



# GLOBAL BIOCHAR MARKET REPORT

## 2023 Study Results Summary

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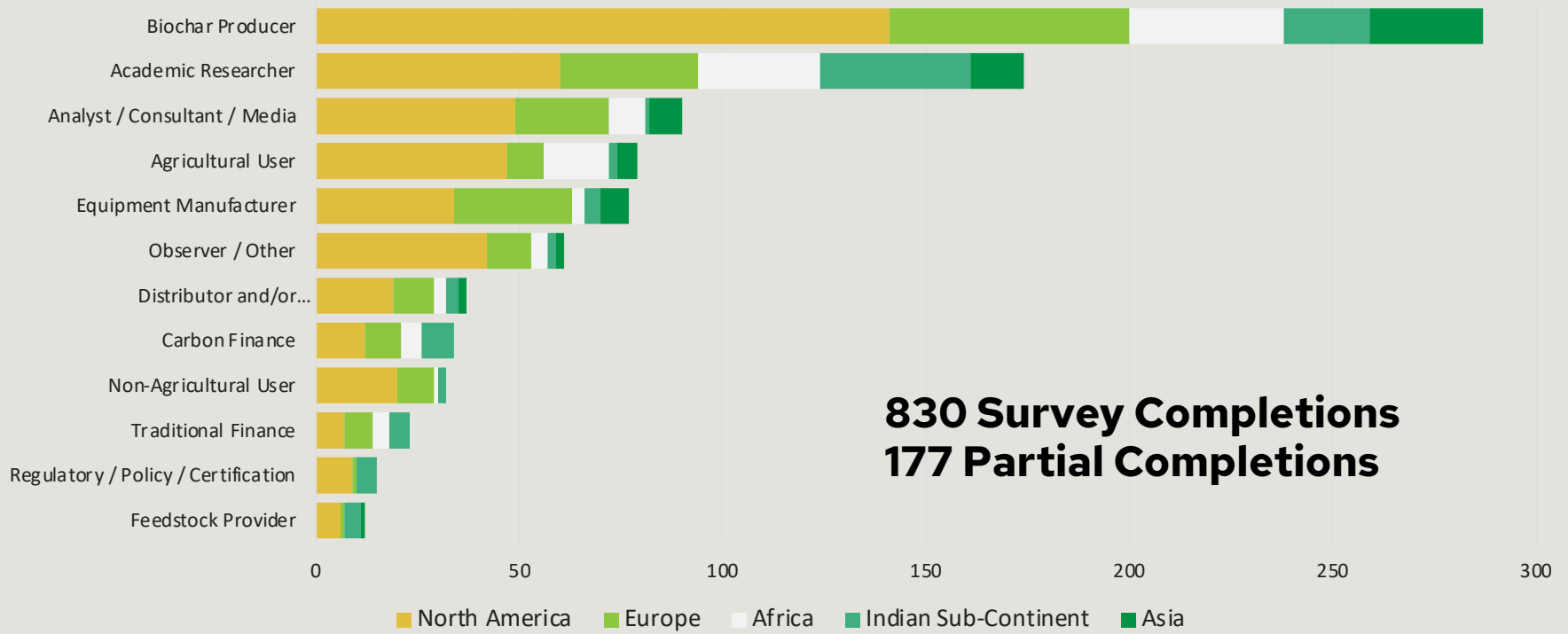
## *Market Report Goals*

1. Provide a better **understanding of the biochar industry and its value to better engage** with the industry but also with policymakers, investors, and observers
2. **Develop reliable estimates** for key industry data: production, growth, revenue, etc.
3. **Generate data and direct feedback** around how biochar organizations can better serve the industry
4. **Track long-term** industry trends
5. Create a **Feedback mechanism** between industry and biochar organizations

# Study Methodology

- Jointly funded and supported by USBI and IBI
- Survey led by Capasiti Consulting, a market research firm
- Survey questions developed by project team
- Web survey in field from Nov 6 to Dec 5, 2023
- Survey marketing led by IBI and USBI communications teams
- In depth web survey results completely anonymized and regionalized
- Interviews conducted to contextualize results
- Global production estimates:
  - Subtracted self-reported biocoal production
  - Completed limited quality control of anonymized data to remove obvious errors

