

**2005**

**SENATE  
INFORMATION  
TECHNOLOGY**

**COMMITTEE  
MINUTES**

**SENATE COMMITTEE  
ON  
INFORMATION TECHNOLOGY**

**2005 SESSION**

**SENATOR VERNON MALONE, CHAIR**

**Staff:**

**Brenda Carter, Research**

**Peter Capriglione, Information Data Systems**

**Claudette Howell, Committee Assistant**

**SENATE COMMITTEE ON INFORMATION TECHNOLOGY**  
**2005-2006 Biennium**

Senator Vernon Malone, Chair  
Room 2113, LB (733-5880)  
Claudette Howell, Committee Assistant

Senator Janet Cowell, Vice Chair  
Room 1028, LB (715-6400)  
Nancy Brothers, Legislative Assistant

Senator Malcolm Graham, Vice Chair  
Room 1113, LB (733-5650)  
Owen Pollock, Legislative Assistant

Senator Phil Berger, Ranking Minority Member  
Rm. 1121, LB (715-8363)  
Barbara Eldridge, Legislative Assistant

Senator Robert Atwater  
Room 522, LOB (715-3036)  
Carol Resar, Legislative Assistant

Senator Andrew Brock  
Room 1101, LB (715-0690)  
Tabatha Walker, Legislative Assistant

Senator Katie Dorsett  
Room 2106, LB (715-3042)  
Phyllis Cameron, Legislative Assistant

Senator Eddie Goodall  
Room 1414, LB (733-7659)  
Elizabeth Slocum, Legislative Assistant

Senator Kay Hagan  
Room 411, LOB (733-5856)  
Marian Phillips, Legislative Assistant

Senator Richard Stevens  
Room 515, LOB (733-5653)  
Kleist Rhodes, Legislative Assistant

Brenda Carter  
Research Staff (733-2578)

Peter Capriglione  
Information Data Systems (733-6834)

Principal Clerk \_\_\_\_\_

Reading Clerk \_\_\_\_\_

**Corrected: Presentation by the NC Technology Association**

**ROOM NUMBER CHANGED TO 1124**

**SENATE**  
**NOTICE OF COMMITTEE MEETING**  
**AND**  
**BILL SPONSOR NOTICE**

The Senate Committee on **Information Technology** will meet at the following time:

| <b>DAY</b> | <b>DATE</b>    | <b>TIME</b> | <b>ROOM</b> |
|------------|----------------|-------------|-------------|
| Tuesday    | March 29, 2005 | 12:00 Noon  | 1124 LB     |

The following will be considered:

| <b>BILL NO.</b> | <b>SHORT TITLE</b> | <b>SPONSOR</b> |
|-----------------|--------------------|----------------|
|-----------------|--------------------|----------------|

Senator Vernon Malone, Chair

**Senate Information Technology Committee  
Tuesday, March 29, 2005, 12:00 Noon  
1124 LB**

**AGENDA**

|  |  |
|--|--|
| <b>Welcome and Opening Remarks</b>       | <b>Senator Vernon Malone, Chair</b>                                    |
| <b>Introduction of Pages &amp; Staff</b> | <b>Senator Vernon Malone, Chair</b>                                    |
| <b>Presentation</b>                      | <b>Joan Myers, President &amp; CEO</b><br>N. C. Technology Association |
| <b>Remarks</b>                           | <b>Bill Martin, President</b><br>Cumberland County Business Council    |
| <b>Discussion</b>                        |  |
| <b>Other Business</b>                    |  |
| <b>Adjournment</b>                       |  |

# SENATE COMMITTEE ON INFORMATION TECHNOLOGY

Tuesday, March 29, 2005  
Room 1124, Legislative Building

## MINUTES

The Senate Committee on Information Technology met at 12 noon on Tuesday, March 29, in Room 1124, Legislative Building. Seven senate members were present. Senator Tony Rand and Representative Paul Miller were also in attendance. Staff members in attendance at the meeting were Peter Capriglione and Brenda Carter.

Senator Vernon Malone, Committee Chair, presided. Senator Malone introduced the pages and the Sergeant-at-Arms staff assisting in the meeting.

In Senator Malone's introductory remarks, he talked about the need for the state of North Carolina to create technology jobs is critical to the state's economy. Senator Malone also informed those present that in the last session, the General Assembly instructed the North Carolina Technology Association (NCTA) to create a plan for creating jobs with a technology focus. He continued by stating that representatives from the North Carolina Technology Association were present to discuss the plan and that legislation would be brought before the committee that is critical in the implementation of this plan.

### NC Technology Association Presentation (by Joan Myers & Bill Martin)

Senator Malone introduced Joan Myers, CEO of the North Carolina Technology Association. She along with her staff presented an overview of the history, goals, and accomplishments of the North Carolina Technology Association. (Attachment A)

Ms. Myers and Bill Martin, President of the Cumberland County Business Council, explained the N. C. Job Agenda & Investment Strategy plan that NCTA developed. (Attachments B & C)

Ms. Myers stated that the job agenda is designed to highlight opportunities to strengthen North Carolina's economy and to create jobs. The 11 recommended opportunities to encourage growth in the economy as outlined in the plan were discussed:

- Research & Development
- Technology Incubation
- Grid Computing
- Nanotechnology
- Capital Formation
- Broadband
- Creating "On-Shore" Opportunities in North Carolina
- Focus on the North Carolina School of Science and Math
- Job Training
- Investment in K-12 Technology
- Incentives to retain North Carolina Innovators

One of the 11 elements was to recommend an investment in incubation. As a result, the Legislator asked the association to create a plan for a Homeland Security Incubator Center.

Ms. Myers explained the process that the Association used to develop a Homeland Security Incubator Center for the state.

At the conclusion of the presentation, Ms. Myers answered questions from member of the committee. The questions asked were for points of clarification.

**SB 1062: Defense Technology Innovation Center (AN ACT TO APPROPRIATE FUNDS FOR A DEFENSE TECHNOLOGY INNOVATION CENTER) –Bill Sponsor: Sen. Rand**

Senator Rand introduced the Bill. After brief comments by committee members, Senator Malone moved for the adoption of the Committee Substitute. All members voted yes and the motion to adopt the committee substitute was carried.

There was no further business and the meeting was adjourned at 12:50 p.m.



Senator Vernon Malone, Chair



Claudette Howell, Committee Assistant

**GENERAL ASSEMBLY OF NORTH CAROLINA  
SESSION 2005**

**S**

**1**

**SENATE BILL 1067\***

Short Title: Defense Technology Innovation Center. (Public)

Sponsors: Senator Rand.

Referred to: Information Technology.

March 24, 2005

A BILL TO BE ENTITLED  
AN ACT TO APPROPRIATE FUNDS FOR A DEFENSE TECHNOLOGY  
INNOVATION CENTER.

Whereas, the nation has committed enormous resources to national security and to countering terrorism evidenced by the fact that between 2001 and 2004 total federal spending on defense, homeland security, and international affairs rose more than fifty percent, in excess of five hundred forty-seven billion dollars; and

Whereas, North Carolina is home to five major military installations, including three first-strike military bases; and

Whereas, North Carolina is recognized as a global leader in technology development and home to world-class innovation and achievement, and by connecting the technology and scientific expertise with the military knowledge and relationships, North Carolina can achieve powerful opportunities for new business; and

Whereas, a comprehensive action plan, entitled the Defense Technology Innovation Center, has been drafted by the North Carolina Technology Association that aims to couple the State's innovation assets and military relationships into a sector-focused business accelerator for fueling entrepreneurs and innovators to create technologies that could be used in the global war on terror; and

Whereas, this model of business acceleration could have a powerful economic impact in North Carolina by developing technologies that can be used in the defense and intelligence communities; and

Whereas, intellectual property and technologies developed at the Defense Technology Innovation Center would be of a sensitive nature and would need to be secure; and

Whereas, certain clearances must be obtained to work in and around this type of environment; and

Whereas, in order for the Center to successfully implement its business plan, all documentation and financial audits should be executed by a private company; Now, therefore,



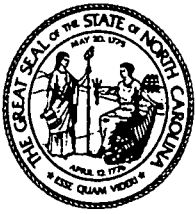
1 The General Assembly of North Carolina enacts:

2       **SECTION 1.** There is appropriated from the General Fund to the North  
3 Carolina Community College System the sum of two million dollars (\$2,000,000) for  
4 the 2005-2006 fiscal year and the sum of one million five hundred thousand dollars  
5 (\$1,500,000) for the 2006-2007 fiscal year to be used by Fayetteville Technical  
6 Community College for the development of a Defense Technology Innovation Center, a  
7 business incubator focusing on economic development opportunities in the industries  
8 relating to homeland security and national defense. Funds appropriated under this act  
9 shall be used in accordance with Section 2 of this act.

10       **SECTION 2.** Funds appropriated in this act shall be used for the following:

- 11       (1) Site selection and acquisition, including the purchase or lease of real  
12       property to house the Center; the construction of buildings or other site  
13       structures; the improvement or refurbishment of existing structures to  
14       provide appropriate laboratory and administrative space; and the  
15       improvement of existing infrastructure at the facility, including  
16       improvements to utility, telecommunications, and Internet  
17       infrastructure.
- 18       (2) Equipment acquisition, including acquisition of laboratory equipment  
19       and supplies and office furniture, equipment, and supplies.
- 20       (3) Employment of staff to support the mission of the Center and to  
21       oversee day-to-day operations of the Center.
- 22       (4) Implementation of a comprehensive business and marketing plan for  
23       the Center.
- 24       (5) Development of a tenant screening process and the recruitment of  
25       appropriate tenants for the Center.
- 26       (6) Administration and operation of the Center and the development of a  
27       sustainable business plan for the Center.

28       **SECTION 3.** This act becomes effective July 1, 2005.



# SENATE BILL 1067: Defense Technology Innovation Center

## BILL ANALYSIS

**Committee:** Senate Information Technology  
**Date:** March 29, 2005  
**Version:** S1067-CSR-V-2

**Introduced by:** Senator Rand  
**Summary by:** Brenda J. Carter  
Committee Counsel

**SUMMARY:** *The proposed committee substitute for Senate Bill 1067 appropriates \$3.5 million to the Partnership for Defense Innovation to be used by Fayetteville Technical Community College for the development of a Defense Technology Innovation Center, a business incubator focusing on economic development opportunities in industries relating to homeland security and national defense.*

**BILL ANALYSIS:** The bill appropriates \$2 million from the General Fund for the 2005-2006 fiscal year, and \$1.5 million for the 2006-2007 fiscal year. The funds would be used for the following:

- Site selection and acquisition of property
- Construction or renovation of buildings for laboratory and administrative space
- Improvement of existing infrastructure - including utility, telecommunications and Internet access.
- Acquisition of equipment – laboratory equipment and supplies, office furniture & equipment
- Staffing, administration, and operation of the center
- Business and marketing plan
- Recruitment and selection of tenants

The act would become effective July 1, 2005.

**GENERAL ASSEMBLY OF NORTH CAROLINA**  
**SESSION 2005**

**S**

**D**

**SENATE BILL 1067\***  
**PROPOSED COMMITTEE SUBSTITUTE S1067-CSR-2 [v.1]**

3/28/2005 1:18:08 PM

Short Title: Defense Technology Innovation Center.

(Public)

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Sponsors:

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Referred to:

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March 24, 2005

1                                   A BILL TO BE ENTITLED  
2 AN ACT TO APPROPRIATE FUNDS FOR A DEFENSE TECHNOLOGY  
3 INNOVATION CENTER.

