Final Capstone Presentation

LISC DC

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Restating Objectives & Goals

Analyze relevant businesses (construction, sustainability, AI/tech) and the local economy along the Blue Line Corridor to assess potential for growth stimulation.

Map barriers, opportunities, and growth zones via engagement.

Connect with relevant stakeholders for business identification, workforce, tech.

Develop recommendations for inclusive growth, sustainability, jobs.

Offer scalable model for resilient, sustainable business ecosystems.

Identified Businesses

Name	Sales	Employees	Sub-Industry	Location	Industry
JCS Information Systems	NA	NA	IT Services	Marlboro	IT
cFocus Software Inc	NA	10-50	cFocus Software automates FedRAMP compliance and develops government chatbot	Largo	IT
Elite Technology Solutions, Llc	NA	5-9	Computer-Aided Design (Cad), Engineering (Cae), Manufacturing (Cam) Systems Integration Design Services	Largo	IT
Aello Technology Inc.	NA	5-9	Computer Programming And Software Development Services	Mitchellville	IT
Posner Industries	$25-$75 million	50-99	Hardware Merchant Wholesalers	Capitol Heights	Construction
O & V Construction	$1-$5 million	5-9	New Single-Family Housing Construction (Except Operative Builders)	Capitol Heights	Construction
CMC Sheet Metal	NA	50-200	Sheet Metal Fabrication	Capitol Heights	Construction

Sustainable Construction & Housing

- Of the two target industries, we believe that there is a greater opportunity within the field of sustainable construction and housing.
- There are several identified businesses that can find a place within the Sustainable Construction Value Chain.
- There is room for new businesses to enter the Blue Line/Central Ave Corridor and enter the value chain

Housing Demand Exceeds Supply

- In February 2025, Prince George's County home prices were up 5.9% compared to last year, selling for a median price of $450K (Redfin).
- Underproduction of housing requires creative solutions to build compliant housing.
- Introducing modular housing facilities in Prince George’s County could help to solve the problem of affordable and sustainable housing.
- Introducing sustainable housing manufacturing could introduce jobs and economic growth to the region

Sustainable Housing Construction

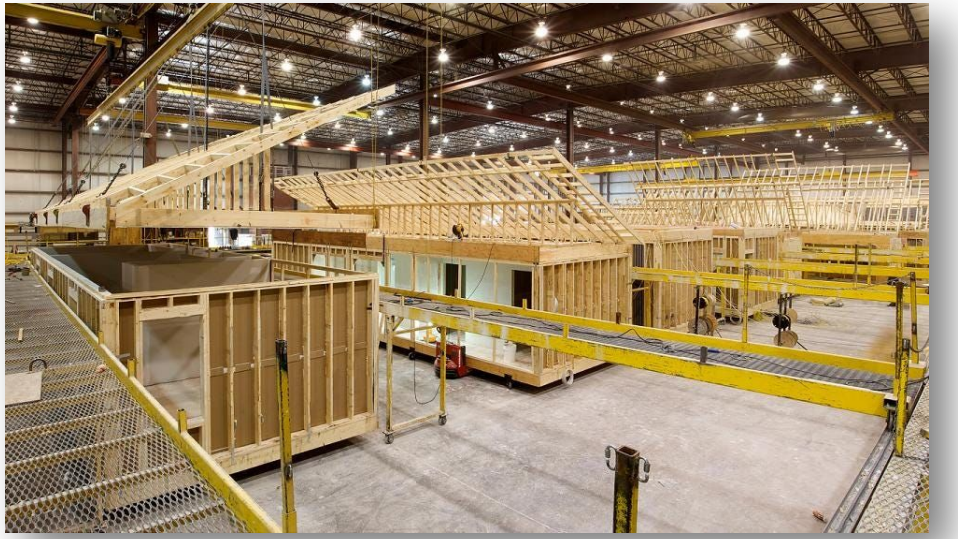
- Off-Site Construction
  - *Full Volumetric*- Build off site and transport full building in pieces to site
  - *Pod Volumetric*- Build pieces of building off site, transport
  - ***Panelized***- Build wall panels off site, construct on site

- Full Volumetric Micro Production Facility
  - 1-3M in startup costs
  - 25-30 employees
  - 25-50 units per year

- Compact Panel Firm (~100k startup costs)

