



Preparing the Office of CFO on Future Innovation – Artificial Intelligence and Machine Learning

Michael Chung
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Wolters Kluwer

Wolters Kluwer at a Glance

Global. Growing. Dedicated

Since 1836

A rich **180-year** heritage of strong values, deep domain knowledge, innovation, and a continuous focus on the customer



€4.4B Revenues

Serving customers in **180+ countries**

Operations in **40+ countries**



19,000 employees globally

50% female

75% favorable employee engagement

Accounting, audit, finance & tax professionals turn to us when they have to be right



Our Market

CCH Tagetik corporate performance management solutions has over 1100 customers

TeamMate internal audit solution has over >100K users

Serve **>1M Accountants** & **93% of Fortune 500**

Our Operations

€1.3B Revenues

Serving customers in **120+ countries**

Operations in **20+ countries**

Global Leader in professional tax, accounting & audit markets

Our Team

6,600 employees globally

Award winning sales & customer support

Recognized by industry for **technological innovation** and **trusted domain expertise**

CCH® Tagetik

Increase efficiency, decrease cost and reduce risk across multiple finance processes

“...with CCH Tagetik, we have been able to almost completely do away with manual work in tables. We have gained huge time savings through standardized data capturing.”
Christian Teig
CFO, CompuGroup Medical

More than
2500
applications

Approximately
1100
customers

Customer Satisfaction
4.7
Out of 5

More than
20
years
experience

Across Multiple Industries



Banking



Insurance



Other
Financial
Services



Manufacturing
& CPG



Services



Construction



Media



Energy
& Utilities



Fashion &
Retail

Wolters Kluwer Hong Kong

www.wolterskluwer.com.hk



Online Database

The renowned Prime Law & Tax database is one of the most authoritative and trusted resources used by many leading professionals in Hong Kong.

Software

We dedicate to develop our software package to support various CPA firms in Hong Kong.

Publication

We are the leading publisher for tax and accounting and legal books in Hong Kong. Our titles include the bestseller, Hong Kong Master Tax Guide.

