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# YIN & YANG PROJECT

# WORK PROJECT REPORT

Consulting Lab 2015



8<sup>th</sup> January 2016



Fall Semester 2015



#### Yin & Yang

	ble of Contents	
Α.	Glossary	Slide 3
В.	Introduction	Slide 5
	1. Project Overview	Slide 6
С.	Stream Yin	Slide 7
	2. The challenge: scope and objectives	Slide 8
	3. Calendar	Slide 9
	4. Executive Summary	
	5. Business Process Optimization	
	6. Processes Review	Slide 12
	7. Organizational Model	
	8. ZenHR	Slide 26
	9. Impact Analysis	
	10. Risks and Mitigation Plan	Slide 42
	11.Roadmap	Slide 44
D.	Stream Yang	Slide 45
	12. The challenge: scope and objectives	Slide 46
	13. Calendar	Slide 47
	14. Executive Summary	
	15. Literature Review: The importance of Communication	Slide 49
	16. Communication Model	
	17. Literature Review: The importance of Data Management	Slide 52
	18. A Unique Motor	Slide 53
	19. Impact Analysis	
	20. Risks and Mitigation Plan	Slide 63
	21. Roadmap	
Ε.	The Balanced Conclusion	Slide 66
	21. The Bridge	
	22. Lessons Learnt	
	23. Belbin Roles	Slide 70
	Bibliography	
G.	Appendices Please refe	r to the Work Project Report's Appendices Document





#### Glossary (1/2)

Client - Zen Bank employee, but outside the Operations and Benefits Division.

CIO - Compensation and Information Office

**Consulta Básica** – Extracted file from the platform App1, including raw employees' information.

Customer – Same as client, it is an employee of the bank but not an employee of the Operations and Benefits Division .

**DILO** - Day in a Life Of- an activity that consists in following the daily routine of someone.

- **FTE** Full time equivalent; An FTE is the hours worked by one employee on a full-time basis. The concept is used to convert the hours worked by several part-time employees into the hours worked by full-time employees.
- HR An employee of the Operations and Benefits Division.
- HRD Human Resources Department
- Job Rotation "A job design technique in which employees are moved between two or more jobs in a planned manner. The objective is to expose the employees to different experiences and wider variety of skills to enhance job satisfaction and to cross-train them." (Business Dictionary)

Monthly Dynamic – Excel file containing a set of information about new entrants as well as departures of employees.

Motor – Excel/Access file used to develop the Staff Board and Monthly Dynamic.

NA - Not applicable

Process - A set of Sub Processes (please see Sub Process definition) related with the same topic.

**Process Flow -** A set of stages (involving different tasks, people, communication channels, documents...) to follow in order to achieve a desired outcome.



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#### Glossary (2/2)

**OBD** – Operations and Benefits Division

QP (Quadro de Pessoal) - Staff Board

**Reconciliations** – Process where the human resources bank accounts' balance was adjusted and corrected to its accurate value.

**Remunera** – Software platform with the full set of employees' salary and benefits.

SAS - Statistical Analysis System

SLA- Service Level Agreement- is a record which defines a set amount of time for a task to reach a certain condition.

Staff Board – File containing a wide range of employees sensitive information's, such as salary, evaluation, contacts, among others.

- Sub Process "A collection of linked tasks which find their end in the delivery of a service or product to a client. The sub process must involve clearly defined inputs and a single output. Business Process Management sub processes are continuous but also allow for ad hoc action. Sub Processes can be simple or complex based on number of steps, number of systems involved etc." (Appian)
- Task "A definite piece of work assigned to, falling to, or expected of a person; duty." (Dictionary Reference)
- TCD Transport and Communications Division

**Note for the reader:** During the report you will find several names such as "xyz", "##", "HR1, HR2, ..., App1, App2,..." which refer to names that can not be revealed due confidentiality matters.





# **Introduction**

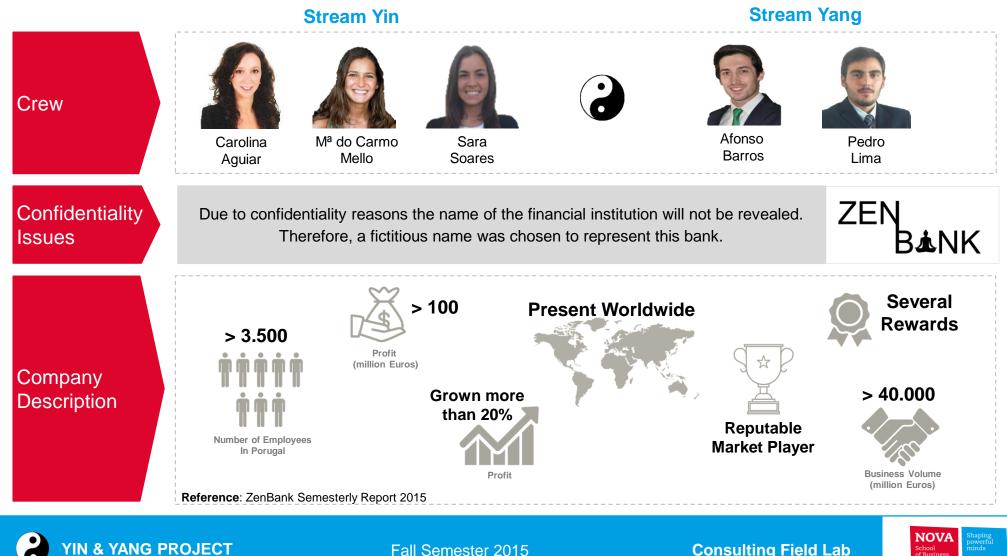


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#### Yin & Yang

The project is focused on the Human Resources Department and is meant to optimize the internal processes of both the Operations and Benefits Division and the Information and Compensation Office **Project Overview** 



# **Stream Yin**

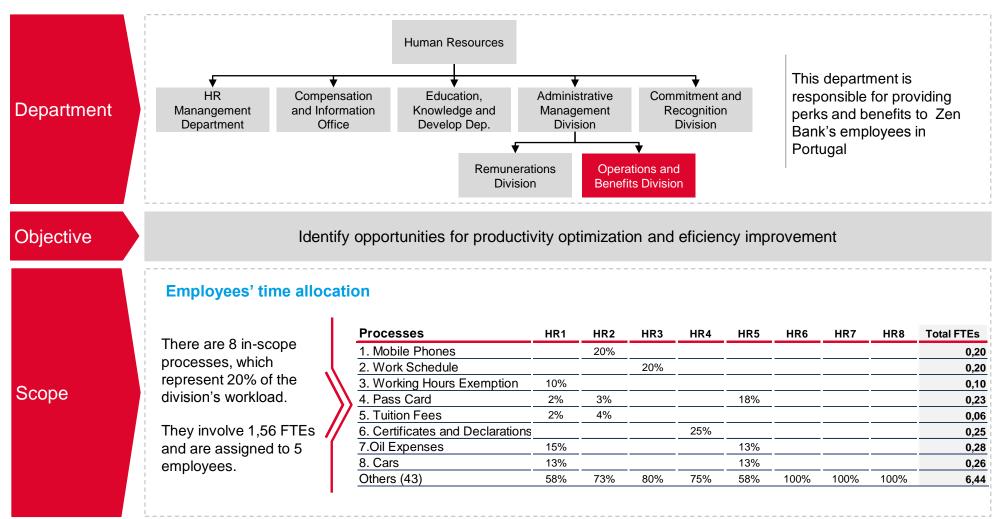


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## The Stream Yin aims to optimize 8 out of 51 in the Operations and Benefits Division

#### The challenge: scope and objectives





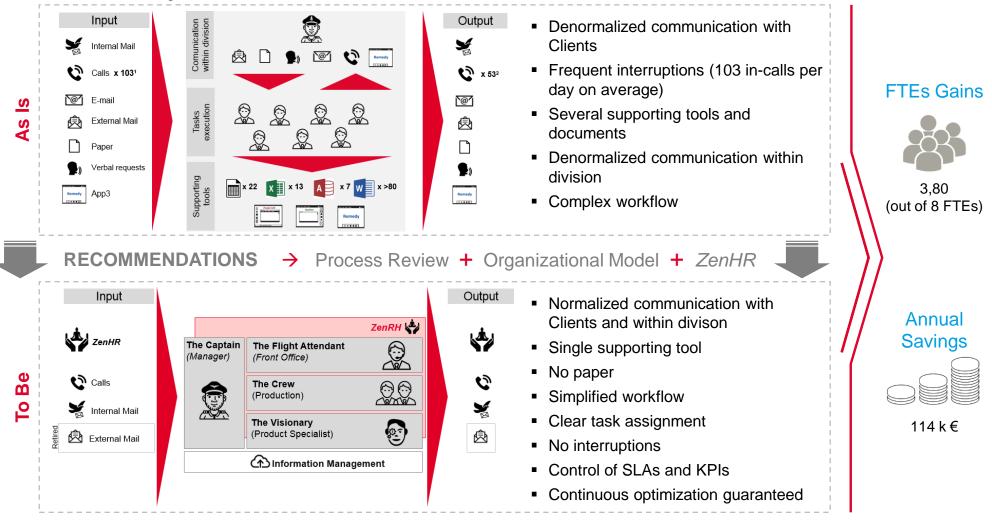
#### Stream Yin

#### Calendar

	Sep			Oct			Nov			Dec	
Activities	14.	21.	28.	05.	12.	19.	26.	02.	09.	16. 23	3. 30.
iagnosis											
Preparation											
Collect norms and procedures											
Characterize OBD											
Interviews			ļ l								
Construction											
Process characterization				ļ							
Draw and map the detailed Process Workflow				ļ							
Map validation with HRs											
Metrics											
Collect time perceptions				;							
DILO – Day in the Life Of											
Outcomes											
Analyze metrics						ĺ					
Create a diagnosis report						ļ					
Look for transversal issues						ĺ					
nalysis and Recommendations											
Evaluate each Sub Process task											
Identify key success factors of each Sub Process											
Identify eventual associated risks											
Identify improvement opportunities											
Evaluate improvement plan scenarios											
Validate recommendations with managers and HRs											
Create improvement plan scenarios											
Estimate proposed improvements impact											
Identify risks associated to recommendations											
nplementation											
Build an action plan											
Define the implementation responsible											
Prioritize actions											
Schedule the actions											
Build the final report											
· · · · · · · · · · · · · · · · · · ·	/		•			/	•			↓ ↓	
Kick	Off				1 <sup>st</sup> Ste	erCo				2 <sup>nd</sup> SteerC	o Final Stee
YIN & YANG PROJECT		Fal <u>l S</u>	emeste	r 201 <u>5</u>			_(	Consult	ing Fi <u>e</u> l	d Lab	NOVA School of Business & Economics

Three main recommendations allowed us to transform the "As is" situation into the "To be" situation, generating gains of 3.8 FTEs

**Executive Summary** 





To tackle the presented challenge, research about business process optimization was made in order to determine the approach we would follow, which was the Business Process Reengenering

#### **Business Processes Optimization**

According to Masaaki Imai<sup>1</sup>, a theorist and consulting manager recognized by founding the consulting group Kaizen, there are two ways for a company to improve its business operations:

#### Kaizen

Is based on a long-term continuous improvment through small changes. It is usually people oriented, requiring significant commitment but low investment.

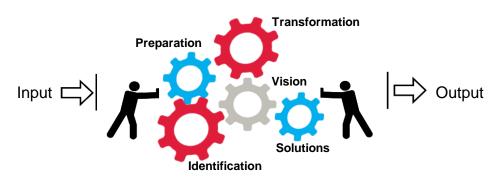
#### **Business Process Reengenering**

BPR consists in **improving through innovation**, made by **big steps** and achieving **short-term results**. Moreover, it is **technology oriented**, requiring **big investment**.

#### **Business Process Reengenering**

After several syindication moments with the Client, we concluded that the Client wanted an innovative solution and incentivated us to think out of the box. Therefore, the chosen approach was business process reengenering.

