AGENDA
VIRGINIA GROWTH AND OPPORTUNITY BOARD
Tuesday, December 11, 2018
1:00 PM
House Room 1, Capitol

I. OPENING
    a. Call to order   Chairman
    b. Roll Call   Jordan Snelling
    c. Public Comment   Chairman

II. CONSENT AGENDA   Chairman
    a. *Action Item:* October 9, 2018 Minutes
    b. *Action Item:* Regional Council Membership Changes

III. DIRECTOR'S REPORT   Erik Johnston
    a. 2018 GO Virginia Annual Report
    b. *Action Item:* December 2019 Board Meeting Date Change
    c. DHCD Approved Enhanced Capacity Building Projects
    d. *Action Item:* Approval of Per Capita Application
    e. Update on Existing Projects and Pipeline Development

IV. UNFINISHED BUSINESS
    a. TEConomy Presentation   Mitch Horowitz

V. NEW BUSINESS   Chairman
    a. White Paper on Board Priorities
    b. DHCD Project Guidance by Project Type

VI. REPORTS
    a. VRIC   Jim Dyke
    b. GO Virginia Foundation   Todd Stottlemyer
    c. Broadband Task Force   Vice-Chairman

VII. FUTURE BOARD MEETING DATES   Chairman

    2019   Tuesday, March 12   House Room 1, Capitol   1:00 PM
              Tuesday, June 11   House Room 1, Capitol   1:00 PM
              Tuesday, September 10   House Room 1, Capitol   1:00 PM
              Tuesday, December 10   House Room 1, Capitol   1:00 PM

VIII. ADJOURNMENT   Chairman

VIRGINIA GROWTH AND OPPORTUNITY BOARD MEETING
October 9, 2018
2:00 PM
Richmond, Virginia

Members Present	Members Absent
Delegate M. Kirkland "Kirk" Cox	Nancy Howell Agee
Ben J. Davenport, Jr.	The Honorable Brian Ball
The Honorable Jim Dyke	Jennifer Boykin
W. Heywood Fralin	Thomas F. Farrell II
Senator Janet D. Howell	Marilyn H. West
Delegate Chris Jones	
Doug Juanarena	
Delegate Terry G. Kilgore	
Delegate R. Steven Landes	
The Honorable Aubrey Layne	
Senator Thomas K. Norment	
The Honorable Atif Qarni	
Senator Frank M. Ruff	
Bruce Smith	
Steven C. Smith	
Todd A. Stottlemyer	
Lucia Anna "Pia" Trigiani	
Joe Wilson	
John O. "Dubby" Wynne	

Call to Order	Mr. John "Dubby" Wynne, Chairman of the Virginia Growth and Opportunity (GO Virginia) Board, called the meeting to order.
Roll Call	Ms. Jordan Snelling, GO Virginia Administrator for the Department of Housing and Community Development (DHCD), called the roll and stated that a quorum was present.
Public Comment	No comments were made by the public; the public comment period was then closed.
Consent Agenda	A motion was made to approve the minutes of the August 14, 2018, meeting of the Board. The motion was properly seconded and passed unanimously.

A motion was made to approve the Regional Council membership changes for regions 2, 4, 6, and 7. The motion was properly seconded and passed unanimously.

Mr. Wynne presented the updated the Electronic Participation Policy. The policy was originally approved by the Board at the June 2017 meeting. The policy was updated to reflect legislation that was passed in the 2018 General Assembly session, which removed the requirement that remote locations be open to the public, unless three or more members were in the same remote location. A motion was made to approve the amended Electronic Participation Policy. The motion was properly seconded and passed unanimously.

Director's Report

Mr. Erik Johnston, Director of DHCD, presented the regional capacity building budget for Region 2. The other eight regional budgets were approved at the Board meeting on August 14, 2018. The proposed budget for Region 2 reflects a total of $361,111; of that amount $250,000 will not require a match, but the remainder $111,111 will require a $2:1 match. A motion was made and properly seconded to approve the submitted budget; the motion passed.

As part of the Administrative Approval Process, Mr. Johnston presented one project that was approved by staff: Southern Virginia (SOVA) Innovation Hub from Region 3 on behalf of Mid-Atlantic Broadband Communities (MBC) Corporation.

There was one per capita application regarding credentialing and talent development: The Germanna Community College (GCC) Apprenticeship Network proposal from Region 6. Mr. Johnston provided an overview of the application and stated that staff recommended this application for approval, contingent upon GCC's commitment to creating a toolkit of apprenticeship resources and best practices that can be deployed across the Virginia Community College System (VCCS) and the school systems, including a plan for sustainability through non-state funds. After discussion, the Board agreed to defer the proposal to

a later application round, so that staff could work with subject matter experts to provide guidance on appropriate uses of GO Virginia funding for workforce projects.

Mr. Johnston stated that staff expect to receive ten project applications from seven regions for the December Board meeting, including both per capita and competitive projects. DHCD will also be reviewing several Enhanced Capacity Building applications for administrative approval.

Mr. Johnston then provided an update on existing projects. To date, the GO Virginia Board has approved thirty-five projects, including twenty-three per capita projects, eleven enhanced capacity building projects, and one competitive project. Of these thirty-five projects, thirty-one projects are under contract or currently executing their contract with DHCD, and two projects are still in negotiations. Two projects have been withdrawn by the applicants due to changes that have occurred since the projects were originally approved: the Project Hollyleaf Site Grading project in Region 2, and the VCU Pharmaceutical Accelerator project in Region 4. Mr. Johnston noted that no funding had been disbursed for either project.

Mr. Johnston also presented the proposed 2019 Board schedule. The proposed dates were March 12, June 11, September 10 and December 17. Upon a motion duly made and seconded, the 2019 Board schedule was approved.

| Unfinished Business | Stephen Moret, President and CEO of the Virginia Economic Development Partnership (VEDP), provided an update on the Sites initiative between VEDP and GO Virginia. The initiative will enhance the characterization of the sites in VEDP's statewide inventory to include more usable data, which will allow VEDP to establish a plan for site improvements that align with the GO Virginia region priority clusters. Completion of this plan is expected by January 2019. |

Mitch Horowitz of TEConomy Partners provided an update on the startup ecosystem study being developed for all nine GO Virginia regions. The quantitative regional profile has been completed for all nine regions, and seven of the nine regions have convened their regional stakeholder group. Completion of this plan is expected by December 2018.

