

The AEC Product Owner: A New Role Bred Out of the Necessity for Change

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VDC Specialist | @Chances_Dad

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Business Process Specialist

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Senior Software Engineer

Learning Objectives

#1

Discover what a product owner is and the importance of the role



#2

Understand why and how this role is applicable in the AEC industry today, and how it will help shape AEC firms of the future



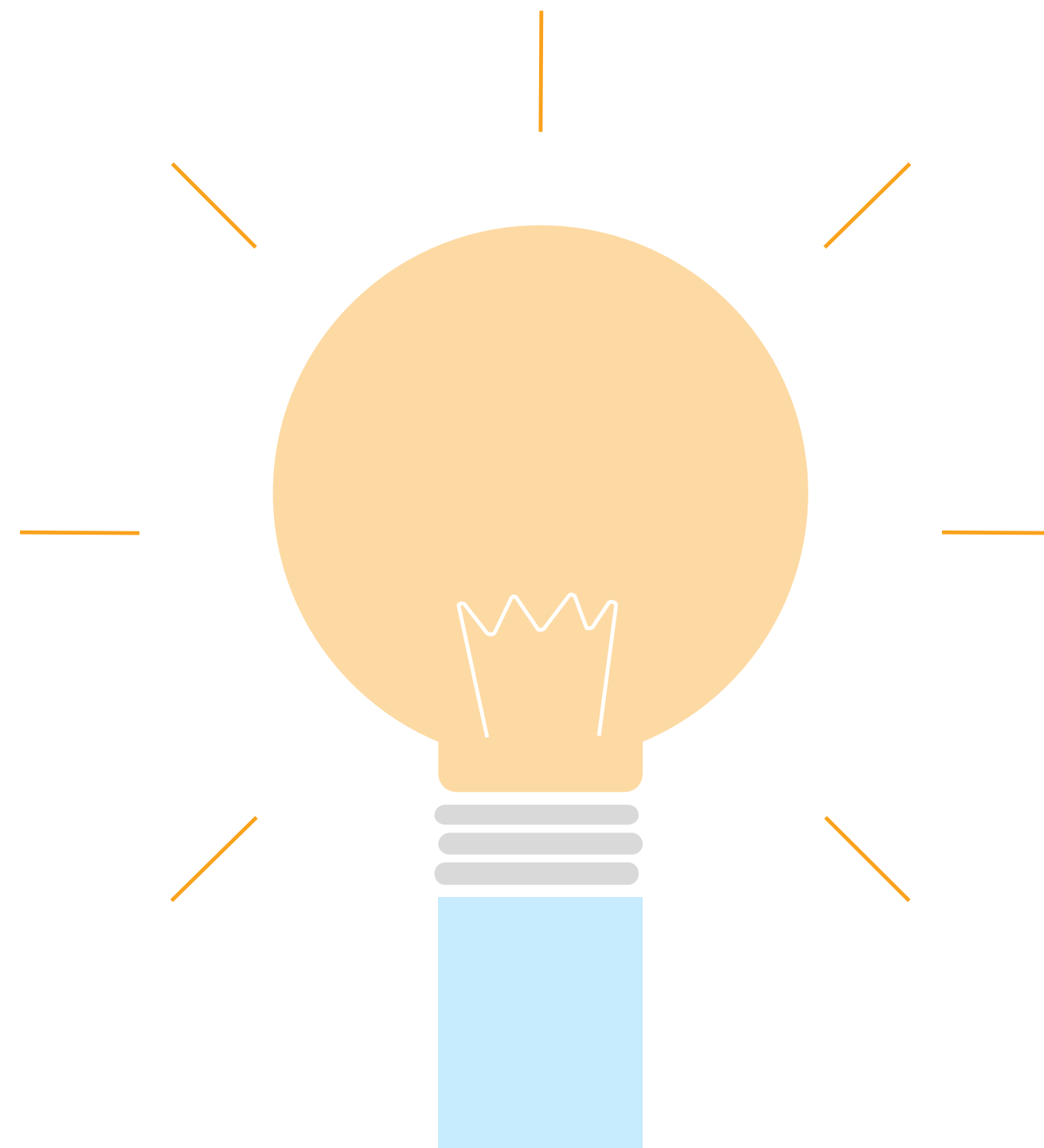
#3

Discover when to adopt and implement a product owner at your firm and the benefits of doing so

