



PROJECT MANAGEMENT
CENTER FOR EXCELLENCE

A.J. CLARK SCHOOL OF ENGINEERING
Civil & Environmental Engineering Department



BECOMING AGILELY INNOVATIVE

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2019 Project Management Symposium



Ever Evolving, Inc.

Who we are, and what do we do



- ▶ We provide custom tools and services to help companies build, execute and maintain a successful innovation strategy.
- ▶ We help companies drive their businesses forward through:
 - The automation of time consuming and manual tasks.
 - The modernization of outdated tools and methodologies.
 - Identifying ways to streamline your current processes through new tools and technologies.

Learning Objectives

- ▶ The idea(s) behind why and how Agile makes your organization more Innovative.
- ▶ How do you bake innovation into your corporate culture?
- ▶ How does that culture provide the agility needed to escape bad projects while pursuing good ones?
- ▶ What are some technologies that can drive innovation in your company?



A photograph of a meeting in progress, showing people sitting around a wooden table with laptops, notebooks, and glasses of iced drinks. A large red diagonal overlay covers the left side of the image.

Leveraging Agile Techniques to Make Your Organization More Innovative



The "Old School" Project Management Lifestyle

Firsts Things First, My To Do List

Plan Down to the Minute

- ▶ The theory is:
 - Lets plan on everything we are going to accomplish.
 - This will give perspective to the team on where we are going.
 - This will help us plan our resourcing.
 - And we'll know its ready for release when we accomplish all of our tasks.

And that theory still holds for some industries...





Ship Building



Old School Industry Commonalities

These industries share a few traits

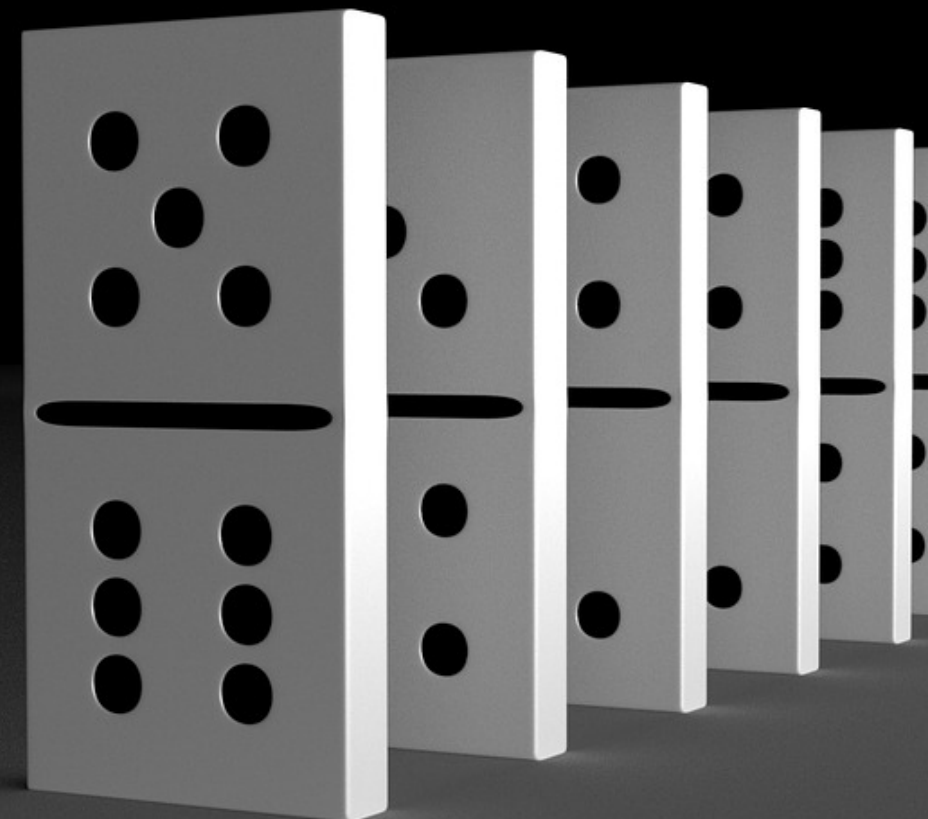
- ▶ They tend to build tangible products, where later features are reliant on a “foundation”
 - Nothing else on the boat matters if it won’t float!
- ▶ They are heavily regulated industries where
 - PMOs rely on outside labor whose interests don’t always align.
 - “Specialty Skills” are required for different aspects of the project.
- ▶ True differentiators also take longer
 - Think Navigational Software vs. a 3D Printed House.