**BPR Methodology and Tools<sup>2</sup>** 



**Preparation:** Recognize the need, plan change

- □ Identification: Define and measure performance, model processes, identify activities, map organization, map resources, prioritize processes
- □ Vision: understand process structure and process flow, identify value-adding activities, estimate opportunity, envision the ideal
- □ Technical & Social Design (Solutions): reexamine processs linkages, consolidate information and interfaces, modularise, apply technology, specify management structure, redraw organizational boundaries, specify job changes, plan implementation
- □ **Transformation:** Perform technical design, develop tests and rollout plans, train staff, pilot new process, refine and transition

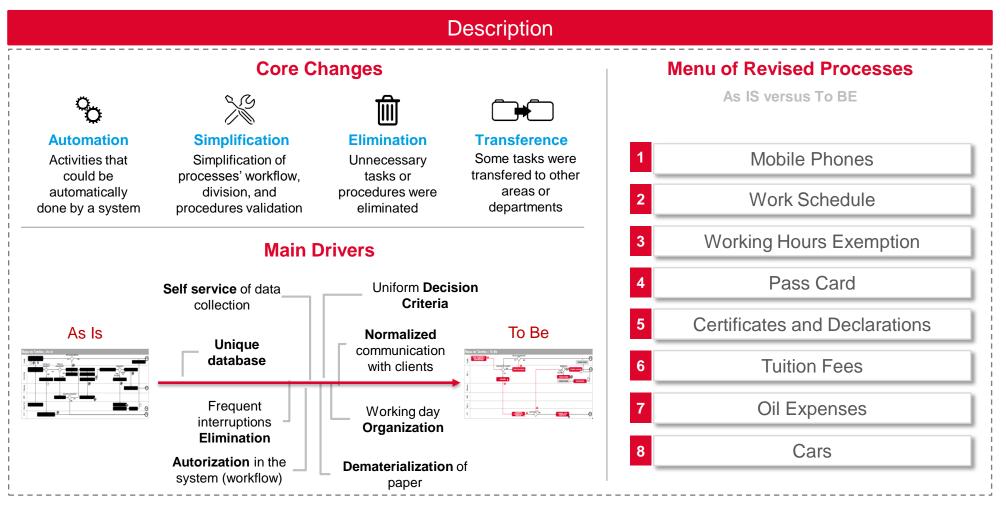
References: (1) Arlbjorn, J. S.; Haug, A. (2010). Business Process Optimization; (2) Klein, M. M. (1994). BPR Methodology's Stages and Tasks





A process review was conducted with the main goal of reducing inefficiencies as well as improving the service/ product delivered to clients

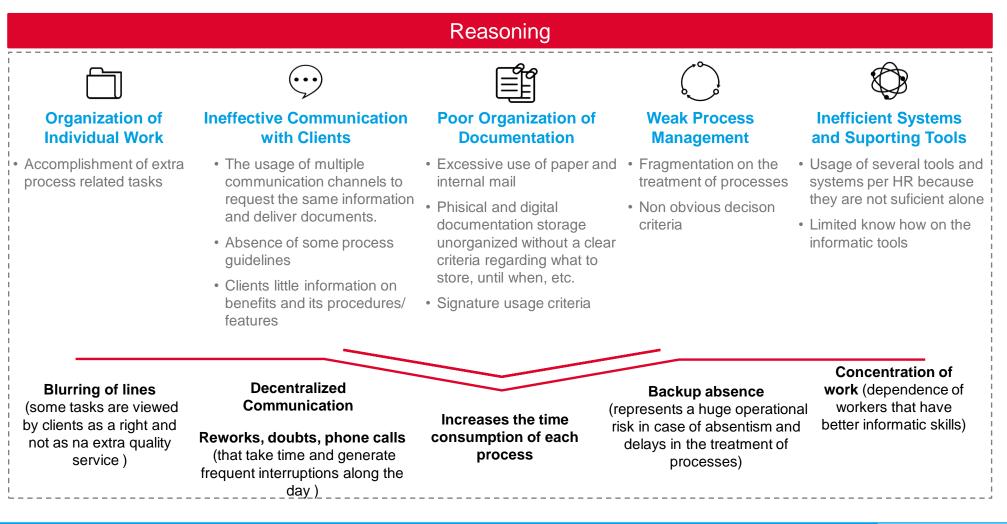
**Process Review** 





The reasoning behind the reviewing of processes was due to several problems identified in the diagnosis as well as carefully understand how they operate and its particularities

**Process Review** 







Different measurement methods were employed in order to perform a complete analysis that could support our future recommendations

**Process Review** 

# Methodology (1/3)

#### A Piece of Literature Review

Following the **DMAIC** process<sup>1</sup>, a core component of the *Six Sigma* methodology- quality management tool, we obtained an useful guidance to build maps and find out helpful metrics



Find out the inputs and outputs of the process as well as understand how well the current state of the Process meets quality standards



Identify appropriate Process measures in order to look for some factors that may be affecting the process performance



Determine the root causes of the problems and inefficiencies of the Processes



Establish a Process improvement plan- based on the automation, simplification, elimination and transference of tasks



Ensure that the gains obtained after the improvement plan be established are hold

#### Interviews

- Understand the process flow and its components (tasks, links with other departments, necessary documentation, communicaton channels used, HR's allocated to the process, particular features)
- Get valuable insights to map each Process and Sub Process
- Ask for the HR perception of time each tasks takes from their working time
- Access the time consumption each Process takes to eiher each HR and to the OBD
- Obtain volumes of each Process and Sub Process

#### DILO

- Review each Process carefully with the HR responsible for each task
- Show the maps under construction and ask for validation
- Measure the time each task takes and compare it with the HR perception
- Ask for suggestions and input contribution to the process improvement

**References**: (1) Meyer, M. (2013), Nolan Bank Performance Study Trends: The Human Resources Value Proposition; Deloitte University Press (2015) Global Human Capital Trends 2015: Leading in the new world of work



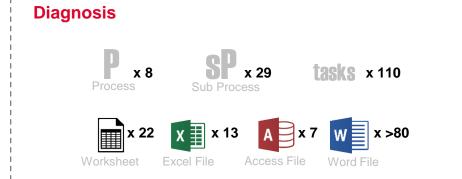
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One crucial step of our analysis was an evaluation of Processes' and Sub Processes' volumetrics, execution times and the time they took from each HR

**Process Review** 

## Methodology (2/3)



#### **Process Flow and HR time perception**

While interviewing the HR responsible for each Sub Process, we obtained **detailed information about the process workflow**: involved HRs in each task, periodicity, volumes, reworks, execution time and SLA's.

Another valuable information was the **HR perception of time** regarding the time each Process represent out of their total working hours, as well as the manager perception of that time. (see Appendix 1)

We also measured execution times by attending their day-to-day work.

At the end we were able to calculate the FTE allocated to each Process and did both a **quantitative and qualitative analysis** of each one, as represented in the example. (other processes in Appendix 3)

#### Counting Processes, Sub Processes, Tasks and Work Files

During the diagnosis, through the interviews and the DILO while we did the Processes description and characterization, we assessed the **number of Sub Processes** existing in each Process as well as the **number of tasks** inherent to each one.

We also perceived that the **information was spread across several work files** and in different sheets. Therefore, and since we consider it relevant information to build our maps, we counted them to better understand their connections and utility.

4. Pass Ca	rd					
	HR perception	0,23	Ex	Example		
Total FTEs	Manager perception	0,27			<u> </u>	
	Our Measurement	),08				
	Sub process	Responsible	Periodicity	FTEs	SLAs	
	Application approval	HR1	Punctual	0.002	Until 3 days	
Sub process	Monthly Control	HR2	Monthly	0.001	8 minutes	
	Payment of Contributions	HR3	HR3 Daily		Until 1 day	
	Entities Reimbursement	HR3	Monthly	0.001	Until 3 days	
Application Approval	Tasks	Responsible	Responsible Volumes		Execution Time	
	Validate applications	HR1	3/month	NA	2 minutes	
	Submission for approval	HR2	HR2 1/month		2 minutes	
	Notice employees	HR3	HR3 3/month		1 minute	

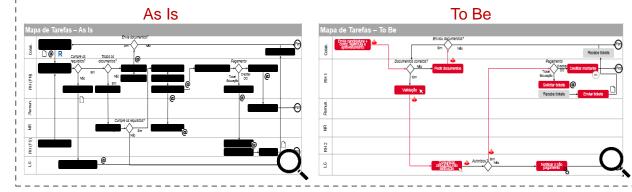


In order to better understand and communicate the perceived workflow of each Sub Process during the diagnosis, and also the propposed one for the "To Be", we represented them in diagrams

**Process Review** 

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Firstly we carefully created each sub process' **workflow diagram with all details** of the tasks including involved HRs, documentation, format of inputs and outputs, interdependencies with other departments and used files. We also stressed warning notes regarding aspects that we consider to be an **opportunity for improvement**. For this purpose we used the **Business Process Modeling Notation**.



Then we **mapped according to the HRs participation** in the process flow in order to show how fragmemented across several employees the Sub Processes are.

Finally, we composed a **new version of maps** divided by HRs involved in the sub process, showing the communication channels and the description of each task.

We did this for **both the As Is and the To Be** which we reached through DMAIC process, assuming the three proposed solutions. (Diagrams in Appendix 5)

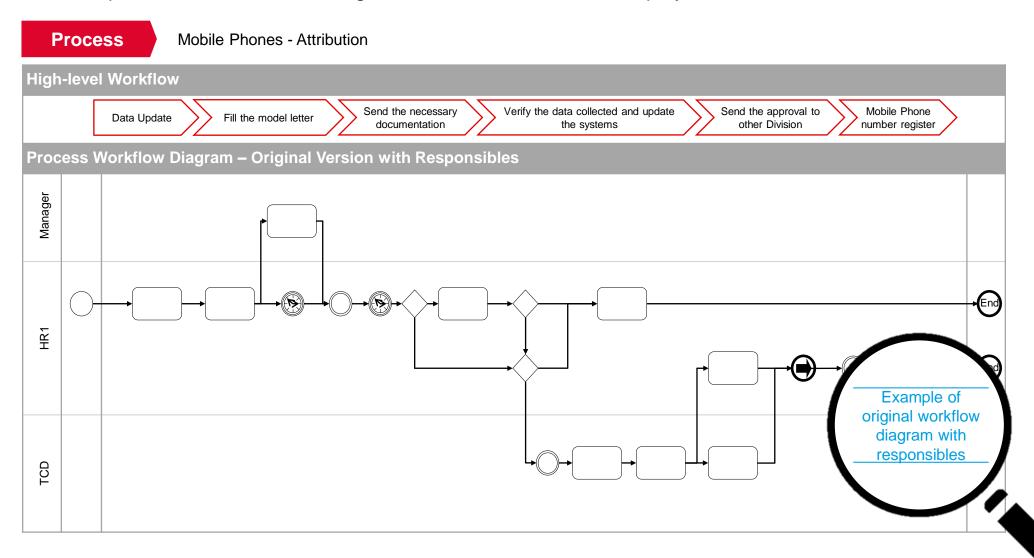
These diagrams are much less detailed but allowed us to easily demonstrate how much simplier the Processes will be with our recommendations.



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During the first version of our diagrams, we included a version with responsibles in order to point out that the processes execution is fragmemented across several employees



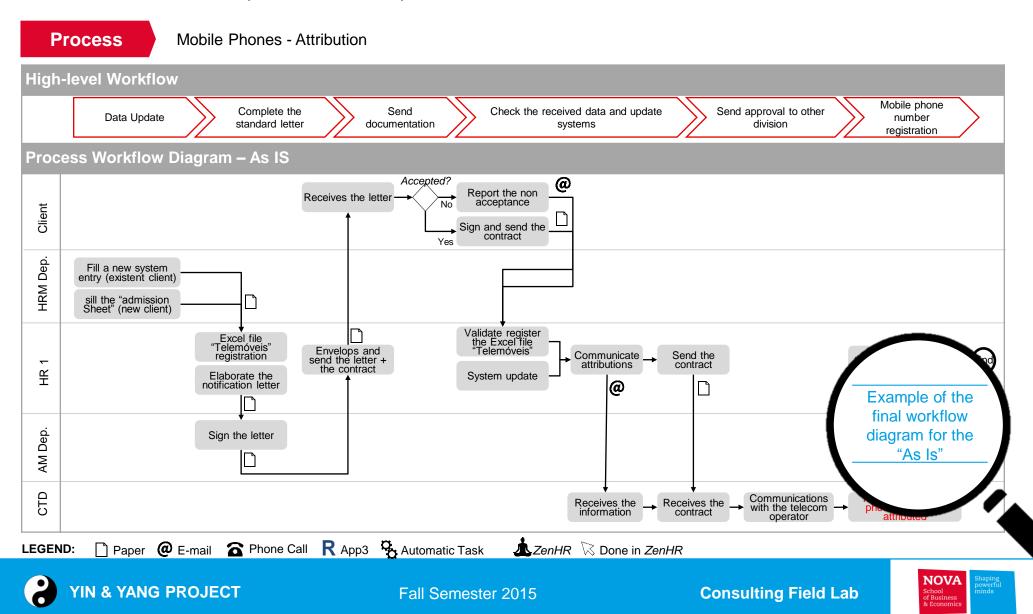


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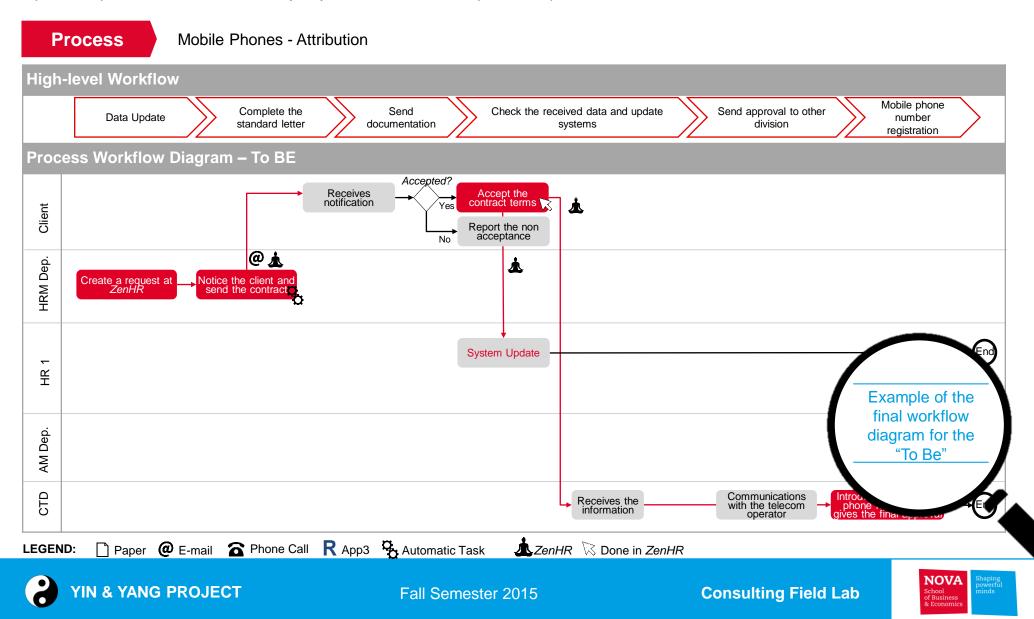
**Consulting Field Lab** 

