

# Advanced Github and Git

**How to use these tools to Skyrocket Your Software Development Productivity**

**Fernando Garzon, August 2024**

**[ofgarzon@ucsd.edu](mailto:ofgarzon@ucsd.edu), [github.com/ofgarzon2662](https://github.com/ofgarzon2662),  
[linkedin.com/in/fernando-garzon-49aa8317b/](https://linkedin.com/in/fernando-garzon-49aa8317b/)**

**SDSC**  
SAN DIEGO SUPERCOMPUTER CENTER

**UC San Diego**

# Who's Fernando Garzon

- Computational & Data Scientist Research Specialist at SDSC
- Work on User Support for TSCC.
- Also work in Software Dev (SWD) projects within SDSC
- Currently finishing my 2<sup>nd</sup> master in SW Engineering.
- Passionate about SWD, DevOps, Automation, Cloud Architecture, IaC and more.
- Automation Enthusiast.





# Outline

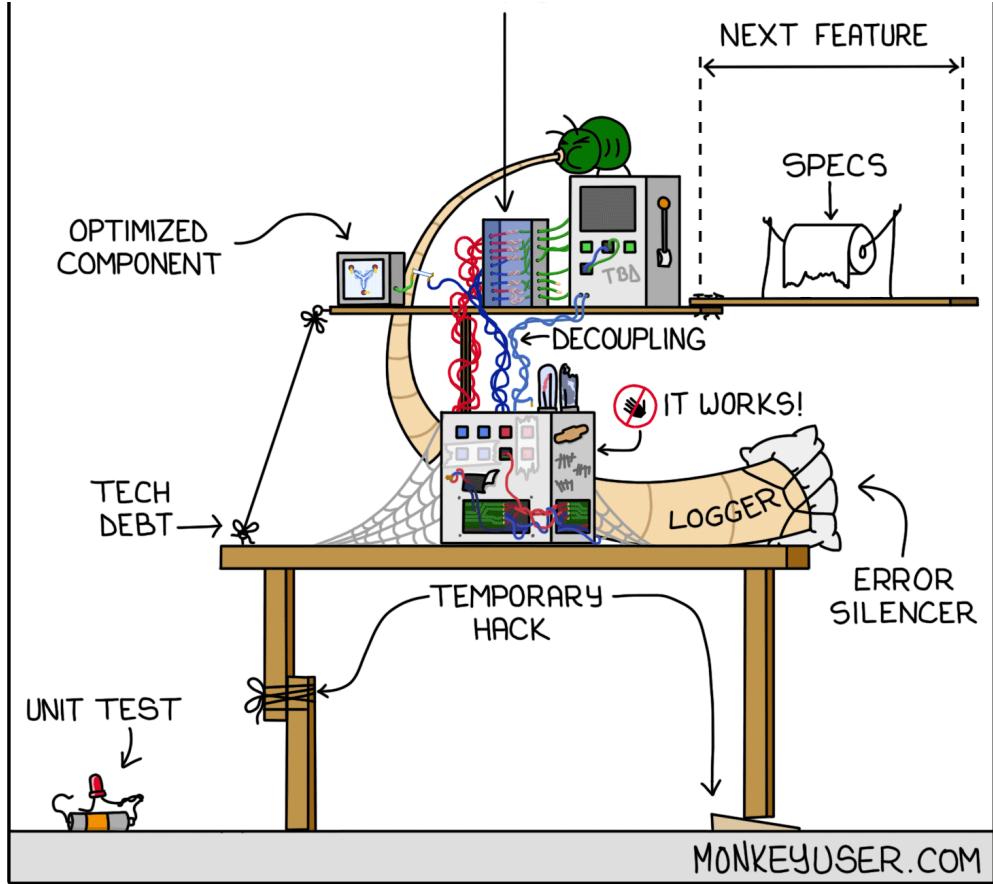
1. Intro: From Legacy Mess to Deployment Success
2. Let's Prod the Heck Out of This!
3. The Quality-Speed Trade Off Myth
4. Let's Talk GitHub, Not Jargon!
5. Be Agile



