ASSURANCE & TRANSPARENCY

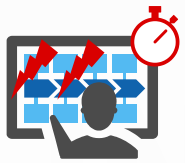
LUCAS FIEDLER, MARKO SIEBER

DEVOPS: NEUE DENKANSÄTZE FÜR IHR UNTERNEHMEN

Herausforderungen unserer Kunden

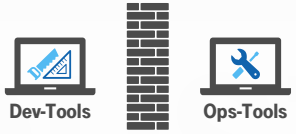
Kundenerwartung

→ innovative, hochwertige Services in immer kürzerer Zeit



„Silos“

→ End-to-End Prozessbrüche, Bottlenecks, Verschwendungen



Unterschiedliche Ziele und Tools bei Dev & Ops

→ Konflikte

„Finger Pointing“ anstatt unverzüglicher Fehlerbehebung

Unternehmens-kritische Lösungen

Komplexe Informations-systeme

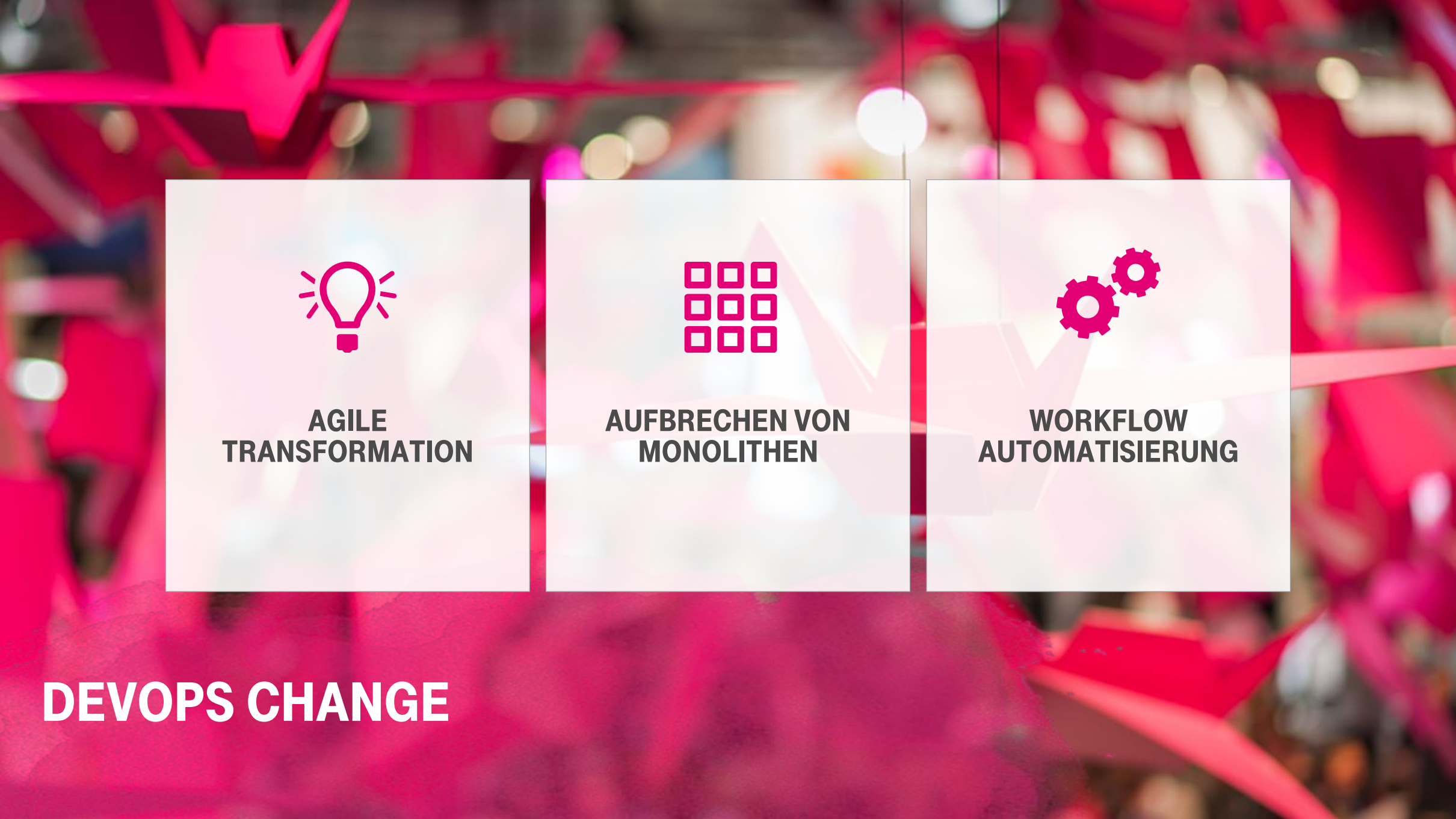
End-to-End-Wert-schöpfungsprozess noch nicht gemäß DevOps optimiert

