



Greater Twin Cities United Way presents:

The Leading Edge: Sector-Based Career Pathways

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LIVE UNITED

The Leading Edge: Sector-Based Career Pathways

November 7, 2013

Career Pathways Forum
St. Paul, Minnesota

Garrett Groves & Vickie Choitz



NATIONAL
GOVERNORS
ASSOCIATION



CLASP
policy solutions that work for low-income people

New Realities



EDUCATION, WORKFORCE & ECONOMIC DEVELOPMENT

- I. There is increasing debate about a **skills mismatch** and **stagnant job growth** in our economy.

- II. The United States is **losing the international skills race**.

- III. The **solution requires increased alignment** and collaboration between education, workforce & economic development

New Realities: Skills Mismatch



EDUCATION, WORKFORCE & ECONOMIC DEVELOPMENT

Even as the country experiences an unemployment rate of over 7 percent, **companies consistently report that they cannot find the employees they need** to fill certain jobs.

Source: ManpowerGroup, 2012

New Realities: Skills Mismatch

EDUCATION, WORKFORCE & ECONOMIC DEVELOPMENT



A third of employers **never communicate with education institutions.**

Source: McKinsey Global Institute, 2013

New Realities: Skills Mismatch

EDUCATION, WORKFORCE & ECONOMIC DEVELOPMENT



A third of **education institutions can't estimate their job placement rates**; those that can often overestimate it.

Source: McKinsey Global Institute, 2013

New Realities: Skills Mismatch



EDUCATION, WORKFORCE & ECONOMIC DEVELOPMENT

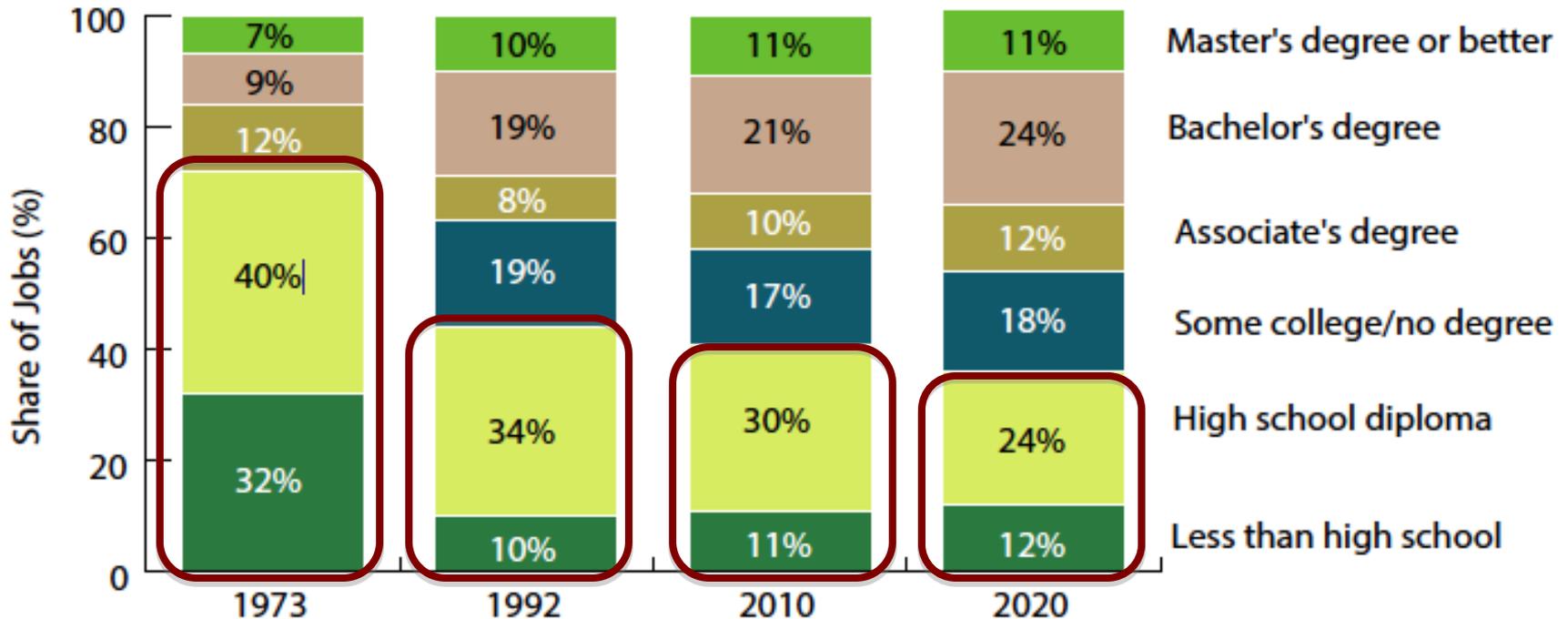
By 2020, nearly two out of every three U.S. jobs will require some postsecondary education and training.

New Realities: Skills Mismatch



EDUCATION, WORKFORCE & ECONOMIC DEVELOPMENT

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Source: Georgetown Center on Education and the Workforce, "Career and Technical Education: Five Ways That Pay Along the Way to the B.A."

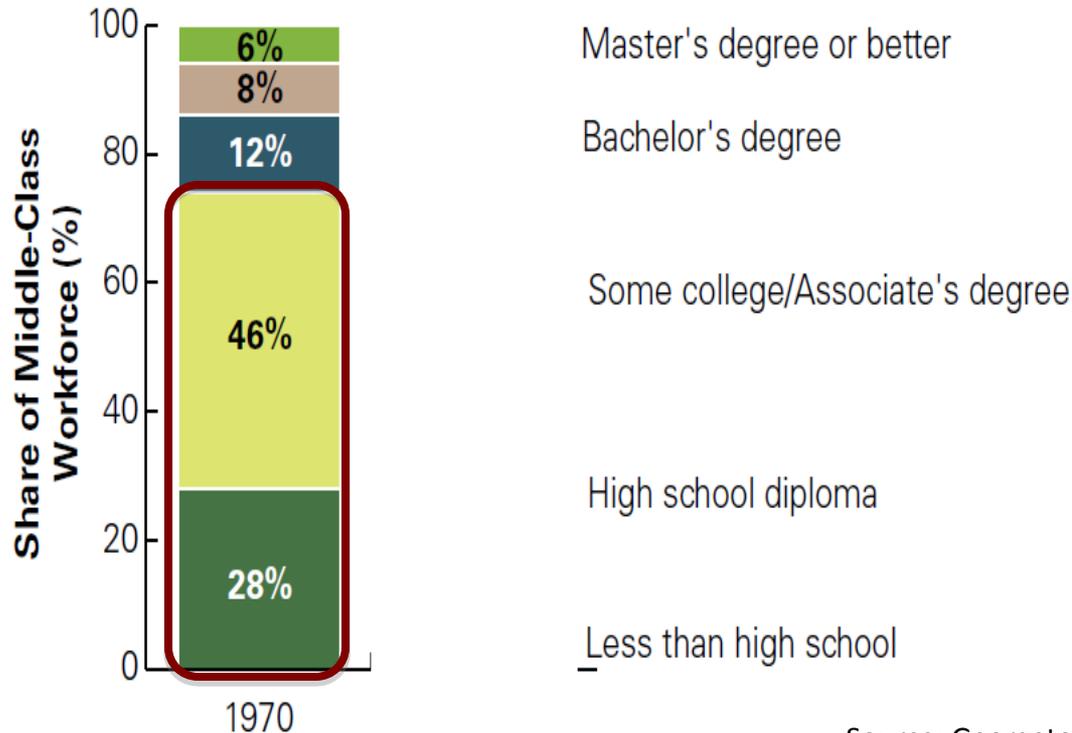
New Realities: Skills Mismatch



EDUCATION, WORKFORCE & ECONOMIC DEVELOPMENT

High School-Educated Workers Represent a Decreasing Share of the Middle Class

(Middle class includes all workers with annual income between \$35,000 and \$70,000)



Source: Georgetown Center on Education and the Workforce, "Career and Technical Education: Five Ways That Pay Along the Way to the B.A."

New Realities



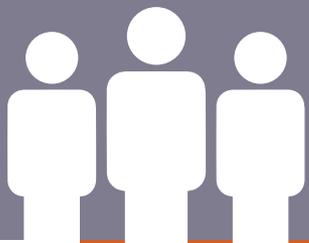
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Survey of Adult Skills in brief



166 thousand adults...

Representing 724 million 16-65 year-olds in 24 countries/economies, including 5,010 Americans

Took an internationally agreed assessment...

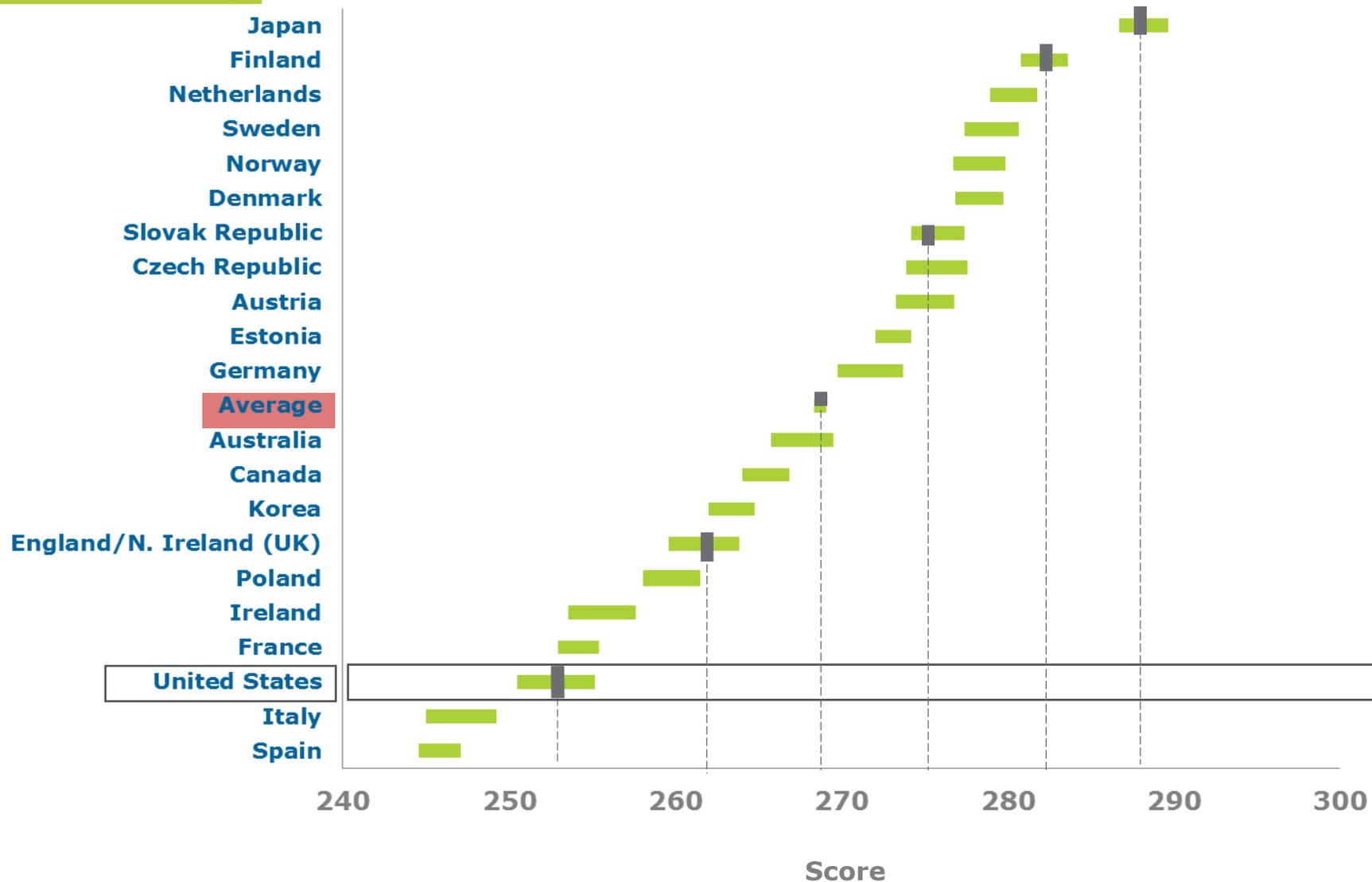


in literacy, numeracy and problem solving in technology-rich environments.



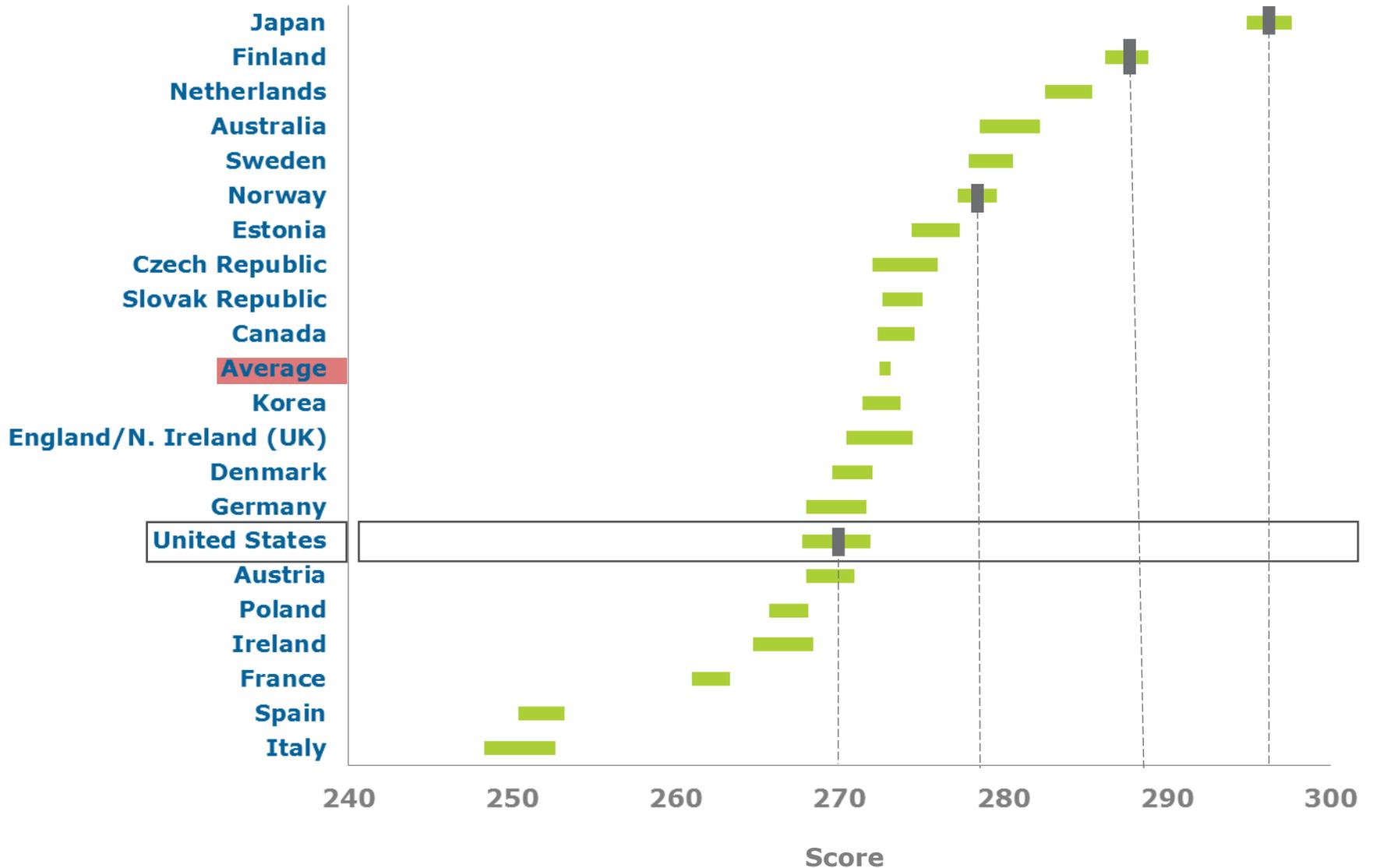
Skills of adults

Numeracy

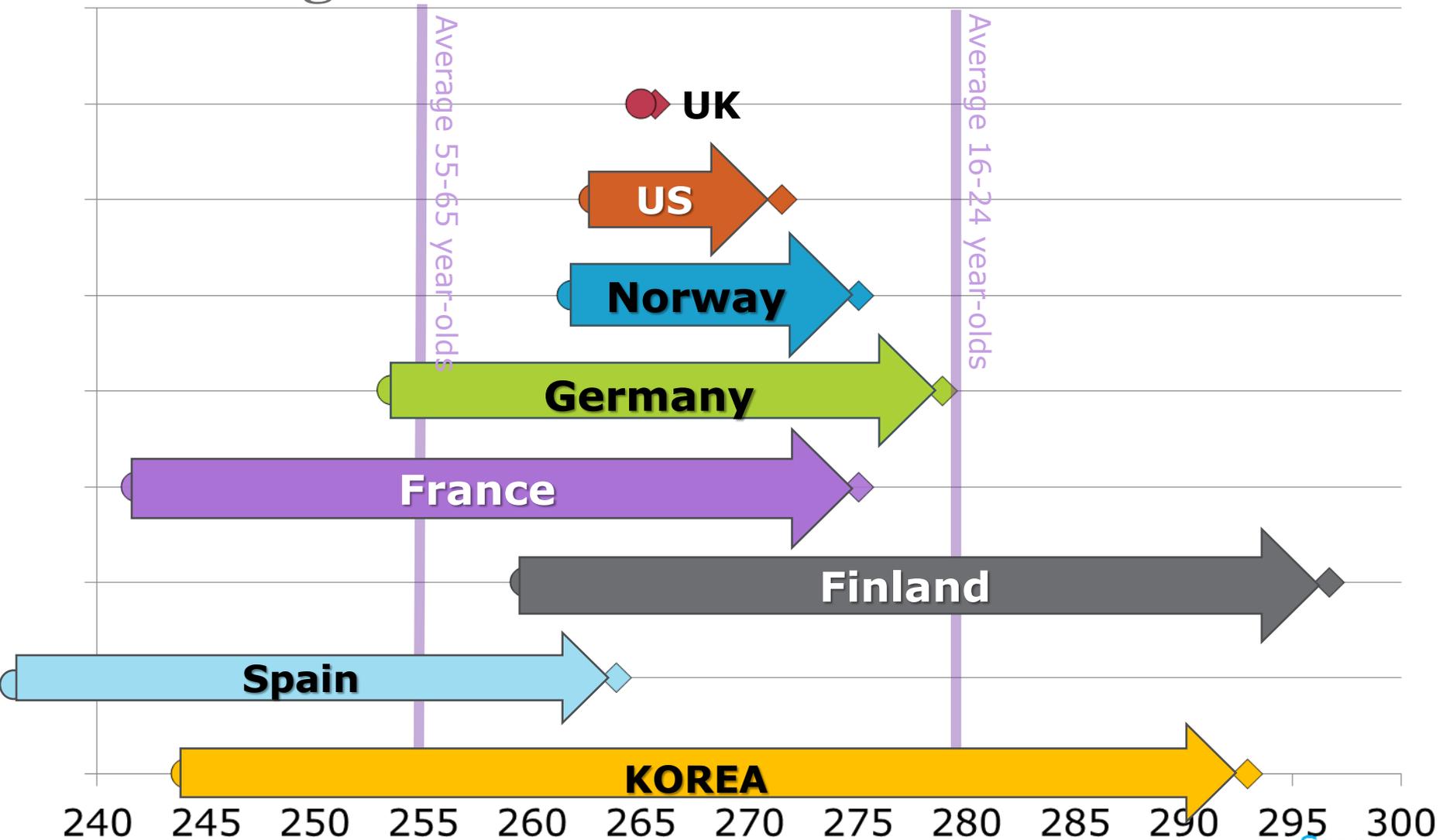


Skills of adults

Literacy



Literacy skills in younger and older generations



New Realities



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Sector Strategies Coming of Age:



EDUCATION, WORKFORCE & ECONOMIC DEVELOPMENT

I. Education → Train & Pray

II. Workforce Development

III. Economic Development

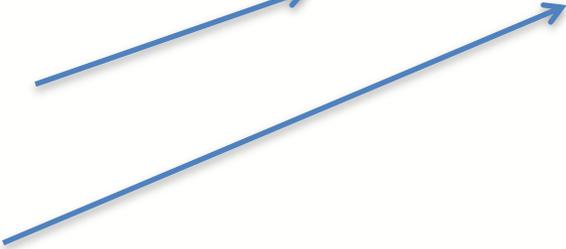
Sector Strategies Coming of Age:



EDUCATION, WORKFORCE & ECONOMIC DEVELOPMENT

I. Education  Career Pathways

II. Workforce Development 

III. Economic Development 

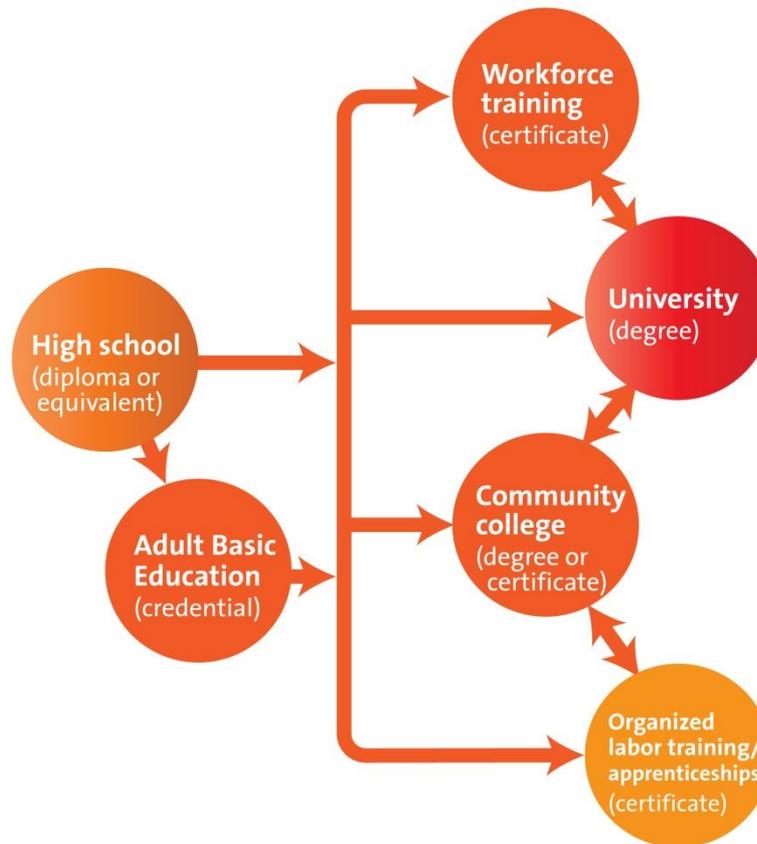
Career Pathways

Effective career pathways rely on coordination across education and training programs in order to offer a clear sequence of industry-relevant coursework and credentials to job seekers. Today's education and training programs include online and in-person opportunities.



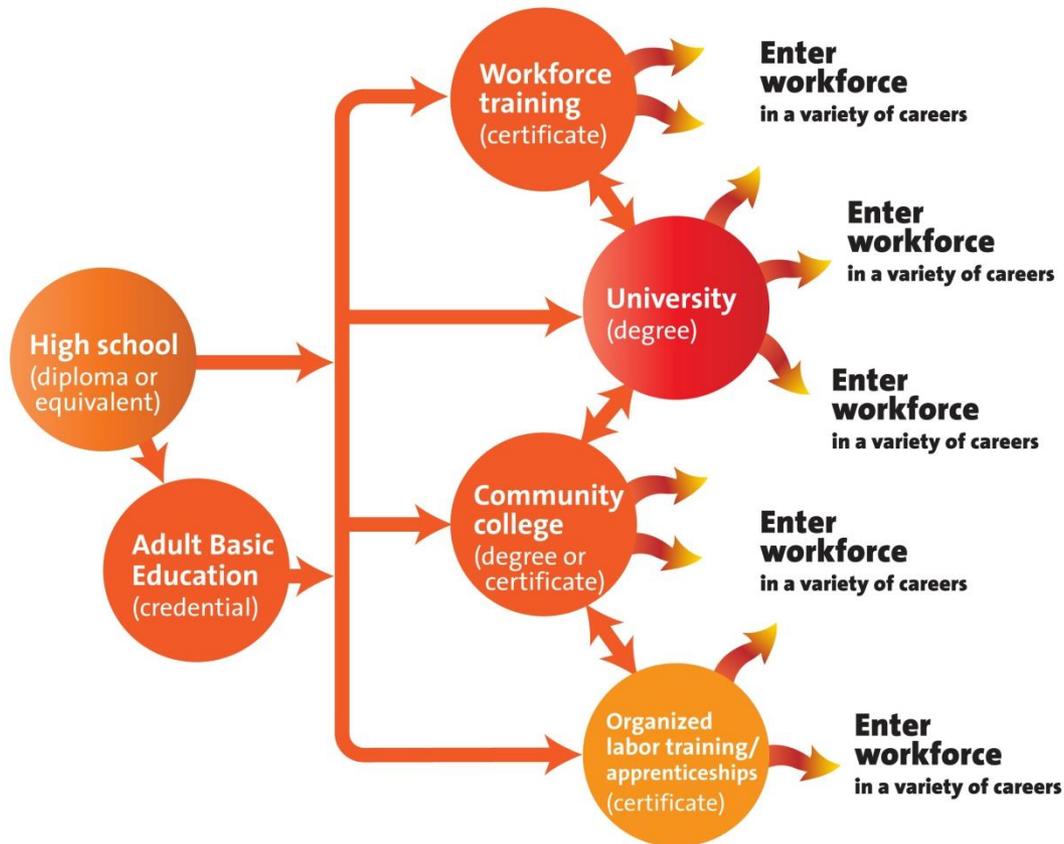
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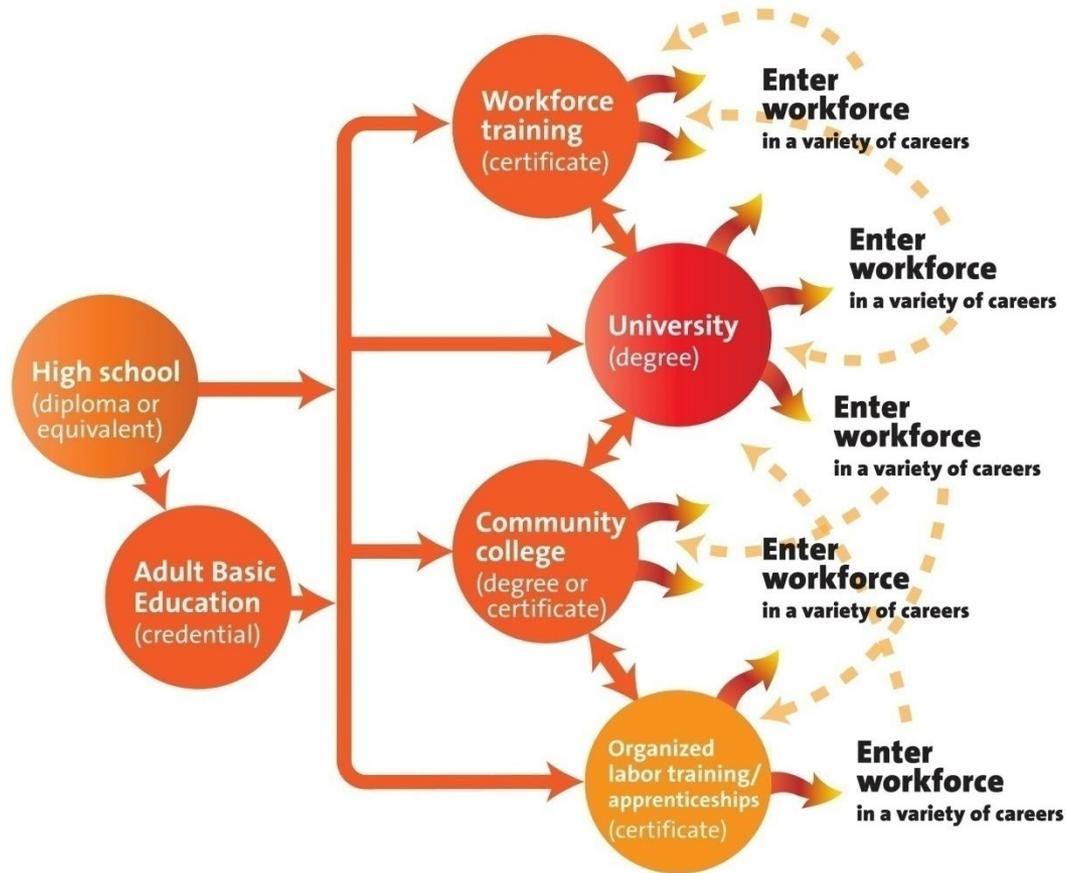
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After being in the workforce, a person may choose to go back for more credentials to make an upward or lateral career move.

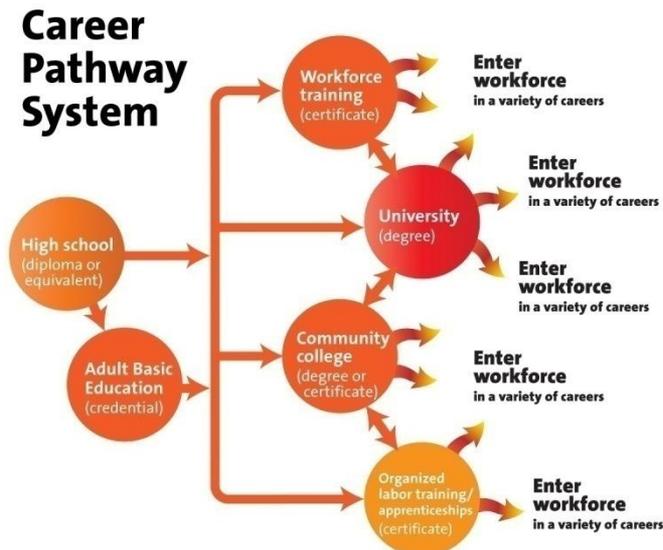
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I. Education → Career Pathways

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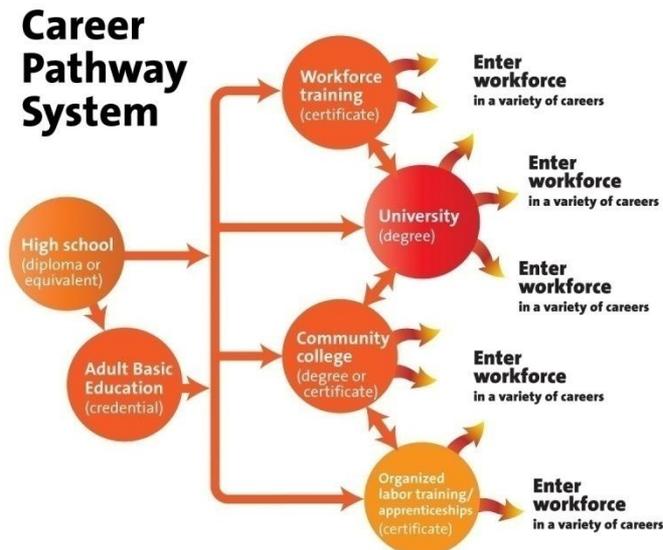
Sector Strategies Coming of Age:

EDUCATION, WORKFORCE & ECONOMIC DEVELOPMENT

I. Education → Career Pathways

II. Workforce Development

III. Economic Development → ?



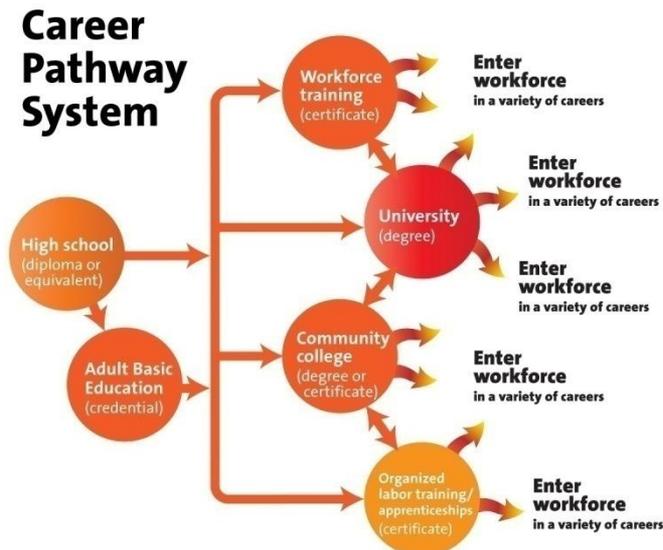
Sector Strategies Coming of Age:

EDUCATION, WORKFORCE & ECONOMIC DEVELOPMENT

I. Education

II. Workforce Development

III. Economic Development → Business Attraction



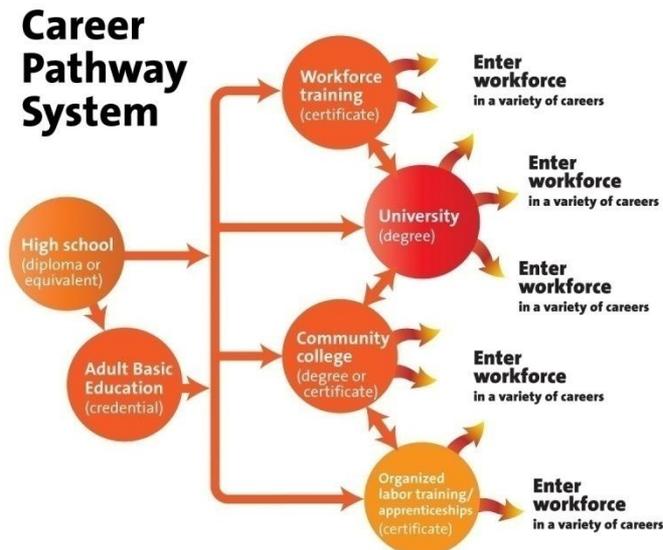
Sector Strategies Coming of Age:

EDUCATION, WORKFORCE & ECONOMIC DEVELOPMENT

I. Education

II. Workforce Development

III. Economic Development \longrightarrow Business Attraction
(Tax Breaks for Big Firms)



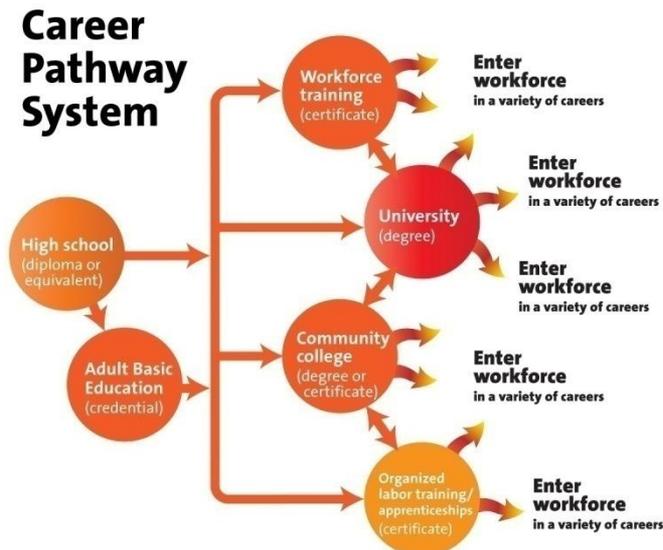
Sector Strategies Coming of Age:

EDUCATION, WORKFORCE & ECONOMIC DEVELOPMENT

I. Education

II. Workforce Development

III. Economic Development → Industry Clusters



Industry Cluster

An industry cluster consists of large and small firms in a single industry. Firms in industry clusters benefit from synergies of association related to shared labor, sources of innovation, suppliers, markets, technology, and infrastructure.



