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Learning Outcomes

Finding Value for Owners from Construction Management Software

- Identify how construction management software adds value to the owner
- Tools to effectively manage large project portfolios for individuals and teams
- Tools for project budgeting
- Learn how to improve efficiency with technology tools

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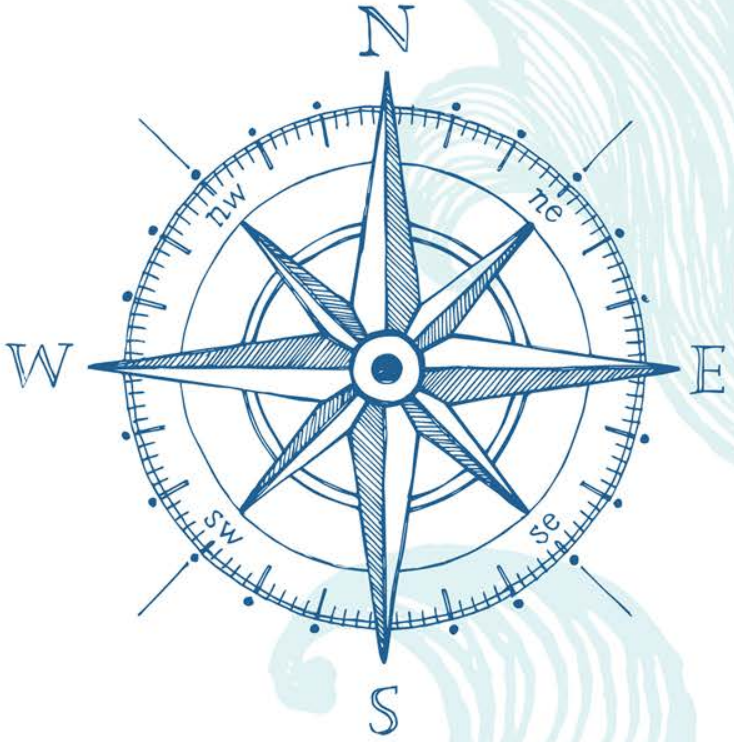

BUILDING COLLABORATIVE COMMUNITIES

NAVIGATING CHALLENGES, CHARTING INNOVATIONS

2018 CSU FACILITIES MANAGEMENT CONFERENCE

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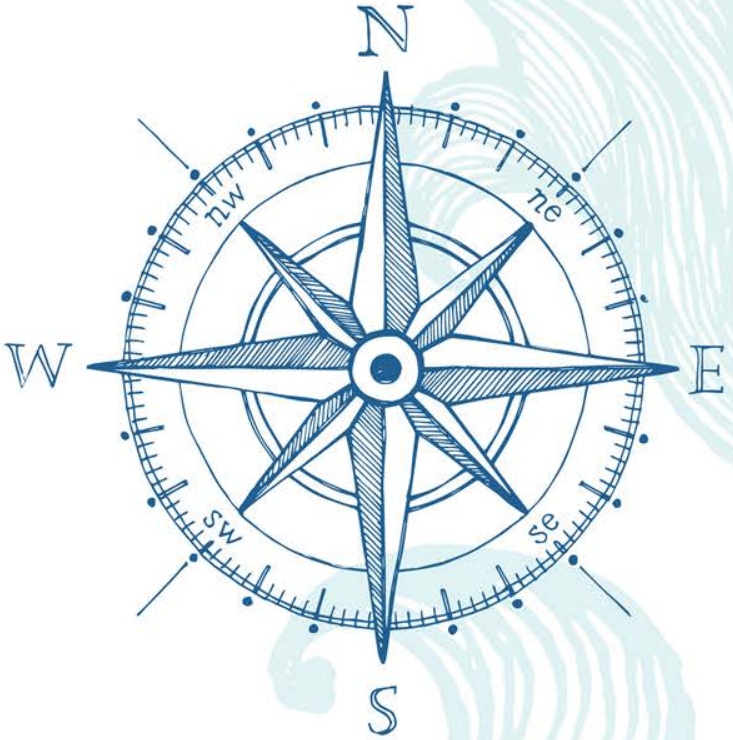

