



A Strategic Initiative for Long-Term Economic Stability
in Alaska, Through Advanced Manufacturing and
High-Tech Business Development

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An AMBIT Solutions White Paper

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Introduction

On August 7, 2006, Alaskans experienced a wake-up call when BP announced it would need to close a section of the Alaska Pipeline due to severe corrosion. The shutdown, which is expected to cost the state \$6.3 million per day in lost tax revenues, will consume a large part – if not all – of the state’s anticipated revenue surplus. Though high oil prices have provided a buffer for the state’s operating budget, the incident clearly demonstrates Alaska’s economic vulnerability.

Roughly 87% of Alaska’s state-generated revenues come from oil extraction, making both the economy and government heavily dependent on its continued development. This perpetuates the state’s boom-and-bust economic cycles, which in turn lead to fluctuations in the job market and state budget. State programs are increasingly affected by changes in the global energy market, concerns over pipeline maintenance and the risk of terrorism.

Economic diversification has long been viewed as critical step for Alaska in achieving long term stability. Efforts to achieve diversity, however, have missed the heart of Alaska’s underlying barriers to the creation of new and innovative technology company creation. Currently, innovative startups must prove their legitimacy before receiving much assistance. Most resources instead flow to budding industries which have succeeded in spite of the state’s lack of coordination in business enterprise development for the support of infrastructure.

To achieve true economic diversification, Alaskan business visionaries must make a much stronger commitment to Alaska becoming a high-tech enterprise development leader. However, because Alaska is challenged with high transportation costs, insufficient production resources, investment capital and support infrastructure, we must find a new enterprise and job growth model.

The AMBIT Model represents a 4-phase strategy (to be covered later) for rapid transition of the Alaska economy, which focuses on support for high-tech entrepreneurs, particularly in the initial stages of venture development. Key components of the Model include the development of a virtual incubator, research and development facility and industrial park.

Executive Summary

As a world-class center for the rapid development of high-technology products, the AMBIT program will greatly strengthen and expand its economic abilities. This white paper explains why this change is needed, proposes an innovative solution, and provides details of how that solution can be most effectively implemented.

For years, innovative high-tech firms have been generating significant growth in the US economy. Focusing resources on developing and strengthening more of these companies fits well with Alaska's environmental and logistical situation and supports the state government's economic plan. High-tech enterprise salaries are strong and stable, with higher economic multipliers than most service-based jobs. High-tech enterprises maximize Alaska's ROI from its limited human resources.

All product development and manufacturing enterprises go through three phases of growth – startup, development, and commercialization. To maximize the number of venture-to-company successes, all three growth phases must be carefully nurtured. Unfortunately, this is not happening in Alaska which shows a modest rate of success compared to the rest of the nation. 9 out of ten start-ups fail in Alaska within the first five years while the national average of only 7 of 10.

The creation of a new high-tech enterprise begins with a startup phase. Here the idea is conceived; limited market assessment occurs; product design, prototyping and testing take place; the business entity is often formed; IP issues surface; and bootstrap financing is utilized. New high-tech ventures are very vulnerable during this initial stage. While Alaska has the capabilities to help entrepreneurs thrive during startup, few resources are concentrated on their needs. The development and commercialization stages that follow startup clearly depend on early startup success.

These startups are critical to establishing Alaska as a high-tech enterprise development state. Fifteen years ago Alaska experimented with the science and technology foundation, providing only technical product-related assistance. In a few years it helped in the growth of high-tech manufacturing product ideas, and dozens of new businesses started. However, fully integrated business development assistance for such startups was lacking.

To increase the number of companies successfully completing the startup phase, Alaska needs a new methodology for assisting entrepreneurs, focusing on traditional, private sector conceived, non-university sponsored, high-technology startup companies.

Because Alaska was developed later than other states, it lacks much of the residual architecture others have used to build more self-sufficient economies. This is a major hole in Alaska economy and it drastically limits Alaska's development potential. The infrastructure necessary for high-tech enterprise development isn't just for producing computer chips; it's the integrated body of hardware and services that support that allows for other new industries to thrive.

The AMBIT Model

AMBIT Model is a four-phase strategy for creating the necessary infrastructure to support high-tech enterprise development in Alaska. The Model seeks to aggregate the state's economic development abilities, and create a streamlined service delivery approach which better meets the needs of individual startups. Though presented as separate components, all are highly integrated and may be pursued simultaneously. Phases include;

- Phase I - Virtual Incubator
- Phase II – AMBIT Brick and Mortar Incubator
- Phase III - Research and Development
- Phase IV - Industrial & Manufacturing Park

Phase I – Virtual Incubator

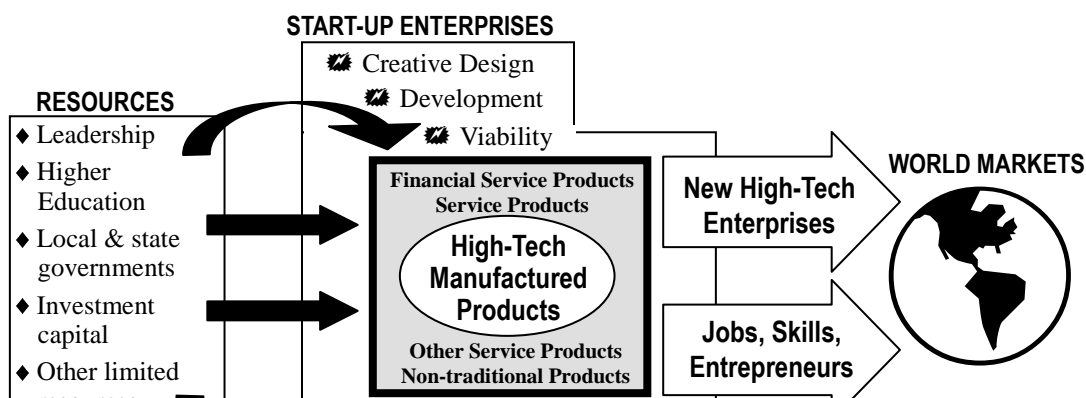
Alaska's geography severely limits entrepreneurs' access to certain resources. Even with the state's current system of Regional Development Organizations, many entrepreneurs lack access to the high-quality integrated services they need to be successful. This and other factors help cause 9 out of 10 start-ups in Alaska to fail, while the national average is only 7 out of 10. Increasing the efficiency of service delivery is a critical first step to improving Alaska's rate of success and the virtual incubator will be a tremendous tool.

The virtual incubator aggregates many of the state's economic development resources in a single web-based access point. Entrepreneurs will find information to help with all parts of their businesses, from business planning to financing opportunities. What makes the incubator different from other web resources, however, is its direct access to other actively involved entities.

Phase II - AMBIT

Alaska Agriculture, Manufacturing, Business, Industrial, & Technology Park is an innovative concept for new high-tech enterprise development and rapid product realization. This center will differ from traditional business incubators, accelerators and centers for training in how it combines functions and aggregates economic development assets. State support will help underwrite its operational costs, while enabling legislation will facilitate creation of other revenue streams, provide for establishment of an endowment, and set up a revolving loan fund to assist with early seed capitalization opportunities.

A New High-Tech Enterprise Development Model for Alaska



AMBIT is a new perspective based on a proven strategy for analyzing and supporting new enterprise/technology development, and for generating significant returns to Alaska's economy at very low risk or cost to the State. This paper also details how AMBIT will integrate into and leverage existing resources, how it will be structured and operate, and what it will accomplish.

