



# ONE REGION

A GLOBAL COMPETITIVENESS STRATEGY

## HIGH IMPACT CLUSTERS EXECUTIVE SUMMARY

April 4, 2016



## PROJECT PARTNERS

This One Region High Impact Cluster Validation report was developed by Avalanche Consulting and McCallum Sweeney Consulting in partnership with the Charleston Regional Development Alliance, the Charleston Metro Chamber of Commerce, the and community stakeholders.



### **Charleston Regional Development Alliance**

The Charleston Regional Development Alliance (CRDA) serves as a catalyst for long-term regional prosperity by attracting the world's best companies, talent, and entrepreneurs. CRDA is organized as a public/private corporation supported and led by the region's most influential business leaders, three county governments, the largest municipalities, and top academic institutions.



### **Charleston Metro Chamber of Commerce**

The Charleston Metro Chamber of Commerce serves as an advocate for a healthy business climate and is committed to advancing our region's economy and supporting our member businesses through work in areas such as infrastructure and talent development, military retention, innovation and entrepreneurship, and economic development.



### **Community Stakeholders**

Development of this report and the One Region Strategy has involved face-to-face discussions with more than 200 local stakeholders as well as the One Region Steering Committee. Additionally, more than 500 stakeholders completed the online survey and shared their perspectives on the current well-being of the region and its future opportunities.



### **Avalanche Consulting**

Avalanche Consulting is the nation's premier economic development strategist. The firm is deeply driven to make a positive impact and seeks clients who are equally inspired to energize their economies. Since it was established in 2005, Avalanche Consulting has provided strategic planning, research, and marketing assistance to more than 100 communities.



### **McCallum Sweeney Consulting**

McCallum Sweeney Consulting (MSC) provides site selection and incentives negotiation services to leading companies worldwide. MSC brings experience, commitment, integrity, and leading-edge technology to our clients in helping them make the best, and most informed, location decisions.



## REPORT CONTEXT

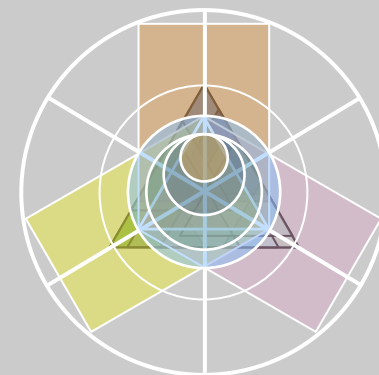
## REPORT CONTEXT

### About the One Region Strategy and This Report

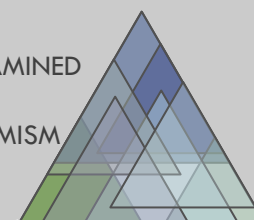
The One Region Global Competitiveness Strategy involves three interrelated phases. The first phase, *Competitive Assessment*, provides a comprehensive analysis of eight critical dynamics of community well-being that contribute to the economic dynamism of the region – affordability, quality of place, infrastructure, talent, innovation and entrepreneurship, equity, global fluency, and economic momentum. This second phase, *High Impact Cluster Validation*, identifies the high impact industry clusters that, with nourishment, will be the drivers of future regional prosperity. The upcoming third and final phase of the One Region Global Competitiveness Strategy will recommend a holistic approach to being a globally competitive place where people and businesses flourish.

This *High Impact Cluster Validation* report serves as a bridge between the *Competitive Assessment* and the *One Region Global Competitiveness Strategy*. It defines the clusters that offer the greatest potential to positively affect regional dynamics and generate opportunities for all residents to improve their standards of living. It provides in-depth profiles of each cluster and its ecosystem, discusses cluster trends, location needs, regional strengths and challenges, and case studies. Understanding each cluster and its ecosystem helps ensure that the Global Competitiveness Strategy includes actions that will optimize opportunities.