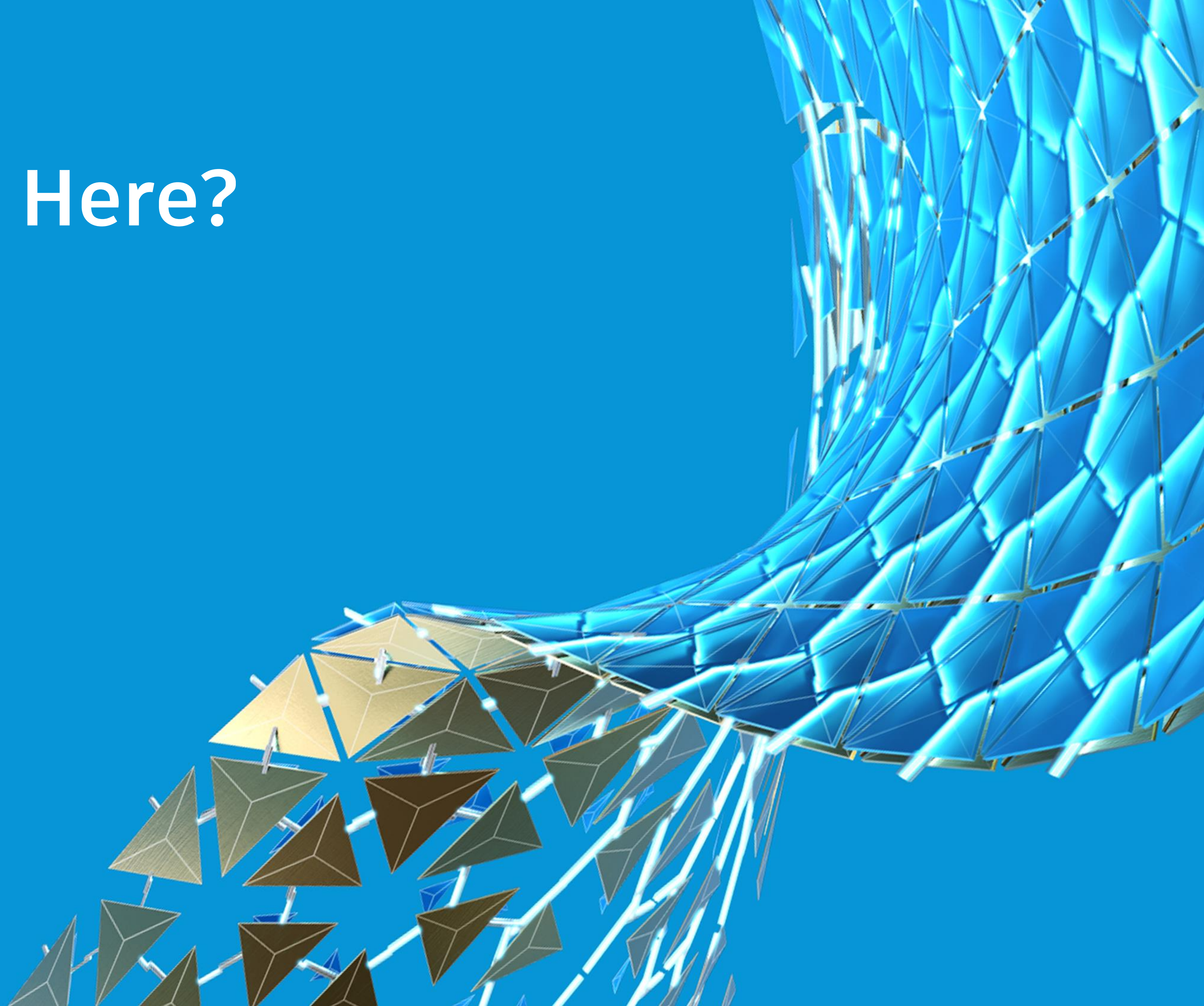


#4

Hear real-world examples of how product owners have driven the success of development projects



Why Are We Here?



The Value of A Product Owner Presented From Three Different Perspectives



The Technologist

What an AEC Product Owner means to their role

Why are you speaking on this topic?



The Software
Engineer

Why the role will bring value to the AEC Industry?

How do AEC firms know when to implement this position?



The Business
Analyst

Examples that display the value of a product owner role



About Us

SSOE Group is a global project delivery firm for architecture, engineering, and construction management.

Rankings: Engineering News-Record (ENR)

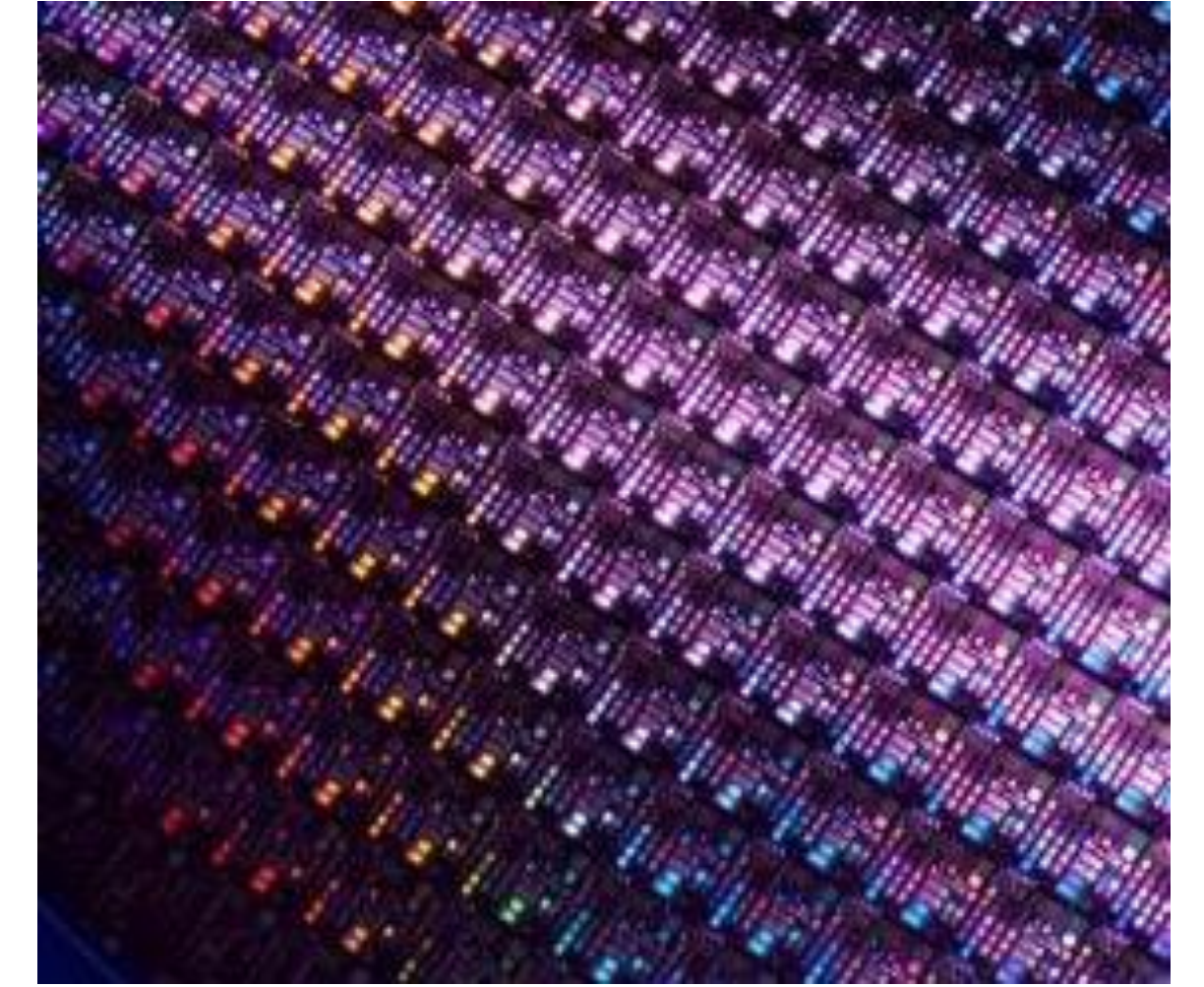
TOP 10

Automotive plant design firm for the past decade.



TOP 5

Semiconductor design firm for the past 7 years.



TOP 10

Food & Beverage design firm for the past decade.



TOP 5

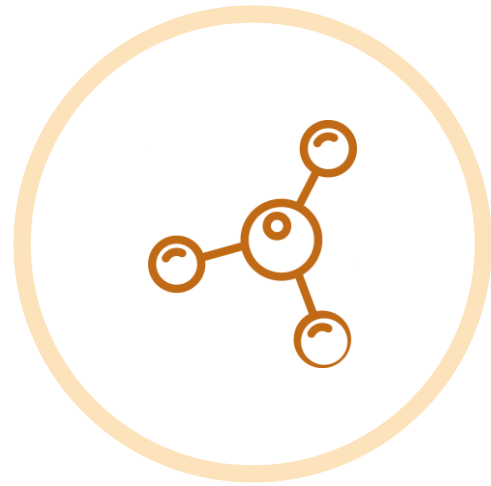
Manufacturing design firm for the past 4 years.