A unique opportunity is being created for the State of Alaska to develop a stronger entrepreneurial climate, one that can sustain itself and enable it to compete more effectively in global markets. The realization of that goal requires high-level vision, commitment and a carefully orchestrated strategic plan. AMBIT is a critical component of this endeavor.

Phase III - Research and Development

In order for Alaska to compete globally, its businesses and entrepreneurs must be able to research and develop ideas for future commercialization. To accomplish this Alaska must have a high-tech facility where experimentation can take place in a controlled environment. Projects proposed for space in the R&D facility must be judged on their potential merits and ability to drive the Alaskan economy.

The facility will have university connections, but be beyond its managerial and financial control. This allows projects to be undertaken that are focused on what is best for business and not what is best for the university.

Phase IV - Industrial and Manufacturing Park

For any significant amount of manufacturing to take place in the state, dedicated space is needed for industrial development. This space must have easy access to transportation resources and room for expansion within the designated area. Because Alaska was developed so much later than other states, it lacks the residual industrialized architecture.

This is both good and bad for Alaska. The state can benefit from planning for integrated services and avoid many problems encountered in other areas. The drawback, of course, is that a tremendous amount of political and institutional commitment is necessary to make such a large step.

It has been determined that the best location for this phase of the project is in Matanuska-Susitna Borough on 1000 acres located on Point Mackenzie. This land is ideally located for a number of reasons. There is not enough suitable land left in the city of Anchorage for a project like this. It

provides access to port and rail transportation for products manufactured at the park and creates a distribution location for raw materials that will be needed by Alaskan manufacturers. It also gives impetus to completing the ferry and bridge projects that open up access to the only growth direction that Anchorage has.

Time for a Change

Alaska needs to change its job generation model to focus on becoming a leader in high-tech enterprise development. This goal can best be accomplished by investing relatively small amounts of Alaska's resources in the creation and support of both a virtual and real High-Tech Enterprise Development Center as set forth in the AMBIT Plan. This approach will generate a significantly greater return to both the State and its communities on a relative small investment. Though this initial investment is required by the state, AMBIT will eventually become self-sustaining through the success of its partner ventures.

Alaska's Need for Economic Stability

Economic Overview

Alaska's economy has always depended on natural resource development and extraction. Alaska has lived under this colonial model where vast amounts of raw materials are removed from its territory and finished goods are shipped in to fill the needs of its small but growing population. The state's first economic boom came from the fur trade, then from gold, copper, and later from fish and oil.

Prior to statehood, fish was the territory's most valuable resource, accounting for nearly two-thirds of the value of all resource production between 1868 and 1958. Alaska still leads the nation in the value of its commercial fishing catch—chiefly salmon, crab, shrimp, halibut, herring, and cod. Anchorage and Dutch Harbor are major fishing ports and the freezing and canning of fish dominates the food-processing industry, the state's largest manufacturing enterprise.

Lumber and mineral-extraction have both been of significant economic importance, though each has been weakened through battles for access and regulatory efficiency. Since statehood, oil has taken over as the dominant industry, accounting for nearly 85% of the value of all Alaska resource production. It has also been far more valuable than any previous development. Oil produced from 1959 to 2002 was worth *seven times* all the resource production from the time the U.S. bought Alaska in 1868 until it became a state in 1959.¹

Federal, state, and local governments have historically been a major source of employment in the state. Alaska's strategic location has generated considerable defense activity since World War II,

¹ Infoplease, Alaska <http://www.infoplease.com/ce6/us/A0856535.html>

including the establishment of highways, airfields, and permanent military bases. But this strategic location is also a significant driver in Alaska's ability to compete. With 90% of the industrialized world within an 8 hour flight range, shipping of high value manufactured items becomes economically viable. The location also is strategic in that world-wide manufacturing companies are able to use Alaska as an assembly location for systems which have parts imported from multiple countries.

Alaska's tourism industry has increased dramatically with the improvements in transportation and is now second only to oil in economic value moving fishing into third place. To further target products at the tourism market, Alaskans must be able to manufacture products that the industry desires. Other than native Alaskan art, most products sold to tourists are shipped into the state already branded as Alaskan.

Ernesto Sirolli in his book, *Ripples from the Zambezi*, stated that: "The shift advocated by governments away from resource-driven economies to value-added ones cannot take place without recognizing that our greatest assets must be our energy, imagination, and skill—our courage to fulfill our ambitions. Every single person is important in the creation of a better, wealthier, smarter society. Whether employed or not, engaged in export or service industries, in the arts, sports or tourism, the quality both personal and professional of every single person in what will make a country prosperous."

The ideas behind AMBIT seek to facilitate those goals for Alaska and move from ideas into actions that will drive economic development statewide.

Fiscal Uncertainty

The boom-and-bust nature of Alaska's economy stems from its dominant reliance on a single source for most employment and state revenue. Each of the state's economic booms has been followed by a recession, with few available jobs and working people fleeing the state in droves. This has made fiscal policy a major dilemma for the state. Although the current economy has been boosted by high oil prices, production volume continues to decline. Revenues dropped continuously from 1982 through the late 1990's, during which the state budget was cut from \$2.9 billion, down to 2.5 billion in 2002. Despite cutting costs, however, the state has operated with a budget deficit during 9 of the past 10 years.

The deficit has accounted for over a third of the state's total budget in past years, but has been covered by withdrawals from the state's Constitutional Budget Reserve (CBR). Although the state is legally obliged to pay back CBR withdrawals, legislatures have yet to do so. At this rate, the CBR will be exhausted in a few years, at which point legislators will be forced to deal with the state's budget realities.

This fiscal uncertainty is a drag on the state economy. Businesses don't know whether the economy will crash in a few years from budget cuts and new taxes, or whether the public services, on which they and their customers depend, will be impaired. This makes Alaska an unattractive investment for outside and developing businesses, and fewer dollars flow into the

state for needed infrastructure or are made available for state collection. Businesses in state simply hope for continued high oil prices and for the development of another big project to push the economy.

Uncertainty increases the cost of doing business and dampens investment.² And this will remain, along with pressure to exploit the state's non-renewable resources, until the scope of Alaska's economy is significantly broadened.

Diversification has long been recognized as critical to the state's long-term stability, but attempts to realize this have continually fallen short. Many resources flow into developing industries, but too few go towards supporting the underlying infrastructure which makes these ventures successful.

9 out of 10 Alaskan start-ups fail due in large part to this lack of proper support and infrastructure. Compare this to the nationwide average 7 out of 10 and it is easy to see Alaska's room for improvement. Currently, most technologies developed within the state are commercialized elsewhere when entrepreneurs are forced to look outside for assistance. As each of these ventures is moved out of state, Alaska loses the opportunity for high-skill/ high-pay job creation, in addition to any revenue base generated from new businesses.

Other Issues

As stated before: Due to Alaska development coming so much later than other states, it lacks much of the residual architecture and infrastructure other states have used to build more self-sufficient economies. This is a major hurdle for the Alaskan economy and it drastically limits its development potential. The infrastructure necessary for high-tech enterprise development isn't just for producing computer chips, it's the integrated body of hardware and services that support that allows for other new industries to thrive.

