Innovative Science Park Management: Alternative FDI strategies to support regional and national development



## Parallel Session 4

Theme: How STP's respond to global challenges

Author: Mary Spaeth, Transmera AB,

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## **Executive Summary**

Not only is foreign investment a less-than-perfect art, companies will sometimes flock to locations that may have become popularized via the media, business school case studies, or even by location consultants making investment recommendations. Strategic STP managers will look carefully at trends and trendy regions *as well as* those regions not commonly found on the investment radar in order to match the industries, talents, business climate, culture, and quality of life, among other criteria, to the extent that an investor sees the new location as the best place to expand from a business and financial growth perspective. This paper suggests further that a country can improve the optimization of the *nature and quality of its growth and wealth* through *strategic* FDI actions taken by science park managers.

## Introduction

In nations where economic systems are mature,<sup>1</sup> the cycles of economies linked to personal and commercial incomes, taxes, consumerism and expenditures are interdependent. Global economic interdependence is so complex today that economists have developed tools that attempt to provide information to policy makers who need to coordinate such activities as international trade, pricing, and direct investment, both outward and inward.<sup>2</sup> It is not easy to interpret and diagnose the inherent difficulties that may hinder or propel sustainable economic growth and wealth. It not even easy to agree on what growth and wealth actually mean, and even the best forecasters struggle to incorporate variables that will strengthen the viability of economic prognoses. Difficulties in diagnosis and interpretation often create the philosophical divisions that exacerbate differences of opinion among policy makers and politicians. Moreover, these difficulties serve to challenge even the best FDI promotion strategists.

In Sweden and in those countries where the state and its public representatives support a relatively large social welfare system<sup>3,4</sup>, it is less easy to isolate and to distinguish those state-supported activities which help to generate new commercial activity (growth and wealth) from other activities and initiatives which sustain the well-being of individuals and the community. This attempt to distinguish between forms of growth catalysts is often discussed in terms of exogenous and endogenous growth theory<sup>5</sup>. Both are important components and influences of the economy, but arguments often arise between policy makers regarding the degree to which these activities should be steered by governments rather than by a more capitalistically defined "market drive."

During this latest of global financial crises, we hear more cries than ever from the private sector for free markets, privatization, and laissez-faire economic policies. Fearing their financial security, however, ordinary citizens often welcome more government intervention during a crisis—assuming that elected officials will take a more protectionist position, in all senses of the word. While this paper will not go into the range of private or political motivations for these cries, it will assume, like that despite the interdependent nature of national and global economies, "the state will remain a central actor in economic and social development rather than become a residual authority under globalisation", and that "economic integration has both state-reinforcing and state-augmenting effects."<sup>6</sup> Weiss addresses issues of national economic vulnerabilities due in part to global economic interdependence. This paper suggests that some vulnerability can be mitigated through strategic FDI policy at the local and regional levels.

Depending upon the size of a market economy, Foreign Direct Investment (FDI) plays different roles. "Host countries with larger market size, faster economic growth and higher degree of economic development will provide more and better opportunities for these industries to exploit their ownership advantages and, therefore, will attract more market-oriented FDI."<sup>7</sup> In Sweden, where the nation's total population is less than 10 million, some 60% of its commercial industry must export the majority of its products and services and/or establish locations or distribution centers abroad in order to thrive. One could argue that because of the talent and diversity of the industries that make up the Swedish economy, this country might well compete in the global market and increase the country's GDP without a formalized, government-supported FDI strategy. FDI happens, whether formalized or not. Using the region of East Sweden as a context, this paper theorizes, however, that a country can improve the optimization of the *nature and quality of its growth and wealth* through *strategic* FDI actions taken by science park managers.

<sup>&</sup>lt;sup>1</sup> "Mature" in this context means an economic system that has developed over an extended period of time and relatively stable and productive, regardless of type of system. I use the term mature so as to avoid terms like developed/undeveloped or emerging which may not be relevant in this discussion.

<sup>&</sup>lt;sup>2</sup> Onishi, Akira (2004) "Futures of global interdependence (FUGI) global modelling system: Integrated global model for sustainable development" Centre for Global Modeling, FOST (Foundation for Fusion of Science and Technology): Japan. <sup>3</sup> Mishra, R (1999) *Globalization and the welfare state*, Cheltenham: Edward Elgar.

<sup>&</sup>lt;sup>4</sup> Esping Andersen, Göran (1990), The three worlds of welfare capitalism, Polity

<sup>&</sup>lt;sup>5</sup>Jones, Charles I. and Romer Paul M. (2009) *The New Kaldor Facts: Ideas, Institutions, Population, and Human Capital*, NBER Working Paper No. 15094 (June)

<sup>&</sup>lt;sup>6</sup> Weiss, Linda (2005) "The state-augmenting effects of globalisation", *New Political Economy*, Vol. 10, Issue 3, September 2005, pp. 345-353.

<sup>&</sup>lt;sup>7</sup> OECD (2000) "Main determinants and impacts of foreign direct investment on China's economy", Working *Papers on International Investment*, 2000/4. Directorate for Financial, Fiscal and Enterprise Affairs, OECD.

## Global Perspective–Local Background: The Host Country

In the last twenty years, and "as a result of the increasing globalization in the world economy, Sweden has experienced an upward shift in foreign ownership through mergers and acquisition (M&A) and Greenfield investments".<sup>8</sup> What Karpati and Poldahl discovered in their assessment of Swedish FDI during the 90s, however, was that sectors "characterized as research intensive do not significantly attract inward FDI" despite the fact that the country is one of the "most R&D intensive countries" in the OECD. In fact the OECD reported in 2006 that Sweden's "reliance on large multinational firms (foreign affiliates account for more than 40% of business R&D), combined with a low rate of new firm creation, may hamper Sweden's ability to seize new opportunities in emerging industries."<sup>9</sup> Karpati and Poldahl have explored this finding further with several colleagues in a 234 paged document that examined the effects of internationalization including export on productivity in Sweden.<sup>10</sup> While they conclude that productivity is higher among Swedish companies acquired by foreign investors as well as by Swedish companies with significant export, they provide little discussion about FDI strategy from the host country's perspective. Those who do discuss host country FDI advantages and disadvantages such as Baldwin and Winters (changes on export and import levels and impact to knowledge transfer<sup>11</sup>), and Herger et al (direct and indirect impacts of taxation in a host country),<sup>12</sup> Todo and Miyamoto<sup>13</sup> (impact on local firm R&D and labour productivity) as well as Blalock and Gertler<sup>14</sup> (positive impact of public support for host country FDI) are quick to point out the limits of what can be generalized about FDI impact, but they all agree that the positive outcomes support notions of inward direct investment efforts. Based on these assumptions, this paper explores ways of thinking about STP influences on FDI.

