Thomas Jefferson Regional Commission CEDS

DRAFT ACTION PLAN MATRIX – INTERNAL WORKSHOP

FEBRUARY 21, 2024

TODAY'S OBJECTIVES

✓Assess the implementation-readiness scale of each strategy

✓Name partners and expected partners through discussion

✓Refine strategies and priority areas through discussion

✓Wrap up with next steps

Implementation Scale

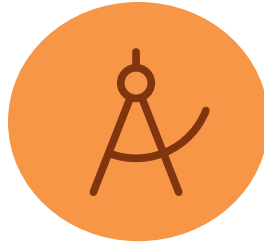## Emergent Strategy

Status:
Needs additional conceptualization and planning.

These actions represent opportunities to chart new territory and develop breakthrough strategies and leadership capabilities.

Since this is a new endeavor, there is room for developing innovative approaches, frameworks, and leadership paradigms.

Evolving Strategy

Status:
Needs a clear leader and/or resource allocation.

These actions represent initiatives that build on or re-purpose resources or partners that are currently in the economic development system.

Resource allocation, leadership and approaches may need to be adjusted or enhanced to implement these strategies.

Launch-Ready Strategy

Status:

Ready to be executed.

These actions represent items that can be accomplished within the current economic development system.

These strategies have a clear leader and dedicated resources. They can always benefit from growing partnerships.
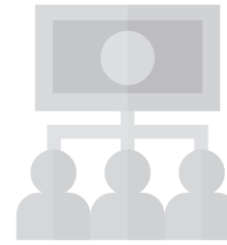
Parking lot : Strategies that need rethinking or are no longer a priority
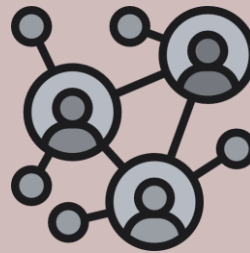
Strategy Framework

Existing, emerging, and target industries

Workforce development and partnerships

Implementation through Collaboration

Placemaking and community identify

Site infrastructure and adaptive reuse

Strategy Framework

GOALS — Big ideas, what we hope to achieve.

Strategy — Projects designed to achieve our goals.

Actions — What we'll do to achieve our goals.

*** — Shared strategy with RRRC, best practice for economic development.
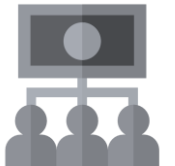
These strategies …

✓ Build on the existing work by partners in the region

✓ Leverage the assets that are being strengthened by economic developers in their own localities

✓ Are ambitious and seek to maximize the region's economic activity

✓ May end up being modified based on today's discussion – the goal is quality over quantity

Existing, emerging, and target industries

Key Metrics by Sector, Thomas Jefferson District Planning Commision
Bubble size indicates 2023 job count

Maturing — upper left quadrant
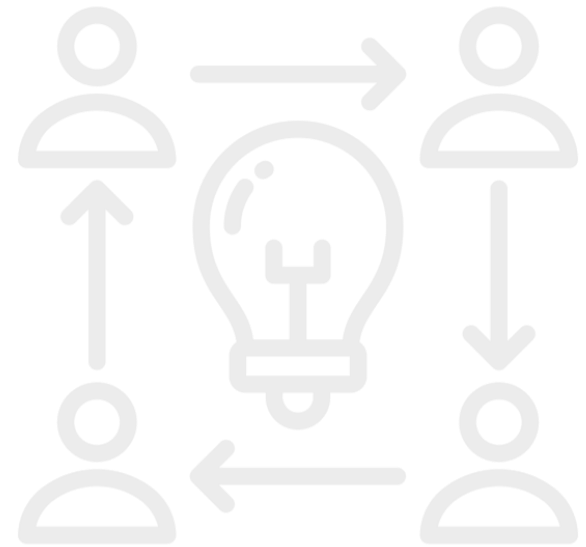**Leading** — upper right quadrant
Lagging — lower left quadrant
Emerging — lower right quadrant

Y-axis: Location Quotient (2023), ranging 0.0 to 2.0 (1.0 marked)
X-axis: Percent Change in Jobs (2018-2023), ranging -50% to 30%

Bubbles:
- Clean Technology
- Food and Agriculture
- Defense
- Information Technology
- All Other Manufacturing

Support economic growth within existing industries while leveraging emerging market opportunities to expand economic potential in the region.

Strategy 1.A) Advance the region's leading industries and seek opportunities to fill unique niches in the regional economy.

Action		Description			
1.A.1	Coordinate business development initiatives across North Fork UVA Discovery Park, Greene County, and Rivanna Station (Albemarle County).	Collaborate to determine the correct mix of suitable industries and the unique role that each site will play in encouraging distinct cluster development.			
1.A.2	Develop programs to support new company formation focused on clean technology companies.	A "pilot manufacturing" location could help support the development of these technologies in partnership with the MEP and regional incubators. These industries can be further supported by specialized training within educational institutions, scholarships, and apprenticeships.			
1.A.3	Expand program and service offerings provided by existing business support groups with a stronger emphasis on Clean Tech, Cybersecurity, and IOT-related start-up companies.	Venture Central, and UVA's LVG, i.Lab incubator, and 434 Accelerator, are well positioned to expand translational research, commercialization, and new company formation in these emerging and high growth industries.			
1.A.4	Invest in the specialized workforce and technical assistance that supports the evolving agriculture sector, especially the advancement of value-added product manufacturing.	Agriculture-related sectors are a driving force in the region. Setting up producers to take advantage of value-added possibilities with specialized training or technical assistance will grow this sector. This also includes the technology and infrastructure related to Controlled Environment Agriculture which is a strength in the region.			

