



**Asia-Pacific
Economic Cooperation**

Advancing Free Trade
for Asia-Pacific **Prosperity**

Role of Management Capability in SMEs

Wellington, New Zealand | 3-4 December 2019

APEC Small and Medium Enterprises Working Group

April 2020

APEC Project: SME 07 2019A

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APEC#220-SM-01.3

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1. Executive summary

More than 40 participants attended the APEC SME Productivity and Performance Forum (the Forum) in Wellington, New Zealand, on 3–4 December 2019. Delegates attended from a range of economies, including Australia; Malaysia; Mexico; New Zealand; People’s Republic of China; Macao, China; Peru; Thailand; and experts from the United States of America. Entities represented included government agencies and departments, government-related institutes and foundations, academic institutions and other education providers, banks, as well as businesses and not-for-profits..

The Forum’s focus was Small to Medium Enterprises (SMEs) across the Asia-Pacific region. After consulting with experts and officials, the organisers chose three themes:

- Theme one: management capability (of SME owner/operators)
- Theme two: measurement and evaluation of business advisory programmes
- Theme three: sustainable economics — looking beyond productivity

Key insights from the Forum

Insight 1: Improving management capability of SMEs increases productivity and drives economic growth

Improving management capability increases productivity at the firm and national levels. Efforts to make small and medium-sized firms more productive could deliver APEC economies large gains in economic growth.

Insight 2: The literature on management capability is limited and favours larger firms and manufacturing

Larger businesses and the manufacturing sectors are the focus of many studies. For example, Bloom *et al.*, 2013, often referenced at the Forum, studied firms with 100 to 1,000 employees in the textile industry. Another regular reference is the US Census Bureau’s 2015 Management and Organizational Practices Survey, which focuses on manufacturing firms with 1,000 employees or more. Further, current research is often fragmented and not specific enough to the APEC region.

Insight 3: There is a need for greater understanding of management practices and capability, especially in MSMEs

The limited literature has partly led to a lack of evidence and measures on Micro, Small and Medium-sized Enterprises (MSMEs). Management scores are being used more to benchmark SMEs and look for relationships between management practices and firm productivity. Management scores are used, for example, in The World Management Survey (Bloom and Van Reenen, 2007) and in the Australian paper ‘Development of Management Capability Scores’ (Agarwal *et al.*, 2019). A focus of management capability scores specific to MSMEs is needed.

Insight 4: One-to-one and one-to-many interventions appear to be working, but are not realising the benefit of being connected

APEC economies often help boost the management capability of their businesses so as to improve productivity and standards of living. Some are delivering accessible, tailored, interventionist one-to-one programmes, one-to-some programmes and one-to-many programmes to achieve this. These programmes often operate in isolation of each other and might achieve a greater impact by graduating SMEs from one to another.

Insight 5: Evidence of causation is the key for measuring these interventions

Randomised control trials (RCT) are the gold standard for measuring how intervention programmes have affected SMEs, and are increasingly popular. However, RCTs are expensive and require expertise, sometimes from outside of policy teams. To overcome these barriers, APEC economies could work together to build on the available research evidence.

Insight 6: Productivity is good, but excludes important aspects of APEC economies

Some APEC economies are experimenting with social and environmental success criteria alongside productivity metrics. These capture more detailed data and information that deliver a more complete and in-depth picture. As the makeup of each economy differs, such detailed investigation allows each to tailor programmes in a way that suits their economy. One aim of focusing on social and environmental sustainability, and drawing in a wide range of viewpoints, is to achieve a sustainable economic system that benefits a broader range of people and needs.

Insight 7: Understanding the mindsets of SMEs is needed to drive adoption of management practices

A core component of management practices is mindset. The mindsets of managers matter for motivation within a business if it is to adopt best practice and achieve optimum performance. Psychology training with a focus on the characteristics of mindset (such as a willingness to take risks) can have a large impact on business outcomes compared to traditional business training.

Insight 8: There are benefits from the private and public sector working together

The private sector and public sectors are linked in many ways, and can help each other to increase management capability. Examples are technological and financial products, which are vital for a SME to develop and thrive. Both sectors can work together to make infrastructure available to business owners, streamline public–private processes, and keep communication channels open.

Insight 9: Economies have seen a need to support SMEs access finance

SMEs can find it hard to access finance. For example, sometimes they have few options because the number of financial products is limited, or they lack business capability, or they are deterred from seeking financial advice because it costs too much. They can also find the processes for accessing finance too complex. It is important to solve these types of problems especially as new forms of financing (such as investing to support environmental and social outcomes) become available. Some APEC economies have already introduced schemes to help SMEs access finance.

Key areas of opportunity

- More information about MSME management practices and how they relate to business performance and wider goals could help APEC economies make better policy decisions.
- The APEC economies need to do, and have access to, more research on the cause and effects of management capability intervention programmes (especially one-to-many).
- Connecting SME journeys and data from wide-reaching, one-to-many programmes to more intimate one-to-some and one-to-one programmes may make all programmes more effective.
- More causal evidence between management capability intervention programmes and impacts should include aspects beyond productivity (such as social and environmental).
- SME mindsets are an important consideration when developing and implementing policy. Deeper knowledge of the range of mindset types and motivations such as risk appetite is needed.

- Access to finance for SMEs, and the role SME capability plays in limiting such access, needs more understanding. Many existing approaches involve government lending and guarantees, but there is demand for platform-based solutions and public–private partnerships.
- Greater APEC co-operation on these issues is likely to lead to significantly greater value for economies.

2. Methodology

The structure of the main part of this report matches the Forum’s three themes. Its first appendix has some questions and answers from after the presentations, and details from the panel discussions at the launch event on 2 December 2019. The qualitative methods used focused on panel discussions, individual interviews, and observation. The quantitative methods involved analysing responses and comments from delegates to find common threads between contributor economies. These helped to refine the report’s themes. This process built on the literature review, and incorporated referenced source material.

The organisers adopted a three-stage approach for the Forum

Stage 1: Preparation and desk-based reviews: Before the Forum, the organisers invited delegates (officials and experts) to attend, confirmed the themes, and reviewed and cited the relevant literature.

Stage 2: Presentation and discussion: During the Forum, each speaker delivered their presentation, followed by a Q&A session, and a panel discussion was also held. Comments and questions were recorded in writing and some delegates interviewed.

Stage 3: Consolidation and sharing back: After the Forum, the organisers structured the report, liaised with the presenters, checked sources and collated references, wrote the report, liaised with contributor economies, submitted the report to the APEC Secretariat, and finalised the report to publication.

Management capability and productivity: key questions

The organisers expected to see a diverse group of delegates from across Asia-Pacific, revealing a range and depth of expertise and skill sets.

The delegates who attended agreed that management capability is a key determinant in productivity and sustainability of small business.

The Forum agreed that the following questions are key to improving management capability and productivity.

- What are APEC economies already doing to improve the management capability of their SMEs? (*management capability – theme 1*)
- Where are the key gaps in understanding how government intervention can improve management capability (that is, what research focus would deliver the greatest possible impact?) (*management capability – theme 1*)
- What best practices are APEC economies modelling or using to measure the effects of their policies and services, with aim of improving management capability? (*measurement and evaluation – theme 2*)
- How are APEC economies thinking more broadly than traditional productivity metrics? (*sustainable economics – theme 3*)

Why management capability became a theme

Management capability of managers is a current focus of APEC: SMEs are a large portion of businesses within APEC economies. APEC has shown a focus on management capability recently by adding it as a priority to its Small and Medium Enterprises Working Group Strategic Plan 2017-2020.

Management capability of managers is a vital area of developing research: In the context of APEC (economic cooperation) and its SMEWG (with a focus on small business), management capability stood out as a vital area of developing research.

Management capability of managers is a key factor in improving productivity in SMEs: If the management capability of firm owners improves, so too does productivity, and in turn, the contributor economies (Bloom *et al.*, 2011). Yet the research that supports this line of thinking is fragmented. The research is not specific to the APEC region, and, because the definition of an SME can change across economies, the research does not cover all SMEs and micro enterprises (Bloom *et al.*, 2010).

Why measurement and evaluation became a theme

Measurement and evaluation is important to assessing the impact of a business advisory programme: When talking to some economies before the Forum, they wanted answers to the question: “How are other economies measuring the impact of business advisory programmes?” From that feedback, the organisers realised discussion around answers to this question was vital.

Measurement and evaluation tools such as randomised control trials remain underused: Even though identifying causation is best practice, few economies run RCTs on these topics. It is important to discover reasons for such a small number of trials, and what was being used instead.

Measurement and evaluation involves understanding the sort of data economies collect: To gain an in-depth assessment of what is happening now requires an evaluation of business advisory programmes and how economies are using the results of those programmes to achieve continuous improvement.

Why sustainable economics became a theme

Sustainable economics adds another dimension to management capability: The organisers recognised that a collective belief which focused on productivity alone would neglect some important aspects that APEC economies had in common.

Sustainable economics examines factors beyond productivity and business performance metrics: Knowing the above, the organisers felt it appropriate to explore related factors, such as wellbeing and social issues, to show connectedness, deliver broader insights, and provide a more holistic picture.

Sustainable economics involves delving into business practices more deeply: The organisers believed the Forum might deliver insights about what business owners could do in relation to sustainable economics measures (for example, at the firm level rather than the micro-economic level).

Economies and experts represented at the Forum

- Government agencies and departments, such as the Department of Industry, Innovation and Science (Canberra, Australia), Economics Development Bureau of Weihai (People’s Republic of China), Macao Economic Bureau (People’s Republic of China), Ministry for Women (Wellington, NZ), Ministry of Business, Innovation and Employment (Wellington, NZ), and the Ministry of Economy (Mexico City, Mexico).

- Government-related institutes and foundations, such as the Thailand Productivity Institute, the Ākina Foundation (a NZ-based impact development organisation) and the New Zealand Productivity Commission.
- Academic institutions and other education providers, such as Curtin University (Perth, WA, Australia), Duke University (Durham, NC, USA), University of Otago (Dunedin, NZ), Victoria University of Wellington (NZ), and Provincial Education (a NZ-based education provider).
- Banks such as the World Bank (Washington, DC, USA) and the Bank of New Zealand (BNZ Wellington Partnerships, NZ).
- Other businesses, such as Allied Medical (a NZ-based provider of healthcare product solutions), Kono NZ (a NZ-based indigenous food and beverage provider focused on sustainability), Miranda Smith Homecare (a NZ-based personalised homecare provider), PledgeMe (a NZ-based crowdfunding platform), Spotcap Australia & New Zealand (an NZ-based financier of SMEs), and Xero (a NZ-based accounting software company).
- Not-for-profits, such as The Icehouse (a NZ-based business-enabler).

3. Management capability

3.1 This section focuses on the management capability of the owner/operators of small and medium-sized firms (SMEs). It includes research and perspectives from experts as well as examples from APEC economies of government programmes aimed at increasing management capability.

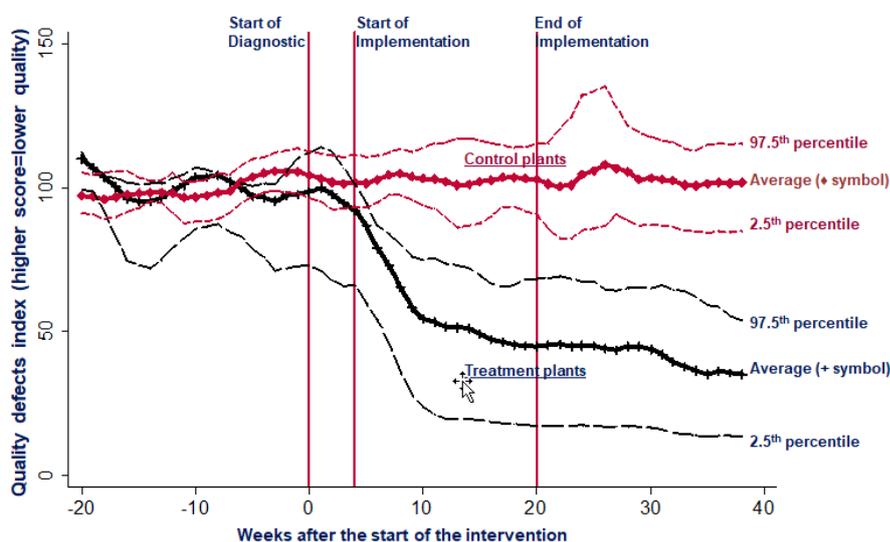
Management practices and economic development

3.2 Efforts to make SMEs more productive could lead to huge gains in economic growth for APEC economies.¹ Most economies engaging in understanding or support management practices of SMEs start from this position.

3.3 Several studies, including the World Management Survey (Bloom and Van Reenen, 2007), and a study into business practices in small firms in developing economies (McKenzie and Woodruff, 2015), have measured different aspects of business practices and motivation among small businesses and entrepreneurs around the world. While such studies reveal much variation in management practices at the firm level across, and within, economies, higher management-practice scores correlate with higher performance within an economy. Also, some studies revealed that economies with higher management-practice scores had a higher GDP on average.²

3.4 To investigate whether the management practices cause higher productivity, rather than being the result of productivity or simply being associated with it, researchers have used randomised controlled trials of management-practice programmes. In one example, textile mills in India that received training in management practices showed a dramatic and persistent reduction in the number of defects (Bloom *et al.*, 2013) —see Figure 1.

Figure 1: Raising scores is associated with lasting productivity improvements



Source: Bloom, Eifert, Mahajan, McKenzie & Roberts (2013)

¹ Victor Bennett, Associate Professor of Strategy, Duke University, Durham, NC, USA, 2019 Forum.

² Bennett, 2019 Forum.