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5 and to countering terrorism evidenced by the fact that between 2001 and 2004 total  
6 federal spending on defense, homeland security, and international affairs rose more than  
7 fifty percent, in excess of five hundred forty-seven billion dollars; and

8               Whereas, North Carolina is home to five major military installations,  
9 including three first-strike military bases; and

10              Whereas, North Carolina is recognized as a global leader in technology  
11 development and home to world-class innovation and achievement, and by connecting  
12 the technology and scientific expertise with the military knowledge and relationships,  
13 North Carolina can achieve powerful opportunities for new business; and

14              Whereas, a comprehensive action plan, entitled the Defense Technology  
15 Innovation Center, has been drafted by the North Carolina Technology Association that  
16 aims to couple the State's innovation assets and military relationships into a  
17 sector-focused business accelerator for fueling entrepreneurs and innovators to create  
18 technologies that could be used in the global war on terror; and

19              Whereas, this model of business acceleration could have a powerful  
20 economic impact in North Carolina by developing technologies that can be used in the  
21 defense and intelligence communities; and

22              Whereas, intellectual property and technologies developed at the Defense  
23 Technology Innovation Center would be of a sensitive nature and would need to be  
24 secure; and

25              Whereas, certain clearances must be obtained to work in and around this type  
26 of environment; and

1           Whereas, in order for the Center to successfully implement its business plan,  
2 all documentation and financial audits should be executed by a private company; Now,  
3 therefore,

4 The General Assembly of North Carolina enacts:

5           **SECTION 1.** There is appropriated from the General Fund to the Partnership  
6 for Defense Innovation the sum of two million dollars (\$2,000,000) for the 2005-2006  
7 fiscal year and the sum of one million five hundred thousand dollars (\$1,500,000) for  
8 the 2006-2007 fiscal year to be used by Fayetteville Technical Community College for  
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North Carolina General Assembly  
Through Senate Committee on  
Information Technology

Date: 09/08/2005  
Time: 13:47  
Page: 001 of 001  
Leg. Day: H-125/S-126

2005-2006 Biennium

| Bill          | Introducer       | Short Title                                      | Latest Action                              | In Date         | Out Date        |
|---------------|------------------|--|--|-----------------|-----------------|
| <b>H1067=</b> | <b>Tony Rand</b> | <b>DEFENSE TECHNOLOGY<br/>INNOVATION CENTER.</b> | <b>*S Ref To Com On<br/>Appropriations</b> | <b>03-24-05</b> | <b>03-30-05</b> |

'\$' indicates the bill is an appropriation bill.

A bold line indicates the bill is an appropriation bill.

'\*' indicates that the text of the original bill was changed by some action.

'=' indicates that the original bill is identical to another bill.

**GENERAL ASSEMBLY OF NORTH CAROLINA**  
**SESSION 2005**

**S**

**D**

**SENATE BILL 1067\***  
**PROPOSED COMMITTEE SUBSTITUTE S1067-CSRV-2 [v.1]**

3/28/2005 1:18:08 PM

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Sponsors:

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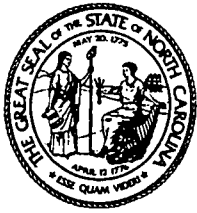
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# SENATE BILL 1067: Defense Technology Innovation Center

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**NORTH CAROLINA GENERAL ASSEMBLY  
SENATE**

**INFORMATION TECHNOLOGY COMMITTEE REPORT  
Senator Vernon Malone, Chair**

Wednesday, March 30, 2005

Senator MALONE,  
submits the following with recommendations as to passage:

**UNFAVORABLE AS TO BILL, BUT FAVORABLE AS TO COMMITTEE SUBSTITUTE  
BILL**

|      |      |                                       |                            |
|------|------|---------------------------------------|----------------------------|
| S.B. | 1067 | Defense Technology Innovation Center. |                            |
|      |      | Draft Number:                         | PCS75277                   |
|      |      | Sequential Referral:                  | Appropriations/Base Budget |
|      |      | Recommended Referral:                 | None                       |
|      |      | Long Title Amended:                   | No                         |

TOTAL REPORTED: 1

Committee Clerk Comments:

UNFAVORABLE AS TO BILL, BUT FAVORABLE AS TO COMMITTEE SUBSTITUTE.



## The North Carolina Technology Association (NCTA)

March 29, 2005

# NORTH CAROLINA TECHNOLOGY ASSOCIATION



*The intersection of technology and leadership  
fueling the growth of North Carolina through  
Executive Engagement, Public Affairs and a  
Knowledge Workforce*

# LEADERSHIP



- Statewide Board of Directors
  - Leaders in the Technology Industry representing entrepreneurial to global national corporations
- Joan Myers – President & CEO
- Dave Rizzo – President & CEO, MCNC
  - Stacy Glass, Economic Development Consultant
  - Jim Robbins/Carol Lauffer, Business Cluster Development

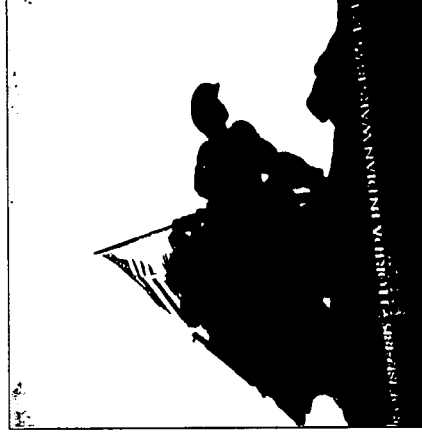
2004



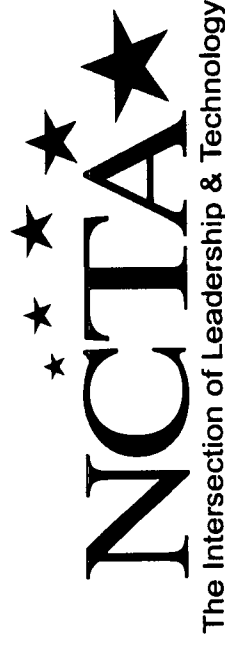
- Presented the North Carolina Jobs Agenda & Investment Strategy
  - *Recommended investments in incubation & partnering military assets with innovation assets in the state for job growth.*
- NC Legislature tasks NCTA and MCNC to draft a plan for a statewide Homeland Security Incubator

# SECURITY & DEFENSE

- 5 year collaborative with the FBI
- Focused on cyber security
- Targeted market opportunities as the federal government puts in increasing resources into Security & Defense technologies



# ESTABLISHES HOMELAND SECURITY COMMITTEE



*NCTA's role in security is to work collaboratively with our U.S. Congressional delegation, law enforcement, and public sector leaders in order to share information on threats and innovation opportunities.*

- Leveraging NC's military presence and knowledge to enhance economic development
- Building a bridge to military community
- Accelerating NC's innovation and R&D assets into companies and jobs

# SECURITY TECHNOLOGIES MARKET OPPORTUNITY

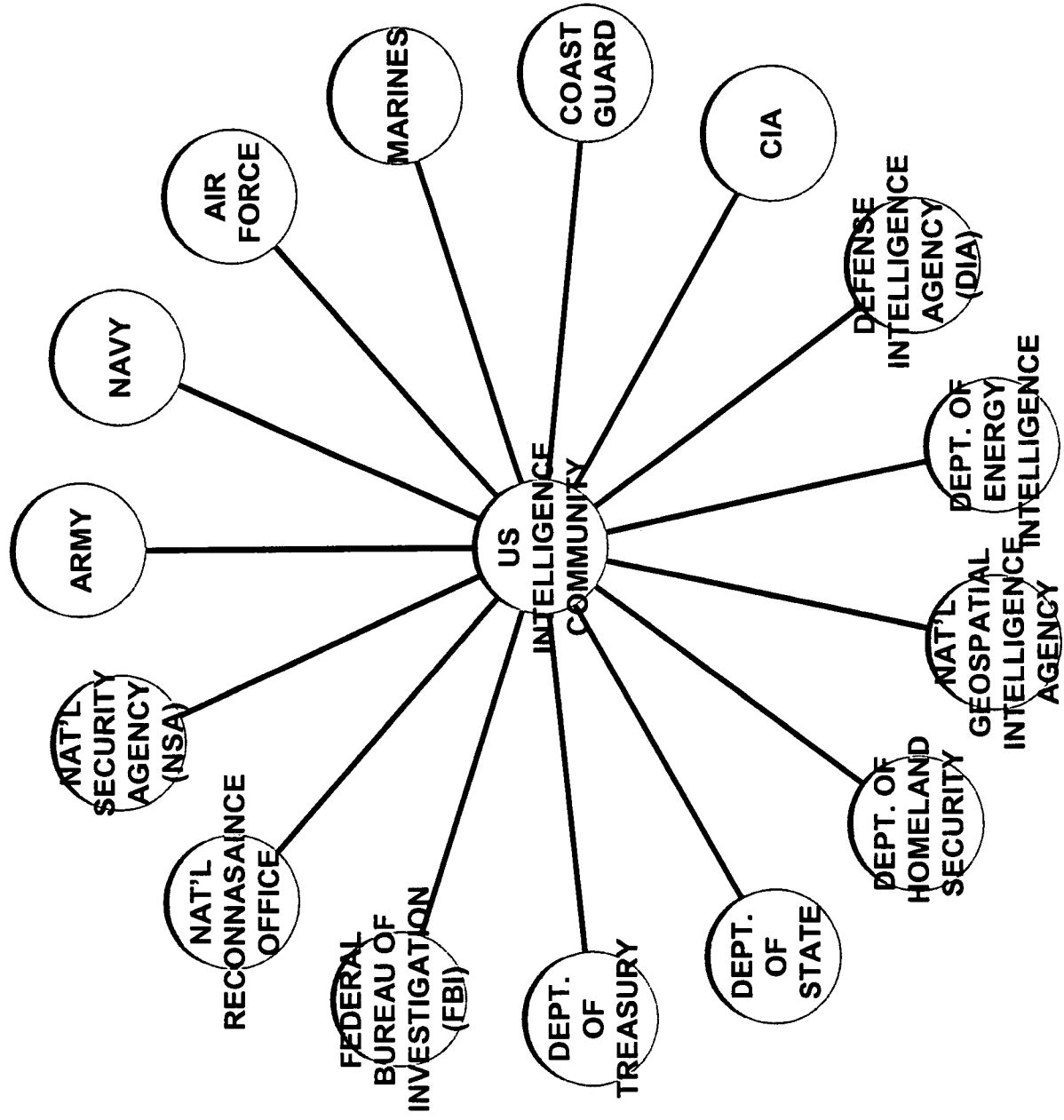
- “The Intelligence Community budget is estimated at \$40 billion.<sup>1</sup>”
- “Whatever the precise numbers, there is no doubt the Intelligence Community is creating many billiions of dollars in new procurement opportunities.<sup>1</sup>”

*The Private Sector’s Role in Building the Intelligence Community of the 21<sup>st</sup> Century: Increased Partnering with Industry to Maintain America’s Edge*