This problem with job creation affects the state's ability to attract and retain educated youth, making Alaska a net importer, not only of goods, but of expertise. Despite the desire of Alaska's graduates to live in the state, they regularly seek employment outside because wage opportunities are so much better. With seasonal adjustment, the states' unemployment rate is one of the Nation's highest. Moreover, many who do have jobs are underemployed, or are employed part-time as they look for better opportunities. This creates a dissatisfied and at times regionally

² A company was evaluating Anchorage as a site for expanding its business operations, and ultimately decided against it. One of the deciding factors was the totally obscure future of either property taxes or sales taxes or income taxes. The CFO of the company said that they could not do a credible business plan with such potentially large unknown costs. They did not believe that Alaska would go on for ten or twenty years without some form of general tax. *Area Development Magazine*, December 1998, annual Survey of Manufacturers, provides national survey data addressing incentives to relocation and the effect of uncertainty on development decisions. --Patty DiMarco, formerly with the Anchorage Economic Development Corporation.

stranded work force who turn to other endeavors and vices to stem the dissatisfaction and fill the void left by not be able to acquire suitable work or create an enterprise of their own.

Stability through New Enterprise Development

Former Business Assistance Models

While diversification has long been recognized as critical for Alaska's long term economic stability, previous efforts have been largely ineffective due to inadequate infrastructure, a lack of skilled labor, fragmented and therefore consistently ineffectual business support network. These efforts have come in the form of grants to young businesses and though an uncoordinated array of business assistance programs. A new model is clearly needed for the state to achieve this objective.

As previously stated, Alaska experimented with a new manufacturing enterprise assistance center 15 years ago called the Science and Technology Foundation (STF). It provided critical technical assistance to numerous entrepreneurs and fledgling startups, and helped several dozen new companies get started. Assistance, however, focused primarily on technical manufacturing related issues. Many of STF's clients also needed business, financial and organizational assistance to optimize their potential for success. STF was reasonably successful in helping several companies move forward, but the experience could have been significantly improved if ALL types of analysis and assistance had been available.

The tremendous demand for STF's services is evidenced by their having handled an average of 3 new clients per week. The Center did very little formal marketing, and yet clients came from areas throughout the state as they learned about its technical assistance services. Clients from around the state turned to STF even though their ability to provide services outside of Anchorage was severely limited. STF's budget was eventually removed due to these factors.

AMBIT will provide these clients with a path that they can follow through to success. This path will include an identification of where they are in the development of their idea or organization, the training that they need to advance to subsequent stages of development, and assist with access to the necessary capital to reach success.

Vulnerabilities of New Enterprises

An innovative high-tech enterprise is vulnerable at each step in the creation process. As expected, vulnerability usually decreases the longer a new product's team has been involved with the entrepreneurial endeavor. However, despite the tremendous need for help during early the startup phase, the State of Alaska actually allocates an *increasing* portion of its resources to new

ventures as vulnerability *decreases*. The following summary of the state's major business assistance programs shows this trend in reverse order.

1. Commercialization

- AMBIT (assists with primarily manufacturing problems, supply chain improvements, teaches Lean, Six Sigma, etc.).
- Corporate employee training and development programs.
- Work Force Services offers extensive employee recruitment, training, support services.
- Anchorage Economic Development Corporation works with prospective relocations.
- Small Business Development Centers. (ARDORs & SBAs)
- Federal and state support (Procurement Technical Assistance Centers-PTAC, etc.).
- Investnet, Alaska Growth Capital, etc.
- Financial and operational incentives, including endorsement of a VC source, etc.

2. Development

- AMBIT/SBDC (may get involved, depending on company circumstances, needs).
- JEDC.
- Alaska Micro Loan Fund (SBA), although its level of financial assistance is small.
- Alaska Growth Capital.
- State Tax Breaks - up to 5 years.
- Technology Transfer offices on university campuses.

3. Startup

- High-tech manufacturing is particularly vulnerable at this step, and needs both technical and business assistance. Limited business assistance is available from the SBDC program.
- AMBIT can help focus on a narrow sector of technology development emerging from universities.
- NCOEs help university-based technologies through this phase toward marketability.
- University tech transfer offices also help, but there's no similar private sector assistance.

Common Failures

Center management found the following to be the typical experience of a new high-tech startup WITHOUT complete analytical and business assistance. This summary list is still applicable today.

1. Initial idea creation

- a. Generated by small, close-knit team or single individual; there's great enthusiasm and hope.

- b. Idea often lies dormant for lack of support network, system, resources, knowledge. The Center was able to awaken these ideas because it provided a pathway for success.
 - c. Many of the inventors, even when technically competent, lack the equipment and resources (often time) to make prototypes.
- 2. Next steps for a new business idea when effort is finally made to move toward product.
 - a. Usually unclear; often money is wasted on prototyping without adequate information.
 - b. Little is known about size, strength, sustainability, and penetrability aspects of markets.
 - c. Even less is known about practical issues regarding manufacturability, capitalization, distribution, international opportunities, long-term growth strategies, etc.
- 3. Entrepreneurs are usually not very business savvy; they're primarily technology/engineer types or, alternately, they are business trained but lack the technical capability to make the products that will fill the markets they have identified.
 - a. Business plan, marketing plan, capitalization plan, globalization plan are all non-existent.
 - b. Knowledge of what resources are needed and where to locate them is also not well known.
- 4. Inadequate seed capital requires entrepreneurs to resort to several poor management and financing practices, usually involving little if any professional counsel.
 - a. Seed and pre-venture capital is raised by generally poor boot-strapping strategies.
 - b. Business entity structures (if existent at all) are not appropriate for serious capitalization.
 - c. Management team is often composed of family, friends, and associates with little expertise.
 - d. Expectations of imminent market success, acquisition or other growth strategies are usually very unrealistic.
 - e. Partnership and capitalization opportunities are compromised by poor team structure.
 - f. Innovative idea often is sold off, or start-up goes bankrupt from lack of business savvy.
 - g. Capitalization and ownership are often mishandled which can lead to problems in the future because of either overly high expectations of the inventor on ownership issues or giving of equity for little assistance and thereby complicating ownership when future funding is sought.
- 5. A small number of good ideas, innovations do succeed in spite of poor front-end start.
 - a. Some people do connect with good resources, often by luck or just dogged perseverance.
 - b. Markets are sometimes strong enough for success; the problem demands/seeks a solution.
 - c. However, basic business skills are often not learned and can't be duplicated again.

Successful Enterprise Development

What is needed

Consider the three steps in the successful creation of any new high-tech enterprise. These steps can be summarized with their typically associated core activities as follows:

3. **Start Up:** *Conception - Prototype Development*
 - a. Idea creation. Labor over variations
 - b. Goal setting; possible business plan.
 - c. Initial market assessment; Is product viable?
 - d. Prototyping and testing; (Very time consuming)
 - e. Business entity creation; Rarely done correctly or with adequate planning
 - f. Intellectual property protection discussed – products rarely protected at this point
 - g. Financing; Typically private (personal/ friends/ family)
2. **Development:** *Product Manufacture - Sustained Sales*
 - b. Time of intense activity
 - c. Originators often serve as both management and manufacturing team.
 - d. First commercial version of product released for sale
 - e. Capital infusion (realm of LLC partners and angel investors).
 - f. Expansion of operations in preparation for profitability.
 - g. Mergers possible (people, marketing, sales strategies, systems, etc.)
 - h. Intellectual Property protection put in place; often not sufficient to withstand all challenges.
 - i. Addition market research; efforts made to prepare for firm sustainability
3. **Commercialization:** *Profitability - Potential Sustainability*
 - b. Product is established in initial markets: reorders / referral demand
 - c. Emergence of new management issues; concerns over:
 1. profitability
 2. company sustainability
 3. cost-cutting strategies / taxes
 4. efficiencies; tactics to increase margins
 - d. Financing issue critical to success
 - e. Additional Partnerships: LLC partners, VC involvement common
 - f. Attention paid to company culture

Hi Tech and Advanced Manufacturing Development

Why High-Tech and Manufacturing?