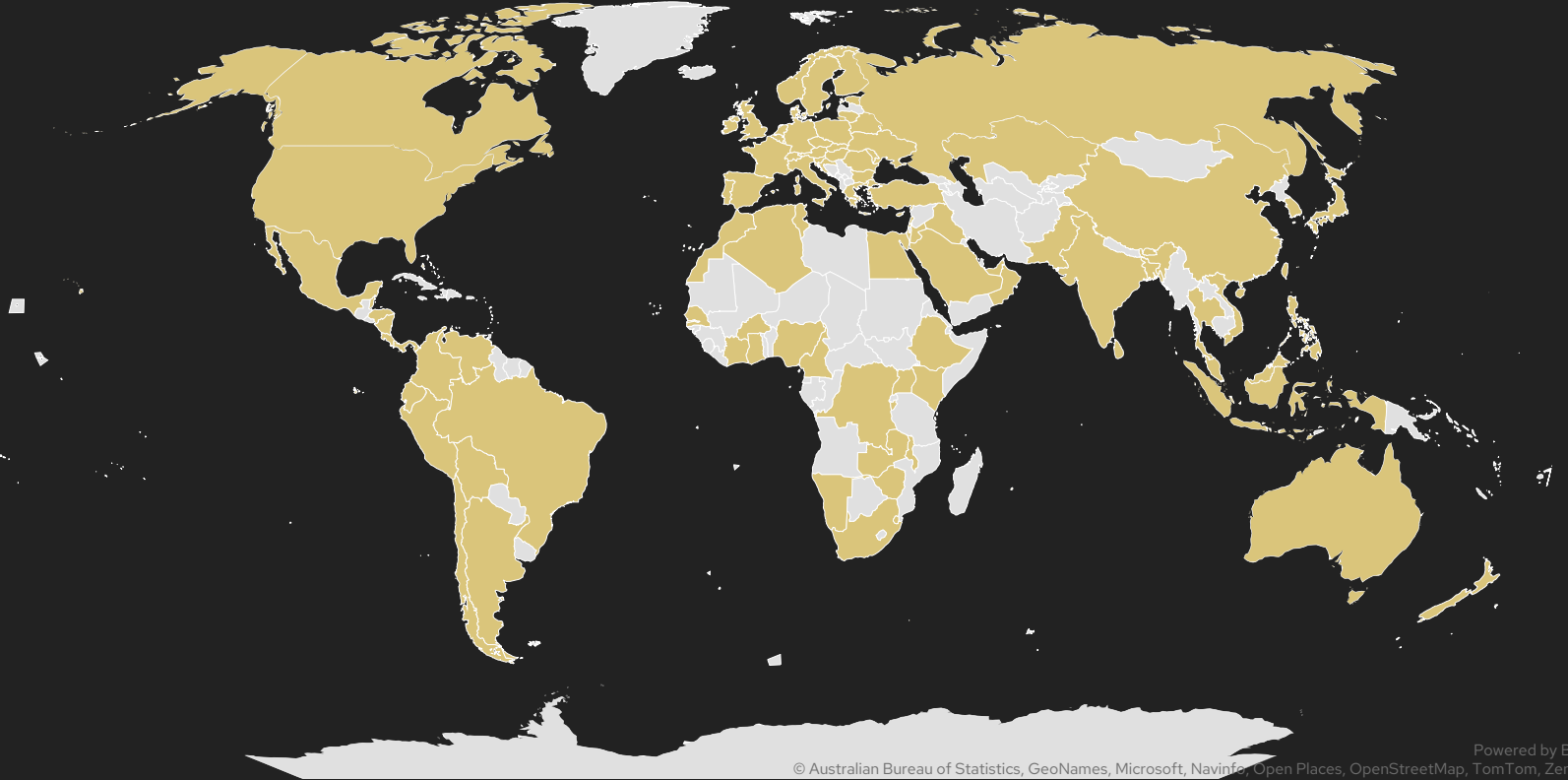
# Survey Respondents



**830 Survey Completions**  
**177 Partial Completions**



# Countries Represented in Respondents

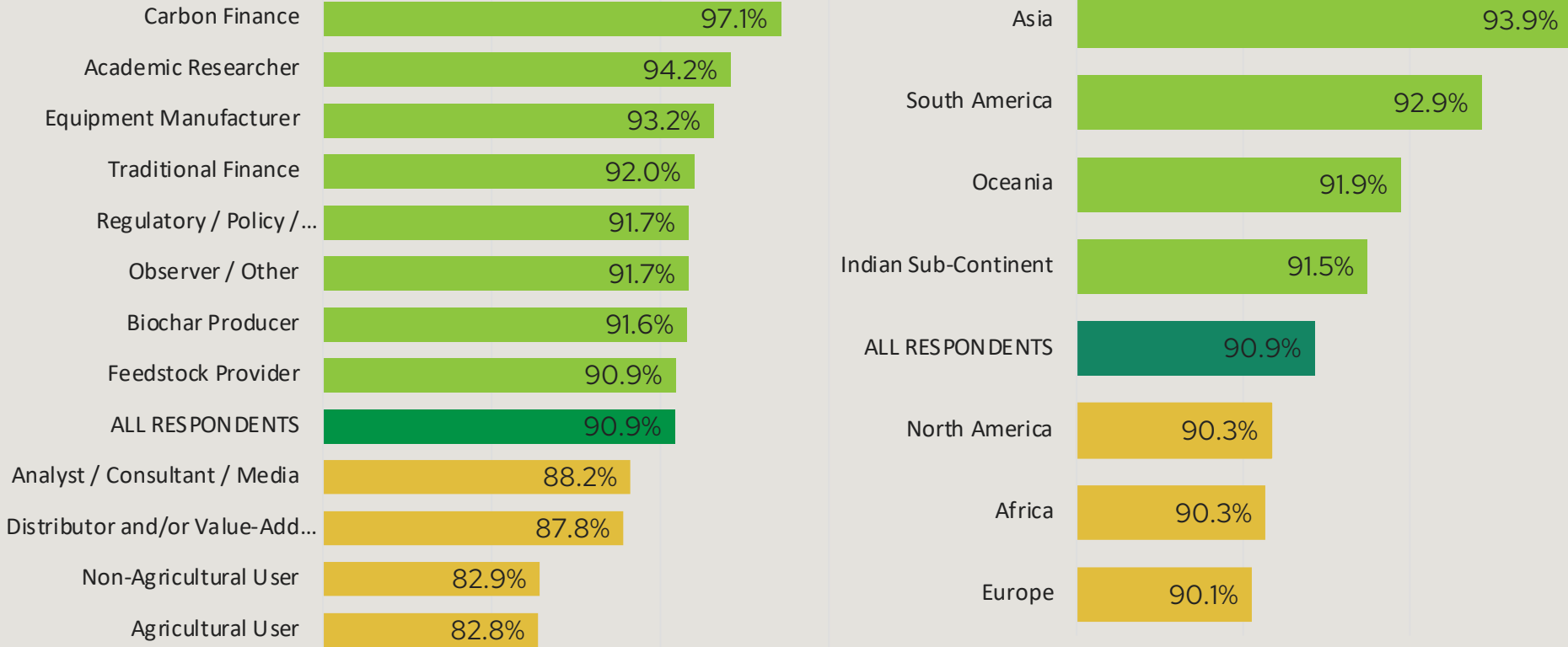


# Topline Results

- 1.** Biochar continues to lead the way in delivering durable CDR with global production of at least 400,000 tonnes of biochar annually.
- 2.** CDR markets for biochar are thriving, but many biochar producers do not participate in the VCM
- 3.** Markets for biochar are growing, but developing high quality markets for physical biochar is becoming the leading obstacle to growth in the industry.

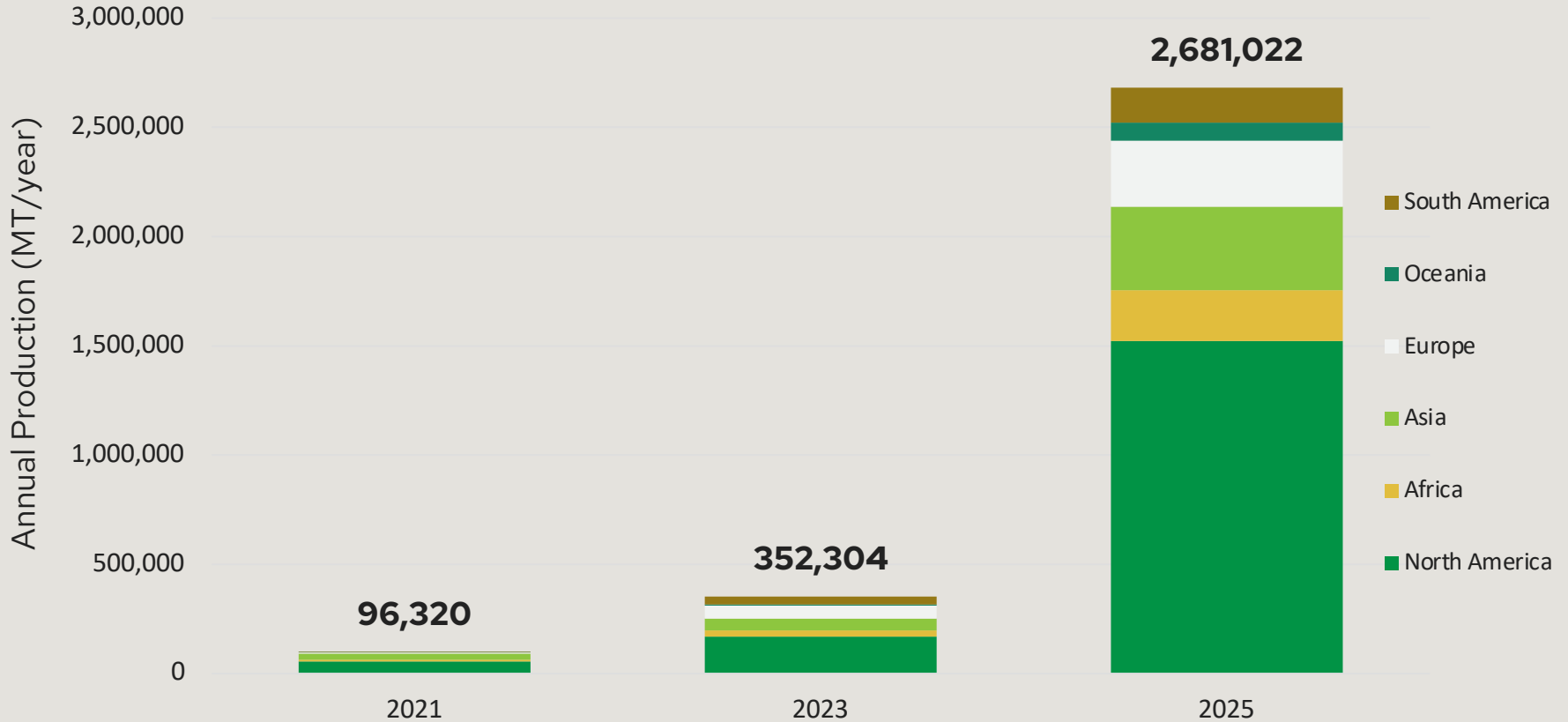
- 4.** A wide range of production technologies and business models are employed by biochar producers. Building an industry that works for all types is a key need.
- 5.** The industry is engaged with biochar organizations, and expects these organizations to focus on:
  - Developing end-use markets and standards for physical biochar
  - Advocating for biochar in the CDR space and in governmental policy
  - Supporting biochar companies to improve access to capital and grants

