

# Using Mixed Reality and 3D Printing to Boost Communication & Marketing

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## Why This Matters?

This isn't about technology. It's about communication.

- Reduced revisions
- Fewer mistakes
- Better alignment before concrete
- Increased transparency and confidence
- Stronger customer relationships
- Better employee understanding of the "why"



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## Customer First Mindset

Customers are how we stay in business

Technology only matters if it:

- Helps relationships
- Improves understanding
- Leaves a lasting impact

Leading with tools ≠ leading with value

If mixed reality and 3D printing don't leave an impact, they're just expensive toys.



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## The Most Important Word in Advertising



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## Their Name

- People notice their name instantly
- Personalization creates ownership
- Ownership creates connection
- Connection creates memory



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## Why I found Traditional Promo Items Fail

Generic

Forgettable

Thrown in a drawer

Branded for *us*, not  
*them*

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## Focus Area #1: 3D Printing

### 3D Printing as Personal Advertising

- Not a giveaway
- A physical connection
- A conversation starter
- A desk-level reminder



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## What I 3D Print

- Small-scale precast structures (manholes, vaults, etc.)
- Customer name:
  - Large
  - Front and center
- My company name:
  - Small
  - Out of the way
- **The model advertises *them*, not me**

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## When I Give It to Them

- At the beginning of the meeting
- After a brief personal interaction
- Immediate reaction:
  - “Wow”
  - “You put my name on this?”

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## Why It Works

- People don't want to throw away their own name
- It stays on their desk
- Gets shown to coworkers
- Becomes a talking point



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## Practical Business Value

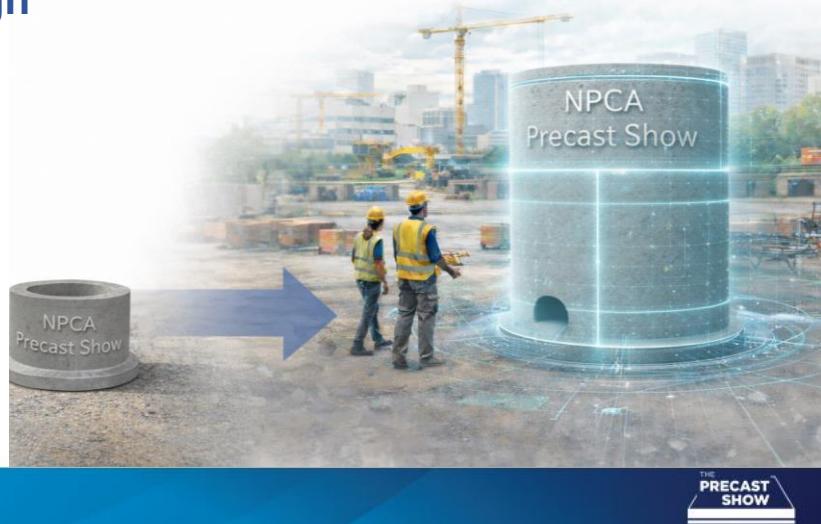
- Helps me break through as a small company
- Creates a reason to stay in the room
- Opens access to the *right* people
- I consider it a strategic foothold



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## Why 3D Printing Alone Isn't Enough

- Physical scale is still abstract
- Some concepts need:
  - Space
  - Context
  - Movement
- That's where Mixed Reality comes in

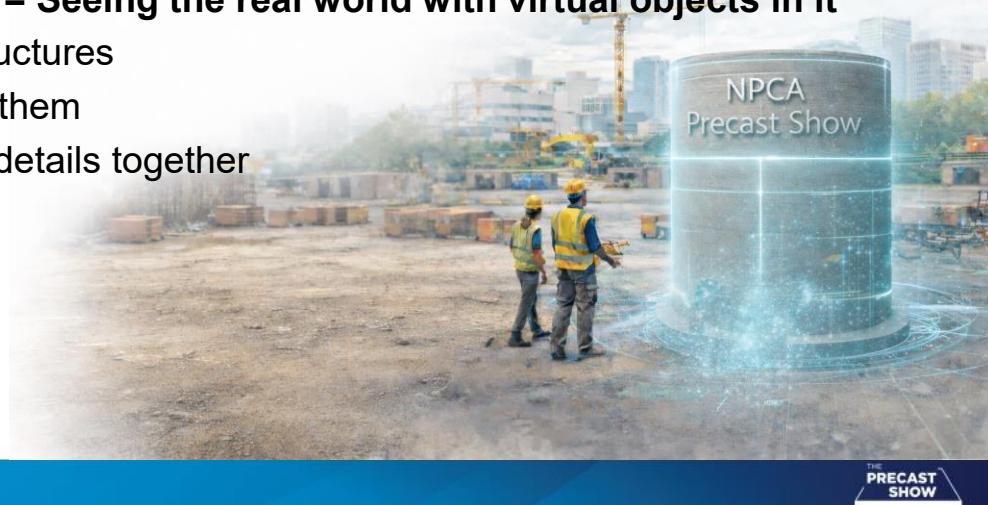


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## Focus Area #2: Mixed Reality