Linda Weiss reminds us that "under the banner of science and technology policy, on one hand, and export facilitation, on the other, governments across the OECD are interacting with the private sector in much more complex and proactive ways than was required under an earlier regime of tariff protection and industrial rescue" and she elaborates on many of what we might call the triple, quadruple, quintuple helixes that drive "venture-capital funding of high-tech start-ups, financing pre-commercial technologies and product development, transferring intellectual property from public agencies to the private sector, engaging in strategic screening of FDI, offering concessional finance and other sweeteners to assist home-country multinationals win foreign procurement contracts, and providing financial and infrastructural support for export promotion." <sup>15</sup>

Elements of regional and national foreign direct investment strategies can and should become the focus of attention on the local level. This means that a strategic view of formal FDI attraction for science and technology parks (STPs) should ideally begin with an assessment of the park's assets and its needs in the context of the region and nation to which it belongs. It must also take into consideration the existing state of commercial imports and exports. Moreover, the STP should view itself as a product that competes on the global market, but with a focus on the strengths of its own local market. Regional and national R&D may play a role in attraction. Mergers and acquisition may play a role in attraction. Incentive packages may lead to attraction. But if the local strategy is not keenly specific to the day-to-day activities and needs of the local research and business, then it is not strategic-only imitative of trends and theoretical models.

<sup>&</sup>lt;sup>8</sup> Karpati, Patrik and Poldahl, Andreas (2006) "The Determinants of FDI Flows Evidence from Swedish manufacturing and service sector". Stencil, p22. <sup>9</sup> OECD (2006) Science and Innovation Country Notes (retrieved 16 February 2011:

http://www.oecd.org/dataoecd/18/48/41559392.pdf)

<sup>&</sup>lt;sup>10</sup> Hansson, Pär , Karpaty, Patrik, Lindvert, Markus, Lundberg, Lars, Poldahl, Andreas and Yun, Lihong (2007) Svenskt näringsliv i en globaliserad värld: Effekter av internationaliseringen på produktivitet och sysselsättning, ITPS, Institutet för tillväxtpolitiska studier.

Baldwin, Robert E. and L. Alan Winters (eds.) Challenges to Globalization. Chicago: University of Chicago Press, 2004. <sup>12</sup> Herger, Nils, Kotsogiannis, Christos, and McCorriston, Steve (2010) Taxation and FDI Strategies: Evidence from US Crossborder Acquisitions. ETSG 2010 12<sup>th</sup> Annual Conference, 9-10 September. Lausanne, Switzerland.

Todo, Yasuyuki, and Koji Miyamoto (2002) "Knowledge Diffusion from Multinational Enterprises: The Role of Domestic and

Foreign Knowledge-Enhancing Activities". OECD Technical Paper 196. Paris: OECD Development Centre. <sup>14</sup> Blalock, Garrick and Gertler, Paul J. (2005) "Foreign Direct Investment and Externalities: The Case for Public Intervention"

in Does Foreign Direct Investment Promote Development? Eds. Moran, Theodore H., Graham, Edward M. And Blomström, Magnus. Peterson Institute. (All chapters visible via: http://bookstore.piie.com/book-store//3810.html )

<sup>&</sup>lt;sup>15</sup> Weiss, Linda (2005) The State-Augmenting effects of globalization. New Political Economy Vol 10, Issue 3. September 2005: 345 - 353 Retrieved: http://www.informaworld.com/smpp/title~content=g723605139~db=all

The World Bank, over 10 years ago, described four principal components for FDI promotion:

- Strategy and organization
- Lead generation
- Facilitation
- Investment services

How these components are understood, prioritized and addressed varies from country to country and region to region, often making it difficult for countries to establish the kind of efficient organizations that it might like to effectively promote and attract FDI. Moreover, because the last three, lead generation, facilitation and services are the easiest to produce, the discussion, implementation and even measurement of strategy becomes, by default, de-prioritized. Consequently, the FDI program is weakened or lacks its own unique characteristics due to the lack of a strategy. In some countries, STPs and their role as investment promoters are seen as a natural part of a national FDI strategy. Such a strategy offers tremendous opportunities for regional growth, if the strategy is as much bottom up as top down. STP management can work strategically to ensure that regional needs are met as they work to support national initiatives while meeting local interests, particularly in economic downturns.

In 1999 the United Nations Conference on Trade and Development (UNCTAD) defined a framework for enabling FDI.<sup>16</sup> UNCTAD understood that strategic planning should not be underestimated, and that strategy had to be directly related to the macroeconomics of a country.

The UNCTAD framework includes important macroeconomic recommendations for those determining national policy that will impact regional and local levels. It should not come as a surprise then that the more economically and politically stable a country is, the more attractive it will be to investors, but UNCTAD also names liberal trade and payments and tax regimes which must be in place in order for a nation to compete globally for business attraction. Moreover, if a location designated for attracting a business is not adequately prepared infrastructurally speaking—including facilities, utilities, regulatory issues, workforce, transportation, housing, and schools then a transnational company (TNC) will not consider the location. It is seldom enough for a region to claim quality of life and good education as the basis for FDI attraction. And from the perspective of the investing company it is seldom good, better, or best practice to follow the practice of one's competitors, unless one has chosen to do so intentionally and strategically.<sup>17</sup>

In short, strategy must be prioritized and re-visited at all times. There is nothing static about economies. So, one of the first steps to FDI strategizing is to asses the local and regional climate in terms of its political, economic, social/cultural and technological influences—or PEST. Organizations have long utilized PEST analyses to asses these influences on their operations and marketing strategies. PESTEL, which takes into consideration Environmental and Legal factors as well is a useful way for investment promotion agencies, like STPs, to understand and assess the macro-environments in which they are operating.