# Industry Optimism



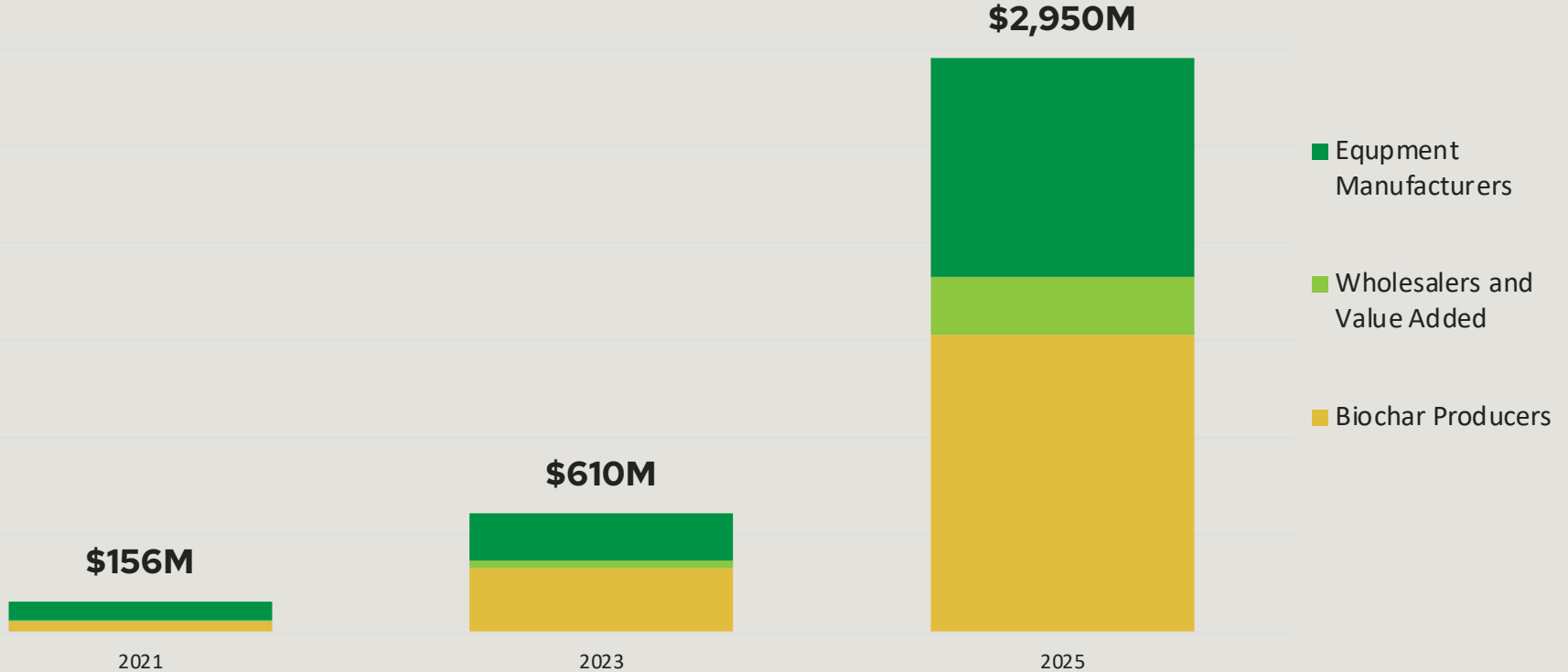
Percent respondents very or somewhat optimistic

