

ABRIDGED FOR EWD INNOVATION TANK RFI

WORKFORCE IMPACT ASSESSMENT FRAMEWORK:

Non-Degree Training and Programs

Training and professional development opportunities designed to recruit new workers and upskill current workers



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ABOUT THE FRAMEWORK

To help meet the growing workforce needs of the biopharmaceutical manufacturing industry, the National Institute for Innovation in Manufacturing Biopharmaceuticals (NIIMBL) is developing a **suite of tools to standardize how the community can:**

- Evaluate feasibility of proposed workforce initiatives and programs
- Maximize and communicate the impact of existing workforce initiatives
- Facilitate program benchmarking and comparison through standardized metrics



Framework

Outlines activities, considerations, and measures that define industry-informed best practices for initiative development and sustainability



Self-Assessment

Web-based assessment to help organizations identify initiative strengths and areas for enhancement, supplemented by guidance from NIIMBL on effectively collaborating with industry



NIIMBL Endorsement Program

Industry program endorsement based on guidance and measures outlined in the framework

Anticipated launch in 2027

These tools are customized for **three different types of initiatives:**

1. **Community Outreach and Awareness:** Initiatives focused on creating interest in and understanding of biomanufacturing career opportunities
2. **Non-Degree Training and Programs:** Training and professional development opportunities designed to recruit new workers and upskill current workers
3. **Industry-Aligned Degree Programs:** Post-secondary education that builds specialized knowledge and expertise in biomanufacturing

Impact of the Framework: Efficiency, Consistency, Effectiveness

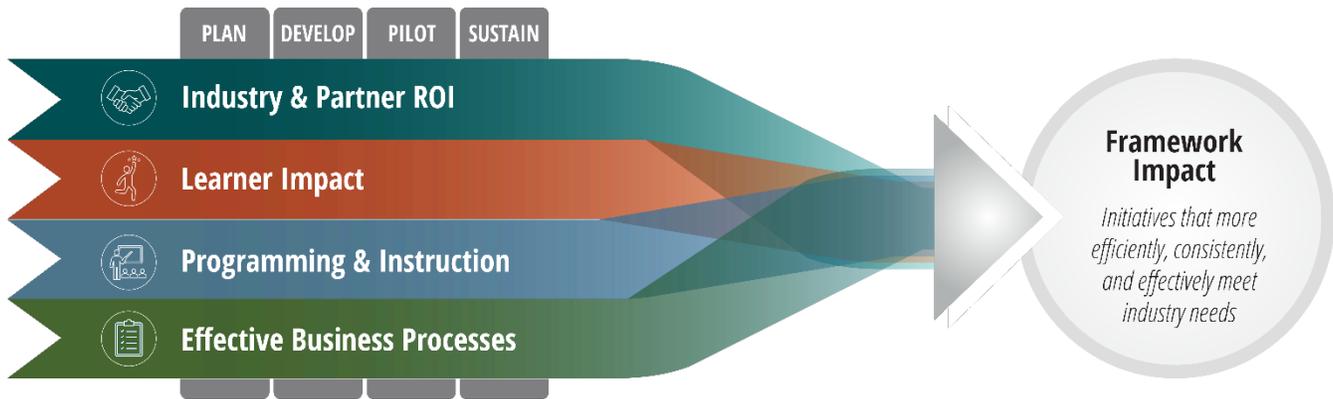
The framework offers education and workforce development (EWD) providers the opportunity to leverage **industry-aligned best practices for developing or improving initiatives** and **standard methods for assessing and communicating initiative impact**, yielding **successful initiatives that better meet industry needs**.

While NIIMBL has developed the framework oriented around the biopharmaceutical manufacturing industry, its principles and guidance are **transferable to all advanced manufacturing sectors**.

NIIMBL Workforce Impact Assessment Framework: Non-Degree Training and Programs
Abridged for NM EWD Innovation Tank RFI

UNDERSTANDING THE FRAMEWORK STRUCTURE

Both new and experienced EWD professionals can use the suite of framework tools to identify initiative strengths and potential areas to focus on to continuously improve and communicate initiative impact. This framework should be used as a roadmap to help better **plan, develop, pilot, and sustain EWD initiatives** by considering the perspectives and needs of all stakeholders integral to the success of these initiatives.



