

# How Artificial Intelligence Is Transforming Tax Administration

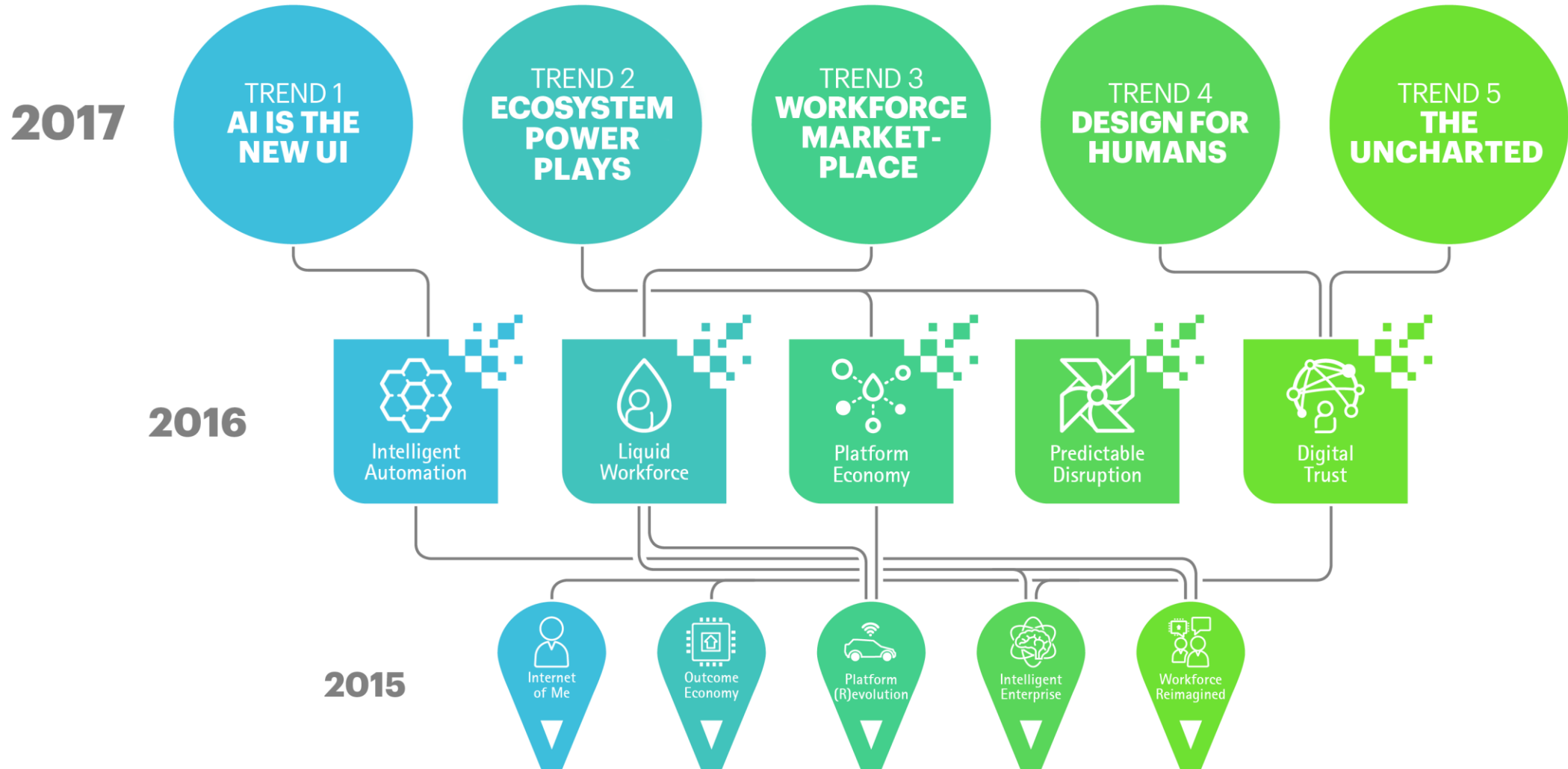
FTA Annual Meeting - Seattle  
June 2017

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# ACCENTURE TECHNOLOGY VISION

