

Standards for Developing Standards: A How-to for Busy CAD Managers

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173 Miles











About the speaker

Curt Moreno

I am an IT manager, freelance content creator, long-time member of the CAD community, former AUGI director, and an award-winning Autodesk University speaker. I've written and spoken on topics revolving around the CAD, management issues, presentation topics, and customer relations for the past 10 years.

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[@WKFD](https://twitter.com/WKFD)

Who Are You?

- IT manager
- CAD manager
- Business owner / leader
- Licensed professional
- Anyone else who appreciates the need and benefit that CAD standards can bring to your firm



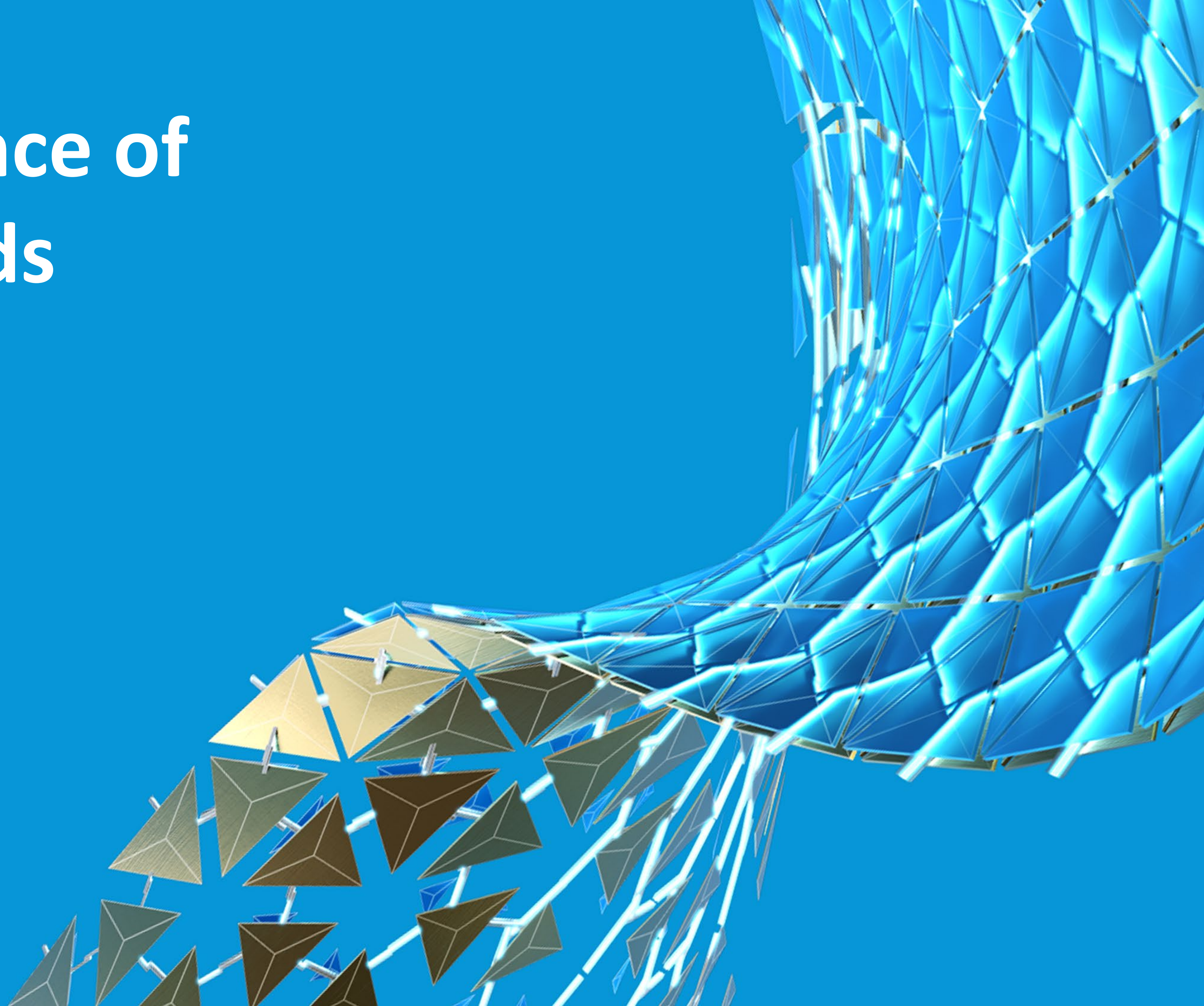
Class Summary

This class will show you the way, including knowing when it is right for you to create standards, identifying which standards are needed, and deploying new CAD standards for your organization.

Key Learning Objectives

- Learn to identify who should develop a CAD standard, how to develop a standard, and what to do to deploy it
- Outline major milestones necessary to develop your own 1.0 release of your CAD standard, and then track subsequent versions
- Learn how to bring important stakeholders into the development process to gain input, buy-in, and added vetting assistance
- Learn how to identify and avoid the major pitfalls of development, deployment, implementation, and maintenance of valuable CAD standards

The Importance of CAD Standards







Valid Benefits to Justify Creating CAD Standards

- Sustainability of design quality
- Reduced training time
- Cross project participation
- Document control
- Reduced IT costs
- Significantly shorter production time
- Reduction of duplicated work
- Reduced network strain
- Higher level of confidence in production staff

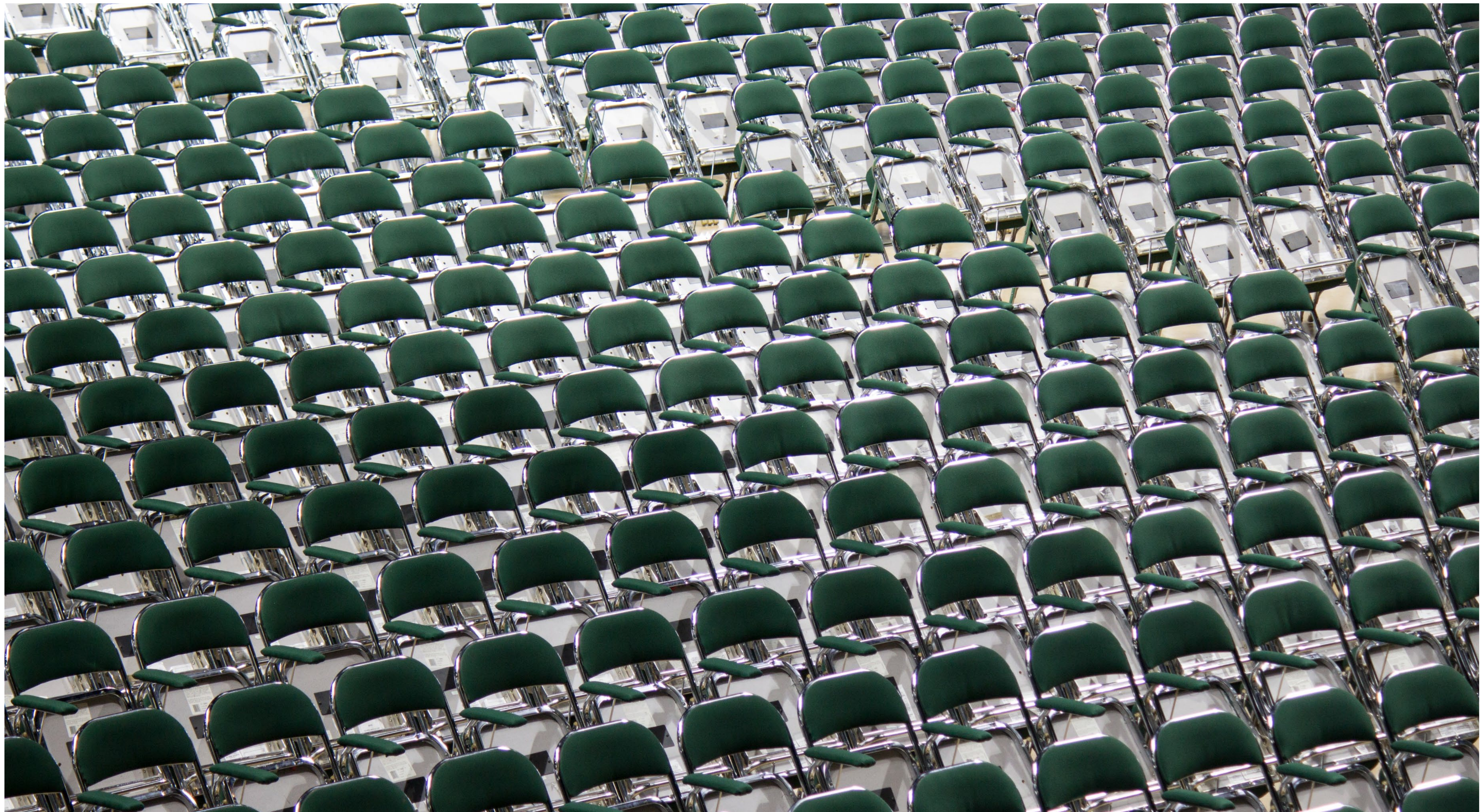
Treats?