Benefit of High-Tech Enterprise Success

The development of high-tech and advanced manufacturing infrastructure has a more far reaching affect on the economy than most other industry sectors. This is because the needed infrastructure is not simply used for manufacturing electronic equipment, but rather forms the

underlying system of intellectual and hardware support that other budding industries depend on for success.

In a recent article encouraging Illinois to pursue a more aggressive policy on high-tech business creation and growth, Jerry Mitchell, President of the Illinois Entrepreneurial Resource Center states,

“Most high-tech development emerges from other high-tech growth. Therefore, building clusters of high-tech firms is critical to developing a strong high-tech sector. If an initial group of companies can make it far enough, they begin to spin off additional firms and attract workers, suppliers, and other high-tech firms to the region. In this sense, high-tech growth begets even more high-tech growth. As these companies take the lead, the local business environment becomes more attractive for high-tech innovation. Legal firms, accounting firms, and banks and other financial institutions begin to be versed in what it takes to help high-tech grow. Universities and community colleges develop the curricula and technical capacities to support high-tech. And government creates the quality of life and civic institutions attractive to high-tech companies and knowledge workers. Moreover, entrepreneurs are more likely to have higher levels of education, and as entrepreneurial start-ups become more important to a region’s economic success, having more knowledge workers increases the odds that an entrepreneurial startup will be successful and turn into a rapidly growing company.”⁶

Meeting State Goals

High-tech enterprise development helps realize the state’s development objectives in a variety of ways:

- *High Wages:* High-tech enterprise salaries are consistently better than most other jobs, even many in the traditional manufacturing sector, with much higher multipliers than service-sector positions.
- *Skilled Workforce:* High-tech jobs require skills that are much more adaptable and flexible. Developing these industries within the state retains skilled workers and trains others. This benefit extends exponentially into other sectors.
- *Add Value to Existing Resources:* Many of Alaska’s resources are currently exported for value-add services. Alaskans then buy these resources back in the form of value-added products.
- *Long Term Economic Development:* Spin-off industries created through high-tech and advanced manufacturing enterprises help build a diversified and stable economy.
- *Leverage Existing Resources:* High-tech enterprise development leverages the state’s scarce public and private resources providing a much better return on investment.

Becoming a Leader in High-Tech and Advanced Manufacturing

Objectives

1. Creation and Retention of High-pay Innovative Manufacturing Jobs

The most important manufacturing jobs for Alaska to retain in the long-run are the high-paying, innovation-creating types of employment. While a certain number of Alaska-based regular product manufacturing jobs are certainly desirable and needed, trying to compete against foreign labor markets for all commodity-type high-tech product manufacture is not likely to be an effective strategy.

Once an innovative product or service has been reduced to a competitive product, most of its manufacturing and sometimes even its primary markets can be outside the U.S. Since this is unlikely to change, Alaska must utilize a strategy that works with these global trends. This will involve utilization of the state's unique resources, and significant improvements in efficiency and quality standards. Innovation must also be encouraged to change product lines rapidly enough to make technology transfer difficult or cost prohibitive.

The strategy for stable products should often be on developing mutually beneficial business partnerships where Alaska takes the lead and has strong control over the product's design, manufacture and corporate direction, while global resources are used to facilitate its lowest possible operational production, sale and worldwide distribution.

Forming appropriate international partnerships allows appropriate outsourcing of routine tasks while retaining higher paying innovation, product development, and business management positions within Alaska. There are already excellent examples of this model in operation in the fields of accounting, product support, telemarketing, tax preparation, airline reservation support, and many other service-related industries. The same can be done in high-tech product development and manufacture.

2. Fostering Entrepreneurialism and Technology Culture

Innovative enterprise comes from *entrepreneurs*; individuals who identify a market and take the risks necessary to create products to meet the demands of that market. For Alaska to compete against states with increasingly sophisticated business development programs, it is critical that the state work to strengthen its entrepreneurial and high-tech business culture.

The importance of entrepreneurs in building a vibrant, sustainable, high-tech-based economy cannot be overstated. Entrepreneurial innovation has been the mainstay of US economic development for over 200 years, through a variety of economic mechanisms.

Entrepreneurship is:

- a. Responsible for the majority of sustainable high-wage job creation
- b. Drives market growth
- c. Attracts capital, which is continually seeks maximum ROI opportunities

- d. Stimulates new market development and firm creation
- e. The entrepreneurial ethic has historically been the driving force of American capitalism (remember: “Yankee Ingenuity” built this country).

Some areas in the United States are commonly identified as having a strong technology culture. In places like Silicon Valley, California; Austin, Texas; Seattle, Washington; and Boston, Massachusetts, technology ventures are a vital component of the economy.³ The individuals with the gumption to create these ventures are celebrated regardless of whether or not they are successful. In addition, government, academic, and community organizations in these communities have embraced innovation with policies and support programs that support these high growth companies and attract new technology ventures into the region.

A technology culture does not just appear. It evolves over a period of time as the number of new and established technology ventures increases. In many areas, like those noted above, local universities work with industry and government to play a key role in catalyzing this change. Stanford University, for instance, played a crucial role in creating the platform technologies and work force that have made Silicon Valley the dynamic entrepreneurial center it is today. Similarly, the University of Texas played a large role in transitioning Austin from a regional service center to a top-tier technology center by working to build entrepreneurship and technology commercialization, and integrating its efforts with the fabric of the community. All of these schools eventually created organizations to function outside of the university structure in order to insulate them from changing university policies and politics.

These pioneering organizations have an extended influence through the various Initial Public Offerings (IPOs) and mergers/acquisitions related to their activities. These various spin-off ventures bring new wealth and perpetuate the cycle of enterprise creation and partnered back with the universities to accomplish further research.

An innovative and empowered culture is not generated by government programs, but rather benefits from and is accelerated by such programs when properly structured. Mr. Mitchell, in commenting on the phenomenon of California’s continued Silicon Valley innovativeness observes,

“Silicon Valley entrepreneurs ignored lobbying for various tax breaks or government help, and—instead of pursuing steady, predictable growth—they thrived on staying small, nimble, and flexible...all of which are discouraged by involvement with government bureaucracies and its layers of forms, inspections, and regulations....it requires hundreds, if not thousands, of small, entrepreneurial firms to generate the dynamics now seen in the high-tech growth areas....It is hard for governments to change a region’s business or corporate culture. But they can help the region identify its cultural strengths and weaknesses. Government can also recognize and celebrate public and private innovation and support the formation of high-tech business councils to encourage networking and learning.”⁴

³ Market Feasibility Study for a Technology Business Incubator at the NDSU Research and Technology Park, August 2003, Claggett Wolfe Associates

⁴ Alaska Tomorrow, op. cit., pages 2-10. <http://www.le.Alaska.gov/documents/Alaskatomorrow/Alaskatomorrow.pdf>

Thus, to be of greatest benefit to its entrepreneurs and the support of innovative high-tech business, the State of Alaska needs continued focus on the AMBIT model is essential. Higher education needs to be integrated and must adopt high-tech enterprise creation as part of their focus. State government needs to realign its various business development resources around this focus. And Alaska needs to align its other business/economic promotional activities to support this focus.