NO<sub>\</sub>

The final version of the processes' workflow diagrams are less detailed but mantains the most relevant information and also represents the responsibles for the tasks

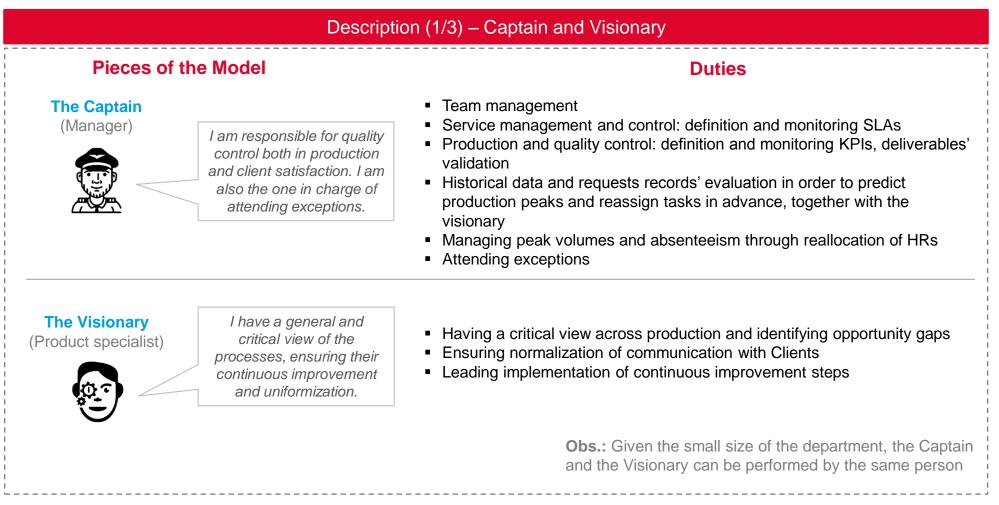


As for the first version, we have done one workflow diagram for Sub Process for the current situation ("As Is") and other with the proposed solutions ("To Be")



The new organizational model proposed aims to achieve coordenation among HRs as well as better work load distribution by allocating people to different roles with assigned responsablities

#### **Organizational Model**

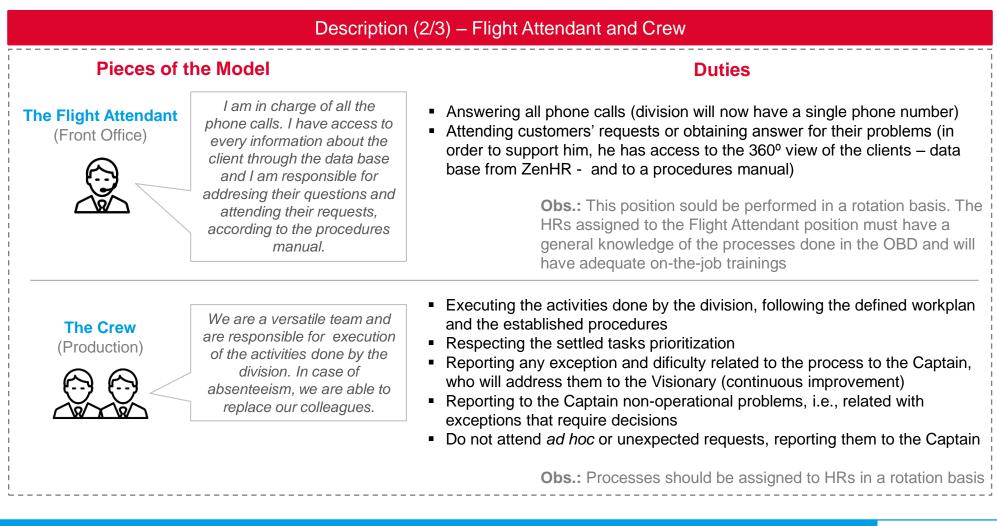






The new Organizational Model allows the Production to attend requests without being interrupted due to the introduction of a Front Office

**Organizational Model** 







By ensuring the existence of assigned roles and setting communication standards the OBD will have an organized routine and will be able to improve the Clients' satisfaction

**Organizational Model** 

The four pieces together bring some benefits to the division:



- ✓ Clear separation between execution and validation
- No interruptions
- Rotation promotes multi-tasking and enhances personal development of employees

22

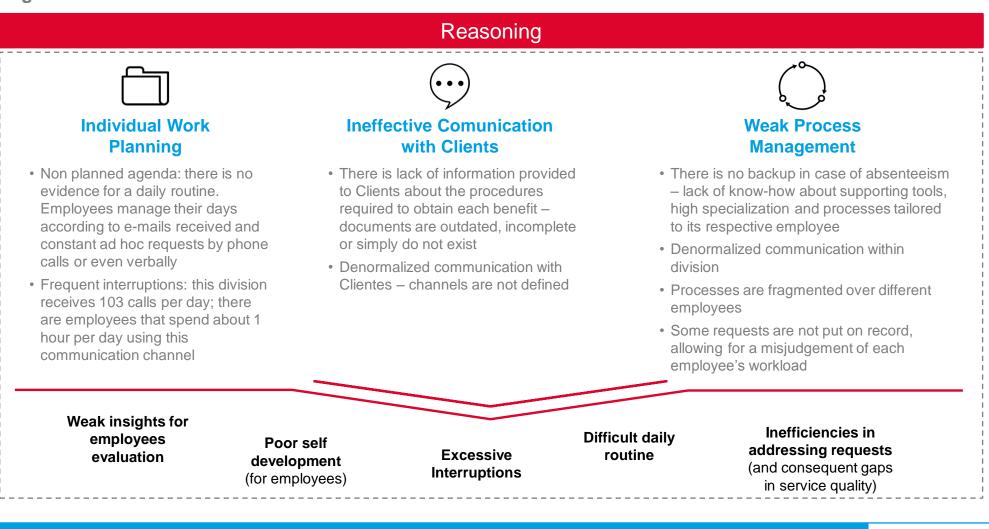
- ✓ Room for continuous improvement
- ✓ Processes assigned to a single employee from end-to-end
- Normalized communication with Clients and within division
- Organized daily routine
- ✓ Better service level



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The new organizational model was recommended in order to solve the problems identified during the diagnosis and to improve efficiency within the division

**Organizational Model** 







The problems' identification and the suggestion of this solution were made through several steps such as the DILO and the analysis of the phone calls records

**Organizational Model** 

# Methodology (1/2) – Idea and Diagnosis

#### The idea

The proposed organizational model is based on an existing model already implemented in one ZenBank's department. The framework was originally recommended to the Bank by a reputable consulting firm and since it was successfully applied, it was suggested to us by our client.

Given the small dimension of the division, we decided to adapt it though, so that it fits our situation.

#### Diagnosis

DILO – Day In the Life Of

As we mentioned before, we spent one day with each employee.

Through this activity, we understood not only the processes we were focused on and its characteristics, but also some valuable insights about the division as a whole:

- The interdependencies between employees and their roles
- The relationship between supervisors and employees (and how they communicate)
- The routines and their usual agenda
- Some feedback from employees about work satisfaction and their evaluation

#### Analysis of the Phone Calls Records

In order to perceive the importance of the Phone Calls among the different communication channels, an analysis was performed based on some records we obtained from the ZenBank.

We were given the total number and duration of the following type of calls for the second trimester of 2015 (for each employee):

- External In-calls; Internal In-calls
- External Calls Made; Internal Calls Made
- Total Calls in the Trimester

Then, based on some assumptions, we computed simple numbers helpful to understand the relevance of this channel. The obtained numbers show that on average the division receives 103 phone calls per day, which means too many interruptions for a "back office" department. Furthermore, we ordered the employees by average daily hours spent on the phone and concluded that two of them spend about 1 hour out of a 7 hour journey on the phone.

Channel Consump.	Employee	Average Monthly Hours on the Phone	Average Daily Hours on the Phone	Average Daily Total Calls	
	1	22:26:41	1:10:53	70	į
	2	17:55:31	0:56:36	22	ļ
	3	14:10:17	0:44:45	20	į
	4	6.43.45			i





The benefits associated with the implementation of a front office and job rotation - efficiency maximization and employees' skills development - support the decision towards this model

**Organizational Model** 

## Methodology (2/2) – A Piece of Literature Review

#### About having a Front Office

The idea of having a front office appeared for the first time in the late 1970s, namely due to Dick Chase, who presented two different type of operations in services: *the traditional back office factory and the customer-facing, customer contact front office* - front office<sup>1</sup>.

This is the Customer contact approach, which states that both operations should be decoupled<sup>2,3</sup> so as to **maximize the** *efficiency of the service delivery system*<sup>4</sup>.

[...] high-contact activities are more difficult to control and to rationalize than low-contact activities due to all kinds of disturbances caused by the customer<sup>4</sup>.

However, there are several aspects to bear in mind about coordination and both kind of activities can coexist in the same department and be performed by the same employees.

#### **Rotation for Personal Development**

Job rotation is identified by several studies as a factor that promotes a **positive attitude towards career**, reducing monotony and fatigue<sup>5</sup>.

Regarding benefits, nearly all areas of research suggest that job rotation increases affective career-related outcomes such as employee satisfaction, motivation, involvement, and commitment<sup>6</sup>.

Furthermore, it effectively contributes for the employee **learning experience**, as it is a way to develop their skills<sup>7</sup>. In fact, rotation can create opportunity for "increased variety, challenge, and achievement"<sup>8</sup>.

Lastly, late 1970s literature focus the "plateaued" employees – those with limited promotion prospects. In these cases, rotation is again mentioned as a stimulation to their work, counteracting possible negative characteristics such as low commitment. This is the situation of the division we were working with<sup>9,10,11</sup>.

As we identified several interruptions, and since the core of this division is customer service, we propose the creation of a front office.

This is the reason why we recommend that the tasks performed by the Crew should be done in a rotation basis. Moreover, this guarantees that there is a backup in case of absenteeism.

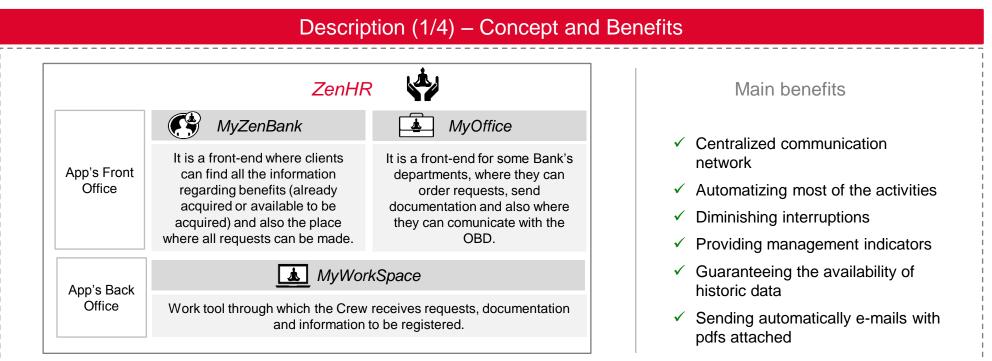
References: (1) Johnston, R. (1999). Service operations management: return to roots; (2) Chase, R.B. (1978), Where does the customer fit in a service operation?; (1981) The customer contact approach to services: theoretical bases and practical extensions; (3) Chase, R.B.; Tansik, D.A. (1983), The customer contact model for organization design, Management Science; (4) Zomerdijk, G. L.; Vries, J. (2007). Structuring front office and back office work in service delivery systems: An empirical study of three design decisions; (5) Miller, F. G.; Dhaliwal, T. S.; Magas, L. J. (1973). Job rotation raises productivity; (6) Campion, A. M.; Cheraskin, L.; Stevens, J. Michael (1994). Career-Related Antecedents and Outcomes of Job Rotation; (7) Eriksson, T.; Ortegi, J. (2006). The Adoption: Testing the TheoriesFerence, T. P.; Stoner, J. A. F.; Warren, E. K. (1977). Managing the career plateau; (8) Campion, M. A.; McClelland, C. L. (1991). Interdisciplinary examination of the costs and benefits of enlarged jobs; (9) Near, J. P. (1985). A discriminant analysis of plateaued versus nonplateaued managers; (10) Stout, S. K.; Slocum, J. W.; Cron, W. L. (1988). Dynamics of the career plateauing process; (11) Ference, T. P., Stoner, J. A. F., & Warren, E. K. (1977). Managing the career plateau





The creation of ZenHR allows the department to standardize all the communication and to centralize it in only one channel. It will also enhance production efficiency and allow feasible data management

