

From cost to impact:

Leading through Infrastructure Investment Decisions

LeadingEng Berlin
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Hello 🙌, I'm Italo

VP of Platform at Babbel



Previously at



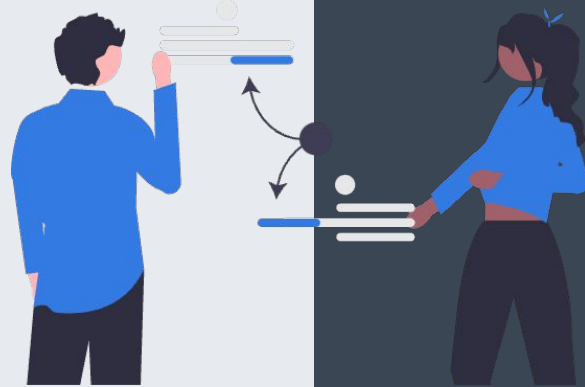
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LYKON

The challenge

Market Pressures Driving
Infrastructure Cost Management



Why Infrastructure Costs Matter Now

Responding to financial, operational, and ethical pressures



Profitability

Scaling costs **squeeze margins**,
challenging long-term growth



Efficiency

Sustainable growth demands
optimized resource allocation



Emerging Tech

New technologies introduce
unforeseen expenses



Cloud & Sustainability

Managing complexity and
environmental impact is key

Key Questions to Address

Should we **invest** in an AI infrastructure?

How can we maintain **flexibility** while optimizing costs?

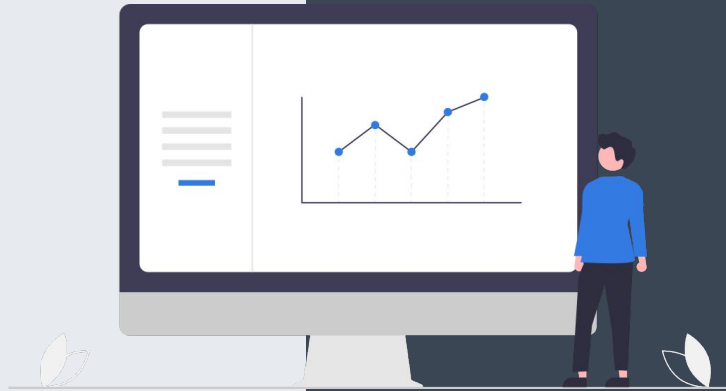
How did we contribute to our **profitability** goal by optimizing checkout service?

Why should we **prioritize** paying off tech debt in our system?

Which **KPIs** should guide our infrastructure investments?

