



Reimagining Audit

The future of auditing

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17 November 2017

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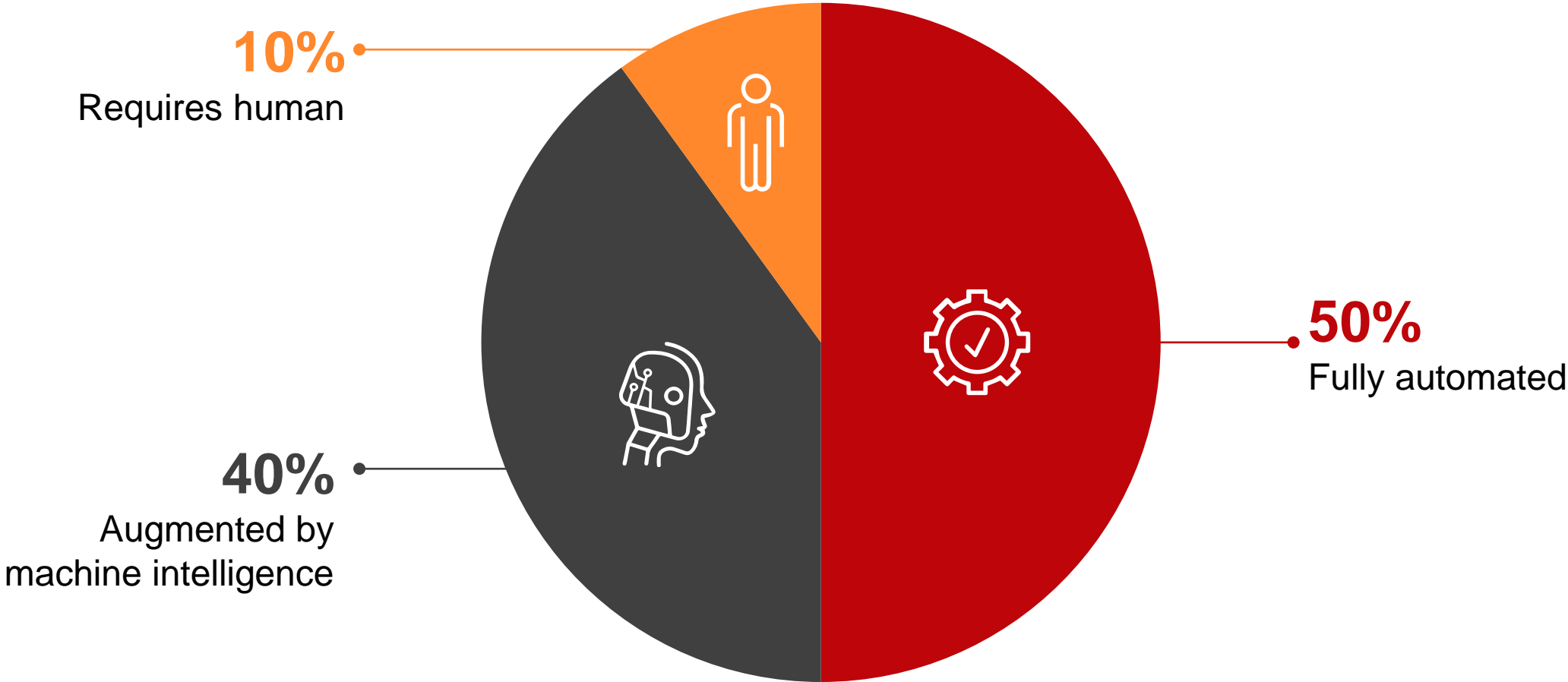
Agenda for the day

	Presentations	Showcases
Digital Transformation	Transforming technology and culture	Tech and Ops APIs Use of data insights
Consumer and SME (Singapore, Hong Kong)	Pre-empt disruptors	Bancassurance POSB Smart Buddy
Consumer and SME (Growth Markets)	Disrupt incumbents	digibank Tally
Other Businesses¹	Digitalise for profitability <ul style="list-style-type: none">• Audit• Cash Management• Wealth Management• Strategic Marketing	Reimagining Audit Treasury Prism iWealth