**ZenHR** 



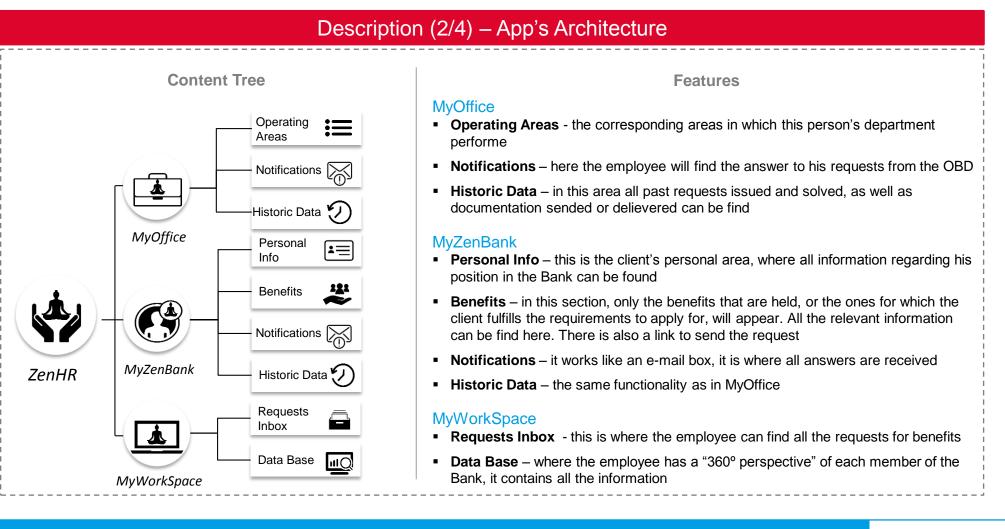
- ZenHR provides a single point of contact with the clients, where they can check everything about themselves as ZenBank's employees through their profile, and also where they can get all the information regarding benefits they already have or that they are able to apply for
- In that sense, we suggest that ZenBank should cease the three systems and share areas they currently use, once all the relevant information will be concentrated in ZenHR



## The App's three dimensions have diferent functionalities which can be organized in different menus

#### **ZenHR**

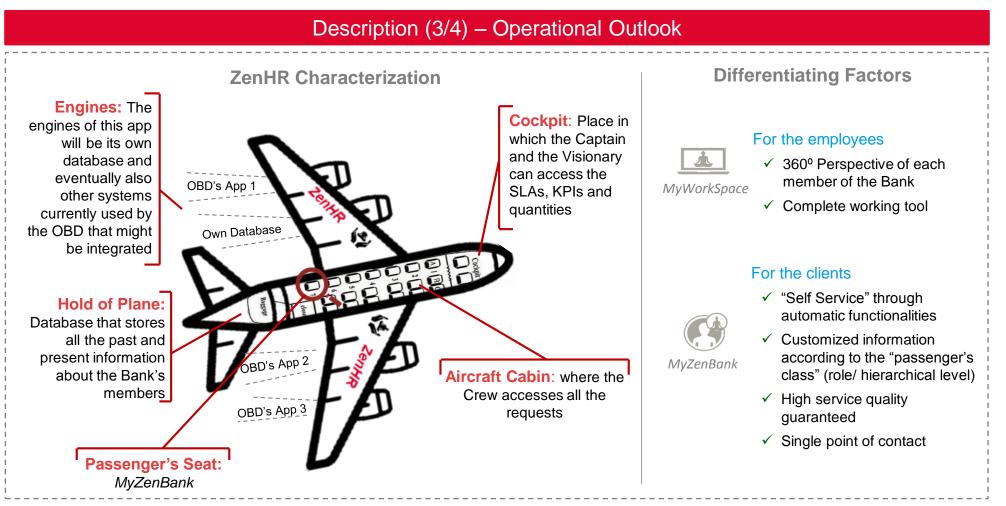
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The proposed App will bring relevant benefits to the department's customers as well as the department's employees, improving the overall service quality

**ZenHR** 



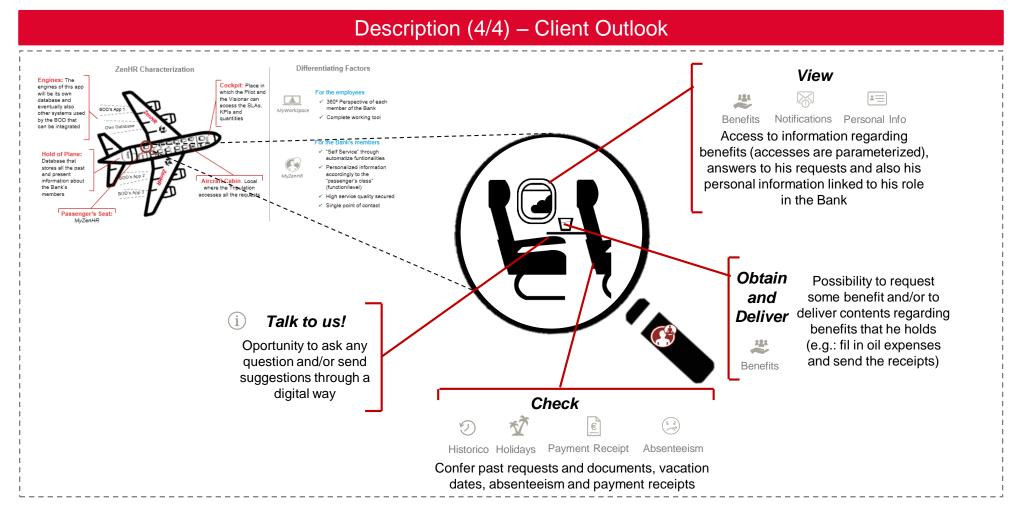


Fall Semester 2015

28

MyZenBank is the personal area of each client, where these have full access to its own information, historic data, as well as the possibility to make available requests

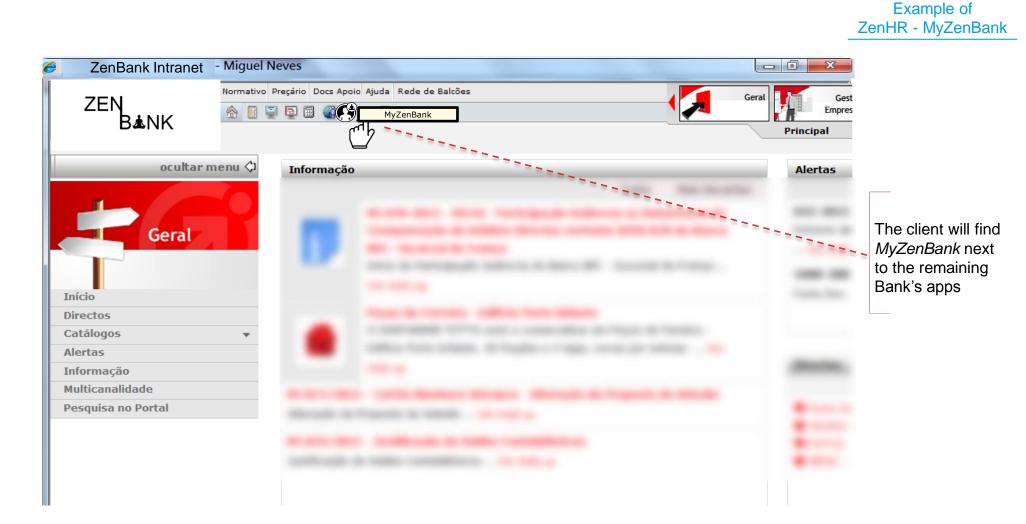
#### **ZenHR**







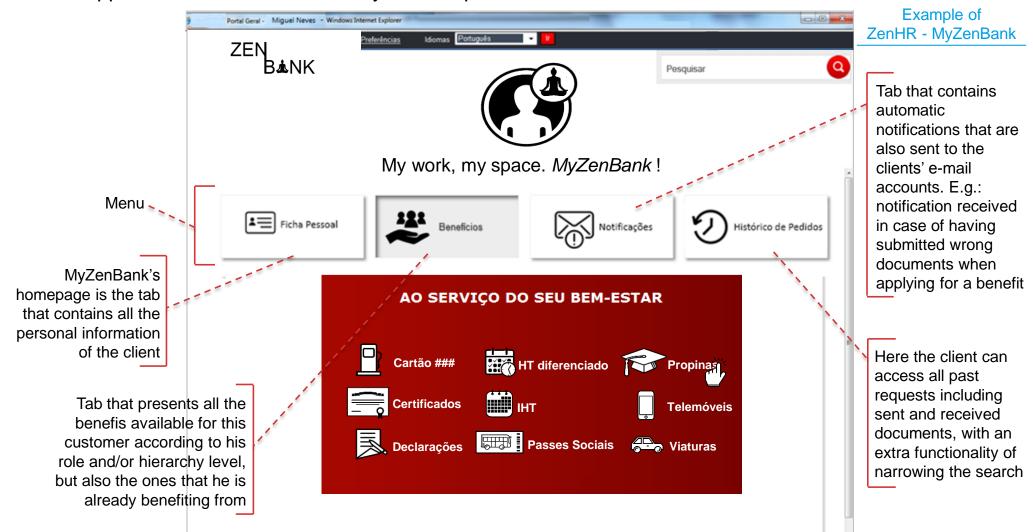
The access to *MyZenBank* is done through the Bank's Intranet and the client will easily find *MyZenBank* next to the other apps, after logging in







The App's homepage will be the tab with the content about the client's personal information and the whole app is meant to be user friendly and simple

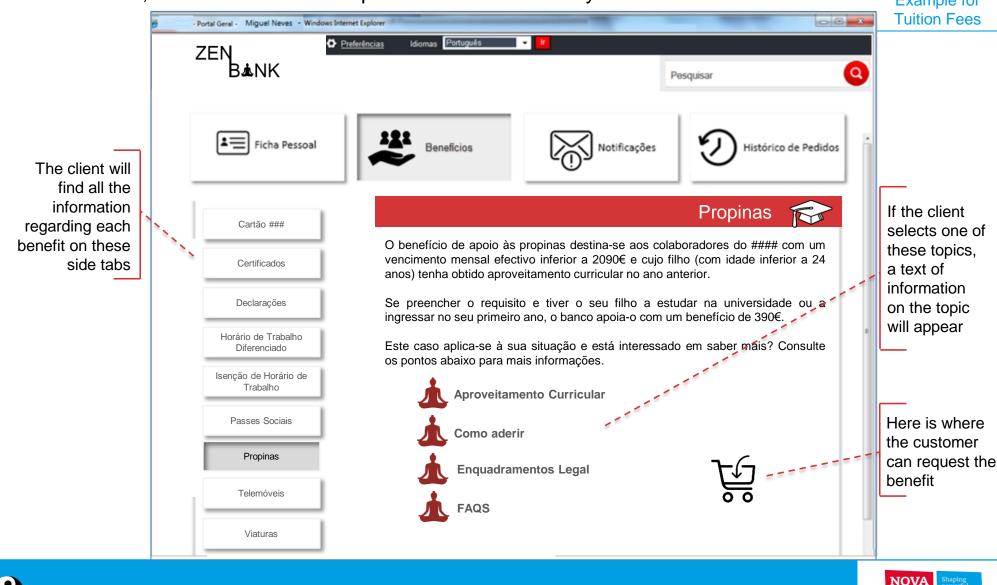






When the customer opens the *Benefits* tab, he will not only find all the information regarding each available benefit, but also be able to request the benefits directly

Example for

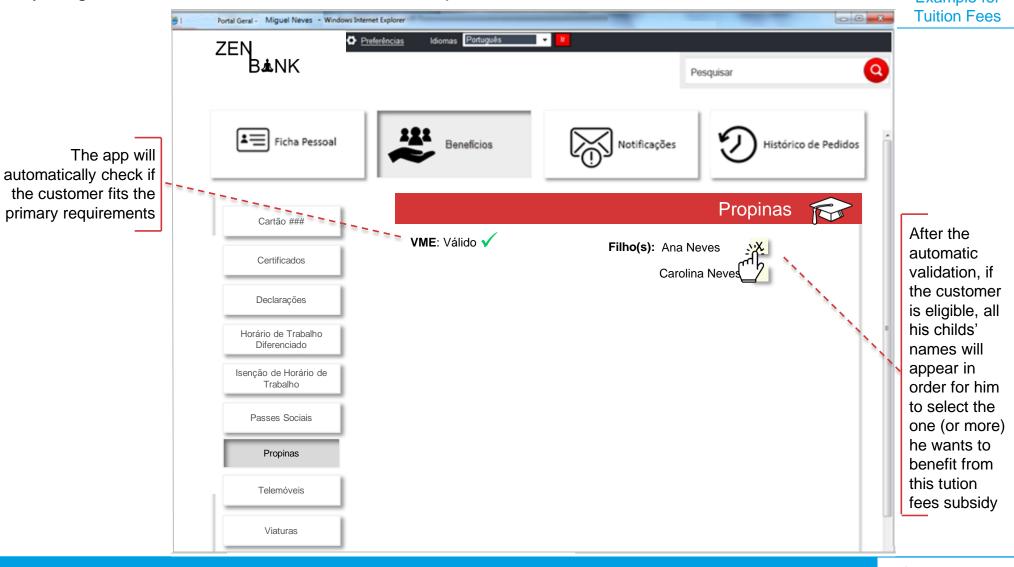




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The application to the request is made in three sequential parts, which will be automatically validated. If anything is not valid, it will unable the client to proceed

