Artificial Intelligence

What does the future hold for you?

Aurexia CONSULTING

PARIS • LONDON • LUXEMBOURG • HONG-KONG • SINGAPORE
STRATEGY & MANAGEMENT CONSULTING

September, 2017

Your contacts at Aurexia

- This presentation is an introduction to AI expertise developed by Aurexia in Europe and Asia
- If you are involved in AI in your organization or want to get involved, our European or Asian teams will be happy to meet you and share insights on how to design and implement AI projects

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Introduction to Artificial Intelligence

What is artificial intelligence?

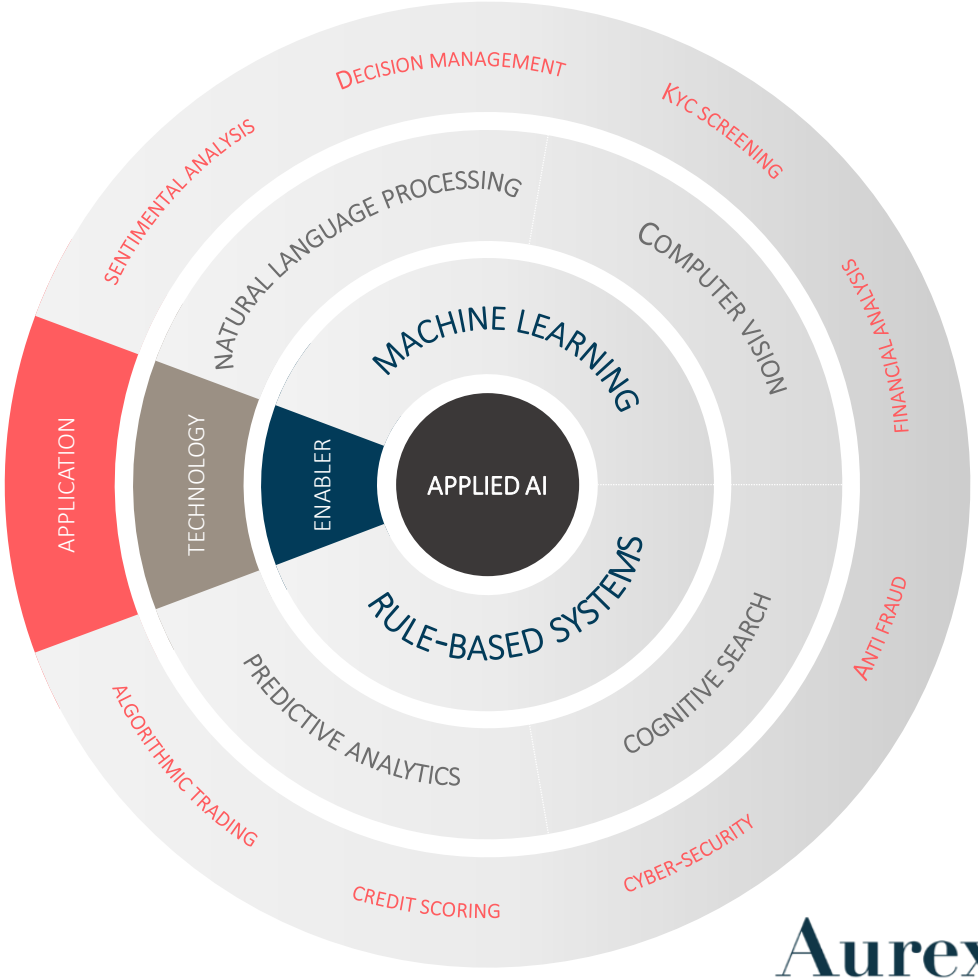
- Artificial intelligence can be defined as a set of technologies able to perform tasks normally requiring human intelligence, such as visual perception, speech recognition, decision-making, translation between languages…
- AI software can handle huge amounts of unstructured and structured data to reduce manual tasks and provide game changing business intelligence

What will be the implications for the private Banking industry?

- During the next decade, traditional Wealth Management firms will face increasing competition from Fintech companies proposing financial services based on AI
- However, the private banking firms can also choose to partner with editors to develop disrupting : new client services and improve operational efficiency using AI-powered technologies like machine learning, cognitive search, natural language processing…
- Are you familiar with what these technologies mean? And do you know how they can add value to the wealth management industry?

AI concepts map

Do you know which technologies to use ?



