Smart Processing in the Operations Department of Intesa Sanpaolo

Frankfurt am Main - March 8, 2018
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- Our perspective on smart processing technologies
- Transformation of Operations Department (DCO)
- Next steps
There are two families of Smart Processing technologies:

**Main areas of application**

- Automation of repetitive activities, in which the human judgment used is expressed through programmable algorithms.
- Reproduction of human interactions referring to the most effective answers provided in the past in similar interactions.

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Robotic Process Automation/Smart Robot

Artificial Intelligence/Cognitive Computing
DCO is looking for 3 strategic targets

Automation brings a lot of benefits...

- Work speeding up
- Possibility of operating 24 hours per day and every day
- Flexibility in managing workloads
- Error reduction
- Constant performance over time
- Reporting and process control

... That helps to achieve 3 strategic targets

**KPI examples**

- Release of FTE
- Cost reduction
- SLA maintenance
- Customer satisfaction (internal and external)
- # mistakes / year
- Improved tracking of activities
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Transformation based on 3 main phases

1. **Strategy drawing**
   - Identification of activities in scope
   - Potential estimation
   - Roadmap drawing

2. **Shortlist vendor definition**

3. **Project organization**

4. **Launch of the first pilot project and POC** to define target solutions

5. **Development of tools and framework** to ensure the matches between smart processing and BaU

6. **Drawing of a target organization model for smart processing management**

7. **Development of monitoring tools** (KPIs, target, log controls)

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**POC e Pilot Project**

**Roll-out and scale-up**
The automation perimeter was defined through a survey.

Questions sequence organized following the logical steps to facilitate the analysis.

Questions that investigate all the technologies under investigation: OCR, RPA, Cognitive.

Activity general characteristics description to update and share a common baseline.

22 questions - mainly closed questions to speed up the compilation.
The automation perimeter has been defined along 2 axes.

Null
Low
Medium
High
Total

If the activity has both RPA and Cognitive application potential, the RPA potential wins because of the higher maturity of the technology.

Weighted score of automation

If the activity has both RPA and Cognitive application potential, the RPA potential wins because of the higher maturity of the technology.
The activities to be automated were identified.

FTEs distribution of the DCO for automations potential, gen. 2017

Baseline FTEs on which to perform efficiencies

<table>
<thead>
<tr>
<th>Total DCO</th>
<th>Macro-activities already addressed with DF3D or other initiatives</th>
<th>Processes with low automation potential</th>
<th>Perimeter identified for optimizations</th>
<th>Target RPA</th>
<th>Target AI</th>
<th>Macro-activity with less than 5 FTEs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Macro-activities (#) | 622 | 37 | 99 | 486 | 50 | 21 | 415 |
Efficiencies (FTE)    |     |   |   | 15-25% | 15-20% | 20-25% |     |

Analysis in progress
The results of the survey were validated through deep dive on the individual processes

Example process Middle Office Bank

<table>
<thead>
<tr>
<th>Main Activities</th>
<th>Average Time (min)</th>
<th>Average Time%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reception requests</td>
<td>1 2%</td>
<td>30%</td>
</tr>
<tr>
<td>Investigation</td>
<td>10 30%</td>
<td></td>
</tr>
<tr>
<td>Uploading</td>
<td>20 65%</td>
<td>3%</td>
</tr>
<tr>
<td>Practical closure</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

The operator receives an email with the request to work a practice, which may contain one or more financial statements or tax models.

The operator extracts the data of the subject and different systems: Central risks, etc.

The operator analyzes the tax models and/or financial statements to reorganize the information contained in them.

The operator checks the report on the work done and saves the practice by transferring all the systems to the online system.