Source: Bloom, N, Eifert B, Mahajan A, McKenzie, D, and Roberts, J. January 2011. *Does Management Matter? Evidence from India*. NBER Working Paper No. 16658. National Bureau of Economic Research, Cambridge, MA, United States

- 3.5 Spreading best practice across economies should be encouraged and actively pursued to the greatest extent possible. This could drive productivity and economic development. Some practices are easier to improve than others and more research will help to pinpoint which practices will best improve each economy.³
- 3.6 The evidence presented in Figure 1, while showing positive support for the increasing of management practices, does have limitations. The firms sampled were all manufacturing firms and relatively large compared to micro firms (MSMEs) that tend to have six employees or less.⁴ Economies looking for wide-reaching policy solutions might need further evidence from outside the manufacturing industry and from smaller firms.

Management scoring of SMEs

- 3.7 Management scores are becoming common in an effort to benchmark SMEs and look for relationships between management practices and firm productivity indicators, such as sales. Management scores are used in The World Management Survey (Bloom and Van Reenen, 2007) and later publications by the same authors. The paper Development of Management Capability Scores (Agarwal et al., 2019) develops firm-level management capability scores for Australian firms, and shows how scores, the characteristics of those firms, and performance measures are related.⁵ Also in Australia, the Sydney University of Technology and Australian Bureau of Statistics analysed management practices based on insights gathered from survey and administrative data (see section 6). Aside from environmental management, aspects of management measured, included strategic planning, key performance indicators, supply chain management, and use of data in decision making.⁶
- 3.8 The sorts of practices typical of measurement include marketing, operations, performance and target management, recruitment, talent management, financial planning, administration, research, using lawyers and accountants, stock-keeping, and record keeping. The Australian initiative to measure management capability (Agarwal *et al.*, 2019) also includes measurement of, and scores for, Environmental Management Capability and Digital Management Capability. The Digital Management Capability score, among other factors, considered whether ICT was included in the business's strategic plan or policy; whether cybersecurity software, standards or protocols had been updated; and whether staff performance was reviewed against digital skills targets.
- 3.9 Studies by (McKenzie and Woodruff, 2015) and (Bloom and Van Reenen, 2007) suggest scores are lower for smaller firms. Therefore some have suggested that SMEs would benefit more than large businesses from improvement of management practices.⁷ Looking specifically at SMEs in developing economies, McKenzie and Woodruff (2015) suggest that one standard deviation in management-score improvement leads to a 15% improvement in productivity output.

³ Bennett, 2019 Forum.

⁴ Bevan Hall, Ministry of Business, Innovation and Employment, NZ, 2019 Forum.

⁵ A collaboration between the University of Technology Sydney and the Australian Department of Industry Innovation and Science.

⁶ Moran, 2019 Forum

⁷ Bennett, 2019 Forum.

Changes in management practices over time

- 3.10 New Zealand research has looked at changes in management practices in New Zealand between 2005 and 2017. The data is drawn from New Zealand's Business Operations Survey, and uses the Longitudinal Business Database, maintained by Statistics NZ. This provides rich information on SMEs sized between 6 and 20 employees, but omits micro SMEs.
- 3.11 The types of management practices looked at for the research included planning, monitoring, and creating incentives for employees.
- 3.12 Over the 12 years of the study, researchers found a small (yet significant) improvement in structured management practices. Longer planning horizons, more formal goal setting, and performance reviews increased, but building customers' needs into planning, and monitoring competitors declined.⁸ The research made a number of conclusions.⁹
- Management practices have changed over time, but not always in the direction of more 'structured' practices. Longer planning horizons, more formal goal setting, and performance reviews have increased, but building customer's needs into planning, and monitoring competitors has declined.
 - The industrial composition of the economy has not been a major source of change; rather changes have been due to shifts within industries.
 - Both changes in practices within a business and changes in the composition of businesses in an industry (that is, exits and entries of businesses) have had an impact for different practices. For example, longer planning horizons are due to entry and exit of businesses, while more formal goal setting is due to improving practices within individual businesses.
 - The research noted some unexpected results: for example, businesses are seeing reduced prevalence of performance pay and a possible shift towards more 'inward-looking' practices.
- 3.13 The study looked at eight individual practices and turned them into indices for three types of practices and an overall index of structured management practices (see Figure 2).

⁸ Gina Williamson, Strategic Policy Development, Ministry of Business, Innovation and Employment, NZ, 2019 Forum (presenting research from Lynda Sanderson, MBIE).

⁹ Williamson, 2019 Forum.

Figure 2: Index of structured management practices

Targets	<ul style="list-style-type: none"> Thinking about goals set for this business, how far ahead does this business plan? Are those goals mainly developed through: formal processes/informal processes? In developing goals, how often does this business incorporate the requirements of customers?
Monitoring	<ul style="list-style-type: none"> Is it part of the regular work of one or more people (either staff or outside contractors) to assess whether this business is achieving its goals? How closely does this business monitor competitors' goods and services? How often does this business systematically measure customer satisfaction?
Incentives	<ul style="list-style-type: none"> What percentage of employees had formal performance reviews? What percentage of employees are currently on "pay for performance" schemes?

Source: Williamson, 2019 Forum.

3.14 The next steps of the research are to examine relationships between types of management practices and outcomes for businesses and their workers. If practices seem positively associated with outcomes, the research will consider the factors that seem to be encouraging or discouraging firms to adopt those practices.

Barriers to businesses adopting best management practices

3.15 If better skills lead to better performance, why is everyone not adopting the best management practices? Studies suggest that factors related to perception, motivation, and administration can get in the way (Bennett, 2019).

Awareness of best practice

3.16 Bennett, Lawrence and Sadun (2015) found that firms not adopting best practices because they are unaware of them—perception—is the simplest barrier to overcome as it simply requires disseminating information on best practices. Business.govt.nz, a New Zealand initiative, also found that there is demand among SMEs for information about best practice – if a firm is both motivated and lacking information, then providing information works. However, the information must be credible, trusted, and delivered in a way that managers of SMEs can easily consume. This requires specific focus and research to execute. Business.govt.nz's qualitative research found that SMEs did not trust:

- the fragmented nature of online information about best management practices
- advice from peers, as this might not be best practice or could be out of date
- private sector resources because they expected hidden motivations.

To illustrate the demand for awareness, business.govt.nz launched a series of government-backed best practice resources designed by experts in their field. In the 24 months to February 2020, 106,000 businesses have used the resources more than 129,800 times. Considering there are only ~515,000 SMEs, these results are viewed as significant.

- 3.17 Bennett, Lawrence and Sadun (2015) did find that founder CEOs (small business owners) overestimate the quality of their management practices, or they overestimate the degree to which good practices are being implemented in their firms. However, these overestimates could not fully explain low adoption. Founder CEOs were aware that they did not necessarily have the best practices. On the other hand, SMEs may currently under-invest in improving practices because they do not have enough information on why it matters and how their practices compare to those of other firms.¹⁰

Mindsets of SME managers matter for practice adoption and performance

- 3.18 Another potential explanation for practices that fail to meet the highest standards is that managers know about the practices, but lack the personal incentive to adopt them. For example, some managers lack the incentive to implement better practices because their motivation for being in business is not based purely on profit. For example, Bennett and Chatterji (2019) found that motivations included providing opportunities for family, the desire to be your own boss, or because you had trouble finding work. Formalising hiring practices might require managers to give up the discretion to hire family or community members, which was the original motivation for starting the business. Consistent with this, Bennett, Lawrence and Sadun (2015) found that founder CEOs were particularly unlikely to have formal hiring practices in settings with strong family networks
- 3.19 New Zealand has found (using several years of qualitative research into mindset) that motivations differ among SMEs and often shift, based on external factors such as time of year and lifestyle stage. Only some of the SMEs focused primarily on maximising profits. Therefore, understanding the mindsets of SMEs and segmenting in more detail should allow for the different motivations for adopting best practices. This, in turn, would enable more accurate engagement with SMEs based on their motivations.¹¹
- 3.20 Mindset competence also beats functional competence. In particular, psychology-based instruction on mindset characteristics (such as willingness to take risks) has a much bigger impact on business outcomes than traditional business training.¹²
- 3.21 The impact of the entrepreneurial mind is worthy of further research.¹³ Experiments to see what causes entrepreneurship show an effect of mindset, but the aim should be to achieve better use of resources, not only roll out more businesses. Creation of companies should not be the goal in and of itself. The focus should be on more accurate perception, not simply improving confidence.

Capability of SME managers and their administration of a firm can face barriers

- 3.22 Another barrier to adopting best practice, for example in administration, is that managers may know which practices are good and have an incentive to implement them, yet not be able to do so.
- 3.23 Trust is critical to delegation. Delegation, in turn, is critical to specialisation which can improve efficiency. Yet studies have shown less delegation in lower-trust economies, and low trust may be

¹⁰ Ian Moran, Economist, Department of Industry, Innovation and Science, Australia, 2019 Forum.

¹¹ Hall, 2019 Forum.

¹² Bilal Zia, Senior Economist, Development Research Group, World Bank, United States, 2019 Forum.

¹³ Bennett, 2019 Forum.

hard to overcome. Businesses in economies with lower trust are more likely to be controlled by the owner, who is less likely to delegate.¹⁴

- 3.24 Evidence shows that businesses also tend to overrate their current capabilities compared to independent assessments (see Cicera and Maloney, 2017).

Barriers that are easier to overcome should be the focus

- 3.25 Some of these barriers to improving management practices are easier to overcome than others. For example, a business owner with a strong family motivation may be more reluctant to change hiring and performance-management practices. Administration barriers are critical to productivity and desirable to fix, but evidence on how to break down these barriers is, as yet, limited.

Governments can play a role in improving management capability

- 3.26 Data analysis of management practices across APEC economies can also reveal gaps between them. For instance, Australia has room to improve its management practices so they are as good as in comparable economies. Low engagement in management practices may be one reason why Australia's productivity is 50% less than less than the United States, for example (Bloom *et al.*, 2016, at Figure A5 Management and Firm Age - Simulations).
- 3.27 As a result, governments have a role in helping businesses boost their management practices. Building management capability can lead to better productivity and overall improved standards of living for economies (see Bloom *et al.*, 2016).
- 3.28 APEC economies, in general, are actively working to improve the management capability of their SMEs. In particular, they can help SMEs understand why and how to improve their management-capability practices.

Interventions in the APEC region fit into three groups: one-to-one, one-to-some, and one-to-many programmes

- 3.29 Examples of programmes to improve management capabilities can be separated into three main categories:
- one-to-one programme
 - one-to-some programme
 - one-to-many programmes.
- 3.30 A one-to-one programme is where an individual SME receives direct support from a government-funded advisor. The research by (Bloom and Van Reenan, 2007) used a one-to-one type intervention to show causation between an increase in management practices and an increase in firm productivity. This is one reason why it is known as an effective programme. However, the high cost of providing a consultant to an individual firm makes it expensive to scale across an economy. See section 6 of this report for examples of The Tu Empresa program in Peru that provides free business consultation to Micro and Small to Medium Enterprises, the v I4 Check-up programme in Thailand that helps businesses move towards full automation, and the Entrepreneurs' Programme in Australia that connects businesses so they can innovate, commercialise, and grow.
- 3.31 A one-to-some programme is where groups of SMEs benefit from one government programme, such as through classroom-style training. This is a middle ground for impact and costs. See

¹⁴ Pierce and Snyder, 2020

section 6 of this report for examples of Malaysia's 'SME Masterplan' programme and how the People's Republic of China's provides training programmes for entrepreneurs and enables groups of business owners to learn from bigger companies.

- 3.32 A one-to-many programme provides high-quality information to many SMEs at once, such as through an instructional website. Section 6 describes how MBIE in New Zealand is using a website as a digital portal to increase management capability and digital uptake.

The role for the private sector in improving management capability

- 3.33 Public programmes should not act in isolation of the private sector. Nor do they need to do everything. Section 6 describes a New Zealand not-for-profit that specialises in improving management capability. It uses knowledge, connection and investment to transform SMEs and start-ups. The example highlights the important role of mindset in business capability.

Some economies are finding ways to help SMEs access finance

- 3.34 Some Forum delegates raised the issue how governments can help increase the number of SMEs who can access finance. One possible solution is to simplify and streamline the process for them to gain that finance. Also, the productivity of SMEs relies on financial access and technical infrastructure to achieve access. The private sector or the government could provide that infrastructure. Irrespective of the provider, Improved access to finance, including infrastructure, can help SMEs gain access to finance so they can improve their capability. If infrastructure is in place, SMEs can also use it to acquire technology to help them increase and improve productivity.¹⁵ New forms of financing are also becoming available, such as impact investing to support environmental and social outcomes.¹⁶

- 3.35 At the Forum's launch event, a panel of experts from New Zealand and Australia discussed why it is hard for SMEs to access finance. They concluded that:

- more financial products are needed to give business owners more options
- the cost of financial advice needs to decrease to make the advice more accessible to a larger number of people
- the government needs to make it easy to get access to finance
- succession planning has its own set of difficulties regarding access to finance.

- 3.36 In 2019 the Department of Industry, Innovation and Science studied the impact of access to finance (Government financial assistance as catalyst for private financing). The study found that SMEs who received some government assistance were more likely to apply for finance and more likely to receive it. Reasons for this included that one successful application was a confidence booster, and that perhaps getting a tax incentive made investors perceive those SMEs more favourably.¹⁷

- 3.37 Australia has also been analysing the impact of three programmes: the Entrepreneurs Programme; the Enterprise Connect programme; and the Commercialisation Australia programme. Section 6 of this report provides full details about these programmes.

¹⁵ Purdue, 2019 Forum.

¹⁶ Purdue, 2019 Forum.

