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# Nicolas Schulz



# How to avoid the PoC Graveyard?

**Artificial Intelligence Center** Hamburg e.V. (ARIC)

Supported as part of the European Digital Innovation Hub (EDIH)





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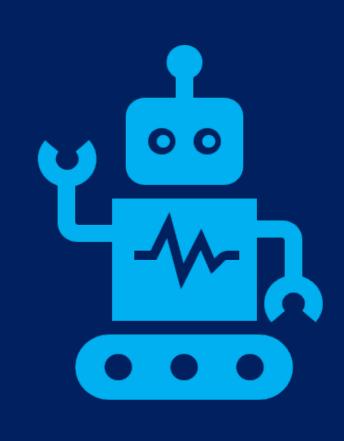
Hamburgische Investitions- und



## Who am I?

#### **Nicolas Schulz,** Al Manager European Digital Innovations Hub (EDIH)





We help small to medium sized companies with their AI strategy and build Proof of Concepts (PoC) as Test before Invest Service.





PoC Blueprint in Al

PoC vs. Machine Learning Product

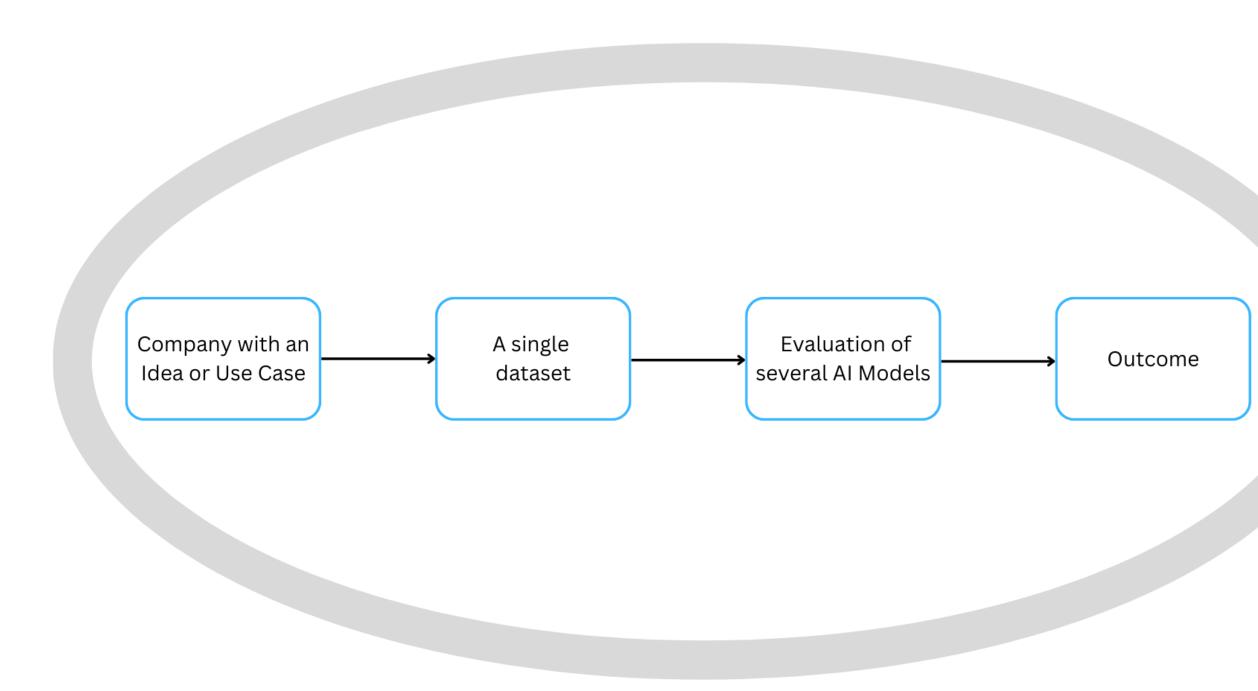
How can we bridge the gap?

Q&A





### What really is a Proof of Concept?



Assume we have achieved the desired outcome.