Markets



Automotive



Chemical



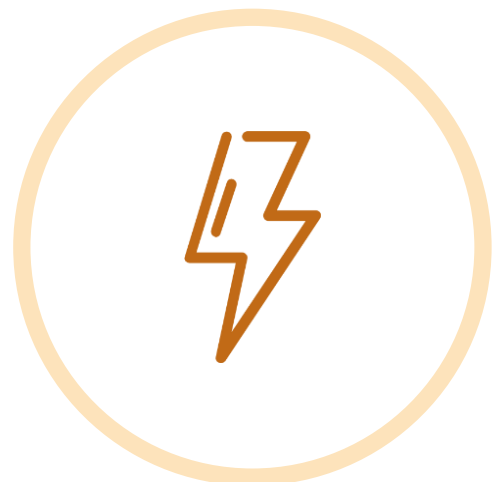
Commercial



Consumer Products



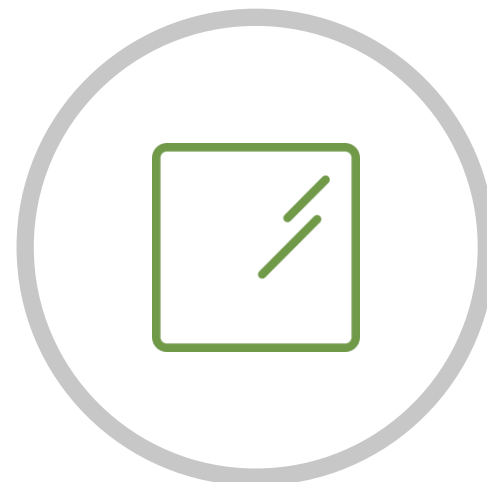
Education



Energy Power



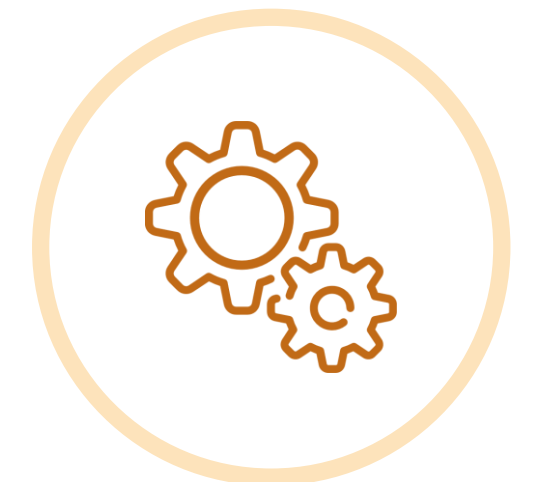
Food



Glass



Healthcare



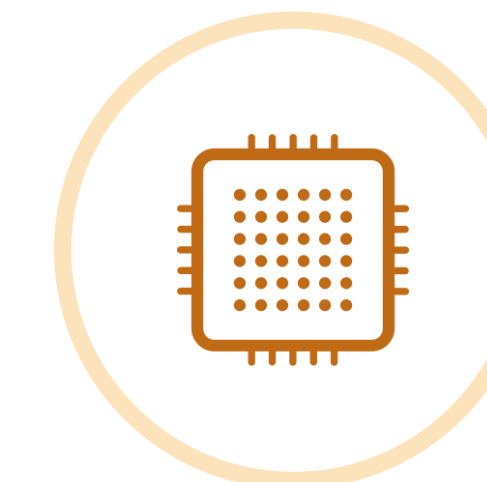
Manufacturing
/ High Tech



Pharmaceutical



Retail

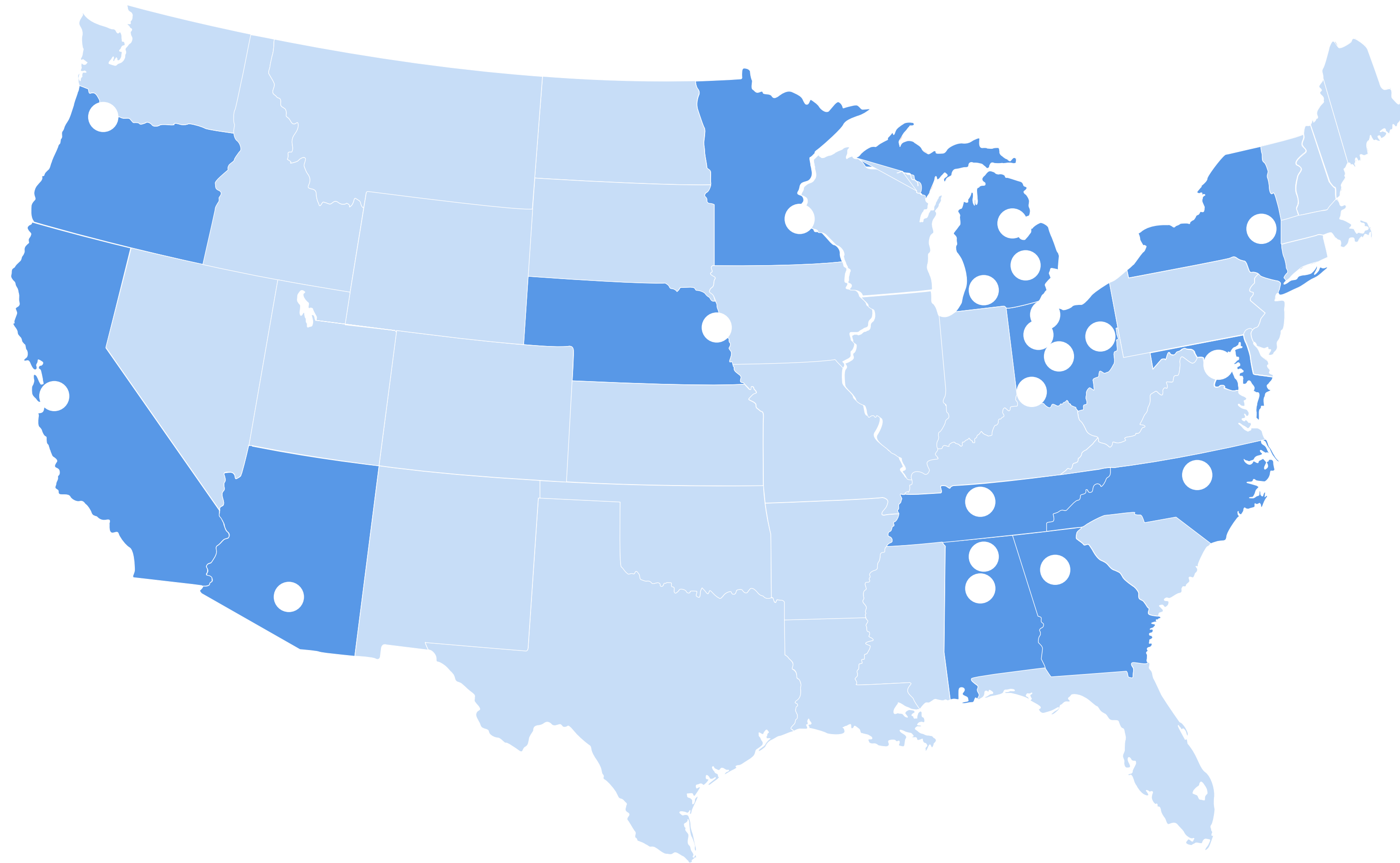


Semiconductor



Workforce Development

Office Locations in the U.S.