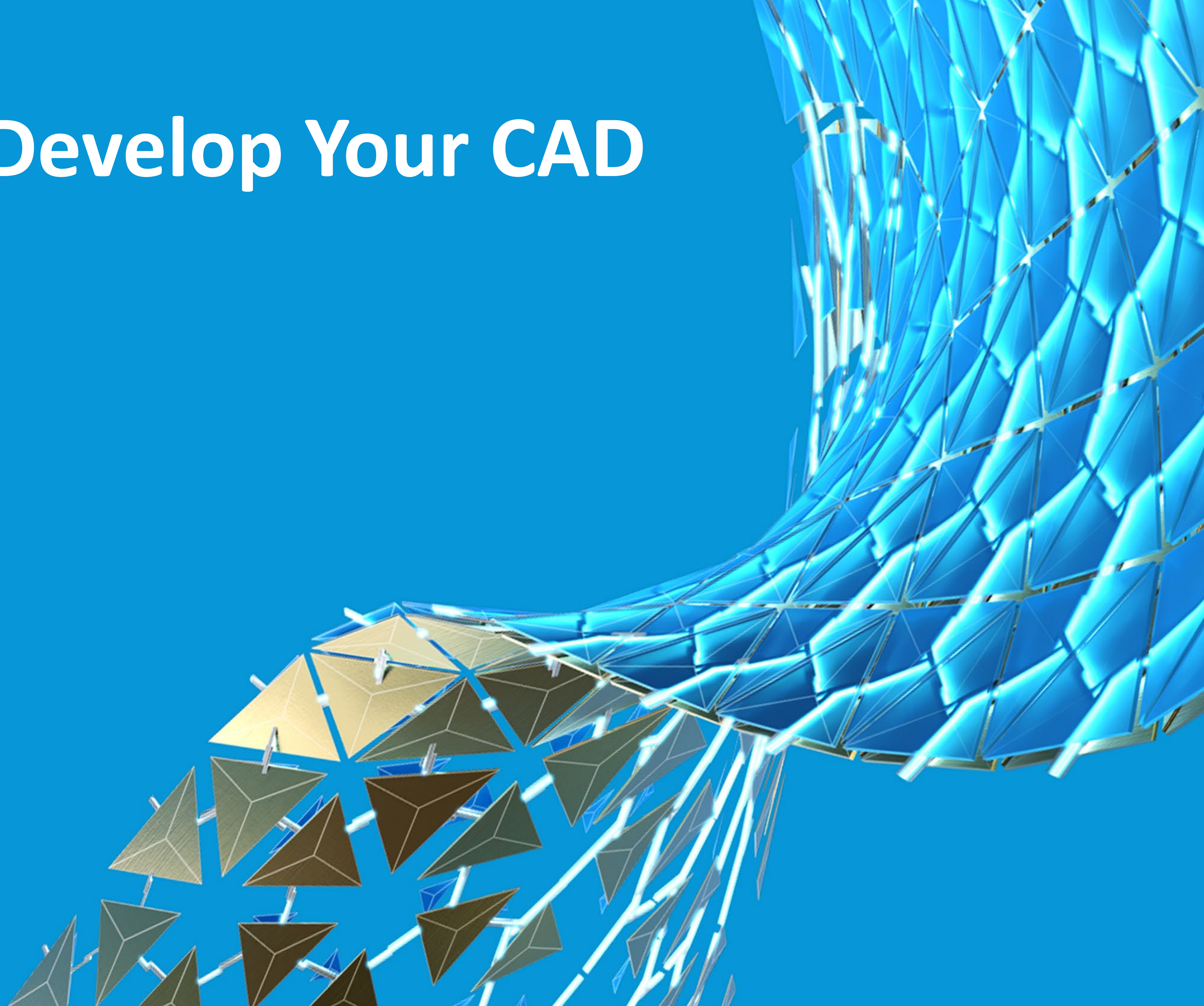
Efficiency and Continuity







Who Should Develop Your CAD Standard





**“Any organization, large or small,
employing any number of CAD
professionals producing
production designs or plan sets
will benefit from CAD standards.”**

What Are CAD Standards?

“CAD standards” is an umbrella concept that can encompass any number of specific facets such as:

- Uniform layering configurations
- Documented production processes
- Standardized detail block assets
- Universal file naming conventions