¹⁷ See <https://www.industry.gov.au/data-and-publications/government-financial-assistance-as-catalyst-for-private-financing>

3.38 So what schemes for accessing finance are already available? Section 6 has examples from China and New Zealand, including showing the benefits if SMEs can make e-payments.

Skills and access to finance would help grow women-led SMEs in Australia

3.39 In Australia, the difference between male and female participation rates in business ownership is 12%.¹⁸ Australian women who own businesses are less likely to grow them, as they are less likely than men to use their home as collateral for a loan.¹⁹ Also, many women setting up their own businesses do not have access to general skill sets for business ownership, compared to males who have more opportunities to gain those skills. Cutting the difference from 12% to 6%, by increasing women-led SMEs, would result in a substantial increase in the amount of revenue going back into the economy.

Digital capability and productivity

3.40 Technology can transform businesses. Governments play a role in understanding capabilities and barriers to increasing digital uptake, and there are challenges in getting SMEs to use technology to drive productivity and growth. Section 6 describes an experiment as part of Australia's Entrepreneurs Programme that analysed the challenges in getting Australian-based SMEs to use technology to drive productivity and growth.

3.41 Such problems are complex. As a result government intervention programmes have mixed results. For example, broad information sessions have limited success because businesses can find it hard to tailor general advice to their specific businesses.

3.42 Simply making more efficient business is not enough. It is vital to understand how technology can completely transform the business model. For example, the Australian experiment has four future stages. These are to:

- digitise the survey and turn it into an app for clients or advisors to complete
- build a smart digital survey, for example using artificial intelligence for simple solutions
- build a marketplace (attached to government)
- look more closely at the data.

¹⁸ Kate Carnell, Australian Small Business and Family Enterprise Ombudsman, Australia, 2019 Forum's launch event.

¹⁹ Carnell, 2019 Forum's launch event.

4. Measurement and evaluation

- 4.1 This section focuses on ways to measure and evaluate the business advisory programmes. It includes examples of current initiatives by a number of APEC economies and expertise from the World Bank.
- 4.2 The theme of measurement and evaluation was prompted by the question ‘To what extent does management capability improve productivity in APEC economies, and what proof is available that it does?’ This section responds to that question in two parts: (1) follow best-practice evaluation techniques; and (2) evaluate before intervening.

Evaluating the effectiveness of programmes

SMEs in emerging economies rarely grow into big businesses

- 4.3 In emerging economies, many businesses have few employees — the percentage of self-employment ranges from 40% to 75% (compared with just 7% in the United States).²⁰ Few of these SMEs become big businesses, unlike in established economies where more small businesses become big businesses. Working out how to help SMEs grow in emerging economies is therefore vital, as is knowing what actions will help and who will benefit. Policies and programmes risk being based on ideologies instead of evidence unless the results of programmes are systematically evaluated.²¹

Growth-focused policies have been based on ideology

- 4.4 So far, little hard evidence exists on which policies work and do not work.²² An evidence-based approach to policy is likely to work better than an ideological approach, as this approach enables the measuring of the impact of evidence-based policies and programmes (impact evaluation). This then enables testing and better aligns products and services to meet the needs of target populations. Once the programmes that work best are identified, as well as why and who benefits from them, targeting the aid budget so that it stretches further will be possible, as will the scaling up of effective programmes. The outcomes from such actions will deliver positive results to those affected.

Randomised controlled trials: popular and effective but challenging

- 4.5 One method of evaluation is a randomised control trial (RCT). In an RCT, evaluation of impact is possible before or after a programme is run. This prospective and retrospective aspect allows more effective measurement of a programme’s results. As a result, RCTs are becoming a popular form of prospective impact evaluation.²³ Also, RCTs can help to bridge the information gap and show businesses which interventions make the most difference.²⁴

²⁰ Zia, 2019 Forum.

²¹ Zia, 2019 Forum.

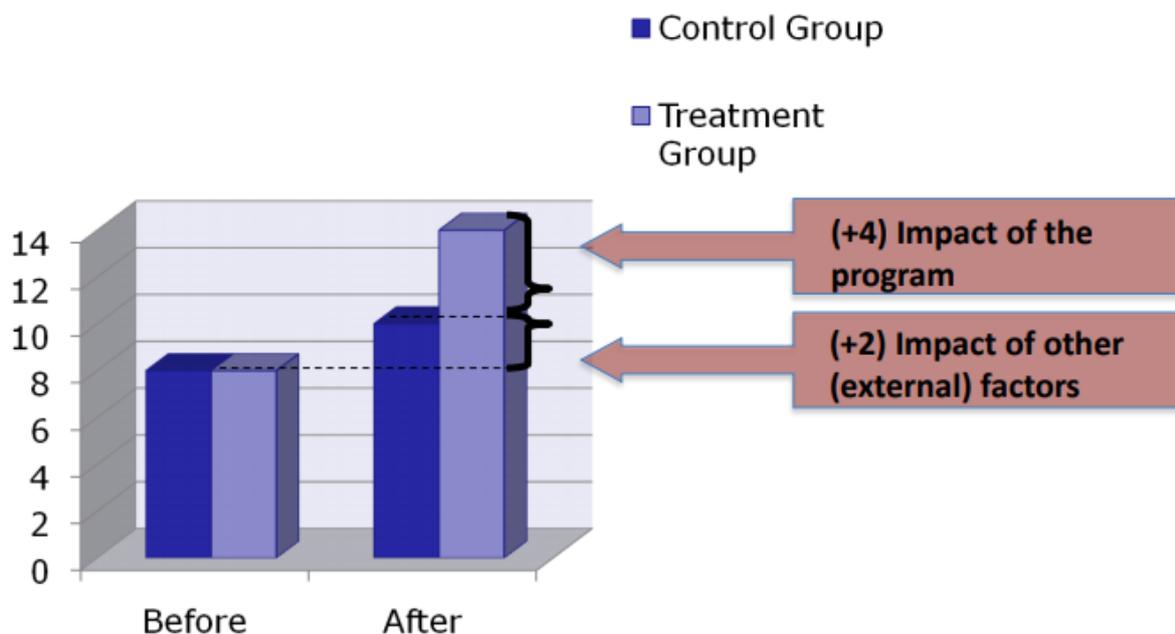
²² Zia, 2019 Forum.

²³ Zia, 2019 Forum.

²⁴ Moran, 2019 Forum.

4.6 RCTs are randomised to make sure that no pre-existing differences between the treatment and control groups exist.²⁵ A control group is included to account for external factors in the results (see Figure 3 below).

Figure 3: Comparing a programme’s impact on a control group and a treatment group



Source: Bilal Zia, Senior Economist, Development Research Group, World Bank, United States, 2019 Forum

4.7 While randomised controlled trials are currently the gold standard in impact evaluation, threats to their validity exist.²⁶ Also, external validity may be questioned: the results may not be generalisable to other settings, particularly if the trial was small.

4.8 Section 6 describes two RCTs focused on management capability. One from South Africa revealed how much different types of business skills matter. Another by New Zealand’s business.govt.nz aims to understand the effect of its one-to-many tools and resources. However, this raises challenges that could hinder central government teams adopting RCTs more widely.

Evaluating before intervening

4.9 Many APEC economies evaluate how management capability might improve productivity before they decide whether to intervene. Doing this is best practice. Any evaluation needs a starting benchmark or control. Understanding the current state is vital to capturing the data and information needed to successfully measure future actions and directions.²⁷ For instance, economic evaluation before intervening helps to identify whether intervening has any value.²⁸ It is an important first step in helping to identify whether the planned programmes will deliver the desired effect. Section 6 details two New Zealand examples and one Australian example to show

²⁵ In the design of a trial that makes comparisons, members of the treatment group have a treatment applied to them, while members of the control group receive a standard treatment, a placebo, or no treatment at all. A trial can have more than one treatment group, more than one control group, or both.

²⁶ Zia, 2019 Forum. For example Hawthorne effects, low uptake, non-response and contamination.

²⁷ Zia, 2019 Forum.

²⁸ Zia, 2019 Forum.

that evaluating before intervening is best practice. Better for Business aims to make it easier and faster for businesses to deal with the government by initially measuring the current state. MBIE's work programme is focusing on the capability and skills needs of small businesses. An experiment as part of Australia's Entrepreneurs Programme is finding ways to understand the challenges SMEs face in using technology to drive productivity and growth about these challenges.

Measuring changes and impacts over time has delivered benefits for future studies

4.10 Below are how two APEC economies – New Zealand and Australia – are measuring changes in management practices over time, and analysing the impact of programmes.

Australia has been analysing the impact of programmes

4.11 A range of programmes in Australia gather insights with the aim of supporting entrepreneurs and commercialising research. Such programmes include the Enterprise Connect programme, the Entrepreneurs' Programme, the Commercialisation Australia programme, and a new Programme Analytics Tool that provides valuable information on programme participant characteristics such as for the current Entrepreneurs' Programme.

4.12 The Department of Industry, Innovation and Science in Australia has a new [Programme Analytics Tool](#) that draws together data on hundreds of thousands of Australian businesses to provide insights into businesses participating in departmental programmes.²⁹ It contains interactive charts and tables that allow users to see the patterns of government assistance. Users can also compare characteristics of these businesses to a benchmark of employing businesses, by looking at business size, industry classification, and export values. The Tool will soon include business performance measures as well.

4.13 Section 6 describes how Australia and Thailand are finding ways to measure the current state before implementing any programmes. In Australia, the Department of Industry, Innovation and Science's has a monitoring and evaluation framework to ensure programmes are prepared for future evaluations. The Thailand Productivity Institute is assessing how ready two of its industries are to becoming fully automated.

²⁹ Abrie Swanepoel, Office of the Chief Economist, Department of Industry, Innovation and Science, Australia, 2019 Forum.

5. Sustainable economics

- 5.1 Global economic challenges are worsened by increasing wealth inequality, environmental degradation, urbanisation, and the climate emergency. The 2008 global financial crisis revealed major flaws in traditional neoclassical economic policies.³⁰
- 5.2 Solving such challenges requires a change in mindset, and adopting an approach that stimulates sustainable progress. A focus on mindset and capability is vital if a business is to transform.³¹ SMEs in New Zealand, for example, create 90% of the economy's new jobs. The mindsets of SME owners have played a large part in that growth.³²
- 5.3 Productivity is not the only goal of an APEC economy. One New Zealand delegate³³ noted that many APEC economies are starting to embrace new concepts of success through the wider lens of sustainable economics. This lens includes social sustainability, which is about encouraging all societal groups to take part no matter their age, gender, class, race, and religion.³⁴ Section 6 has examples from Thailand and Mexico that show how both economies are encouraging social sustainability at the governmental level.
- 5.4 The lens of sustainable economics is also focused on environmental sustainability. At a global level, The Paris Agreement (within the UN Framework Convention on Climate Change) and the UN's New Urban Agenda set global standards for climate protection and sustainability. At the regional local, SMEs in APEC economies are thinking about their environmental role in society: What is environmentally sound for society can be good for SMEs.

Global commitments are prompting evaluation of new models

- 5.5 Business-as-usual models and current global commitments are not enough.³⁵ A 'take, make, use, lose' approach no longer works. It is vital to look beyond current models and assumptions.
- 5.6 Work by the New Approaches to Economic Challenges division of the OECD suggests that a new approach needs to:
 - redefine the goal
 - draw on a diverse range of economic theories and analyses
 - embrace a new policy approach and objectives.³⁶
- 5.7 Alternatives have been developed, but no complete approach yet exists.
- 5.8 Economist Kate Raworth uses a Doughnut Economics model (see Figure 4) to describe a measurable goal of meeting the needs of people within the means of the planet. The Doughnut shifts the focus from growth to operating in a safe and just space for humanity.

³⁰ Donna Purdue, Chief Economist, MBIE, NZ, 2019 Forum.

³¹ Purdue, 2019 Forum.

³² Andrew Hamilton, Chief Executive, The Icehouse, NZ, 2019 Forum.

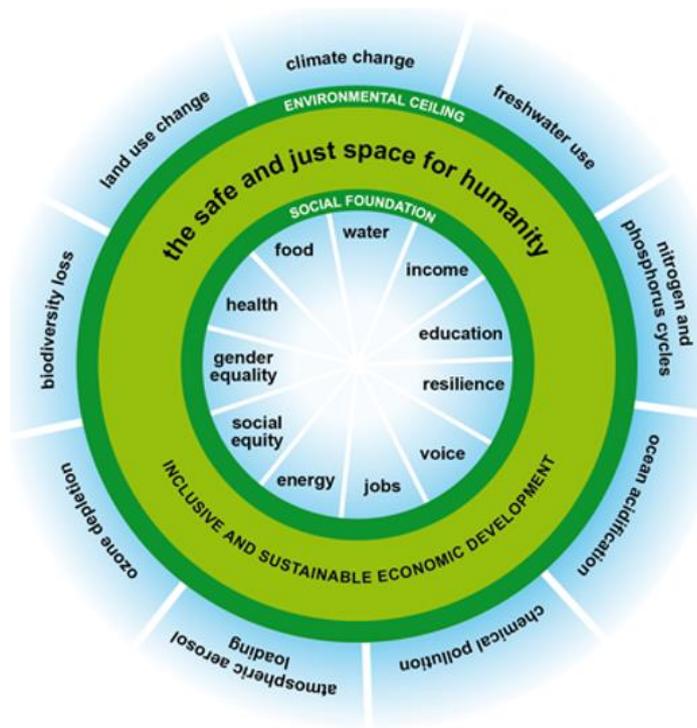
³³ Purdue, 2019 Forum.

³⁴ For more definitions from a range of sources, see ADEC Innovations: <https://www.esg.adec-innovations.com/about-us/faqs/what-is-social-sustainability/>

³⁵ Purdue, 2019 Forum.

