



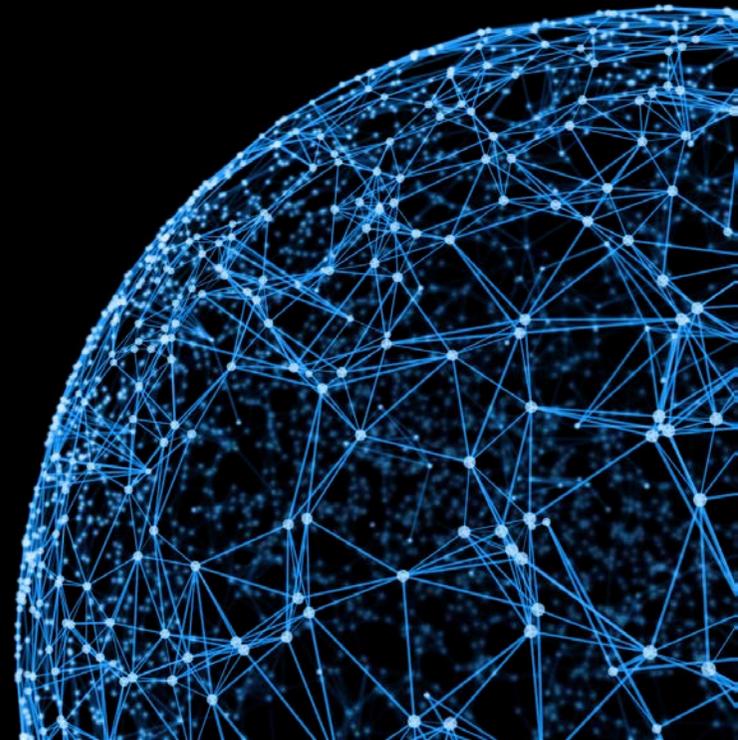
# Cognitive Claims

## Reimagining the Future

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What is Automation?

What is Cognitive Computing?

What else is changing?

What does it all mean for Claims?

What are we doing in Insurance Claims?

Q&A

# The world we live in...

The increasing pace of **change** and **complexity** in the macro environment and in customer expectations requires a *new approach*

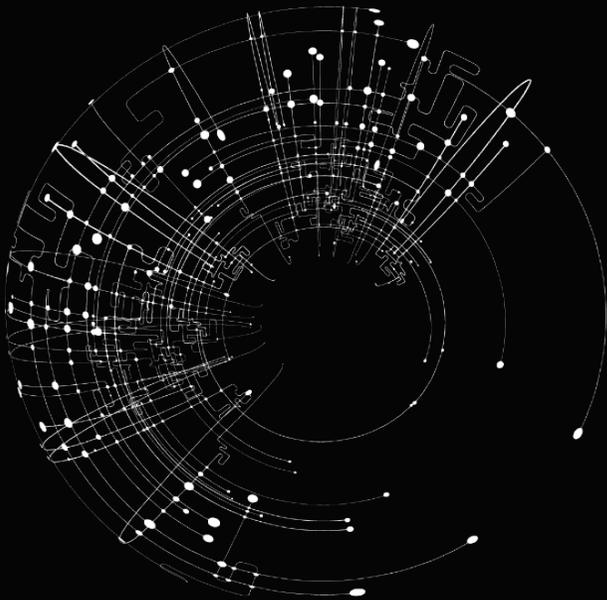
Adapting to the 4<sup>th</sup> Industrial Revolution.

Data is everywhere, and is being produced at an increasing rate.

Competition may come from non-traditional entrants.

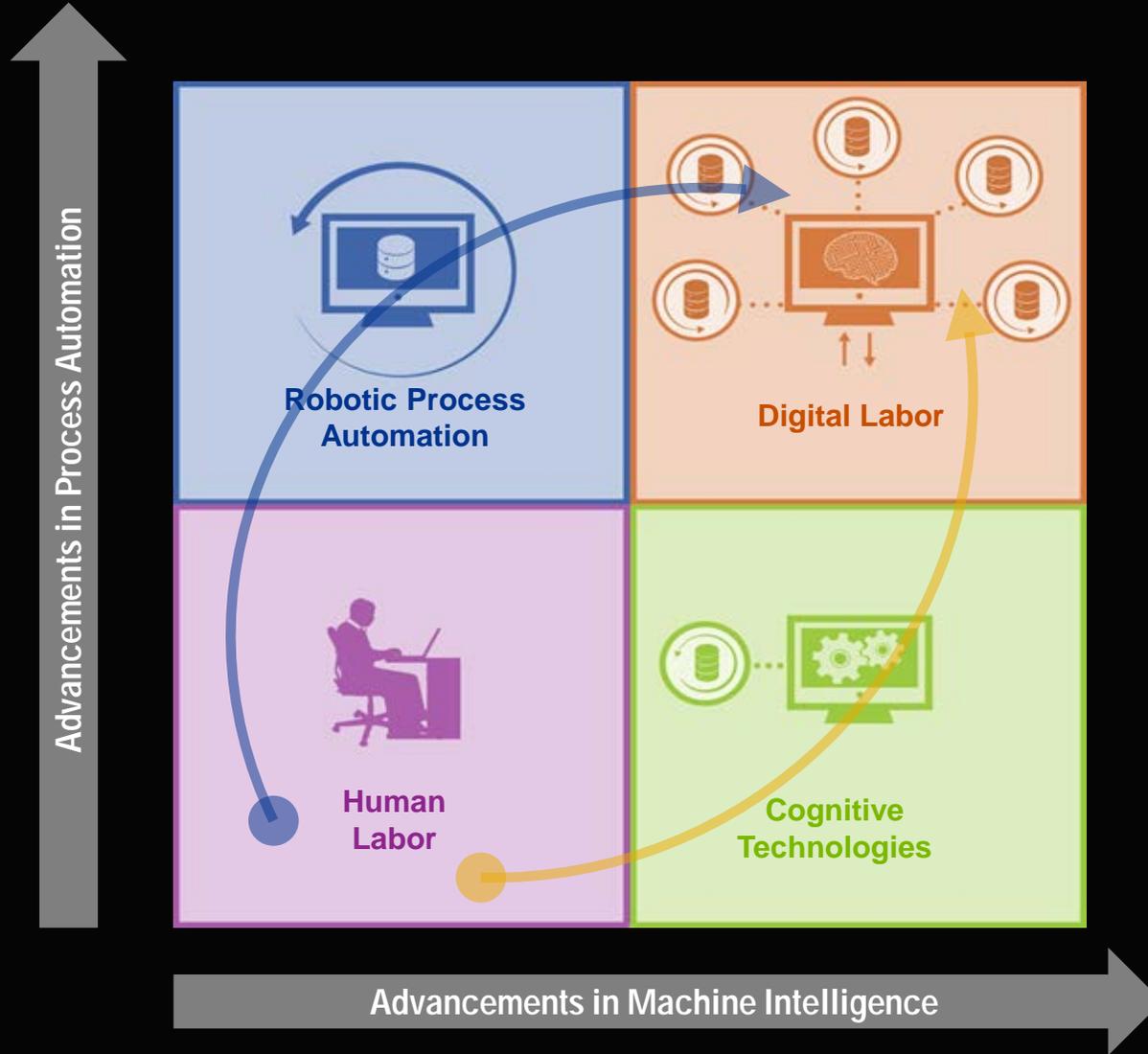
Customer expectations have changed.

