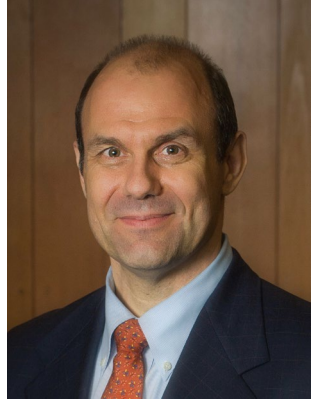


The AI Engineering Journey

Erick Brethenoux, Gartner
April 15, 2021

About Erick

- Gartner VP Research & AI Research Agenda lead – Aug 2017
- IBM Director of Machine Learning & Decision Management Strategy
- SPSS VP of Corporate Development
- Lazard VP, Technology Investments, M&A and VC
- Gartner, Research Director of Advanced Technologies
- New Science, Research Director Advanced Technologies and Applications
- French Embassy, Scientific Mission
- University of Delaware, PhD Cognitive Science

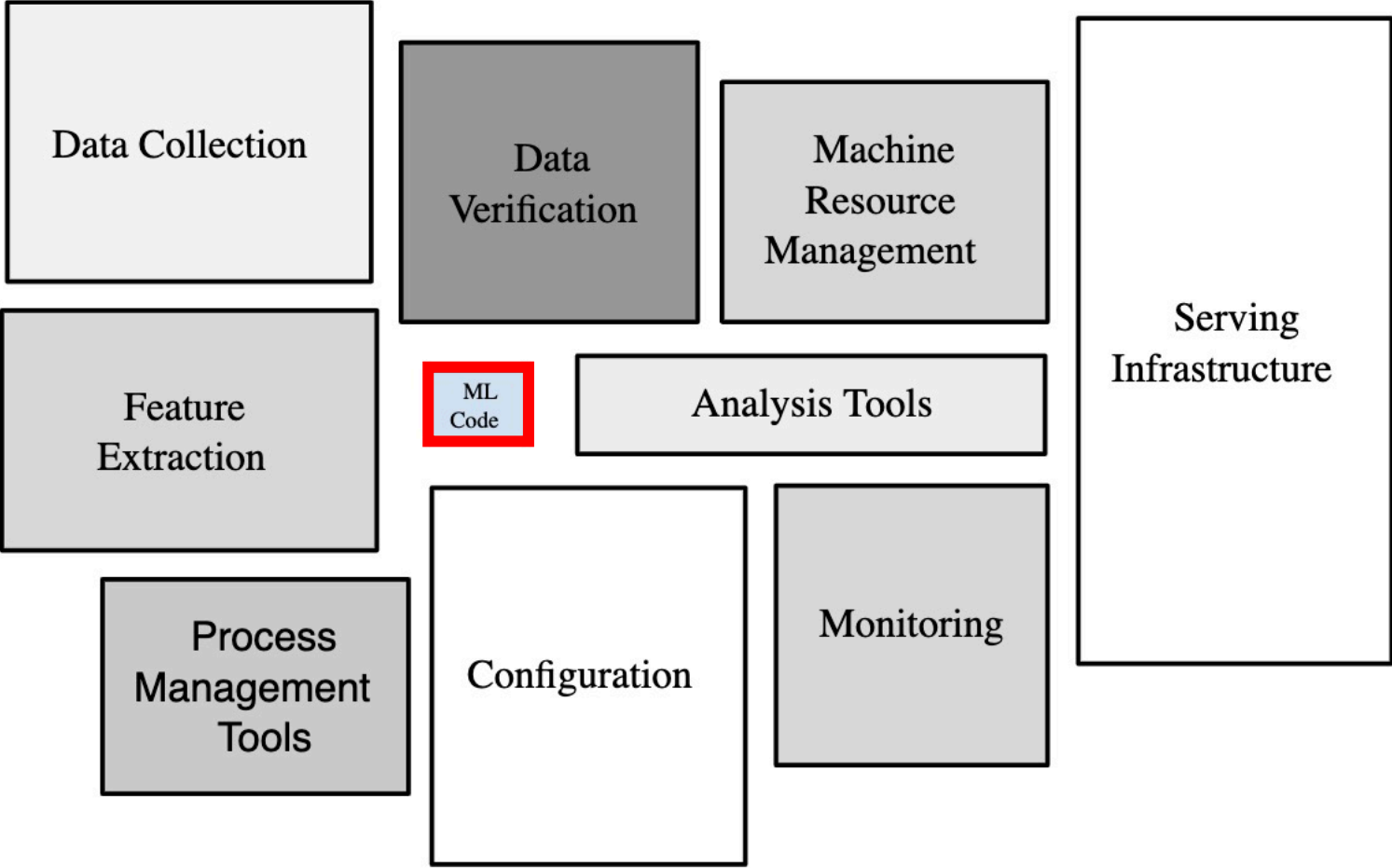


Years of experience: 3.5 years at Gartner, 30 years industry experience

Key Issue Takeaway:

Through 2023, at least 50% of IT leaders will struggle to move their AI predictive projects from proof of concept to production maturity.

