



Measuring for DevOps success.

Stephan Stapel
Hermes Germany GmbH

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Hermes Group is the largest Post-independent parcel company in Europe.

Hermes Germany alone delivers about 500 million parcels per year.

Our typical clients are medium and large e-retailers.

Our environment.

- Market is growing 5-10% per year.
- Automating everything possible is key to our business.
- Customers and business clients expect digital innovations.
- No business without technology.

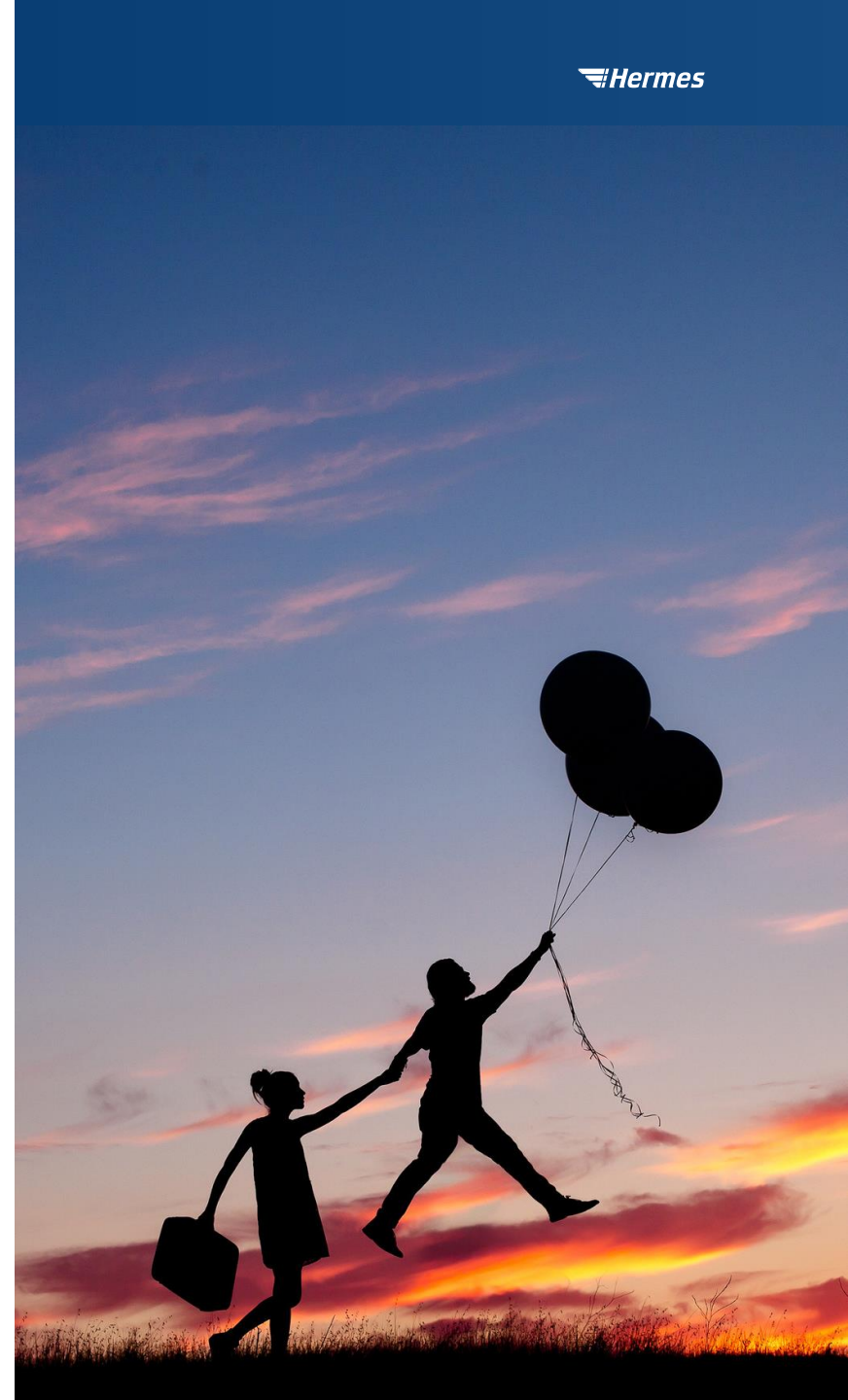


02

What is success?

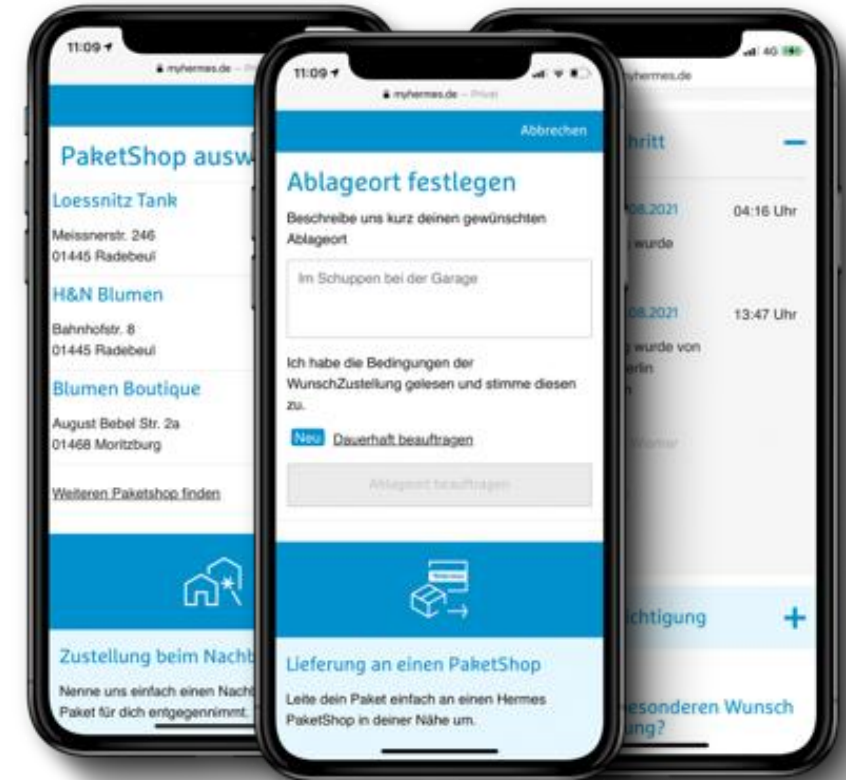
Success in our environment.

- Be able to focus on bringing value.
- Provide value faster.
- As tech organization, be a reliable partner in the company.



Success in our environment.

