

NUCLEUS
RESEARCH

ROI: 72%
Payback: 4.8 Months

QAD CLOUD

IMPERIAL TOBACCO

ANALYST

Seth Lippincott

THE BOTTOM LINE

Imperial Tobacco shifted its existing QAD production environment to the cloud rather than upgrading and refreshing its on-premises infrastructure, reducing its project costs by over seven million pounds. With its current environment reaching its end-of-life, Imperial Tobacco built a business case to upgrade to the latest version of QAD deployed on premises. However, by opting to lift and shift to the cloud, the company was able to extend the life of its current solution and lay the foundation for any future upgrade to the cloud. Imperial Tobacco was able to reduce its costs related to maintenance, development and technical staff, and technology hosting.

THE COMPANY

Imperial Tobacco is comprised of several manufacturing subsidiaries that produce and market a range of tobacco products and accessories. With a long heritage in the tobacco industry and locations in the UK, Poland, Russia, Germany, Spain, and Australia, Imperial Tobacco makes brands that are available in markets around the world including West, JPS, Golden Virginia, Davidoff, and Gauloises Blondes. Imperial Tobacco is one of five subsidiaries of Imperial Brands, which has diversified into next generation products as well as owning a traditional tobacco portfolio.

THE CHALLENGE

In early 2017, Imperial Tobacco faced a dilemma about how to move forward with its global production environment. Operating on the 2008 version of SE QAD, the company needed to make a transition as its current solution was reaching its end-of-life. Imperial Tobacco was also running an old version of Windows, for which support was also ending. Due to the complexity and requirements of the company's product software, an upgrade to the latest version of any vendor posed a significant undertaking.

**Cost : Benefit
Ratio**

1 : 1.3

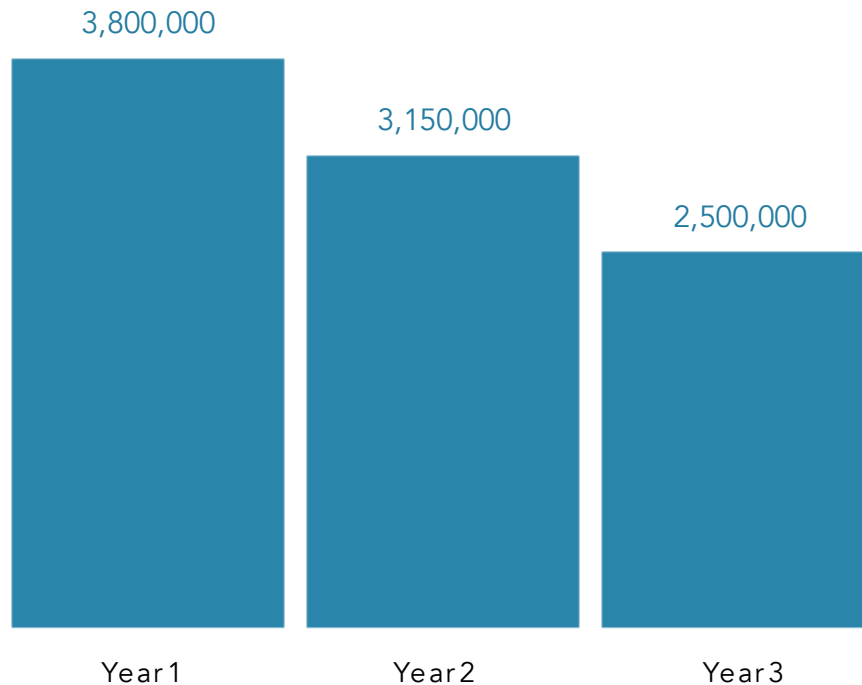
THE STRATEGY

To overcome the challenge Imperial Tobacco faced, the company considered several options.

- Upgrade and replatform to the latest version of QAD while remaining on premises. When building the business case, Imperial Tobacco scoped the requirements to upgrade to QAD Enterprise Edition. However, the company opted to keep its environment on premises, which would require a significant infrastructure costs.
- Move to SAP. Imperial Tobacco looked at the potential costs related to expanding SAP to its production environment. The company already used SAP in its sales and marketing department as well as for most of the supply chain logistics, general ledger, warehousing, and manufacturing. When Imperial Tobacco looked at the potential costs, it found that moving to SAP would have cost upwards of 25 million pounds and required significant upheaval of its current business processes.
- Lift and shift to QAD Cloud. Imperial Tobacco explored moving its existing environment to the cloud that was managed by QAD.

Initially, Imperial Tobacco opted to upgrade and replatform its solution with QAD Enterprise Edition. Work had begun to lay the foundation by Imperial Tobacco's internal team with the business case and expected capital outlay completed. The option to move its version of QAD SE 2008 to the cloud was presented when the new Chief Information Officer joined the company and looked for ways to reduce the expense. The company did a significant amount of work baselining the QAD environment, so when the lift and shift occurred it was less disruptive. Over 13 months the organization moved its manufacturing environment to the cloud.

