

## **Go low code with OutSystems**

Readjusting the skills for the digital age with low-code

Grab'n'Go, 6<sup>th</sup> October 2020, Jean Breinholt and Jakob Rahr Bork Jensen

# Agenda




**Readjusting the skills** for the digital age with low-code



**OutSystems** as the leading low-code platform



**Getting started**



# Readjusting the skills for the **digital age** with **low-code**

# Enterprises need to move from 'doing digital' to 'being digital'



## Exploring

Leverage traditional technologies to automate existing capabilities. Dabbling with digital. No real change to organization.



## Doing

Leverage digital technologies to extend capabilities, but still largely focused around same business, operating and customer models.



## Becoming

Leverage digital technologies – becoming more synchronized and less siloed – with more advanced changes to current business, operating and customer models.



## Being

Business, operating and customer models are optimized for digital and profoundly different from prior business, operating and customer models.



# We have observed a jarring mismatch between the digital aspiration and traditional IT Operating Models

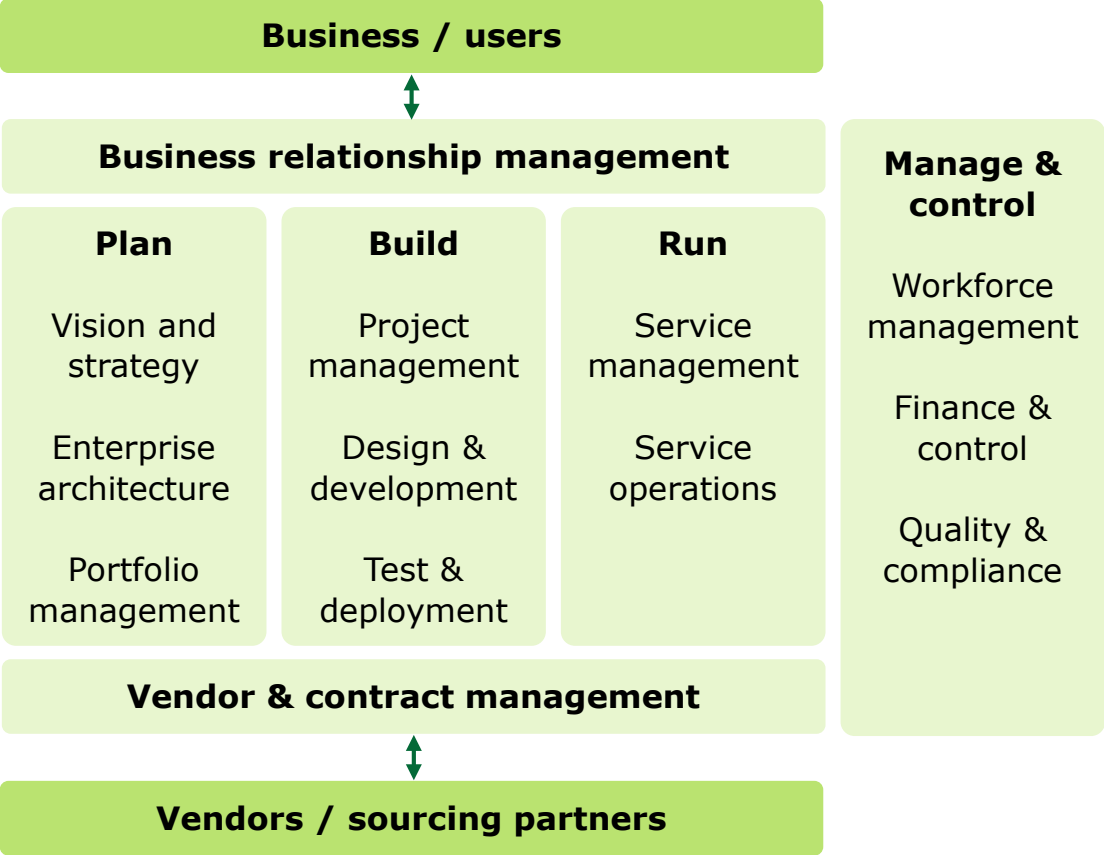
**Digital aspiration**  
Future-proof businesses need to put new offerings into the market...

