



SICK SIGMA?

PUTTING SUPERIOR QUALITY BACK ON MANAGEMENT'S AGENDA

WHITE PAPER

- + **Turning challenge into opportunity:** Shifting from quality control to quality assurance
- + **Changing the perspective:** Viewing quality through the customers' eyes
- + **Evolving excellence:** A five-part framework for world-class quality
- + **Driving quality transformation:** Embedding continuous improvement in organizational culture

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Quality methodologies and initiatives are being overwhelmed by the soaring complexities of the modern business – despite decades of emphasis on the virtues and practices of total quality management, Lean Six Sigma, and more. The problems are about to get far worse for companies that don't act promptly. A five-part framework can help quality chiefs – and the executives to whom they report. It starts with a deeper understanding of quality's core role.

Samsung didn't mean to mess up. But in 2016, when the batteries in its Galaxy Note 7 smartphone began catching fire, the company had a public-relations nightmare on its hands. In their rush to beat Apple's latest iPhone to market, Samsung's executives had put quality at risk.*



THE CONSEQUENCES: A MASSIVE PRODUCT RECALL, UP TO \$15 BILLION OF REVENUE LOST AND LASTING DAMAGE TO THE BRAND.

Samsung's error was surprising, considering how far quality disciplines have advanced in recent decades and how prevalent they have become. But it is not inconceivable, given that the incremental gains made by typical quality organizations have not kept pace with the soaring increase in complexities facing senior executives.**

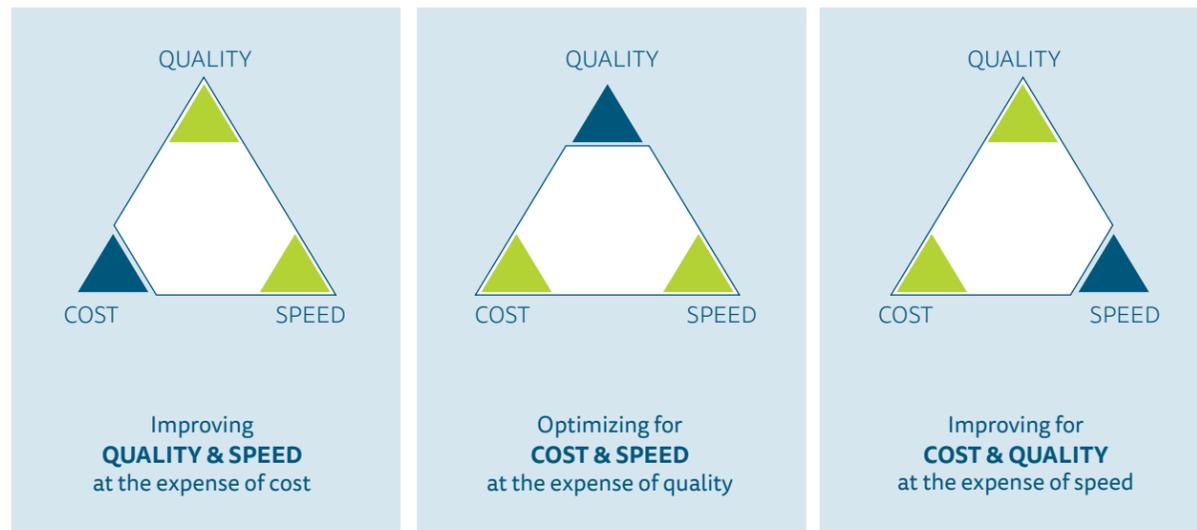
Complexity is everywhere. Supply chain networks stretch around the globe, product portfolios are much broader, and downstream services, from maintenance to customer support, are proliferating. Uncertainty is on the rise; demand is volatile; government intervention looms larger; regulatory pressures require constant catch-up, and technology's fast march requires businesses to keep pace. And as Samsung can attest, there is non-stop pressure to get to market as fast as possible.

* The New York Times, Mozur, P., & Lee, S.-H. (2016, September 2): Samsung to Recall 2.5 Million Galaxy Note 7s Over Battery Fires. <https://www.nytimes.com/2016/09/03/business/samsung-galaxy-note-battery.html>

** The New York Times, Chen, B. X., & Sang-Hun, C. (2016, October 11): Why Samsung Abandoned Its Galaxy Note 7 Flagship Phone. https://www.nytimes.com/2016/10/12/business/international/samsung-galaxy-note7-terminated.html?_r=0

More worrying still, few quality organizations can track the true costs of poor quality (CoPQ) – costs that are largely invisible to top management. The Quality organization cannot keep up; it is forced into quality-control (QC) firefighting mode instead of continuously improving quality assurance (QA) processes that prevent problems in the first place. The financial consequences of CoPQ are stark. goetzpartners estimates that CoPQ can hurt profitability by at least 5% and sometimes by as much as 25%. If nothing changes, the costs of running the typical quality organization will double in the next 10 years.