Support economic growth within existing industries while leveraging emerging market opportunities to expand economic potential in the region.

Strategy 1.A) Advance the region's leading industries and seek opportunities to fill unique niches in the regional economy.

	Action	Description			
1.A.5 ***	**Connect rural communities to growing market opportunities and make investments to advance their ability to access these opportunities.**	Rural communities can be at a disadvantage when it comes to attracting investment from existing or emerging industries. Yet, there are specific opportunities that could be a fit for rural communities, or this could be an opportunity to make large-scale investments to connect areas to regional opportunities.			
1.A.6 ***	**Grow partnerships with trusted community partners to expand relationships with MWVE and grow awareness of the barriers within these communities.**	Barriers to entry for entrepreneurs can be high, especially in emerging industries. To fully engage the region's population and encourage growth from within, tailored approaches to entrepreneurship will help increase the range of perspectives and experience level in the emerging subsectors.			

Support sustainable growth within existing business while leveraging emerging market opportunities to expand economic potential in the region.

Strategy 1.B) Invest in resources that will elevate the region's capabilities in hosting and growing Life Science startups and second-stage companies.

Action		Description			
1.B.1	Develop shared labs and common spaces having specialized biotechnology equipment for more researchers and entrepreneurs in the region.	Those who are not part of the UVA family struggle to find equipment and facilities to advance their discovery and research activities. For these entrepreneurs, consider expanding on-campus arrangements and off-campus alternatives.			
1.B.2	Establish a clinical trials network in the Charlottesville region.	This is needed to complement the work of the Manning Institute of Biotechnology which is expected to attract the interest of pharmaceutical and biotechnology companies.			
1.B.3	Collaborate with partners to improve outreach to underrepresented groups by expanding technical assistance to women and minority entrepreneurs seeking SBIR/STTR funding.	Virginia ranks among the top states for SBIR/STTR award funding. Nationally, however, there are persistent disparities in outreach and support to underrepresented groups which is becoming more of a priority for federal agencies to address.			

GOAL 1 → Support sustainable growth within existing business while leveraging emerging market opportunities to expand economic potential in the region.

Strategy 1.B) Invest in resources that will elevate the region's capabilities in hosting and growing Life Science startups and second-stage companies.

Action		Description			
1.B.4	Adapt successful approaches used in NOVA and the Greater Richmond communities to strengthen existing investor funds and networks.	Meet the demand for increased support of translational and commercialization activities and grants (i.e., Ivy Biomedical, 3 Cavaliers, CRCF), angel groups, and venture funds (i.e. CAV Angels, CAN, etc.)			
1.B.5	Leverage findings from the Virginia Bio-Connect initiative to adapt local programs and maintain up to date information in the resource hub.	Virginia Bio-Connect is a valuable resource to learn from for the other four Life Sciences clusters in the state. Piloting or adapting programs from other regions will build on recent successes and help to strengthen the statewide network of startups, researchers, large employers, educational institutions, and intermediaries.			

Highlights of the region's biotechnology and venture capital activity

Venture Capital Funding in Region 9, 2014-2024 YTD
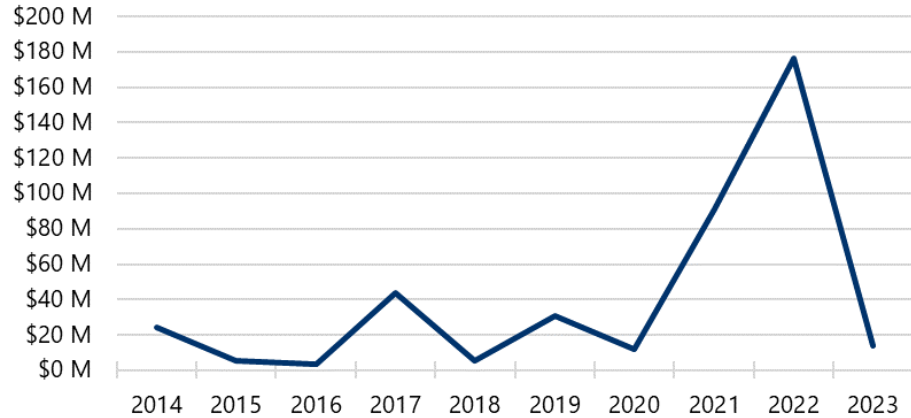
Source: Crunchbase

Venture Capital Funding in Region 9, by City (2014-2024 YTD)