# Industry Growth: Global Production

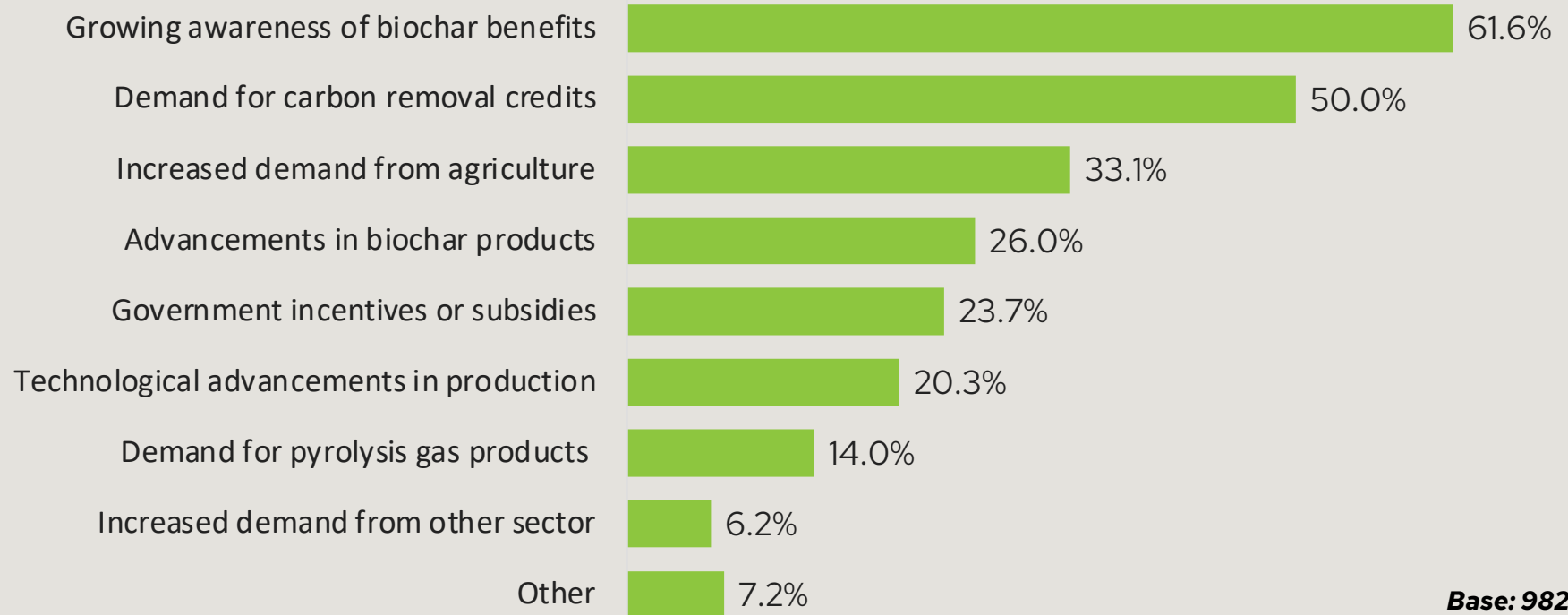




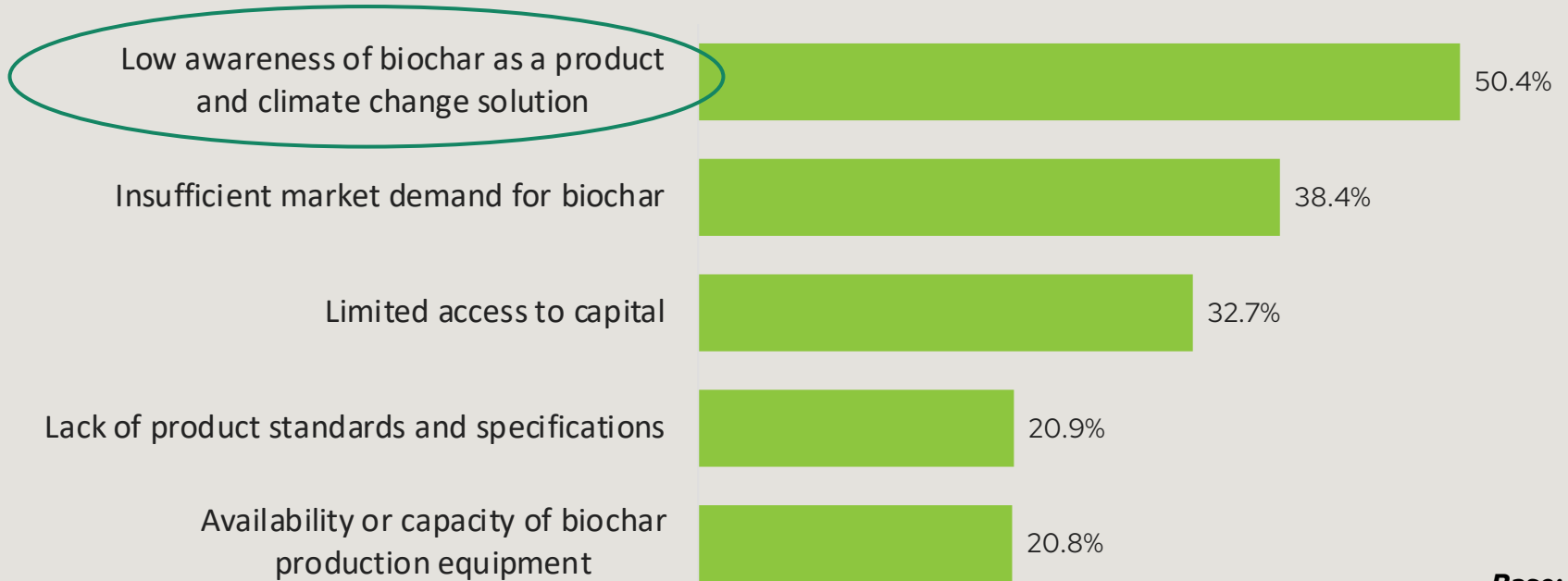
# Industry Growth: Economic Value



## What are the key factors driving growth of the industry? (Select top 3)



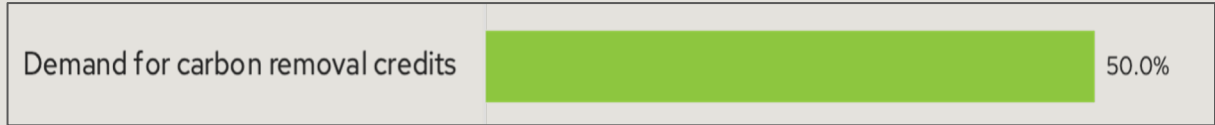
## What are primary challenges or obstacles for the industry? (Select top 3)



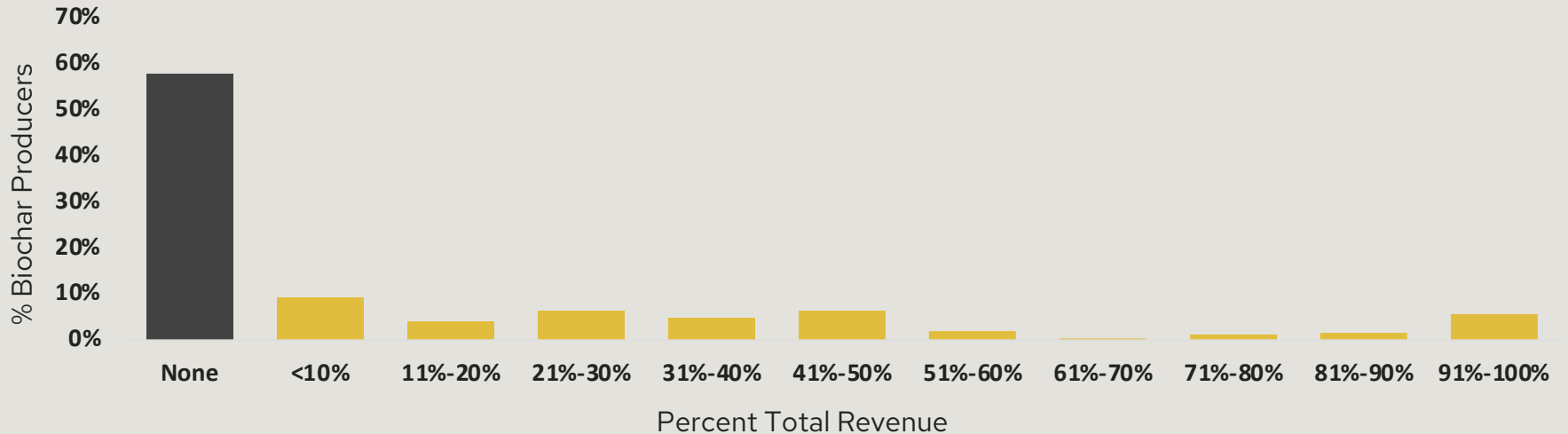
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# Voluntary Carbon Markets: A Clear Industry Bright Spot