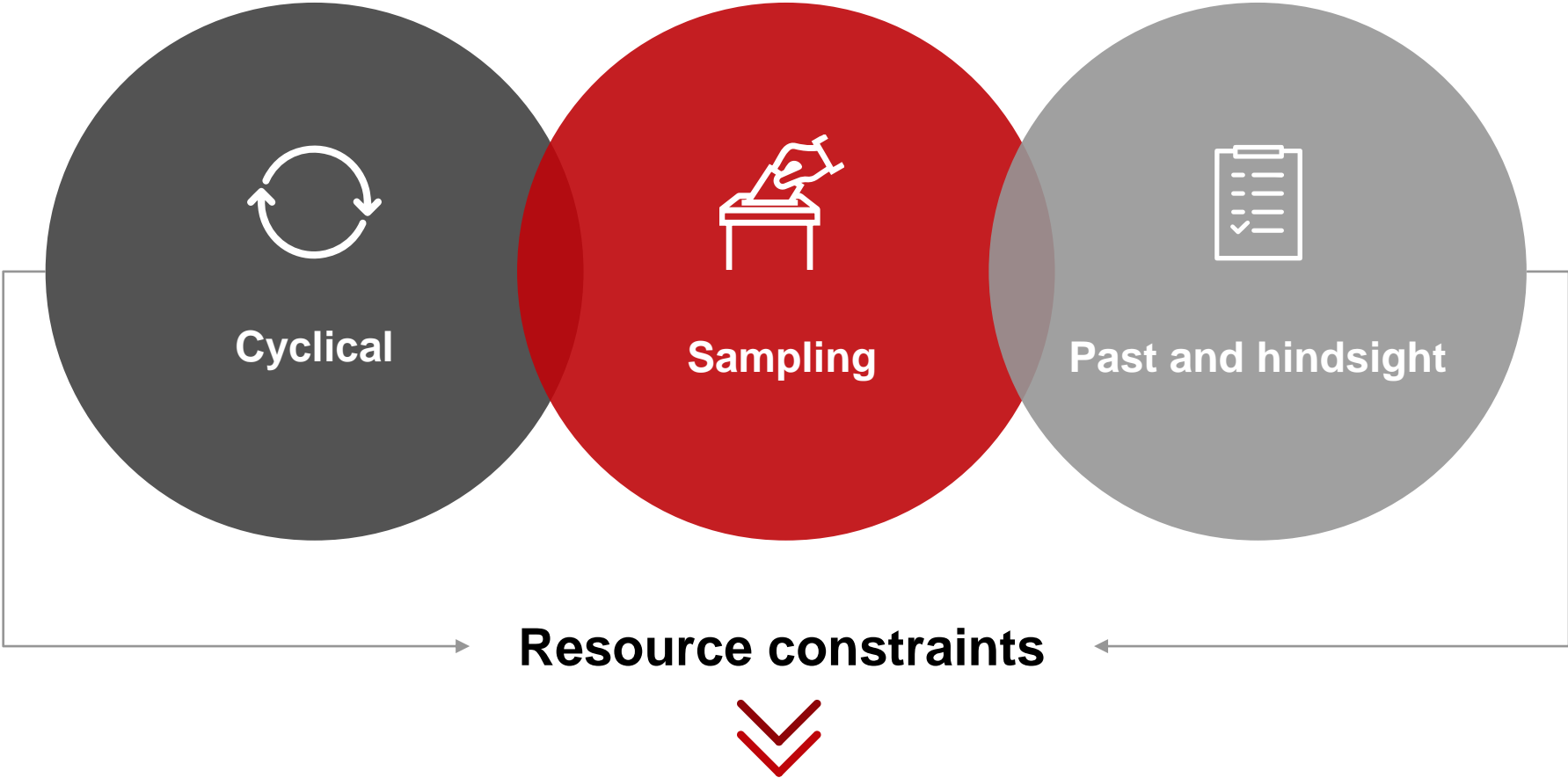
¹ Corporate Bank, Private Bank, Markets, and Others

Digital disruption... what does it mean for auditing

A possible reality?