The Impatient Customer

Not all industries have the luxury of time

- ▶ Some clients demand value now.
 - You can't identify all of the problems up front, because you need to solve ONE TODAY.
 - Once you solve that one problem, now the perspective has changed. And all that up front work is wasted.
- ▶ This is most common in
 - "as-a-service" business models.
 - Industries whose typical customer profile is Generation X or younger (born after 1964).



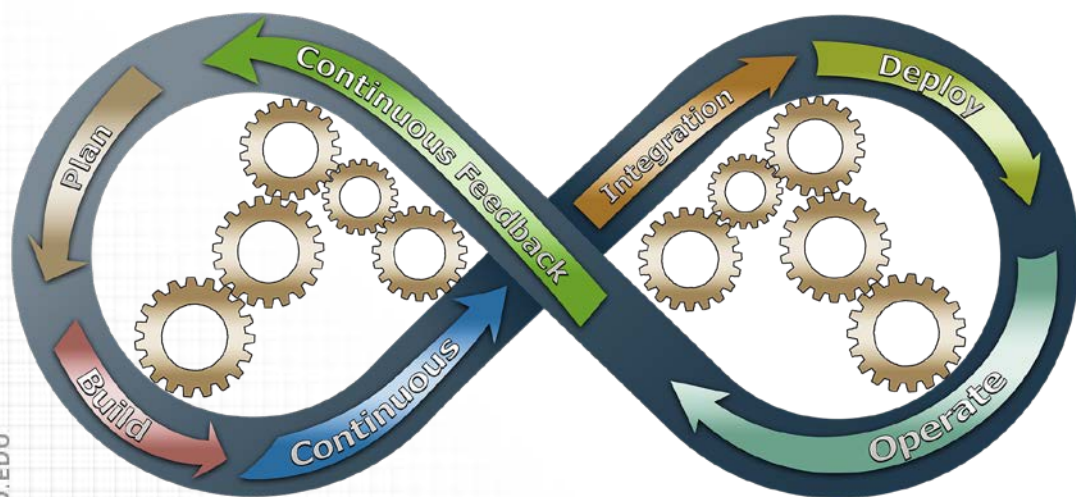


“80% of Outcomes Come from 20% of Causes”

- The Pareto Principle

Agile Methodologies

Release the highest priority capabilities soonest



- ▶ Agile lends itself well to faster release cycles.
- ▶ It limits the focus of efforts on the most pressing or highest priority items, as rated by the Product Owner.
- ▶ These efforts are timeboxed.
 - Whatever is done and tested at the end of the timebox is getting released.
 - Everything else will hold off until the next release, when priorities are re-examined.

Driving Innovation

Releases are a great way to learn about your clientele

- ▶ The label “Innovative” is earned through identifying and solving your customer’s pain points.
- ▶ The best way to learn about your customers is through regular releases, and measuring how they react to those releases.
- ▶ When done correctly, quick releases reduce the risk of building “shelfware.”



A close-up photograph of a microscope's objective lenses. The lenses are black with white text. One lens is labeled 'UMYMPUS UPlanFLN 10X/1.30 Oil 21.7/FN26.5'. Another lens is labeled 'UPlanFLN 4X/0.13 infinity - /FN26.5'. The background is a blurred laboratory setting with a red overlay on the right side.