## #2 Growth Factor

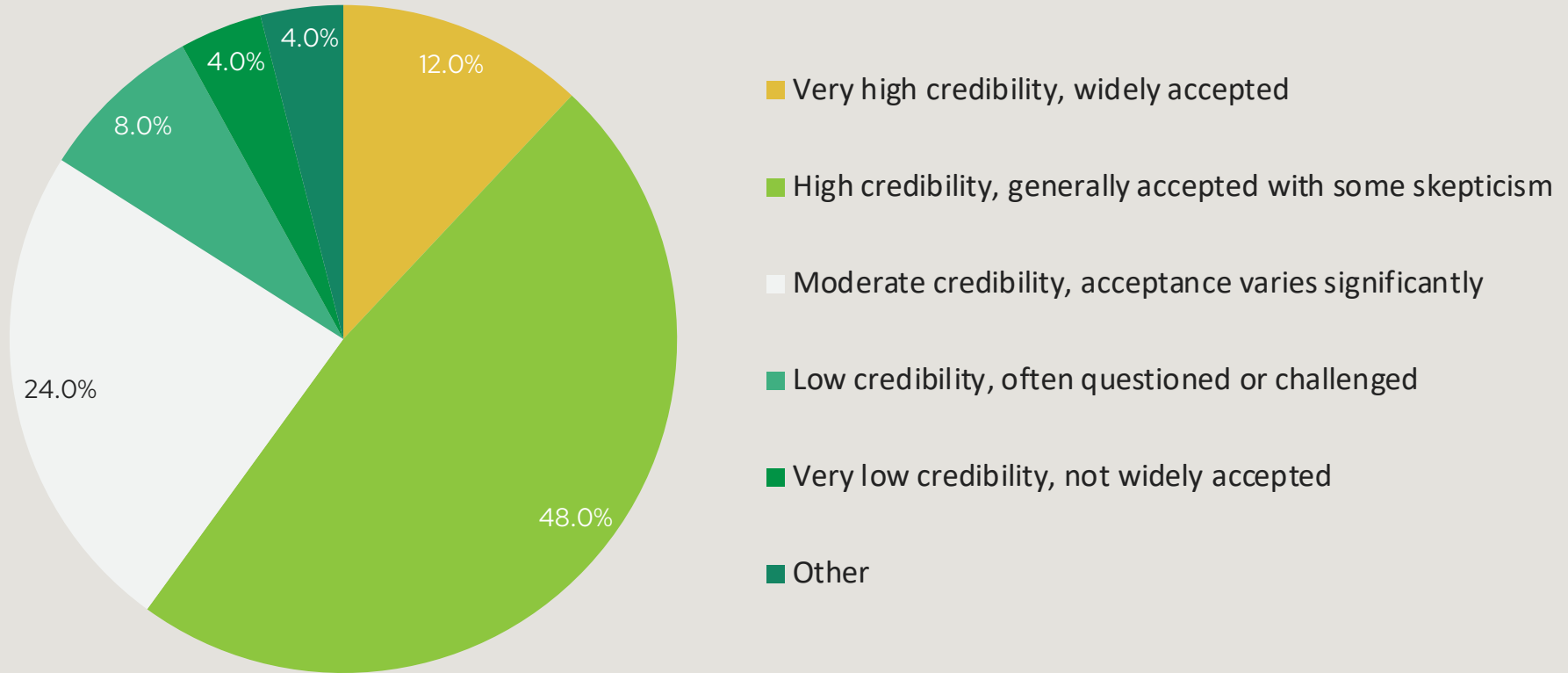


Carbon Credit Revenue Among Biochar Producers



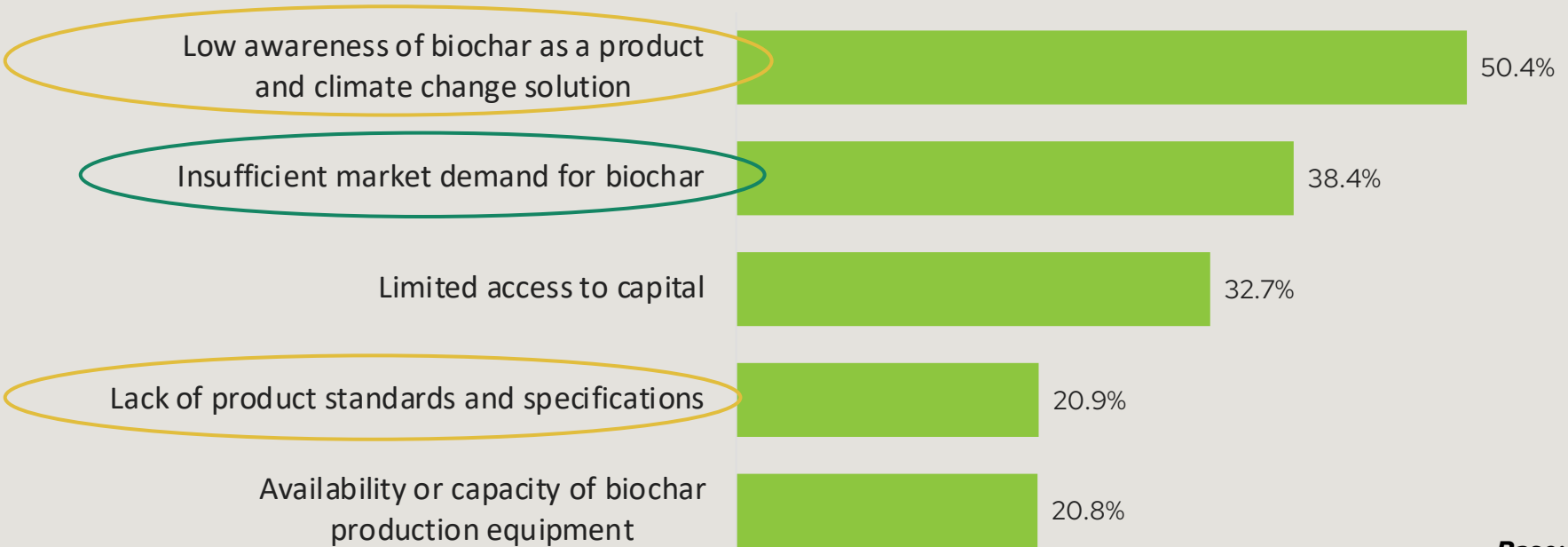
# Voluntary Carbon Markets: Perceptions & Anticipated Role in VCM

## Perception of Biochar's Market Credibility in Carbon Trading



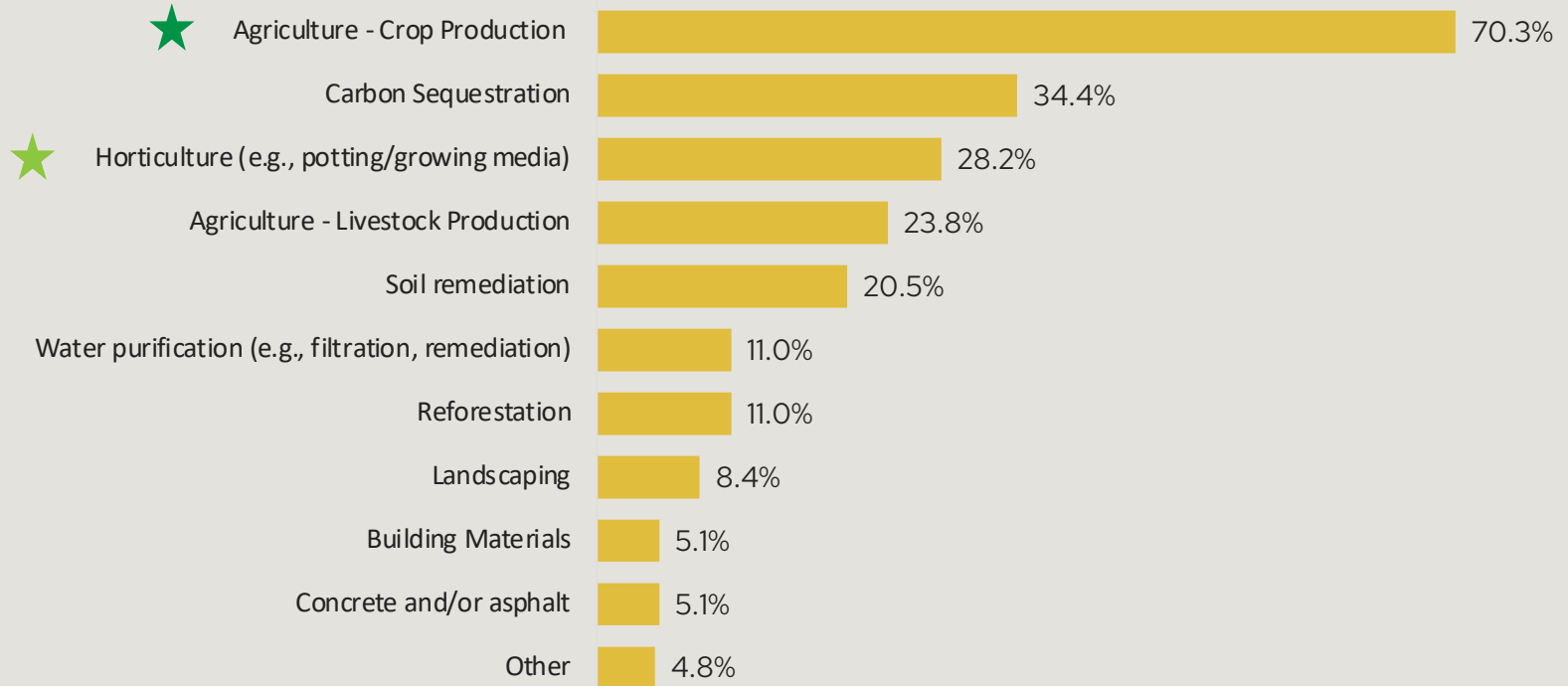
# End Use Markets: Key Opportunity and Challenge

