

# DevOps: Muito mais do que só automação

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Microsoft Regional Director



The background features a dark green gradient with a large, faint, light green circular graphic. A man in a dark jacket and light pants is sitting on the top of the circle, holding a laptop. A woman in a light dress is sitting on the bottom of the circle.

# Por que falar de DevOps?

DEVOPS: MUITO MAIS DO QUE SÓ AUTOMAÇÃO

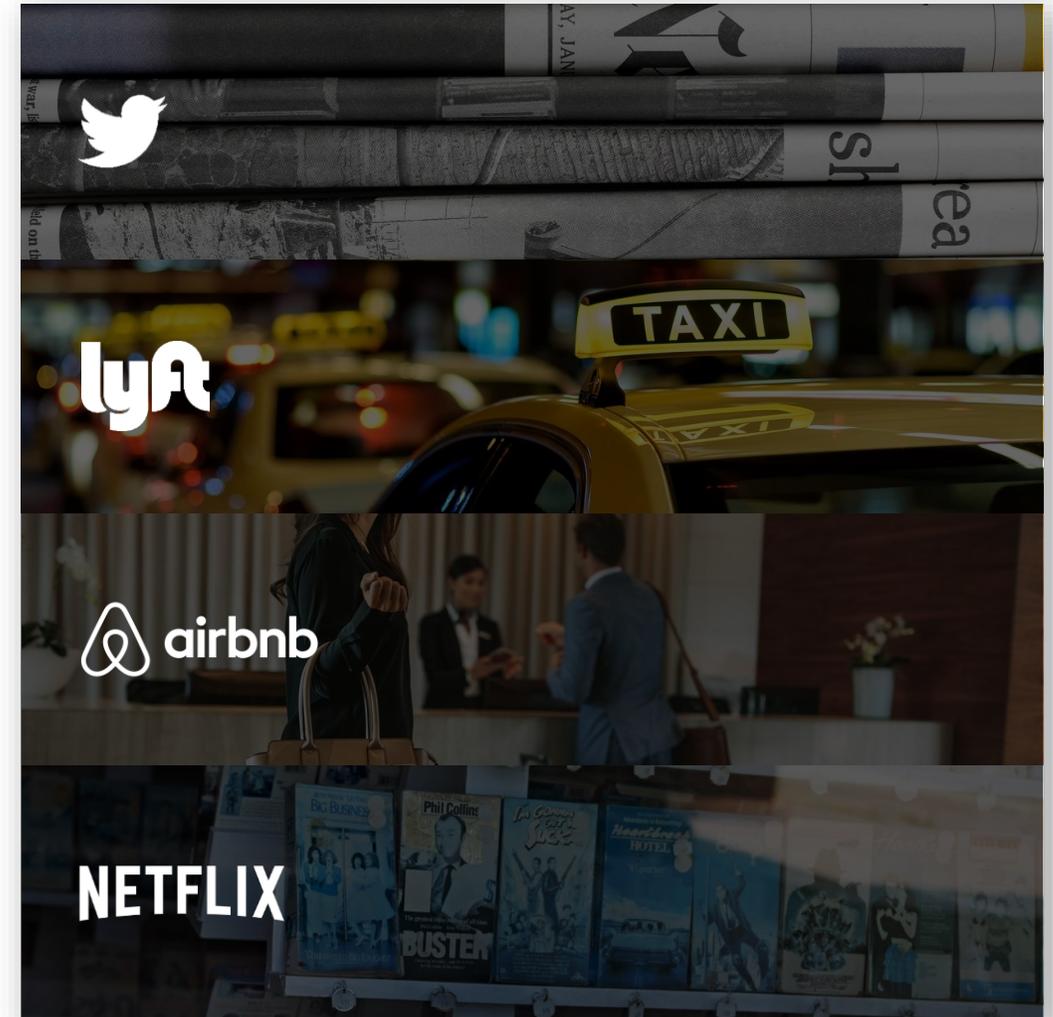
# Por que falar de DevOps?

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“50% das empresas na *Fortune 500* no ano 2000 foram **substituídas** por organizações que **usam tecnologia** para entregar valor a seus clientes **mais rápido, melhor, e mais barato.**”

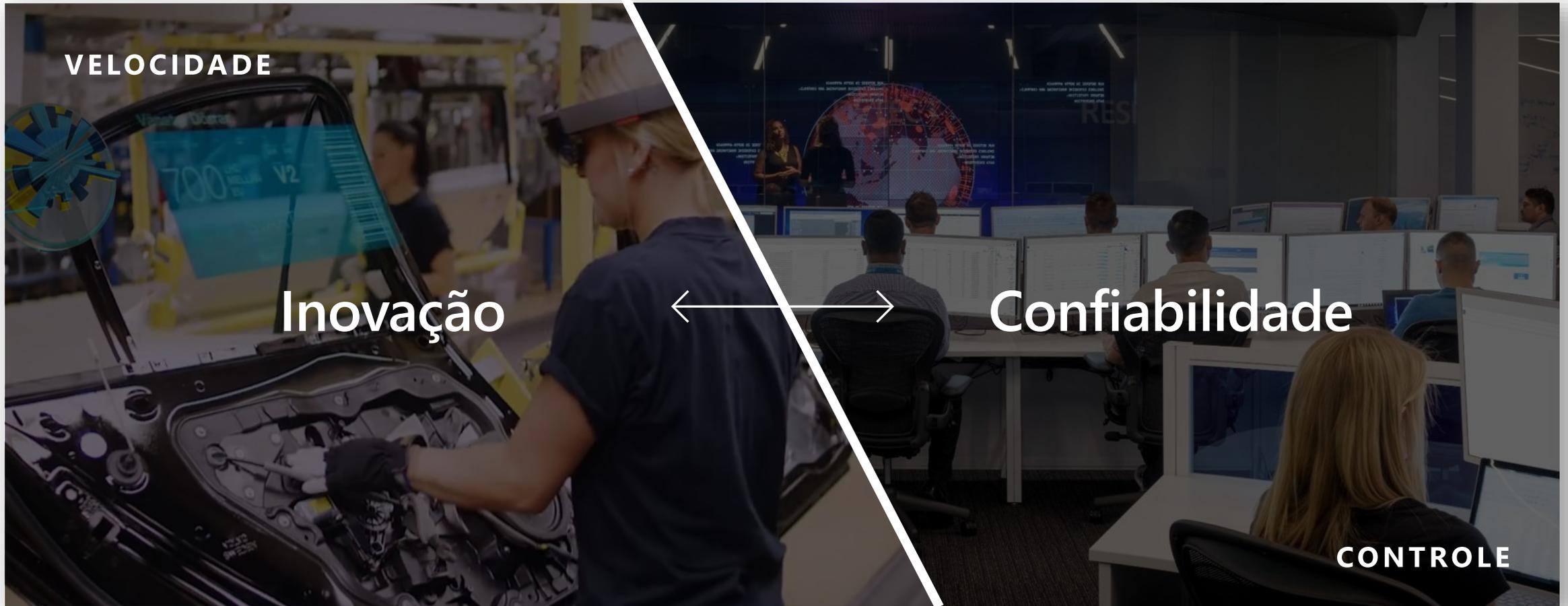
As Fortune 500 de hoje encontrarão o mesmo desafio amanhã”