<sup>1</sup> Report by Equity International



# US INTELLIGENCE COMMUNITY

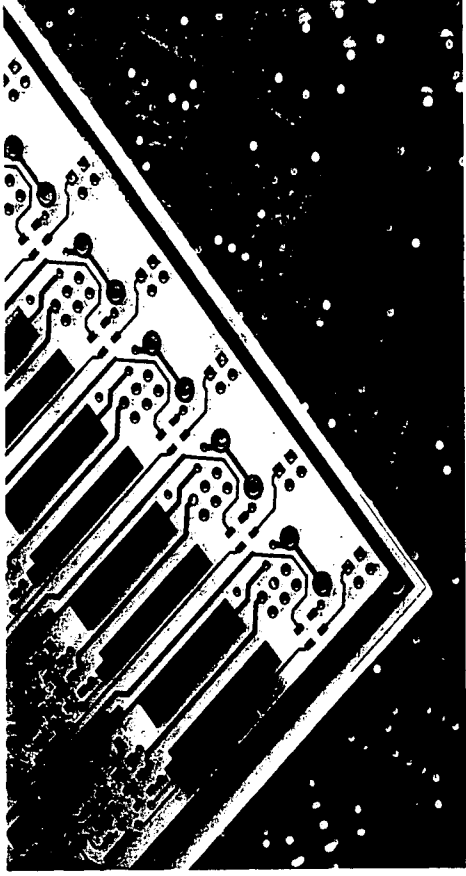


# TECHNOLOGY

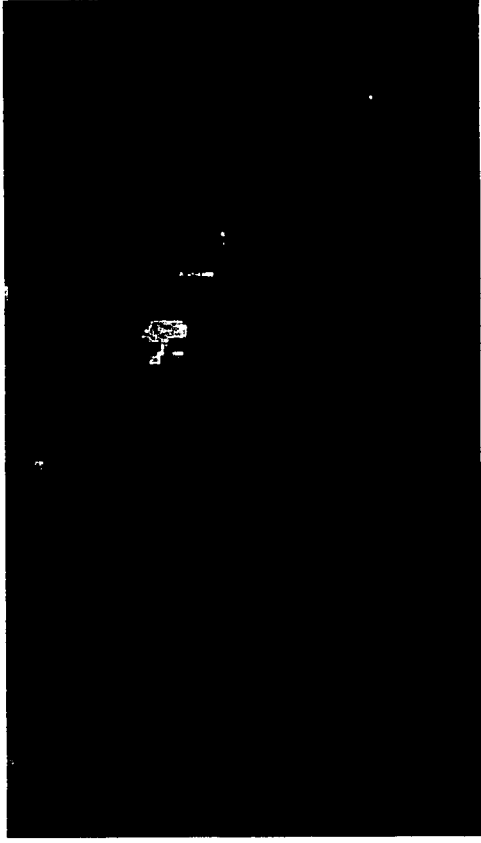
“Connecting the dots’ is considered key to preventing terrorism, defeating America’s enemies in the Global War on Terrorism and achieving other vital national security objectives”

*The Private Sector’s Role in Building the Intelligence Community of the 21<sup>st</sup> Century:  
Increased Partnering with Industry to Maintain America’s Edge by Equity International  
by Equity International, March 2005*

# NC LANDSCAPE



- Innovation assets all across North Carolina
- Small companies working on security technologies/need help to scale
- Many large companies have their security work based in North Carolina



## NC LANDSCAPE

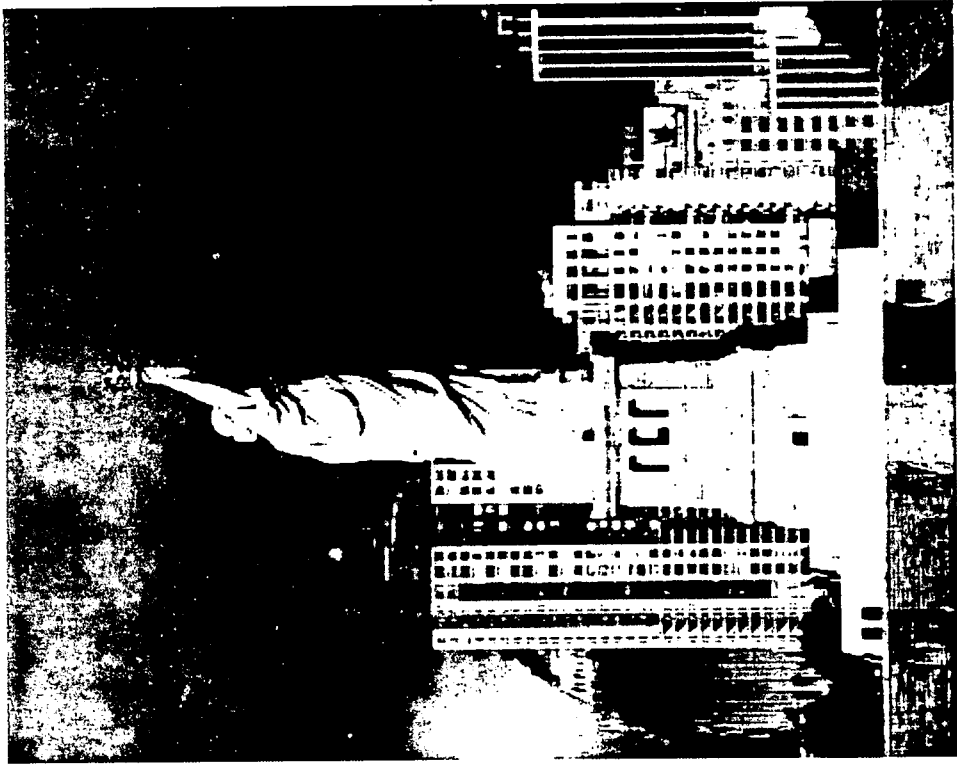
- 5 military bases in North Carolina
- 3 “First Strike” military bases
- World class warfighter capabilities based in North Carolina

*“Best of the Best are Here”*



# GLOBAL LANDSCAPE

- September 11, 2001
- United States is  
attacked by Terrorists
- Global War on Terror

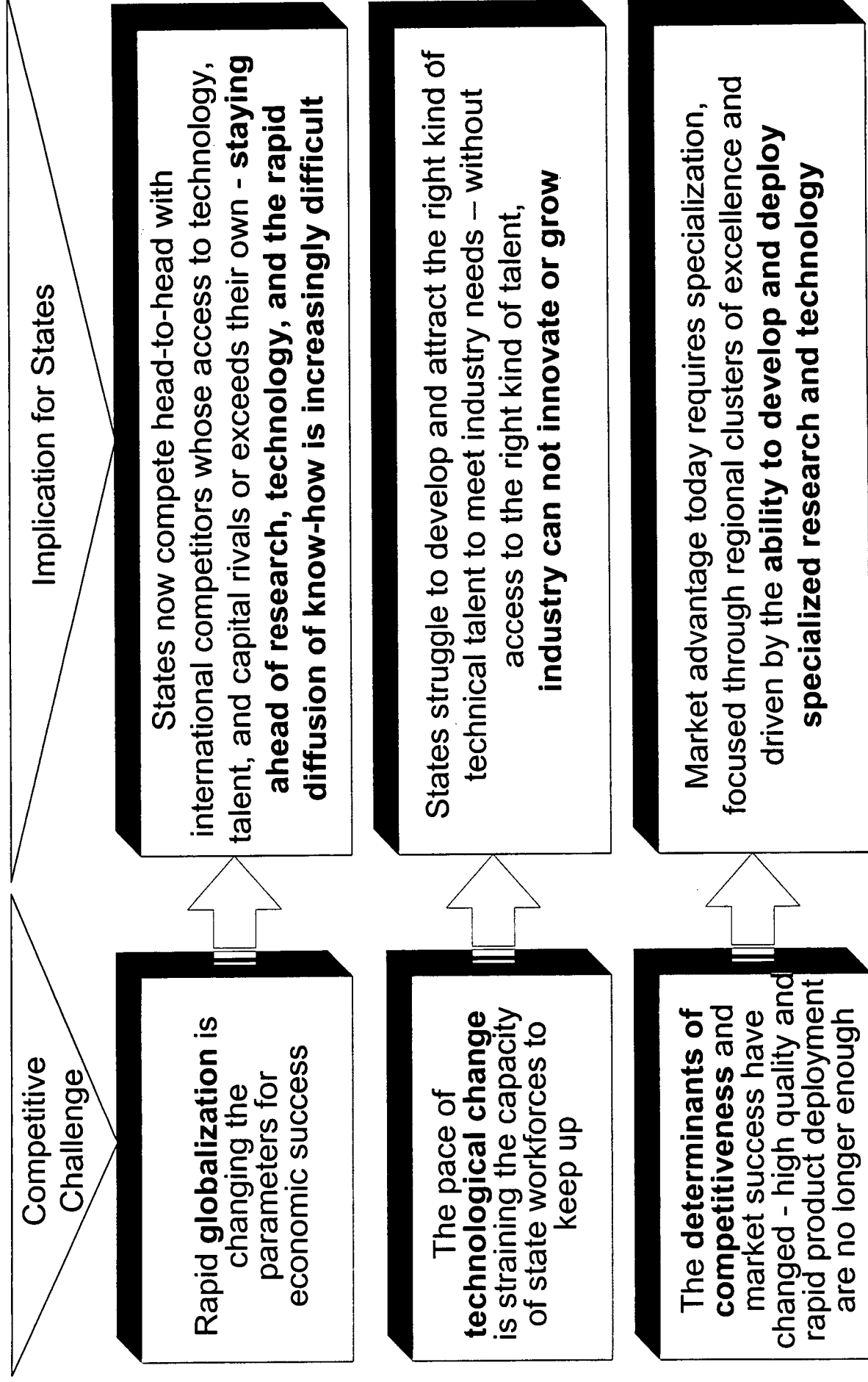


# ECONOMIC LANDSCAPE

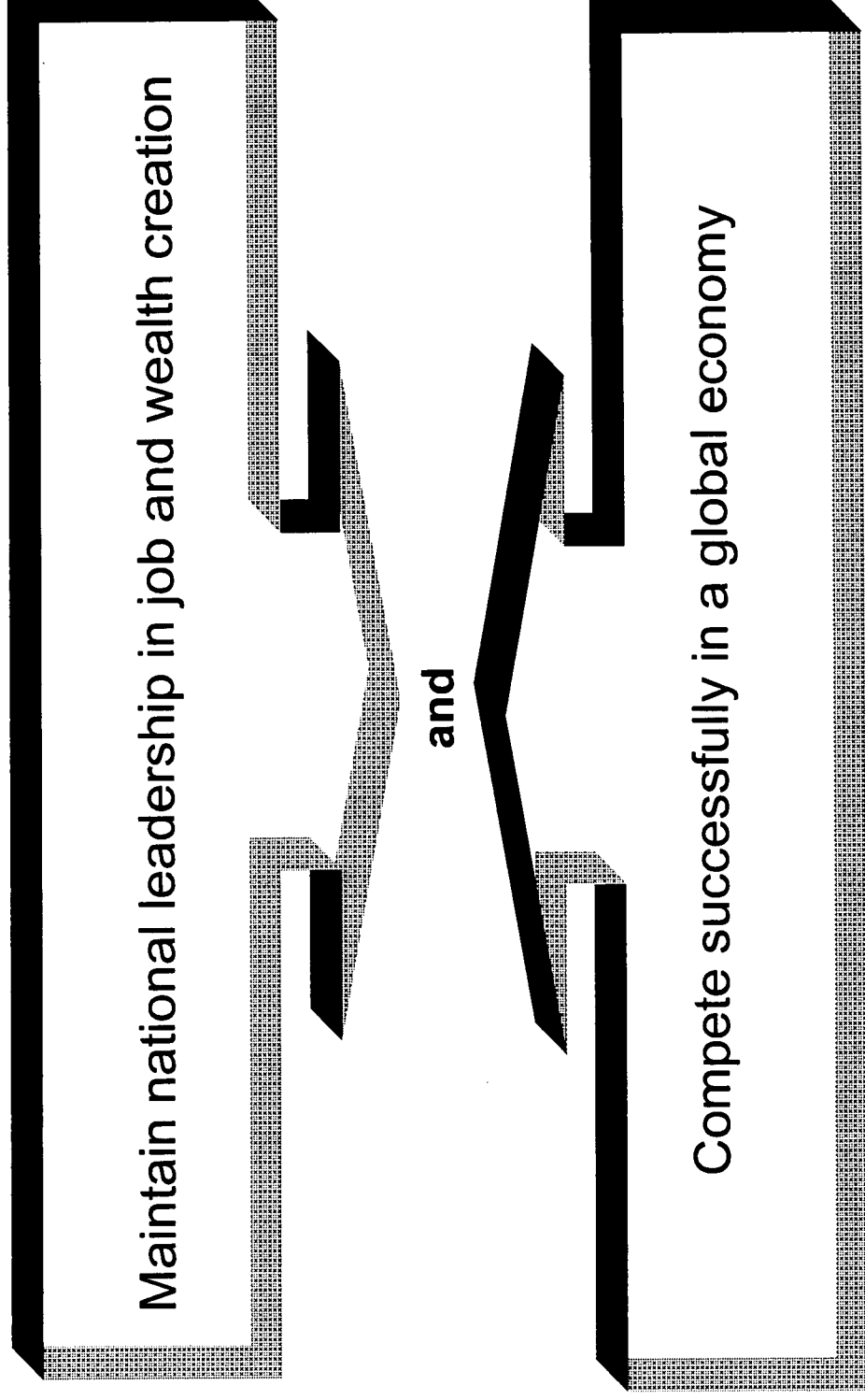


- **Competition** is Global
- **Markets** are Global
- **R&D** and **Innovation** are the sustaining elements
- **Innovation**, the US has had a 8-10 year edge