New Business

Mr. Wynne explained that the regional councils may need more specific direction in order to develop a pipeline of projects that will align with the Board's priorities and exceed the Board's high standards for quality. Mr. Wynne requested that staff facilitate workgroups with subject-matter experts in each of GO Virginia's core focus areas to establish best practices and strategic project templates, which should be reported to the Board at the December meeting. Mr. Wynne also expressed the need for private industry to drive project identification and development for the regions, and indicated that he would be reaching out to the Regional Council Chairs and Vice-Chairs to discuss industry engagement strategies.

Reports

Mr. Jim Dyke provided an update on the Virginia Research Investment Committee (VRIC) and plans for the implementation of TEconomy's ecosystem study. Mr. Dyke also provided an update on the Commonwealth Cyber Initiative, stating participation had increased significantly amongst private industry partners, as well as community colleges and private universities.

Mr. Todd Stottlemyer provided an update on the activities of the GO Virginia Foundation, and the ongoing initiatives focused on establishing best practices for workforce development and startup ecosystem, based on activities in other states and counties.

Future Board Meetings

Mr. Wynne advised Board members that the next meeting will be held on Tuesday, December 11, 2018 at 1:00 p.m.

Adjournment

Upon a motion duly made and seconded, the meeting was adjourned.

Memorandum

TO: Virginia Growth and Opportunity Board Members

FROM: Erik Johnston, DHCD Director

RE: Regional Council Changes

DATE: December 11, 2018

As outlined in the guidelines, the State Board is tasked with approving the membership of the Regional Councils. Below represents the changes in leadership within the Regions since the last meeting of the Board:

Region 2:

- Eddie Amos, Michael Flemming, and E.W. Tibbs left the Council

Region 4:

- Dr. Joseph Casey of Chesterfield County joined the Council
- Barry Matherly left the Council

Region 5:

- Jim Kibler of Virginia Natural Gas replaced Frank Roach
- Dr. Katherine Rowe of William and Mary replaced Eric Miller
- Bobby Dyer of the City of Virginia Beach replaced Louis Jones

Region 6:

- Morgan Quicke of Richmond County joined the Council

Region 8:

- Dr. Kim Blosser of Lord Fairfax Community College replaced Dilton Gibbons
- Gwen Malone left the Council

Region 9:

- Gary Deal left the Council

Memorandum

TO: Virginia Growth and Opportunity Board Members

FROM: Erik Johnston, DHCD Director

RE: 2019 Board Schedule

DATE: December 11, 2018

At the previous meeting held in October, the Board approved the 2019 Schedule. However, in order to align the GO Virginia Meetings with the Virginia Research Investment Committee (VRIC) meetings staff proposed to reschedule the December meeting from the 17 to the 11. See below the proposed revised schedule for 2019.

2019 Board Meeting Schedule

Tuesday, March 12, 2019

Tuesday, June 11, 2019

Tuesday, September 10, 2019

*Tuesday, December 10, 2019

All meetings will be held at 1:00 p.m. in House Room 1 of the Capitol.

Administrative Approvals: Enhanced Capacity Building

Coal-to-Graphene Market Study

Region: 1

Strategy: Commercialization

Type of Project: Enhanced Capacity Building

Sub-grantee(s): Virginia Tech

Project Description: Virginia Tech will conduct a market study, initial environmental impact analysis, and cost projections for the development of a graphene economy in Southwest Virginia. Graphene is a thin, lightweight, and flexible form of carbon with extraordinary thermal and electrical conductivity. Virginia Tech's Institute of Critical Technology and Applied Science has developed a method of manufacturing graphene from coal at a significantly reduced cost from what is currently available. Virginia Tech will partner with EnviraCarbon, which recently relocated their headquarters and R&D facilities to Wise County, on scaling up this production process for industrial applications, which align with several targeted clusters. GO Virginia funds will be used to procure a consultant to complete the study. Wise and Lee Counties, and the City of Norton are participating in this project.

Type of Funds	Totals
GO Virginia Request	$ 25,000
Matching Funds	$ 25,000
Total Project Budget	$ 50,000

Staff Feedback:

DHCD has administratively approved this application. There was consensus that while this market study is very early, the partnership with EnviraCarbon to commercialize the coal-to-graphene process could have a significant long-term impact on the Region One economy. The Staff feedback included:

- Aligns with multiple target industries including advanced manufacturing (advanced materials, electronic component and semiconductor manufacturing), and energy and minerals (coal industry)
- Significant local match and support across the Region

Requirements			
$1:1 Match Requirement	YES	Grant Management Capacity	YES
Local Participation Requirement	YES	Line of Sight to Future GOVA Project	YES
Alignment with GOVA Strategies	YES	Healthcare?	NO
Alignment with G&D Plan	YES	Scholarships?	NO
High-Wage Job Creation Potential	YES		

Administrative Approvals: Enhanced Capacity Building

Shenandoah Valley Talent Solutions Strategy Development

Region: 8

Strategy: Workforce Development

Type of Project: Enhanced Capacity Building

Sub-grantee(s): Frederick County Economic Development Authority (EDA)

Project Description: The Frederick County EDA will develop a Talent Solutions Strategy to address: 1) high school and college graduate retention 2) development of a workforce to meet the needs of regional businesses, and 3) attraction of new workforce participation from outside of the Region and State. GO Virginia funds will be used develop the strategy through focus groups, interviews, surveys, and data analysis. Clarke, Frederick, Page, Shenandoah, Warren Counties, and the City of Winchester are participating in this project.

