



PegaWorldiNspire

Enterprise Low Code in a Modular Landscape. How Rabobank Builds for the Future with Pega

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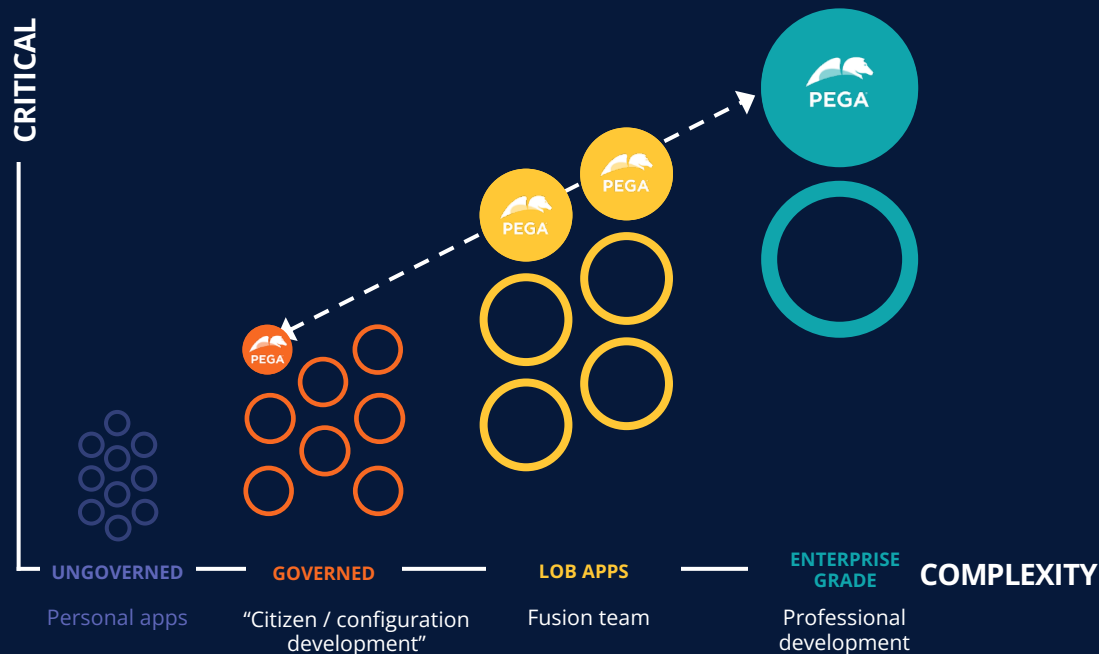
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Paul Barnes – Sr Director Business Excellence, Pega

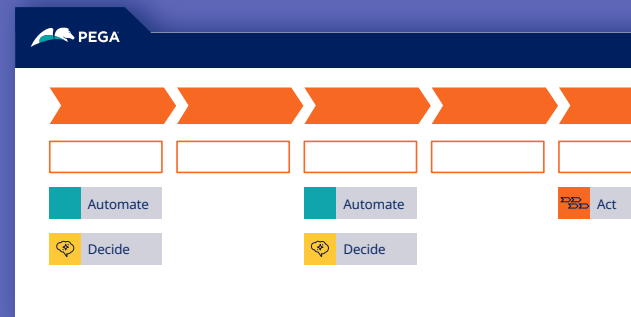


Pega is Being Used Differently Today

Microservices, low code, cloud, generative AI and mature tooling are accelerating this change



Trending towards more agile apps



Guiding Principles for Modern Enterprise Reuse in Pega

Build the blocks, assemble the blocks



Build the “blocks”



Assemble the “blocks”



Interoperable

Leverage the same building blocks across authoring experiences, and across applications



Updateable

Seamlessly update individual building blocks without impacting overall applications



Configurable

Control behavior without refactoring or rewriting business logic



Modular

Avoid monolithic layers that are too large to maintain or upgrade



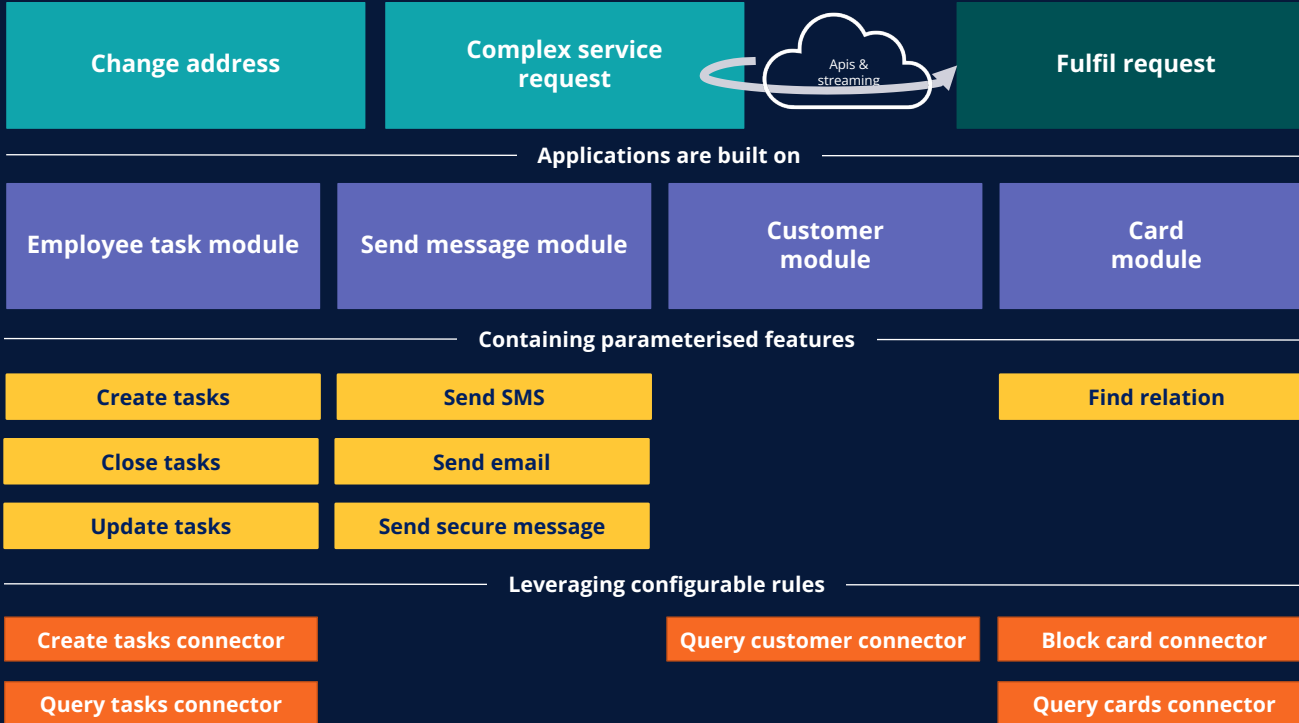
Governed

A Pega Center of Excellence should help design, deploy, maintain, and monitor the use of reusable building blocks

Example

Customer journey [applications]

Launched directly from the online banking website and application. They represent a request a customer would make



Microjourneys [applications]

Launched as part of another customer journey and help support the process lifecycle

Modules

Modules contain reusable rules which can be leveraged by any customer or microjourney

Smart shapes [process rules]

Self-contained flows saved in work-which can perform create, update, process or delete actions. They handle errors and retries within themselves - removing complexity from consumers

Rules [data pages, etc.]