- Two projects on diversion of parcels
- 2014 – old working system: 9 months
- 2020 – current working system: 4 months

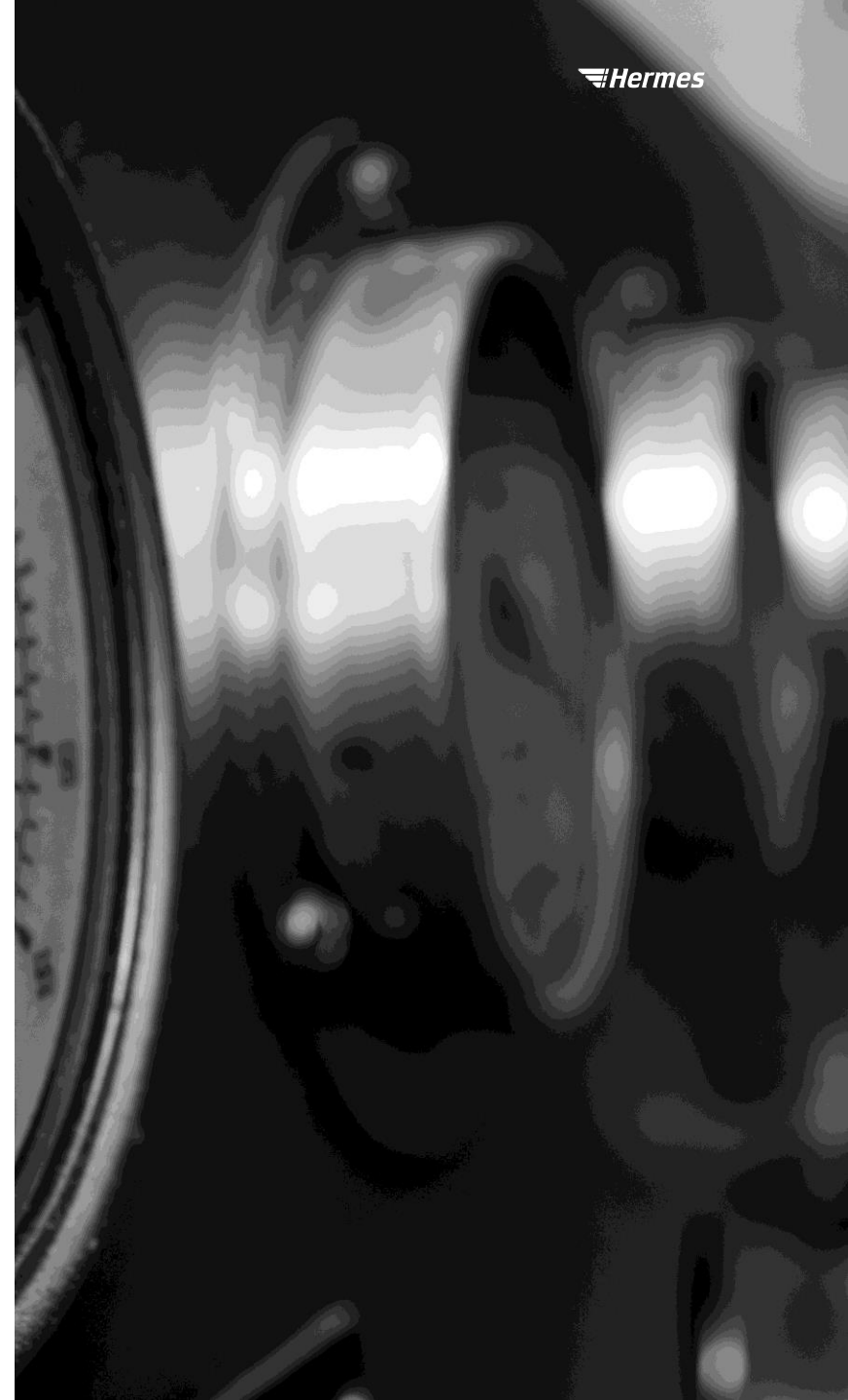


Agile Principle #8

Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.

We were facing two problems:

1. We didn't know how long a larger piece of work would take.
Can we improve our estimates? Can we improve ourselves?
2. We put lots of effort into introducing Continuous Delivery.
Can we prove that it pays off?



The four key metrics to the rescue:

Lead time for changes.

Deploy frequency.

Time to restore service.

Change fail rate.



03

Measuring lead-time.

Flight levels as our system of work:

Level 3: Strategy/ Portfolio level

Manage large initiatives, where strategic fit and business cases are evaluated. Designed as a Kanban Board.

Level 2: Coordination level

Manage (larger) features, to coordinate work between teams. Designed as a Kanban board.

Level 1: Team/ operational level

Coordinate work within a single team. Designed as appropriate for the team.

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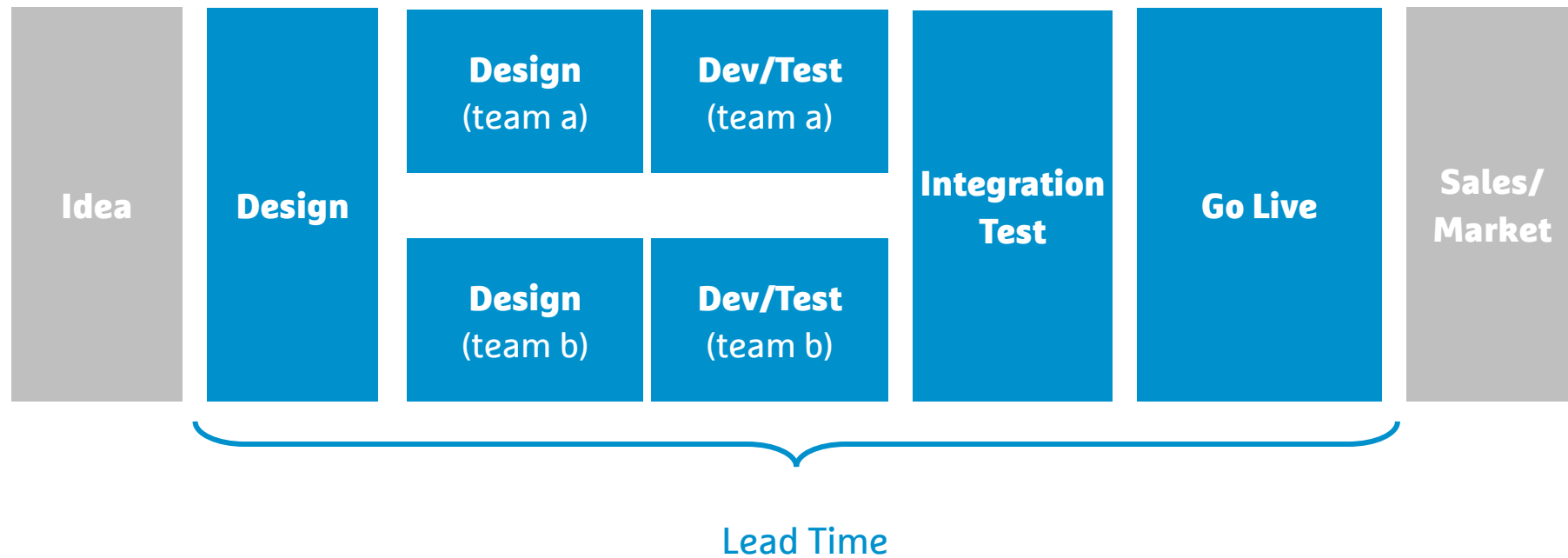
Coordinate work within a single team. Designed as appropriate for the team.