• Customers are no longer sold to. They choose to buy.

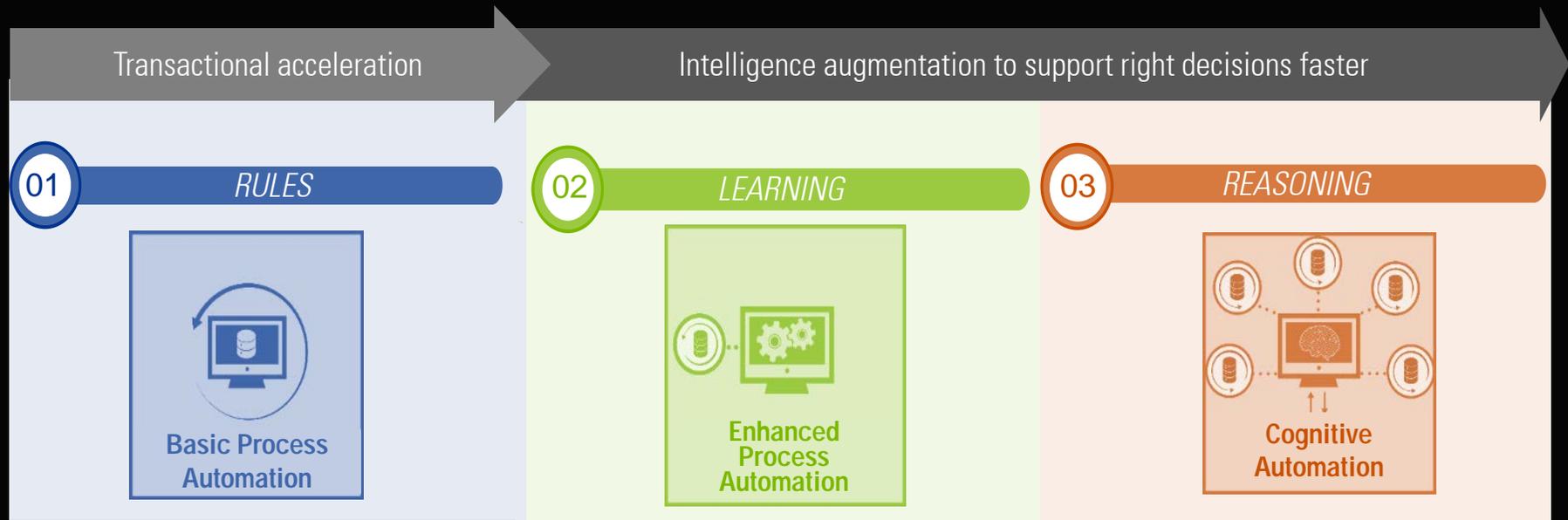


The *choices* an organisation makes in the design of its capabilities today will determine the ability to respond effectively to the future.