wegweisend digital
T-SYSTEMS MULTIMEDIA SOLUTIONS

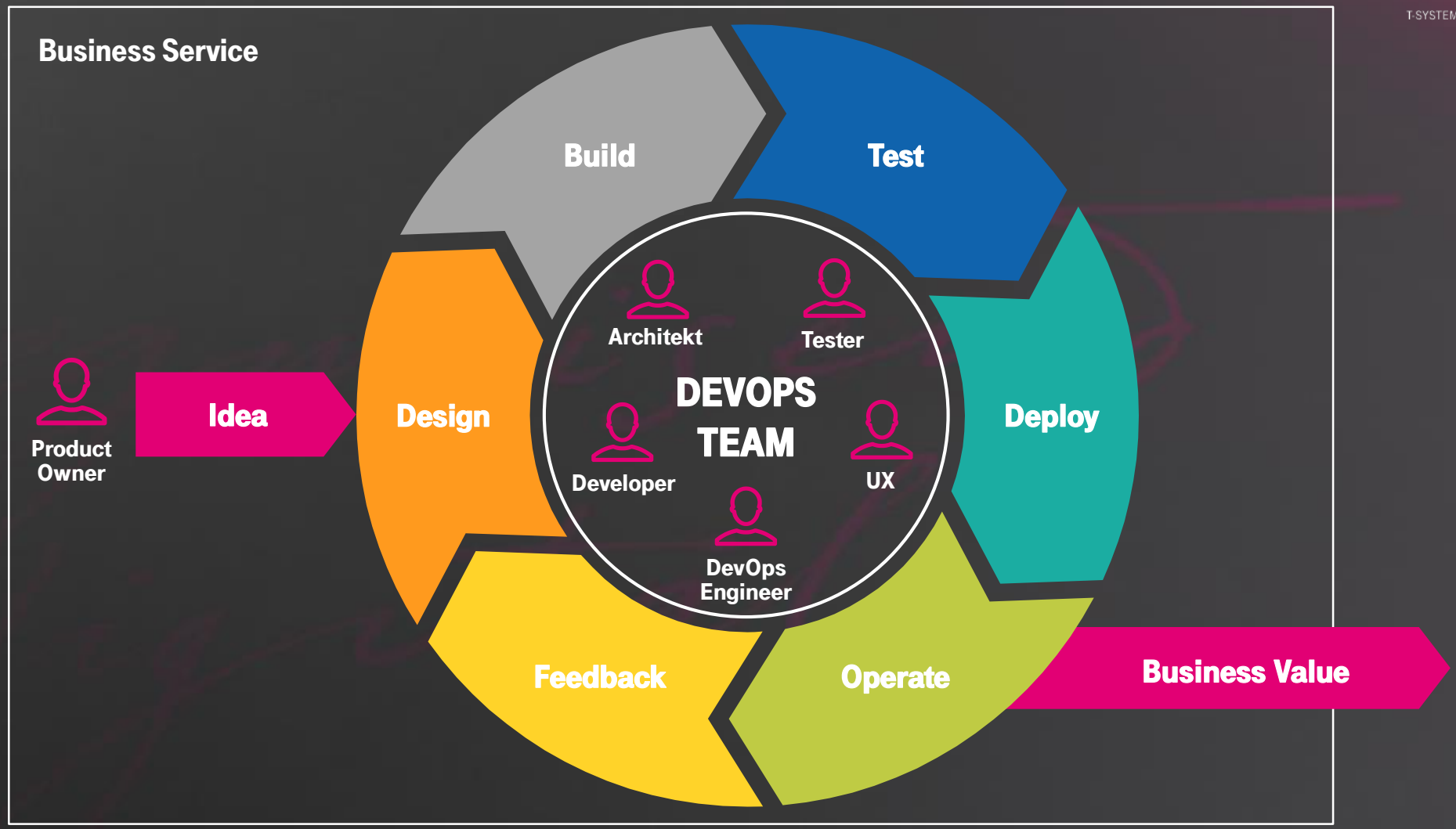
DevOps ermöglicht Unternehmen, **Marktchancen** durch höhere Reaktionsfähigkeit zu nutzen

Die **Automatisierung des Softwarelieferungs-prozesses** erlaubt die Balance von Geschwindigkeit, Kosten, Qualität und Risiko