Feature:

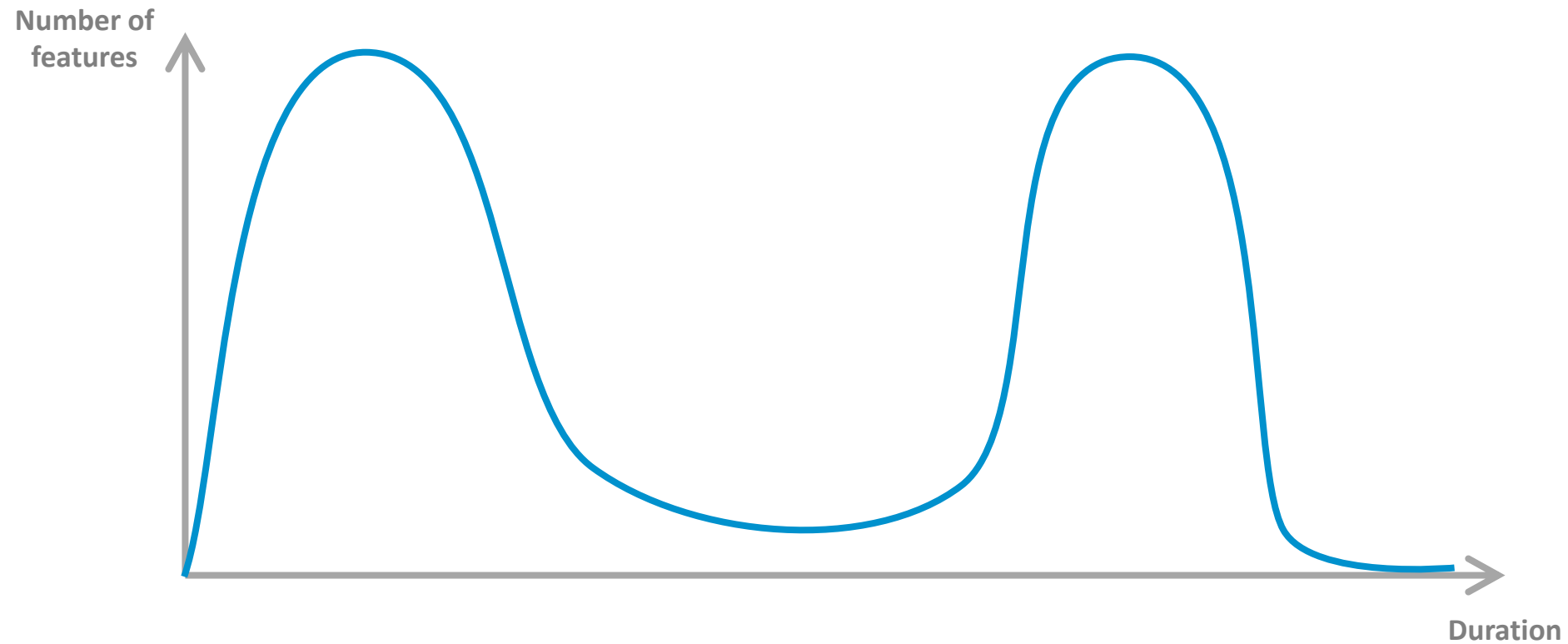
A piece of work that yields real customer and business impact.

Often, multiple teams are involved and need coordination.

How to track feature-level lead time:

