

***Business Process
Management – the next wave
in operational effectiveness***

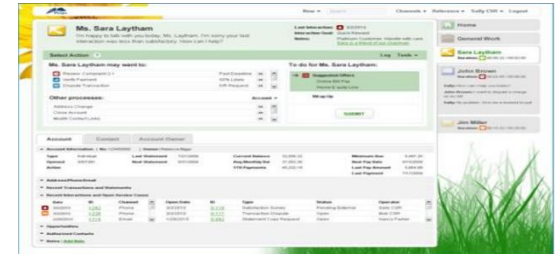
What is BPM?

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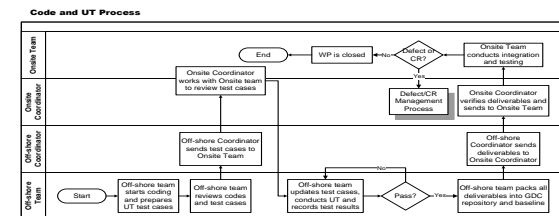
What is Business Process Management (BPM)?

Simple definition

- ❑ BPM is a discipline to **optimize** processes, manage & monitor **process performance using specially designed IT applications**
- ❑ BPM **enables rapid automation** of a large variety of different processes
- ❑ **A number of vendors** offer **BPM software** (BPMS) to automate processes and build workflows
- ❑ BPMS provides an environment where business users can change processes in the system based on **‘pre-built’ components** without the need for ‘hard coding’
- ❑ **BPMS vendors differ significantly**. Therefore BPMS implementation requires a solid pre-assessment of what the system is supposed to do before choosing the vendor.



Business Process converted into automated workflow supported by agile BPMS technology



What is the logic of BPM?

- ❑ BPM is based on the logic of '**work packages**' that are routed from one working place to the next with the support of a system, so that manual intervention can be reduced to a minimum
- ❑ The routing is either done by pre-determined steps (**workflows**) or through 'programmed decision logic' that are pre-defined in the systems (**rules**)
- ❑ The automation of workflows and rules significantly increases the efficiency of the process.
What does this mean?
 - ❑ Process steps are carried out by systems
 - ❑ Translating business decisions into rules , allows systems to process decisions automatically

Example of a rule specification:

Example: A claim is received by a call centre of an insurance organization

Rule (from a business user perspective): only claims that are eligible (customer has valid policy, customer does not have critical track record) will be forwarded to claims department

Business rule (from a IT BPMS developer perspective):
If *ValidPolicyClaim* = True then *SendClaim(ClaimDepartment)*.
This rule is then called at the Receive&Validate process step.

What does it mean for the end user?

System will validate according to data provided, if Claim is valid and will **automatically** route it to its pre defined destination.

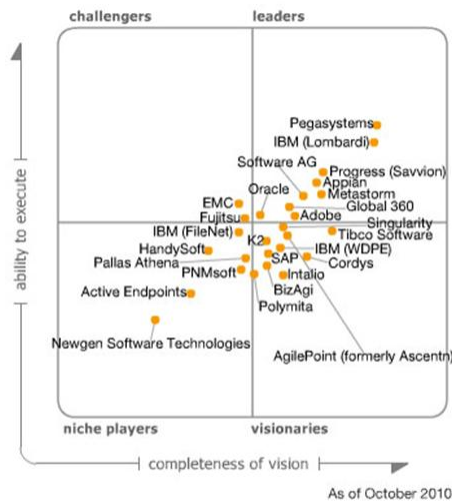
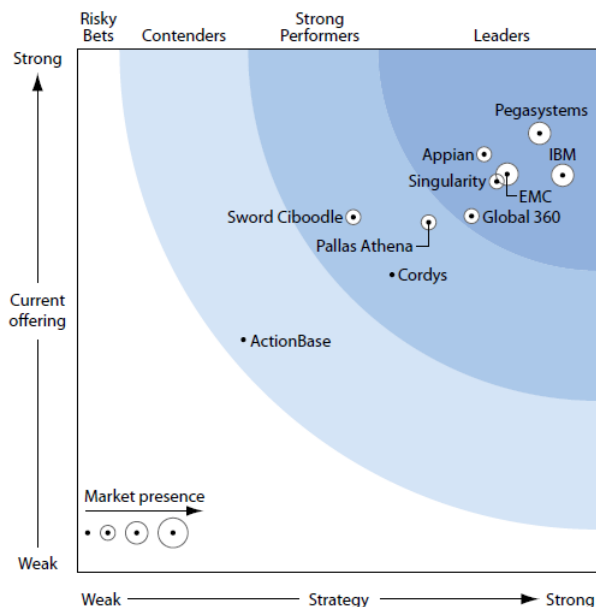
What does it mean for your business?

Automated standardization, **reduced risk** and rules enforcement which will drive a **cost effective** policy claim **process**.

There is a variety of BPMS providers in the market

- ❑ Not all BPMS offer same features. Some are more **Workflow oriented**, others **Business Rules oriented**
- ❑ Not all BPMS offer packaged solutions which can be extended to fit special requirements
- ❑ The pre-built functionalities (**asset catalogue**) on each BPMS **is different**
- ❑ The **licensing model varies** from vendor to vendor