When we talk about success factors for FDI and the tools used to assess opportunity and to develop strategy, the outcome of these assessments will be only as good as the input and analysis of the data. Likewise, the strategic actions taken on the basis of potentially irrelevant or superficial outcomes will likely lead to irrelevant results or, at best, results that may be imitative or trendy, rather than unique and trend-setting.

The paper will begin by reviewing a few FDI concepts. Then, using the East Sweden region as a frame of reference, the paper will offer strategic FDI alternatives as a means to 1) increase the potential of R&D to attract inward investment, 2) improve the likelihood of FDI in the form of foreign subsidiary formation, 3) decrease brain-drain and diminished manufacturing 4) improve demand for local knowledge and 5) provide a buffer to economic vulnerabilities influenced by globalization.

<sup>&</sup>lt;sup>16</sup> United Nations Conference on Trade and Development (UNCTAD) (1999). *World Investment Report 1999: Foreign Direct Investment and the Challenge of Development* (New York and Geneva: United Nations), United Nations publication, Sales No. E.99.II.D.3.

<sup>&</sup>lt;sup>17</sup> All of this said, anecdotal research might suggest that location decisions can also be emotionally and serendipitously provoked. A good FDI strategy should not ignore the possibility or opportunity to actively attract a company on the basis of "softer" criteria.

Foreign direct investment (FDI) is, among other things, the money invested in a country by someone from outside the country. It happens all of the time, around the world—often all by itself without any direct help from governments, investment promotion agencies, consultants, tourist agencies, or marketing firms. As long as borders are open, regardless of marketing or sales, the eager explorer, tourist, salesman, entrepreneur, or refugee who wants to create his or her own possibilities for wealth, will wander in.

Inward FDI can come in many forms: venture capital invested in the home country company by an outside investor or investors; a merger with a foreign company with a home company; an acquisition of a home company by a foreign company; an acquisition of a foreign company by the home company; a formation of a local subsidiary of a foreign company; the establishment of a franchise in the home country by an external franchiser; and even the establishment of an entirely new company in the home country with money and resources brought from outside the country.

Market drive is a wonderful and serendipitous phenomenon.<sup>18</sup> Often impacted by uncontrollable or unpredictable forces, a community's economy ebbs and flows and those who wish to assure the well being of the community are often frustrated by their lack of power or influence to exact change in the way they might like. Economics professors Graham Elliott and Allen Timmermann remind us that no matter how rigorously we may strive for accuracy in predicting the future, economic "forecasting models are best viewed as greatly simplified approximations of a far more complicated reality and need not reflect causal relations between economic variables."<sup>19</sup> And even while community leaders attempt to create a strategy for positive economic development, there will always be those who fear that external investment may threaten domestic industries and there will be those who see FDI as critical to new growth and jobs. As with any strategy, both views are important to consider. More often than not, the intersection of the two positions may actually reveal an ideal strategy. This is particularly true when it comes to regional cluster strategies where the attraction of many companies in or related to a particular industry is necessary in order to build critical mass along as much of the industry's value chain as possible and/or relevant for the region or country.

When FDI is formalized, local/regional governments often look at their own economic strengths and weaknesses in order to determine why they want to enable FDI.<sup>20</sup> Investment on the part of companies is generally motivated by what Dunning calls asset exploitation, which includes R&D activities, sales promotion, and production.<sup>21</sup> Companies also look to new locations outside of their countries or regions to acquire other companies or assets—human or technological and to establish new "home" markets as opposed to relying on exports from their original base. Proactive attraction of these foreign investors is the remit not only of national investment promotion agencies, but of regional agencies which include science and technology parks. STPs are interested in improving the quality and breadth of the existing client base, providing jobs to graduates from the university, and increasing the opportunity for park businesses to partner with foreign firms and improve their chances to export products. Strategic inward investment planning and action can help an STP achieve these objectives and also help to insulate the region in which it is based from the unpredictable flux of the global economies beyond their control but which can have serious impact on the health of an STP.

A strategic view of formal/subsidized FDI attraction in a region must assess not only its assets, but also its needs in the context of existing commercial import and export. The region, and indeed the science park, is a product that also competes on a global market, but within the practical restraints of its financial resources. This means that in a globalised market, an STP should develop a global FDI strategy that allows it to compete successfully without duplicating the efforts of other promotion agencies or straining its budget. Within the context of selected industries, the STP should weigh the advantages and disadvantages of specific target companies as well as the country from which it comes (the home country). In other words, if it costs more to attract business from one country than from another, the strategy should evaluate those total costs against the benefits of potential and real returns before developing an action plan to attract business from any country.

<sup>20</sup> The word "enable" means to support the facilitation of something. It is an important verb in the context of FDI.

<sup>&</sup>lt;sup>18</sup> "Serendipitous phenomenon" means something that happens almost by accident. All of the economists in the world cannot guarantee what will happen six months from now in the world's economy, and while economic predictions may provide clues to FDI decision makers and promoters, they will never guarantee outcomes.

<sup>&</sup>lt;sup>19</sup> Graham, Elliott and Timmermann, Allan (2008), "Economic Forecasting". Journal of Economic Literature 46(1): 3-56.

<sup>&</sup>lt;sup>21</sup> Dunning, J (1993). Regions, Globalization, and the Knowledge-Based Economy. Oxford

University Press.

An STP should **assess all of the tactics in practice** <sup>22</sup> or available for successful and sustainable economic development, and

- attempt to determine their costs and benefits-both short and long term,
- compare them to each other,
- reduce redundancies,
- increase cooperation where relevant, and
- prioritize the tactics (actions).

In this next section we will look more closely at the East Sweden region and some of its resources as a means to understand local and regional opportunities for strategic FDI promotion by STPs.