# Outline

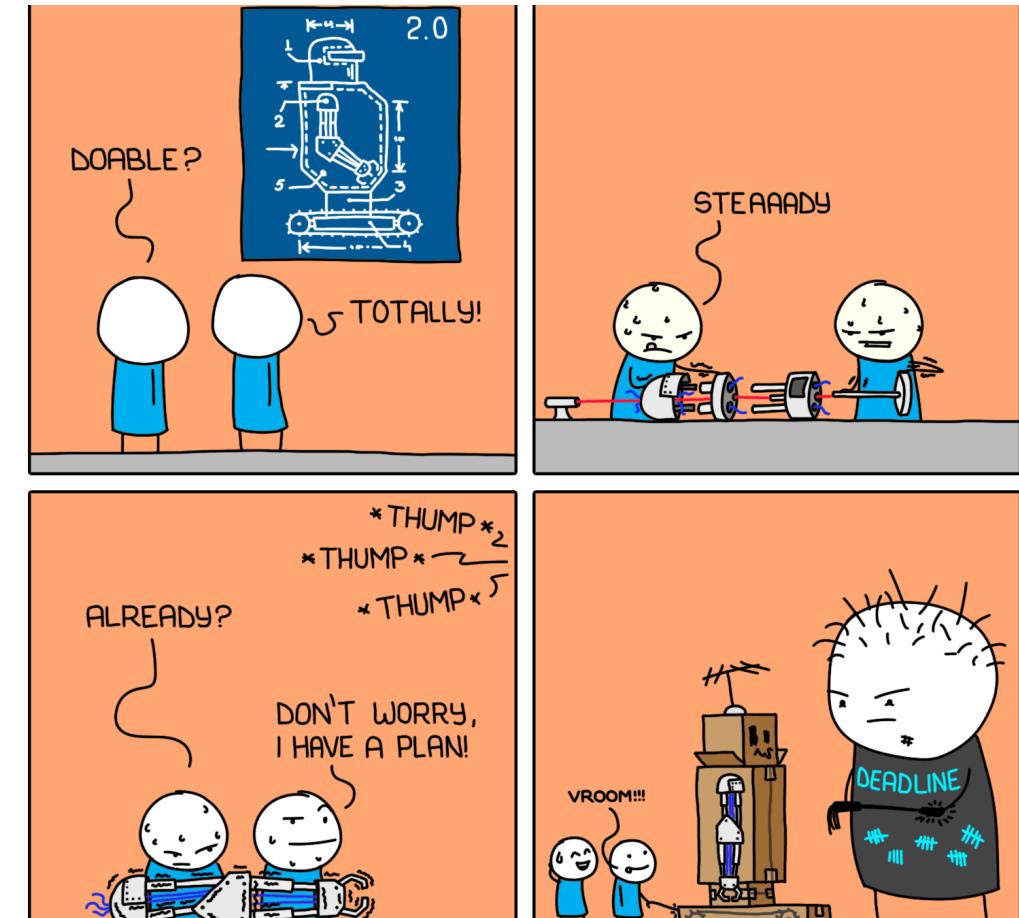
6. Recetario App
7. Lights, Camera, GH Actions!
8. Automating your way to Prod
9. Final Remarks

# From Legacy Mess to Deployment Success





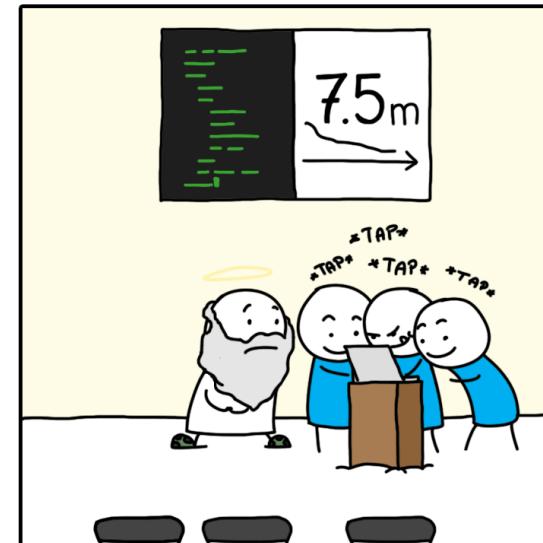
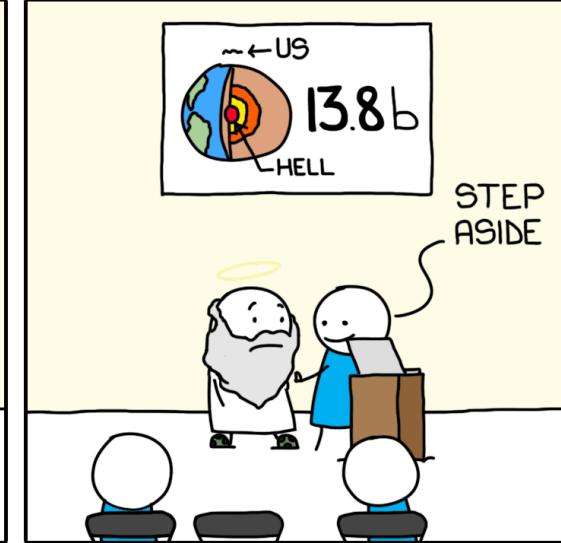
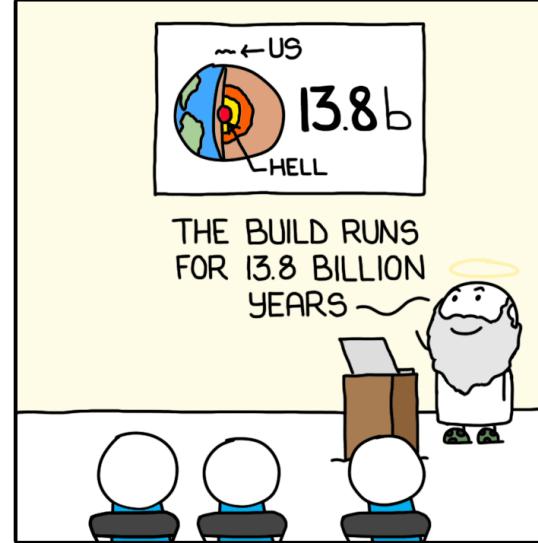
# Let's Prod the Heck Out of This