Finding Value for Owners from Construction Management Software

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Introduction

- Presenters
  - Michael Fisher, Director Planning Design & Construction, Humboldt State University
  - Kevin Laut, Construction Manager, CSU Office of the Chancellor
  - Roman Cooper, Project Manager / Inspector of Record, California State University Northridge
- Goal
  - The goal is to have our attendees have a better understanding of how CM software may benefit their institutions by learning from our experience with current software and our efforts in going through multiple RFP processes to evaluate CM software for use by the owner

Introduction

- Format,
  - Section I, Key Aspects of CM Software
  - Section II, Examples of what we are currently using
  - Section III, CSU CM Master Enabling Agreement Program
  - Section IV, Discussion, Question & Answer

- Live Poll, What systems do you currently use, we want to know. We will be asking for participation near the end of this presentation

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Section I

The industry of CM software can be confusing….

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Section I

So, Where to start? …….

- **Key Aspects of Construction Management Software**
  - Web Based vs. Client Based Systems
    - Contemporary industry norms
    - Costs comparison
    - Ease of access
    - Quality of service and program
  - Integrated Software Platforms
    - Financial systems
    - Scheduling
    - Document management
    - Email providers

Section I - Key Aspects of Construction Management Software Continued

- Document Management
  - Local File Structure
  - Integrate local file structure with CM software
  - Have the CM software host all documents

- Plans and Specification Management
  - Not only used for construction but also the design phase
  - Document revision control and distribution control
  - Not all CM software offers this functionality but may have add-in applications
  - Procore and Primavera have good integrated solutions.

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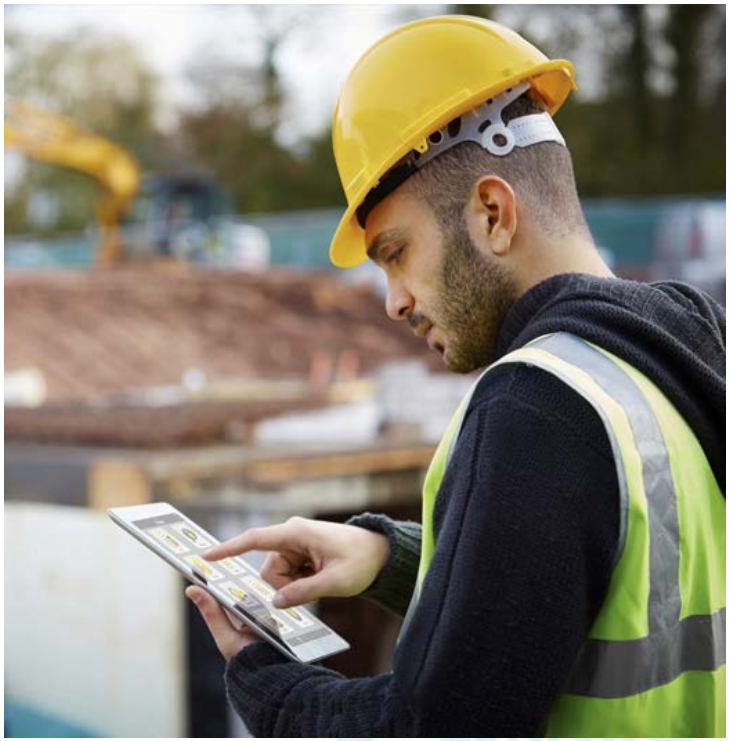
Section I - Key Aspects of Construction Management Software Continued

- Communication In CM software
  - Communication via software modules
  - Value to the owner
    - Transparency
    - Efficiency
- Workflow Management
  - Operationalize your project procedures
  - Three major benefits
    - The right info to the right people
    - Each role is keyed to actions needed
    - Accountability