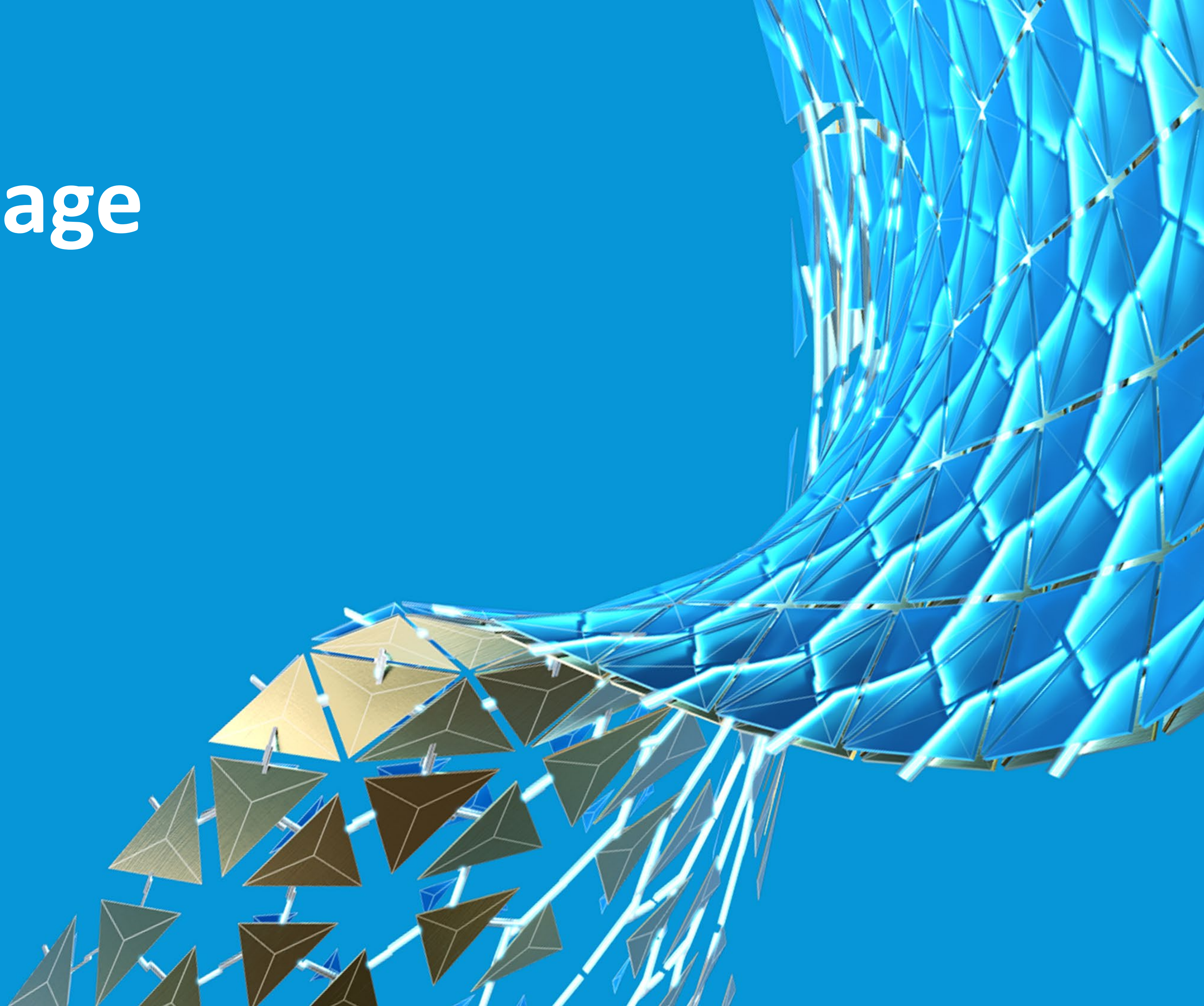
The Stages of CAD Standard Development

The Stages of CAD Development

- Meta stage
- Development stage
- Execution stage

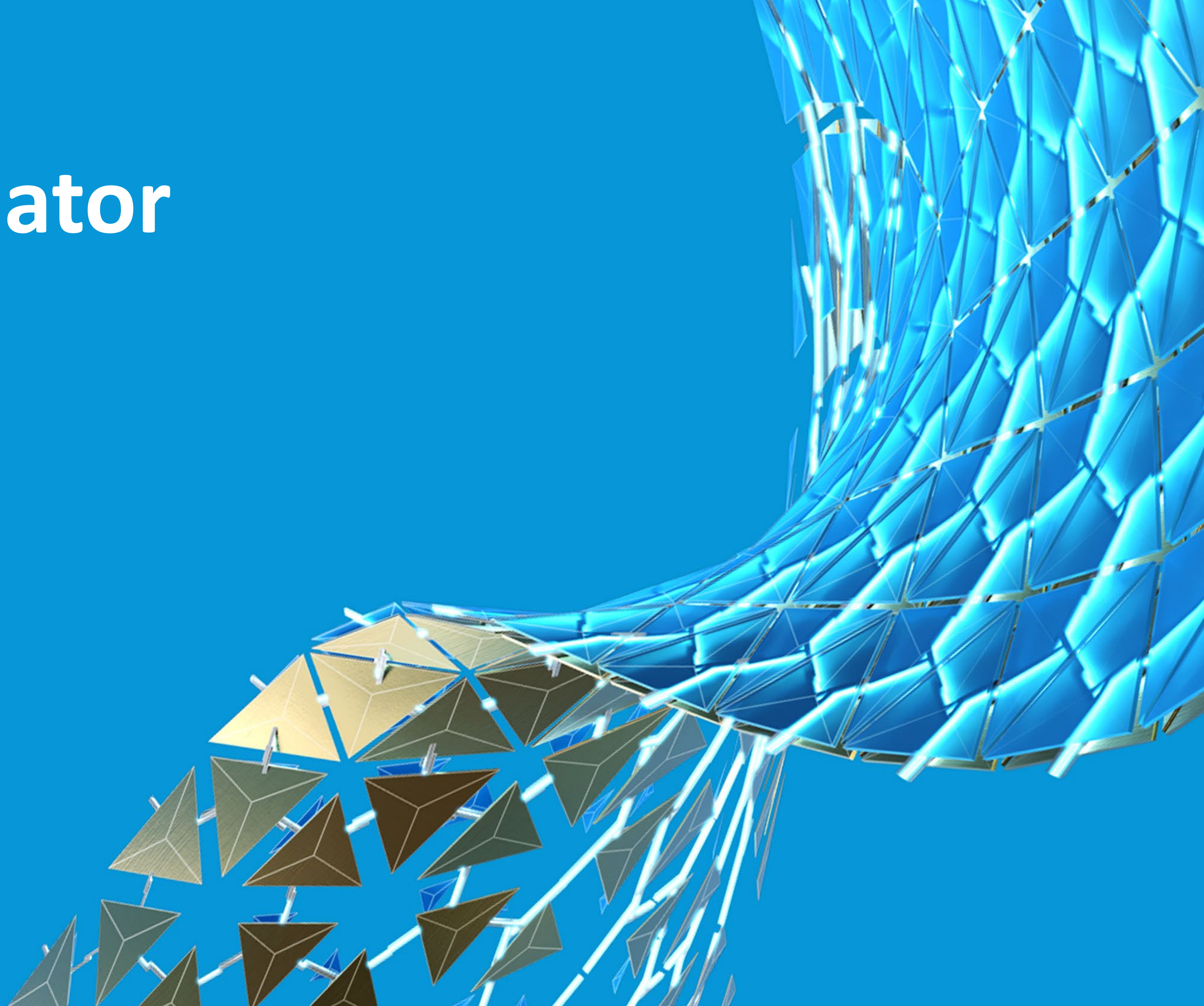


The Meta Stage





The Coordinator





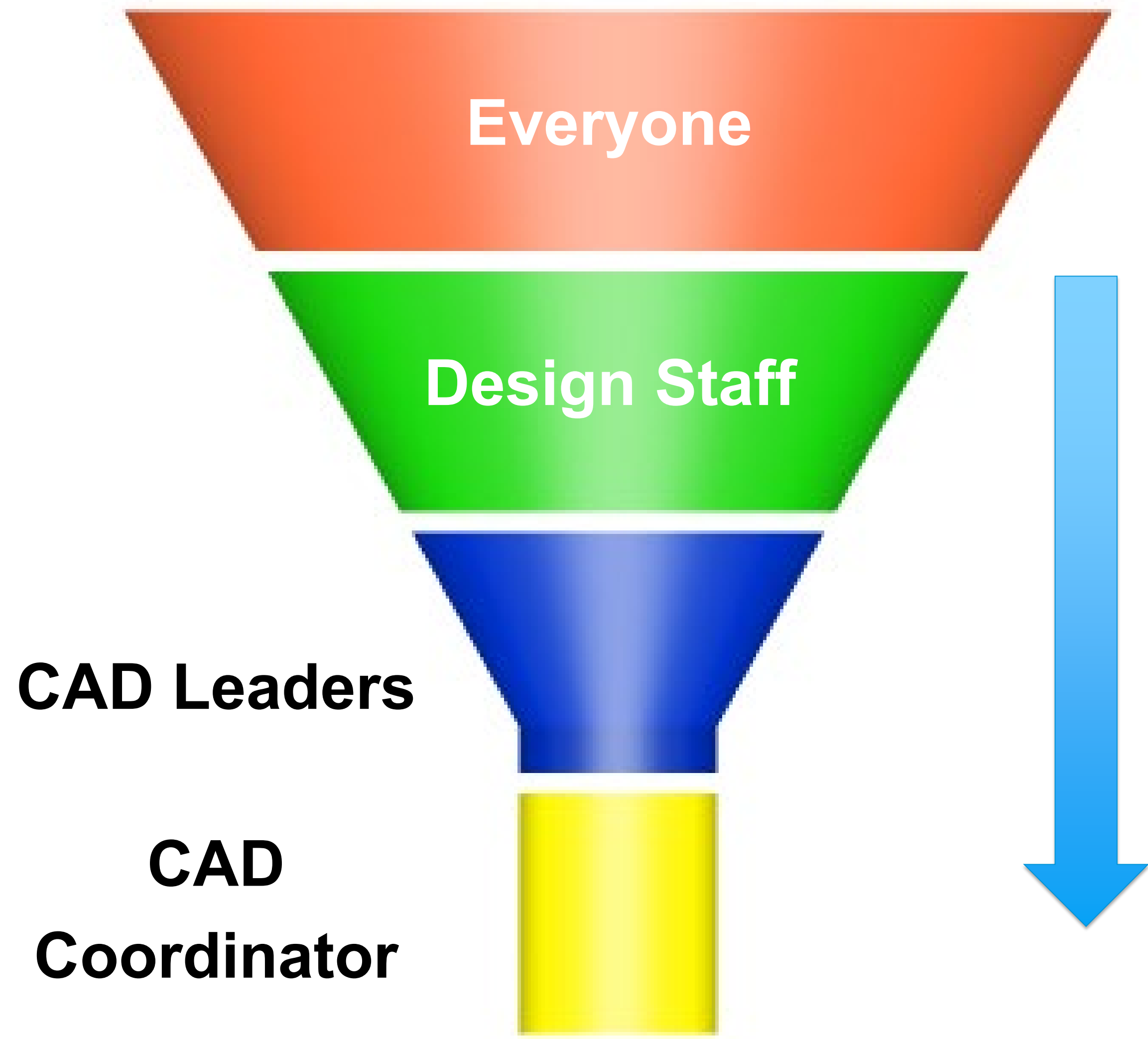


The Important Traits of a Coordinator

Management Aptitude – Creating a new CAD standard is a large-scale project that requires research, attention to detail, and the ability to work with others

Adaptability – Creating a new CAD standard is literally about change

Enthusiasm – Creating a new CAD standard is not fun



Collaboration Funnel