Type of Funds	Totals
GO Virginia Request	$ 64,800
Matching Funds	$ 70,000
Total Project Budget	$ 134,800

Staff Feedback:

DHCD has administratively approved this application. There was consensus that this enhanced capacity building project will help the Regional Council identify actionable steps to sustain a meaningfully employed workforce that meets the needs of the Region's businesses. The Staff feedback included:

- Line of sight to future GO Virginia workforce development projects
- Significant local match and support from across the Northern Shenandoah Valley
- Partners have strong track record of business engagement
- Should focus on retention and attraction in targeted industries

Requirements			
$1:1 Match Requirement	YES	Grant Management Capacity	YES
Local Participation Requirement	YES	Line of Sight to Future GOVA Project	YES
Alignment with GOVA Strategies	YES	Healthcare?	NO
Alignment with G&D Plan	YES	Scholarships?	NO
High-Wage Job Creation Potential	YES		

Administrative Approvals: Enhanced Capacity Building

Mobile Hub-Lab Planning Grant

Region: 8

Strategy: Workforce Development and Startup Ecosystem

Type of Project: Enhanced Capacity Building

Sub-grantee(s): Staunton Innovation League (non-profit arm of Staunton Innovation Hub, LLC)

Project Description: The Staunton Innovation League will assess the feasibility of creating the Hub-Lab, a student-entrepreneur makerspace, to teach creative and collaborative ways to use innovative equipment and technology such as 3D printers, laser cutters, robotics, and electronics. This study will 1) assess the need for this initiative 2) determine the equipment and relevant curriculum for the initiative, 3) assess the practicality of bricks-and-mortar and mobile lab spaces, and 4) identify funding sources to support build out of the Hub-Lab. GO Virginia funds will be used to procure a consultant to complete the study and to cover the cost of meetings and events related to completing this work. Page County and the City of Staunton are participating in this project.

Type of Funds	Totals
GO Virginia Request	$ 23,000
Matching Funds	$ 23,000
Total Project Budget	$ 46,000

Staff Feedback:

DHCD has administratively approved this application. There was consensus that the Staunton Innovation League should engage regional stakeholders, particularly entrepreneurs, to determine which features and programs will be most valuable and to identify costs and funding opportunities for implementing the plan. The Staff feedback included:

- Line of sight to future GO Virginia startup ecosystem project
- Partners have strong track record of entrepreneurial engagement
- Mobile resource can be deployed to serve a large rural area
- Should develop additional regional partnerships to ensure largest impact

Requirements			
$1:1 Match Requirement	YES	Grant Management Capacity	YES
Local Participation Requirement	YES	Line of Sight to Future GOVA Project	YES
Alignment with GOVA Strategies	YES	Healthcare?	NO
Alignment with G&D Plan	YES	Scholarships?	NO
High-Wage Job Creation Potential	YES		

Per Capita Application

Virginia Highlands Community College (VHCC) Advanced Technology and Workforce Development Center

Region: 1
Strategy: Workforce Development
Type of Project: Implementation
Sub-grantee(s): VHCC

Project Description: VHCC will build a new Advanced Technology and Workforce Development Center in Washington County, adjacent to VHCC's campus and the Southwest Virginia Higher Education Center. VHCC will utilize the new facility to consolidate courses offered off-campus in limited enrollment models, and three new short-term trainings targeting the manufacturing workforce. GO Virginia funds will be used for site grading, excavation, soil mitigation, site drainage, utility installation and connections (water, sewer, electric, and broadband). Washington County is providing the local match for this project.

Type of Funds	Totals
GO Virginia Request	$ 200,000
Matching Funds	$ 882,291
Local Match	$ 154,291
Total Project Budget	$ 1,082,291

Metrics:

- Increase in # of students enrolled/credentialed in Electrical Technology
- Increase in # of students enrolled/credentialed in HVAC and Refrigeration
- Increase in # of students credential/credentialed in Diesel Mechanic Technology
- Increase in # of students credential/credentialed in Welding
- Increase in # of students credential/credentialed in Short Term Trainings

Outcomes:

- Site preparation and construction
- Consolidation of existing courses at new facility
- Implementation of new Manufacturing Specialist, Manufacturing Technician I, and Certified Production Technician courses
- 10 additional students enrolled in Electrical Technology; earning 5 credentials
- 6 additional students enrolled in HVAC and Refrigeration; earning 3 credentials
- 4 additional students enrolled in Diesel Mechanic Technology; earning 4 credentials

Advanced Technology and Workforce Development Center

Outcomes Continued:

- 3 additional students enrolled in Welding; earning 4 credentials
- 60 additional students enrolled in Short Term Trainings; earning 20 credentials

Workgroup Discussion:

There was consensus from the workgroup that the new Advanced Technology and Workforce Center could be a valuable asset to the region, in coordination with the Advanced Manufacturing Center of Excellence. However, there was concern that the outcomes beyond what VHCC already offers were limited. Furthermore, there was concern that a capital request was not appropriate for GO Virginia funding. Workgroup feedback included:

- Project will not produce a positive ROI within 3-5 years
- High-wage job creation potential; but heavily in skilled trades (non-traded sector)
- Project behind on early milestones and $1.5M missing to complete construction
- Facility will be used to consolidate existing course offerings
- No documented business commitments for job placements

Staff Recommendations:

DHCD staff do not recommend this application for approval at this time.

Requirements	
$1:1 Match Requirement	YES
Local Match Requirement	YES
Local Participation Requirement	YES
Out of State Revenue	MAYBE
High-wage Job Creation Potential	YES
3 Year ROI	NO
Alignment with G&D Plan	MAYBE
Grant Management Capacity	YES
Sustainable After GOVA Funds	MAYBE
Feasibility Study?	NO
Healthcare?	NO
Scholarships?	NO

Per Capita Application

Center for Energy Research and Education (CERE) Additive Manufacturing Partnership Lab Development: Phase 2

Region: 2
Strategy: Workforce Development
Type of Project: Implementation
Sub-grantee(s): Liberty University

Project Description: Liberty University will develop the Additive Manufacturing Partnership Lab (AMPL) at the newly-established CERE facility in Bedford County. CERE will offer regional companies and institutions of higher education the facilities needed to foster knowledge, facilitate research and development, as well as to improve the attraction and retention of the scientific and engineering workforce. Liberty will utilize AMPL to train students and manufacturing employees in the region on the newest technology-based processes, such as 3D printing and robotics, which are diving manufacturing industry growth. Liberty University was previously awarded $300,000 in per capita funding for the buildout of four industry labs at this facility, and funds are requested to purchase and install equipment at a fifth laboratory space. The Counties of Bedford and Campbell are providing the local match for this project.