## THE EVOLUTION

#TECHVISION2017



# ARTIFICIAL INTELLIGENCE – WHAT IS IT?

## IT SYSTEMS THAT CAN SENSE, COMPREHEND, ACT – AND LEARN

**ENABLES MACHINES TO INTERACT NATURALLY WITH PEOPLE, DATA AND THE ENVIRONMENT. THESE SYSTEMS CREATE MORE INTUITIVE INTERACTIONS AND EXTEND THE CAPABILITIES OF WHAT EITHER HUMAN OR MACHINE CAN DO ON THEIR OWN.**

**perceive the world** (e.g., computer vision, audio processing or sensor processing)

**analyze and understand** the information collected (e.g., natural language processing or knowledge representation)

**make informed decisions** (e.g., inference engines, predictions or expert systems)

**learn and self-tune** (e.g., machine learning, deep learning)

# ARTIFICIAL INTELLIGENCE **BIG IMPLICATIONS**



**76% OF BANKERS BELIEVE**  
AI WILL BE THE  
PRIMAMRY METHODS  
TO INTERACT WITH  
CUSTOMERS IN 3  
YEARS



**95% OF CONTACTS**  
IN A PROOF OF CONCEPT  
AT A EUROPEAN MINISTRY  
OF FINANCE WERE  
AUTOMATED OVER 9  
MONTHS

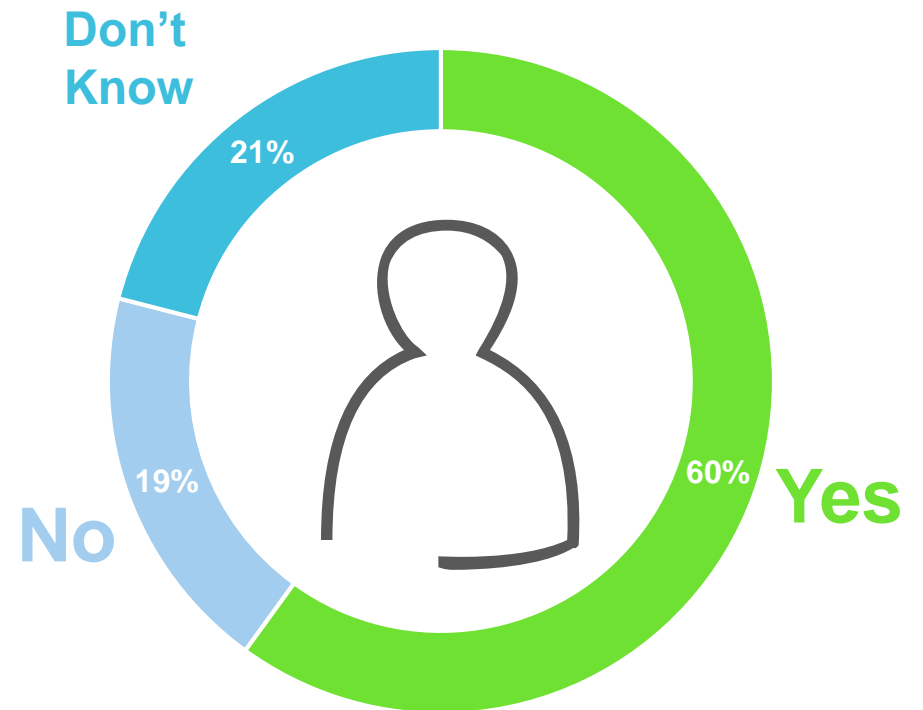


**40% OF COST**  
IS EXPECTED TO BE  
ELIMINATED THROUGH  
OPERATIONAL  
EFFICIENCY BY  
ARTIFICIAL  
INTELLIGENCE

# ARTIFICIAL INTELLIGENCE - PERSONALIZATION UNITED STATES

Would you agree to allow the tax authority to use all the information that it already has about you in order to provide you with a more personalized digital tax experience?