Wrong interpretation:

→ The company has a newAl tool ready to use

Right interpretation:

→ On this dataset, we found method X to be performant



## POC – A TOOL?





## POC – A PROTOTYPE!



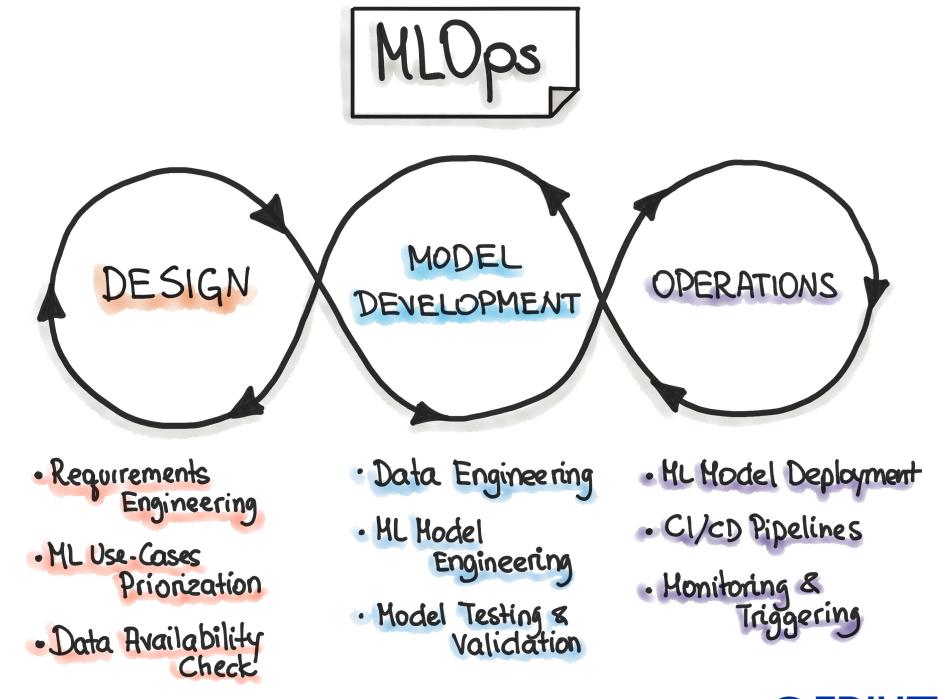


## Why is it not a finished Machine Learning Product?

- Integrated prediction pipeline
- Requires data availibility
- Model Deployment
- Needs monitoring and continious

testing and validating

• Under continious development





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### How can we bridge the gap – Practical Tips

#### > Expectation Managment

 $\succ$  Clarify the role of a PoC in the development pipeline

 $\succ$  Premature use of a PoC in production can lead to damage

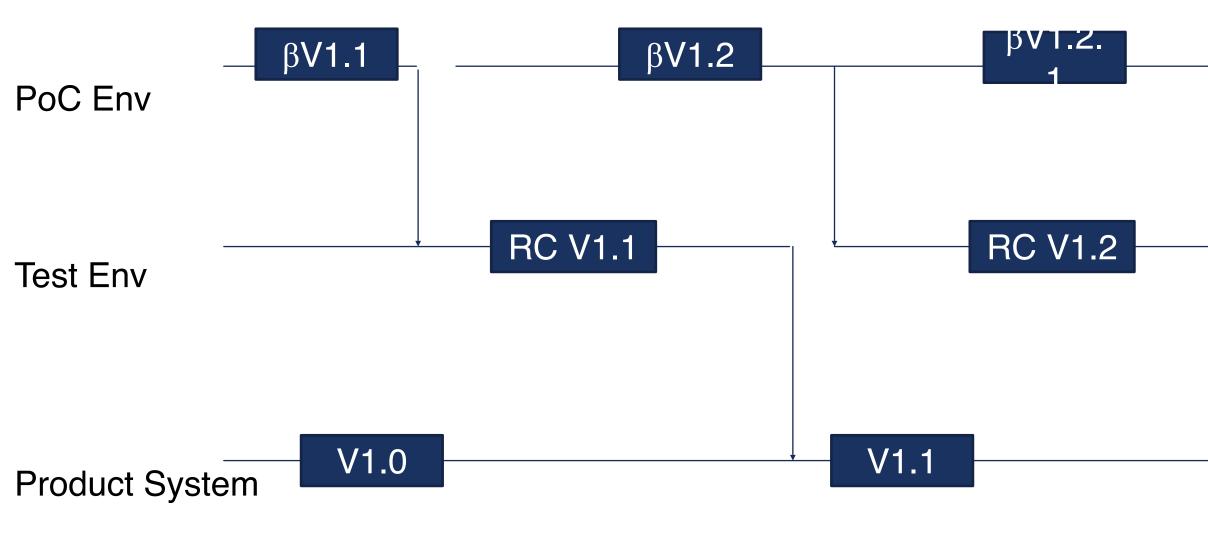
#### > Facilitate conversation between in-house IT departments and PoC Team