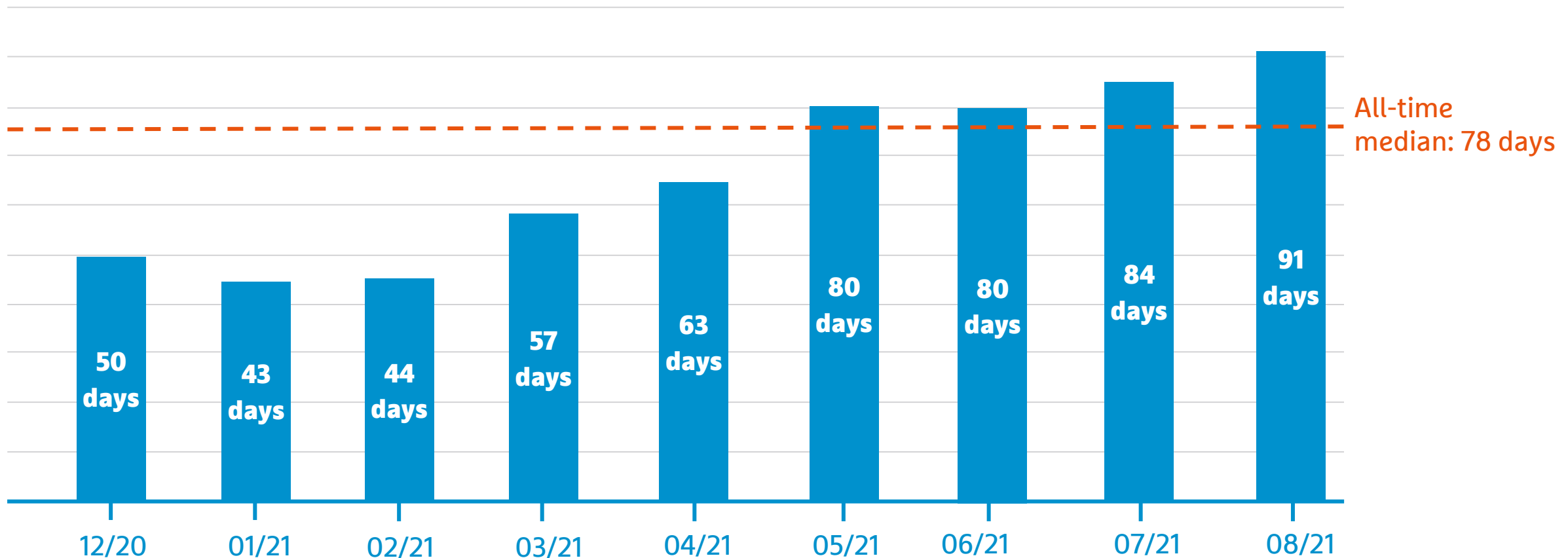


What we want to avoid



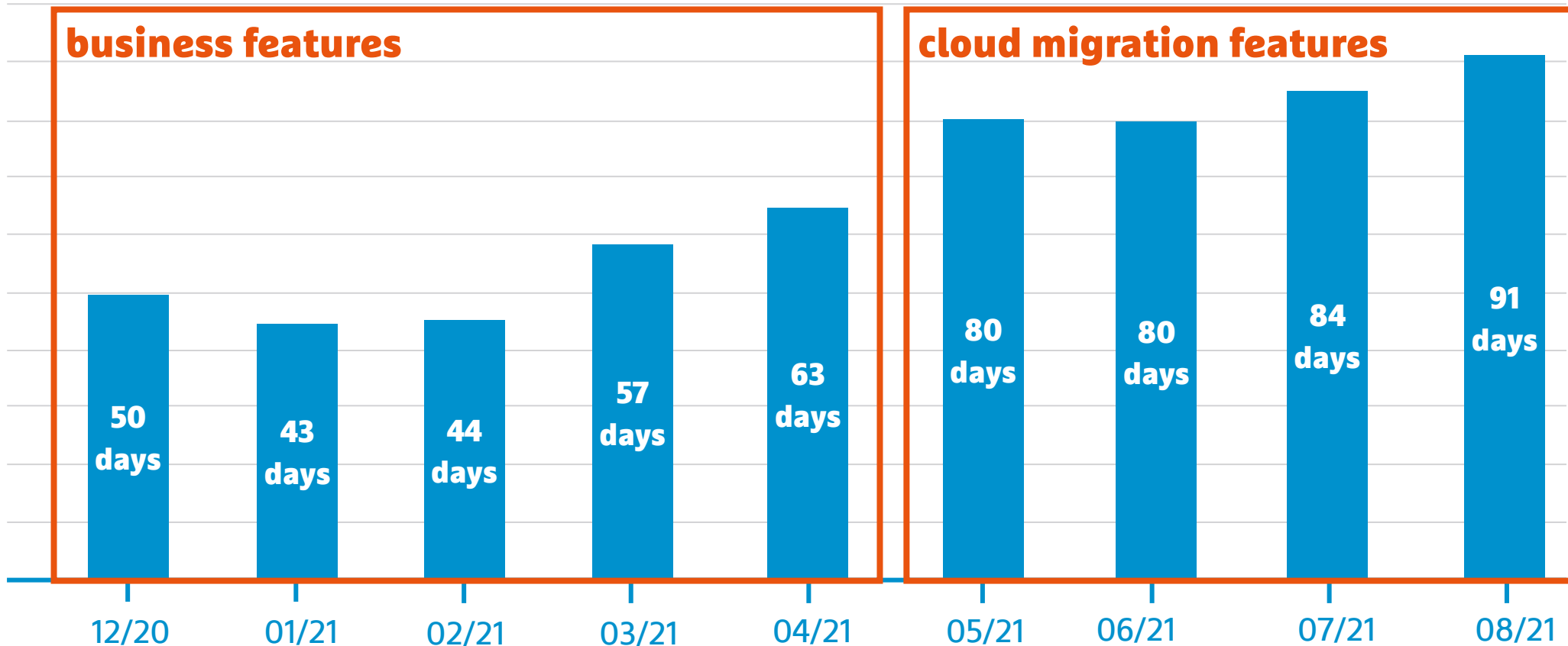
Feature-level lead time – what we found

2 months rolling median



Feature-level lead time – what we found

2 months rolling median



04

**Measuring deployment
frequency and failure rate.**

We killed the CAB...

During an earlier ITIL implementation, Change Advisory Board was created.

When introducing Continuous Delivery, it was like putting a horse in front of a racing car.

We removed the CAB.