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Artificial Intelligence Cheat Sheet

Understanding the key technologies behind Artificial Intelligence

	MAIN CONCEPTS	DEFINITION
Enablers	Machine Learning	Set of algorithms used to make a system “artificially intelligent,” enabling it to recognize patterns from large datasets and apply past findings to new data
	Neural Networks	Type of algorithms which is a subfield of machine learning using several layers of neural networks (algorithms that mimic the human brain) and requiring intense supervised or unsupervised learning
	Rules Based	Set of algorithms used as a way to store and manipulate knowledge to interpret information in a useful way
AI Technologies	Natural Language Processing	Understanding and/or interacting in human language, including Natural Language Understanding (Sentimental Analysis, Conversational AI bots..) and Natural Language Generation
	Computer Vision	Give capability to a machine to see and visually sense the world around it. Computer vision is concerned with the automatic extraction, analysis and understanding of useful information from a single image or a sequence of images
	Cognitive Search	Collect, analyze and give meaning to different types of data using rule based or machine learning algorithms often in a manner that is analogous to human cognition for the purpose of making decisions in complex situations
	Predictive Analytics	Combine the use of data, statistical algorithms and machine learning techniques to identify the likelihood of future outcomes based on historical data and improve the fiability of the predictions

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A few AI applications…

We think AI can bring value in the 4 following key areas:

REPORTING , COMPLIANCE & OPERATIONAL EFFICIENCY

- Auto clearing of false sanction screening hits generated by filtering software
- Auto booking of transactions and accounting entries on basis of unstructured data (voice log transcriptions, emails, forms…)
- Automatic reporting
- Increased sophistication of data analysis to better quantify risk

KYC & DATA PROTECTION

- Run big data analysis algorithms across systems to generate fraud alerts
- Perform suitability controls (automatic recognition of legal disclosures in voice logs…)
- Automatic KYC reviews, including screening of the internet for KYC hits
- Screen outgoing emails and use powerful algorithms to identify potential confidential data leaks

MARKETING & SALES

- Monitor sales campaigns implementation through analysis of voice-logs
- Identify future market swings and turning points based or market sentiment analysis
- Provide bankers with real time profitability indicators per client and product, including cost of risk and cost per trade
- Automatic portfolio allocation

CLIENT JOURNEY

- Measure clients satisfaction based on emails, text messages and voice log transcriptions
- Identify client behavior patterns through screening of client data : bank statements/client portfolios…
- Provide automatic investment recommendations to clients/bankers based on client behavior and market swings

Applications of AI in the Wealth Management Industry

Our AI experts have reviewed over 400 Fintech companies and identified 4 main technologies and 5 main benefits for Private Banks

	TECHNOLOGY				BENEFITS				
	NLP	Computer Vision	Cognitive Search	Predictive Analysis	1 Performance	2 Operational Efficiency	3 Operational Safety	4 Reputation	5 Client Satisfaction
REPORTING , COMPLIANCE & OPERATIONAL EFFICIENCY	✓		✓	✓		✓	✓	✓	
KYC & DATA PROTECTION	✓	✓	✓					✓	
MARKETING & SALES	✓			✓	✓				✓
CLIENT JOURNEY	✓		✓	✓					✓

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Aurexia approach to AI

4 steps: Business analysis needs | Select 3 to 5 Fintechs | Test use cases | Pilot design

Aurexia can help you design and select the right projects, choose the right technologies

1 Define business objectives

- Rely on Aurexia insights on future tech and business trends
- Benefit from Aurexia experience in project design methodology

AI Projects Requirements

2 Screen and score vendors to select candidates

- Put together a short list of potential Fintech partners using the Aurexia Fintech catalogue (400+ Fintechs)

Use our internal scoring methodology to select 3 to 5 vendors

3 Challenge and qualify the candidates

- Invite the 3 to 5 Fintech to test use cases with regards to business requirements (2 by company)
- Use Aurexia exclusive AI Bootcamp methodology

Validate solutions for the pilot design

4 Pilot design

- Fine-tune the target set up with the client teams and the vendor to assess scalability

Produce a Business Case with implementation timeline

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Example of potential AI projects