## East Sweden (Östergötland)

East Sweden is one of Sweden's largest regions both in size and population. It has over 400,000 people. Of the 13 municipalities that make up the region, two of them, Linköping (founded in and Norrköping (founded in 1384) lie within just 40 km of each other and together they make up the fourth largest population base in Sweden behind Stockholm, Malmö, and Göteborg.<sup>23</sup>

East Sweden hugs a long portion of the eastern coast of Sweden. Norrköping serves the Baltic Sea with a commercial shipping harbor—especially designed for heavy weight containers and sensitive electronic goods. Linköping hosts four of Sweden's national research centers as well as Saab aerospace. The northern reaches of Östergötland extend west along the Göta Canal and Motala river. Extensive pine forests and craggy land lie to the north and farther to the south of the fertile valleys formed by these waterways. The region is known not only for centuries of farming, but of forestry and steel production as well. Of nearly 24000 foreign establishments across Sweden, East Sweden has nearly 1000 of these, employing nearly 30000 people.<sup>24</sup>

Within this region are two science parks, Norrköping Science Park (NOSP) in Norrköping and Mjärdevi Science Park (MSP) in Linköping.

Readers of this paper have likely heard about or read many descriptions of regions and science parks. At the end of the day, many of the descriptions begin to sound all too familiar. So once one has provided some of the key features of a region and placed it within its geographic bounds, it's time to go beyond the usual concentric circles, and clichés of knowledge cities, universities, institutes, airports and infrastructure and find the same unique selling points that we all demand from the companies in our STPs and incubators.

Population and statistics will not dictate the success or failure of regional economic success. Certainly a critical mass of activity and people are required to invent, develop and produce products and services, but when we compare the country of Sweden to other much larger countries in the world, it would be impossible to say that Sweden's population is the contributor to its success. FDI strategists (this could be the STP manager), needs to consider and question what critical mass actually means in the context of his or her region.

Both NOSP and MSP over their histories of 10 and 27 years respectively, have learned to describe their offers in more exacting terms. Today, NOSP is electronic printing, interactive services, and visualization. In its beginning, whilst it was clear that these areas of focus were important, the municipality was keenly interested in generating a successful incubator environment that would lead to new local companies as a means to stimulate a community that had suffered huge losses to both textile industries in the 50s and 60s followed by the closure of Ericsson's printed circuit board facilities there in the 90s. The NOSP incubator in its early years attracted software designers much like many incubators around the world, but thanks to market timing and the influence of companies and institutions like Saab Aerospace, Holmen Paper, NVIS, Acreo, and Linköping University, the profile of these companies and the science park is much more than just a market dream. And just a short drive to the west, Mjärdevi Science Park describes its profile today as mobile broadband, automotive safety, imaging and communication. Mjärdevi also includes Software and Systems Development, Sensor Technology, Cleantech and Life Science. One could argue that the size,

<sup>&</sup>lt;sup>22</sup> To "assess" suggests that an inventory be made, not necessarily an in-depth evaluation. Too much emphasis on assessment and evaluation can lead to less productivity, sales, and attraction. Evaluations can come after and can be done inexpensively through student research.

<sup>&</sup>lt;sup>23</sup> As of 2010: Stockholm MSA - 2million; Göteborg MSA - 928,000; Malmö MSA - 654,000; Uppsala - 198,000

<sup>&</sup>lt;sup>24</sup> Source: http://statistikportalen.tillvaxtanalys.se/

diversity and breadth of activity at MSP has enabled it to ride through economic crises. Parks focussed too narrowly on particular research or business activities risk extinction if the industries they support or are trying to develop are negatively impacted in the market place.

In describing the benefits of the Medeon Science Park in Malmö, Sweden (4 hours away from Linköping and Norrköping on Sweden's West coast), CEO Bengt Lövdén understands that the region he must consider incorporates not only Sweden, but in some manner, Denmark as well.<sup>25</sup> In promoting the advantages of Medeon Science Park, he points out that he must always be aware of the strategic advantages and disadvantages of the greater municipality of Malmö, of Lund and even Helsingborg to the north of the region and of Copenhagen over the bridge to the west. For him "breadth of activity" means geographical breadth and all of the skill sets, including the technologies relevant to Mjärdevi and Norrköping perhaps, but all under the banner of life science. It is "Medeon" after all. So, besides communicating an openness to specializations outside or contingent to the life sciences, Lövden and managers of STPs with narrow specializations and/or border proximity have additional strategic challenges to face in attracting FDI.

In Linköping, the region shares very different kinds of borders from Malmö. The CEO of Mjärdevi Science Park, Sten Gunnar Johansson, has over 25 years of experience in attracting and serving companies. He knows that complacency should never be a part of the STP vocabulary. With regard to strategy, he says "Working with FDI is a very long process. You need to be patient and focused. You may not be able to see any results before 3-5 years. After that you can actually discuss if the strategy was the right one or not."26 STP managers with years of experience in the science park industry often have a keen sense of what works strategically and they know that it takes a long time to secure companies that have been strategically selected for attraction. Many STP managers, sometimes due to scant resources, lack of experience, and perhaps an unreasonable demand from shareholders, are unable to meet their own or their master plan objectives. They are expected to serve as the regional welcome mat for visitors, guests, dignitaries, politicians, and to passively receive potential investors that may have been generated by other local agencies with strategies that may or may not match that of the STP. "The best way is probably to generate the leads yourself" says Johansson. "Choose the technology/competence area you like to strengthen. Pick 5-10 companies. Give them your best during 2-3 years."<sup>27</sup> But how does one pick? Are there strategies that can hasten the process and increase the rate of return?