Reduced Input with Progress

- Begin with the greatest input from as many sources as possible
- Transition to design staff input only
- Limit input to CAD leaders
- All final touches should be limited to CAD Coordinator or other decision maker

Looking at Firm History





Milestone: The End of the Meta Stage

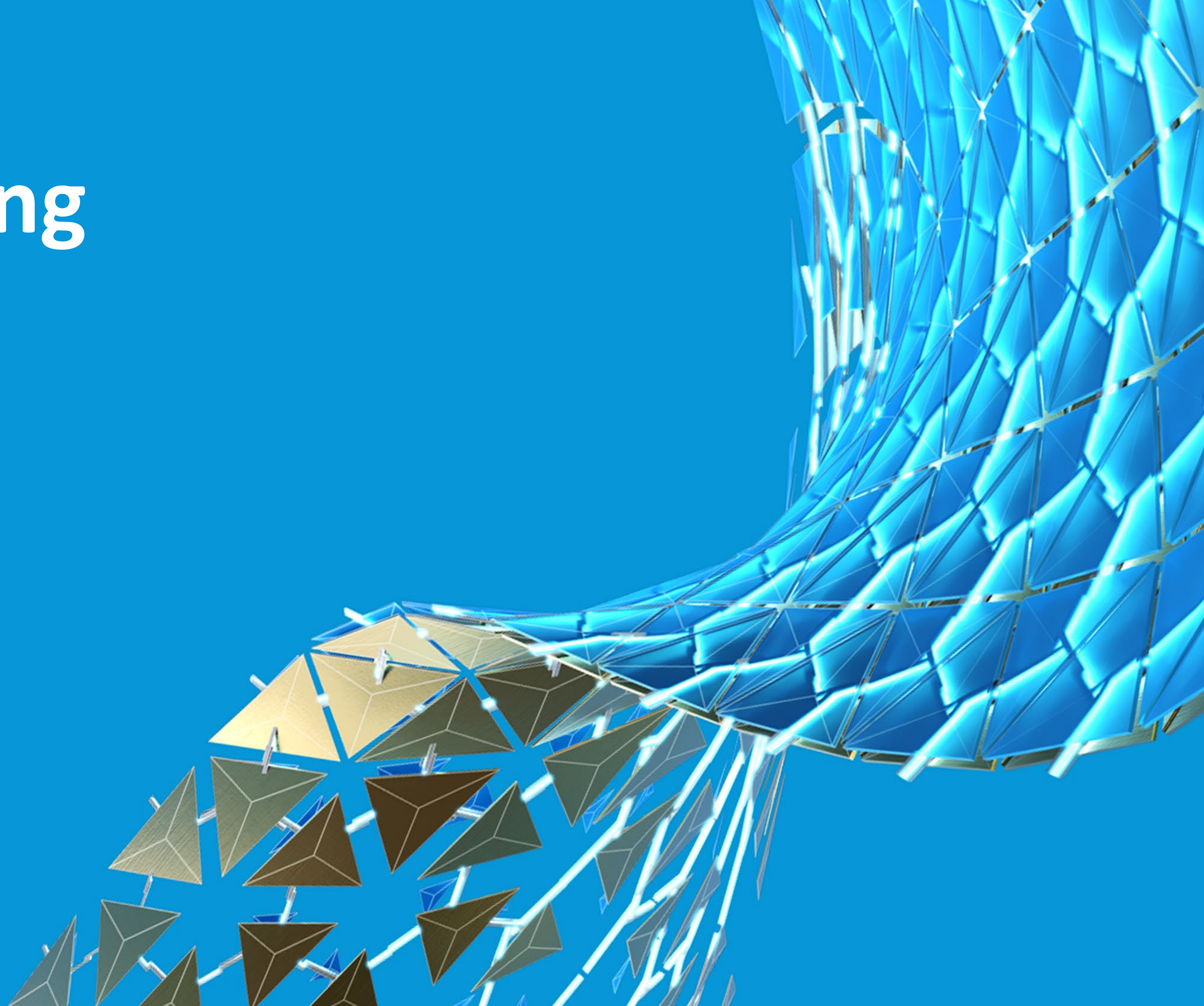
- Who is responsible for the CAD standard (the coordinator)
- Who will review and approve the CAD standard (the management)
- Who will help develop the CAD standard (the CAD leaders)
- What the path for participation will be (the collaboration funnel)
- What already exists (current standard or assets)