Data pages which leverage connectors to give a standard view, update a data object or perform an action

Guiding Principle Benefits

BUILD AND ASSEMBLE BLOCKS WITH A MODULAR MINDSET

- Build business function blocks in Dev Studio
- Assemble blocks into workflow with App Studio

REUSE FLEXIBILITY IN & ACROSS APPLICATIONS

Tier 1 FS client saved 16,000 development hours reusing modular processes

LEVERAGE CONSISTENT FIELD BEST PRACTICES

- Consistent approach focused on encapsulation and extensibility
- Continuous delivery and autonomy of distributed teams

INCREASE DELIVERY VELOCITY, LOWER TCO

Digital as-a-service multi-national client achieved 4x faster time to market

EXPAND RESOURCE POOL BASED ON STRATEGY

- Pro Dev Low Code experience to build reusable “blocks”
- Curated Low Code & accelerated experience to assemble “blocks”

DEMOCRATIZE ENTERPRISE LOW-CODE DEVELOPMENT

50% reduction in technical resources needed to develop a Pega process (based on April 2022 Forrester TEI of IA with Pega Platform)

It's Never Too Late to Improve Your Reuse Practices!

How to start adopting this approach

- **Should you throw away you existing framework architecture immediately and adopt this architecture? You can, but we wouldn't recommend it**
- Instead, consider how your existing stacks can be broken down
 - If you already have isolated functionality in to it's own ruleset you're in a great position
You can gradually move those rulesets in to new modules
 - Have you already creating reusable parameterised data transforms or activities?
Great, wrap them in process rules and publish them in to smart shapes!
- Working on a new application?
 - Consider what you can refactor (by class) into a new ruleset using the OOTB refactor tools
These can then be moved in to new modules
- Stop focusing on 'older' methods of working – embrace working in App Studio and Case Designer over Dev Studio and Process Modeler
- **Remember use Dev Studio to build the blocks and use App Studio to assemble the blocks!**

NEW Mission and Badge on Pega Academy: "Modular Enterprise Reuse Foundation"



Rabobank

Rabobank at a Glance

Situation on June 30, 2022

Our mission

Growing a better world together

Almost 9.6 million customers



8.9 million Dutch customers

0.7 million international customers

Rabobank in the Netherlands

Domestic Retail Banking

84 local Rabobanks
158 offices
2.2 million members
8.3 million private customers
0.8 million commercial customers



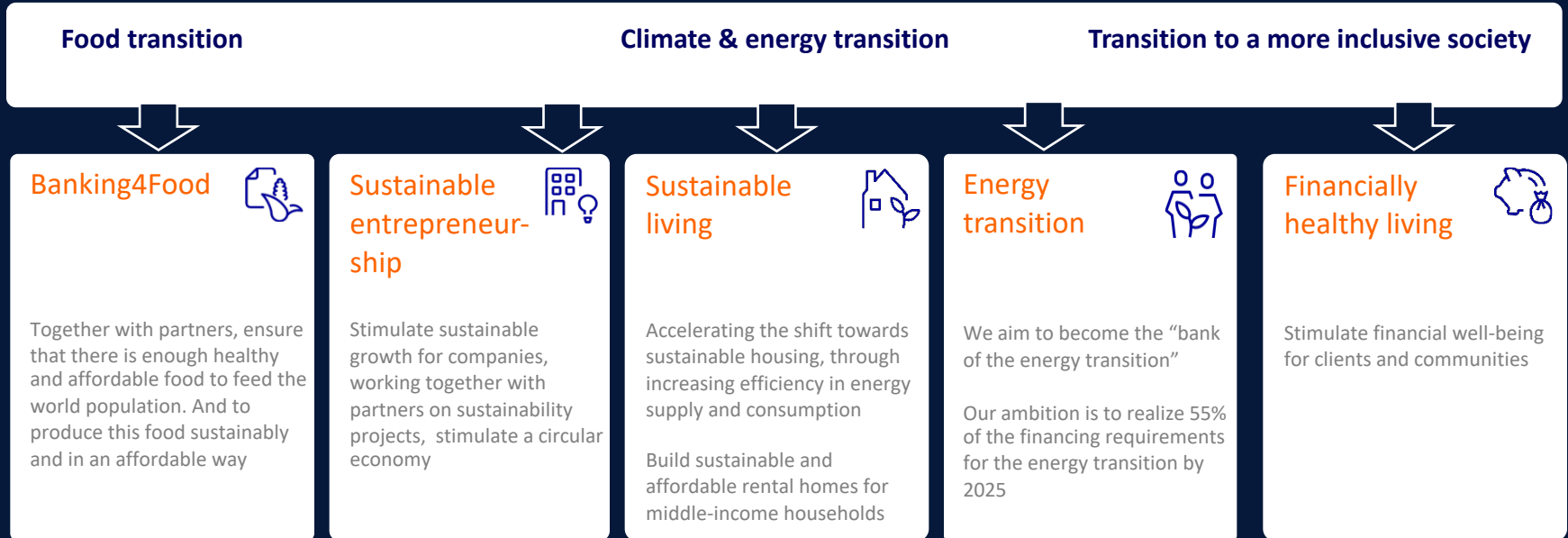
What we offer in the Netherlands

(amounts in EUR billions)

Dutch private mortgages	193.3	Lending to food & agri	39	Leasing	1.2
Savings	156.1	Lending to Trade, industry and services	74.8		