MANAGEMENT MISPERCEPTION: QUALITY AS TRADEOFF WITH COST AND SPEED



Source: goetzpartners

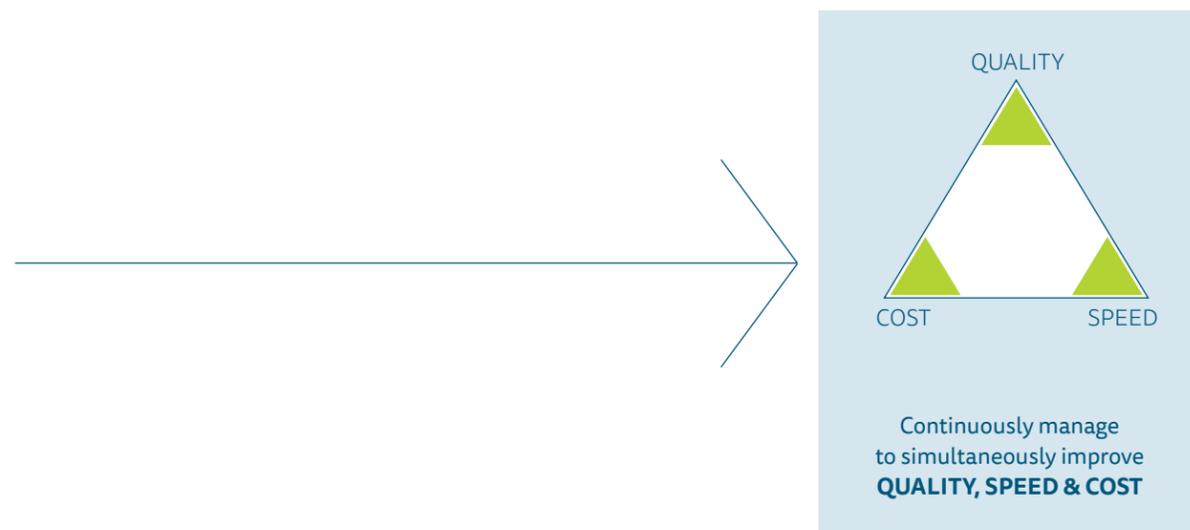
Change has to happen very soon. Complexity will only intensify. Under pressure on many fronts, and hearing the business arguments of managers in marketing and operations, more and more senior executives have come to believe the fallacy that cost, quality and speed of delivery are trade-offs – that quality can only be achieved at the expense of other variables.

The consequences of that belief are very important to the chief executive and chief operating officer – not just to those heading the quality organization. They must be acknowledged and owned by the company's most senior executives before the internal struggles start to be noticed by customers or begin to hit earnings, and long before they lead to headline-grabbing disasters.

A WAY TO TURN CHALLENGE INTO OPPORTUNITY

goetzpartners' work with best-in-class quality organizations across manufacturing and services sectors shows it is possible to strive for and to attain zero defects and to ensure that employees shift the emphasis from QC to QA while being empowered to do so. In this ideal world, customers are regularly delighted, and QC firefighting is kept to a minimum; quality is widely recognized as a driver of value on both revenue and cost dimensions.

ENVISIONING A WORLD-CLASS QUALITY ORGANIZATION



Of course, it is one thing for senior executives to acknowledge the challenges in restoring that balance and quite another for them to take appropriate action. goetzpartners has developed a set of success factors that can help bridge that "action gap." These factors have been assembled into a coherent five-part framework that quality chiefs and their colleagues can use to jump-start the necessary conversations with their leadership teams. Each part of the framework describes a hallmark of a world-class quality organization.