Initiative Development Phases

Key phases for developing an initiative, from initiation through implementation and long-term sustainment:

PLAN	Define initiative scope, considering priority industry needs, target learners, instructional methodology, and resource requirements
DEVELOP	Validate and refine initiative value to industry and learners, develop curriculum, and define implementation plan
PILOT	Launch initiative on a small scale to evaluate its success and develop an operational plan to sustain it
SUSTAIN	Continuously evaluate and improve initiative to maximize its impact <ul style="list-style-type: none"> • Sustain an initiative: Continue to follow the business and operational model with new cohorts • Grow an initiative: Increase learner enrollment and/or initiative frequency at the same location/region • Scale an initiative: Replicate the initiative for new geographies and/or new target audiences

Foundational Dimensions of Impact

Key categories of activities that cut across initiative development phases and involve engagement with key stakeholders critical to the successful development and implementation of workforce initiatives:

Industry & Partner ROI	Align initiative with current and/or projected workforce needs
Learner Impact	Enhance learner skill marketability and career opportunities
Programming & Instruction	Apply best practices to optimize initiative delivery and instructional effectiveness
Effective Business Processes	Support initiative success through sound operational planning and practices

Components for Improving Initiatives

Each foundational dimension of impact includes tables with the following content:

Activities	Key elements and/or actions needed to plan and implement an impactful workforce initiative. <i>Note: Activities are recommended at each dimension of impact but are not intended to be completed sequentially.</i>
Considerations and Guidance	Best practices and steps related to the activity that can set the initiative up for success
Assessment Criteria and Measures	Each activity includes both baseline (minimum achievement) and exemplary (exceptional achievement) measures. These measures form the basis of the rating system in the self-assessment.

Note: Depending on initiative scope, some activities, considerations and guidance, and/or measures may not be relevant.

Example Measures: Non-Degree Training and Programs

The table below provides an **overview of the kinds of measures used in the framework**, across all dimensions of impact.

Note: this abridged version of the framework includes a portion of content from the Sustain phase. The full framework and self-assessment will include more detailed considerations and guidance, as well as baseline and exemplary measures for each activity and assessment question.

	ENGAGEMENT EXAMPLE MEASURES	VALUE/IMPACT EXAMPLE MEASURES
INDUSTRY & PARTNERS	<p>In-kind industry support: subject matter expertise; contributions to initiative delivery, instruction, marketing, and outreach</p> <p>Committed resources beyond time: funding, facilities and equipment, enrollment and hiring commitments</p>	<p>Talent attraction and retention: reduction in unfilled positions or time to fill, more qualified candidates</p> <p>Improved employee performance: increased skill and performance, reduced time to promotion</p> <p>Internal resource efficiency: reduced employee time to contribution, reduced need for internal training</p>
LEARNERS	<p>Interest and activation: registration and enrollment numbers</p> <p>Progress and persistence: participant completion rates, drop-off points, time to complete initiative, frequency or duration of engagement</p>	<p>All participants: skill marketability, earnings growth, career pathways</p> <p>Job seekers: access to job opportunities and higher-quality jobs</p> <p>Current employees: job performance and satisfaction, promotion opportunities</p>
TRAINING PROVIDERS	<p>Reach: actual enrollment compared with targets</p> <p>Effectiveness: demonstration that curriculum is engaging, informed, and well-structured</p>	<p>Industry and partner value: committed resources and consistent participation; alignment with industry knowledge, skills and abilities (KSAs) and occupations</p> <p>Business value: revenue and profitability, credibility and track record of initiative, alignment with policy and economic development strategies</p>

Note: this abridged version of the framework includes a portion of content from the Sustain phase. The full framework and self-assessment will include more detailed considerations and guidance, as well as baseline and exemplary measures for each activity and assessment question.