Innosight | Corporate Longevity: Turbulence Ahead for Large Organizations



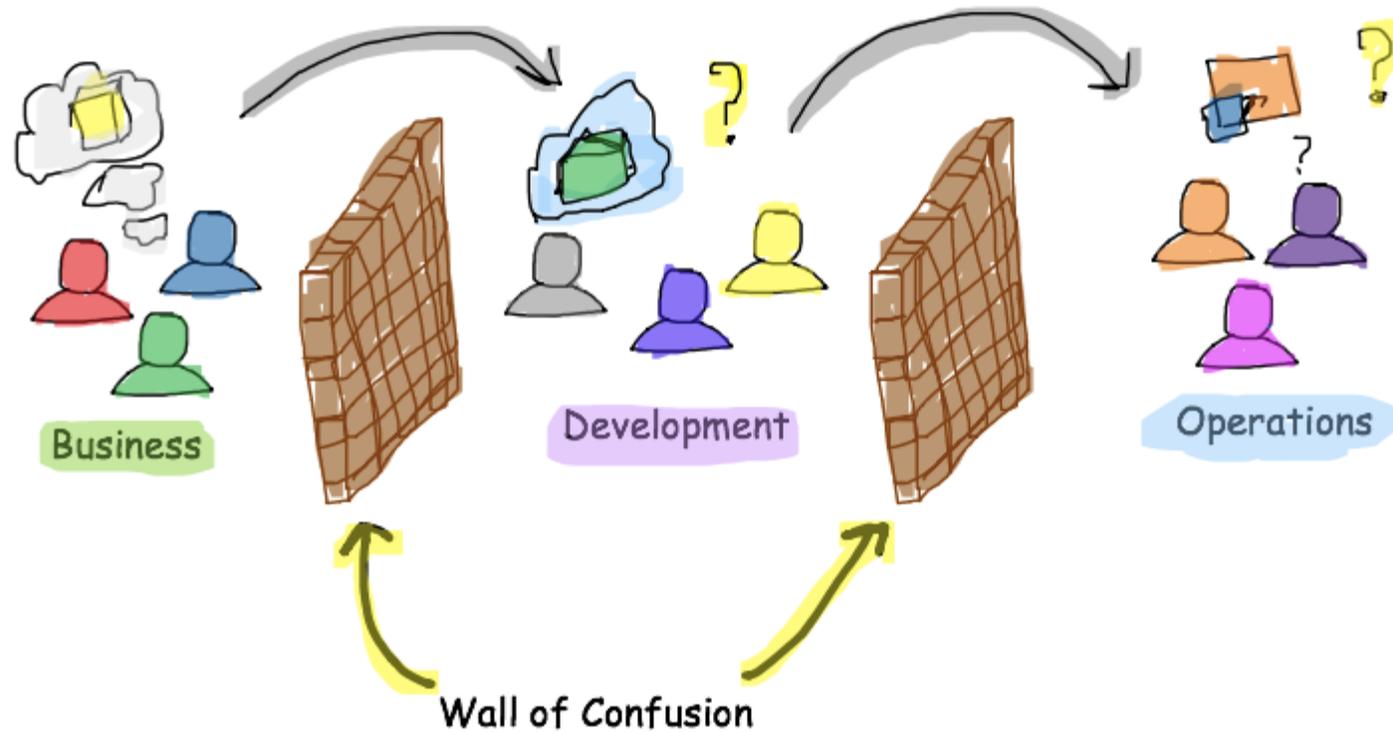
# Por que falar de DevOps?

O paradoxo da entrega de software: "Velocidade vs. Controle" impede inovação



# Muro da Confusão

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# Muro da Confusão

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# DevOps pode ajudar

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Mais valor para seus usuários



Mais respeito pelo seu time



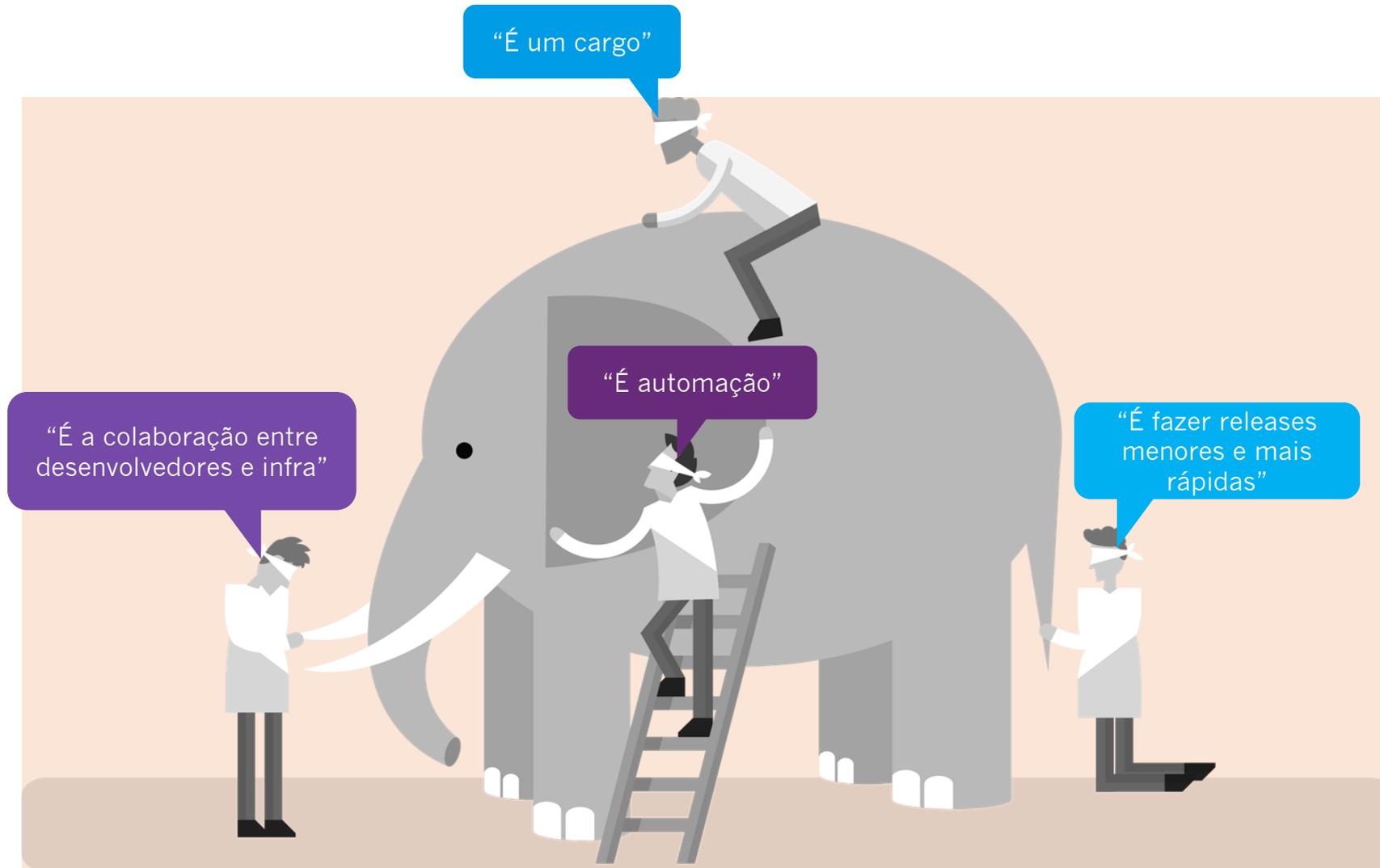
A stylized illustration in shades of gray and black. It depicts a large elephant in the center. Several human figures are interacting with it: one is climbing on its back, another is on a ladder touching its side, and others are touching its trunk and legs. This is a classic metaphor for the 'blind men and an elephant' story, where people touch different parts of the elephant and make incorrect conclusions based on their limited perspective. The background is a dark gray gradient.