Example for





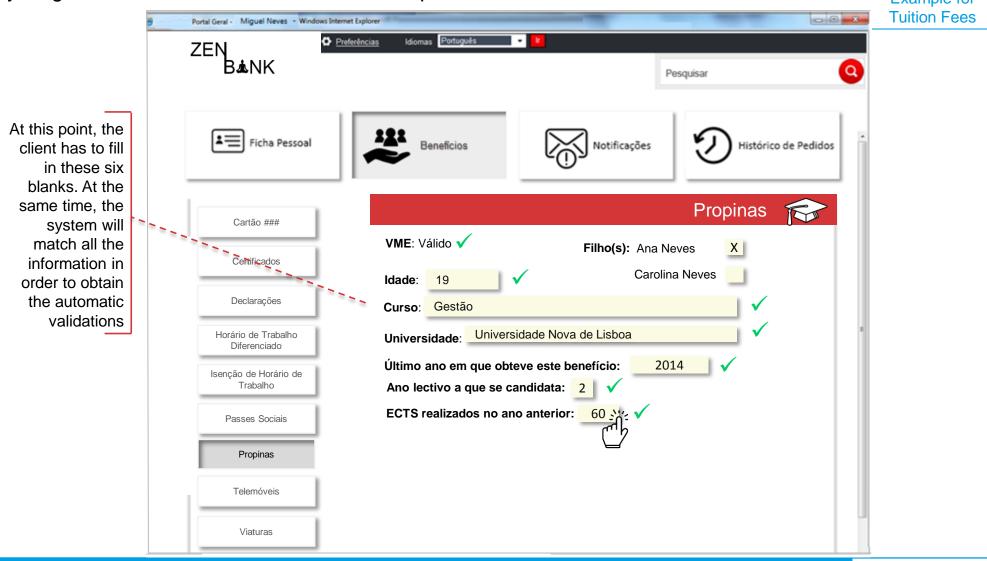
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**Consulting Field Lab** 

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The application to the request is made in three sequential parts, which will be automatically validated. If anything is not valid, it will unable the client to proceed

Example for

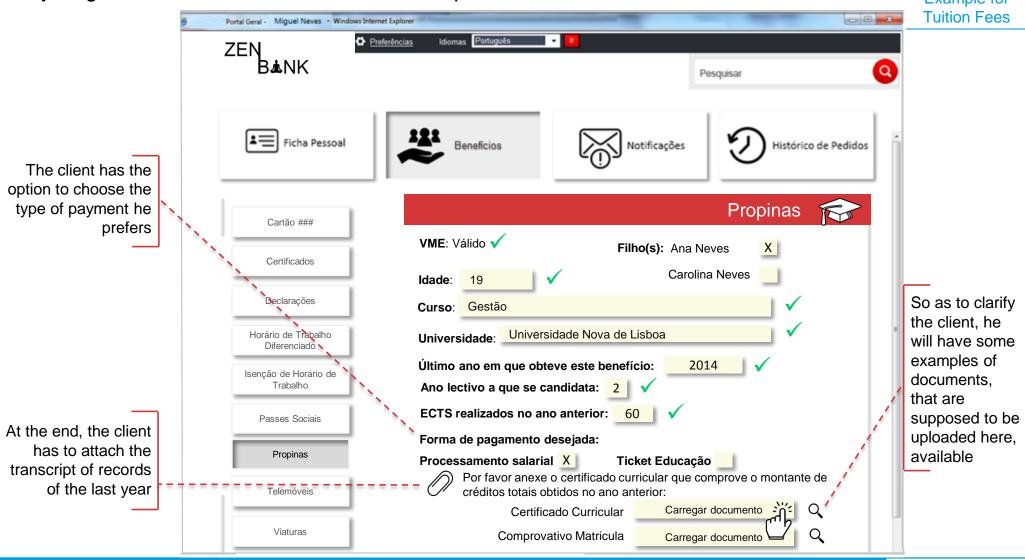




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The application to the request is made in three sequential parts, which will be automatically validated. If anything is not valid, it will unable the client to proceed

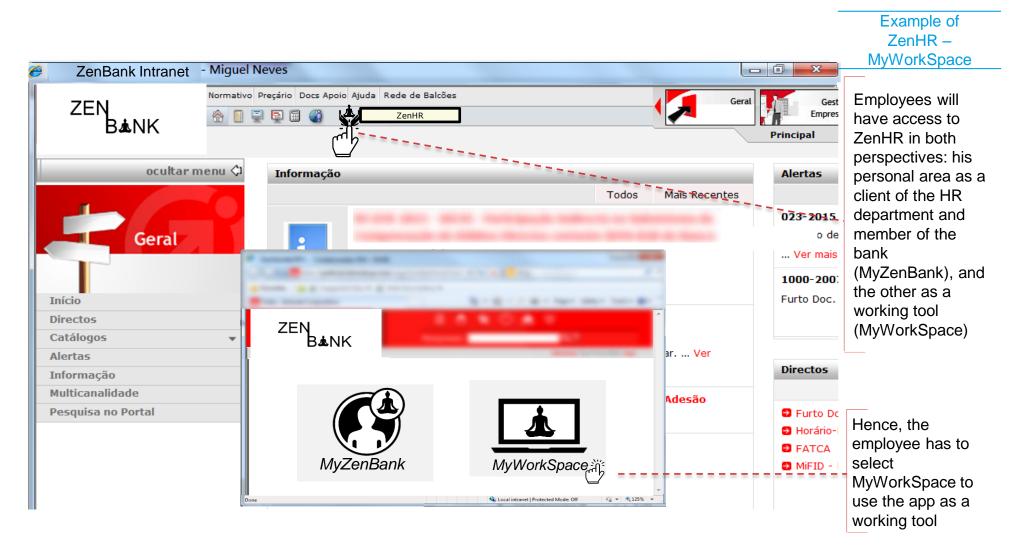
Example for







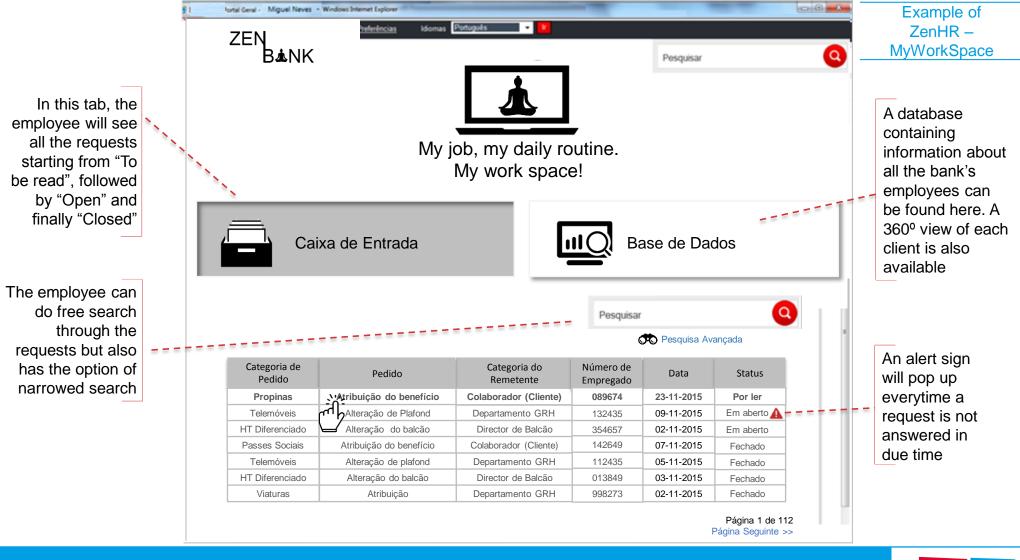
OBD' employees will have access to both perspectives of ZenHR: MyZenBank, that refers to their personal area and MyWorkSpace as the working tool







It is through MyWorkSpace that the employee will have access to all requests and will be able to work on them. Moreover, they will have access to a database with a 360° view of each client





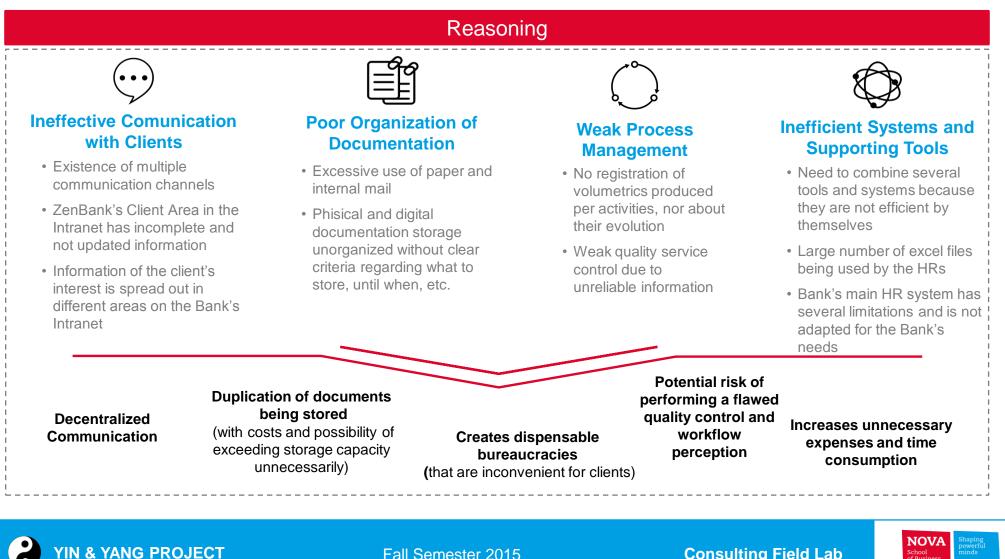
When a new request is opened, the information filled in by the client and the submitted documents will appear and must be validated by the employee to be forwarded to the Captain for a final validation



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The reasoning behind the suggestion of creating ZenHR is due to several problems identified during the diagnosis

#### **ZenHR**



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The conceptualization of *ZenHR* was based on trends and practices in the banking industry and HR departments and on the employees' major needs identified during interviews and DILO

ZenHR

## Methodology



Literature review about trends and practices

#### **Banking Trends<sup>1</sup>**

- Observed a tendency in the Bank's industry of automating the Banks' back office
- Research indicates that there is a significant amount of opportunitites of enhancing processes' efficiency through IT systems

" This high degree of manual processing is costly and slow, and it can lead to inconsistent results and a high error rate. IT offers solutions that can rescue these back-office procedures from needless expense and errors."

- Some of the challenges that Banks might face in order to improve their processes through automation are
  - Lack of time in their IT department's agenda
  - □ Weak deep knowledge about processes

#### HR Trends<sup>2</sup>

- Identified that Digital is transforming how HR employees perform their work
- Being on track of the changing business world and being able to adapt to it through digital ways will lead companies to outperform their competition



### Syindication with Employees

#### Interviews

- Performed several interviews with the processes' responsibles and supervisors
- Assessed employees' main dificulties felt while executing their activities
  - Working tools limitations
  - Bank's data management and database system poorly responds to the department's needs
  - □ Excessive manuality in each activity leading to a high operational risk and exposure to a high rate of error

#### DILO

- Confirmed the limitations and inefficiencies identified by employees
- Identified other limitations and weaknesses of the working tools and procedures

References: (1) Dias, J. (2012). Automating the bank's back office, McKinsey Article; (2) Accenture Strategy (2015) "The Future of HR: A Radically Different Proposition"



**VIN & YANG PROJECT** 

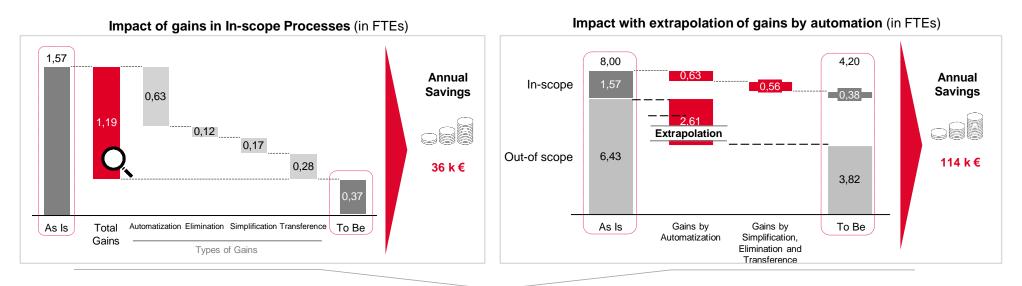
Fall Semester 2015

**Consulting Field Lab** 

40

By extrapolizing the gains of automation achieved in-scope to the rest of the processes, we verified a potential gain of 2.61 FTEs in out-scope processes, therefore estimating a total gain of 3.80 FTEs

**Impact Analysis** 



#### Methodology

We performed an impact analysis based on:

- Perception of time consumption per HR: given by themselves and the department manager. However, as there was a significant discrepancy we considered the employees' perception as required by the client
- The average annual FTE cost of 30K €: an input given by the Client
- **Execution Time:** obtained through DILO and interviews

(Gains per each Process in Appendix 4)

#### **Limitations of Extrapolization**

We only considered the gains of automation. As it is our client's common practice, we assumed that the rest of the processes have on average the same degree of manuality, thus they could benefit from the same percentage of automation gains.

However, **other gains were not considered** in this extrapolization as we cannot do any reasonable assumption regarding elimination, simplification or transference.

We believe that having the possibility of overvaluating the automation gains in the out-of scope processes, we are underestimating the potential gains of the three other sources. Therefore, we believe that the estimated results are reasonable.