# THE ECONOMIC LANDSCAPE HAS SHIFTED, CHANGING THE GAME FOR STATES...



# THIS COMPETITIVE PARADIGM CREATES NEW CHALLENGES FOR STATE ECONOMIC DEVELOPMENT LEADERS...

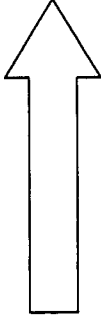




# THE CHALLENGE OF SECURITY & DEFENSE TODAY

## Old model:

- Large states
- Large armies
- Much at risk



## New model:

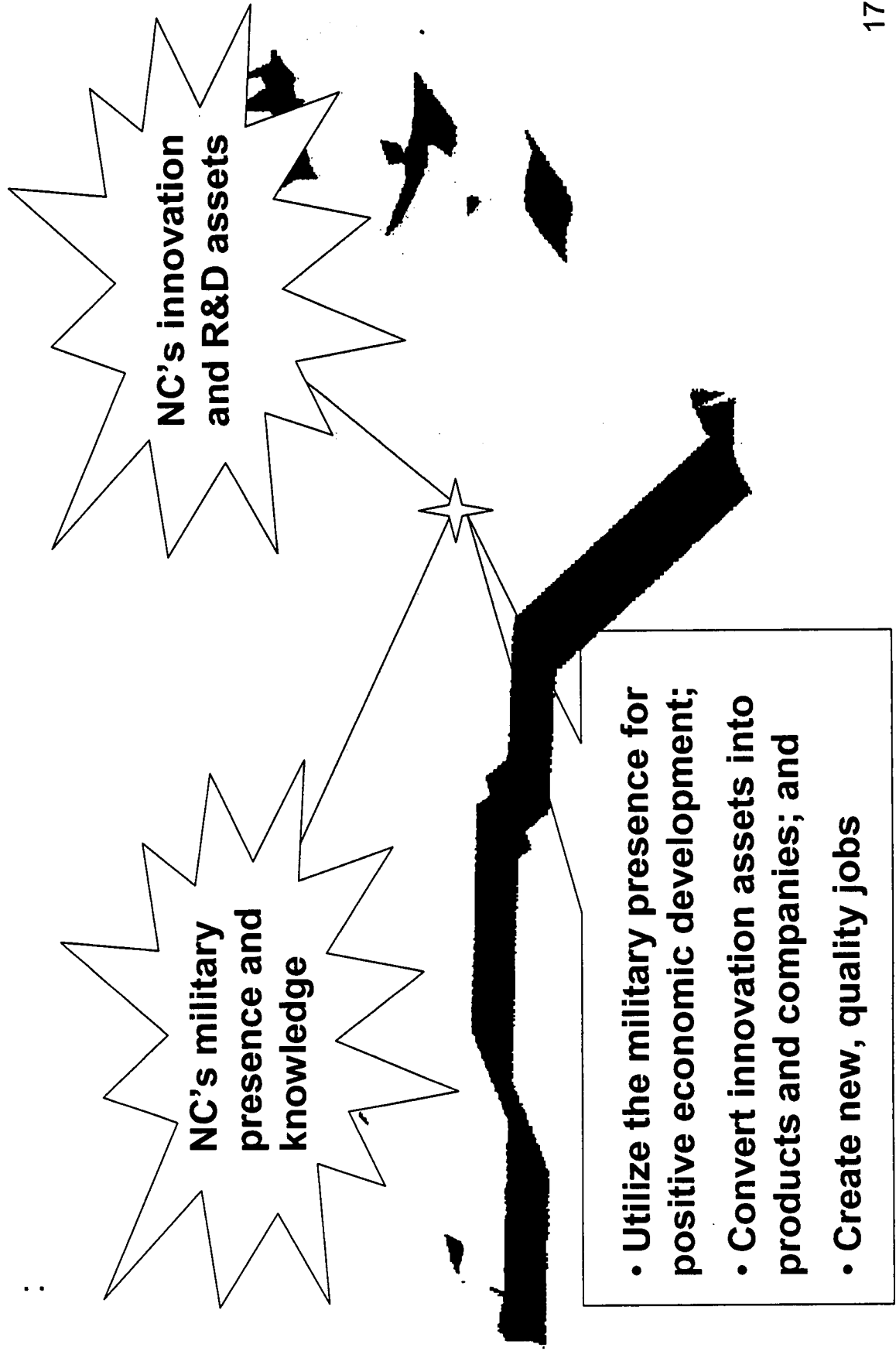
- Dispersed networks
- Emerge quickly
- Borderless
- Little to lose



- Nation is committing enormous resources
- Increased reliance and demand for technology
- Military is an important market for technology development and commercialization
- Commercial applications for security technologies open the door to much larger markets



# BUILDING THE BRIDGE

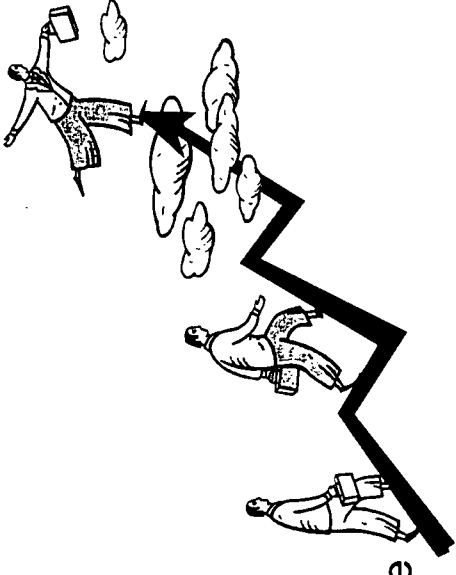


# THE PLAN



# PLAN TIMELINE

- ⇒ August '04 NCEITA/MCNC receives funding
- ⇒ September '04 Engaged incubator experts
  - Business Cluster Development
- ⇒ September – December '04 Conducted over 50 interviews
  - Fayetteville, RTP, and Charlotte
- ⇒ November '04 Visited best practices incubator
  - CIC in Annapolis, has a strategic partnership with NSA
- ⇒ December – January '05 Draft Report
  - reviewed by NCEITA Board Members, MCNC, CCBC, FTCC, and Military representatives
- ⇒ February '05 Supplement report (Lab, Fund)
  - Finalizing financials
- ⇒ February '05 Conduct briefings and seek key endorsements
- ⇒ February '05 Submit report
- ⇒ March '05 Present to General Assembly Committee



# INTERVIEWS CONDUCTED

- Roy Adams, CEO, 818 Inc.
- Mark Armstrong, CEO, Intepoint
- COL Al Aycock, Garrison Commander, Fort Bragg
- Bill Badger, President/CEO, Anne Arundel Economic Development Corp.
- Clarence Briggs, CEO, AIT
- Olin Broadway, Director eBusiness, UNCC
- Mike Buffa, President & CEO, Milcom Technologies
- Tony Chavonne, Chair, Cumberland County Business Council
- Bei-Tseng (Bill) Chu, Chairman Software & Information Systems, UNCC
- Deborah Clayton, Executive Director, Charlotte Research Institute UNCC
- Jerome (Jerry) Cuomo, Distinguished Research Professor, NC State
- Wayne Daddetto, President, Tactical Support Equipment
- David Dausch, PhD, Principal Engineer, MCNC
- Roger Debo, Director, HiTEC, NC State
- Ron DiFelice, Alpha V Inc.
- Kirk deViere, Senior Vice President, AIT
- Ed diGirolamo, CEO Applied Sciences International
- Scott Dorney, North Carolina Military Business Center
- Monica Doss, President, Council for Entrepreneurial Development
- John Elstner, CEO, Chesapeake Innovation Center
- Bob Ervin, Associate Vice President, Fayetteville Technical Community College
- Randy Fraser, VP Government Affairs NC, Time Warner Cable
- Joe Freddoso, Director, Site Operations, Cisco
- Chris Gilbert, Associate Director, Charlotte Research Institute UNCC
- Col. Jim Granger, USASOC
- Jon Hamm, Regional Public Affairs Manager, Sprint
- Robert (Bob) Hocken, Director, Center for Metrology, UNCC
- Rich Holcomb, entrepreneur
- Brian Kent, Program Manager C41, Joint Special Operations Command - J6 Technology
- Gen. William F. "Buck" Kernan (Retired), Former Commander, U.S. Joint Forces Command
- Brij Khorana, COO, Rose Hulman Ventures
- Gen. James J. Lindsay (Retired), Former Commander of the 82nd Airborne Division, XVIII Airborne Corps and the U.S. Special Operations Command

- Larry Mays, Future Director of the Center for Bioinformatics, UNCC
- Bill Martin, President & CEO, Cumberland County Business Council
- James Martin, Cumberland County Manager
- Warren McDonald, Special Assistant to the Chancellor, Fayetteville State University
- Bob McMahan, Sr. Advisor to the Governor for Science & Technology and Executive Director of the NC Board of Science & Technology
- Randy Moore, CEO, RLM Communications
- Mitch Mumma, Partner, Intersouth Partners
- Maj. Gen. Virgil L. Packett II, Deputy Commanding General of the XVIII Airborne Corps and Fort Bragg
- Steve Parrott, State Executive, Sprint
- Scott Perry, Director, SYTEX
- Jeff Reid, Kenan-Flagler Center for Entrepreneurship and Technology Venturing
- Dave Rizzo, President & CEO, MCNC
- Chris Sanders, Senior Account Executive, MCNC
- Roger Sanwald, Senior Researcher, NC State
- Mark Sauter, COO, Chesapeake Innovation Center
- Gen. Hugh Shelton (Retired), 14th Chairman of the Joint Chiefs of Staff
- Roger Stancil, City Manager, City of Fayetteville
- Wick Smith, President, BizToolsOne.
- Ronald Smelser, Associate Dean, College of Engineering, UNCC
- Brian Stoner, Principal Scientist, MCNC
- John Strenkowski, Assistant Dean for Research, NC State
- Laura Thiel, President, MediPak Energy Systems
- John Tuohey, Senior C41 Analyst, Joint Special Operations Command - J6
- Larry Walsh, President and CEO, Logistics Co.
- Col. Ron Watkins, Chief of Staff, Pope Air Force Base
- Erik Wells, CEO, SchoolLink,
- Ken Williams, Vice President Materials & Electronic Technologies, MCNC
- Jay Windmon, Deputy Director, SYTEX
- Barbara Wolcott, Chief, Family Support Flight, Pope Air Force Base
- Kelly Wright, Director Business Development, HueMetrix
- Oliver Wyrtilu, Installation Technology Business Center, Fort Bragg

## **A NEW MODEL – BUILDING FROM OUR STRENGTHS**



- Sector focused to leverage the unique competitive advantage of the region;
- Proximity to a strategic partner to help overcome significant start-up barriers;
- Focus on services (vs. space) as critical for successful acceleration of start-up companies.
- Model of Incubation based on *Relationships*

## WHY NORTH CAROLINA?



- 4th Largest Military Presence in the World
  - Fort Bragg and Pope Air Force Base: Home of the XVIII Airborne Corps, the 82nd Airborne Division, the U.S. Army Special Operations Command, and is one of the largest military complexes in the world
- Global Leader in Technology Development and Business
  - Research Triangle Park (RTP), recognized as home to world-class innovation and achievement in the areas of advanced materials, imaging, information technology hardware, software, microelectronics, optics/photonics, sensors and telecommunications.
  - Innovation assets focused on security technologies in Charlotte, Asheville, the Piedmont... all across the state.
  - World class technology companies – over 2,000 in the state.

