# SIX STEPS FOR METRO AREAS TO PRIORITIZE GLOBAL MARKETS

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n an increasingly economically integrated world, local leaders are recognizing that regional economic development strategies must create environments in which firms and industries can compete internationally to generate sustained growth and quality jobs. Since 2012, the Global Cities Initiative (GCI), a joint project of Brookings and JPMorgan Chase, has helped metropolitan areas strengthen their international competitiveness and connections through research, problem-solving, and exchange, including development of trade and investment strategies with more than 30 regions around the world.

About 40 percent of global economic activity now comes from cross-border trade and capital investment, containing tremendous potential to generate wealth locally. Increasingly, economic development leaders are looking to realign traditional economic strategies with global opportunities by helping local companies export to global markets, promoting their metro areas as sites for foreign investment, and cultivating exchanges of innovation and talent. This global economic engagement takes various tactical forms, including:

- Conducting trade missions abroad and hosting foreign delegations;
- Launching export grant competitions;
- Facilitating supply chain mentorships;
- Establishing "soft landing" accelerators to minimize investment risk;
- Providing global fluency training; and
- Forming long-term economic partnerships with international counterparts.

Yet, too often the international outreach is not guided by data and a clear decisionmaking process on where to focus resources. Trade mission destinations frequently are driven by the latest emerging market fad or political headline, rather than by which markets make the most sense given local industry strengths. Incoming foreign delegations may be welcomed randomly and without priority, overwhelming the international offices of municipalities and regional economic development organizations with too many visits having low return value. Leaders making the "international relations" decisions are frequently separated from the regional economic development agenda, and thus misaligned with broader efforts to grow businesses.

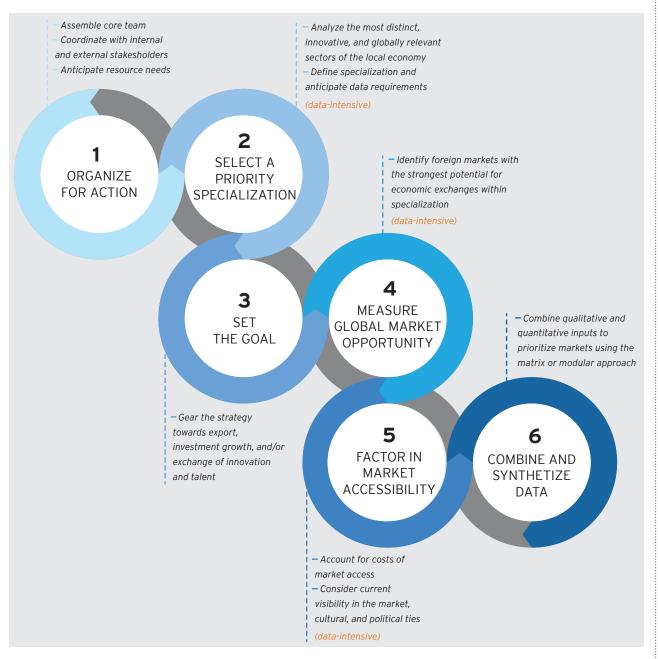
This new Global Cities Initiative (GCI) report offers metropolitan leaders a strategic approach to making these choices. It adapts "market prioritization," a concept used by private companies to guide international expansion, and applies it to metropolitan economic planning.

Specifically, market prioritization incorporates data analysis, insights from key private and civic stakeholders, and broader market intelligence into a process that aligns local economic priorities with international market trends and opportunities.

By making evidence-based decisions through a consistent, comprehensive market analysis, these methods help identify blind spots in existing strategies and make allocation of economic development resources more accountable.

The report draws on lessons learned from a oneyear GCI pilot in which the Brookings Metropolitan Policy Program worked with nine U.S. metro areas to explore market prioritization. It breaks down market prioritization into six action steps:

FIGURE 1. Six steps to executing market prioritization



### Step 1. Organize for action

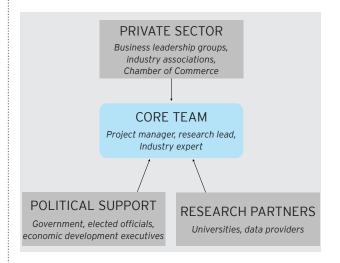
Market prioritization is a rigorous and timeconsuming process. Metro areas must organize a core team and coordinate with other key internal or external advisors. In each team, it is essential to have at least one research lead capable of analyzing large datasets and combining quantitative and qualitative information. Market prioritization ultimately seeks to use limited resources more efficiently for greater return, but metro areas first must invest the human and financial resources required to conduct the analysis.

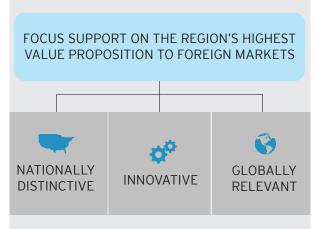
# Step 2. Select a priority specialization

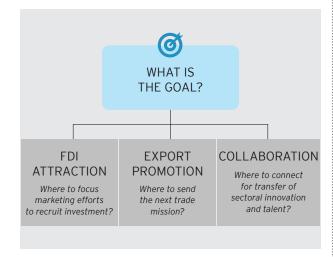
Teams analyze their regional industrial context and select which segments of their economy are best positioned for market prioritization. Priority markets may differ depending on the specific industrial or technological specialization. In this step, metro leaders select a strong sector or economic activity to channel limited resources toward and ensure distinctiveness in a crowded and competitive global marketplace. While it's critical to address each specialization distinctively, optimally market prioritization would be applied to a few sectors of competitive advantage to identify whether geographic overlaps emerge.

### Step 3. Set the goal

Trade and investment planning processes center on intentional programs and activities to support global engagement-export promotion; foreign direct investment attraction (FDI); and international partnerships facilitating exchanges of knowledge, innovation, and talent. Market prioritization targets those activities to subnational geographies based on more granular insights about international markets. However, specific objectives drive those choices. Markets that make sense as export destinations may not offer opportunities for foreign direct investment attraction. Therefore, explicitly stating the goals to be advanced for the specialization also guides the type of foreign market that should be prioritized, and sets metrics for success.







# Step 4. Measure global market opportunity within the specialization

With the goals in mind, local leaders use data analysis and qualitative insights from firms and industry experts to identify international counterparts with the highest opportunity for exchange within their target specialization. This step includes assessing foreign market demand, current and potential trading connections, investment relationships, sectoral initiatives, and other commercial links to pinpoint locations that share strong economic similarities, complementarities, or other strategic alignments.

# Step 5. Factor in market accessibility

Economic development organizations must practically ensure that the ease and cost of accessing prioritized markets aligns with their own capacity. Metro leaders should assess a host of connectivity factors to determine a market's broader accessibility. The cost of building and maintaining a relationship with a foreign location depends on various factors, including but not limited to national and global economic trends, regulation, distance, business norms, culture, language, and awareness or visibility.

# MEASURE GLOBAL MARKET OPPORTUNITY Which foreign markets are most active in the sector specialization? INVESTMENT ACTIVITY ACTIVITY ACTIVITY SPECIALIZATION OF THE FOREIGN MARKET



# Step 6. Combine and synthesize data

Once the quantitative and qualitative data have been gathered, core teams must pull together the findings into a cohesive structure that leads to actionable decisions on priorities. There is no universal algorithm that scientifically applies to every local circumstance, so metro areas can take different approaches to summarize, combine, and weight inputs. However, there are two main options to help organize the analysis: a matrix or a modular methodology. An experienced researcher should take the lead on this critical component, guided by policy considerations of economic development practitioners and stakeholders.

Ultimately, market prioritization should inform the deployment of limited resources and better support economic development goals.



### I. THE CASE FOR MARKET PRIORITIZATION

From 1990 to 2014, the total value of goods, services, and capital exchanged across borders increased from \$5 trillion to \$30 trillion, nearly 40 percent of global output.<sup>2</sup> Amid this heightened integration, metropolitan leaders are recognizing that regional economic development strategies must create environments in which firms and industries can compete internationally to help generate sustained growth and quality jobs for local residents.

This ethos defines the Global Cities Initiative (GCI), a joint project of Brookings and JPMorgan Chase. Launched in 2012, GCI catalyzes a shift in economic development policy and practice to strengthen the international competitiveness and connections of metropolitan areas. GCI collaborates with private-public coalitions through research, problem-solving, and exchange activities. As part of this work, GCI has guided more than 30 U.S. and international city-regions in creating locally tailored trade and foreign direct investment strategies.

While those strategic plans identified untapped potential, aligned regional actors, and generated fresh tactics, they also uncovered major

challenges in the ability to effectively focus within a massive global marketplace. With limited resources compared to the possibilities, metro leaders struggled to sift through awareness of local markets, fads, and political interests to determine where efforts are more likely to yield higher returns. They lacked a framework and clear process to apply data and evidence toward making more informed decisions that also connect to broader economic development objectives.

Market prioritization responds to this need—incorporating data analysis, qualitative input from private and civic stakeholders, and broader market intelligence into a process that rigorously aligns local economic assets with international market opportunities.

The rationale for market prioritization is straightforward. Prior to a business expansion investment or a market entry decision, successful corporations methodically screen locations to maximize chances of success. Economic development organizations can follow the same premise by focusing on a tailored value proposition around a limited number of markets that provide particularly strong trade and investment opportunities in their priority sectors.