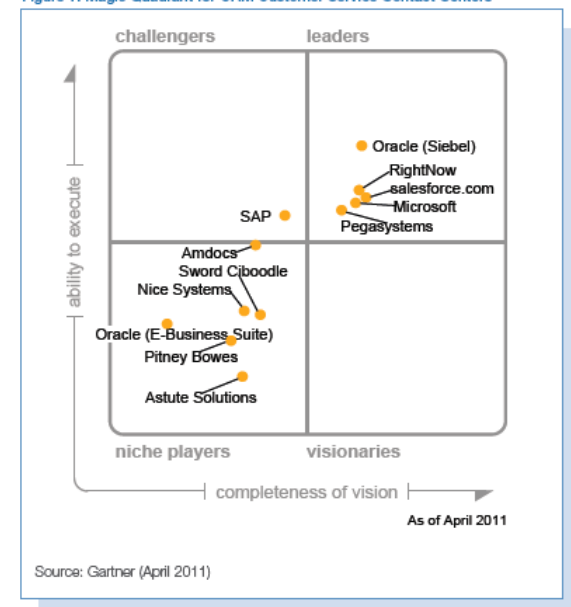
Figure 4 Forrester Wave™: Dynamic Case Management, Q1 '11



Pega positioned in the Leaders Quadrant of the Gartner Magic Quadrant for Business Process Management Suites

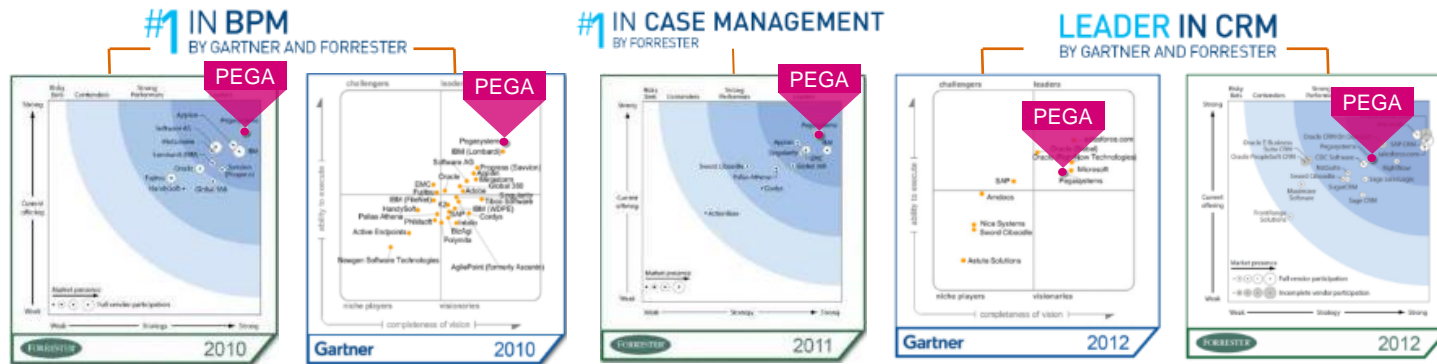
Magic Quadrant for Business Process Management Suites

Figure 1. Magic Quadrant for CRM Customer Service Contact Centers



Source: Gartner (April 2011)

PwC is a partner of Pegasystems since 2007



What makes Pega technology unique?

- 1.) Combined workflow and rules engine** – integrated in one architecture platform
- 2.) Pre-built industry frameworks**– addressing specific client issues such as FATCA, claims solution, payments solutions etc; Financial Services frameworks are particularly robust as Pega’s roots are in Financial Services and most implementations so far have been done in banks and insurance companies
- 3.) Automated programming** – allowing business users to change functionalities while in the background code is generated automatically. (like in excel when recording a macro and coding is done in background)
- 4.) Highly scalable** – Pega is a highly transactional technology. Currently any American Express transaction in the world goes through Pega platform.

Heathrow Airport:

An example of leveraging BPM technology using Pega (1/2)

About Heathrow Airport

- ❑ The worlds busiest international airport, owned and operated by BAA (British Airport Association).
- ❑ Each year over 65 million passengers
- ❑ 75,000 employees

Business Goals

- ❑ Improve overall **operational efficiency**
- ❑ Support Airport-Collaborative Decision project
- ❑ Enhance **decision efficiency process** and safety
- ❑ Consistent view of flight status
- ❑ Reduce Airport environmental impact

Project Background

- ❑ The Project was about converting airplane servicing processes into BPMS
- ❑ The project was called 'Collaborative Decision Making (CDM)' and was developed by the EURO Control (inter governmental organization that manages European air space.)
- ❑ CDM enables airlines, airport management, ground handlers and air traffic control, to effectively share information.
- ❑ Heathrow Airport chose a Pega BPM software as their CDM backbone system