Section I - Key Aspects of Construction Management Software Continued

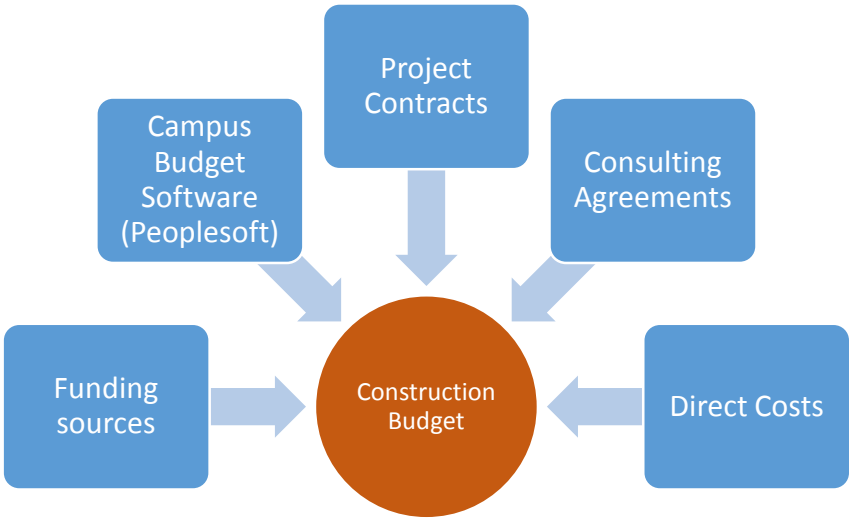
- Operational Tools
  - Daily field logs
  - Observations reports
  - Field instructions
  - Punchlist
  - Inspections
  - Plan Set Access
  - In Field Communications

  - https://login.procore.com/



Section I - Key Aspects of Construction Management Software Continued

- Budget Management
  - Common “out of the box” tools
  - Adapting budget tools to work with CSU standards
  - ICSUAM and fund allocations.
  - Budget use and reconciliation
  - Single point budgeting



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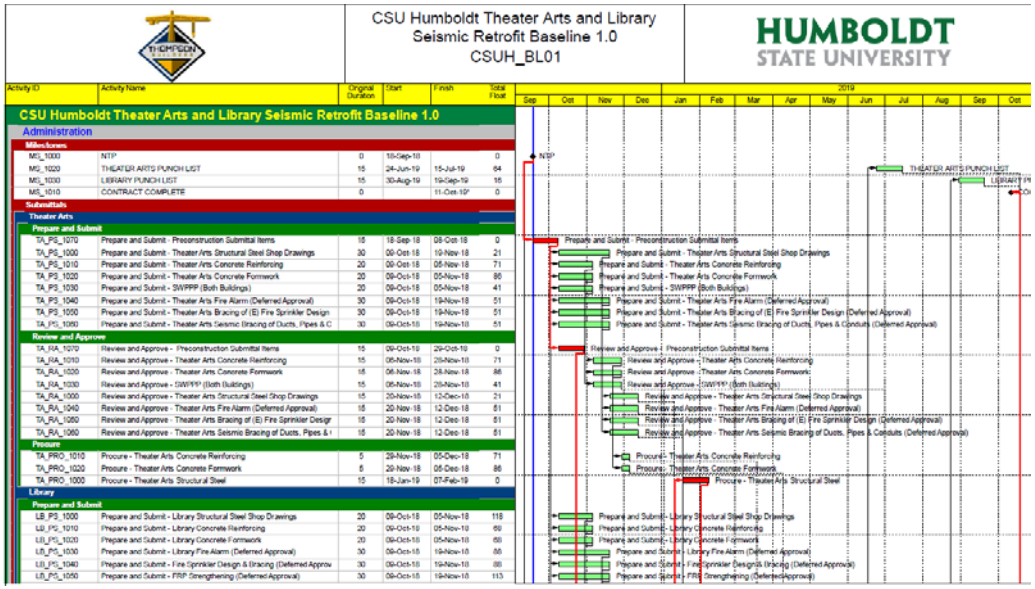
Section I - Key Aspects of Construction Management Software Continued

- Schedule Tools
  - Version Control
  - Schedule change management
  - Change events
  - Schedule Transparency
  - Integration with other software tools.
  - Cash flows