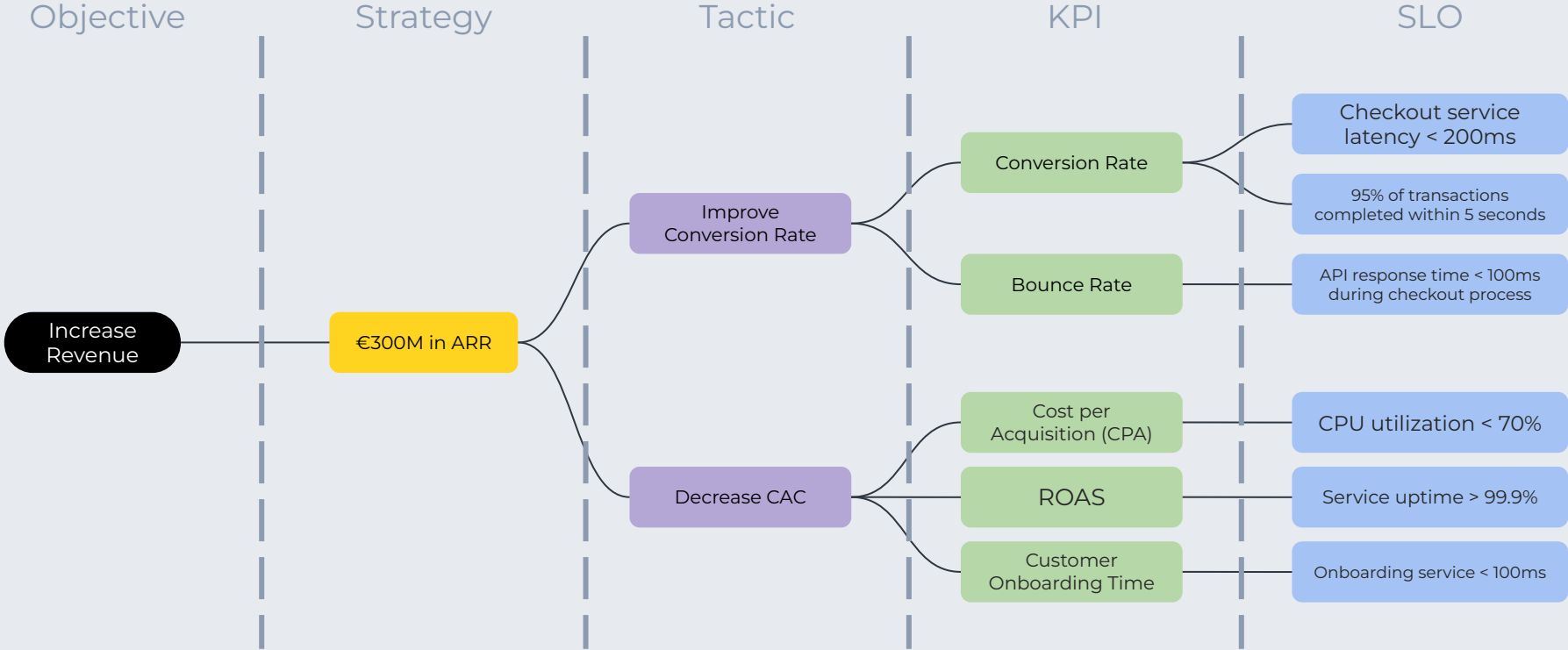
Aligning Infrastructure Costs with Business KPIs

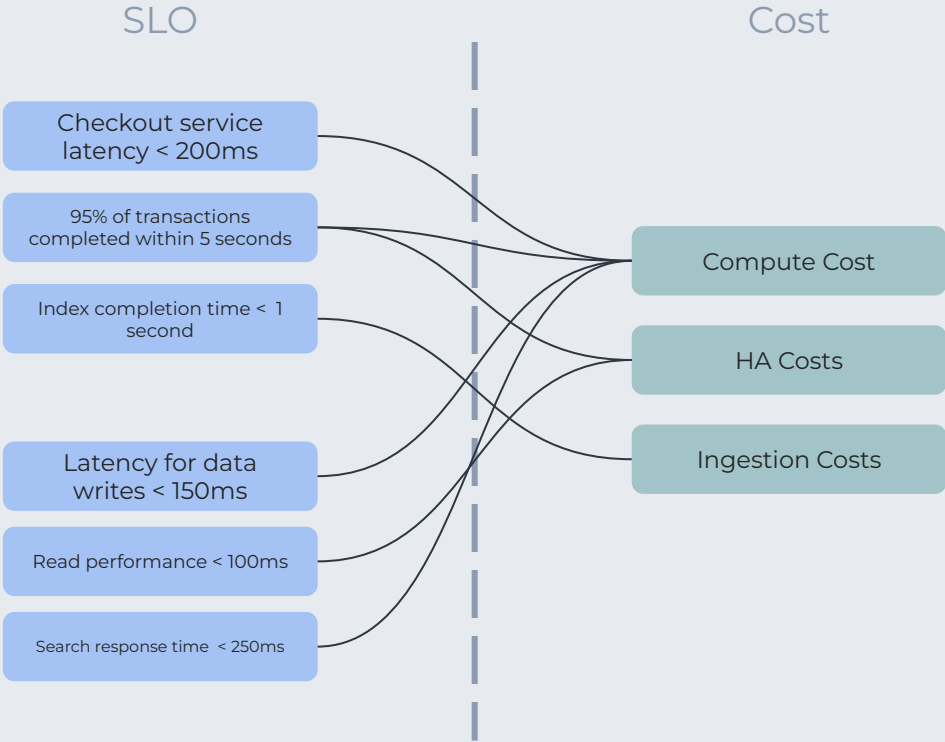
Aligning costs with KPIs ensures
every dollar spent drives value