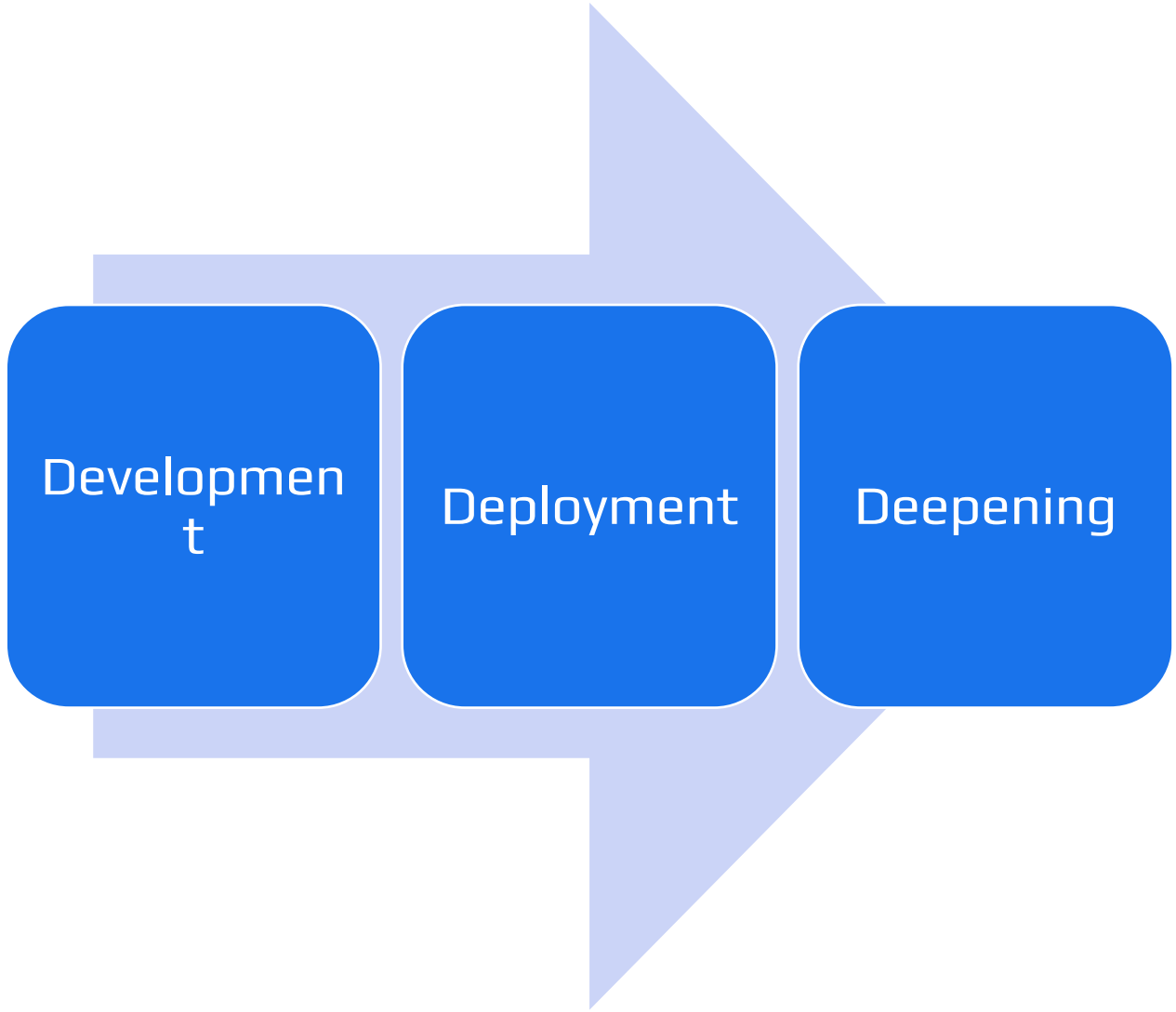
Market Opportunity

- Off-Site Construction helps reduce the cost of:
  - Labor
  - Materials
  - Lending
- Off-Site Construction can create a more stable construction industry
  - Not working on a ‘Job to Job’ basis
    - Fewer 1099 employees
  - Create a place in the Off-site construction assembly value chain
    - **Parts -> Kits -> Components -> Panels -> Modules -> Buildings**
- Example Companies
  - Eco Panels, NC ($2m Startup costs, 100 Homes/year)
  - PDM Constructors, PA (400k Startup Costs, 35 employees)



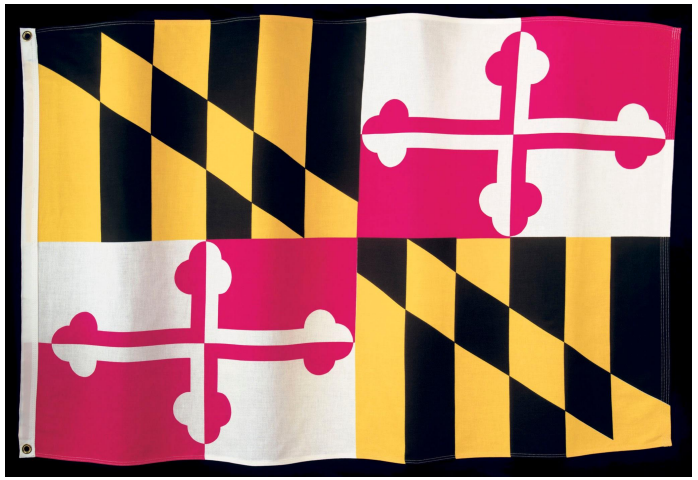
Introducing the DDD Framework *for Modular Housing*

- As we move forward with the strategy for advancing sustainable housing, we will apply the DDD framework to guide our efforts.
- This phased approach will ensure that we not only meet the demand for affordable housing but also create long-term, resilient, and sustainable communities.