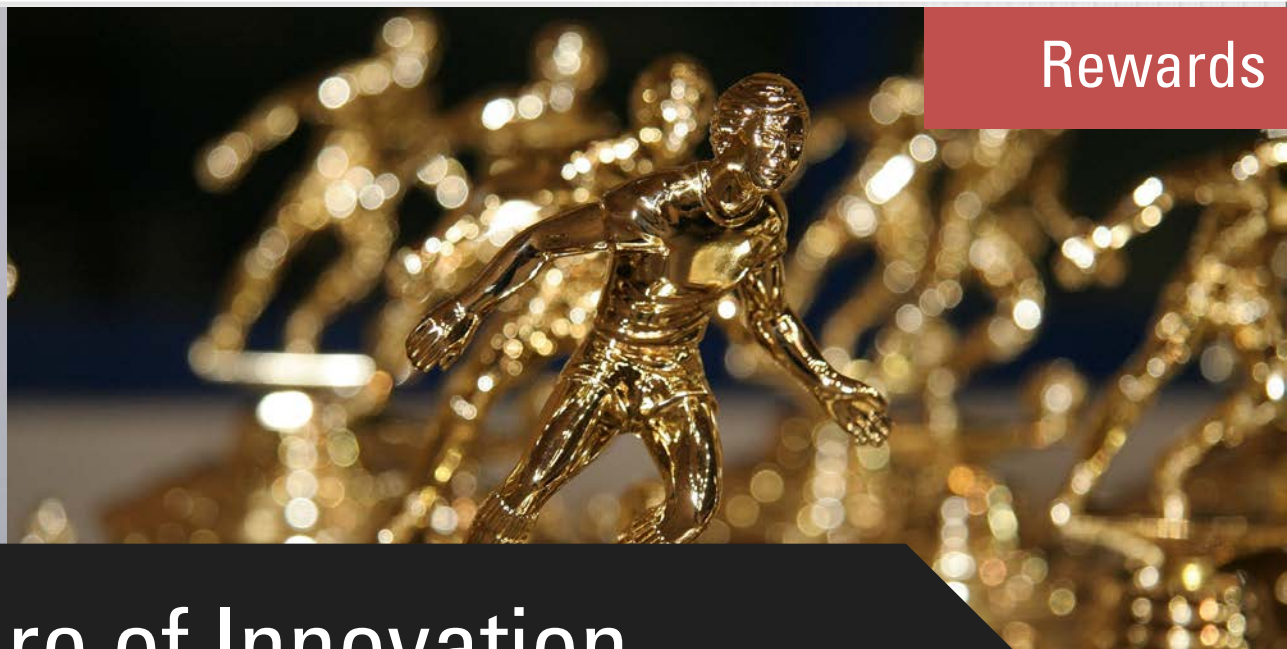
Creating a Culture Focused on Innovation