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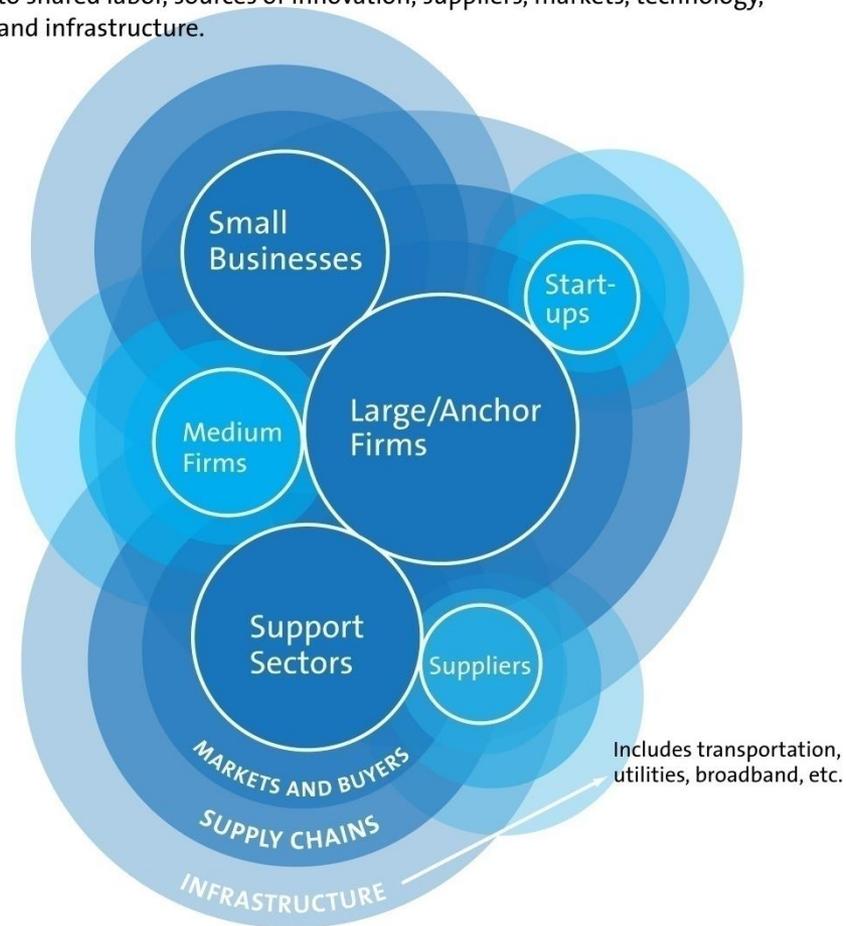
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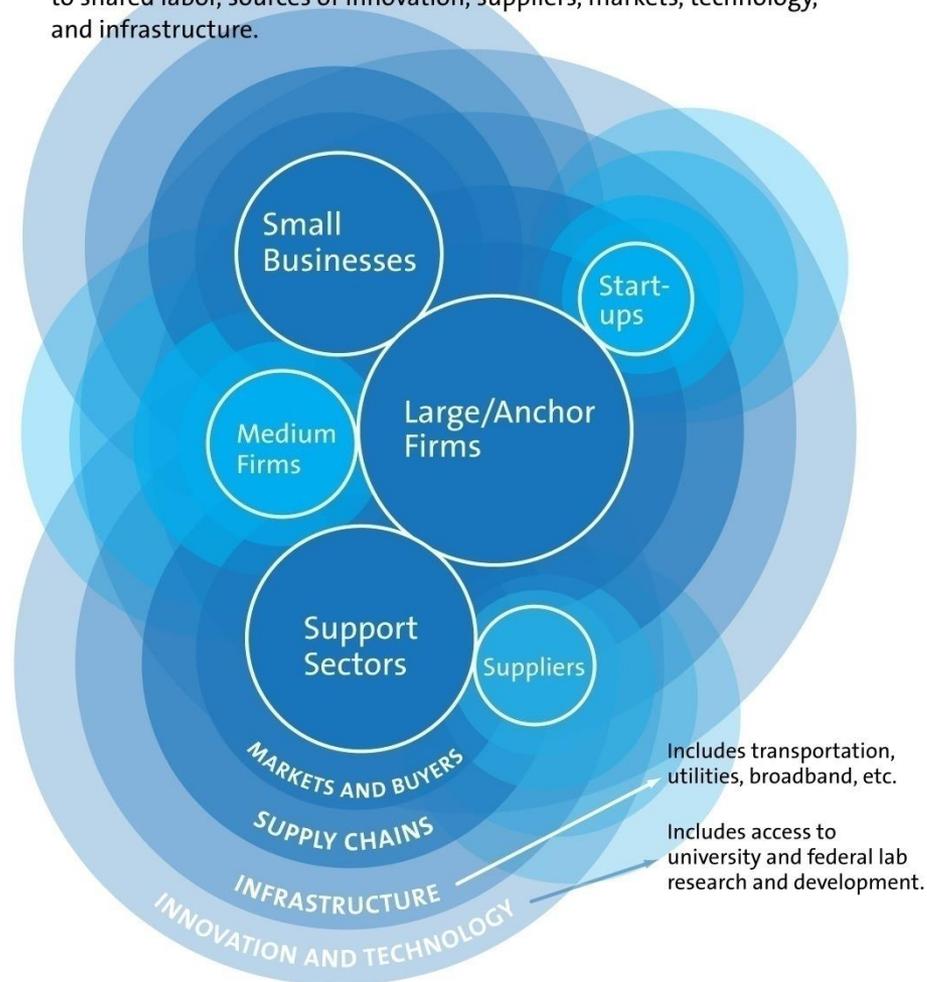
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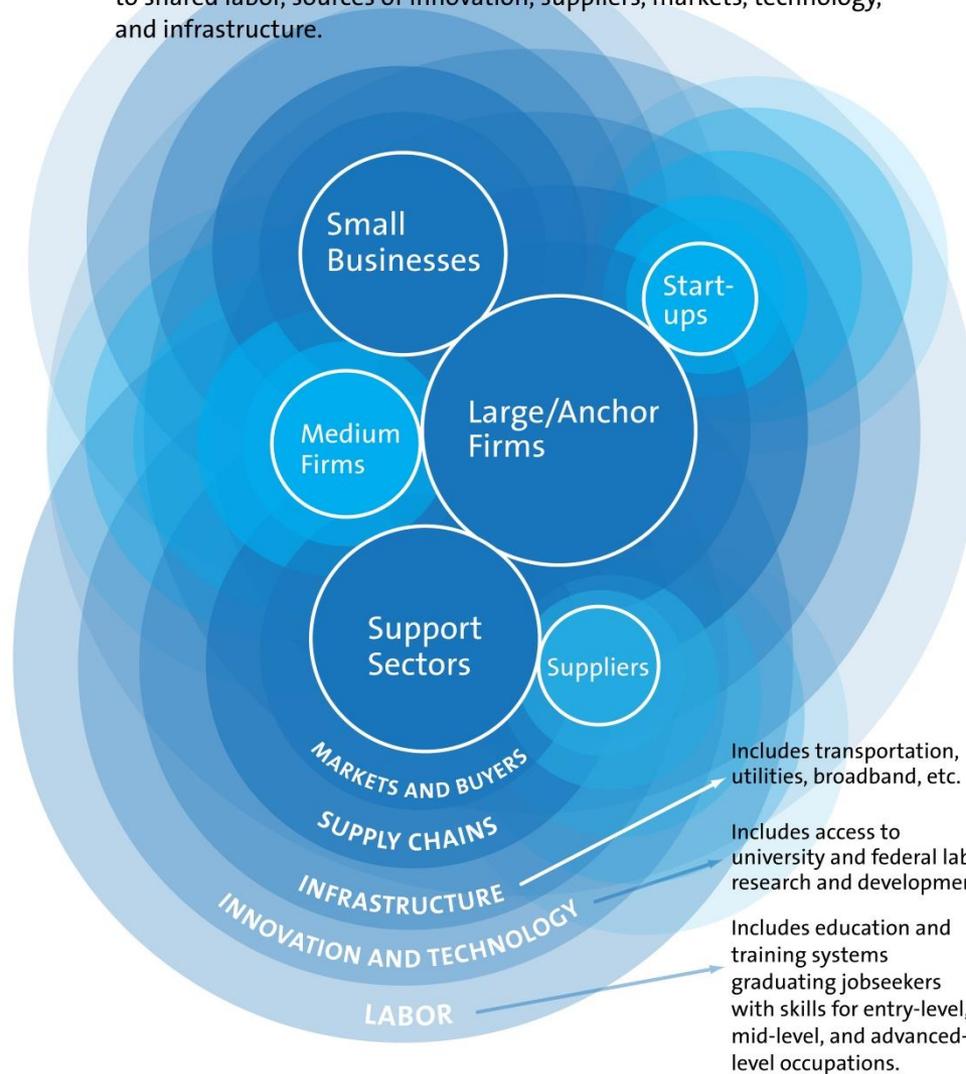
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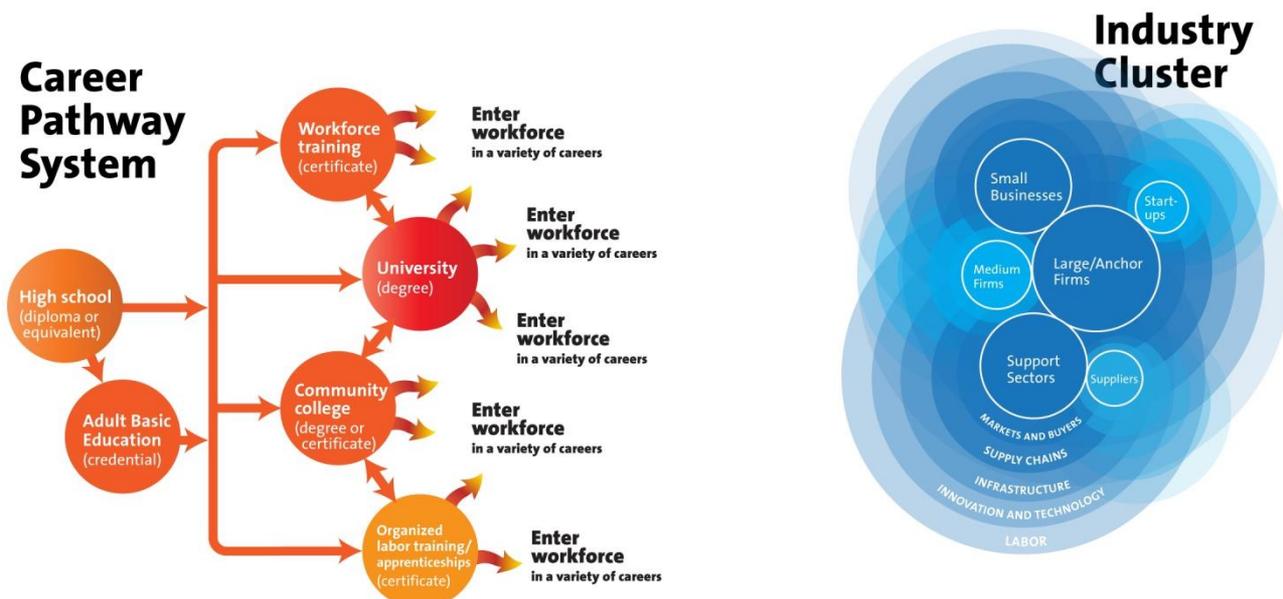
Sector Strategies Coming of Age:

EDUCATION, WORKFORCE & ECONOMIC DEVELOPMENT

I. Education \longrightarrow Career Pathways

II. Workforce Development

III. Economic Development \longrightarrow Industry Clusters



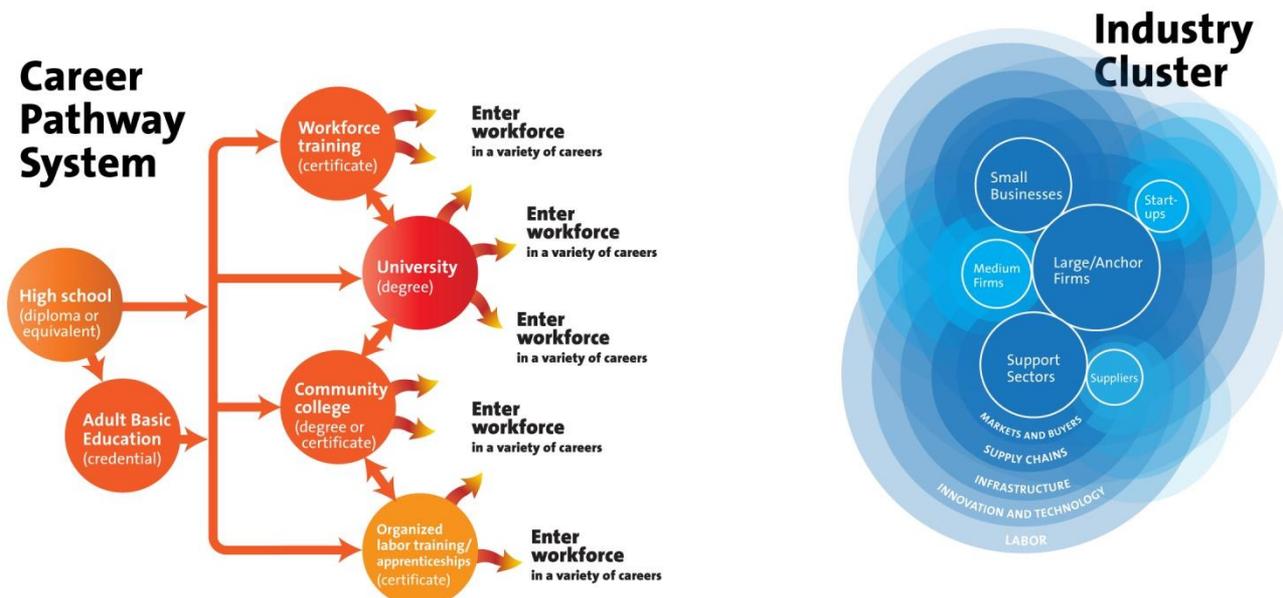
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III. Economic Development → Industry Clusters



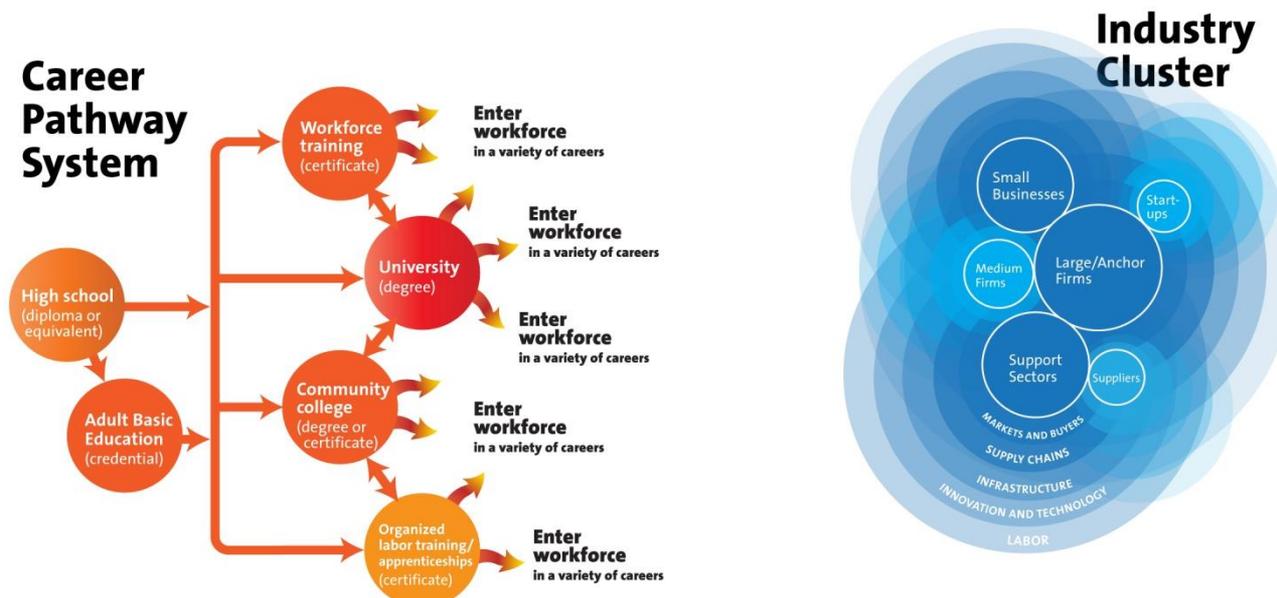
Sector Strategies Coming of Age:

EDUCATION, WORKFORCE & ECONOMIC DEVELOPMENT

I. Education

II. Workforce Development → Labor Exchange

III. Economic Development



Sector Strategies Coming of Age:

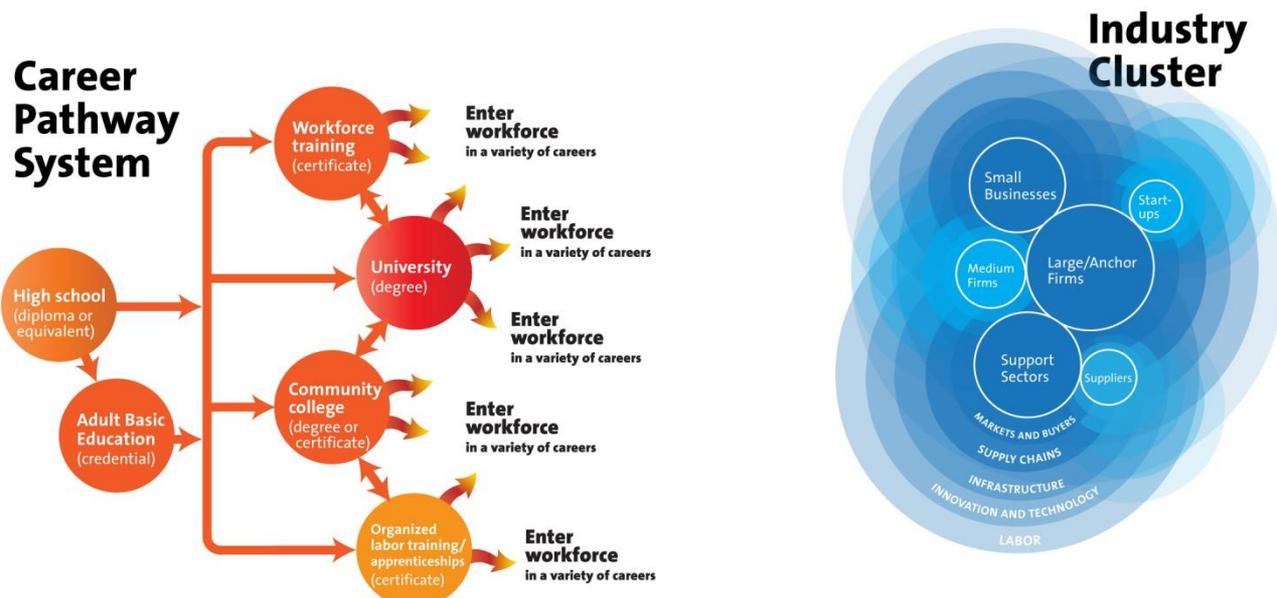
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II. Workforce Development

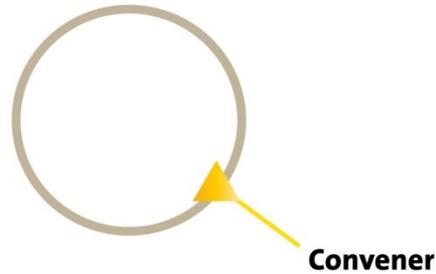
III. Economic Development

Sector Partnerships



Sector Partnership

The partnership addresses common needs of employers and generates coordinated solutions that benefit workers.



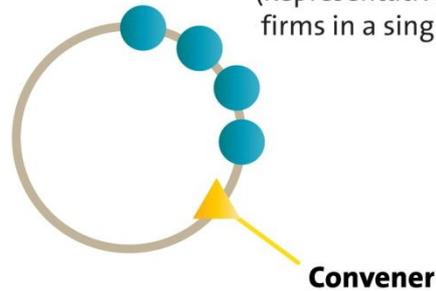
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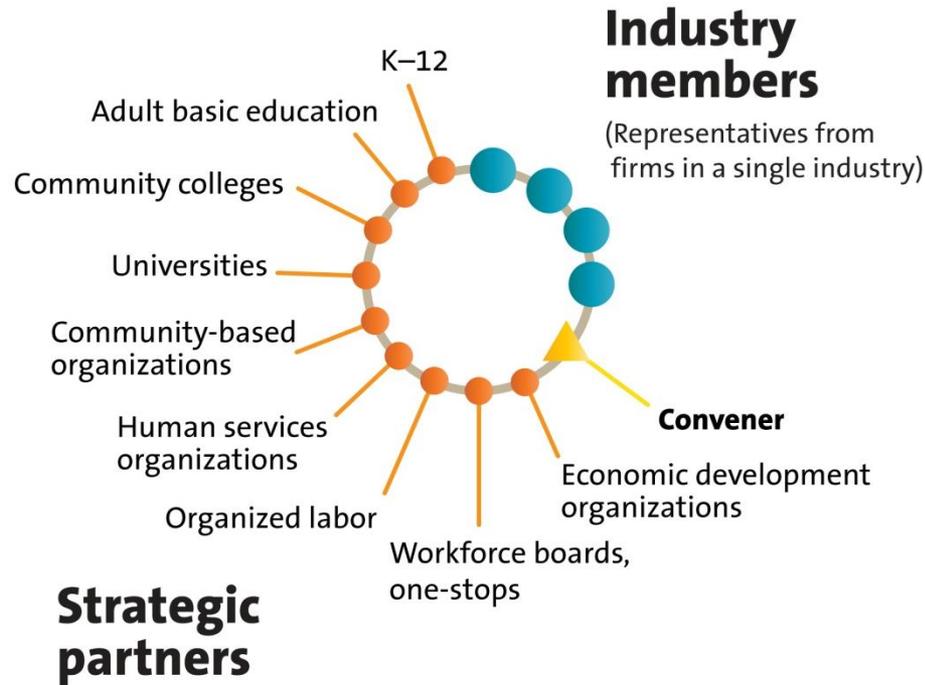
Industry members

(Representatives from firms in a single industry)