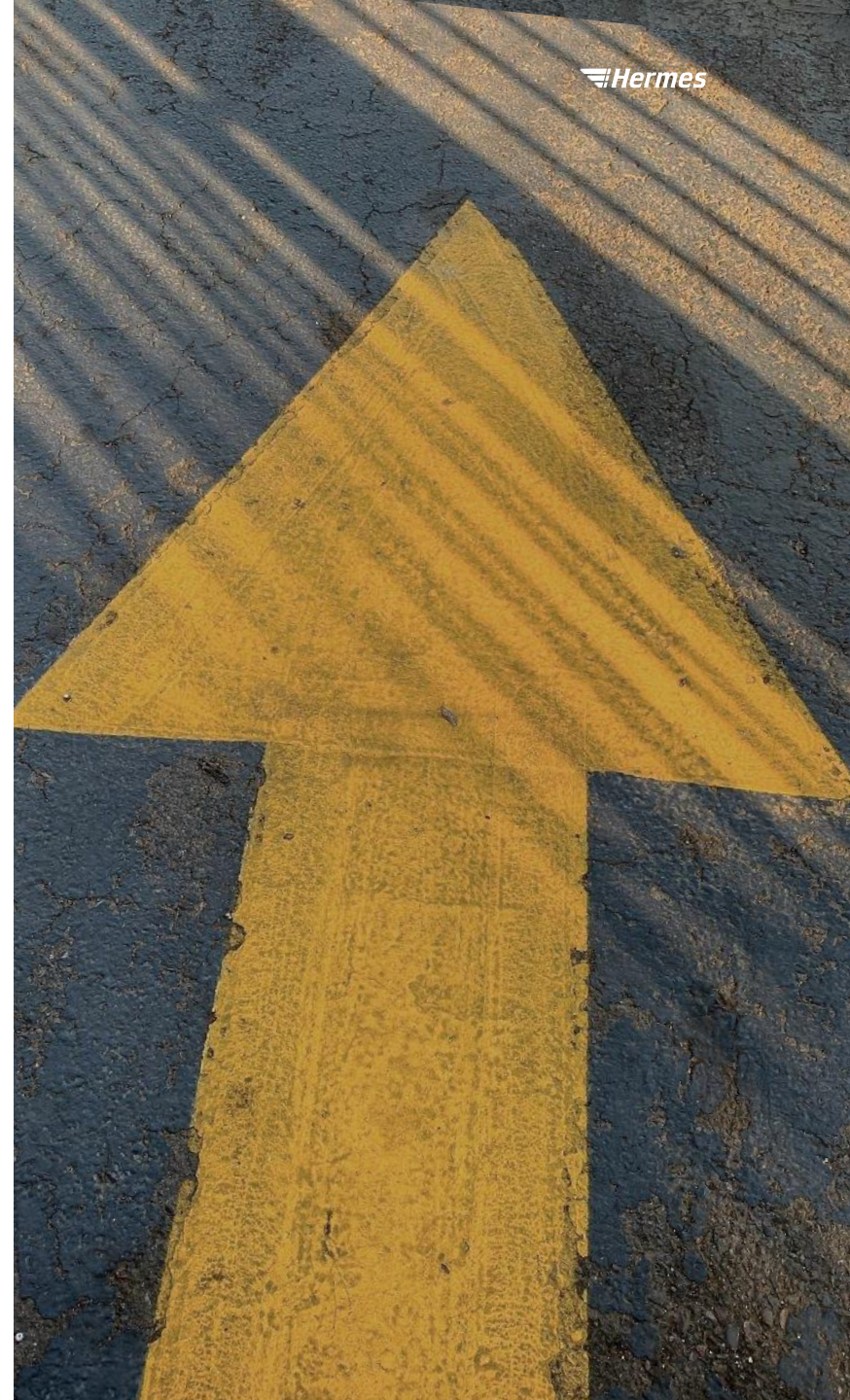


... and took our chances.

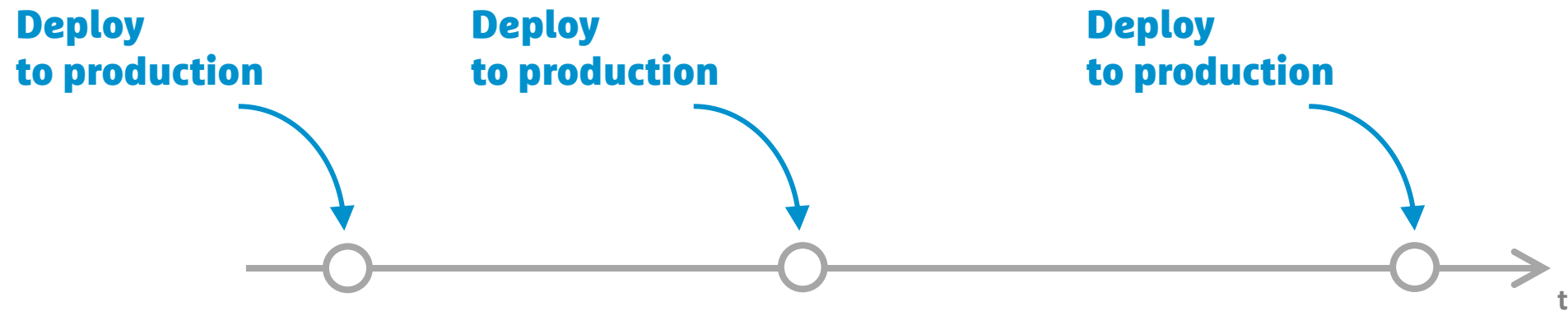
Nevertheless, we need to document changes for compliance reasons.

Automate change documentation within deployment pipelines.

Use change database to generate metrics.