Development Phase -

Advancing Sustainable Housing through Modular Construction



Key Concept: Outsourcing Modular Production to Protect Maryland's Environment

Outsource Modular Production: Production of modular homes can be outsourced to companies in states like Nevada, Pennsylvania, and North Carolina (e.g., Boxabl, Vantem, Eco-Panels) to avoid environmental and economic challenges in Maryland.

Key Benefits:

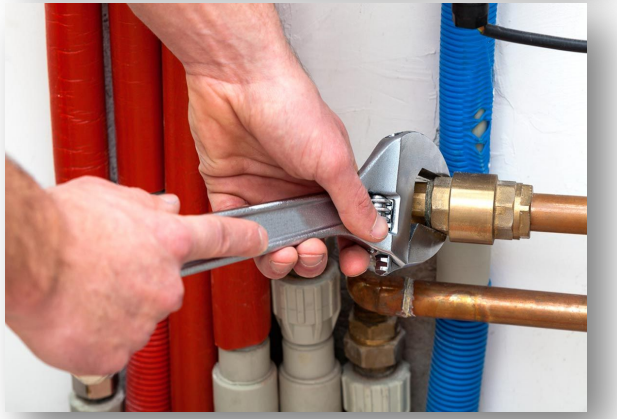
- Environmental: Outsourcing protects Maryland's green spaces and reduces manufacturing impact.
- Economic: This approach minimizes regulatory delays, capital risks, and high production costs.

Focus: By outsourcing, Maryland can focus its local resources on deployment and workforce development, ensuring sustainable growth and job creation.

Deployment –

Placing Modular Homes in Strategic Zones

- Transport modular units into PG County and install them On-Site
  - Prioritize development areas, including infill lots, transit corridors, and opportunity zones.
- Deployment offers mutual benefits:
  - Housing firms can reach new markets without building new factories, while PG County gains rapid access to new homes.
- Modular installation is fast, Transitioning is not
  - Transitioning homes into permanent dwellings may require 10–20 days of specialized work.
  - Plumbing, Electrical, and HVAC work require a local workforce ready to support that process.
  - This makes workforce readiness in Maryland not just beneficial, but essential.



Deepening-

Creating Permanence & Sustainability

Permanent Connections

Water, sewer, and electrical connections for permanent housing

Structural Safety

Foundation anchoring to meet structural safety codes

Green Infrastructure

Stormwater reuse, solar readiness, tree canopy enhancements

Customization

Accessibility, aesthetics, Long-term occupancy

Certification

LEED, Energy Star, National Green Building Standard (NCBS)

Intro to Recommendations

- Our recommendations align with policy, housing needs, and workforce goals
- Organized using the DDD Framework:
  - **Development** – Smart outsourcing
  - **Deployment** – Fast installation
  - **Deepening** – Long-term impact
- Supports scalable, inclusive growth in PG County

Policy Suggestions

1. **Streamline Modular Housing Permitting**
   - Simplify and fast-track permitting for modular and sustainable housing projects to reduce construction delays, especially in jurisdictions like Prince George's County known for regulatory slowdowns.
2. **Incentivize Local Workforce Development**
   - Support policies that fund training and certification programs for electricians, plumbers, and HVAC technicians to create a local labor pool for modular construction — reducing out-of-state deployments and keeping wages in the local economy.

Policy Suggestions

3. **Align Housing Standards with Green Incentives**
    - Encourage adoption of LEED, stormwater reuse, and tree canopy standards by helping small and minority-owned firms navigate compliance. Provide technical assistance and subsidized certification pathways.
4. **Use Tax Increment Financing (TIF) Strategically**
    - Target TIF benefits toward sustainable construction zones and small businesses along the Blue Line Corridor to stimulate reinvestment, reduce vacancy, and promote durable economic growth.