Communication



Rewards



Building a Culture of Innovation



Innovation Management



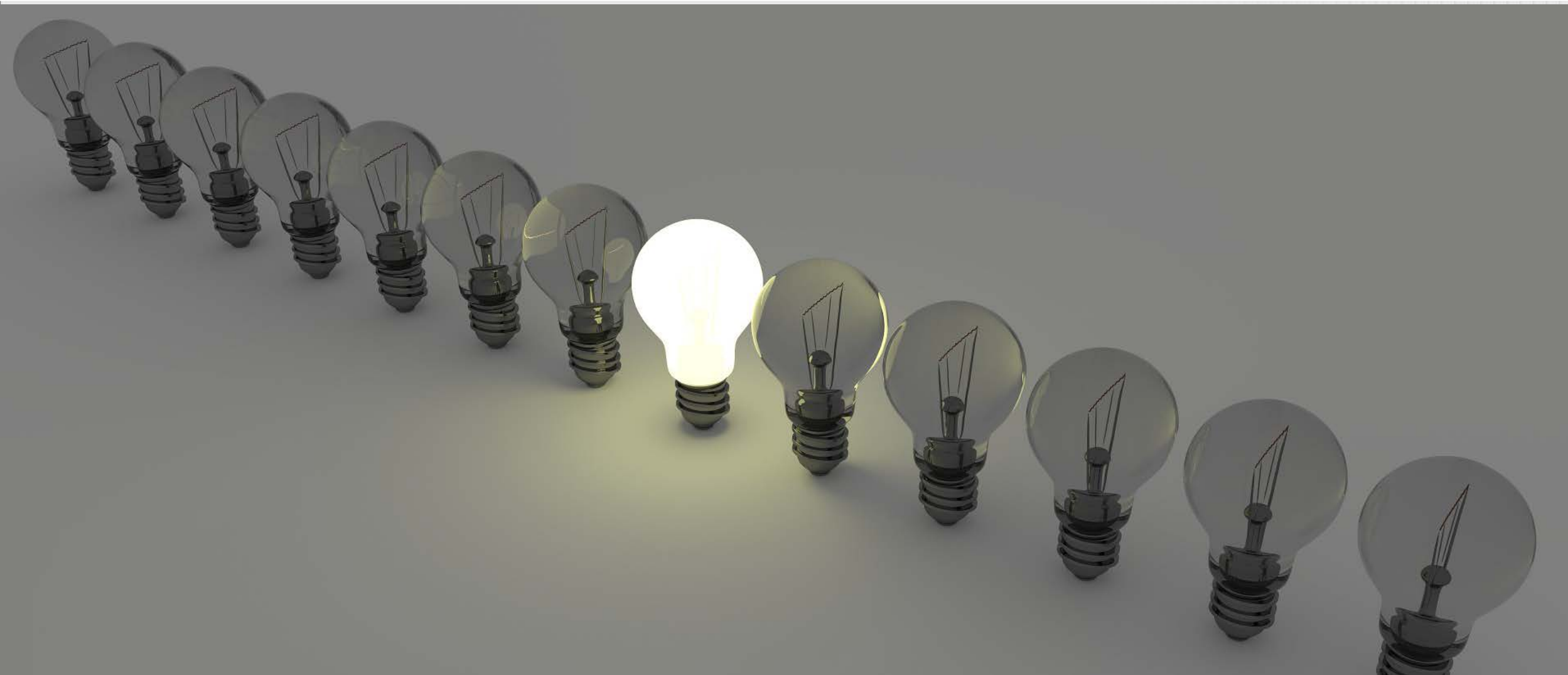
Innovation Governance



Step 1: Communicate



Step 2: Reward

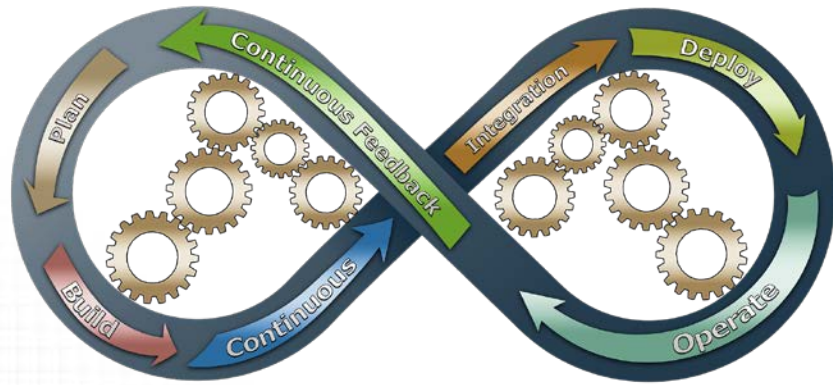


Step 3: Innovation Management Tools



A photograph of a meeting table with a laptop, glasses of iced drinks, papers, and a person's hands. The image is partially obscured by a large red diagonal overlay on the left side.

Escaping Bad Projects



Escaping Bad Ideas Through Agile Methodologies and Innovation Governance

Verifying Value through Governance

The governance boards reviews a projects value

- ▶ Eric Ries talk in *The Lean Startup* about the Build-Measure-Learn feedback loop.
- ▶ Agile takes care of the build, and the measure.
- ▶ The learning happens during the governance board, where the metrics are reviewed and decisions are made whether to:
 - Stay the course.
 - Pivot.
 - Cut our losses.





General Rules of Thumb

Some ideas to keep in mind

- ▶ If you are building software solutions, plan for a minimum of 2 releases a year.
- ▶ Your governance team should meet a minimum of once a quarter.
 - And once a year, that meeting should take place outside the office.
- ▶ The concept of a “Sunk Cost” is OK, but know the difference between a “losing effort” and one that just needs a little more time to gain market traction.

A close-up photograph of a microscope's objective lenses. The lenses are black with white text. One lens is in sharp focus, showing "UPlanFLN 4x/0.13". Another lens is slightly out of focus, showing "UPlanFLN 8x/0.25". The background is a soft, out-of-focus laboratory setting. A large, semi-transparent red diagonal shape is overlaid on the right side of the image, serving as a background for the title text.