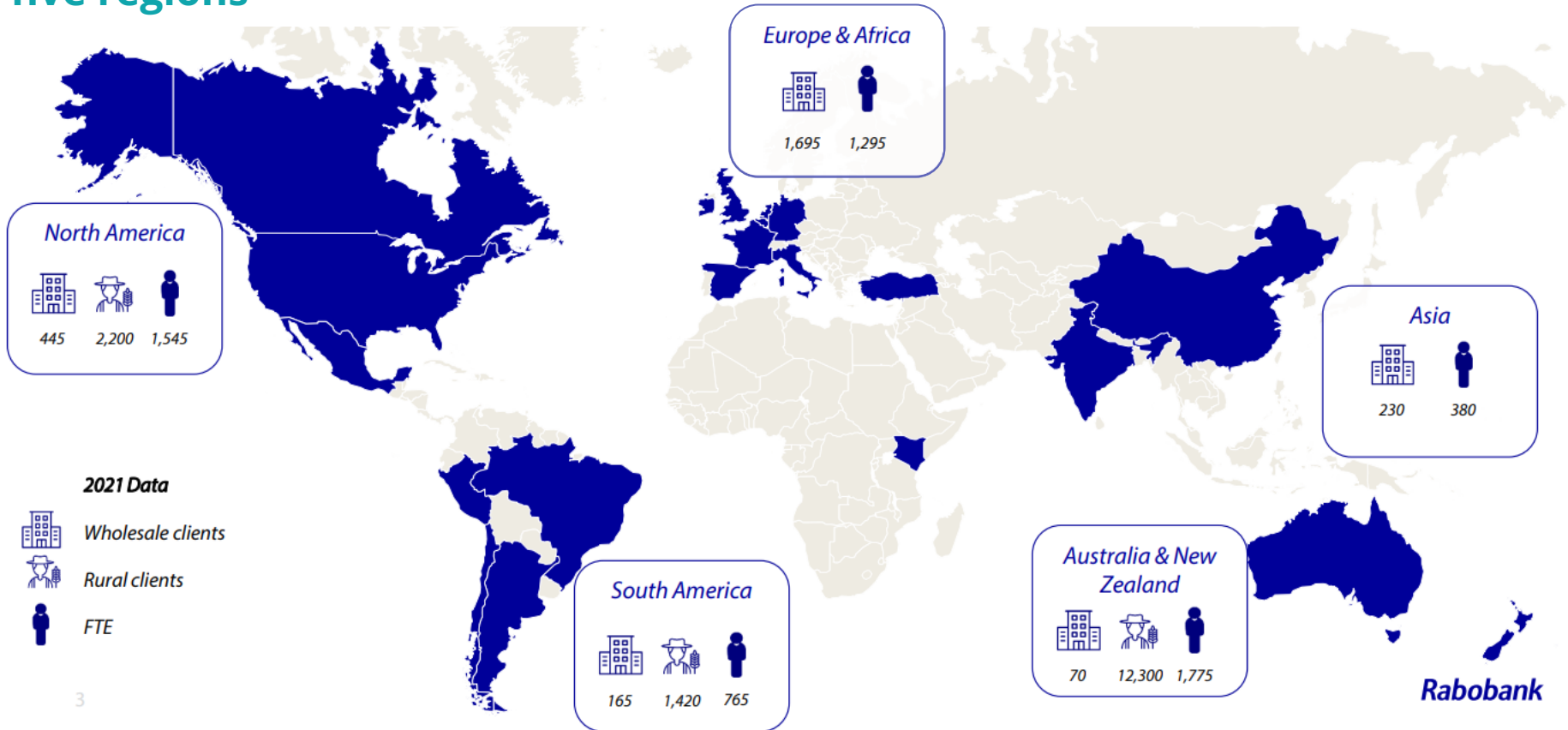
A Cooperative Bank with a Mission

Growing a better world together



Wholesale & Rural Clients

W&R is structured as a matrix with global business lines and presence in five regions



Alongside W&R, the Rabobank Group Also Delivers International Services via DLL, with Vendor Finance Solutions in More Than 30 Countries

Founded in 1969 in The Netherlands












1969

Active in more than 30 countries



Serving 9 industries

 Agriculture	 Clean technology	 Construction
 Food	 Healthcare	 Industrial
 Office equipment	 Technology	 Transportation


More than **40 nationalities**



Employees get 2 paid work days to engage with their Communities

100% owned subsidiary of the Rabobank Group

Portfolio of more than **€37 billion**



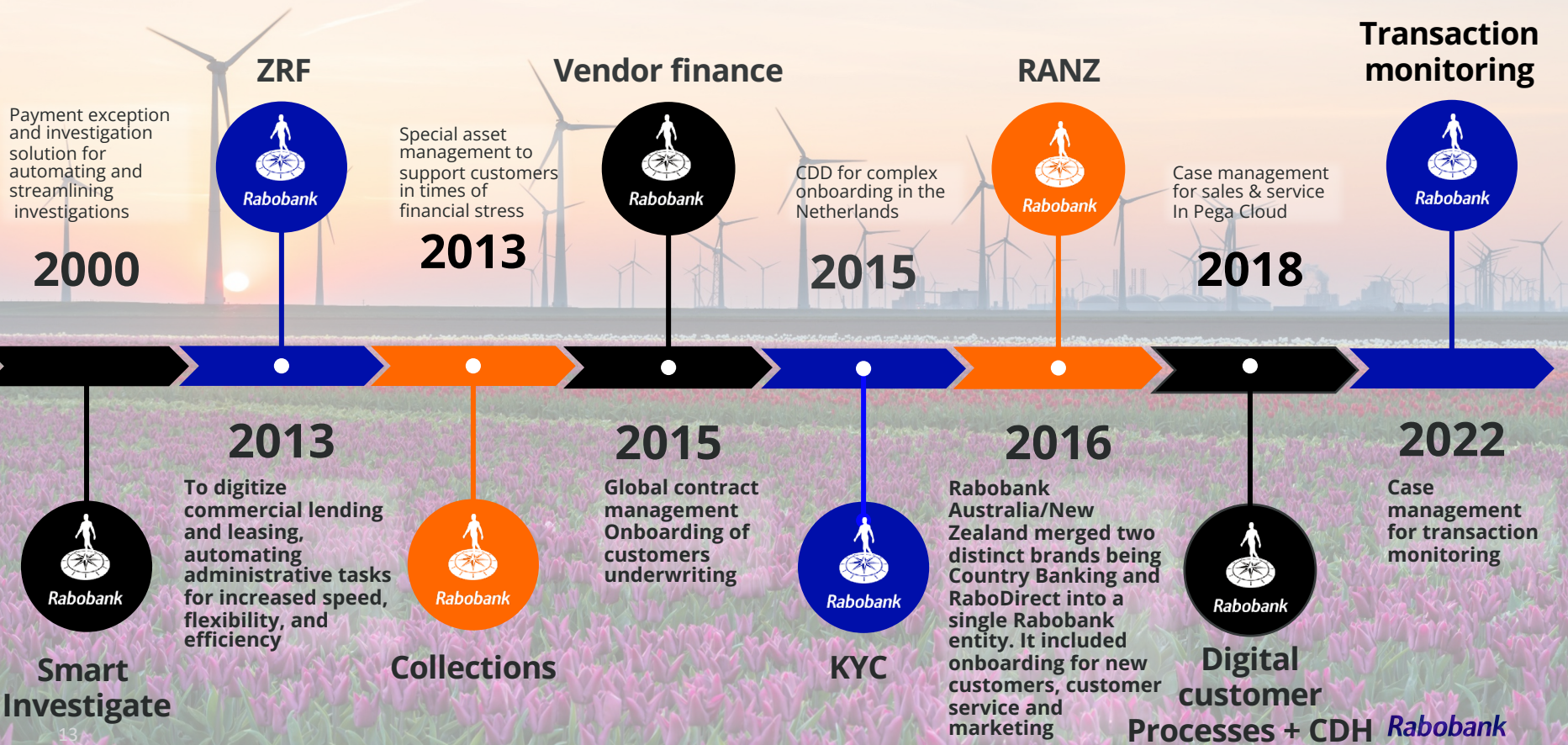
20% CO₂ decrease per FTE in 2023 compared to 2018