Challenges and limitations



How do we break out of this conundrum?

Reimagining the way we work

A new imagery



Reimagining the way we work

A new imagery



Reimagining the way we work

A new imagery



Business units = F1 teams and drivers

- Playing to win
- Asian Bank of Choice



Audit team = F1 pitwall crew

- Data-driven and trusted
- Monitoring, guiding and predicting risks and controls



Support units = F1 pitstop crew

- Efficiency is the name of the game

Continuous Auditing

Moving from hindsight to insight and increased productivity

BEFORE



Sampling past data



Manual data extraction and review



Cyclical audits



Unprocessed exception reporting

AFTER



Automated data download



Automated checks across population



On demand auditing with continuous report generation



Data analytics and visualisation for additional insights



Increased assurance

Predictive Auditing

Moving from insight to foresight

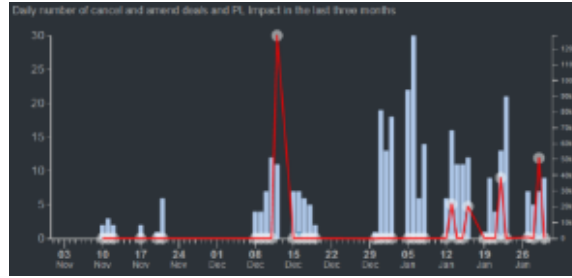


Branch risk profiling

- Model branch risk behaviour
- 100+ features used, enabling laser-sharp focus on predicting branches that need attention



IES* Award 2015



Trading analytics

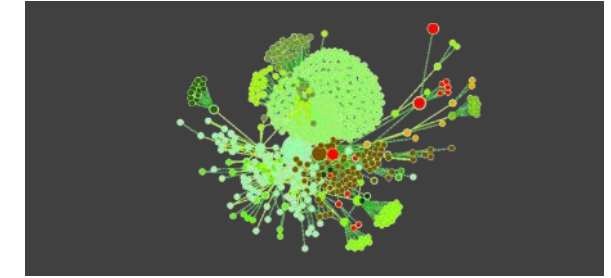
- Model trading behaviour anomalies
- Machine-enabled surveillance on trading activities



