



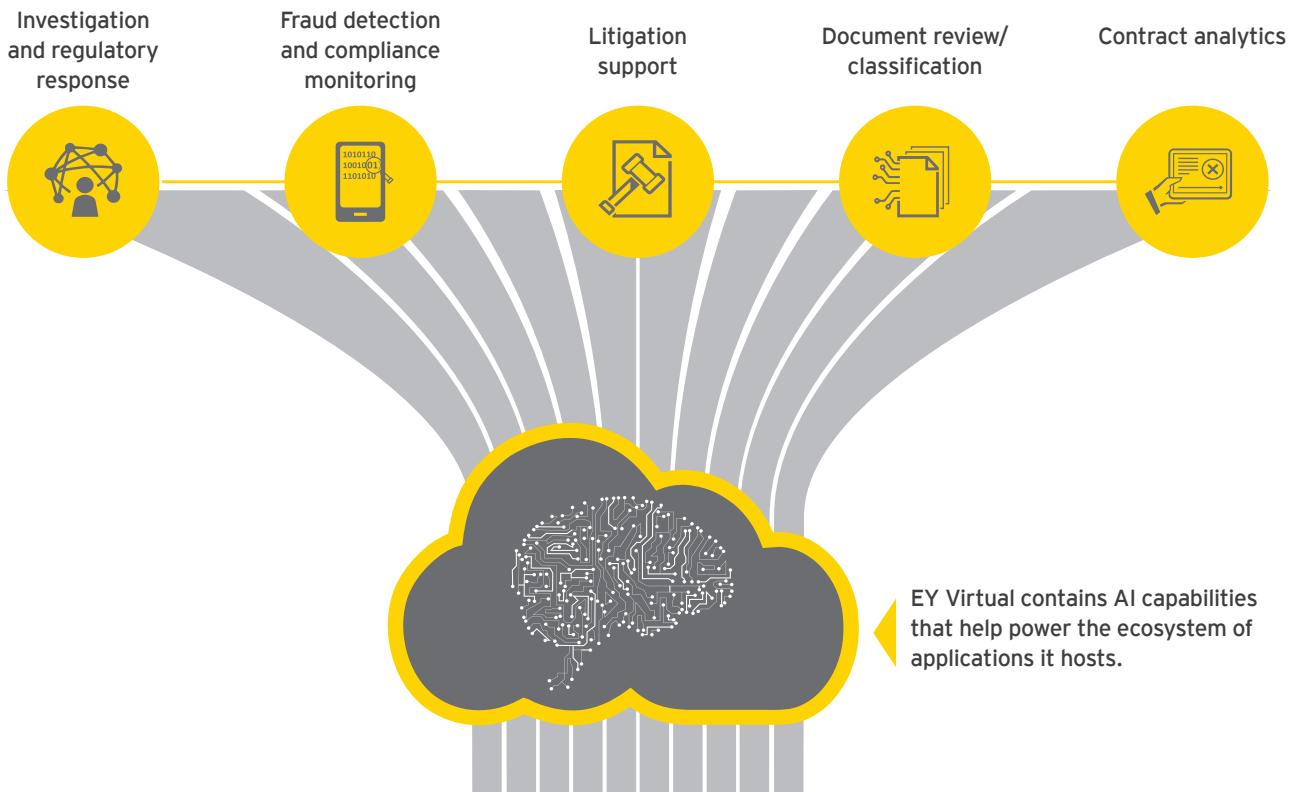
Building a better working world

## Managing integrity risks with AI

Enabled by EY Virtual Analytics Infrastructure (EY Virtual)

Digital transformation, driven by advanced technologies such as AI, is game changing for risk management. AI brings not only operational and cost efficiencies, it offers business and risk insights with faster speed and better accuracy than ever before. AI is an integral technology feature of EY Virtual. AI technologies, particularly machine learning, are built into the EY Virtual platform and also a wide variety of applications EY Virtual supports.