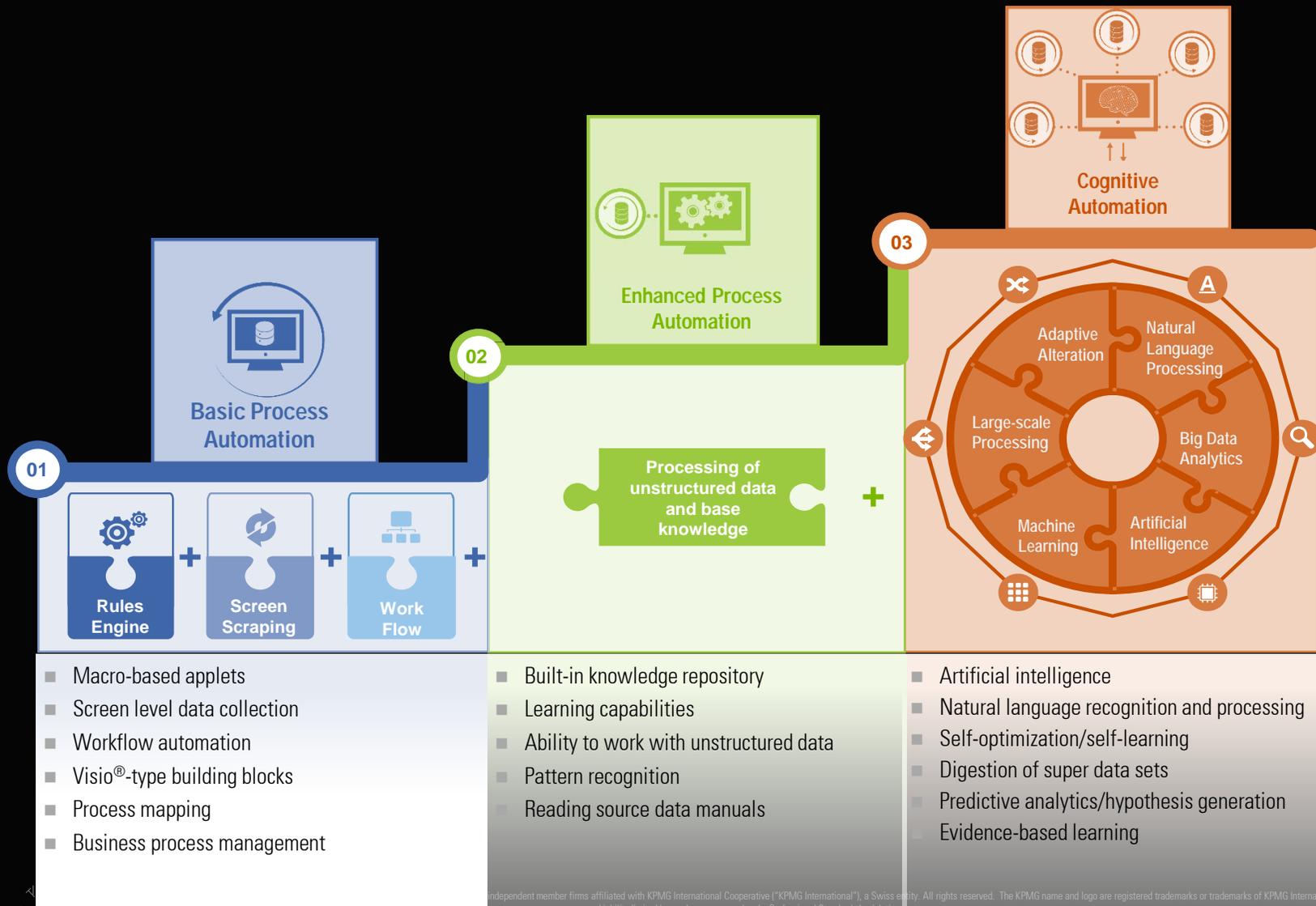
# KPMG's Perspective on the Digital Labor Market