IES Award 2016



ASEAN Outstanding Engineering Achievement Award 2016

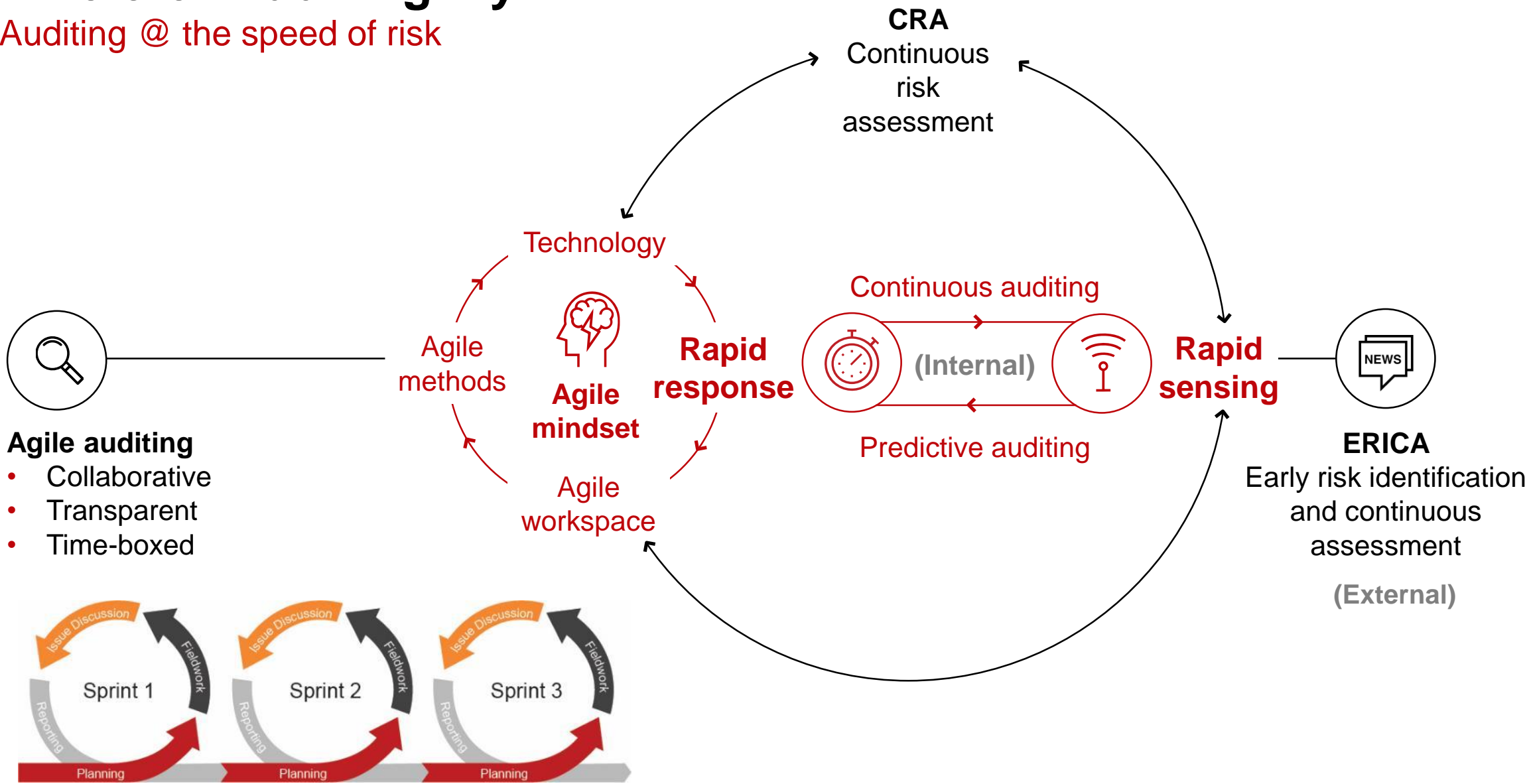


CRANE Credit risk assessment

- Early warning of credit risks
- Moving from people-dependent to data-driven assessments
- Incorporating network analysis to evaluate contagion effects of credit events

Whole-of-Audit Agility

Auditing @ the speed of risk



- Agile auditing**
- Collaborative
 - Transparent
 - Time-boxed



Digital showcase

Group Audit's award-winning algorithms and interactive command centre



Predictive Analytics

Top Risky Trader

Desk Name	Trader	Risk Score
SG T&M Fixed Income Sales	Trader 447	[High]
SG T&M Equity Derivatives	Trader 512	[High]
SG T&M Fixed Income Sales	Trader 487	[High]
SG T&M FX Derivatives	Trader 539	[High]
SG T&M Foreign Exchange	Trader 627	[High]
HK Branch - T&M Trading	Trader 272	[High]
HK Branch - T&M Equity Derivatives Structure & Trading	Trader 259	[High]
SG T&M Equity Derivatives	Trader 516	[High]

Continuous Auditing

Trending

Key Risk Areas	Feb 17	Mar 17	Apr 17	May 17	Jun 17	Jul 17
Dealer Licensing Breaches	[Green]	[Green]	[Green]	[Green]	[Green]	[Green]
Product Misselling	[Green]	[Green]	[Green]	[Green]	[Green]	[Green]
Trade Booking Errors	[Green]	[Green]	[Green]	[Green]	[Green]	[Green]
Trading Irregularities	[Green]	[Green]	[Green]	[Green]	[Yellow]	[Green]
Product Misselling	[Green]	[Green]	[Green]	[Green]	[Green]	[Green]
Trade Booking Errors	[Green]	[Green]	[Green]	[Green]	[Green]	[Green]
Trading Irregularities	[Green]	[Green]	[Green]	[Green]	[Green]	[Green]