Challenges to Competitive High-Tech Innovation

Globalization

The Globalization of markets and manufacturing systems is rapidly changing the way business is done. Initial design and prototyping can happen anywhere, using a worldwide and world-class team participating continuously via the Internet. When commercialization occurs, raw materials for many products are now regularly shipped quickly from several locations to processing plants with cheap energy. Feed stocks are next moved where there is appropriate machinery and skills for fast, high quality, low-cost assembly and part generation. Parts then flow elsewhere for inexpensive semi-finished goods assembly. Final product assembly and packaging may occur at other inexpensive labor locations close to final markets to facilitate inventory management and fast customer service.

In a July 2004 position paper, Morgan Stanley's Chief Economist and Director of Global Economic Analysis, Stephen Roach observed,

“...a new force has come into play that is now altering the fundamental relationship between domestic demand and domestic employment in the United States. I call it the global labor arbitrage...substituting high-wage domestic workers with like-quality, low-wage foreign workers in goods producing and services-providing functions, alike. The lack of pricing leverage in today's climate makes this arbitrage an increasingly urgent competitive imperative. In my view, the global labor arbitrage is likely to be an enduring feature of the macro climate—raising the distinct possibility that *sub-par job creation in the U.S. could well be here to stay for the foreseeable future*.”⁵

There continues to be tremendous concern in the nation's financial community about the current job recovery being sustained primarily by low quality job generation. Part-time workers accounted for 97% of the nation's total jobs increase during the first half of 2004. Over 80% of total job growth over the year (6/03-6/04) has been concentrated in low-end occupations such as transportation and material moving, non-professional services, sales, and the installation, maintenance, and repair grouping.⁶

⁵ Stephen Roach, “America's Job Quality Trap,” Morgan Stanley, July 9, 2004 (emphasis added).
<http://www.morganstanley.com/GEFdata/digests/20040709-fri.html>

⁶ Ibid.

While a certain number of Alaska-based regular product manufacturing jobs are certainly desirable and needed, trying to compete with foreign labor markets for commodity-type high-tech product manufacture is not likely to be an effective strategy for Alaska.

However, the issue of global labor arbitrage can actually work to a region's benefit, so long as that region is continually generating the new business that uses such labor. Job outsourcing only becomes problematic when the entrepreneurialism that creates it begins to decline, thereby inadvertently encouraging the innovators to take their abilities elsewhere.

Infrastructure and Resources

Alaska faces several other obstacles in becoming a massive, high volume producing, heavy manufacturing state, including;

- High transportation costs of moving raw materials into and within the state, as well as transporting semi-finished and finished goods to distant markets outside the state;
- Insufficient production resources, including not enough population to support the wide range of skills and schedules demanded by heavy manufacturing;
- Environmental concerns already evidenced by the decline in former big production companies;
- Insufficient investment capital to build out and sustain heavy manufacturing businesses; and
- Limited governmental resources struggle to maintain basic services for health, education, and public safety creating deficits in appropriate infrastructure development and maintenance.

And yet, we know that manufacturing jobs traditionally pay better, are more stable, and generate more additional support service positions than any other type of employment. These benefits are even more prevalent in the entrepreneurial, high-tech innovation industries where such jobs attract additional types of the same or similar companies.

If it wants to benefit from the successful high-tech enterprises, Alaska must work with these global trends by shoring up its weaknesses and catering to the state's economic strengths.

Alaska's Strategic Advantage (WORK)

Other resource-dependent regions in the world have experienced a similar wake-up call by starting to diversify into advanced manufacturing, high technology, cutting edge medical, and service based industries utilizing oil revenues as a platform to raise them up to the infrastructure and capabilities of regions that traditionally focused on those sectors.

Interestingly, Alaska already has many of the resources needed to support a world-class, high-tech business economy. It leads the nation in per capital new patent development, tech transfer and new business creation. However, it also leads the nation in bankruptcy and credit problems.

This is because Alaska continues to struggle from a lack of unified leadership, entrepreneurial culture and integrated support that make the most of its existing resources.

In addition to its human resources and institutional strength, Alaska has two unique assets; its strategic location and available resources. The later, of course, is the more liquid. Profits from oil rents and royalties provide an income unparalleled in any other state. This gives the state an enormous advantage when it comes to pursuing any given objective. A consensus of policymakers can achieve great things, and this is necessary if Alaska is ever to successfully diversify its economy.

Alaska's location is also a tremendous asset in the new global economy. Although this has seemed like a disadvantage in the past, its position along global trade routes – in particular between the US and east-Asia – make it the best possible staging ground for some of the world's leading manufacturers. Manufactured components are often produced in disparate locations, shipped to one location for assembly, then to another for final sale. This oftentimes involves shipping items back in the direction from which they came, and is far from the most efficient of options. Many companies stand to benefit greatly from staging through Alaska, provided the appropriate infrastructure is in place.

Companies can also benefit from more expedient product delivery through Alaska's excess port capacity. With ports on the west coast at peak capacity and no room for expansion, many container ships wait over a week for unloading.

The AMBIT Plan

Four Main Elements

The AMBIT Plan is comprised of a four primary components, which work together to form an integrated system of support for advanced manufacturing and high-tech enterprise development. Though presented separately, all are highly interdependent and will be pursued on parallel tracks. Elements include:

1. Virtual Incubator
2. Brick and Mortar Incubator (AMBIT)
3. Research and Development
4. Industrial & Manufacturing Park

Virtual Incubator

Alaska's geography limits entrepreneurs' access to the state's scarce business assistance resources. Even with the state's current system of Regional Development Organizations, many lack access to the high-quality integrated services they need to be successful.

The Virtual Incubator will serve as a web-based porthole, providing entrepreneurs with access to the aggregated abilities of Alaska's economic development resources. The virtual incubator is a fully integrated component of the real incubator, which serves to reach even the most isolated entrepreneurs. This will allow for some projects to be developed remotely, while other will be channeled to the state's other economic development resources.

The single point of entry allows entrepreneurs to be connected with the resources that best suit their needs. This simplifies things for Alaskan entrepreneurs who now spend untold hours trying to navigate existing state services and private organizations serving start-ups. Overlapping services create a hodge-podge quilt-work of approaches to business development that can best be described as confusing and resource draining.

The virtual incubator allows individuals access to high-quality services anywhere in the state, including:

1. Mentoring
2. Networking
3. Online Training
4. Marketing and Sales Assistance
5. Business Planning
6. Accounting and Financial Strategy
7. Enterprise Management Strategy – Lean/6-sigma/S5/etc.
8. Idea Generation
9. Consultation
10. Connections
11. Funding
12. Connection to additional AMBIT resources
 - Incubator Facilities
 - Research and Development Space
 - Business Park

This may include existing state services, grant opportunities, private investors, or networked with other likeminded individuals, in addition to the other high quality resources one would expect from any other incubator. The incubator does not centralize these resources, but provides comprehensive access to those existing services, so that an individual can be better paired with

Brick and Mortar Incubator (AMBIT)

The **Alaska Agriculture, Manufacturing, Business, Industrial, & Technology program or (AMBIT)** will serve as a center for new high-tech enterprise development and rapid product realization. The Center involves several components that make it different from existing National Centers of Excellence. AMBIT combines the functions of a traditional business incubator, business accelerator and Center for Training with the aggregated abilities of the state's existing economic development assets. Together they form an integrated system providing entrepreneurs with assistance resources appropriate at each level of enterprise development.