We innovate to drive incremental value for customers

Delivered Value >



Online offerings

- One size fits all
- Research driven



Workflow

- Integrate software
- End-to-end workflow system



Big Data

- Leveraging data for valuable insights and trusted answers



Artificial Intelligence

- Predictive Intelligence
- Machine Learning

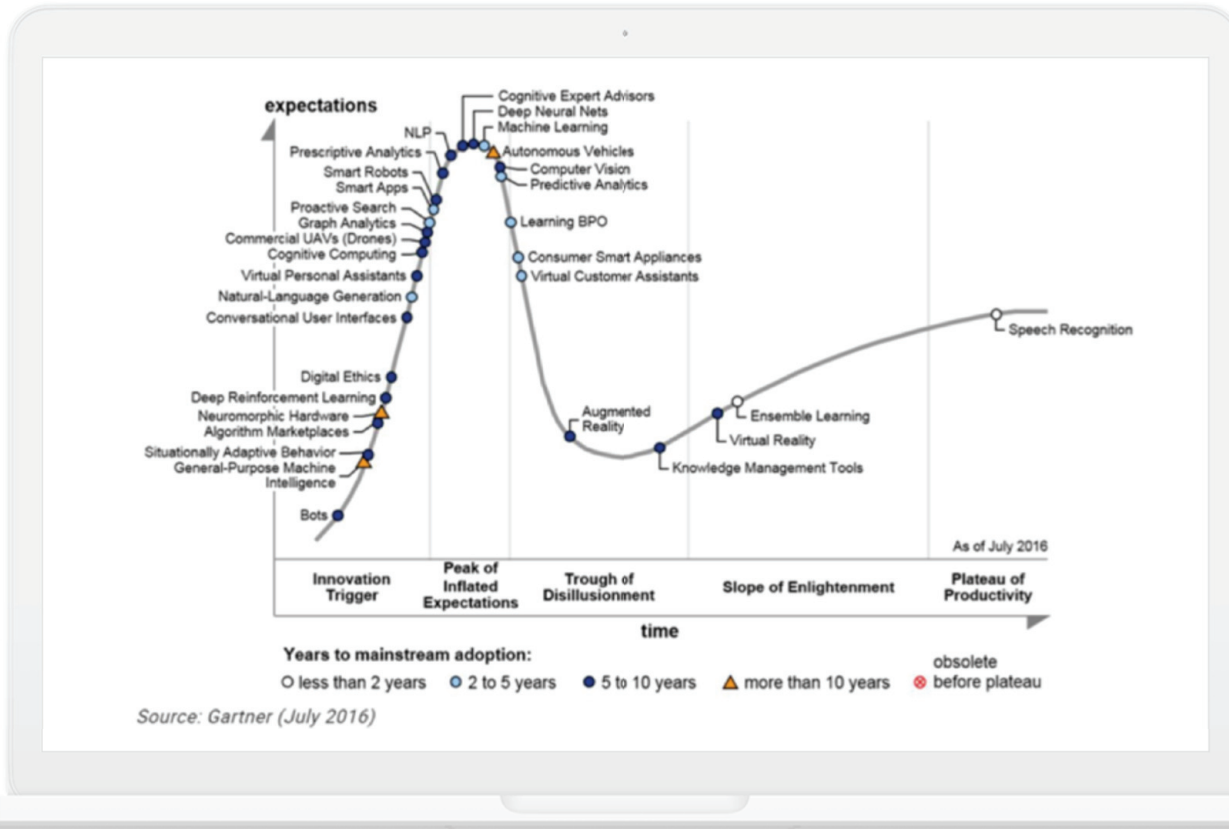
THE HYPE

“The Robots Are Coming, and They’ll Take Our Jobs!”

“AI Can Do Your Job Faster and More Accurately than You Can!”



Hype Cycle for Smart Machines, Gartner 2016



“Smart machine technologies adapt their behavior based on experience, are not totally dependent on instructions from people (that is, they learn on their own) and are able to come up with unanticipated results.”

Gartner®

THE REALITY

“Roles will be more creative and specialized as AI is integrated into the workday.”

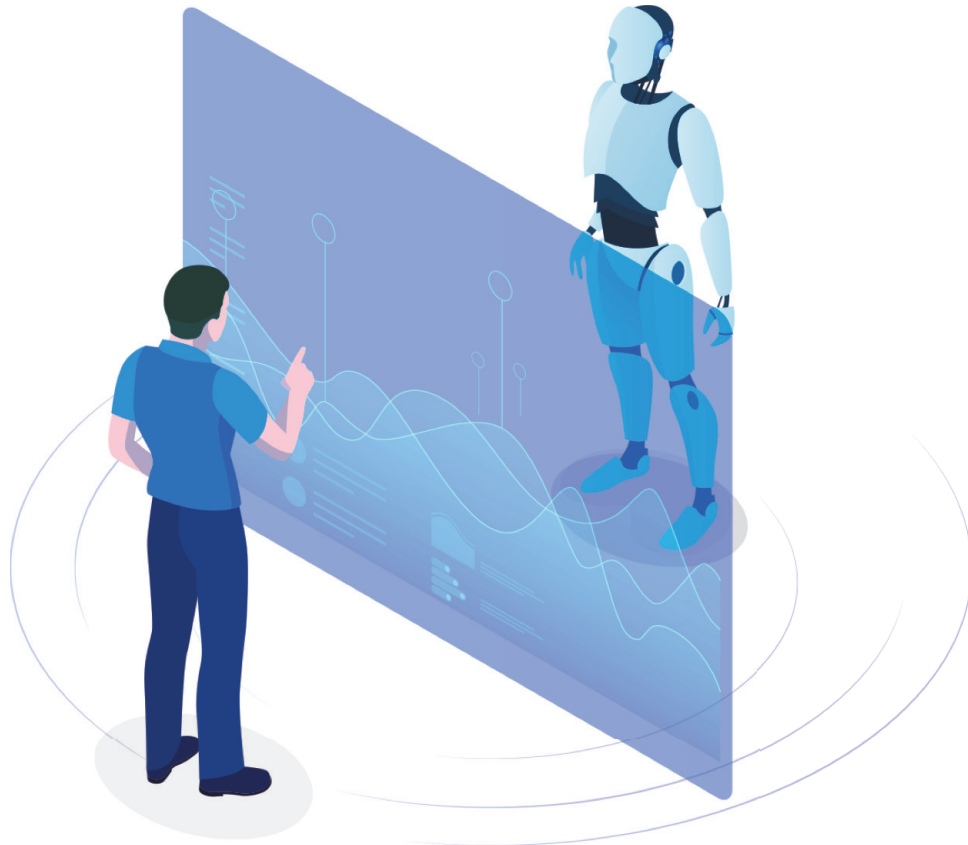
“...people using AI can automate the tedious work and take action on the insights.”

Source: Luminary Labs in partnership with Fast Forward Labs



“Are accountants going to be replaced by robots?”

