

PREPARING FOR THE FUTURE

Technology and the
Insulation Industry

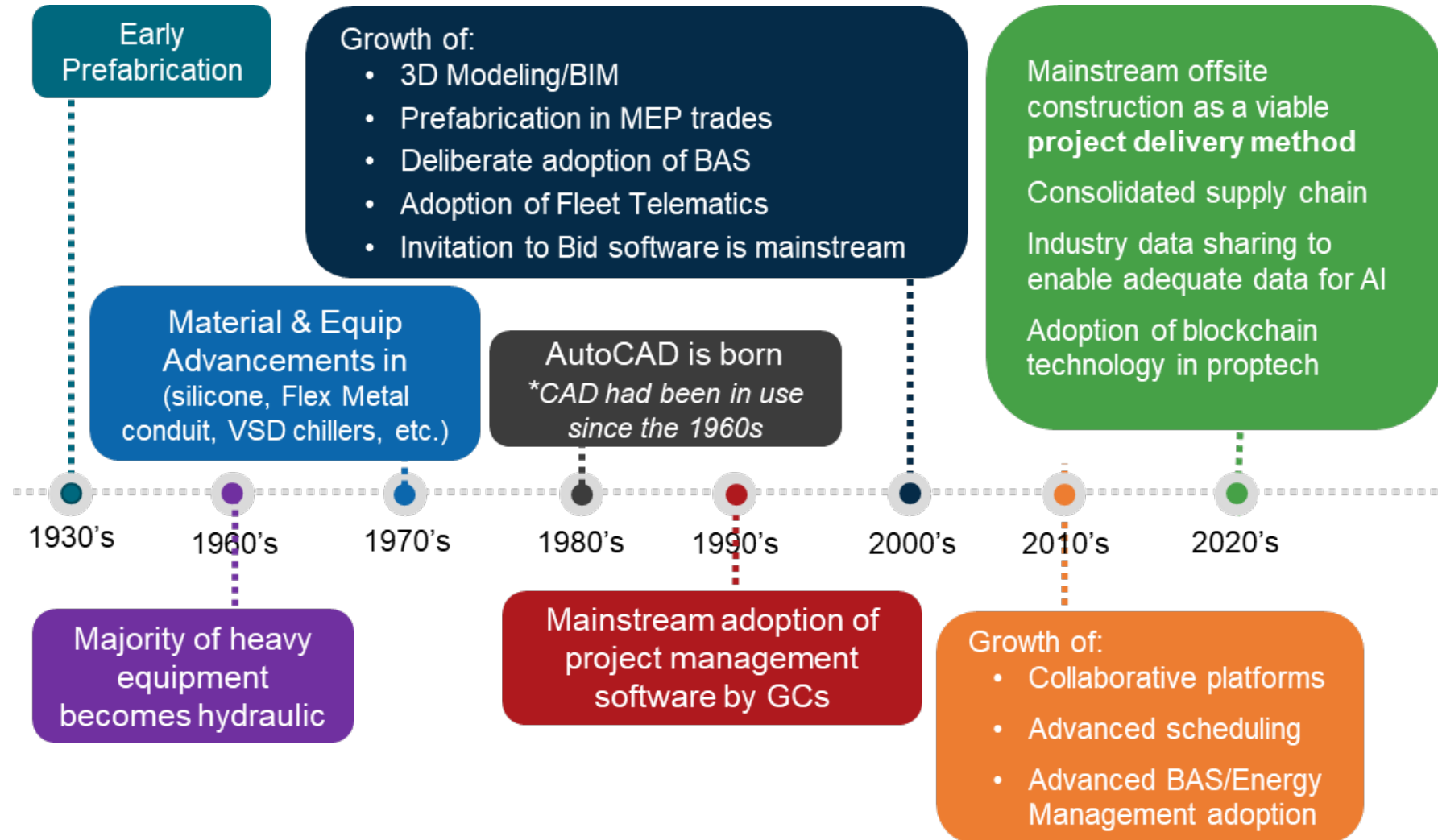
NIA | National Insulation
Association[®]

THE VOICE OF THE INSULATION INDUSTRY™

TODAY'S AGENDA

- How We Got to Today
- Drivers of Change
- Current Technology Trends
- Today's Advanced Methods
- Tech's Influence on the Future of Construction

REFLECT ON OUR PROGRESS



DRIVERS OF CHANGE

Here is a graphic from a presentation in 2017 where I presented on drivers. What do you think? Still applicable?