Rapidly

Successively

At scale

Mismatch



## The problem

The need to provide custom experiences and transformation **towards digital is crucial** for business to survive. Unfortunately, most organizations **struggle** with:



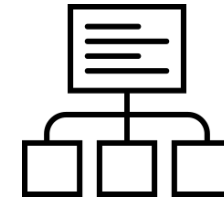
**Massive  
backlogs**



**No time to  
innovate**

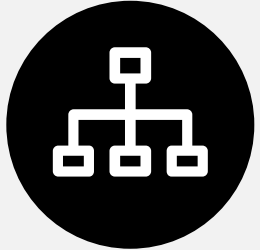


**Scarce  
resources**



**Complex  
systems**

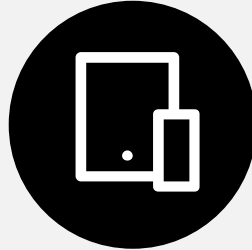
# The solution: Low-code



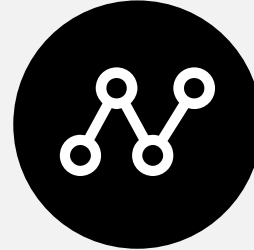
**Visual** full-stack development



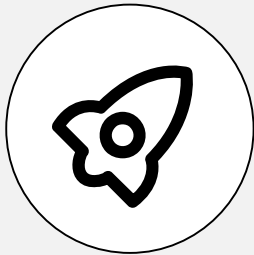
Full **life cycle** management



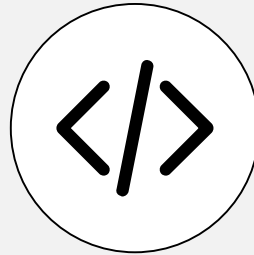
**Deploy** to any device



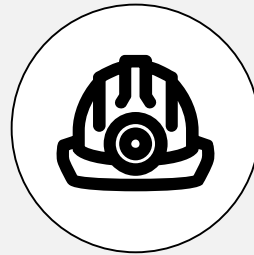
**Integrate** to existing systems



**Innovate** at increased speed



**Reduce** tooling complexity

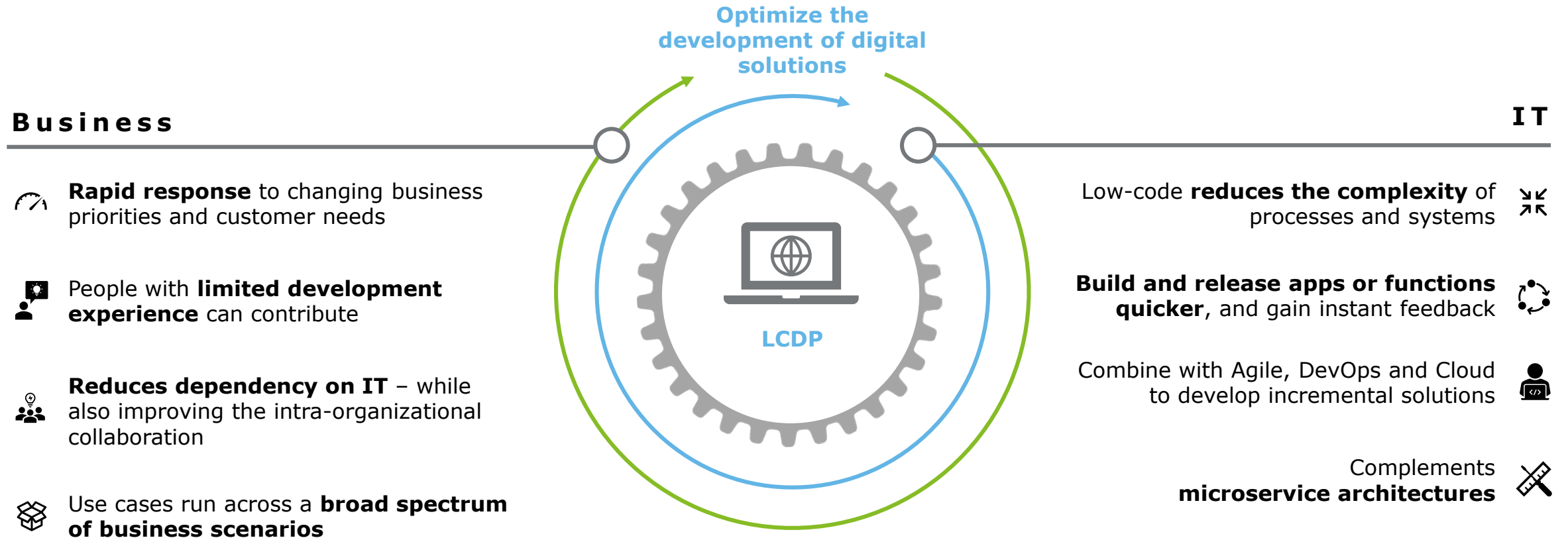


Bake-in **security** by default



# Redefine digitalization with low-code

Low-code development platforms are a game changer for IT and business development