– Accounting WEB



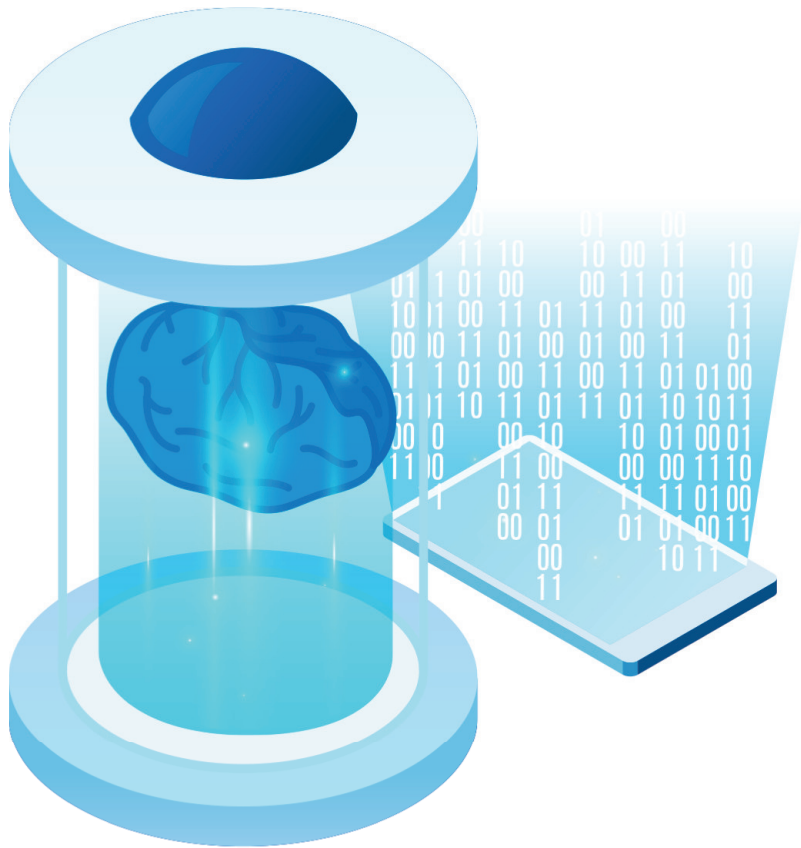
“...AI and machine learning threaten to replace all executional work, but **fortunately for the humans, even at their best these systems are still terrible at the creative**

What this means is that an accounting firm focused primarily or exclusively on compliance and executional work will need to move to the creative:

- begin **providing context and meaning from data**
- **shift from ‘preparers’** - recording and classifying information within one system – **to ‘integrators’** - facilitating the flow of information among a suite of connected systems
- **redeploy their time to focus on delivering creative, value-added client services**

...business owners who have an accountant consider that accountant to be a **‘trusted advisor....’** The **relationship between the client and the accountant is a distinctly human one** and that relationship will never be replaced.” - **Ryan Watson, CPA**

AI predictions



Gartner®

- By 2019: >10% of IT hires in customer service will mostly write scripts for bot interactions
- Through 2020: organizations using cognitive ergonomics & system design in new AI projects will achieve long-term success 4x more often than others
- By 2020: 20% of companies will dedicate workers to monitor and guide neural networks
- **By 2019: startups will overtake the largest companies in the world, in driving the AI economy with disruptive business solutions**
- By 2019: AI platform services will cannibalize revenues for 30% of market-leading companies

AI Examples – Office of CFO



Digital assistants replace tasks of 1st & 2nd year staff

- Transcription, data entry, research



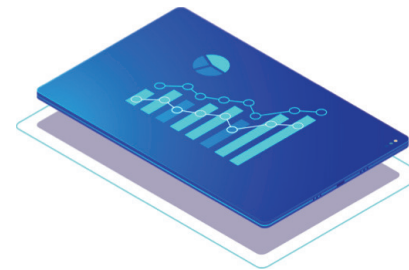
AI makes tax determinations of data

- Unstructured data
- Tax Optimization for Multi National Corporations



AI automates disparate workflow processes

- Monitor changes in legal & regulatory documents and automate updates
- Automate Audit Programs



Predictive statistical model for audit risk

- Analyze all internal & external data, publicly available information, number of audits per jurisdiction, legal changes, & political focus

A few things must happen before Blockchain is widely adopted in day-to-day commerce

System confidence

Auditors need the means to check digital signatures and counterparties to verify their existence

Audit strategies

Auditors need to make decisions on level of audit, data capture method & type of audit analytics needed

Financial accounting, reporting & legal standards

Industry & regulators need to develop solutions and frameworks that align with new ways of working

Cyber & software auditing

Transactions need necessary security and encryption with real-time tracking of anomalies & unusual patterns

Blockchain ecosystem spurs new opportunities to drive efficiency and growth

ACCOUNTANTS & AUDITORS

- Revenue model driven on value and outcomes
- Strategic partners delivering anticipatory insights
- Data analysts, not historians of transactions
- Coaches and advisors beyond compliance
- Owners and unrivaled experts in cybersecurity, protocols & control systems