### ONE REGION PLANNING PROCESS



PHASE 1:  
THE COMPETITIVE ASSESSMENT EXAMINED  
EIGHT REGIONAL DYNAMICS THAT  
CONTRIBUTE TO ECONOMIC DYNAMISM



PHASE 2:  
THE HIGH IMPACT CLUSTER  
VALIDATION INTEGRATES LOCAL  
DYNAMICS WITH STATE,  
NATIONAL & GLOBAL TRENDS TO  
IDENTIFY RELEVANT INDUSTRY  
CLUSTERS AND THE ECOSYSTEMS  
THAT SUPPORT THEM

PHASE 3:  
THE GLOBAL COMPETITIVENESS STRATEGY  
PROVIDES A SERIES OF STRATEGIC  
RECOMMENDATIONS THAT POSITIVELY  
AFFECT REGIONAL DYNAMICS AND  
GENERATE PROSPERITY FOR ALL





## REPORT CONTEXT (continued)

### What is a cluster?

Industry clusters are groupings of similar companies that share markets and/or technologies and depend on common suppliers and workforces. A cluster strategy encompasses a broader ecosystem of activities and actors, including support services and suppliers, foundational assets such as education institutions and infrastructure, and enabling organizations such as economic development organizations, chambers of commerce, and industry associations .

High impact clusters are healthiest when they are complemented by a vibrant agglomeration of supporting firms. A thriving Life Sciences cluster, for example, will be supported by industry-knowledgeable legal and accounting services. A booming Aerospace cluster relies on a network of logistics firms, component fabricators, and other allied suppliers. A strong IT cluster is often surrounded by creative design agencies, venture capital firms, and intellectual property experts. The relationship between a successful cluster and supporting service firms and suppliers creates a virtuous cycle of mutually reinforcing specialization that not only strengthens companies wholly within the cluster, but also creates spin-off opportunities benefitting firms outside of traditional industry silos. As a result, the most balanced and coherent cluster strategies produce significant employment multipliers.

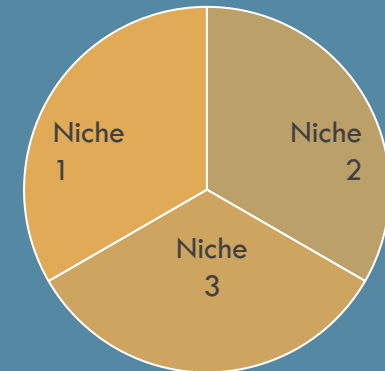


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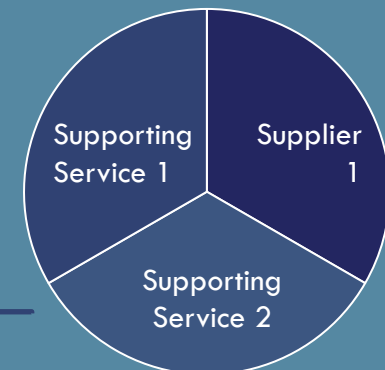
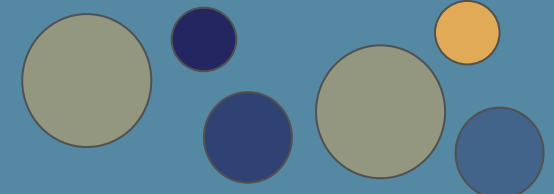
### How do clusters create diverse employment opportunities?

The variety of companies within a cluster, combined with the many supporting service firms and suppliers, also ensures that a sophisticated cluster strategy generates employment opportunities across a broad spectrum of skills and occupations. This is true directly within individual clusters and across all clusters collectively. Life Sciences, for example, creates opportunities for workers from the certificate level in device manufacturing and lab technicians to PhD level in R&D. Similarly, an expanding Aerospace OEM is generating jobs in production as well as construction, IT, and logistics. Niche sectors create further variation in job opportunities, and supporting firms and organizations create jobs in professional services occupations.

#### NICHE SECTORS



*A cluster's niche sectors, support services firms, and suppliers provide a diversity of job opportunities.*



#### SUPPORTING SVCS. & SUPPLIERS

## REPORT CONTEXT (continued)

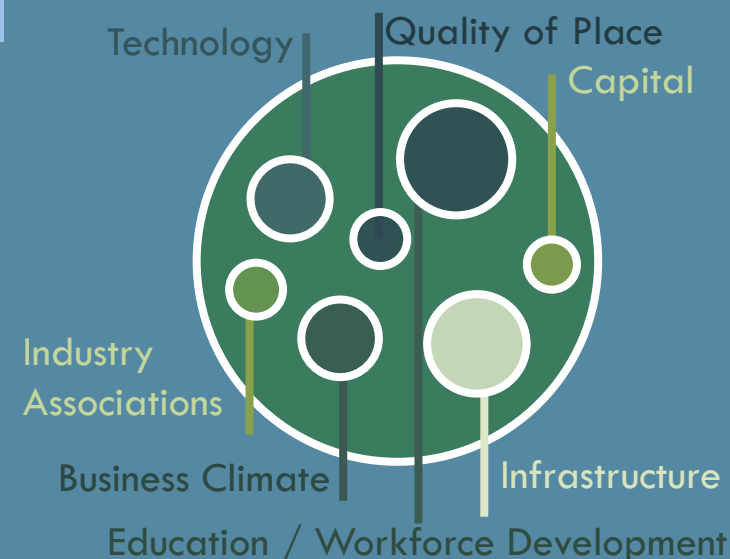
### How do assets and organizations support clusters?