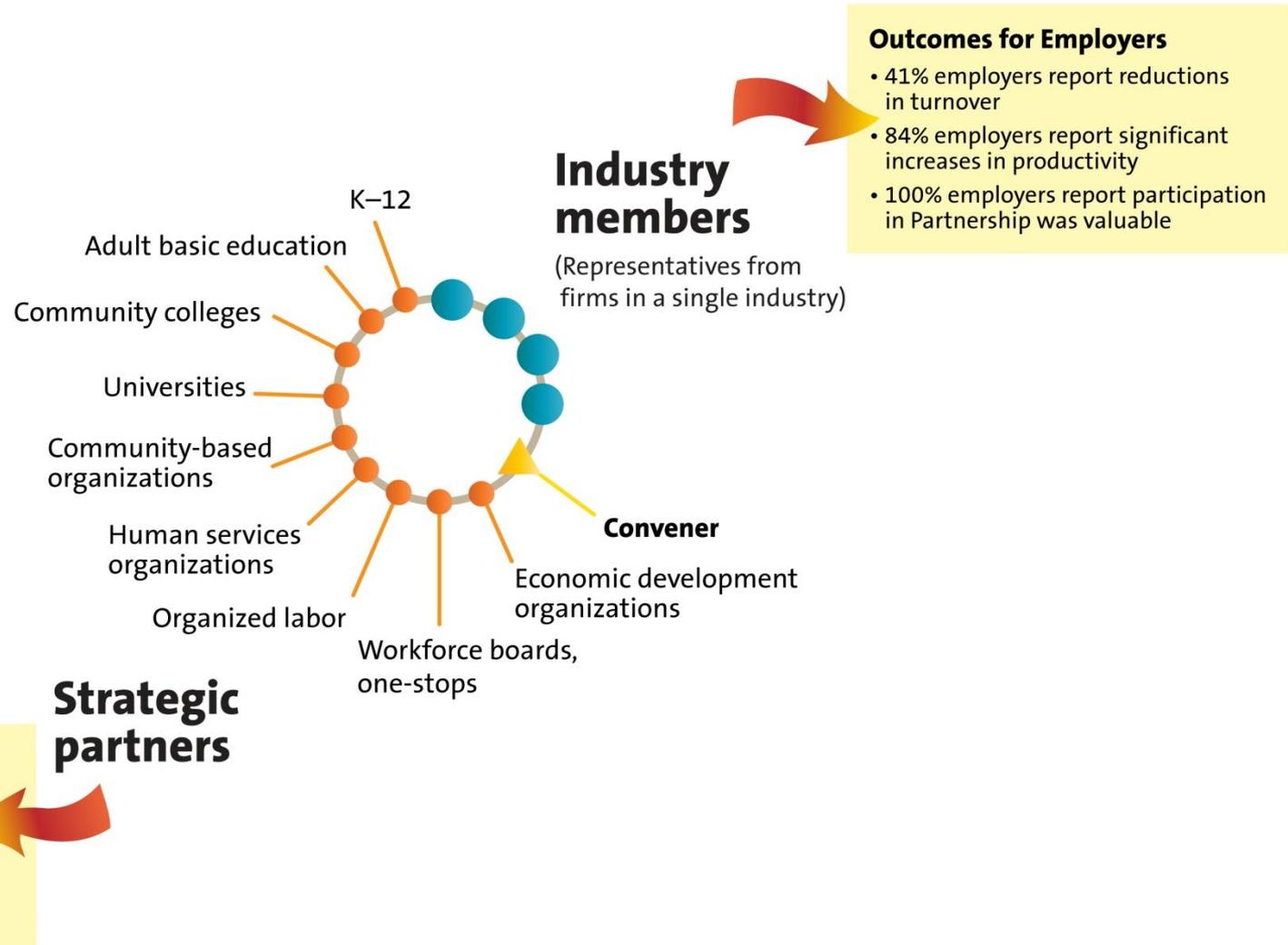
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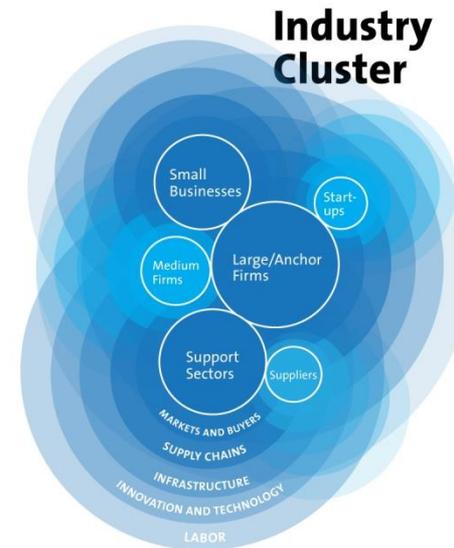
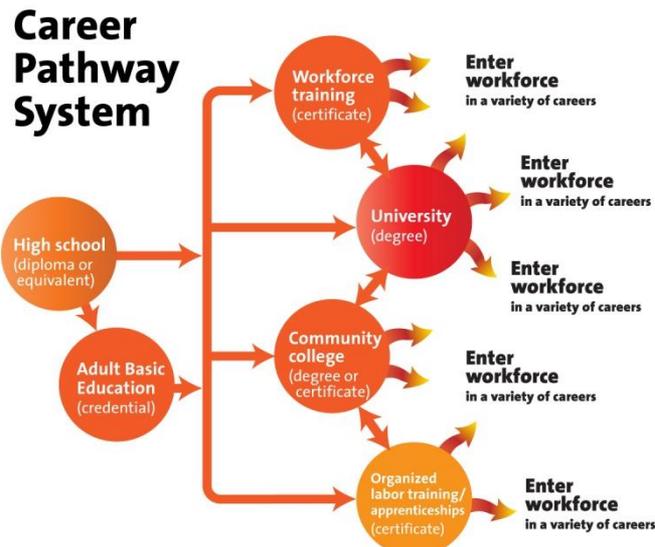
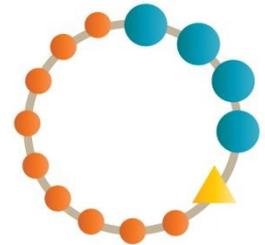
EDUCATION, WORKFORCE & ECONOMIC DEVELOPMENT

I. Education → Career Pathways

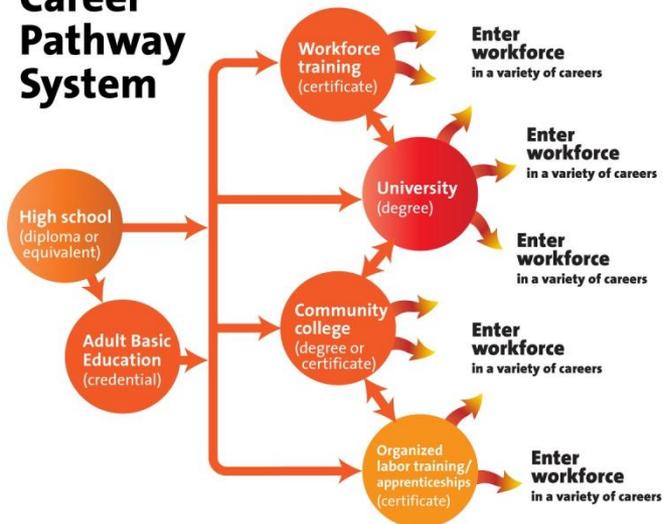
II. Workforce Development → Sector Partnerships

III. Economic Development → Industry Clusters

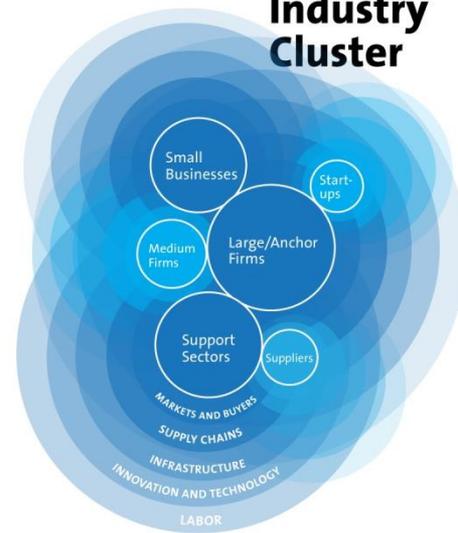
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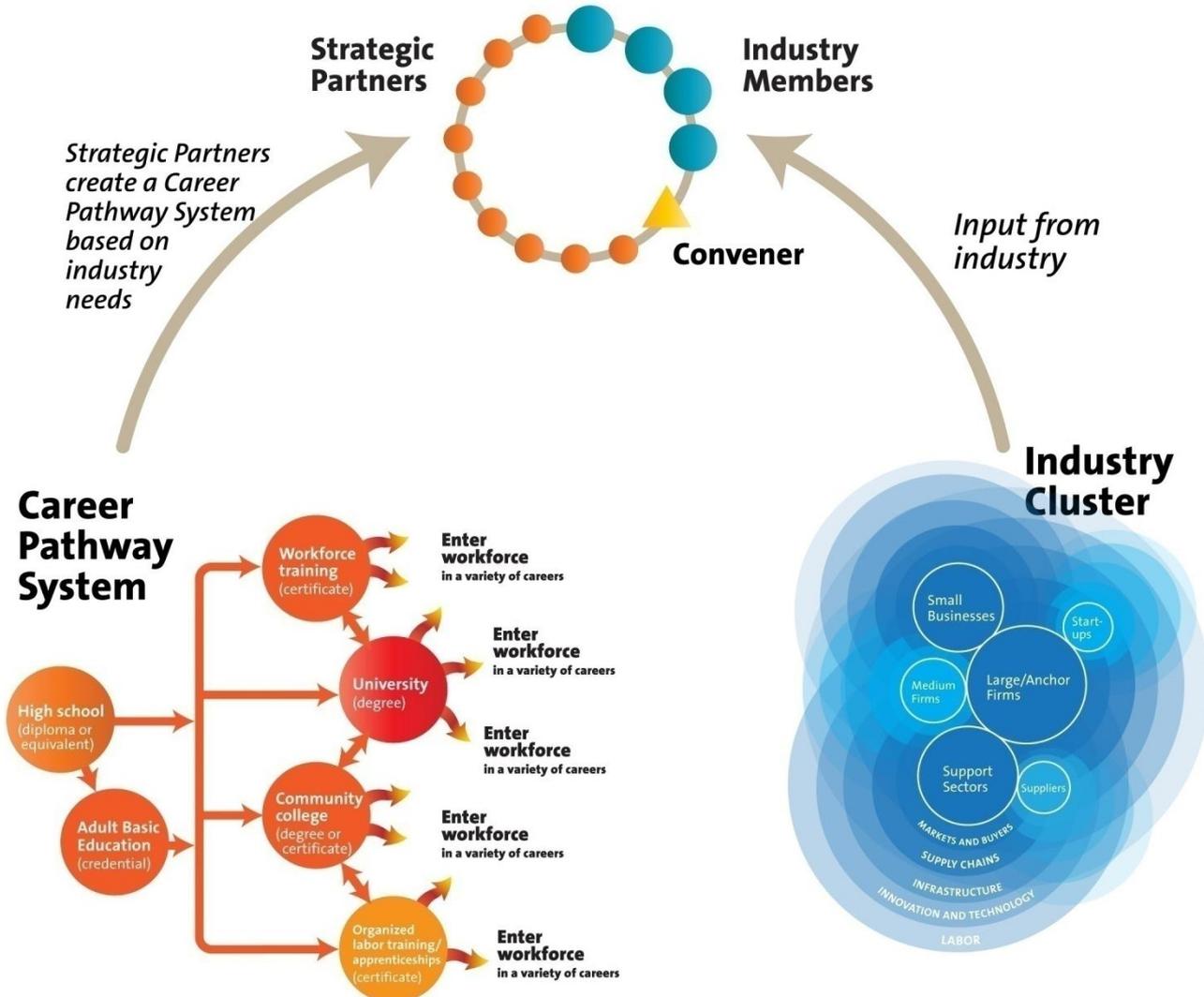
Career Pathway System



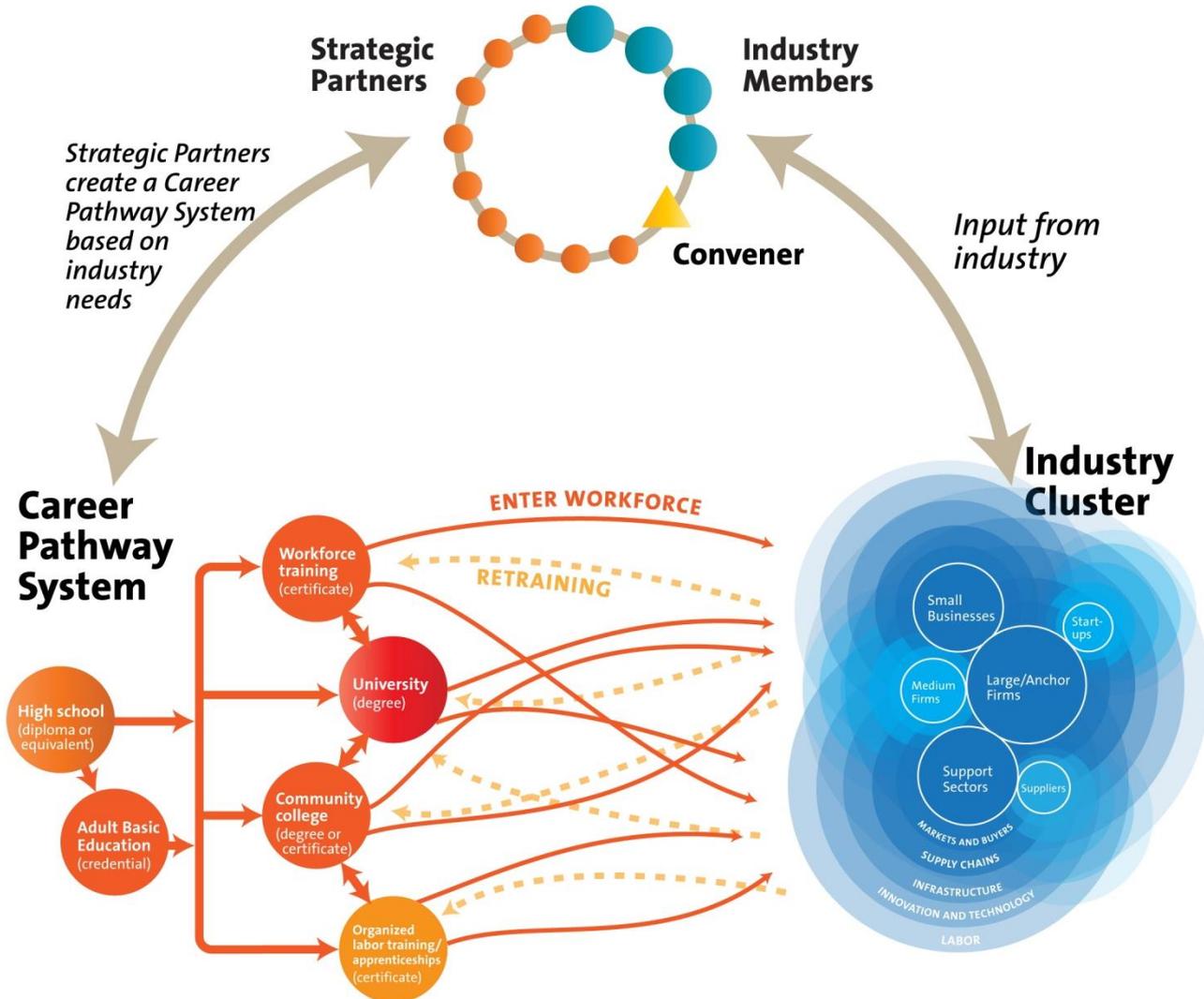
Industry Cluster



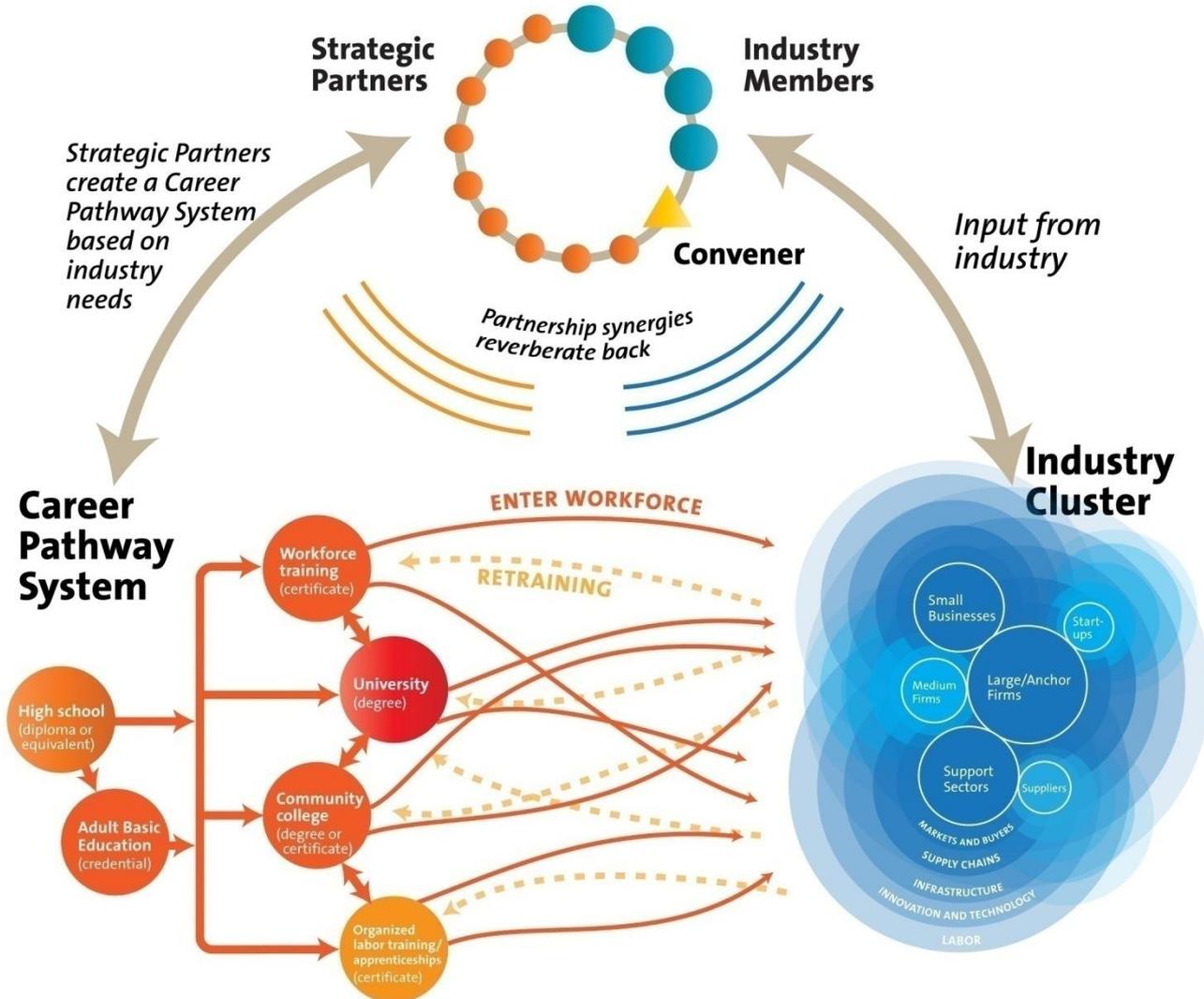
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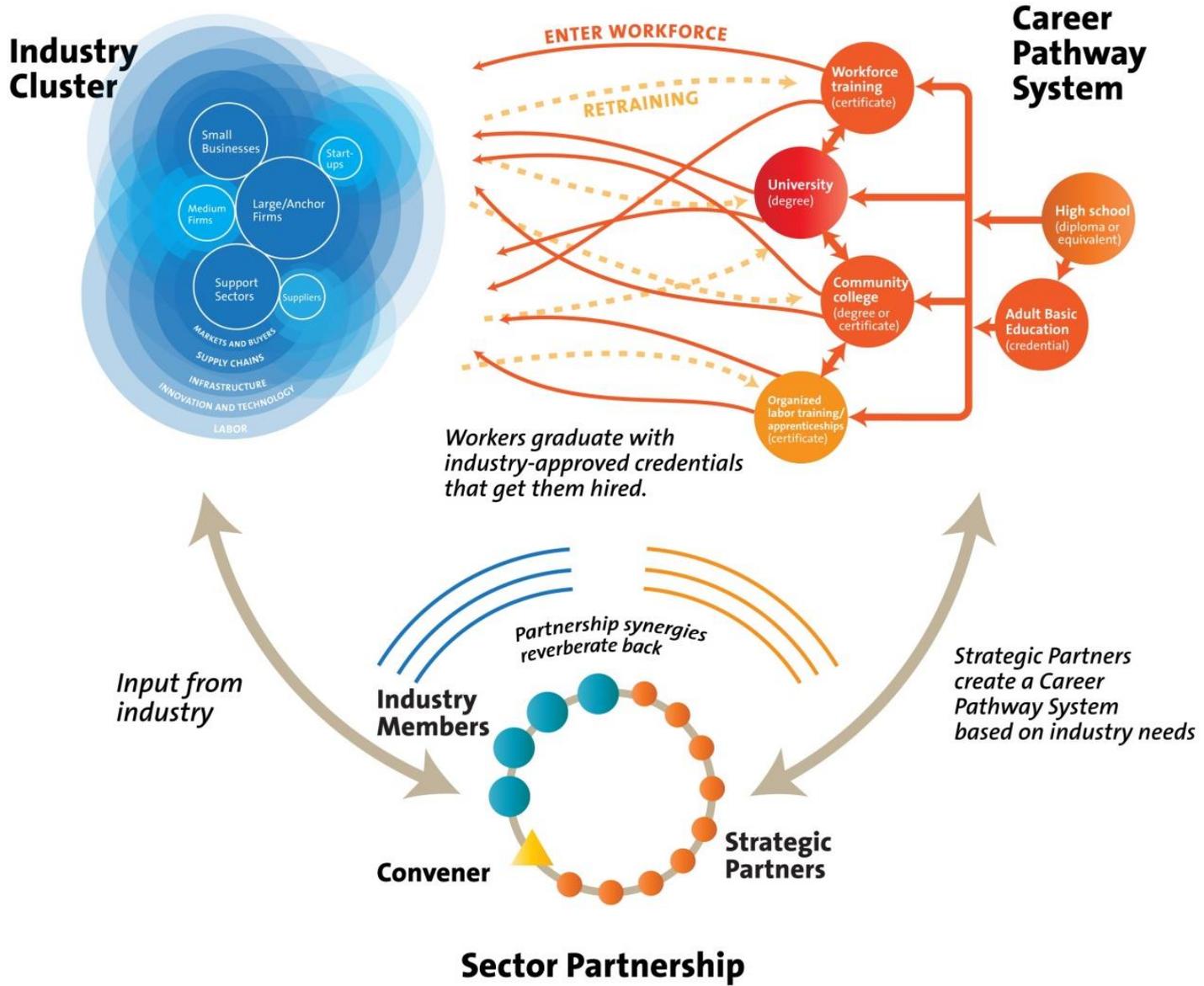