**60% OF US TAXPAYERS WANT  
A PERSONALIZED EXPERIENCE**



# ARTIFICIAL INTELLIGENCE UNDERSTANDING

Source: 2017 Accenture Taxpayer Survey

# 58%

**OF RESPONDENTS  
IN THE US HAVE  
ARTIFICIAL  
INTELLIGENCE  
KNOWLEDGE**



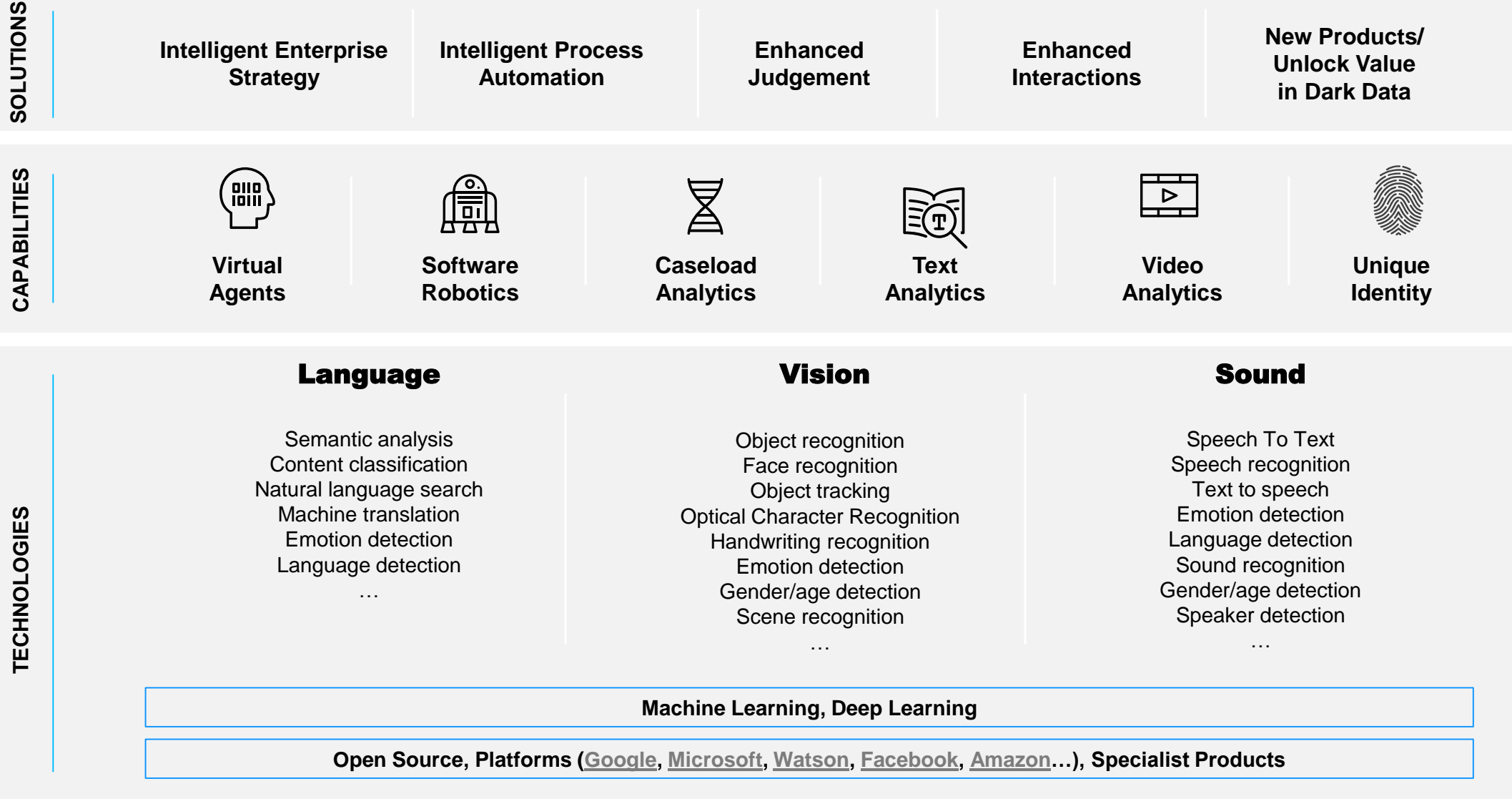
# 1 OUT OF 4

**RESPONDENTS IN  
THE US USE  
VIRTUAL AGENTS**

**Online Customer Support via Virtual Digital Assistants**  
A computer-generated, human-like character that answer your questions and engages you in a conversation while you are using digital services and websites

