Introduction

In this paper, the preliminary elements of a regional supply chain/logistics strategy framework for the Eastern Upper Peninsula (EUP) region are suggested. The preliminary nature of this discussion must be emphasized. The intent here is to stimulate consideration of the EUP region’s economic, geostrategic, and institutional assets in light of evolving global economic opportunities through supply chain/logistics hub approaches.

Developing a supply chain/logistics hub strategy for the region can be an important step in capturing new opportunities for economic development in the region. Regional leaders and their stakeholders who understand the global economy and its evolving market relationships can develop and implement supply chain/logistics hub strategies that create new jobs, lower costs for existing industries, broaden markets for new industries, and utilize infrastructure investments.¹ These infrastructure investments will have been made or recommended as a part of the U.S. EDA-mandated regional comprehensive economic development strategy (CEDS) process.

A supply chain/logistics hub consists of two major components: one, interchanges between air, truck, and rail freight, and two, value-added services associated with freight logistics and movement.² Potential new interchanges between different modes of freight transportation will depend on physical infrastructure in the region, including marine ports and important roadways such as I-75. For the second

² Ibid.
component, increasing the scope of value-added services would take advantage of both the region’s strategic location and its industrial clusters. These freight logistics and distribution services could significantly reduce the percentage of freight traffic that merely passes through the region on its way to shipping centers, principally Chicago, with its bottlenecks and delays. The overall freight pass-through rate in Michigan stands at 94%.³ Based on the sheer volume of this pass-through freight, major opportunities to capture freight traffic for interchange and value-added services clearly exist. A strategic combination of global vision, market understanding, skillful leverage of regional assets, and informed risk taking can help identify opportunities that are unique to the region.

The preliminary elements of a regional supply chain/logistics hub strategy include the following:

1. Identifying freight transportation and logistics assets and needs,
2. Creating partnerships to develop and implement supply chain/logistics hub strategies,
3. Responding to shifts in global supply chains, and
4. Identification of specific projects in the EUP CEDS process to support supply chain/logistics hub strategies.

1. **Identifying Freight Transportation and Logistics Assets and Needs**

   The two-phase process to identify specific freight transportation and logistics assets and freight transportation and logistics needs represents an important first step in developing a regional supply chain/logistics hub strategy. Applying the findings made from conducting the Regional Export Infrastructure Assessment developed by the MSU Exporting Strategies Project Team can help EUP and its stakeholders to identify regional freight transportation and logistics assets and needs. This

comprehensive assessment includes five components: 1) Physical Assets; 2) Institutional Assets; 3) Knowledge Assets; 4) Capital Access and Assistance; 5) Networking Capacity; and 6) Cross-cultural Knowledge Capacity.

The region enjoys significant transportation logistics assets: Interstate 75 with convenient access to the Lower Peninsula, Ohio, and the southeast U.S.; I-75 also intersects U.S. Highway 2 that runs from St. Ignace across the UP and intersects Interstate 35 near Duluth, providing access to Minneapolis (about 10 hours from Sault Ste. Marie); nearby access to the Trans-Canada Highway; Class I rail (Canadian National) running west from Sault Ste. Marie to Marquette, Munising, and Escanaba and on to Wisconsin and connecting indirectly to Minneapolis; Chippewa County International Airport; private sector marine ports; the Soo Locks connecting Lake Superior to Lake Huron via the St. Mary’s River; the Foreign Trade Zone in Sault Ste. Marie, MI; and the underutilized and congestion-free International Bridge to Sault Ste. Marie, Ontario, Canada. Routing Pacific Rim cargo through Sault Ste. Marie can save 17-hours in transit compared to shipping goods through Toronto to Detroit.

The International Bridge is one of the EUP’s most important transportation logistics assets. The bridge provides access to the Trans-Canada Highway and provides economic opportunities with its significant time savings for shipments to Detroit. These transportation logistics assets are displayed in Figure 1 on the next page.
EUPRPDC and the MSU project team have generated significant data on the EUP’s exporting infrastructure assets. Preliminary analysis also suggests certain needs associated with physical infrastructure including additional marine freight facilities for supply chain/logistics hub applications (i.e. transload or value-added service facilities at Sault Ste. Marie, MI); more robust logistics support at the Chippewa International airport; and improved access to local Class I rail to support and facilitate freight movement. Marine freight transportation is especially important to Upper Peninsula mining and agriculture/food products, comprising the vast majority of commodities going through the Soo Locks.4

Again, this is a preliminary review of infrastructure needs. Additional analysis and robust discussion are essential to refining and calibrating identification of specific needs.