20
U.S.
Locations

Albany, NY
Alliance, OH
Atlanta, GA
Birmingham, AL
Chandler, AZ
Cincinnati, OH
Columbus, OH
Huntsville, AL
Kalamazoo, MI
Lima, OH
Midland, MI

Nashville, TN
Omaha, NE
Portland, OR
Raleigh-Durham, NC
St. Paul, MN
Santa Clara, CA
Toledo, OH
Troy, MI
Washington, DC

Global Locations



China



India



Mexico



United States

AEC Technology Evolutions & Innovations That Birthed New Roles

INTRODUCTION OF 2D CAD

FROM THE DRAFTING BOARD TO THE PC
Revised the role of the Drafter by requiring new skills to perform the duties, while streamlining the design process.

INTRODUCTION OF BIM

ONE MORE DIMENSION, MUCH MORE EFFICIENT
Completely re-imagined the design process and what is delivered to the client. Once again, the Drafter role was revised and the BIM Manager was introduced.

THE CLOUD & AUTOMATION ERA

BIG BROTHER, BIG DATA
Cloud platforms run rampant and software engineers enter the industry voluntarily, recognizing the many process improvements that by a pinch of Python and a dash of SQL.

TO DIGITAL TWIN & BEYOND

WHAT THE FUTURE HOLDS IS YET TO BE TOLD
With the introduction of the digital twin concept, AR & VR, who knows what roles will be required to execute a project on time and on budget in the next 5 years.

The revolution will not be televised - but you may be able to listen to it on a podcast

What is a Product Owner?

In the software industry, custom software solutions are products. Product Owners are accountable for the product. They understand it, market it, and decide on behalf of the stakeholders on how it's developed.

Coordinate

Break down silos and barriers between stakeholders and developers

Train

Creates instructional documentation and provides training support

Strategize

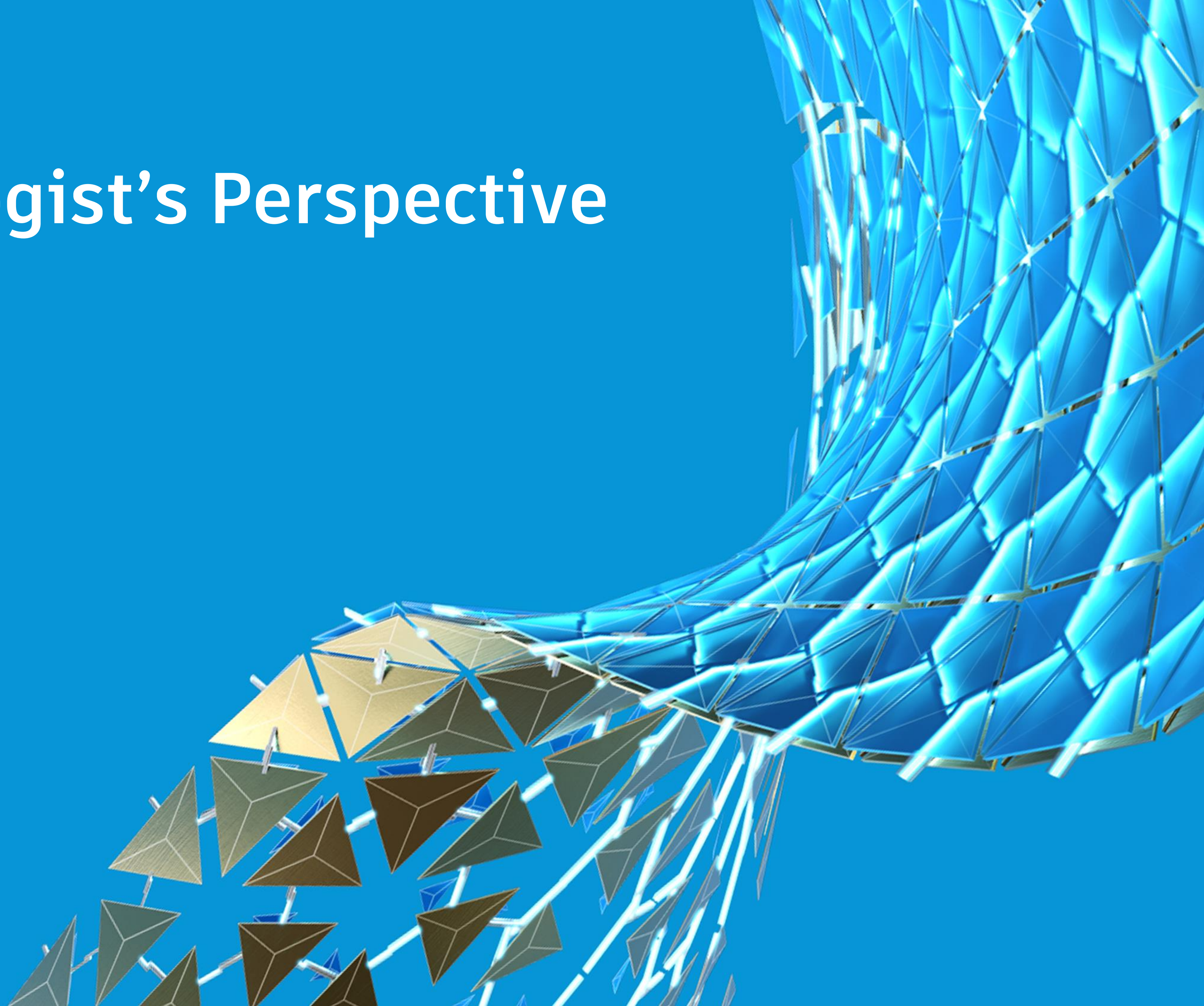
Identify product goals and outcomes

Communicate

Owens and disseminates the vision and strategy



The Technologist's Perspective





About the speaker

Justin Lipsey

10+ years as plumbing designer

2 years in VDC department

BIM 360 SME – Affectionately called BIM 3Lipsey

No fancy acronyms

FUN FACT:

I learned how to spell my middle name in 2013 when I signed my marriage license.