## BUT IT ISN'T THAT SIMPLE...

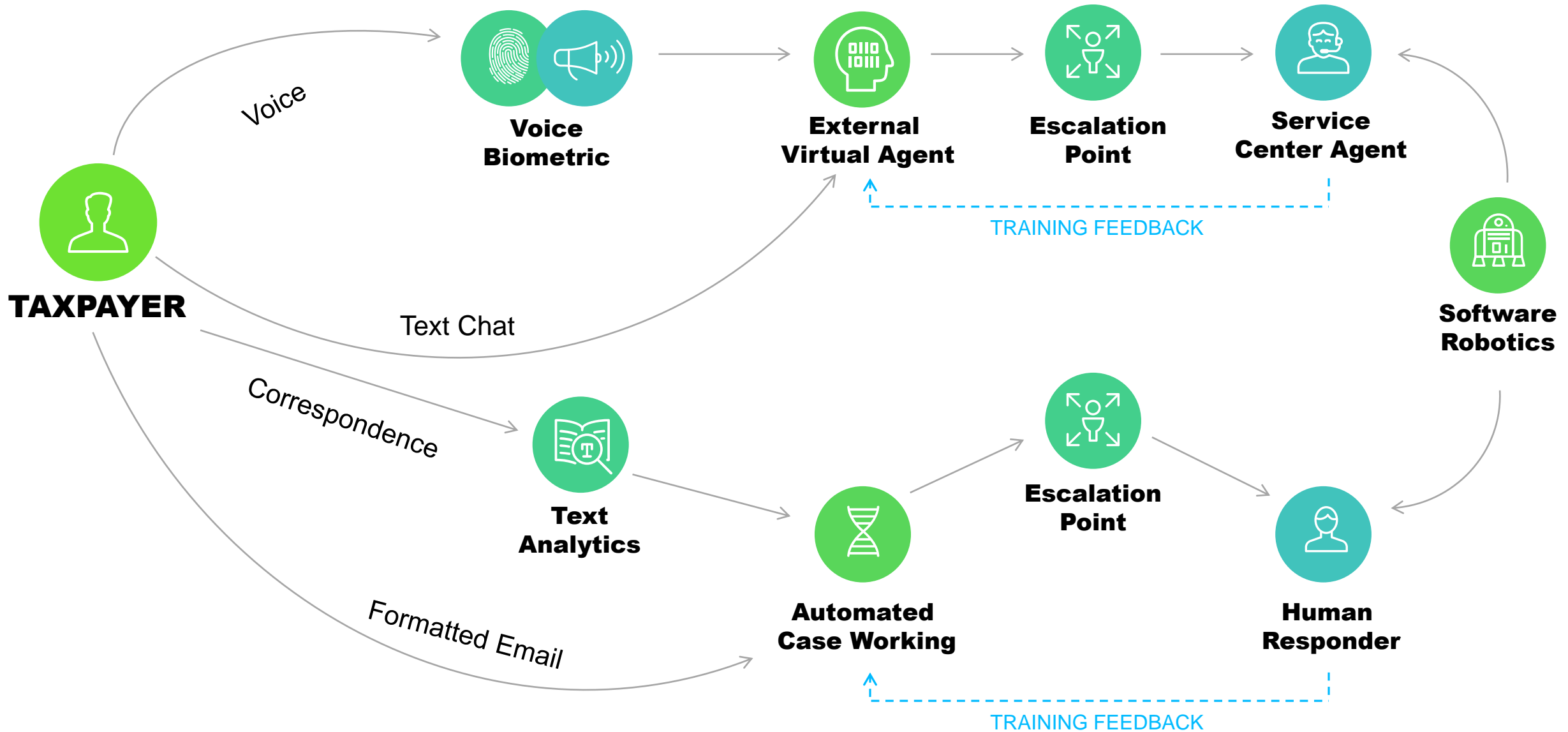
# ARTIFICIAL INTELLIGENCE CAPABILITIES AND SOLUTIONS



High Performance Business Processes

Data/Knowledge/Experience

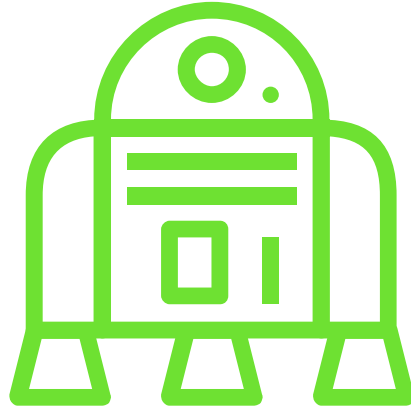
# AI IS THE NEW UI





# **EXAMPLE: DATA OPTIMIZATION USING SOFTWARE ROBOTICS IN A REVENUE AGENCY**

**DELIVERING SOLUTIONS OVER SIX MONTHS WHICH WILL ACHIEVE THE WORK LOAD OF OVER 350 TAX AGENTS IN 1 YEAR.**



**DEVELOP THREE ROBOTICS SOLUTIONS TO SUPPORT DIGITAL TRANSFORMATION**

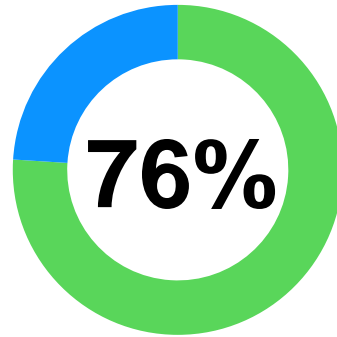
**ADDITIONAL ROBOTIC SOLUTIONS TO RESOLVE CUSTOMER ACCOUNT ISSUES**

# EXAMPLE: VOICEPRINT TECHNOLOGY IN AN INTERNATIONAL REVENUE AGENCY

**THE ATO IS SUCCESSFULLY USING VOICE PRINT TECHNOLOGY IN BOTH THE CONTACT CENTER AND THROUGH ITS SMARTPHONE APP TO AUTHENTICATE USERS**