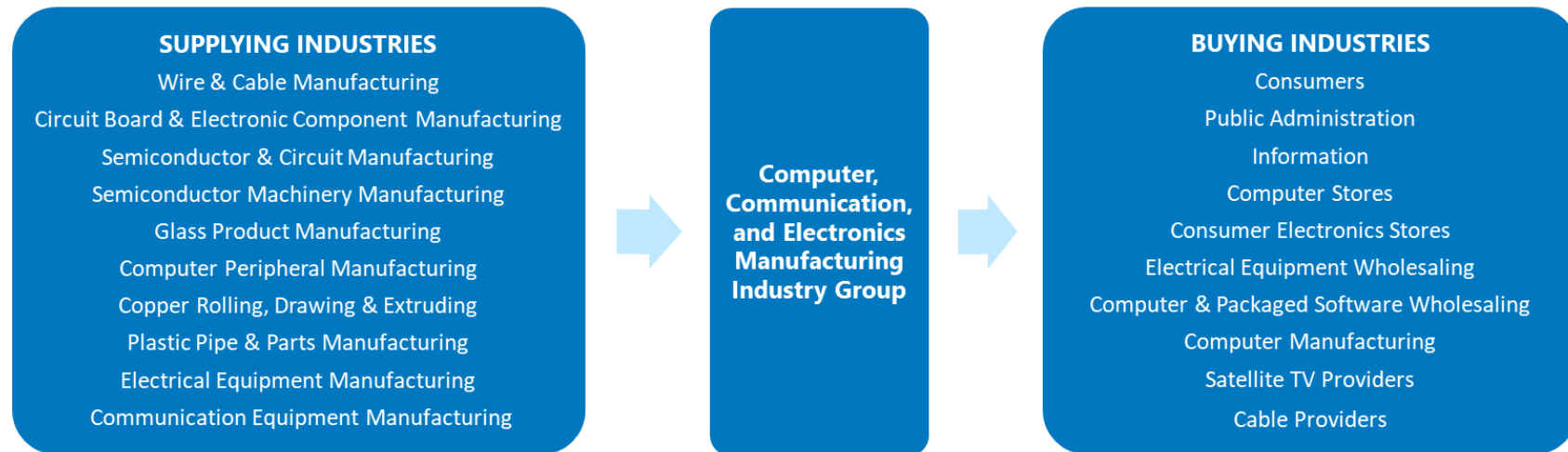| City	Total VC Raised
Charlottesville	$395,099,202.00
Crozet	$3,001,350.00
Earlysville	$2,100,000.00
Keswick	$6,808,062.00
Total	**$407,008,614.00**

Source: Crunchbase
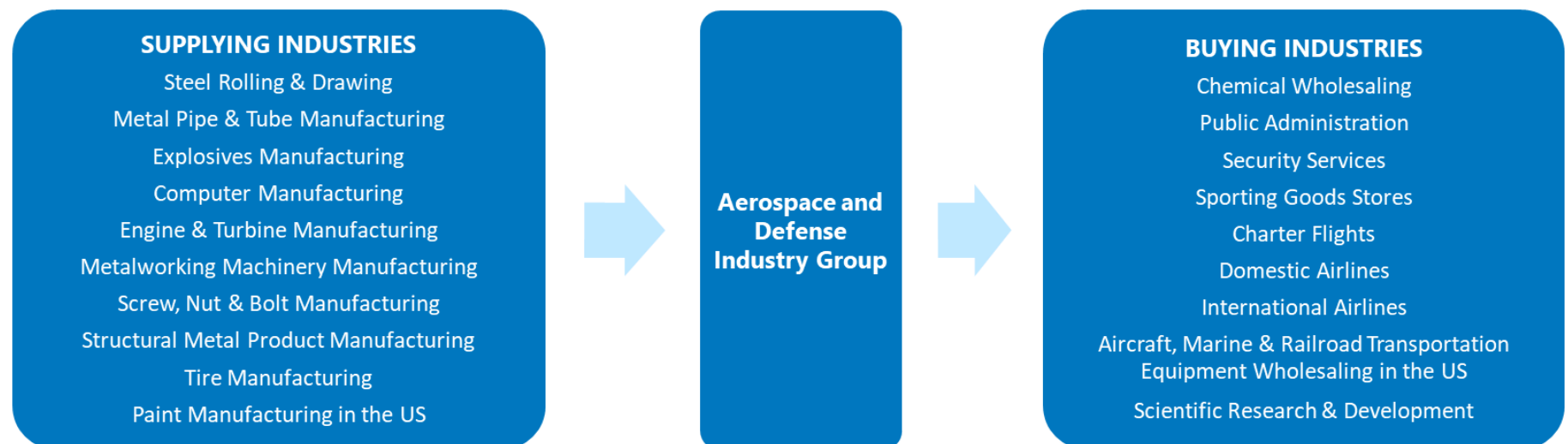
Note: Includes only transactions that have been reported.