Some history

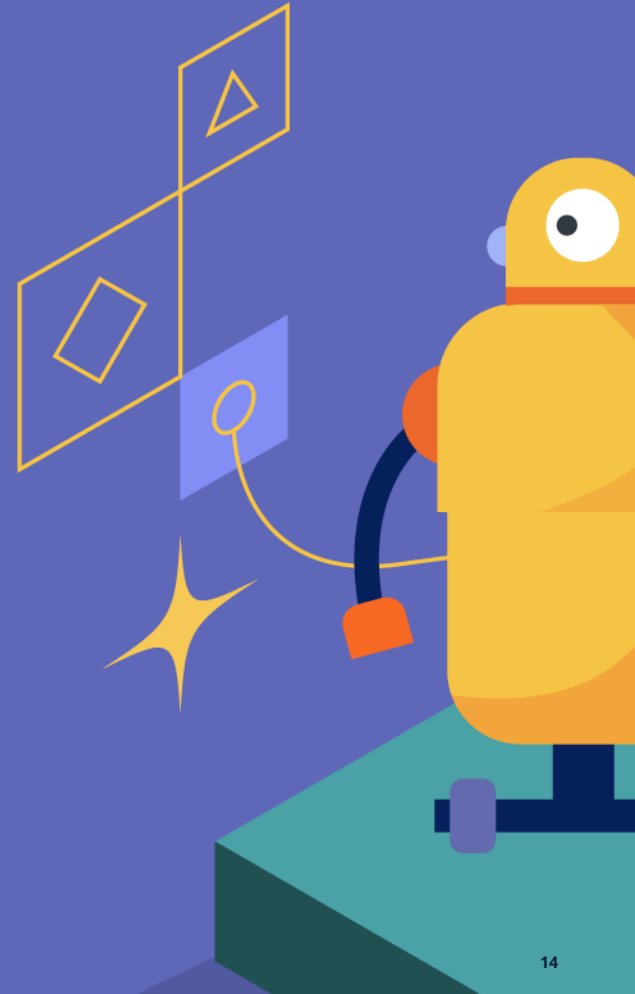


Background

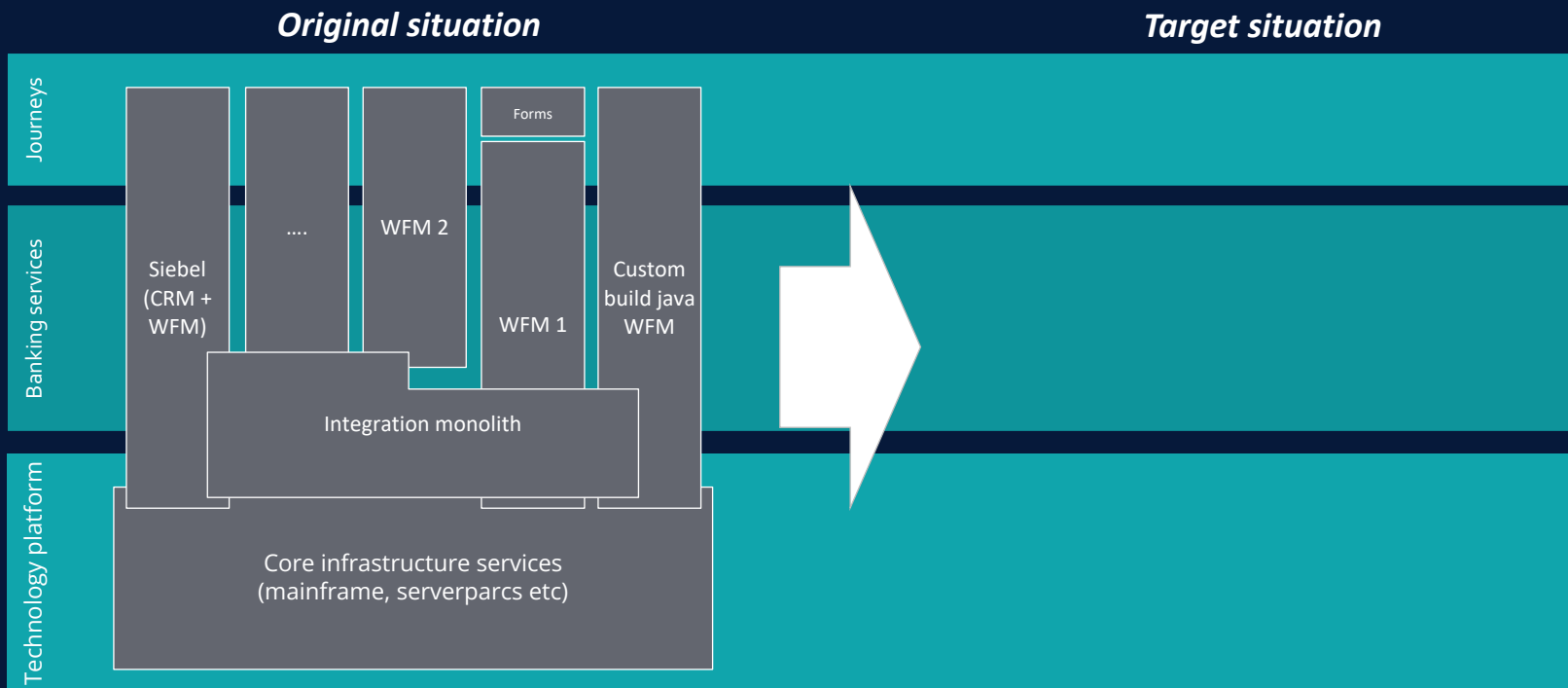
Context of Pega at Rabobank