# O que é DevOps?

DEVOPS: MUITO MAIS DO QUE SÓ AUTOMAÇÃO

# O que é DevOps?

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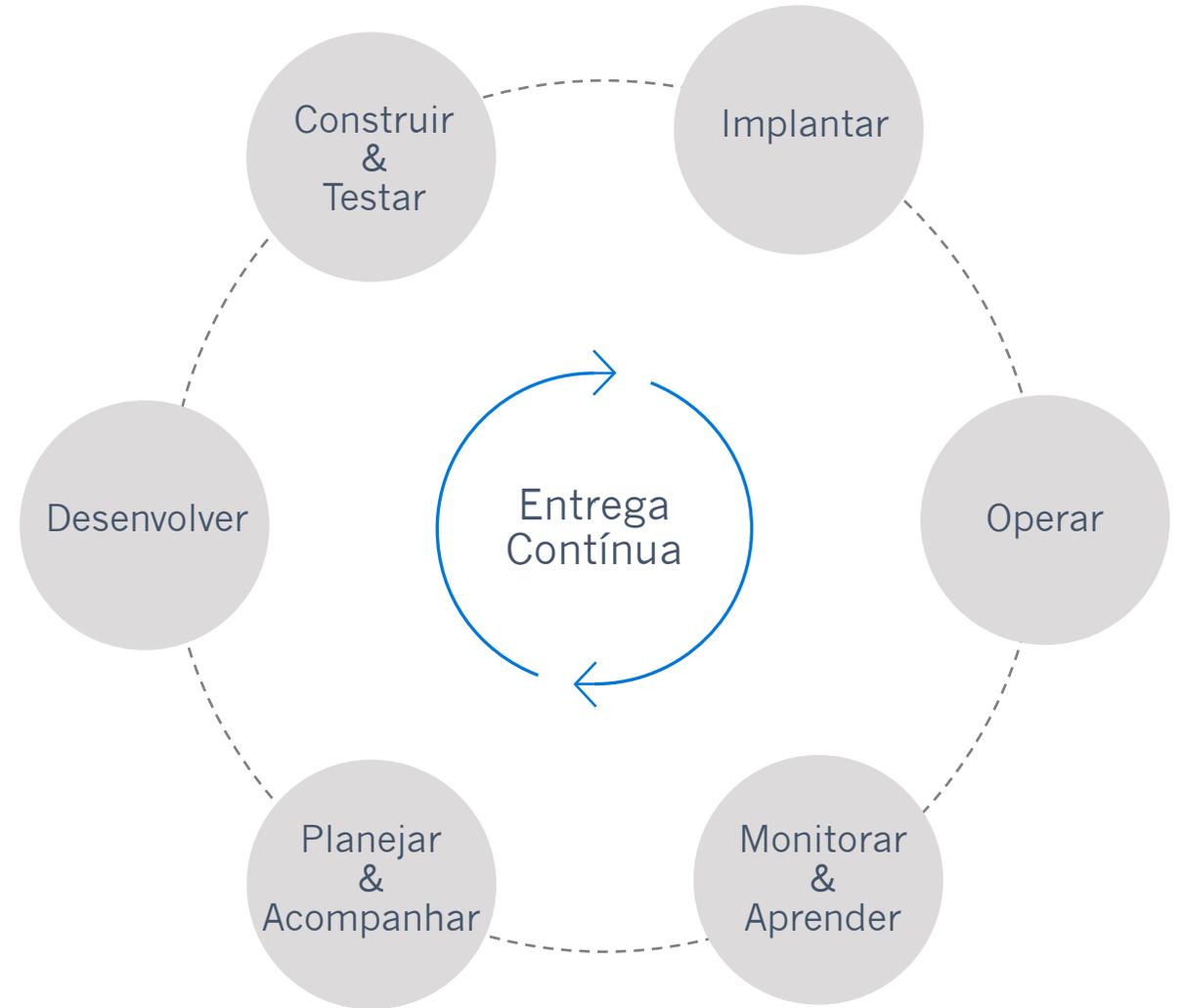


# O que é DevOps?

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DevOps é a união de **pessoas**, **processos** e **ferramentas** a fim de permitir a **entrega contínua de valor** aos **usuários finais**

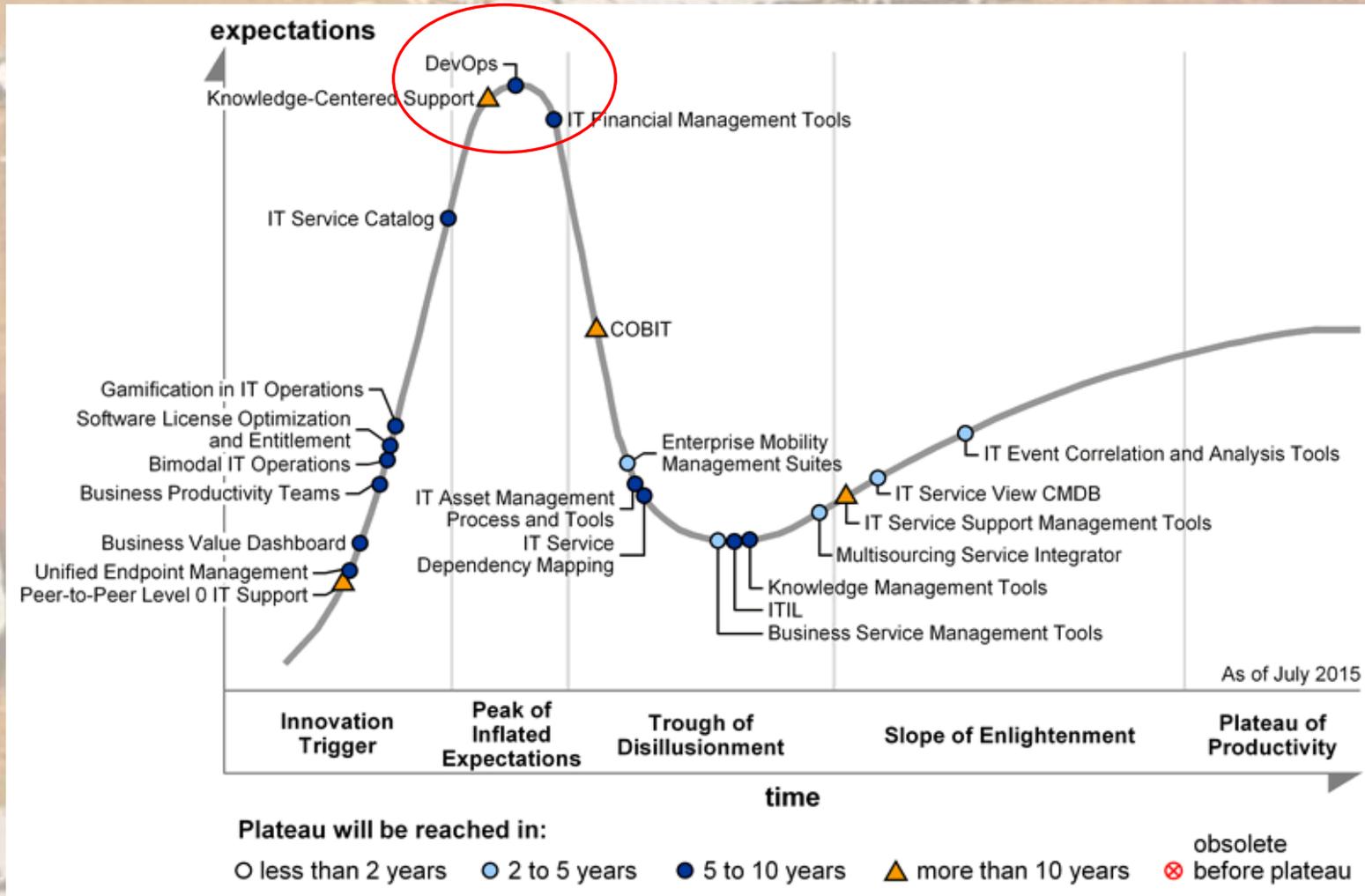


A group of five people (three men and two women) are standing in a dark, industrial-looking environment. They are positioned behind a large, rusted metal sign that reads "MYTHBUSTERS" in a stylized, raised font. The sign is the central focus of the image. The people are dressed in casual, dark clothing. The background is dimly lit, showing some structural elements of a building or warehouse.