# What is low-code?

Traditional hand-coding is...

```
int LongestCommonSubsequenceLength( const std::string &first,
                                   const std::string &second ) {
    const std::string &longer = first.size() > second.size() ? first : second;
    const std::string &shorter = first.size() > second.size() ? second : first;

    int longer_len = longer.size();
    int shorter_len = shorter.size();

    std::vector<int> previous( shorter_len + 1, 0 );
    std::vector<int> current( shorter_len + 1, 0 );

    for ( int i = 0; i < longer_len; ++i ) {
        for ( int j = 0; j < shorter_len; ++j ) {
            if ( toupper( longer[ i ] ) == toupper( shorter[ j ] ) )
                current[ j + 1 ] = previous[ j ] + 1;
            else
                current[ j + 1 ] = std::max( current[ j ], previous[ j + 1 ] );
        }

        for ( int j = 0; j < shorter_len; ++j )
            previous[ j + 1 ] = current[ j + 1 ];
    }

    return current[ shorter_len ];
}
```

- Expensive
- Hard to change
- Slow
- Limited by resources

A low-code platform is...



- Visual
- Enterprise-grade
- Fast
- Easy to learn

**OutSystems** is a low-code platform with unbeatable speed for digital transformation



# Low Code application platforms are growing in numbers!

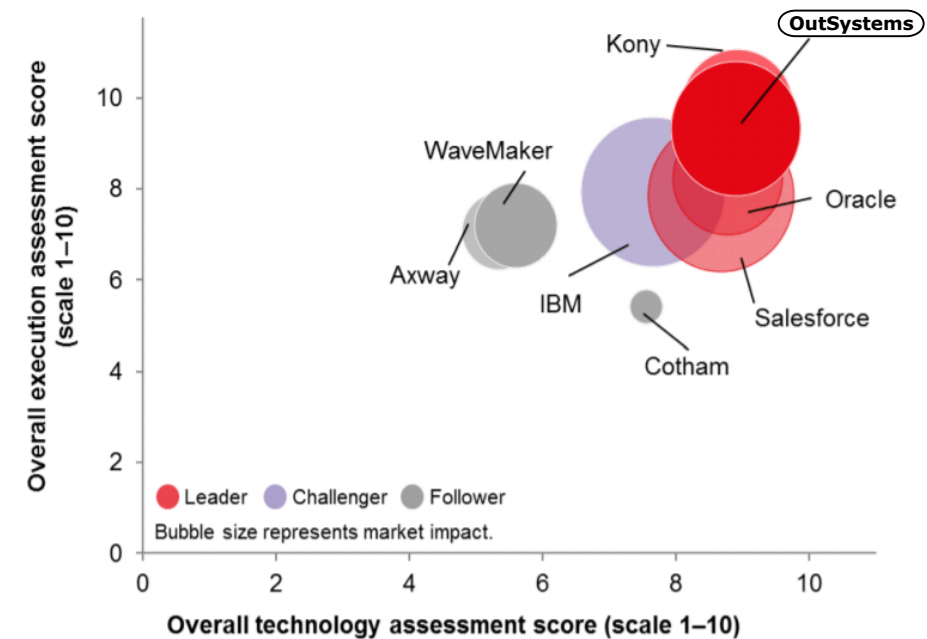
Recommended by Forrester, Gartner and Ovum, OutSystems is the market leading platform for low-code development of enterprise applications



**Gartner** Magic Quadrant for Enterprise Low-Code Application Platforms, 2019



**Forrester** Low-code Development Platforms for AD&D Professionals, 2019



**Ovum** Decision Matrix for Selecting an Enterprise Mobile Application Development Platform, 2018 - 2019

# Low-code development of enterprise applications

OutSystems enables your organization to build modern web and mobile applications



## Reactive web applications

Modern and responsive web app development, that allows for developing microservice applications, that easily integrates with your existing system landscape.