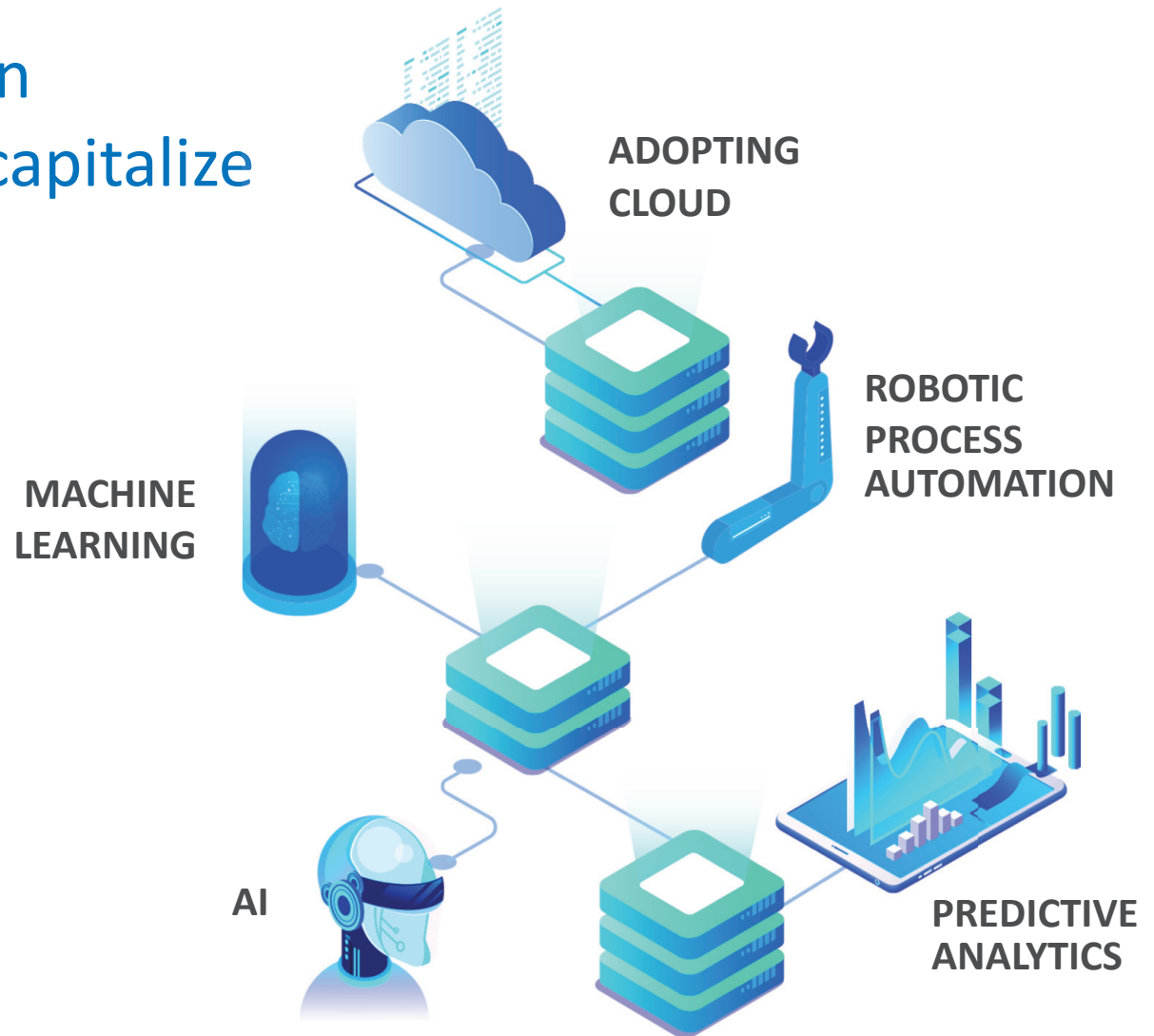
CFO's

- Revenue model driven on value and outcomes
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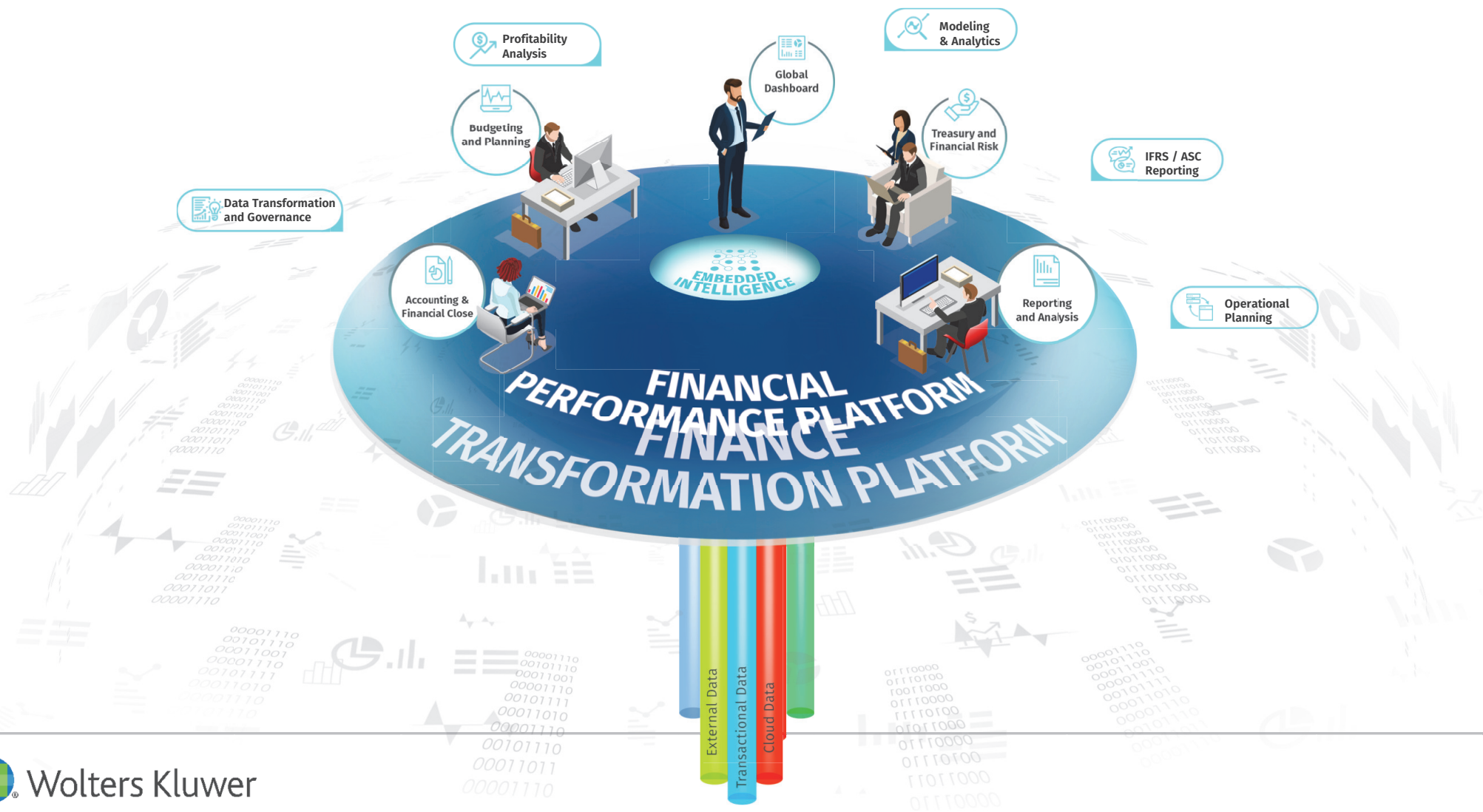
Future-ready firms will gain competitive advantage & capitalize on earlier investments

Firms taking steps today to digitize their practice will be best positioned to take advantage of blockchain's role in commerce