# DEFENSE TECHNOLOGY INNOVATION CENTER

## GOALS

- Bridge NC's innovation and military assets
- Develop technology solutions to security and defense problems Identified by the military
- Foster collaborations with the military, entrepreneurs, universities and technology companies to share ideas, understand needs, and commercialize technologies;
- Create a network of expertise to scout technologies and companies
- Collaborate on prototype and testing of technologies



# DEFENSE TECHNOLOGY INNOVATION CENTER

## GOALS (con't)

- Accelerate the formation and growth of early technology ventures
- Provide access to early stage funding
- Create dual use applications in the security and homeland defense sectors;
- Establish successful, new technology businesses in Fayetteville;
- Create jobs for transitioning military and spouses and others in Fayetteville; and
- Serve as a model of business incubation

# DEFENSE TECHNOLOGY INNOVATION CENTER

## KEY COMPONENTS

**Incubator** – A 12,000 to 15,000 square foot facility for 12 to 15 startup companies and up to 10 affiliate companies.

**Security Clearances** – one or two key staff will hold appropriate clearances

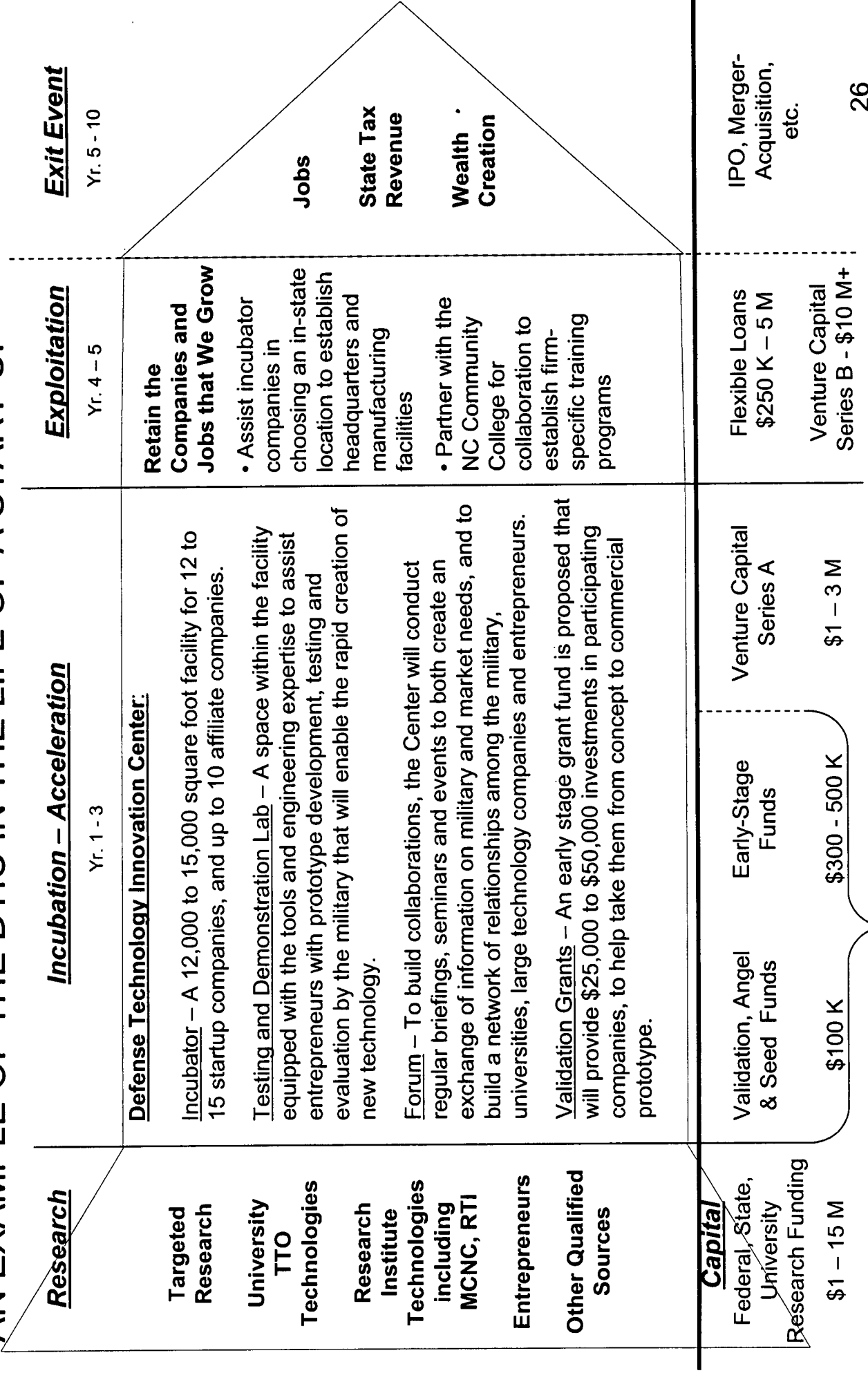
**Prototype and Testing Laboratory** – A space equipped with the tools & engineering expertise and workbenches to assist with prototype development, testing and evaluation.

**Forums and Networks of Expertise** – Regular briefings, seminars & events to create an exchange of information on military and market needs, & to build a network of relationships with the military, universities, & technology companies.

**Seed Funding** – Grants of \$25,000 - \$50,000 will be available to client companies for proof-of-concept, market analysis, prototype development, & other validation work.

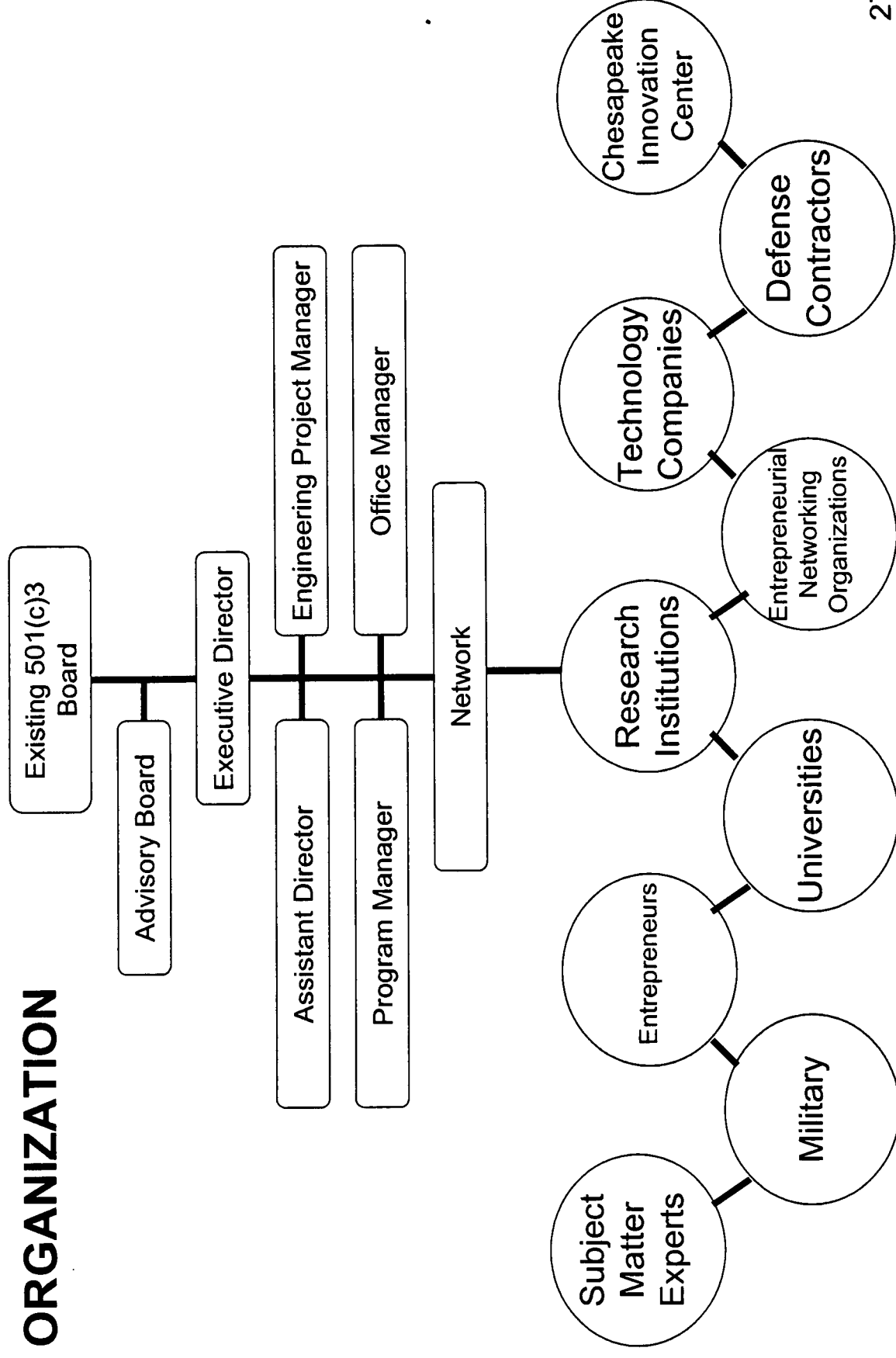


# AN EXAMPLE OF THE DTIC IN THE LIFE OF A START-UP



# DEFENSE TECHNOLOGY INNOVATION CENTER

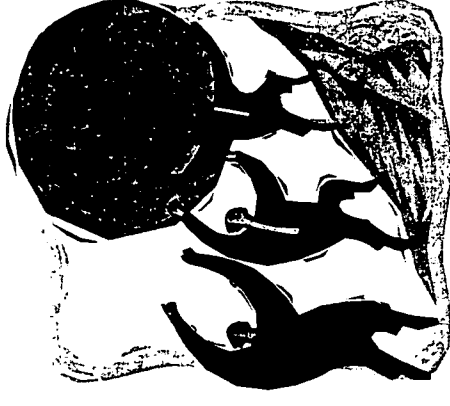
## ORGANIZATION



# DEFENSE TECHNOLOGY INNOVATION CENTER

## LEVERAGING LOCAL ASSETS

- The DTIC will leverage the military presence & grow the defense and security sector.
  - The NC Military Business Center
  - Cumberland County Business Council
  - Fayetteville Technical Community College
  - Fayetteville State University
- DTIC will build upon local efforts including:
  - FSU's courses, training, & applied research in defense, intelligence, and military procurement;
  - Internships with tenant companies
  - Programs that expose students to entrepreneurship & careers in technology
  - Workforce development efforts at FTCC.