Link your SLOs to Business KPIs

Creating financial accountability through FinOps

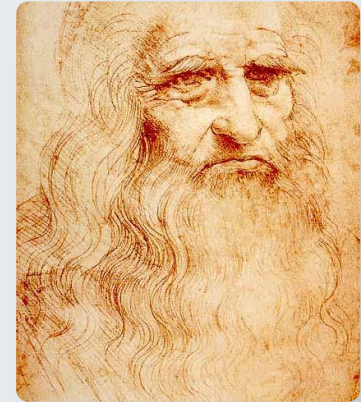




Master this, and justifying costs
becomes easier 

**"Simplicity is the
ultimate
sophistication"**

-- Leonardo da Vinci



But how do you create financial transparency and accountability?

FinOps

FinOps empowers teams to make data-driven decisions on spending



FinOps is an operational framework and cultural practice which



maximizes the
business value
of cloud



enables timely
data-driven
decision making



creates financial
accountability

through collaboration between *engineering, finance* and
business teams.

Building a FinOps Culture

What practices and tools helps us with cultural change?

What Works

Making Infrastructure Costs
Transparent

Empowering Teams to Own Their
Budgets

Integrating Cost Awareness into the
SDLC

Regular Cross-Functional Cost
Reviews

What Doesn't Work

Not Involving Finance and
Procurement Teams

Rigid Budgets Without Flexibility

Implementing Long-Term
Commitments Without Clear Goals

Lack of Accountability for Cost
Management

FinOps Phases

What practices and tools helps us with cultural change?