Type of Funds	Totals	
GO Virginia Request	$	**274,980**
Matching Funds	$	**630,000**
Local Match	$	92,000
Total Project Budget	$	**904,980**

Metrics:

- # of students and faculty using AMPL
- # of industry-educational partnerships
- # of industry site visits to AMPL
- # of jobs created

Outcomes:

- Design and build-out of the Additive Manufacturing Partnerships Lab
- 300 students and faculty using AMPL
- 3 addition industry-education partnerships
- 12 industry site visits to AMPL
- Creation of at least 58 jobs over three years
- Implementation of new bachelor and graduate level engineering courses
- Train-the-trainer programs for K-12 and community college partners

CERE Additive Manufacturing Partnership Lab Development

Workgroup Discussion:

There was consensus from the workgroup that additive manufacturing represented the future of the manufacturing industry and that the CERE facility will play an invaluable role in training the future workforce and upskilling current workers to retain jobs. Workgroup feedback included:

- Current GO Virginia project is on schedule with milestones and metrics
- Significant private industry support from regional manufacturers
- Work-based learning opportunities for students to work with industry partners on prototyping and microenterprise development, with line of sight to apprenticeships
- Research facilities are priority in the Growth and Diversification Plan
- Center could be a Center of Excellence to attract funding from the Research Triangle

Staff Recommendations:

DHCD staff recommend this application for approval.

Requirements	
$1:1 Match Requirement	YES
Local Match Requirement	YES
Local Participation Requirement	YES
Out of State Revenue	YES
High-wage Job Creation Potential	YES
3 Year ROI	YES
Alignment with G&D Plan	YES
Grant Management Capacity	YES
Sustainable After GOVA Funds	YES
Feasibility Study?	NO
Healthcare?	NO

Per Capita Application

Virginia Cyber Alliance: Year 2

Region: 5

Strategy: Workforce Development

Type of Project: Implementation

Sub-grantee(s): Old Dominion University (ODU) Virginia Modeling and Simulation Center (VMASC)

Project Description: Virginia Modeling, Analysis, and Simulation Center (VMASC) will develop the Virginia Cyber Alliance (formerly known as the HR Cyber Co-Lab), a highly advanced collaboration hub at Old Dominion University's Tri-Cities Campus. The Virginia Cyber Alliance will consist of online platforms, industry partnerships, a virtual demonstration environment for cybersecurity analysis modules, and a work-based learning initiative for transitioning military and recent graduates to intern with firms that specialize in cybersecurity, data analytics, and Unmanned Systems and Aerospace. VMASC previously requested $1,285,426 from the Region 5 Council. However, due to budget restrictions, the Region 5 Council recommended splitting funding into two consecutive fiscal years at $642,713 per year. GO Virginia funds will be used to for salaries, travel, and outreach. The City of Suffolk is providing local match for this project.

Type of Funds	Totals
GO Virginia Request	**$ 642,713**
Matching Funds	**$ 642,713**
Local Match	$ 128,543*
Total Project Budget	**$ 1,285,426**

See note in Staff Recommendation.

Metrics:

- # of advertisers on Virginia Cyber Trail website
- # of workshops and attendees at Virginia Cyber Trail events
- # of companies participating in industry associations
- # of companies using the Co-Lab
- # of demonstrations or experiments conducted
- # of interns participating (high school, college, veterans)
- # of companies hiring digital entrants
- # of interns hired
- # of digital entrants remaining in VA
- # of workers migrating to region for digital entrant program
- Business satisfaction with digital entrants (narrative)

Virginia Cyber Alliance: Year 2

Outcomes:

- Virginia Cyber Trail website
- Virginia Cyber Alliance Industry Association
- Virginia Cyber Alliance Industry Advisory Board
- Virginia Cyber Arena
- 16 Digital Entrants placed
- 70 Digital Entrant Interns placed
- 12 jobs created

Workgroup Discussion:

There was consensus from the workgroup that this was an important talent development initiative to address the gaps in IT and cybersecurity industries for the region. The workgroup recognized that certain aspects of the project lack long-term sustainability, but saw value in the long-term assets such as the Virginia Cyber Arena, the Virginia Cyber Trail website, and the Virginia Cyber Alliance Industry Association and Advisory Board. Workgroup feedback included:

- $128,543 needed to meet 20% local match requirement
- Current GO Virginia project is on schedule with milestones and has exceeded metrics
- Financial sustainability through revenue model based on dues and fees
- Line of sight to interregional collaboration for Virginia Cyber Trail

Staff Recommendations:

DHCD staff recommend this application for approval, contingent upon documenting the required 20% local match.

Requirements	
$1:1 Match Requirement	YES
Local Match Requirement	MAYBE
Local Participation Requirement	YES
Out of State Revenue	YES
High-wage Job Creation Potential	YES
3 Year ROI	YES
Alignment with G&D Plan	YES
Grant Management Capacity	YES
Sustainable After GOVA Funds	YES
Feasibility Study?	NO
Healthcare?	NO
Scholarships?	NO

Per Capita Application

Virginia Digital Shipbuilding Program (VDSP): Year 2

Region: 5

Strategy: Workforce Development

Type of Project: Implementation

Sub-grantee(s): Old Dominion University (ODU) Virginia Modeling and Simulation Center (VMASC)

Project Description: VMASC will create a regional and statewide VDSP curriculum and co-lab facility to train approximately 8,500 current and future workers in the shipbuilding and advanced manufacturing clusters. VDSP will build upon the region's position as a global leader in shipbuilding by expanding existing workforce development programs and stacking industry-recognized credentials with relevance to the shipbuilding, advanced manufacturing, and modeling and simulation industries. VMASC previously requested $1,295,080 from the Region 5 Council. However, due to budget restrictions, the Region 5 Council recommended splitting funding into two consecutive fiscal years at $647,540 per year. GO Virginia funds will be used for salaries and program outreach. The Counties of Isle of Wight and James City, and the Cities of Newport News, Hampton, and Williamsburg provided the local match for this project.