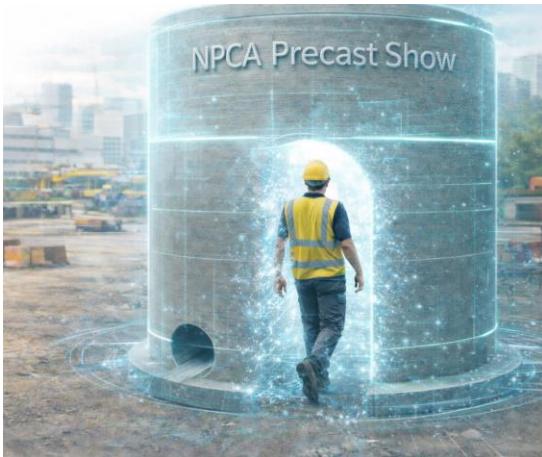
**Mixed Reality = Seeing the real world with virtual objects in it**

- Full-scale structures
- Walk around them
- Talk through details together



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## First MR “Wow” Moment



- Show *their* project
- If early sales:
  - One detailed small structure
  - One large detailed structure
- Always relevant to them



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## Why Full Scale Changes Everything

- Drawings require interpretation
- MR shows:
  - True size
  - Proportions
  - Relationships
- Creates a lasting impression



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## Customer Communication Benefits

- Clearer understanding
- Better questions
- Fewer assumptions
- Easier conversations about changes
- More confidence on both sides



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## Internal Use: Employees & Leads

### Seeing the big picture matters

- Many employees never see a structure installed
- MR shows:
  - What they're building
  - Why it matters
- Leads ask better questions
- Alignment improves before production

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## Time, Money, and Risk (Realistic)

- Better product understanding before pour
- More insightful internal discussions
- Reduced miscommunication
- Indirect savings through clarity



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## Looking Ahead: The Practical Future



BETTER PROJECT  
DOCUMENTATION



REPEATABILITY



REUSABLE DIGITAL  
MODELS



ABILITY TO REVISIT  
PAST DESIGNS



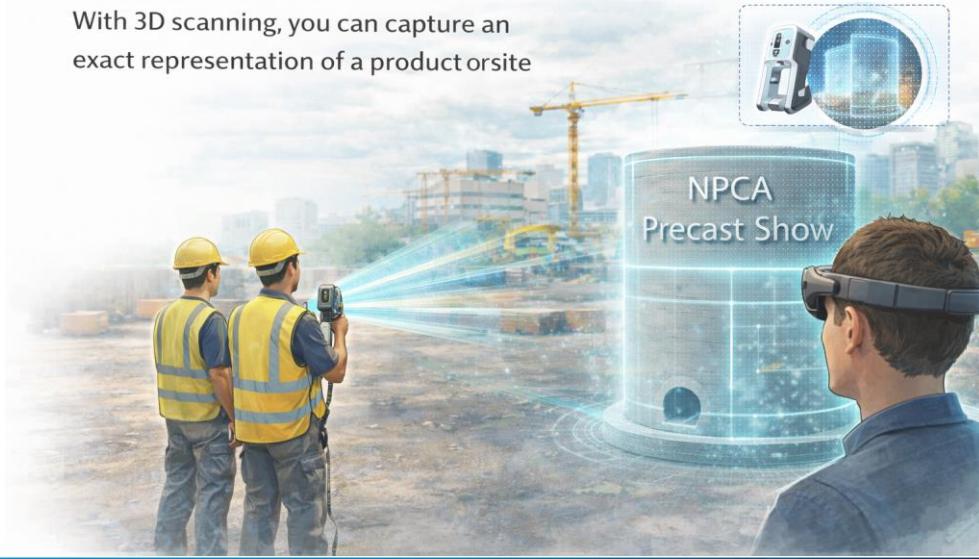
FOUNDATION FOR  
SCANNING AND TEST-  
FIT WORKFLOWS



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## Using Mixed Reality with 3D Scanning

With 3D scanning, you can capture an exact representation of a product onsite



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## Closing Thought

### Innovation as service

- Technology builds trust when used correctly
- The goal isn't "wow"
- The goal is confidence, clarity, and connection
- *If you want customers to remember you, start by showing them you remember them.*

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## What I use to accomplish this

- Sketchup
- 3-D Printer
- Meta 3 Headset
- Mixed Reality Software



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## 3-D Software



**Trimble<sup>®</sup>**  
**SketchUp**



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## 3-D Printer

- Creality
- Bambu



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## Meta 3 Headset



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## Arkio Mixed Reality Software

- <https://www.youtube.com/watch?v=CRoG8nqsg9Y>



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## Questions and Live Demo



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## References

- SketchUp. (n.d.). *3D modeling and design software*. SketchUp.
- Creality. (n.d.). *Additive manufacturing hardware and 3D printing solutions*. Creality.
- Meta Platforms, Inc. (n.d.). *Meta Quest 3 mixed reality headset*. Meta Quest 3.
- Arkio. (n.d.). *Mixed reality collaboration and spatial design software*. Arkio.
- Carnegie, D. (1936). *How to Win Friends and Influence People*. How to Win Friends and Influence People.