# Mitos e Verdades

DEVOPS: MUITO MAIS DO QUE SÓ AUTOMAÇÃO

# “DevOps é ‘modinha’”



# “DevOps substitui o Agile”

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## **Manifesto for Agile Software Development**

We are uncovering better ways of developing software by doing it and helping others do it.  
Through this work we have come to value:

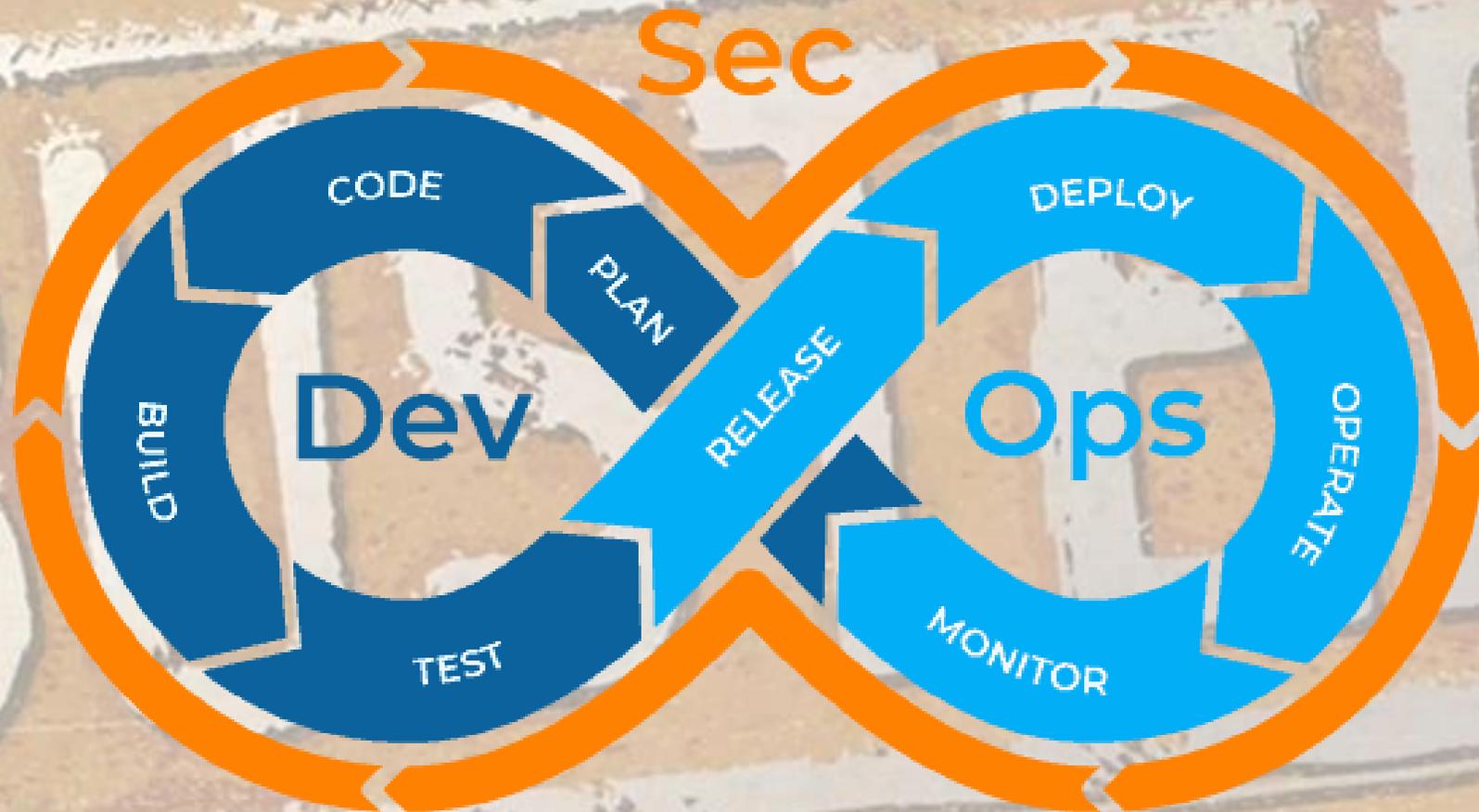
**Individuals and interactions** over processes and tools  
**Working software** over comprehensive documentation  
**Customer collaboration** over contract negotiation  
**Responding to change** over following a plan

That is, while there is value in the items on the right, we value the items on the left more.



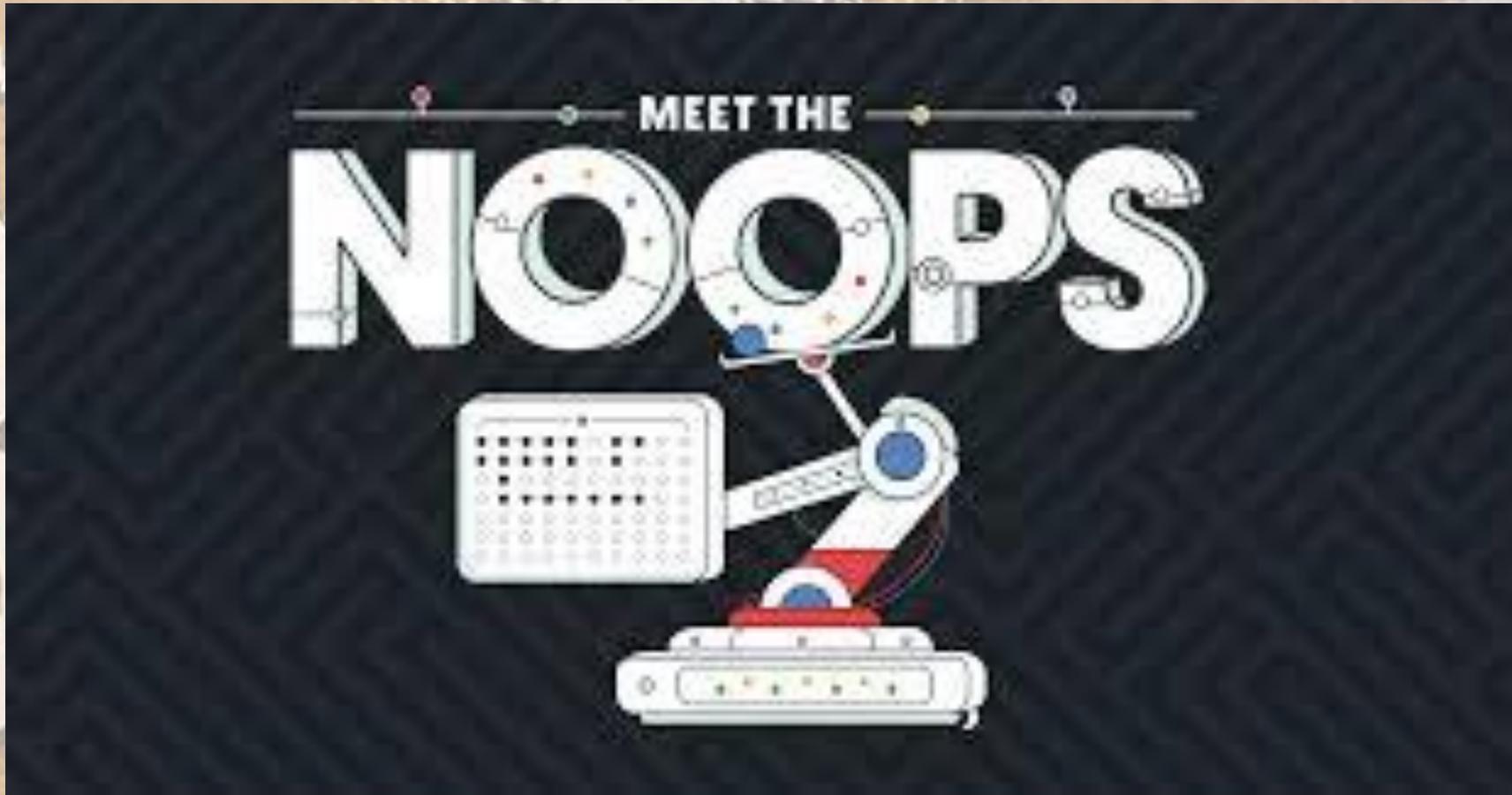
# “DevOps é incompatível com Segurança e Compliance”