The ecosystem required to optimize opportunities within high impact clusters can be extensive. Because of this, cluster development requires a variety of organizations and approaches. The exact balance varies depending on the cluster, but collectively a successful cluster strategy requires participation and support from a multitude of actors. Enabling organizations like the CRDA, the Metro and local chambers of commerce, industry associations, business leaders, and the public sector all have roles to play in advancing cluster development.

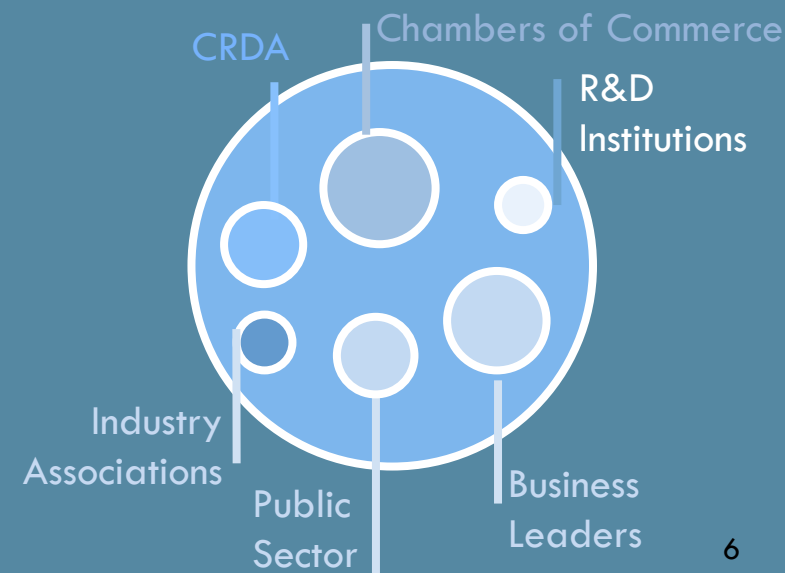
Foundational assets provide long-lasting support to the health of clusters, their niche sectors, and service and supplier firms. Companies within a cluster as well as supporting service firms and suppliers require a host of assets to help them thrive, including transportation infrastructure, educational institutions, capital, technology, and a supportive business climate.

With any one organization or entity alone insufficient to drive change across the entire cluster or region, collaboration among allied organizations is key. For example, advocating for improvements to foundational assets such as the region's transportation network or education pipeline requires the participation of public officials, chambers of commerce, and the private sector.

### FOUNDATIONAL ASSETS



### ENABLING ORGANIZATIONS



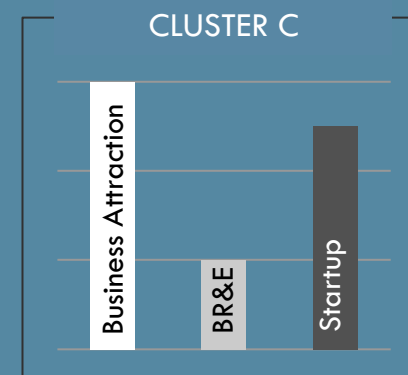
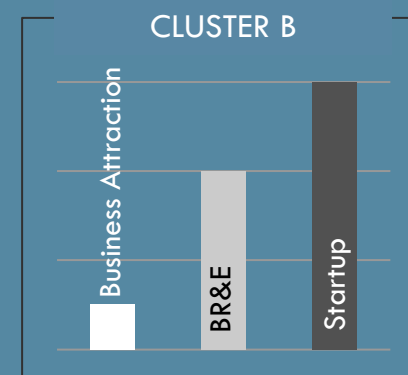
## REPORT CONTEXT (continued)

### How do regions advance clusters?

In addition to ensuring that cluster companies and their supporting service and supplier firms have the foundational assets to thrive, enabling organizations must also advance business development approaches specific to each cluster. Some clusters may require an aggressive business attraction component to help attract a critical mass of aligned companies otherwise underrepresented in the region. Other clusters may instead derive greater benefit from a focus on organic growth through local entrepreneurial and startup efforts. Still other more mature clusters may be best served with an emphasis on the business retention and expansion (BR&E) of existing operations within the region. Importantly, all clusters will require some mix of the above approaches, with the balance between business attraction, entrepreneurship, and BR&E tailored to maximize the chances of success.