# What is Cognitive? KPMG's Market Perspective



# Cognitive Automation is Changing Rapidly



## Robotic Process Automation

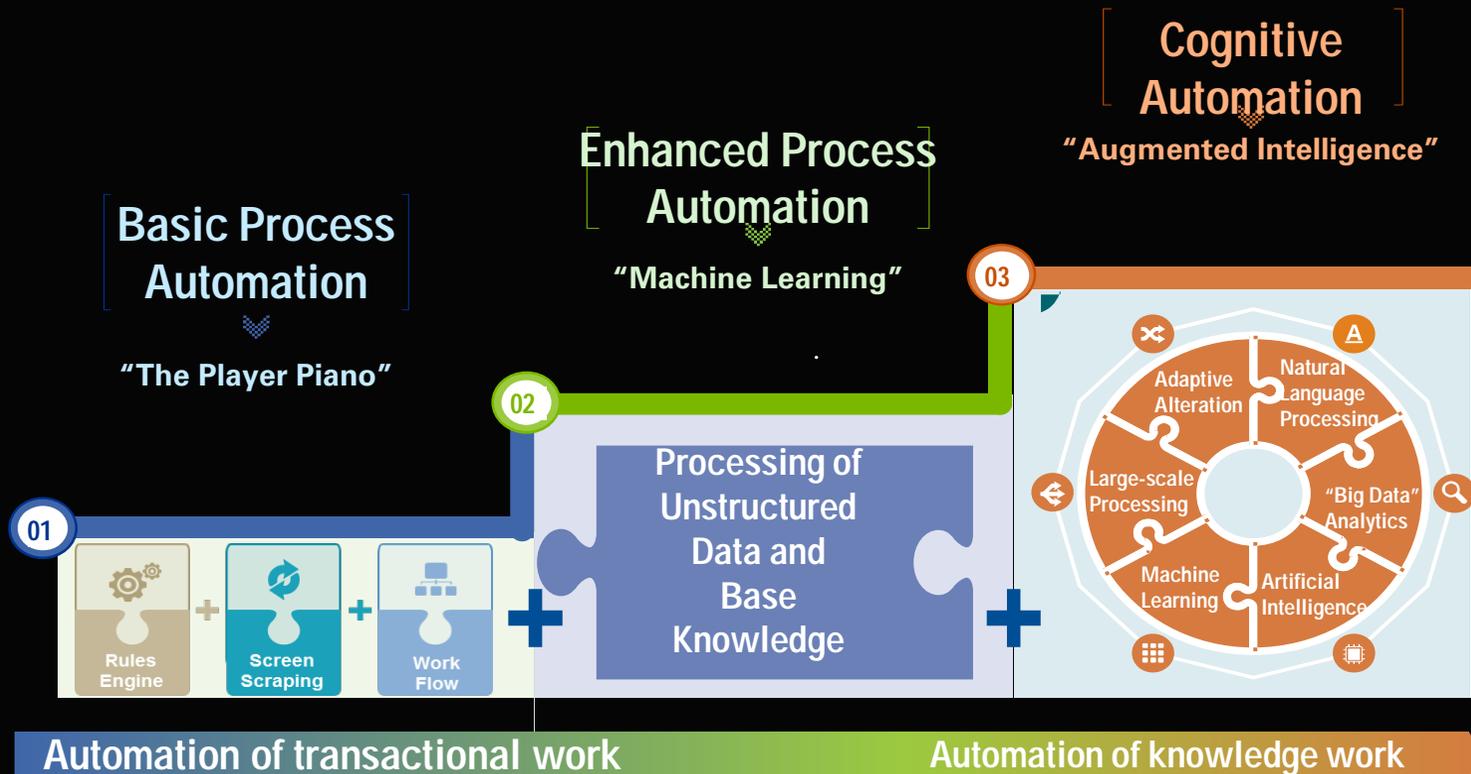


"Low touch" approach for automation of **high volume and repetitive rules based processes** by 'virtual workers'.

An **alternative to outsourcing** or offshoring processes providing an enterprise application to automate the processes traditionally offshored or outsourced to reduce cost.

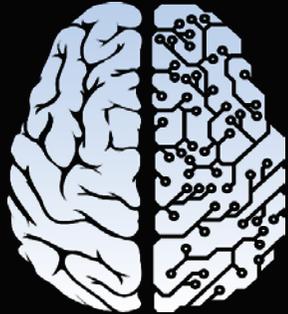
Focuses on automating processes **where traditional automation is not cost effective** or strategic automation options are planned but a tactical solution can provide initial short term benefits.

# The automation journey...





# Human or computer?



## Human

"Apple's holiday earnings for 2014 were record shattering. The company earned an \$18 billion profit on \$74.6 billion in revenue. That profit was more than any company had ever earned in history."

## Computer

"A shallow magnitude 4.7 earthquake was reported Monday morning five miles from Westwood, California, according to the U.S. Geological Survey. The temblor occurred at 6:25 a.m. Pacific time at a depth of 5.0 miles."

## Computer

"When I in dreams behold thy fairest shade. Whose shade in dreams doth wake the sleeping morn. The daytime shadow of my love betray'd. Lends hideous night to dreaming's faded form."

# What the future may hold

## Increased Benefits from Scale and Scope

- ✓ The value of big data is growing as machines become more adept at converting digits into business insight
- ✓ A.I. algorithms are data-hungry
- ✓ Automation favours scale
- ✓ Consolidation or data sharing becomes more likely

## Platform Services

- ✓ Exposing services and processes to external organisations spurs innovation and incentivises modular services
- ✓ Convenience, customisation and flexibility become key dimensions for differentiation

## Back Office Automation

- ✓ Removal of repetitive and non-value add processes
- ✓ Real-time processing creates new opportunities

## Robo-Advice Broadens its Remit

- ✓ Helping people achieve their goals
- ✓ Integrated budgeting becomes the family's daily financial fitness coach
- ✓ Management of the end-to-end home buying process
- ✓ Low friction breeds automation of switching

## Industrialisation of Analytics

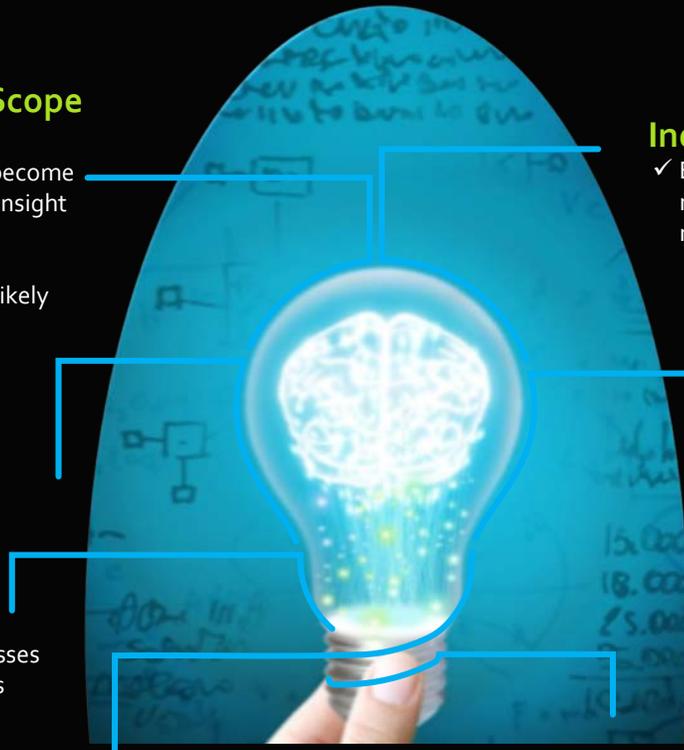
- ✓ Evolving from activities performed and managed by individuals and small teams, to a machine managed, centrally governed exercise.