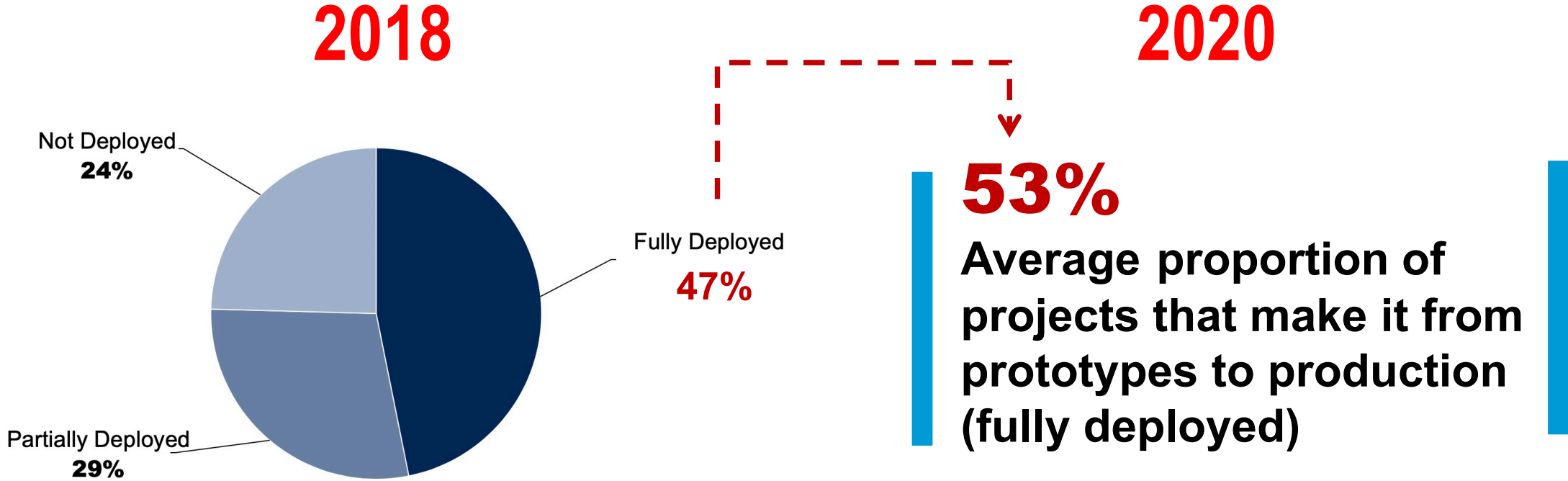
Google circa 2014... models in context - still true!