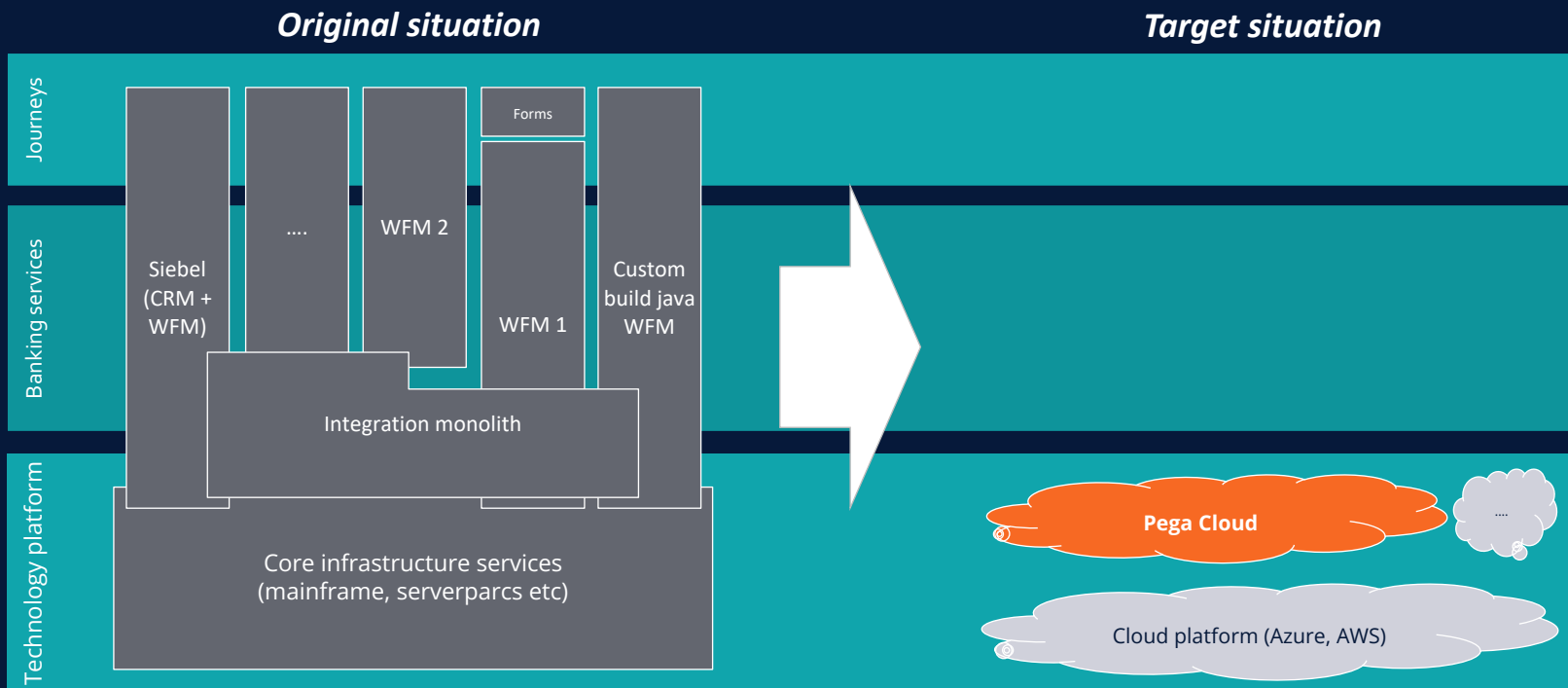
Some architecture



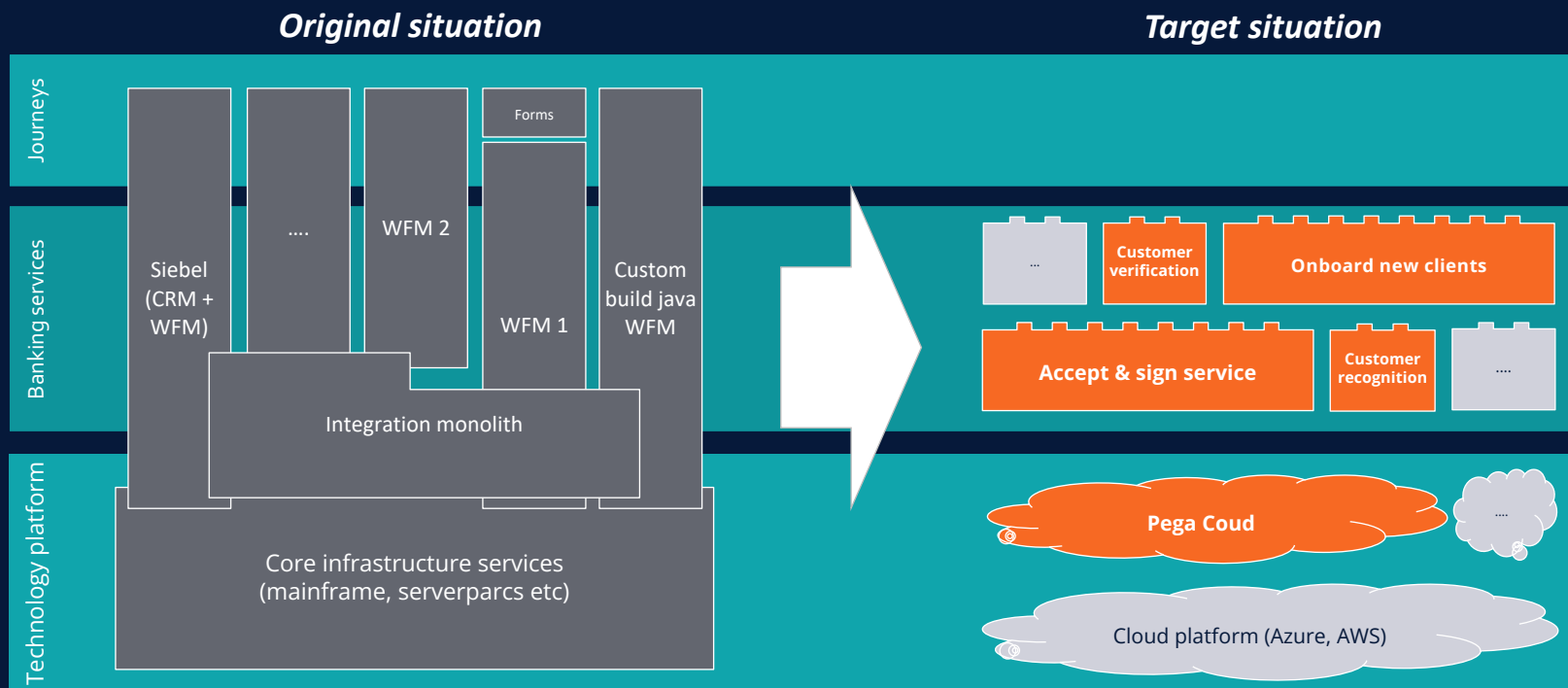
From WFM Monoliths to Decoupled Architecture