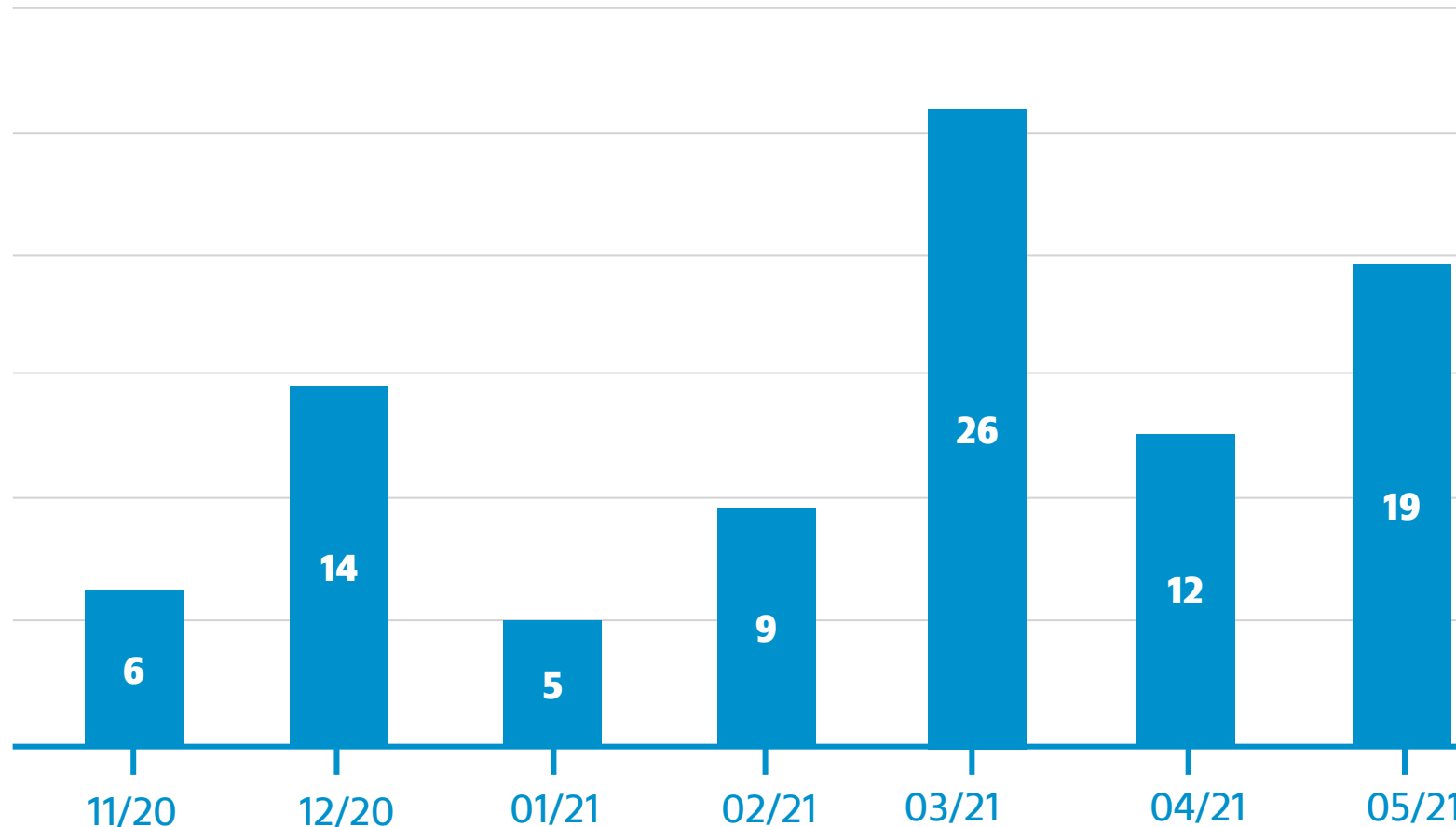


Measuring deployment frequency



Deployment frequency

Example for team PI – label generation



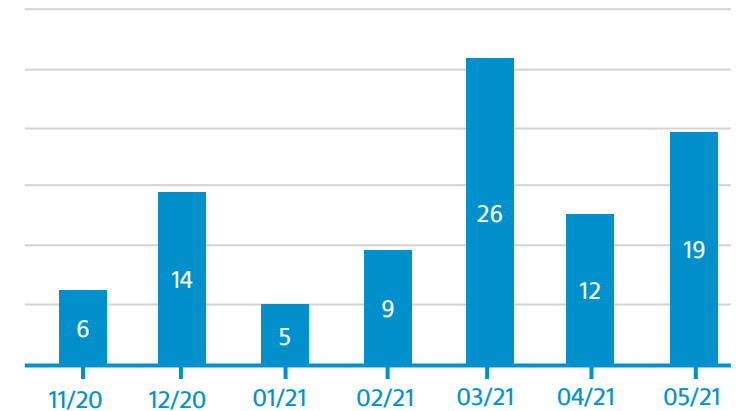
Our learnings.

Get into discussion with teams having less than 1 deployment per week.

With more mature solutions, teams concentrate on value: frequency drops.

It is a good tool to bring together teams.

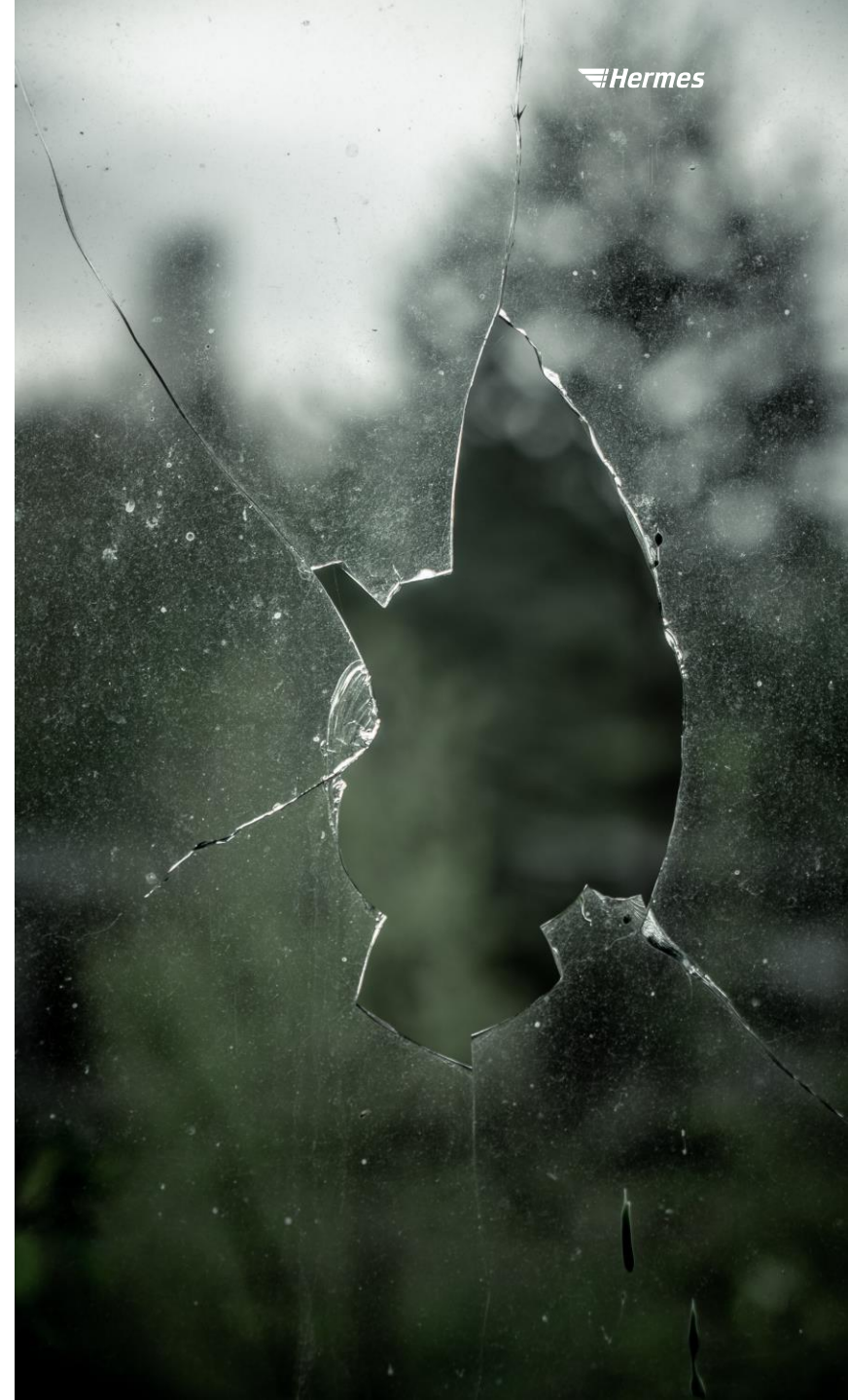
From a manager's perspective, it is a good tool to better understand and offer support.