- Utilizes server-side and client-side logic, asynchronous data fetching and reactive client-side rendering
- Consume or expose APIs



## Mobile applications

Three ways for developing applications to be consumed on mobile:

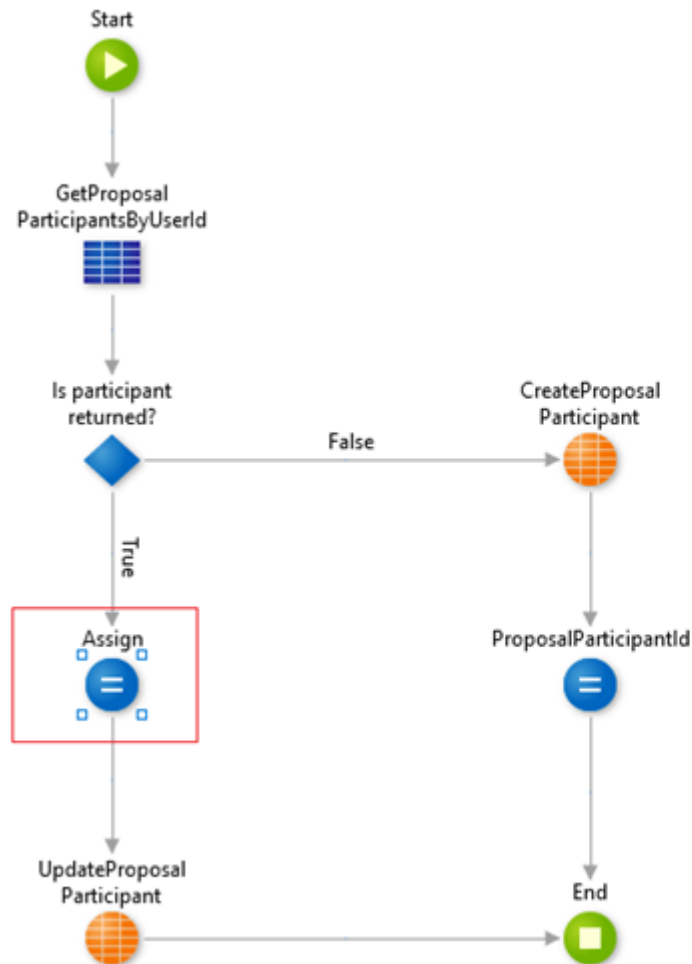
- Native mobile (iOS or Android) apps or Progressive Web Apps (PWAs)
- Responsive web app adaptable to multiple devices and browsers
- Develop a backend for the custom-built native mobile app



**Same platform and technique** – no matter which application type

# End-to-end visual development

OutSystems allows for logic to be implemented without the use of any programming language



= Assign	
Label	
Assignments	
NewProposalParticipant.Id	▼
=	GetProposalParticipantsByUserId.List.Cu ▼
ProposalParticipantId	▼
=	GetProposalParticipantsByUserId.List.Cu ▼
Variable	▼
=	Value ▼