Strategic development of supply chain/logistics hub services will benefit from focusing on those industry sectors which generate high volumes of products and materials that currently pass through the region but do not currently stop to receive any value added services. However, the precise classification or types of these products is not currently identified. Volume data for freight crossing the International Bridge and transported through the Soo Locks is amply documented, however. A more complete understanding of the types of pass-through freight could lead to the identification of steps that could be taken to create an environment favoring investment in value-added, supply chain hub services.

2. Creating Partnerships to Develop and Implement Supply Chain/Logistics Hub Strategies

Creating partnerships with regional economic clusters and appropriate state agencies (e.g., MEDC, MDOT, and MDARD) are critical to the development and implementation of supply chain/logistics hub strategies. Regional clusters, including those in the transportation equipment, agriculture, chemical, and machinery sectors may have important gaps in their supply chains or logistics support that need to be addressed for their future growth and sustainability. Each of these clusters exported at least $3 million in goods in 2010.5

Important collaborative partnerships include that with the Canadian side of the Twin Saults Region. A strong relationship has been established. The Twin Saults (the cities of Sault Ste. Marie, Michigan and Sault Ste. Marie, Ontario) signed a Sister City Agreement in August 2012. The Twin Saults collaborated with the Upper Peninsula Economic Development Alliance (UPEDA), Eastern Upper Peninsula Regional Planning & Development Commission, Michigan State University, and Lake Superior State University in

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co-sponsoring and hosting a successful Conference on Bi-National Regional Collaboration in October 2012.

One of the Conference panels addressed multimodal transportation initiatives. The panel included representatives from the Sault Ste. Marie, Ontario Economic Development Corporation (EDC); Lake Superior State University School of Business; St. Clair County Economic Development Alliance; and Michigan Economic Development Corporation (MEDC).

The Sault Ste. Marie, Ontario EDC and Lake Superior State University presentations described multimodal supply chain hub strategies for the Twin Saults. The St. Clair County Economic Development Alliance presentation focused on the multimodal opportunities in the I-69 International Trade Corridor region (St. Clair, Lapeer, Genesee, and Shiawassee Counties) that ends/starts at the Blue Water Bridge at Port Huron. The MEDC presentation summarized the state’s Transportation, Distribution, and Logistics Strategy. These presentations were valuable in exploring strategic options to harness global demand to boost economic performance in the region.

This bi-national regional collaboration, as evidenced in the Twin Saults Sister City Agreement and the co-sponsorship of this Conference, could provide a basis for developing a robust EUP supply chain/logistics strategy. The second annual Twin Saults bi-national regional conference is tentatively scheduled for October 2013. This second conference provides an excellent opportunity to deepen the discussion of multi-modal logistics approaches in the region and to identify specific directions for such approaches.

The [Michigan Department of Transportation (MDOT)](http://www.michigan.gov/mdot) is an important strategic partner in the process to identify freight transportation and logistics needs. MDOT resources, programs, and assessments can help to inform efforts to develop regional supply chain hub strategies. Indeed, MDOT is currently contracted with Michigan Technological University to conduct a study of the UP rail network. The
**Shippers Alliance of Michigan** could be another partner that can contribute to the identification of projects that support implementation of effective supply chain/logistics hub strategies.

A critical role of partnerships in the region is to communicate about the outcomes and benefits of a supply chain/logistics hub strategy to stakeholders and policy makers. Partners can provide unified communication in the region by sending a performance-focused message and giving potential clients a consistent and common message.\(^6\) Unified communication may be achieved by creating a supply chain hub development entity to “coordinate, promote, facilitate, and advance Great Lakes Region supply chain initiatives.”\(^7\)

These partnerships, while essential, are also challenging for the multi-institutional partners entering these collaborations. Public-private partnerships are absolutely essential to this strategic process as decisions about freight movement and freight facilities are made almost exclusively by the private sector.