Providing an Environment to Maximize Innovation

Laying the Foundation

Foundational ideas to spur innovation

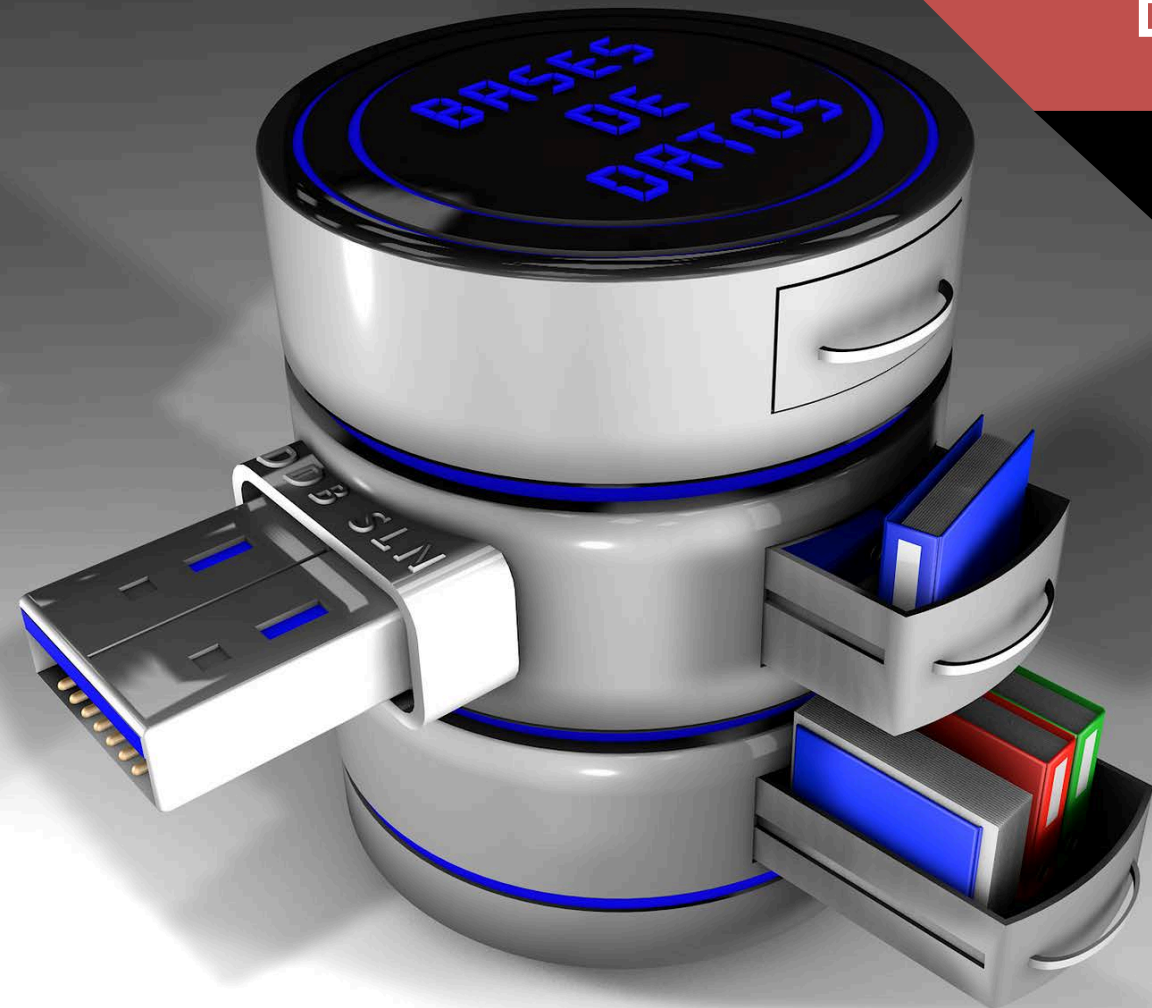
- ▶ To increase innovation, you want to invest in products that reduce the barriers to innovation.
- ▶ Attention needs to be brought to those tools.
- ▶ Training needs to be provided on how to use those tools.
- ▶ One such idea is a standardized data environment.



“Big Data”

Data makes the world go round.

- ▶ Getting the data is often the most difficult part when it comes to looking for insights.
 - Especially when those insights span departments.
- ▶ Having an environment where users can comb through structured and unstructured data removes this burden.
- ▶ Additionally, you’ll want to invest in a tool to build visualizations and dashboards.



Recap: Learning Objectives

- ✓ The idea(s) behind why and how Agile makes your organization more Innovative.
- ✓ How do you bake innovation into your corporate culture?
- ✓ How does that culture provide the agility needed to escape bad projects while pursuing good ones?
- ✓ What technologies provide the greatest flexibility?





Questions?



Thanks For Joining! Now Come Say Hi...