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Section II

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PROLOG

Case Study

- Evolution of Construction Management at Northridge
  - Up to 1994 Hand Logs
  - 1994-1997 (Northridge Earthquake Recovery) - Excel logs
    - 35 Project Managers
    - Pool of over 10 Project Engineers
    - No insight into project performance – lots of problems with information visibility
  - 1997-2005 Primavera Expedition
  - 2005-2014 Prolog Manager
    - 2014 CSUN Hosts SDSU Prolog Database
  - 2014-Today Prolog Converge (web based)
    - 4 instances of Prolog Manager (Admin users)

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Section II

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PROLOG

Case Study

- Primarily Web Based Application
  - Prolog Converge
  - Prolog Manager (Admin Users)
- Installed on University Servers
  - 3 year maintenance agreement
    - Licenses
      - 20 Converge Licenses, 5 Manager, 2 Mobile
    - Cost: $15k/year – Covers 2 Campus' (split cost)
- Start-Up Process
- Customization
- Training

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Section II

CSUN CALIFORNIA STATE UNIVERSITY NORTHRIDGE

PROLOG

Case Study

- How Do We Use It?
  - Total Team Collaboration
  - Notifications
  - Meeting Minutes
  - Electronic Work flow from GC/Sub to Campus to A/E and Back
    - RFIs
    - Submittals
    - Preemptive and late notifications
  - Field Instructions, ESA, CRB
  - Change Orders
  - IOR Daily Reports
  - Inspection Request / Record of Inspections
  - Issues
- Construction Management Process Only

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Section II

CSUN CALIFORNIA STATE UNIVERSITY NORTHRIDGE

PROLOG

Case Study

- What We Like:
  - Nomenclature Tailored to CSU
    - Field Names
    - Drop Down Menu Data
  - All Un-Used Fields Turned Off
  - Lessoned Learned Process
  - Every PM Does it the Same
  - Notifications
    - Preemptive
    - Late
  - Easy Training

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Section II

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PROLOG

Case Study

- Administration
  - Simplified User's Experience
  - Customizable Permissions
  - Custom Reports
  - Everything Searchable
  - Assigning action keeps records moving
  - Interfaces with Prolog Mobile
  - Simple. effective and efficient

Section II

Case Study

- Miscellaneous
  - Cost – FIs roll into COs
  - Contracts
    - Easy Reporting / View of Committed and Projected Costs by Contract
  - Flexible
  - Augmentation with programs like PlanGrid for Punch List.
  - Data Stored on Campus Servers

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Section II

Case Study

HUMBOLDT STATE UNIVERSITY

PROCORE

- Where we were……
  - Microsoft Office tools, word, excel, project, etc.
  - Adobe Acrobat PDF, fillable forms, etc.
    - Most of our standard forms were in the aforementioned format.
    - Use of electronic signature and file naming for version control
    - Everything was logged into excel logs, Submittals, RFI, etc.
    - Everything was stored using a standard file structure.
    - Work flow was governed by SOP, and other reference documents
    - This worked pretty well, but so much to improve.

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Section II

Case Study

HUMBOLDT STATE UNIVERSITY

PROCORE

- Where we were are now…..
  - Procore CM Software procured in May 2018
  - Procore terms of use,
    - annual term,
    - fee based on volume,
    - Unlimited users, non-CSU too.
    - We own all the data.
  - Onboarding and training through July 2018
    - Building project templates, roles and permissions
    - Implementing workflow in templates
    - Training PD&C Staff,

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Section II

Case Study

HUMBOLDT STATE UNIVERSITY

PROCORE

- Where we were are now…
  - Example Project: Library and Theater Arts Seismic Retrofit
    - $34 million budget, $19 million prime GC contract
    - Many ancillary project to create temporary space on campus,
    - Complicated project with logistics of work
  - Most Value added features
    - Ability to manage many aspects of a single project outside of any one contract.
    - Plans and Specifications
    - Budget Tool and contract management
    - Focusing Staff with Action items and “To Do” lists
    - Communication between all project roles.