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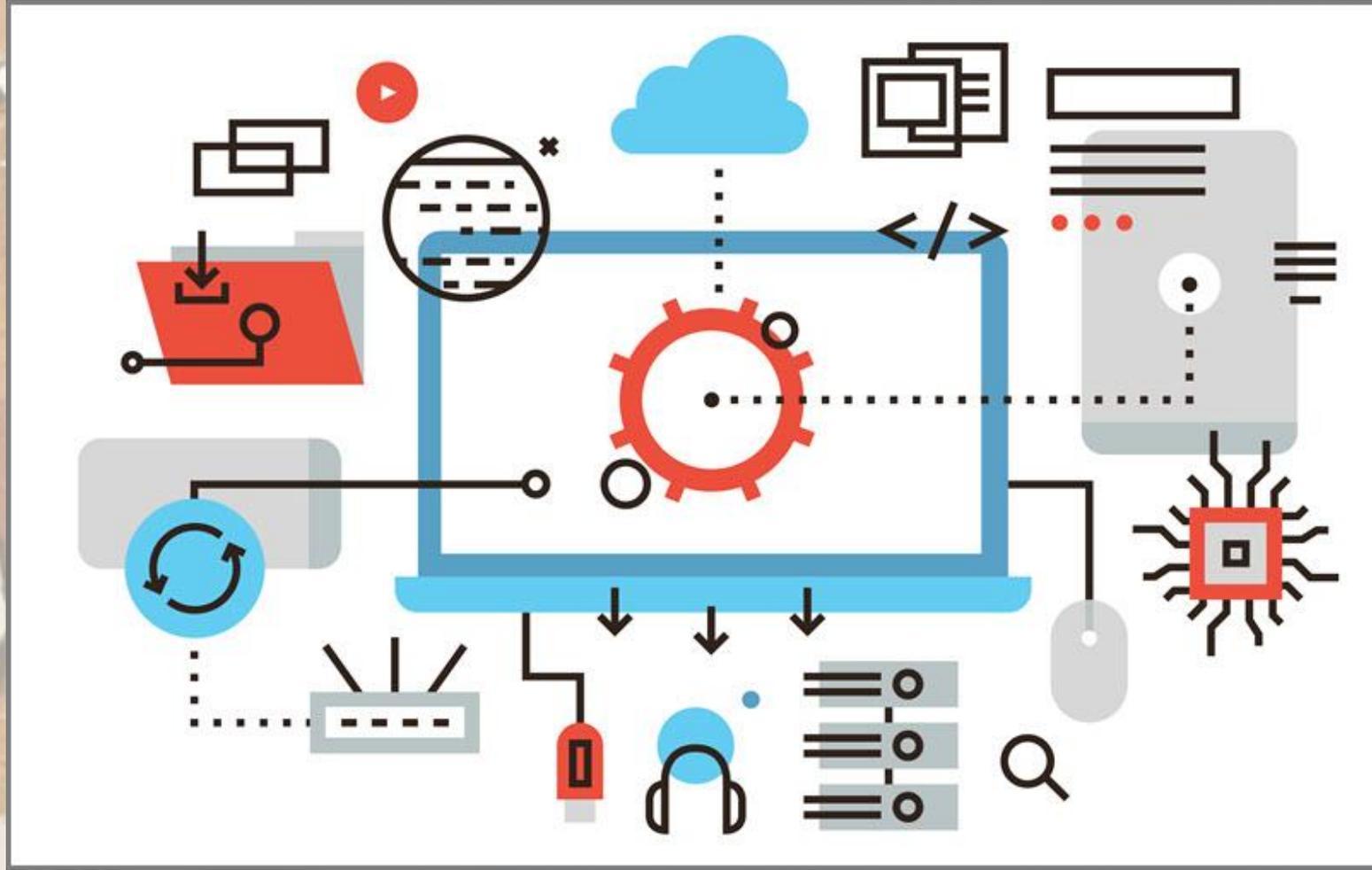


“DevOps é eliminar o time de Infraestrutura (‘NoOps’)”

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“DevOps é automação, ou ‘Infraestrutura como código’”



# “DevOps é só para Startups”

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A historical map of the Americas, likely a 16th-century map, with a skull and crossbones in the center. The map is overlaid with a dark grey semi-transparent background. A pair of black-rimmed glasses is positioned on the right side of the map. A banner at the bottom of the map contains the text "Quille el Tuerto".

# Em busca do DevOps

DEVOPS: MUITO MAIS DO QUE SÓ AUTOMAÇÃO

A scenic landscape featuring a dirt path with a wooden railing leading to a sunset over a valley. The path is made of dirt and gravel, flanked by a rustic wooden railing made of logs. The path leads towards a bright sunset on the horizon, with the sun low in the sky, casting a warm glow. The sky is filled with wispy, golden clouds. In the background, there are rolling green hills and a valley with a winding road and a small lake. The overall scene is peaceful and inspiring.