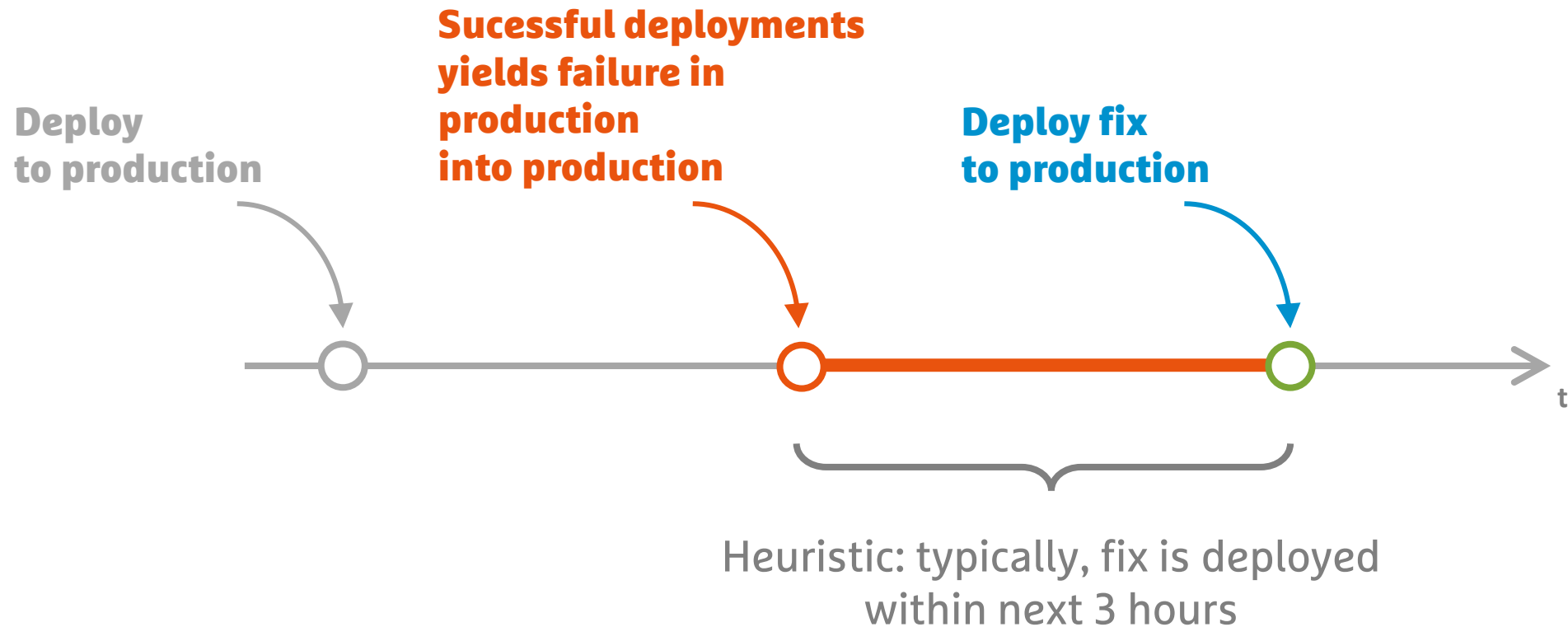
Introducing fix-forward rate.

With fully automatized pipelines, there is no such thing as a deployment failure. Pipeline will always be in a valid state.

Fix-forward deployments are a better measure.

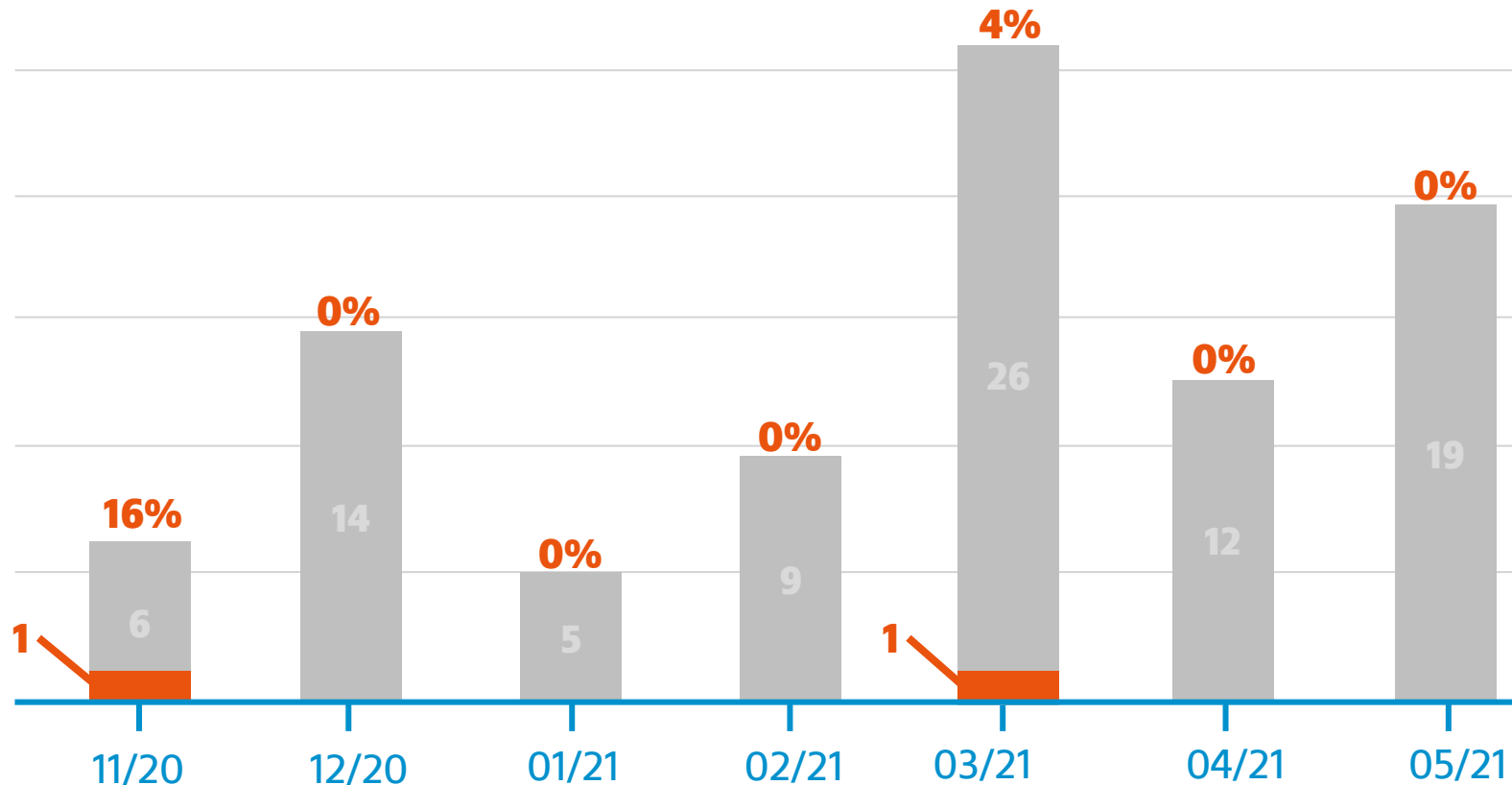


Measuring fix-forwards.



Fix-forward rate

Example for team PI – label generation



Our learnings using this approach:

We don't need another additional measure.