³⁶ Purdue, 2019 Forum. Also see website the NAEC at <https://www.oecd.org/naec/projects/>

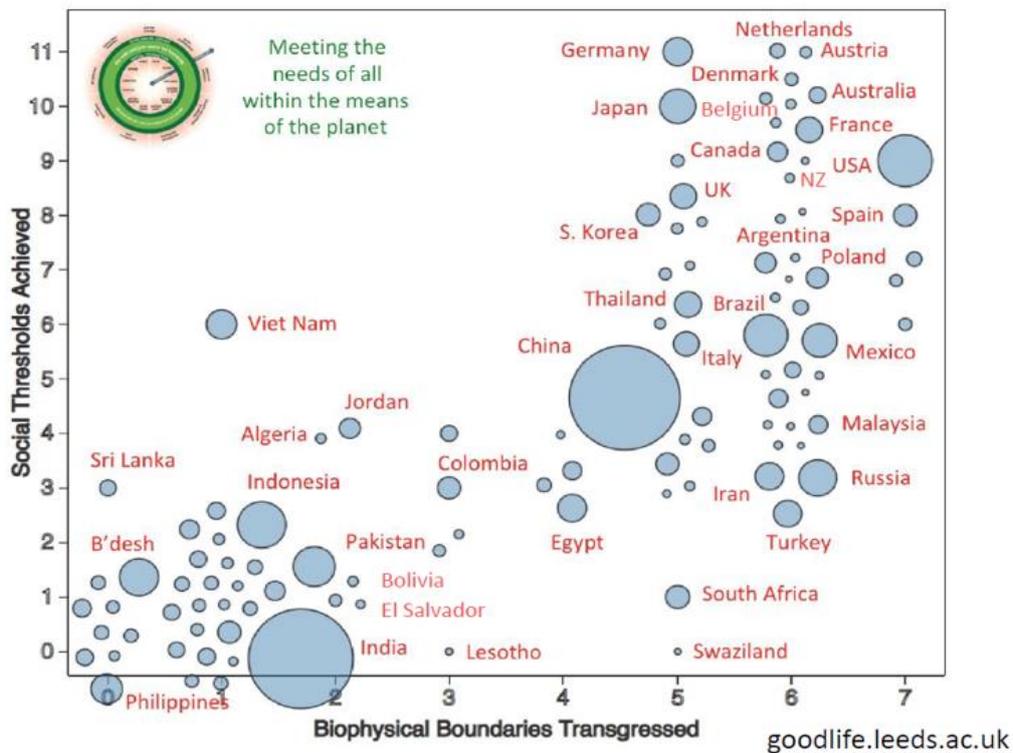
Figure 4: Doughnut Economics model



Source: K Raworth. 2017. *Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist*. London: Cornerstone, Random House Business.

5.9 The Doughnut shifts the focus from growth to operating in a safe and just space for humanity. This links to sustainable economics, another of the Forum’s themes. As Figure 5 below shows, no economy is meeting the needs of its people and the planet (if an economy was, it would be in the top left quadrant). The diagram shows a range of APEC economies, such as Australia, Canada, Indonesia, Japan, Malaysia, Mexico, New Zealand, the People’s Republic of China, Russia, the Philippines, Thailand, the United States, and Viet Nam.

Figure 5: Biophysical boundaries transgressed versus social thresholds achieved



Source: 'A good life for all within planetary boundaries' webpage. 2020. University of Leeds, Doughnut Economics, Oxfam, and the Economic and Social Research Council. goodlife.leeds.ac.uk

5.10 Although some have criticised the doughnut economic model as delivering nothing new in thinking about growth compared to need, it does challenges underlying assumptions and can help encourage debate.³⁷

New objectives and ways to measure success offer APEC economies benefits and opportunities

5.11 Transforming the global economy by meeting the ambitious climate and sustainability goals requires policy objectives that focus on more than just GDP growth.

- **From an extractive system towards a regenerative or circular economy.** Many economies, not just those in APEC, already understand the benefits gained from moving to a circular economy.. For example, Finland aims to transition to a circular economy by 2025.
- **From concentrated to distributed economic activity.** The traditional trickle-down model has enabled growth, but has mostly delivered benefits to a small number of sectors, regions and groups of people. A new model will result in benefits being distributed more widely. Further, streamlined processes from new technology will help to keep distribution costs down.
- **From simple to complex.** Linear economic models are no longer fit for purpose in today's complex world. Only new and expanded policy tools and techniques will deliver more appropriate and applicable solutions.

³⁷ Purdue, 2019 Forum.

- **From siloed to integrated.** There is a need for agencies and systems to become more integrated, such as government ministries working together across the system to create policy.

5.12 Wellbeing frameworks are providing new ways to measure success against these objectives. The doughnut model aside, some economies (such as Scotland) are using the United Nations' sustainable development goals or the OECD's Better Life Index. New Zealand has started using the Living Standards Framework to consider the impacts of policies on living standards over time.

Global commitments are also prompting new studies

5.13 Joint research from the Australian Department of Industry, Innovation and Science and University of Technology Sydney aimed at measuring the environment management capability of companies shows how such a capability may improve an SME's bottom line,³⁸ and Mexico's Ministry of Economy is gathering evidence to evaluate its SME programme (see section 6 for full details about the survey and programme).

5.14 All the above best practice evaluation techniques revealed the benefits of using evaluation before intervention.

Tailored programmes aim to make SMEs more environmentally aware

5.15 Tailored programmes in Australia (see section 6 of this report) signal the belief that SMEs perform better when they respond to environmental issues such as degradation, increasing urbanisation, and the climate emergency. In addition, some programmes are helping to make SMEs more environmentally aware, which in turn is creating a sustainable business capability.

5.16 The day before the Forum officially opened, a panel of New Zealand experts discussed issues related to sustainable economics: mental health in SMEs, and the challenges that women face when they lead SMEs. This focus is evidence that businesses are starting to consider their role in society, with many moving towards the concept of 'shared value' (Porter and Kramer, 2011) and the idea that 'what's good for society is good for businesses'. Section 6 describes a New Zealand firm that has partnered with a foundation partly because they share a focus on mental health.

Women mentors, role models, and societal change will encourage more women-led SMEs

5.17 The Forum's launch event also covered the role of women in SMEs. Its findings are summarised below.

- Access to female mentors makes a big difference as they understand the particular struggles of female business owners.
- Lack of confidence and impostor syndrome are big barriers to women leading SMEs, which mentors could help to solve.
- Social and internal biases mean women are less likely to access the finance they need to grow their businesses.
- Society needs to value unpaid work to reduce the expectation that women will take on a greater share of household responsibilities.

³⁸ Moran, 2019 Forum.

Governments need to support change, identify priorities, and provide new pathways

- 5.18 Governments need to get involved to accelerate change. Traditional regulatory systems and legal systems do not work for many of these new circular businesses, and current financing systems are not always fit for purpose for these new business models.³⁹

³⁹ Purdue, 2019 Forum.

6. Case studies referred to in this report

Below are examples referred to at the 2019 Forum.

Case studies from section 3 of this report

A one-to-one programme is where an individual SME get directs support from a government-funded advisor

Providing free business consultation in Peru

- 6.1 The [Tu Empresa](#) program provides free business consultation. Micro and Small to Medium Enterprises (MSMEs) ⁴⁰make up 99.5% of Peruvian businesses, and most of these are micro enterprises. MSMEs are Peru's main source of employment generation.⁴¹ It is a comprehensive platform for the design and delivery of business services to MSMEs nationwide. It builds and uses diverse attention channels to carry out interventions that contribute to increasing sales and productivity of MSMEs.⁴² Launched in 2018, the general objective of the Program is to contribute to the improvement of MSME's business development levels by increasing their productivity and sales, providing them with facilities to become formalised, access formal credit, go digital and develop entrepreneurs' skills.
- 6.2 The Program has six (6) strategic objectives, which respond to a systematic and integral approach, considering a suitable and relevant response to the needs of MSMEs, which are implemented through tools and services. The strategic objectives are noted below.
1. Contribute to the increase of productivity and sales of micro and small enterprises.⁴³
 2. Provide facilities to formalise business activity.
 3. Provide micro and small enterprises that access to Tu Empresa Program with information and, if necessary, access to business services that contribute to increasing their productivity and sales.
 4. Promote and facilitate access to financing for micro and small enterprises that access to the Program
 5. Provide tools to promote the digitalisation of micro and small enterprises.

⁴⁰ A micro enterprises has 1 to 10 workers and yearly sales up to 150 Tax Units. A small enterprise has 1 to 100 workers and yearly sales between 150 and 1,700 Tax Units. A medium enterprises has 1 to an unlimited number of workers, and yearly sales between 1700 and 2,300 Tax Units. A time of writing, 1 Tax Unit (UIT) = S/. 4,300 (USD1271).

⁴¹ Mariel Barros, APEC Specialist, Ministry of Foreign Affairs, Peru, 2019 Forum.

⁴² The Tu Empresa Program has 24 business development centres in 20 regions of Peru. Each centre has program advisors who give personalised evaluations in five components: formalisation, business management, digitalisation, finance, and product development. The programme carries out conferences and business training (in coordination with public and private institutions) and has strategic interventions (such as Smart Retail, Gamarra Outlet and Produce Digital) that help SMEs to be seen by large clients. See <https://www.tuempresa.gob.pe/>

⁴³ The program's target population are SMEs and entrepreneurs. The program is open to all entrepreneurs and businesspeople who come to a business development centre, at which they receive a range of evaluations. Each month in 2019, about 1,560 entrepreneurs and MSMEs visited a business development centre. The purpose of the strategic interventions depends on the project objective. For example, the target audience for the Mujer Produce Digital (workshop) was businesswomen who run MSMEs and were interested in participating (selection was made according to specific evaluation criteria).

6. Provide business support to micro and small enterprises that access the Program, according to their identified needs.

6.3 In 2018, Peru approved the National Policy on Competitiveness and Productivity. The policy charts the path to boosting and consolidating economic growth in the medium- and long-term. This, in turn, generates better public services to reduce poverty, increase income and constantly improve the wellbeing of the population. This policy contains nine priority objectives. The Ministry of Production with the Technological Institute of Production (ITP) is a specialised technical body that has the Centres for Productive Innovation and Technology Transfer (CITE). These are institutions that promote innovation and encourage the use of new technologies among producers, enterprises, associations, and cooperatives, representing the mid-point between academia, business, and government. The third objective 'Generating Capacity for Innovation, Adoption and Transfer of Technology Improvements' establishes that ITP and CITE are relevant actors that perform innovation governance functions.

6.4 This objective aims to raise the level of scientific research and technological development, as well as, technology transfer to close production gaps, through various mechanisms for the development of Science, Technology and Innovation (STI), with a regional approach, for which it has proposed an implementation plan of services integrated by the Business Development Centres Network of the National Programme Tu Empresa and the CITE Network.

6.5 In 2019, 42,614 business consultations have been provided free of charge. The Tu Empresa program has already created a saving of \$988,000 for the government by exempting registration fees (reservation of name and act of incorporation) and exempting notary fees through the notary's offices allied to the program. The program deducts their notary fees payable for formalising companies.

I4 Check-up programme helps businesses in Thailand to move towards full automation

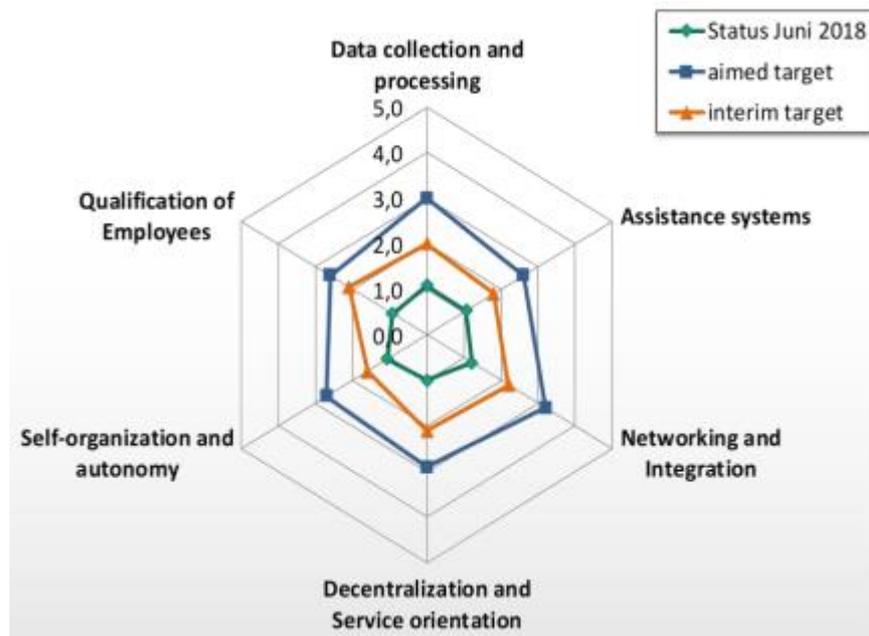
6.6 The aim was to find a standardised approach to transition the Thai economy to becoming as fully automated as possible — known as Industry 4.0 (I4).⁴⁴ After standardising the process, Thailand could work on other aspects such as the value chain.

6.7 The approach had three stages.

1. An assessment was conducted of the maturity level of a business on a 1–5 scale. The highest level was 5, with an automatic supply chain all the way to the customer.
2. A survey was conducted to discover how capable a business is at increasing its maturity level against six principles (as shown in the diagram below).

⁴⁴ Nantaphorn Aungatichart, Foundation of Thailand Productivity Institute, Thailand, 2019 Forum.