Results

> £ 10 OF MILLIONS

of liters of fuel conserved annually saving cost

INCREASED from 68% to 85%

on-time departures

£30 MILLIONS MEASURABLE COST AVOIDANCE

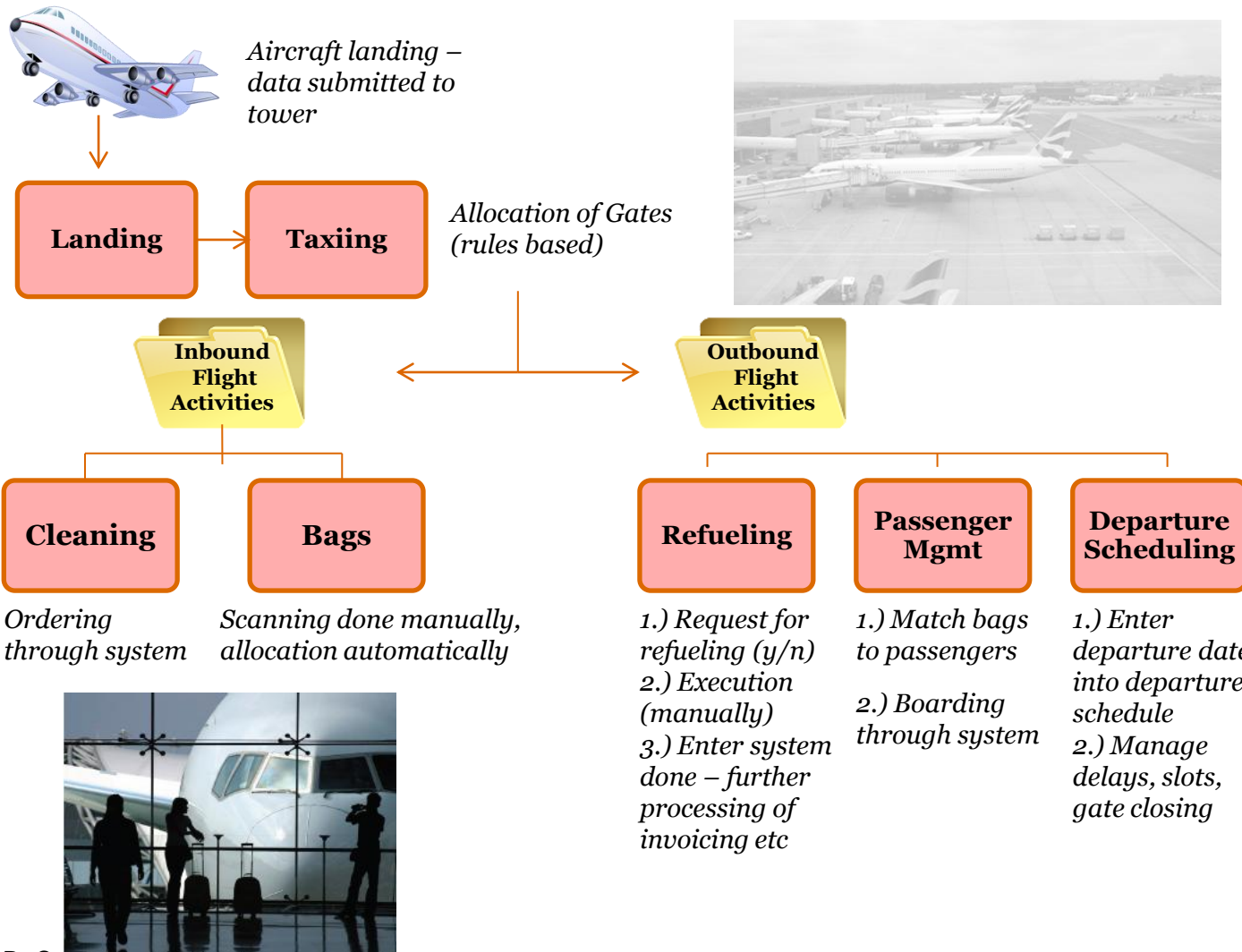
From integrating Pega Solution into airport's systems

Approx. £ 20 MILLION A YEAR REVENUE INCREASE

Increased retail revenue from more efficient flight management

What BPM was able to do:

A simplified illustration of aircraft turnaround process (2/2)



- People involved**
- Stand planners
 - Airport staff (Tower, service staff)
 - Airline operations
 - Passengers

- Channels involved**
- Radar
 - CDM Portal
 - Mobile Phone
 - Handheld devices



When does BPM make sense?

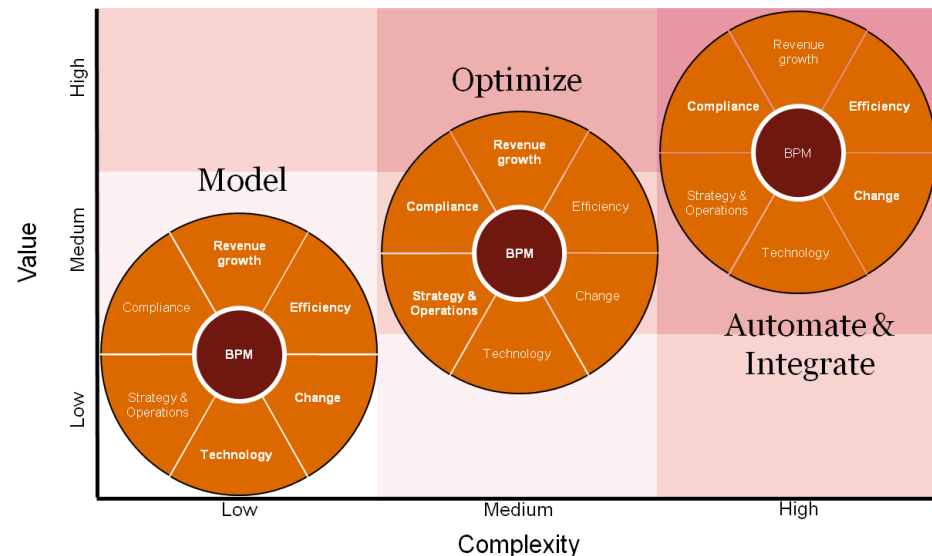
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When does BPM makes sense?

BPM goes beyond methods like **'Lean' or 'Six Sigma'** – as **it automates processes and connects legacy systems**

- ❑ **BPM is designed on the principle of re-usability** - therefore automating each consecutive process becomes faster and cheaper with time – this is particularly important for large organizations where after a few implementations it becomes economically feasible to optimize even processes with small throughputs (and thus small cost base)
- ❑ **BPM is independent of legacy IT systems** – the process can be automated while still using a variety of legacy front-office and back-office systems (overcoming the need for complex legacy transformation)
- ❑ **BPM shows quick results** - implementation is done in small steps (**90 days sprints**) converting process into automated workflow with business rules defined.