The Support Team

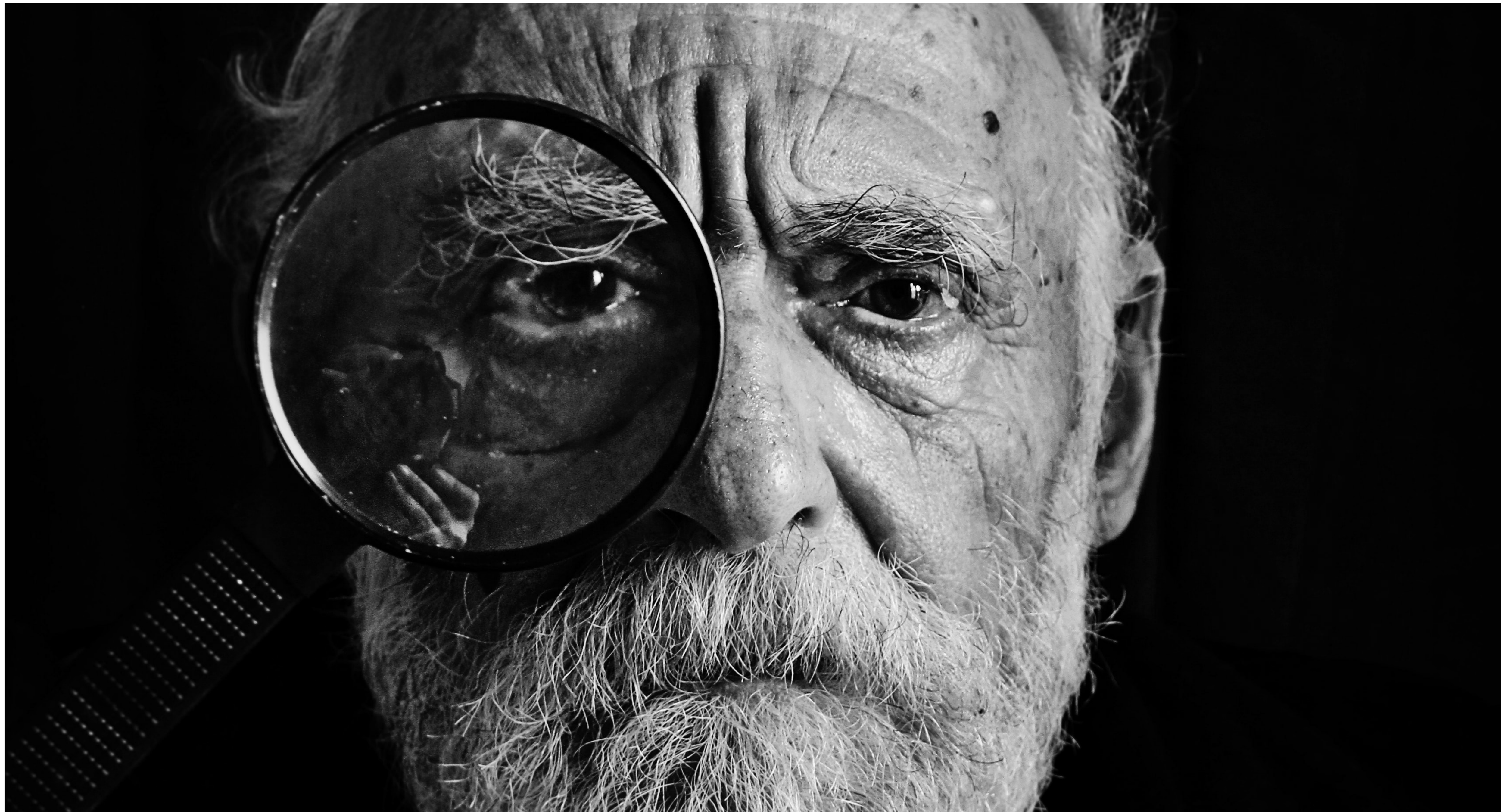




The Beginning





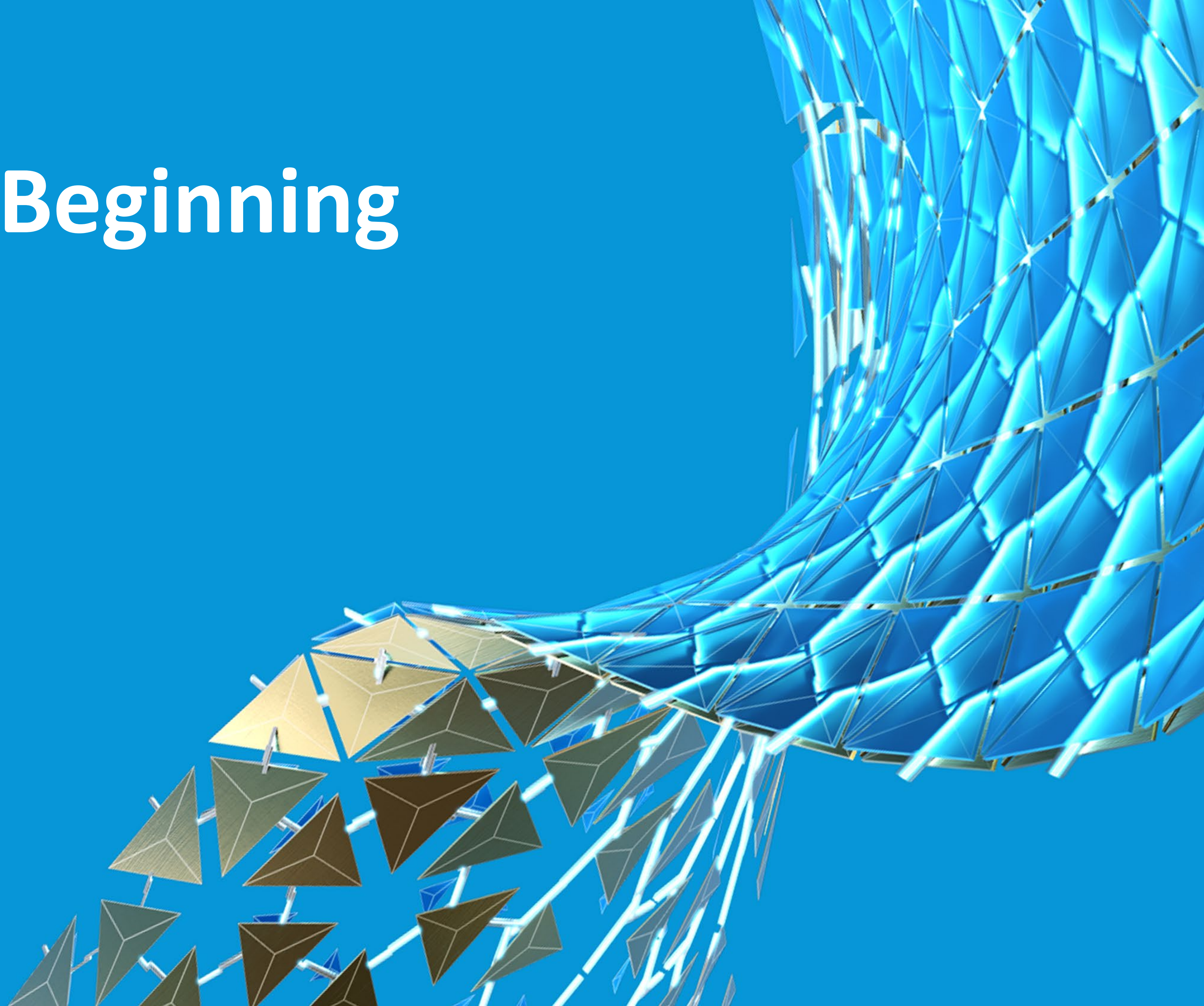


**“Standardize plot styles and
practices to produce identical
plan set plots.”**

Milestone: Stakeholder Report

- A full listing of management stakeholders who will oversee what aspects of the new standard
- A wide list of areas that require focus in the development of your standard
- A general breakdown, or roadmap, of how your standard will be developed so initial efforts have the greatest impact
- The area identified as the cause of the greatest hindrance to CAD production

Beyond the Beginning





Tried and True Elements of a Standard

- Server File Structure
- File Naming Standard
- Layering Standard
- Annotation Standard
- External Reference Standard
- Plot Standard

The Shape of Standards



Common Components of a Standard

Drawing Templates – “Seed” files that are used to set initial, standardized configurations, of CAD drawings that speed production

Best Practice Documents – Written documents that catalog and detail an organization’s approved method for CAD production

Detail Libraries – Standardized, reusable CAD drawings that represent water, paving, structural, and other design details that are used across multiple projects for greater design information

Already Existing Assets

Collect all multiple instances of existing details

- Review the full collection and select the best, most suitable file

Check the linework

- Eliminate duplicate linework
- Convert connected lines into single polylines
- Check hatches

