



# MLOps myths

### **5 common MLOps myths**

### MLOps is ...

- 1. Easy
- 2. Only useful at scale
- 3. Too expensive
- 4. The same as DevOps
- 5. Not requiring governance





# MLOps is easy

### There is more to MLOps than deployment

- Many factors dictating the success of ML systems
- Hidden technical debt accumulates over time

### There are many factors at play

- Maintaining a model entails maintaining all its components
- Models don't live in an island
- Governance and DevOps integration

### DIY culture is detrimental for MLOps

- Is expensive to have all expertise in-house
- MLOps technology is advancing extremely fast



# MLOps is only useful at scale

#### Same issues apply regardless of amount of models

- Good practices should always be present
- Resources might differ but the need for processes is the same

#### Develop with the future in mind

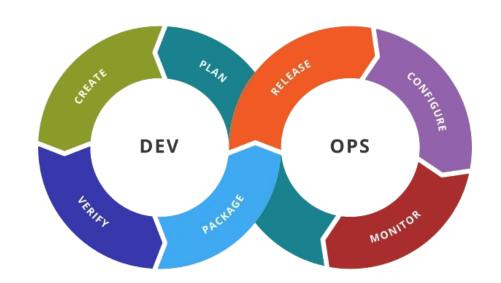
- Having robust pipelines will lower maintenance cost
- Monitoring and auditing is almost impossible
- Processes are easy to smart copy

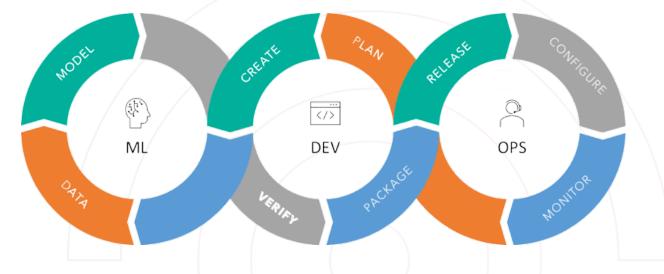
#### Maintenance cost grows exponentially

- If deployment and experimentation is not streamlined finding errors is difficult
- Everything becomes an ad-hoc task



# MLOps is the same as DevOps





#### Conceptually similar but ...

MLOps is much more experimental

Performance degradation of the system

**Model monitoring** 

**Team** composition:

**Testing** involves model validation



# MLOps is expensive

### Better to have and not need than need and not have

#### You can't afford not to have it

- Adapt rapidly to environmental changes
- Maintainability and auditability is cumbersome without it
- Not only about the tools but also the processes
- Other risks (e.g., operational, reputational)

#### It becomes more expensive over time

- The more you wait the more difficult is to implement it
- MLOps is not an expense but an investment



# MLOps doesn't require governance

ML Governance refers to the policies that organizations set around their models and overall machine learning platforms.

### ML systems are complex

- Require data, maybe subject to regulation
- Tend to degenerate over time
- Security issues around them
- Clients might interact or be affected by them

## With MLOps, governance isn't manual

Tools to support this task