Start With Why

- VDC department rotation introduced me to design and construction technology
- Pinky & The Brain sessions introduced me to the role of Business Analyst
- SPAR 3D/AEC Next & AU 2019 introduced me to a world of possibilities



Servicing Clients

There is a competitive edge to be gained by offering custom software solutions for a handful of strategically selected clients



New Type of Product

The new product in the form of custom software solutions



Keeping Up

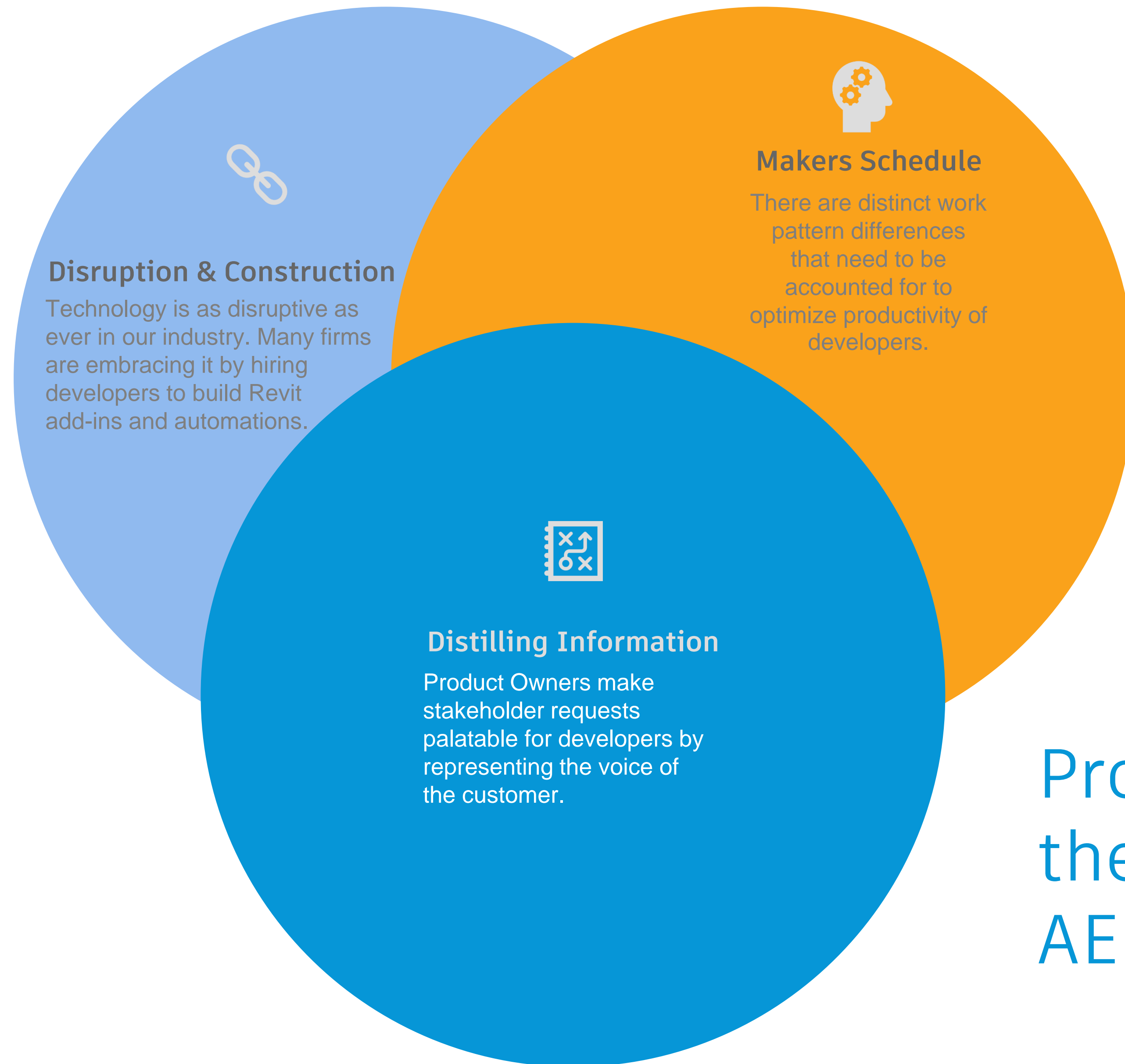
There is no shortage of third-party software available, but most do not provide complete solutions



Culture

Assist in the establishment of development processes that support continuous improvement, efficiency, and dev-ops culture

Product Owner: A Value Add to the AEC Industry



Product Owner: An Asset to the Technology-Minded AEC Firm

When to Implement the Product Owner Role



Real World Examples of Value

- A custom web application **WITHOUT** a Product Owner
 - Reality Capture Automation
 - Growing need for laser scanning on our projects
 - Scanner check-out and accounting automation idea conceived
 - SME's unable to dedicate time as Product Owner's
 - Development delayed
 - Lead software engineer took ownership