Taken together, the hallmarks form the basis of a sound strategy for transforming the quality function and helping the Chief Quality Officer retain a seat at the strategic table. Let's look at each in depth:

5 RULES

FOR WORLD-CLASS QUALITY ORGANIZATIONS

1

CUSTOMER CENTRICITY

- Continuously measuring customers' perceptions of quality
- Seeing quality of service as a differentiator to raise customers' perceptions of value
- Using customer feedback loops to improve quality

2

END-TO-END VALUE GENERATION

- Not simply "checking the boxes"
- "Left-shifting" of quality to the source
- Embedding quality disciplines into the heart of value creation
- Looking beyond the company's four walls
- Tracking value leakage by measuring Cost of Poor Quality (CoPQ)

3

ORGANIZATIONAL EFFECTIVENESS

- Gearing organization structures to deliver the most business value
- Re-prioritizing QA by ensuring strong roles and responsibilities
- Strengthening cross-functional collaboration by leveraging networks
- Fostering a quality culture across the entire company

4

DIGITAL TECHNOLOGY ADOPTION

- Sharing data cross-functionally
- Putting digital technologies to work to create value for the customer
- Automating QC activities

5

CAPABILITY-BUILDING

- Clearly defining capabilities needed in the future
- Realizing the importance of a systematic change management framework
- Tracking the effectiveness of capability development initiatives and linking them to business performance
- Making full use of customized training programs

1

CUSTOMER CENTRICITY

Best-in-class quality organizations play proactive roles in their companies' multiple interactions with customers. Learning from customer feedback and from competitor intelligence, they are well-placed to help their companies increase revenue and market share by differentiating themselves through the experiences they offer. Delighted customers are much more likely to remain loyal; they regularly spend more on products and services – and recommend them to others.

For a start, best-in-class quality leaders continuously measure customers' perceptions of quality. They absolutely understand that quality is part of the value proposition; they know that customers make trade-offs between product features, pricing and other components the quality. So they not only track, analyze and disseminate multiple streams of customer feedback but they also add data from alternative sources to provide valuable insight into current performance issues – root-cause analysis, for example – and to generate ideas for continuous improvement in areas such as product design.

Best-in-class quality groups also see quality of service as a differentiator to raise customers' perceptions of value and to use customer feedback to increase quality. Essentially, they see quality in terms of customer experience – not just in terms of the product but in all of the ways in which the customer interacts with the company, from customer service to after-sales support. They also know how to integrate feedback on service quality into product quality. Increasingly, they leverage the insights from internal and external customer touchpoints and channel the feedback back into product development – as far back as research and development – to help bolster product quality.

CASE STUDY

TELECOMMUNICATIONS COMPANY: CREATING A QUALITY PERCEPTION INDEX

The quality organization of a telecommunications company has created a "customer value score" that management uses as an early warning mechanism. The company can now continuously explore and resolve systemic issues at its most valuable customers and tackle them proactively, and it can more effectively manage customers' expectations. The key to that continuous improvement mechanism: collection of detailed customer feedback from many touchpoints at which the company interacts with its customers.

2 END-TO-END VALUE GENERATION

CASE STUDY

CONSUMER GOODS COMPANY: RE-ORGANIZATION HELPS MANAGE COMPLEXITY

The global quality group in a consumer goods company shows what that looks like. The group was re-organized to support the entire value chain, from research & development, procurement, and manufacturing to marketing and distribution. Resources and activities were “left-shifted” toward supplier development and product development; preventive activities were set up as a separate unit to strengthen QA capabilities and to avoid a default to QC. The re-organization enabled the group to accommodate the company’s strong growth and manage increased complexity while running with a fairly flat budget.

World-class quality organizations add value because they have an end-to-end view of their companies’ value chains and increasing influence up and down those chains, from their suppliers, through production, all the way to the end customer. Far from being seen as cost centers, they are recognized for generating tangible value by working to delight customers at every possible touchpoint on the customer journey.

One example of that: those leading organizations “left-shift” so that the whole production process gets more attention upfront. Such initiatives involve all the departments that drive the cost of the value chain – departments such as R&D and procurement, for example. As part of the shift, quality groups move their activities upstream, to the supplier side and toward product development. But they use downstream data – drawn from customers – to guide and improve those activities. By engaging in critical QA and testing activities earlier on in product development, companies can preempt many more errors and mitigate risks, minimizing CoPQ.

goetzpartners has also seen that the quality leaders embed quality disciplines into the heart of value creation. They know that their quality management methodology must be deeply integrated into their companies’ value processes. Their higher objective is making in-process improvements as opposed to fast-tracking fixes, and they work across the company to help make quality part of everyone’s working “language.” (See also Section 4 below.)

At the same time, the quality leaders look (and work) far beyond their company’s four walls. They acknowledge that there is a quality ecosystem; they are adept at working with external stakeholders all the way from suppliers’ suppliers to customers’ customers. They see external stakeholder alignment as critical – a valuable opportunity not only to improve product and service quality but also to combat the rising complexity of the supply chain and remain agile.