They will have digital skillsets in place and a modern practice ready to accommodate a new generation of digital experts entering the profession



Modern Finance Needs a Finance Transformation Platform



Financial Layer

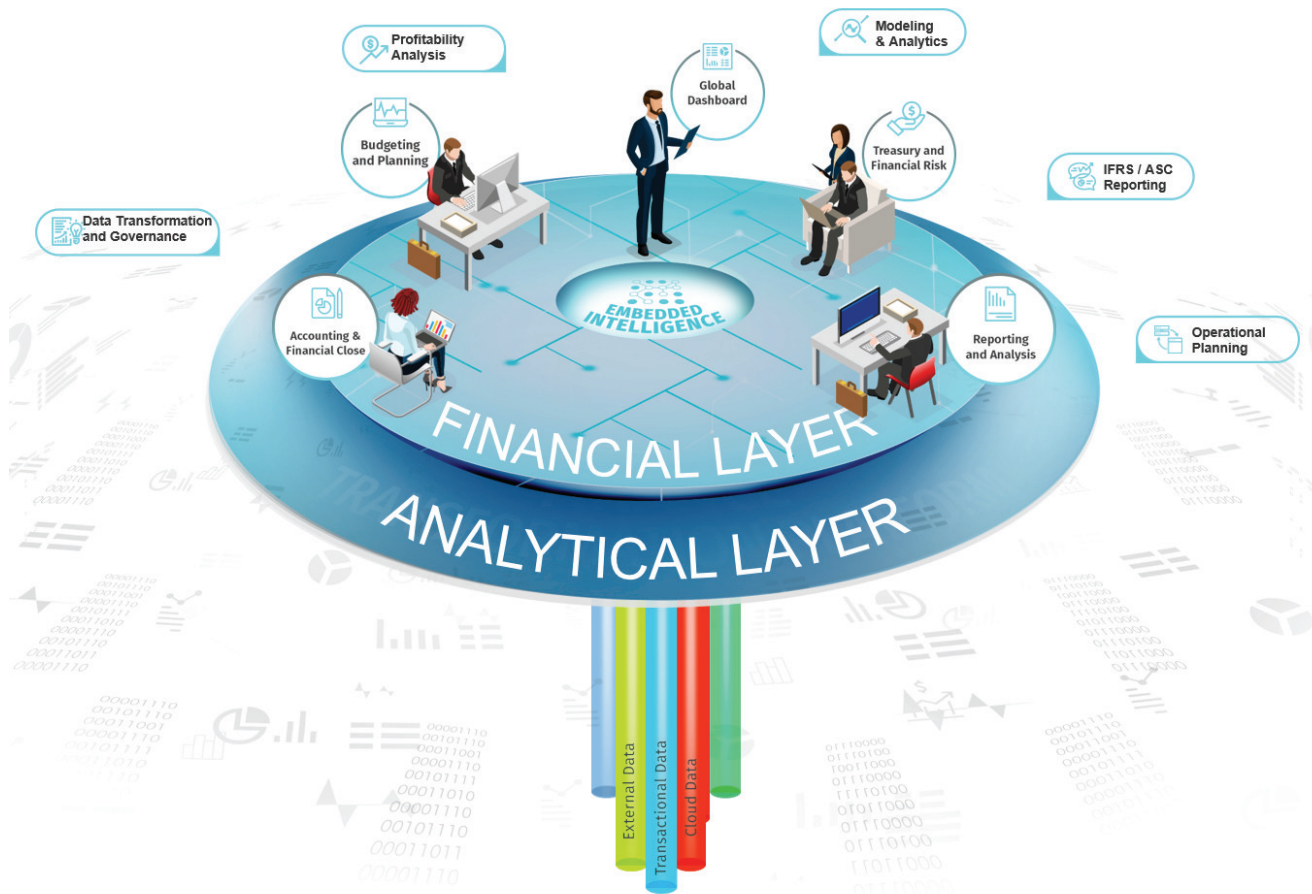
The financial layer is our time-tested Financial Performance Platform for CPM & Regulatory solutions