## DEFENSE TECHNOLOGY INNOVATION CENTER



- Will continue a strategic partnership with NCTA
- Will work with NCTA to look at replication models with other strategic channel partners

# DEFENSE TECHNOLOGY INNOVATION CENTER

## FUNDING

- \$3.5 million over two years to start
- Most incubators take 5 -10 years to reach a self-sustaining level
- Public funding required in initial phase
- Return on Investment justifies public support
- Sustainability will requires funding from multiple sources over time:
  - Equity participation, sponsorships, grants



## WHAT WE HAVE LEARNED

- ✓ Cluster-based incubation has proven to be a highly effective model for achieving economic development goals.
- ✓ There is an growing Security and Defense Cluster in North Carolina that has no cohesion.
- ✓ Business incubation programs accelerate the successful development of entrepreneurial companies.
- ✓ Graduates have 80% of businesses which participate in an incubator program succeed.
- ✓ 84% of the businesses locate within 5 miles of the incubator site after graduating from the incubator program.<sup>[1]</sup>
- ✓ Proximity to a strategic partner (such as the military) helps overcome significant start-up barriers.
- ✓ Services are critical for successful acceleration of start-up companies.

[1]Molinar, Lawrence, *Business Incubation Works*, (NBIA Publications, 1997).



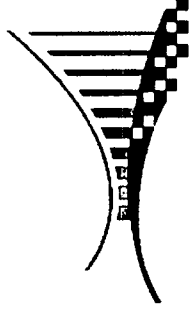
## BOTTOM LINE...



***By supporting soldiers with advanced technologies, the U.S. Army will lead in its ability to see first, understand first, decide and act first, finish decisively, and survive and endure.***

Richard Stouder retired colonel, US Army and senior program manager in the National Security Directorate at Oak Ridge National Laboratory in Oak Ridge, Tennessee.

# A NATIONAL MODEL



C H E S A P E A K E

## CHESAPEAKE INNOVATION CENTER (CIC) **Innovation Center**

- America's first business accelerator for Homeland and National Security
- Mission
  - To make our nation more secure by bridging the buyers in the National Security Marketplace with entrepreneurial technology innovation
- Goals
  - Focus the power of entrepreneurship on America's most pressing security requirements
  - Create a bridge between major users of security technology and small companies at the forefront of innovation
  - Enhance America's technological edge
  - Propel the "Informatics Corridor" centered in Anne Arundel County, Maryland
  - Establish a national network of security and defense accelerators

# **CHESAPEAKE INNOVATION CENTER**

## **Benchmarking and Information Visits**

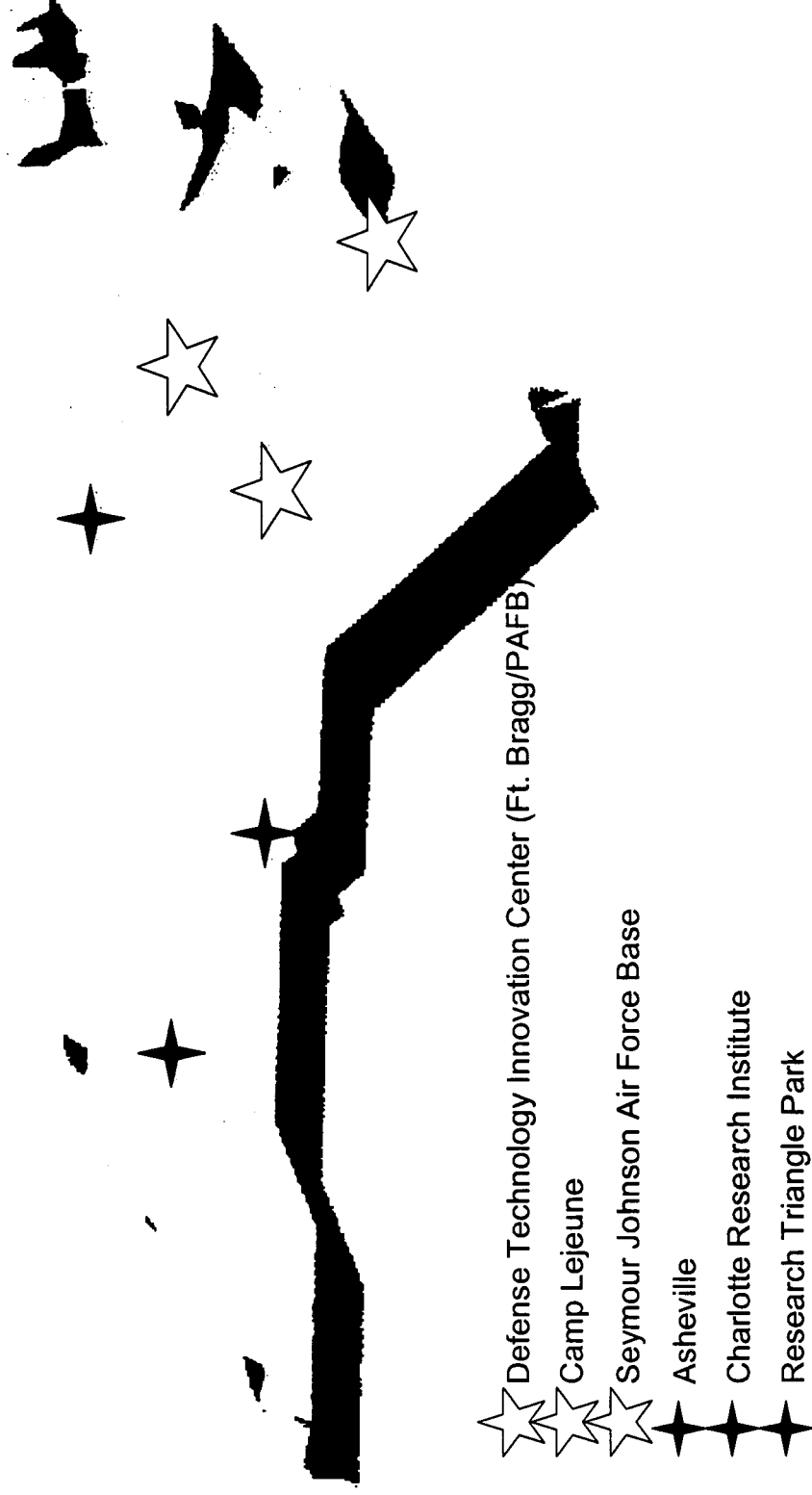
### **November 11th**

- Dave Rizzo, President & CEO, MCNC
- Joan Myers, President & CEO, NCIETA
- Steve Parrott, State Executive, Sprint
- Randy Fraser, VP Government Affairs NC, Time Warner Cable
- Scott Dorney, Executive Director, Military Business Center
- Scott Perry, Director, Special Skills Training, SYTEX
- Joe Freddoso, Director, RTP Site Operations, Cisco

### **February 17<sup>th</sup>**

- Senator Tony Rand
- Representative Joe Tolson
- Representative Margaret Dickson
- Representative Trudi Walend
- Representative Rick Glazier
- Ms. Susan Morgan, General Assembly, Office of Fiscal Research
- Mr. Eric Wilson, Office of the Honorable Robin Hayes
- Mr. Bill Martin, President & CEO, Cumberland County Business Council

# NC Defense Technology Innovation Centers and Innovation Assets



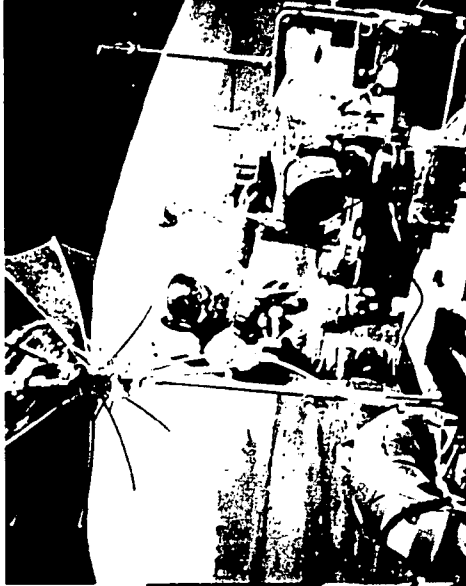
# SUMMARY



- The technology needs of the Intelligence Enterprise is significant
- NC has one of the largest and most technologically advanced military presence in the world
- NC is a global leader in technology development, business, & know-how
- There is an growing Security and Defense Cluster in NC
- Business incubation programs accelerate the successful development of entrepreneurial companies
- Cluster-based incubation has proven to be a highly effective model for achieving economic goals
- Proximity to a strategic partner (such as the military) helps overcome significant start-up barriers
- The Defense Technology Innovation Center will address these opportunities.

“There is no security on this earth;  
there is only opportunity.”

*General Douglas MacArthur*





## NCEITA'S North Carolina Jobs Agenda & Investment Strategy

### Overview

In order for North Carolina to rapidly accelerate job growth and create economic power, we are putting forth a NCEITA's Jobs Agenda or "Knowledge Magna Carta." That is to say, we are creating a "great charter" or map of critical investments, for bold new ideas and thoughts that can be quickly executed and carried forth. Our objective is to quickly accelerate return on existing assets while increasing investments to support a long-term sustainable information economy.

So that North Carolina is positioned as a global destination for knowledge-based companies and workers, NCEITA – in conjunction with the N.C. Department of Commerce – unveiled a new "brand" for the state in 2001—*North Carolina: The State of Minds*. Investing in the *State of Minds* brand and marketing the state is critical to job growth and job development.

North Carolina has risen to the challenges of the Agriculture and Industrial Ages. The notions presented are meant to position North Carolina to be a significant player in the Information Age by creating wealth and real economic growth. In short, the Information Age is generating a whole new paradigm of jobs. The state/nation/ or country with the smartest people and the culture that embraces and manages rapid change wins.

Information technology has fundamentally changed every aspect of the social, business and political fabric of our state and nation. The weft of innovation and the weave of increased productivity have created profound challenges to the economies of the world. The 21<sup>st</sup> century has brought new and dynamic challenges to North Carolina. On the one hand, we have a rich and historical experience with industries including textiles, tobacco and furniture. Now the economy is shifting to knowledge and service base, including the Information Technology, Biotechnology, Material Science, Telecommunications and Communications industries.

The economic downturn at the beginning of the millinimum has brought significant job loss in N.C. The textile manufacturing, furniture manufacturing, tobacco industry and information technology sector have been especially impacted with a loss of jobs, investment and facility reductions. Today, we stand at a crossroads. We can continue to do business as usual and fail to accept the rapid change that has impacted the social and economic fabric of our state. Or, we can embrace new concepts and challenges to quickly revolutionize our industries and once again, grow knowledge-based jobs in Information Technology, Biotechnology, Material Science, Telecommunications and Communications.

At this critical point in our history, public sector leaders should consider three fundamental concepts:

1. Investing in the future now. Resources for innovation investment must be allocated to produce rapid economic change and quickly grow knowledge jobs.
2. Preparing a workforce capable of embracing rapid change. Workforce training and retraining, technology investments in K-12, community college programs and world-class universities focused on innovation are all critical to have a trained and competitive workforce. A cultural shift to embrace a culture of risk and change that employs the wisdom of the past but embraces the innovation cycle.
3. Providing security in an increasingly cyber-dependent world. Protection of critical infrastructure, citizens and intellectual property in a complex networked world must be paramount.