3 ORGANIZATIONAL EFFECTIVENESS

Tomorrow’s quality organizations have to be able to help their companies adapt to new customer requirements faster than their peers. However, they have limited resources – staff and budgets that can be as small as 1% of their companies’ global totals and that rarely exceed 5% – and much more is required of them today. So it is crucial that they structure their organizations to handle the broader scope of demands placed upon them.

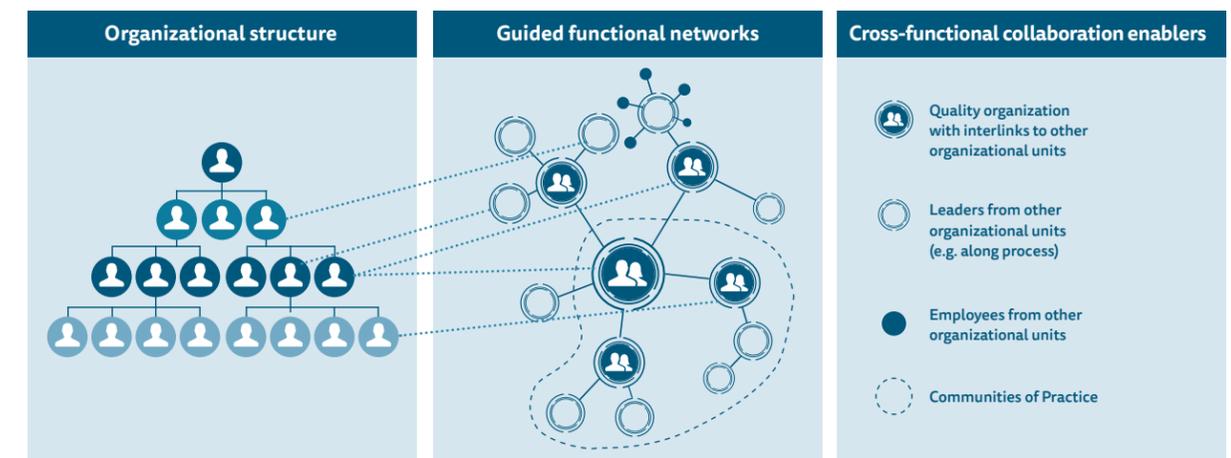
It’s no surprise, then, that quality leaders continually engage in discussions about what to centralize and what to localize. Their structures are built to handle change and to influence internal customers and other quality stakeholders. In goetzpartners’ experience, many quality leaders are members of the extended top management team. They typically work closely with the COO, and some report directly to the CEO.

Leading players adapt the typical hybrid organization structures to suit their companies’ business needs. When there are clear benefits to centralized structures – to allow for standardization of procedures, adoption of corporate initiatives, for

example – they will use those forms to capture their economies of scale. When local considerations loom large – market-specific challenges, for example, or regional regulations – then they will opt for decentralized organizational structures. Of course, the ideal setup depends on the industry’s and the company’s contexts.

Further, leading quality organizations adapt guided functional networks to establish cross-functional collaboration. Quality personnel are dispersed into temporary roles that are created by the networks and they contribute their quality knowledge while in those functions. The links between the quality organization and other organizational entities reinforce connectivity across functions and inherently embed quality in end-to-end value processes. As a result, the caliber of quality increases organically and continuously, and there is constant promotion of and support for a quality culture. Guided functional networks enable quality organizations to create a robust network throughout the organization and to replicate a temporary matrix organization without having to undergo a full organizational transformation. (See Figure)

TOWARD CROSS-FUNCTIONAL COLLABORATION FOR QUALITY



CASE STUDY

PACKAGING COMPANY: PREVENTIVE QUALITY MANAGEMENT

A packaging company used 3-D printing technology to provide its supplier with prototypes so it could test the product's performance before a major launch. This digital partnership allowed the quality department to conduct a failure-mode-and-effect (FMEA) analysis to identify quality and performance issues before the launch and incorporate preventive actions upstream – resulting in “right first time” product launches.

The quality leaders also work hard on appropriate roles and responsibilities, ensuring that more of their employees are assigned to broader QA activities than those handling conventional QC jobs, and reinforcing role clarity by designing their organizations so that QC and QA groups are separate from each other. This arrangement makes it easier to adhere to higher-level QA priorities and to resist defaulting to fire-fighting activities.