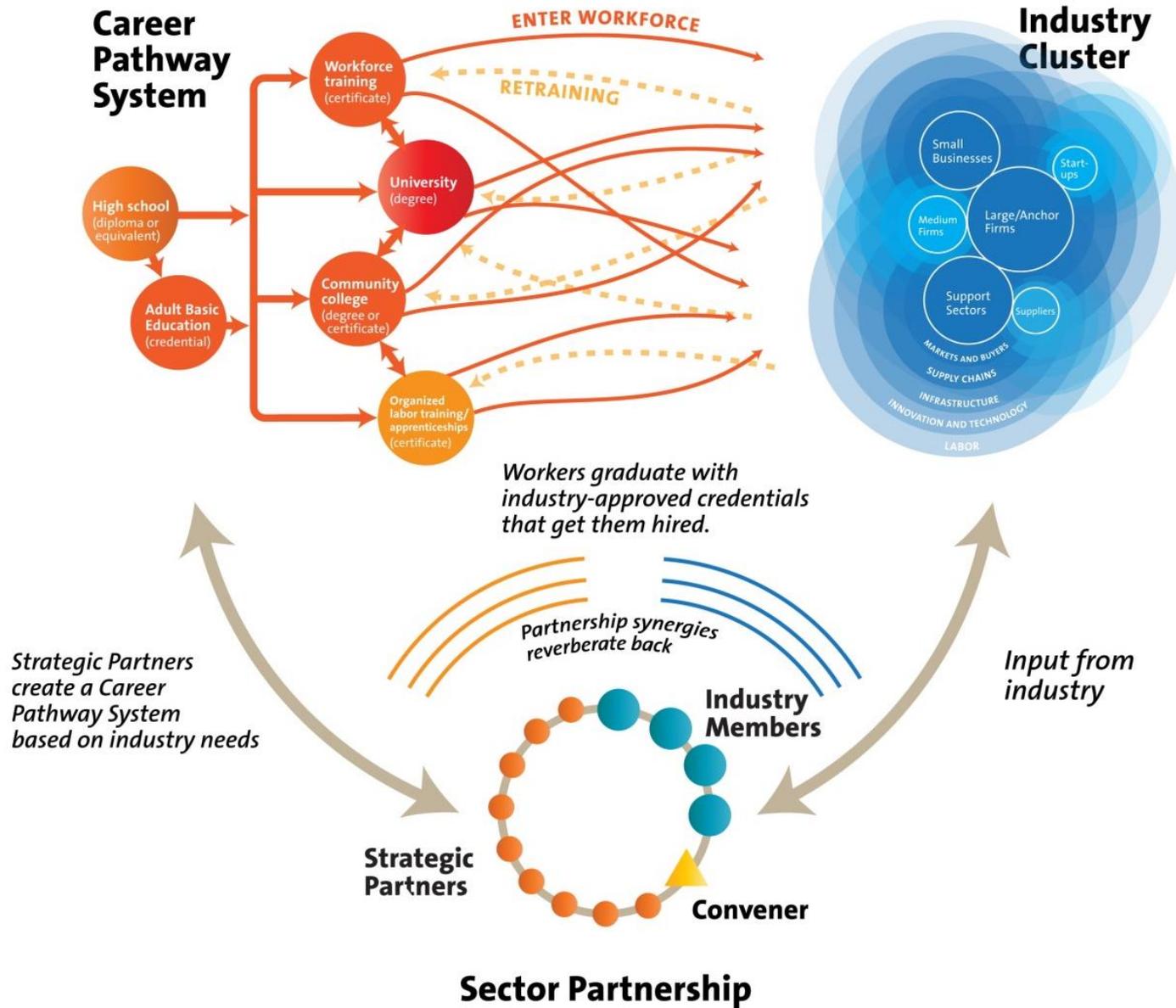
Sector Partnership



Sector Partnership







VIRGINIA'S REGIONAL CAREER PATHWAYS INITIATIVE

Located on the Virginia Peninsula

- Engaged 14 Major Manufacturers in the region
- Local Workforce investment board
- Community colleges
- Six school districts

Consortium Dedicated to:

- Research and Development
- Implementation and continuous improvement of career pathways
- Education & training specifically tailored to more than 11,000 jobs available in next 5 years

Regional Strategic Planning:

Skills to Succeed Inventory (2012 – 2016)

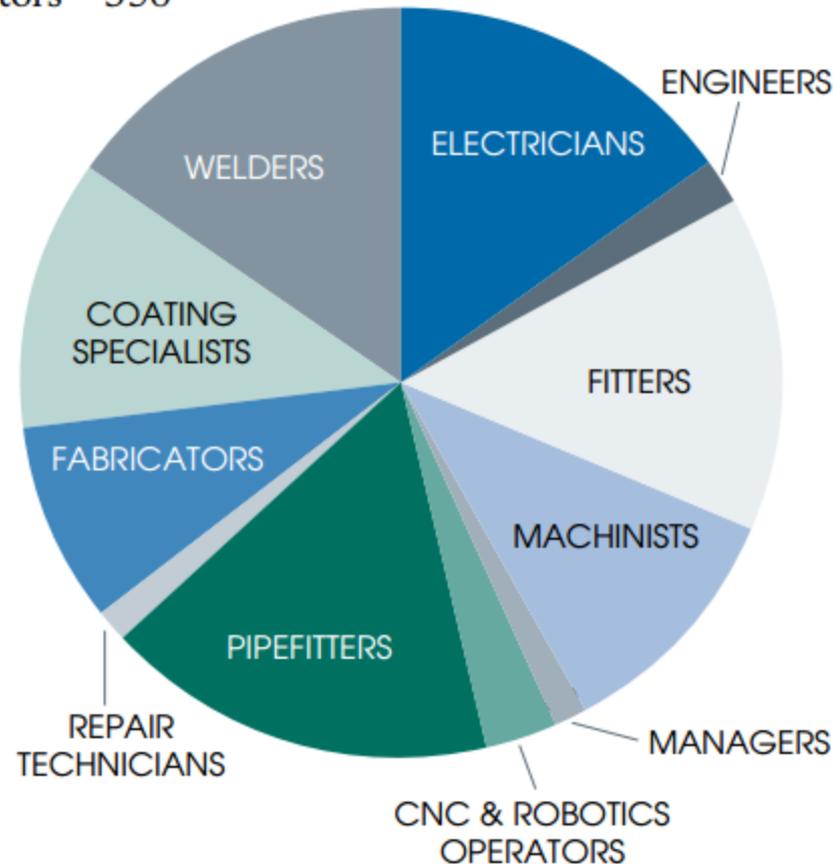
Road map to Success (Strategic Plan)



VIRGINIA'S ADVANCED MANUFACTURING CONSORTIUM

The occupations and job openings include:

- CNC and Robotics Operators – 350
- Coating Specialists (Surface Prep Technicians) – 1,300
- Electricians – 1,700
- Engineers – 200
- Fabricators/Sheetmetal Workers – 950
- Fitters – 1,600
- Machinists – 1,200
- Production and Account Managers – 150
- Pipefitters – 1,850
- Repair Technicians – 150
- Welders – 1,700



VIRGINIA'S ADVANCED MANUFACTURING CONSORTIUM

Hampton Roads Higher Education and Workforce Credentials In Manufacturing Related Careers

OCCUPATION	TNCC	HU	ODU	NSU	NNS-AS	NHREC	TCC	RCC
Computer Aided Drafting/Design	AAS, CERT, CSC	AS					AAS, CERT	
Engineering, General	AS	BS	BS, ME, MS, DEG, PhD				AS	
Engineering Technology	AAS		BS				CERT	AAS
Engineering Management			MS, ME				CSC	
Electrical/Electronic Engineering	AS		BS	BS, MS			CERT	
Electrical/Electronic Eng. Tech.	AAS, CERT, CSC		BS				AAS	
Electrical/Electronic/Comp. Eng. Tech.				BS			CERT, CSC	CSC
Elec. Mech. Assembler	CSC						AAS, CERT, CSC	
Elec. Maintenance Tech.	CSC					WD		
Elec. Production Tech.	CSC							
Electrical Tech.	AAS, CSC					WD	AAS, CERT	
Engineering Performance Spec.	CSC							
High Performance Manufacturing	CSC							
Civil Engineering Technology							AAS, CSC	
Environmental Engineering	AS		BS					
Industrial Technology							AAS, CSC	AAS
Optical Engineering	AAS			BS				
Aircraft Powerplant Tech.		CERT						
Airframe Mech. and Aircraft Maint. Tech.		CERT						
Mechanical Engineering Tech.	AAS, CSC		BS	BS			CSC	CERT, CSC
Auto. Mech. Tech.	AAS, CERT, CSC					WD	AAS, CSC	
Avionics Maintenance Tech.		AS						
Diesel Mechanics Tech.							CSC	
Heating, A/C, Vent and Refrig. Maint. Tech.	AAS, CERT, CSC, WD					WD	AAS, CERT	CSC
Precision Metal Working							CERT, CSC	CSC
Welding Technology/Welder	CSC, WD					WD	CERT, CSC	CSC
World Class Shipbuilder	AAS				ARI			
Trades Related Education	AAS				ARI			
CNC Machining	CSC, WD					WD	AAS	
Plumber/Pipefitter						WD		

Advanced specializations along Career Pathways are available through the community colleges and the universities in many degrees, and with the NNS Apprenticeship School in Advanced Shipyard Operations, Cost Estimation, Modeling and Simulation Marine Design, Nuclear Testing and Production Planning.

AAS — Associate of Applied Science
ARI — Apprenticeship Related Instruction
AS — Associate's Degree
BS — Bachelor of Science
CERT — Certified Career Studies Certificate
CSC — Career Studies Certificate

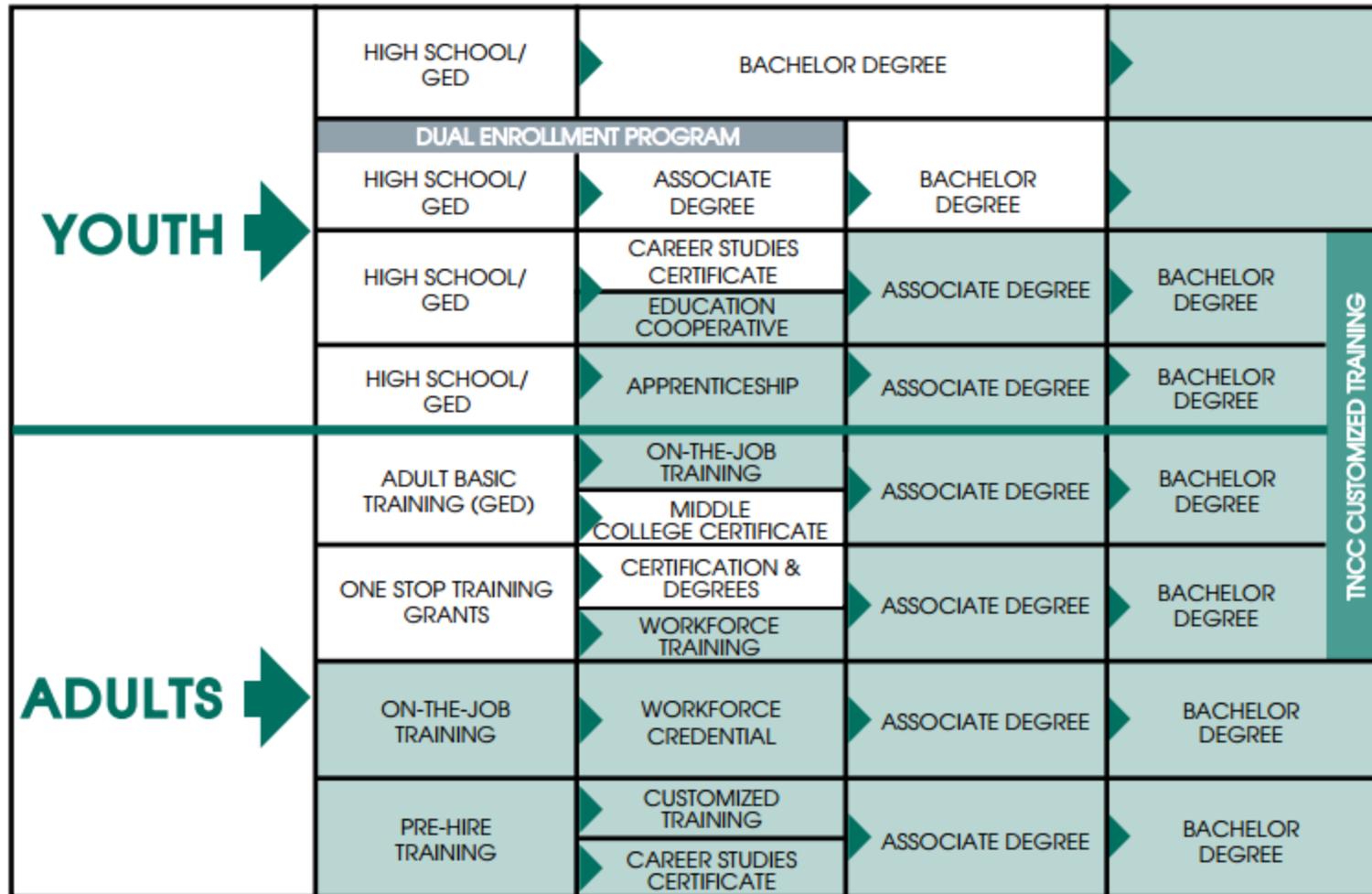
ME — Master of Engineering
MS — Master of Science
WD — Workforce Development
TNCC — Thomas Nelson Community College
HU — Hampton University

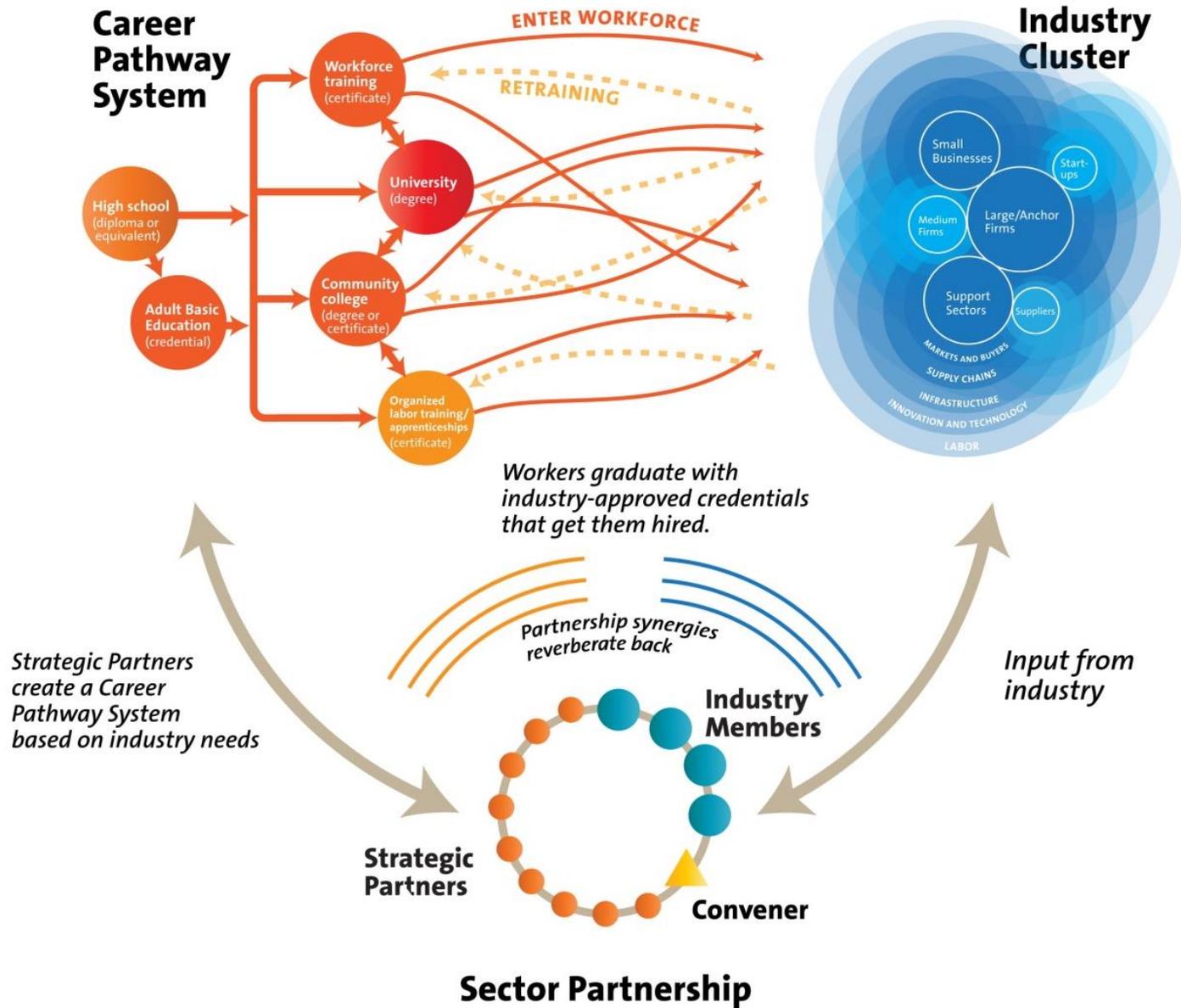
ODU — Old Dominion University
NSU — Norfolk State University
TCC — Tidewater Community College
RCC — Rappahannock Community College
NNS-AS — Newport News Shipyard-Apprentice School
NHREC — New Horizons Regional Education Center