A jornada é  
mais  
importante  
que o destino

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*Famoso (e batido) chavão da  
Internet*

# Bases de DevOps: CAMS / CALMS

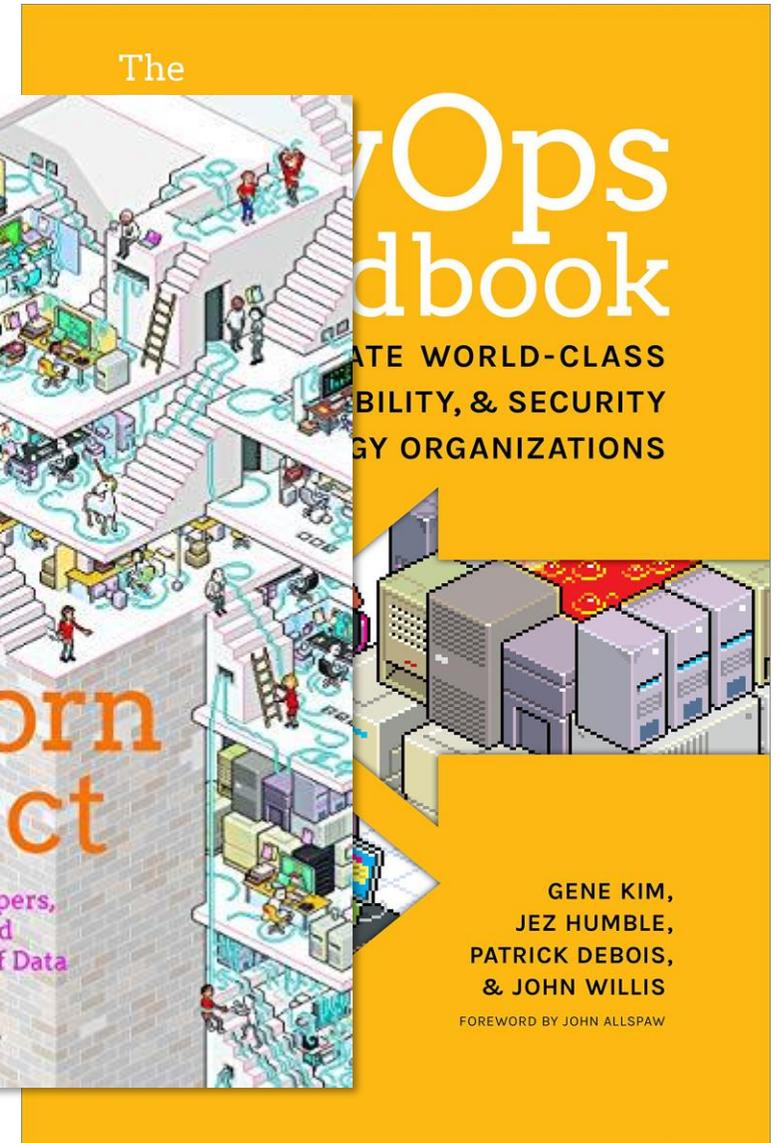
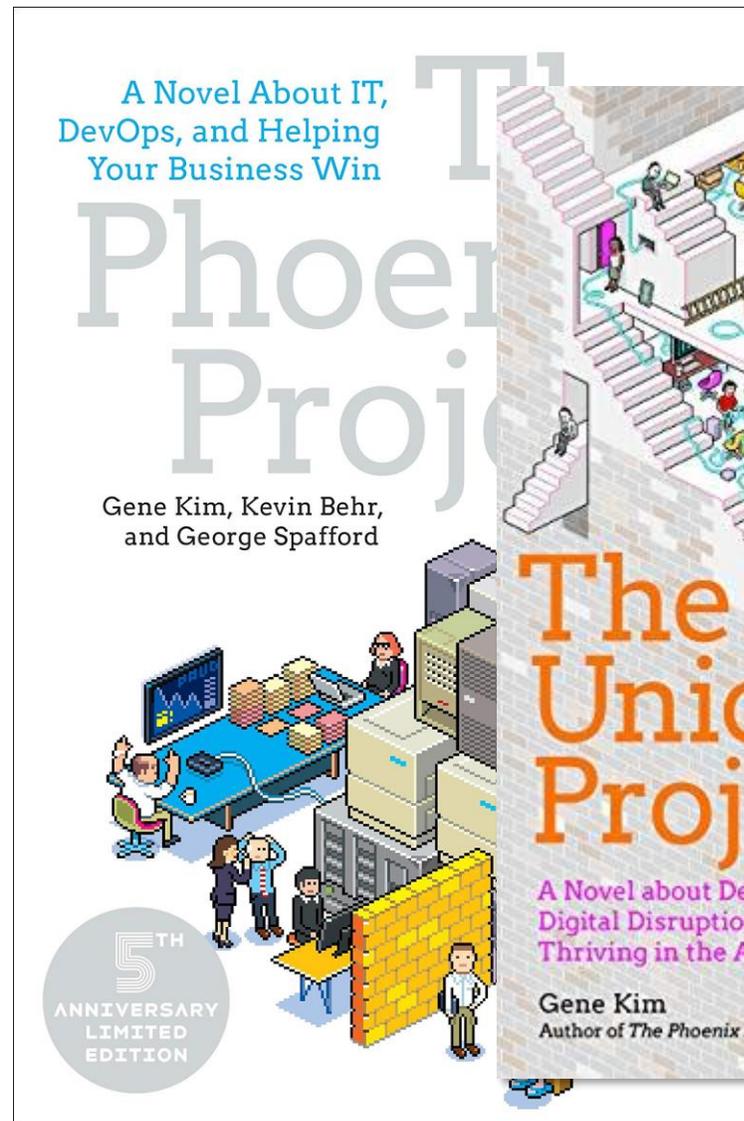
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C	Cultura
A	Automação
L	Lean Medição ( <i>"Measurement"</i> )
S	Compartilhamento ( <i>"Sharing"</i> )



# “As Três Maneiras”

- Systems Thinking
- Amplify feedback loop
- Culture of continual experimentation and learning



# 1 - “Systems Thinking”

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The first way:  
Systems thinking



- Entender o fluxo de trabalho (“Understand the flow of work”)
- Buscar sempre aumentar o fluxo (“Always seek to increase flow”)
- Nunca passe defeitos conhecidos para a frente (“Never pass known defects downstream”)
- Nunca permitir que otimização local crie degradação global (“Never allow local optimization to create global degradation”)
- Alcançar uma compreensão profunda do sistema (“Achieve profound understanding of the system”)



# 2 - “Amplify feedback loop”

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The second way:  
Amplify feedback loops



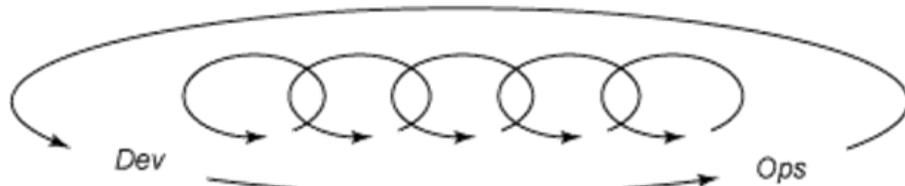
- Encurtar e amplificar os loops de feedback  
 (“Shorten and amplify feedback loops”)
- Compreender e atender às necessidades do cliente  
 (“Understand and meet the needs of the customer”)
- Assegurar-se de que as pessoas têm a informação que precisam  
 (“Make sure that people have the information they need”)