Type of Funds	Totals	
GO Virginia Request	$	**647,540**
Matching Funds	$	**647,540**
Local Match	$	129,508*
Total Project Budget	$	**1,295,080**

See note in Staff Recommendation.

Metrics:

- # of businesses, organizations, local governments, school districts, community colleges, and 4-year institutions engaged with VDSP initiatives
- # of advertisers on website
- # of VDSP credentials awarded
- # of institutions adopting VDSP curriculum
- # of VDSP Co-Lab demonstrations and experiments conducted
- # of VDSP-trained employees hired
- # of interns and ambassadors participating the VDSP programs

Virginia Digital Shipbuilding Program (VDSP): Year 2

Outcomes:

- VDSP Website
- VDSP outreach efforts
- Digital Shipbuilding Advisory Board
- Post-Secondary Curriculum
- Internship Program and Participants
- Ambassador Program and Participants

Workgroup Discussion:

There was consensus from the workgroup that the VDSP has the potential for global impact on the increasingly-digitized shipbuilding and advanced manufacturing industries. The workgroup recognized the long-term demand for the curriculum as well as the potential spinoff to areas like marine electric propulsion. Workgroup feedback included:

- Need $9,016 in local match for 20% requirement
- Current GO Virginia project is on schedule with milestones and has exceeded metrics
- Strong private-industry and association support
- Will train future workforce and upskill existing workforce to meet industry progress
- Virtual curriculum is scalable and replicable for other industries
- Line of sight to applications for supply chain statewide

Staff Recommendations:

DHCD staff recommend this application for approval, contingent upon documenting the required 20 % local match.

Requirements	
$1:1 Match Requirement	YES
Local Match Requirement	MAYBE
Local Participation Requirement	YES
Out of State Revenue	YES
High-wage Job Creation Potential	YES
3 Year ROI	YES
Alignment with G&D Plan	YES
Grant Management Capacity	YES
Sustainable After GOVA Funds	YES
Feasibility Study?	NO
Healthcare?	NO
Scholarships?	NO

Memorandum

TO: Virginia Growth and Opportunity Board Members

FROM: John O. "Dubby" Wynne, Chairman

RE: Areas of Opportunity for Future GO Virginia Funding

DATE: December 11, 2018

Ever since the Virginia Growth and Opportunity Board awarded its first round of project grants on December 12, 2017, the GO Virginia Regional Councils have developed and proposed many projects to grow and diversify Virginia's economy. Guided by the shared mission to encourage regional cooperation and create higher-paying jobs from traded sector areas in every region, and in alignment with the needs and opportunities identified through their respective regional plans, the Board has now approved 29 projects that are starting to make a difference.

As GO Virginia moves into its second year of grant making, and as each region begins the process to update its growth and diversification plan, the Board thought it important to outline some concepts that may help the regional councils and their leaders develop additional projects that could have a lasting impact on the regions as well as the economy of Virginia as a whole. In short, we look at this exercise as one to help the regions better focus and prioritize initiatives as the plan update process unfolds next year.

In reviewing the initial plans, the Board found that there were four common themes – talent pipelines, site development, innovation and entrepreneurial ecosystems, and scale up activities - as areas of opportunity across the nine GO Virginia regions that could benefit from some strategic thinking on implementation and to ensure alignment across regional boundaries and with other statewide efforts. While the Board wants to continue the "bottom up" approach of project development – meaning each region should advance those project applications best aligned with its specific needs – the existence of so much commonality in needs among the regions requires some effort to avoid inefficiency and duplication with existing programs, and to advance projects that create opportunities for a statewide, coordinated program where appropriate.

At the same time, it is becoming increasingly important that the Board define parameters around project performance, return on investment, the acceptable timeline between project spending and actual job creation, additional direction on what types of expenditures will be permitted, and potential maximum grant caps. Those issues run through all four focus areas outlined below, and policies to address them will evolve over the coming months.

GO Virginia Future Project Guidance

Finally, one common theme through all these focus areas, and GO Virginia generally, is the vital need for business leadership. The regional councils must be aggressive in setting the agenda and advancing those projects that best meet regional needs. GO Virginia is intended to be transformational, not incremental, in its thinking, and such leadership is essential to its success.

Therefore, the main goal of the outreach to the regional chairs and vice chairs is to review the current thinking and proposed direction for each of the four common project themes and to use this concept paper to raise issues about how to best move these efforts forward.

Workforce

No issue is more important to the economic diversification, growth, and competitiveness of Virginia than the quality of its workforce. Although Virginia generally has a highly skilled and highly educated workforce, there are significant gaps in the pipeline of talent for those industry clusters that are expected to grow the most in the future. These gaps show up not only in the lack of communication between businesses and the education providers about courses and training needs to be provided for future workers, but even in the most basic information relating to current and future job opportunities so business and industry can work together toward common goals, particularly to nurture the creation of higher paying jobs in traded sectors. Without such basic information, or any degree of certainty regarding the quality of existing data, it is virtually impossible to address the core problems.

In short, talent—its recruitment, retention, and development—is a central concern of employers in every region of Virginia, and it has become a chief concern of policymakers across party and regional lines. This focus is timely because the needs are multifaceted and pressing. They include (i) aligning Virginia talent with current and prospective job opportunities, (ii) adapting education and training programs to meet current and prospective Virginia business needs, and (iii) attracting and retaining needed talent from outside Virginia.

While solving these workforce challenges in Virginia is a complex undertaking and beyond the scope and capabilities of GO Virginia and its limited funding, we do believe that the GO Virginia initiative and the regional councils can play a role in helping to address the concerns outlined above. By targeting our limited resources, and through business leader engagement and collaboration with other stakeholders, we believe progress can be made through regional initiatives.

Specifically, we see several areas where the GO Virginia regional councils could focus their funding requests:

Systematic Assessment of Employer Needs for Talent – Regional councils could initiate projects to enhance the functioning of the labor market, and the ancillary education and training market, by remedying the information gap related to the current and anticipated talent needs of Virginia business employers, especially in targeted sectors. Many regional growth and diversification plans

targeted high-demand and/or high-growth sectors include technology (cyber, big data/data analytics, etc.), life sciences, skilled trades, and specialized manufacturing. Through smartphone apps and other technology solutions, industry trade fairs, and other business-education partnership opportunities, these information gaps can be closed to move a region's workforce ahead.