Venture Capital Funding Raised in Region 9, by Company (2014-2024 YTD)

Company	Crossover Industries	Total VC Raised	Transactions
Rivus Pharmaceuticals	Pharmaceuticals	$167,000,000	2
HemoShear Therapeutics	Health Care	$51,220,000	4
AgroSpheres	Agriculture	$39,203,089	5
ZielBio	Health Care	$32,599,996	2
Cavion	Health Care	$26,100,000	1
Contraline	Medical Devices	$23,830,000	7
HemoSonics	Medical Devices	$15,000,000	1
Tau Therapeutics	Pharmaceuticals	$12,837,500	1
LumaCyte	Health Care	$6,808,062	3
GenEp	Health Care	$6,405,006	2
Slate Bio	Health Care	$4,526,949	2
AMPEL BioSolutions	Precision Medicine	$3,800,000	2
Springbok Analytics	AI	$3,465,000	2
Rivanna Medical	Medical Devicees	$3,001,350	1
Gene Solutions	Genetics	$2,939,800	2
Neoantigenics	Health Care	$2,536,862	2
Cerillo	R&D	$2,435,000	2
AXON Connected	IT	$2,100,000	1
Atelerix Life Sciences	Health Care	$650,000	1
Lytos Technologies	Agriculture	$400,000	2
Ourobio	Bioplastics	$150,000	1
Direct Spinal Therapeutics	Health Care		1
Merand Pharmaceuticals	Pharmaceuticals		1
PS Fertility	Fertility		1
RioGin	Health Care		1
PhosImmune	Clinical Trials		1
Total		**$407,008,614**	**51**

Computer, communication, and electronics manufacturing group supply chain

SUPPLYING INDUSTRIES

Wire & Cable Manufacturing

Circuit Board & Electronic Component Manufacturing

Semiconductor & Circuit Manufacturing

Semiconductor Machinery Manufacturing

Glass Product Manufacturing

Computer Peripheral Manufacturing

Copper Rolling, Drawing & Extruding

Plastic Pipe & Parts Manufacturing

Electrical Equipment Manufacturing

Communication Equipment Manufacturing

→

Computer, Communication, and Electronics Manufacturing Industry Group

→

BUYING INDUSTRIES

Consumers

Public Administration

Information

Computer Stores

Consumer Electronics Stores

Electrical Equipment Wholesaling

Computer & Packaged Software Wholesaling

Computer Manufacturing

Satellite TV Providers

Cable Providers

Aerospace and defense supply chain

SUPPLYING INDUSTRIES

Steel Rolling & Drawing

Metal Pipe & Tube Manufacturing

Explosives Manufacturing

Computer Manufacturing

Engine & Turbine Manufacturing

Metalworking Machinery Manufacturing

Screw, Nut & Bolt Manufacturing

Structural Metal Product Manufacturing

Tire Manufacturing

Paint Manufacturing in the US

→

Aerospace and Defense Industry Group

→

BUYING INDUSTRIES

Chemical Wholesaling

Public Administration

Security Services

Sporting Goods Stores

Charter Flights

Domestic Airlines

International Airlines

Aircraft, Marine & Railroad Transportation Equipment Wholesaling in the US

Scientific Research & Development

Strategy 1.C) Evaluate needs for visitation-related businesses as the sector evolves.

	Action	Description	💡	📐	🚀
1.C.1	Forge strong connections between outdoor recreation activities and nearby Main Street commercial and service offerings.	There is a role to play for each location in a visitation economy. Intentionally showing visitors the location of convenient food and entertainment options near outdoor recreation activities can bridge the distance between more urban and rural areas.			
1.C.2	Conduct a hotel feasibility study for the region and evaluate the market need for a mix of accommodation options.	Retaining visitors for an overnight stay helps contribute to overall impact on the economy. Varying styles of accommodations fit throughout the region and coordinating where and how these accommodations are situated can help draw visitors to more rural areas, if desired.			
1.C.3	Partner with existing efforts to implement county farm tours and highlight the region's agricultural strengths to internal and external audiences.	Although the bounty and expansive rural landscape is only a short distance from the region's urban locales, offerings in these rural areas often go unnoticed.			
1.C.4	Invest in the region's arts and culture assets and cross-market across urban and rural areas.	The region has a range of assets spanning the many landscapes of the area.			

Implement or adapt industry-focused initiatives that draw on cross-sector collaboration for talent retention, advancement, and attraction.

Initiative 2.A) Capitalize on labor market data and real-time employer feedback to deploy workforce resources.

Action		Description			
2.A.1	**Increase the number of apprenticeships and other work-based learning (WBL) initiatives to diversify existing talent pools and new worker recruitment in target industries.**	Apprenticeships and WBL are proven ways to improve outcomes for workers on their career trajectories. Documenting the value of apprenticeships or programs will help increase employer awareness and involvement.			
2.A.2	**Invest in cultural competence and sensitivity training for medium-large employers.**	Depending on the industry, today's workplace looks vastly different than it did even a decade ago. From hybrid situations to intergenerational teams to cultural expectations, navigating and managing worker expectations can be a challenge. Setting up medium to large scale employers to succeed in their recruitment efforts will reduce turn over and help workers and employers succeed.			
2.A.3	**Determine overlapping skillsets and related occupations at entry, mid, and high skill levels among the region's emerging industries.**	This data is critical to determine where there are overlaps and maximize the training programs that exist in the region.			
2.A.4	**Map the regional workforce development system to determine where there are gaps in the existing system.**	With an extensive number of partners and ever-changing regulations, it is useful to map the system's strengths and deficiencies and determine what programs may need extra attention in order to reach workforce goals.			