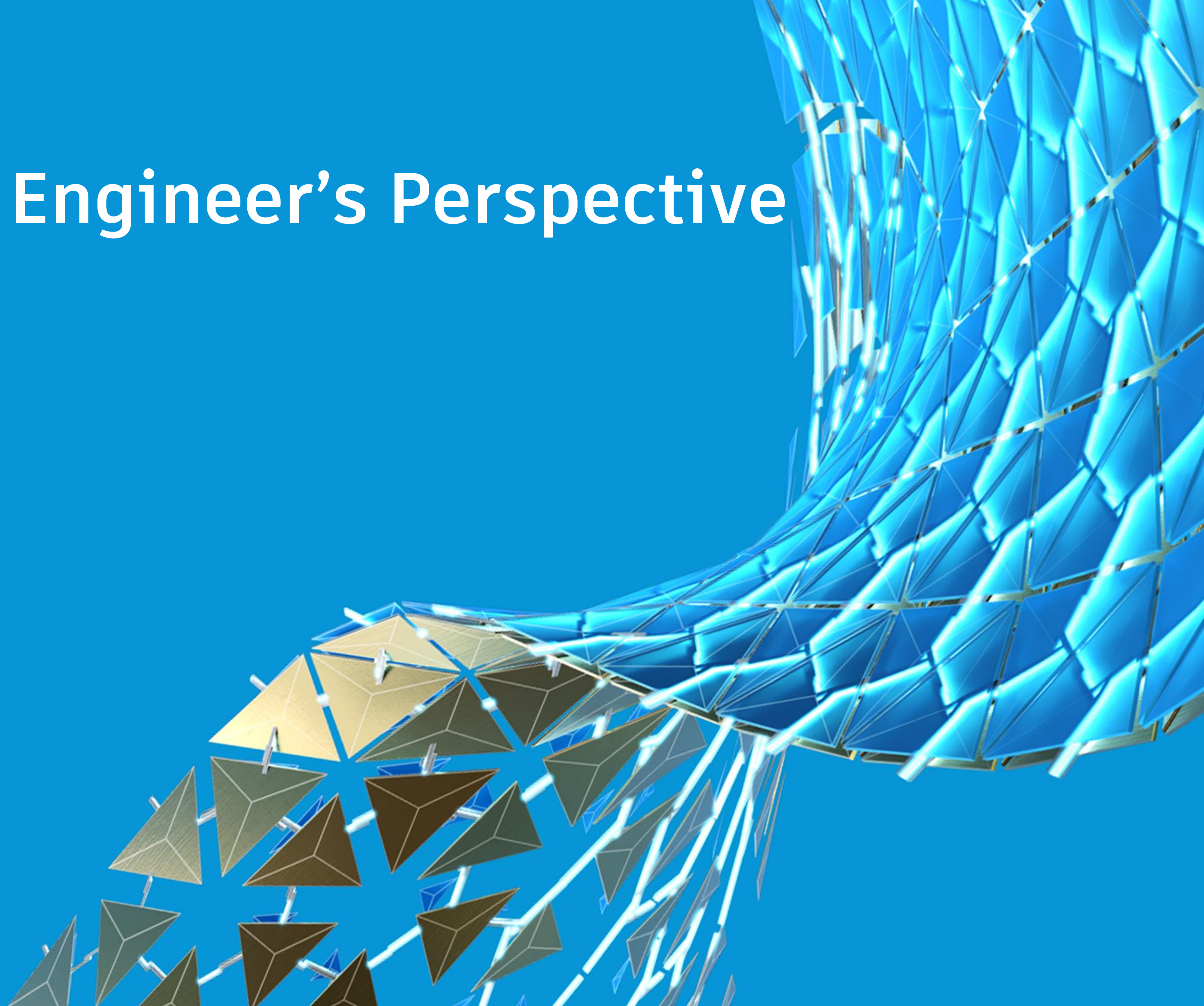


Real World Examples of Value

- A third-party platform **WITH** a Product Owner
 - BIM 360
 - As a BIM 360 subject matter expert, I essentially act as the Product Owner
 - Power BI Dashboards
 - Project setup automation
 - Flex your Product Owner muscles in your current position
- A corporate initiative **WITH** a Product Owner
 - Digital Transformation
 - Committing to BIM 360 for the long-haul
 - Removal of on premise solutions
 - Data outputs for better visualization
 - Forge API's
 - New ERP Implementation and Integration
 - Back-office departs need customizations
 - Inter-connectivity between Microsoft & Autodesk products



The Software Engineer's Perspective





About the speaker

James Malcolm

15 years of experience as varying degrees of developer, designer, sysadmin, manager, and consultant

Various Industries - healthcare, manufacturing, energy, engineering, agriculture, government, retail, marketing, e-commerce, startups

Focused on AEC since joining SSOE 3 years ago

FUN FACT:

I'm a big fan of Broadway musicals and take full advantage of working-from-home to sing while I work

Start With Why

- **Without a Product Owner, the Developers take on this role**
 - Conflicting change requests
 - Juggling priority
- **Developers are expensive specialized resources**
 - Is this the best use of their time?
- **Developers don't always have the necessary skills**
 - Most developers don't know the industry
 - Conflicts can result in an “us vs. them” mentality in the workplace



Industry Agnostic

Every industry has technology systems that need ownership



Stay Ahead of Technology

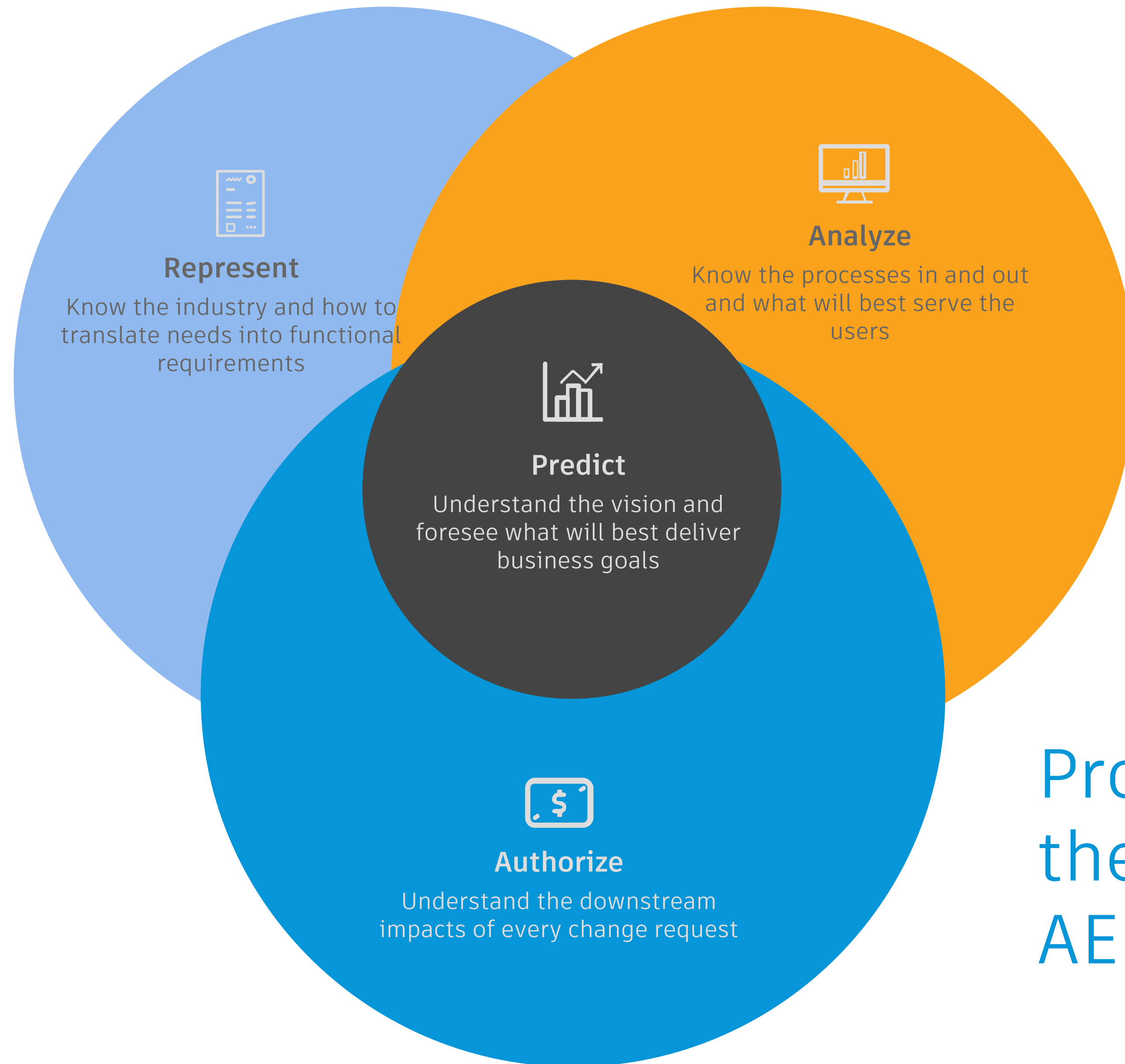
Forecasting what your systems will look like in years to come adds stability