**What are primary challenges or obstacles for the industry? (Select top 3)**



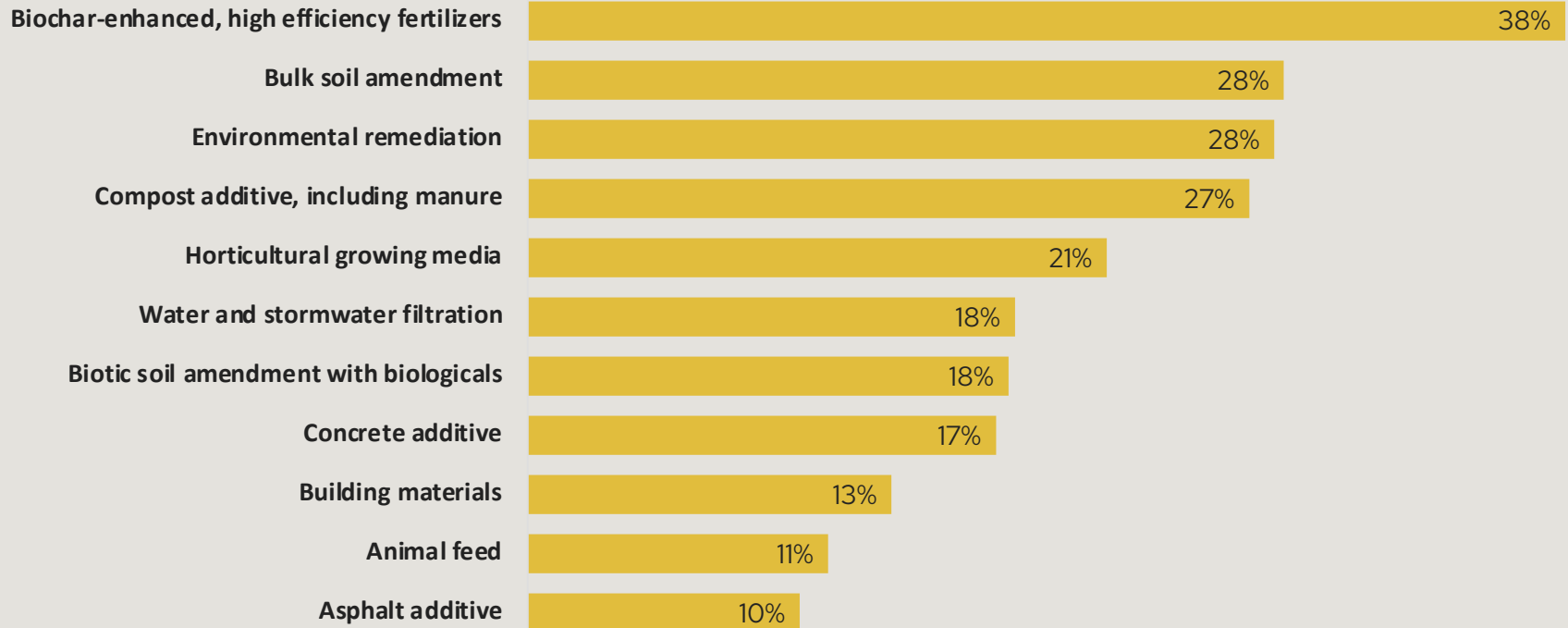
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## End Use Markets Reported by Producers



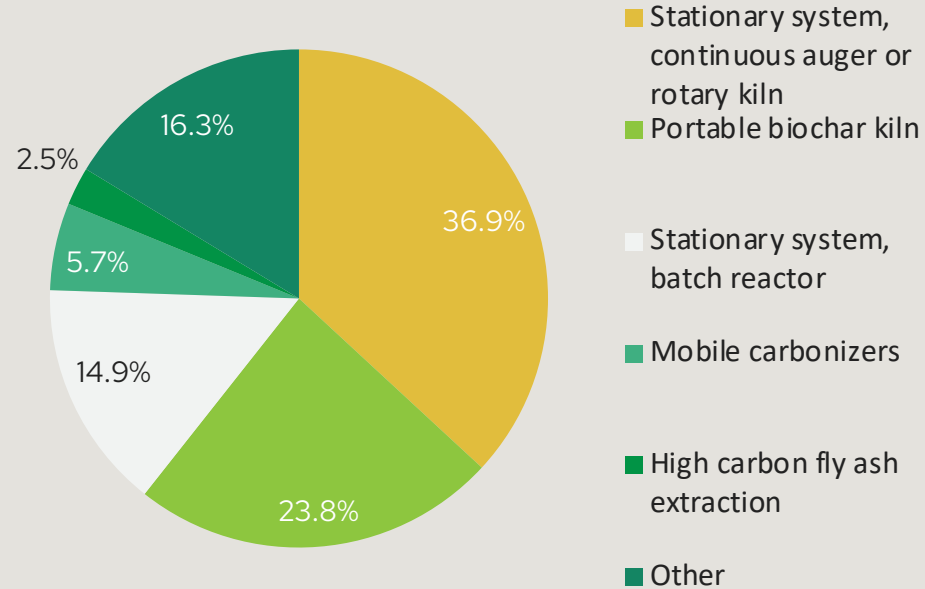
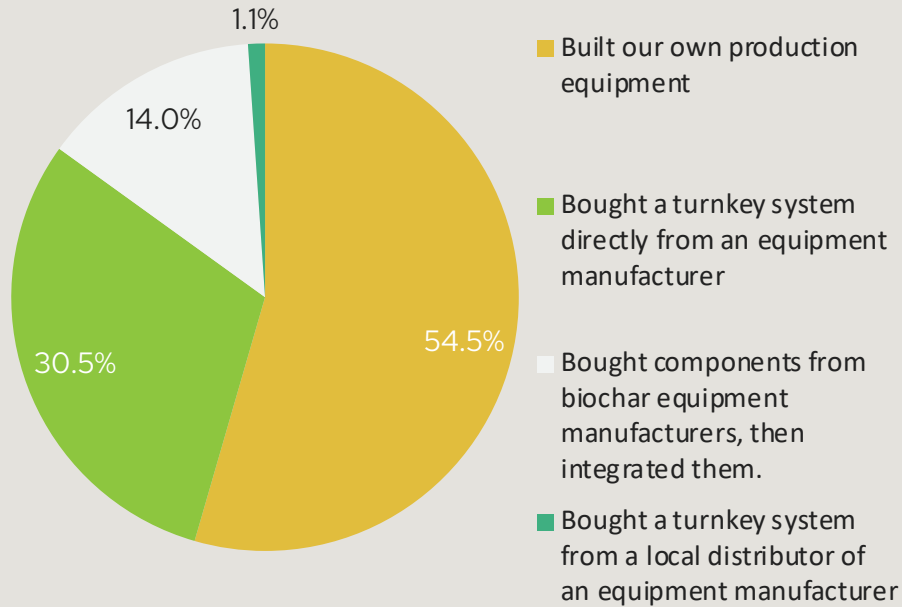
# End Use Markets: Other Ag and Material End Uses are Growing