STARs
SKILLED THROUGH ALTERNATIVE ROUTES™

STARs are individuals currently active in the workforce, who have a high school diploma, but no bachelor's degree.

They're more than 50% of the workforce that has developed valuable skills through military service, community college, training programs, partial college completion, or, most commonly, on-the-job experience.

Employers are maximizing apprenticeship roles

- ✓ To fill high-volume roles
- ✓ To teach industry and employer specific skills
- ✓ To promote jobs that are new to the labor market
- ✓ To expand and diversify existing talent pools

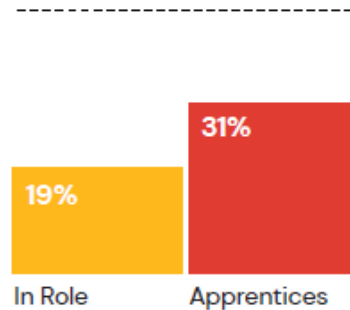## FIGURE 2.3: APPRENTICESHIPS ATTRACT A MORE DIVERSE TALENT POOL

STAR Information Security Analysts

55% of all workers are STARS
- In Role: 32%
- Apprentices: 53%
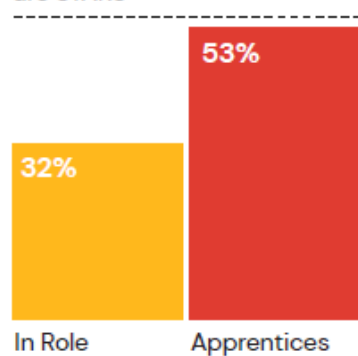
Women Software Developers

48% of all workers are women
- In Role: 19%
- Apprentices: 31%

Black Management Analysts

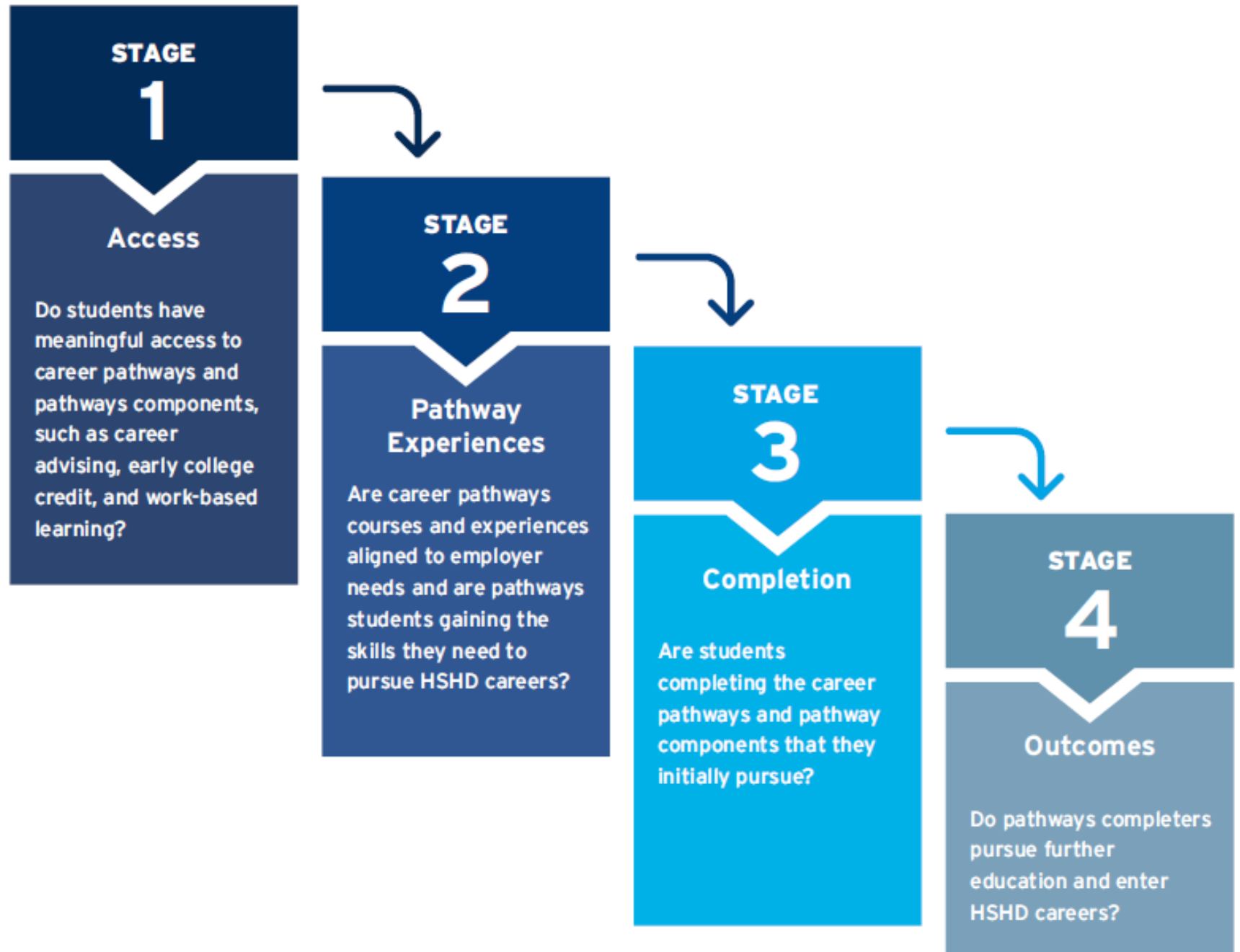12% of all workers are Black
- In Role: 8%
- Apprentices: 19%
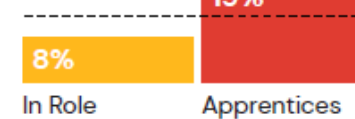
See page 17 for notes and sources.