Continuous Risk Assessment

Top Changes in AE

Audit Entity	Feb 17	Mar 17	Apr 17	May 17	Jun 17	Jul 17
T&M - Commodity Derivatives	[Yellow]	[Yellow]	[Yellow]	[Yellow]	[Yellow]	[Yellow]
T&M - Complex Hybrid Products/ Structuring	[Yellow]	[Yellow]	[Yellow]	[Yellow]	[Yellow]	[Yellow]
T&M - Credit Trading	[Yellow]	[Yellow]	[Yellow]	[Yellow]	[Yellow]	[Yellow]
T&M - DCE	[Yellow]	[Yellow]	[Yellow]	[Yellow]	[Yellow]	[Yellow]
T&M - Equity Derivatives	[Yellow]	[Yellow]	[Yellow]	[Yellow]	[Yellow]	[Yellow]
T&M - Fixed Income Origination	[Yellow]	[Yellow]	[Yellow]	[Yellow]	[Yellow]	[Yellow]
T&M - Foreign Exchange	[Yellow]	[Yellow]	[Yellow]	[Yellow]	[Yellow]	[Yellow]
T&M - Interest Rate	[Yellow]	[Red]	[Red]	[Red]	[Yellow]	[Yellow]

Early Risk Identification & Continuous Assessment

Top Stories

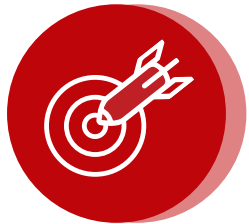
Summary

Zero marginal operating cost



Cost efficiency through continuous auditing

- Operating at **higher cadence** – move away from cyclical audits
- **Increasing audit coverage** – cover the entire population rather than sampling



Cost effectiveness through predictive auditing

- Identifying **emerging risks** before they become real threats
- Generating **insights & foresight** through machine-learning and big data



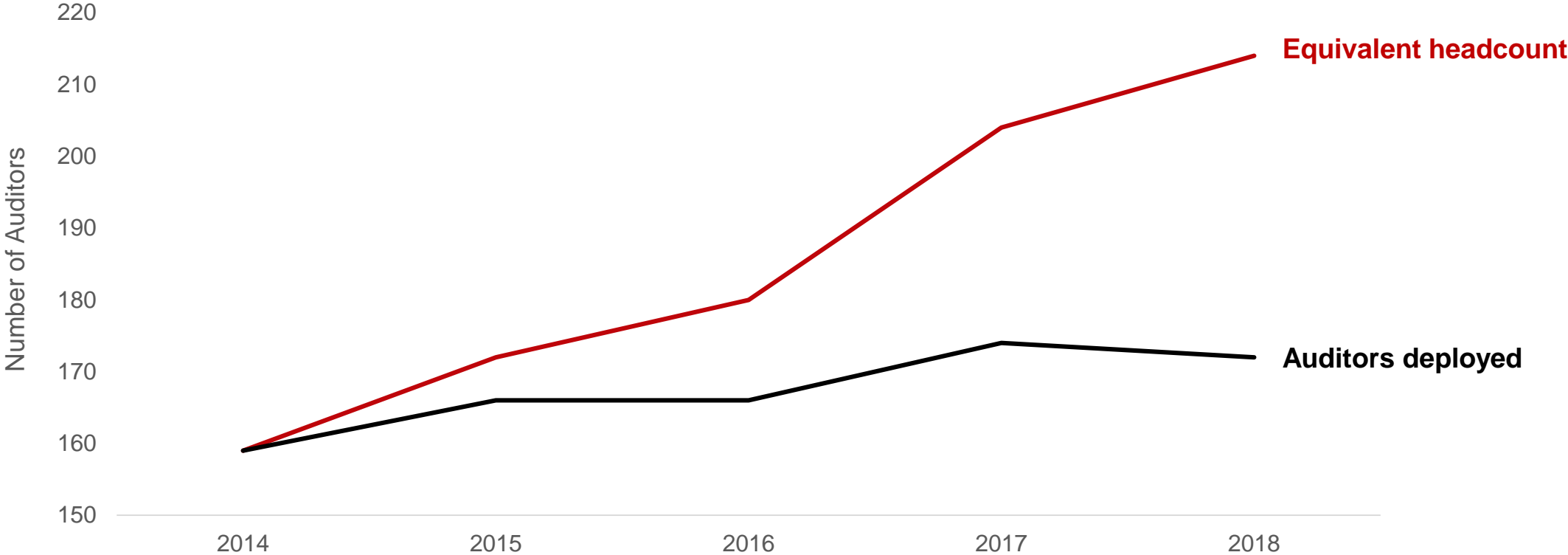
Agility and nimbleness

- **Rapid sense making** through business intelligence
- **Flex resources** to proactively shift our focus to new emerging risks