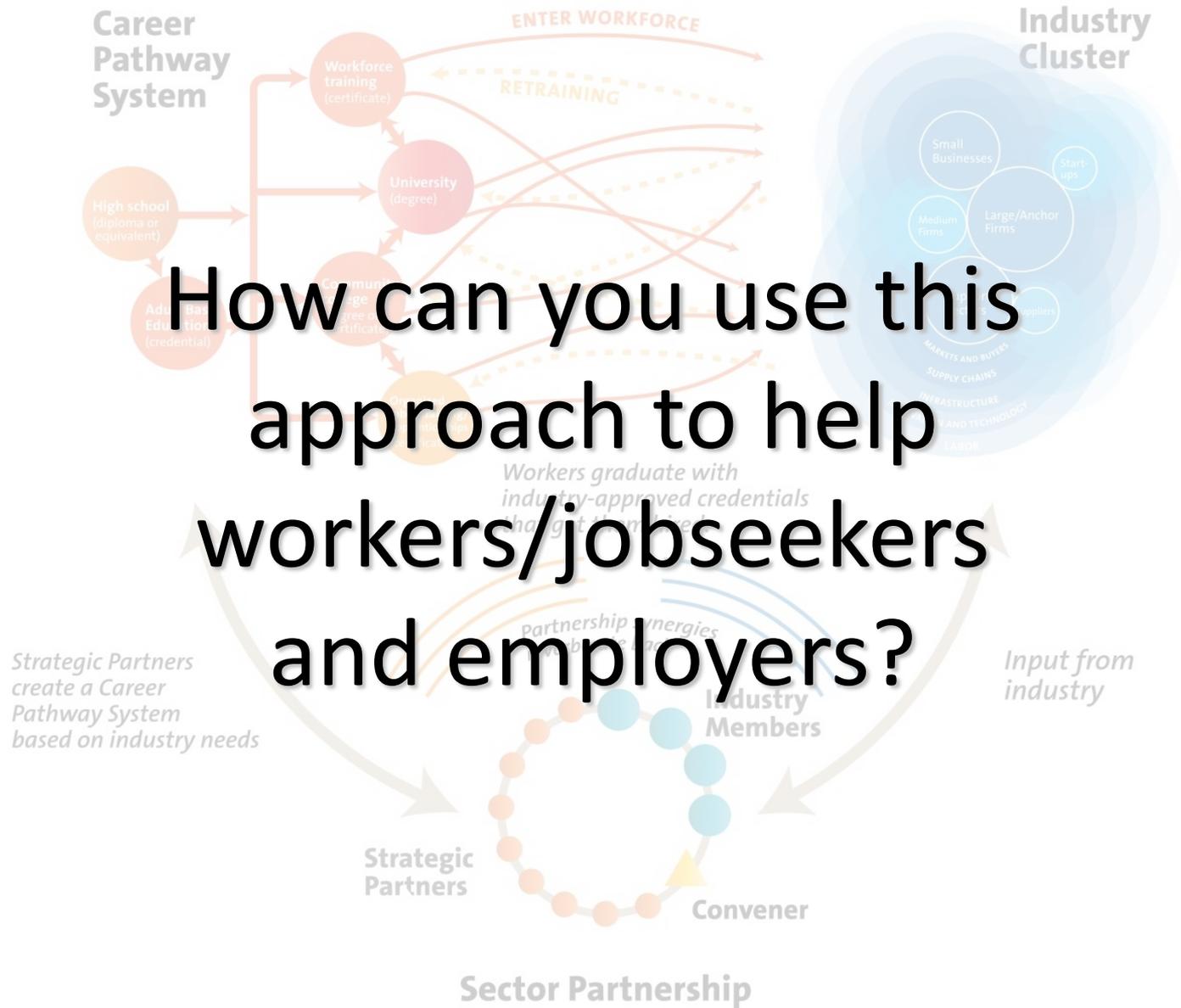
VIRGINIA'S ADVANCED MANUFACTURING CONSORTIUM

CURRENT PENINSULA CAREER PATHWAY OPPORTUNITIES (HIGH SCHOOL – UNIVERSITY)

 EMPLOYMENT

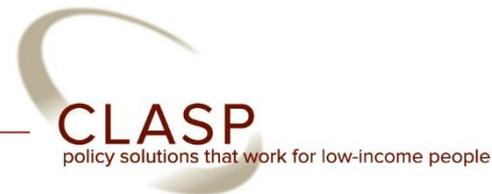






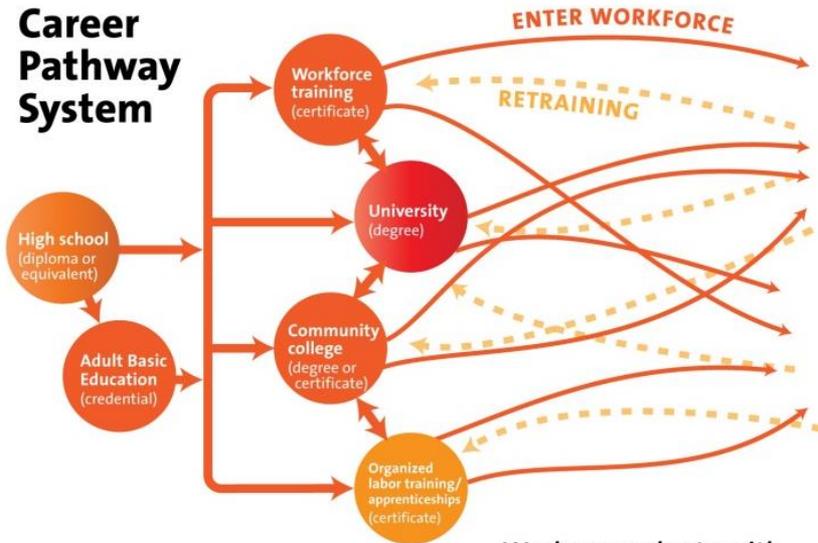
Sector-Focused Career Pathways

LOCAL CAREER PATHWAY PROGRAM

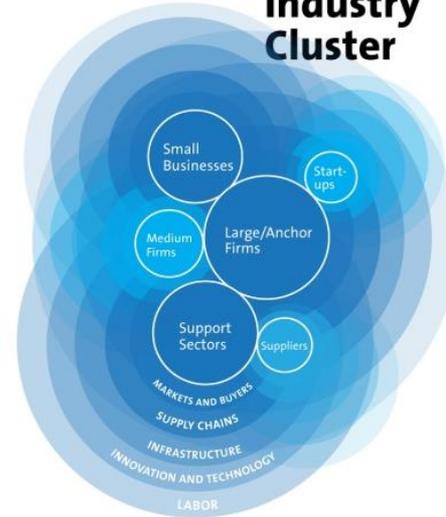


How can you use this
approach to help
workers/jobseekers
and employers?

Career Pathway System



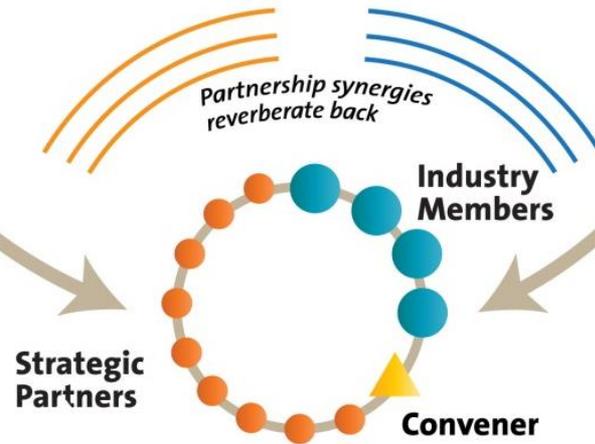
Industry Cluster



Workers graduate with industry-approved credentials that get them hired.

Strategic Partners create a Career Pathway System based on industry needs

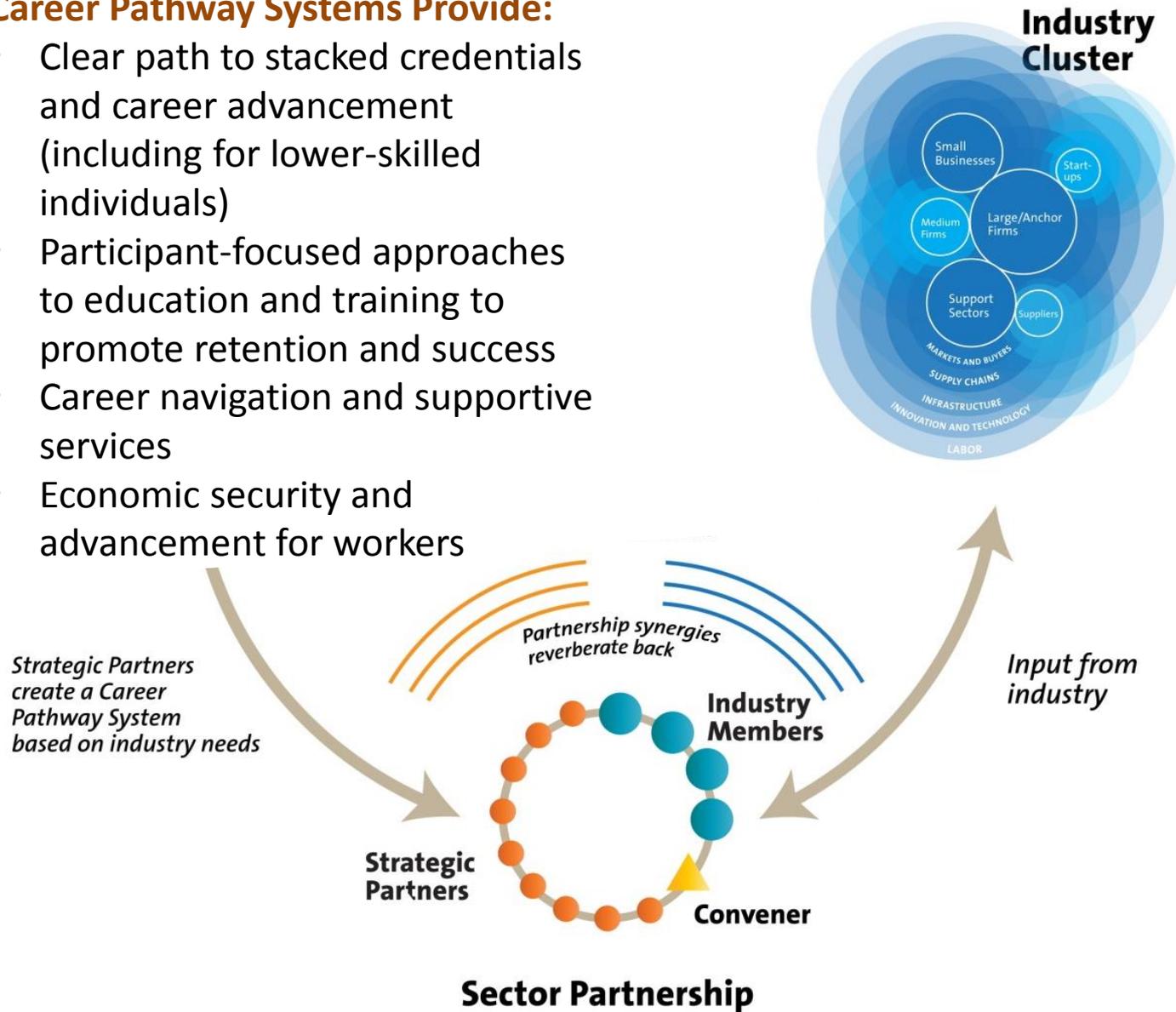
Input from industry



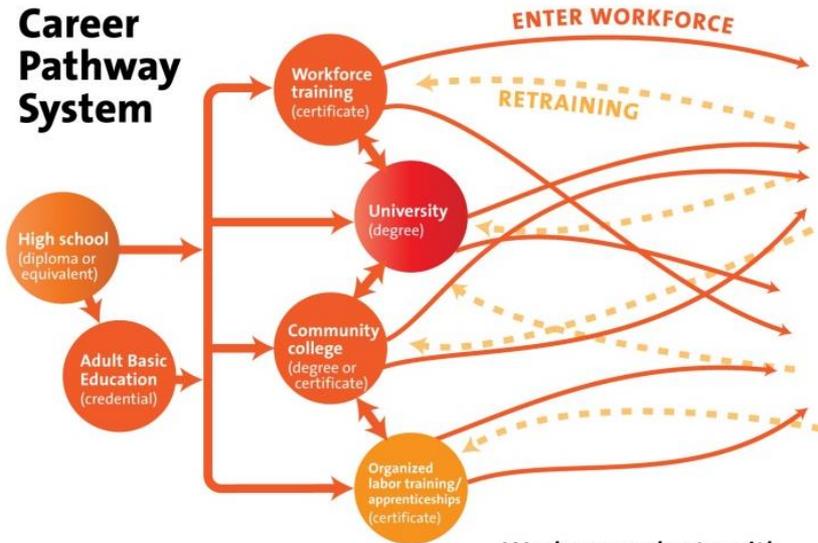
Sector Partnership

Career Pathway Systems Provide:

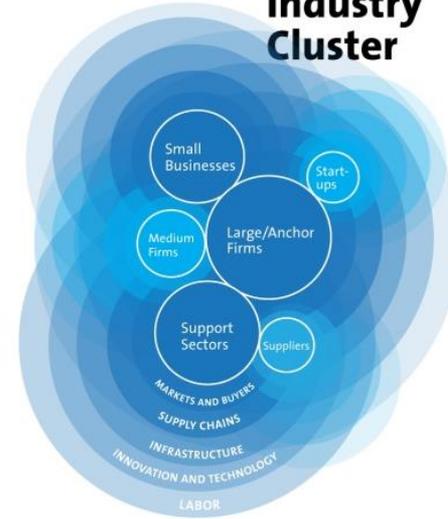
- Clear path to stacked credentials and career advancement (including for lower-skilled individuals)
- Participant-focused approaches to education and training to promote retention and success
- Career navigation and supportive services
- Economic security and advancement for workers



Career Pathway System



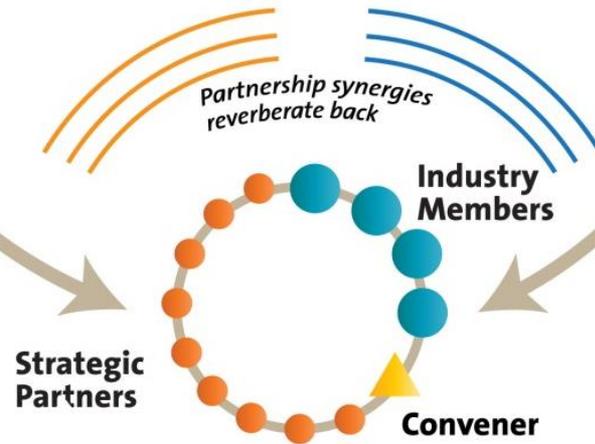
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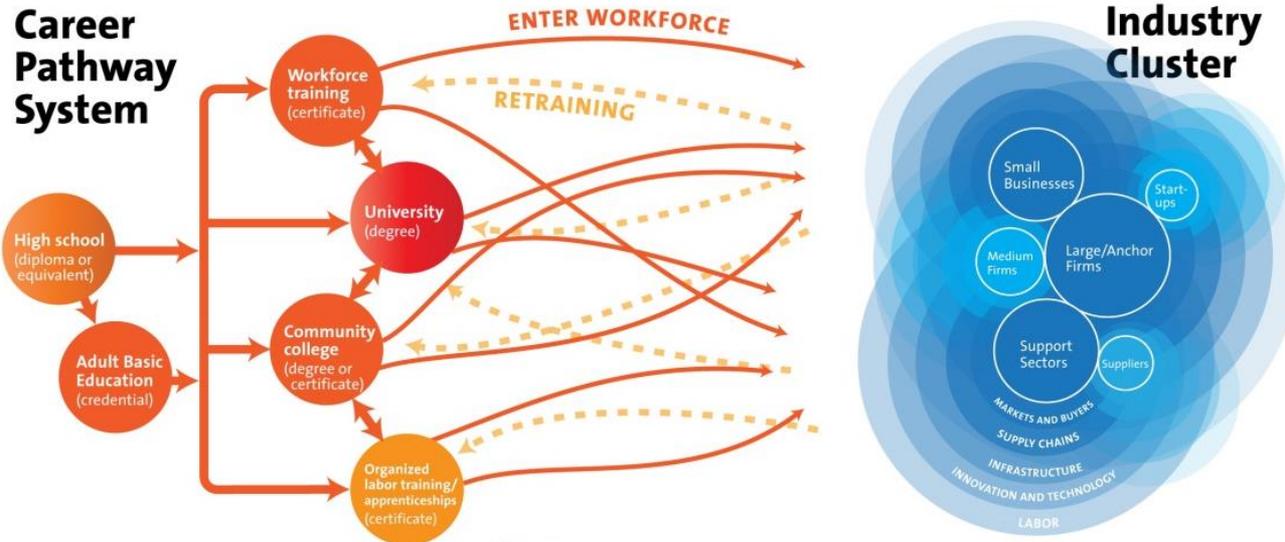
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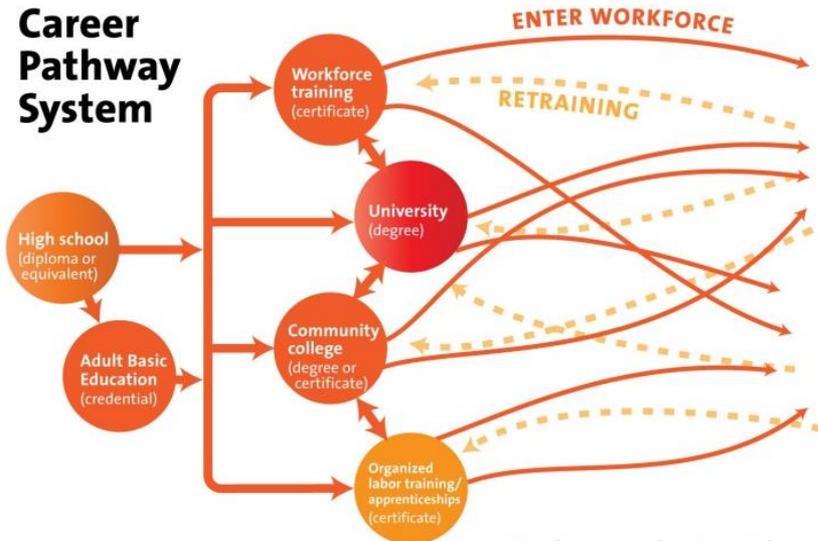