### Examples of where AI technologies are used in applications supported by EY Virtual



**EY Virtual Analytics Infrastructure**  
**(EY Virtual)**

# 38%

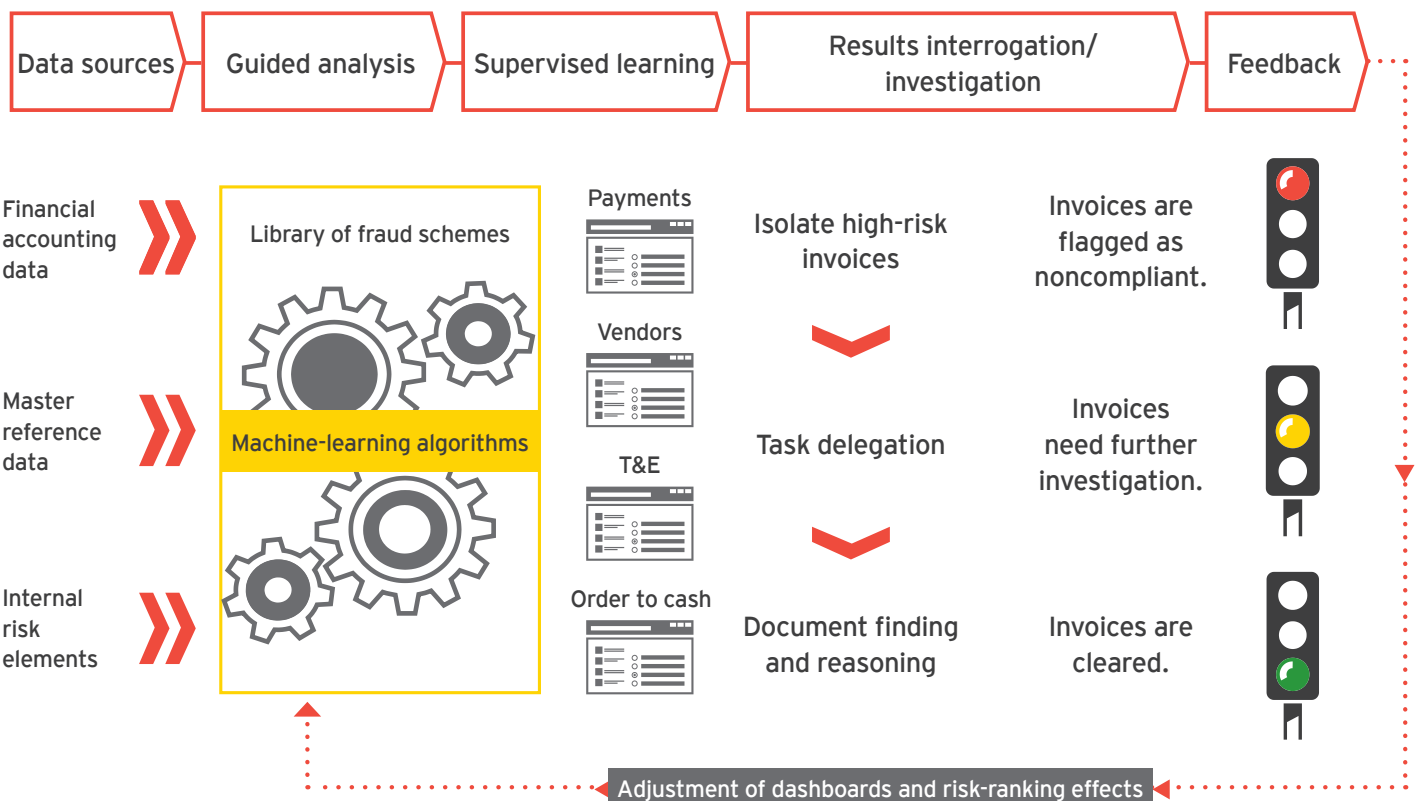
of respondents plan to use AI within the next 12 months.

Source: EY Global Forensic Data Analytics Survey 2018.