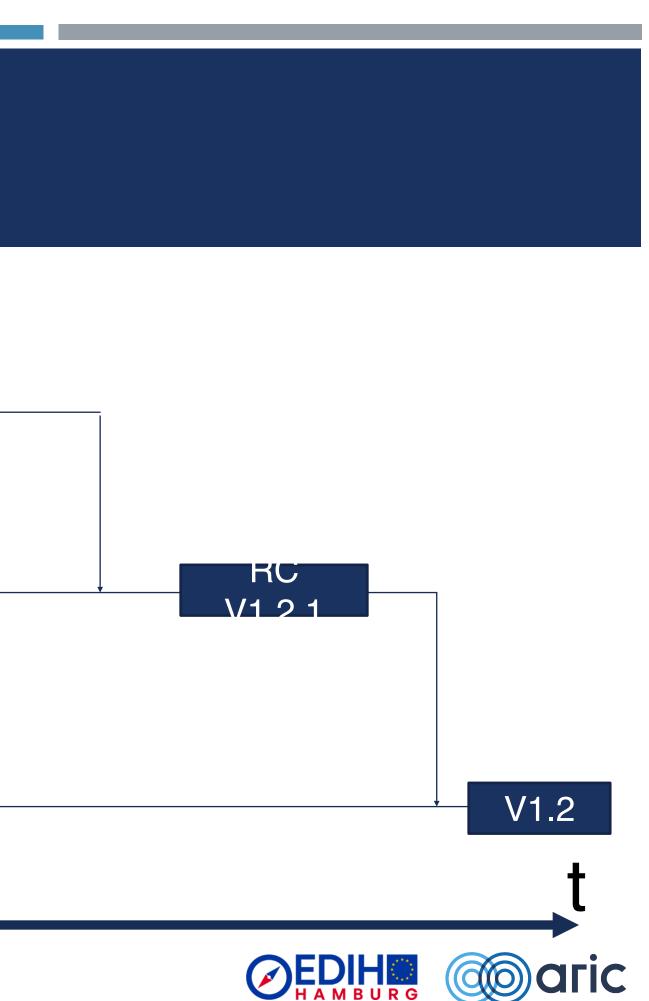
- $\succ$  If the PoC is successful, what is required for integration?
- > Work with checklists consisting of the steps needed to implement a PoC into your infrastructure
- > Establish seperate development environments for a succesful project outcome





### Seperate Development Pipelines





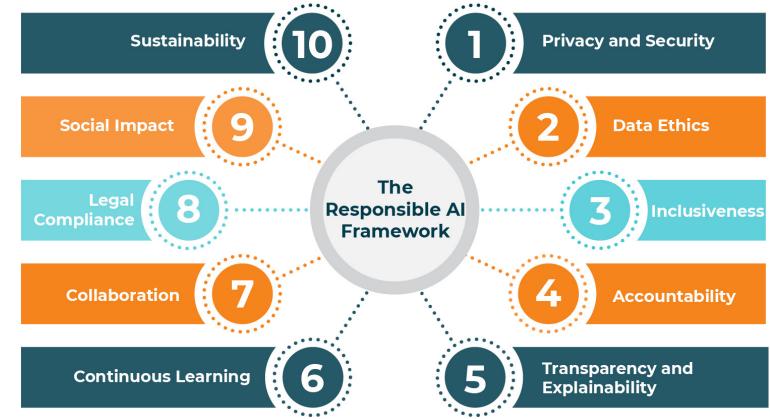
### How can we bridge the gap – Practical Tips

#### > Build close to the target infrastucture and customer demands

- $\succ$  Think about target IT systems while developing (Programming Language, Cloud Provider etc.)
- $\succ$  Think about scalability and robustness of the ML Model Could it handle varying requests?

#### > Keep Best Practices in mind while developing the PoC

- $\succ$  Compliance & data privacy regulations
- $\succ$  Usage of Responsible AI frameworks



#### Take Home Message

> A PoC is not a product and should not be treated as such

> If we are **mindful of the gap** and keep it as small as possible during development, the PoC is much more likely to become a product

> By adopting best practices regarding **responsible AI** early during PoC development can help **anticipate** and avoid larger issues later in the process





## Thank you for your attention!

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