Already Existing Assets

Check the text

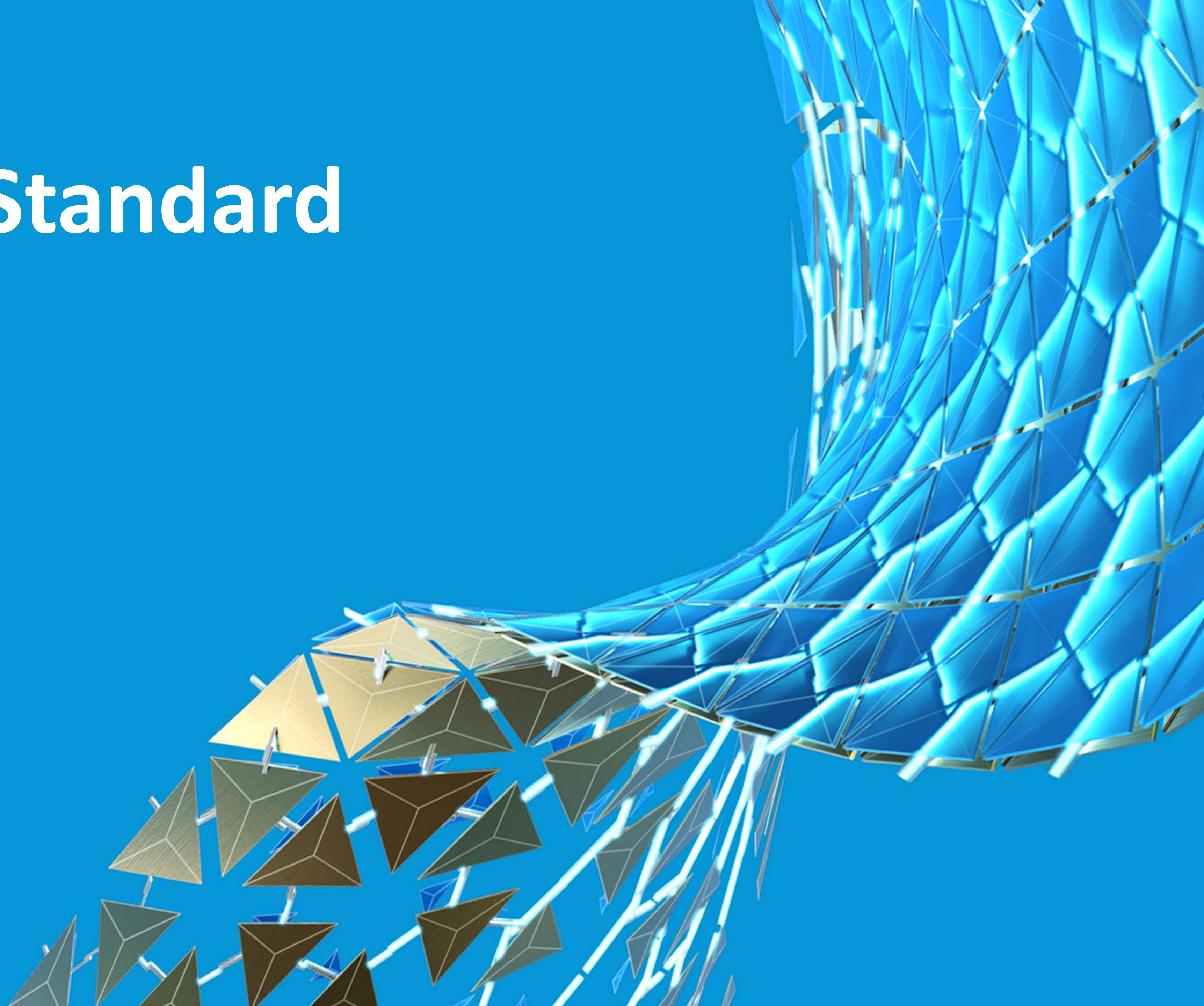
- Check font styles and sizes
- Convert all existing text to Mtext and spell check
- Check all callouts and dimensions for accuracy
- Verify layering
- Verify justification

Already Existing Assets

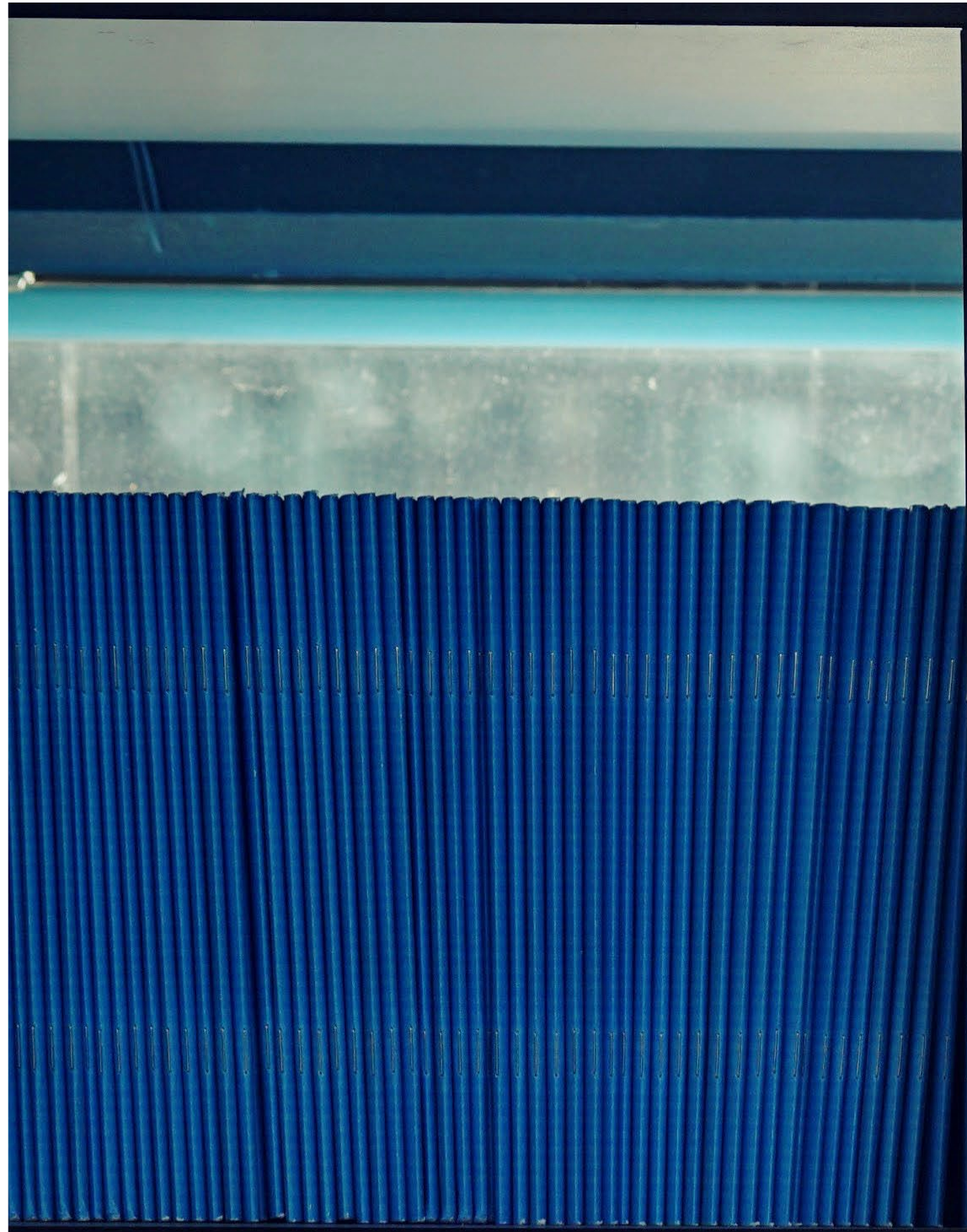
Check the layers

- Reduce existing layers to bare minimum
- Normalize layer settings and nomenclature
- Enter layer descriptions