In their seminal work, Marketing Places, written almost twenty years ago, Kotler, Haider and Rein, remind investment promoters and place marketers that economic development groups in a community may struggle to meet their various objectives due to conflicting interests, political elections, and competing or non-existent budgets unlike companies which generally have "a clear line of authority and hierarchy, as well as a balance sheet and a profit-and-loss statement to measure yearly progress".<sup>28</sup> "Strategic market planning is highly unlikely to succeed," they write, "where institutional arrangements fail to reconcile conflict, and leadership is unable to emerge."<sup>29</sup>

Linköping and Norrköping have experienced periods of rivalry, conflict, and cooperation. With the successful expansion of Linköping University campuses in the region, a beautifully rejuvenated industrial area in Norrköping, and excellent transportation connections within as well as to and from the region, and ample diversity in sports, culture, housing, logistics, and industry, the two cities have found it easier to cooperate than to compete. What many "twin" cities can learn from their example is that "the capacity of a place to compete changes over time. At one moment a place may be thriving, dynamic, well positioned for growth and further development, and at the next moment, losing jobs, businesses, and people. Size and location alone no longer guarantee economic vitality"<sup>30</sup> and survival requires not only strategy, but strategic cooperation among regional municipalities.

<sup>&</sup>lt;sup>25</sup> Lövden, Bengt. Telephone interview. January 2011.

<sup>&</sup>lt;sup>26</sup> Johansson, Sten-Gunnar. Telephone interview. January 2011.

<sup>&</sup>lt;sup>27</sup> Ibid.

<sup>&</sup>lt;sup>28</sup> Kotler, Philip, Haider, Donald H. And Rein, Irving (1993) Marketing Places: Attracting Investment, Industry, and Tourism to Cities, States and Nations. New York: The Free Press p. 80.

<sup>29</sup> Ibid. <sup>30</sup> Kotler et al. p. 230.

## Strategy: What does it really mean?

"Do not repeat the tactics which have gained you one victory, but let your methods be regulated by the infinite variety of circumstances." - Sun Tzu, 500 B.C.

Strategy requires strategic thinking. A strategic thinker is one who wants to understand all of the components of an argument or situation and who wants to construct a paradigm by which he will not only be able to arrive at a conclusion but will win something. Sun Tzu describes the use of tactics in the context of war. When he asserts that a victory cannot be gained by repeating tactics, he is also saying that in the context of war, the way to choose and use tactics must not be static.

Today, business and sports managers talk metaphorically about their "strategies" in the context of war. Practicing what 16<sup>th</sup> century political philosopher Machiavelli refers to in *The Art of War* as the *grand strategy*, these managers are seeking ways to win and to win better—perhaps more cunningly, perhaps more diplomatically. This *grand strategy* is what FDI attraction is all about. A *diplomatic coup* is my own political preference to winning. One doesn't need to be cunning as much as simply clever.

The "product" sold by an STP is not as easily defined as many products sold by companies. And the competition is equally as difficult to define and compare. If Mjärdevi Science Park were to consider every other technology-based park in Europe as a competitor, for example, then it would have over 162 European competitors and more than 170 research and technology parks in the United States. Clearly, and fortunately, all of these STPs are selling different products, even if their objectives to attract similar businesses are alike. How a region differentiates itself from other regions and how it aligns its internal economic interests with its external FDI objectives is a critical part of its competitive strategy. East Sweden has multiple products, multiple audiences, and multiple objectives, all of which must be addressed within an FDI attraction strategy. These regional assets are an important part of STP development strategy and will reflect an important trend for science park planning and development. Director General of IASP, Luis Sanz said 'Science parks must strive to become 'gravitational' centres with a wide range of services and activities whose impact goes beyond their own physical boundaries'.<sup>31</sup>

Let's assume that your STP would like to attract foreign direct investment (FDI). And let's assume you would like to attract FDI formally and pro-actively as opposed to allowing the market to drive the region's economy. How should the strategic process look?

#### Who has a role in FDI?

When UNCTAD made its recommendations for the enabling framework for attracting FDI, they emphasized "strategy and organisation" first and foremost. This means also that strategy dictates organization—organization of the agency, its staff, and the processes they ultimately define, and redefine, to achieve their objectives.

#### So who should create a strategy?

An STP has several options when it sets out to develop its FDI strategy. It might seek out all individuals in the community who have any interest in devising an FDI strategy and who want to create the FDI "business plan", or hire a professional FDI consultant with a significant track record to assess the region and write a plan, or create a small group (6-8) of individuals with FDI experience to write a plan and recommend an organizational team. Often those who are working with international contacts and interests also have FDI interests. These individuals have something to contribute to the strategic thinking.

Regardless of how the plan is put together, the establishment of a formal organization should be discussed last. The strategy itself should dictate the form, financing, and placement of the organization—not the reverse.

<sup>&</sup>lt;sup>31</sup> Source: http://annualreport09.sciondtu.dk/da-dk/forside/business-opportunities/the-way-forward-2010-our-partners/luis-sanz,-director-general,-iasp.aspx

## Profiling an STP-profiling a region

In order for most national investment agencies to create a focused and simplified strategy that encompasses the breadth and diversity of the nation's industry, they seek to profile their country's regions according to a handful of strengths. The danger inherent in such a process, however, is that every nation's portfolio looks very much like another. IT, Telecom, Biotechnology, and Nanotechnology have dominated the world's high tech location trend for nearly 20 years, partially due to global industry trends, but also due to "copy-cat" marketing and/or consulting.

But what about the regional portfolio? How does it really look? And how should an STP take advantage of the portfolio? It is *not* the role of the national IPAs in any country to develop the detailed profiles and strategies that will attract businesses that can serve to support the region's own objectives for growth, job enhancement, education and cluster development. The STP plays an important role to work on the micro-level seeking out unique opportunities that will lead to genuine market niche advantage. And the better a local investment strategy is, the better the national strategy will be.

## East Sweden: Thirteen municipalities. More than thirteen profiles.

As with many regions, East Sweden has a few large cities and many smaller towns and villages. The region's twin cities of Linköping and Norrköping are important drivers for both inward and outward investment for reasons that are not difficult to comprehend, even for the smaller communities in the region. Still, all thirteen municipalities as well as several communities that lie beyond the borders of this region, have important contributions to make to the attractiveness, diversity, and salability of East Sweden.

When an STP decides to devise or revise its FDI strategy, it should consider ways in which to interact with those communities that might not ordinarily be on the local radar screen.