# FIGURE 2. Where does market prioritization fit in the economic strategy of metro areas?

EXPORT & MARKET PRIORITIZATION TACTICS AND PROGRAMS (e.g., market promotion, trade missions, metro partnerships)

### GLOSSARY

### Market prioritization

A process that aligns local economic priorities with market opportunities through data analysis, qualitative input from key private and civic stakeholders, and broader market intelligence. It calibrates international economic activities—FDI attraction, export promotion, innovation and talent exchange—and guides resource allocation based on more granular insights about international markets.

### Priority specialization

The particular sector, industry, cluster, and/or technology in which regions have a comparative advantage based on their distinct local workforce, innovation, and infrastructure assets.

### Global value chain

When a firm designs, produces, markets, delivers, and supports development of its products and services across different countries. Transactions within a global value chain may occur between different affiliates of a multinational firm, or between multinationals and smaller suppliers.

#### Metro area

The functional economic geography across city, suburb, and exurb, typically a designated Metropolitan Statistical Area, linked together by shared business networks or concentrations, workforce, infrastructure, and innovation assets. This report uses the expressions "metro," "city," and "region" interchangeably to designate the areas and local teams leading a market prioritization exercise.

Prioritizing certain specializations and foreign markets over others entails taking a risk, and likely creates tension with local interests that are not featured. But the status quo is even riskier and less efficient because it does not apply a consistent, rigorous analysis, instead following fads and instinct. Without an intentional prioritization, economic development strategies are reactive and diffused, allocating resources, time, and staff based on conflicting business interests and visions of local stakeholders. In contrast, focused efforts over a longer period offer the potential for higher returns.

Market prioritization actually mitigates existing risks by vetting priorities based on data and knowledge of the local economy's core strengths. Making data-driven decisions supported by a more complete market analysis and strategic insights, these methods help identify blind spots in existing strategies. Justifying choices through a neutral, evidence-based process also makes economic development professionals less subject to the biases of, and more accountable for results to, their resource providers.

This report provides economic development leaders with a guidebook for market prioritization. It draws on the lessons learned from a one-year GCI pilot project in which Brookings ran a cohort of nine U.S. metro areas to explore approaches and tools (see Figure 3). It also tapped prior Brookings experience with Portland and Toronto on market prioritization efforts undertaken before the pilot. The guidance proceeds in six action steps.

FIGURE 3. Metro area participants in the GCI market prioritization pilot, with lead entities





### II. SIX STEPS TO DELIVERING MARKET PRIORITIZATION

### STEP 1

ORGANIZE FOR ACTION

### STEP 2

SELECT A PRIORITY SPECIALIZATION

### STEP 3

SET THE GOAL

### STEP 4

MEASURE GLOBAL MARKET OPPORTUNITY WITHIN THE SPECIALIZATION

### STEP 5

FACTOR IN MARKET ACCESSIBILITY

### STEP 6

COMBINE AND SYNTHESIZE DATA

### STEP 1

# ORGANIZE FOR ACTION

Before undertaking market prioritization, economic development leaders should understand that it is a rigorous and time-consuming process. Metro leaders need to anticipate resource requirements and organize dedicated personnel who execute the process.



Within each region, a lead entity must convene a cross-sector core team of economic development professionals and local researchers to conduct the analysis. The lead also coordinates involvement of external stakeholders needed to act on findings, and may strategically build teams based on who would lead and/or fund the eventual international activities. This lead entity should meet three basic criteria:

- It plays a central, trusted role in economic development activities;
- It has a regional leadership position from which the organization can coordinate the action and input from various public and private stakeholders; and
- It has the requisite financial and human resources available to manage the process over several months.

Lead entities often include, but are not limited to, regional economic development organizations (EDOs) and business leadership groups, the economic development bureau of a municipality, chambers of commerce, or world trade centers. Core teams typically include:

- A project manager;
- A researcher or team of researchers capable of analyzing large datasets and combining quantitative and qualitative information; and preferably having access to a wide variety of databases that sometimes require costly subscriptions (university business schools are often a good fit);
- A business intermediary representative with strong access to individual firms, such as a chamber of commerce or key industry associations, to help streamline gathering input from companies; and
- Other economic development practitioners with specific expertise on a key industry or local trade/investment strategy.

Organizing for action also requires an estimate of resources. The GCI market prioritization pilot project took seven months to complete, which most of the pilot teams considered an accelerated timeline given the breadth of the analysis. Additionally, most of the pilot participants decided to start with a specialization for which they already had undertaken some deep analysis, thereby reducing the time required.

Generally, the process, with a dedicated researcher fully allocated, can take between four months to one year. Assembling and processing the quantitative data consumes a significant amount of time, particularly when conducting analysis on economic specializations that do not align well with traditional industry definitions (see Step 2).

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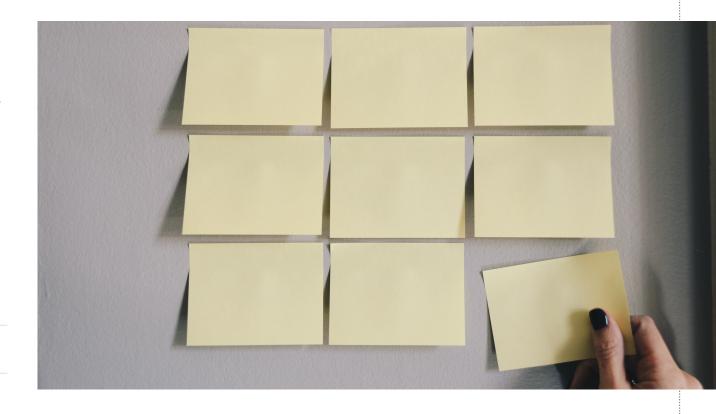
### STEP 2

# SELECT A PRIORITY SPECIALIZATION

Once organized, leaders must analyze their regional context and select which parts of their economy should be the focus for market prioritization.

### OVERVIEW

- 2.1 Demonstrate the region's distinctive advantage
- 2.2 Evaluate innovation potential
- 2.3 Show global relevance



Taking a specialization-first approach focuses metro leaders on their most distinctive globally competitive assets, strengthening their value proposition and enabling a market demand analysis that occurs in subsequent stages (see sidebar). As this choice is made, the core team may need to be augmented by individuals with more industry-specific expertise.

Leading with strong specializations requires that regional leaders build support among key stakeholders to narrow the region's economic development focus. This narrowing can create unease as specializations rarely implicate every aspect of a regional economy, potentially excluding very large and prominent sectors. Yet, metro areas cannot achieve global relevance in every aspect of their economy, and there are efficiencies to be gained from rallying around a few segments in a unified manner.<sup>3</sup>

This step offers a series of questions to identify a limited number of authentic specializations for market prioritization, including a subspecialty scope. While it's critical to address each specialization distinctively, the market prioritization process optimally would be replicated in a few sectors of advantage to determine geographic overlaps for maximal returns.

Metro leaders begin market prioritization with widely varied depth of knowledge on their specializations. Some metro areas may not have identified true advantages yet or exhibit potential in a significant number of areas, dispersing their support on multiple or overly broad sectors. Others already have conducted extensive analyses of their key industry clusters or specializations and are well-prepared to examine their international choices based on that existing work.

Furthermore, economic development leaders can justify focusing on specializations at various stages of maturity (or even prioritize multiple specializations at different points in their evolution). For regions targeting newer, converging specializations that do not align to existing industry classifications, some data methods may not be as useful, forcing them to rely more on firm-level intelligence gathering. This process is evidence-based, but combines the art

of interpretation with the economic analysis.

Whether in support of a legacy or emerging specialization, prioritizing the sector for an international strategy is only effective if those assets already exist in the community. For instance, Wichita prioritized aerospace and production technology and heavy machinery, two legacy specializations with a strong global brand. Wichita also prioritized knowledge creation and education, an emerging specialization having limited global visibility yet, but a justified foundation and high potential.

Selecting the specialization requires a combination of quantitative and qualitative analysis with which to compare the different segments of the local economy (see sidebar). These steps often draw from past research conducted by economic development organizations. Specifically, it involves exploring three questions:

• Is the specialization nationally distinctive?

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- Is the specialization innovative?
- Is the specialization globally relevant?

### SPECIALIZATIONS OR GEOGRAPHIES-WHERE SHOULD MARKET PRIORITIZATION START?

Initially, the pilot process generated significant debate over using specializations as the starting point for market prioritization. As one alternative, metro leaders could begin a process that first delimits key geographies based on internal resource factors, such as the presence of state trade offices. Additionally, a sectorneutral data scan of international markets could determine where general commercial ties exist or cultural, political, and geographic conditions are most favorable for trade and investment. However, the downside of an early focus on capacity and relations is the risk of preempting the optimal outcome by excluding new prospects, reinforcing current targets, and not maximizing true globally relevant strengths. Therefore, the selection of a specialization at the outset is important for three reasons illustrated in Figure 4.

### I. Market prioritization will likely have greater impact if it serves local economic priorities

Market prioritization is not an end unto itself, but rather a means to develop and strengthen competitive local specializations that could benefit from increased trade and investment, ultimately yielding more and better paying jobs.

### II. Market prioritization will have greater success if metro areas lead with strong and distinctive specializations

GCI metros' trade and investment strategies confirmed that leading with unique specializations could open the doors for their firms in global markets. This mirrors a broader evolution in which economic development practice looks to distinguish the region from competitors with a clear message and a value proposition organized around a few outstanding specialties. Previous Brookings research has demonstrated that specialized clusters increase the likelihood that a metro area will attract and retain foreign investment in that cluster.<sup>4</sup>

# III. The specialization choice influences the market demand analysis, as global markets differ in their relevance by sector and technology

At a broad level, data could support prioritizing just about any developed country. Broad industry categories may fail to differentiate the location against its competitors, which limits the ability to isolate a relevant foreign market. Additionally, a market identified as a

strong match for one metro objective may not fit another, such as attracting FDI in aerospace versus exporting medical devices.