Moreover, best-in class quality organizations do everything they can to foster a culture of quality. They strive to embed a zero-defect mindset in the corporate culture so that quality, in all its representations, becomes part of the value proposition that differentiates the company in the eyes of customers – and of employees. They help to ensure that the entire workforce is trained in quality methodologies and that quality is part of everyone's performance metrics. Quality leaders can work with human resources to reward desired behavior, such as cross-functional collaboration via shared incentives.

For example, they will push to give production-line workers ownership of product quality rather than dedicating resources to “inspect” quality. That way, the quality department can concentrate on areas such as root-cause investigations and higher-level assurance activities.

CASE STUDY

MANUFACTURING COMPANY: ESTABLISHING A QUALITY PLATFORM

One North American manufacturing company had a disparate collection of operations after acquiring plants in Europe and Asia. Its quality organization set up a governance framework allowing for the systematic exchange of performance data to identify root causes of problems, share best practices, and solidify the adoption of common operating procedures across all of the manufacturer's plants, including those newly acquired. The quality department established a shared knowledge platform to document standard operating procedures; moreover, it hosted weekly calls to institutionalize the dialogues and provide a structured forum in which to share information about issues and ideas for improvement. The calls also reviewed quality performance metrics, including progress on corrective and preventive action, the status of root-cause analyses, and any new controls that had been initiated.

4 DIGITAL TECHNOLOGY ADOPTION

Top-notch quality organizations are masters of digital data. Despite the explosion in volume and variety of data generated across all aspects of business, they thrive in the digital ecosystem, with widely understood tools and techniques for capturing data, analyzing it, and deriving insights from it in order to improve product and service quality. They excel at turning data insight into action.

For a start, they share data cross-functionally. Enabling flexible sharing and collaboration across multiple dimensions is essential to driving continuous improvement.

The quality leaders consistently apply digital technologies to create value for the customer. One example: digital twins – whereby a digital model of a product enables the company to optimize product flows in product development, manufacturing, and commercialization – can be enormously valuable not only for increasing the quality and consistency of the product but also for helping bridge geographies, time zones, and organizational boundaries to streamline the operation of entire business ecosystems. Essentially, the digital twin provides a virtual analysis of what can go wrong—revealing CoPQ before real costs can occur.

READ MORE ABOUT THIS:



<https://www.goetzpartners.com/publications/publication/maximizing-the-value-of-digital-supply-chains/>

CASE STUDY

FMCG COMPANY: SOCIAL DATA IMPROVES SUPPLY CHAIN AGILITY

The quality organization of a fast-moving consumer goods company routinely analyzes the company's planning and forecasting data. But it also leverages alternative data from sources such as social media to fine-tune demand planning and to get immediate feedback on product launches whenever possible.

The feedback is aggregated and systematically provided to the marketing department in order to improve the agility of the company's supply chain. The company has seen strategic benefits already: for instance, it can more easily say where it makes sense to produce close to its customers, and where late-stage differentiation can produce products specific to customer demand. By quickly identifying demand, the company can now plan its production needs more accurately, reduce waste by anticipating expiry dates on raw materials, control materials inventories, and satisfactorily meet customer demand without incurring stock-outs.

5 CAPABILITY-BUILDING

CASE STUDY

TECHNOLOGY COMPANY: SETTING UP A QUALITY ACADEMY

A European technology company established a quality academy with joint leadership from the quality, business and human resource functions. The new governance structure enabled the company to institutionalize and sustain its capability-building efforts while ensuring full alignment with its business objectives. In effect, capability-building is becoming part of the company's continuous improvement culture. It also extends to the dialogues that companies have with their external stakeholders – and even more widely, across their industries.

To be effective for the future, top-performing quality organizations are constantly building the capabilities they need, both by strengthening their existing capabilities (through training, for instance) and by bringing in the necessary capabilities from outside. Those capabilities have increased significantly in breadth and depth, from technical skills (for example, in data analysis) to program management.

Best-in-class quality organizations are very clear about the workforce capabilities they will need in the future. They take a systematic approach in assessing those capabilities, starting with identifying the most critical gaps based on the company's future business requirements. They realize that building strong capabilities requires them to forge cross-functional partnerships with human resources and the business lines, collectively acknowledging the end-to-end span of the value chain.

The quality leaders also make full use of customized training programs. Whereas many companies remain reliant on on-the-job training and classroom-based formats that use the same content for everyone, the quality leaders are continually exploring, trialing, and using innovative training formats that allow content to be tailored to each individual's needs. They regularly blend programs such as digital learning and classroom-based training with practical workshop sessions that incorporate real-life scenarios.