- ✓ Typical CPM layer addressing the financials needs of the CFO office:
 - Close & Consolidation
 - BP& Forecasting
 - Reporting
 - ...
- ✓ Smart Data Model with pre-built financial intelligence
- ✓ Configuration versus programming
- ✓ Workflow & Audit Trail

Analytical Layer

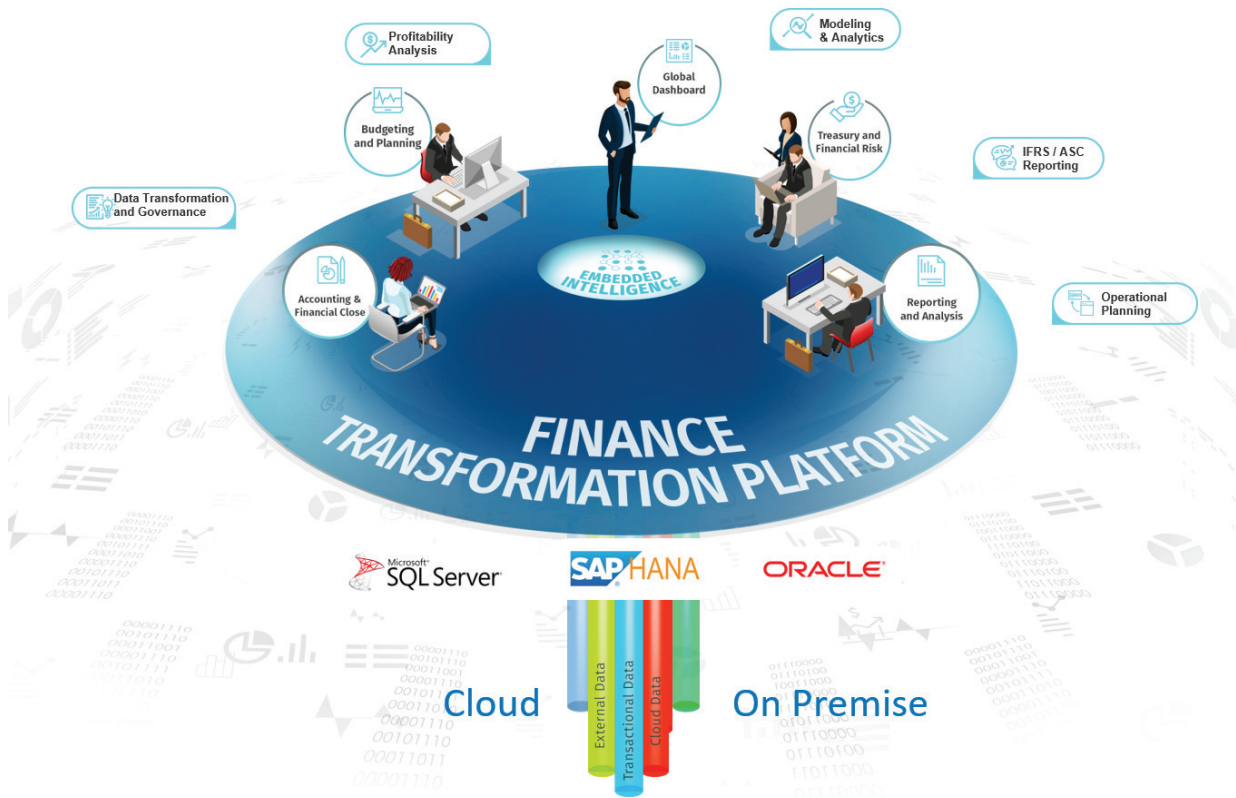
We've added the analytic layer, to extend our platform beyond traditional CPM:



- ✓ Extension of the Financial layer
- ✓ Open Data Model with unlimited dimensionality
- ✓ Optimized for fast performances through columnar table approach, DB partitioning, table indexing, parallel querying
- ✓ Aims to host operational details at a very granular level of information
- ✓ Advanced Modeling Capabilities
- ✓ Natively integrates with the Financial Layer via QDL and the standard Reporting engine

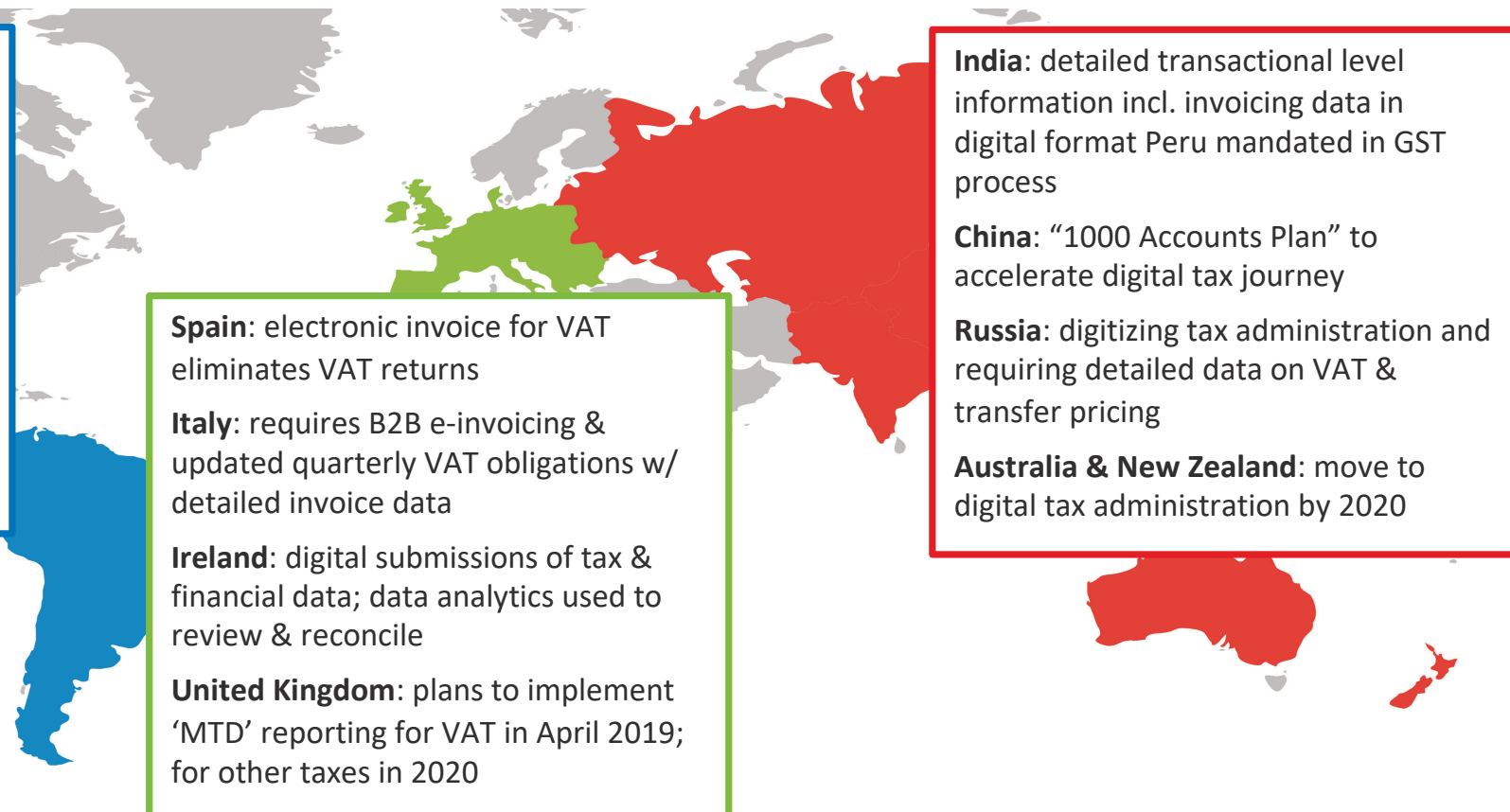
The Finance Transformation Platform

KEY BENEFITS



- ✓ **Unified Platform** – Consolidation & Close, Budgeting, Planning & Forecasting, Reporting & Disclosure, Modeling & Analytics
- ✓ **Collaborative** - Aligns Finance & Operations and allows Finance to be a strategic partner
- ✓ **Transparency** – CPM and granular detailed operational data together
- ✓ **Future ready** – Ability to process high volume of detailed data for use in AI, ML, predictive, etc.
- ✓ **Confidence** - Controlled and auditable results
- ✓ **Insights** - Provides 360° view of financial data across the organization