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Section II

Case Study

HUMBOLDT STATE UNIVERSITY

PROCORE

- Lessons Learned
  - Take training seriously
  - Allocate more time and resources than you think for set up
  - Implementing workflow in templates takes a lot of effort
  - Ensure you are developing your budget methodology with your campus budget and/or accounting office.
  - There is not a single system that will do everything you want.
  - Ensure your existing file structure is working.
  - There is a need to fill process gaps,
    - CSU standard forms
    - Getting interaction from non-Procore users
    - Limiting work outside of Procore

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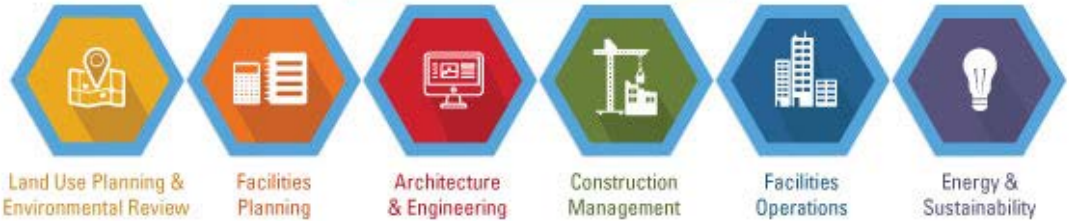
CPDC



Section IV

CPDC Capital Project Management Software Solution

- Proposers
- Short List
- Current Status
- Award Timeline

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CPDC

Land Use Planning & Environmental Review | Facilities Planning | Architecture & Engineering | Construction Management | Facilities Operations | Energy & Sustainability

Proposers

CDPC Database

1) eBuilder
2) Gaea (Oracle)
3) Planon
4) MetaBIM
5) PMWeb

Campus CM

1) InEIght
2) Gaea (Oracle)
3) Planon
4) MetaBIM
5) PMWeb
6) ONX

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CPDC

Land Use Planning & Environmental Review | Facilities Planning | Architecture & Engineering | Construction Management | Facilities Operations | Energy & Sustainability

Short List

CDPC Database + Campus CM

e-Builder® A TRIMBLE COMPANY

Gaea™

PMWeb® Plan | Build | Operate™

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CPDC
Land Use Planning & Environmental Review | Facilities Planning | Architecture & Engineering | Construction Management | Facilities Operations | Energy & Sustainability

Current Status

Final Interviews and Demonstrations

11/06/18 – 11/09/18

1) Program Management Structure
2) Budgeting (2-7)
3) Five Year Plan
4) Integrations
5) Cash Flows

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CPDC

Land Use Planning & Environmental Review | Facilities Planning | Architecture & Engineering | Construction Management | Facilities Operations | Energy & Sustainability

Award Timeline

Final Selection & Intent to Award - End of November

Contract Execution - End of Year

Phase 1 Implementation - June 2019

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Section IV

- Live Poll, what are people using out there?

- Discussion, Q+A

What Software Solution does your campus currently use?

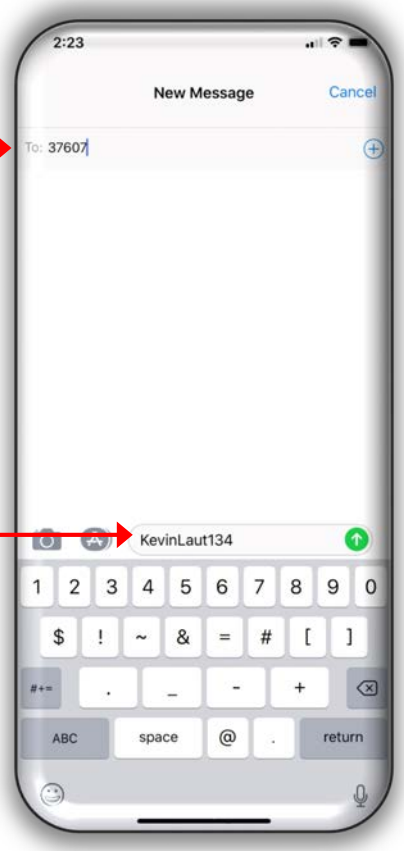
When poll is active, respond at **PollEv.com/kevinlaut134**

Text **KEVINLAUT134** to **37607** once to join

- Procore
- Prolog
- Metabim
- Planon
- Smartsheets
- Compass
- Other
- None
- EXCEL!!!