NCEITA's Jobs agenda is designed to highlight opportunities to strengthen North Carolina's economy and create jobs. To achieve this goal, we recommend focusing on the following 11 areas to encourage growth in our state:

- 1) **Research and Development**
- 2) **Technology Incubation**
- 3) **Grid Computing**
- 4) Nanotechnology
- 5) Capital Formation
- 6) Broadband
- 7) Creating "On-Shore" Opportunities in N.C.
- 8) Focus on the North Carolina School of Science and Math
- 9) Job Training
- 10) Investment in K-12 Technology
- 11) Incentives to retain N.C. Innovators

## **1) RESEARCH AND DEVELOPMENT WILL LEAD TO JOB GROWTH**

North Carolina should act immediately and change the Research and Development (R&D) Tax Credit to incent job growth and encourage the business innovation.

Investment in research and development is critical to developing and sustaining a knowledge-based economy for North Carolina. R&D produces a profound impact on economies with approximately a \$5 return for every \$1 invested. In order to accelerate and encourage R&D, North Carolina should adopt an aggressive R&D Tax Credit that would position the state to be a leader in R&D investment.

Applied Research – Accelerate and grow Corporate R&D in N.C.



- A globally competitive research and development tax credit of a flat 5% credit of yearly research and development expenditures performed in North Carolina as a credit against North Carolina income and franchise taxes (with a 15-year carry forward) should be adopted immediately.

#### Basic Research – Expand and Accelerate State Funded University Research in N.C.

- The state should increase funding for research priorities of Universities in the North Carolina system, including considering a business credit against N.C. income and franchise taxes, with a 15-year carry forward.
- NCEITA also recommends that companies conducting their research and development at a North Carolina research university should be eligible to receive a flat 25% credit against North Carolina income and franchise taxes.

## 2) TECHNOLOGY INCUBATION

*North Carolina should immediately begin investing in Business Technology Incubation.*

Business Incubation is a critical component of the innovation cycle leading to business enterprise growth. Incubators support young companies to help them survive their early, most vulnerable stage of growth. The first goal of any incubator is to create freestanding, financially viable companies within a few years. Incubators help these companies survive with management assistance, financing, training and provide functional services such as office space and technology resources. We should be encouraging technology-driven incubators, so that N.C. is on the forefront of the next wave of innovation and job creation.

Incubators create jobs in a community and retain, enhance and diversify the overall state and local economy. The National Business Incubator's Association reports that for every 50 jobs created by an incubator, a client generates another 25 jobs in the community. Incubators in rural areas, such as ones in Hertford and Pasquotank counties, can help with infrastructure technology enterprises, like rural broadband growth and rural energy management, by giving start-ups inexpensive access to fax machines, computers, and the Internet.

A statewide incubation plan should be developed. The implementation of the plan should include the Microelectronics Center of North Carolina (MCNC), the University Research Campuses and Entrepreneurial groups such as the Council for Economic Development (CED) and the Business and Innovation Growth (BIG) Council. Incubators should be run as a business enterprise and be geographically dispersed across the state based on clusters or business competencies.

The state should consider investing \$5-8 million annually to support incubators in North Carolina.

### 3) GRID COMPUTING

North Carolina should make significant and recurring investments in the build out of a North Carolina “Grid” computing infrastructure. Like the Internet, Grid computing enables people to share information over the World Wide Web. Grid computing will enable the creation of virtual organizations by sharing applications, data and computing power over the Internet to collaborate, tackle large problems and lower the cost of computing. That is to say Grid computing, in essence, is a connection of multiple computers over the Internet to virtually create super computing capacity.

Grid computing represents a new way to conduct business and research. It is the next evolution of the Internet, providing users with unprecedented computing power, services and information no matter where the resources are located. Grid computing technology is just emerging and it has the potential to facilitate statewide economic development by allowing university researchers and businesses to share computing resources. Grid technologies also have the potential to serve as a competitive advantage for North Carolina in economic development. Grid computing can impact the entire state – urban and rural, and business, academia and government. It is especially important to smaller institutions across the state that only need computing resources periodically and often cannot afford to invest in new technologies. The impact will be greater levels of innovation, the creation of more intellectual property and more businesses started with local innovation.

Large manufacturers, retailers, financial companies and health care providers are already beginning to implement grid computing. As commercial use of the grid develops, improved efficiency and reduced business costs will be a catalyst for economic expansion and business growth, benefiting industries across multiple sectors, including the state’s historic strength in the apparel, textiles and furniture industries.

According to a recent study commissioned by e-NC, Grid computing will help spur an estimated \$10 billion economic boost to North Carolina’s economy through 2010. It will also lead to an additional 24,000 jobs and \$7.2 million in personal income.\*

### 4) NANOTECHNOLOGY

Nanotechnology is the ability to manipulate matter at a molecular level. Scientists working in the field of nanotechnology work at the nanoscale, dealing with materials measured in a billionth of a meter, or about 100,000 times smaller than the width of a human hair. North Carolina should support investments in Nanotechnology to create jobs and be part of the nano revolution and projected economic benefits.

The economic impact of nanotechnology on the U.S. economy is projected to be \$3 trillion by 2015. \* North Carolina should invest in collaborative Nanotechnology initiatives to encourage the formation of nano businesses and centers. The purpose of the centers or initiative would be to bring together the research & development in the University community and business community. A nanotechnology incubator should be attached to the center to strategically cluster nano start-up companies.

\* *Rural Internet Access Authority—Research Report, September 2003*

## **5) CAPITAL FORMATION**

Capital formation is a critical element in the innovation cycle and creation of jobs, as it provides the resources to fuel new investments.

### *Escheats*

To further promote capital formation for the investment and creation of jobs, the state should craft policy to provide the State Treasurer with the statutory authority to invest the interest from the Escheat and Unclaimed Property Trust Fund (up to 20% of the corpus) for the purpose of economic development. In addition, the investment authority would be coupled to the appropriate staffing to professionally run such a portfolio. These investments would be undertaken with appropriate risk/return placements and not grants or give-a-ways. The State Treasurer should retain sole oversight and management of the funds. Investments should not be managed by committee.

### *The QBV*

The Qualified Business Venture Investment Tax Credit (QBV) should be expanded. The state should raise the cap on the QBV to \$25 million (from \$6 million) to increase angel and early-stage investment in North Carolina companies.

## **6) BROADBAND**

NCEITA is a strong supporter of making sure that all North Carolinians have access to the internet through high-speed broadband. We feel that many advances have been made in recent years to achieve this goal. State leaders must make sure not to allow state subsidization of a service that many private companies have the resources to perform, instead the General Assembly should incent private sector companies to expand service into rural and sparsely populated regions of North Carolina.

## **7) CREATING “ON-SHORE” OPPORTUNITIES IN NORTH CAROLINA**

North Carolina companies are competing globally in the 21<sup>st</sup> century marketplace. Legislation should not create regulatory and tax burdens for companies that utilize domestic and off-shore resources. Instead, North Carolina should invest in pilot “on-shore” enterprise zones in economically depressed regions. These zones would foster a tax environment favorable for corporate investment and job creation in areas such as customer support, administrative services and software development.

Restrictions on off-shore resources ultimately harm the ability of companies in our state to compete. Without the flexibility to make resource decisions on a global basis, North Carolina companies face a competitive disadvantage to competitors that do not face the same restrictions. The state’s economic development policy should not decrease the competitiveness of the state’s tech sector in an increasingly globally competitive world.

## **8) NORTH CAROLINA SCHOOL OF MATH AND SCIENCE**

North Carolina should move to fully fund and expand the N.C. School of Math and Science to include two new satellite campuses located in eastern and western North Carolina.

A well educated workforce, trained with up-to-date capabilities is imperative for N.C. to be competitive globally. 23 years ago, in its wisdom, the N.C. Legislature supported the creation of a school to encourage excellence in math and science education. Considering the astronomical changes in the world where math and science abilities dominate in the jobs that make up the Knowledge economy, it is time to expand this important program.

Opened in 1980, The North Carolina School of Science & Mathematics was the first of its kind in the nation – a small, residential, public high school focused on the intensive study of science, mathematics and technology. Unique and visionary in both concept and practice, the mission of NCSSM was two-fold: 1) promote the study of math, science and technology by providing an advanced curriculum not found in traditional high schools, and 2) act as a catalyst for education reform across the state and country. Moreover, the residential school instills in its students the desire and ability to make a positive difference in the world.

The state of North Carolina should consider funding NCSSM's main campus – with an investment of \$20 million annually – as well as the school's satellite campuses at \$10 million annually each.

## **9) JOB TRAINING FOR KNOWLEDGE JOBS**

North Carolina should immediately invest resources to expand job training and retraining across the state.

A 100% tax credit of up to \$1,500 per year/per person in expenditures incurred in the cost of providing information technology training for employees should be implemented to promote job creation and to sustain current jobs in North Carolina. This credit would apply to any business providing information technology, advanced manufacturing, biotechnology or material science training for its employees.

## **10) INVEST IN K-12 TECHNOLOGY AS PART OF AN ECONOMIC DEVELOPMENT STRATEGY**

North Carolina should invest more resources into K-12 technology. Currently, North Carolina is spending under \$8 per child on K-12 technology, while the national average is approximately \$120 per child. As today's workplace operates off an information technology backbone, it is critical that teachers have both the adequate training and tools to prepare N.C.'s children for that workplace. More emphasis needs to be given to the creation and implementation of individual schools' technology plans. Without the proper

21<sup>st</sup> century resources, schools and teachers will not have the means to prepare and educate students in an ever-increasingly competitive global economy.

So, that we are setting the stage for success for our children and meeting the national average of \$120 per child spent on K-12 in Tier 1 counties, N.C. should invest \$9.6 million in the rural workforce.

*Number of Students in K-12 in Tier 1 Counties= 79,908*

*Average Spent on Technology in K-12 in U.S. = \$120*

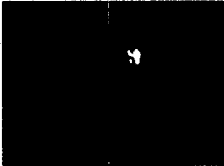
*79,908 x \$120 per student= \$9.6 million*

## **11) RETAIN THE BEST AND THE BRIGHTEST INNOVATORS**

North Carolina should make every effort to retain graduates in science, technology, engineering and math. A skilled workforce is critical to sustaining and growing jobs all across N.C. Presently, only 17% of incoming college students in the U.S. are obtaining science, technology, engineering and math degrees, placing us at 61<sup>st</sup> of 64 surveyed nations. In Singapore, 67% of the incoming students are pursuing these degrees. The legislature should fully fund the University systems' programs in this area and incent businesses to hire N.C. science, technology, engineering and math graduates. Presently, China is producing three times as many engineers as the U.S.

# Defense Technology Innovation Center

INNOVATION AND MILITARY EXCELLENCE FOR SECURITY AND DEFENSE



➤ The Nation is facing a new spectrum of threats. Military and homeland security will leverage revolutionary technologies to address these challenges...<sup>1</sup>



➤ North Carolina is a global leader in communications, information technologies, imaging, software, sensors, nanotechnology, and advanced manufacturing...<sup>2</sup>



➤ Connecting the technology and scientific expertise in North Carolina, with military knowledge and relationships at our military bases will create powerful opportunities for new business...<sup>4</sup>

## History

The North Carolina Technology Association (NCTA), a state-wide organization which represents the technology business community in North Carolina, has taken a leadership role in leveraging NC's military presence with the State's innovation and R&D assets, in an effort to convert these resources into products, companies, and jobs. To accomplish its goal's, NCTA conceived of the idea for a security and defense-focused business accelerator and then championed it before the General Assembly and the community.