DEVOPS
MOTIVATION

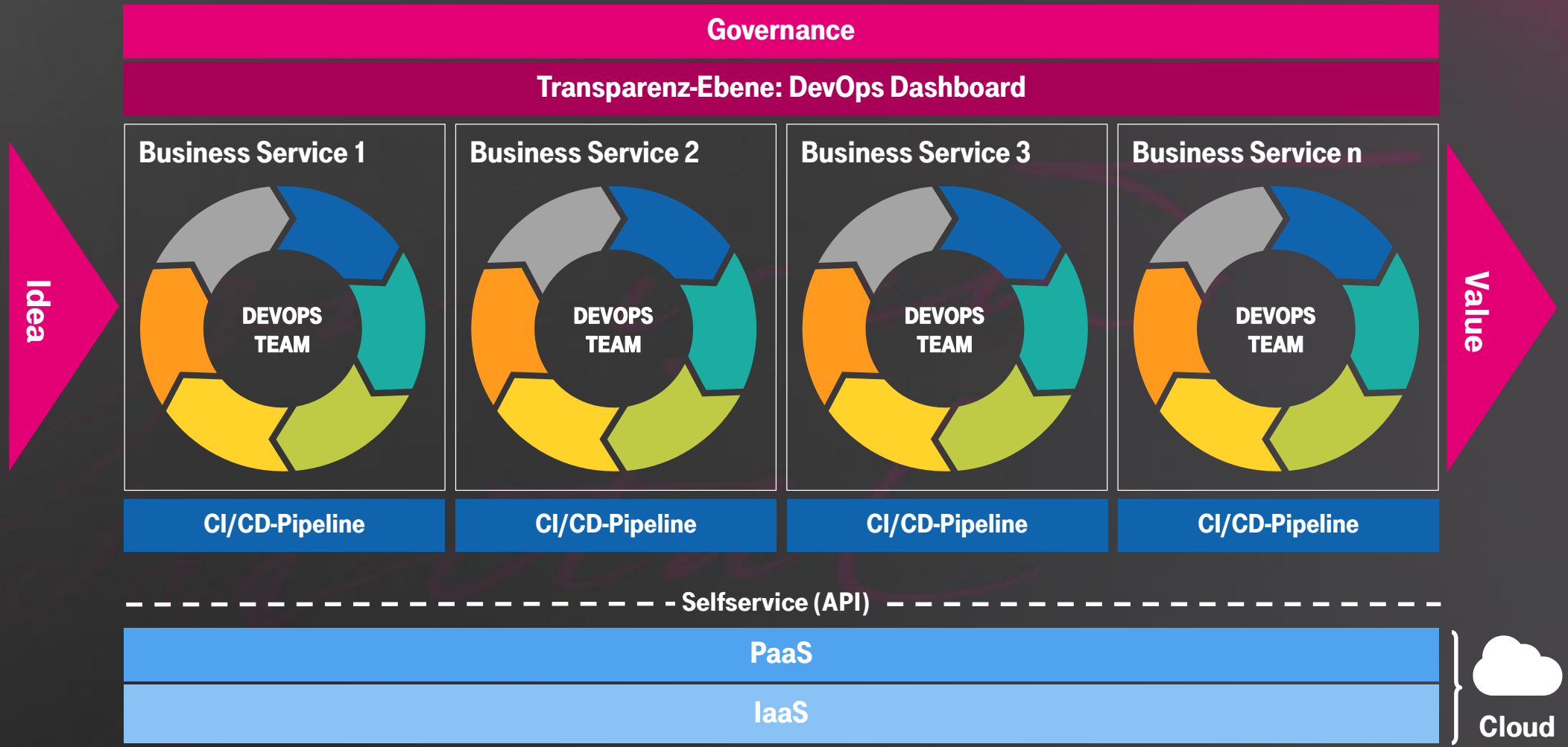

AGILE TRANSFORMATION
AUFBRECHEN VON MONOLITHEN
WORKFLOW AUTOMATISIERUNG
DEVOPS CHANGE

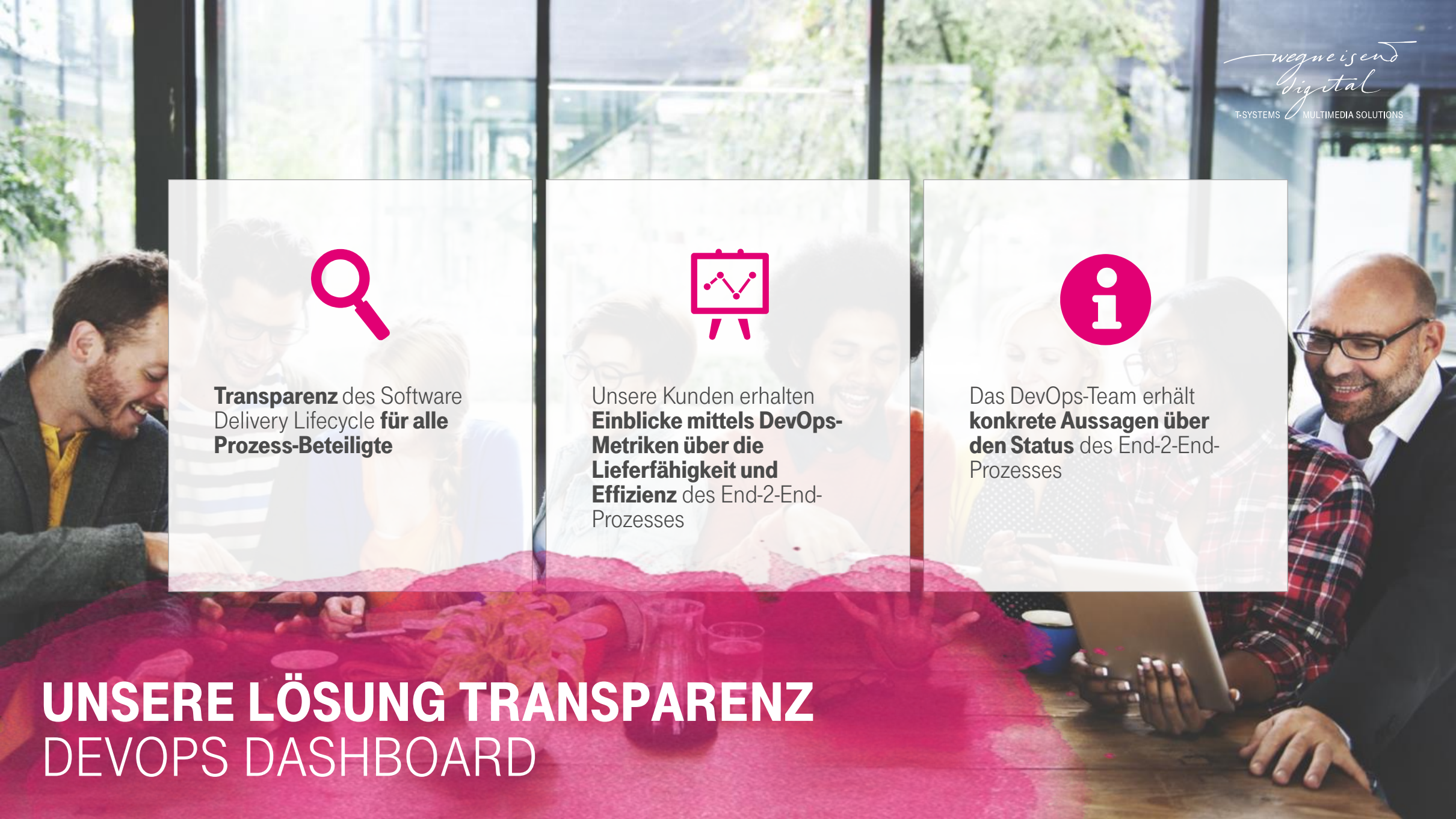