Saves Money

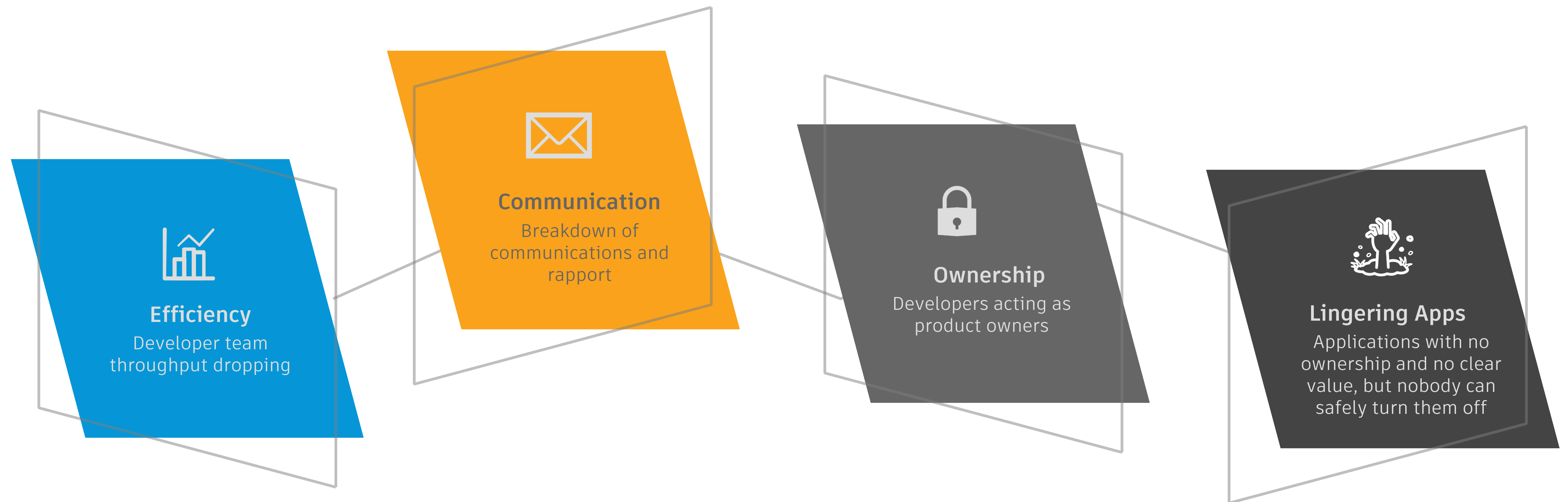
Reduce the risk of disruptive changes and costly rework

Product Owner: A Value Add to the AEC Industry



Product Owner: An Asset to
the Technology-Minded
AEC Firm

When to Implement the Product Owner Role



Real World Examples of Value

- A custom Revit add-in **WITHOUT** a Product Owner
 - Change requests come from several places without consideration of downstream impacts
 - A recent change request would disrupt typical Revit workflow and make changes to another critical system more challenging and impactful
 - The dev team called for a risk analysis meeting with additional stakeholders, resulting in a redesign that drastically reduced the impact of the change

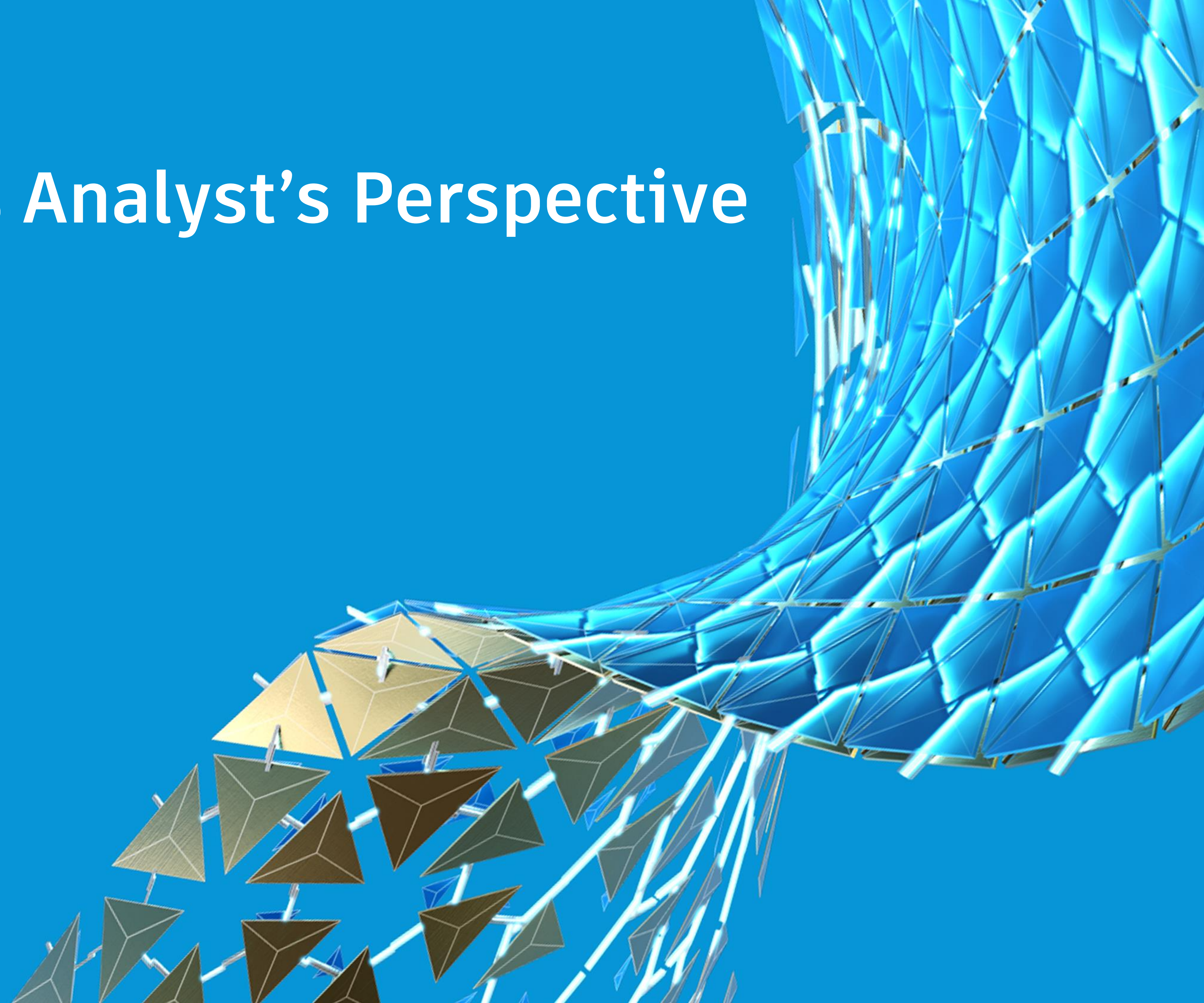


Real World Examples of Value

- A custom web application **WITH** a Product Owner
 - Change requests are filtered by the Product Owner before ever reaching the developers
 - All changes that pass the first filter are analyzed extensively before being acted upon
 - Continuous integration of new features & enhancements is performed with confidence and changes have minimal, often zero, negative impact to the business



The Business Analyst's Perspective





About the speaker

Larisa Flory

Business degree in Operations and Technology Management

5 years of experience working for SSOE. Started as a Project Management Assistant and role has developed from there into a Business Process Specialist and Product Owner

FUN FACT:

I moved to the Netherlands a year ago from Oregon and mijn nederlands is niet zo goed [my Dutch is not so good]

Start With Why

- This is my role, what I do on a day-to-day basis
- Technology changes and we need to be able to adapt
- I can see the value, can you?



