

Economic Value of NATA Accreditation in Australia

Executive Summary



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Foreword

NATA accreditation is an integral part of Australia's technical infrastructure and contributes to the Australian economy as well as adds value to the members' business.

In order to demonstrate the quantitative and qualitative aspect of NATA accreditation's contribution to the welfare, safety, and economic well-being of Australia, NATA commissioned University of Technology Sydney (UTS) to undertake the research and prepare this Report *"Economic Value of NATA Accreditation in Australia."* (Report)

According to the Report, the estimated economic value of NATA accreditation to Australia is between \$315M and \$421M per year, including a \$14.3M contribution by our volunteers who serve in their respective role as technical assessors, technical advisers, and Board members.

The average of the estimated economic values equates to approximately \$1M a day.

As a not-for-profit member owned organisation, NATA believes it is important for the Government, stakeholders, members, and the community to be informed of the economic value of the contribution made by NATA and its volunteers to Australia.

NATA is also gratified with our members' pride and commitment to NATA as reflected in the following quote from one of our members:

"Becoming NATA accredited shall never be deemed as a right, but as a privilege and recognition of deserving excellence in testing, superior reporting and keeping abreast of becoming an industry leader."

I thank the UTS team for its high quality scholarly research and significant contribution to the understanding of the economic value of NATA accreditation in Australia.

I have enjoyed reading this Report and hope readers will find the Report informative, relevant, and useful.



Geoff Hogg
Chair, NATA

Preface

There is general recognition that the National Association of Testing Authorities, Australia (NATA) adds significant value to the Australian economy through its accreditation services for laboratories, inspection bodies and proficiency testing scheme providers. But how much value in quantitative terms has never been properly assessed, until now.

The University of Technology Sydney is pleased to have been given the opportunity to make such an assessment across NATA's five sectors of accreditation – Inspection, Infrastructure, Calibration, Life Sciences and Legal and Clinical. And in doing so we have applied a combined survey and interview-based research methodology in five key areas of impact – Importance of Recognition, Standards and Quality, Efficiency and Productivity, Innovation, and Organisational Culture.

We conclude that the direct value of NATA's contribution to the Australian economy is somewhere between AUD \$315-421 million. However, this is necessarily a conservative estimate as it is impossible to put a value on the intangible benefits of accreditation. What is clear is that accreditation in this context provides both direct and indirect benefits to consumers of intermediate and final goods and services, and hence to the economy and society more widely.



Emeritus Professor Roy Green
University of Technology Sydney

Executive Summary

The National Association of Testing Authorities, Australia (NATA) is Australia's national authority for the accreditation of laboratories and producers of reference materials, and a peak body for the accreditation of inspection bodies and proficiency testing scheme providers. NATA believes that Australia has an effective and internationally recognised conformance infrastructure and as such, its activities have a 'whole of society' or Australia wide national impact. However, to date, there has been no robust analysis of the economic value of the contribution that NATA's accreditation service provides to the Australian economy.

To provide a quantifiable measure of this economic value to the national economy, NATA has commissioned the University of Technology Sydney (UTS) to conduct research to address this gap focused on NATA's five sectors of accreditation: Inspection, Infrastructure, Calibration, Life Sciences and Legal and Clinical. The five phases of project delivery included:

- A literary overview introducing the economic role of technical infrastructure in an economy and the role of NATA's accreditation as part of the technical infrastructure. The literature review draws specifically on three scholarly pieces of accreditation value research (Frenz and Lambert 2014; Swann 2010 and Deloitte 2011) to develop the foundations for configuring the economic model and to design the blended quantitative and qualitative empirical data collection,
- Development of an economic model and rationale for measuring economic benefit of accreditation in the Australian economy and NATA's contribution

in safe-guarding community safety from non-conforming products and services, redressing information asymmetry between sellers and buyers of products and services, reducing transaction costs, encouraging innovation, and facilitating reduction of technical and regulatory trade barriers. The model explains accreditation as a derived benefit to the economy and identifies the limitations in quantifying the economic value of its contribution to the Australian economy,

- Data collection using two survey instruments with NATA member organisations. Firstly, a preliminary quantitative online survey using survey software which captured responses from 253 of the 1919 NATA member organisations. The online survey data gathering was followed by semi-structured interview discussions with 24 member organisations from each of the five sectors, to develop organisational stories to complement the survey data, and
- Analysis and findings involving a cross-case analysis of the qualitative data gathered and presentation of the research findings.