Whatever the starting point, market prioritization seeks to identify opportunities "where geographies meet targeted specializations." Each metro team will ultimately factor in capacity and their resource constraints while assessing sector priorities. This structure and process allow flexibility to adjust indicators and weighting based on goals and internal constraints, but the core framework applies.

FIGURE 4. The three elements of market prioritization



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### CONSIDER THE SPECIALIZATION'S SUITABILITY FOR ANALYSIS

Market prioritization applies evidence over instinct, so local teams must anticipate the availability and limitations of data. To understand the baseline viability of a specialization, industry-specific data is critical. The definition of an industry or technological specialization will determine which data sources and analysis techniques are most valuable.

For example, the North American Industry Classification System (NAICS) provides reliable, consistent, and long-term data on traditional specializations that align with its categories. Availability of NAICS codes makes analysis much easier than trying to combine economic data to estimate emerging specializations that cut across multiple historically-defined industries. In the pilot process, Philadelphia's biopharmaceutical strengths aligned closely with Pharmaceutical and Medicine Manufacturing (NAICS 3254) and R&D in Biotechnology (NAICS 541711). Wichita's aerospace specialization and Milwaukee's on power, automation and controls specialization also fit cleanly within existing datasets.

That noted, this sector choice should not be dictated by ease of data availability. Regional economic potential increasingly centers on nascent or converging industry FIGURE 5. The selection of a traditional or emerging specialization drives the use of data

# THE SPECIALIZATION ALIGNS WITH TRADITIONAL INDUSTRIES

(aerospace, pharmaceuticals)

The specialization can be measured with traditional metrics, like NAICS or HS commodity codes. The use of FDI, trade, and patent data can support the analysis.

Data is more limited for service-oriented specialization.

Firm interviews and industry expertise complements the quantitative analysis.

### **FXAMPIF**

- Wichita defined its aerospace specialization with four core NAICS codes and seven related NAICS codes.
- Phoenix defined its advanced electronics specialization with 102 NAICS codes.

# THE SPECIALIZATION CUTS ACROSS INDUSTRY SEGMENTS

(cybersecurity, smart mobility)

Traditional data sources imperfectly covers the specialization. NAICS codes align to supporting and overlapping industries.

Additional refinement of the definition requires surveys and firm interviews.

Public data on employment, FDI and trade imperfectly applies. Actionable data sources include patents and business intelligence.

### EXAMPLE

- Columbus defined smart mobility with a combination of related NAICS codes, patents codes and key words identified through firm knowledge and research (LinkedIn, Google Patents).
- San Antonio defined its cybersecurity specialization with a combination of occupational codes, NAICS codes, surveys and market research.

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sectors, which are difficult to measure using traditional data sources. Modern specializations involve overlapping industries, technologies, and business models. Their definitions cut across an array of NAICS and occupational codes. Columbus noted that, "NAICS codes apply to [modern specializations] only in parts and pieces to cover the array of emerging or evolving industries, technologies, and business models." Columbus overcame this challenge by using 34 four-digit NAICS codes to measure "smart mobility" assets and

related applications; San Antonio integrated four six-digit NAICS codes to encompass its cybersecurity specialization.

Competitiveness priorities can also focus on an economic activity rather than an industry per se. For instance, Atlanta targeted its "digital supply chain" specialization, which had emerged to serve the region's intense headquarters concentration of multinational consumer goods and logistics companies. This activity cuts across industry segments and includes supply chain management firms, as well as the developers of technology in big data, sensors, and cloud services.<sup>5</sup>

These realities create analytical challenges, but they should not preclude a region from selecting a harder-to-measure specialization. Therefore, as regional economic development leaders try to define their specializations, they often must revisit traditional industry boundaries and identify alternative data sources.

# 2.1 Demonstrate the region's distinctive advantage in the specialization

As a first action, metro leaders must explore the advantages and distinctiveness of their potential specializations. This aspect of the analysis informs whether the region is competing in a crowded market, and to what extent it is leading in that market. It ensures that market prioritization avoids wishful thinking and preconceived ideas about the local economy's competitive advantage. Teams may face pressure from local stakeholders to include other specializations. A data-driven, fact-based approach supports the integrity and efficiency of decisionmaking.

This first stage simply examines how the specialization's scale and concentration compares to other regions on a range of metrics (see Table 1).

# 2.2 Evaluate the specialization's innovation potential

While selecting an innovative specialization is not a prerequisite (other competitive advantages exist), specializations that depend on innovative activities may offer a more durable regional advantage. Highly complex knowledge is oftentimes less mobile, and international investors gravitate to innovation-rich environments.

At this stage of the analysis, economic development leaders should assess local technological competencies and research and academic institutions which create value in the specialization. The reverse may also be helpful: Regions can identify value gaps and missing technologies which create strategic opportunities for their economies to upgrade. Local market intelligence complements quantitative data inputs, with firm interviews and reports (see

sidebar in previous page). Leading regional economic development frameworks for sectoral growth, such as the European Union's Smart Specialization Strategy (S3), align with this analytical approach<sup>6</sup> (see Table 2).

# 2.3 Show the specialization's global relevance

In addition to demonstrating comparative strengths within the region, there must be demand for the goods and services produced by the specialization in the global economy and the specialization must be competitive enough globally to meet that demand. Therefore, metro leaders examine growth projections of their specializations, and the extent to which local firms already operate in global trade and investment networks. This entails analyzing industry trends, plus export and foreign direct investment data (see Table 3).

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TABLE 1. Establishment and employment data demonstrate the distinctiveness of the specialization (Step 2.1)

		METHODS	EXAMPLES
	Rationale	Scale—as measured by total employment or total establishments—indicates the extent to which the specialization has achieved critical mass and whether the fixed costs of interventions can be spread across many firms.	" <b>Metro Atlanta</b> has a critical mass and specialization both in supply chain and technology clusters. Strengths in these
Specialization scale		<ul> <li>Number of business establishments (QCEW, U.S. Bureau of Labor Statistics)</li> <li>Employment value and change (QCEW, U.S. Bureau of Labor Statistics)</li> <li>Occupational data (OES Data - Bureau of Labor Statistics)</li> <li>Number of LinkedIn profiles in related keywords (LinkedIn)</li> </ul>	clusters provide fertile ground for Atlanta companies to become global leaders in developing new solutions to digitalize its supply chain distribution niche."
	Rationale	Concentration of firms and employment, relative to the nation, reveals the distinctiveness of the specialization (oftentimes using location quotients (LQ)). <sup>7</sup> Comparisons against other locations can reveal peers and competitors. Peer analyses and benchmarking against the competition can uncover untapped opportunities. Skills and occupations demonstrate the presence of qualified labor force and unique competencies in the specialization.	"For NAICS 3364, <b>Wichita</b> MSA has the highest LQ nationally (27.84), followed by Seattle, Waco (TX), and Ogden (UT) MSAs at 13.08, 9.19, and 4.31 respectively. For sub sector 336413, Wichita MSA's LQ of 25.87 is the highest nationally, followed by Hot Springs AR (18.11), San Diego (5.06), and LA (4.38). Of these, San Diego is the closest to us in terms of employment in the sector.
Specialization concentration	Indicators & sources	- LQ on jobs and occupational data (Cluster Mapping Project)	These could be peer metro areas if we drill down to sub-sectors."  San Antonio demonstrated the presence of workers in occupations related to cybersecurity: "Regarding concentration levels in the various occupations, San Antonio has a high concentration in information security analysts and computer occupations."

TABLE 2. Metro areas assess the innovation capacity of the specialization (Step 2.2)

		EXAMPLES		
	Rationale	Strong specializations produce technology. Patents data provide a reliable and comparable, if imperfect, measure of new inventions that spur economic development, and thus can serve as a useful indicator when exploring the ingenuity of sector specializations.	<b>Philadelphia</b> used patents data to highlight its advantages in pharmaceuticals, medical technology and biotechnology: "We refer to USPTO patent as a proxy for innovative	
Technology	Indicators & sources	- Patent applications in related industries, value and location quotient (REGPAT, USPTO, Google Patents) - Venture capital inflows (Pitchbook)	activities. Specifically, we analyze 2008–2012 location quotient, changes in location quotient from 2003–2007 period to 2008–2012 period, and the number of patents by industry."	
Anchor	Rationale	Business R&D centers, startup incubators and universities play a key role in establishing innovation prowess in a specialization.	"The Greater Phoenix region is producing startups in related spaces such as cybersecurity and data processing. Intel has recently announced the building of a new chip fab in Chandler. With Qualcomm's acquisition of NXP, two leading firms will have significant research and development operations in the region. Additionally, research out of Arizona State University	
institutions	Indicators & sources		is aligned with activity in the Internet of Things and semiconductor space."  Atlanta emphasized its status as one of the nation's top supplier of supply chain talent, with academic leaders such as Georgia Tech. An ecosystem of innovation centers, startups, and larger firms concentrates around this anchor institution.	