Excerpts from The Changing Face of Apprenticeships – Opportunity @Work and Lightcast

EXHIBIT 3

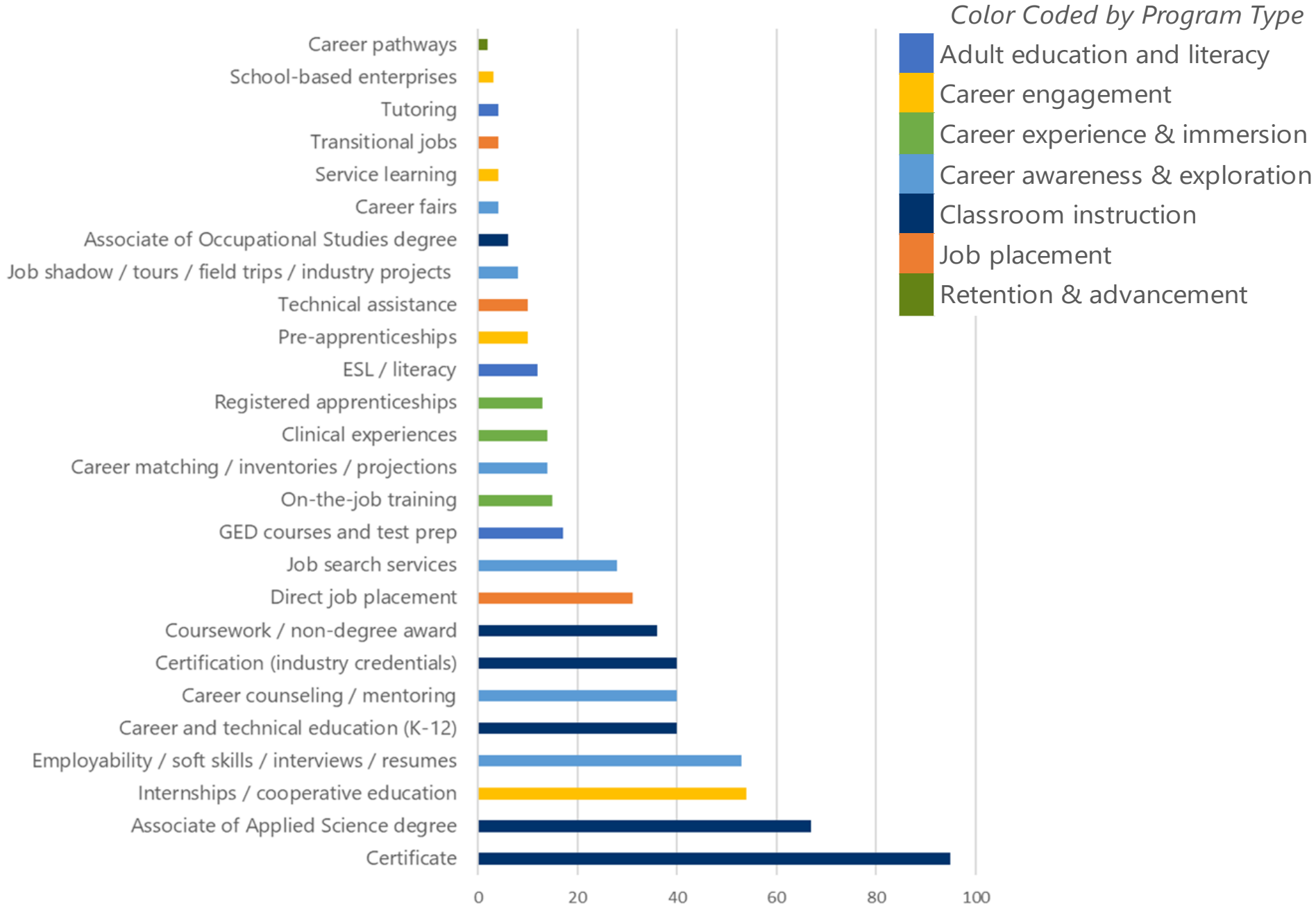**Stages of student career pathways experiences for data collection and monitoring**

STAGE 1

Access

Do students have meaningful access to career pathways and pathways components, such as career advising, early college credit, and work-based learning?