## Enhanced Customer Experiences

- ✓ Instant Chat matures to be preferred over the call centre
- ✓ Voice communication becomes a core source for data mining and automation
- ✓ Facial recognition is used to identify customers.
- ✓ UI evolves towards natural humanistic experiences, often integrated into other software interfaces

## Re-imagination of the Product Set

- ✓ Going back to first principles
- ✓ Simplification (or re-skinning) of products to align with customer objectives



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# Claims Industry - Key Challenges

Current state of the industry and how it affects insurance companies



## Manual Fact Extraction

**Manual time** intensive task to review all submitted documents and identify additional informational needs

*50% of a claims professional's time is spent on administrative activities such as compiling and fact-checking data*



## Maintaining Knowledge

Each claims handler **relies on their own experience** to make a liability and valuation determination for claims

*Audit processes have revealed less than 80% of claims meet the quality standard on average*



## Unidentified Fraud

Insurance professionals struggle in identifying and evaluating risk exposure due to **lack of uniformity and control**

*53% of insurance companies cite lack of IT resources as the main stumbling block in implementing anti-fraud technology*

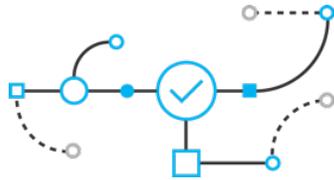


# Claims Advisor – Watson capabilities

Current state of the industry and how it affects insurance companies

Cognitive Capabilities

## Fact Extraction



### Simplify information gathering

- Extract info from submission documents
- Identify gaps in submission information
- Provide provenance and audit trail of facts

## Claims Analysis



### Enrich claims data

- Identify claims “like this”
- Case Law related to the claim
- Personality of the person coming on claim
- Workflow management – route to most relevant claims professional

## Decisioning



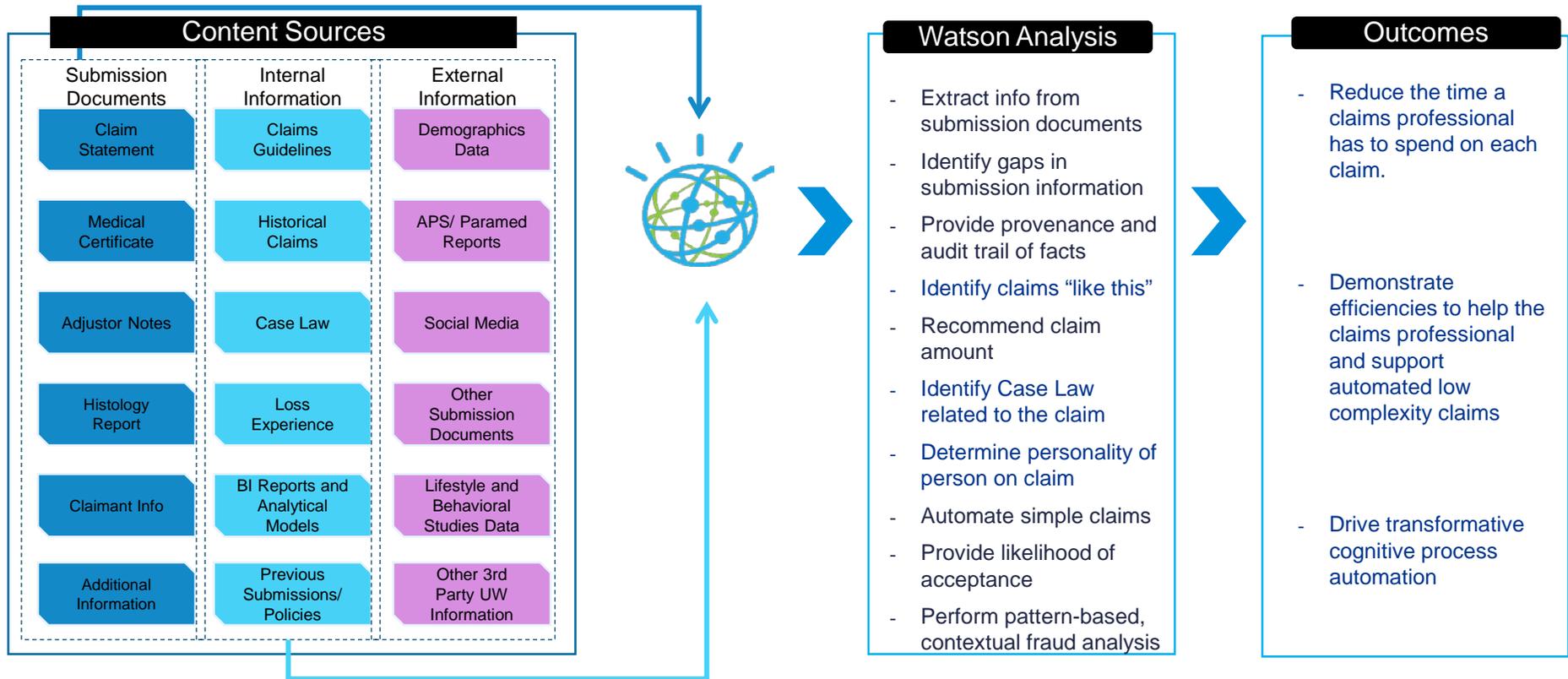
### Transform claims decisioning

- Automate simple claims
- Provide likelihood of acceptance
- Perform pattern-based, contextual fraud analysis