Business processes

automated tests

APIs

back-end logic

front-end visuals

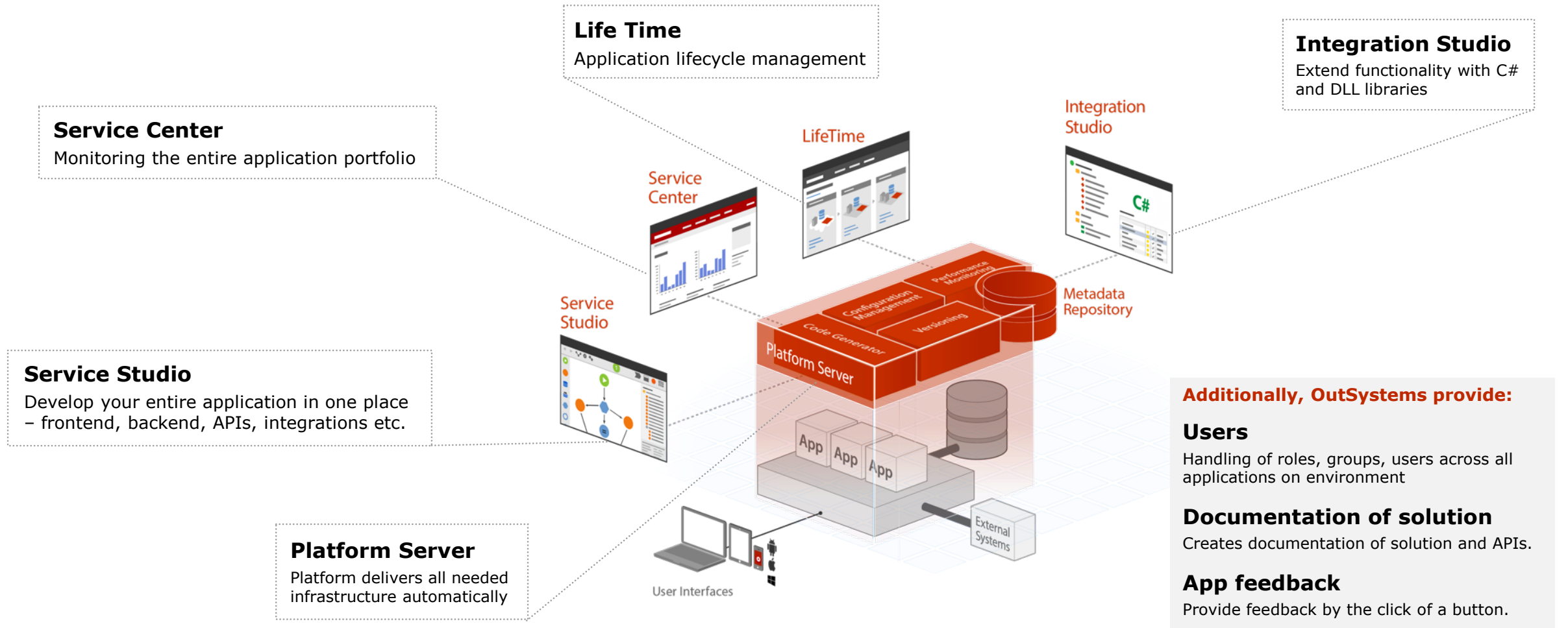
Exception handling

Database entities

- Visual development, all of it!

# OutSystems high level architecture and tools

The OutSystems platform consists of a suite of products to develop, implement, operate and monitor solutions



# Incredibly fast yet flexible – prototype like never before!

Kickstart your app development from the many accelerators provided by OutSystems

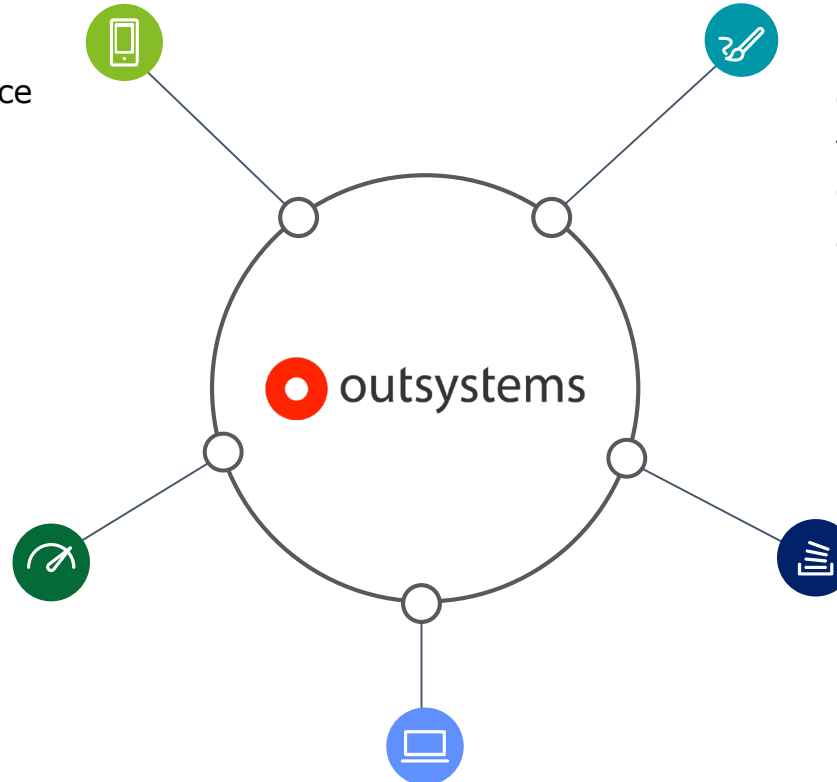
## Build initial mobile app versions in hours to test out ideas

Using the newly launched “Experience Builder”, mobile apps can be prototyped in hours by employees with no technical acumen



## Create organization-wide style guides to be reused again and again

Create your visual identity once, and then reuse it across apps and platforms. Customize the many built-in widgets or add your own extensions.