Deploy the Standard





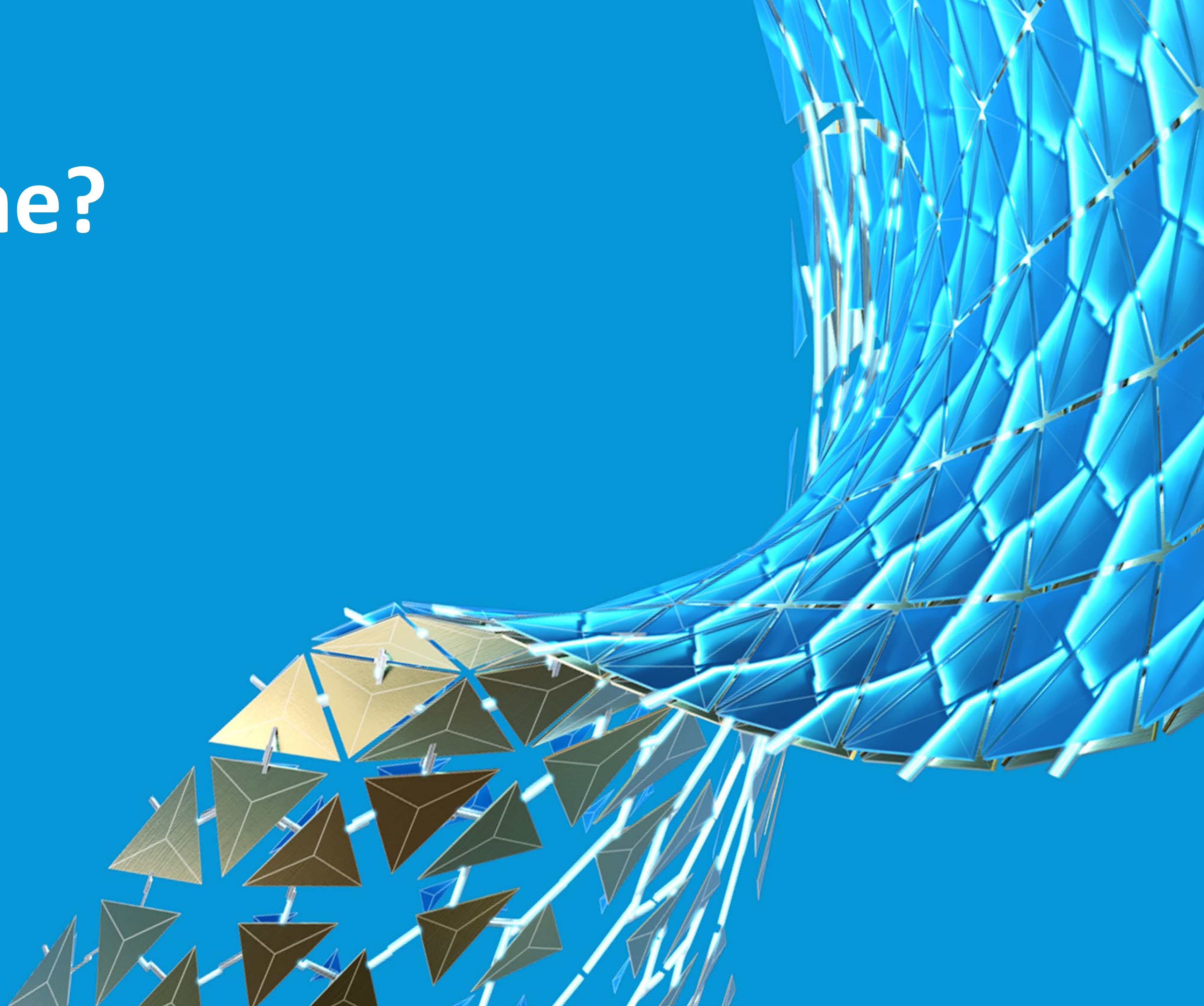


Items to Document in Your Deployment

- Server directory location(s) to be deployed to or updated
- Necessary support paths to be added to workstation installations
- List of deployed standards and / or detail libraries
- Last update date
- Contact information for CAD leaders to be notified on updates
- Any special log-in credential required
- Date of next schedule update

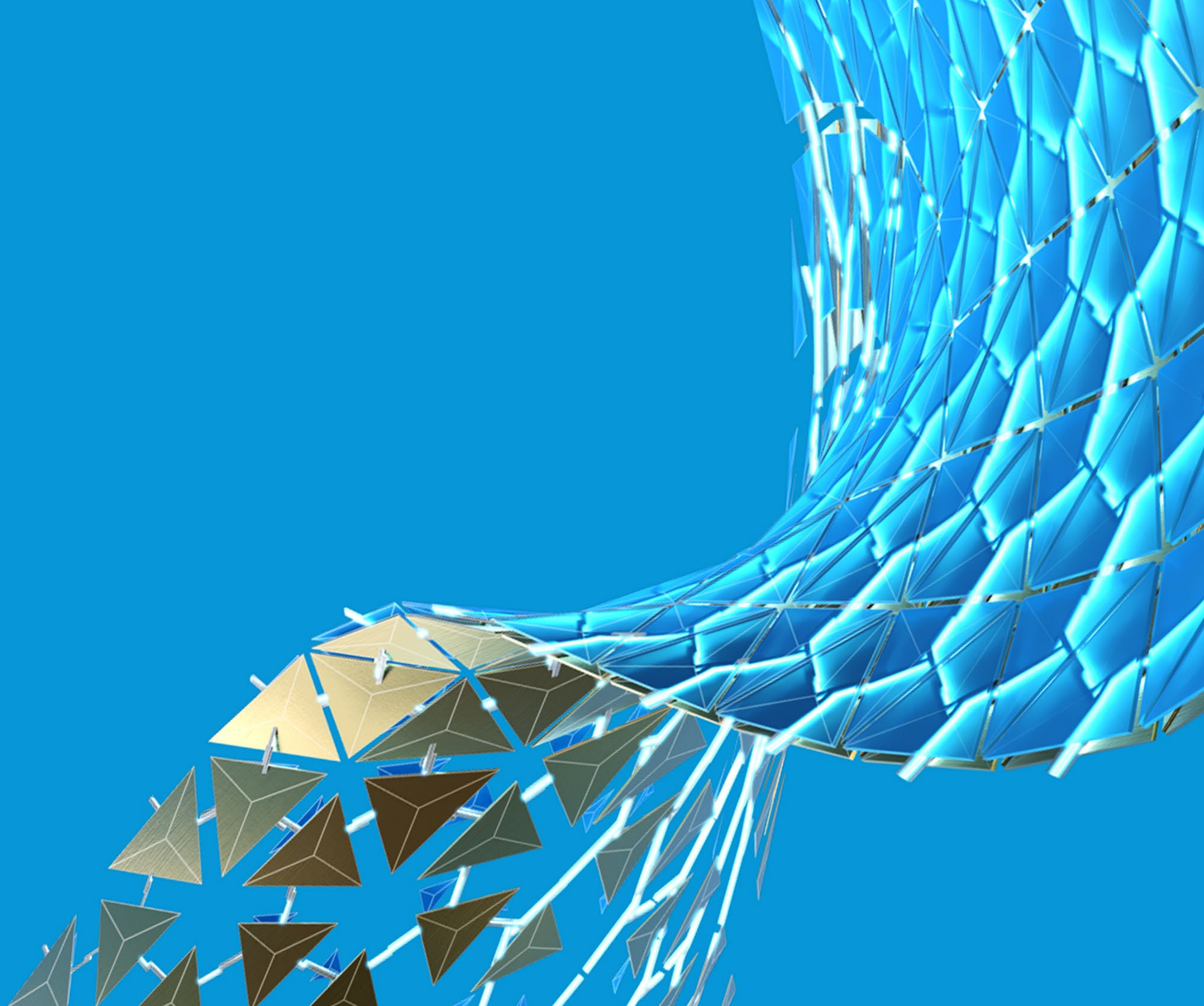


Are You Done?