Each municipality has industry and trade officers or the equivalent. Many of them work in rather isolated areas, focused on what makes sense for their small community. Sometimes a smaller community may be home to significant industry however, which, when linked to the regional FDI strategy can suddenly change the economic scenery. In East Sweden, one can find manufacturing related to plastics, steel, aluminum, biogas, biodiesel, lumber, dairy production, automobile and airplane assembly. So while the local STPs have current competences that are significant, the potential for targeted FDI strategy that increases the STP USP is great.

The East Sweden region has many profile areas. Below is a simple matrix that demonstrates the possibilities for an STP strategy that considers regional contexts that can easily and innocently be forgotten. This matrix is by no means complete. The "X" in the matrix below suggests that a municipality has some strength in the industry listed. There is nothing that should prohibit all of the municipalities from sharing interest or strength in any of the listed industries. Intraregional competition can be healthy, but not in this instance. Ideally, however, only one or two municipalities should have the responsibility for information and data about the industry– companies, labor force, activities, global competition, viable locations etc. In order to demonstrate how this might look on paper, I have indicated suggestions for certain municipalities to lead the region's FDI questions for each industry with a bold "X". Matrices such as these are useful for many regional actors interested in understanding the regions microeconomy as the basis of strategic economic planning and policy.

## Municipal profiles

(a sample of sector possibilities)-East Sweden

The bold "X" is an arbitrary assignment for the purpose of illustrating the possibilities of distributing responsibility for industry expertise and action.

	Logistics Transport Call Centers		IT and electronics	Automotive	Steel	Aluminium		Agriculture Foods/ Meats	Forestry	Design	Equestrian	Entertain- ment/ Sports	Education	Pilgrimage	Paper/Pulp Packaging	Renewable energy/ Biogas/ Utilities
Municipality																
Boxholm	x		x		X			x								
Finspång	Х	Х	Х	Х	Х	Х										
Kinda									Х							
Linköping	Х	Х	Х				Х				Х	Х	Х			Х
Mjölby	Х	Х	Х	Х							Х					
Motala	Х	Х	Х				Х				Х	Х				
Norrköping	Х	Х	X					Х			Х	X	Х		Х	
	Х			Х		Х								Х		
	Х							Х				Х	Х	x		
Valdemarsvik				ľ					Х	Х			Х	T	1	
Ydre									X				Х		T	
	Х							X						Х		
Åtvidaberg		Х	Х					X	Х		Х	X				

By highlighting the more unique characteristics that define smaller communities in a region, it becomes possible to identify strategic opportunities. We often talk about the benefits of meeting places where ideas can foment innovation. What better opportunity is there than to conceptualize a blending of the kind of diversity shown above? In a regional-wide meeting, leaders and citizens will come together and likely discuss and even argue the contents of such a matrix. What does "design" mean? Why is Valdemarsvik the only community to have design? Does Pilgrimage have anything to do with a Science Park? Can those in the equestrian sector provide opportunity for those in automotive? Is the grade school curriculum in Ydre important for the region? Is manufacturing returning to "developed" nations and is there opportunity for re-opening or sustaining existing facilities? Can the watchmaking education and industry in Motala lead to an expanded micro-electronics branch? Are there opportunities in healthcare for medical tourism, hospice programs, expanded clinical trials centers? These are the kinds of questions that lead to strategic planning.

#### Partners and Resources

With committed municipal partners in place who are ready for strategy and action, there are only two things left to do: strategize and execute the plans (*to sell*) and sell (*to secure the companies*).

It is not simple to attract companies to a location. It takes as long as 5 years of rigorous work to attract a handful of companies that are strategically suited to an STP and the regional economy. However, the process, once established and tested, will lead to greater opportunities for success than what many regions experience through what is often described as "shot gun" marketing. With FDI sales and attraction, one must go beyond profiles and marketing plans. A region and its municipal marketers must be prepared to seek out and meet companies that have shown an interest in the region and who express *their* unsolicited interest. *Moreover*, the region must actively gather relevant data and opportunities to send as unsolicited/unrequested proposals to companies that have been identified by the municipalities and in particular STPs as potential investors in the region. With broad cooperative strategies, an STP should be able to see the potential benefit of a company that locates 10 km away from the park if such an FDI leads to the longer term success of the park itself. Strategy means thinking out of the proverbial box and it means working proactively.

#### Proactive selling of a region is strategic

It is of course possible for regions to establish visitor centers that can welcome corporate guests as a part of a reactive plan. This means that offices of industry and trade prepare marketing materials, distribute them, and wait for the occasional call from an interested investor or from the national investment agency.

But if an STP wishes to attract business in a way that positively impacts regional growth and development objectives, then it *should* consider the possibility of proactive selling. Norrköping Science Park has carefully targeted three competence areas that distinguishes the science park offer based on extremely high levels of competence—regionally, nationally and globally. Electronic printing is especially unique, and thanks to the influences of Saab Aerospace, a long history of data and computer technology in the region, the science park in Norrköping is home to companies and research and development in the interactive and visualization space. Expertise stemming from these industries in addition to other factors has generated a sophisticated interactive gaming sector.

Norrköping and Linköping both host a business incubator called LEAD. A maturation in the electronic/interactive gaming sector in East Sweden has led to the development of a quickly maturing cluster and the opportunity for building an attraction portfolio. Leadership in the Science Park-based incubators have:

- 1. taken responsibility for describing the strengths of the industry in the region,
- 2. assessed the industry trends<sup>32</sup>, and
- 3. determined which countries in the world excel in the industry and which of these countries has companies that have a potentially (or existing) strategic link to Sweden and the region.

Today, the incubators have joined with six other incubators in Sweden to leverage their strengths in such a way that the probability for inward investment to the country and its respective STPs is greatly increased.<sup>33</sup> This network in cooperation with STP leadership, is now better equipped to produce a list of interactive gaming companies from select countries<sup>34</sup> and assess which of those companies might be most likely to establish an office, joint partnership, research institute, or some other form of investment in the region. These decisions must be made strategically through cost benefits analyses the reflect not only the advantages for the company's direct investment but also the benefits and risks for the region and for the municipality. Some business attractions can be no better than a Trojan horse. Today, the majority of inward investments to Sweden have been merger and acquisitions with Swedish companies. Regional actors, especially STP managers, can help to

<sup>&</sup>lt;sup>32</sup> Using industry reports, journals, databases, and local expertise from companies and LiU.