While AMBIT is much more than an incubator, the incubator facility is a central component of the integrated system. It acts in a more traditional capacity, as well as a node connecting various enterprises and services. It is important then, to understand the roll that conventional incubators have come to play in most other states. Generally speaking, a business incubator is:

“A location in which entrepreneurs can receive pro-active support and access to critical tools, information, contacts, and resources—that may otherwise be unaffordable, inaccessible, or unknown—and in which the incubator management team supports business with a development strategy such that investments and actions are leveraged for value to, and growth of, the businesses served by the incubator”⁷

Incubator Overview

The first business incubator was established in Batavia, New York, in 1959 as a response to local plant closures. Recognized as a practical approach for creating new jobs through business formation and expansion, business incubators became recognized as a viable tool for economic development. In the 40 years since their inception, over 950 business incubators have been developed in North America and an estimated 3,000 have been developed worldwide. Almost every state houses business incubators that support diverse economic goals ranging from economic empowerment for minority and disadvantaged business owners to targeted business development in specific industry sectors.⁶ States such as California, New York, North Carolina, Pennsylvania, and Ohio currently lead the nation in the number of incubators in operation.⁸

A nationwide study of incubators has shown the following:⁹

1. The average size of the incubator facility is 31,000 square feet.
2. The average size of a self-sustaining incubator facility is between 35,000 and 50,000 square feet depending on rent structures and operating costs.¹⁰
3. The average number of businesses housed in the facility is 14.
4. The average number of incubator staff is 3.
5. The top 4 services offered to incubator businesses are:
 - Marketing assistance
 - Networking activities
 - Links to higher education institutions
 - Investor/strategic partner linkages

⁷ Steve Wright, GTE and Barbara Harley, Claggett Wolfe Associates.

⁸ Market Feasibility Study for a Technology Business Incubator at the NDSU Research and Technology Park, August 2003, Claggett Wolfe Associates

⁹ Molnar, Business Incubation Works, E-13.

¹⁰ Self-sustaining incubators are facilities in which the revenue from rent and other services covers the costs associated with staffing and operating the incubator.

In addition, successful business incubators are characterized by dynamic, pro-active business coaching on the part of the incubator director and staff and by a strong value-added resource network that is used to support tenant businesses. These factors differentiate an incubator from a typical business park.

The incubator concept has been expanded since its early beginnings to include: incubation networks, which integrate incubator and business assistance programs throughout a city or region; incubators without walls, where an incubation program is delivered to businesses wherever they are located via experts and/or web sites; theme incubators developed to support emerging businesses in a specific industry sector; and international trade incubators, which provide resident and non-resident assistance to established foreign businesses.

Business incubator funding usually begins with sponsorship from one or more government entities whose funds are frequently leveraged to attract financial participation by universities, foundations, business professionals, utilities, and corporations. Almost 80% of the incubators in the United States are nonprofit entities, which use their status to receive donations of money, equipment, furniture, and loaned corporate executives. Among certain incubators there is a trend toward establishing equity or royalty relationships with the client businesses. In the past two years, over 100 private venture capital backed incubators have emerged to serve Internet related or dot-com companies. The overall effectiveness of this model as an economic development tool is unknown due to its short history; however, it is clear that the model should remain in the realm of the private sector due to the large equity capital requirements and specific expertise needed to operate these projects.

A recent study by the National Business Incubation Association and various universities indicates that businesses that participate in an incubator program have a success rate of approximately 80%, compared to a success rate of 20% for non-incubator businesses. In addition, over 84% of the businesses locate within 5 miles of the incubator site after graduating from the program.¹¹ The most successful business incubators in the US (judged by how thoroughly they fulfill their mission and meet pre-set goals) are directed by highly skilled managers who: 1) understand entrepreneurship and can address the unique issues of small and growing young businesses; and 2) are effective in marketing, facilitating the use of value added resources and services, and establishing broad collaborations among stakeholders and supporters.

As derived from the definition of business incubators presented at the beginning of this section, business incubation programs focus on adding value to new and growing small businesses; however, some industry sectors, as well as some businesses, are better served by a business incubator than are others. As a result, when assessing the market feasibility—and long term effectiveness—of a business incubator facility, a number of questions must be considered.¹² For example:

¹¹ Molnar, Business Incubation Works E-13.

¹² Additional questions must be asked when considering the financial feasibility of a business incubator. These questions not addressed in this market study but should be addressed in completing the second phase of the feasibility assessment.

- Does the community or region have a sufficient level and diversity of value-added services (e.g., business coaching and mentoring from experts in the field, access to professional services, and access to capital, etc.) suited to stimulate the formation and growth of businesses in one or more targeted industry sectors? In addition, are these services available to everyone or can they only be accessed through participating in the incubator program? If an incubator only provides reduced rent and cannot differentiate itself with benefits that are available only to businesses served by the incubator, it is operating more as a business park than as a true incubator.
- Does the market area that will be served by the incubator have a significant concentration of small business activity in a specific incubatable¹¹ industry sector (e.g., communications technology, precision tooling and machining, etc.) or in a broad range of different incubatable industry sectors? To sustain an incubator facility, the market area must be able to generate a sufficient level of new business activity to provide a new group of businesses every two to three years, depending on the time needed to properly incubate client businesses. Although specific figures vary by industry sector and local conditions, the average incubator consists of a 35,000 to 40,000 square foot facility housing from 20 to 35 businesses.¹² Under these conditions, a market area would have to generate approximately 7 to 12 new incubatable businesses each year to replace those that graduate from, or leave, the incubator.

An *incubatable* business sector can be characterized as follows:

- The sector is prone to clustering (e.g., businesses typically locate in close proximity to each other).
- The sector has a significant number of businesses with different market opportunities to allow for multiple, non-competing businesses to be located in the same facility.
- Businesses in the sector have the capacity to operate out of a single, shared facility that is centrally located in the market area.
- Businesses in the sector do not typically have high fixed costs associated with the space they occupy (e.g., specialized tenants improvement or equipment) or they can utilize shared services offered by the incubator (e.g., shared-use laboratory space, shared equipment, etc.)
- Businesses in the sector typically sell to other businesses or to retail customers through established distribution channels and do not typically rely on retail traffic for sales.¹³
- Owners of businesses in the sector are typically amenable to sharing business and financial information with qualified assistance providers and to working closely with a business coach or mentor to improve his/her business.

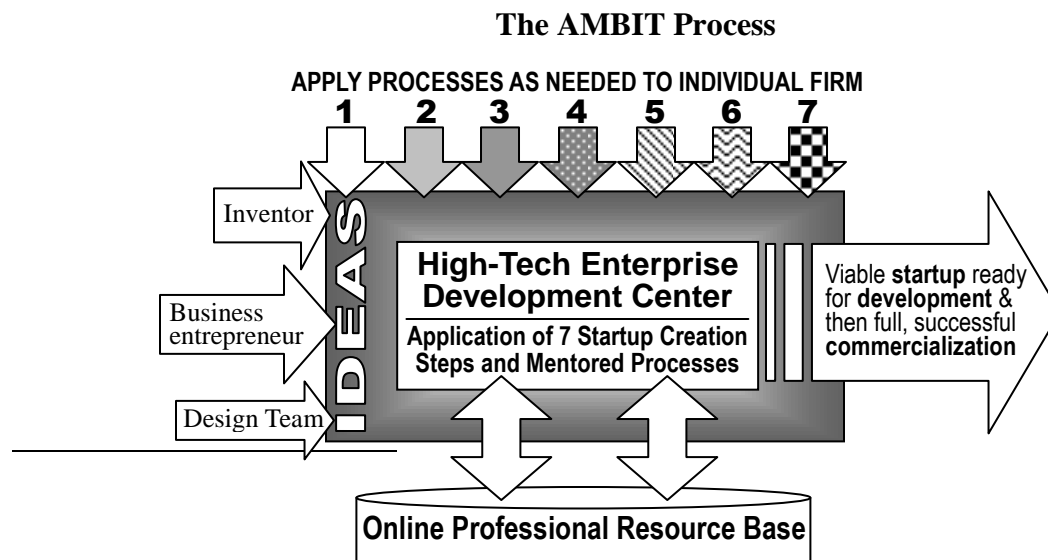
¹³ Although there are a small number of retail incubators in the U.S., those that exist are typically concentrated in under-served urban neighborhood areas and are focused on revitalizing blighted areas.