# The Quality-Speed Trade Off Myth



NEW WORLD



# The Quality-Speed Trade Off Myth

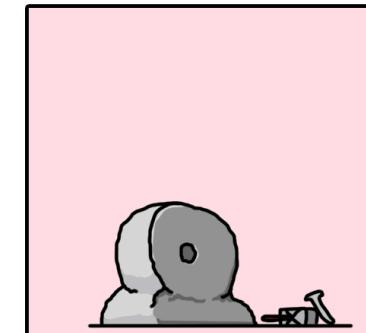
*Desire without knowledge is not good—how much more will hasty feet miss the way!*

*Proverbs 19:2 (NIV)*

## PRODUCT DESCRIPTION



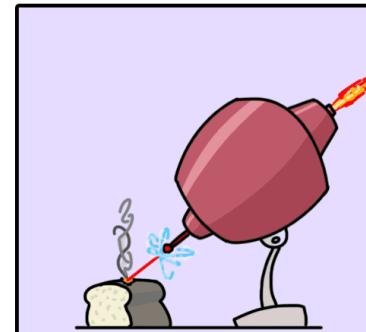
FULLY DOCUMENTED



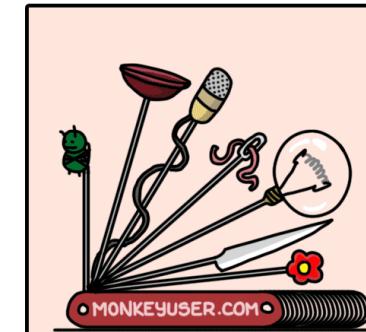