In two years organizations have (barely) crossed the 50/50 threshold

Proportion of prototypes that make it to production

Percentage of respondents

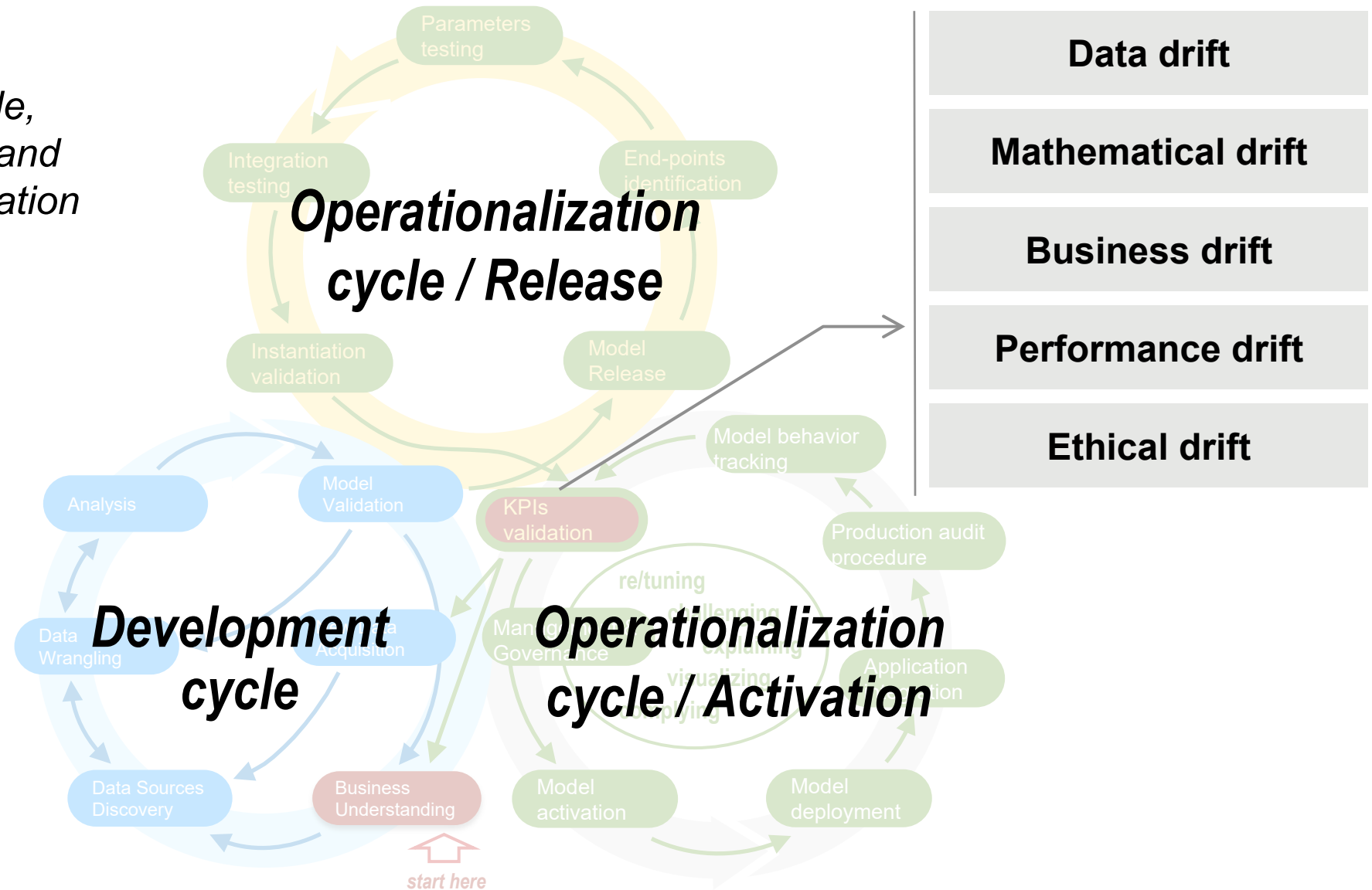