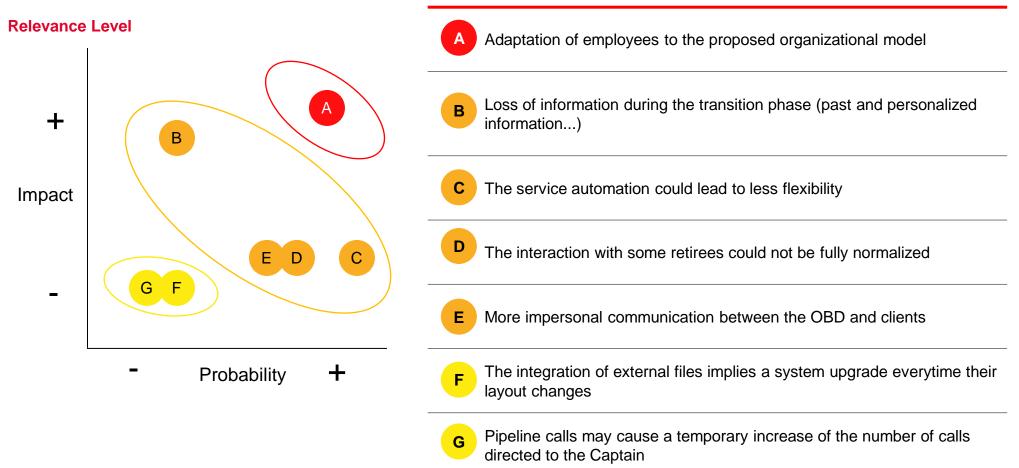




There are risks inherent to the proposed solutions which might affect the performance of our process improvement plan. An evaluation of the impact and probability associated with each one was conducted

**Risks and Mitigation Plan** 

#### **Risk description**







For each identified risk a mitigation action was planned in order to reduce the impact and the probability of each one happening and negatively affecting the performance of our proposed solutions

**Risks and Mitigation Plan** 

	Risks	Mitigation Plan
A	Adaptation	Employee training and creation of a business model implementation plan
В	Loss of information during the transition phase	Keep the old databases during the transition phase (from the "As Is" to the "To Be") and ensure that all the relevant information is updated in the new system
С	Less flexibility	Have a "Talk to us" tool available at ZenHR, capable to answer to the employees questions (helpdesk) and accept their suggestions as well as create a front office to communicate with the OBD
D	Communication with retirees	Give access to retirees to the ZenHR (in the long run we expect the use of technology to be more common; by now we should keep the post option available)
E	More impersonal communication	"Talk to us" tool available at ZenHR as well as the existence of a OBD front office
F	Update of external files	The area/department that will manage the data present in the system will also be responsible for doing all the needed upgrades
G	Pipeline calls	Introduce a call back tool

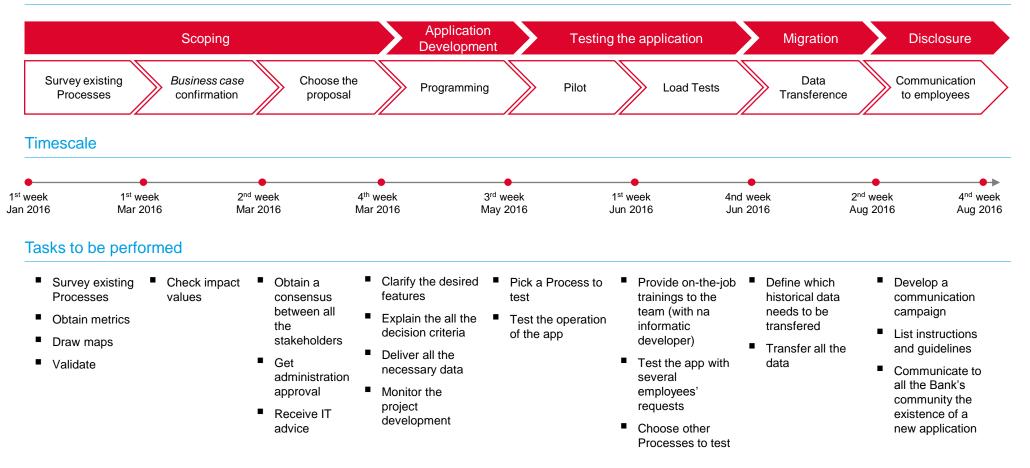


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The next steps concern the implementation of the proposed solutions. An 8 month period was estimated to go through each stage of the Processes' improvement plan for all the remaining processes

#### Roadmap

Implementation stages







## **Stream Yang**

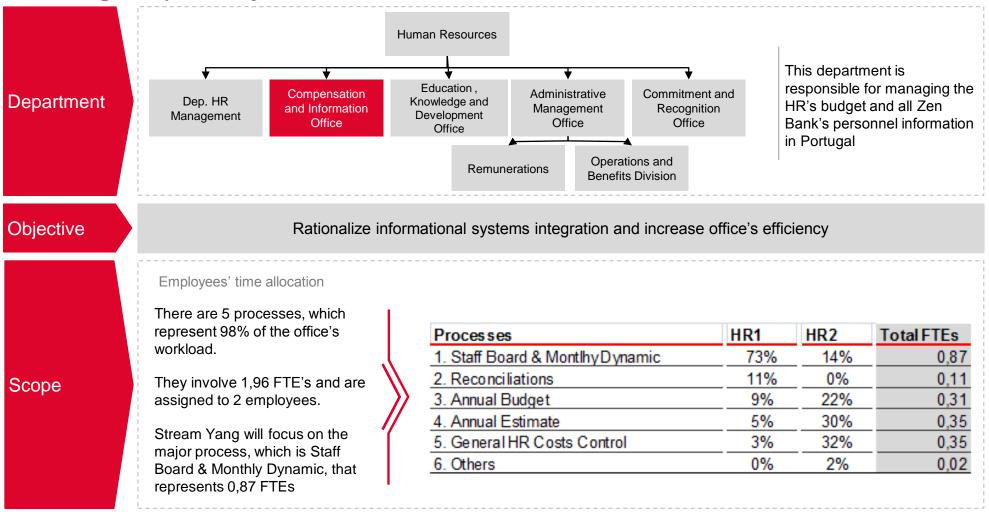


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The Stream yang aims to rationalize the informational systems' integration in 1 out of 5 processes in the Information and Compensation Office

#### The Challenge: scope and objectives



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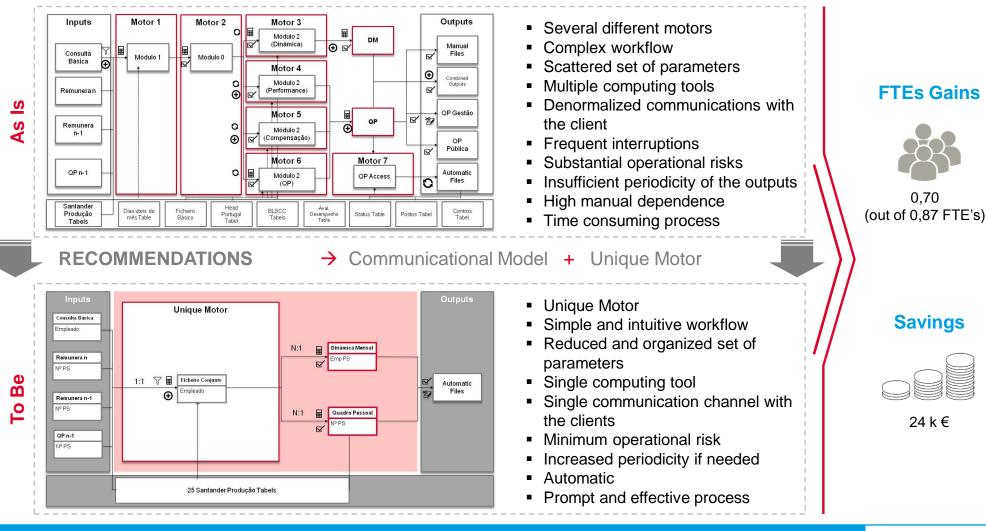


#### Stream Yang

		sept		oct			nov				dec.	
Activities	14.	21.	28.	05.	12.	19.	26.	02.	09.	16.	23.	30.
gnosis												
Preparation												
Gather internal regulations, procedures and manuals												
Characterize CIO												
Interview internal clients												
Construction												
Classify tasks and informational objects (e.g. sistematic vs puntcual)				4								
Design detailed activity flow and data map												
Characterize processes (users, systems and outputs)												
Validate maps with the responsibles												
Define criteria to rank processes and tools					<b>Þ</b>							
Check adequacy of the information produced with internal clients												
Metrics												
Retract FTE's allocation to each process from the responsibles					i i i i i i i i i i i i i i i i i i i							
DILO – Day in the Life Of												
Results												
Analyse the metrics obtained						l l						
Develop diagnosis report					ļ	İ						
alysis and recommendations												
Evaluate process' activities												
Identify critical success factors and risks												
Identify potential improvements opportunities												
Evaluate different improvement scenarios							_					
Validate improvement opportunities with the responsibles												
Estimate solution's impact									l			
Create recommendation report covering and risk mitigation plan										<u> </u>		
plementation												
Generate action plan												
Define implementation managers												
Generate concept proof												
Build implementation roadmap												
Develop final report	517					- 14						
	Kick Off	f			1 <sup>st</sup> (	SteerCo	2			2 <sup>nd</sup> S	teerCo	Final St

# Two main recommendations allowed us to transform the "As is" situation into the "To be" situation, generating gains of 0.7 FTEs

#### **Executive Summary**







An effective communication can enhance a company's productivity, by decreasing interruptions and miscomprehensions

Literature Review: The importance of effective communication

**Effective Communication** 

"Communication - the human connection - is the key to personal and career success" <sup>1</sup>

Communication promotes motivation by informing and clarifying the employees regarding the task they need to perform, and how they can improve their performance. As such, it is important to use the communication channels efficiently. To use a single point of communication removes the ambiguity over whom to contact when a need arises and promotes clear communication, which can help customers manage their expectations about the issue addressed.

Every time someone is working and is interrupted, there are switching costs associated with the change in the focus from the task that was being performed to the new one. Once a single point of contact eliminates these interruptions, it will also guarantee more efficiency to the responsible.<sup>2</sup>



A normalized way of communication, will enhance responsible's efficiency and avoid interruptions. It will also allow to prioritize the requests, clarifying customers' expectations

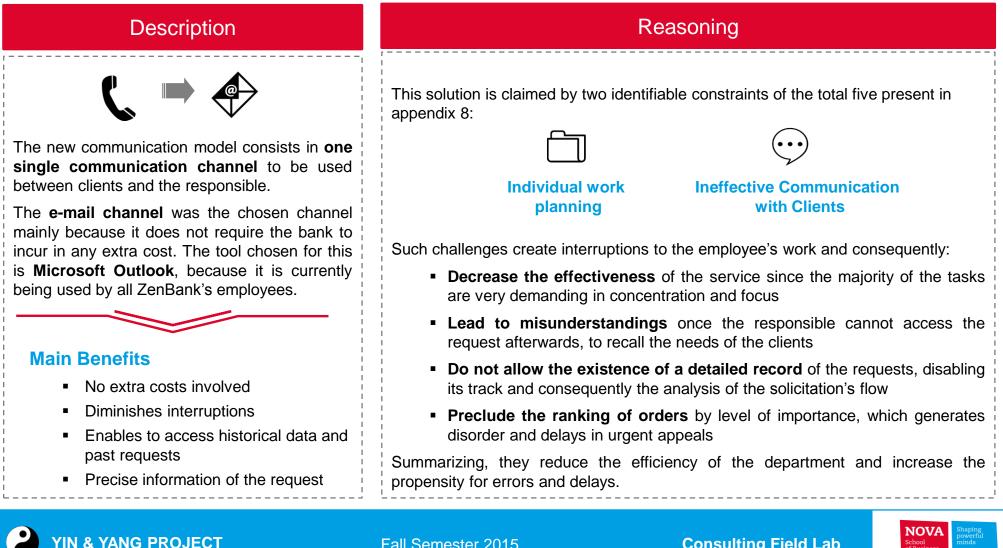
References: (1) Meyer, J. P. (2011) Baylor University Media Communications Conference; (2) Spafford, G. (2006). The Benefits of a Single Point of Contact





The first solution proposed satisfies the need for an exclusive and clear communication channel with no extra costs, low implementation barriers

### **Communicational Model**



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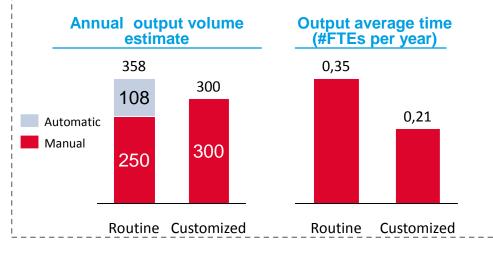
Through continuous syndication with the client, we were able to assess the weight of each type of output, as well as its time consumption

**Communication Model** 

## Methodology

#### **Consumption of FTEs**

To achieve any conclusions, we **analysed the consumption of FTEs** for both routine and customized outputs mainly by assessing the perception of the responsibles of this process, but also by performing a DILO (Day in the life of). In addition, to understand the weight of each type of output, we performed an **estimation of the total volume of outputs delivered annually.** 



#### DILO

**analysed the** Furthermore, while undertaking the DILO, we assisted how and customized the requests were made, which were mostly by phone, ception of the leading to **consecutive interruptions** to the tasks erforming a DILO developed at that time.

However only the customized outputs require frequent internal communication between different areas, leading to an evaluation of the channels used as well as an identification of the existing barriers.

The channels were evaluated in terms of **capacity**, **duplication**, **immediacy** and **richness** while the barriers assessed consisted in **distraction** and **misapprehension**.

To conclude our research we gathered some recommended guidelines in order to successfully implement our solution: recognize privacy issues; keep messages clear, simple and short; personalize your email as appropriate; be considerate; manage your email with folders and filters.