For these and other reasons, not all areas and not all industry sectors are suitable for business incubation from a market perspective; however, a region can choose to use an incubator to establish a foundation for nurturing the growth of one or more industry sectors. For this type of approach to be effective, the region must have a sound regional economic development strategy and have a clear concept of how an incubator can play a role in meeting broader economic development objectives.⁸

AMBIT Design

AMBIT will consist of several integrated operational components.

1. **Management Group:** Core professionals with expertise in management, finance, marketing, manufacturing, international business, legal, entrepreneurship, training, technology transfer, leadership, etc.
2. **Strategic Partners:** private, public, higher education and non-profit sectors.
3. **Online Tools:**
 - a. The Discovery Process[®] business needs assessment system used by AMBIT Alaska.
 - b. Virtual Incubator
 - c. Value-added business Questionnaire currently being used by AMBIT.
4. **Knowledge bases:** NIST template and counseling knowledge base is potentially available under a proprietary arrangement
5. **Expert Network:** Access to world-class experts with needed skills, resources, tools, knowledge, and capital.
6. **Government Support:** AMBIT will be highly integrated with state initiatives, and support programs. Financial assistance will be needed from the state for basic operations, to promote its capabilities and underscore its value to potential partners.



AMBIT is a new concept based on a different set of strategies that seek to support high-tech enterprise/technology development. Because of Alaska's unique demographics and geography, traditional startup support is not enough to realize its potential as a high-tech enterprise development leader. The AMBIT Plan provides a strategic vision for making this change, which will allow Alaska to compete more effectively in global markets.

Operation

Prior experience has shown that not all applicants are ready for immediate technical or other types of business assistance, even if they have a commercially viable idea. Sometimes there are attitudinal issues that need to be addressed. Often there are personal situations and/or ill-advised legal or financial commitments that have to be changed before any effort at serious enterprise development can move forward. Occasionally these same kinds of problems surface later on during development or commercialization stages of the business creation. Thus experience has shown it is important to follow a sequence of managed events that will help reduce or eliminate such issues as early as possible.

Accordingly, AMBIT will utilize a sequential assistance provision process, containing the following general steps. In rare cases, steps 5-7 may be rearranged to accommodate unusual situational needs and circumstances. However, since AMBIT will conduct most of its work through online communications, steps 1-4 will apply to all clients, regardless of where they are in the product development and/or business enterprise creation process.

1. **Application:** Individual applies online to have high-tech product idea be evaluated. If accepted, client relationship is established. If not, direction is given regarding what more is needed.
2. **Assessment:** Client information is reviewed by team, client "talks" to team about issues and team helps client identify exactly what is needed. Team recommends what the client contact should do, and assigns a lead mentor. Client either pays for services up front, or arranges to give up a share of the future product or enterprise profits to AMBIT. Center participation in profits helps Center stay focused, and gives it a strong vested interest. This tactic should also eventually help make AMBIT self-perpetuating.
3. **Action Plan:** A detailed formal action plan is established to address client needs, with due dates, resource information, mentoring assignments, and the like.
4. **Mentoring:** Client interacts on continually personal basis with mentor(s), primarily online, to accomplish various tasks in the Action Plan and receive additional core team feedback.
5. **Networking:** Connective access to needed resources is facilitated by mentors. In many cases the resources needed by the company will be obtained within Alaska, thus expanding existing Alaska business activity.

6. **Evaluation:** Sophisticated evaluation tools are used to measure client progress, ability of new venture to be successfully commercialized, etc.
7. **Financing:** An appropriate means of initial, limited financing is developed, with payback provisions arranged. There is no free ride to any client in AMBIT process.
8. **Graduation:** Client is brought forward to a point where Center assistance is no longer needed. Arrival at that point culminates in an official “graduation” and State recognition.

Leadership

There are 3 long-term strategies that will solidify the leadership of AMBIT, and perpetuate its continuation after the initial leadership team’s terms of service. Each strategy will ensure an adequate pool of committed resources from which to select additional leaders.

1. Continuation of Executive Committee, with perhaps slightly larger membership.
2. Expansion of Board to include key resource colleagues, international representation.
3. Development/expansion of various standing and advisory committees in special resource areas.

The operational agreement for AMBIT will contain details on each of these. Again, the purpose of focus on leadership at AMBIT is to emphasize its critical importance of AMBIT’s clients in their own startup activities. It is highly likely that one area of intense mentoring activity for most of AMBIT’s clients will be leadership skill development. A long-standing rule of successful new enterprise creation (and venture capital financing) is that success depends on *people* more than any other factor, even product.

Funding

AMBIT is a tremendous undertaking and will require a multitude of funding mechanisms. It will require participation of the state during the initial stages, but ultimately seeks to be “self-funded” through an endowment, private fees and equity in successful startups. The nature of these funding mechanisms will serve to motivate the organization, give it credibility with clients, and help teach entrepreneurs the nature of financing on which their enterprises can be built or expanded.

AMBIT’s road to self-sufficiency will involve 5 general strategies. Though funding will come from a few key sources during the start-up phase, these strategies will provide a diversified income base in the long-run that is not reliant on state funding.

1. **Capital Budget Line-Item:** Initial development funding will need to come from the state as a one-time appropriation of roughly \$300K for the first year. Additional funding will be needed during following years, but this amount will change drastically from year to year, depending on the status of development.

A project of this scale, and with such broad affects on the state economy, must be spearheaded by the Governor’s office. Initial funding should be close to \$300,000, most of which will go to staff, consultants and other personnel.

2. **Endowment of AMBIT:** The endowment is a critical component to AMBIT's long-term sustainability. Contributions will be sought from private donors, businesses, institutions and government entities. Client fees, royalties, stock and other equity income will also be placed in the endowment to help finance future entrepreneurs.
3. **Federal State & Private Grants:** As a 501(c)(3) non-profit organization, AMBIT will be eligible for various grants and supportive contributions. An aggressive effort will be made to identify and apply for these qualifying grants to pay initial startup and operation costs.
4. **Revolving Loan Fund:** This new fund mirrors financing ventures already pioneered by other states. These funds are generated by the investment of private funds which may be credited against other due taxes. Other incentives may also be offered to help grow this investment fund. Models already serving businesses in other states include:
 - a. **Kentucky** has a very successful model based on passage of several development acts (<http://www.thinkkentucky.com/kyedc/kybizince.asp>) that generate significant funds.
 - b. **Ohio's** Thomas Edison Seed Development Fund directs state funding support for private R&D through a state college or university where funding is carefully managed.
 - c. **Pennsylvania** operates the Ben Franklin Partnership Program, designed to promote advanced technology in an effort to make traditional industry more competitive in the international marketplace. It also aims to spin off new small businesses on the leading edge of technological innovation.
 - d. **Missouri's** New Enterprise Creation Act authorized \$20 million in state tax credits.
 - e. **Maine** has a Seed Capital Tax Credit program.
 - f. **Georgia** and **Oklahoma** have very successful Seed Capital Revolving Funds.
5. **Fee-Generated Revenue:** AMBIT will generate additional revenue from training, conferences, workshops, products, system licensing and other fees for services. As AMBIT strengthens in its capabilities and assets, these should be looked upon as potential revenue generators for other such endeavors in other states and areas. A good and very interesting example is the huge 450,000 square-foot Ontario Science Centre in Canada (<http://www.ontariosciencecentre.ca/>). Because of its internal expertise, it has become the recognized best-of-class provider of consulting services on science center design, construction, development, and management in the world. Over half of its own support revenues now come from licensing exhibits, consulting work, partnerships and other related endeavors...all at no disservice to its principal client base—the citizens of province of Ontario and Canada.