SUSTAIN

Continuously evaluate and improve initiative to maximize its impact

Sustain an initiative: Continue to follow business and operational model with new cohorts

Grow an initiative: Increase learner enrollment and/or initiative frequency at the same location/region

Scale an initiative: Replicate the initiative for new geographies (i.e., new locations) and/or new target audiences (i.e., new populations)

Activities by Dimension of Impact

	<p>Industry & Partner ROI</p>	<p>Maintain and expand industry champions</p> <p>Continue to collect and communicate data related to industry-relevant metrics</p>
	<p>Learner Impact</p>	<p>Maintain and/or grow enrollment</p> <p>Continue to collect and communicate data related to learner impact metrics</p>
	<p>Programming & Instruction</p>	<p>Continue to collect and analyze data related to programming and instruction metrics</p> <p>Continuously update and vet refined curriculum and instructional resources</p>
	<p>Effective Business Processes</p>	<p>Continuously refine and evolve planning for initiative sustainment</p> <p>Develop a growth and/or scaling plan</p>



Industry & Partner ROI

Align initiative with current and/or projected workforce needs

ACTIVITY: Maintain and expand industry champions — Continue to communicate the initiative’s value to industry and work with industry to continuously refine and secure resources needed for initiative sustainment, growth, and/or scaling

CONSIDERATIONS & GUIDANCE

Maintain engagement with key industry influencers, decision-makers, and subject matter experts

- Ensure industry champions continue to value and support the initiative
- Invest in relationships by offering routine engagement opportunities

Grow the circle of initiative champions

- Build relationships needed to expand the initiative’s recognition and impact
- Consider developing additional relationships with organizations similar to current champions, trade and professional associations, and community organizations

Provide ongoing mechanisms for industry feedback and collaboration

- Collect regular industry feedback (e.g., through advisory boards or curriculum/assessment reviews, new training modules, reviewing prospective participant applications)

ASSESSMENT QUESTION: To what extent has industry demonstrated a continued commitment to support the initiative’s sustainment, growth, and/or scaling?

ACTIVITY: Continue to collect and communicate data related to industry-relevant metrics — Continue to collect data needed to evaluate the initiative’s alignment with industry needs, and communicate results to inform initiative improvements and grow industry support and recognition of the initiative

CONSIDERATIONS & GUIDANCE

Execute on refined evaluation plan

- Capture data about indicators of success relevant to industry (e.g., participants trained per year, demonstration of increased participant skill and performance, reduced internal training, reduced time to hire, and/or reduced employee time to contribution)

Assess data quality

- Ensure data is reliable, up-to-date, comprehensive, unbiased, and representative

Synthesize and communicate findings

- Update and prioritize initiative changes that will better align the initiative with industry needs

ASSESSMENT QUESTION: To what extent does the initiative continue to provide return on investment to industry?



Learner Impact

Enhance learner skill marketability and career opportunities

ACTIVITY: Maintain and/or grow enrollment — Continue to conduct and update outreach efforts to target learner audience to sustain or grow enrollment of participants in the initiative

CONSIDERATIONS & GUIDANCE

Execute and refine communications plan for target learner audience

- Continue to use identified outreach channels to message initiative details and value proposition to prospective participants, communicating a clear call to action
- Identify outreach successes and potential areas for improvement

Continue to support prospective participants during the enrollment process

- Continue to work with learners to navigate the enrollment process, including answering any questions and addressing any concerns, communicating logistical information, and providing any preparatory or background materials

Contact previous applicants or interested participants

- Follow-up and re-engage interested target learners to notify them of additional initiative opportunities

ASSESSMENT QUESTION: To what extent is the initiative able to sustain and/or grow learner participation?

ACTIVITY: Continue to collect and communicate data related to learner impact metrics — Continue to collect data needed to evaluate learner engagement with the initiative and increased learner skill marketability

CONSIDERATIONS & GUIDANCE

Execute on refined evaluation plan

- Capture data about indicators of success relevant to learner impact

Assess data quality

- Ensure data is reliable, up-to-date, comprehensive, unbiased, and representative

Identify and capture learner case studies

- When collecting data from participants, identify learners with compelling success stories or testimonials that could help demonstrate the value of the initiative to future prospective learners

Synthesize and communicate findings

- Update and prioritize initiative changes that will better align the initiative with learner needs

ASSESSMENT QUESTION: To what extent does the initiative continue to successfully engage learners and deliver a return on investment for participants?