STAGE 2

Pathway Experiences

Are career pathways courses and experiences aligned to employer needs and are pathways students gaining the skills they need to pursue HSHD careers?

STAGE 3

Completion

Are students completing the career pathways and pathway components that they initially pursue?

STAGE 4

Outcomes

Do pathways completers pursue further education and enter HSHD careers?

Excerpt from Career Pathways-Related Indicators – Findings from the New Skills for Youth Initiative,

Workforce Programs in Monroe County by Subtype

June 2023

Color Coded by Program Type
- Adult education and literacy
- Career engagement
- Career experience & immersion
- Career awareness & exploration
- Classroom instruction
- Job placement
- Retention & advancement

Subtype	Value
Career pathways	~1
School-based enterprises	~3
Tutoring	~4
Transitional jobs	~4
Service learning	~4
Career fairs	~4
Associate of Occupational Studies degree	~6
Job shadow / tours / field trips / industry projects	~8
Technical assistance	~10
Pre-apprenticeships	~10
ESL / literacy	~12
Registered apprenticeships	~13
Clinical experiences	~14
Career matching / inventories / projections	~14
On-the-job training	~15
GED courses and test prep	~17
Job search services	~28
Direct job placement	~31
Coursework / non-degree award	~36
Certification (industry credentials)	~40
Career counseling / mentoring	~40
Career and technical education (K-12)	~40
Employability / soft skills / interviews / resumes	~53
Internships / cooperative education	~54
Associate of Applied Science degree	~67
Certificate	~95

Programs may fall into multiple categories

GOAL 2 — **Implement or adapt industry-focused initiatives that draw on cross-sector collaboration for worker retention, advancement, and attraction.**

Initiative 2.B) Innovate ways to involve the private sector in workforce training programs.***

Action		Description			
2.B.1 ***	Pursue industry champions that will amplify the need for private sector involvement in workforce solutions.	The private sector plays an important role in supporting innovative workforce programming that will retain and advance current workers. While some industries have more involvement than others, a champion of the private sector will amplify the message to other employers.			
2.B.2 ***	Recruit more employers across leading industries to support novel on-the-job pilots, long-term programming, and industry-informed curriculum.	Learning on the job and real-world experience is a proven way to retain workers. Additional employer engagement across a range of industries will help build awareness on what is available in the region and support employer workforce needs. Apprenticeships are one model but can be modified to pre-apprenticeships, internships, shadow days, badges, bootcamps, co-ops, and/or mentorships.			
2.A.3 ***	Deepen engagement with trade unions, industry organizations, and other entities that directly represent private sector employees.	These are valuable partners to glean real-time information and are your partners in implementing WBL programs.			
2.A.4 ***	Work with leading entities in the childcare sector to prioritize action-items that will enable safe, affordable, and convenient childcare access points across the region.	Statewide and regional entities are pursuing solutions within the childcare sector. Actively participating in these conversations and piloting solutions with regional employers will be necessary to overcome significant barriers.			

Mining for talent

United Way, employers address regional workforce shortage

United Way of Southwest Virginia President and CEO Travis Staton is overseeing the $25 million transformation of a former Kmart in Abingdon into a regional child care and workforce development hub. Photo by Earl Neikirk

🔒 virginiabusiness.com

GREATER WASHINGTON PARTNERSHIP

CoLAB

Collaborative of Leaders in Academia and Business (CoLAB) is an action-oriented partnership of business and academic institutions that develops the talent pipeline for the jobs of today and tomorrow.

Promote elements of placemaking to create a distinct community identity that is attractive to both businesses and residents.

Initiative 3.A) Invest in commercial centers and downtowns as economic and community hubs.

Action		Description			
3.A.1	**Meet housing demand through infill development, encouraging denser developments in appropriate locations, and mixed-use developments.**	A broad cross-sector collaboration is needed to advance the 2022-2025 Regional Housing Group Strategic Plan & Final Report.			
3.A.2	**Employ land assembly as a tactic to create developable properties.**	This tactic is relevant in rural or urban settings and may take time depending on parcel ownership. Being strategic about when and where properties are acquired can help advance community visions in key hubs.			
3.A.3	**Pursue placemaking activities that create dynamic and engaging spaces, foster a sense of belonging, and stimulate economic growth.**	A strong sense of place and quality options for recreation and entertainment are vital to retaining and attracting a competitive workforce. Elements of placemaking bring out the local flair of each locality and applies across the rural – urban spectrum.			
3.A.4 ***	**Partner with localities to assess the vibrancy and vitality of commercial corridors, small towns, and downtown districts and identify tactics that can advance meaningful, local economic activity.**	The region's main streets and commercial corridors are vital parts of the economy. Evaluating the needs of each community and where they can make progress will help advance scalable growth across the region.			