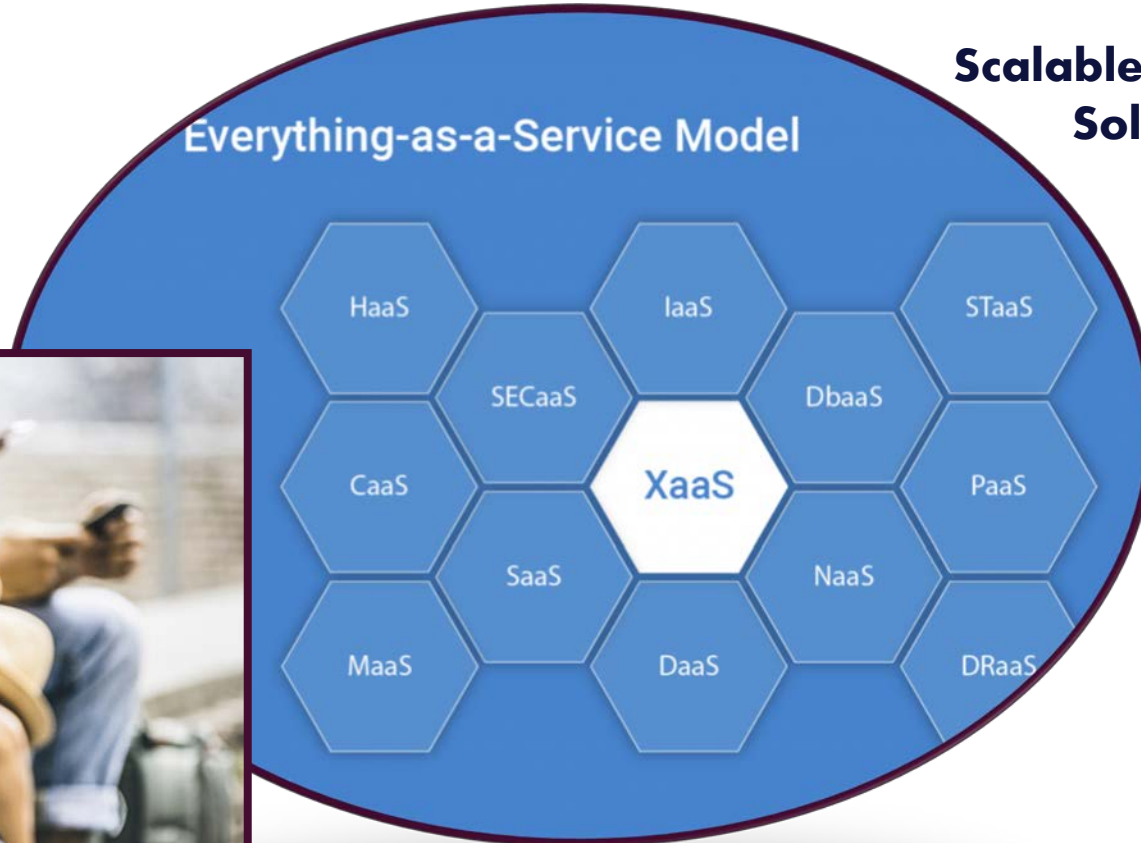
DRIVERS OF CHANGE



Labor Shortage



Digital Natives



Scalable, Accessible Solutions

CURRENT TECHNOLOGY TRENDS

- Where is the investor and contractor interest?
 - Preconstruction (e.g., Togonal.ai)
 - Assistive Robotics (e.g., Dusty Robotics, Jaibot)
 - Data Analysis (e.g., Construction Data Labs, Edge Technologies)
 - Post-Occupancy (e.g., SHADE Technologies)
 - FinTech (payables & cash flow) (e.g., FlashTract)
 - Supply Chain Solutions (limited new entrants)
- Many challenges remain
 - Adoption
 - Data
 - Integrations across Systems
 - IT Investment



\$2.1 Billion has been invested in ConTech so far in 2021 (2x more than same time in 2020)

Was not adopted by everyone:	34%
Was not easy to use:	17%
Did not integrate with other software solutions:	16%
Had to buy something else to make it work:	13%
Did not deliver what was promised:	12%

ADVANCED METHODS

- Go / No Go Analysis (e.g., Construction Data Labs, Edge Technologies)
- Estimating & Takeoff (e.g., Total.AI)
- Preliminary & Advanced Scheduling (e.g., Alice Technologies, IPSUM)
- Onsite Material Tracking
- Assistive Robotics



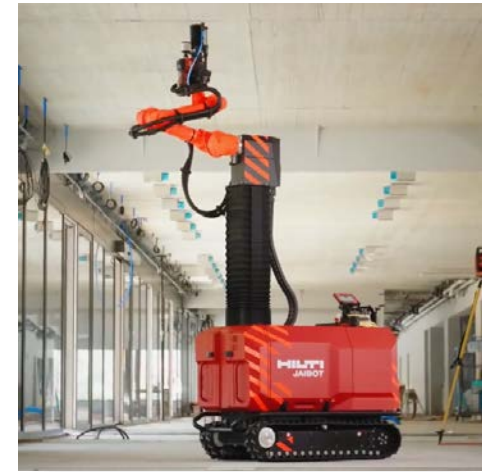
FUTURE OF PLANNING AND PRECONSTRUCTION

Consider the opportunity to virtually simulate each project:

- Price escalation models for future work based on future's market commodity pricing projections and supply chain efficiency
- Financial modeling using data from past performance data
- Predictive index of cash flow volatility based on project parameters and market conditions
- Predictive availability of labor based on workforce turnover statistics scraped from number of open positions on job boards

FUTURE OF PM, SUPPLY CHAIN, AND FIELD EXECUTION

- Bulk material future procurement
- Construction invoice factoring as a new norm
- PM conversion to SCMs
- Project “supply chain control towers”
- Real-time last mile material tracking
- Automated robotics installation
- Onsite fabrication & extrusion



QUESTIONS?