### 3. Responding to Shifts in Global Supply Chains

The rise of global trade logistics and global supply chains has been propelled by seismic shifts in the global economy: drastic reductions of international trade barriers; pervasive Internet-driven market development; extensive capital and labor mobility; the rise of China, India, Brazil, South Africa, and Russia as major economic players (but particularly China); and containerized multi-modal cargo transport, among other factors. The future impact of the expansion of the Panama Canal on freight transportation and logistics in the eastern U.S. is uncertain, and it is difficult to gauge the precise geographic scope of any anticipated impact. The expansion will be completed in 2015.

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\(^6\) Closs, “Using Supply Chain Innovations in Regional Economic Development.”

\(^7\) Ibid.
The EUP region enjoys significant geographic, infrastructural, and industrial advantages that can support development of supply chain/logistics hub strategies. Specific advantages include proximity to border crossings (vehicular and rail bridges), the interface of four transportation modes in Sault Ste. Marie, existing trade flows, the foreign trade zone in Sault Ste. Marie, MI, the Soo Locks, and access to important transportation infrastructure, including I-75 and the Trans-Canadian Highway, among other factors. Excellent interstate freeway access is complemented by the rail network, maritime ports, and Chippewa County International Airport.

To realize economic gains associated with the development of supply chain/logistics hub services, the following functional areas must be robustly developed:

- Capacity to serve global markets
- Infrastructure and support capabilities
- Streamlined government environment
- Competitive tax climate
- Availability of human, land, supplier, and financial capital
- Economic competitiveness and lowest total cost to serve
- Supply chain sustainability

4. Identification of Specific Projects in the EUP CEDS Process to Support Supply Chain/Logistics Hub Strategies

The intended major takeaway from the discussion here is the value of using a global lens to view and plan for various components of regional economic development. By so doing, regional planners, local economic developers, and private and public sector stakeholders will want to understand the

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9 Closs, “Using Supply Chain Innovations in Regional Economic Development.”
multiple layers that comprise the economic geographic landscape of regional economic planning in the 3-county region.

This is a steep slope. It will take a solid, integrated team effort to reach the summit of success. It may be appropriate to consider an enhanced role for the EUP Regional Economic Development Advisory Committee (REDAC) and/or create a dedicated global initiatives steering committee to identify and develop projects targeted and scaled to take advantage of global/North American/Great Lakes Region strategic opportunities through regional supply chain/logistics hub approaches and/or regional SME exporting strategies.

This global/North American/Great Lakes Region strategic planning framework is contemplated in the context of and as part of EUP’s CEDS planning process. Indeed, the more this global/North American/Great Lakes Region economic development component can be integrated in the regional CEDS process, the more robust the ultimate EUP CEDS can be with the greatest economic benefit for the entire region and its stakeholders.

In identifying specific projects, success will depend on the selection of projects that meet the needs of the private sector and are consistent with the goals of sound public policy. Broad collaboration will be necessary to insure an effective consensus process and understanding the specific needs of the private sector.

The keys to success, outlined in a 2011 local officials’ guide to siting logistics facilities published by the US DOT Research and Innovative Technology Administration and the Transportation Research Board of the National Academies,\(^\text{10}\) include:

1. Understanding the supply chain, carriage requirements, and the flow of goods;
2. Providing good connections to transportation infrastructure and operating networks (road, rail, port, air);
3. Appreciating the competitive advantages and disadvantages among supply chains, among freight carriers, and among the facilities they use;
4. Examining how proposed developments can affect economic development and local conditions such as traffic flows, noise levels, or utility capacity;
5. Developing land use regulations that allow for development, efficient operation, and transportation connections while maintaining and promoting sustainability; and
6. Building public willingness and support of the projects.

On the basis of the above discussion, potential projects to support supply chain/logistics hub development in the EUP region might include:

- Interchange facilities near the Chippewa County International Airport.
- Interchange or value-added service facilities focused on the nearby raw materials/mining cluster.
- Interchange facilities focused on the agriculture/food product cluster.\(^{11}\)

To reiterate, the identification of beneficial investment projects that support supply chain/logistics strategies must be informed by strong private sector input and thorough review by public policy makers at the regional, local, state, and federal levels. And data-driven analyses can be used to help identify those unique opportunities in the global economy that can support future economic development in the EUP region.

\(^{11}\) The most significant volumes of agricultural goods in the Eastern Upper Peninsula are produced in Chippewa County. The county is ranked #7 for oat production in Michigan; #4 in barley production; #8 for aquaculture production; and #5 for sheep and goat production.