Programming & Instruction

Apply best practices to optimize initiative delivery and instructional effectiveness

ACTIVITY: Continue to collect and analyze data related to programming and instruction metrics — Refine curriculum and initiative logistics to ensure participants continue to reach industry-aligned learning objectives

CONSIDERATIONS & GUIDANCE

Execute on refined evaluation plan

- Capture data about indicators of success relevant to programming and instruction (e.g., committed industry resources and consistent participation in initiative development and delivery, demonstration that initiative is aligned with current and projected industry needs)

Assess data quality

- Ensure data is reliable, up-to-date, comprehensive, unbiased, and representative

Synthesize and analyze findings

- Assess initiative effectiveness, and define and prioritize initiative changes that will better achieve initiative learning objectives

ASSESSMENT QUESTION: To what extent do curriculum and training materials continue to align with current and emerging industry needs and target learner characteristics?

ACTIVITY: Continuously update and vet refined curriculum and instructional resources — Continue to evaluate initiative curriculum, materials, assessments, and delivery effectiveness to ensure alignment with industry and learner needs

CONSIDERATIONS & GUIDANCE

Develop and implement a curriculum/assessment review cycle

- Regularly seek, collect, prioritize, and integrate feedback from instructors, industry partners, former learners, and instructional designers to help identify actionable insights for improvement

Coordinate resources and logistics to execute instructional plan

- Consider human resources (e.g., instructors, participants, staff); equipment and facilities (e.g., lab equipment, training space, materials); and instructional technology setup (e.g., software, hardware)

Update and implement risk mitigation and contingency plans as needed

- Monitor resources and make any real-time adjustments to improve the learner experience and ensure training initiative alignment with initiative operational plan

ASSESSMENT QUESTION: To what extent do the initiative's curriculum and instruction continue to effectively contribute to achieving industry-defined learning objectives?



Effective Business Processes

Support initiative success through sound operational planning and practices

ACTIVITY: Continuously refine and evolve planning for initiative sustainment — Continuously assess the success of the initiative in meeting industry needs and implement prioritized recommendations for initiative improvements

CONSIDERATIONS & GUIDANCE

Continue to refine business case for sustainment

- Provide frequent evidence of impact and industry support, including participant outcomes (e.g., job placements, skills gained), employer value (e.g., hiring rates of initiative participants), system-level outcomes (e.g., economic impact), and strategic partnerships

Refine initiative operational goals and milestones

- Reassess and/or confirm frequency of initiative, enrollment goals, budget requirements, and plans for continued sustainment, growth, and/or scale-up

Refine operational, communications, and evaluation plans

- Assess current capacity and tasking, including staffing, partnerships, facilities and equipment, and funding; define key needs and outcomes for initiative sustainment
- Consider audience analysis, content strategy, and outreach channels
- Consider indicators of success; evaluation logistics; and data management analysis and reporting

ASSESSMENT QUESTION: To what extent are your initiative’s business plans refined to support evolving industry needs and the business case for initiative continuation?

ACTIVITY: Develop a growth and/or scaling plan — Define the business case for initiative growth and/or scaling and refine initiative objectives and plans

CONSIDERATIONS & GUIDANCE

Define levels of desired growth and/or identify opportunities to scale the initiative

- Leverage landscape analyses, industry partner recommendations, funding opportunities, etc. to define and justify strategy

Demonstrate business case for growth and/or scaling

- Collect and outline evidence of value and readiness to scale to justify expansion of the initiative, including evidence of impact and industry support; assess financial stability and sustainability; demonstrate logistical viability and longevity; and update risk assessment

ASSESSMENT QUESTION: To what extent does the growth or scaling plan demonstrate a business case and availability of adequate resources for growth or scaling?