Method to drive action: Status and proposed mid-term goal



Source: Industrie 4.0 Check-up Principles: Fraunhofer IFF. Also seminar series 'Industrie 4.0 Check-up approach' in cooperation with (from Thailand) The Foundation for Thailand Productivity Institute (Branch 1), Ministry of Industry, Office of Industrial Economics, and Fraunhofer IFF ASEAN Office; and (from Germany) the Fraunhofer Institute for Factory Operation and Automation IFF, held at FTPI HQ, Bangkok, Thailand, 3 April 2019 to 3 June 2019

3. An interview (see **Appendix 2 to this report**) was conducted to help the business decide what their ideal maturity level is, and help them plan how to get to that level and by when. Not every business will need to get to the top maturity level to satisfy their customers.
- 6.8 Businesses come up with their own proposals to transfer to I4. The programme helps them consider the effort required against the relative benefits of implementing their proposals.
- 6.9 Results from the programme have been good. For example, two SMEs that took three months to implement their I4 improvements saved around 600,000 Baht or US\$20,000 by increasing quality and efficiency, decreasing lead time, and reducing expenses.
- 6.10 Another result from the programme was discovering that not every SME can undertake an I4 check-up. The SME must already have some standardisation, and a certain level of quality and consistency. Medium-sized SMEs (of more than 150 employees) may even have their own IT department because Thailand virtualises all data through value chain on a digital platform. IT helps them manage, develop and secure their information. However, the most important thing is that the leaders must see benefit and have a direction to drive to I4, and I4 must be able to help the business meet the future needs and expectations of customers. Businesses that do not suit I4 have the option of progressing through a four-step productivity maturity programme that begins with the evaluation of productivity maturity levels conducted by FTPI.⁴⁵

⁴⁵ Nantaphorn, 2019 Forum.

Australia builds capability through its Entrepreneurs' Programme

- 6.11 [The Entrepreneurs' Programme](#) connects businesses with what they need to thrive and innovate. The three goals of the programme are innovation, commercialisation, and growth.⁴⁶
- 6.12 Business innovation is core to maintaining economic growth and living standards in Australia and its innovation performance depends on:
1. innovation activities of organisations
 2. networks and collaboration between organisations
 3. framework conditions which regulate activities and networks.
- 6.13 These three components are important to maximising an effective national innovation system and collectively function to produce innovations which, in aggregate, produce economic and social value.
- 6.14 The ability of an individual business to interact in this system is a function of management capability.
- 6.15 Key features of a high-performing innovation system include:
- high proportions of firms undertaking new-to-market innovations (high innovation capability within firms) (this relates to the programme's 'growth' outcome as well as improvement in management capability as an enabler of innovation)
 - high levels of business-to-business and business-research collaboration (strong networks) (this relates to the programme's 'innovation' outcome or the ability of businesses to engage with research as an enabler of innovation)
 - framework conditions which support innovative entrepreneurship (creation and growth of innovative firms) and the commercialisation of novel products, processes and services (this relates to the programme's 'commercialisation' outcome or the support for businesses bringing new products, services, technologies to market as an enabler of innovation).
- 6.16 Independent, private sector advisors get to know the needs of individual SMEs and offer tailored support through different services, such as holistic reviews of all aspects of the business, specialist digital advisors, design thinking, and customer centricity.
- 6.17 The programme provides practical advice, grants, and access to research and national networks. Services are tailored to each specific circumstance. In particular, innovation services are vital for research collaboration, and the programme's innovation stream provides advice, networking, and funding for this. Networks are also vital, such as between industry and researchers in institutions.

Commercialisation services set up novel products and services for success

- 6.18 Start-ups need expert advice and grants to help successfully commercialise novel products and services. The advice the programme offers is invaluable. The Department of Industry, Innovation and Science in Australia gives funding as well, but that advice is most useful to people.

Growth services help put plans into action

- 6.19 The growth element of the programme provides access to an independent business adviser for up to two years. Each advisor goes through a rigorous recruitment process to make sure they are

⁴⁶ Mel Cox and Melissa Anderson, Department of Industry, Innovation and Science, Australia, 2019 Forum.

capable enough to advise.⁴⁷ The advisors work with an SME to develop a growth plan to help them realise an Australian or overseas growth opportunity. The advisor then mentors the SME as they put their plan into action. The programme also provides grants to support growth.

6.20 The growth element also looks at market failures. Two themes have emerged.

- Information is key. Businesses do not know what they do not know. And they do not always know how to use information to improve their business.
- The cost of information and advisory services matters. Businesses have limited resources, and have to balance an investment in growth activities with the day-to-day business. Trust can also be a barrier to seeking help, with businesses possibly feeling they will be pushed in a way they do not want to go (see below for what the programme has discovered so far).

Targeted support makes a difference in competitive sectors

6.21 The programme targets SMEs that are large enough to implement the recommendations — the threshold is SMEs with a \$A1.5 million turnover.

6.22 The programme also targets sectors where Australia has a competitive advantage, or potential for global impact, for example medical technology, pharmaceuticals, oil, gas, energy, mining, and digital technologies and services.

6.23 The programme has conducted case studies to evaluate the services. The programme has measured improvements in SME profit and the number of staff employed.⁴⁸

What the programme has discovered so far

6.24 The programme has discovered over its past five years of operation that that businesses are reluctant to seek external assistance because:

- they do not know what they need
- they are worried they will be sold something that does not suit them (for example, software from a vendor looking for a sale instead of genuinely trying to solve their problem).

6.25 Feedback from an internal survey run with clients and non-clients in 2011 established that businesses value the quality and independence of government-funded advisers because they know those advisers do not have a financial stake in the business's decision to accept and implement their advice. This trust allows these advisers to refer businesses to private consultants for further advice where it is in the business's interests. The quality and independence of advisers are crucial to building trust with businesses. These factors facilitate access to the sensitive business information required to provide meaningful advice and to presenting the advice in a way that it is more likely to be heeded.

⁴⁷ The recruitment process evaluates an applicant's ability to work within the programme as well as provide advice to SMEs. Advisers tend to have owned their own businesses, been CEOs of businesses, or worked at a high level in a business. All come from the private sector. Besides providing general advice, most have specialisations (for example, in business disciplines such as finance, marketing, or in sectoral such as food manufacturing and mining technology).

⁴⁸ See an evaluation of Enterprise Connect, this programme's precursor and a similar business advisory service programme: <https://www.industry.gov.au/data-and-publications/business-performance-of-enterprise-connect-participants>

A one-to-some programme is where groups of SMEs benefit from one government programme

Malaysia has a national plan and has tested programmes to boost SME capability

- 6.26 The SME Masterplan (2012–2020) is a developmental plan that sets the policy direction for SME development in Malaysia based on achieving specific goals which are linked to the overall vision of the Plan of creating a new breed of Small and Medium Enterprises (SMEs) that are globally competitive.⁴⁹
- 6.27 Based on the Economic Census 2016, SMEs make up 98.5% of the total number of businesses in the economy.⁵⁰ SME profiling is conducted every five years (the latest is Economic Census 2016), while statistics on SME contribution are published each year (the latest was for 2018). The performance of Malaysian SMEs remains encouraging despite the challenging business environment. The latest statistics indicate that SMEs contribute 38.3% of Gross Domestic Product (GDP), 66.2% of employment and 17.3% of exports in 2018.⁵¹
- 6.28 SME Corporation Malaysia, as the Central Coordinating Agency under the Ministry of Entrepreneur Development, undertook the first impact assessment on SME programmes in 2010 with the assistance of the World Bank. This has paved the way for an outcomes-based approach going forward. The Masterplan unveils a new SME Development Framework that defines a clear path ahead. That path is premised on a common vision for SMEs and the required goals to achieve this vision. That vision and those goals support the overarching objectives of the economy to become a high-income nation by 2020.

Productivity increased following focused interventions

- 6.29 The pilot study of the impact assessment involved a rigorous technical assessment on about 20 programmes that had comprehensive data on the recipients. The Department of Statistics Malaysia matched the recipient data to the survey and its already compiled Census data to observe how firms that participated in programmes performed compared to firms with similar characteristics that had not participated in a programme. Empirical evidence indicated that six growth levers contribute to the high performance of Malaysian SMEs. These levers are innovation and technology adoption, human capital, access to financing, market access, the legal and regulatory environment, and infrastructure. In the past, challenges faced in each of these areas have impeded performance.⁵² The impact assessment on non-human resource development indicates that every 1% increase in programme support will lead to, on average, a 1.1% to 5.0% gain in performance, depending on the indicators.⁵³

⁴⁹ Rafiza Rajab, Senior Manager, Knowledge Management and Strategy Division, SME Corp, Malaysia, 2019 Forum.

⁵⁰ Rajab, 2019 Form. Sales turnover and number of full-time employees are the two criteria used to determine the definition as follows: (1) SMEs in the manufacturing sector are defined as firms with sales turnover of no more than RM50 million or having no more than 200 full-time employees. (2) SMEs in services and other sectors are defined as firms with sales turnover of no more than RM20 million or having no more than 75 full-time employees.

⁵¹ See SME Annual Report 2018-2019, Section 1: Economic Assessment; Part Two: SME Developments and Outlook (pp 16–47).

http://www.smeCorp.gov.my/images/SMEAR/SMEAR2018_2019/final/english/SME%20AR%20-%20English%20-%20Chapter%202.pdf

⁵² See page 50 of SME Masterplan 2012–2020 of Malaysia, SME Corporation Malaysia, 2012.

⁵³ See page 45 of SME Masterplan 2012–2020 of Malaysia, SME Corporation Malaysia, 2012.

6.30 The findings on the training programmes by the Human Resources Development Fund (HRDF) indicate a strong positive impact, including effects on productivity. The training programmes were implemented by HRDF and were selected for the impact assessment under the SME Masterplan project.⁵⁴ These programmes showed a net positive impact on 74,000 recipients,⁵⁵ with the highest impact on small firms.⁵⁶

A government agency in Malaysia is undertaking a holistic incentives monitoring mechanism for entrepreneurship and SME development programmes

6.31 Currently, the monitoring by SME Corporation Malaysia, in cooperation with relevant Ministries and agencies, has the following elements:

- SME Integrated Plan of Action: a programme-level reporting and assessment tool based on pre-set Key Performance Indicators
- SME Central Incentives System: a system through which information about the beneficiaries is captured as programmes are implemented
- SME Competitive Rating for Enhancement: a firm-level assessment of the strengths and weaknesses of SMEs.

The government of the People's Republic of China has programmes to support new and developing SMEs

6.32 In China, a medium-sized business has fewer than 2,000 employees, and a small business has fewer than 300 employees.⁵⁷

6.33 The government has several programmes that encourage and support SMEs, including in Shandong Province, an industrial area in Northern China. Examples include:

- SMEs not requiring registered capital to set up
- an easy registration process if anyone needs to register
- a streamlined approval process: it only takes several hours for a person to set up a company and get approved through the government's online channel.

6.34 Programmes in China also help SMEs grow.

- Public services are provided to help SMEs improve productivity. For example, SMEs can access communication channels, workshops, showcases for products, and research institutions that provide mostly free consulting on legal, policy, and technical issues.
- The government provides development funding. It also sets up guarantees for companies that seek lower-threshold bank loans because they do not reach the loan threshold.

⁵⁴ See page 44 of SME Masterplan 2012–2020 of Malaysia, SME Corporation Malaysia, 2012.

⁵⁵ Although the exact sample total is unknown, based on the report by the World Bank, 156,000 companies were analysed under HRDF for the impact assessment. The number of employees were segregated by <50, 50–150 and over 150 employees.

⁵⁶ HRDF is a private corporation that oversees a levy-based fund established in 1992 aimed at promoting training and development of workers in Malaysia. Every employer is required to register with the HRDF and pay a levy equal to 1% of monthly wages of employees to the fund. Employers are not permitted to deduct the payment from employee wages. In turn, employers that have registered and paid the levy are eligible for financial assistance and other benefits.

⁵⁷ Zhongquan Pang, Director General, Economics Development Bureau of Weihai, People's Republic of China, 2019 Forum.

6.35 The government provides training programmes for entrepreneurs. These enable groups of business owners to learn from bigger companies.

A one-to many programme provides high-quality information to many SME at once

New Zealand's MBIE is using a website as a digital portal to increase management capability and digital uptake

- 6.36 New Zealand has many SMEs — 97% of New Zealand businesses are SMEs. There are about 515,000 of them.⁵⁸ The Ministry of Business, Innovation and Employment (MBIE) uses business.govt.nz, a website with a digital newsletter that is connected across government and industry, as the main SME channel for general compliance and performance advice.
- 6.37 Business.govt.nz is defusing best-current management practices to SMEs via the website and connecting with other business.govt.nz work with 200+ firms in the public and private sector to create the information and tools on the website. Researchers, such as those on the New Zealand Business Performance Panel, update business.govt.nz with best practice in business. Then business.govt.nz translates their advice into a New Zealand context with a customer-centred design.
- 6.38 The site is very popular, with 3.2 million visits in 2019. A million minutes are spent on the site each month. business.govt.nz's monthly e-newsletter is sent to 230,000 addresses. As an example, The Employment Agreement Builder, a tool to create customised employment agreements, is used 4,000 times a week.
- 6.39 business.govt.nz is getting data out of the self-assessment tools. It is possible to look at the data in different ways to understand site visitors and draw conclusions about the management capability of those visitors. For example, site data has shown that management capability skills do not increase just because a manager or entity has been in business for a long time.
- 6.40 MBIE aims to use the site to help with productivity, as New Zealand lags behind Australia and the United States in this measure. Its plan is to focus on management capability, as this affects productivity and how quickly digital diffusion happens. business.govt.nz is creating business-performance resources to help people become more aware of their management capability.
- 6.41 business.govt.nz's current goal is to create more customised content (that suits segments of their audience) and to find out whether the site is affecting New Zealand's economy. business.govt.nz is also trying to use the site to bridge the gap between one-to-some and one-to-many programmes.