End-2-End Services



End-2-End Gesamtbild

wegweisend digital
T-SYSTEMS MULTIMEDIA SOLUTIONS





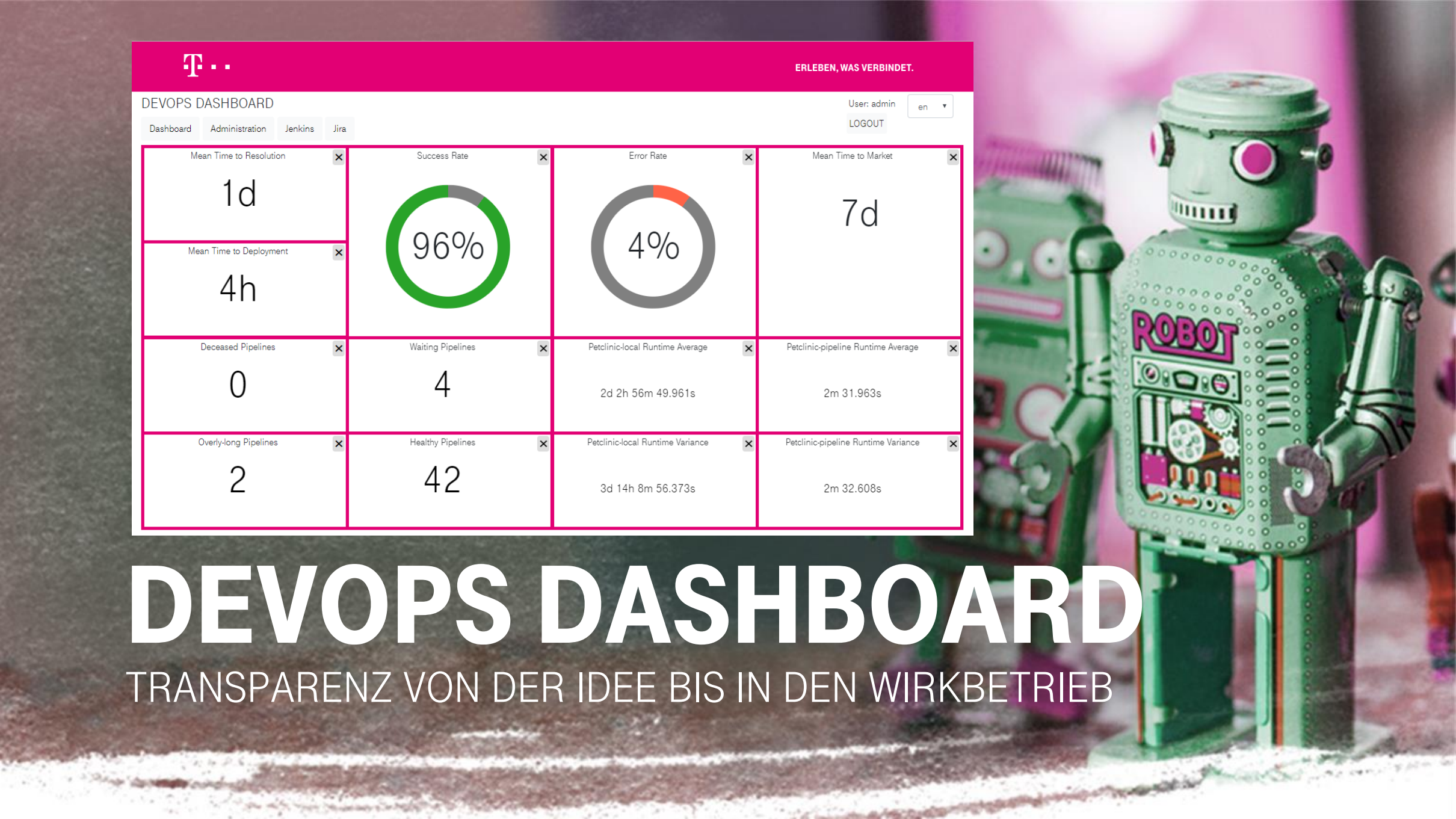
wegweisend digital
T-SYSTEMS MULTIMEDIA SOLUTIONS

Transparenz des Software Delivery Lifecycle **für alle Prozess-Beteiligte**

Unsere Kunden erhalten **Einblicke mittels DevOps-Metriken über die Lieferfähigkeit und Effizienz** des End-2-End-Prozesses

Das DevOps-Team erhält **konkrete Aussagen über den Status** des End-2-End-Prozesses

UNSERE LÖSUNG TRANSPARENZ
DEVOPS DASHBOARD

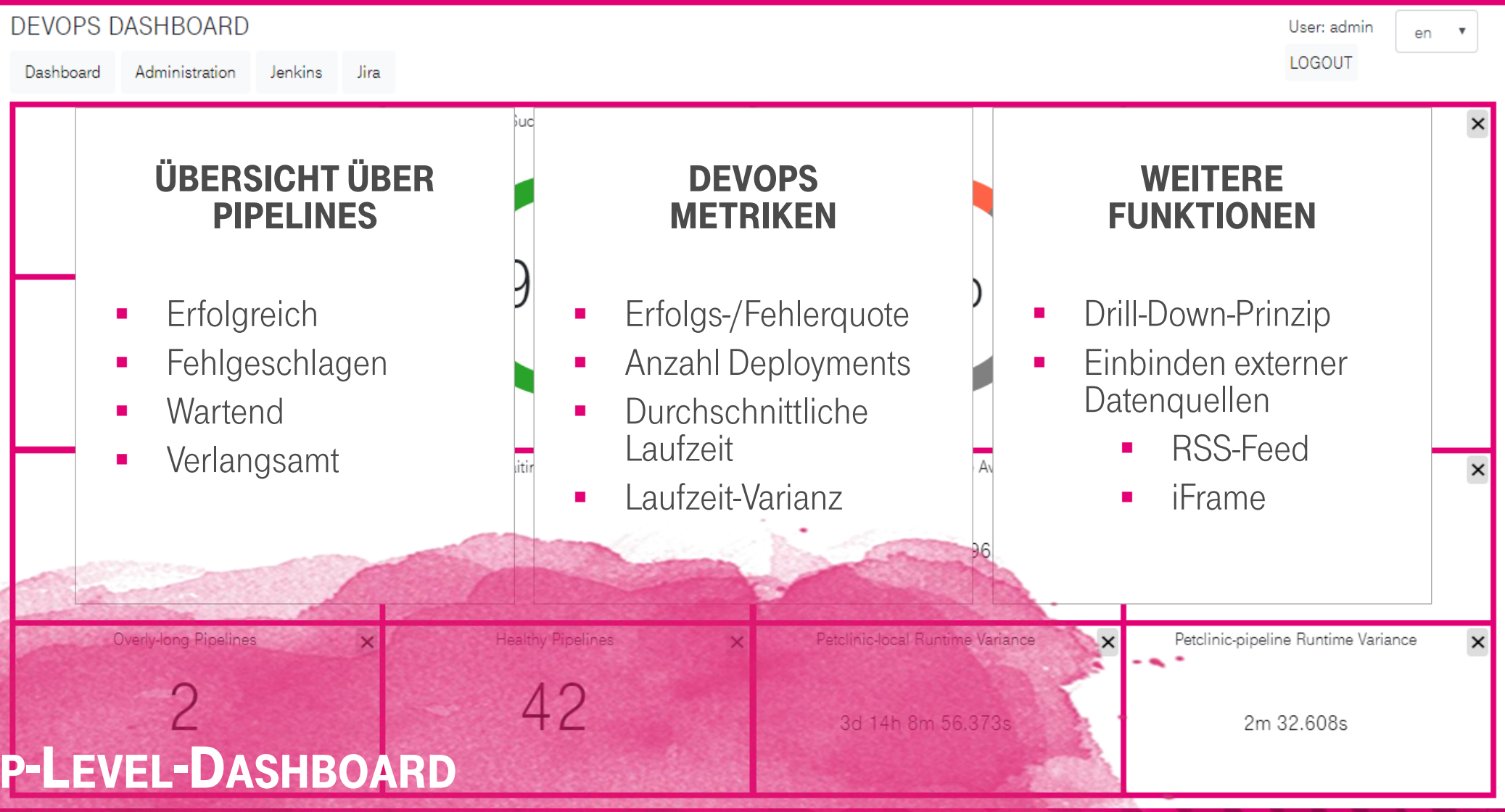


DEVOPS DASHBOARD

TRANSPARENZ VON DER IDEE BIS IN DEN WIRKBETRIEB

LIVE DEMO
DEVOPS DASHBOARD

ERLEBEN, WAS VERBINDET.



TOP-LEVEL-DASHBOARD

ERLEBEN, WAS VERBINDET.