# Case studies

## Identifying complex patterns of anomalous transactions

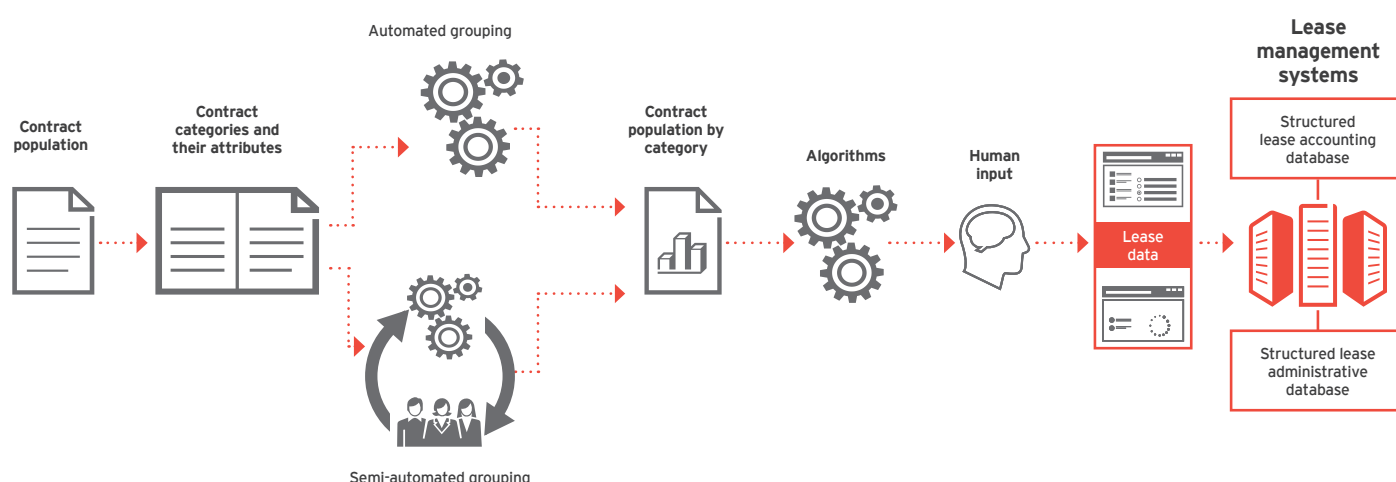
A large consumer goods client engaged Forensic & Integrity Services to help respond to whistleblower inquiries related to erroneous and fraudulent invoices. Our team developed machine-learning algorithms that achieved a 95%+ true positive rate in detecting patterns of fraudulent invoices based on human review. The algorithms have since been modified to include country-specific data, with local language capabilities, to be used in 50 operating countries.