TABLE 3. Metro areas select a specialization demonstrating global relevance (Step 2.3)

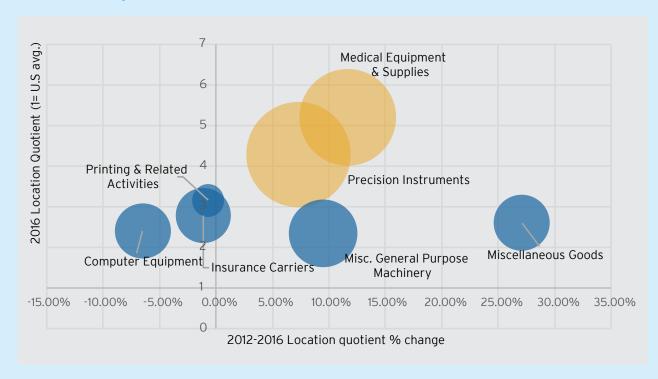
		METHODS	EXAMPLES
Global market	Rationale	Metro areas assess the global relevance of their specialization through market demand analysis. Useful data include global trade growth and projected global market size.	Phoenix: "Today, new technological trends () represent growing markets for microelectronics and semiconductor products. As the demand for internet-connected devices grows to an estimated 28.1 billion units by 2020, IoT is predicted
demand	Indicators & sources	- Projected global market size (Industry reports from public and private providers)	to be a \$7.1 trillion market. This growth will create a number of opportunities for companies in the semiconductor and microelectronics cluster to produce new and innovative products that will support and enhance this emerging market."
	Rationale	Data on export trends signal demand, as well as the region's position in global value chains.	Philadelphia: "In order to analyze export data, we refer to Philadelphia's export location quotient in 2016, the location quotient change from 2012 to 2016, and
Trade activity		- Metro exports value and growth (Brookings Export Monitor) - Metro export concentration relative to U.S. (Brookings Export Monitor)	real export value by industry. () Chemical manufacturing, which includes products of both traditional pharmaceuticals and biopharmaceuticals, represents the largest portion of total export of Philadelphia."
	Rationale	Investment data reveals the extent to which international investors find the specialization attractive, either through foreign direct investment or venture capital.	<b>San Diego</b> explored the international market activity of its top economic sectors
Investment activity	Indicators & sources	<ul> <li>Metro Foreign Owned Enterprise Employees (FDI Nation, Brookings Institution, 2014)</li> <li>Metro inbound FDI from the world (private data provider such as fDiMarkets, WAVTEQ, ROI Research On Investment, Conway, etc.)</li> </ul>	side by side. It examined locally established foreign-owned enterprises, and FDI deals by industry to focus on its most attractive sectors.

### TOOLS TO CONDUCT STEP 2 (1 OF 3)

For metro teams trying to compare and choose among possible specializations for further analysis, a dashboard can help organize the data around basic criteria. Researchers select the relevant indicators described in step 2 and populate a matrix (see Table 4). An index score ranks sectors by order of importance and relevance in the local economy.

Teams with existing in-depth specialization analyses still should confirm or explain their choices, in order to validate the premise of applying market prioritization with stakeholders needed to provide resources and help with implementation. Those metro areas can limit the length of this step by summarizing their specialization strengths in a memo, using data visualizations (see Figure 6 and Table 5).

FIGURE 6. Export data highlights the bioscience specialization of Minneapolis St. Paul-Bloomington MSA



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Note: Bubble size represents 2016 real exports. Graph structure based on work by Purdue University Source: Brookings Export Monitor 2017

TABLE 4. Metro areas combine indicators from step 2 and select sector specializations

Download Excel spreadsheet

		2.2 DISTING	CTIVENESS		2.3 INN(	OVATION PO	TENTIAL	2.4 GL	OBAL RELE	VANCE
INDEX SCORE	Employment value and location quotient	Employment change (% 2010-2016)	Establishments number	Establishments change (% 2010-2016)	Number of patents	Venture Capital Inflows	Number of anchor institutions	Exports value Exports growth	Inbound FDI	Projected global market Size (CAGR forecasts %)
Sector #1										
Sector #2										
Sector #										

San Antonio noted the "increase in cybersecurity concentration from 0.45 in 2007 to 1.05 in 2016. This shows that the sector has shown some

strong growth locally compared to relative growth across the country. This is an indication that it is a sector on the rise in San Antonio, which is the one of the reasons the industry was chosen."

TABLE 5. San Antonio benchmarked location quotient for employment in cybersecurity and related industries to situate its specialization in the national context

		2007				
Industry	Atlanta	Huntsville, Ala.	San Antonio	San Diego	Fairfax County, Va.	Montgomery County, Md.
Software publishers	1.83	0	0.39	1.41	2.98	0.89
Custom computer programming services	1.38	2.23	0.42	1.53	7.35	3.33
Computer systems design services	1.16	0	0.35	0.63	15.95	4.54
Security systems services, except locksmiths	0.97	0	1.4	0.53	1.52	1.52
Cybersecurity	1.34	0.85	0.45	1.09	9.65	3.3

		2016				
Industry	Atlanta	Huntsville, Ala.	San Antonio	San Diego	Fairfax County, Va.	Montgomery County, Md.
Software publishers	1.2	0.72	0.29	0.44	1.64	1.55
Custom computer programming services	2.01	1.91	1.1	1.43	4.87	2.07
Computer systems design services	2.74	2.98	1.24	0.84	12.57	3.71
Security systems services, except locksmiths	1.04	1.57	1.32	0.52	2.75	2.44
Cybersecurity	2.14	2.15	1.05	0.98	7.44	2.69

Source: U.S. Bureau of Labor Statistics QCEW; San Antonio's calculations

### STEP 3

# SET THE GOAL

Regional leaders must define their goals for market prioritization and how it will advance the competitiveness of the selected specialization through trade, investment, and/or talent and innovation exchange.





Metro areas seek to fill a range of different needs through global economic engagement. Some may want to help grow exports by identifying and accessing markets applicable across firms in a target sector. Others might pursue drawing new companies and investment around core firms and supply chain opportunities. Others could look to tap international workforce expertise, research assets, and business partnerships.

Furthermore, some international markets may not address all those needs. For instance, Philadelphia's biotechnology objectives to host the research and development labs of foreign companies and spur joint ventures can achieve important goals around enhancing innovation and sustaining competitiveness, but not necessarily generate new exporting activity or significant job creation.

Thus, recognizing how market prioritization and international exchange more broadly does (or does not) advance particular economic goals will guide the analysis and weighting of criteria. It also helps to ensure that results can be implemented, measured, and sustained (see Table 6).

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TABLE 6. Metro areas identify their strategic goals for market prioritization

GOALS	BENEFITS FOR THE ECONOMY	EXAMPLES
Channel exports growth	Market prioritization guides and informs the location decision of outbound trade missions. Local economies increase their understanding of their position in global value chains. Local firms tap into expanding markets worldwide to grow jobs at home.  Local companies-in particular small and medium sized entities (SMEs)-often lack global exposure and do not proactively look for export opportunities.	Milwaukee's goal was to identify and prioritize international market opportunities to support export growth and FDI prospects.  Wichita defined the customers of the analysis as local "exporters or potential exporters." "For all selected sectors, the strategy is to increase exports for SMEs."
Guide foreign investment recruitment	Market prioritization guides and informs foreign direct investment recruitment through more rigorous lead generation, including a focus on R&D-intensive foreign firms which could support local advanced industry innovation systems.	"Atlanta is prioritizing firms looking to establish their global or regional supply chain function in Atlanta. It is also seeking to attract firms and technology from locations that are research hubs in supply chain digitalization."  San Diego used market prioritization to identify which incoming delegations and foreign business visitors were best aligned with their goals and allocated resources accordingly.
Orient international collaboration, innovation, and talent exchanges	Some regions have multiple goals when looking for foreign partners: a comprehensive partnership that promotes trade and FDI flows, as well as exchange of technology, innovation, and talent.  Establishing a strong partnership with another metropolitan area requires an overall assessment of potential connectivity within the specialization.	Philadelphia sought to attract talent and innovation to support its emerging biotechnology sector and compete with other U.S. metro areas more visible in this market, like Boston.  For Columbus, market prioritization provided a stronger filter on potential metro areas and markets for smart mobility partnerships: "Instead of receiving or pursuing any smart city initiative or company, we now have a more comprehensive scan of who are the global leaders in our definition of smart mobility."

### SPECIALIZATIONS AND GOALS FOR MARKET PRIORITIZATION

At this point in the process, the local teams have defined a specialization and specific goals to pursue within that specialization. To illustrate, Table 7 lists the specializations and goals for each of the nine pilot metro areas. Conducting analysis for several segments of the economy simultaneously increases the process's complexity. Metro teams balancing multiple sector priorities can conduct the rest of the analysis in staged cycles with one sector at a time.

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TABLE 7. GCI pilot cohort selected (a) specialization(s) and identified specific goals for market prioritization

PILOT METRO		GOAL(S)				
AREAS	SELECTED SPECIALIZATION(S)	FDI ATTRACTION	EXPORT GROWTH	INNOVATION AND TALENT EXCHANGE		
Atlanta	Digital supply chain	X		X		
Louisville- Lexington (BEAM)	Back office legal services & financial services Life Sciences Rapid turn-around testing & analysis services	Х				
Columbus	Smart mobility Electric & Autonomous vehicles	х	Х	х		
Milwaukee	Production Technology & Heavy Machinery	X	X			
Philadelphia	Biotechnology	X	Χ	X		
Phoenix	Driverless cars Wearables Industry 4.0 (Automation) Cybersecurity	X	Х			
San Antonio	Cybersecurity	X	X	Χ		
San Diego	Pharmaceuticals Genomics	х	х			
Wichita	Aerospace Production Technology & Heavy Machinery Knowledge Production		Х			

### STEP 4

# MEASURE GLOBAL MARKET OPPORTUNITY WITHIN THE SPECIALIZATION

Having determined a specialization and defined specific goals, metro leaders now apply quantitative and qualitative factors to evaluate foreign market opportunities. This weighs heavily in market prioritization because modern trade and investment occurs through global value chains, which bind regional economies together based on their industrial and technological affinities and strategic alignment.