The private sector can help improve the management capability of SMEs

A New Zealand not-for-profit is improving management capability in SMEs

6.42 Founded in 2001, The Icehouse is owned by a not-for-profit charity, and helps entrepreneurs and business owners transform and reach their potential.

⁵⁸ Hall, 2019 Forum.

6.43 According to its CEO, The Icehouse's vision is a thriving New Zealand driven by entrepreneurs and business owners who have a 10% impact on New Zealand's GDP.⁵⁹

6.44 The Icehouse focuses on established privately owned businesses and high-tech, high-value start-ups that need investment and are globally focused. The work with SMEs focuses on established SMEs in all sectors with at least 20 employees and revenue between NZ\$3 to NZ\$100 million. The goal is to enable individual businesses to be confident, well strategised, and armed with a clear plan.

Working with businesses can help them achieve their unique goal

6.45 The Icehouse works with customers so that they are:

- winning (as they define it)
- armed for and confidently making progress towards the business they always wanted
- well led, strategised, structured, supported and positioned to take on each milestone with confidence
- the business they are meant to be, and the leader is the leader they knew they had the potential to be.

6.46 Over 18 years, The Icehouse has helped create close to 45,000 jobs and expects to hit its 10% GDP goal.⁶⁰

6.47 For start-ups, The Icehouse is an investment platform that provides expertise, funding, and access. For established SMEs, The Icehouse delivers group learning programmes and tailored business advice. It offers a series of mindset and capability-changing programmes that are focused on peer learning and journeying together. The training programme has also been licensed for use in Australia.

Humans foster the business need to connect to grow

6.48 Mindset is a massive lever because most business owners feel alone and do not trust many others.⁶¹ Business owners may not be conscious of what they want or need.⁶² Once they can articulate their goal, it is much easier to achieve.

6.49 Customers of The Icehouse form a bond by going on a course. The value participants get from being with each other is immense. This value is measurable because the programme has been running for a number of years, and is measured by observing the connections and ongoing relationship between the participants.

Insights from The Icehouse experience

6.50 The Icehouse experience delivered some key insights.

- Economies can learn from everyone else and adapt to their own conditions. The Icehouse is an example of tailoring a programme for a particular economy.
- Aligning business models to outcomes of success delivers sustainability.
- Building ecosystems that impact on mindset and capability are critical to transformation.

⁵⁹ Hamilton, 2019 Forum.

⁶⁰ Hamilton, 2019 Forum.

⁶¹ Hamilton, 2019 Forum.

⁶² Hamilton, 2019 Forum.

6.51 This approach works, yet achieving at scale is challenging: the process has taken The Icehouse a long time.

Improved access to finance can help to improve the capability of SMEs

Macao, China, has three schemes to help SMEs to access finance

6.52 The Macao economy provides a series of aid schemes to SMEs and young business people to help them respond to the fast-growing and ever-changing economic environment.

1. The **SME Aid Scheme** provides interest-free financial assistance to SMEs to enhance their operating conditions and capabilities. As of October 2019, more than 10,000 applications have been approved, with the granted amount exceeding MOP 3 billion (~USD 382 million).⁶³
2. In the **SME Credit Guarantee Scheme**, the Government guarantees bank loans, which helps SMEs get loans from banks.
3. The **Young Entrepreneurs Aid Scheme** encourages people aged 21 to 44 to explore new opportunities and engage in new businesses. The scheme eases financial pressure by providing interest-free loans to young entrepreneurs who are already in business, and ready to start a specific undertaking. As of October 2019, more than 1,500 applications have been approved, with the granted amount at about MOP 350 million (~USD43million).⁶⁴ SMEs from retail services account for 38% of the total amount approved, followed by business organisation services (12.1%), vehicle repair and maintenance, salon, and other personal services (11.1%).⁶⁵

A capital fund in New Zealand helps early-stage high-growth SMEs to access finance

6.53 In 2019, New Zealand passed the Venture Capital Fund Bill. This Bill created a \$300 million New Zealand Venture Investment Fund (NZVIF). It operates as a funds-of-funds model and distribute money to participating (privately-owned funds), which will then invest in firms. Applications for the underlying funds will open in the first quarter of 2020.

6.54 The goal of the fund is to grow the venture capital market in New Zealand and help start-ups expand and/or transition to become new sustainable sectors of the economy. Early-stage firms can apply for Series A and B funding (after seed stage funding). Underlying private fund managers judge applicants on the ability of their management team as well as their product or idea. The assessment is at the commercial discretion of each private fund manager. NZVIF will invest in private funds that they (or their investment committee) feel have the right team/expertise, approach, to investing, and value added services. Part of what NZVIF is looking for are private funds that assist with management capability.⁶⁶ The private funds will do the actual investing in a start-up company.

⁶³ Vivian Lei Wai Chan, Macao Economic Bureau, Macao, People's Republic of China, 2019 Forum.

⁶⁴ Lei Wai Chan, 2019 Forum.

⁶⁵ Lei Wai Chan, 2019 Forum.

⁶⁶ How the NZVIF assists will differ for each fund, but it may include (1) having a pool of CEOs/COOs that they can call on who have expertise in setting up boards/governance functions, (2) having a resident entrepreneur (someone who has received similar funding help before), and (3) either having an in-house recruitment offering or outsourcing it (via a strong partnership with a specialist recruitment firm).

- 6.55 The fund managers will have to consider the Government’s Economic Plan and Industry Transformation Plans, including food and beverage, wood processing, digital technology and agritech.
- 6.56 The aim is to make sure funding is available to small, early, fast-growing firms so that New Zealand can develop a sustainable finance ecosystem. In the process, the aim is to develop more capable fund managers to work in the New Zealand venture capital market.
- 6.57 As only about 2% of New Zealand firms will be eligible for this funding, the next step is to look at other programmes that could help SMEs access finance including recommendations from the Small Business Council.⁶⁷

The New Zealand government has introduced a programme to improve cash flow for small business

- 6.58 Enabling cash flow is a key way to improve SMEs’ access to finance.⁶⁸ The New Zealand Government has a programme to improve cash flow. The belief is that regulations and processes to improve cash flow will give small businesses the breathing space to improve their business (or lifestyle).⁶⁹
- 6.59 The programme includes:
- making changes to the tax system to improve options for paying tax in ways that help cash flow⁷⁰
 - implementing payment-time targets so that government pays quickly, improving cash flow
 - adjusting government procurement rules so SMEs are able to participate.⁷¹
- 6.60 The programme may:
- help to bring in minimum payment times for business-to-business transactions
 - help to save NZ\$20 on every invoice through the use of e-invoices.
- 6.61 In addition, the Unconscionable Conduct Bill will make sure small businesses are protected from blatantly unfair commercial practices.

E-payment has made Macao, China, SMEs more competitive

- 6.62 In 2015, the Macao Government established an e-commerce working group encouraging SMEs to adopt e-payment, which in turn stimulates economic growth.

⁶⁷ Landon McMillan, Ministry of Business, Innovation and Employment, NZ, 2019 Forum.

⁶⁸ Jon Cable, Manager Enterprise Policy, Ministry of Business, Innovation and Employment, NZ, 2019 Forum.

⁶⁹ Cable, 2019 Forum.

⁷⁰ Three examples are: (1) Inland Revenue (IR)’s Business Transformation programme has now migrated Goods and Services Tax (GST), fringe benefit tax (FBT), payday filing and income tax to a new, online tax platform. (2) IR now requires payday filing so that it receives payroll information whenever staff are paid, rather than at each quarter. (3) The introduction of AIM (Accounting Income Method) provides new means of paying provisional tax and enables less chance of over paying or under paying tax.

⁷¹ See New Zealand Government Procurement. 2019. ‘Summary of substantive changes to the Rules of Sourcing’. The summary table outlines substantive changes between the 3rd and 4th editions of The Government Procurement Rules. See especially changes to Rules 6, 16, 17), and 51: <https://www.procurement.govt.nz/assets/procurement-property/documents/summary-of-substantive-changes-to-rules-of-sourcing.pdf>

6.63 Macao's tourist numbers are increasing year on year. Chinese tourists are used to e-payment already and expect it in Macao, China too. As human resources are tight in Macao, China, making transactions electronic helps reduce pressure on local staff.

6.64 Below are four programmes that show efforts over the last four years to promote e-payment.

- 2016: **Blue Avenue**, when installation charge and use charges were waived to encourage SMEs to install payment devices.
- 2017: **E-commerce Promotion Festival**, jointly supported by four organisations to provide e-payment solutions to SMEs.
- 2018: **E-payment workshops**, to answer SMEs' questions about how the e-payment system works and how trustworthy it is.
- 2018–2019: **Community Shopping Carnival**, which encourages local residents and tourists to go to the old district, where many SMEs are based. An instant discount and a coupon system encourage repeat purchases.

6.65 Promotion efforts have been successful; 8 million e-payment transactions were made in the first three quarters of 2019, 13.2 times more year on year.⁷²

Improving access through three Australian programmes

6.66 Australia has been analysing the impact of three programmes.

1. **The Entrepreneurs' Programme**: This programme, announced in May 2014, supports entrepreneurs with tailored support from advisory and facilitation services. As the programme remains relatively new, an impact analysis was conducted on two programmes that recently closed but had a similar policy intent: the Enterprise Connect Programme and the Commercialisation Australia Programme.⁷³
2. **The Enterprise Connect programme** started in 2007 and ended in 2015. It gave advisory services to SMEs, and grants to implement the advice provided. The goal was to enable businesses to become more innovative and competitive, and to lift productivity across Australian industry. A 2019 study by the Department of Industry, Innovation and Science showed that the programme had a positive impact.⁷⁴ Programme participants performed more strongly than similar non-participating firms. SMEs that used the programme were also more likely to survive compared to similar non-participating firms. The most positive effects were seen in small manufacturing firms.⁷⁵
3. **Commercialisation Australia programme**: A 2019 study by the Department of Industry, Innovation and Science showed found that SMEs invested in research and development and capital expenditure more than similar non-participating SMEs.⁷⁶ They started exporting earlier than others and had more patents. As such, the department expects these firms to thrive more given their apparent competitive advantages.⁷⁷

⁷² Lei Wai Chan, 2019 Forum.

⁷³ Swanepoel, 2019 Forum.

⁷⁴ Swanepoel, 2019 Forum.

⁷⁵ See <https://www.industry.gov.au/data-and-publications/business-performance-of-enterprise-connect-participants>

⁷⁶ See <https://www.industry.gov.au/data-and-publications/impact-of-commercialisation-australia-on-business-performance>.

⁷⁷ Swanepoel, 2019 Forum.

Australian research into management capability scores

6.67 Sydney's University of Technology and the Australia Bureau of Statistics created a survey designed to be comparable with the United States MOPS survey, although the surveys were not identical. The survey surveyed 14,000 companies about selected a range of issues, including strategic planning, key performance indicators, supply chain management, use of data in decision making, and environmental management. The key performance indicators on environmental issues focused on whether the company's strategic plan covered the environment, and whether the company had reduced carbon emissions and material inputs, and so on. The survey also measured the relationship between business characteristics and performance.

6.68 Data analysis showed the gap between Australia's management practices and those of comparable economies, and the study revealed some important findings.

- It is possible to measure environmental management capability.
- The higher the environmental-management capability score, the higher productivity and performance — even after controlling for other variables.
- Allocating resources to environmental management may improve a business's bottom line. Certainly the study observed no negative effects.
- Size predicts a business's results. SMEs with 100 or more employees have twice the score of smaller ones (5–20 employees); indeed, the bigger the SME, the more structured management practices.
- Highly regulated industries, such as mining and manufacturing, have higher scores; industries with less regulation (such as service businesses) have lower scores.
- High-scoring SMEs were more innovative and productive than the others.

6.69 More than half of SMEs had 'low engagement' — with few or no structured management practices (such as strategic planning and key performance indicators).

The university and bureau then compared the Australian results with the American results. They found that American SMEs have more structured management practices than their Australian counterparts when compared by size, industry, and age of the company.

Case studies from section 4 of this report

Randomised controls are an effective option to evaluate impact

6.70 Below are examples of randomised trials from South Africa and New Zealand.

The Business Bridge initiative in South Africa: an example of a randomised controlled trial

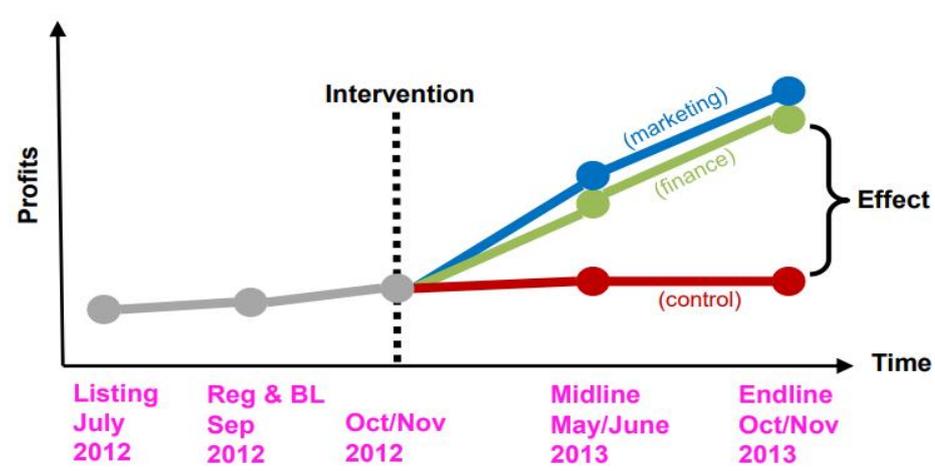
6.71 A randomised controlled trial in South Africa revealed types of business skills and how much they matter. It asked: 'Do business skills matter? What kind of skills matter? To whom do they matter?'