CUMULATIVE NET BENEFIT



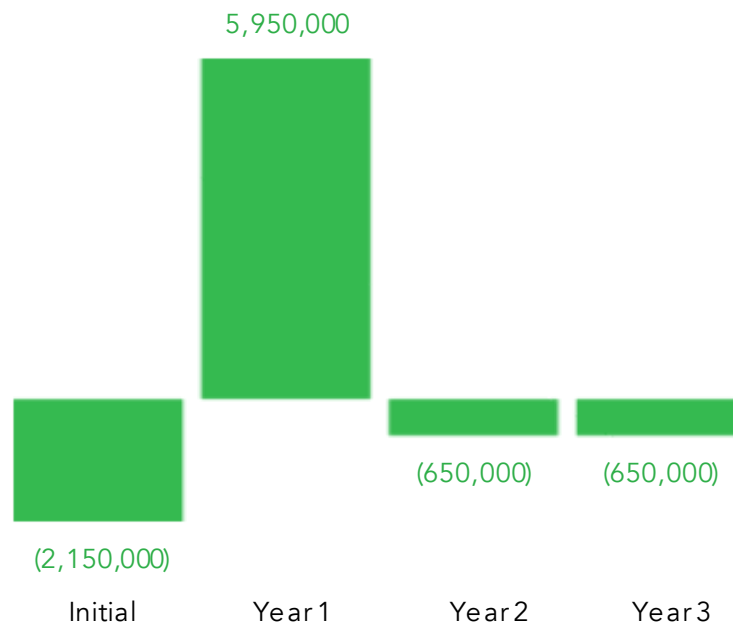
KEY BENEFIT AREAS

Imperial Tobacco realized benefits by shifting its QAD manufacturing environment to the cloud in a few areas:

- **Reduced run costs.** The business case on which Imperial Tobacco had started to execute to migrate to the latest QAD manufacturing environment on premises incurred costs of nine million pounds. With the lift to the cloud of its current system, Imperial Tobacco reduced its one-off costs by seven million pounds.
- **Reduced operating costs.** With the move to the cloud, Imperial Tobacco reduced several of its operating costs including maintenance license costs and hosting fees.

- Reduced technical and development staff. Imperial Tobacco was able to reduce headcount among its technical and development staff by shifting management of its infrastructure to QAD's datacenter.
- Reduced risk. Before relying on QAD to operate and manage its infrastructure, Imperial Tobacco had its datacenter at one of its production locations. By moving its manufacturing environment to a professionally run datacenter, Imperial Tobacco reduced the risk of damage and security of its infrastructure assets.

NET CASH FLOWS



KEY COST AREAS

Imperial Tobacco incurred costs in two areas when it shifted its QAD system to the cloud. First, there were costs associated with the software migration which included on-boarding, migration of archived instances, migration of complementary applications, and custom code migration. The company employed external consultants to assist with the migration of its software. Secondly, Imperial Tobacco incurred software license fees and cloud support fees. Finally, the company's internal personnel who oversaw testing the system and working out any issues comprised a cost center. Since the system was the same for the line-of-business operators, there was no training or changes in their business processes.

LESSONS LEARNED

By lifting and shifting to the cloud, Imperial Tobacco was able to extend the life of its system for several years. The system had been nearing its end-of-life, with maintenance support ending. However, by moving to the cloud, the company guaranteed support from QAD for eight additional years. Additionally, by moving to cloud infrastructure, the company is now comfortable with continuing to use cloud when it deploys its next manufacturing solution.

CALCULATING THE ROI

To calculate Imperial Tobacco's total investment in moving its solution to the cloud, Nucleus quantified the costs related to shifting its software to the cloud in license costs, cloud support fees, and consulting costs as well as the value of internal personnel's time.

There were no indirect benefits because the system was the same for the line of business manufacturing personnel. Direct benefits quantified included the reduction in costs associated with the on-premises system including maintenance license costs, technical and development staff reductions and the costs of replatforming and upgrading that Imperial Tobacco avoided.

Unquantified benefits included the improved risk management that Imperial Tobacco has realized by moving its on-premises datacenter from its prior location to a professionally managed datacenter.

FINANCIAL ANALYSIS

Annual ROI: 72%

Payback period: 0.4 years

BENEFITS	Pre-start	Year 1	Year 2	Year 3
Direct	0	8,750,000	1,750,000	1,750,000
Indirect	0	0	0	0
Total per period	0	8,750,000	1,750,000	1,750,000

COSTS - CAPITALIZED ASSETS	Pre-start	Year 1	Year 2	Year 3
Software	0	0	0	0
Hardware	0	0	0	0
Project consulting and personnel	0	0	0	0
Total per period	0	0	0	0

COSTS - DEPRECIATION	Pre-start	Year 1	Year 2	Year 3
Software	0	0	0	0
Hardware	0	0	0	0
Project consulting and personnel	0	0	0	0
Total per period	0	0	0	0

COSTS - EXPENSED	Pre-start	Year 1	Year 2	Year 3
Software	0	2,800,000	2,400,000	2,400,000
Hardware	0	0	0	0
Consulting	950,000	0	0	0
Personnel	1,200,000	0	0	0
Training	0	0	0	0
Other	0	0	0	0
Total per period	2,150,000	2,800,000	2,400,000	2,400,000

FINANCIAL ANALYSIS	Results	Year 1	Year 2	Year 3
All government taxes	45%			
Cost of capital	7.0%			
Net cash flow before taxes	(2,150,000)	5,950,000	(650,000)	(650,000)
Net cash flow after taxes	(1,182,500)	3,272,500	(357,500)	(357,500)
Annual ROI - direct and indirect benefits				72%
Annual ROI - direct benefits only				72%
Net Present Value (NPV)				1,271,830
Payback period				0.4 years
Average Annual Cost of Ownership				3,250,000
3-Year IRR				161%

All calculations are based on Nucleus Research's independent analysis of the expected costs and benefits associated with the solution.