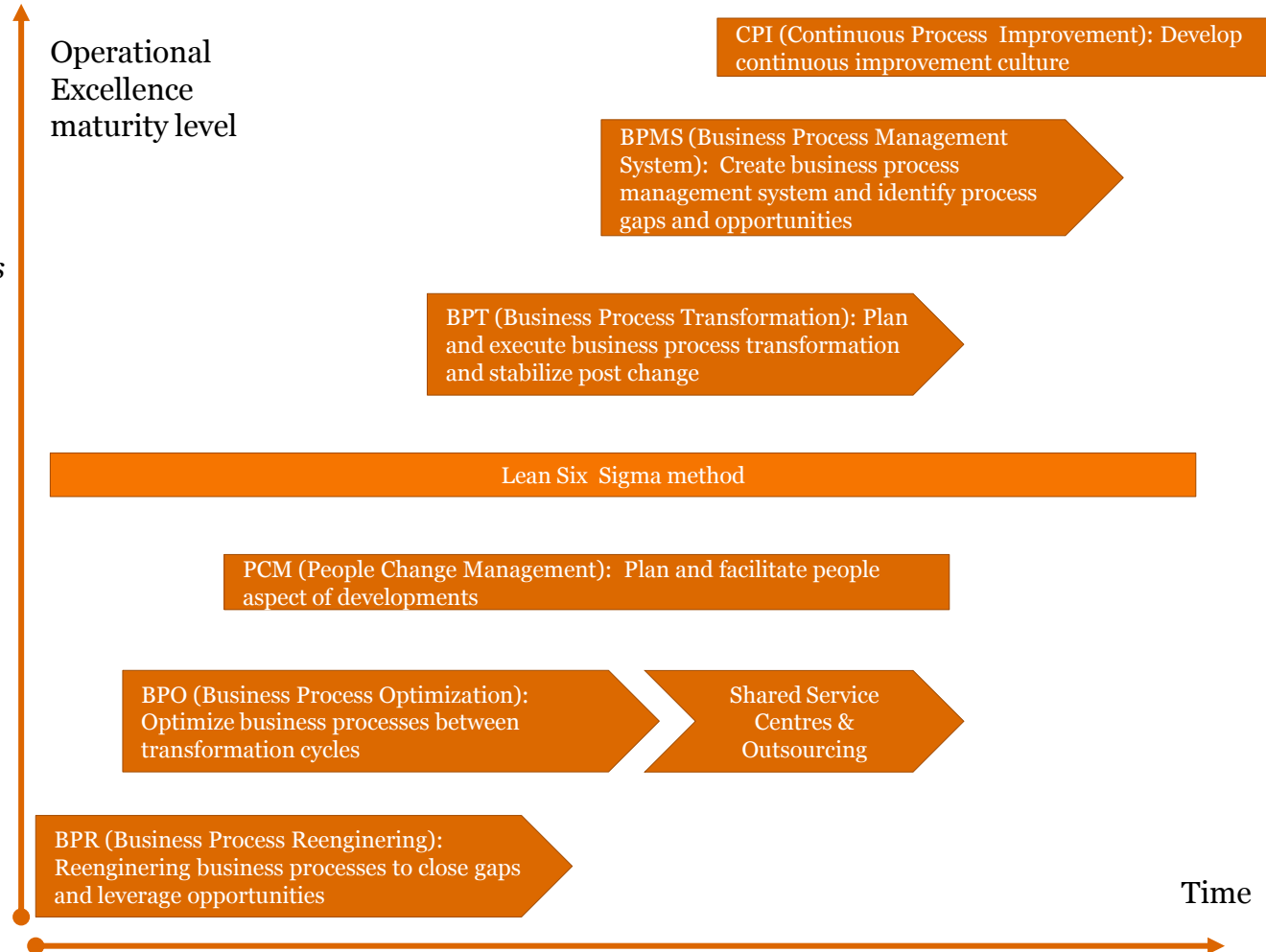
BPM has moved from business process modeling to business process automation and integration



Where does BPM suit best?

Process management milestones

- ❑ *BPR was the start phase of banks to draft processes to have more control*
- ❑ *During BPO phase organizations needed to cut cost in order to be more competitive, e.g. by outsourcing processes.*
- ❑ *BPT is the era where banks had to focus on putting the client processes central*
- ❑ *The new phase is business process management where processes are automated, geographically flexible, combine agile front end requirements with inflexible legacy and reach a new level of operational excellence in terms of processing speed, costs and adaptability*