MLOps to ModelOps

MLOps Discipline

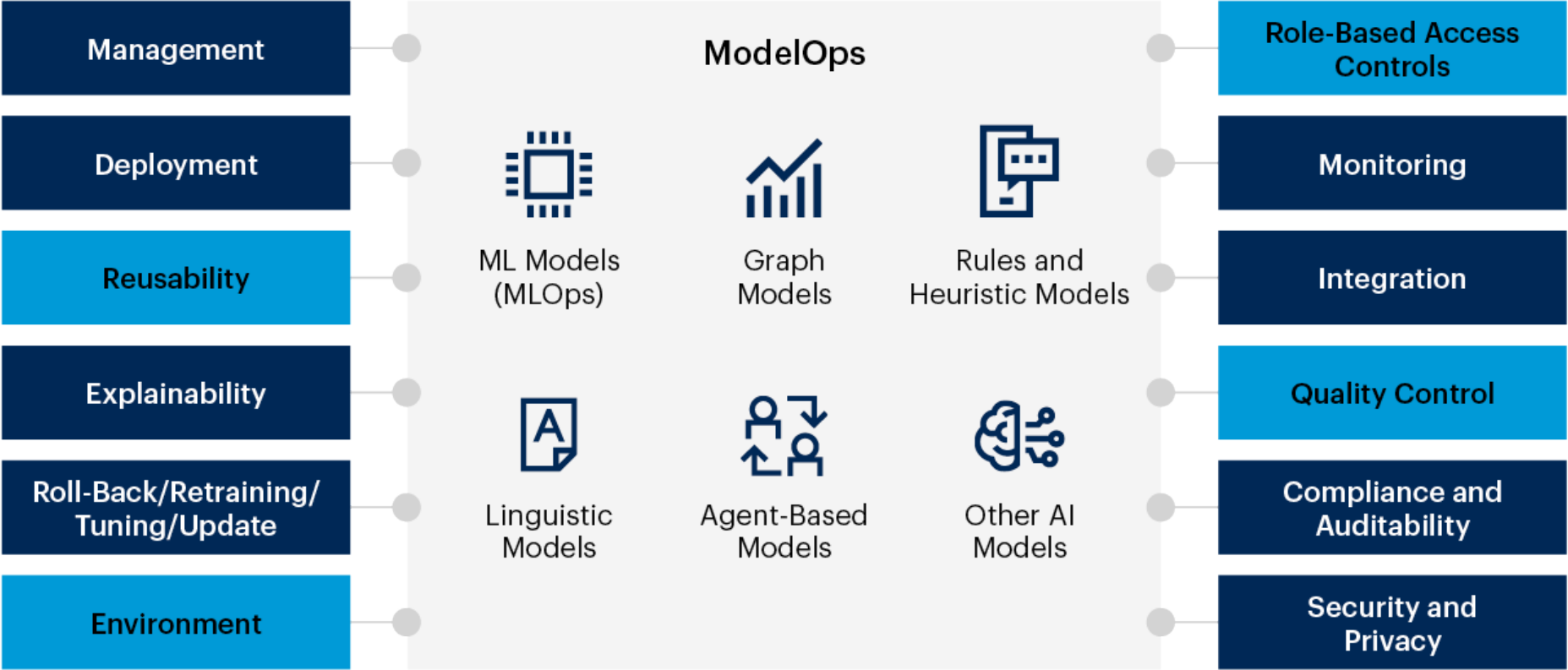
Establishing a sustainable, repeatable, measurable and continuous operationalization process.