**8 MILLION CALLS  
PER YEAR**



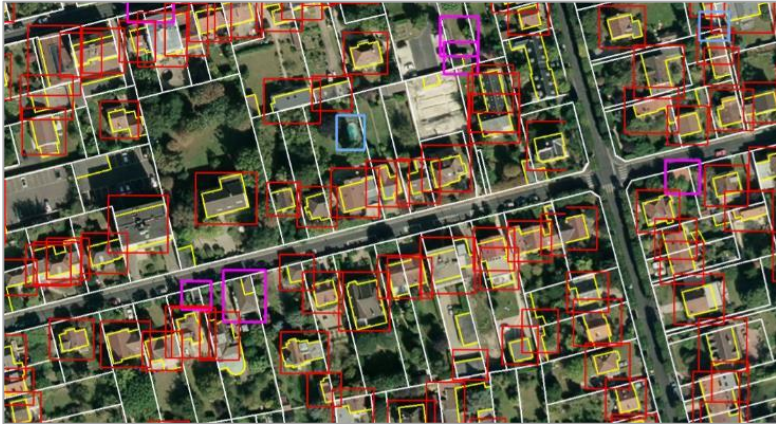
**OF CALLS REQUIRE  
AUTHENTICATION**



**UP TO  
75,000**

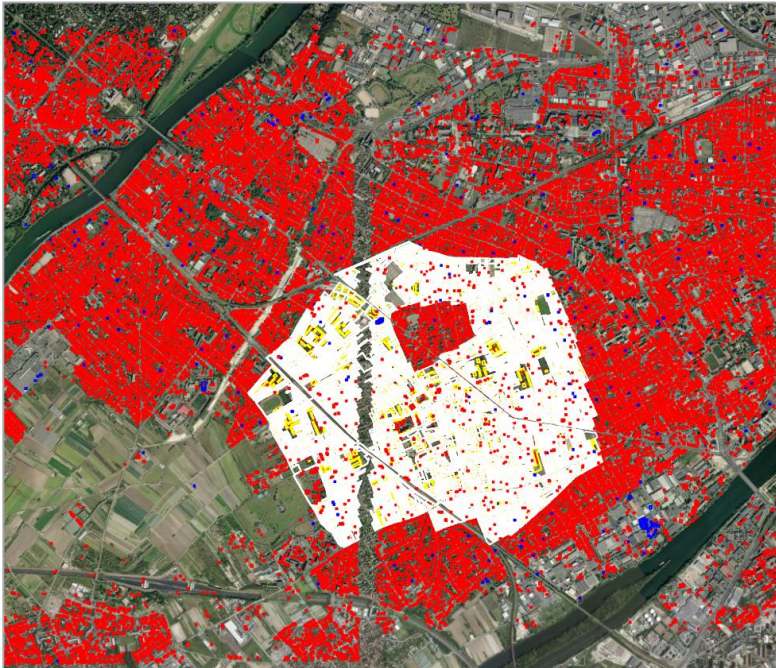
**SAVINGS IN  
WORKFORCE HOURS**

# EXAMPLE: LAND REGISTRY ANALYSIS USING SATELLITE IMAGERY



## BUILDING