## Prioritizing End Use Markets: Strategic Focus for IBI and USBI



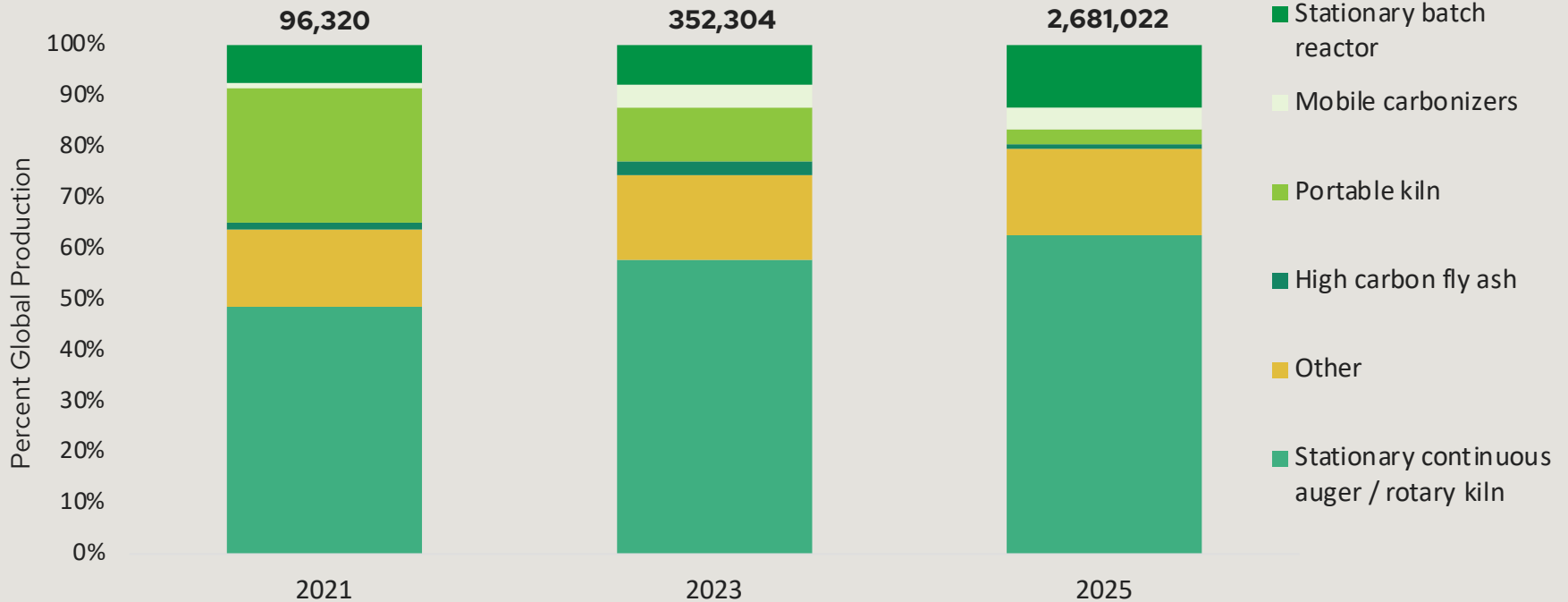


# Producer Focus: High Diversity in Production Types & Sizes



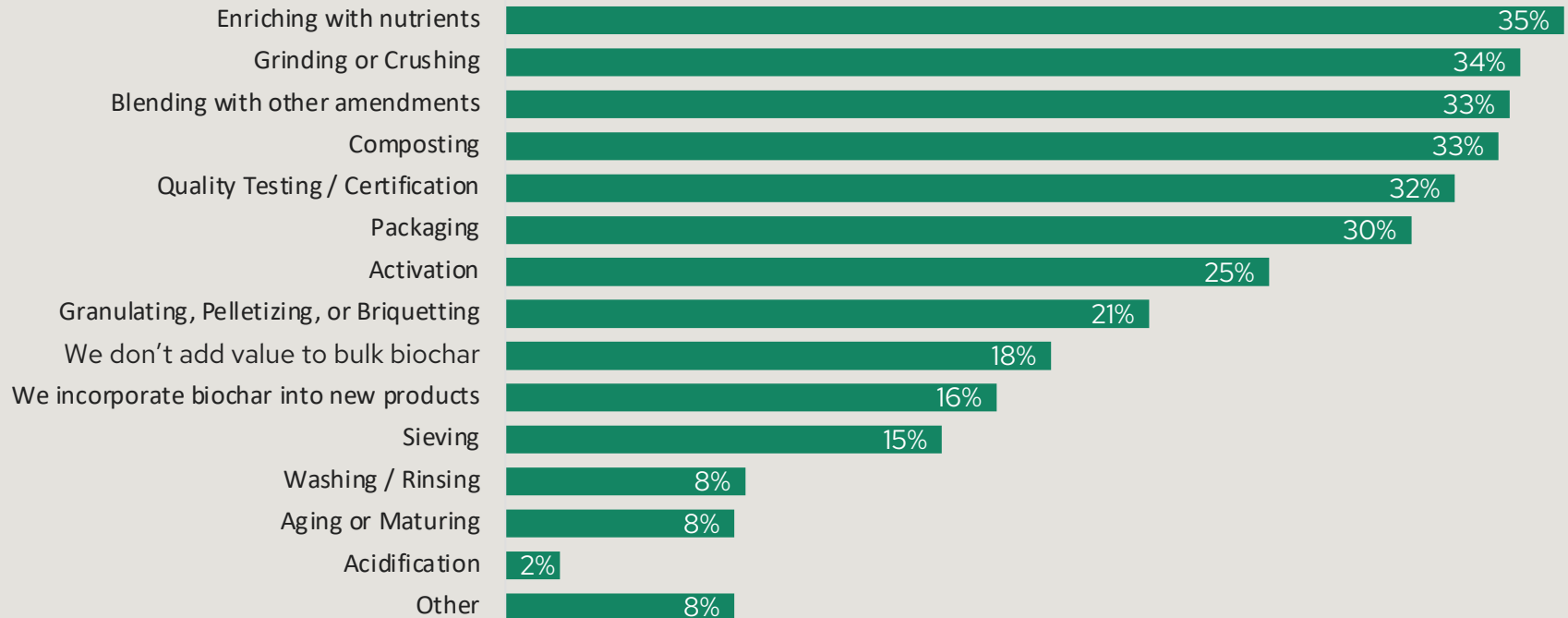
# Producer Focus: High Diversity in Production Types & Sizes