BPM examples for Accounts Payable improvement

	Invoice Receipt	Matching / Authorisation	Query Resolution	Payment	= End To End
Customer Values	<ul style="list-style-type: none"> ↘ Invoices quickly visible on the system ↘ Liability is recorded immediately and accurately ↘ Invoices received in one place to prevent lost invoices 	<ul style="list-style-type: none"> ↘ Efficiency – straight through processing ↘ Invoices matched to the right PO ↘ Non PO invoices sent to the right contact first time 	<ul style="list-style-type: none"> ↘ Invoices with queries sent to right person first time and quickly ↘ Queries resolved in a timely fashion ↘ Query reasons visible 	<ul style="list-style-type: none"> ↘ Early payment discounts ↘ Payments not made late ↘ Payments not made early ↘ Minimum time and effort spent on payment proposals and payment 	<ul style="list-style-type: none"> ↘ Cost effective Accounts Payable function ↘ High productivity per member of staff
KPIs	<ul style="list-style-type: none"> ↘ % invoices received electronically ↘ % on invoices on AP clerk desks and not in system ↘ Days taken from invoice receipt to visible on system 	<ul style="list-style-type: none"> ↘ % PO usage ↘ Average number of days for invoice to be approved ↘ Number of invoices that didn't match 1st time ↘ Number of POs & GRs created after invoice date 	<ul style="list-style-type: none"> ↘ % of invoices that go "in query" / on hold ↘ Average Invoice processing time ↘ Average invoice query time ↘ Number of credit notes ↘ Number of supplier queries 	<ul style="list-style-type: none"> ↘ % invoices paid electronically ↘ Number of duplicate payments ↘ Number of rejected payments ↘ Creditor days 	<ul style="list-style-type: none"> ↘ Processing cost per invoice ↘ Number of invoices processed per FTE ↘ Customer satisfaction rating
Symptoms of non compliance	<ul style="list-style-type: none"> ↘ Unnecessary date / other invoice stamping ↘ All / high volume of invoices received in paper format ↘ Invoices not entered onto system in a timely fashion 	<ul style="list-style-type: none"> ↘ Large amount of non PO invoices ↘ High number of retrospective Pos and GRs ↘ Manual signatures for invoice authorisation 	<ul style="list-style-type: none"> ↘ Manual query resolution process ↘ High volume of invoices in query / on hold status ↘ Invoices sent to wrong people for resolution ↘ Lengthy process to resolve issues 	<ul style="list-style-type: none"> ↘ Late payments ↘ Invoice terms not used / followed ↘ Daily payment runs ↘ High volume of cheque payments 	<ul style="list-style-type: none"> ↘ Costly function compared to benchmarks ↘ Low productivity compared to benchmarks ↘ Dissatisfied business Requisitioners ↘ Poor reputation with suppliers
Methods of improvement	<ul style="list-style-type: none"> ↘ Receive electronic invoices where possible ↘ Use Scanning and OCR technology for paper invoices ↘ Suppliers required to quote PO on invoices (No PO = No Pay) 	<ul style="list-style-type: none"> ↘ POs used for all spend other than few exceptions ↘ Automated PO – Invoice matching ↘ Authorisation levels held on system 	<ul style="list-style-type: none"> ↘ Automatic workflow for query resolution with email notification and reminder ↘ Audit trail and process in place for monitoring status of invoices 	<ul style="list-style-type: none"> ↘ Payment terms defined and agreed with supplier ↘ Optimisation of early payment discounts ↘ Segregation of duties for payment approval process and payment execution. 	<ul style="list-style-type: none"> ↘ Shared Service Centres used for invoice processing. ↘ Potential outsourcing of non key activities such as OCR of paper invoices ↘ Standardised processes ↘ Remove or outsource of non value added activities

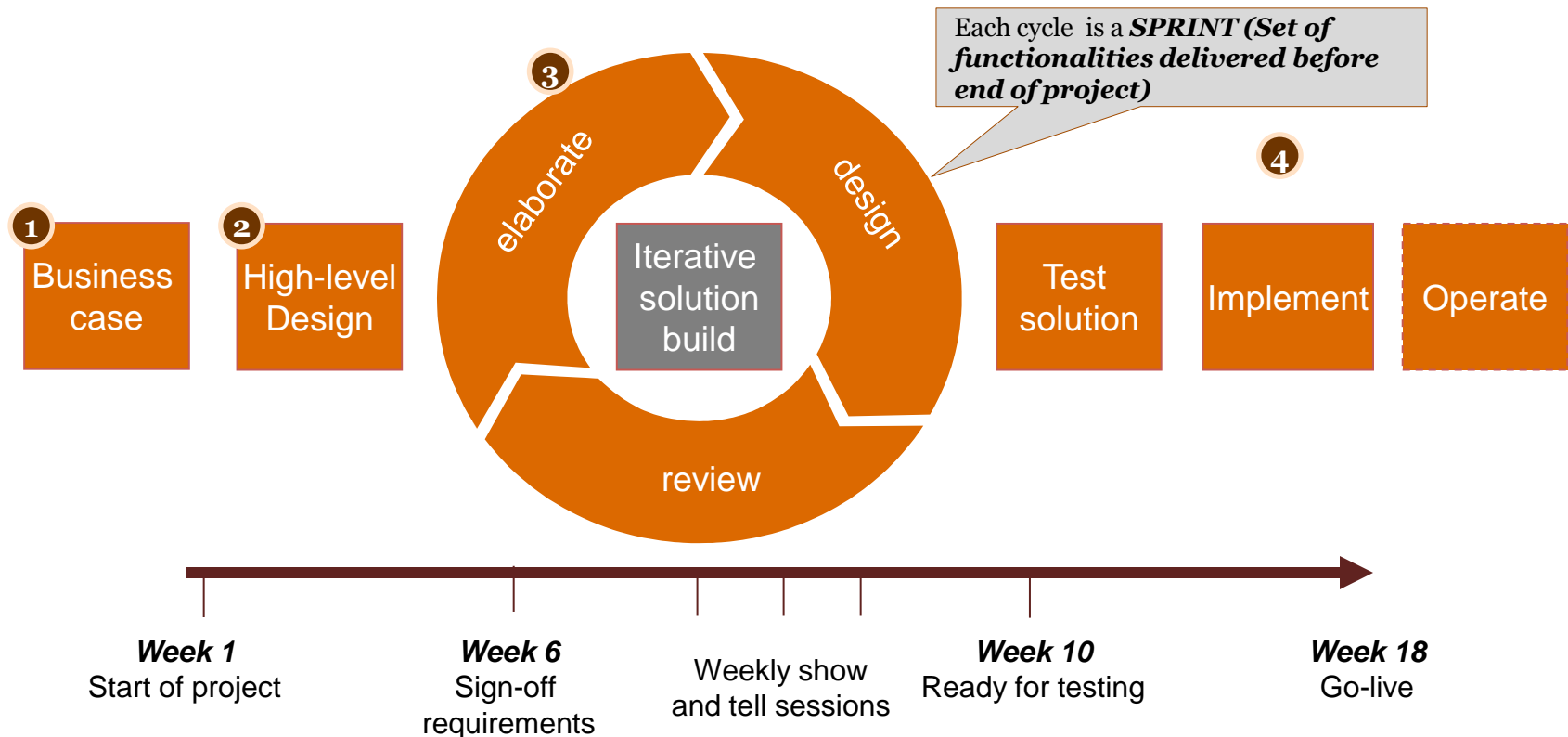
How is BPM implemented?