# Content & Analysis Flow

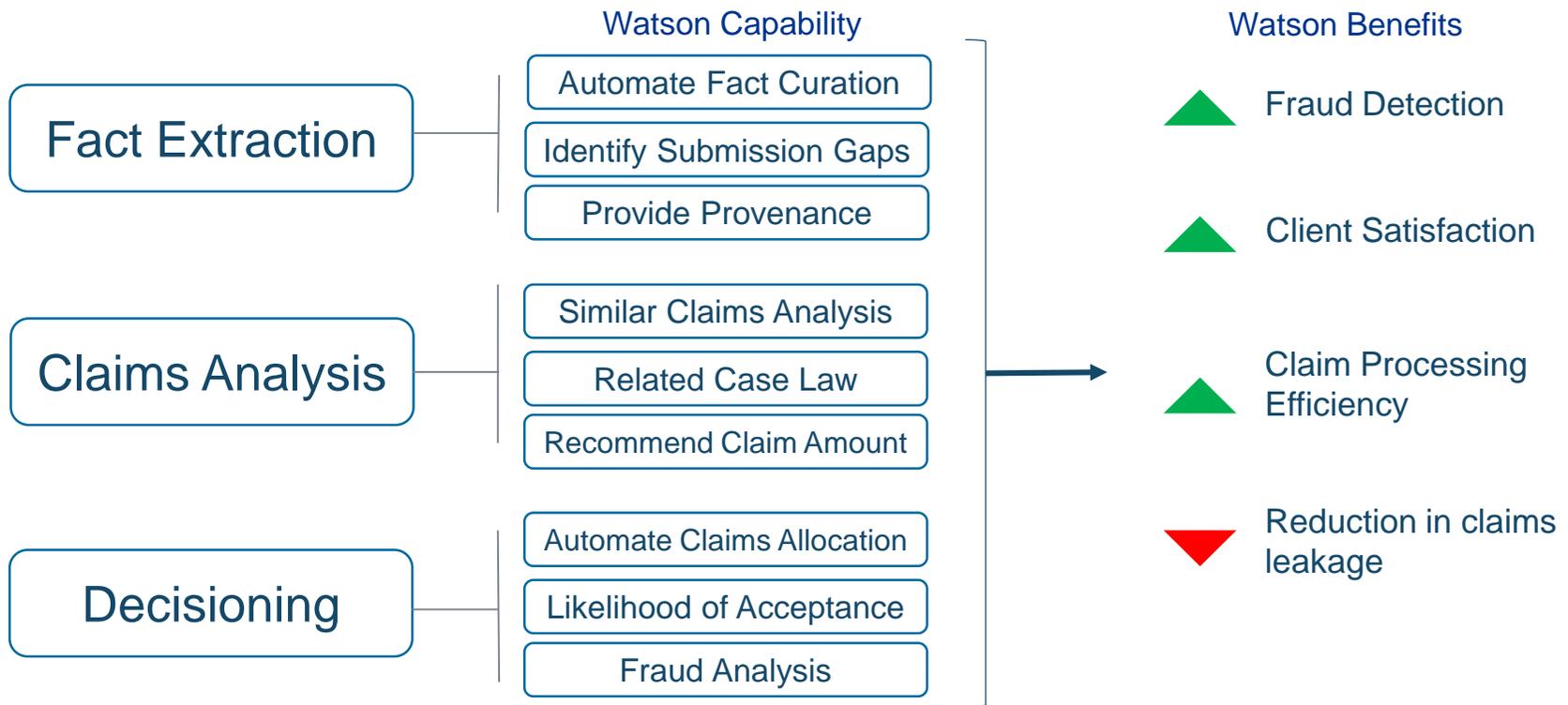
Watson can leverage data from different types of content sources to provide measurable results





# Key Benefits of Cognitive Solutions - a case study

The solution to assist with processing of claims submissions, fraud identification and streamlining end to end workflow



# Observations

## Key opportunities for Cognitive in Claims include

Better financial and service outcomes by utilising existing data, creating new data and using all this data to help inform decisions at key moments/stages of a claim, by:

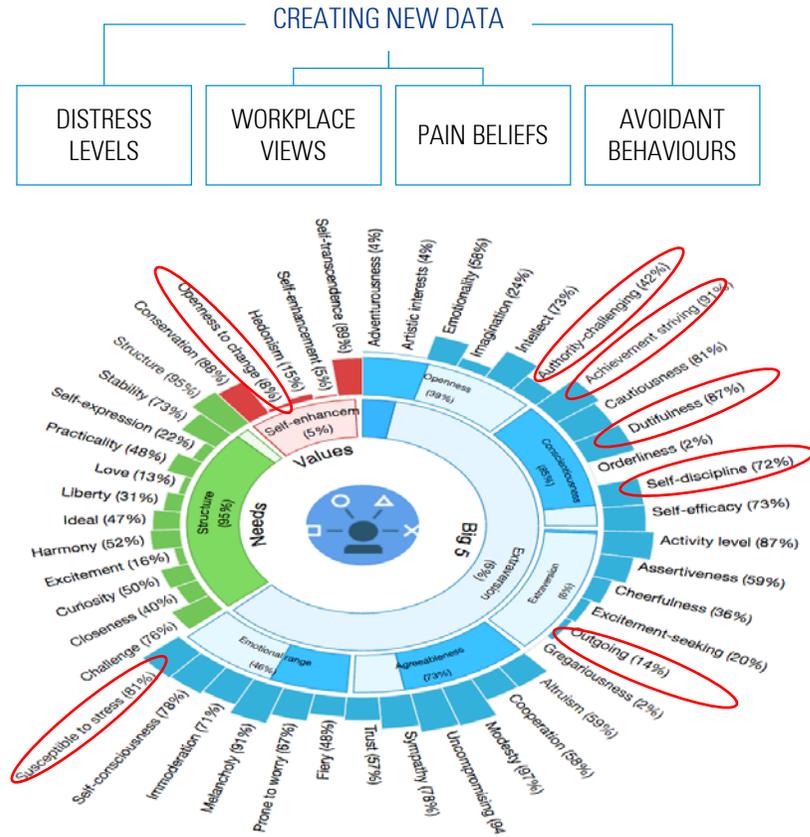
- Assisting with upskilling staff.
- Improving consistency of decisions.
- Long term cost savings.
- Better targeted claims management strategies.
- Scalability (less dependence on scarce skilled resources).
- Knowledge data retention/use.