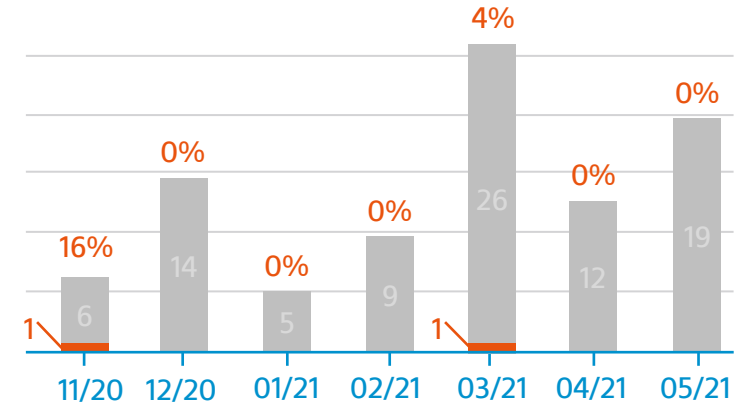
The approach certainly is a compromise.

It comes with additional work:

- Get into discussion with the teams to verify the approach
- We need to observe and adapt the threshold.

We can prove that the quality mechanisms are working.

We can prove that Continuous Delivery does not yield instability.



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Take aways.

We got the numbers.... But how happy are the people?

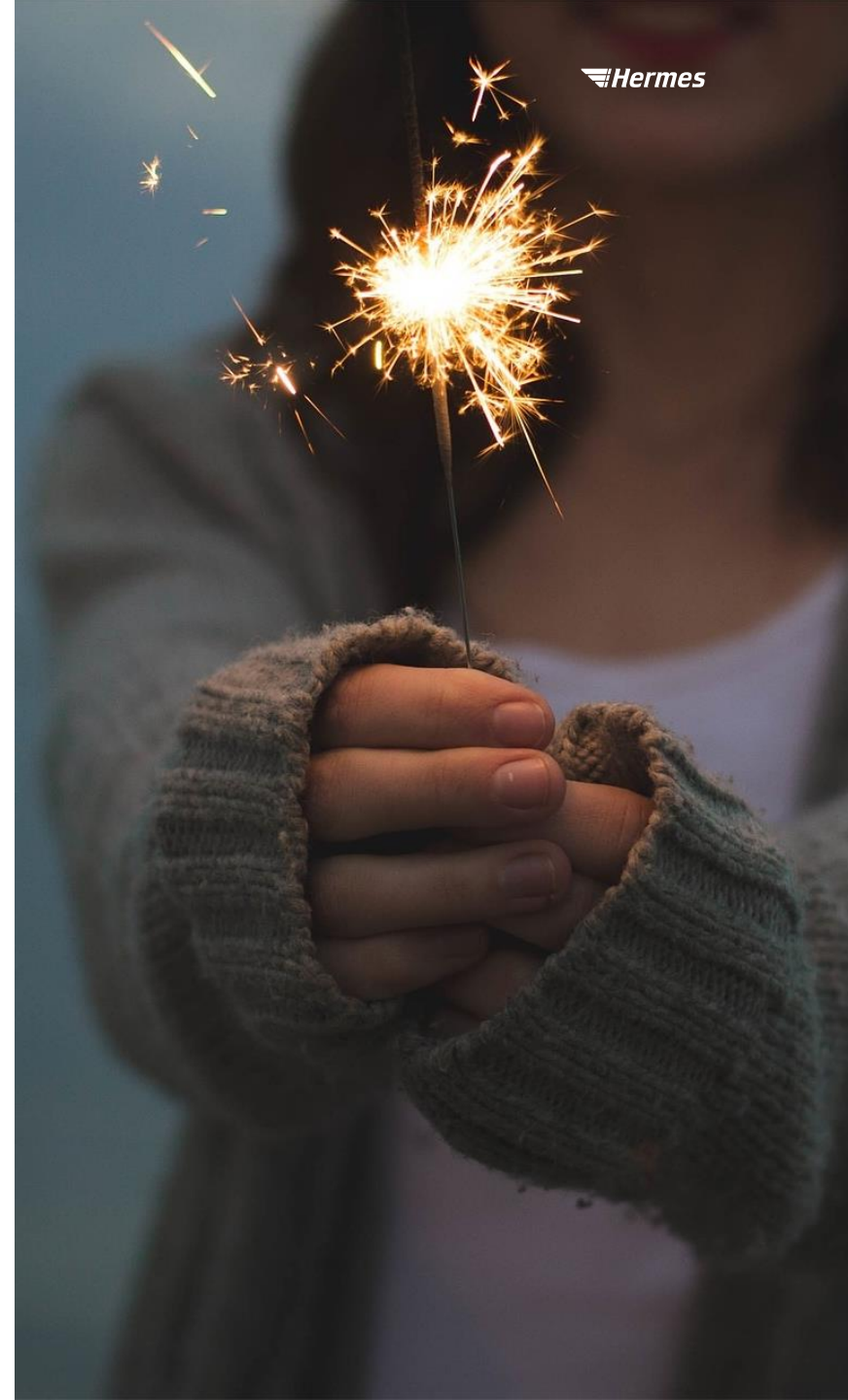
We aren't measuring happiness yet. Instead, we get into conversation with each other.

“We are faster. Good. Even more important: Quality improved tremendously. We bring small changes into production and monitor them with the entire team.”

– Kirsten, Product Owner, myhermes.de

“Formerly, I could easily made dev teams sweat by imagining weird test cases. Nowadays, everything is so transparent and streamlined, I can barely even break anything at all.”

– Michael, QA expert, API team



Implementing these measures is worth it!

We did one mistake: we didn't record the before-state.

Having the information allows us make sure that we are on the right track.

We can improve from here.

In my leadership role, these analyses allow to connect with my teams. It allows me to offer support.

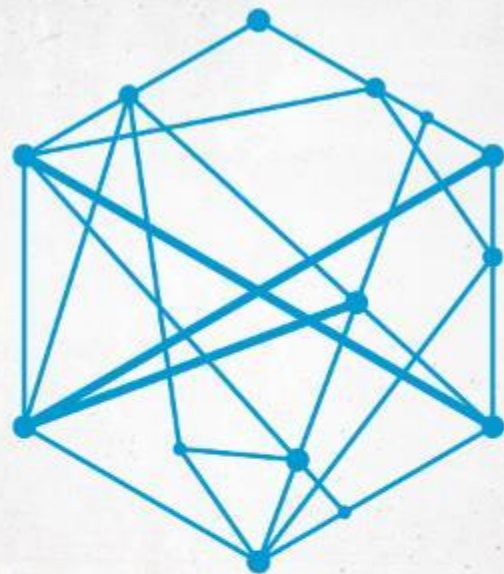


Stephan Stapel
Head of Development

stephan.stapel@hermesworld.com

 [@StephanStapel](https://twitter.com/StephanStapel)

 <https://www.linkedin.com/in/stephan-stapel>



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TECHNOLOGY.

 ***Hermes***