### OVERVIEW

- 4.1 Analyze foreign direct investment data
- 4.2 Explore trade data
- 4.3 Assess the specialization of foreign locations





Research finds strong, reinforcing relationships between international networks, regional development, and local cluster dynamics.<sup>8</sup> Connecting and maintaining a presence in global flows of trade, investment, and knowledge helps enhance local growth and competitiveness.<sup>9</sup>

Metro areas may seek to increase their economic ties with two types of counterparts:

Markets sharing complementarities that are destinations for the local economy's exports or provide an input, either through a position in an industry-specific value chain or as a customer base of final consumers. One example of this dynamic in the pilot process was Milwaukee's interest in serving foreign markets with a demand for Production Technology and Heavy Machinery goods.

Markets sharing commonality with features similar to the local economy's specialization, including a concentration of firms in the industry and an ecosystem of related talent and innovation assets. Empirical studies find that multinational firms are more likely to invest and set up new foreign affiliates in other, similarly specialized clusters, rather than in non-clusters.<sup>10</sup> Foreign

direct investment tends to be directed to places where the same or related industries are located, oftentimes to acquire localized knowledge.<sup>11</sup> These clusters connect through subsidiaries and firm affiliates, within which industry-relevant knowledge is disseminated through the transfer of expatriate managers.<sup>12</sup> Specific examples of this dynamic in the pilot cohort included Columbus' interest in finding other centers of smart mobility to spur innovation, knowledge, and capital exchanges; and Atlanta's search for comparable digital supply chain hubs to serve as anchors for continental market entry.

Local leaders then identify foreign markets with the greatest potential for these economic exchanges using business intelligence from surveys and interviews with firms and industry experts, as well as data analysis. Business knowledge can forecast future market opportunities, capture propriety insights on the existing international connections of in-market companies and geographic interests of local firms (see sidebar). On the quantitative side, analysis should include existing and potential investment linkages, trade relations, and specialization of foreign markets.

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### FIRMS PLAY A KEY ROLE IN MARKET PRIORITIZATION

Market prioritization is both science and art. Data analysis is essential, but it must be complemented by business intelligence to ensure that opportunities suggested by the data are consistent with how local companies view their future prospects and strategies. Conversely, markets that stand out as prime interests to companies may not always reveal themselves in available data, because of limitations on the quality and depth of foreign market sources, plus individual corporate relationships and other qualitative tactical considerations. Therefore, firms are important contributors to the process for two reasons:

### I. Firms provide critical information

To ensure that market prioritization aligns with their business community's needs, gathering input from local firms will yield a clearer understanding of the dynamics and global connections within the specialization to which the company contributes. These explorations provide a range of insights impossible to identify through quantitative analysis: unveiling when there is critical mass for a need to be filled in a local cluster through inward investment or other deliberate value chain development; where firms share common

interests in specific markets; or when real business experience in markets refutes what the data suggests.

For example, Wichita prioritized aerospace investment possibilities in France over Germany based on corporate feedback revealing a stronger rapport with French firms and business practices.

# II. Firm participation supports business development

As economic development teams analyze the metro economy and collect information about local firms' interests, they also identify and engage the global footprint of firms involved in exporting and FDI. Backing from these business leaders can secure resources and regional support for the prioritization specifically and international efforts broadly, and their inclusion in this process provides the basis for that validation. These firms also ultimately can play an ambassador role by projecting the metro area's attractiveness to a foreign business audience, extending the reach and credibility of economic developers. Local anchor firms act as "network orchestrators" (or gatekeepers within clusters).13 For instance, Phoenix partly relies on

the business connections of its firms as points of entry in prioritized Taiwanese clusters.

While recruiting the participation of busy business leaders was not easy, it proved invaluable in the market prioritization pilot. Therefore, project teams must involve a stakeholder with strong access to the private sector, such as a chamber of commerce or industry association. As observed by a Columbus leader, "Companies should recognize that, over the long haul, you are not going to outperform your community. If you want to be globally relevant, the rest of your community needs to also make gains."

One way that metro teams gather firm knowledge is through business surveys and interviews. Questions cover the company's international business activities, the location of its supply and customer base, and the potential gap in the local ecosystem that market prioritization can address through targeted investment or innovation attraction.

To see a business interview form sample, go to annex A.

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# 4.1 Analyze foreign direct investment data

As a starting point, metro leaders should gauge market opportunities using foreign direct investment data, both inward and outbound. This analysis includes which foreign locations are current and potential sources of investment, with a particular focus on the targeted specialization. The information assesses geographic alignment between the established foundation of international investment relationships within the region on which to build, and the concentrations of existing and growing foreign investment sources for the sector (see Table 8).

### 4.2 Explore trade data

Trade data should be used to guide prioritization for both export promotion and FDI attraction. Previous research suggests that export entry usually precedes FDI entry, so prominent import nodes within value chains reveal trading relationships that could be targeted to establish a local presence closer to the customer.<sup>14</sup> Furthermore, data on international imports in the specialization suggest nascent or emerging opportunities that can be cultivated.

However, the pilot cohort's experience also reinforced the inherent limitations of trade data. While useful for metro areas focused on identifying new export markets in manufacturing industries, where goods in traditionally defined sectors can be closely tracked by their physical

movements, it provided fewer insights on services and emerging sectoral specializations (see Table 9).

# 4.3 Assess the specialization of foreign locations

Having narrowed down the global market scan to a few countries based on investment and/ or trade flows, metro leaders can identify subnational targets using additional data that seeks to measure the presence of an industrial specialization. For metro areas seeking to prioritize markets in hard-to-measure specializations, proxy considerations are critical due to the limitations of trade and FDI data (see Table 10).

Within this diversity of considerations and tools, metro areas should be able to narrow the list of potential priority markets based on sectoral information. Most cohort teams analyzed some combination of the factors, understanding that no one single source of information can fully reveal the extent of the global opportunity in their chosen specialization.

Columbus' interests in smart mobility—an emerging technology currently lacking obvious footprint in the global economy—drove the team to map concentrations of innovation and skills associated with technological inputs, using that information as a proxy for existing clusters of relevant companies and research. Columbus



also evaluated named "smart mobility" clusters or branding initiatives in international cities. For Atlanta, very few general and public data sources were applicable to its novel supply chain digitalization specialization, forcing a bespoke research approach which centered on firm outreach and a novel analysis on key clients of local digital supply chain companies.

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TABLE 8. Metro areas gauge market opportunities using foreign direct investment data

		METHODS	EXAMPLES
	The origin of foreign investment signals where regions have strong m relationships within the sector specialization. An early analysis of inbeactivity in the metro and peer regions helps uncover connections on as well as new or underutilized FDI concentrations to target.		Louisville-Lexington explored the foreign investment trends in business services in the U.S., Kentucky, and Midwestern states to identify top prospects: "Top prospect countries evince a strong history of investment in priority sectors, positive past and projected growth, and history of
Current inbound FDI	- Metro inbound FDI from foreign market (private data provider such as fDiMarket WAVTEQ, ROI Research On Investment, Conway, etc.)  Indicators - U.S./peer states' inbound FDI from foreign market (private data provider such a fDiMarkets, WAVTEQ, ROI Research On Investment, Conway, etc.) - Metro Foreign Owned Enterprise Employees (FDI Nation, Brookings Institution, 2014)	<ul> <li>- U.S./peer states' inbound FDI from foreign market (private data provider such as fDiMarkets, WAVTEQ, ROI Research On Investment, Conway, etc.)</li> <li>- Metro Foreign Owned Enterprise Employees (FDI Nation, Brookings Institution,</li> </ul>	investment in peer states."  San Diego examined investment growth in genomics and pharmaceuticals from foreign countries, as well as patterns and company names of foreign firms that had established a local presence.  Philadelphia analyzed foreign investment in its jurisdiction, as well as investments targeting Boston—a peer metro area with similar specialization in pharmaceuticals and biotechnology—to identify new market opportunities.
Current	Rationale	Monitoring the foreign subsidiaries of locally-based multinational companies can pinpoint strategic locations and networks where local firms conduct business. They also can act as potential advocates and sector-specific ambassadors to pursue additional inbound FDI.	<b>Columbus</b> conducted a thorough survey of the foreign headquarters (HQs) and other key locations of its locally based firms in its smart mobility specialization. It asked
outbound FDI	Indicators & sources	<ul> <li>Number of local or U.S. firms established in the foreign market (background research)</li> <li>Outbound U.S. FDI to foreign market, value and growth (United Nations Conference on Trade and Development)</li> </ul>	the question: "Does at least one side have a high-level executive or a decisionmaker who has a justification and the ability to connect with the other?"