# 3 - "Continual experimentation/Learning"

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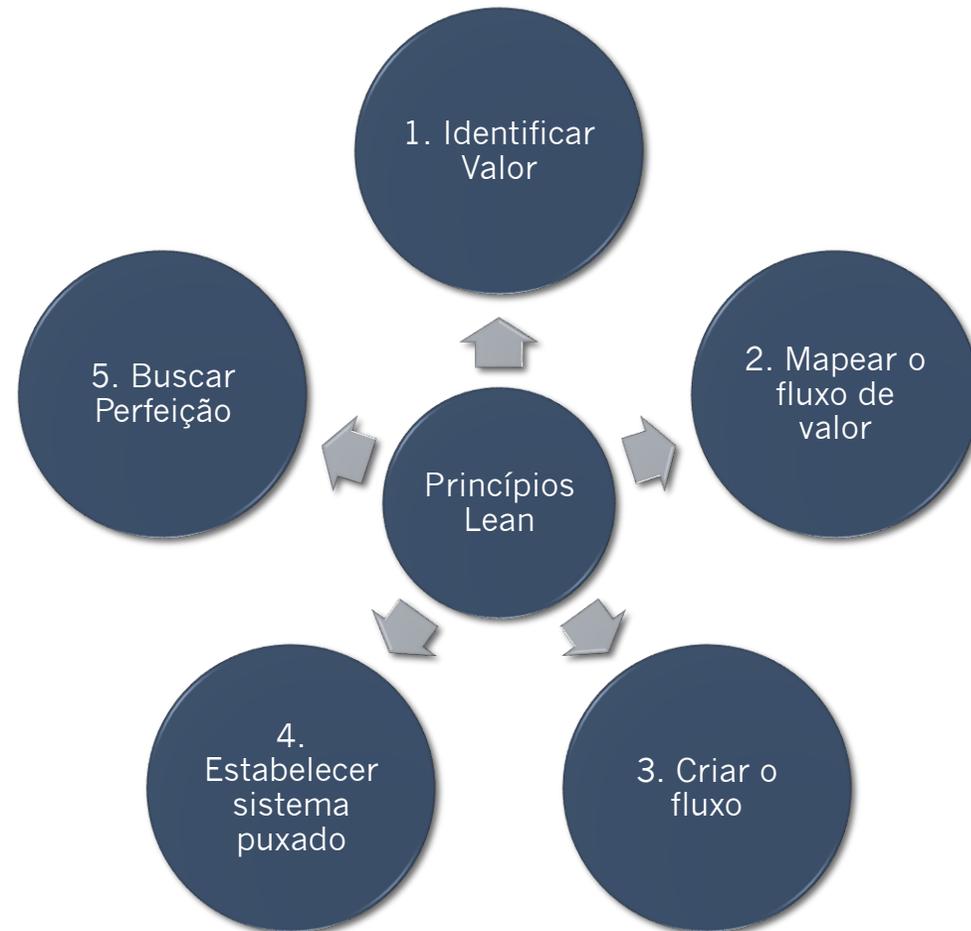
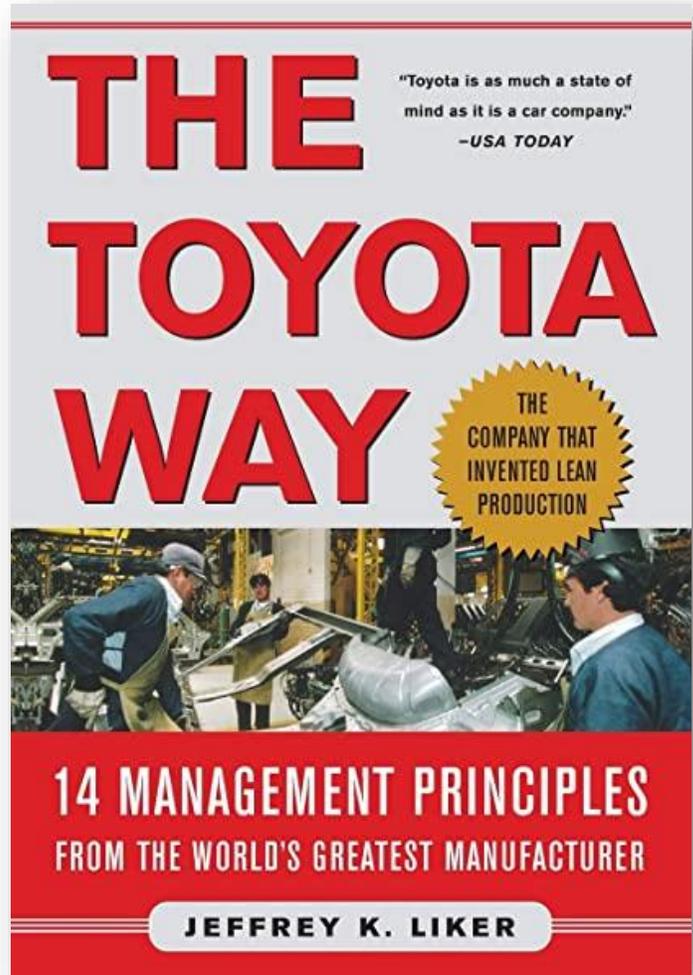
The third way:  
Culture of continual experimentation and learning



- Cultura de experimentação contínua  
("Culture of continual experimentation")
- Aprendizagem do fracasso  
("Learning of failure")
- A repetição é o pré-requisito para o domínio  
("Repetition is the prerequisite for mastery")

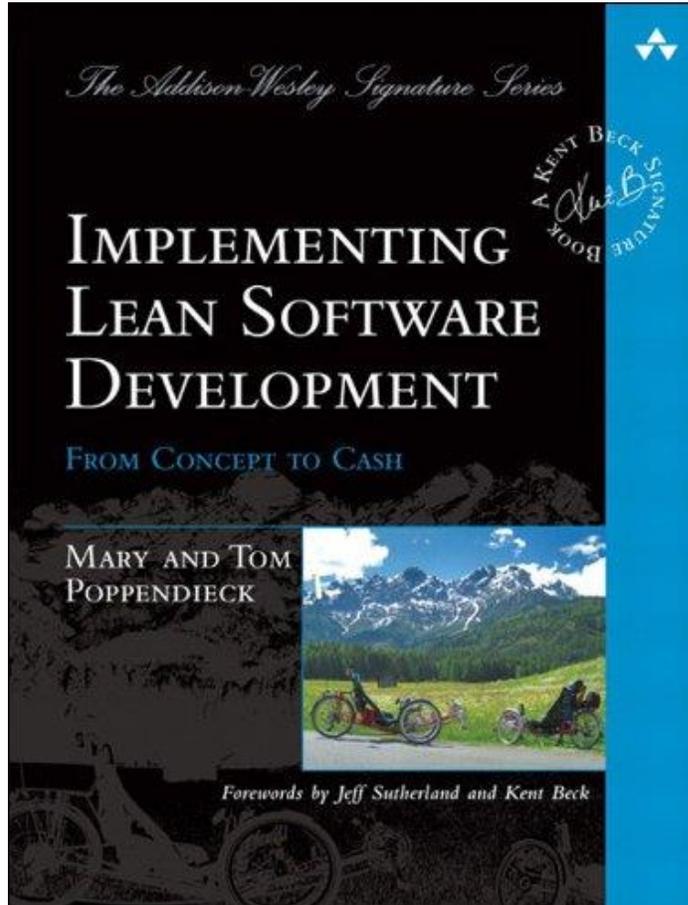


# Lean Manufacturing



# Lean Software Development

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Mary e Tom Poppendieck



# Lean: Sete Princípios

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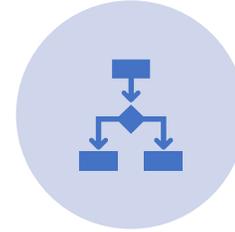
ELIMINE DESPERDÍCIOS



INCLUA QUALIDADE  
NO PROCESSO



CRIE CONHECIMENTO



ADIE  
COMPROMETIMENTO  
(DECISÃO)



ENTREGUE RÁPIDO



RESPEITE AS PESSOAS

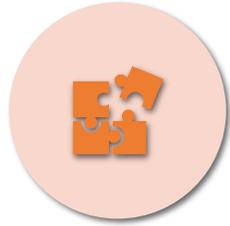


OTIMIZE O TODO



# Lean: Sete Desperdícios

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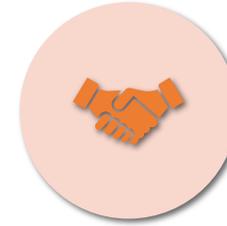
TRABALHO  
PARCIALMENTE  
CONCLUÍDO