The balance of approaches for each high impact cluster will be recommended in the forthcoming report, the *One Region Global Competitiveness Strategy*.

### DEVELOPMENT APPROACHES





## REPORT CONTEXT (continued)

### How do clusters relate to our regional dynamics?

Past successes bring new challenges, a lesson the Charleston region knows well. In the years since the global economic downturn, the Charleston region's economy has proven extraordinarily resilient. While job creation was the primary focus of the 2011 *Opportunity Next* strategy, today's discussions about regional competitiveness are more holistic in nature and include dynamics such as affordability, infrastructure, momentum, equity, innovation, quality of place, talent, and global fluency. These eight regional dynamics and their relationship to each other are explored in-depth in the Phase 1 *Competitive Assessment* report. Together, these dynamics provide both challenges and opportunities related to achieving global competitiveness and regional prosperity.

The high impact clusters profiled in this report have the potential to positively impact regional dynamics. In fact, their ability to affect positive change in regional dynamics was a consideration in the selection of high impact clusters, their niche sectors, and the balanced approach for each. For example, the diversity of employment opportunities offered by the clusters and their supplier and support firms can help reduce economic inequality throughout the region by encouraging a broad array of jobs across different skill sets and wage levels. Similarly, the clusters require a variety of land uses. With proper land use planning, these clusters can be in closer geographic proximity to population centers to reduce pressure on transportation infrastructure, alleviate the rising cost of living, and improve overall quality of place.



Infrastructure



Talent



Affordability



Momentum



Equality & Equity



Innovation &  
Entrepreneurship



Quality of Place

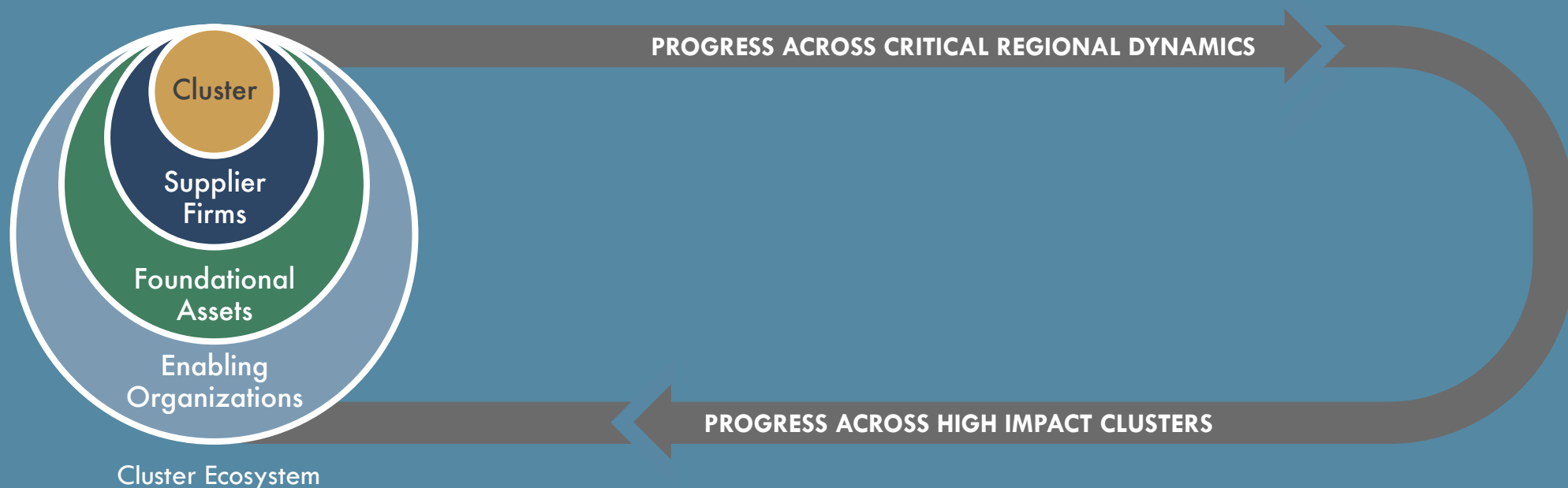


Global Fluency

## REPORT CONTEXT (continued)

### How do clusters relate to our regional dynamics?

Just as the high impact clusters offer potential to optimize the opportunities associated with regional dynamics, the dynamics themselves offer potential to advance high impact clusters and their supplier and support firms. Addressing challenges related to the regional dynamics will help to nurture the region's cluster ecosystems.