## Managing Claims Duration

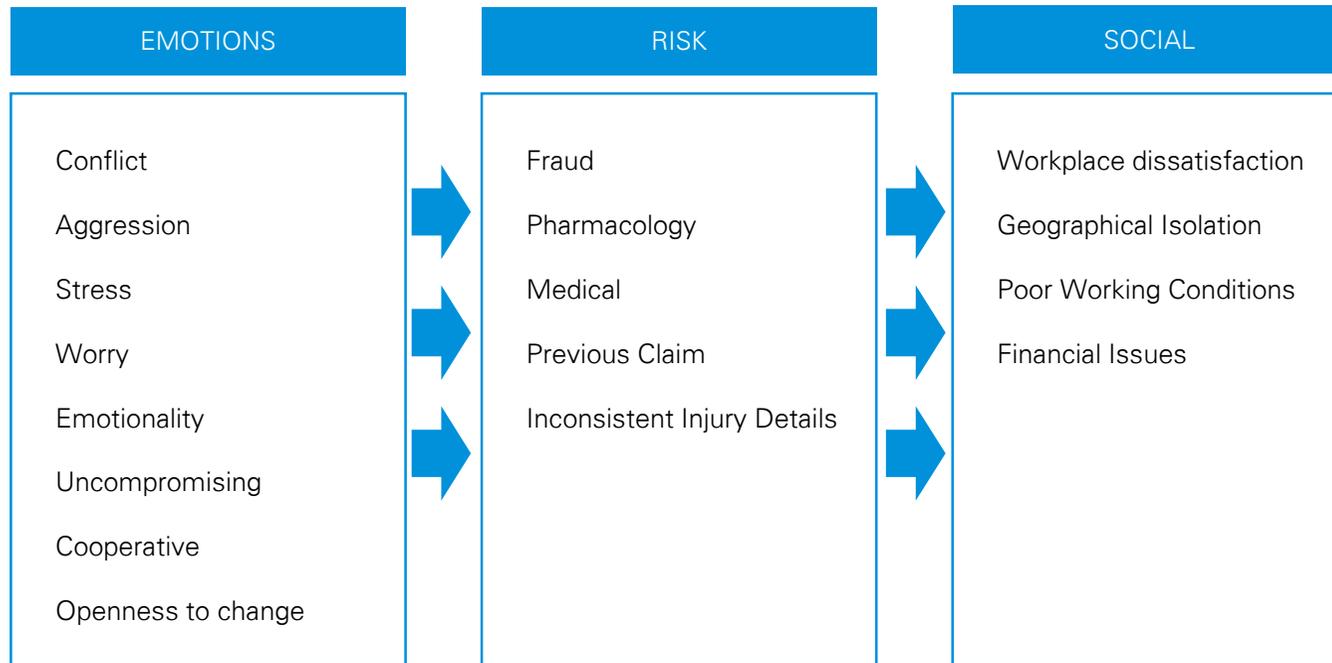
Lots of research including

- Actuarial papers
- Medical papers
- Psychology papers

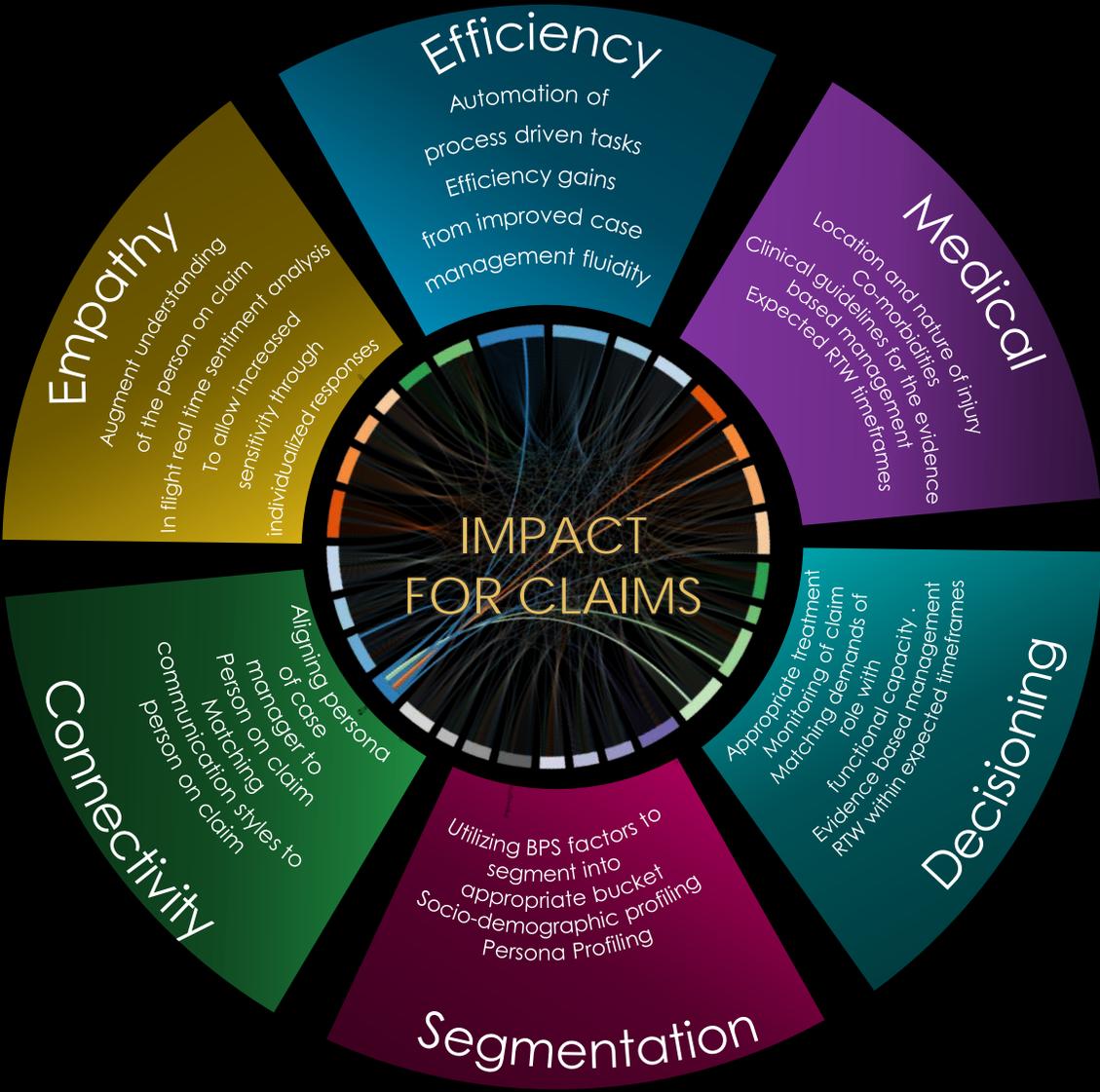
Combining this research together highlights over 100 factors could explain behavior.