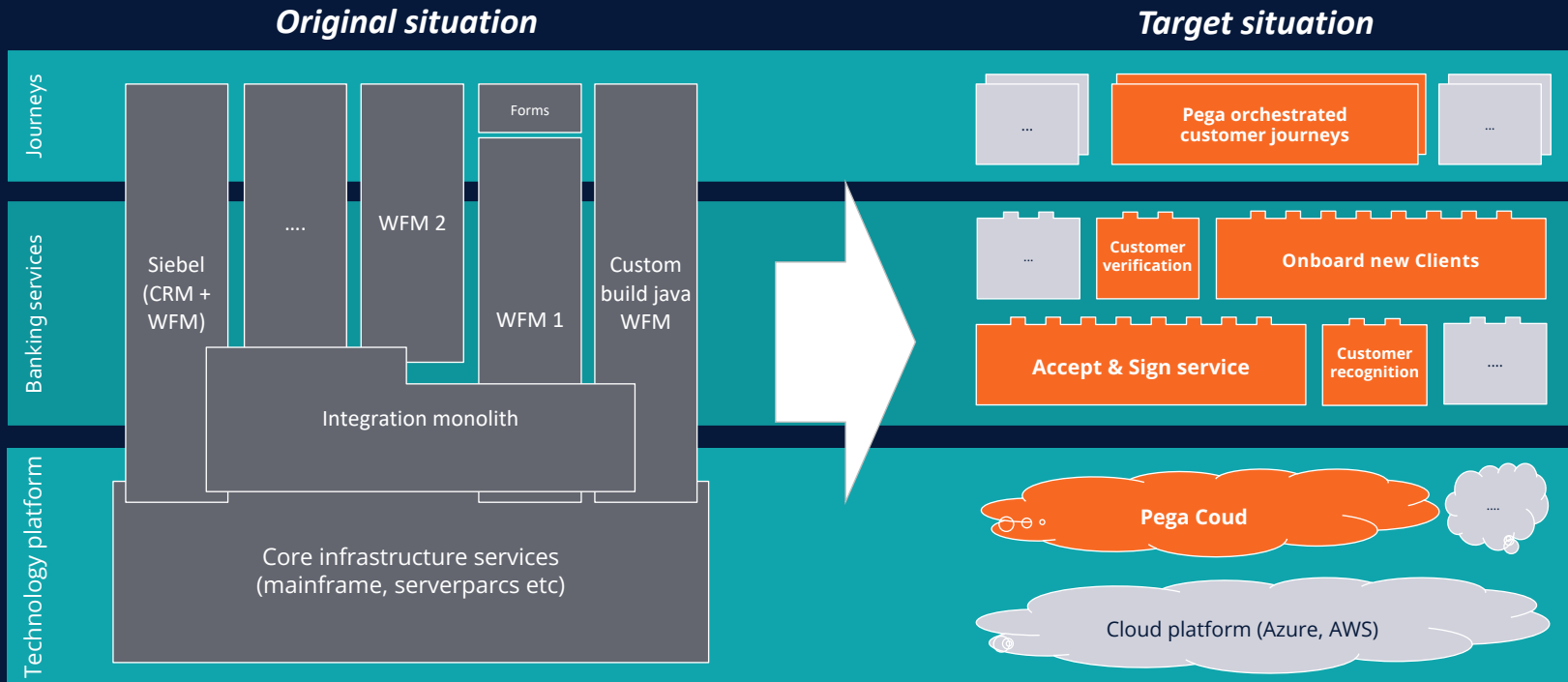
From WFM Monoliths to Decoupled Architecture



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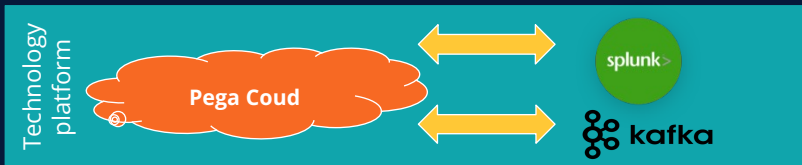


From WFM Monoliths to Decoupled Architecture



Integrations

Each layer has its own characteristics and needs its own strategic choices

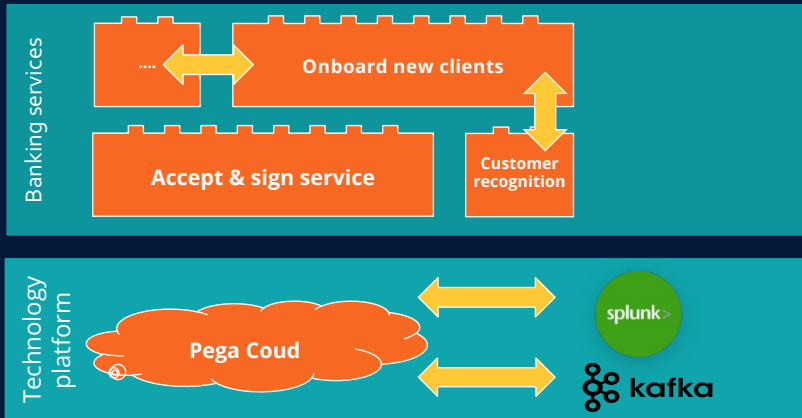


Integrations on enterprise level

- **Kafka** connection for async communication
- **OneIdentity** (Azure AD), to enable both SSO and all other authorisations
- **Splunk** connections for operational and security monitoring

Integrations

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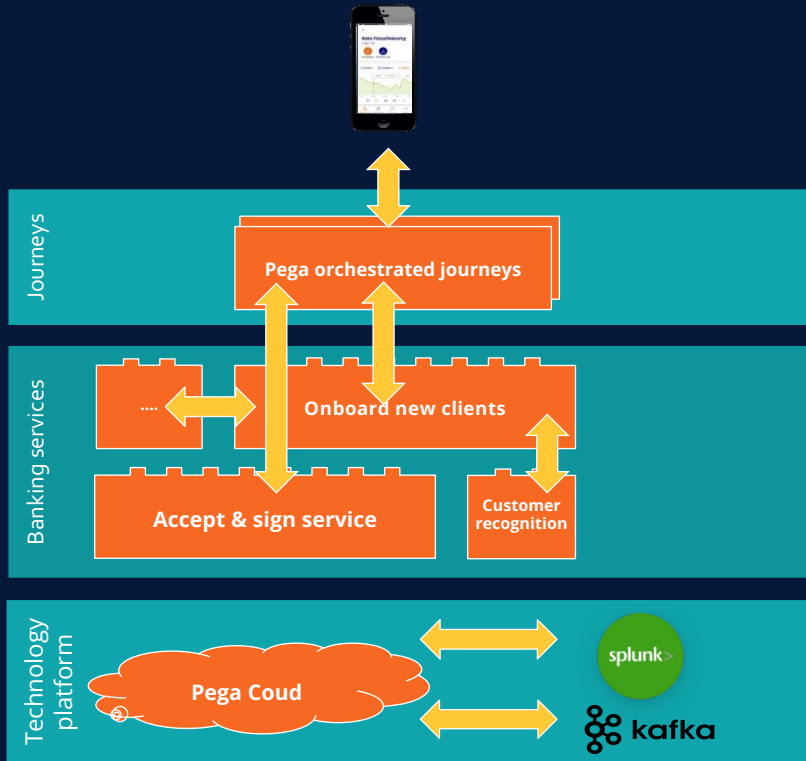
Integration on business service level

- **API's** exposed via Kong api gateway for sync communication
- Additional **Splunk** connections for business service level monitoring

Integrations on enterprise level

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Integrations



Each layer has its own characteristics and needs its own strategic choices

Integrations on customer journey level

- **DX API** connected via our own interpreter to our frontend system
- Offload data to our **Global Data Platform**
- **Utilize API's** via Kong api gateway for supporting business services
- Additional **Splunk** connections for customer journey level monitoring

Integration on business service level

- **API's** exposed via Kong api gateway for sync communication
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Integrations on enterprise level