## HIGH IMPACT CLUSTER RECOMMENDATIONS



# CLUSTER EVALUATION AND SELECTION

## High Impact Cluster Selection

Cluster selection is not a perfect science. No single mathematical formula can identify eligible cluster candidates. Instead, high impact cluster selection is an iterative process that integrates quantitative and qualitative information. The process is further complicated by an antiquated employment classification system that does not always neatly align with modern cluster definitions. This is especially true for marketing purposes. As a result of these limitations, high impact clusters and aligned niche sectors must be tailored to a specific community.

## Cluster Selection Process

High impact cluster selection is driven by four primary questions that serve as filters in the selection process:

1. What is the past and projected employment performance of clusters within the region and the US?

The Charleston region's strengths and assets are an important component of the cluster selection process. Examining national and international trends places local information into a broader context.

2. What clusters have an existing presence in the region?

Answering the second question in the evaluation process involves examining regional dynamics such as current cluster concentrations.

3. Which clusters are best suited to the region's assets?

The *Competitive Assessment* report examines regional dynamics, strengths and challenges. The process identifies assets that can enhance cluster activity and support cluster ecosystems.

4. Which clusters align with the region's values?

High impact clusters must also reinforce the values of the community. Conversations with hundreds of residents, business owners, education representatives, and political leaders in the Charleston region helped the consulting team understand the region's values, which was the final consideration in selecting high impact clusters.

(It is important to note that adopting high impact clusters does not preclude growth in other sectors. More vibrant high impact clusters will bring new dollars into the region, boosting wealth creation, generating new business opportunities, and enhancing residents' standards of living.)

# CLUSTER EVALUATION AND SELECTION

## HIGH IMPACT CLUSTER EVALUATION

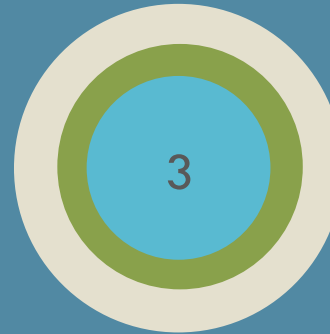
How has the cluster performed in recent years? How is it projected to perform in the future?



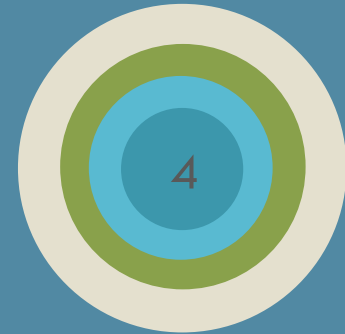
Does the cluster have an existing local presence?



Is the cluster suited for the region's assets?



Does the cluster align with the region's vision and goals?





# HIGH IMPACT CLUSTER RECOMMENDATIONS

The following high impact clusters and niche sectors (current and emerging) are recommended to be the focus of the One Region Global Competitiveness Strategy. The following pages include one-page overviews of each cluster.

## AEROSPACE

- Civilian Aircraft OEM
- Aircraft Parts Manufacturing
- Composite Materials
- Aerospace IT

## AUTOMOTIVE

- Automotive OEM Support
- Automobile Parts Manufacturing
- Automotive IT
- Automotive R&D

## INFORMATION TECHNOLOGY

- Software Development
- Digital Security
- Aerospace, Automotive, Health & Logistics IT
- Web Design & Marketing
- Big Data
- Cloud Computing
- Internet of Things
- Civic IT

## LIFE SCIENCES

- Basic & Clinical Trials
- Bioengineering
- Medical Devices & Diagnostics
- Informatics/Analytics/Health IT
- Telemedicine
- Environmental & Marine Research

## ADVANCED LOGISTICS

- General Warehousing & Storage
- Maritime Freight
- Third Party Logistics
- Cold Storage
- Logistics Corporate HQs
- Logistics IT

## LONG TERM OPPORTUNITY\*

- Back Office
- Corporate Headquarters

*\*While not an industry cluster, office operations present a high-impact opportunity for the region*

The high impact clusters are highly inter-related, with shared foundational assets, enabling organizations, and niche sectors:

