

Digitizing workflows with no-code

Empowering the citizen developer

Grab'n Go, 25th March 2021, Jakob Rahr Bork Jensen and Jonas Rutström

Agenda



How OutSystems brings the benefits of low-code



Introducing the Workflow Builder with no-code capabilities



Demo of the Workflow Builder



Common Workflow Builder use cases



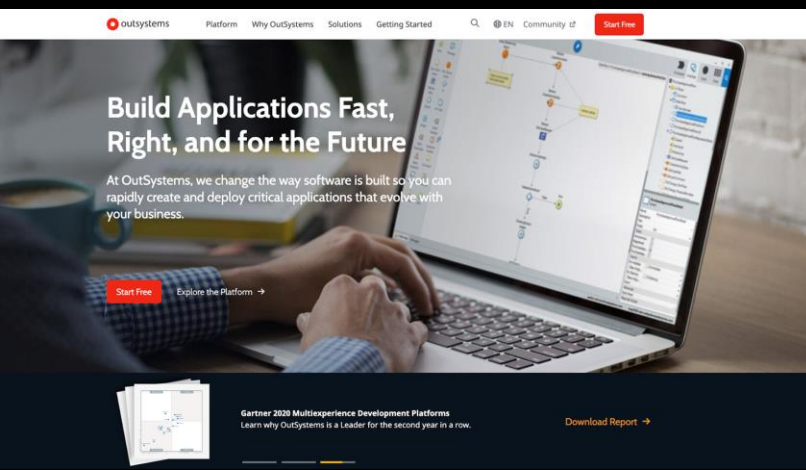
Q&A



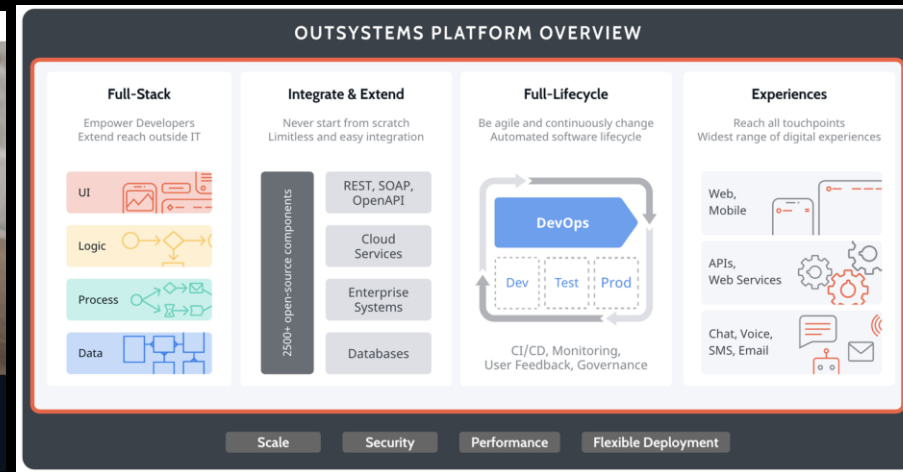
How OutSystems brings the benefits of low-code

What is OutSystems?

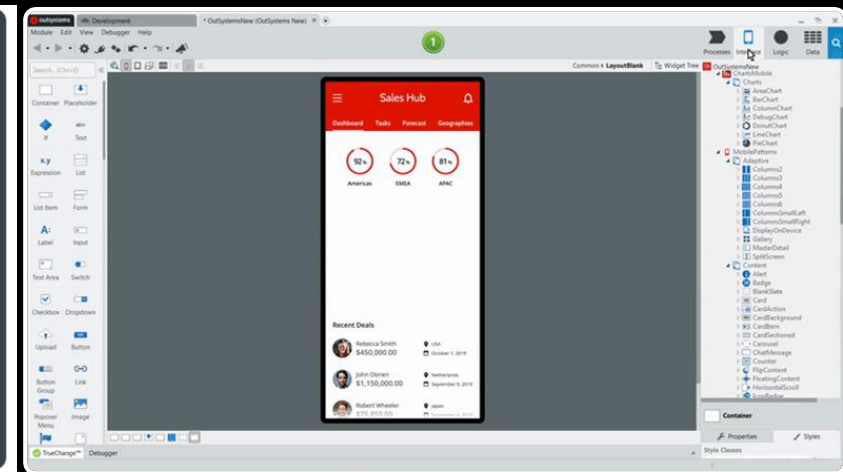
OutSystems mission is to Give every organization the **power to innovate**



It's a Company



It's a Platform



It's a Visual Language

What is low-code?

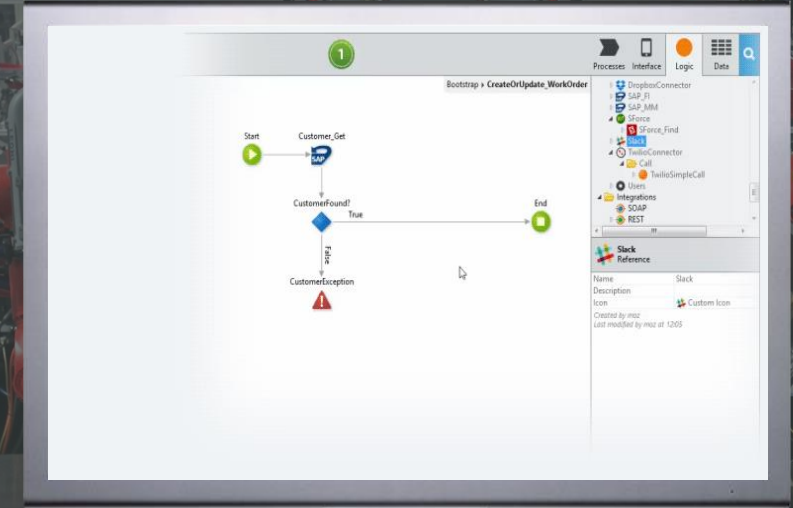
Slow **Manual** Process

```
6 'use strict';
5 var multimatch = require('multimatch');
4 var findup = require('findup-sync');
3 var path = require('path');
2 var resolve = require('resolve');
1 var gutil = require('gulp-util');
7
1 function arrayify(e1) {
2   return Array.isArray(e1) ? e1 : [e1];
3 }
4
5 function camelize(str) {
6   return str.replace(/-(\w)/g, function(m, p1) {
7     return p1.toUpperCase();
8   });
9 }
10
11 module.exports = function(options) {
12   var finalObject = {};
13   var configObject;
14   var requireFn;
15   options = options || {};
16
17 /git/gulp-load-plugins/index.js [javascript.jsx]
18 "index.js" 131L, 3956C written
```

Traditional Development

(Manual, Slow, Resource Intensive)

Fast **Automated** Process

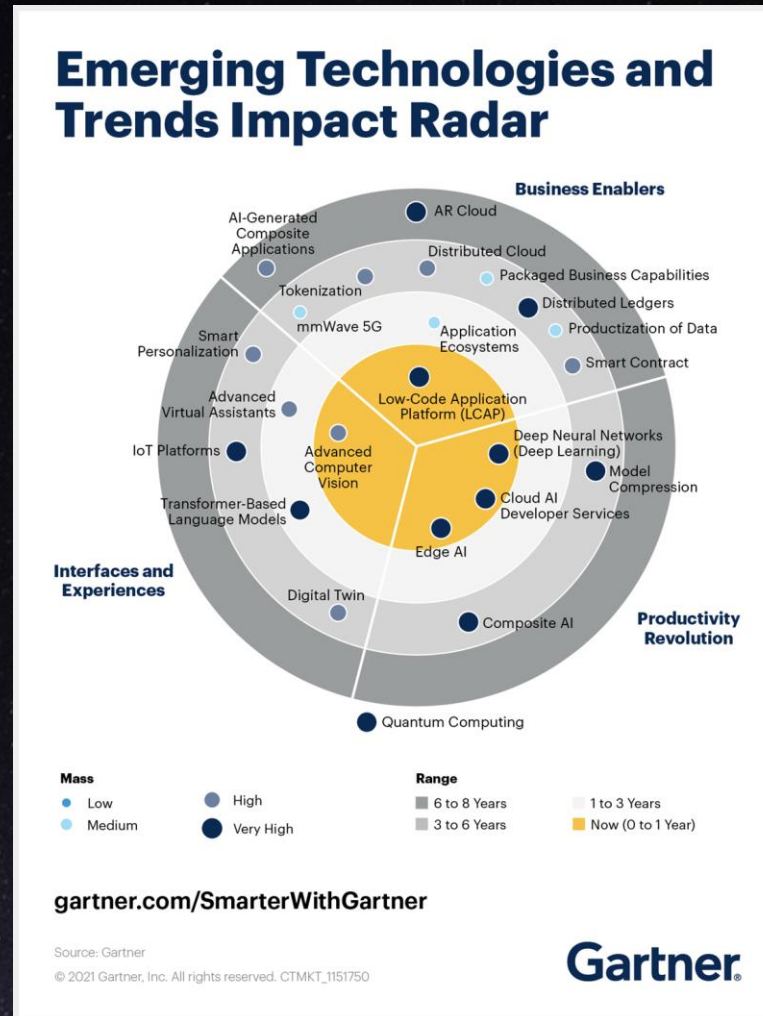


OutSystems Low Code Platform

(Automated, Fast, Optimized)



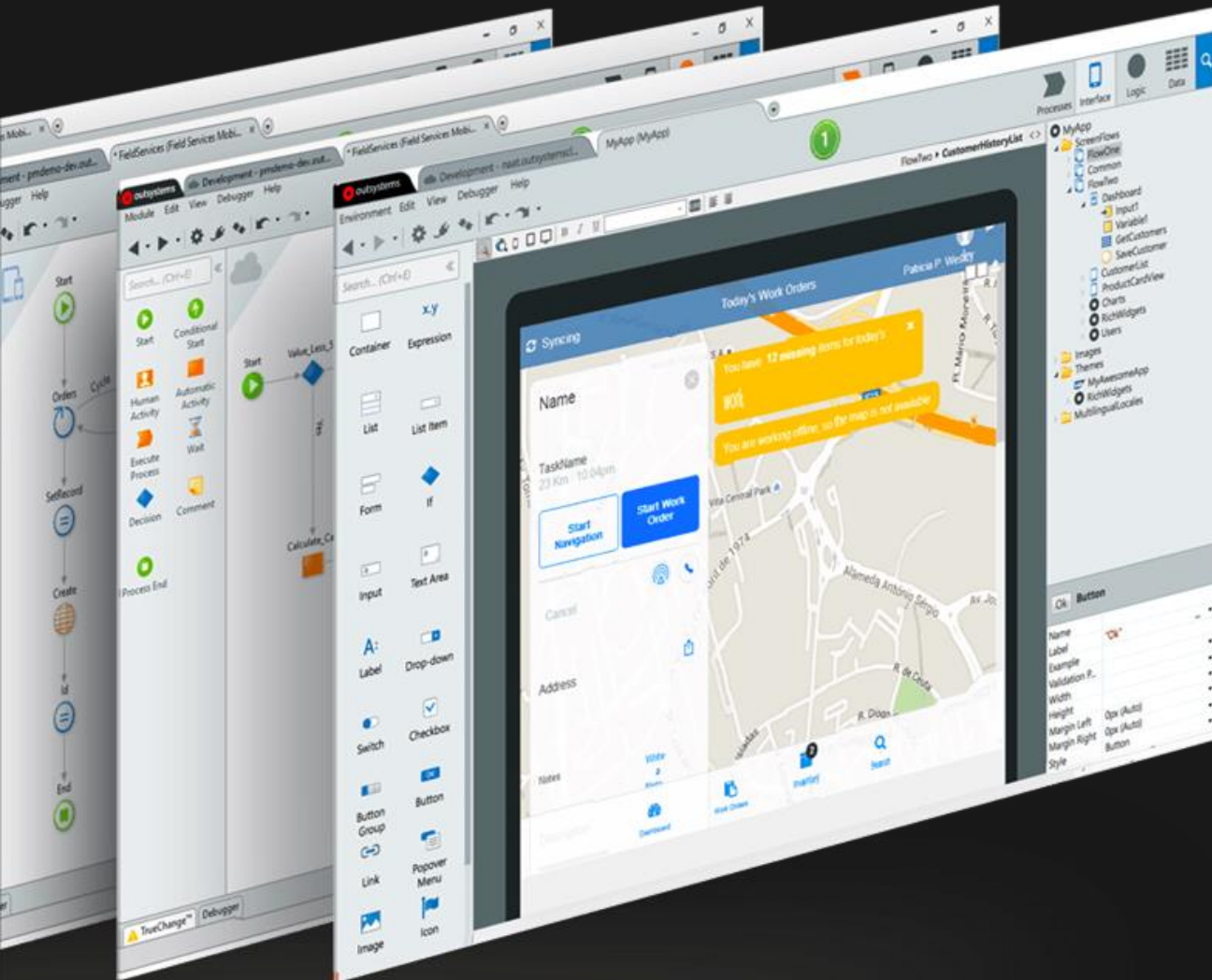
What analysts say...



**What does this
mean to you?**



High speed delivery



- Full-stack visual development
- Single-click deployment
- Mobile made easy
- Automatic refactoring
- In-app feedback

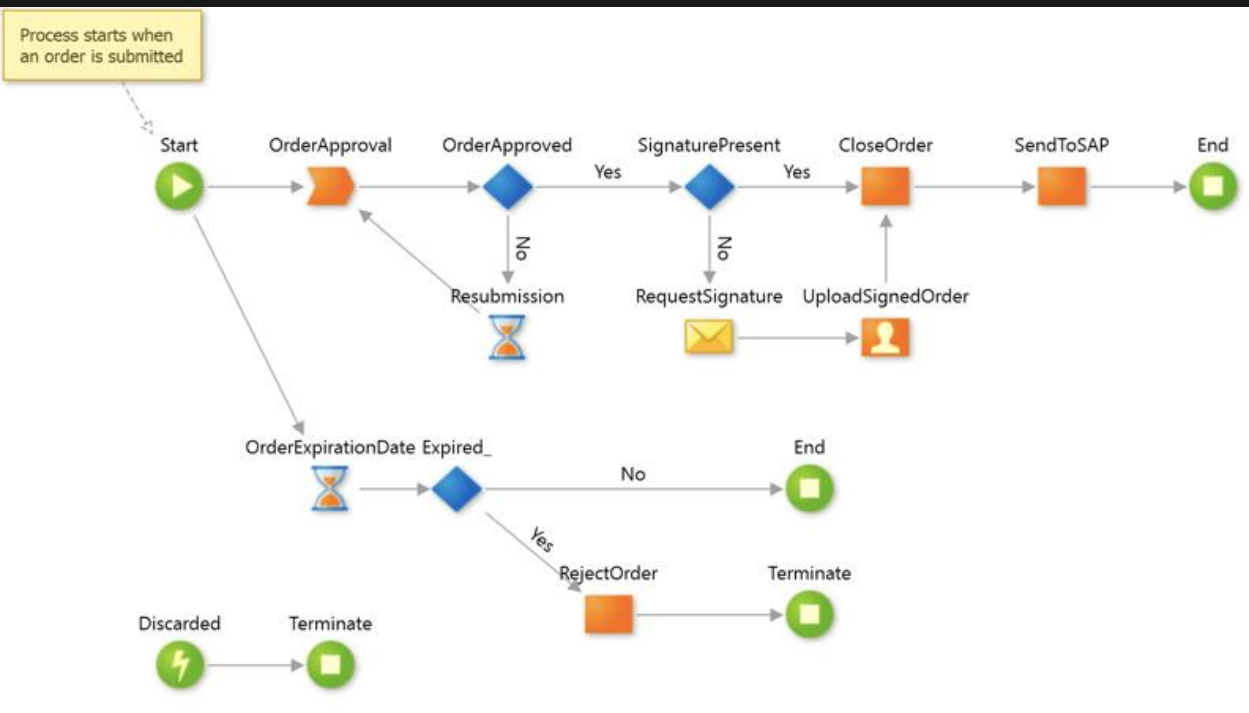
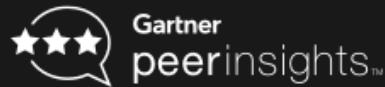


"Faster, more accurate development"

5/5 ★★★★★

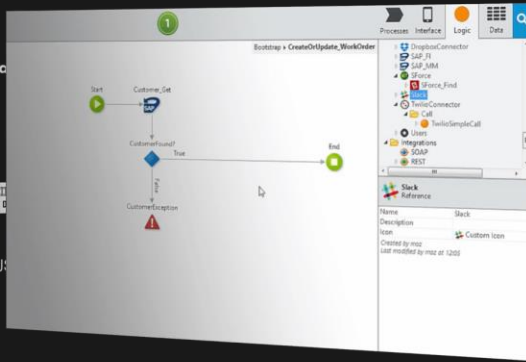
Workflow capabilities

trustradius



- Business Workflows **integrated with applications** (UI interfaces web and mobile, Logic, datamodel, web services, ...)
- **Orchestrate** complex logic
- Build **asynchronous** process
- **Scalable** and **Performant** engine able to process millions of activities

Integrate with everything



- Pre-built connectors
- SOAP and REST integration without coding
- Connect with popular cloud services
- Orchestrate with workflow & business logic
- Create your own connectors

Databases	SQL Server	ORACLE DATABASE	MySQL	mongo DB	Amazon DynamoDB	CouchDB
Collaboration tools	Jira	Microsoft Teams	slack	Trello	asana	zendesk
Automation	Facebook	LinkedIn	Twitter	WhatsApp		
Cloud & CRM	aws	Azure	Google Cloud	salesforce	Microsoft Dynamics 365	
Monitoring	dynatrace	elastic	New Relic	DATADOG	APPODYNAMICS	
and more ...	SAP					

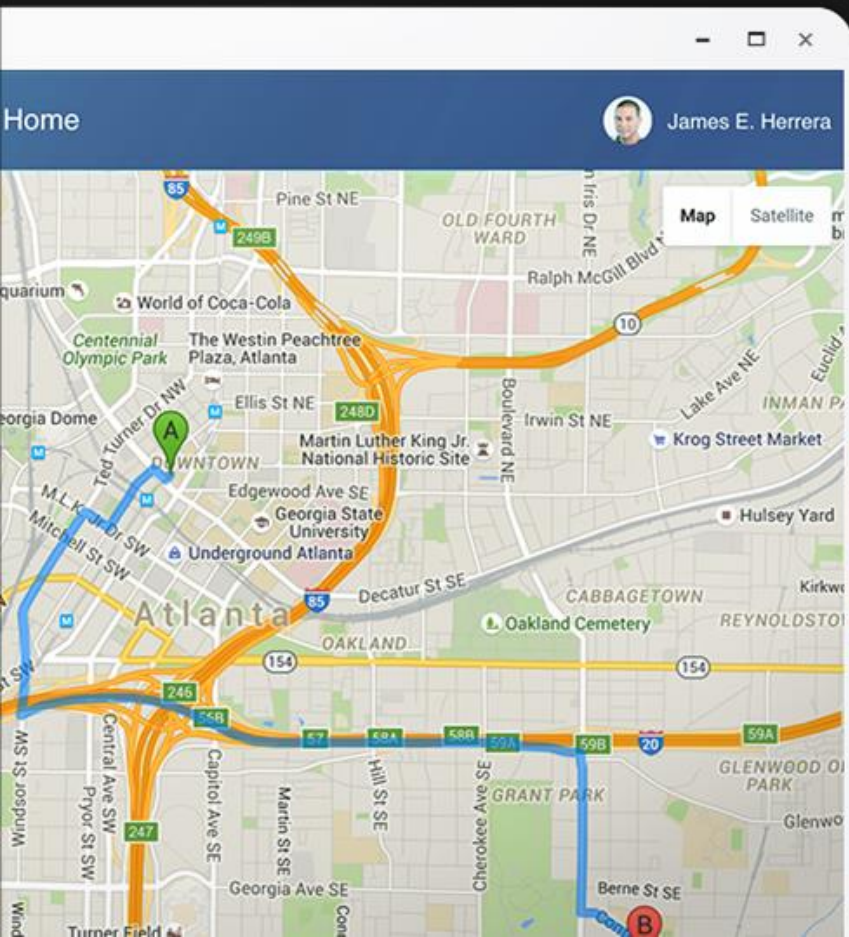
trustradius

“Flexible and has huge integration capabilities”

5/5 ★★★★★

Great UX by default

- Beautiful patterns and controls
- Sub 80 millisecond response time
- Drag-and-drop with pixel perfect control
- Extend with your own UI code
- Develop once for every form factor
- See and test immediately on-device



“One of the most transformative products in years”

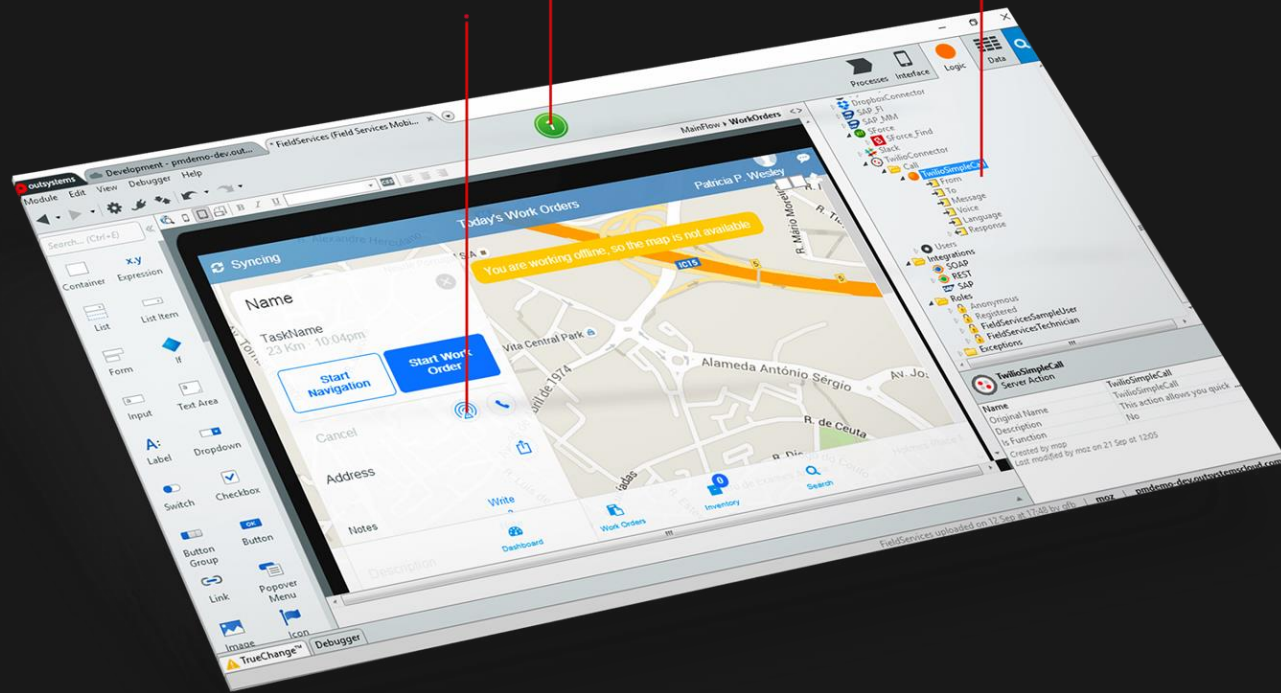
5/5 ★★★★★

Low-code **without constraints**

No runtime interpreters

Wrap your existing code

Create your own reusable extensions



- Wrap and include existing code
- Create reusable extensions
- Standard code
- No runtime interpreters
- No proprietary data-models

trustradius

“OutSystems Rocks!”

5/5 ★★★★★

Enterprise-grade operations

- Security
- Scalability
- Performance
- Architecture
- Flexible deployments



“Mobile app dev with OutSystems is truly amazing”

5/5 ★★★★★



Van Ameyde created a system that supports 16 different countries and their unique claims handling requirements with over 46 million running process instances and more than 320 million activities in flight.



Unbreakable deployment

- Automatic impact assessment
- Single-click rollback
- Automatic staging
- Automatic dependency updates



“Development game-changer”

5/5 ★★★★★

The screenshot shows the OutSystems development environment. The main window displays a web application interface for 'Alfreds Futterkiste' with a sidebar menu containing 'DASHBOARD' and 'ORDERS'. A 'Debugger' window is open in the foreground, displaying a list of errors and warnings. The errors include 'Invalid Expression', 'Invalid SQL', and 'Unused Argument'. The warnings include 'Scalability Suggestion' and 'Unused Argument'. The debugger window also shows a 'TrueChange™' button and a 'Debugger' tab.

Icon	Message
✖	Errors found
✖	Invalid Expression
✖	Invalid SQL
⚠	Scalability Suggestion
⚠	Unused Argument

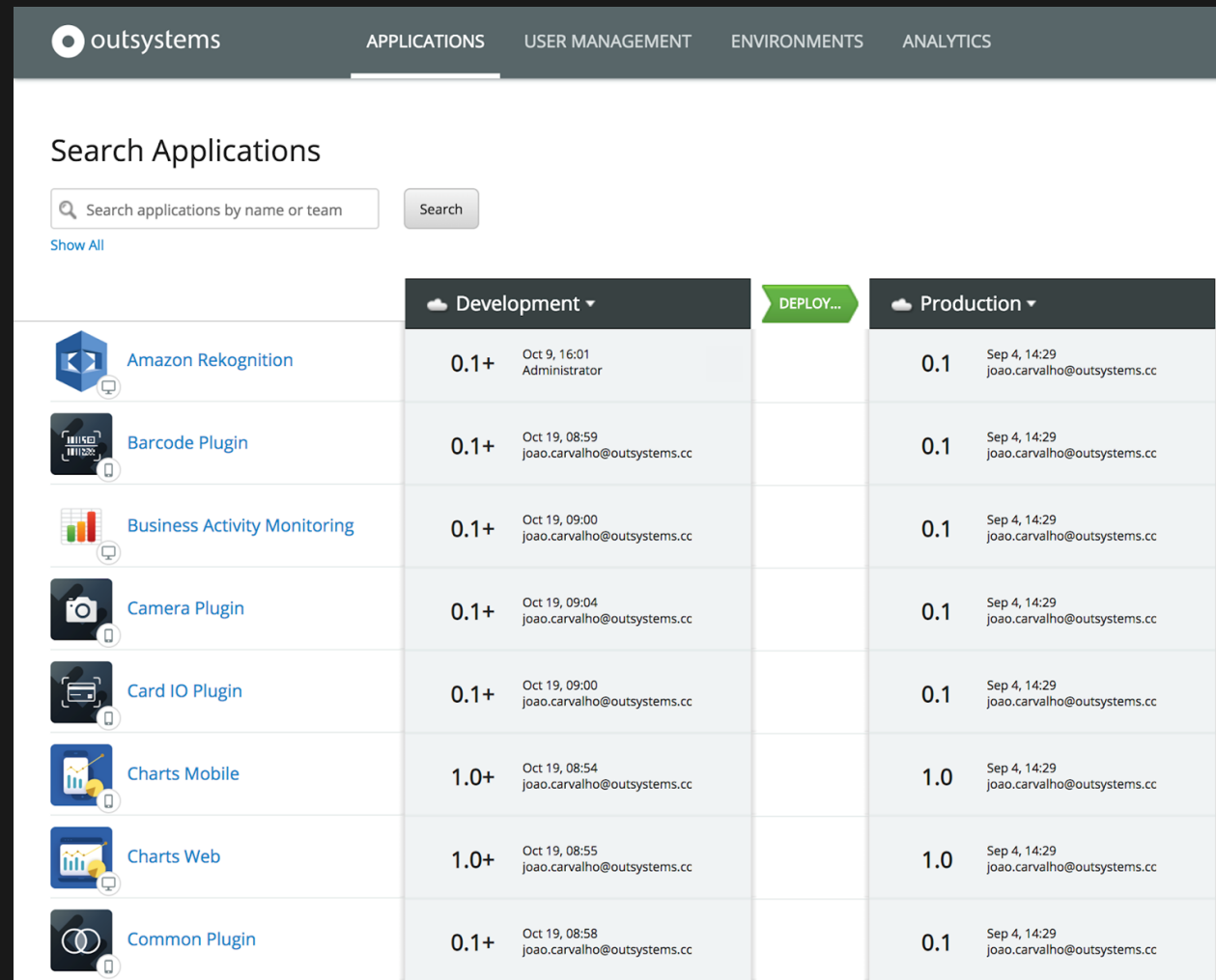
Built-in DevOps solution

- Manage application full life cycle
- Automated deployment with impact analysis and dependency checking
- User management capabilities
- Continuous integration and delivery
- Deployment management API (Jenkins, Azure Devops, other devops tools)









trustradius

“It marries the best of DevOps with integration tools”

5/5 ★★★★★



The screenshot shows the OutSystems console interface. At the top, there are navigation tabs for 'APPLICATIONS', 'USER MANAGEMENT', 'ENVIRONMENTS', and 'ANALYTICS'. Below the navigation is a 'Search Applications' section with a search input field and a 'Search' button. A 'Show All' link is also present. The main content is a table of applications, with columns for 'Development' and 'Production' environments. A green 'DEPLOY...' button is visible between the columns. The table lists several applications, including Amazon Rekognition, Barcode Plugin, Business Activity Monitoring, Camera Plugin, Card IO Plugin, Charts Mobile, Charts Web, and Common Plugin. Each application row shows its version number, deployment date, and the user who deployed it.

	Development	DEPLOY...	Production
 Amazon Rekognition	0.1+ Oct 9, 16:01 Administrator		0.1 Sep 4, 14:29 joao.carvalho@outsystems.cc
 Barcode Plugin	0.1+ Oct 19, 08:59 joao.carvalho@outsystems.cc		0.1 Sep 4, 14:29 joao.carvalho@outsystems.cc
 Business Activity Monitoring	0.1+ Oct 19, 09:00 joao.carvalho@outsystems.cc		0.1 Sep 4, 14:29 joao.carvalho@outsystems.cc
 Camera Plugin	0.1+ Oct 19, 09:04 joao.carvalho@outsystems.cc		0.1 Sep 4, 14:29 joao.carvalho@outsystems.cc
 Card IO Plugin	0.1+ Oct 19, 09:00 joao.carvalho@outsystems.cc		0.1 Sep 4, 14:29 joao.carvalho@outsystems.cc
 Charts Mobile	1.0+ Oct 19, 08:54 joao.carvalho@outsystems.cc		1.0 Sep 4, 14:29 joao.carvalho@outsystems.cc
 Charts Web	1.0+ Oct 19, 08:55 joao.carvalho@outsystems.cc		1.0 Sep 4, 14:29 joao.carvalho@outsystems.cc
 Common Plugin	0.1+ Oct 19, 08:58 joao.carvalho@outsystems.cc		0.1 Sep 4, 14:29 joao.carvalho@outsystems.cc

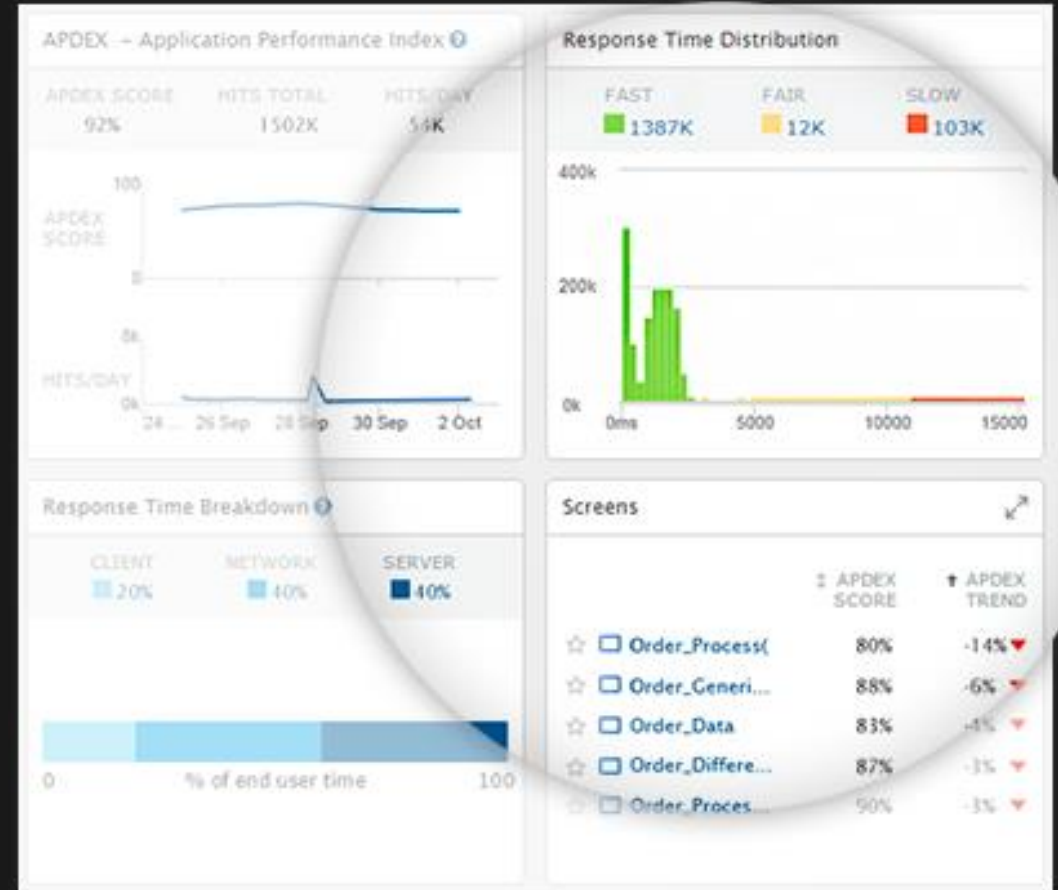
Metrics that matter

- Automatic instrumentation of your apps
- Monitor application performance
- Real-time drill down to identify root cause
- Customizable performance dashboards
- API-based access to performance data

GetApp[®]

“OutSystems changed my life”

5/5 ★★★★★



OutSystems addresses the challenges of traditional IT



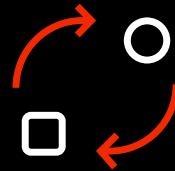
Growing Backlogs

Complexity falls on developers' shoulders

Hard divisions between business and IT

Unique CXs are hard

Talent shortages



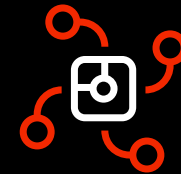
Hard to Meet NFRs

Speed incompatible with quality

Security is hard

Governance is hard

Scalability & reliability add extra complexity



Constant Change

SaaS Explosion

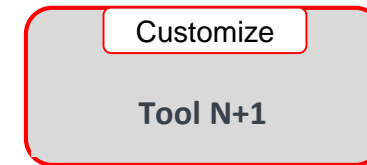
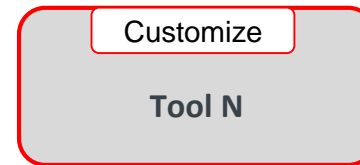
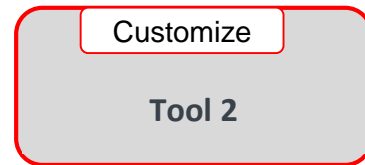
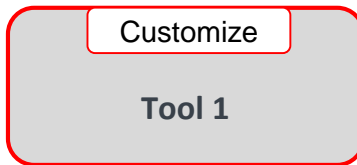
Needs change faster than apps

New technologies appear faster than apps

Staff turnover

How does OutSystems fit?

There is a need to create a unified user experience, dashboards and visibility across the borders of COTS platforms and various system of records



Custom Logic, BI, AI, ML etc.

Various **unconnected**: Systems, Tools, Databases etc.



System 1

System 2

System 3

System 4

System N

System N+1

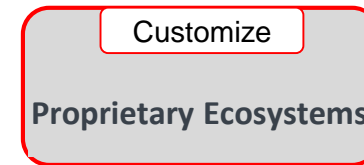
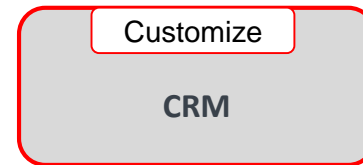
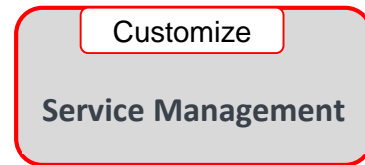
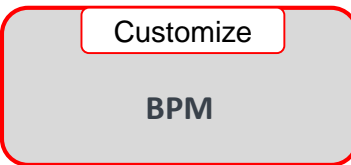
Experience

Internal

OutSystems

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System 1



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System 4



System N



System N+1

Experience

Internal

How does OutSystems fit?



Customize

BPM

Customize

Service Management

Customize

CRM

Customize

Proprietary Ecosystems



Custom Logic, BI, AI, ML etc.



Integration



System 1



System 2



System 3



System 4



System N

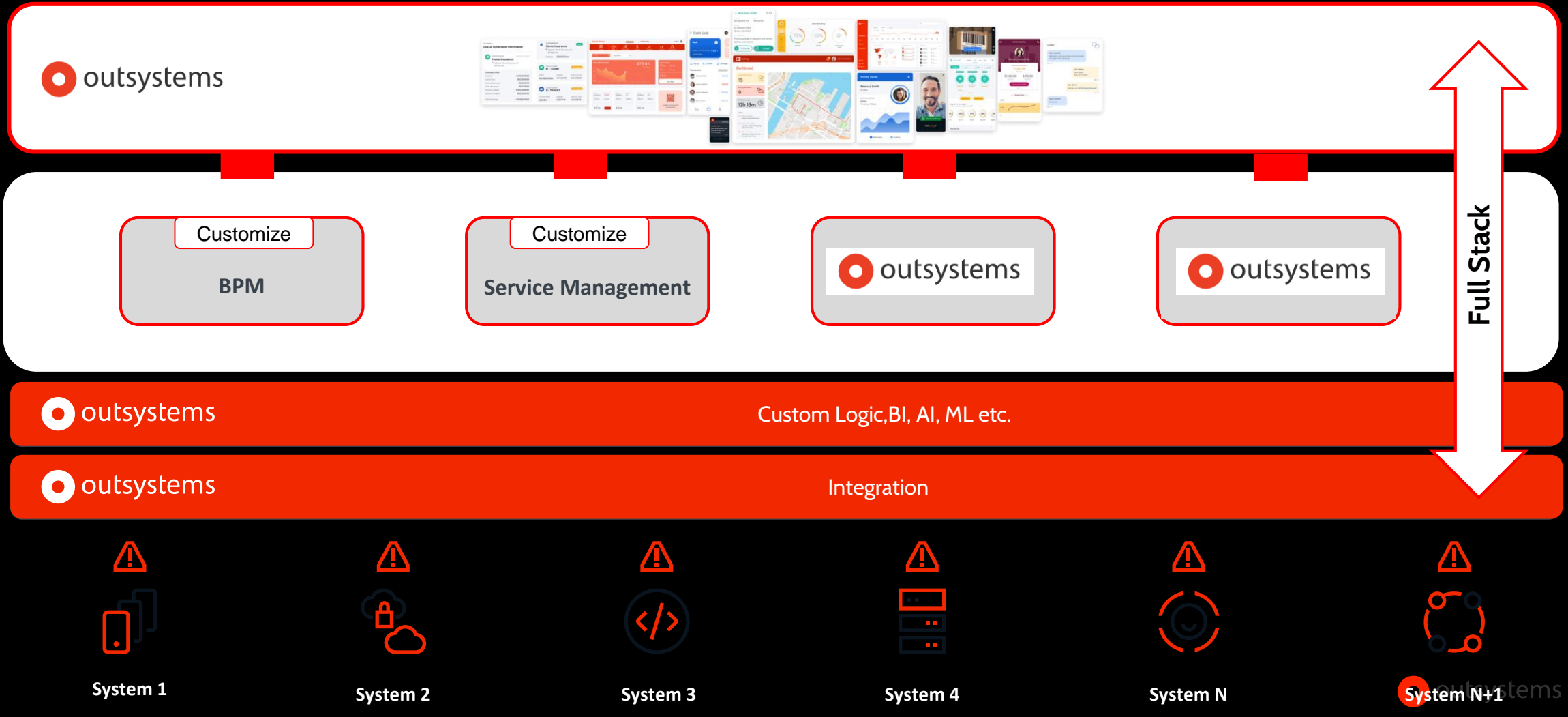


System N+1

Experience

Internal

How does OutSystems fit?



Experience

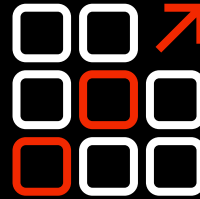
Internal

OutSystems is a **modern** application platform



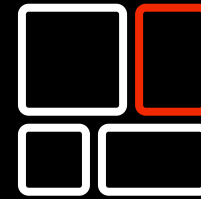
Build it Fast

Serious Productivity



Build it Right

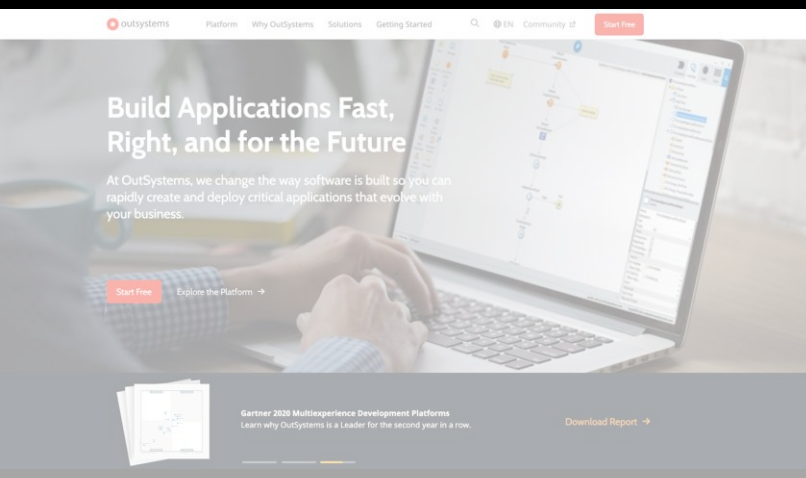
Serious Applications



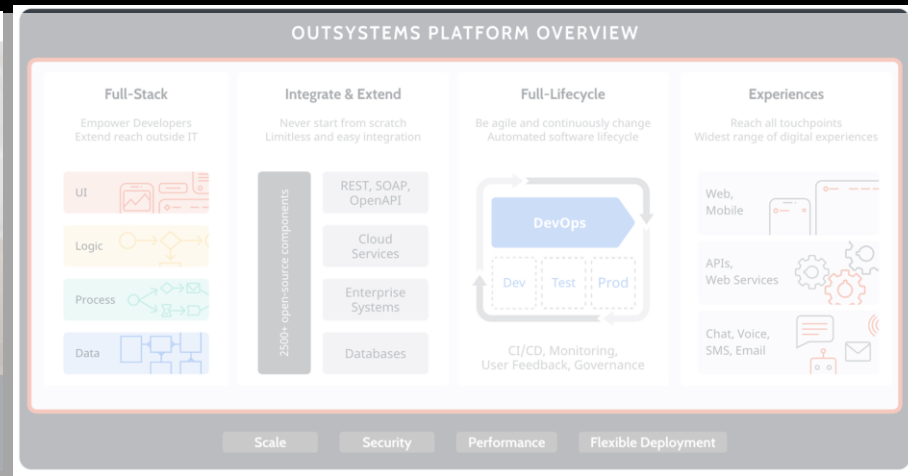
Build for the Future

Platform for change

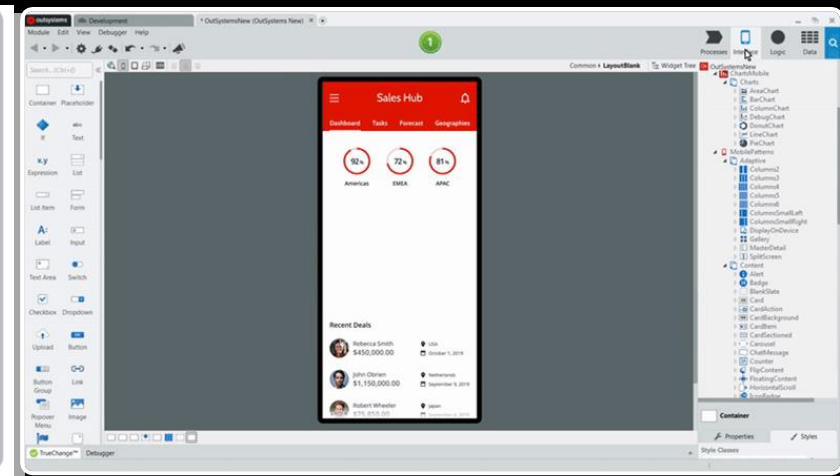
OutSystems mission is to Give every organization the **power to innovate**



It's a Company

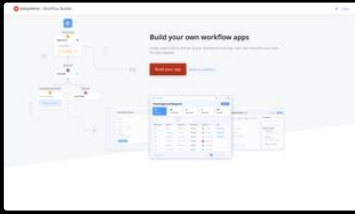


It's a Platform



It's a Visual Language

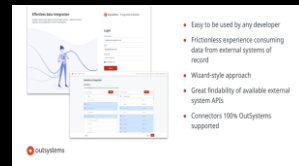
Who can use OutSystems?



Workflow Builder



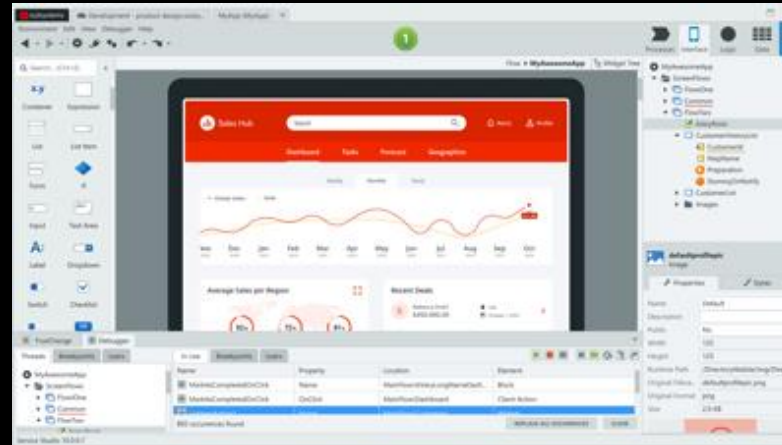
ML Builder



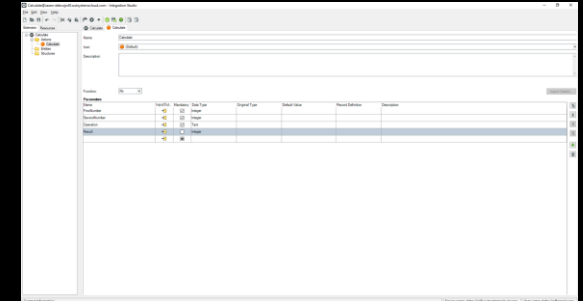
Integrations Builder



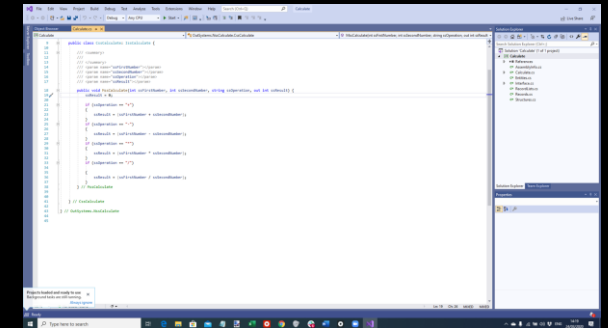
Experience Builder



Service Studio



Integration Studio



Visual Studio

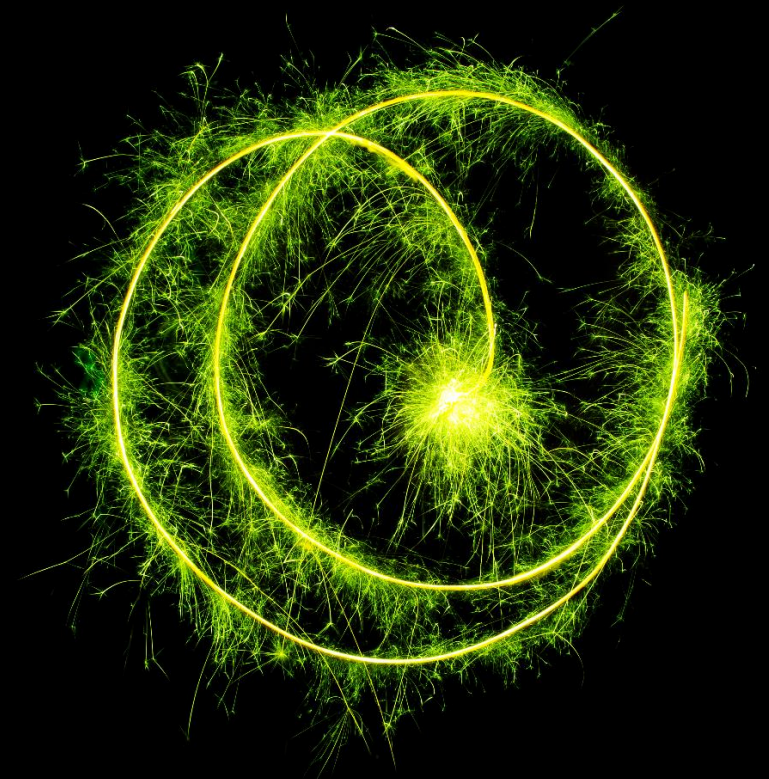
Citizen developer

Low-Code developer

Pro-Code developer



Introducing the **Workflow Builder** with no-code capabilities



North star

Be able to deliver simple
to medium workflow
applications built by
business users in
minutes

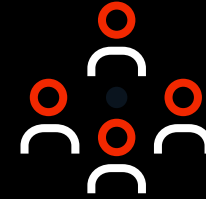


Who's it for?



Business People

Allow process owners **to develop Case Management applications** with low effort and low technical knowledge **on top of** OutSystems platform.

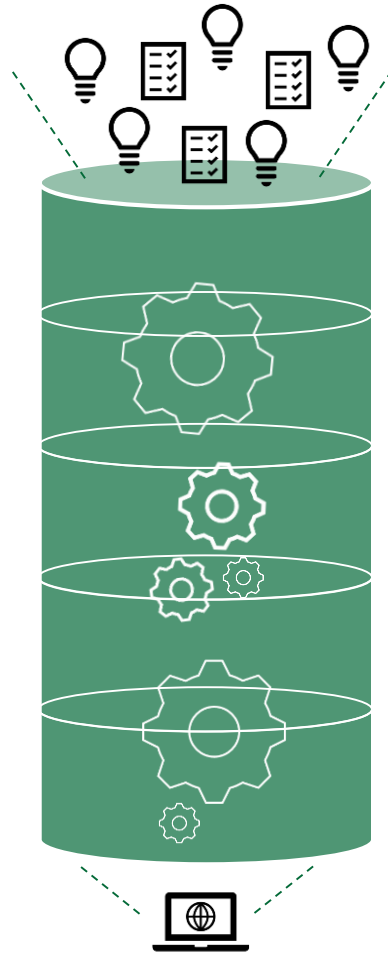


Developers

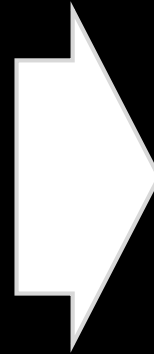
Allow developers to **use pre-built case management functions** that fit specific use cases, built on top of OS platform BPT capabilities

Include the entire organization in the digital innovation process

Traditional approach

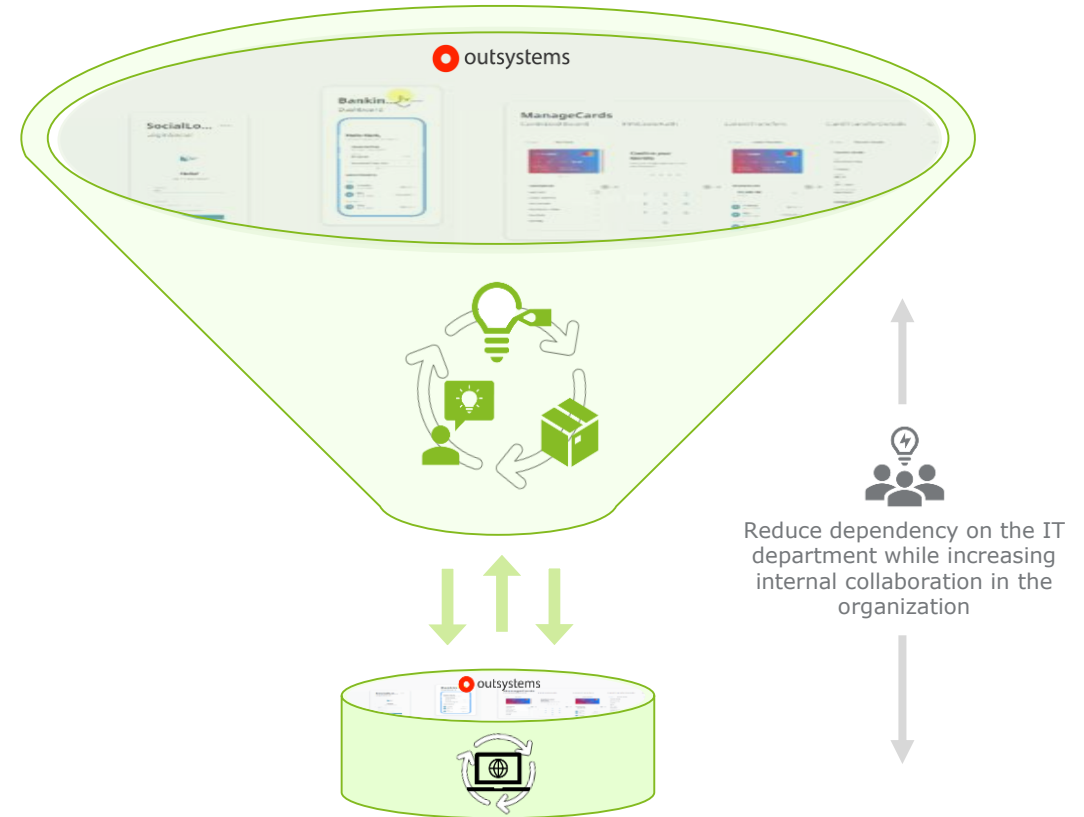


The ability to build **prototypes** and test out **ideas** to solve business needs is constrained by the **capacity** of the IT organization



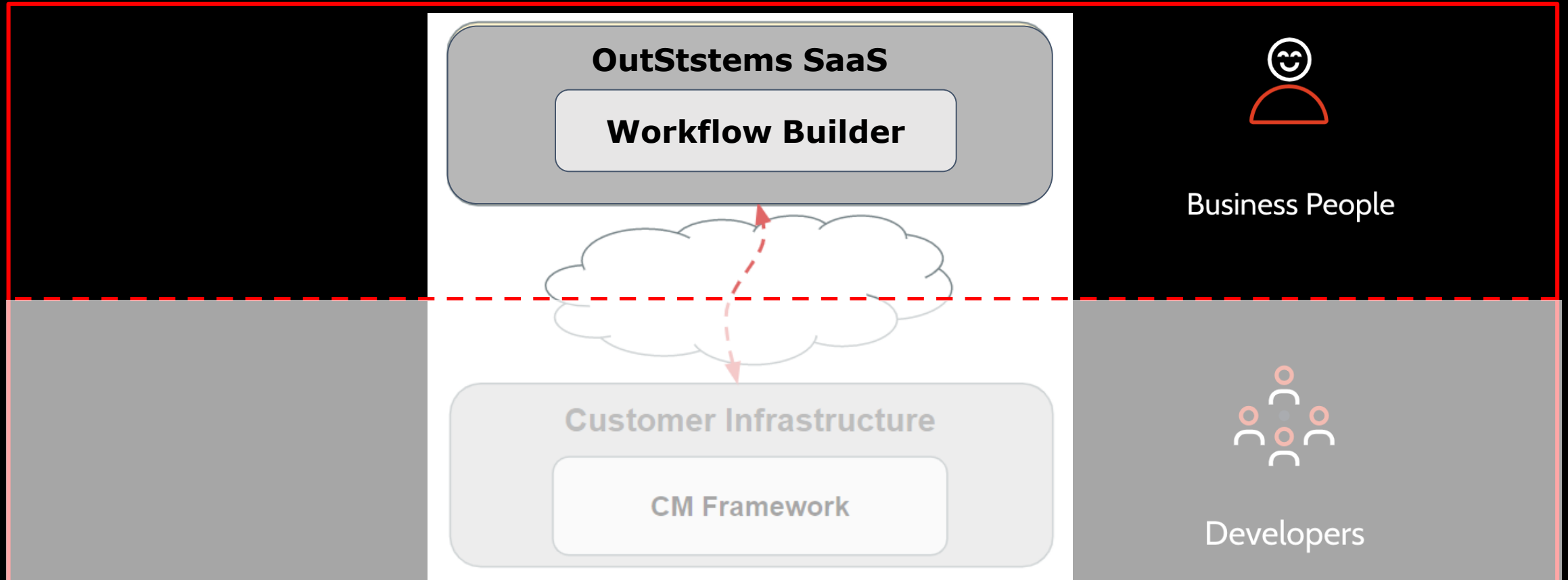
With OutSystems

The entire organization contributes to development of software and testing of ideas through **rapid prototyping**



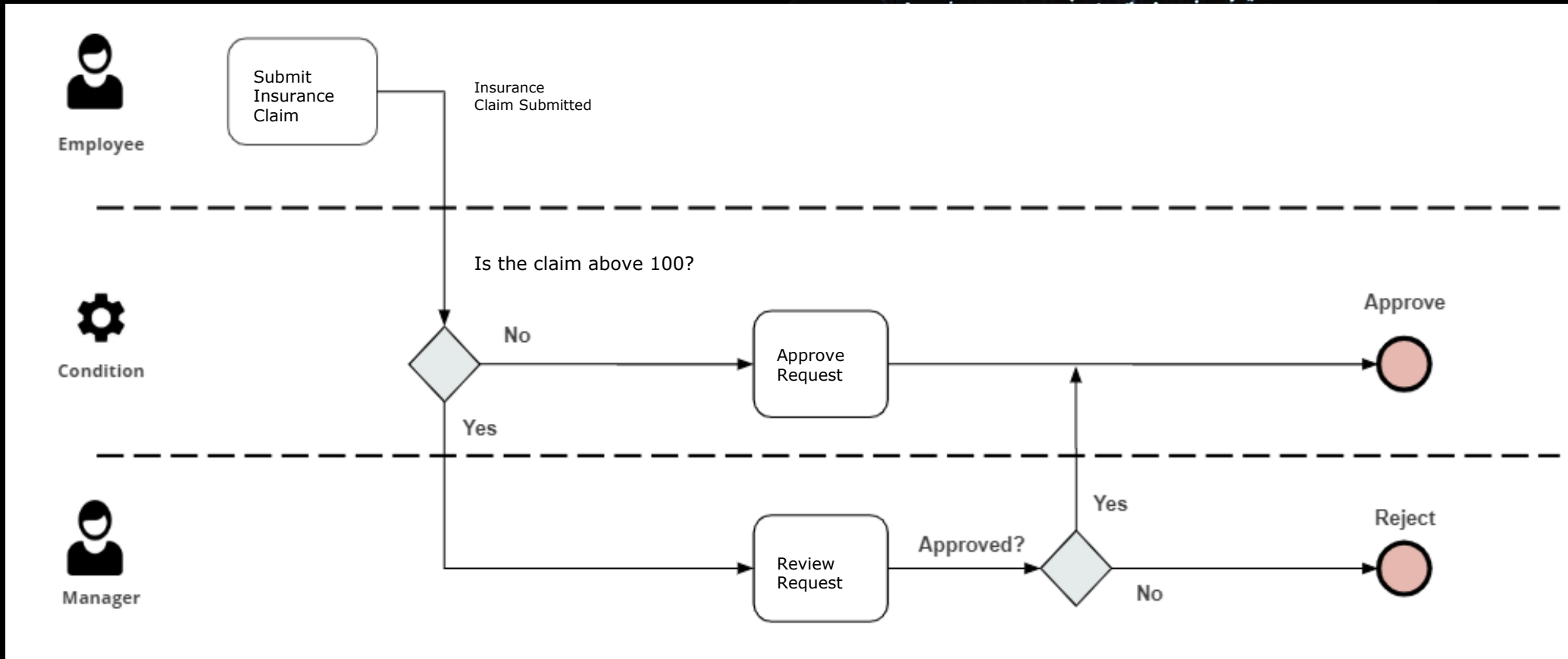
IT teams can **focus** on selected **prototypes** and **development** tasks

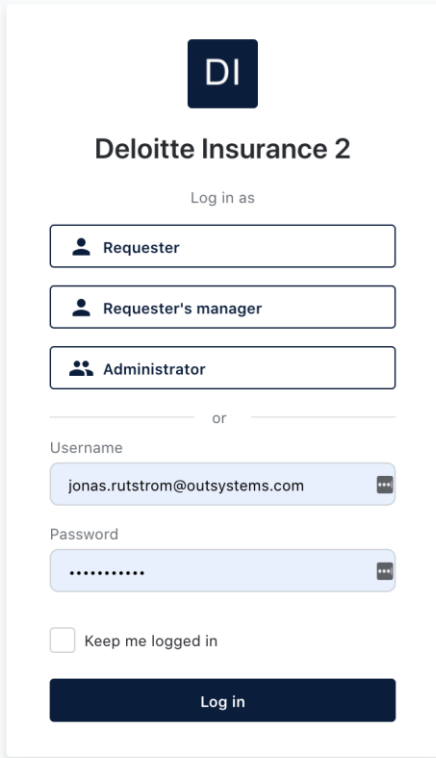
How does it work?



Demo time!