6.72 The trial identified three randomised groups of SMEs. One was a control group, one was trained in marketing, and one was trained in finance. The Business Bridge Initiative provided the training in 10 weekly modules over five locations. The volunteer instructors were experienced professionals.

6.73 The training affected both treatment groups compared to the control group (see diagram):

- the marketing training created a growth focus, and benefitted SMEs more if they had minimal exposure to different market contexts
- the finance training created an efficiency focus, and benefitted established SMEs more (improving efficiency had bigger effects on established businesses).

Effect of intervention on profits



Source: Bilal Zia, Senior Economist, Development Research Group, World Bank, United States, 2019 Forum.

6.74 Conclusions drawn from the trial revealed implications for policy.

- Managerial capital, delivered comprehensively and targeted to local constraints, represents an intangible asset that can help SMEs grow.
- Different types of businesses may benefit from different types of skills training, which can help shape and target future programmes.

A New Zealand Ministry's initiative: measuring effectiveness of its small business advice

6.75 From July 2019, business.govt.nz, a team from the Ministry of Business, Innovation and Employment, has been running a randomised controlled trial to understand the effect of its tools

and resources. The trial has two hypotheses. First, it presumes two of the website's tools will improve management capability in their respective areas.⁷⁸ Second, because motivations among SMEs often differ, are fluid and only some focus primarily on profit maximisation, results will be observable in business data and in value external to business data (such as social value).

- 6.76 The tools being tested are an employment-agreement builder and a tool for optimising inventory ordering. Both tools focus on practices that have a proven correlation with business performance.
- 6.77 The sample of businesses consists of 22 SMEs all with fewer than 20 employees. These businesses have been split into three groups:
- treatment group 1 receiving the employment tool in a workshop (7 businesses)
 - treatment group 2 receiving the inventory tool in a workshop (7 businesses)
 - control group receiving both tools over email (8 businesses)
- 6.78 First, in the diagnostic phase from July to September 2019, observations and conversations were conducted to gather baseline business data and externalities data. The intervention phase, delivering the programmes to the businesses in the treatment groups, started in December 2019.
- 6.79 There have been challenges already. Some businesses are hesitant or unable to retrieve business data despite this being a recruitment criterion. Researchers have been helping them to retrieve data from their databases but it is an unanticipated hurdle.
- 6.80 Unanticipated scheduling conflicts of busy SMEs meant some did not attend the intervention workshops. As a result, carefully crafted one-on-one sessions to deliver the intervention were created.
- 6.81 This is an exciting project that will increase the level of understanding of management practices and SMEs. The challenges highlight the need for greater collaboration between, economies, researchers and academics.

The project by Mexico's Ministry of Economy to improve the entrepreneurial and managerial skills of SMEs

- 6.82 The goal of the National Registry of Business Training Companies is to increase productivity and competitiveness, and to promote inclusive economic development. The Ministry is committed to a fundamental change in the way it monitors public-policy results. So the project has strict quality criteria and a plan for evaluation.
- 6.83 This is the first time that Mexican SME policies have undergone such a process.⁷⁹ The first step of the project was to launch the first National Registry of Business Training Companies in 2019. This registry offers SMEs training in developing high-quality business skills across a variety of topics: managerial and administrative skills, marketing strategies, finance, and soft skills.
- 6.84 In 2020, the project will evaluate the results of its training programmes. These evaluations will help the Ministry understand what needs improving in its future SME policies and programmes.

⁷⁸ Bevan Hall and Ramkumar Ravichandran, Ministry of Business, Innovation and Employment, NZ, 2019 Forum.

⁷⁹ Isaías López, Consultant in the executive secretary, Ministry of Economic Affairs, Mexico, 2019 Forum.

Evaluation before intervention is best practice

6.85 Below are two New Zealand examples and one Australian example that show the benefits.

New Zealand evaluates how easy it is for businesses to interact with government

6.86 Dealing with the government can frustrate and stress business owners. Businesses tell Better for Business, New Zealand's initiative, that public services are complex and fragmented, and dealing with government takes more time and effort than it should.⁸⁰ Better for Business represents 10 government agencies. Its objective is to make it easier and faster for businesses to deal with the government. Better for Business focuses on programmes that improve the consistency of the service experience and coordination between agencies. It measures where the current state is so that it can improve, and measure its progress. The process is to use its collected data to help Better for Business:

- know where to focus
- work out the cost of inefficiencies in the system that it is using now
- use the Customer Experience Index Score to show it where to improve.

6.87 Better for Business uses the insights gained to prioritise its business cases for change. Where possible, it uses RCTs to measure impact.

New Zealand wants to promote and measure digital capability in SMEs

6.88 The bulk of New Zealand businesses are low to medium information-technology (digital) users. Research by the Ministry of Business, Innovation and Employment (MBIE) suggests that firms with high-intensity ICT use are 6% more likely to improve their productivity over their next two years.⁸¹

6.89 MBIE is creating a work programme focused on capability and skills needs for small businesses. This programme sits within a wider framework that looks at the infrastructure, regulatory, and structural settings needed to support SMEs' digital capability. To accelerate digital uptake, MBIE has run pilot programmes,⁸² training, sector-level programmes, and provided online information.

6.90 Through these initiatives, MBIE found that:

- informal networks (like trusted advisers such as industry associations) are important to help SMEs transition to greater digital use
- sector-specific advice matters to SMEs, but sector-specific digital expertise is lacking, as is reliable and relevant content on digital pitched at SMEs
- SMEs under-use the subsidised digital advice and funding available
- shifting digital behaviours of firms starting from a low capability base requires hands-on, ongoing support (as this support is resource-intensive to deliver, MBIE is assessing lower-cost one-to-many approaches)

⁸⁰ Paul Nalder, Principal Insights Analyst, Ministry of Business, Innovation and Employment, NZ, 2019 Forum.

⁸¹ Abbe Marks, Digital Capability, Ministry of Business, Innovation and Employment, NZ, 2019 Forum. This is based on firms with six or more employees: also see <https://www.mbie.govt.nz/dmsdocument/3338-business-ict-use-and-productivity-growth-pdf>

⁸² For more about the pilot programmes, toolkit and resources, go to <https://www.mbie.govt.nz/business-and-employment/economic-development/digital-economy/digital-economy-work/digital-business/business-uptake-of-ict-project/>

- local and industry events aimed at lifting SME capability are not well evaluated, and inconsistent follow-up means that the impact of such events on firm behaviour is largely unknown.

An Australian experiment analyses challenges in getting SMEs to use technology to drive productivity and growth

6.91 There are challenges to getting SMEs to use technology to drive productivity and growth. Australia is seeking to understand how barriers to digital uptake can help the government support the transformation of SMEs. As an Australian expert notes, ⁸³an experiment as part of Australia’s Entrepreneurs Programme has started to understand more about these challenges.

6.92 Emerging data from a prototype digital canvas shows that SMEs in Australia:

- do not have the skills to interpret, manage, and run new technologies
- lack the resources to increase their digital uptake
- do not have the right connections to knowledge and expertise
- find it hard to reliably quantify the return on investment in technology
- do not have enough cash flow or have not prioritised a digital budget.

The benefits of measuring the current state before implementing a programme

Australia has a strategy to help officials plan evaluations

6.93 Australia’s Department of Industry, Innovation and Science has released an Evaluation Strategy 2017–2021. This helps policy makers and programme owners to plan for evaluation across a programme’s lifecycle.⁸⁴ A key element is the department’s Evaluation Ready process that creates a monitoring and evaluation framework to ensure programmes are prepared for future evaluations and helps instil an evaluative mindset from the outset.

6.94 The framework has three stages.

- **Stage 1** involves developing programme logic. This includes asking big-picture questions like ‘Is there a role for government?’ Under consideration are who is investing (including the Australian government), what they are investing in, assumptions, desired outcomes, and external factors that could affect those desired outcomes.
- **Stage 2** involves using the programme logic to design the evaluation questions. Short, medium, and long-term outcomes are clarified in the questions.
- **Stage 3** involves identifying what data we’ll need to answer the questions, where to get the data from, and who’s responsible for collecting it.

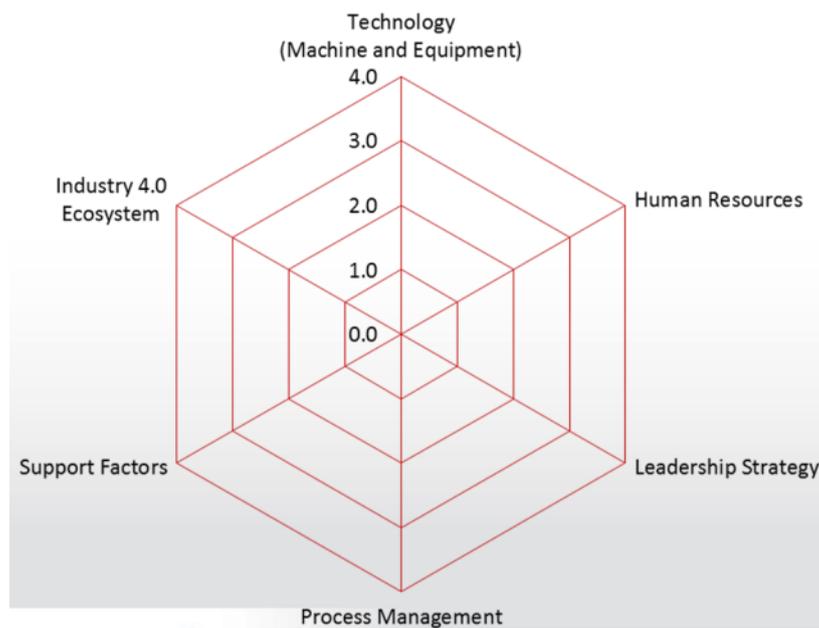
Thailand assessed the readiness of two industries to become fully automated

6.95 The Thailand Productivity Institute assessed how ready two of Thailand’s industries were to become fully automated: Vehicles and Automotive Parts; and Electrical and Electronics. The assessment used the Fraunhofer IEM Framework, which plots six readiness factors on a spider diagram (see below) to give an average readiness score.

⁸³ Melissa Anderson, Entrepreneurs’ Programme digital canvas, Australia, 2019 Forum.

⁸⁴ Swanepoel, 2019 Forum.

Fraunhofer IEM Framework



Source: Industrial Development Assessment Project for the Future Industry (Industry 4.0), FTPI, 2017.

- 6.96 The assessment found that the overall readiness of both sectors was similar.⁸⁵ Vehicles and Automotive Parts scored 2.08, and Electrical and Electronics scored 1.99. This supported the view that businesses that produce products with high complexity tend to have a higher readiness level (add another reference if possible).
- 6.97 The Institute's assessment helped to discover nine strategic issues to keep in mind when running Industry 4.0 (the programme) – see the Management Capability section for an explanation of the programme).
1. Build understanding and awareness about the programme.
 2. Integrate insight and information for decision making.
 3. Use data to improve production processes.
 4. Implement automatic systems.
 5. Consider the digital business model together with increasing efficiency.
 6. Restructure and link business processes.
 7. Apply logistic automation inside an organisation.
 8. Use information-technology systems to support all engineering processes.
 9. Use Industry 4.0 to diagnose an organisation's readiness.

⁸⁵ Aungatichart, 2019 Forum.

Case studies from section 5 of this report

Encouraging social sustainability at the governmental level

Thailand's 20-year plan focuses on environmental and social sustainability

6.98 A delegate from Thailand⁸⁶ noted that the ultimate goal is for Thailand to be stable, prosperous, and sustainable as a developed economy. Development will be based on the economic philosophy of happiness of all Thai people (Thailand's Vision of the National 20-Year Strategic Plan: 2018–2037).

6.99 To achieve the goal of a sustainable economy, Thailand has produced a 20-year National Strategic Plan (2018–2037). The plan includes a strategy for creating opportunity and social equality. The plans also include other strategies, such as developing the public management system and building competitiveness, developing human resources, and growing quality of life based on environmental friendliness.

6.100 The detailed plan includes safeguards to ensure its longevity, as well as independent tracking and evaluation to avoid conflicts of interest.

6.101 Thailand will know the plan has succeeded when it sees:

- increased wellbeing of Thai society
- competitive capability, economic development and income
- distribution is meeting the distribution criteria expected of high-income economies
- human resources have developed in a way that will enable Thailand to respond effectively to future changes
- economic equality and social equality
- biodiversity, quality of the environment, and efficient management that creates and ensures continued sustainability of national resources
- efficient public administration, including thorough access to government services.

Mexico is adopting a model that it hopes will create a fairer, more social, and sustainable economic system

6.102 Mexico is taking big steps towards a new economic model that has the aim of supporting long-term sustained growth, fighting inequality and poverty, and paying better attention to micro-enterprises.⁸⁷ For more than 30 years Mexico had implemented an economic model that benefited only a small segment of the population, for instance, the previous administration granted less than 1% of the resources allocated to support SME's to micro-enterprises even though this type of enterprises makes up 97% of businesses in the economy. This segmented model led to economic stagnation and hindered the growth of the most vulnerable, resulting in a large socioeconomic gap.⁸⁸

⁸⁶ Aungatichart, 2019 Forum.

⁸⁷ López, 2019 Forum.