Sample Projects	Specificities	Player	Tools presentation	Player Maturity
• Identify relevant information from all systems inside the bank to assess potential fraud	Big Data	1 NetGuardians	FraudGuardian enables banks to address specific fraud challenges (e.g. mobile banking, payment fraud, e-banking, account takeover, identity theft) by crossing the data from the different systems of the bank	● ● ●
• Assess the risk and potential appreciation of the products proposed by the bank (funds, positions, stocks) based on the sentiment of the market	Sentimental Analysis	2 SESAMm	Sesamm develops stock market forecasting tools based on social media and other textual data sources. "L'Humeur des Marchés": Data-visualization of sentiment and emotions for financial assets	● ●
• Measure clients satisfaction based on the emails received and treated by the different bank' departments	Clients Satisfaction	3 {OWI} understand to succeed	Owi automates the understanding of natural language, ie the way customers and prospects normally express themselves by calculating the relations between all the words of the message. Solutions (Owi opinions, Owi mail, Owi chatbot, Owi chat)	● ●
• Identify all the news that concern the stocks of bank' clients • Screen the internet to identify KYC negative hits	KYC Watch + Research News	4 FACTIVA	Factiva allows to consult contents from both licensed and free sources, and provides organizations with search, alerting, dissemination, and other information management capabilities	● ● ●
• Screen clients bank accounts to propose them products in line with their current situation	Business Intelligence	5 yseop (EASY - OP)	Yseop uses a natural language generation (NLG) software, which applies reasoning to data and turns it into written recommendations and reports	● ●
• Integrate automated advisory tool in portfolio management tool and/or in the banking portal	Robo-Advisor	6 trizic	Trizic provides a solution that automates the full advisor workflow from onboarding and risk tolerance to portfolio construction, reporting and billing. It can be integrated to existing core banking tool	● ●

Aurexia in a nutshell

About our company

Aurexia CONSULTING

- Established in 2006 -

A decade of global management consulting for the **Banking** and **Insurance** industries

CAPITAL MARKETS
SECURITIES SERVICES
TRANSACTION BANKING
ASSET MANAGEMENT
PRIVATE BANKING
RETAIL BANKING
INSURANCE
FINANCE
RISK MANAGEMENT

Aurexia Institute

- Aurexia Institute -

Frequent market studies published on:

Business matters
Regulatory watch
Process improvement insights
Architecture benchmarks

Aurexia CONSULTING Digital Lab
From Research To Clients Implementation

- Digital Lab -

A pragmatic vision of disruption:

Robotics / AI
Fintech Ecosystem
Blockchain

- International -

5 local offices to support our clients globally:

Paris - London
Luxembourg
Singapore
Hong Kong

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Our Digital Strategy

A comprehensive lab, from research to clients implementation

VENDORS BENCHMARKS | SKILLS - TRAINING | BEST PRACTICES

MARKET INTELLIGENCE | PROOFS OF CONCEPT

ROBOTICS - AI

Deep learning

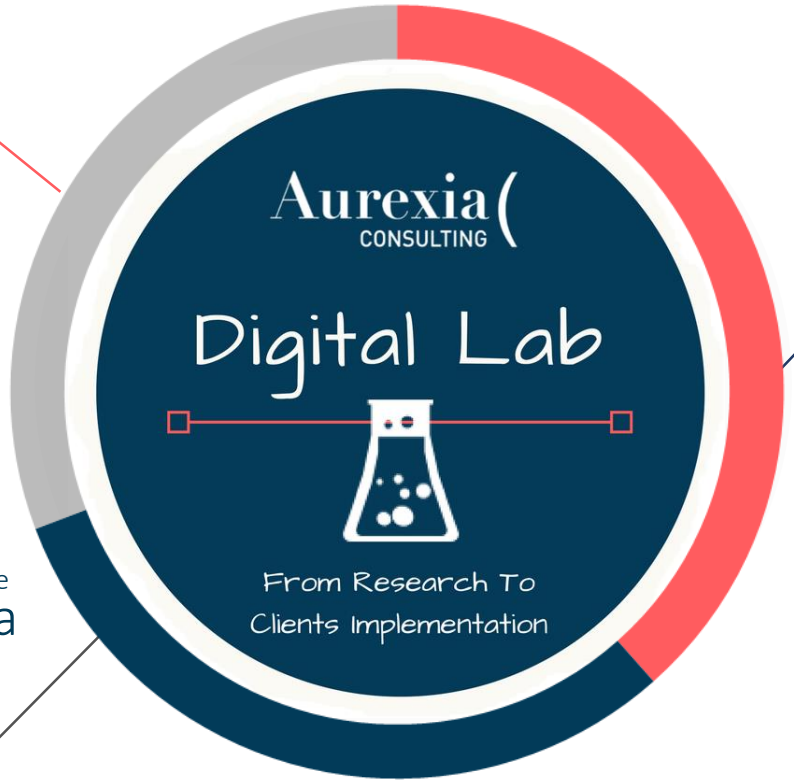
POC Business strategy

Robot based – target processes

Machine learning

Cost savings RPA factory

Eligible Process Review



FINTECH ECOSYSTEM

Partnerships

Winners Innovation

Fintech ecosystem data base

Fintech Awards Regtech

Entrepreneurships Pushing boundaries

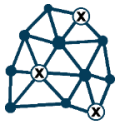
Investors Insurtech

Distributed ledger

Blockchain processes Public / Private

Application per business area

Smart contracts Network



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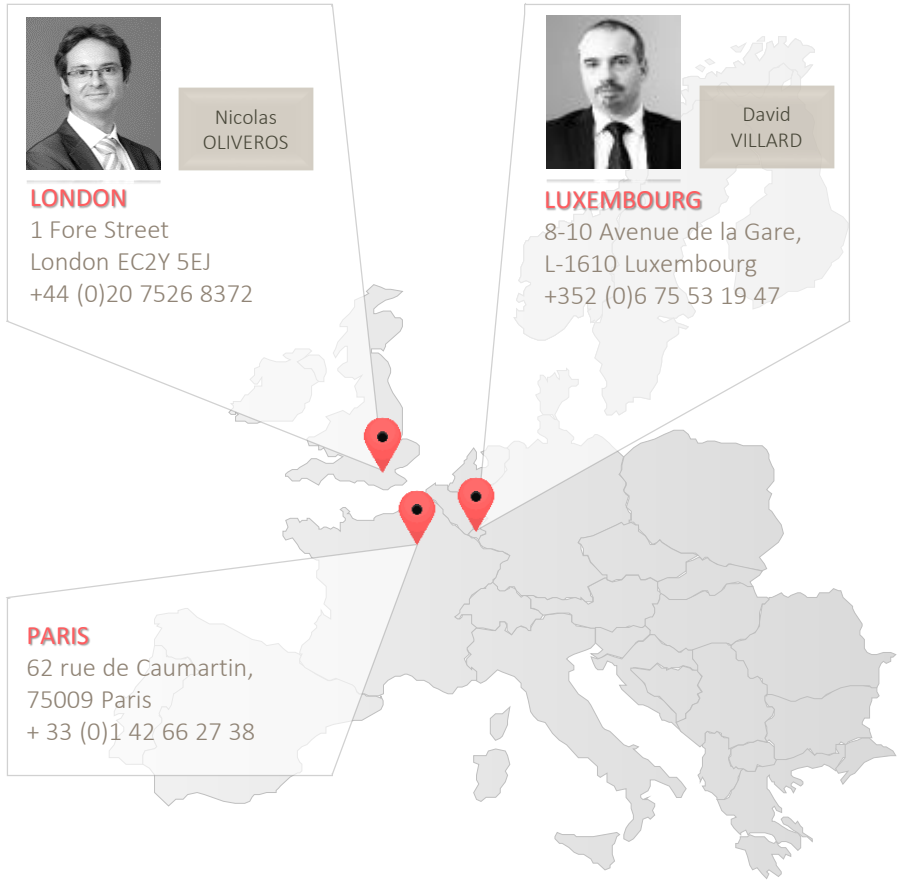

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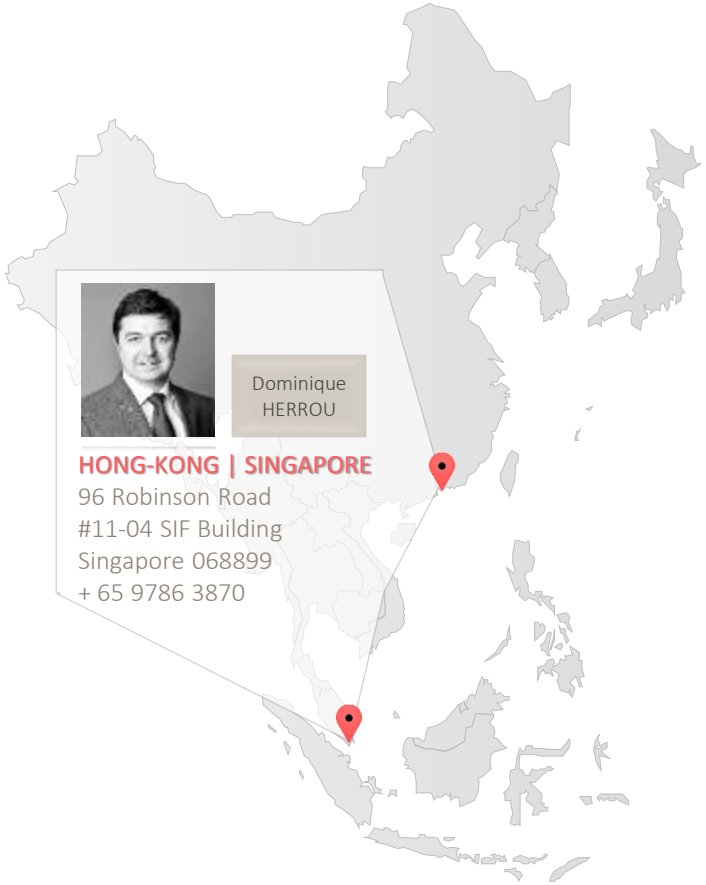

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