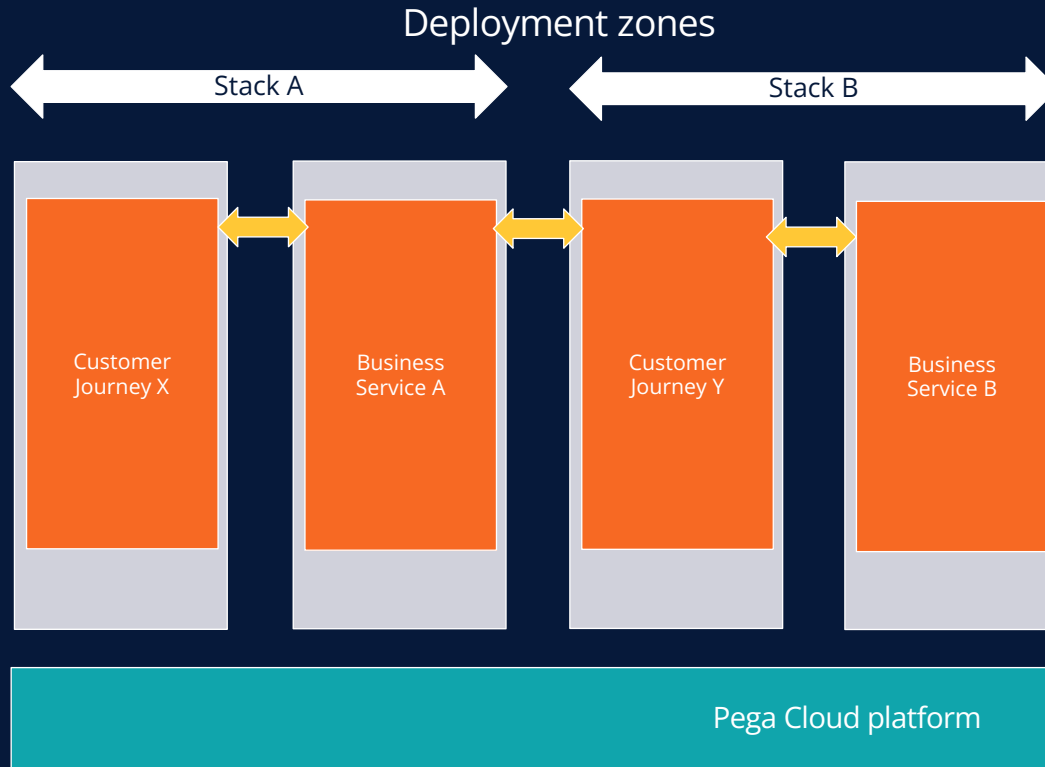
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How Pega Applications are Decentralized on Pega Cloud

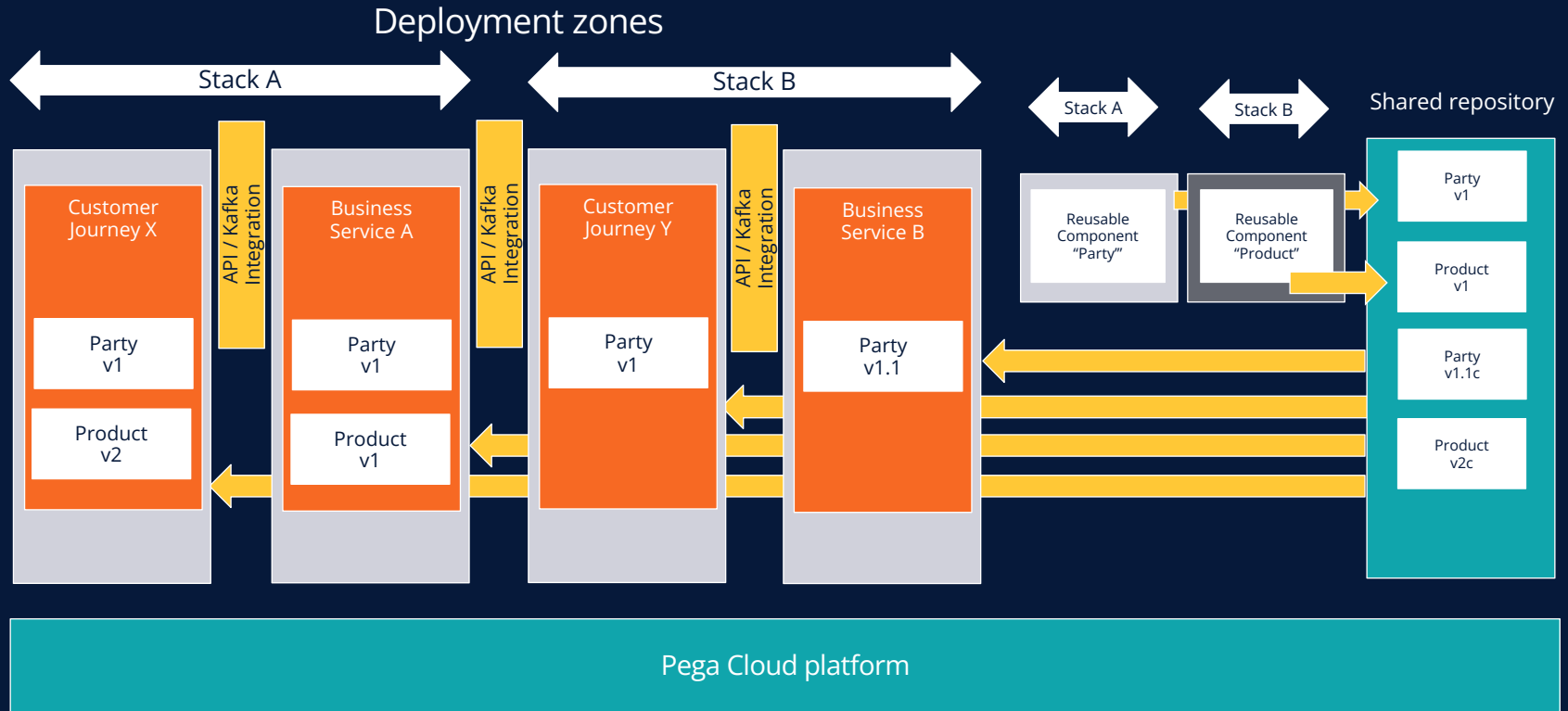


Pega Cloud platform

How Pega Applications are Decentralized on Pega Cloud



How Pega Applications are Decentralized on Pega Cloud



Some governance



Delivering Awesome Software with Pega!