Global Production by Technology Type



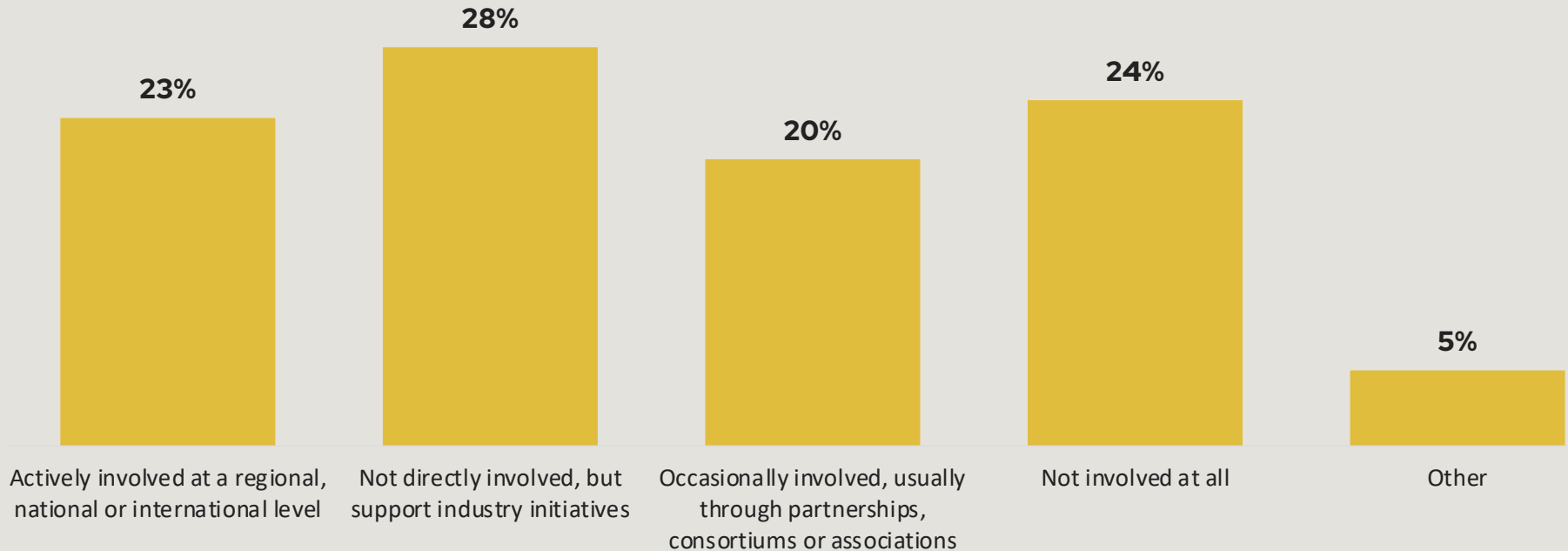
# Producer Focus: Value-added Biochar

## Adding Value to Raw Bulk Biochar

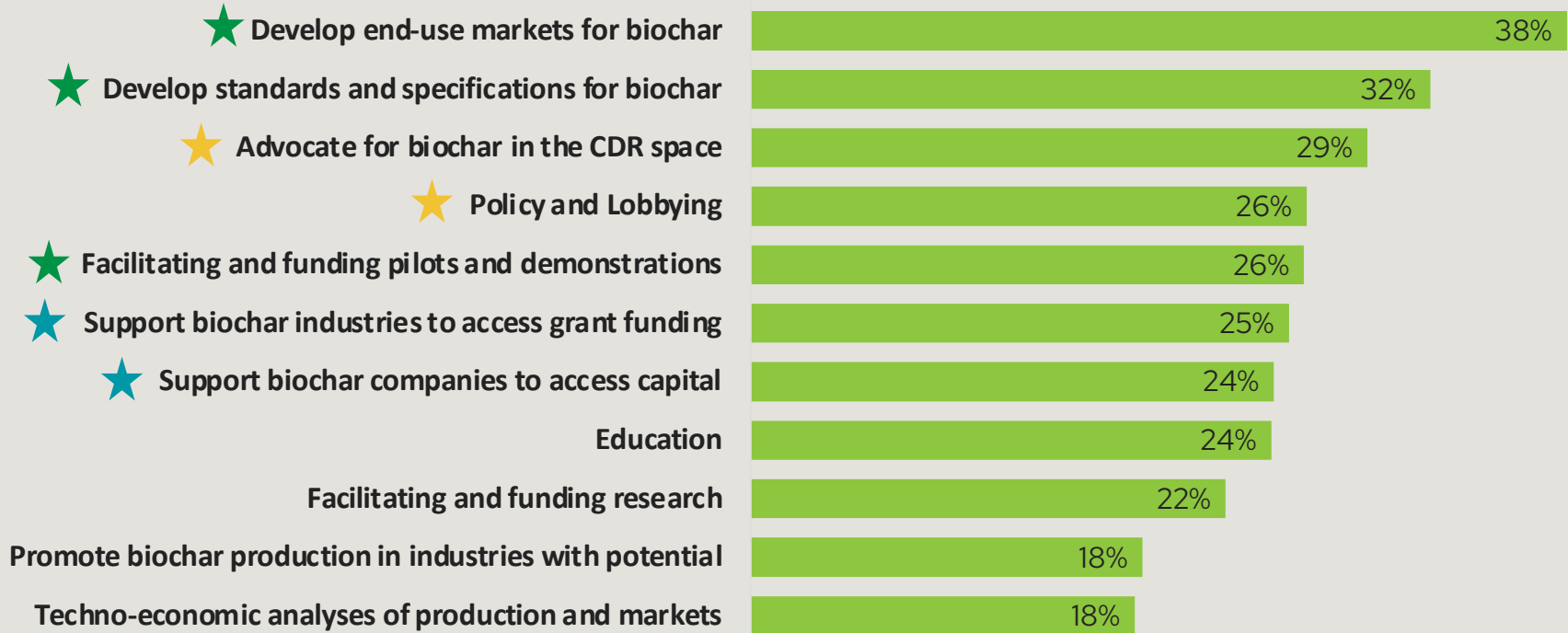


# Biochar Associations: The Industry is Engaging

## Organization's Involvement in Biochar Industry Advocacy and Promotion



## Strategic Focus Areas for Biochar Organizations



# What's Next

## Report Release: March 2024

*Accompanied by*

- Data slide deck with full data analysis
- PR campaign to support report coverage in the media
- Integration with global CDR datasets

## Future Surveys:

- Annual survey in fall
- Topic area surveys to gather key insights

## USBI to Refocus on:

1. **Growing biochar markets**
2. **Developing standards**
3. **Supporting biochar in CDR space**
4. **Facilitating and supporting increased investment and grants**