Promote elements of community placemaking that create a public realm that is attractive to both businesses and residents.

Initiative 3.B) Advance housing options across the region in connection with market demand

Action		Description			
3.B.1 ***	Work with municipalities on land use updates that will encourage building in existing service centers.	Municipalities play an important role in advancing housing development in the region. These roles include: *Rezoning and future land use planning* – Aligning land use regulations with desired housing development is a high impact way to increase development. *Identify underutilized locations* – There are often properties with the potential for development that have been abandoned or are otherwise challenging properties that hold potential for housing development. *Inventory publicly owned land* – With public site control, this land may be a good fit to strategize housing solutions with the private, public and non-profit sectors			
3.B.2	Partner with UVA as they prioritize the reuse or development of underutilized real estate to meet housing demand.	UVA is actively working with community partners on an aggressive plan to develop housing for the community. Supporting this work with shared resources, knowledge, or partnership will help address the substantial housing gaps in the region.			

Initiative 3.C) Improve transportation connections among commercial and residential hubs.

Action		Description	💡	📐	🚀
3.C.1	Establish highest priority needs on the Rt 29 Corridor to encourage safe, reliable connections between employment/resident centers.	This route is critical to moving people in and out of the area and improvements will support overall quality of life.			
3.C.2	Amplify the needs identified in the Regional Transit Vision (2022) Moving Towards 2050 Transportation Plan.	The regional transportation vision includes eight goals to improve overall transportation.			
3.C.3	Build out pedestrian and bicycle pathways that connect recreational paths and/or major hubs.	Multimodal transportation is an important choice in a comprehensive transit system. These connections support quality of life and climate-goals and enhance options for worker commutes.			
3.C.4	Increase transit ridership on existing corridors and seek to build out developments along these corridors.	Growing ridership figures can help document growing needs in the community. Working across partners to make the public aware of existing options and their usability, as well as strategically developing along these corridors.			
3.C.5	Identify parcels along the proposed east-west rail expansion for potential economic development opportunities.	With discussion on rail improvements, it is also an opportunity to evaluate what economic development opportunities would emerge from this connection.			
3.C.6	Build concentration of ridership in rural areas to maximize coverage in these areas.	Lack of concentrated activity is a significant challenge for rural transportation. Working with employers or other hubs of activity to build density of activity will support this transportation mode.			

GOAL 4 ▸ Invest in components of infrastructure that will enable business development opportunities and prepare the region for long-term prosperity and resilience.

Initiative 4.A). Increase the number of site-ready development parcels throughout the region.

Action		Description			
4.A.1	Prioritize an inventory of parcels or areas for water and sewer infrastructure in rural localities to support site development for business growth.	Leverage federal funding for infrastructure and make connections to those industries.			
4.A.2	Review zoning and overlay districts to promote mixed-use developments and the attraction of targeted industries.	These land use tools are useful for directing development to areas where there is already infrastructure or a cluster of related businesses. Overlay districts can help set strong standards and expectations for development.			
4.A.3	Analyze alternate energy project opportunities for new job creation and investment.	Market analysis and strategy development that engages deep industry expertise is needed to determine how best to support and leverage opportunities for system design, research and engineering, development, manufacturing, and supply chain business, with particular attention to solar and nuclear power.			
4.A.4	Leverage the state's BEAD funding to reach remaining rural areas.	The BEAD funding is intended to achieve "functionally universal broadband access." It also aims to expand the affordability of broadband and support workforce needs to meet the maintenance requirements of the system.			

Invest in components of infrastructure that will enable business development opportunities and prepare the region for long-term prosperity and resilience.

Initiative 4.A). Increase the number of site-ready development parcels throughout the region.

Action		Description			
4.A.5 ***	**Pursue joint partnerships or other customized collaborations to help fund or advance infrastructure.**	Funding infrastructure is a costly endeavor and can be supported through shared resources in multi-jurisdictional partnerships.			
4.A.6 ***	**Evaluate electricity needs for local communities as heavy-energy industry users come online.**	Some of the region's industries are heavy energy users and ensuring that long-term planning accounts for the needs of the broader economy will be important when building a resilient energy grid.			

Invest in components of infrastructure that will enable business development opportunities and prepare the region for long-term prosperity and resilience.

Initiative 4.B) Proactively prepare the business community for economic and environmental crises.

	Action	Description			
4.B.1	Coordinate the implementation of the Hazard Mitigation Plan with CEDS strategies and continue to incorporate the private sector in conversations about economic resilience.	The HMP is a valuable tool to highlight vulnerabilities in the region. Partnering the HMP with the findings from the CEDS will help identify priority action items and highlight how these hazards can impact the community and business sector.			
4.B.2 **	Solidify a leader or team of leaders in the community who will be the face of build-back efforts in the event of an economic or environmental crisis.	Having a plan before a crisis enables resources to be deployed quicker and will clarify where businesses can turn to in the event of a crisis.			

Next Steps

✓Finish any remaining strategy refinement + implementation scale discussion

✓Write up findings and complete matrix

✓Establish metrics for strategy areas

✓Write up Executive Summary and complete report – end of March