Component strategy



Re-use any component we create to maximize speed and prevent re-inventing the wheel. Coordinate with other squads to prioritize needed changes

Ownership in quality



Every squad is responsible to deliver a future-proof product. Quality is steered by peers via the Pega architecture guild. No managerial side-steering (no policing)

Autonomous teams



Every team can go fast using Pega in our Pega Cloud. Re-use as much as possible while reducing dependence on other teams / test environments. There is no platform team! We all share responsibility

Engineering culture

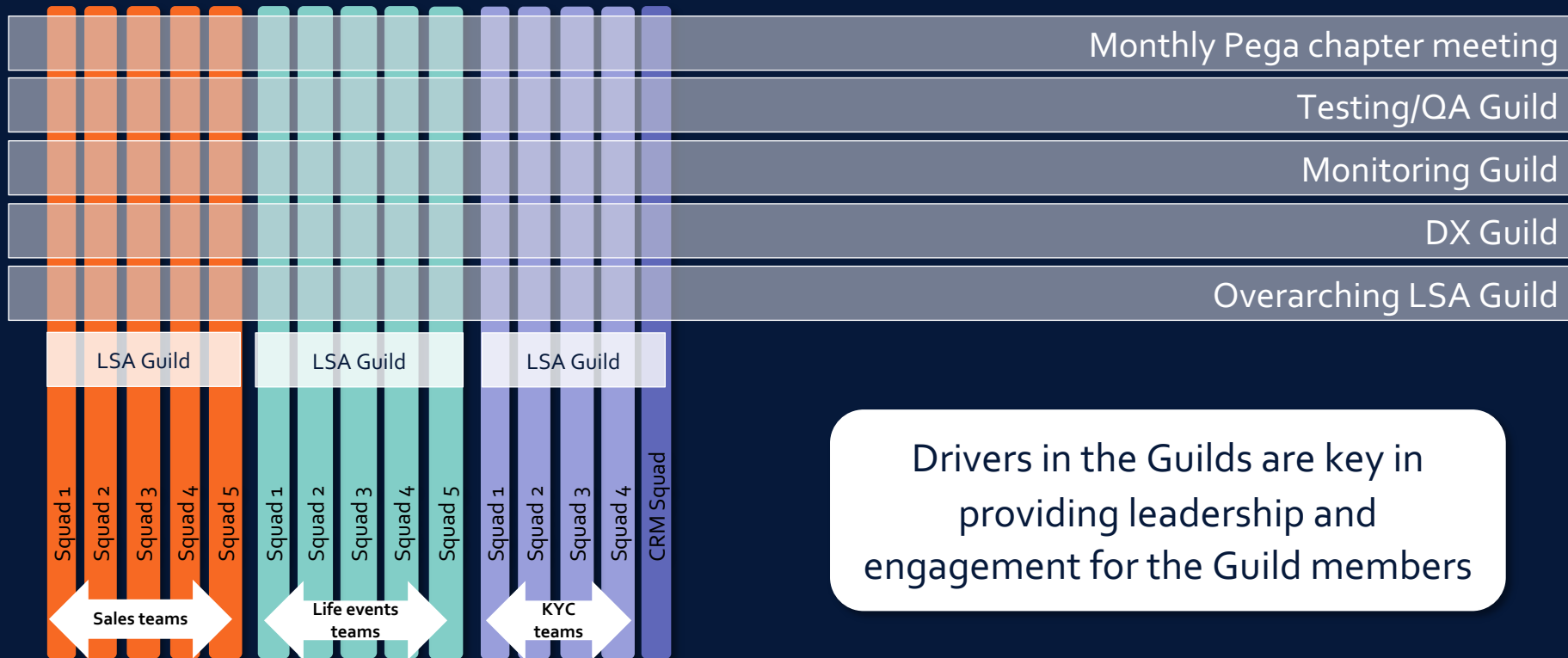


Tech is a central pillar of our way of working. Engineers are the most valuable asset we have. Automate as much as possible. Innovation time embedded in the process

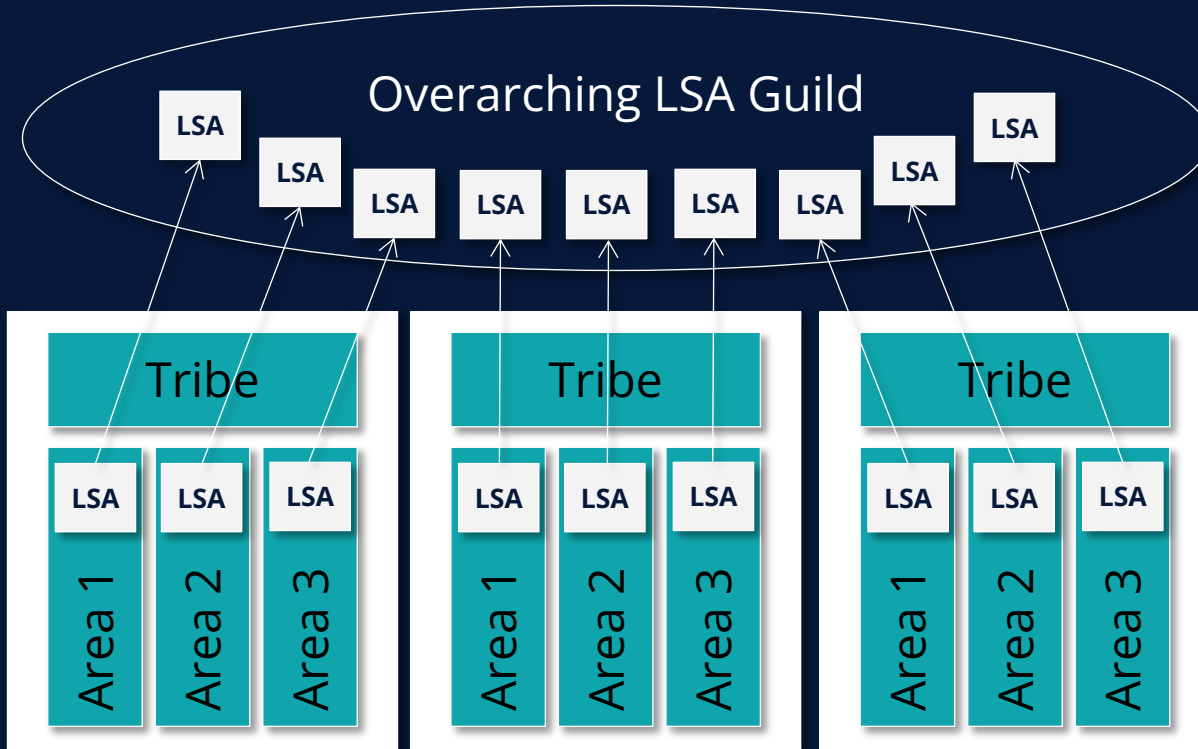


Guild Structure

Formed for knowledge sharing, best practices, and agreements on collaboration



LSA Guild(s)



Some numbers
(Pega Cloud only)

4 domains
(tribes)
9 Areas
40 squads
320 engineers

Outcomes of a Modular Enterprise Landscape



~3M+ Euros annual savings in development costs

~2x-3x faster speed to market leveraging reusable components

Scalability

The guild structure makes our organisation scalable

Resiliency

Roles are more interchangeable, reducing key-person risk and bottlenecks

Collaboration

Forces documentation and sharing of information to be better

Quality

Steering quality by peers, not management

Speed

Saving up to 2 months in initial setup of components for new journeys, reducing time to market



PegaWorldiNspire

Rabobank