TABLE 9. The analysis of current trade confirms or uncovers market opportunities

		METHODS	EXAMPLES
Trade flows	Rationale	Metro-level trade data is often unavailable by country of destination, so this analysis must utilize state imports and exports to reveal top trade partners in a metro area's specialization. Metro areas can determine new potential markets by analyzing flows from other states to key countries.  Import data may reveal supply chain gaps that can be filled by the local ecosystem. Metro leaders target foreign companies incentivized to establish a presence closer to their customers.  Service-oriented specializations such as cybersecurity or digital supply chain render the use of traditional trade data difficult, although trade data for service exports are available at the country level.  - State exports to foreign country, value and growth (U.S. Census Bureau)	Milwaukee looked at total imports by country to identify the top markets: "Total statewide exports for the Power, Automation & Controls sector decreased 13.8% year over year to \$3.84 billion in 2016. A full 51.4 percent of this amount was exported to the 3 top destination markets of Canada, Mexico and China. () The only markets that saw significant growth in 2016 include Japan, India, Switzerland, Thailand and Taiwan."  Louisville-Lexington used the growth rate of service exports to the U.S. from
	& sources	<ul><li>- U.S./peer states' exports value to foreign country (U.S. Census Bureau)</li><li>- State imports from foreign country, value and growth (U.S. Census Bureau)</li></ul>	top markets investing in the U.S. as a key determinant to prioritize markets.
Industry	Rationale	Country-level data on overall global imports and U.S. imports can help identify prospects. The analysis of global trade flows pinpoints foreign countries with high growth in demand within the specialization of interest. While this data is limited to the national level, it enables targeting for further analysis at the metro scale using country-specific resources or proxy measures for local market size.	<b>Wichita</b> examined foreign markets by the annual growth of their global imports of aircrafts and parts since 2012, as well as their 2016 imported value to pinpoint the most active demand.
market demand	Indicators & sources	- Foreign countries' import value and growth (International Trade Centre's Trade Map)	Milwaukee: "To identify the top prospective markets within the Power, Automation & Controls segment, Milwaukee analyzed total [global] imports by each market. The top importers include China, Hong Kong, Germany and Mexico."

TABLE 10. Metro areas complement the global market assessment with sector-specific indicators

		METHODS	EXAMPLES
Foreign	Rationale	Sector strengths of foreign locations can be identified by the presence of a formal cluster initiative. Research must verify and validate the specialization of the foreign cluster and filter out the ones that are only marketing plays.	To identify foreign clusters actually sharing its affinity in smart mobility technology and weed out the marketing plays, <b>Columbus</b> looked for the presence of an entity managing the cluster on top of other qualitative and quantitative indicators,
cluster initiative	Indicators & sources	<ul> <li>Presence of a formalized cluster or relevant initiative (background research)</li> <li>Firm concentration (background research)</li> </ul>	Phoenix noted that many "initiatives that mirror the specialization are out there, but given the newness of internet-of-things, it is hard to tell which are actual initiatives and which are marketing plays."
Innovation	Rationale	Locations with high patenting concentration in the specialization can be strong prospects for economic exchanges. While highlighting advanced production clusters, this factor also points to potential complementary partners that can help fill some of the local supply chain gaps.	<b>Atlanta</b> exploited patents data to pinpoint the global metro areas producing the most patents in technological groups related to its specialization. Using REGPAT data, Seoul and
	Indicators & sources	<ul> <li>Patent applications in related industries (REGPAT, Google Patents)</li> <li>Prominence of workforce with relevant technical skills (LinkedIn)</li> </ul>	Tokyo stood out in patenting in Digital Communication and IT Methods and Management.
Additional sector			Wichita evaluated sector-specific indicators to identify markets with characteristics signaling potential demand within a specialization: for instance, growing fertilizer consumption was used to signal agriculture activity and export prospects in Heavy Machinery.  San Antonio considered qualitative inputs from businesses gathered through surveys and interviews, including
indicators	Indicators & sources	<ul> <li>Sector specific indicators (local knowledge)</li> <li>Awareness and interest of local firms for the foreign market (survey)</li> <li>Awareness and interest of local firms for the foreign market (survey)</li> </ul>	gauging whether foreign firms were aware of San Antonio's cybersecurity initiative as well as the interest of local firms in certain foreign markets.  San Diego factored in existing Memorandums of Understanding (MoUs) held by leading regional institutions and industry associations in life sciences.

STEP 4 | BACK TO MENU

# NARROWING TARGETS BELOW THE NATIONAL LEVEL

The geographic scale of market prioritization differs for each metro area. For a few regions, strategic goals may require prioritization only at the national level. But for most others, optimizing resources requires more actionable, sub-national targets, with economic development teams focused on counterpart metro relationships as the functional economic unit, versus a generic country-wide approach. The availability of comparable subnational economic data across foreign countries creates serious challenges. While national data is most readily available for initial comparisons, metro leaders can use a subset of methods to gather metro-level information after that first assessment. Those include additional research to:

- Determine specializations at the subnational level, either through scanning which foreign metro areas have a formally defined cluster initiative or a significant presence of specialization-specific innovation and talent.
- Map the location of multinational firms' headquarters and/or local firms' foreign subsidiaries.
- Assess the depth and intensity of current partnerships with entities in foreign metro areas.
- Identify the city-level sources and/or destinations of foreign investment flows.
   Looking at the origin and destination of investment in competing and peer metro areas can pinpoint key clusters.

### LEVERAGING ALTERNATIVE DATA SOURCES

Market prioritization should exploit data sources that reveal the presence of talent and technology in emerging industries at home and in other regions. As an example, Columbus used LinkedIn profiles analyses and Google Patents data to pinpoint locations with a concentration of talent and technology relevant to its smart mobility specialization.

LinkedIn data reveals locations, companies, or academic institutions with a concentration of talent in a specific industry. The presence of certain keyword combinations in individual professional profiles attached to a location, firm, or school reflects this concentration. This method works better with higher subscription levels of LinkedIn, like Recruiter. To execute such a search:

- The researcher develops initial search parameters, including location and keywords. The first rounds of results help to refine subsequent searches, by finding additional keywords from relevant, wellfilled profiles and finding false positives and keywords to exclude.
- This process narrows the scope of research by combining the right keywords with coordinators ("Boolean" search). For

example, in the case of electric vehicles, a potential Boolean search is: truck OR trucks OR car OR cars OR vehicle OR vehicles OR ev) AND (electric OR battery OR "fuel cell" OR charging OR charger OR "hybrid electric" OR energy storage).

Google Patents data helps identify locations and firms that are generating patents relevant to the specialization.

- The researcher uses Google Patents
   advanced search functions (<a href="https://patents.google.com/advanced">https://patents.google.com/advanced</a>) and enters
   Cooperative Patent Classification (CPC)
   codes related to the specialization of focus
   (<a href="https://www.uspto.gov/web/patents/classification/cpc.html">https://www.uspto.gov/web/patents/classification/cpc.html</a>).
- The researcher also enters keywords and search terms to identify new keywords and patent classification codes relevant to the specialization, such as "G08G1/00 Traffic control systems for road vehicles" in the case of smart mobility.

Note: Other potential sources include Moody's Analytics, Panjiva, Datamyne, PIERS, fDi Markets, Euromonitor, MarketsAndMarkets, Research and Markets, ROI Research on Investment.

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### STEP 5

### FACTOR IN MARKET ACCESSIBILITY

Following the identification of top foreign locations based on sector affinities, metro leaders must further focus where their limited resources and staff time can be optimized. Market prioritization analysis must result in actionable leads and feasible pathways to action, so as to ensure that the ease and cost of market access align with the organization's capacity.

### OVERVIEW

- 5.1 Evaluate the growth environment and connectivity
- 5.2 Survey current institutional and cultural connections with foreign locations



Weighing ease of access against market potential offers quantifiable metrics to narrow the scope, including factors such as size and growth trends, business environment, connectivity, supportive institutional linkages, language, and cultural awareness.

Markets may have tremendous upside for a given specialization but could be hard to engage due to high transaction costs or cultural differences. Conversely, a metro area may decide not to prioritize a location with which it has established a long-lasting institutional or cultural relationship because it lacks a sector opportunity. The Louisville-Lexington (BEAM) analysis illustrates this point: "[The] best choice markets for BEAM's engagement represent accessible opportunities, defined as markets in which the cities can make a sustained resource commitment, adequate to encourage new investment. That is, resources are sufficient to build relationships, develop market insights, increase name recognition, and deliver effective messaging."15

# 5.1 Evaluate market accessibility based on the growth environment and connectivity

Central to market opportunity are the economic potential and relative costs of building and maintaining a relationship with a foreign location. Various indicators help determine a market's accessibility, including: its growth environment, business environment, and physical distance. Thailand, for example, came up as top location from an industry standpoint in Wichita's analysis, but it was dismissed based on accessibility considerations (see Table 11).

## 5.2 Survey current institutional and cultural connections with foreign locations

After identifying market access factors, other non-business factors such as institutional networks, cultural ties, and political considerations can also reinforce or offset growth and connectivity. These non-business connections are "soft" entry points in foreign markets, which support the creation of commercial exchanges. Business decisions also are influenced by personal relationships. These connections matter and must be weighted accordingly (see Table 12).