## Prototype web apps for handling workflows in just hours

The new Workflow Builder feature enables business experts to draft working web apps, processing even complex workflows in just a matter of hours.

## Discover more options in OutSystems Forge

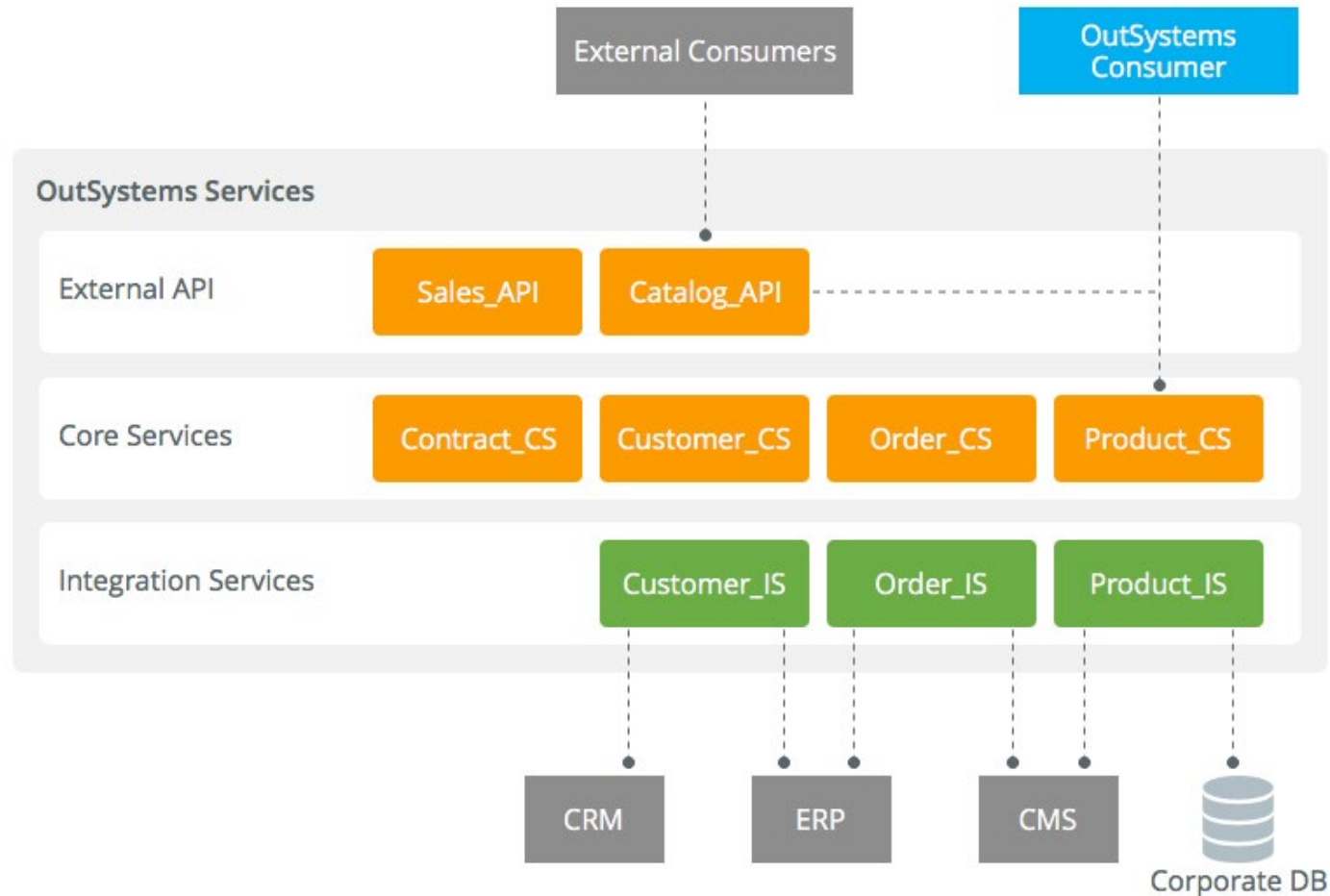
Access more options through the open-source community, which contains more than 3000 apps, components and widgets – get inspired or create and share your own.