Research and Development

Research and development assets will be a fully integrated part of the AMBIT facility. These services, however, are rarely part of traditional business incubators, due to their high investment requirements. Many R&D assets already exist in Alaska, particularly through the University of Alaska. These assets will be aggregated in the AMBIT facility to provide access to provide efficient access to the states limited resources.

A lack of R&D facilities in the state is largely to blame for the number of ventures started in Alaska which move out of state for commercialization. Many companies have expressed interest in conducting research and development work done in Alaska, but not been able to do so because of the inadequate infrastructure.

Industrial & Manufacturing Park

Because Alaska was developed much later than other states, it does not have the residual architecture left over from the industrial revolution. As a result, no area exists for aggregated industrial activity. Manufacturing and other industrial business that have developed within the state, have done so in dispersed locations never warranting the investment of high-cost transportation architecture.

Any future industrial park will be limited by the availability of large affordable blocks of land. It is also important for this to be located near existing transportation facilities where future development will work with the existing infrastructure.

Implementation

Many wheels are already in motion developing the various AMBIT components. While funding must be acquired from the state to study the plan's feasibility, various institutions have already made commitments to helping move the project forward;

- i. **Virtual Incubator:** Already accomplished.
- ii. **Brick and Mortar Incubator (AMBIT):** Select a building
- iii. **Industrial Park Land:** Matanuska-Susitna Borough has promised 1000 acres on Point Mackenzie for park development
- iv. **Client Partners:** Several businesses have already expressed interest in moving into the AMBIT facility for R&D assistance.
- v. **Coalition Development:** AMBIT has formed several strategic partnerships which will help to move project forward during initial stages.

Next Steps

AMBIT must begin

- a. Develop MOU's with strategic partners
- b. Establish political alliances
- c. Investigate endowment opportunities.

Government Action

2013-2014 Capital Budget Line-Item: \$300,000

Initial funding will need to come from the state and should amount to roughly \$300K. This money will be used for staffing and contract labor to develop a more detailed plan for implementation, and for development of a feasibility study.

Schematics of the AMBIT facility and an assessment of current resources will be produced first. This will be done along with other early stage activities to develop concrete criteria to be used in the subsequent feasibility study. Both early development and the feasibility study are combined in this request to allow for multiple contractors to be working together simultaneously

Funding should be established in the Governors budget because of its broad reaching affect on the state's economy, and to avoid a lengthy legislative process.

There is likely to be a subsequent period of investment required from the state to build core infrastructure and providing operating funds. This is expected to increase for the first two years, and to steadily decrease until the facilities have reached self-sufficiency. To have funding cut during this initial period will severely impact the future of the project. This provides certain political obstacles in an increasingly conservative environment, which will require a number of targeted educational efforts.

Corporate Tax Adjustment

Discussion of the government's roll in cultivating entrepreneurialism tends to focus on tax issues.¹⁴ Many understand that entrepreneurs are not inspired to take risks when they know that the profits of their risk-taking will be eaten up by higher taxes or costly regulations. Reducing personal tax burden then, is what will spur innovation and entrepreneurial development. Many developing countries have learned this lesson the hard way: While seemingly rich with ideas and educated individuals, they see the benefits of new business go overseas when those ideas are moved to more business-friendly areas for development.

This reasoning is what supports the conservative philosophy that he who governs least governs best. In the larger political discourse, this is often attribute this movement to a group of self-interested elite. And while one can only guess at individual motives, the argument completely

¹⁴ Hendy, Peter; Chief Executive of the Australian Chamber of Commerce and Industry. ABC, The World Today; <http://www.abc.net.au/worldtoday/content/2004/s1217465.htm>

ignores the underlying principal that entrepreneurs have always been the primary drivers of the US economy.

In Alaska, this movement has been moderately strong. However, while the state has no personal income tax, it also has one of the lowest rates of success for new startups. There are many reasons for this, one of which is Alaska's graduated income tax bracket.

Alaska's business income tax scales between 1% and 9.4% (below \$10K and above \$90K, respectively). While for lower income brackets, this is quite generous, the state's highest tax bracket is one of the most aggressive in the nation. The only states with higher business income tax brackets are:

State	Rate (%)	Tax Brackets
Iowa	6.0 - 12.0	25,000 250,000+
Massachusetts	9.5	Flat Rate
Pennsylvania	9.99	Flat Rate
Dist. of Columbia	9.975	Flat Rate

The aggressive nature of Alaska's highest income bracket originally targeted petroleum development, with net revenues above \$90K. It does so effectively by generating \$500-\$600 million from the industry annually. The combined corporate income tax from all other industries in the state amounts to far less than \$100 million annually. And all of this combined, accounts for less than 8% of the state's total revenue.

What this means, is that while Alaska's corporate income tax can be very accommodating for smaller enterprises, when it comes time to commercialize a product or generate any significant amount of revenue, there is an incentive to move business to places with a less-aggressive tax schedules. This pertains to any industry that is not dependent on one of Alaska's resources, and contributes to the state's economic dependency on 'non-renewables'.

Changes should be made to Alaska's higher corporate income tax brackets in order to retain more significant developing enterprises. This may be done by either reducing rates for higher tax brackets to be more competitive with other states, or by significantly raising income requirements for higher tax brackets.

Institutional Action

Consensus Building / Marketing

Many state leaders hold similar vision for assisting enterprise development in Alaska. Though opinions differ on some aspects, development of a business incubator has long been recognized as a key component to economic diversification. Many attempts have, in fact, been made, through the Alaska Science and Technology Foundation, the University of Alaska, and various Regional Development Organizations. While some have had limited success, they have not created an adequately cohesive support system.

The AMBIT Plan creates much more than a standalone incubator; it is an integrated system which aggregates the state's limited abilities. A comprehensive plan like this is needed, but may be compromised if leaders cannot agree on the appropriate model.

Efforts must be made to educate legislators, the press and ultimately the public, in order to build the political momentum needed to follow through with such an undertaking. The infrastructure, support system and entrepreneurial culture will not be developed in a single year, so leaders must understand AMBIT's broad reaching implications and be willing to make the long-term commitment necessary for its success.

Private Action

Endowment Creation

The endowment of AMBIT is a critical component in achieving self-reliance. Commitments are already being sought from various private individuals, institutions and the business community. The endowment will also be fed by client fees, royalties, stock and other equity input. Initial contributions, however, must be through generous donation. Without a substantial principal balance, the endowment will be unable to serve its intended purpose.