From MLOps to ModelOps

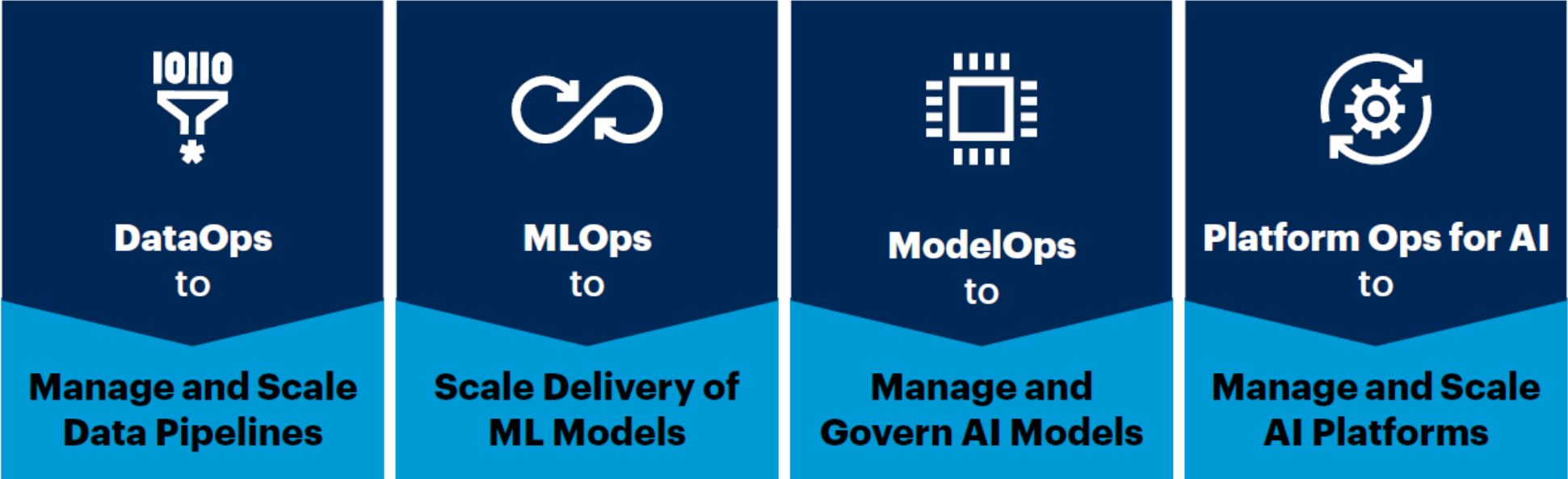
The Nuances of ModelOps

■ Critical ■ Important



Source: Gartner

Demystifying XOps – DataOps, MLOps, ModelOps, Platform Ops for AI



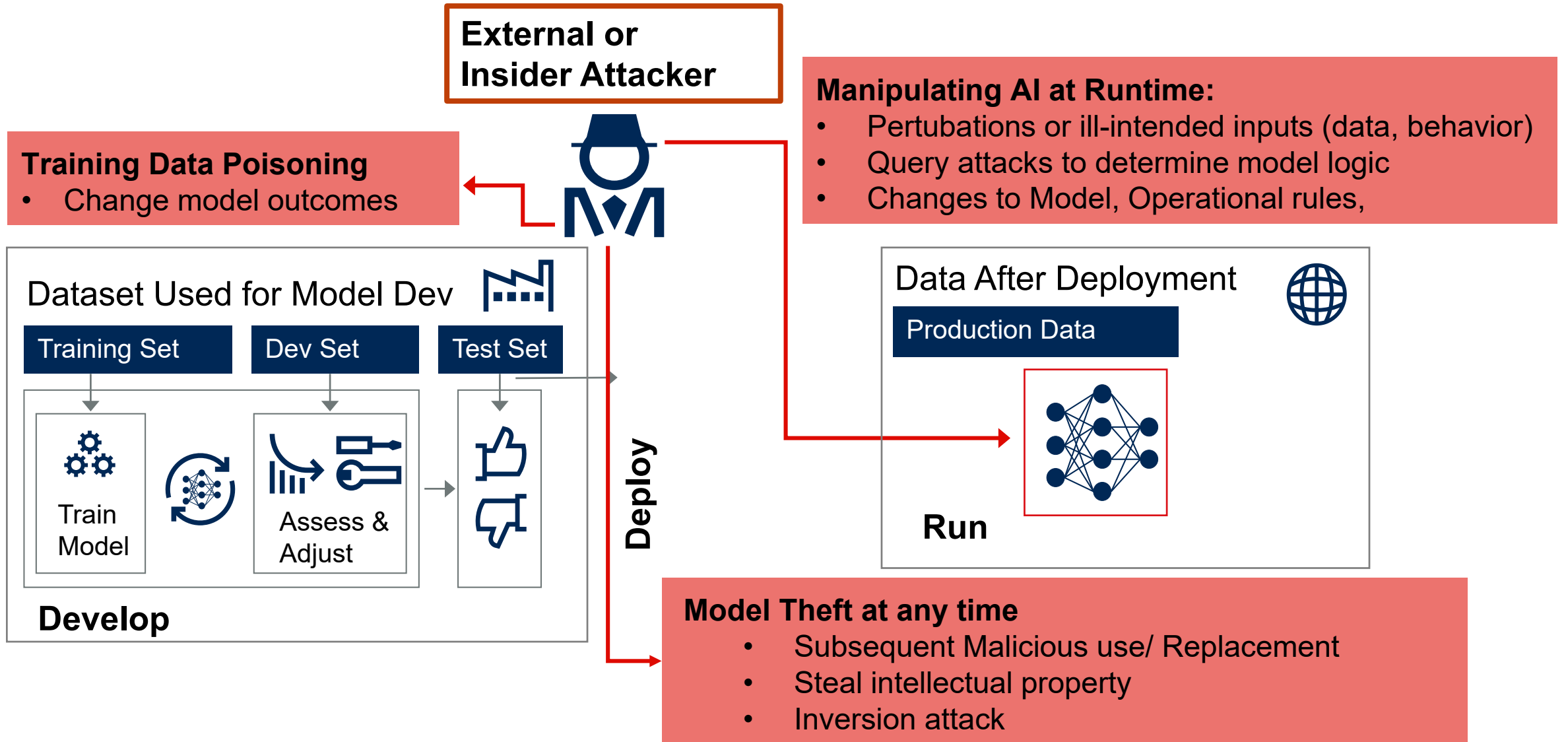
Invariant AI Engineering Themes and Governance Principles

- **Security**
- **Ethics**
- **Autonomy**
- **Decisioning**
- **Change Management**