## Get a head start with prebuild screen templates

OutSystems provide a wide range of screen templates that can be used to speed up initial development or as inspiration.

# Integrate OutSystems apps with your existing system landscape

Consume existing databases and services, or expose APIs to let other services consume your OutSystems creations





# Connect your apps to third-party services used in your organization

Continue using the third-party services you like – more likely than not, an OutSystems connector has already been created

## Databases



## Collaboration tools



## Social media



## Cloud & CRM



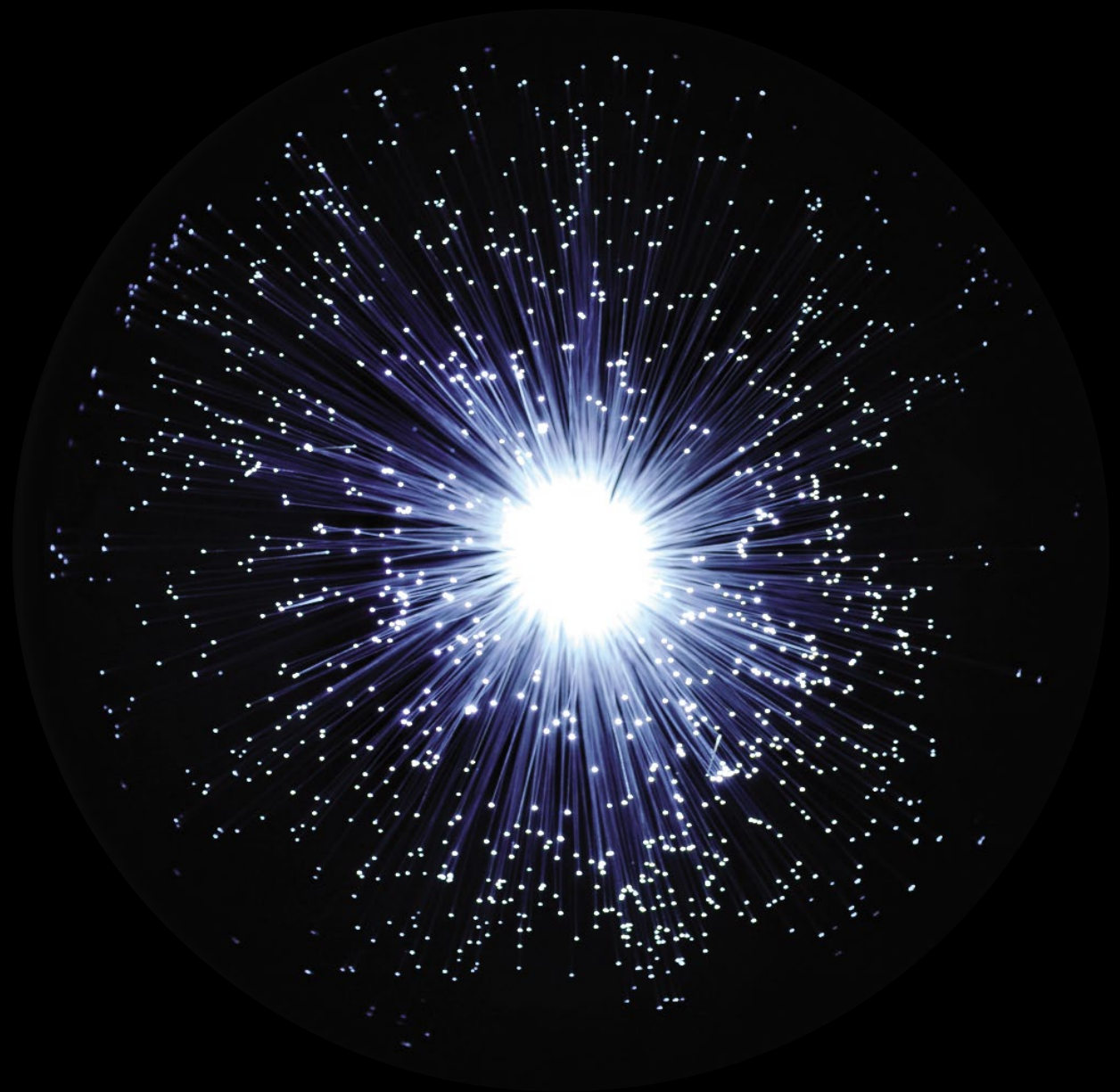
## Monitoring



## and more ...



# Getting started



## Get started with OutSystems

Identify use cases within your business to gain experience with the platform and build the capabilities needed to utilize the power of low-code in your organization



Utilization of **mobile phone** functions



Collection and display of **data**



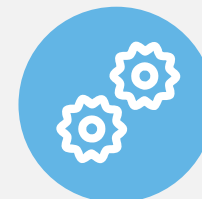
Many system **integrations**



Few **roles** or governance processes



Modern **user interfaces** on top of legacy systems





Isolated applications with **specific** business logic