# Types of Data

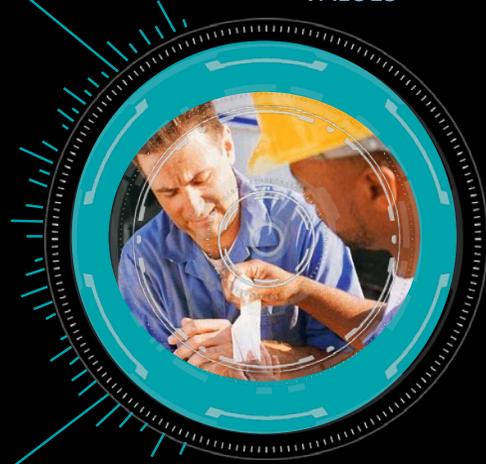


# IMPACT FOR CLAIMS



Location of injury from TOCC  
 Nature of injury from TOCC  
 Age at injury  
 Inactivity description from the last known medical certificate (a/n/c, A/L, F)  
 Specificity of most requested provider  
 Prior claim - continued nature and location of injury for the claim immediately prior to the current claim  
 Income estimate  
 Recovers entrepreneur flag  
 Mechanism of injury  
 Occupation  
 Industry classification code  
 Log between injury and its report  
 Worker gender  
 Income receipt payment amount  
 Hospital admission for injury  
 Employer's obligation to pay the first 2 weeks of income maintenance  
 Was injured (y/n/r)  
 Similar injury to past flag  
 Prior claim - compensation flag  
 Prior claim - medical flag  
 Prior claim - psychological flag  
 Prior claim - treatment flag  
 Prior claim - other flag  
 Prior claim - average prior income maintenance claim duration in weeks  
 Hospitalisation (Chaffin et al 2006)  
 New department (Chaffin et al 2006)  
 Workplace safety or employer (Cohen 1978 to 1980) (Hogg Johnson and Cole 2003)  
 Recovery path status (Hogg Johnson and Cole 2003)  
 Recovery path treatment (24) (Hogg Johnson and Cole 2003)  
 Number of jobs since age 20 (Hogg Johnson and Cole 2003)  
 Percentage of stability in career job (Gardner et al 2009)  
 Understood medical condition (Gardner et al 2009)  
 Similar (Hogg Johnson and Cole 2003)  
 Stop general health - eg work stress, obesity (y/n)  
 Activity limitations  
 Pain intensity (Hogg Johnson and Cole 2003)  
 Pain compensation offered since (Hogg Johnson and Cole 2003)  
 Perceived job satisfaction  
 Perceived job involves heavy work  
 Perceived job involves repetitive work  
 Perceived job involves monotonous work  
 Perceived job involves uncomfortable position  
 Perceived job involves noise exposure  
 Perceived work is physically demanding  
 Perceived time pressure in role

Occupation  
 Age at injury  
 Nature & Location of Injury  
 Co-morbidities  
 Tone of voice  
 Cost to serve estimate  
 Pain beliefs  
 Social situation  
 Prior claims  
 Recovery expectations  
 Pharmacology



ASPIRATIONS  
 EXPECTATIONS  
 BELIEFS  
 ATTITUDES  
 VALUES

MOTIVATIONS  
 NETWORKS  
 INTERACTIONS  
 IDEOLOGY  
 PERCEPTIONS

Location of injury from TOCC  
 Nature of injury from TOCC  
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 Perceived time pressure in role



# Segmentation

Right service, Right Time

Persona driven

case management process.

Personalised  
 intervention

to optimise outcome

Monitoring  
 anomaly  
 deviation

Proactive early  
 intervention

Optimise case  
 management  
 experience

Insight driven  
 decision  
 making.

Propensity of  
 fraud

Rapid Holistic  
 understanding



# Q&A

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