The Talent/Job Interface: Matching Talent with Employment Opportunities – Support programs that enhance the functioning of the labor market by establishing effective mechanisms by which students/parents and adults can learn about and access employment opportunities and related educational/experiential programs. These opportunities would be focused on key industries and clusters identified in each region as important to its future economic growth and diversification. These can include concepts such as "manufacturing days" to expose students/parents/teachers to job opportunities, increased job mentoring and counseling, and additional apprenticeships and internships.

Improving Alignment: Promoting Education-to-Employment Pipelines – What we have repeatedly found is that the business and education communities exist in silos, functioning separate from each other and not aligning to develop the pipeline of skilled workers needed by local companies. The Board believes that the business leadership on the regional councils can be strategically used to improve the alignment between the education and training that is and will be available to Virginians (from high schools, colleges, and other providers) and the current and anticipated needs of Virginia businesses, especially in clusters targeted for high-impact growth in years ahead. A key strategy for improving this alignment is to create business and education (higher education and K-12) collaborations that get students onto education/training tracks—often referred to as pipeline programs or pathways—that provide tailored education/training regimens, curriculum development, experiential workplace opportunities (internships, etc.), and eventual employment. As previously noted, supporting additional internships and apprenticeships will also be key to this effort.

Each of these focus areas are dependent upon a thorough understanding of the talent pipeline needs identified by businesses in each region. We need to begin by asking some of the following questions:

1. Do you have accurate data on where the best opportunities are for higher wage traded sector job opportunities and what exactly is needed to fill any gaps?
2. What can be done to ensure GO Virginia investments in meeting these needs are impactful and sustainable?
3. Does the region have a systematic approach for addressing these issues across business, government, and training providers beyond narrow, opportunistic initiatives? How do we particularly get higher ed and business in closer alignment and partnership?

Site Development

There are several existing models already in Virginia which, with minor modifications, could serve as the foundation for a GO Virginia initiative around joint site development. Starting in 2016, the Virginia Economic Development Partnership used the newly-created Business Ready Sites Program to help spur the development of new industrial sites around the state by providing funding for planning, infrastructure development, and permitting. Funding for the program was immediately over-subscribed, further evidence of the desperate need localities see to have shovel ready product to facilitate economic growth. Although some funding was restored for this initiative in 2018, it is insufficient to meet the need to develop sites primed for target clusters. Further, the Business Ready Sites Program does not require greater regional collaboration which remains a cornerstone of GO Virginia activities. Nevertheless, these efforts are not mutually exclusive and can be coordinated.

GO Virginia funding can be used as a catalyst to advance regional cooperation on site development and to advance sites "up" the tier status. Site grading, limited infrastructure development, and other final preparatory activities could be supported by GO Virginia after a site has advanced through initial stages of the Business Ready Sites Program. GO Virginia funding, along with the financial benefits provided in the Virginia Collaborative Economic Development Act, could unlock significant resources to advance the state's goal of having more shovel ready sites available for development.

Having a link to GO Virginia would also ensure both better alignment between site development (specifically, how they are designed and marketed) with the industry clusters identified as priorities in the regional growth and diversification plans and the availability of workforce to serve in new and expanding companies. Prospective sites should be evaluated and prioritized based on a demand analysis and with the understanding that not every locality will have a GO Virginia supported location, but instead, that localities should come together and act in their collective interest.

If a region considers a joint-site development project, there is already a mechanism in Virginia to aid any willing collaborative partners on joint site development – the *Virginia Regional Industrial Facilities Act*. Any two or more localities can organize to create a regional industrial facilities authority (RIFA) in accordance with the Act. The RIFA allows two or more localities to jointly invest in a site development project and share the tax revenues generated from the project. The GO Virginia Board has already established the precedent that the revenue sharing that occurs under a RIFA aligns with requirements of GO Virginia for local participation and match, and that a RIFA, or similar contractual obligation binding multiple localities, must exist in order for grant funds to be provided.

It must also be understood that GO Virginia is not the sole source of funding for site development. The Tobacco Commission has already been active in supporting megasites, and federal (USDA, EDA) and state funds (CDBG, VDOT) are also available to assist with various components of a development. GO Virginia should be the last source of funding in to close any gaps, not the seed capital to get a project initiated.

As the joint effort with VEDP moves ahead, we will be finalizing the policies related to the site development initiative.

Entrepreneurial Ecosystem

This concept refers to activities that foster the necessary elements of a thriving startup culture and "entrepreneurial ecosystem" in each region. In short, GO Virginia could be a catalyst to facilitate the development of the fundamental building blocks of such an effort, or to enhance the ones already in place that may lead to new, growing industry clusters and aligned with the broader needs and opportunities identified in the updated regional growth and diversification plans.

Over the past few months, the TEConomy team has been analyzing the entrepreneurial ecosystem in each region and has developed both a statewide implementation plan and recommendations for how to close any gaps in the existing activities at the regional level. Based on that analysis, the preliminary thinking is that each region could get a GO Virginia funded "quarterback" to better coordinate existing efforts and ensure alignment with the new initiatives as determined in each region. The goal would be to provide promising entrepreneurs a path to success through coordinated services to get their ideas to market. Using the analysis on gaps observed by the TEConomy team in each region, regions will then prioritize their needs and determine which of the various recommendations has the greatest chance of success. This will include a thorough review of existing resources and how best they can be modified and repurposed to meet the new coordinated structure.

At the same time, there is an initiative emerging from the Virginia Research Investment Committee effort on commercializing research opportunities at our public universities that has the opportunity to augment what GO Virginia believes is possible at the regional level. This initiative, which could advance bench-to-licensing efforts, support entrepreneurs in residence, more translational research, and a reorganization of the state's existing technology related programs, could build on the regional recommendations of TEConomy. Legislation and budget actions may be considered during the 2019 session on this separate, but complementary, effort.