Tax authorities driving tax digitization to lower costs and maximize revenue



Brazil: detailed digital tax requirements incl. public digital bookkeeping system through tax authority

Argentina: requires e-Invoicing from taxpayers & does analytics on invoices submitted

Chile: requires accounting data storage & taxpayer ERP system access for audits

Mexico: advanced digital requirements to enable e-audits

Spain: electronic invoice for VAT eliminates VAT returns

Italy: requires B2B e-invoicing & updated quarterly VAT obligations w/ detailed invoice data

Ireland: digital submissions of tax & financial data; data analytics used to review & reconcile

United Kingdom: plans to implement 'MTD' reporting for VAT in April 2019; for other taxes in 2020

India: detailed transactional level information incl. invoicing data in digital format Peru mandated in GST process

China: "1000 Accounts Plan" to accelerate digital tax journey

Russia: digitizing tax administration and requiring detailed data on VAT & transfer pricing

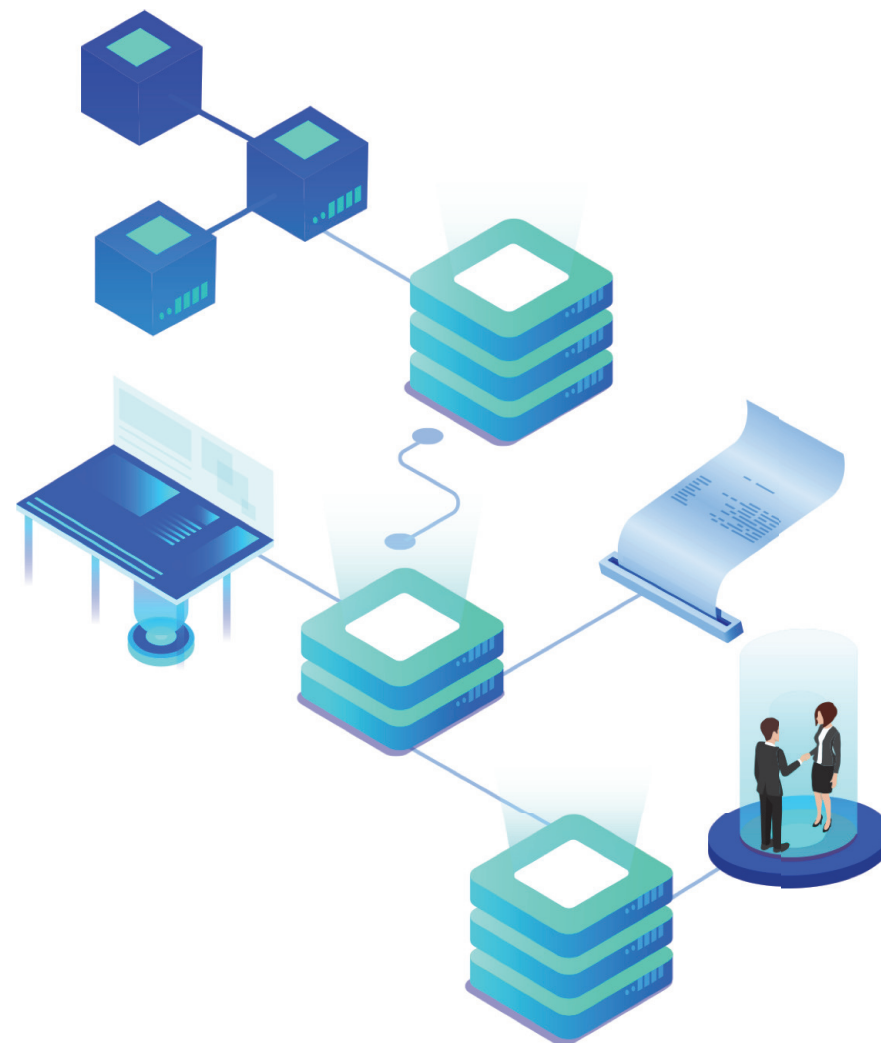
Australia & New Zealand: move to digital tax administration by 2020

Automating financial and tax processes through collaboration & digitization



Future-ready firms will gain competitive advantage & capitalize on earlier investments

- **Blockchain** – get comfortable with blockchain and watch for signs of it entering your world
- **Technology Innovation** – make AI, machine learning and robotic process automation work for you
- **Digitalization of Tax** – digitize your firm to minimize future hurdles
- **Collaboration** – ensure virtual client relationships and promote real-time collaboration



Thank You!

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