As a result of this thorough research design approach, this report presents the attributes of a quality accreditation infrastructure system at a micro (company), meso (industry) and macro (global) level. More specifically, it analyses the attributes of NATA accreditation distributed across five key themes exploring the benefits of NATA accreditation – Importance of Recognition, Standards and Quality, Efficiency and Productivity, Innovation, and Organisational Culture.





Importance of Recognition

- A total of 81% of online survey respondents view NATA accreditation as quite important to their business operations.
- The most common factor for pursuing NATA accreditation relates to the increased recognition levels it creates at the micro (organisation) level when meeting customer expectations, in providing a competitive advantage and for marketing and branding purposes.
- For the meso (industry) level, NATA accreditation contributes to creating a level playing field across the industry more generally and by promoting best practice as a collective industry group.
- Nationally and globally, at the macro level, NATA accreditation generates collaboration that stimulates new knowledge, builds credibility, opens new markets and increases trade opportunities.

Standards and Quality

- NATA accreditation improved internal confidence at the micro and meso levels for 58% of online survey respondents, enabling organisations to maintain consistency and quality, receive external feedback from an independent third-party assessor, thus allowing them to meet regulatory requirements where mandated to do so.
- As a result of NATA accreditation, the total estimated economic value of standards and quality to the Australian economy is estimated within the range of AUD \$108.2m and AUD \$130.7m.

Efficiency and Productivity

- NATA accreditation made a significant contribution to efficiency for 22% of online survey respondents.
- The total estimated economic value of the cost efficiencies arising from NATA accreditation are estimated to be in the range of AUD \$38.1m and AUD \$46.3m.

Innovation

- Just over half (56%) of online survey respondents indicated accreditation positively impacted organisational innovation levels.
- The remainder of the online survey respondents suggested that NATA accreditation had no impact (36%) with (8%) reporting a negative impact on organisational innovation levels.
- Where accreditation provided a positive impact, this mainly contributed to improvements in efficiency levels, building new knowledge and process innovation.

Organisational Culture

- NATA accreditation was found to be of most value in firms that displayed qualities of vision, leadership, collaborative learning, had a strategy for innovation in place and focussed on quality and customer satisfaction.
- The role of volunteers and their technical assessment was considered a valuable contribution to the firm and industry.
- The estimated economic value of technical assessors primarily arising from volunteer services to the Australian economy is estimated at AUD \$14.3m.

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In conclusion, accreditation provides indirect but real benefits for the community and consumers of intermediate and final goods and services. This research report highlights the measureable and intangible attributes of NATA accreditation as a contributor to the Australian economy. Whilst the estimated measureable economic worth represents a value of between AUD \$315m and AUD \$421m, to place a value on the intangible attributes of accreditation is impossible as the services NATA provides are intrinsically woven within the fabric of the Australian business, economy, and society.

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Economic Value of NATA Accreditation in Australia

NATA's five sectors of accreditation are:



Inspection



Legal and Clinical



Infrastructure



Life Sciences



Calibration

The report presents the attributes of a quality accreditation infrastructure system at the following levels:

MICRO



(company)

The most common factor for pursuing NATA accreditation related to the increased recognition levels it creates at a micro (organisation) level

MESO



(industry)

For the meso (industry) level, NATA accreditation contributes to creating a level playing field

MACRO



(global)

Nationally and globally, at the macro level, NATA accreditation generates collaboration that stimulates new knowledge, builds credibility, opens new markets and increases trade opportunities.



Estimated economic worth represents a value of between **AUD \$315m** and **AUD \$421m**
On Average, **AUD \$1M** Per Day.