DI

Deloitte Insurance 2

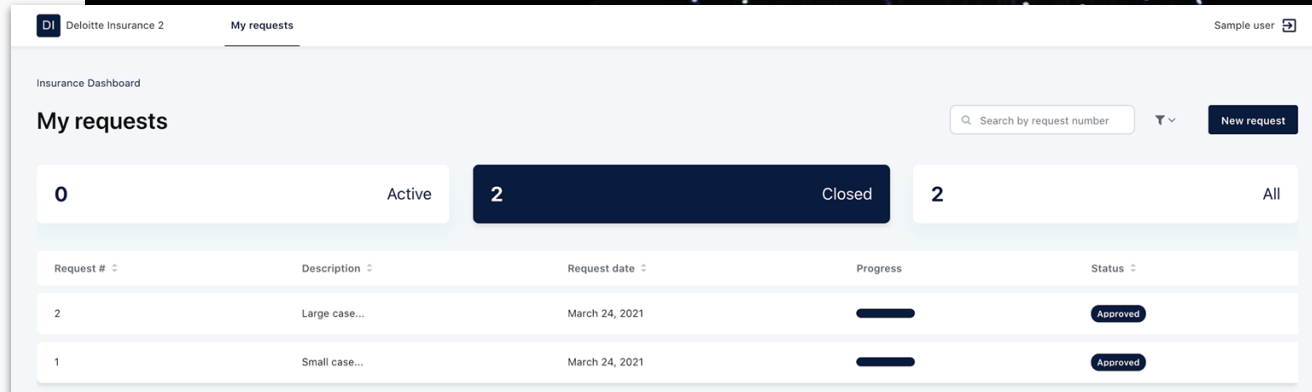
Log in as

or

Username

Password

Keep me logged in



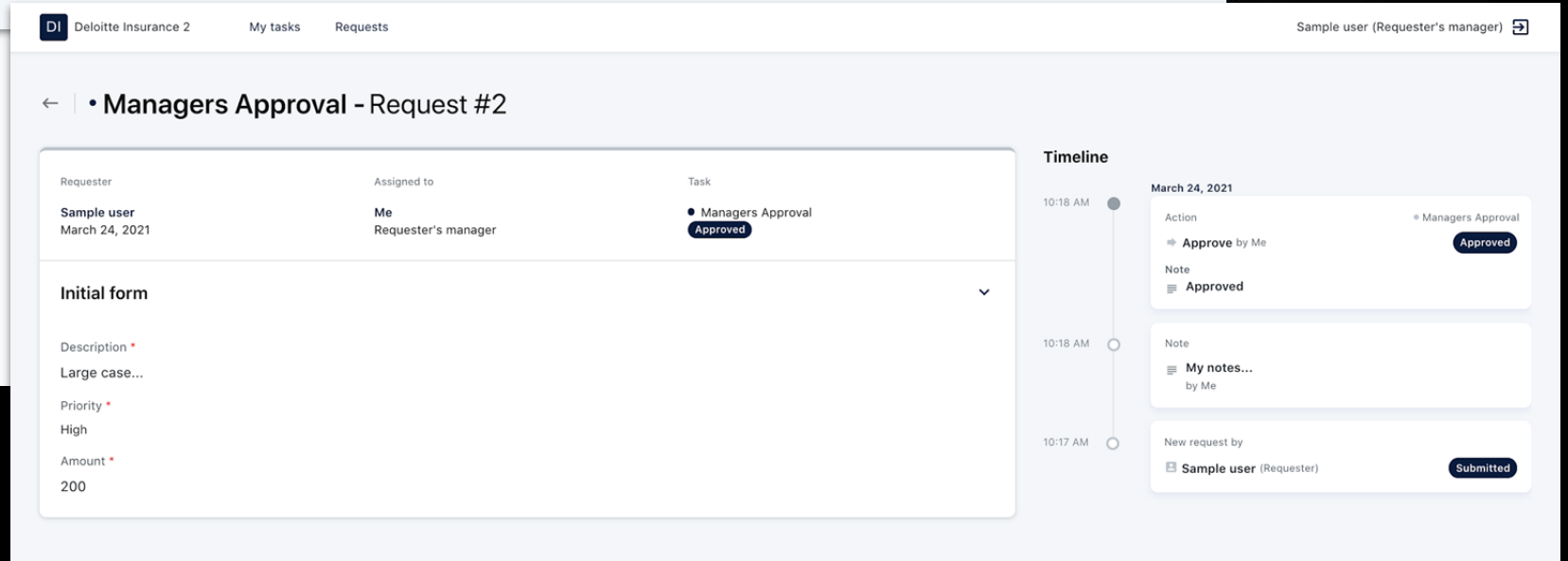
Insurance Dashboard

My requests

Search by request number

0 Active **2 Closed** 2 All

Request #	Description	Request date	Progress	Status
2	Large case...	March 24, 2021	<div style="width: 100%;"></div>	Approved
1	Small case...	March 24, 2021	<div style="width: 100%;"></div>	Approved



Deloitte Insurance 2 My tasks Requests Sample user (Requester's manager)

Managers Approval - Request #2

Requester	Assigned to	Task
Sample user March 24, 2021	Me Requester's manager	Managers Approval Approved

Initial form

Description *
Large case...

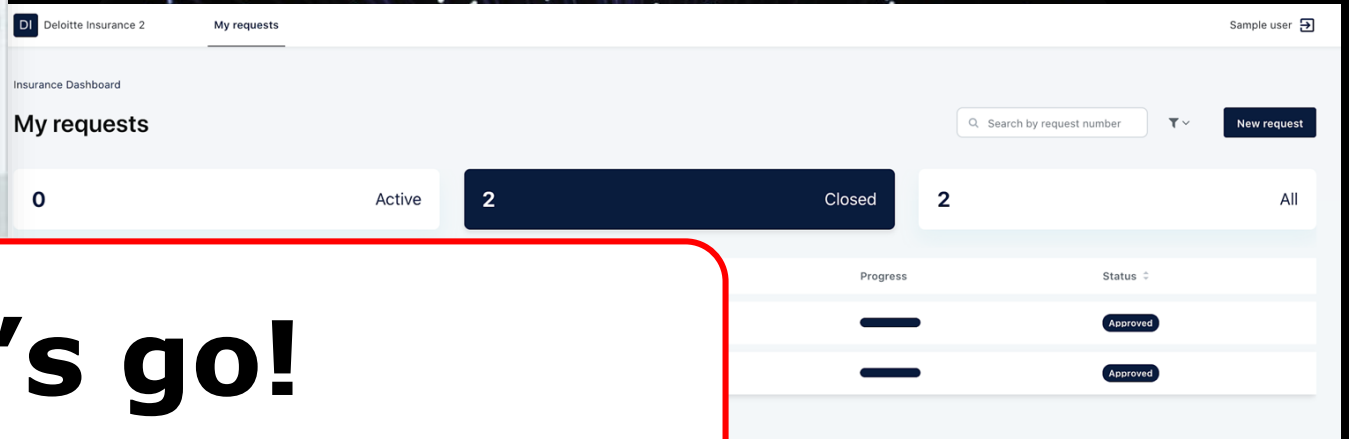
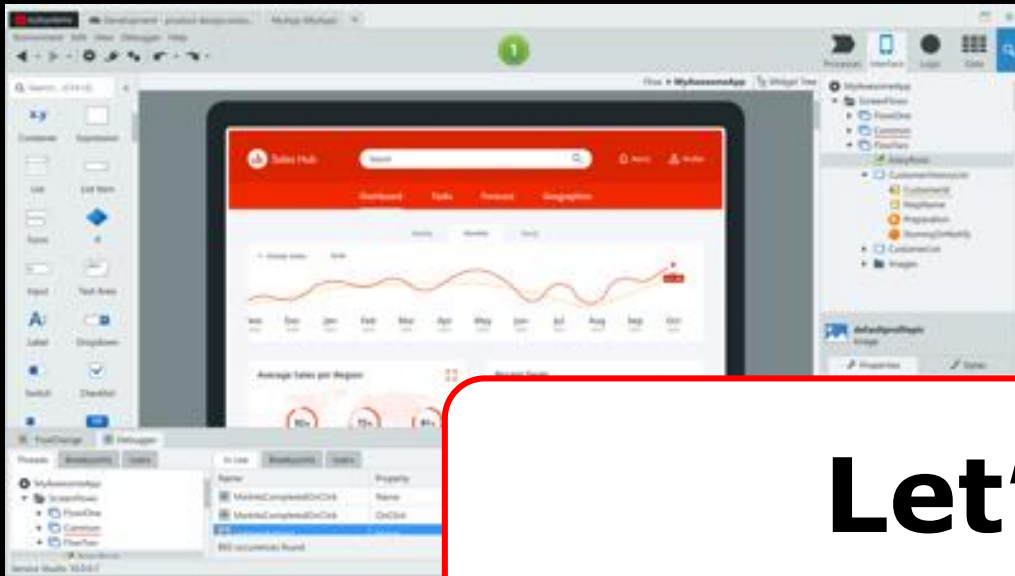
Priority *
High

Amount *
200

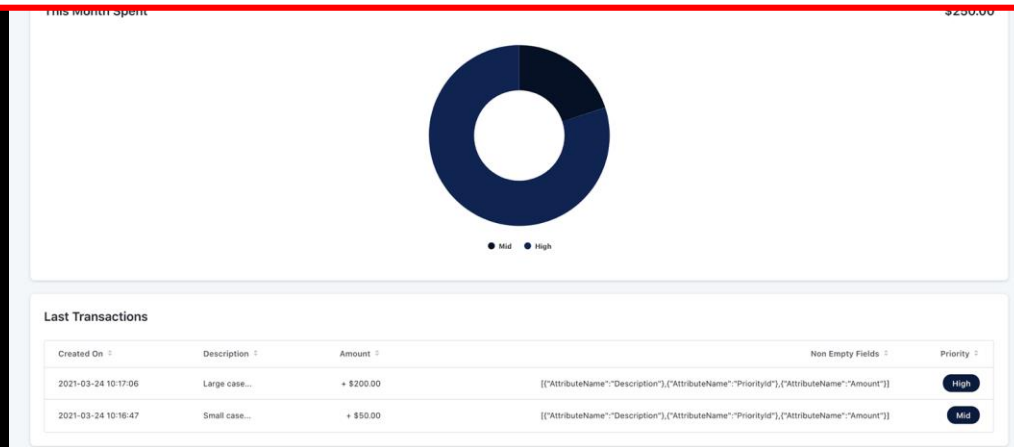
Timeline

March 24, 2021

- 10:18 AM Action: Approve by Me (Managers Approval) - Approved
- 10:18 AM Note: My notes... by Me
- 10:17 AM New request by: Sample user (Requester) - Submitted



Let's go!



Common **Workflow Builder** use cases





Simple

Internal Productivity Apps

- Expense Approval
- Employee on-boarding
- Employee Performance
- Vacations Approval
- Timesheet management
- Travel Request



Medium

Department & Operation Apps

- Support cases
- Inspections
- Supply chain
- Supplier Management
- Contract management



Complex

LoB & Industry Apps

- Claims Handling
- Policy Underwriting
- Loans Origination
- Shipping & distribution
- Fraud detection and management

Form triggered

Simple workflows

Task Operations

Notifications & Alerts

Simple Business Rules

Access Control

Event triggered

Multi Experience

Intelligent Mobility

Integrated with Services

Audited Transactions

Monitoring & Real Time Analytics

Deep UX Orchestration

Long lived processes

Complex Business Rules

Integrated with Core Systems

Regulatory compliance

Business Continuity

Use Cases and Core needs

Get started on your own for free, or use Deloitte as an accelerator and partner
We are happy to help and guide you on your Low Code journey – just reach out!

Try it out on your own



Try out the platform for free

Obtain a free personal environment with no expiry date.



Get skilled on outsystems.com/learn

Courses, role-based guided paths and walkthroughs available for free.

Deloitte can help you get started



Let's co-create together – **you bring the use case, we bring the expertise!**

Let us show you what can be done in two hours – *free of charge.*



Delay the commitment and try out your idea

Let us spend 1 month building a POC before committing to your OutSystems investment.

Want to learn more? Do not hesitate to contact us!

Q&A



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