The increasing importance of data management in the current technological scenario is unquestionable, hence it is crucial to optimize the HR Department's data management

Literature Review: The importance of data management

#### **Analytical Tools**

*"Information is the oil of the 21<sup>st</sup> century, and analytics is the combustion engine."* <sup>1</sup>

Nowadays, organizations have more data than they can effectively use, once new technologies are able to collect more data than ever before. However, the challenge is how companies can obtain added value from their collected information.

The utilization of a more robust tool to generate information regarding human resources can work as a competitive advantage for ZenBank, once "organizations that strongly agreed that the use of business information and analytics differentiates them within their industry were twice as likely to be top performers as lower performers"<sup>2</sup>. This new solution will allow ZenBank not only to better analyze their data, but also to generate more reliable information, once this tool guarantees the quality of the generated data.

"There were 5 Exabytes of information created between the dawn of civilization through 2003, but that much information is now created every 2 days." <sup>3</sup>

**Big Data Proliferation** 

Once data volumes are approximately doubling each year, it is imperative to guarantee that the data analysis tools have kept pace with the company's ability to capture, process and store data.

In fact, in ZenBank, the employees' database is increasing every year, not only due to the expansion policies of the Bank, but also owing to historical records that should always be stored.

It is crucial that Zen Bank guarantees the most reliable information to its employees, hence it is necessary to guarantee that data management is done in the most efficient way with the most adequate tool

References: (1) Sondergaard, P. (2011) Gartner Symposium /ITxpo ; (2) LaValle, S.; Lesser, E.; Shockley, R.; Hopkins, S. M.; Kruschwitz, N. (2011). Big Data, Analytics and the Path From Insights to Value ; (3) Schmidt, E. (2010) Technony conference



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The second solution consists in one single and robust motor that increases the office's efficiency and reduces the operational risk

**A Unique Motor** 

Description	า
	S
Excel & Access	SAS
The unique model concept consists in a <b>single and more advanced</b>	I platform (SAS) that provides the user a more efficient

and **effective tool** when compared with the existing devices. This instrument requires specific knowledge to set it up and to adapt it, but afterwards it represents the most efficient solution, replacing the usage of the Microsoft Excel and Access software.

The SAS product chosen is the **Enterprise Guide**, once it is already in use within the bank, resulting in a smaller marginal cost incurred with the extended licence, as well as a solid background and knowledge of the tool itself from the current users.

According to estimates based on previous projects, as well as on preliminary tests, it was possible to assess that there will be a **reduction of 80% in the total consumption of FTEs**, which more than compensates the extra costs incurred, as we will demonstrate further.

## **Main Benefits**

- Higher processing capacity;
- Less manual intervention;
- Further reliability;
- More user friendly.

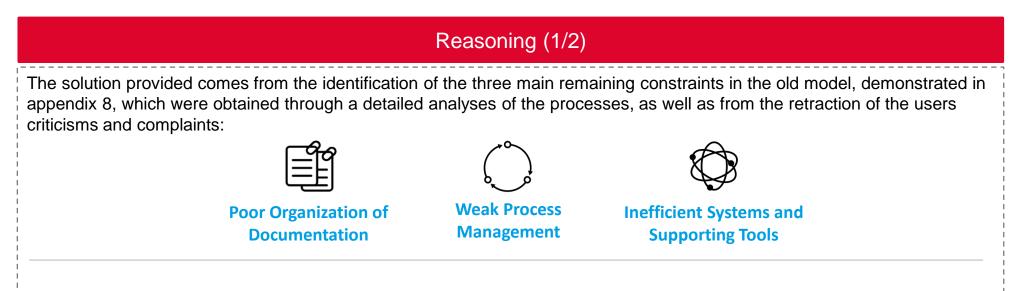


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This solution will overcome problems identified in the diagnosis phase, namely the poor organization of documentation, weak process management and the inefficient systems and supporting tools

**A Unique Motor** 





Poor Organization of Documentation

The first constraint is a result of the obstruction that operating with **different softwares** creates. By using Excel and Access, the data remains dispersed leading to formatting incongruities and additional manual work, which are a consequence of the several different files produced.

In addition, it was assessed that there is **not a clear and complete instructions manual** to enable other employees, beside the current one, to perform the process. This fact increases the operational risk of the entire bank, since this is a very sensitive subject such as the personnel's information, including remunerations, performance evaluations and historical data.

With the projected solution the required steps and its complexity are severally decreased, once the monthly manual modifications decreases and the multiple motors are replaced by only one.





Two of the main changing motives focus on the features that the technological system should contain as well as on how the manual dependence must be reduced

**A Unique Motor** 

## Reasoning (2/2)



Management

Adding to the first constraint, we concluded that the model in use requires a **very high level of manual work** and is excessively dependent on human expertise, which leads to the existence of multiple small errors that skew the final results and reduce its informational reliability.

Moreover, a **deficiency in the supervision** of the values obtained was identified throughout the process, which is a direct consequence of the manual nature of the task. To solve this constraint, we add the ability for perform checkpoints to the requirements of the future software, which is present in the SAS platform.



Inefficient Systems and Supporting Tools Finally, we evaluated the capacity of the different supporting systems, as well as how they link with each other as we can observe in appendix 9. The entire process requires three different sourcing systems that are not managed by the Portuguese operation, leading to a **low autonomy** to modify and adapt into a more efficient model.

Furthermore, there was **low processing capacity** from the current tools used, which did not satisfied the needs of this task, culminating in a fractured structure, which increased the propensity to errors and, once more, the dispersion of the information. This fragmentation slows up the process and generates outdated information, since it can not keep up the fast evolution of the employees status.



Given the scope and duration of the project, there was the need to rank the six different processes of this office in order to spotlight those with higher improvement and impact potential

**A Unique Motor** 

Methodology							
The Compensation and Information Office is responsible for the following processes:							
				8€]	Ð		
Staff Board and Monthly Dynamic	Reconciliations	Annual Budget	Annual Estimate	General HR Costs Control	Others		
Mapping department's	Mapping department's processes and gathering the processes time allocation table was required, in order to						

understand and analyse which processes were highly affecting the department's efficiency. This analysis can be observed in appendix 10, 11 and 12.

To understand and to map department's processes was feasible through several meetings with the responsible of each process, where it was possible to comprehend, in detail, every step of each process, as well as which tools and responsibles were needed in the different activities. The DILO (Day in Life of) allowed us to observe and measure the tasks performed in the different processes, along with the possibility of comparing the measures performed during the DILO with the responsible's perception.

According to the final time allocation table the Staff Board and Monthly Dynamic process requires 0,87 out of 2 FTE's.

This analysis proved the considerable complexity of the Staff Board and Monthly Dynamic process.





To deeply understand the complexity of the chosen process, as well as its potential gains it was performed a listing of all the relevant data incorporated in the files

**A Unique Motor** 

## Methodology (1/5) – Data Listings

**Listing all files** – referring to parameters, inputs, processes and outputs – was necessary to analyse and evaluate properly the complexity and operation involved in the Staff Board and Monthly Dynamic process. As such, it was required to collect all the files used in this activity – over 50 files present in appendix 13 and 14. Due to confidentiality issues, these files contained fictitious information.

Following the aforementioned listing, it was possible to compare the fields between files, in order to confer the fields that were being used in more than one file, due to processing constraints of the current tools in this office. There were several redundant fields, which were being used in more than one file, but also overloading some files.











Parameters

As such, there was the need to change the current structure of the process, in order to provide one less complex framework, and also to process this big amount of data through one single tool, which could process larger volumes of information.



To improve our perception of the outputs' utility to the final client, surveys have been conducted, pointing us to the extreme importance of the routinized outputs

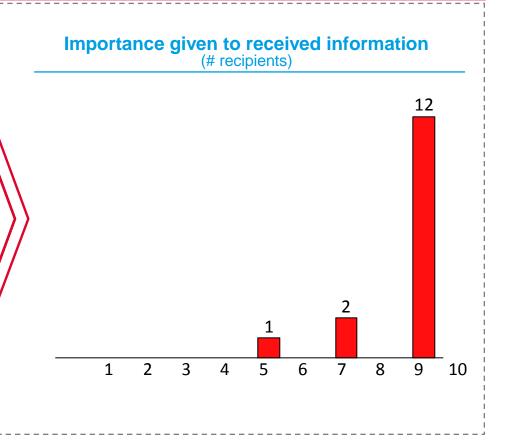
**A Unique Motor** 

## Methodology (2/5) – Surveys

In order to identify and contact the recipients of the routinized outputs, a meeting with the responsible of this information was managed, resulting in the list of all recipients of this information – evident in appendix 15

Two surveys were conducted, aiming to evaluate the adequacy and importance of the routinized information sent by the Compensation and Information Department. The totality of the respondents affirmed **the information was adequate, in its frequency, format and content** – appendix 16.

Regarding the importance given to received information, although three respondents have not assigned the maximum value to the importance of the reports, **the totality of respondents consider this information as indispensable** to perform their tasks.





Aiming to satisfy the identified needs, three scenarios were developed, with different characteristics and requirements

Methodology (3/5) – Scenarios

**A Unique Motor** 



This scenario implies several structural changes, resulting in the **automation of the process** and outputs generation, with a significant **increase in processing capacity** and **system agility**.

Once there is the need to redesign the current process, the implementation process is more complex and slower.

There is also the need to train the responsible for this process, in order to develop the required know-how to use this software.



Convert the entire process to **MS Access**, requiring small structural changes.

Although there is already the knowhow regarding this tool, **the implementation process would be slow**, due to limitation of the tool, relative to reliability and historical information storage.

The large volume of data in the Staff Board and Monthly Dynamic process would be an issue, due to the **limited processing capacity** of the aforementioned tool.



Preserve the current structure, in **MS Excel**, with little structural changes, related to the removal of unused and redundant fields.

Once this scenario do **not imply significant changes** in the current structure, the implementation process would be considerable quick.

Following the current procedure, more routinized outputs would be automated, although the **marginal** gains would be quite reduced





After a thorough evaluation we concluded that SAS software is the most complete tool, when compared with the other two possibilities

**A Unique Motor** 

Category	Requirements X A	Excel/Access	Access	<b>S</b> AS
Gutogory	Clean unused columns			
	Join/Normalize parameters tables			•
Files Organization	Standardize fields names	0	•	•
	Simplify structure in order to have an unique motor	0	•	
Information Quality	Creation of control points during the process	0	•	
	Automate routinized files			
Outputs	Automatic files send to recipients	0		
Management	Menu creation for separate outputs	O		
	Save separate outputs' queries	O		
	Large volume of data processing	•	•	
Tool Requirements	Tool availability in the Information and Compensation Division			
	Warranty of data integration	ullet	$\bullet$	
	Tool Know-how in the Division			•

Sources: Team analysis, client feedback





In order to estimate the potential gains of the chosen tool we performed a concept proof, which consisted in a simulation with SAS of a less complex staff board

**A Unique Motor** 



Towards the test of the proposed methodology for the new process and to have an enhanced perception of the efficiency gains, it was necessary to perform a concept proof.

In order to be able to build the **concept proof**, it was necessary to schedule several meetings with both the Staff Board and Monthly Dynamic process responsible and with the responsible to draw the new process using SAS. The first step in these meetings was to **insert all the inputs in the new system**, by adjusting the format, like fields' types in order to be readable by the new system.

Once all the routinized outputs are generate based on Staff Board and Monthly Dynamic files, the chosen procedure was to **check**, **one by one**, **each field** of these final files. Then, the **links between the input files and these two final files were constructed**, having as filters the required formulas.

After the conclusion of these first step of the concept proof, it was required to proceed with the construction of all the routinized outputs.

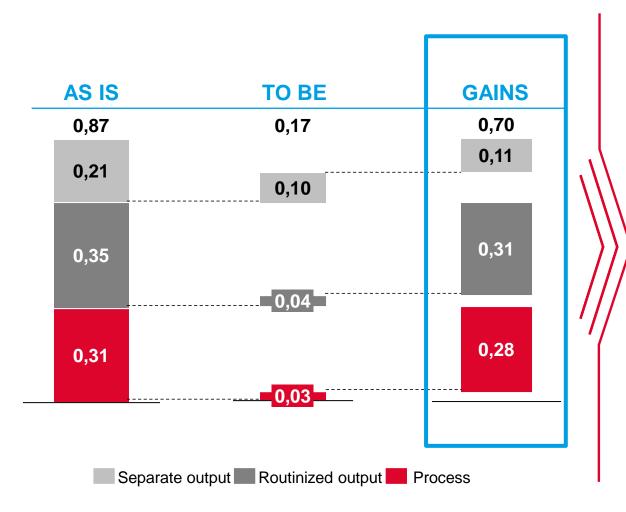
The aforementioned process was extremely challenging, once the files had to be adapted to this new tool, revealing some issues regarding the application of the formulas.





As a result of the concept proof, it was evidenced that the total potential gains could ascend to 80% of the current time consumption

**Impact Analysis** 





Our impact analysis was based on two main factors: **perception of time consumption per HR employee** and **average annual FTE cost**.

Given the values obtained from the concept proof, we were able to estimate gains of approximately **0,70** FTEs, decomposed in 0,11 related to separate outputs, 0,31 to routinized outputs and 0,28 regarding the process.