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STEP 5 | BACK TO MENU BROOKINGS METROPOLITAN POLICY PROGRAM

TABLE 11. Growth and connectivity influence the ease and cost of market access

:		METHODS	EXAMPLES		
Growth environment	Rationale	Size matters to gauge the feasibility and opportunity of economic exchanges with a foreign market. Metro areas can set a minimum or maximum threshold in economic and population sizes to ensure a sufficient pool of firms which could be prospects for investment or customer base. However, a larger market size matters less when the strategic focus steers away from critical mass towards interest in a niche or attraction of a specific technology. Metro areas weight size inputs differently depending on their objectives.  Growth prospects matter as well. Metro areas use economic growth forecasts to uncover locations with future potential.	Columbus strongly highlighted the necessity of considering the scale of foreign markets to gauge feasibility of a metro-to-metro partnership. They sought metro areas of comparable size, because required resources and ease of interaction are quite different in targeting a large metro area such as Shanghai versus a mid-sized region such as the West Midlands (UK).  Philadelphia and Louisville-Lexington uncovered priority markets with various levels of economic advancement. The focus on certain macro		
	Indicators & sources	<ul> <li>Metro real GDP growth from 2014 to 2016 (Brookings Global Metro Monitor)</li> <li>Country annual growth average from 2017 to 2019 (IMF World Economic Outlook)</li> <li>Country income level (IMF World Economic Outlook)</li> </ul>	data (trade flows, GDP, GDP growth) naturally leads towards advanced markets, while looking at recent growth trends highlights emerging, fast-growing economies with potentially greater upside.		
Business environment	Rationale	The presence of an economic agreement free trade agreement (FTA) or bilateral investment treaties (BIT) can significantly enhance commerce. <sup>18</sup> The broader business environment of the foreign market is also significant, as business regulation can either enhance or constrain economic activities. <sup>19</sup> Currency exchange rates and the volatility of the foreign location's currency affect the cost and ease of investment and trade relations. <sup>20</sup>	San Antonio's analysis incorporated international tax rules to evaluate the advantage provided to foreign firms by establishing a presence in the U.S.  Milwaukee factored in the presence of trade agreements, as well as the Heritage Foundation's Index of Economic Freedom.		
	Indicators & sources	- FTA or BIT (Office of the United States Trade Representative) - Ease of doing Business Index (World Bank) - Exchange rate change (World Development Indicators, World Bank) - Exchange rate volatility (IMF Exchange Rates) - Corporate tax (Private data provider, including KPMG)	<b>San Diego</b> noted that foreign exchange stability and ease of doing business greatly influence the decision of companies to enter a new market.		
Connectivity	Rationale	Despite notable increases in the quality and connectivity of international transportation, travel time and distance are shown to influence bilateral investment, trade, and tourism. <sup>21</sup> Flight travel data has some caveats for market prioritization: it does not always distinguish travel by types (business, leisure) and flight destinations do not necessarily reflect travel itinerary due to connections and use of airports in other metro areas.	In collaboration with the city's Aviation Department, <b>San Antonio</b> factored in the flight distance and number of direct flights to foreign metro areas, including the number of layovers.  Leveraging on the connections of its world-leading airport, <b>Atlanta</b> measured the number of non-stop flights between its international airport and foreign markets.		
	Indicators - Flight travel distance (Regional airport data) - Number of direct flight with the foreign market (Regional airport data)		an port and foreign markets.		

STEP 5 | BACK TO MENU

TABLE 12. Cultural and institutional connections increase the accessibility of a foreign market

		METHODS	EXAMPLES				
	Rationale	Institutional investments and footprint offer leverage, including consular and trade offices, sister city partnerships, state foreign offices, bilateral chambers of commerce, and university partnerships.	<b>Louisville-Lexington</b> factored in the number of prior trade missions to target market, the existence of trade offices or bilateral chamber of commerce with target market.				
Institutional relationships	Indicators & sources	<ul> <li>State representation in the foreign location (local knowledge)</li> <li>Number of active partnerships at the state or city level with the foreign location</li> <li>Consular and trade offices of foreign countries established at home</li> <li>Trade office presence in foreign markets and past trade missions abroad</li> </ul>	<b>Atlanta</b> actively leveraged the global network of Georgia Tech: "one of Metro Atlanta's major network orchestrators and currently [with] active partnerships with over 200 international universities in nearly 50 markets including, Berlin, Germany; Barcelona, Spain, and various markets in the United Kingdom ()."				
Cultural and	Rationale	Cultural ties—via migration, student community, a global alumni network, a local diaspora (foreign-born population locally established) with a business community and flows of expatriates—support potential business opportunities in trade and investment. <sup>22</sup> Cultural distance and language affect the costs of market access, though it may be "decreasingly important than other factors; globalization having reduced the impact of cultural differences," according to San Diego. <sup>23</sup>	Wichita monitored the country of origin of its 2,500 foreign students: India (18 percent), Saudi Arabia (18 percent), Nepal (7 percent), China (5 percent), and Sri Lanka (5 percent): "International students can, in conjunction with the diaspora from their country of origin, help provide transnational social networks supporting increased opportunities for trade, investment, and knowledge to flow across these networks. They can act as conduits for trade and investment as well as				
community	Indicators & sources	<ul> <li>Foreign-born population (2011-2015 American Community Survey 5-Year Estimates)</li> <li>Foreign language spoken in the region. If applies: English proficiency (EF English Proficiency Index)</li> <li>Foreign Students enrollment in regional universities (Institute of International Education data)</li> <li>Cultural institution exchanges, like orchestras (local knowledge)</li> </ul>	providing tacit knowledge about cultures and institutions in their countries of origin."  San Antonio's deep historic and cultural relationship with Mexico, as well as local Spanish language skills, have made Mexican metro areas preferred business partners, although these may not always be the metro areas with the strongest industry affinity. Conversely, language barriers and cultural distance can lead to the dismissal of a foreign target.				
Political factors	Rationale	Political support for devoting resources and public attention to a prioritized market matters. Therefore, additional political considerations, including the country's foreign policy, informs the accessibility analysis.  Factoring subjective political indicators is challenging but productive, as it forces the team to think through the interests of other local stakeholders.	<b>Philadelphia:</b> "National and international foreign policies' impacts are a first challenge. Two of our main [priority markets] are facing significant uncertainty: the UK with Brexit (which timeline, extent, effects are unclear for the time being), and Canada with a question mark on NAFTA. () China's rise in the global economy and political influence makes it a key market to watch, and trade disputes with the U.S. are being watched				
	Indicators & sources	- Foreign markets ranked based on political priority for local and state leaders (local knowledge)	carefully."				

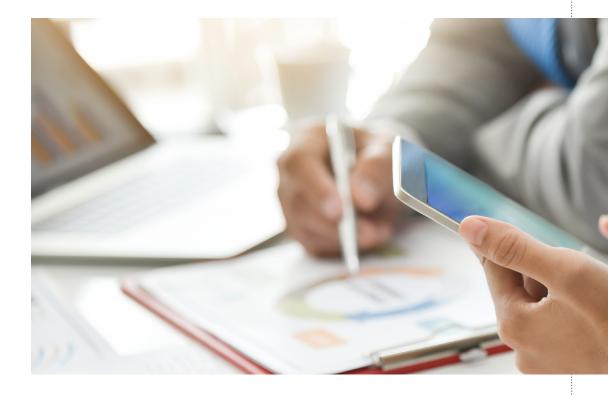
## STEP 6

## COMBINE AND SYNTHESIZE DATA

As core teams gather the quantitative and qualitative data, they must pull together the indicators into a cohesive structure for decisionmaking. An experienced researcher should take the lead on this component to extract actionable findings. There is no standard algorithm or "cookie-cutter" model that applies to all local circumstances, so metro areas can take different approaches to summarize, combine, and weight inputs. However, there are two main options to help organize the analysis: a matrix or a modular methodology.

#### OVERVIEW

- Matrix model for a numerical rating
- Modular approach for built-in flexibility



## Matrix model for a numerical rating

The matrix method evaluates foreign markets across all indicators, assigning quantitative values to rank them based on the specialization opportunity and broader market accessibility. Metro teams populate the indicators relevant to their specialization and goals examined in Steps 4 and 5 and combine them into two data matrices (see Table 13 and Table 14).

Download Excel spreadsheet

TABLE 13. Metro areas combine indicators from step 4 to assess the potential of foreign markets within their specialization

			4.1 FDI A	CTIVITY		4.2 T	RADE LINK	AGES	4.3 SPECIALIZATION		
	STEP 4 RANKING	Metro inbound FDI	Peer metro areas inbound FDI	Outbound FDI	FOE presence	State-level Exports	State-level Imports	Country Imports / Demand	Cluster initiative	Firm Concentration	Patent, skills, VC
		\$ value	\$ value	\$ value	Number	\$ value	\$ value	\$ value	Y/N	value	value
Location #1											
Location #2											
Location #											

Metro teams then use data collected in Step 5 to assess the accessibility of the foreign markets, factoring in the ease and cost of doing business with these markets. The accessibility assessment of foreign markets completes the sector-specific

global market analysis conducted in Step 4. Metro leaders add the accessibility filters by layering the additional indicators. The accessibility assessment could also be a standalone in the strategy of the metro area.

Download Excel spreadsheet

TABLE 14. Metro areas combine results of step 4 with indicators from step 5 to assess the ease and cost of market access

	5.1 MARKET ACCESSIBILITY								5.2 INSTITUTIONAL AND CULTURAL CONNECTIONS				
	RANKING	Potential within the specialization	Exchange Rate	Size / Growth	FTA / BIT	Doing Business	Business Travel Distance	Direct flight or Layovers	Political Priority	Connections / Relations	Student Exchanges	Foreign-born population	English Proficiency
	OVERALL RANKING	Step 4 Ranking	Volatility and Rate Change over time	Country GDP growth, growth forecast & Metro GDP	N/>	Rank	Distance	Number of direct routes	Rank	Rank	Value	Value	Score
Location #1													
Location #2													
Location #													

In both matrices, the indicators are weighted to fit the metro's particular strategy. An index score synthesizes performance in each category of indicators. The sum of the index score creates a rank for each location. Subjectivity remains in this model through assignment of those weights, but it provides a consistent, transparent, data-driven method.

Each metro area should weight indicators depending on their own priority choices. Certain inputs are more important than others given local strategic objectives, so the team must assign weights based on their relevance to the market prioritization goals. For instance, Milwaukee geared its strategy toward prioritizing locations with demand for its exports. Intuition and a local consensus for export priorities led Milwaukee to limit Step 4 to the analysis of imports value and growth from foreign markets only, and to heavily weight it in the overall assessment (see Table 15).