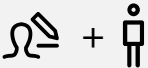
**Estimated development:**  
2 weeks – 1 month

# Case: Developing a case-handling application for welfare benefit management


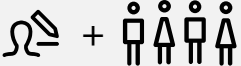
Using OutSystems to create integrated web- and mobile apps

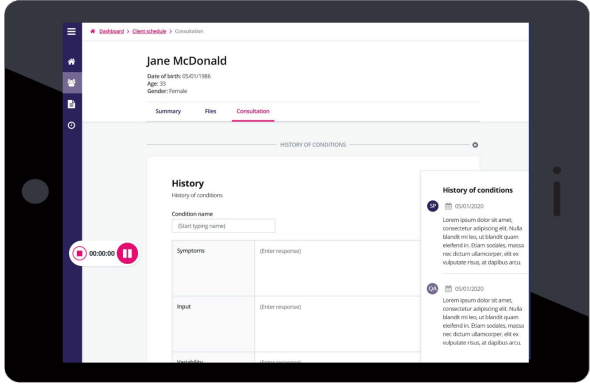
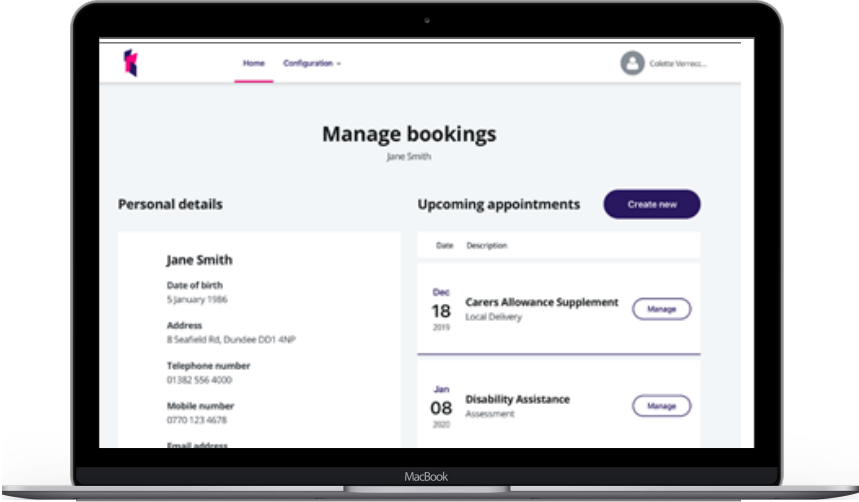
**Proof of Concept**  3 weeks 


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**Detailed prototyping, PoC of integrations and creation of Style Guide**  3 months 

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**Development and release of MVP**  5 months 



 Architect  
 Developer

Additional resources used to minor extend when needed (analysts, UX, test, DevOps)

# 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](https://outsystems.com/learn)

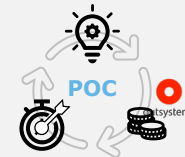
Courses, role-based guided paths and walkthroughs available for free.

## 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!**



**Jean Breinholt**

Senior Manager, Deloitte Consulting

+45 30 93 44 39

*jbreinholt@deloitte.dk*



**Jakob Rahr Bork Jensen**

Manager, Deloitte Consulting

+45 29 82 53 21

*jakobrjensen@deloitte.dk*