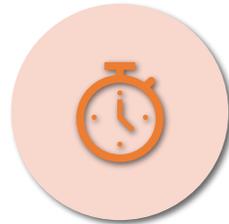
FUNCIONALIDADES  
ADICIONAIS



REVISITAR DECISÕES



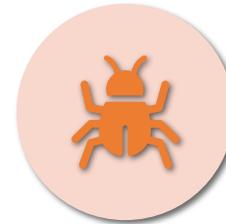
PASSAGENS DE  
SERVIÇO  
("HANDOFFS")



ATRASOS



TROCA DE  
ATIVIDADES ("TASK  
SWITCHING")



DEFEITOS



# As quatro métricas-chave

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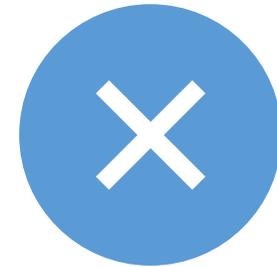
LEAD TIME



DEPLOYMENT  
FREQUENCY



MEAN TIME TO  
RESTORE (MTTR)



CHANGE FAIL  
PERCENTAGE

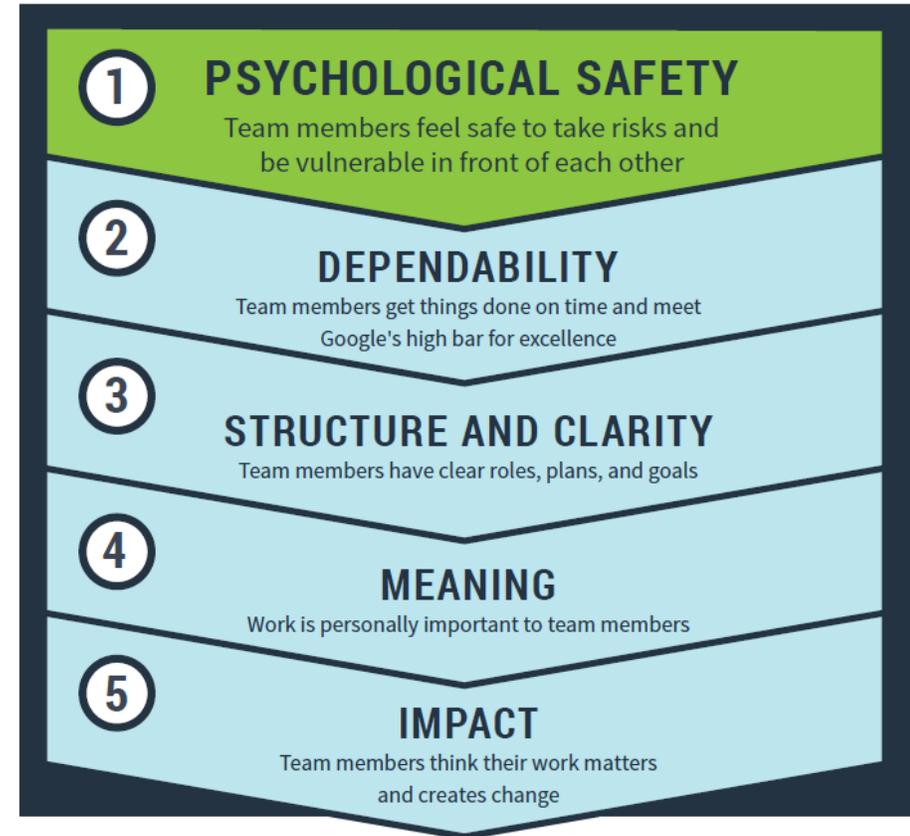
<https://www.thoughtworks.com/radar/techniques/four-key-metrics>



# Cultura DevOps



DevOpsCulture  
<https://martinfowler.com/bliki/DevOpsCulture.html>



re:Work

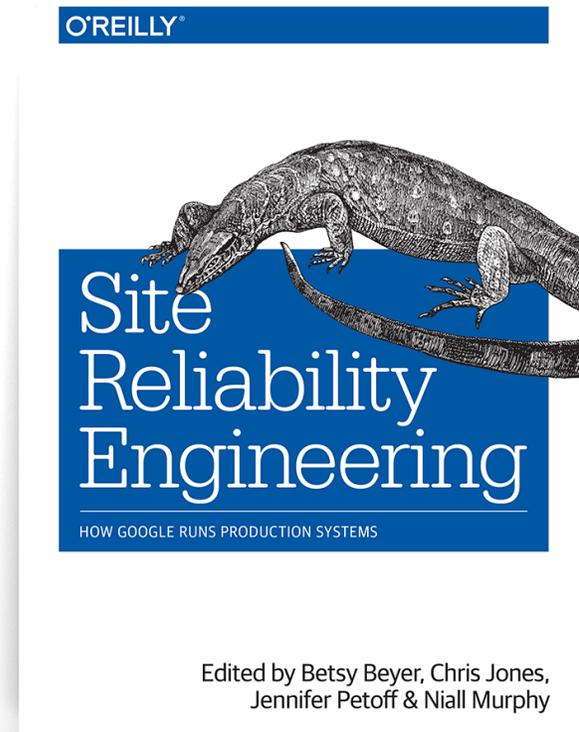
The five keys to a successful Google Team  
<https://rework.withgoogle.com/blog/five-keys-to-a-successful-google-team/>



# DevOps x SRE

A **Engenharia de Confiabilidade do Site** (“*Site Reliability Engineering*”) é uma disciplina híbrida orientada para a produção que combina habilidades profundas de engenharia de software e sistemas.

Como especialistas em engenharia de confiabilidade, SREs são normalmente responsáveis por melhorar a disponibilidade de serviços, latência, escalabilidade, desempenho e eficiência.



Ambos são complementares; destinados principalmente a quebrar barreiras e fornecer software mais rápido, melhorando a confiabilidade.



# A Conversa sobre DevOps



## Pessoas

Colaborar mais  
Compartilhar metas comuns  
Focar na melhoria

*Unir as pessoas*



## Processos

Eliminar desperdício  
Aumentar eficiência  
Facilitar o feedback

*Entregar valor mais rápido*



## Ferramentas

Melhorar produtividade  
Permitir colaboração  
Facilitar experimentação

*Executar uma estratégia de DevOps*



# Hábitos e Práticas de DevOps

## PRÁTICAS

Automated Testing  
Continuous Integration  
Continuous Deployment  
Release Management

## PRÁTICAS

Usage Monitoring  
Telemetry Collection  
Testing in Production  
Stakeholder Feedback

## PRÁTICAS

Code Reviews  
Automated Testing  
Continuous Measurement

## PRÁTICAS

Application Performance Management  
Infrastructure as Code  
Continuous Deployment  
Release Management  
Configuration Management  
Automated Recovery

Fluxo de Valor  
para o  
Cliente

Autonomia  
do Time &  
Alinhamento  
Corporativo

Backlog  
refinado pelo  
aprendizado

Evidência  
obtida em  
Produção

Dívida Técnica  
Gerenciada

Mindset  
"Production-first"

Infraestrutura  
como recurso  
flexível

## PRÁTICAS

Enterprise Agile  
Continuous Integration  
Continuous Deployment  
Release Management

## PRÁTICAS

Testing in Production  
Usage Monitoring  
User Telemetry  
Stakeholder feedback  
Feature flags

## PRÁTICAS

Application Performance Management  
Infrastructure as Code  
Continuous Delivery  
Release Management  
Configuration Management  
Automated Recovery



Q&A

Dúvidas?

You have

DEVOPS: MUITO MAIS DO QUE SÓ AUTOMAÇÃO

Questions

We have

Answers



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