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How is BPM implemented?

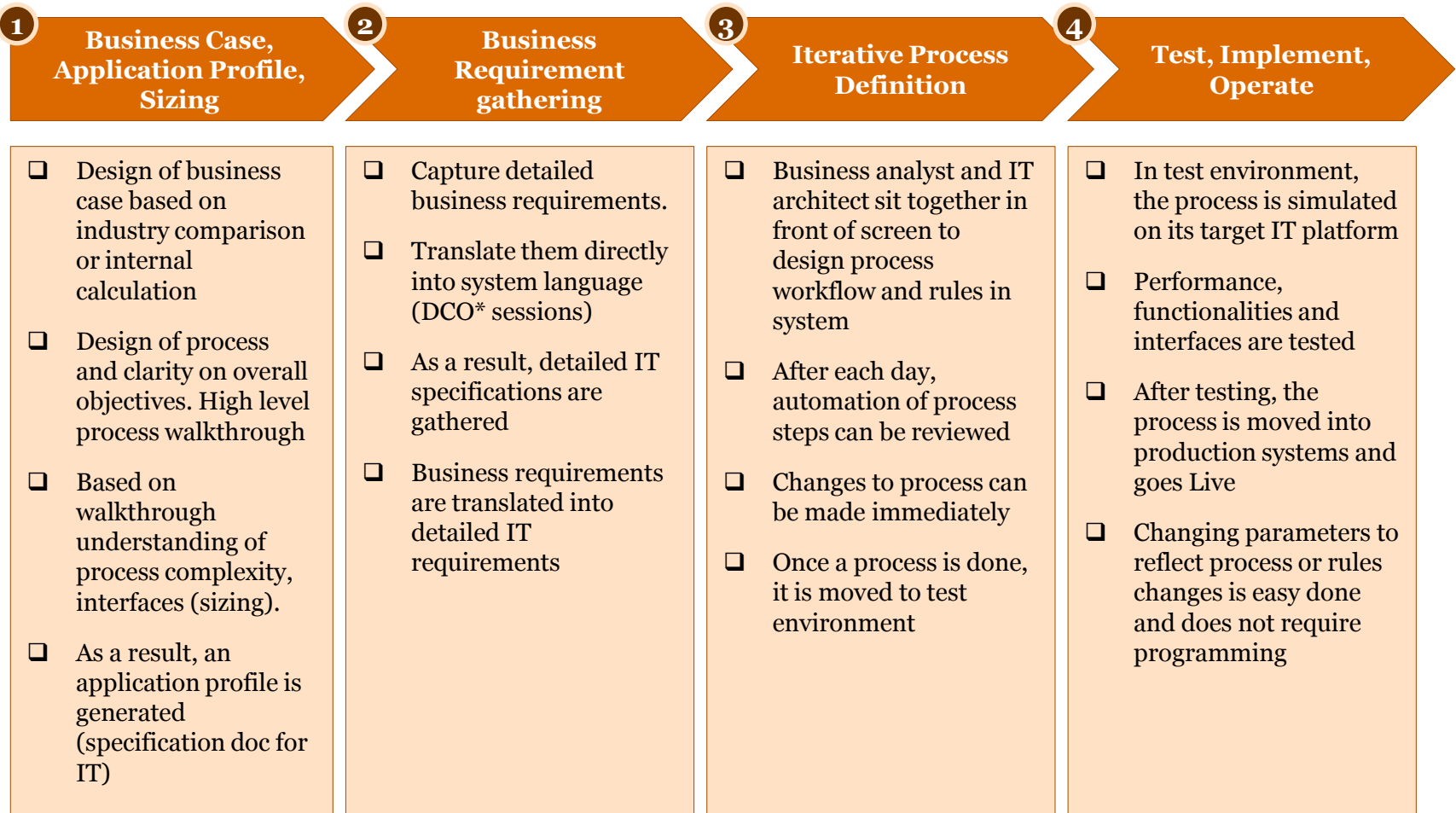
BPM for 1 process takes between 3 to 6 months

Unique in a BPM project is that business analysts and IT architects sit together to design workflows directly in system. After each day, process flow can be reviewed on the screen.



The approach of BPM is iterative

BPM implementation allows visible outputs on a daily base



*Direct Capture of Objectives (DCO) define functional specification that IT can read

A client example we are currently working on

The demo for one process was done in 2 weeks. Business users could run - in the system – through the process to test if they like the solution

About the client

- ❑ Largest universal bank in Russia with over US\$300billion of assets
- ❑ 20,000 branches across Russia and 300 million individual accounts
- ❑ Approx 250.000 employees

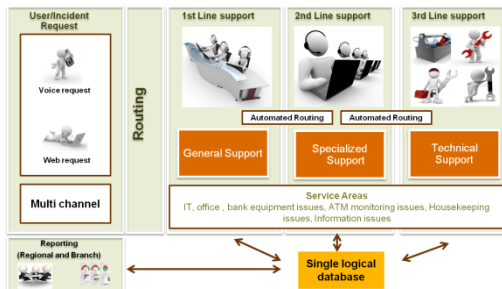
Client issue – Incident Mmgt

- ❑ Resolving an incident takes up to **15%** of branch managers daily time
- ❑ **Complex organizational structure**, many different internal departments involved that need to be coordinated
- ❑ Critical **downtime** of e.g. ATMs not detected & resolved sufficiently fast
- ❑ Lot's of **manual** and paper work involved in current process – high degree of inefficiency and process failures

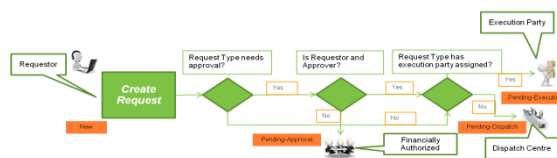
Solution

- ❑ Branches use Dynamic Case Management to **automatically route** work to regional offices.
- ❑ Each case holds one or more attached documents which automatically route **to the right department** to the right workbasket.
- ❑ Access to this workbasket is defined by the user skills set in the system
- ❑ **Business rules** are routing work automatically
- ❑ Operation managers inform branch management via **automated reporting** capabilities based in real time operations data (built in functionality in system)
- ❑ Branch management 's time spend on incident follow up reduced due to automatic **real time information** flow.