Audit automation and analytics

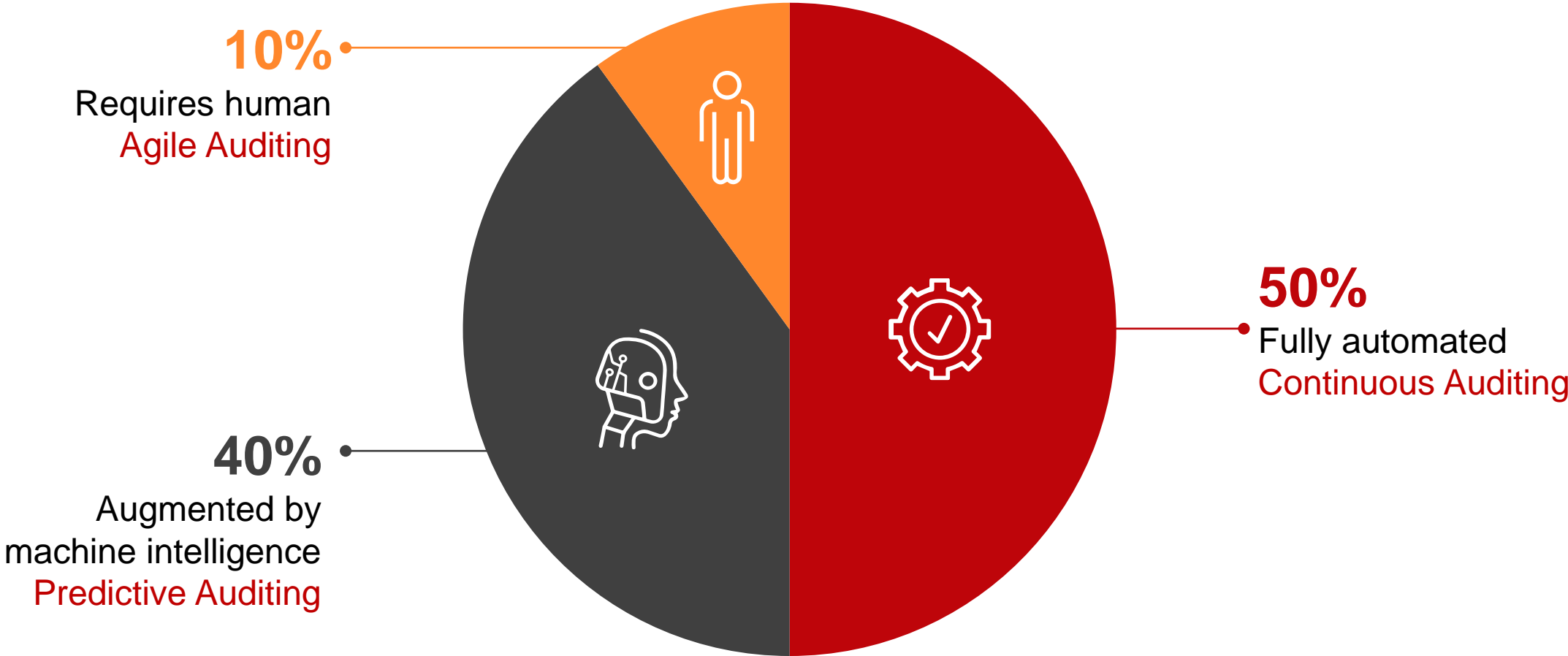
Doing more with less

Huge productivity gains from digital enablement



Digital disruption... what does it mean for auditing

A reality



The Future of Auditing is Auditing the Future

 **DBS Group Audit**



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