CUSTOM IMPLEMENTATION



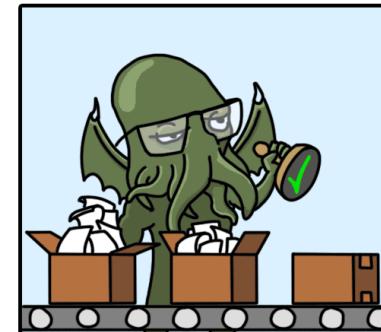
HIGHLY OPTIMIZED



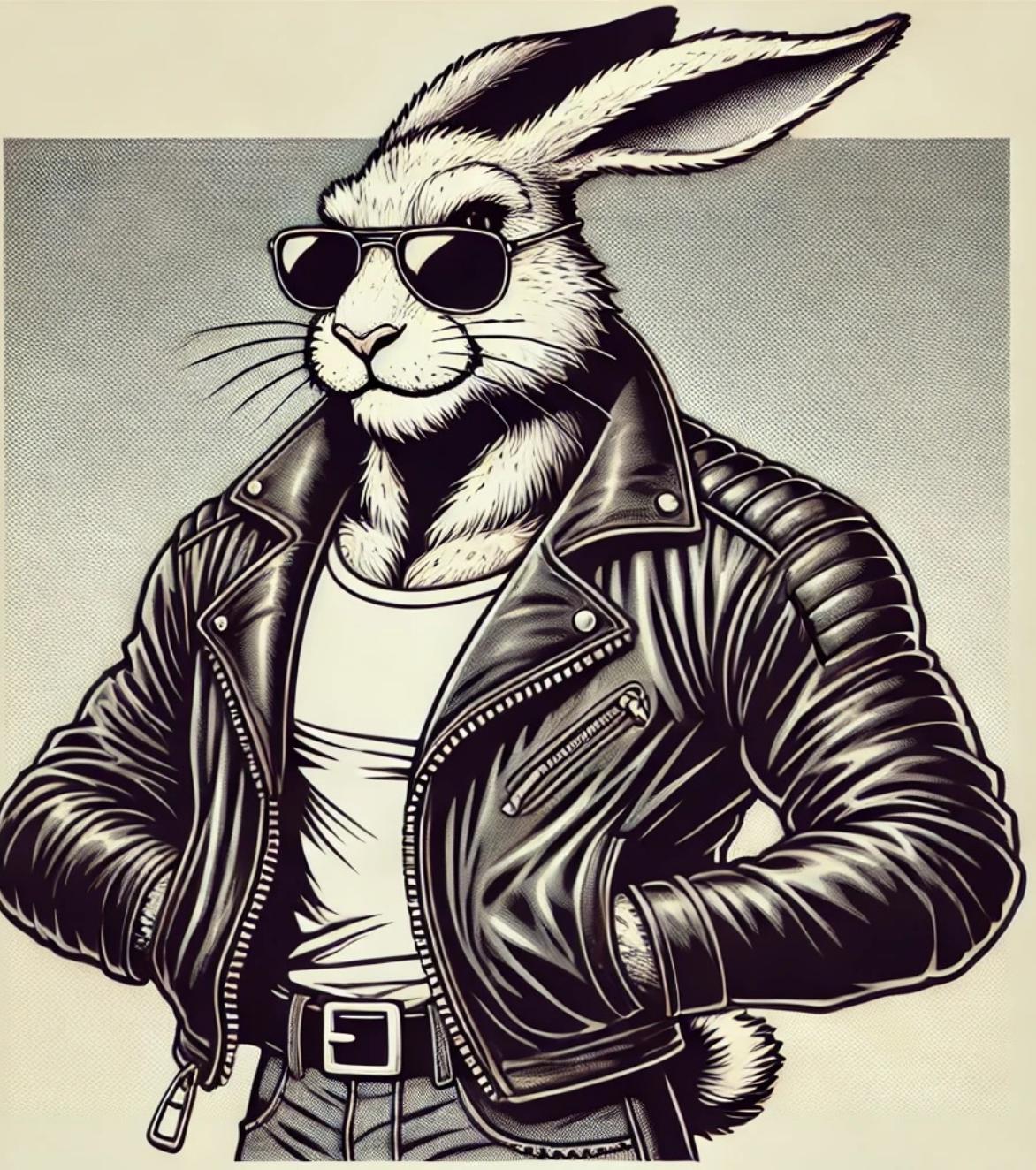
CUTTING EDGE



ADJUSTED FOR COMPLEX SCENARIOS



REVIEWED BY A GOD-LIKE ENTITY



# The Quality-Speed Trade Off Myth

1. Amazon: 136k Deps. a day.
2. Google: O(10k) Deps a day.
3. Netflix: 500 Deps. a day.
4. Etsy: 50 Deps. a day.
5. Meta: 1 Dep. a day.