Inform

Visibility & Allocation



Optimize

Rates & Usage



Operate

Continuous Improvement & Usage



DATADOG

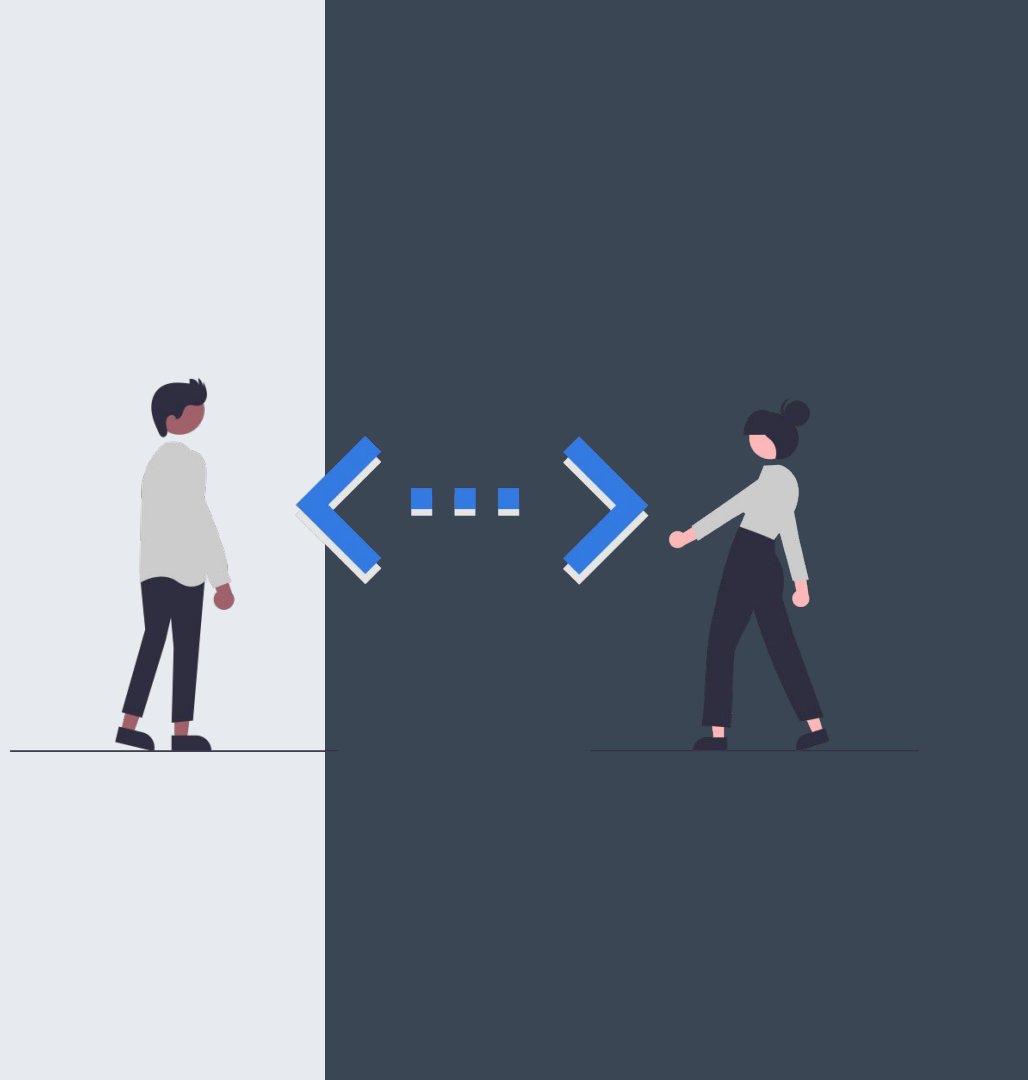


kubecost



Embedding FinOps in the SDLC

Integrate cost awareness at every stage
of development




```
10     cidr_block = "10.0.0.0/16"
11 }
12
13 resource "aws_subnet" "my_subnet" {
14     vpc_id      = aws_vpc.main.id
15     cidr_block = "10.0.1.0/24"
16 }
17
18 resource "aws_subnet" "my_db_subnet" {
19     vpc_id      = aws_vpc.main.id
20     cidr_block = "10.0.2.0/24"
21 }
22
23
```



Real-Time Cost Awareness During Development

Tag all your
resources on the
cloud!

```
# Define the provider
provider "aws" {
  region = "us-west-2" # Change to your preferred region
}

# Define a module or resource with tags
resource "aws_lambda_function" "example_lambda" {
  function_name = "example_lambda"
  role          = aws_iam_role.lambda_exec_role.arn
  package_type  = "Image" # Indicates a Docker container image

  # Specify the container image from ECR (Elastic Container Registry)
  image_uri = "your_account_id.dkr.ecr.us-west-2.amazonaws.com/your-repo:latest" # Replace with your
  actual image URI

  # Essential FinOps tags for accountability and tracking
  tags = {
    "Environment" = "Production" # Identify environment (e.g., Production, Development)
    "Project"      = "CheckoutService" # Project or application name
    "Owner"        = "team-abc@example.com" # Responsible team or contact
    "CostCenter"   = "CC015" # Financial cost center for budget tracking
    "BusinessUnit" = "Revenue" # Department or business unit
  }
}
```

Cloud cost estimates, as you write code

```

14     memory_size = 1024
15   }
16
17   Total monthly cost: $742.64
18   resource "aws_instance" "web
19     ami = "ami-674cf
20     instance_type = "m5.4xla
21
22     root_block_device {
23       volume_size = 50

```

The screenshot shows a pull request for a Terraform configuration. The code changes include:

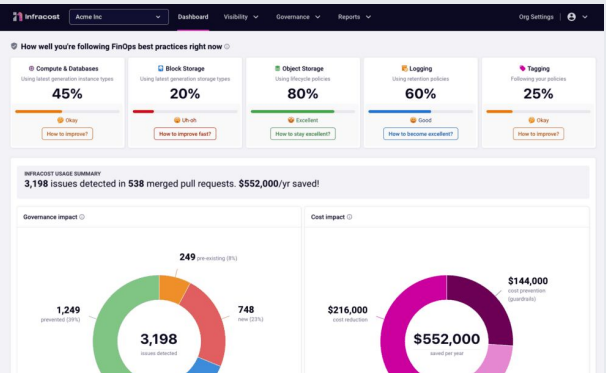
- Line 20: `volume_size = 1000` (change from 800)
- Line 21: `iops = 800` (change from 1500)
- Line 22: `volume_size = 3000` (change from 1000)
- Line 23: `iops = 1500` (change from 800)

A comment from the `github-actions` bot states: "Infracost estimate: monthly cost will increase by \$512 (+25%)". Below the comment is a table:

Project	Previous	New	Diff
infracost/ci-demo/dev	\$267	\$423	+\$156 (+58%)
infracost/ci-demo/prod	\$1,786	\$2,142	+\$356 (+20%)
All projects	\$2,053	\$2,565	+\$512 (+25%)

