



Europe Economics

Steptoe

Value of the Testing, Inspection and Certification Sector

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Executive Summary

This study looks at the value of the testing, inspection, and certification (TIC) sector. It illustrates, using data, how the sector benefits a variety of stakeholders across a large number of sectors around the world. In thinking about the sector's value, we look at the scale and scope of activities that it performs, the various ways that the sector can benefit different kinds of stakeholders, and provide a few case studies to demonstrate that the value arising from the sector can be significant.

Overview of the TIC sector

TIC companies offer **conformity assessment services to a diverse range of industry sectors** – from energy and utilities to food and agriculture and chemicals – as well as with respect to matters that cut across industry sectors, such as climate change and artificial intelligence. Conformity assessment may **comprise a variety of activities**, ranging from testing and inspection, through validation and verification, to certification, and pre- and post-market surveillance or some combination thereof. Applications of conformity assessment to products, services, and systems enhance trust and confidence that required or desired characteristics are consistently met in the fields of public health, safety and welfare, environmental protection, agriculture and food safety, data privacy and cyber security, and consumer protection, and can enable market access for businesses large and small.

The sector is large and growing. Current estimates of the size of the conformity assessment sector globally, including first, second- and third-party activities with all their constituent applications, are about \$200bn, and are expected to surpass \$260bn by 2025. The independent TIC sector is currently estimated to account for 40 per cent of this amount. A trend of increased outsourcing of TIC services to third parties – coupled with a diverse range of regulatory, standard, procurement, and other requirements – has contributed to the growth of the independent share of the market from approximately 36 per cent in 2017. There are one million TIC employees (often in high-wage STEM jobs) scattered in more than 160 countries around the globe offering conformity assessment services. Between 2009 and 2016, revenue growth of the TIC sector outperformed general income growth experienced in the major developed economies.

Table 1: Summary of regional conformity assessment sectors in terms of annual revenue

Region	Forecast annual revenue (\$m, 2020)	Outsourced / independent market share (% , 2017)	Outsourced / independent market share (% , 2025 forecast)
Europe	70,749.4	35.6	36.6
North America	55,249.9	35	35.9
Asia-Pacific	37,222.4	37	37.9
Middle East and Africa	28,535.4	37.7	38.7
Latin America	22,472.7	37.7	38.7

Source: Transparency Market Research (2017) for market revenues and shares. Note that figures were projected before the onset of the COVID-19 pandemic.

The broad range of applications for TIC services means that the industry is **exposed to an equally varied set of global trends**. The industry has historically played an important role in enabling trade, which may be increasingly relevant given concerns about a possible slowdown or reversal in globalisation as reflected in new trade, national security, and onshoring/reshoring policies that are impacting global supply chains. And it is already helping stakeholders in growth areas, such as the Internet of Things and the circular economy.

The benefits of the independent TIC sector to various stakeholder groups

The varied activities of the independent TIC sector can generate numerous advantages for stakeholders, and those advantages are innately tied to the sector’s reputation for competence, impartiality, and consistency. In addition, the activities of third-party TIC are crucial for helping to meet various policy goals set by policymakers, such as those related to ensuring consumer safety and stimulating competition, as well as wider objectives concerning the environmental sustainability of production and consumption.

- Most importantly, the **products and services** consumers use **are safer, true to their advertised claims, and consistently reliable and high-quality.**
- Easier for consumers to compare and contrast products and services, hence **reducing 'search costs'**.
- Indirectly, **enhanced competition** among products and services, which may result in lower prices (for a given quality) and a greater variety of products.

•Benefits to Consumers

•Benefits to Businesses

- Higher levels of **regulatory compliance.**
- Businesses may achieve medium- and long-term **cost savings** through reliance on independent third-party conformity assessment services (despite the upfront cost generated).
- **Enhanced demand** from the trust and confidence that the use of such services generates in the marketplace.
- **Enabling market entry and market access**, as well as potentially even market creation.

- Scarce public resources may be saved when the safety or security of products improves.
- Assistance with **designing regulations** and other government programs.
- **Ensure compliance** with requirements (potentially at a lower cost to the taxpayer);
- **Increase** the volume of **trade.**

•Benefits to Policymakers

Not all of the advantages will accrue in all instances, of course. For instance, a governmental authority deciding on the appropriate levels of independence and rigor and the types of TIC activities to employ in a particular context, has to establish it all comes down to what a ministry or agency has referred to as the “confidence point”, namely “the agency’s level of confidence that an objective(s) has/have been achieved, weighing the risk of non-conformity (or non-compliance) and its associated consequences with the anticipated costs of demonstrating conformity (including time and resources) to the producers, suppliers, consumers, and the agency.”¹

¹ Carnahan and Phelps, pages 8-9.

Nevertheless, given the focus of this study is on the value that the TIC sector can provide, we set out the many ways that stakeholders – namely consumers, businesses and policymakers – might benefit from independent third party conformity assessment activities in appropriate circumstances in the figures above.

Case studies illustrate the benefits from independent third party conformity assessment

Quantifying all the benefits is beyond the scope of this paper given the scale of the industry, the immense range of sectors in which the TIC sector operates, and all the different ways that the sector benefits stakeholders and the public good. Instead, we seek to illustrate that these benefits can be material by looking at three case studies, and comparing outcomes with what might happen in a counterfactual where there are no independent TIC firms or services.

Our three case studies relate to sewerless sanitation systems, payment cards, and so-called ‘smart products’. All three examples highlight how the **TIC sector offers much more value than simply testing and certifying that a product meets a given requirement**. The sector proactively helps to identify and address complex public policy problems with major global implications, and in the process provides significant, and sometimes massive, net benefits to society.

They also illustrate that the **relevance and importance of the TIC sector is likely to grow into the future**. The sewerless toilets case study is an example of how the sector is contributing towards the realisation of one of the UN’s sustainable development goals (SDGs) relating to public health. The other two case studies (payment cards and smart products) are in the areas of cybersecurity where data protection and product safety issues arising from the use of connected consumer devices are expected to become even more important in the years to come. Figure 1 below summarises the main quantified benefits for each case study.

Figure 1: Summary of the three case studies