to **37607**

Text **KEVINLAUT134**



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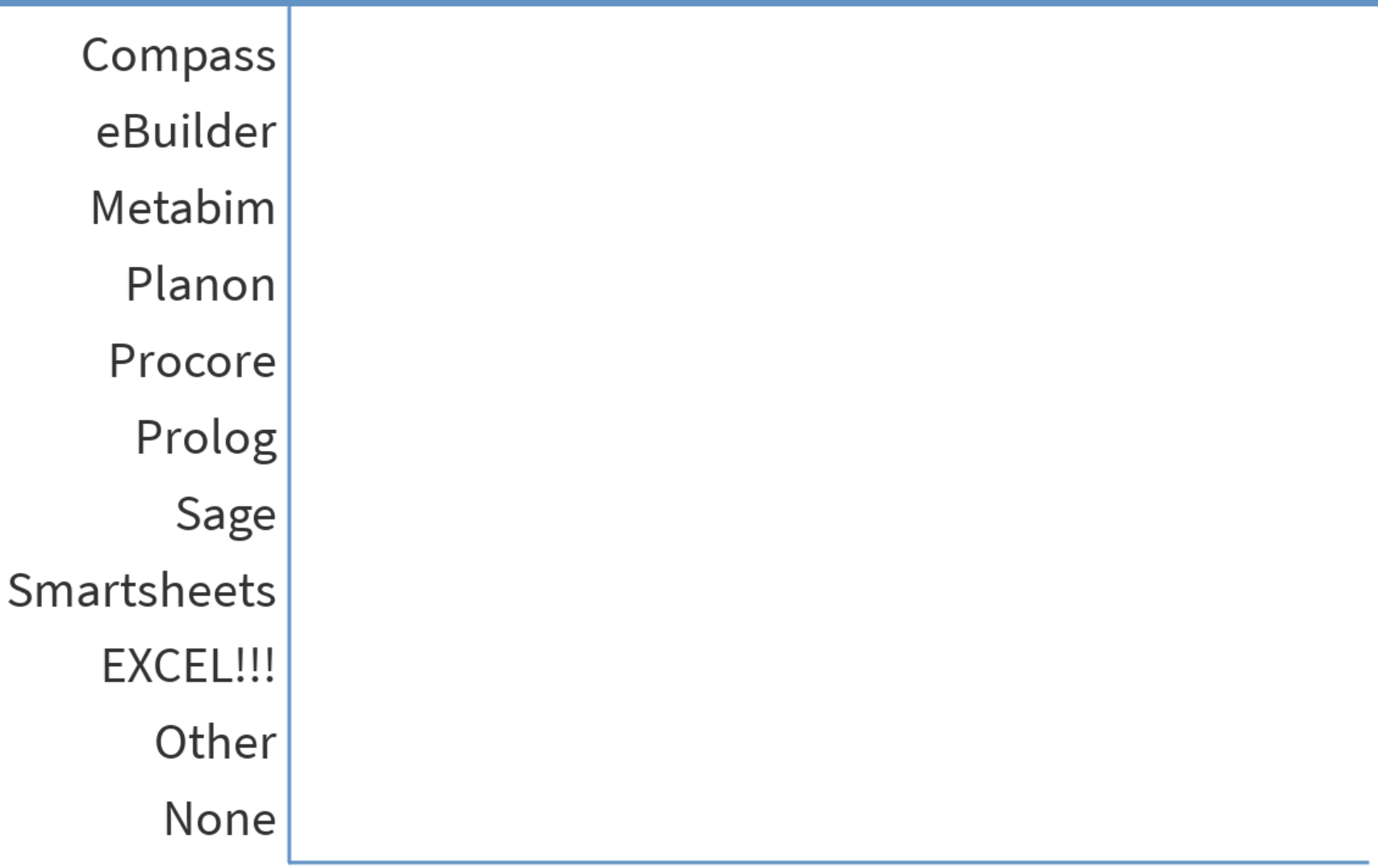

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Start the presentation to see live content. Still no live content? Install the app or get help at **PollEv.com/app**

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Please fill out session evaluation using Guidebook.