DEVOPS DASHBOARD

User: admin

en

LOGOUT

Dashboard | Administration | Jenkins | Jira

Mean Time to Resolution	Success Rate	Error Rate	Mean Time to Market
1d	96%	4%	7d

Mean Time to Deployment
4h

Deceased Pipelines	Waiting Pipelines	Petclinic-local Runtime Average	Petclinic-pipeline Runtime Average
0	4	2d 2h 56m 49.961s	2m 31.963s

Overly-long Pipelines	Healthy Pipelines	Petclinic-local Runtime Variance	Petclinic-pipeline Runtime Variance
2	42	3d 14h 8m 56.373s	2m 32.608s

LISTE ALLER PIPELINES

- Pipelines mit Handlungsbedarf
- „Grüne“ Pipelines

PIPELINE METRIKEN

- Erfolgs-/Fehler-Quote
- Laufzeit-Varianz
- Laufzeit-Durchschnitt

END-2-END PIPELINEVIEW

- Direktes Springen ins Jenkins Console
- Remote Jenkins-Approvals aus der End-2-End-View

PIPELINE-ÜBERSICHT UND END-2-END-VIEW

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DEVOPS DASHBOARD

User: admin EN

LOGOUT

Dashboard | Administration | Jenkins | Jira

Defective Pipelines

Pipeline	Sequence	Start Time	Last Runtime	Runtime Change	Status
Petclinic-local	#58	Jun 9, 2018, 14:14:02	7d 12h 16m 49.32s	⇑	
Petclinic-pipeline	#75	Jun 4, 2018, 07:53:25	2m 48.903s	⇑	

Healthy Pipelines

Pipeline	Sequence	Start Time	Last Runtime	Runtime Change	Status
mms_mirror_oracle_jdk	#9	Jun 7, 2018, 14:51:01	2m 56.864s	↘	
destroy_nested_virtual_machines	#99	Jun 13, 2018, 21:23:01	4.106s	↗	
mms_puppet_jenkins/job/master	#233	Jun 13, 2018, 23:31:01	1h 40m 46.224s	↗	
mms_puppet_jenkins_update	#5	Dec 20, 2017, 09:56:34	3m 40.878s	↘	

ERLEBEN, WAS VERBINDET.

DEVOPS DASHBOARD

User: admin EN

LOGOUT

Dashboard | Administration | Jenkins | Jira

Petclinic-local Sequences

Jenkins Server

◄ ▲ ► ⟳ Statistics

Waiting Builds

#58

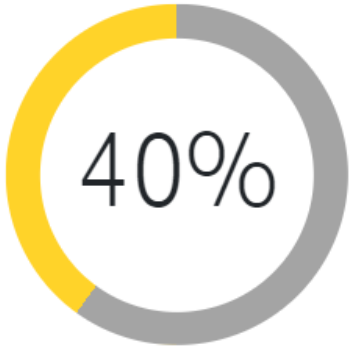
Runtime Average

2d 2h 56m 49.961s

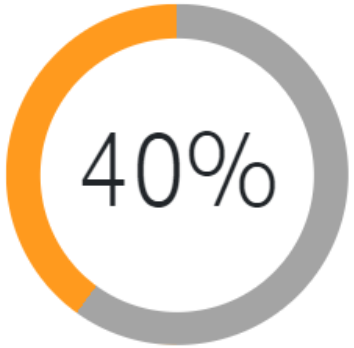
Runtime Variance

2d 21h 28m 10.696s

Success Rate



Error Rate



Sequence	Unit Test	Start Time	Duration	Status
Petclinic-local #58	2	Jun 9, 2018, 14:14:02	7d 12h 16m 49.32s	
Petclinic-local #57	2	Jun 9, 2018, 12:54:03	3h 58m 33.75s	
Petclinic-local #56	2	Jun 9, 2018, 12:03:57	2h 27m 16.154s	
Petclinic-local #55	2	Jun 9, 2018, 11:57:13	18m 37.032s	
Petclinic-local #54	2	Jun 8, 2018, 13:09:56	2d 19h 42m 53.551s	