Sector Partnerships Provide:

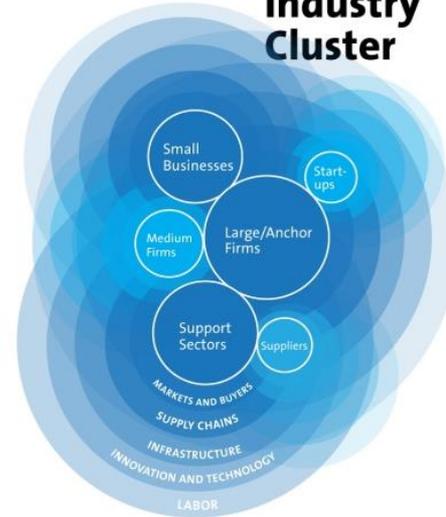
Employer engagement in:

- sector and labor market research
- pathway mapping
- program and curriculum design
- Internships and other work experiences
- incumbent worker advancement

Career Pathway System



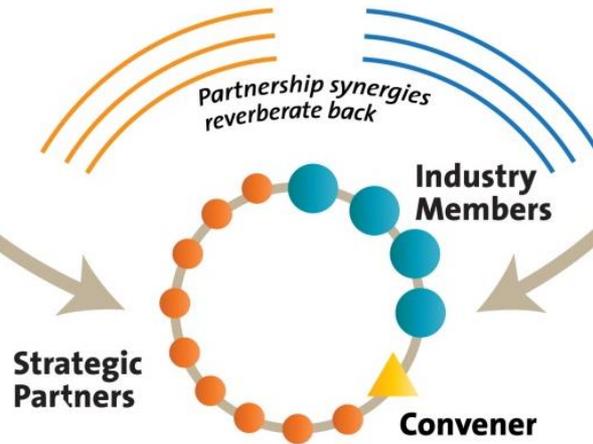
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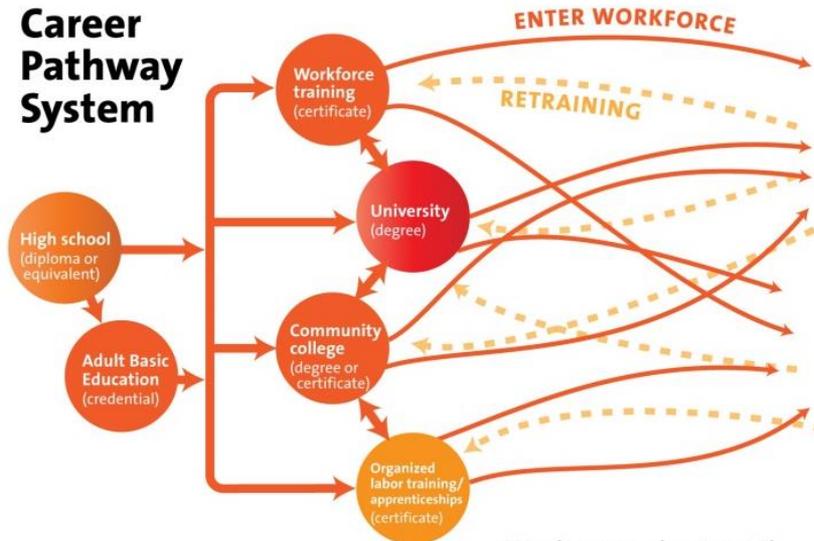
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Input from industry



Sector Partnership

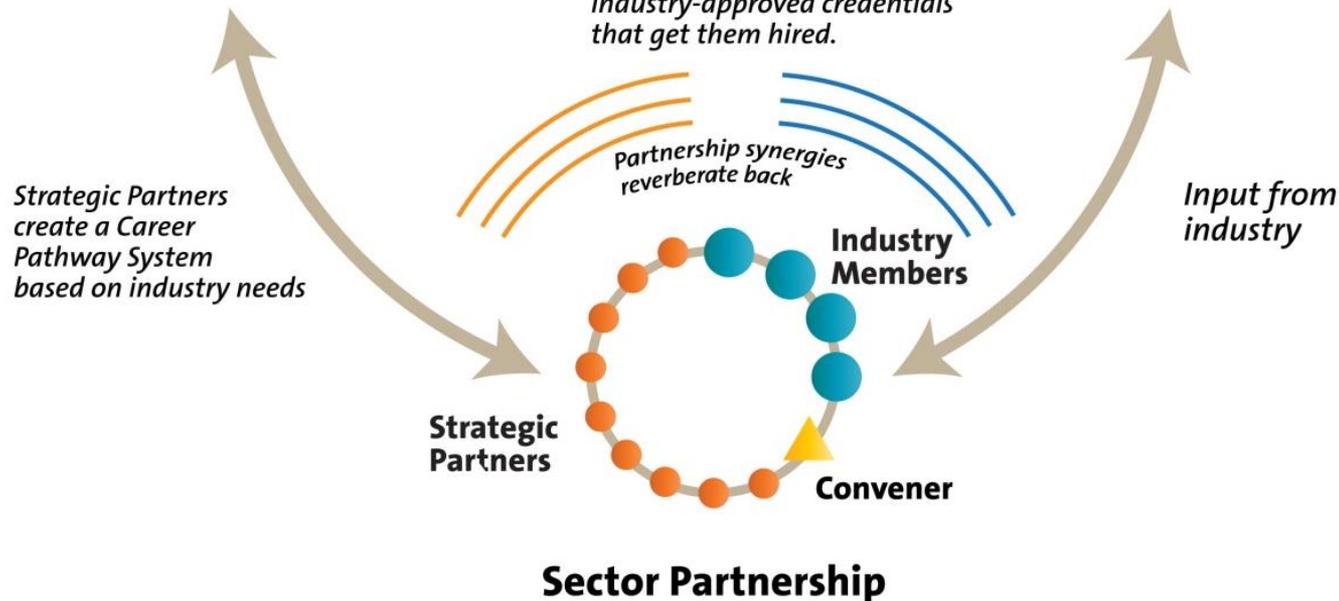
Career Pathway System



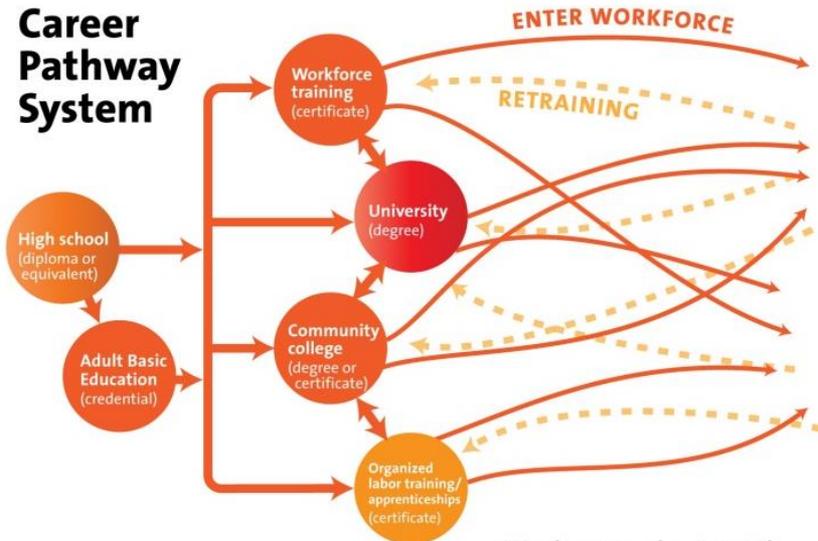
Industry Clusters Provide:

- Regionally and internationally competitive businesses
- An approach for broad-based job growth in high-wage, high-growth industries
- Improved R&D, infrastructure investments, etc.

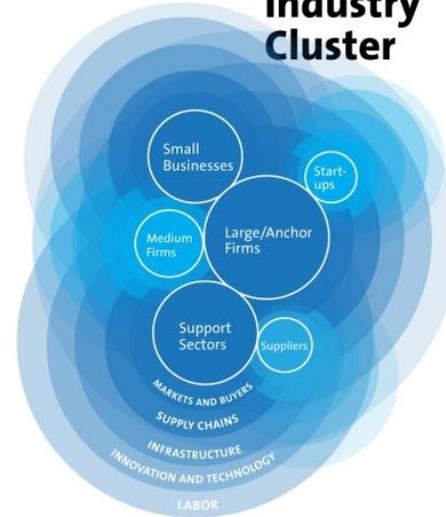
Workers graduate with industry-approved credentials that get them hired.



Career Pathway System



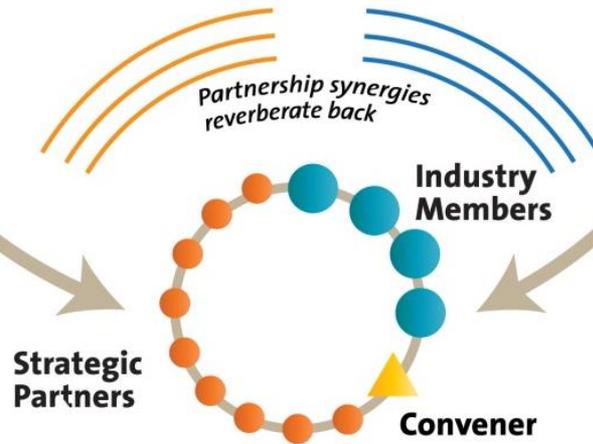
Industry Cluster



Workers graduate with industry-approved credentials that get them hired.

Strategic Partners create a Career Pathway System based on industry needs

Input from industry



Sector Partnership

Sector-Focused Career Pathways

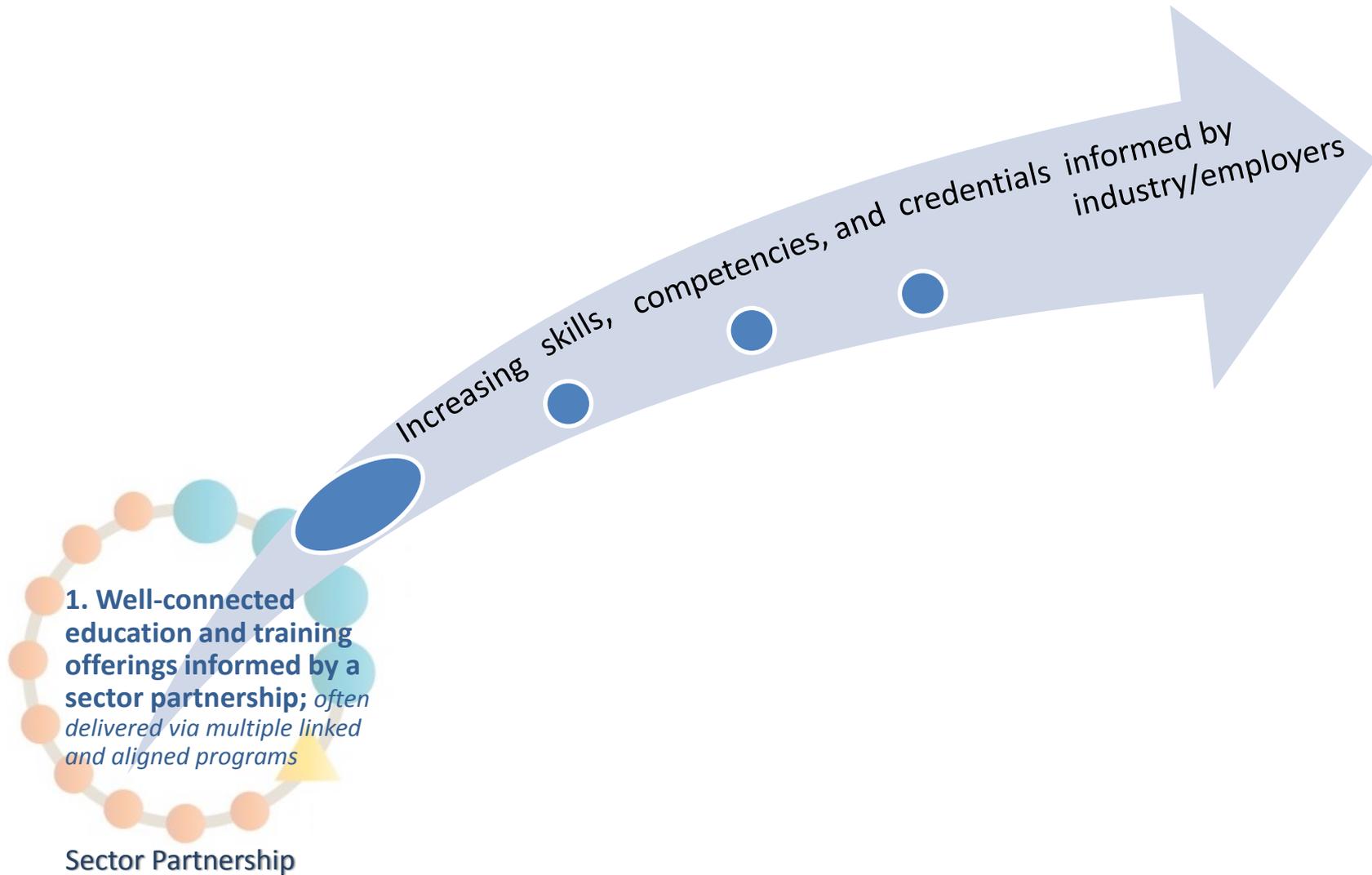
LOCAL CAREER PATHWAYS AND PROGRAMS



Sector Partnership

Sector-Focused Career Pathways

LOCAL CAREER PATHWAYS AND PROGRAMS



1. Well-connected education and training offerings informed by a sector partnership; *often delivered via multiple linked and aligned programs*

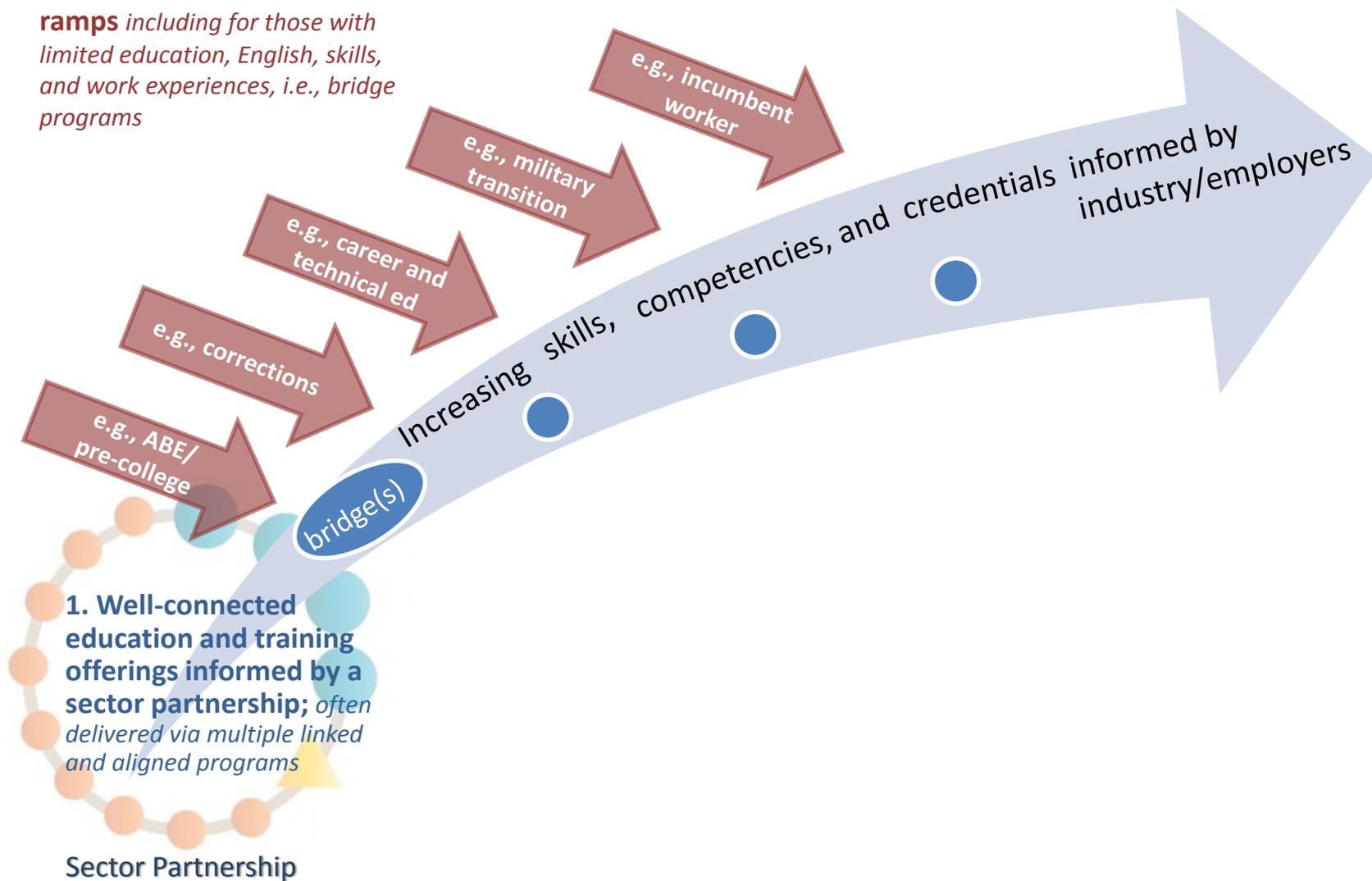
Sector Partnership

Sector-Focused Career Pathways

LOCAL CAREER PATHWAYS AND PROGRAMS

2. Multiple entry points/on-

ramps including for those with limited education, English, skills, and work experiences, i.e., bridge programs



Sector-Focused Career Pathways

LOCAL CAREER PATHWAYS AND PROGRAMS



Career Pathway Programs have four key elements:

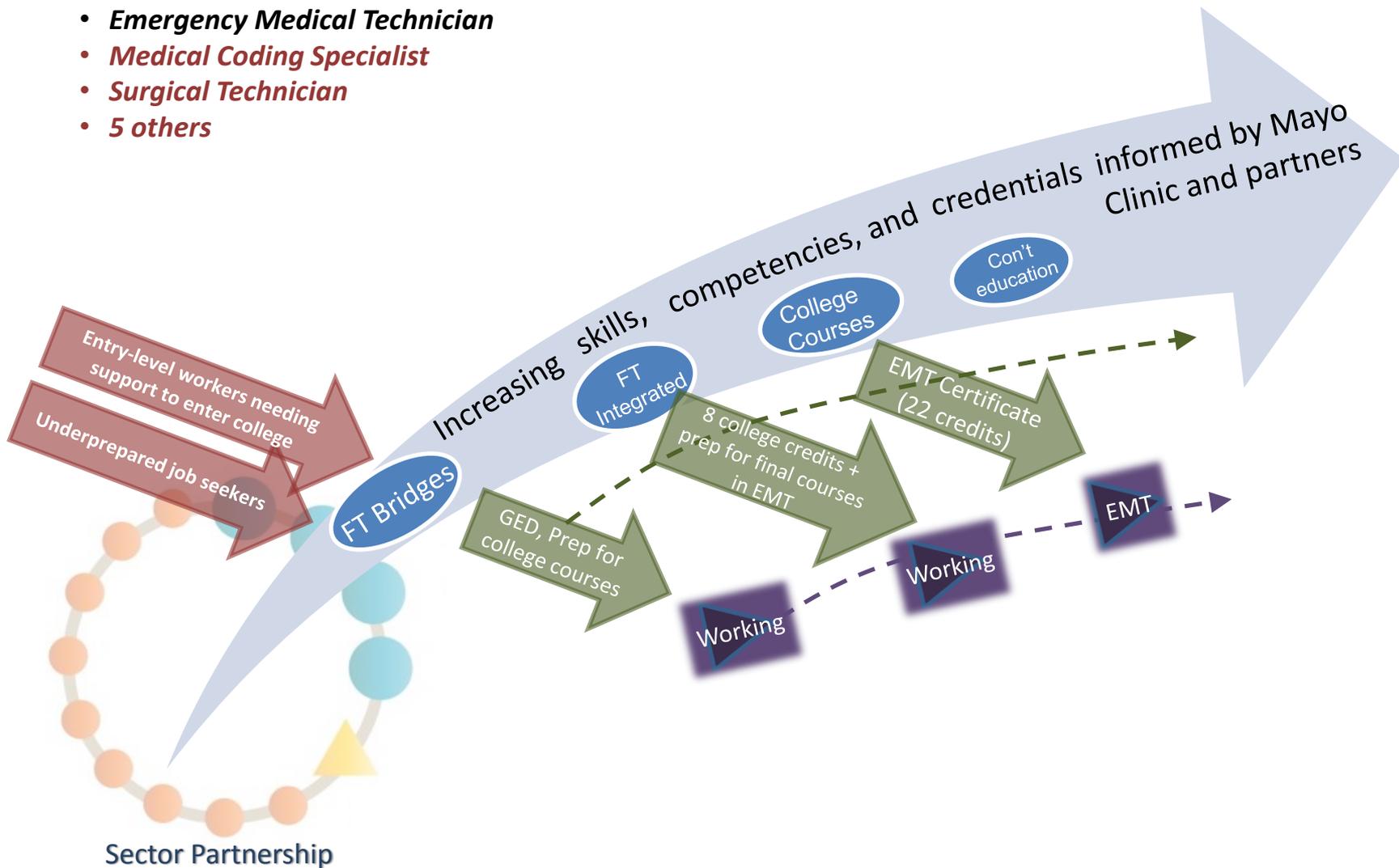
- Participant-focused instruction and training
- Appropriate and meaningful assessment
- Supportive services and career navigation
- Direct connections to employment

Sector-Focused Career Pathways

MINNESOTA EXAMPLE

Rochester Medical Careers FastTRAC Career Pathways:

- **Emergency Medical Technician**
- **Medical Coding Specialist**
- **Surgical Technician**
- **5 others**



Sector-Focused Career Pathways

LOCAL CAREER PATHWAYS AND PROGRAMS



Rochester Career Pathway Programs:

- Participant-focused instruction and training
 - ✓ Courses are contextualized to healthcare
 - ✓ Some college gatekeeper courses are integrated (basic skills + content in same class)
- Appropriate and meaningful assessment
- Supportive services and career navigation
 - ✓ Navigators assist with career plan development, accessing supporting services, career pathway transitions, job search, resume writing, interviewing skills, etc.
 - ✓ Assistance with applying to college, financial aid, etc.
- Direct connections to employment
 - ✓ Incumbent workers continue working
 - ✓ Navigators assist with finding training-related employment

Sector-Focused Career Pathways

LOCAL CAREER PATHWAYS AND PROGRAMS



Sector-focus Career Pathways Can Help Reduce Economic and Racial Disparities

- Mayo Clinic committed to increasing diversity; Rochester CP targets minority, non-traditional, and Veteran populations
- Twin Cities HIRED Career Pathways



Career Pathway Participant Metrics

A. Interim Education and Training Outcomes

- e.g., skill level gain; attainment of high school diploma or GED

B. Pathway Education and Training Outcomes

- e.g., attain certificate or degree

C. Labor Market Outcomes

- e.g., employment, retention, wage gain

Source: *Alliance for Quality Career Pathways Beta Framework*, CLASP, 2013

Sector Strategy Employer Metrics

- Retention and/or vacancy rates
- Reduction of vacancy rates in areas of highest need
- Time to fill positions/cost of recruitment
- Productivity measure
- Quality of work measure

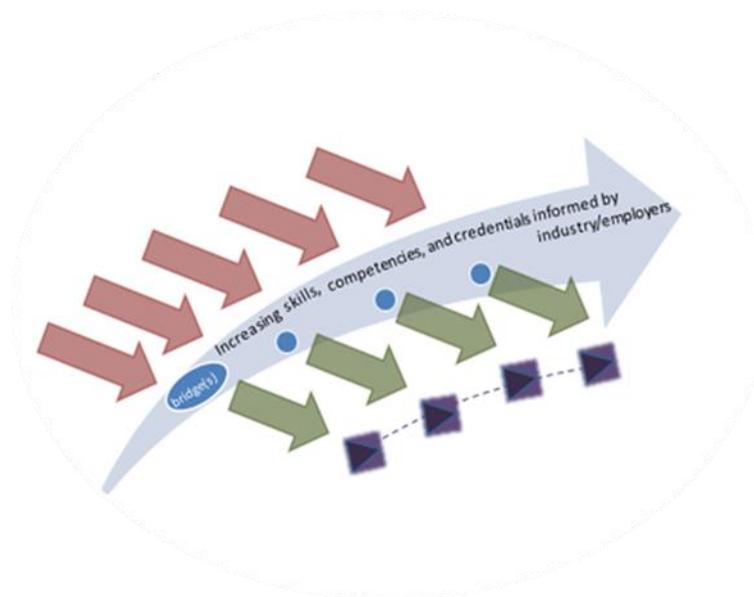
Source: *An Evaluation Framework for State Sector Strategies*, NGA/NNSP/CSW, May 2008

Sector-focused Career Pathway *Systems*

Sector-Focused Career Pathways

SECTOR-FOCUSED CAREER PATHWAY SYSTEMS

Career Pathways and Programs



Sector-Focused Career Pathways

SECTOR-FOCUSED CAREER PATHWAY SYSTEMS



Sector-Focused Career Pathways

SECTOR-FOCUSED CAREER PATHWAY SYSTEMS



* Partnerships Follow

Guiding Principles:

- ✓ Shared vision and strategy
- ✓ Leadership and commitment to CPs
- ✓ Demand-driven/employer engagement
- ✓ Aligned policies, measures, and funding
- ✓ Use data and promote continuous improvement
- ✓ Enhance partner capacity

Sector-Focused Career Pathways

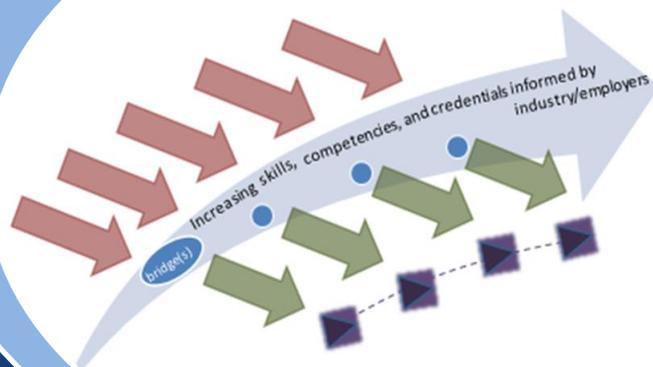
SECTOR-FOCUSED CAREER PATHWAY SYSTEMS



**State Career
Pathway System***

**Local/Regional
Career Pathway
System***

Career Pathways and Programs



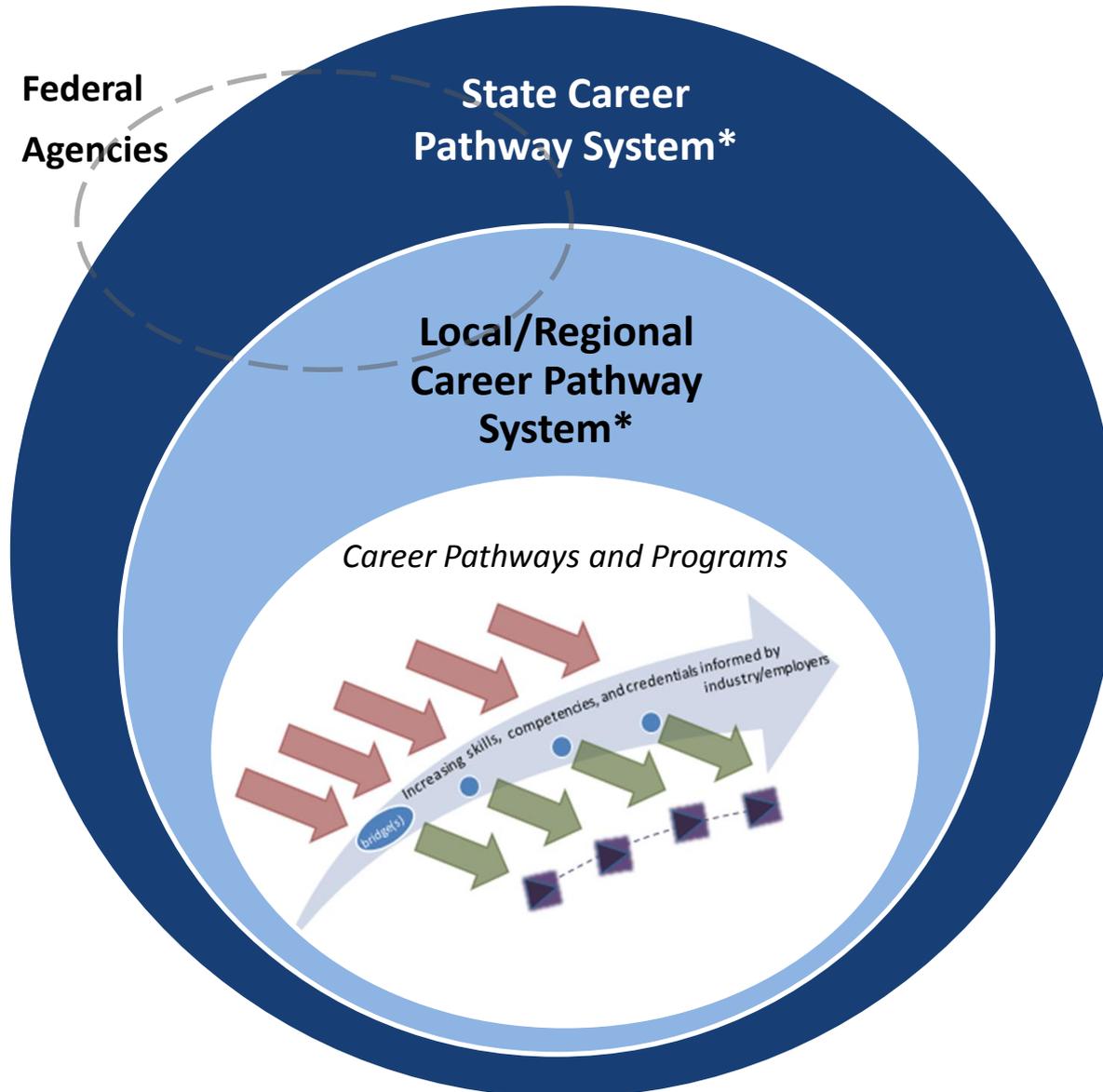
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Sector-Focused Career Pathways

SECTOR-FOCUSED CAREER PATHWAY SYSTEMS



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How Can a State Adopt a Sector-focused Career Pathway Approach?

- ✓ Commit to a shared vision and strategy
- ✓ Provide resources
- ✓ Implement supportive state policies
- ✓ Use data and shared measures



Greater Twin Cities United Way presents:

Sectoral Approaches to Workforce Development

Sponsored by:



#gtcuwforum



LIVE UNITED

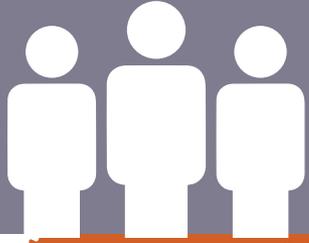


Skilled for Life?

KEY FINDINGS FROM THE SURVEY OF ADULT SKILLS



Survey of Adult Skills in brief



166 thousand adults...

Representing 724 million 16-65 year-olds in 24 countries/economies, including 5,010 Americans

Took an internationally agreed assessment...

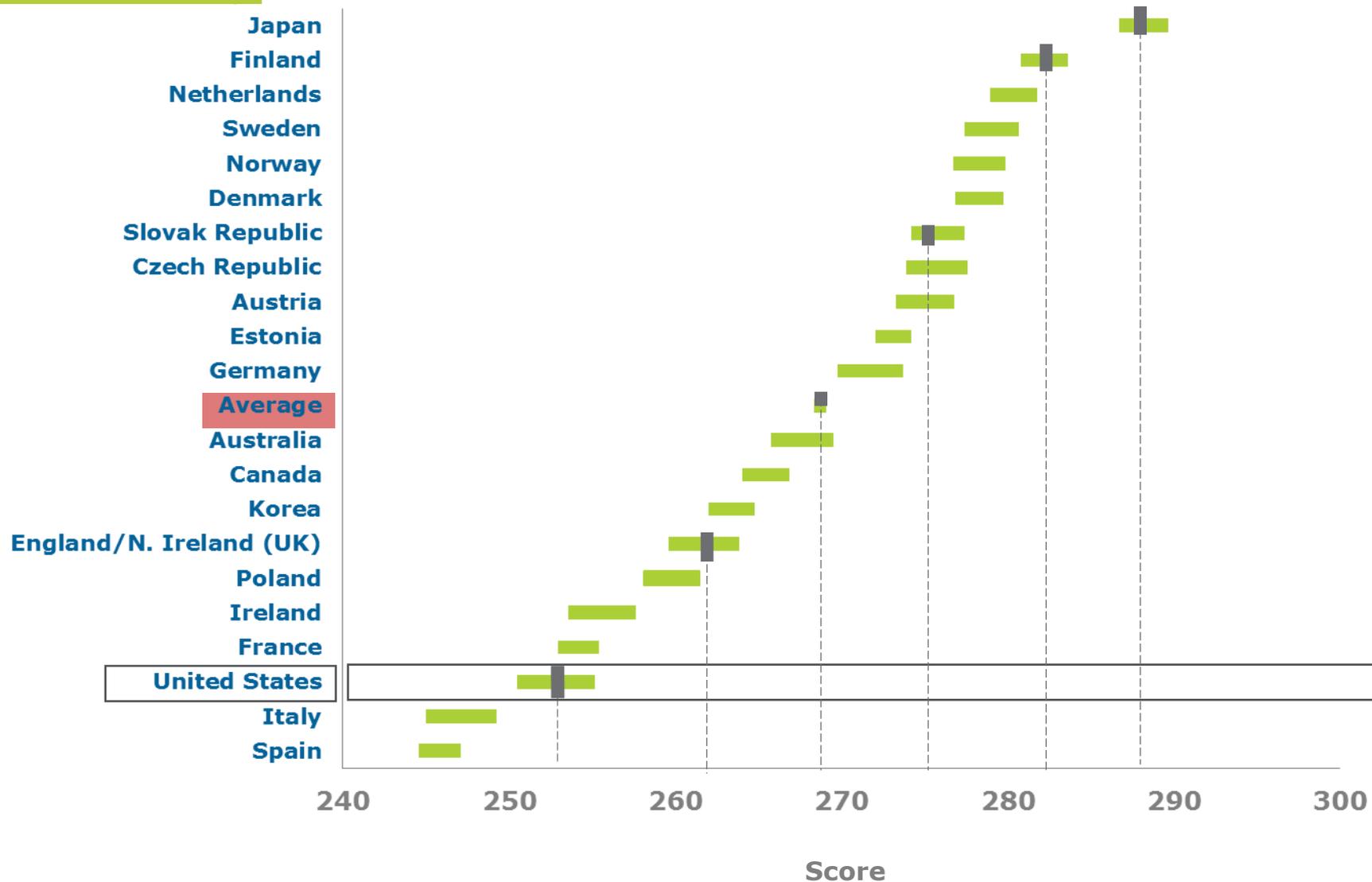


in literacy, numeracy and problem solving in technology-rich environments.



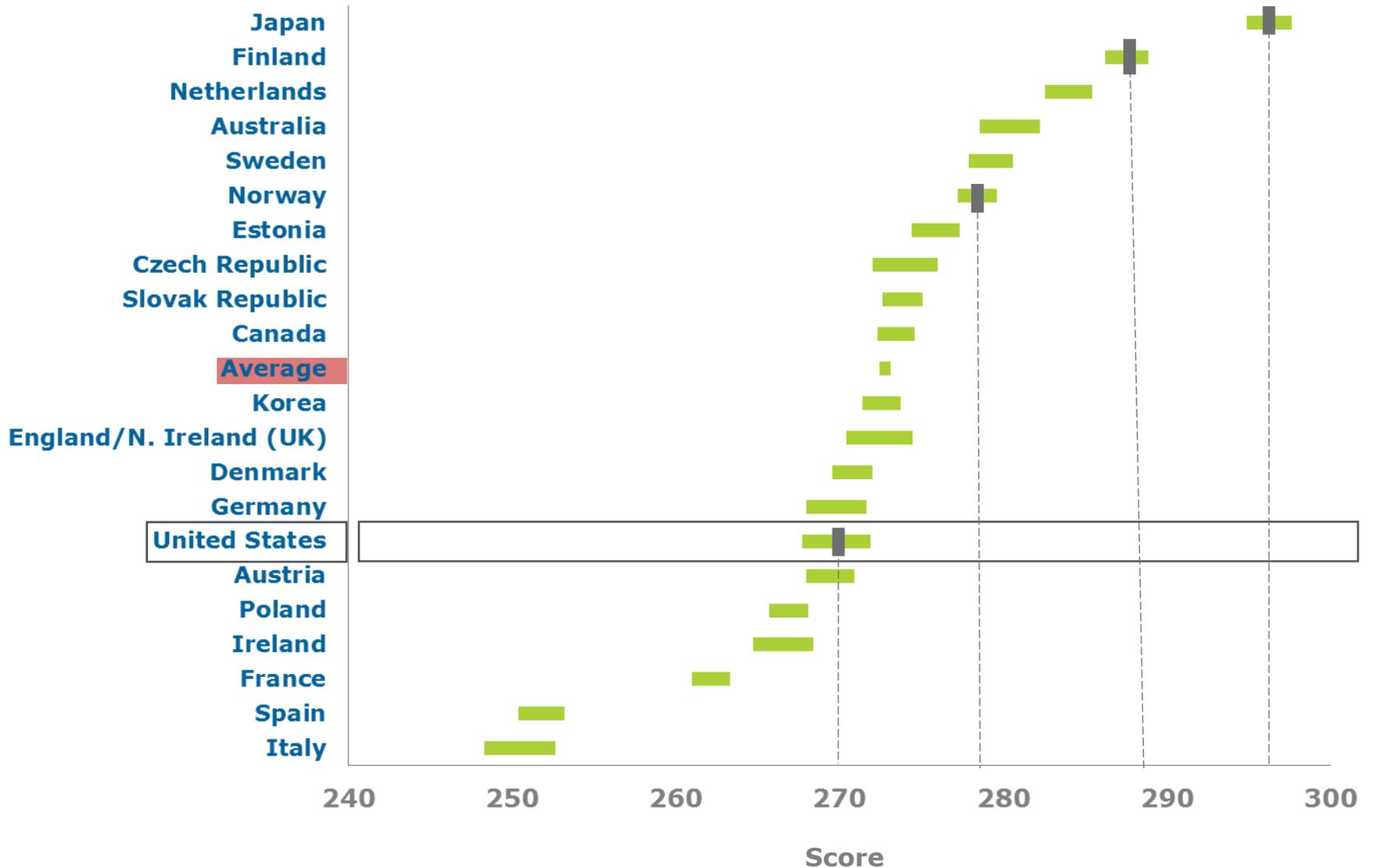
Skills of adults

Numeracy



Skills of adults

Literacy



Literacy skills in younger and older generations