Example of solution centralization for Incident Management Lifecycle at a Russian Bank



Create request, detailed process view...



Main functionalities on this step:

- ❑ Create request
- ❑ Automated SLA calculation date
- ❑ Automated routing

What to consider when implementing BPM?

BPM is not a package – therefore success of implementation depends on maturity of organisation as well as the choice of implementation partner

- ❑ **Ensure BPM vendor's functionalities meet your business requirements.** Consider processing capabilities for high volume of data. Proper vendor selection process is advisable
- ❑ **Ensure that business case is solid.** If unsure, work with an advisor who has the industry knowledge and vendor knowledge
- ❑ When implementing BPM, **ensure internal capabilities are build up.** Most often mistake is to rely from the beginning on external vendors
- ❑ **BPM is very flexible. Therefore strong business knowledge is required to implement properly.** When choosing an advisor, **ensure business integration capabilities** are strong. There are many technical implementation partners who struggle to meet business needs
- ❑ BPM changes the current way of working dramatically. **Change management** should be considered while rolling out BPM

What does PwC bring to the table?

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PwC BPM and PEGA capabilities

*We have significant experience helping our clients implementing BPM –
We utilize a full project life-cycle approach to BPM programs focusing on key project phases*

Our Global BPM practice consist of approximately **1000 professionals**. For Continental Europe we have established a Centre of Excellence in Bratislava



Out of our Centre of Excellence we are servicing multiple Pega projects in the FS Industry across Europe in countries such as:

- Russia
- Poland
- Hungary
- Czech
- Romania
- Netherlands
- Switzerland
- Spain

... with a team of approx 100 Pega practitioners

PwC is **Golden** alliance
PEGA partner



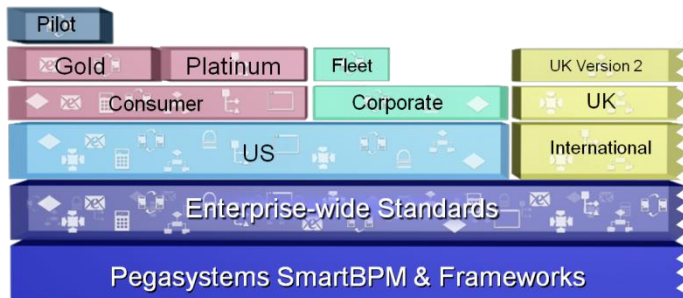
PwC and PEGA a full scope alliance

From the business case to the Go-Live and the benefit realization, we cover a full life cycle BPM project/program implementation



PEGA support:

- **PEGA provides the licence and maintenance**
- **Pegasystems unifies Workflows and Rules in one platform**



PwC support:

- **Business Case to Application Profile and sizing & effort proposal**
- **Direct capture of objectives (DCO) sessions**
- **BPM process implementation/construction**
- **Pega system configuration**
- **Training, QA and Go – Live, Benefit Realization**

Our BPM project roles are:

- Program and project managers
- Industry subject matter experts
- Lead system architects
- Lead business consultants
- Senior system architects
- System architects
- User experience architect
- Business testing consultant

PwC BPM capabilities

*We have significant experience helping our clients implement BPM –
We utilize a full project life-cycle approach to BPM programs focusing on key project phases*

Strategy

- Developing vision and mission
- Designing stakeholder analysis
- Mapping process to stakeholder objectives
- Producing key performance indicators (KPIs) and targets
- Linking process KPIs to objectives
- Performing process value-chain development

Design

- Developing detailed requirements and design
- Reviewing and documenting current and emerging business environment as it relates to BPM strategy
- Creating future-state BPM vision that aligns with the client-stated business objectives
- Performing a gap analysis between BPM current and future state
- Assessing BPM tools
- Creating BPM value creation roadmap and strategy report to include project definition/scope and estimated implementation costs
- Building a business case

Execution

- Performing unit testing, integration, and system testing
- Deploying solution
- Organizing, managing, and executing implementation of BPM, including:
 - Current/future-state application environments and capabilities
 - Gap analysis and transformation diagrams
 - Guiding principles
 - Leading practices
 - Conceptual views, design guidelines, and application development patterns
- Managing change

Optimization

- Providing post-implementation support
- Building a BPM center of excellence
- Defining industry practices and determining how client can effectively utilize leading BPM practices to enable business optimization
- Reviewing and confirming the proposed BPM future-state capabilities and future process optimization opportunities

Case studies

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BPM Solution for a CEE Banking Client

Solution: Service Management Solution prototype

Client issue

A major CEE Bank sought assistance in understanding how BPM could help them solve a big issue when dealing with Incidents within their organization in CEE region. An Incident could range from a cash machine not working in a branch in a specific region or a non working air conditioning in a region central office. Overall this was a paper intensive process, lacking control, standardization, transparency, SLA management and was causing negative public feedback for the bank. The desired outcome was to not only standardize and build automated processes across all the organization, but also to leverage business process management to automate controls, enforce SLA and increase both efficiency and transparency of process workflows.

