TAC funds.

Our approach does not prejudge the content of supply chain projects, or dictate how or by which MEP centers these projects will be performed. M-TAC host organizations will be accountable to the federal funder and measured by a consistent national M-TAC measurement system:

- The hosts' performance will be measured by the number and dollar value of supply chain projects identified by the host and executed by MEP centers. A $1-million M-TAC will be expected to spend $700,000 toward $1.4 million in MEP center-managed projects tied to the identified supply chain problems.
- The performance of MEP centers executing SMM projects to address M-TAC-identified supply chain projects will be measured by the impacts reported by the SMMs completing such projects. The existing survey process could be used for this purpose.

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