DEVOPS DASHBOARD

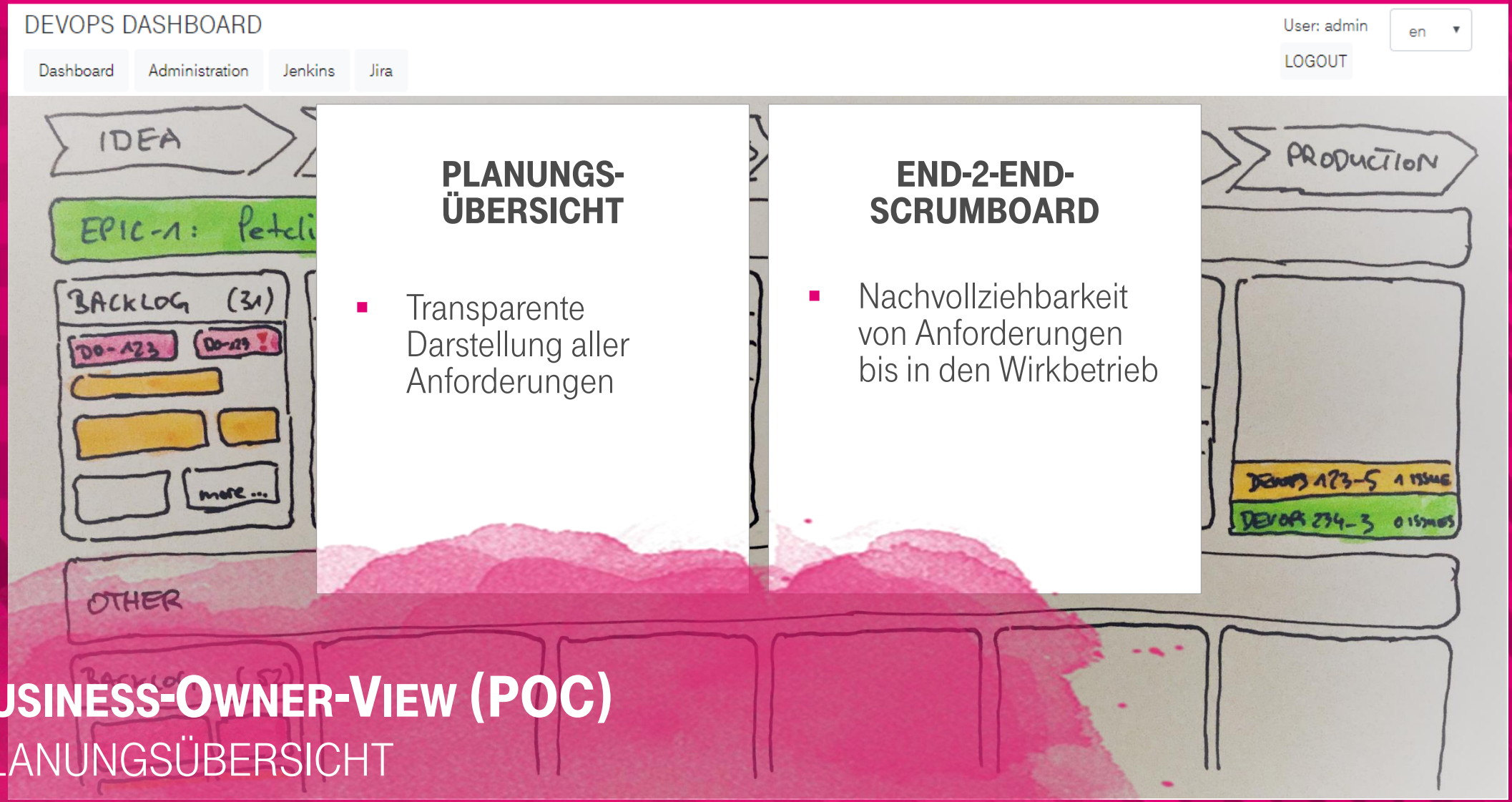
User: admin
en
LOGOUT

Dashboard | Administration | Jenkins | Jira

Petclinic-local #58 (09.06 16:14, 7d 12h 16m 49.32s) Detailed Jenkins Server

◄ ▲ ► ⟳ Statistics

Related Tickets Count: 1	Declarative: Tool Install (0.334s)	Build variables (2.348s)	Preparation (1.882s)	Build (50.413s)	Test (2d 10h)
IP16DASH-222		False 1.203s	Git 1.657s	Passed (40) Failed (0) 48.782s	User Options (2d 10h) proceed abort



PLANUNGS-ÜBERSICHT

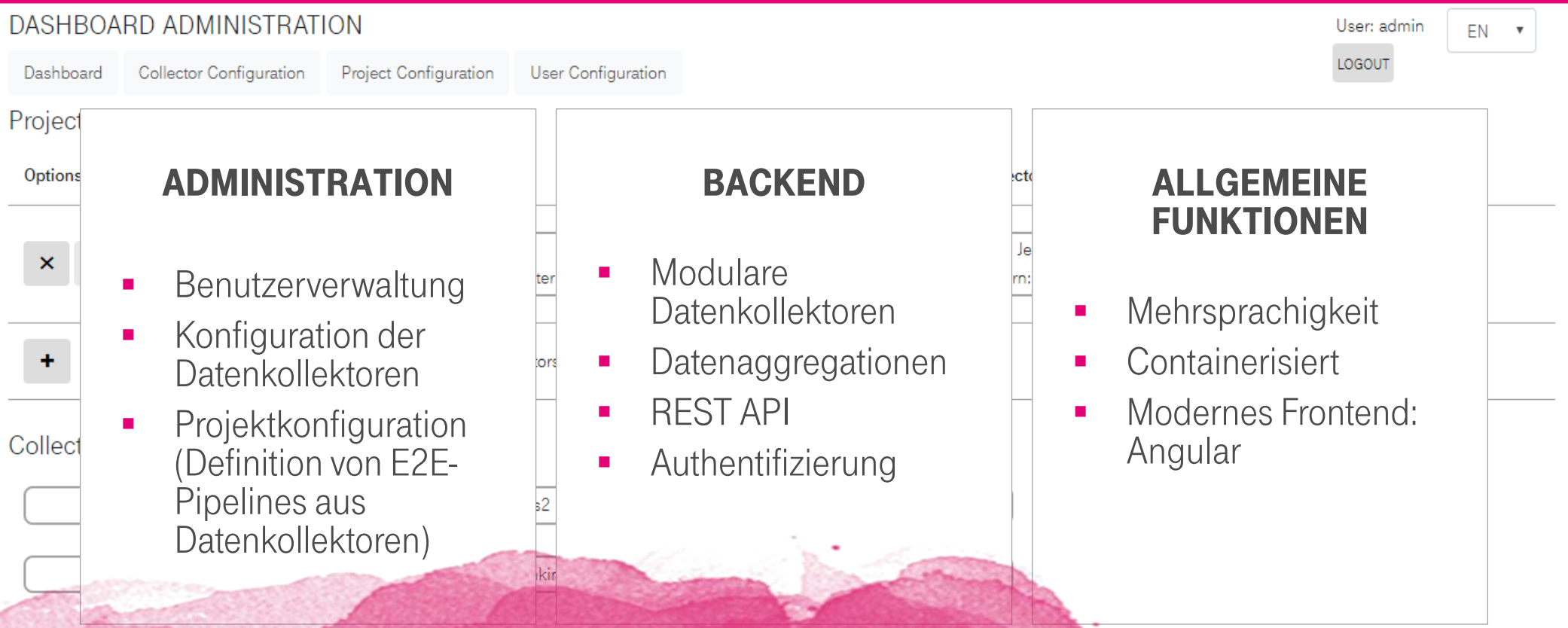
- Transparente Darstellung aller Anforderungen