DETECTION

- IN URBAN, RURAL AND MIXED ENVIRONMENTS



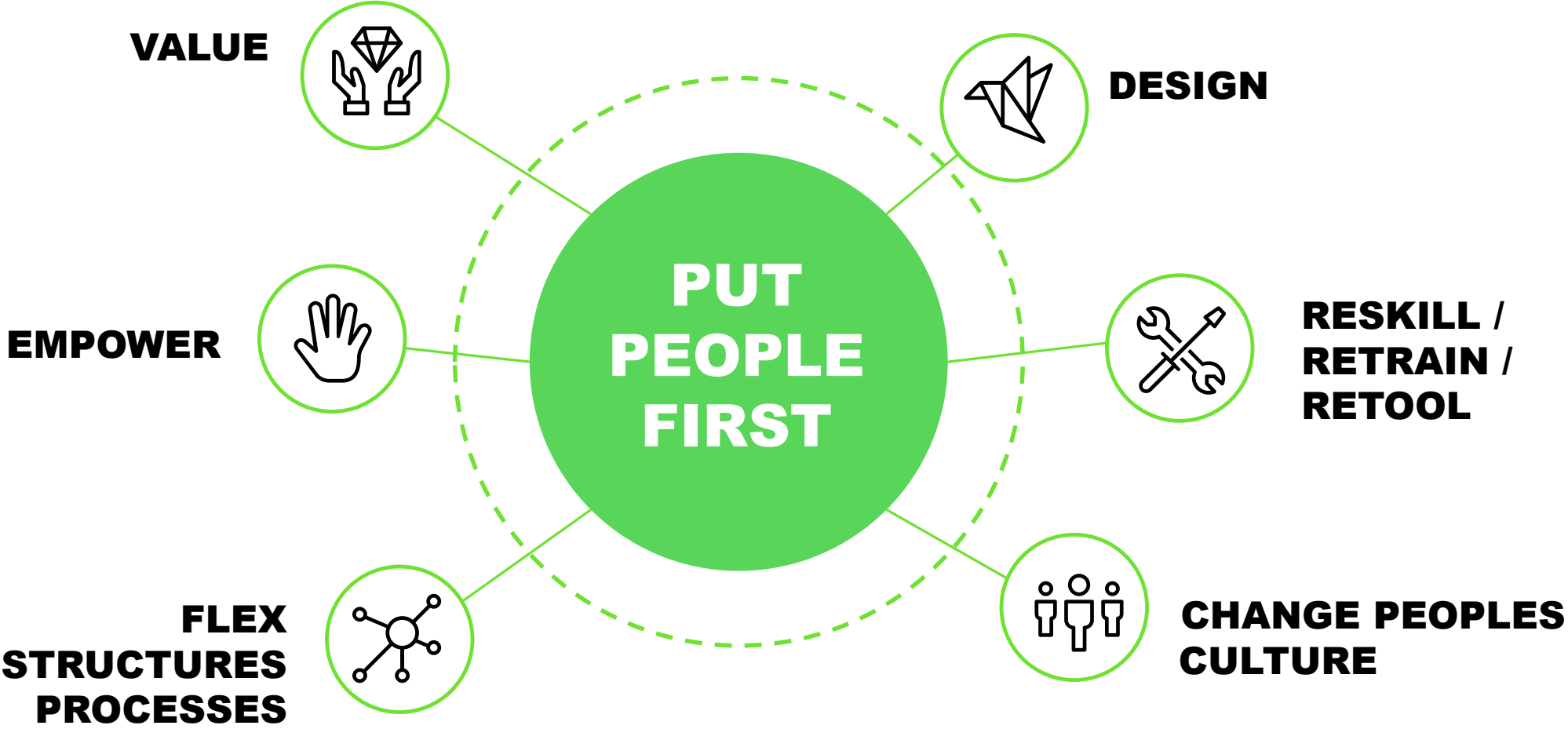
- INDIVIDUAL HOUSING

- BUILDINGS



## SWIMMING POOL DETECTION MATCHING AGAINST LAND REGISTRY

# TRANSFORMED HUMAN / MACHINE RELATIONS



# REVENUE VISION

# ACCENTURE TECHNOLOGY TRENDS