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AI Security



AI Ethics



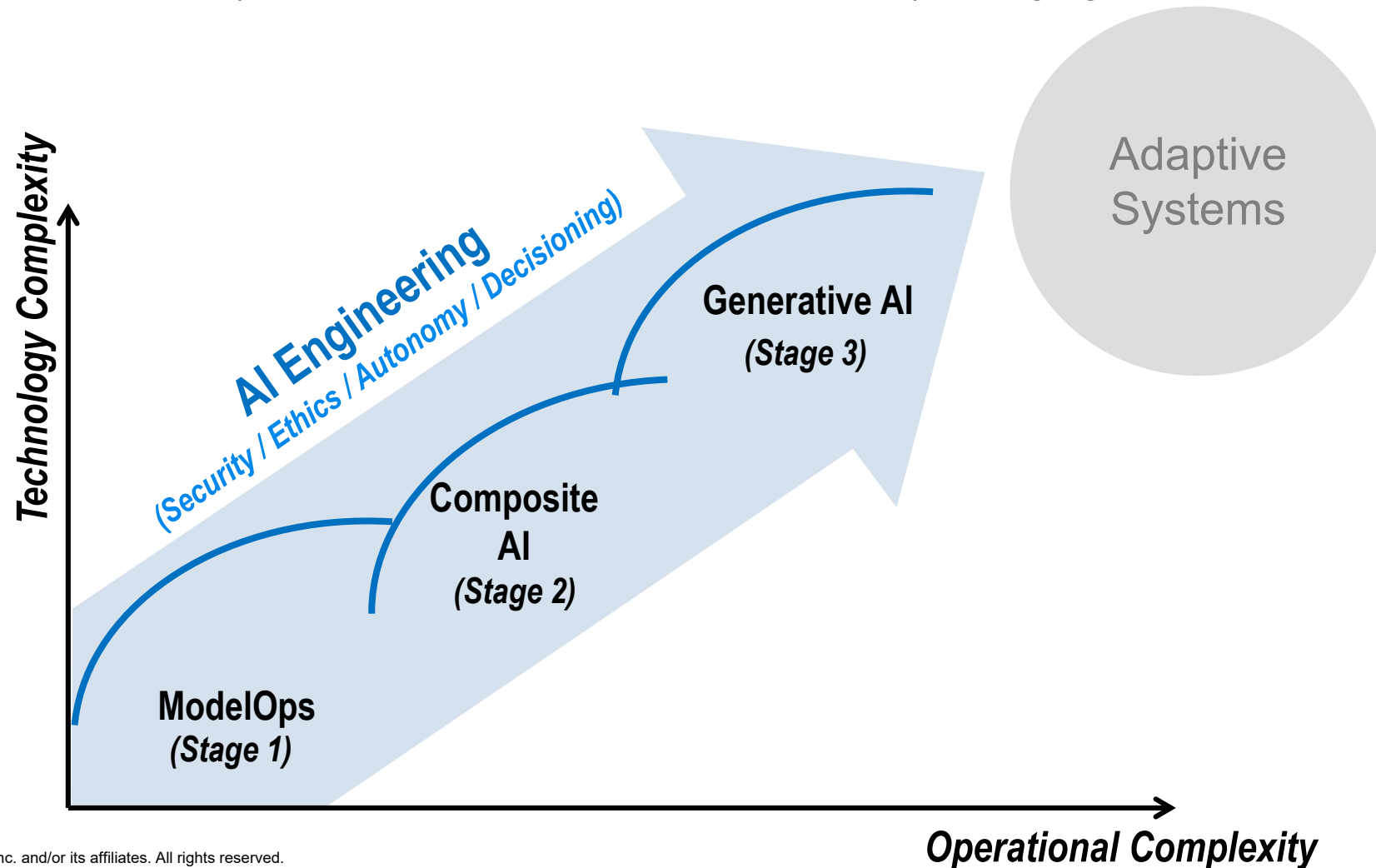
Recommendations

Recommendations

- ④ Minimize the technical debt of deployed ML models by monitoring and revalidating their business value by adopting a foundational ModelOps practice – first stage of the AI Engineering discipline.
- ④ Ensure the integrity, transparency and sustainability of AI models through a systematic process, and enduring governance principles; based on fairness, trustworthiness, reliability and accountability.
- ④ Identify projects in which a fully data-driven, ML-only approach is unviable and inefficient while exploring the expressive power of Composite AI to solve complex business problems.
- ④ Extend the skills of AI experts, to cover multiple AI techniques, both from a model development and operationalization perspectives.

The AI Engineering Evolution

AI engineering is a discipline focused on the governance and life cycle management of a wide range of operationalized AI and decision models, providing an uninterrupted flow between the development (human or machine-based), and operationalization of AI models (leveraging one or multiple AI techniques).





Thank you