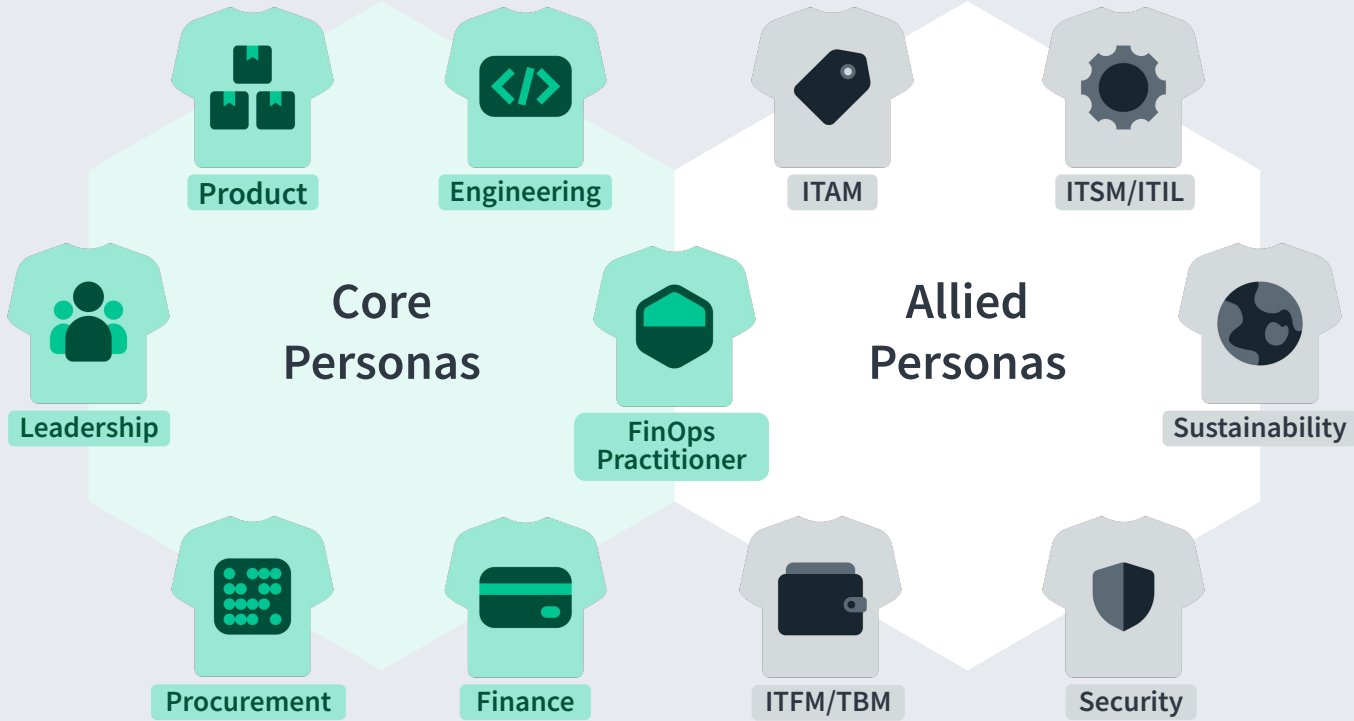
Cloud costs for engineering team review

Proactive cloud costs for Team Leads and FinOps



FinOps Core & Allied Personas

What do we need to succeed?



Make sure practitioners take care of...

- Enterprise Discount (EDP) Consultation
- Savings plan
- Commitments
- Value Added Resellers Relationship

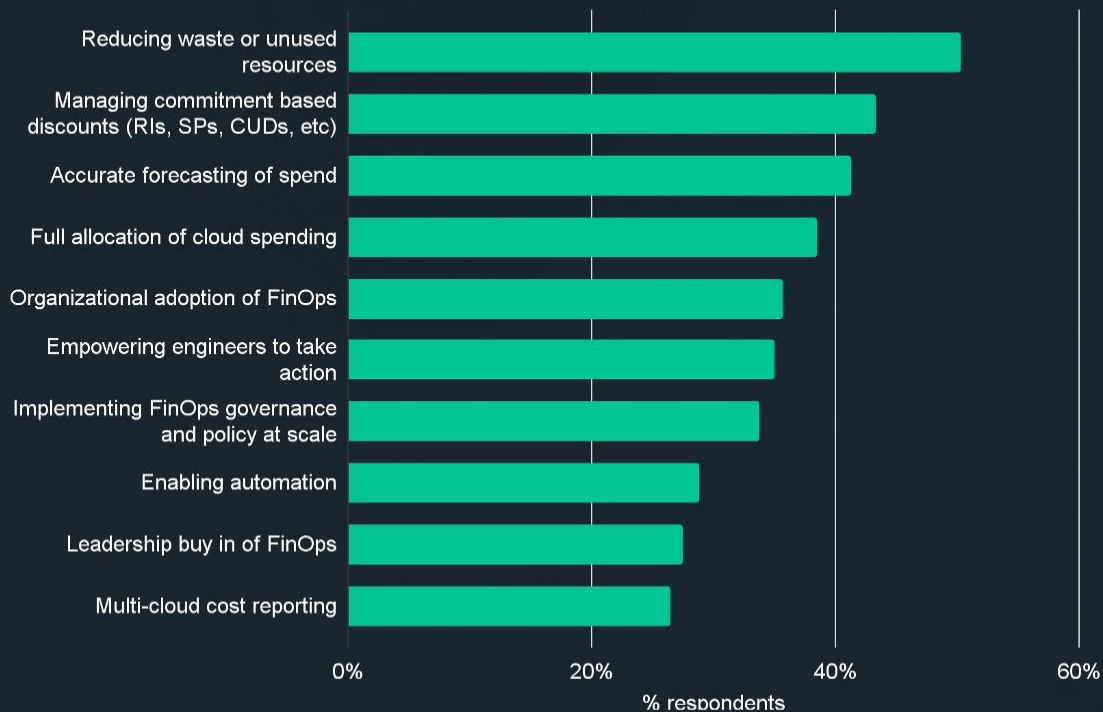
Make conscious trade-off
decisions among *cost*, *quality*,
and *speed*

State Of FinOps 2024

data.finops.org

Current FinOps Practitioner “Key Priorities”

Top 10 practitioner responses, multi-select answers.



Reducing waste clear at the top with continued increases in the last two years.

Managing commitment based discounts jumps to 43% from 7% from last year.

Empowering engineers down from top key priority for the first time to sixth.

Forecasting bounces back from last years drop up from 24% up to 41%.

Start Today

- Understand your costs
- Enable your teams
- Drive change

THANK YOU!

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