Internal
representative
for off the shelf
products



Thinking about the
how's, why's and
what's

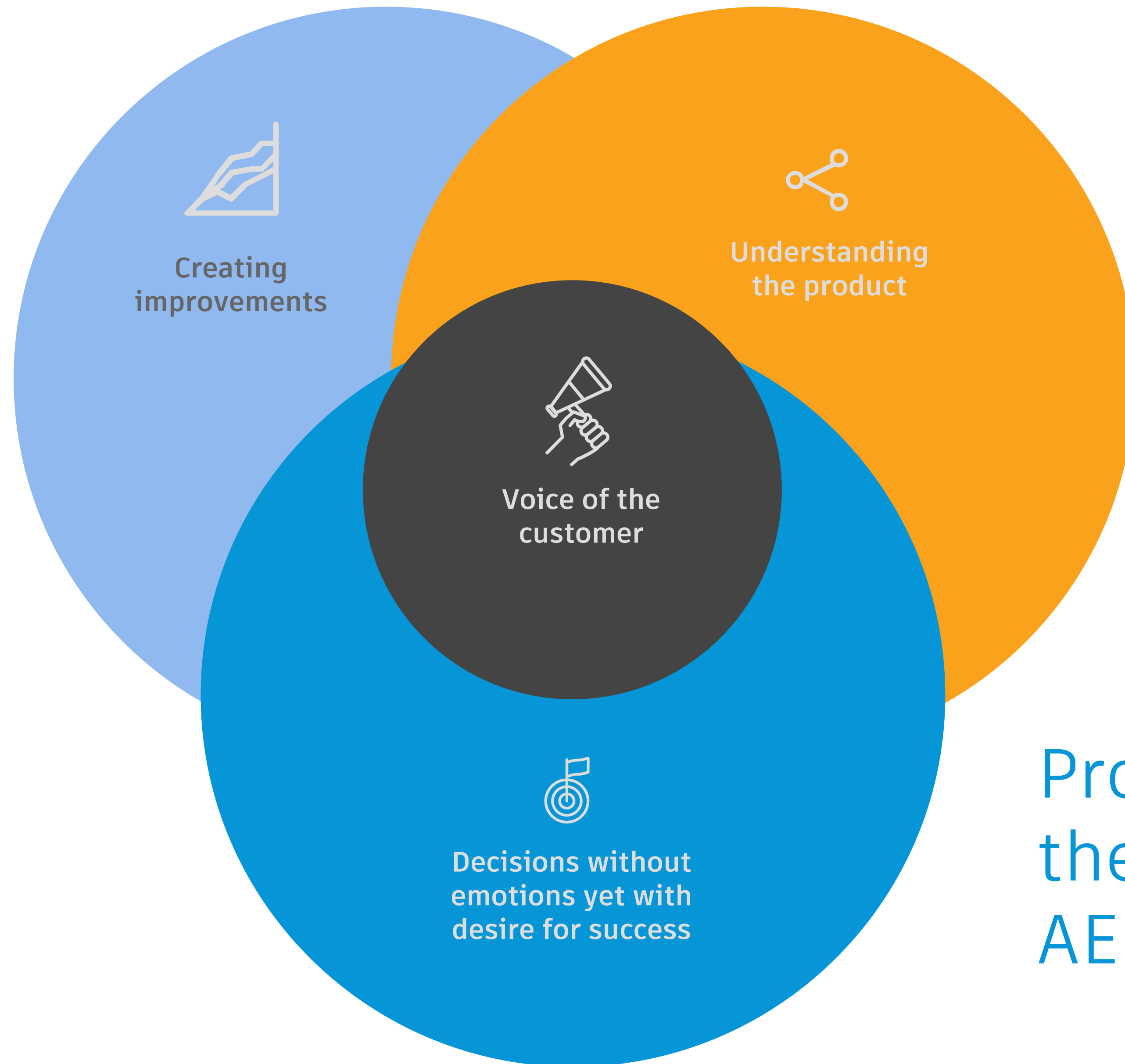


Gatekeeper for the
opinions and ideas
of the stakeholders



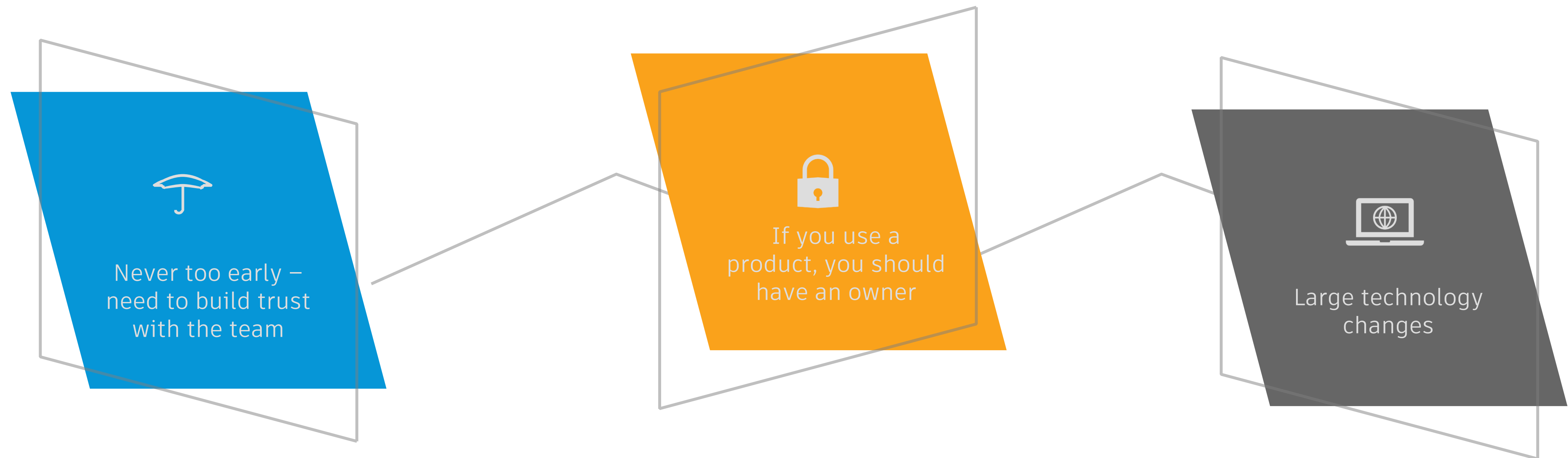
Continuous
improvement
after initial
deployment

Product Owner: A
Value Add to the AEC
Industry



Product Owner: An Asset to
the Technology-Minded
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When to Implement the Product Owner Role



Real World Examples of Value

- A customized platform **WITHOUT** a Product Owner
 - Customer worked with a variety of representatives (not owners) or the developers directly
 - An owner didn't exist who understood product
 - Multiple iterations of rework, discussion, and rollouts
 - Implementation was disorganized, did not meet goals or AE, GC, or client



Real World Examples of Value

- A custom web application **WITH** a Product Owner
 - Developed internal schedule, deliverable, and other tracking database
 - Initial creation was overseen by PO as committed resource
 - Owner manages all requests that come thru- deprioritizing or further discover as applicable





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