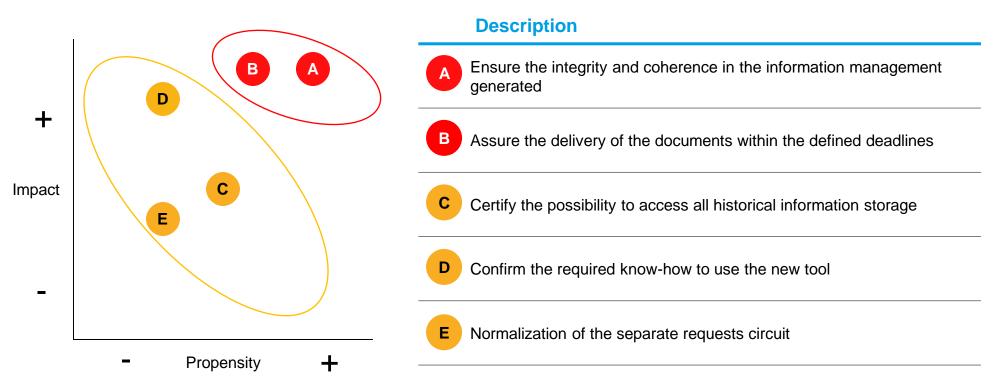
These savings correspond to a total reduction of **80%**, when compared with the current workload.





There are several issues that should be taken into consideration, during the transition process from the current situation to the proposed solution

**Risks and Mitigation Plan** 



The risks were identified bearing in mind the mandatory factors to be guaranteed, in order to have accurate results. As such, it is important to measure the **propensity** and **impact** that any of these issues can have in the results of the process.

In order to ensure a valid classification of the different issues, we had a meeting with the responsible for the process, who defined which risks should be taken into consideration and how to rank them.

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To cover the identified risks we developed a mitigation plan that reduces significantly the operational risk of the ZenBank

Risk	s and Mitigation Plan Risk Description	Mitigation Plan					
A	Ensure the integrity and coherence in the information management generated						
В	Assure the delivery of the documents within the defined deadlines	Execute the new process simultaneously with the former process					
С	Certify the possibility to access all historical information storage	During the development of the new process, ensure that all the required historical information is loaded in the new system					
D	Confirm the required know-how to use the new tool	Training on how to use SAS, through sharing experience and online information. Creation of a detailed procedures manual					
E	Normalization of the separate requests circuit	Create an email box in order to develop a single communication channel with the internal and external clients					

The **simultaneous execution** between the new and former process is important once it allows the comparison of both results, making it possible to confirm the adequacy of the results using the new system. Once there is the potential need of accessing historical data information, it is important to **ensure the required information is loaded** in the new system.

**Creating a detailed procedures manual** addresses the importance of enabling the possibility to generate the routinized information even by those who are not familiar with the process, reducing the operational risk of the process. The creation of a specific email box is going to guarantee the existence of one single communication channel and a higher reliability level on the information produced by this office.

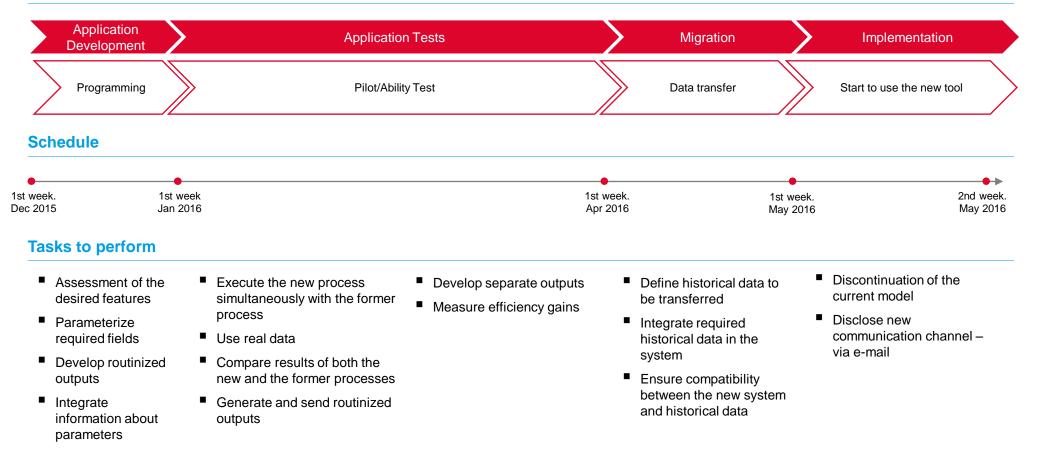




To conclude and schedule the development and implementation phases of our project, four steps were defined

Roadmap

#### Implementation process steps





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# **The Balanced Conclusion**

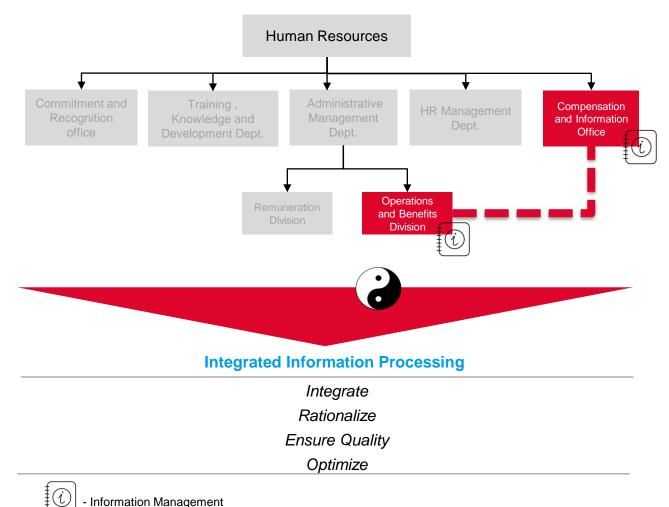


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The activities done by both stream lead us to conclude that there are benefits in centralizing the information management activities in a single division

### The bridge



Balancing the final outcomes of both streams we reached the conclusion that some constraints were mutual and that it was possible to take advantage from centralizing the information management in one single entity.

The main benefits for the bank are the **reduction of duplicated files** leading to an increase in efficiency, **mitigation of the operational risk** since the reports would have only one source and finally **avail the economies of scale** of a single new tool, as suggested.

In sum, the information generated would become **more reliable** and the associated process would certainly be **more efficient**.





The total gains obtained from this project represent an improvement of 51% in the current consumption of FTEs

The bridge



- Following the solutions proposed in our project, the stream Yin will obtain an estimated efficiency gain of 3,80 FTEs due to automation, simplification, elimination and transference of several tasks. This value results from an extrapolation for the total numer of the division's processes (51) based on the results achieved while analyzing the 8 in-scope processes, as explained before.
- On the other hand it is estimated that the stream Yang will reduce their FTEs' comsumption in 0,70 units as a consequence of the automation of the process and also due to the increased processing capacity, which brings benefits to both sistematic and ponctual requests
- Therefore, the efficiency and effectiveness gains as a whole ascend to 4,50 FTEs

Stream Yin Stream Yang

**IN & YANG PROJECT** 

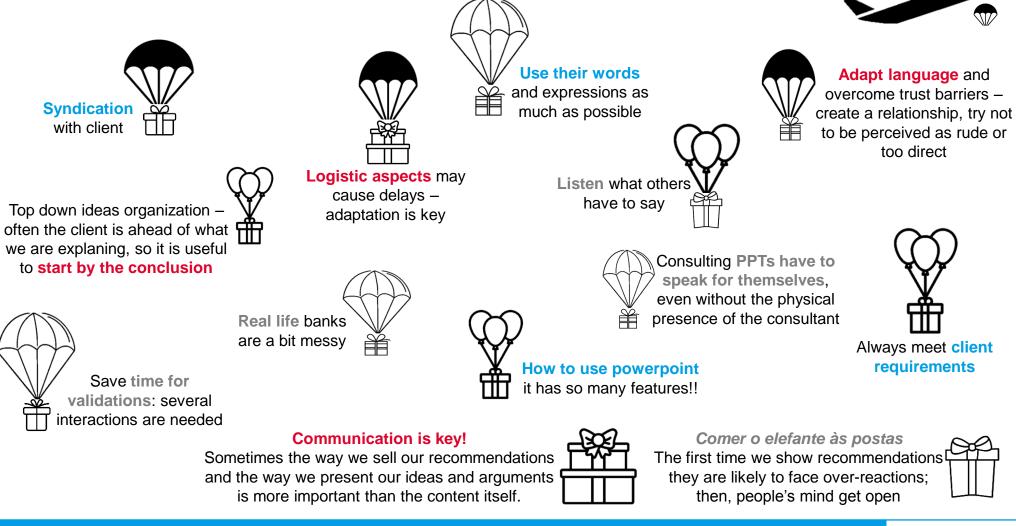


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This Consuting Lab was an amazing journey and every day was a rich learning experience to each one of us, which we perceive as a valuable gift

**Lessons Learnt** 



69

Before starting the project, the group individually performed the *Belbin Test* in order to better acknowledge his team role

#### **Team Roles**

Belbin Roles<sup>1</sup>

The team acknowledged that each member has a different role and that **all roles are important**, as diversity leads to a more complex and solid team. Hence, as we did not know each other before the project, it was crucial to understand what would be each member's role in order to excel as a team. Moreover, by doing so, we would also be able to **identify our strengths** so that we could take the most out of them for our project.

For that purpose, we answered the questionnaire "What's your role in a team", inspired in "Nobody's perfect, but a team can be" from Belbin's Model, and shared with each other our results.

President **Team Worker** Prospector Finisher Strategist Operational Monitor Intellectual L Lт 1.1 1.1 1.1 1.1 1.1 6 1.1 L L Details Is the team's Guarantees a Structures and Great The team's  $\checkmark$ Coordinates Promotes PR oriented certain guarantees practical brain harmony the team standard of coherence sense within the Collects the Guarantees ✓ Consolidates Identifies performance among team's team information that there are Puts in ideas member's ideas no mistakes ✓ Evaluates practice strengths Manages Practical ✓ Has a critical nor omissions Natural leader objectively team's ideas conflicts within and knoworiented thinking ideas how the team The person Put ideas in Works in a Natural Provides Great analyst with more action through methodical Defines the Works well 1.1 communicator creativity to sense of strategic and efficient with all types business the team responsability objectives agenda of people L L way 1.1

References: (1) Casquinho, Constança (2013), Team Dynamics: Belbin's Questionnaire With Key, Nova School of Business and Economics



YIN & YANG PROJECT



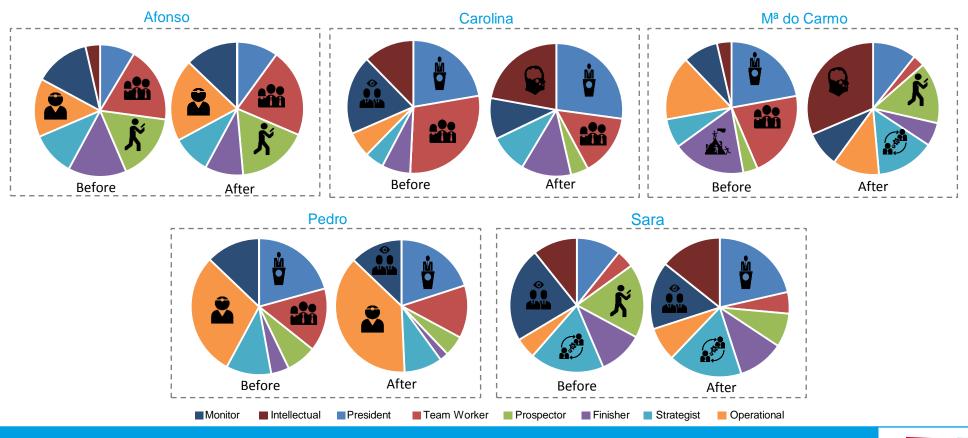
#### Yin & Yang

This test was taken again by each team member after the project and the perception of each team roles changed a lot! This can be clearly observed by the charts represented

#### **Belbin Roles Results**

At the end of the project we answered the same questionnaire to see how our individual behaviour and our perception of what we thought being our role as a team member had changed. In fact, we verified that each member's result changed a little, which could be the result of our development through this valuable learning experience and also an increase of self awareness.

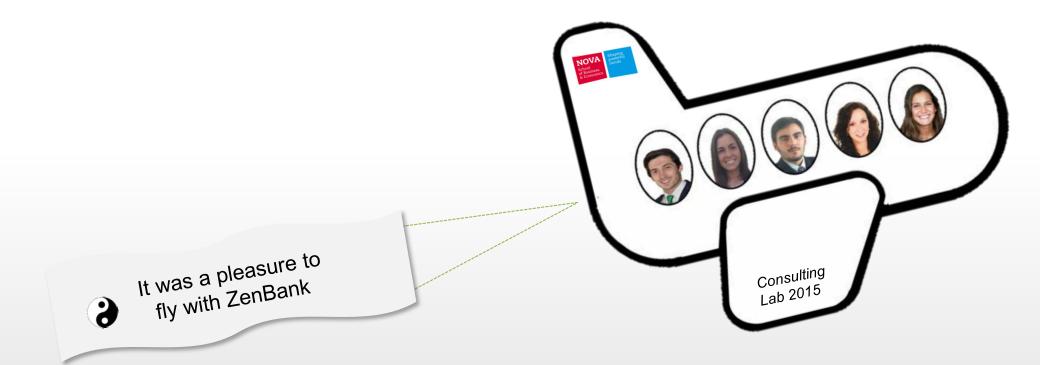
#### The comparison: before and after





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## Thank you for your attention!!



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Yin & Yang



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