All of these activities would then be supported through state assistance for the best commercialization efforts and a seed fund to advance the most promising business opportunities – so long as they lead to higher paying traded sector job growth. In short, these initiatives bring together the resources to identify and nurture promising business opportunities with the often lacking funds needed to get them closer to development.

In order to assist with the regional effort, it may be useful for the regional council to have an advisory committee on entrepreneurial implementation that includes local entrepreneurs and others who have successfully navigated the maze from concept to product to help vet the best project opportunities and target regional investments. The efforts of this committee would be supported by the dedicated staff and other resources provided through GO Virginia and which achieve regional priorities.

Scale Ups

An often ignored and misunderstood path to job creation and economic diversification is through the scaling up of successful small and medium sized enterprises already in a region and which are aligned with the designated growth industry clusters. By working with these companies to grow and retain them – through specific initiatives such as business mentoring, increased access to capital, enhancing access to new customers and suppliers, and other scale-up activities – Virginia's regions have the opportunity to significantly enhance their economic prospects.

In order to shape potential projects in the scale-ups area, it will be important to first differentiate these scale up activities from those provided in the entrepreneurial ecosystem effort and to outline the best ways to identify, grow, and retain these companies. Efforts could include retooling existing business recruitment, retention, and expansion activities to identify growing companies, better coordinate services provided to them, and to grow supply chains and other efforts foundational to their sustainable growth in a region.

GO Virginia Working Project Guidance and Metrics

This document provides guidance and sample metrics for the development of funding applications for GO Virginia per capita and competitive grants. This guidance was developed from the GO Virginia Code language and Scoring Guidelines, as well as the precedents set by previous Board decisions. This is a working document that will be updated on a regular basis to capture Board policies that may impact application development. The following is DHCD's guidance as of December 4, 2018.

Workforce:

Program Duplication: GO Virginia can be used to develop and implement new and innovative trainings that are not currently available within that region, or within a reasonable distance of the project location. For projects replicating training that exists elsewhere in the region or Commonwealth, projects that can effectively scale an existing program will be more appropriate than those duplicating an existing program. This can be achieved by larger scale and more expansive collaborations across regions and between regions.

Industry Partnerships: GO Virginia strongly encourages private-industry partnerships for all GO Virginia projects. Securing financial and resource commitments from private-industry partners is a best practice, along with commitments to hire trainees or to upskill existing employees. Projects that address an explicit industry need, and demonstrate a clear demand for the skills and credentials will be the most successful. Projects that can demonstrate a long-term demand for the project will be more successful than those aiming to address a short-term need. Single business demand for workforce is not sufficient as more than one business must benefit.

Sustainability: GO Virginia funds should be utilized to build the region's capacity to create jobs in the targeted clusters, and projects that demonstrate the ability to sustain that capacity will be most successful. Projects that reflect a short-term solution that is financially or functionally unsustainable will be less successful. Furthermore, projects that lead to a new or expanded obligation for the State will be less successful than those that can be sustained through non-State resources.

Online Platforms: GO Virginia can be utilized to establish platforms that will match talent with available opportunities (jobs or training), as is being pursued throughout the Commonwealth. Regions should pursue opportunities that can be scaled across boundaries, or systems that work in coordination with existing platforms, to avoid duplication of efforts. GO Virginia funds should be focused on the buildout of such platforms, while marketing and outreach (for the platform or for a training program) would be more appropriately sourced from matching funds.

K-12 Projects: GO Virginia can be used to develop stronger connections between secondary education and the creation of higher paying jobs in the traded sectors. Projects that demonstrate a direct line of sight to such job creation through student credentialing or work-based learning (internships and apprenticeship) will have the best alignment with GO Virginia. Projects that implement new curriculum or learning opportunities that directly align with the region's targeted industries and include direct

commitments from businesses will be prioritized. General academic or capital requests are not appropriate. As the period of time between the project and outcomes such as job creation extends, projects will become less competitive for GO Virginia funds. Projects with longer timelines to job creation, including those focused on early childhood and primary education, are not appropriate for GO Virginia.

Precedents: Based on program guidelines and prior decisions by the Board, applications for the following are discouraged:

- **Healthcare and nursing training programs:** Healthcare is not generally considered a traded sector and therefore does not meet the mission of the GO Virginia program. The Board will consider future applications that will create higher paying jobs and generate out-of-state revenue despite being a non-traded sector, such as a medical center of excellence or specialized/innovative model.
- **K-12 Capital Requests:** Funding requests for the construction of a school or high-school vocational center will inherently offer an assortment of courses, including a significant portion that are not in line with the region's growth and diversification plan. This is considered to be a general responsibility of the local school system and the Department of Education, and is not an appropriate use of GO Virginia funds.
- **State Salaries:** Projects that lead to a new or expanded obligation to the State will be less successful than those that can be sustained through federal, private or local funds. Funding for positions at state-funded entities such as the community colleges should only be considered where a non-state source of funding to sustain those positions can be identified.
- **Scholarships:** Since scholarships can only be sustained through ongoing funding injections, this is not a sustainable use of GO Virginia funds. While scholarships can reduce the cost of existing trainings for recipients, it does not build the region's capacity to train.

Workforce Metrics: Anticipated metrics for workforce projects can include:

- Number of students trained
- Number of employees upskilled
- Number of jobs created
- Number of jobs retained
- Number of internships/apprenticeships completed
- Number of businesses served
- Number of new programs/credentials implemented
- % of completers receiving credentials
- Number of credentials awarded
- Average wages for trainees/graduates
- Average increase in wages for trainees/graduates
- Leveraged private investment
- Leveraged public investment
- Note: Metrics should reflect the incremental change due to the project. For example, if a program is being expanded- the metrics would reflect the increase in number of students trained and the increase in the number of credential awarded, over the existing baseline outputs.

Sites:

Site Development: GO Virginia funds can be used to advance a site up the Virginia Business Ready Sites Program (VBRSP) tier system through the Virginia Economic Development Partnership (VEDP). Localities and property owners are encouraged to work with VEDP to ensure that all sites are properly characterized within VirginiaScan. GO Virginia funds can be used for preliminary site due diligence, site grading and preparation, and limited infrastructure development. Prospective sites should be evaluated and prioritized based on a demand analysis to assure that the region is developing the right sites to align with the industry clusters identified in the growth and diversification plans.