The MVP



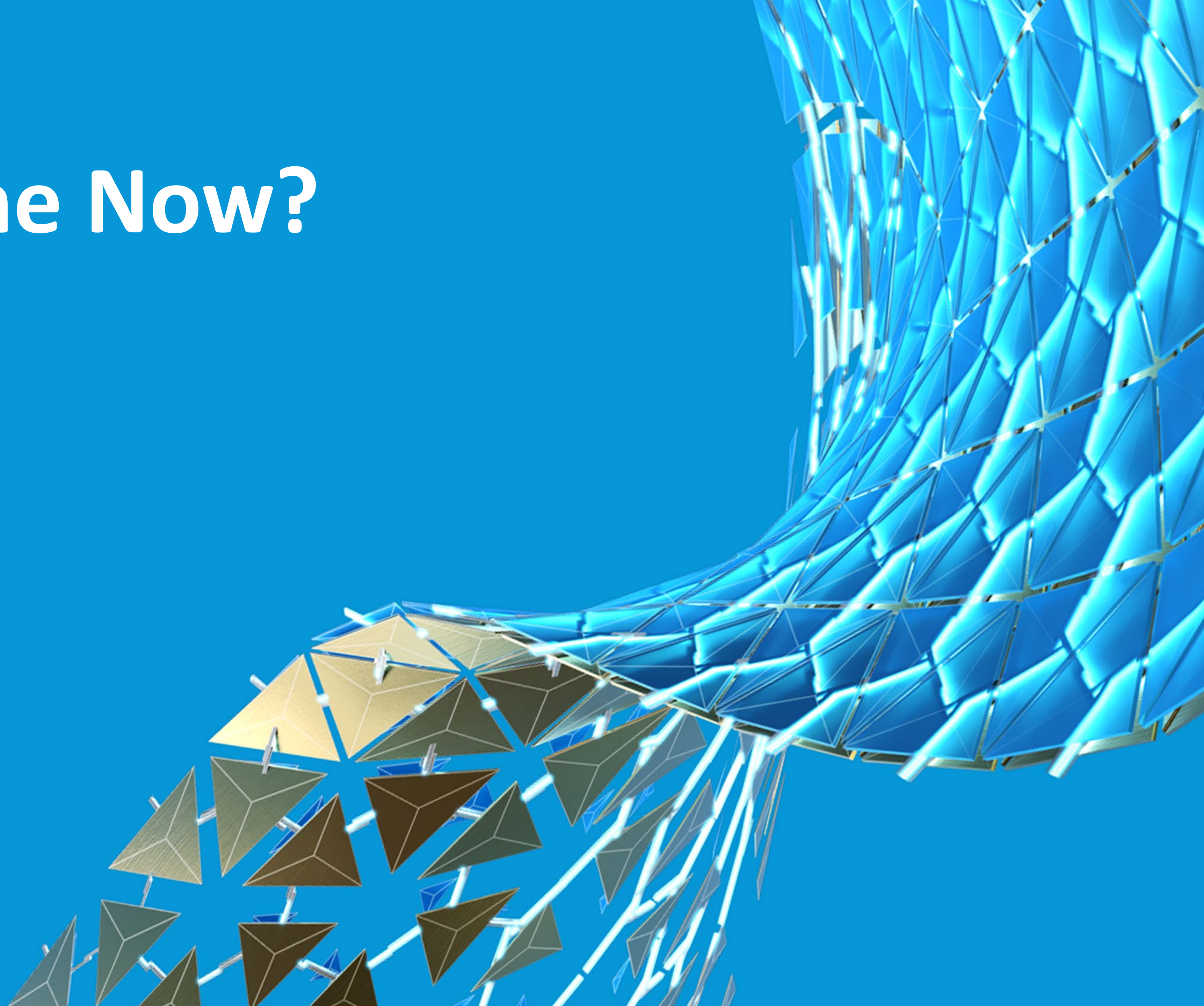


The Minimal Viable Product

- Satisfies the minimum requirements
- Functional, if not complete
- The lowest barrier to shipping your standard
- Perfect first iteration



Are You Done Now?

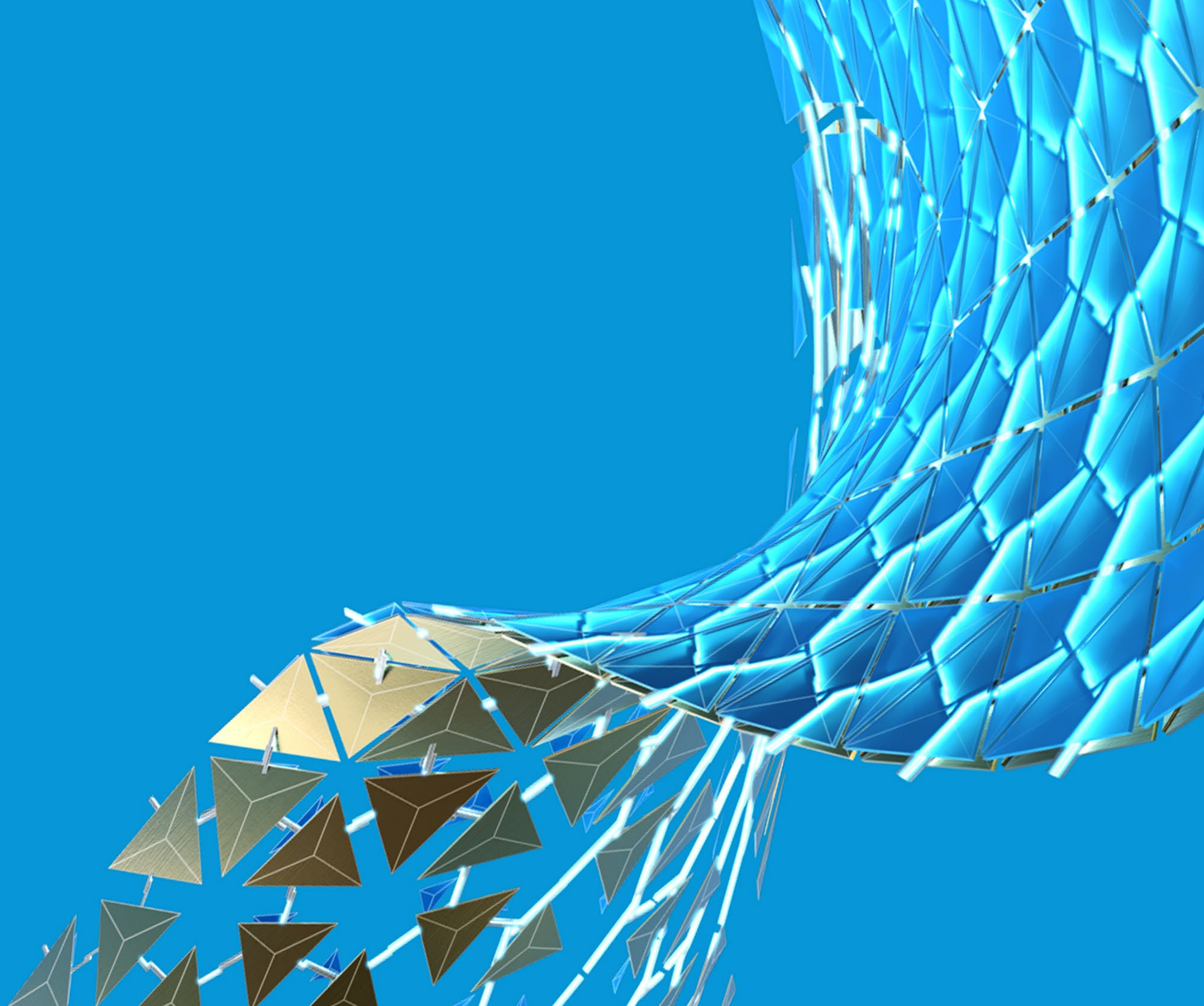




Repeat.
Over ...
And Over ...



Conclusion



Lingering Questions?

- Please contact me via email: thekungfudrafter@gmail.com
- Visit my new project: www.kungfumanager.com
- Stop me in the hall and say hi!



**Thank you for sharing your
time with me.**

Big money!
No whammy!





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