Inputs from key industry stakeholders also should inform weighting. For instance, Atlanta adjusted weightings and assigned subjective rankings (Political Priority, Connection/Relations Priority) based on business experience with its international team and supply chain ecosystem expert (see Table 16).

TABLE 15. Milwaukee weighted indicators based on market prioritization goals

	STEP 4: MARKET OPPORTUNITY	ST					
Milwaukee Power, Automation & Controls	Imports and Import Growth	Economic Size & Ease of doing Business	Distance	Political factors	Cultural Connectivity	Total Weight	
& Controls	70%	25%	0%	0%	5%	100%	

Source: Milwaukee 7

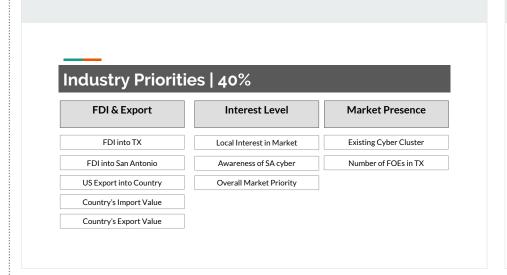
TABLE 16. Atlanta weighted indicators using business experience

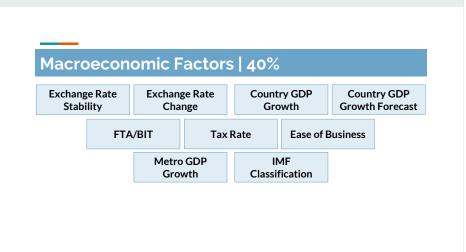
	STEP 4: MARKET OPPORTUNITY	STI				
<b>Atlanta</b> Digital Supply Chain	Potential for sector exchanges	Economic Size & Ease of doing Business	Distance	Political factors	Cultural Connectivity	Total Weight
Cham	50%	20%	10%	10%	10%	100%

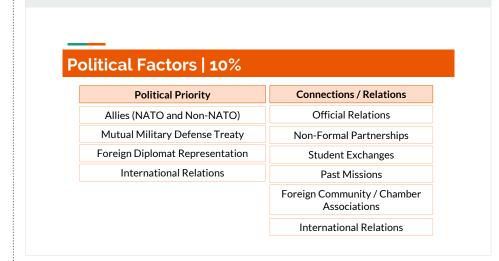
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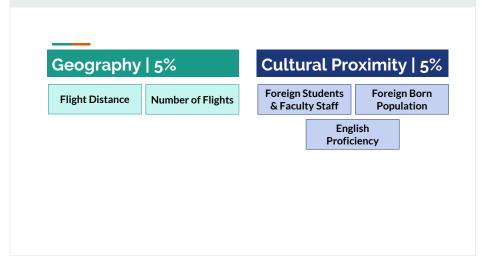
Source: Metro Atlanta Chamber

## FIGURE 7. San Antonio shared its weighting decisions with its local stakeholders









Source: City of San Antonio, Economic Development Department

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#### Modular approach for built-in flexibility

The modular model represents an approach that applies a rigorous evidence-based standard, but more explicitly acknowledges the challenge of reducing qualitative inputs to numbers. The model offers built-in flexibility, the ability to adapt to a variety of local-level priorities, and ease of use by practitioners without extensive data processing experience.

This approach works as a funnel, starting with a broad list of market candidates and eventually narrowing the list based on several layers of indicators. Each step in the process need not be viewed as existing in a fixed order. Instead, depending on existing metro-level knowledge, level of existing international connections, and resource constraints, almost any variation in the ordering of these steps is defensible. Metro areas customize the model with indicators and

a sequencing most relevant to their strategy. A metro focused on export promotion, for instance, would factor in the presence of a free trade agreement in the first layer to exclude at the outset foreign markets located in countries with no trade agreement with the United States.

For example, Louisville-Lexington followed a three-step sequence (see Figure 8).

The top two layers contained quantitative data assessing sector-specific potential. The first layer filtered those countries that have significant trading relationships within the specialization with the United States or peer states. From there, the Louisville-Lexington team only kept those countries that had significant trade and investment relationships with Kentucky.

The third layer considered the accessibility of the foreign markets that meet the baseline quantitative criteria. Remaining foreign markets were ranked based on ease of relationship building, relationships and connectivity.

FIGURE 8. Market prioritization modular model

Top countries for global investment and trade activity within specialization

Top countries with trade and investment exchanges with the home state

Accessibility and relationships with the metro

Prioritized markets

45

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#### DISSEMINATE INFORMATION LOCALLY

After selecting priority markets, metro leaders should disseminate the information locally and share the findings with the core audiences needed to gain support for implementation, including business and political leaders. Most pilot metros approached disseminating market prioritization findings as a continuing process to inform relevant audiences, rather than a single release.

This will look different in each metro area, but the primary distinction involves the extent of public release versus internal use.

Toronto leveraged its research as another opportunity to highlight the importance of international economic engagement, publishing a glossy report and featuring it in major public events to attract media attention, generate new business interest in exporting, and reaffirm support from regional mayors.

San Antonio presented the process and initial findings to local sectoral, economic development, and government stakeholders, including the San Antonio Chamber of Commerce's Cyber Council, two international groups, and the City Council's Economic & Workforce Development Committee (see Figure 9).

Wichita held a summit with the World Trade Council, involving business leaders, local government officials, regional experts, and students from Wichita State University.

Portland focused education and outreach on the economic development professionals and elected officials involved in creating and executing the region's global trade and investment plan.

Other regions like Louisville-Lexington decided not to broadly publicize the research, but instead targeted institutional decisionmakers involved in allocating funding resources and determining international interactions.

FIGURE 9. The core team from San Antonio presented the market prioritization findings to their stakeholders







Assignment #1 | it's true, SATX is the best

THE TASK

Define and demonstrate that industry specialization is a top prospect for future growth.

Cybersecurity - nationally distinct housing an emerging cluster of activity that came out of a strong and long-standing federal security /

Source: City of San Antonio, Economic Development Department

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intelligence sector



CONCLUSION

Market prioritization guides limited resources for global economic engagement through more informed and deliberate choices. It is a tool to achieve greater value and improve the effectiveness of trade, investment, and exchange priorities. It supports broader economic development goals such as higher quality job creation and productivity growth.

Global trade and investment will continue to be a driver of economic growth and opportunity in U.S. metro areas. This guide provides one approach to prioritizing market outreach for export promotion, investment attraction, and exchange of innovation and talent. It recaps a process that involved data analysis, firm interviews, and broader intelligence gathering in six steps through which metro leaders can justify a new approach to their international outreach activities.

While the time- and research-intensive nature of this process may not be achievable in every metro area, the questions that economic development leaders in the Global Cities Initiative have asked and answered are applicable to nearly every market that wants to take a global perspective on their economic development strategy.



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## **SAMPLE BUSINESS INTERVIEW FORM FOR MARKET PRIORITIZATION** (page 1 of 2)

COMPANY NAME:	CONTACT NAME AND TITLE : (Please attach business card to form)
Note: The information each company provides is confidential prioritization exercise, and no individual comments or data	al. The responses will be used as qualitative input for the market will be released without permission.
COMPANY &	INDUSTRY INFORMATION
Please provide a brief description of your company (roperations in this region).	regional employment, revenues, products, services, history,
Is your company headquartered in this region? If not,	is this company foreign-owned?
Please describe your product life cycle, from raw mat	erial to product to customer.
How would you characterize the current and prospec emerging, or mature?	tive status of your firm and industry – expanding, contracting,
Describe your primary customer profile(s). Who are y your best partner (e.g., distributor, retailer, etc.) to rea	our key suppliers and where are they located? Who is currently ach customers?
What are the three biggest challenges to your busine in this environment (e.g. upgrade technology, cut cos	ss right now? What will your firm need to do to stay competitive ts, etc.)?

### **COMPANY'S INTERNATIONAL BUSINESS ACTIVITIES**

Does your office/plant located in this region sell goods or services to a foreign-based company/person or to your subsidiary abroad?

To what markets (nations) do you sell goods and/or services abroad? What are your largest international markets (nations, and cities within those nations)?

## SAMPLE BUSINESS INTERVIEW FORM FOR MARKET PRIORITIZATION (page 2 of 2)

Why did you choose those markets? How and when did you initially enter those markets? How difficult or easy was the process of entering these international markets? How and when did you initially enter those markets? What international markets do you anticipate being the greatest opportunities in the next five to ten years? Do you buy goods and/or services (import) from foreign-based suppliers or subsidiaries as part of your supply chain? From what markets (nations) do you buy goods and/or services? Where are your largest international suppliers located? Why do you buy from them? Have you ever been approached by a foreign buyer seeking to acquire your company? If yes, where was that company located? LOCAL BUSINESS ECOSYSTEM How much of your supplier base is located in this region (e.g. within an hour drive)?

Are there suppliers or customers that you rely upon and are located outside of the region that you would prefer to have a local presence? Why?

What are the factors in this region's business environment that contribute most to your firm's success (e.g. local workforce, partnerships with universities/research institutions, infrastructure (airport, port, rail), tax and regulatory environment, supplier base?

If company is foreign-owned, what was it about this region that motivated your firms' decision to locate here? Did you consider other locations in the United States? What local assets mattered in that decision (e.g. available workforce, university, supplier base, airport/port/rail, tax and regulatory environment)?

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