Infrastructure: GO Virginia funds can be used for site specific improvements or infrastructure necessary for the development of that site, and not for general public infrastructure improvements such as roads and bridges, or upgrading water and sewer infrastructure for a locality. GO Virginia funds should leverage other state and non-state sources of funding where possible.

Revenue Sharing: It is unlikely that every locality will have a site that is appropriate for joint development through GO Virginia, and localities are highly encouraged to collaborate to act in the collective interest of the region. A Regional Industrial Facility Authority (RIFA) is considered a best practice for revenue sharing between the participating localities. A RIFA allows any two or more localities to jointly invest (a RIFA can secure debt) and share tax revenue generated from a project. Revenue sharing through a RIFA aligns with the GO Virginia requirements of local participation and local match. While RIFA's are encouraged, regions can also consider other cooperative agreements and structures to develop sites by two or more localities in which development costs and/or revenues are shared.

Speculative Development: While GO Virginia funding can be used to advance a site to business-readiness, projects should be able to document clear demand for the site to reduce the risk of speculative development. Projects that demonstrate the highest likelihood for immediate high wage job creation outcomes through active prospects or a clear history of prospect activity within the targeted clusters will be most successful. Information regarding any prospects forfeited due to the lack of business-ready sites should be included with the application. Committed prospects ["bird in hand"] are not required to pursue site preparation or enhancements (see Incentive Packages below).

Workforce Connection: Projects will be most successful when they demonstrate a clear understanding of the labor shed for the site, particularly with mega-site developments that have the potential for thousands of jobs. Projects should ensure adequate population and skills to support a future business in one of the target industries, and should outline plans to address relevant skills gaps where necessary.

Marketing: Projects will be most successful when there is coordination with VEDP and there is a clear marketing plan in place for the site. The marketing plan should target the region's priority clusters, and should include metrics for gaging the success of the marketing efforts so they can be corrected or expanded to hit targets.

Precedents: Based on program guidelines and prior decisions by the Board, applications for the following are discouraged:

- **Infrastructure:** GO Virginia funding cannot be used for the development of transportation infrastructure such as roads, bridges, tunnels, exits, public transportation, etc. GO Virginia should

GO Virginia Guidance and Metrics by Project Type as of 12/4/18

not be used for general public infrastructure for a locality, without a clear line of sight to an economic development project that will create higher wage jobs in a traded sectors.

- **Incentive Packages:** GO Virginia funding is not a business incentive and shall not be used as part of a prospect incentive package. Incentives do not build the region's long-term capacity for job creation, and therefore do not meet the mission of GO Virginia. Furthermore, GO Virginia funding should not be requested for the benefit of a single business, so GO Virginia will not fund site improvements for a single bird-in-hand prospect.

Sites Metrics: Anticipated metrics for joint site development projects can include:

- Number of jobs created
- Number of jobs retained
- Number of businesses served
- Number of households served (if applicable)
- Acres advanced to higher tier per VBRSP
- Total square footage of new space developed
- Linear feet of water/sewer infrastructure constructed
- Water/sewer capacity: MGD (million gallons per day)
- Marketing dollars deployed for the site
- Number of projects (active company recruitment files)
- Number of prospects (active company visits)
- Number of businesses attracted
- Leveraged private investment
- Leveraged public investment
- Revenues increased from export-sales
- **Note:** Joint site development projects should track short and long-term metrics, to track the outputs from the project as well as the outcomes from businesses on the site.

Startup Ecosystems:

Opportunities: GO Virginia funds can be used to build the fundamental building blocks of regional startup ecosystems, such as incubators, accelerators, and forms of business funding (notably, seed funds). Such components should be prioritized based on the work of TEConomy Partners, LLC, and based on the direction provided in the growth and diversification plans. GO Virginia can assist with service development or expansion, programming, fund development, etc. However, funding to construct a new facility would be more appropriately sourced from matching funds, and could be funded through local or private matching funds.

Salaries: GO Virginia can fund staffing for startup ecosystem initiatives, where a non-state revenue model has been identified to sustain those positions.

Sustainability: Projects that demonstrate the ability to sustain the startup ecosystem enhancements will be most successful, while projects that reflect a short-term solution should demonstrate a clear demand to justify an effort that may not be sustainable. Seed funds that have an evergreen component are encouraged.

Retention: Given the mobility of many entrepreneurial activity, projects will be most successful with a demonstrated plan or proven track-record for retaining those startups within the region or the Commonwealth.

Metrics: The success of entrepreneurial ecosystem projects should be quantifiable, to every extent possible. Projects that have an established system for tracking outcomes, immediate and long-term, will be best able to demonstrate success and the return on GO Virginia's investment.

Precedents: Based on program guidelines and prior decisions by the Board, applications for the following are discouraged:

- **Startup Funding:** GO Virginia funding should be directed toward startup and programmatic expenditures, and should not be utilized to fund startups or entrepreneurs directly. Business capital, seed funds, or award funds should be funded by match.

Startup Ecosystem Metrics: Anticipated metrics for startup ecosystem projects can include:

- Number of jobs created
- Number of jobs retained
- Average wages for jobs created
- Average increase in wages for employees at businesses served
- Number of new programs/credentials implemented
- Number of credentials awarded
- Number of businesses attracted
- Number of businesses retained
- Number of businesses expanded
- Number of businesses founded
- Leveraged private investment
- Leveraged public investment
- Total capital raised/deployed
- Research and development (R&D) funding deployed
- New products completed/released to production
- Total patents filed/pending/awarded
- Number of fund investments placed and average deal size
- Number of businesses applying for fund investments
- Number of businesses interviewed and evaluated for fund investments
- Average increase in wages for employees
- Return on Investment (ROI) and Internal Rate of Return (IRR) for deployed funds
- Number of program exits by type and timing
- Revenues increased from export-sales
- Cancelled projects and/or wasted spending
- **Note:** Startup ecosystem metrics should include the outputs from the project, as well as the outcomes from the businesses served.