<sup>&</sup>lt;sup>33</sup> See: http://www.gameincubator.se The Game Incubator Network includes: Blekinge Business Incubator in Karlskrona; Gamecubator in Falun; Minc in Malmö; Innovatum in Trollhättan; Uminova Innovation in Umeå; LEAD in Linköping and Norrköping; Science Park Gotland in Visby

<sup>&</sup>lt;sup>34</sup> Many lists exist: One popular company search website for artists in the gaming industry is the Scratchpost. Here one can find more than 50 companies in the US, Canada and Australia including contact name and telephone: http://www.thescratchpost.com/resources/games/games\_a.shtml

manage the kinds of FDI transactions in ways that benefit the park, its own companies, and the region while still serving the interests of the investing company.

#### What kinds of FDI questions must a strategic STP manager ask?

Whether an STP is working to develop their profiles, their strategies, their action plans, or their lists of target companies, they must ask many questions. As the STP manager and the STP marketing team zero in on specific industries that are strategically relevant, the questions will need to reflect the industry as well. Below is a partial list of considerations should be reflected in an offer made to a prospect company. Let's continue with the interactive industries theme.

#### Sample questions used to identify prospective inward investment:

- 1. What is the strength of the interactive/electronic gaming industry in my STP/municipality?
- 2. What is the strength of the industry in the region?
- 3. What is the potential of the industry in the country? (and beyond)
- 4. What kind of supply chain supports the industry in the park/municipality/region? Are there gaps?
- 5. What kinds of companies would support this industry's cluster/supply chain? Fill the gaps?
- 6. What kinds of companies provide collaboration? Evaluate.
- 7. What kinds of companies induce competition? Evaluate.
- 8. Where are the companies located? What countries?
- 9. Who are they?
- 10. What do they do? Product? Revenues? Size?
- 11. Are they located in more than one place?
- 12. Do they have an international strategy? Should they have?

Perhaps, the STP has now identified seven of 50 companies whose profiles seem to match the park's and the regional strategic objectives. These companies are perhaps located in Los Angeles, Boston, Toronto, Taiwan, Dublin, Copenhagen, and Australia. How does one prioritize the attraction process? Here one can rely on check lists that reflect standard site search criteria, but every strategic discussion should consciously strive to move beyond "standard".

- 13. Why should the company locate on this continent, this country, this region, this science park, or this incubator? Beyond: Would this company be better served in another STP in the country?
- 14. What can the STP, or incubator, offer "Company X"? Beyond: Familiarize yourself with the company's growth objectives and be prepared to meet them with more than they think they need.
- 15. Is the labor force sufficient for the needs of the company? Beyond: Generate concrete lists of potential labor that might be available outside of the region but which can be mobilized/moved.
- 16. What services will the company need? What type of establishment? Location? Utilities? Costs for equipment? "Special" offers?<sup>35</sup> Beyond: In addition to university laboratory or equipment availability, what facilities and resources are available throughout the region? (mills, factories, forges, farms, distilleries, power stations, schools, vacated premises)
- 17. If the company must send in a management team, what will the ex-pats need for visas, legal and financial services, housing, language services, schooling? Beyond: Think full-service.

No one likes a nay-sayer, but throughout a strategic process, it is always useful to task individuals who have the role to challenge proposals—not with the objective to destroy them, but to improve them and the likelihood of preparing the best possible offer to a prospective inward investor. He or she should demand the best answers for these questions:

- 18. Is there a difference in cost to the municipality to attract these different companies? (Cost benefit analysis)
- 19. What are the differences in national cultures, language, education, business laws, taxes, climate (business and weather), etc.? How easily will the company acclimate itself to the municipality and will this affect its growth potential and retainability?
- 20. Which company is likely to bring the highest return to the region over the short and long term?

<sup>&</sup>lt;sup>35</sup> FDI and location professionals have argued for years over the advantages and disadvantages of various forms of incentive packages offered to attract companies. As with any strategy, creativity is key. And "incentive" means many things. It is also possible to barter certain services where the municipality gets something from the company other than financial remuneration in return for some form "incentive". Every solicitation is different.

These are just some of the questions that an STP might consider as it identifies companies that have the best chance of responding positively to a location offer. Once an STP has chosen its target companies, it must prepare an offer.

#### Strategy is action: Soliciting investment

Regional policy is important for enabling inward foreign direct investment and that ultimately impacts and defines national strategies. The synergies between national and regional policy are inseparable however and equally important.

In his work describing FDI frameworks, Henry Loewendahl writes that "While TNCs (transnational companies) usually long-list countries rather than regions, it is at the sub-national level that TNCs draw up a short list of investment locations for in-depth evaluation and the policies and facilitation of regional agencies often play a critical role in determining who wins a mobile investment project."<sup>36</sup>

At this point in the receiving process, a region has the opportunity to be one step ahead of the TNC. In fact, the decision-making process by TNC's to locate in any particular place in the world is often subjective and biased.<sup>37</sup>

It is often a bureaucratic process, which may be affected by imperfect competition, distorted risk perceptions and political rivalry between affiliates of TNCs. The implication, as the International Finance Corporation (IFC) argues, is that: "Most companies consider only a small range of potential investment locations. Many other countries are not even on their map" (IFC, 1997, p. 49).<sup>38</sup>

Depending upon the type and size of the target company and the objectives of the municipality in attracting the company, an attraction proposal/offer will vary considerably.