## The New Threat<sup>1</sup>

National security used to be considered by studying foreign frontiers, weighing opposing groups of states, and measuring industrial might. To be dangerous, an enemy had to muster large armies. Threats emerged slowly, often visibly, as weapons were forged, armies conscripted, and units trained and moved into place. Because large states were more powerful, they also had more to lose. They could be deterred.

Now threats can emerge quickly. An organization like al Qaeda, headquartered in a country on the other side of the earth, in a region so poor that electricity or telephones were scarce, could nonetheless scheme to wield weapons of unprecedented destructive power in the largest cities of the United States.

The nation has committed enormous resources to national security and to countering terrorism. Between fiscal year 2001, the last budget adopted before 9/11, and the present fiscal year 2004, total federal spending on defense, homeland security, and international affairs rose more than 50 percent, from \$354 billion to about \$547 billion.

With its increased reliance and demand for technology, the military is an important market for technology development and commercialization. Equally important, commercial applications for security technologies open the door to much larger markets and growth opportunities for early stage technology companies developing technology and products to meet these demands.

<sup>1</sup> Excerpts from *The 9/11 Report*, the National Commission on Terrorist Attacks Upon the United States.

## Technology and the Military

With its increased reliance and demand for technology, the military is an important market for technology development and commercialization. Homeland security needs also drive demand for similar technologies and products. In fact, *Forbes* magazine predicts, "...the money flowing into military and homeland infrastructure security will leverage revolutionary technologies and materials of the new digital age. This will fuel entrepreneurs and capitalists to combat terrorist threats, collaterally spurring a new round of basic innovation."<sup>2</sup>

The business opportunities in the fast-growing security and defense sectors are significant and North Carolina is well positioned to serve these markets.

*By supporting soldiers with advanced technologies, the U.S. Army will lead in its ability to see first, understand first, decide and act first, finish decisively, and survive and endure.*

## North Carolina - 4<sup>th</sup> Largest Military Presence in the World

The Fayetteville/Cumberland County area is the home of Fort Bragg and Pope Air Force Base, which each have unique capabilities. Fort Bragg hosts the XVIII Airborne Corps (America's only airborne corps), the 82<sup>nd</sup> Airborne Division, the U.S. Army Special Operations Command, and is one of the largest military complexes in the world with more than 45,000 active duty personnel. Pope AFB is adjacent to Fort Bragg and serves as the forward deployment platform for the XVIII Airborne Corps, and the home of the 43d Airlift Wing. The total economic impact<sup>3</sup> of Fort Bragg to the local community is \$5.84 Billion. Pope AFB's economic impact on the local economy is approximately \$400 Million.<sup>4</sup>



In particular, the U.S. Army Special Operations Command (USASOC) is an important and distinctive asset. USASOC is the most technologically skilled unit in the military. Having its own budget and contracting vehicles, USASOC continually scouts for technologies that can be developed rapidly to meet their immediate needs (6 to 18 month timeframe). Once identified, USASOC can utilize special contracting vehicles to purchase the technology and fund its development. In addition to USASOC's presence in the Fayetteville/Cumberland County area, the area is home to a number of transitioning Special Operations Forces personnel who have started their own businesses selling products made from off-the-shelf technology, as well as services, to USASOC. It is a unique market opportunity that the Center can tap to grow technology businesses in North Carolina, and will be an important first step for partnering with the military.

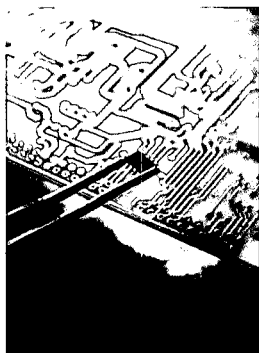
These important, and largely untapped, opportunities can become the drivers for new knowledge-based business and job creation.

<sup>2</sup> Mills, Mark P., "The Security-Industry Complex", *Forbes Magazine*, November 15, 2004.

<sup>3</sup> Includes payroll, annual expenditures, estimated jobs-created value.

<sup>4</sup> Fayetteville Area Economic Development Corp., <http://www.faedcnc.com>, Metrovisions 2004.

## North Carolina – Global Leader in Technology Development and Business



Within approximately an hour's driving distance of Fayetteville is Research Triangle Park (RTP), recognized as home to world-class innovation and achievement. RTP's primary strengths are superior research and training institutions, and a large pool of scientists and skilled workers. A number of the areas of technology strength in RTP, including academic, government and corporate research and development, have important applications for security and defense. These include advanced materials, imaging, information technology hardware, software, microelectronics, optics/photonics, sensors and telecommunications. In addition, RTP is home to many leading technology companies, including Cisco Systems, Cree, EMC, Lockheed Martin Information Technology, SAS Institute, SciQuest, Red Hat, IBM, and Xerox.

Connecting the technology and scientific expertise present in the RTP area, and other regions of the state, with the military knowledge and relationships already located here will create powerful opportunities for new business.

### A New Model – Building From Our Strengths

A new model for business incubation was identified that had the potential to bridge NC's innovation and military communities and provide business start-up services and flexible facilities to accelerate the formation and growth of early stage technology ventures.

The new model was identified based on a similar concept in Annapolis, Maryland. The Chesapeake Innovation Center (CIC) – the first Homeland Security Incubator in the country was launched by Business Cluster Development (BCD), a consulting group that has launched more than 25 incubator projects around the country – several of which have won industry recognition as best practice incubators.

BCD was retained to assist NCTA with the creation of a plan for a homeland security incubator. BCD creates successful incubators for its clients based upon a proven model of sector-focused incubation. The BCD Model has been replicated in universities, corporations, cities and communities. On each project, BCD works closely with the community to identify unique assets and partnerships that will contribute to a unique sector focused competitive advantage for the client.

#### Distinguishing Factors:

- Sector focused to leverage the unique competitive advantage of the region;
- Proximity to a strategic partner to help overcome significant start-up barriers;
- Focus on services (vs. space) as critical for successful acceleration of start-up companies.

Sector-focused incubation has proven to be a highly effective model for achieving economic development goals. By targeting growth opportunities in specific sectors where a region has strengths, sector-focused initiatives have helped to diversifying local economies and create jobs and wealth.



## Defense Technology Innovation Center

The Defense Technology Innovation Center will create collaborations with the military, entrepreneurs and innovators that will drive technology solutions, business development, commercialization, and job creation in the Fayetteville/Cumberland County region.

By providing specialized expertise, technology business assistance, technical resources, and a network of valuable relationships, the Center will assist entrepreneurs and innovators with developing new businesses and dual use technologies focused on both military and commercial needs in the areas of security and defense.



### Goals

- Generate successful, new technology businesses in Fayetteville;
- Develop technology solutions to security and defense problems identified by the military;
- Foster collaborations among the military, entrepreneurs, universities and technology companies to share ideas, understand needs, and commercialize technologies;
- Create dual use applications in the security and homeland defense sectors;
- Provide early stage funding to technology companies at the Center to foster their growth;
- Create jobs for transitioning military and spouses and others in Fayetteville; and
- Serve as a model of business incubation for North Carolina.

### Key Components

**Incubator** – A 12,000 to 15,000 square foot facility for 12 to 15 startup companies and up to 10 affiliate companies.

**Collaborative Workbench** – A space within the facility equipped with the tools and engineering expertise to assist entrepreneurs with prototype development, testing and evaluation by the military that will enable the rapid creation of new technology.

**Forum** – To build collaborations, the Center will conduct regular briefings, seminars and events to both create an exchange of information on

military and market needs, and to build a network of relationships among the military, universities, large technology companies and entrepreneurs.

**Validation Fund** – An early stage grant program will provide \$25,000 to \$50,000 investments in participating companies, to help take them from concept to commercial prototype and will help leverage other investments.

**Security Clearances** – one or two key staff will hold appropriate clearances.

The Center will assist entrepreneurs with generating new, just-in-time security and defense technology solutions to meet the military's technology needs, as well as business demands. As part of its operations, the Center will build a strong relationship with the military, developing a clear understanding of its technology needs and requirements.

## Best Practices Lead to Results

### **Business incubation programs accelerate the successful development of entrepreneurial companies\*:**

- 80% of businesses which participate in an incubator program succeed;
- 84% of the businesses locate within five miles of the incubator site after graduating from the incubator program.

\* Molinar, Lawrence, *Business Incubation Works*, (NBIA Publications, 1997).

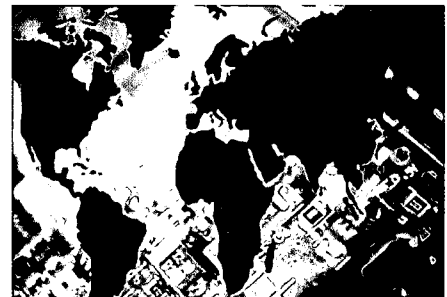
The Center will seek and find technologies and companies that will meet specific requirements, and then assist in the successful incubation of these technologies and companies. In addition, by collaborating with researchers and innovators in RTP and throughout the state, commercialization of technology will result. Other important outcomes, or measures of success, include the creation of business opportunities and knowledge-based jobs, including jobs for transitioning military and military spouses in the Fayetteville/Cumberland County area. Affiliate companies who participate actively in Center programs but reside remotely, spin-off jobs into other regions in the state.

The Center will help to strengthen the security and defense technology industries in North Carolina, and create new business opportunities.

Security and Defense business incubation combined with regional strengths in business attraction, trained workforce, and quality of life have the potential to create quality jobs as "graduate" companies produce products and grow their operations.

## Champions for the Center

The Defense Technology Innovation Center will be locally driven, with the strong participation of local community members. The Cumberland County Business Council will take a leadership role in the Center. The Center will operate under the not-for-profit umbrella of an existing, or "host", 501(c)3 organization in the Fayetteville/Cumberland County area. The Center will create an Advisory Board to provide oversight and expertise specific to the Center's mission and operations. Its small professional staff will combine military, business and technology expertise and experience.



NCTA and MCNC continue to work with the project, especially during its critical start-up phase, and serve as important champions. NCTA and MCNC would collaborate with the host organization to share the expertise developed over the course of the project and the unique resources of both organizations.

## **Funding and Sustainability**

Most incubators take 5 to 10 years to reach a self-sustaining level. In its initial phases, funding the Center, as for all incubators, will require public funding. It is estimated that the Center will require a subsidy of approximately \$5 million for the first three years (\$2 million-Year One, \$1.5 million-Year Two and Year Three). To create a sustainable model for the Center, a number of different sources would be combined over time. Small shares of equity participation in client companies; a sponsorship program to generate contributions from the business community; partnerships with the military, universities, corporations, and organizations; program grants and funding from government and private sources; and real estate arrangements with developers or landlords are among the options to fund the Center over time and put it on a path to sustainability. This sustainable business model has been created and utilized by Business Cluster Development to assist over 20 other business incubators throughout the United States.

## **Next Steps**

The Business Plan for the Defense Technology Innovation Center describes a course of action for the creation of the incubator. At this point, the General Assembly should make a decision about whether to proceed with the next steps for an incubator and the implementation of the business plan. If the General Assembly approves the plan and decides to move forward with the creation of the Center, the Cumberland County Business Council, with the support of NCTA and MCNC, will seek funding of approximately \$5 million for a three year period to subsidize the Center's development and early operations.

The incubation model developed for the Center has the potential to be replicated with North Carolina's other military base communities. If successful, the model developed for Fayetteville and Fort Bragg, could be explored as an incubation model for the communities that house Seymour Johnson Air Force Base and MCB Camp Lejeune.

**"Science and technology have never been  
more essential to the defense of the nation  
and health of our economy."**

**PRESIDENT GEORGE W. BUSH**

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