END-2-END-SCRUMBOARD

- Nachvollziehbarkeit von Anforderungen bis in den Wirkbetrieb

BUSINESS-OWNER-VIEW (POC)

PLANUNGSÜBERSICHT



ADMINISTRATION

- Benutzerverwaltung
- Konfiguration der Datenkollektoren
- Projektkonfiguration (Definition von E2E-Pipelines aus Datenkollektoren)

BACKEND

- Modulare Datenkollektoren
- Datenaggregationen
- REST API
- Authentifizierung

ALLGEMEINE FUNKTIONEN

- Mehrsprachigkeit
- Containerisiert
- Modernes Frontend: Angular

ADMINISTRATION UND BACKEND

ERLEBEN, WAS VERBINDET.

DASHBOARD ADMINISTRATION

User: admin

EN

LOGOUT

Dashboard | Collector Configuration | Project Configuration | User Configuration

Collector List | Collector Service | Environment Configuration

Name	Address	Type	Project	Options
Jenkins1	http://192.168.195.196:8080	Jenkins	Petclinic-pipeline	Edit Delete
Jenkins2	http://192.168.195.196:8080	Jenkins	Petclinic-local	Edit Delete
destroy_nested_virtual_machines	https://jenkins-devops.mms-at-work.de	Jenkins	destroy_nested_virtual_machines	Edit Delete
Jira1	https://jira.t-systems-mms.eu	Jira	DEVOPS	Edit Delete
mms_mirror_oracle_jdk	https://jenkins-devops.mms-at-work.de	Jenkins	mms_mirror_oracle_jdk	Edit Delete
mms_puppet_jenkins_update	https://jenkins-devops.mms-at-work.de	Jenkins	mms_puppet_jenkins_update	Edit Delete
mms_puppet_jenkins	https://jenkins-devops.mms-at-work.de	Jenkins	mms_puppet_jenkins/job/master	Edit Delete
mms_rpm_ruby	https://jenkins-devops.mms-at-work.de	Jenkins	mms_rpm_ruby	Edit Delete

New Collector

DASHBOARD ADMINISTRATION

User: admin

EN

LOGOUT

Dashboard | Collector Configuration | Project Configuration | User Configuration

Name	Username	Type	Operation
	admin	Administrator	Edit Delete
John Doe	jdoe	User	Edit Delete

New User

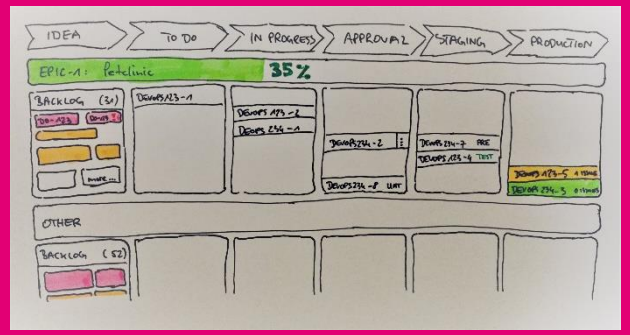
DEVOPS DASHBOARD
FUNKTIONSSCHEMA

wegweisend digital
T-SYSTEMS MULTIMEDIA SOLUTIONS

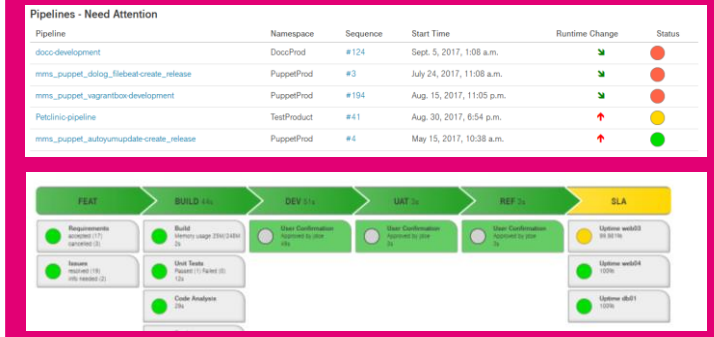
Top-Level-Dashboard
Darstellung von Metriken und Insights

3rd-Party Dashboards

Business-Owner-View
Planungsansicht



End-2-End-View
Pipelineübersicht



REST API

DevOps Dashboard Backend
Data Collection & Aggregation

Vorhersage der
Mean Time To Market

Mustererkennung
von Fehlerfällen und
Performance-
änderungen

Unterstützung in
**Genehmigungs-
prozessen**

MACHINE LEARNING

LIVE DEMO
DYNATRACE SHOWCASE

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