Another trait of top quality performers is that they rigorously track the effectiveness of their capability development initiatives and link those initiatives to business performance. It is one thing to develop a training roadmap but quite another to implement the training. The quality leaders go one step further again: they rigorously review the effectiveness of their capability-building initiatives. They closely monitor their training implementations using the right metrics to ensure adherence to key milestones and to progress against agreed-upon key performance indicators. Moreover, those capability development initiatives become integral to management's annual performance incentives.

CASE STUDY

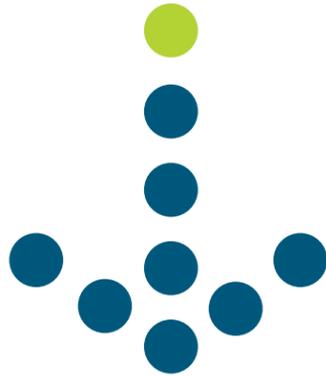
TELECOMMUNICATION INFRASTRUCTURE COMPANY: SUSTAINING QUALITY TRANSFORMATION THROUGH LEADERSHIP AND CULTURE

A mobile network provider has shown resilience through an array of corporate transformation efforts – a turnaround, multiple acquisitions, and divestments – to transform itself into a leading, full-service telecommunications infrastructure company. Quality leadership has always been on the top of the management agenda, with the ambition to become the undisputed quality leader in the industry. These goals were achieved by developing and executing a comprehensive and end-to-end quality transformation strategy that included some of the concepts described in the article.

At the same time, the quality leaders know the importance of a systematic change management framework. Knowing that cultural change is very difficult, they work hard to understand the implications from employees' perspectives and provide detailed context and rationales for change based on individuals' needs. Central to those change-management programs is providing employees with concrete guidance on why it is crucial and how to start making the necessary changes in their operational roles and responsibilities, and how to do so in short time frame. This allows organizations to realize the behavioral changes they expect of their employees, and to sustain their transformation efforts without falling into old ways of working.

Interestingly, the quality department has more leverage with staffing than it used to. Historically, the function was not known as a talent magnet. But as quality re-asserts itself as a top-management priority, it is changing minds about career development, too. In particular, the cross-functional nature of best-practice quality management, and its constant exposure to top management, means that the department can now position itself as a career stepping-stone for high-caliber jobs elsewhere in the organization.

What set the transformation apart was the leadership's role in enabling a strong quality culture, promoting operational excellence and embedding the ownership of quality across the broader organization. This allowed the quality organization to be particularly effective and sustainable by improving all metrics of quality performance while continuously reducing quality budgets. The quality leaders emphasized the need for the right behavior and decision-making at all levels of the organization and provided support with the entire transformation, thereby instilling quality into the company's DNA.



Today's quality leaders already acknowledge that the transformation of their organizations is essential to solidify their companies' competitive positions. They know they can help their companies set the bar – not just reach it. By systematically applying the principles outlined above – from deploying data analytics, enabling and empowering employees, to fostering a culture of zero defects, and more – they are proactively helping to create the innovative products and services that set standards in their industries rather than simply aiming to close the gap with their industries' leaders.

The quality managers who fail to follow suit will be failing their companies too. The consequences of doing nothing – of sticking with the status quo – look less and less viable. It's not an exaggeration to predict that many of those companies will see their profit margins shrinking and revenue growth slowing as CoPQ increases and more time is spent on non-value adding QC activities.

The conclusion is clear: quality leaders have an obligation to act now. The best starting point is a quick organizational health check measured against each of the five themes addressed in this article, followed by implementing quick wins, defining a balanced portfolio of mid-to long-term initiatives and setting out a far-reaching new vision of quality and its strategic contribution. With those foundations in place, the transformation of quality can begin.

CONTACT

PUBLISHER

Philipp von Stietencron
Managing Director
philipp.stietencron@goetzpartners.com
T +1 – 212 – 266 00 86

AUTHOR

Christian Bast
Principal
christian.bast@goetzpartners.com
T +1 – 212 – 266 00 86

goetzpartners
250 Greenwich Street, Suite 4620
New York, NY 10007, USA
T +1 – 212 – 266 00 86
contact@goetzpartners.com



www.goetzpartners.com

Design:
milk&honey advertising, Munich, Germany
Illustrations:
Serge Bloch, Paris, France

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