For instance, the attraction of a semi-conductor plant to East Sweden would require 6-12 months of evaluation and research and the resulting offer would likely be 100+ pages in length—covering everything from geologic sensitivity studies, to water supply, waste disposal, adequate land, construction costs and timing including permits, roads, access, easement rights, and more. This is not an impossible consideration, since the region is actually more geographically stable than many locations like Japan, Taiwan and the US West coast where wafer fabrication first evolved, but today, a company like Nanotech Silicon India is able to set up its \$600 million plant outside Hyderabad where it was given 30 years of free land, 10,000 gallons of water daily, and all of the electricity it needs to generate 30,000 8-inch wafers per month.<sup>39</sup>

The attraction of a 10-100 person electronic gaming firm requires less site selection savvy, but much greater understanding of the persona of the interactive gaming industry where the location has to be functional and "cool." Here the industry leadership is young, somewhat spontaneous, eager to compete and succeed and also susceptible to location trends. To attract an interactive gaming company from Australia that is already considering opening an office in Europe, Norrköping has to consider what makes Norrköping more attractive than Dublin, London, Berlin, or Amsterdam. In the end however, what is most important to all high-tech companies is the same. According to *Area Development* magazine, they want "to locate in cities that have highly ranked universities, institutes, or research centres with expertise in their industries. Universities can assist companies through research partnerships, sharing laboratory space and equipment, providing below-market-cost incubator space, and facilitating tech transfer and commercialization."<sup>40</sup> Unfortunately for East Sweden STPs and many other STPs around the world, the same magazine article names China, Hungary, Poland, Romania, Costa Rica, Czech Republic, Estonia, Spain, India, Singapore, and Ireland

<sup>37</sup> Biased in this instance would mean "partisk" in Swedish.

<sup>&</sup>lt;sup>36</sup> Henry Loewendahl, "A framework for FDI promotion" in *Transnational Corporations*, vol. 10, no. 1 (April 2001)

<sup>&</sup>lt;sup>38</sup> Lowendahl.

<sup>&</sup>lt;sup>39</sup> Normile, Dennis, "The strategic art of international site selection," in *Electronic Business*, 1 October 2005, reprinted in Small Times:

http://www.smalltimes.com/News/Display\_News\_Story.cfm?Section=WireNews&SubSection=HOME&NewsID=140818 <sup>40</sup> "High-Tech Development: What's Next?" Area Development Site and Facility Planning (November 11, 2006) (Highly recommended reading:

as "foreign countries with high-tech momentum." *Area Development* also quoted Wayne Clough, the president of Georgia Tech University, as saying: "Ireland is increasingly known as a world leader in innovation and for embracing technology. We are grateful to the government and civil leaders of Ireland who worked with us on this initiative." The initiative he refers to is a new 5000 m<sup>2</sup> high tech research institute in the Northern Ireland Science Park in Belfast. In March 2011, the Irish Midlands, Northern Ireland, USA and Canada have enjoyed their third transatlantic conference on Science, Technology, Engineerng, and Maths education (STEM) thanks in large part to video conferencing initiatives on the part of Georgia Tech to inspire knowledge transfer at all levels and ages of society. Could this have been located in Norrköping Science Park or at Mjärdevi? Could it have been in your park? What high tech institute would like to compete with Georgia Tech and collaborate with another STP? The Space Science and Engineering Center at the University of Wisconsin-Madison? Institute for Information Systems and Simulation in Athens? The National Brain Research Center in Gurgaon?

- 1) An offer to a company should be tailored to the company and attractive from cover to cover, including charts, graphs, and photographs.
- 2) The cover should contain the company's name in the proposal and if possible a picture of a proposed location or office building including the company's name on the door or building.
- 3) The cover letter should be friendly, polite and to the point-explaining the reason for the contact.
  - a. It should not be a welcome letter from a politician. That stage comes later, when the municipality has secured the attraction.
    - b. It might be from the office of industry and trade, or it might be written by the president of the university, or the head of a research institute.
    - c. Sometimes the content of the proposal letter is determined by the contact that may have already been made with the company.
- 4) The rest of the offer should include hard and soft facts about the region that will appeal directly to the interests and needs of the target company.
- 5) It should not be too lengthy, nor should it read like the average FDI brochure or tourist travel guide.
- 6) It should however create an "aha" effect that induces a positive response—that is, to accept an offer to visit the region and to meet potential partners, collaborators, even clients. And while it is not the role of host country government agencies to provide market research and client lists to prospective companies seeking a new home, the degree to which any extra effort contributes to a successful attraction should be carefully determine through its cost/benefit analysis. Sometimes doing pro-bono work for your prospect is well worth the time and cost.

STPs can and should be part of a region's and nation's FDI promotion. Not only is foreign investment a less-than-perfect art, companies will sometimes flock to locations that are popular in an industry or even popular among consultants making investment recommendations. STPs that are working strategically will look carefully at trends and question them. STPs that are working strategically will investigate trendy regions *as well as* those regions not commonly found on the investment radar in order to match the industries, talents, business climate, culture, and quality of life, among other criteria, to the needs of a prospect to the extent that the company sees the new location not only as the best place to expand from a business and financial growth perspective but one that feels like home.

STP and business incubator managers come from a variety of backgrounds. Some of them have worked in economic development; others in private management; others in civic government. Associations like IASP and the many national and regional science park and incubator associations offer managers the opportunity to share information that will help them to create effective investment promotion strategies. But sharing practice is tantamount to learning the alphabet before one begins to write novels. Once a manager knows the alphabet, he or she needs to write a best seller. Strong regional cooperation that is strategic, that questions popular trends, that reaches out among civic bodies, industry and professional groups, business leaders and practitioners, citizens and service workers, that links unique industry sectors within the region, but beyond the borders of local communities, will 1) increase the potential of R&D to attract inward investment, 2) improve the likelihood of FDI in the form of foreign subsidiary formation, 3) decrease brain-drain and diminished manufacturing 4) improve demand for local knowledge and 5) provide a buffer to economic vulnerabilities influenced by globalization. Such a strategy is prose worth reading.

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# Appendix

## Swedish FDI (inward/inflow) 1999-2010

FOREIGN DIRECT INVESTMENT (FDI) INFLOWS in USD millions:												
Year	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010 Q3
Sweden	61 001	23 433	10 905	12 270	4 981	12 125	11 897	28 908	27 740	36 458	9 287	9 092

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Source: OECD