Our approach

- PwC performed a current state assessment through targeted interviews and workshops with Key Business and IT owners.
- PwC brought process, and IT subject matter experts to assist in redesigning the client's existing processes to align with current bank overall strategy to become more efficient, transparent and adhere to lean process design.
- To every extent possible, processes were designed to be automated through the proposed BPM tool and to interface with existing systems.
- PwC deliverables satisfied both business owners and IT stakeholders needs, including enhanced management, auditing and monitoring of all Solution, while being aligned with the current Bank overall strategy to use BPM technologies to enhance control, transparency and generate efficiencies necessary to reduce operating costs

Benefits realized:

- The banking organization was able to validate how the proposed Solution could standardize the existing processes and automate work routing and SLA management.
- PwC deliverables and Solution were achieved in a record time while achieving all the goals proposed and served as a benchmark for next coming projects .
- This project created synergies with other existing projects, allowing for a better understanding on how to use the preferred BPM tool .
- Redesigned processes enabled fully automated decisions, routing and closure of processes, while delivering an enhanced user experience



□ ***Standardization***

□ ***Automation***

□ ***Control***

BPM Solution for a Global Pharmaceutical Provider

Solution: Collateral Assessment Solution

Client issue

A major pharmaceutical company sought assistance assessing existing compliance operating processes, procedures and controls for the purpose of improving the overall state of the compliance function. The desired outcome was to not only standardize and build compliant processes across business units, but also to leverage business process management and master data management software to automate compliance controls and increase the efficiency of process workflows.

Our approach

- PwC performed a current state assessment through targeted interviews and documentation review.
- PwC brought compliance, process, and IT subject matter experts to assist in redesigning the client's existing processes to align with federal and state regulations, while adhering to lean process design.
- To every extent possible, processes were designed to be automated through the proposed BPM tool and to interface with existing systems.
- The re-designed processes were validated with Compliance, business process, and IT stakeholders to ensure buy-in and feasibility.
- PwC deliverables satisfied both Compliance and business needs, including enhanced auditing and monitoring programs, modifications to standard operating procedures, and FCPA program enhancements, as well as IT needs including Data Dictionaries, detailed process maps, user requirement specifications, a KPI framework, and a BPM scoping tool.

Benefits realized:

- The Company was able to efficiently and comprehensively evaluate credentials and capabilities of multiple vendors to determine which was best suited to automate the redesigned processes within their BPM tool.
- PwC deliverables were detailed to the extent that the vendor was able to advance immediately to prototyping the solution on Day 1 of their engagement.
- Development phase for the automated BPM solution was accelerated, ultimately leading to a reduction in overall implementation timing.
- Redesigned processes enabled shorten time frame to implement the non-automated operating processes.



- ❑ ***Compliance***
- ❑ ***Automation***
- ❑ ***Simplification***

BPM Solution for a Financial Services Company

Solution: Incident Management Platform

Client issue

A large Financial Services company requested to design, create and implement new platform for Incident Management. One of key aspects was high level of automation based on large amount of requests per day. Other aspect of complexity was multiple types of request, as per each separate process of service delivery were requested. During process of implementation client raised a new challenge, to build Service Level Management service on top of Incident Management.

Our approach

- Initial documentation of AS-IS processes
- Reengineering of AS-IS processes and GAP analysis of non-process items
- Design of new platform by Lead Architects and Subject Matter Experts
- Development of new platform used agile methodology by which we ensured maximal business value added
- Agile Release management, using which client have been receiving new product every 4 weeks
- Creation of new Target Operating Model based on new Business Process Model
- Final Calculation of Economic Model & ROI

Benefits realized:

- Platform which automatically improves service quality and is self-learning
- New process of Service Level Management and Central Catalogue of Services
- New Target Operating Model adjusted for new Business Process Model
- Free Up 30 min of working time for each employee of Front-Office



- ❑ ***Leading Practice Input***
- ❑ ***Design & Implementation***
- ❑ ***Technology Integration***

BPM Solution for a Financial Services Company

Solution: Online system of arbitration proceedings

Client issue

Independent organization which provides arbitration services for FS companies established new Company Development Strategy. The main goal is to get leading position on the market by transforming the ways of servicing clients. Client asked PwC to design and implement online BPM-based solution to automate arbitration related operations.

Our approach

- Design of new processes by Subject Matter Experts
- Development of new BPM-solution used agile methodology by which we ensure maximum business value added in shorter time
- Assessment of the solution by legal experts to identify possible legal risks by bringing such services online
- Development of risks mitigation actions

Benefits realized:

- Platform which allows parties to communicate over internet during preparation to arbitration proceedings
- System guaranties that services are provided in fully compliant with Arbitration Law
- System support of fast growth of client's business
- Client got major competitive advantage by reducing time of arbitration cases processing



- ❑ ***Leading Practice Input***
- ❑ ***Design & Implementation***
- ❑ ***Technology Integration***

BPM Solution for a Financial Services Company

Solution: BPM platform implementation

Client issue

Large financial services client requested assistance to run large-scale technology transformation programme. The goal of programme is to transform operations to achieve agility and improve efficiency of operations and product sales. PwC was requested to provide QA services for whole programme.

Our approach

- Establish QA team consisting of top-level technology consultants
- Assessment of architecture and designed solutions
- Assistance to enable of client's team to use the platform through coaching and trainings.

Benefits realized:

- Fast successful start of large-scale technology transformation program
- Guaranteed quality of BPM solutions being built
- Fast enablement of client's team



- ❑ ***Leading Technology experts***
- ❑ ***Quality Assurance***
- ❑ ***Enablement, Coaching & Trainings***

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