Opportunity

- Necessary and short-lived activity
- Data already digital to be extracted from core systems
- Non-standard activities
- Necessary and short-lived activity

Focus automation

- Existing process analysis
- Drawing macro-process target
- KPIs/target definition
# Robotics Pilot – automation of the "Judicial Investigations" process

## Process "Judicial Investigations"

<table>
<thead>
<tr>
<th>Description</th>
<th>Touch-Time (Min)</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reception of request to work on and verification of completeness of input data (e.g. define subject)</td>
<td>Manual</td>
<td>RPA</td>
</tr>
<tr>
<td>Data extraction from 18 different systems</td>
<td>Manual</td>
<td>RPA</td>
</tr>
<tr>
<td>Response to specific requests by processing and integrating the extracted data</td>
<td>Manual</td>
<td>RPA</td>
</tr>
</tbody>
</table>

## Touch-Time

- **Manual**
- **RPA**

## FTEs

- **Manual**
- **RPA**

- Prudentially estimated 25% of residual manual activity
We have identified the technologies on which to perform the POC in terms of functional coverage, technical adequacy and costs.

<table>
<thead>
<tr>
<th>Area</th>
<th>Assessment</th>
<th>Vendor 1</th>
<th>Vendor 2</th>
<th>Vendor 3</th>
<th>Vendor 4</th>
<th>Vendor 5</th>
<th>Vendor 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional coverage (assessment score)</td>
<td>No Italian language</td>
<td>35</td>
<td>67</td>
<td>79</td>
<td>82</td>
<td>81</td>
<td>92</td>
</tr>
<tr>
<td>Level of innovation (assessment score)</td>
<td>No Italian language</td>
<td>66</td>
<td>56</td>
<td>73</td>
<td>74</td>
<td>75</td>
<td>53</td>
</tr>
<tr>
<td>Technological adequacy (assessment score)</td>
<td></td>
<td>66</td>
<td>56</td>
<td>73</td>
<td>81</td>
<td>81</td>
<td>50</td>
</tr>
<tr>
<td>TCO over 5 years (K€)</td>
<td></td>
<td>5 / n/a</td>
<td>9 / 17</td>
<td>9 / 14</td>
<td>11 / n/a</td>
<td>9 / n/a</td>
<td>8 / 10</td>
</tr>
<tr>
<td>Cost POC (K€)</td>
<td></td>
<td>5 / n/a</td>
<td>9 / 17</td>
<td>9 / 14</td>
<td>11 / n/a</td>
<td>9 / n/a</td>
<td></td>
</tr>
<tr>
<td>Time POC/ (weeks)</td>
<td></td>
<td>5 / n/a</td>
<td>9 / 17</td>
<td>9 / 14</td>
<td>11 / n/a</td>
<td>9 / n/a</td>
<td></td>
</tr>
</tbody>
</table>

- Market solution analysis
- Definition of short-listing requirements with the various business owners
- Selection of 2-3 instruments with which to launch the POC

Selected for deep dive

FTE costs for maintenance and training not included
## Ticket classification

<table>
<thead>
<tr>
<th>Categories</th>
<th>Automation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answer with dispositive assistance</td>
<td>X Necessary knowledge of the product or modification of parameters in CBS</td>
</tr>
<tr>
<td>Procedure-based answer</td>
<td>✓ The request can be addressed through consultation with the procedure</td>
</tr>
<tr>
<td>FAQ-based answer</td>
<td>✓ It's possible to return the request to key-words</td>
</tr>
<tr>
<td>Other</td>
<td>X Necessary involvement of other structures such as &quot;Legal&quot;</td>
</tr>
</tbody>
</table>

## Architectural model

- **Request**
- **Artificial Intelligence**
- **Answer**
- **Bank Operator**

### Categories
- **Tickets**
  - Procedures
  - Regulations
  - FAQs
  - Tickets History

### Procedure
- The request can be addressed through consultation with the procedure.
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Today we are studying the chance to a new wave of transformation based on a combination of technologies.

**Advanced RPA description**

**Reading images**

- OCR scans the image and recognizes errors and page format in supervised / attended mode
- Native integration with some robotic tools

**Data analysis (ML module)**

- "Evolved" modules of some RPA technologies allow to analyze some fields and "recognize" the type of data available

**Upload / action on system**

- Standard RPA module uploads data to the system in supervised / attended mode (consistent with reclassification)