# Let's Talk GH, Not Jargon

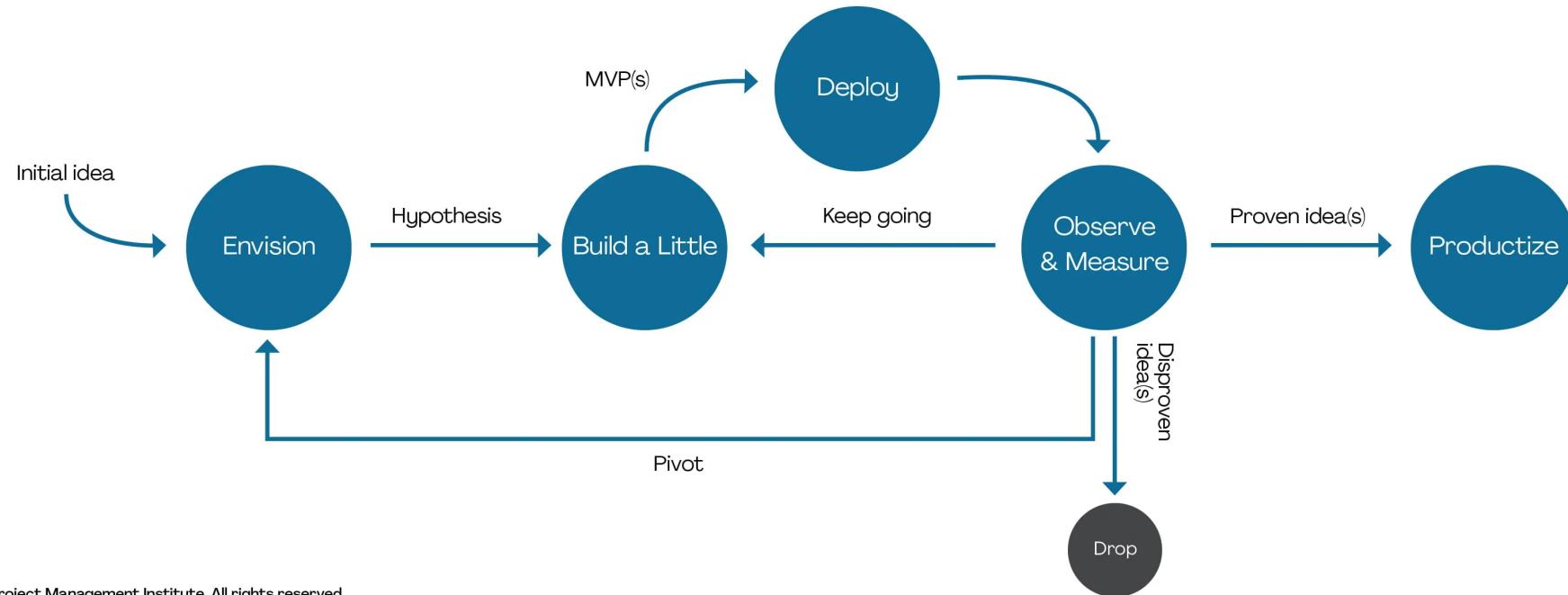


# Be Agile: Don't Hit the Nail With the Hammer Handle



# Be Agile: Don't Hit the Nail With the Hammer Handle

## DAD Exploratory cycle

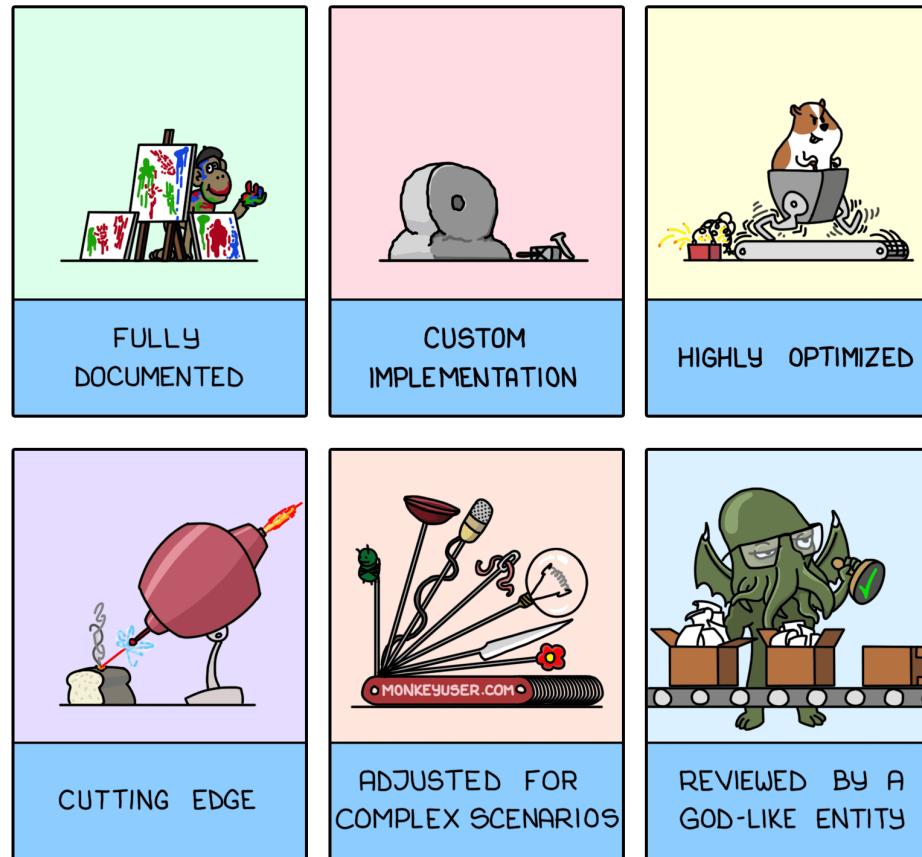


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Image reference: <https://www.pmi.org/disciplined-agile/lifecycle/exploratory-lifecycle>

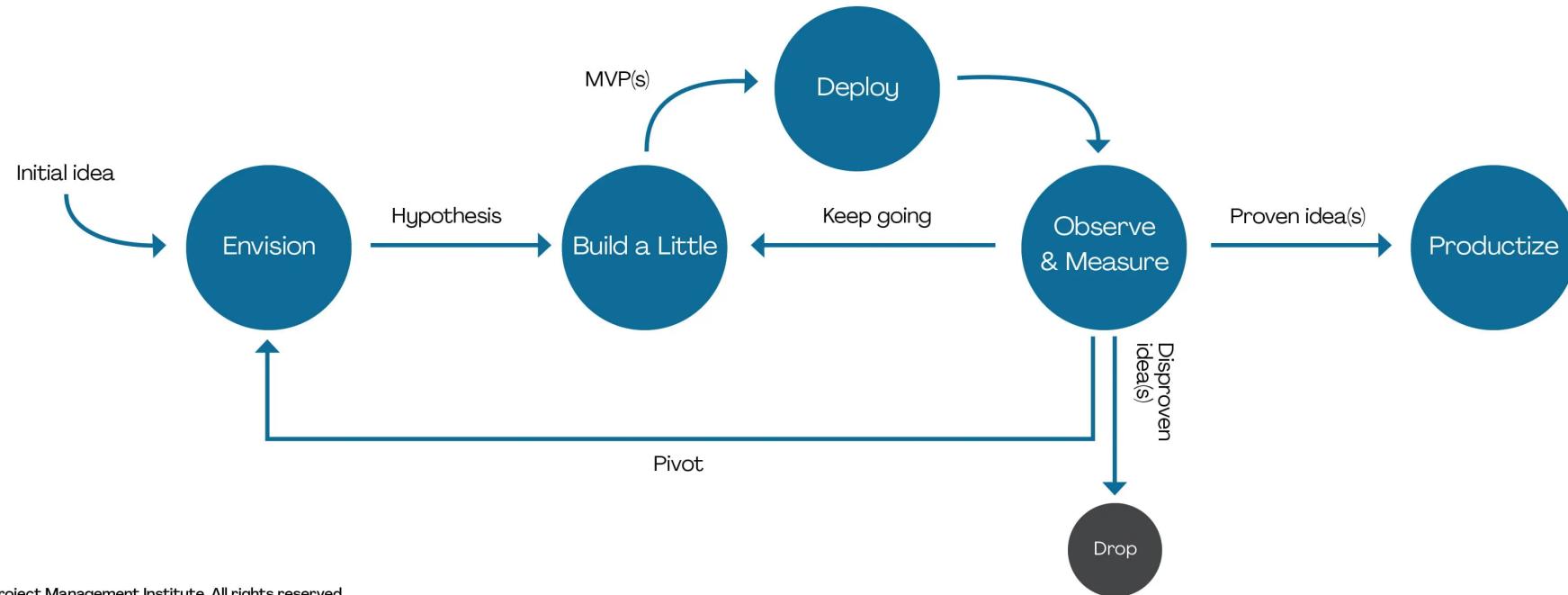
# Be Agile: Don't Hit the Nail With the Hammer Handle

PRODUCT DESCRIPTION



# Be Agile: Don't Hit the Nail With the Hammer Handle

## *DAD Exploratory cycle*



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# Recetario App

# Final Remarks

1. Keep learning how to maximize your productivity with GH, Git, and AGILE.
2. Avoid leaving a bad legacy.
3. Keep it fast, keep it classy.
4. Don't write any of code until you know the purpose. Disregarding that is the opposite of fast and classy in SWD.
5. Focus on fundamentals, not the Jargon.
6. Automate away. Cherish your time.





# Questions



# The Quality-Speed Trade Off Myth