Strategic Goals 🎯

Short-Term Goals (0–1 year)

- Establish partnerships with modular housing firms for outsourced production
- Identify and prepare zoning overlays, infill lots, and opportunity zones for deployment
- Begin workforce recruitment and training in construction, electrical, and plumbing trades
- Launch pilot projects to demonstrate rapid installation and cost savings

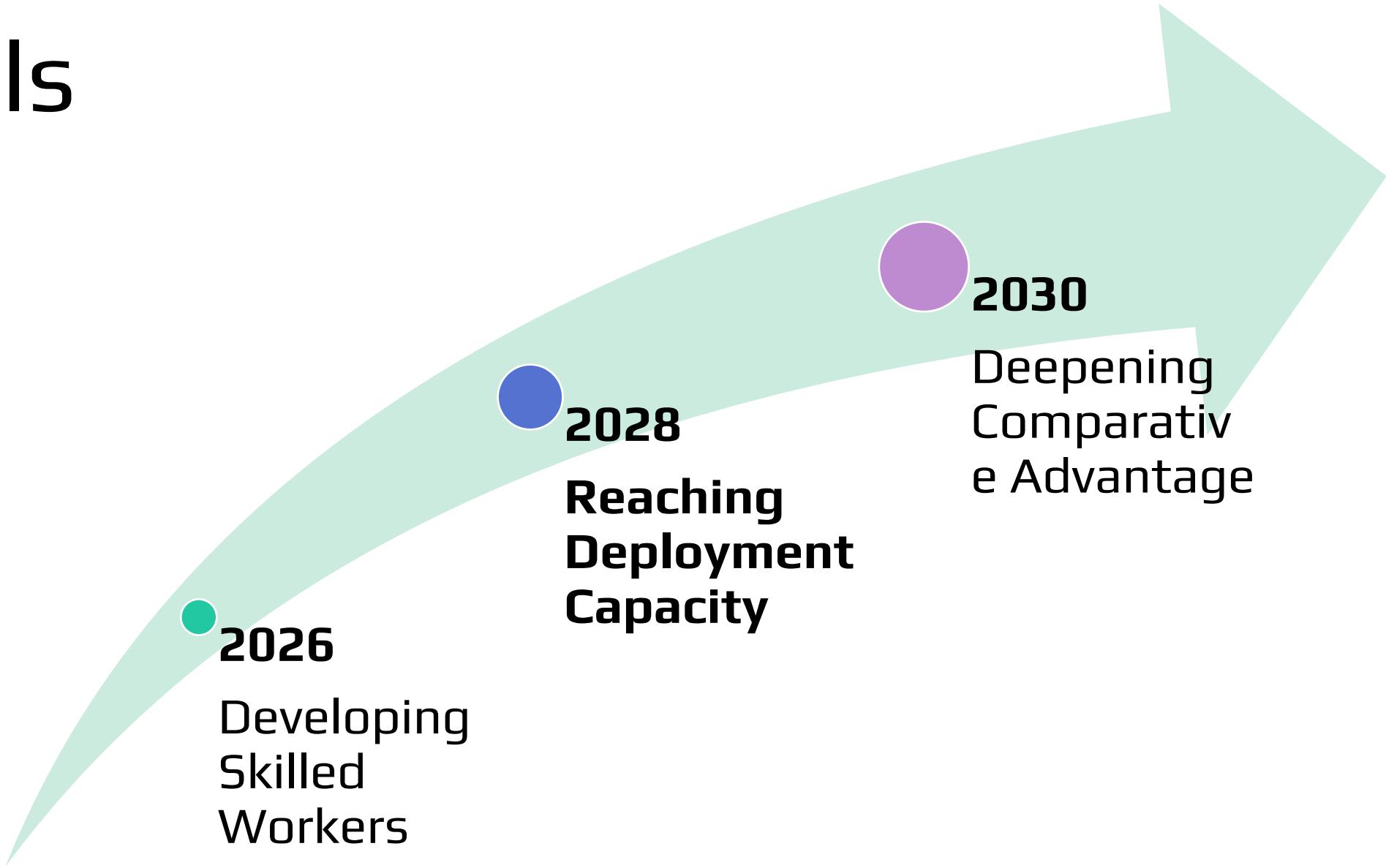
Mid-Term Goals (1–3 years)

- Scale modular housing installations across multiple development zones
- Deepen units to meet LEED, Energy Star, and NGBS certification standards
- Build a reliable network of local contractors for modular deepening
- Align housing rollout with infrastructure investments (transit, utilities, stormwater

Long-Term Goals (3+ years)

- Establish PG County as a regional leader in sustainable, modular housing
- Create long-term employment pipelines in green construction and building tech
- Achieve measurable reductions in housing-related emissions and utility costs
- Ensure housing quality, resilience, and affordability across generations

Goals


2026
Developing Skilled Workers
2028
Reaching Deployment Capacity
2030
Deepening Comparativ e Advantage

Conclusion

- Modular housing can solve PG County's housing shortage
- Off-site production reduces cost and protects green space
- Local focus boosts jobs, sustainability, and housing quality
- With the DDD strategy, PG County can lead in green, affordable housing

THANK YOU!