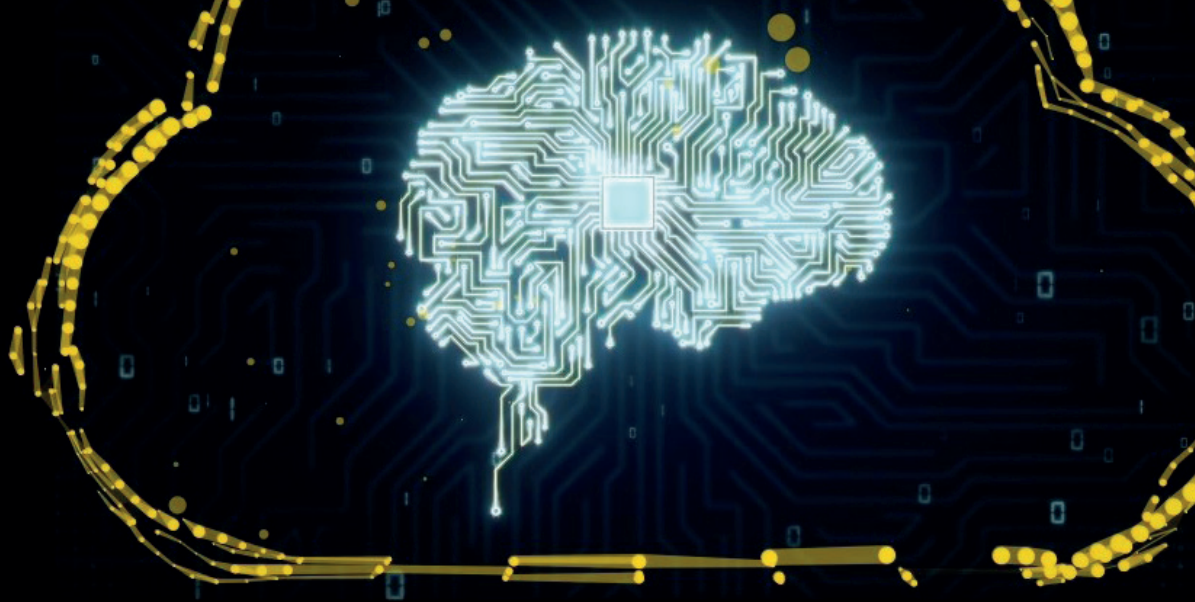


## Accelerating high-volume reviews with analytics

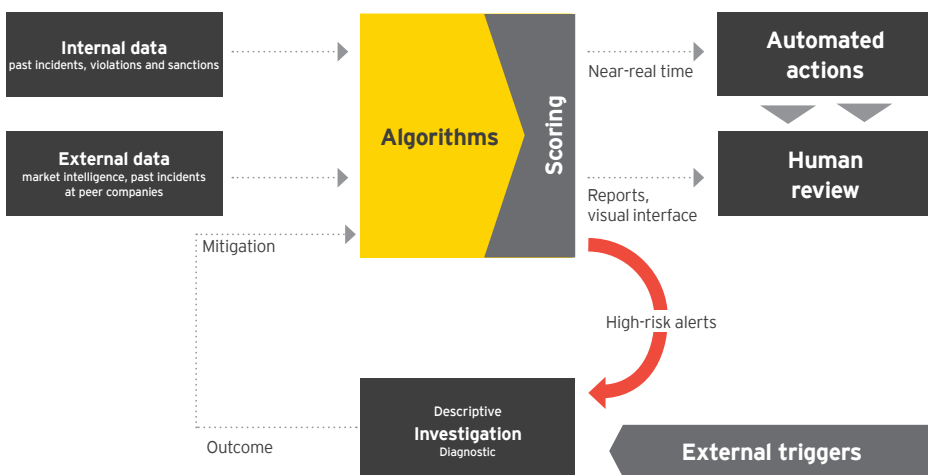
EY was engaged by a multinational tire manufacturer to address its enterprise-wide processes and systems impacted by the new lease accounting standards. The magnitude of the contracts involved had proven a pressing need to alleviate the manufacturer's reliance on manual review – a task that would require up to an estimated 40,000 man hours – and to reduce risks for error. Our team designed a data abstraction approach using optical character recognition. This approach automated the transfer of up to 80% of the company's hard-copy lease documentation into a structured database. The team also helped obtain the remaining data to perform the calculations required through manual review.



EY Contract Analytics harnesses our knowledge in data mining, AI and document review. We help companies assess, abstract, validate and prepare lease data for improved compliance and risk management.



Machines learn through an ongoing, closed-loop feedback process by leveraging knowledge gained from investigations and feedback from human review. Applications run on EY Virtual routinely fine-tune the algorithms used in identifying potential risk indicators.



EY | Assurance | Tax | Transactions | Advisory

#### About EY

EY is a global leader in assurance, tax, transaction and advisory services. The insights and quality services we deliver help build trust and confidence in the capital markets and in economies the world over. We develop outstanding leaders who team to deliver on our promises to all of our stakeholders. In so doing, we play a critical role in building a better working world for our people, for our clients and for our communities.

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#### About EY Forensic & Integrity Services

Dealing with complex issues of fraud, regulatory compliance and business disputes can detract from efforts to succeed. Better management of fraud risk and compliance exposure is a critical business priority – no matter the size or industry sector. With approximately 4,500 forensic professionals around the world, we will assemble the right multidisciplinary and culturally aligned team to work with you and your legal advisors. We work to give you the benefit of our broad sector experience, our deep subject-matter knowledge and the latest insights from our work worldwide.

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ED None

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