⁸⁸ According to OECD's available information, until 2016 Mexico was the most unequal country among its members. The lack of support to the country's most vulnerable businesses contributed to these inequalities. See: <https://www1.compareyourcountry.org/>; <https://www.oecd.org/social/income-distribution-database.htm>; and <https://data.oecd.org/inequality/income-inequality.htm>

6.103 Most Mexican people wanted a fairer, more social and sustainable economic system. So the Ministry of Economy sought to focus on innovation, inclusion, and diversification in every aspect of its economic policies. The Ministry's policies started to prioritise:

- business and job skills development
- better access to credit and credit-guarantee schemes
- promoting integration to supply and global value chains
- strategic changes in the institutional framework
- continuous in-house learning and innovation.

Making SMEs more environmentally aware

Australia has tailored programmes for advising SME owners about environmental sustainability

6.104 The Entrepreneurs Programme is a public–private partnership. It is Australia's initiative for firm-level competitiveness and productivity under the Industry Innovation and Competitiveness Agenda. The programme matches private advisors with businesses to increase management capability and productivity. Participating businesses have \$1.5 million to \$100 million in turnover (most businesses are under \$10 million in turnover). In 2011, the programme added a requirement to consider environmental sustainability.

6.105 The Entrepreneurs Programme wanted participating SMEs to better understand sustainability and the benefits of sustainability for their businesses.⁸⁹ The programme discovered that advisors who advised Australian SMEs needed support to discuss sustainability. So the Department of Industry, Innovation and Science, Australia started to provide training and developed a diagnostic tool for advisors to use. It created an expert network of consultants, who helped the advisors with how to find energy brokers, audit energy use, apply for grants, and find recycling options in different sectors.

6.106 The department found a low level of engagement on sustainability. Businesses were reactive, not proactive, and appeared to undertake no or little planning or strategising on sustainability. The department thought that businesses needed to understand the business case for sustainability. They needed to see a true benefit to their business. So it started with the obvious benefits: cost saving and compliance. Then it educated businesses on building better relationships with suppliers and customers, staff retention, reputation and branding, and new product and service opportunities.

6.107 The department's advisors also needed to be precise in what they recommended. Business owners wanted language that was easy to understand, explanatory notes and written guidance. They also wanted the advice at the local level that was relevant to their business needs.

Increasing the focus on mental health

A partnership is showing that mental health is important for SMEs to be productive

6.108 Accounting software firm Xero partnered with the Mental Health Foundation in New Zealand to research mental health in New Zealand SMEs. As the basis of the research was a belief that if a business cares about its people first and in how they are doing, the business will see a positive outcome — a healthy person and a productive work environment. Yet Xero's managing director

⁸⁹ Mel Cox, Department of Industry, Innovation and Science, Australia, 2019 Forum.

notes,⁹⁰ Xero believed that many small businesses lacked the capability and experience in dealing with mental illness or mental wellbeing.

6.109 The research, reported in the *2019 Small Business Wellbeing Report*,⁹¹ found that:

- for every \$1 a business invests in the mental health of its staff, it gets a return of \$3.80
- 40% of small business owners do not feel responsible for their staff's wellbeing
- less than half of small businesses monitor staff hours and try to manage long hours.

6.110 Mental health links back to the health and wellbeing of SMEs through capability of leadership. The Xero Assistance Programme provides access to mental health services, and is available to all businesses that who use Xero. Xero is noticing that improvements in health and wellbeing are leading to improved productivity and, in turn, improvements in the health and wellbeing of the wider community.

⁹⁰ Craig Hudson, Managing Director, Xero, NZ, 2019 Forum.

⁹¹ Xero and the Mental Health Foundation. *2019 Small Business Wellbeing Report*, Wellington: Xero: <https://www.xero.com/nz/wellbeing-report/>

7. Insight statements, with questions to consider

An important aspect of the Forum was finding out to the extent each contributor economy could take the lessons learned from the other contributor economies and relate them to its own to deliver opportunities. The insights revealed gaps that could deliver opportunities if economies grasp them now.

The insights from the executive summary are noted below, followed by questions to consider.

Insight 1: Management capability of SMEs is a significant element of a thriving economy in the APEC region.

What actions is each economy taking to help its businesses boost their management capability with the aim of improving productivity and standards of living?

What efforts is each economy making to help its small- and medium-sized firms become more productive?

How is the role of management capability in each economy helping to ensure huge gains in economic growth? What is each economy doing to sustain this growth?

What are the barriers that are, or may, prevent each economy changing? Which of these barriers are easy to overcome? Which are hard to overcome? How are economies breaking down these barriers?

How are current efforts to support the management capability of SMEs in each economy being assessed? What further research, and in what areas, would help to improve policy decisions?

How can the region better collaborate in research and network to ensure its economies thrive?

Insight 2: The literature on management capability is limited as it favours larger firms and manufacturing.

What are the best ways to collate the fragmented literature on management capability?

What the best ways to carry out and collate literature on management capability that is specific to the region?

How can economies help develop more specific research about management capability within and across the region's economies?

How can economies work together to research micro enterprises in each economy?

How can economies work together to research tailored to an individual economy?

To what extent do micro enterprises use digital technologies in each economy?

What wide-reaching policy solutions need evidence (including literature) from outside the manufacturing industry?

What wide-reaching policy solutions need evidence (including literature) from smaller-sized firms?

Insight 3: There is a need for greater understanding of management practices and capability, especially in micro enterprises and SMEs.

What sectors do micro enterprises in each economy operate in?

How do micro enterprises in each economy operate?

What value do the micro enterprises in each economy bring to that economy, and who reaps the benefits?

How many economies use management scores as a way to benchmark SMEs?

How many economies use management scores as a way to look for relationships between management practices and firm productivity indicators, such as sales?

How many economies use management scores to focus on micro enterprises and SMEs?

How are economies learning from each other to adapt best practice adapt to their own conditions?

What programmes are in place in each economy to compare the practices of SMEs?

Which bundles of practices go together?

What practices are most easy to improve? How are these identified?

What practices make the most difference? How are these identified?

Insight 4: One-to-one and one-to-many interventions appear to be working but are not realising the benefit for being connected.

How are firm-level management practices across and within economies measured?

What are the best ways to track and measure the short, medium, and long-term impacts of interventions on SMEs and on economies?

What evaluation methods and monitoring frameworks are best used with respect to business digital capability?

What are some ways to embed those methods and frameworks in a wider measurement framework for evaluating the impacts of small business capability more generally?

What one-to-one programmes, one-to-some programmes and one-to-many programmes does each economy have in place?

What are ways to connect connected these three types of programme into one system for SMEs?

How can SMEs combine user journey and data from wide-reaching, one-to-many programmes into more intimate one-to-some and one-to-one programmes to make all programmes more effective?

How can interventions better realise the benefits of innovation?

How can interventions better realise the benefits of growth?

What other interventionist programmes are available in each economy?

What non-interventionist programmes are available in each economy?

Insight 5: Evidence of causation is the key for measuring these interventions.

How is each economy considering causation when evaluating the effectiveness of programmes as proven best practice?

Which economies use randomised control trials?

How is each economy adopting best practice, and what those best practice initiatives?

How is each economy capturing the reasons why intervention is needed?

How is each economy showing its businesses which interventions make the most difference?

Are economies disseminating information on best practices via a trusted channel that uses customer-centred design?

How is each economy spreading its knowledge of such programmes and other best practice across economies?

Insight 6: Productivity is good, but excludes important aspects of APEC economies.

How are SMEs in each economy using diversity to stay productive?

What actions are SMEs in each economy taking to focus on social sustainability?

What actions are SMEs in each economy taking to focus on environmental sustainability?

What actions are SMEs in each economy taking to make sure they gather a wide range of viewpoints?

What actions are economies taking to make sure they gather a wide range of viewpoints to achieve a fairer economic system?

What actions are economies taking to ensure their economic policies include innovation, inclusion, and diversification?

What environmental impacts are SMEs having on each economy?

What environmental impacts are circular behaviours having in each economy?

How does economy measure social and environmental success criteria alongside traditional productivity metrics?

Insight 7: Understanding mindsets and motivations of SMEs matter for how success of interventions is defined and practices are developed.

What role does mindset play in achieving a positive culture in an SME?

What is the relationship between mindset and motivation?

What is the relationship between mindset and higher productivity?

Do SMEs in each economy assess mindset competence? If so, how is it assessed in comparison to functional competence?

How do SMEs in each economy use the mindsets of SME managers to motivate their business?

How much does mindset training complement capability training to deliver optimal business success?

What aspects other than mindset are used to define the success of interventions?

What aspects of business capability other than mindset need investigating in SMEs?

Insight 8: There are benefits of private and public sector working together.

How do the private and public sector work together in each economy?

How do those private and public sectors work together to increase management capability?

What products do the private and public sectors in each economy share (for example, information technology and financial products)?

How do those sectors work together to increase management capability?

How do those sectors work together to make infrastructure available to business owners?

How do those sectors work together to streamline public–private processes?

How do those sectors share their respective business insights, data and other information?

How do those sectors work together to keep communication channels open?

What research is each economy undertaking to discover the benefits of the private and public sectors working together? What further research is needed?

What type of good planning works these days, for example just-in-time plans, short-term plans?

How do practice changes correlated with similar changes in industry? How much of those relate to policy or industry changes?

Insight 9: Economies have seen a need for supporting SMEs so they can access finance.

How does each economy support SMEs so they can access finance?

How many financial products are available in each economy that an SME can access?

How expensive is it for an SME to obtain financial advice in each economy?

Are the processes for obtaining financial advice simple or complex in each economy?

What new forms of financings are becoming available in each economy (such as investing to support environmental or social outcomes)?

What actions is each economy taking to simplify and streamline pathways for SMEs to access finance?

8. Selected references used in this report

- Agarwal, R., Bajada, C., Brown, P., Moran, I., and Balaguer, A. September 2019. *Development of Management Capability Scores*. Research Paper 10/2019, Department of Industry, Innovation and Science. Canberra: Commonwealth of Australia.
- Bennett, V., and Chatterji, A. 14 August 2019. The entrepreneurial process: Evidence from a nationally representative survey. *Strategic Management Journal*. Special issue.
<https://doi.org/10.1002/smj.3077>
- Bennett, V. Lawrence, M., and Sadun, R. 2015. Are Founder CEOs Good Managers? (pp. 153–185) in Haltiwanger, J., Hurst, E., Miranda, J., and Schoar, A. (Eds.) *Measuring Entrepreneurial Businesses: Current Knowledge and Challenges*, Chicago, IL: University of Chicago Press.
- Bloom, N., and Van Reenan, J. Winter 2010. Why Do Management Practices Differ across Firms and Countries? *Journal of Economic Perspectives* 24(1): 203–224.
<https://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.24.1.203>
- Bloom N., and Van Reenen, J. November 2007. Measuring and Explaining Management Practices Across Firms and Countries, *The Quarterly Journal of Economics* vol. 122(4): 1351–1408.
- Bloom, N., Eifert B., Mahajan A., McKenzie., D, and Roberts., Does Management Matter? Evidence from India. February 2013. *The Quarterly Journal of Economics* 128(1): 1–51.
<https://doi.org/10.1093/qje/qjs044>
- Bloom, N., Eifert B., Mahajan A., McKenzie., D, and Roberts., J. January 2011. *Does Management Matter? Evidence from India*. NBER Working Paper No. 16658. National Bureau of Economic Research, Cambridge, MA. <https://www.nber.org/papers/w16658>
- Bloom, N., Sadun, R., and van Reenan, J. June 2016, Revised October 2017. Management as a Technology? NBER Working Paper No. 22327. National Bureau of Economic Research, Cambridge, MA. <https://www.nber.org/papers/w22327>
- Cirera X., and Maloney, W. F. 2017. *The Innovation Paradox: Developing-Country Capabilities and the Unrealized Promise of Technological Catch-Up*. Washington, DC: The World Bank.
<http://documents.worldbank.org/curated/en/844101510122107327/pdf/120137-PUB-ADDBOX-405295B-PUBLIC-PUDATE-10-3-17.pdf>
- Government of Thailand. October 2018. *Thailand 4.0: National Strategy 2018–2037*. Bangkok. English translation: <http://nscr.nesdb.go.th/wp-content/uploads/2019/10/National-Strategy-Eng-Final-25-OCT-2019.pdf>
- McKenzie, D., and Woodruff, C. August 2015. Business Practices in Small Firms in Developing Countries. NBER Working Paper No. 21505. National Bureau of Economic Research, Cambridge, MA.
- New Zealand Government Procurement. 2019. ‘Summary of substantive changes to the Rules of Sourcing’. <https://www.procurement.govt.nz/assets/procurement-property/documents/summary-of-substantive-changes-to-rules-of-sourcing.pdf>
- New Zealand Treasury. Living Standards Framework: <https://treasury.govt.nz/information-and-services/nz-economy/higher-living-standards/our-living-standards-framework>
- Organisation for Economic Co-operation and Development. May 2011. *Better Life Index*. Paris: OECD.
<http://www.oecdbetterlifeindex.org/>
- Office of the Chief Economist, Australian Government. June 2019. *Department of Industry, Innovation and Science: Evaluation Strategy 2017-21*. Canberra: Department of Industry, Innovation and

Science. <https://www.industry.gov.au/data-and-publications/department-of-industry-innovation-and-science-evaluation-strategy-2017-21>

Porter, M., and Kramer, M. January–February 2011. Creating Shared Value. *Harvard Business Review* 89(1-2): 62–77.

Raworth, K. 2017. *Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist*. London: Cornerstone, Random House Business.

SME Corporation Malaysia. 2012. SME Masterplan 2012–2020 of Malaysia, *Tech Monitor*, Jul-Sep 2012: pp 38–39. http://techmonitor.net/tm/images/c/c3/12jul_sep_start-up_venture.pdf

SME Corporation Malaysia. 2018. *SME Annual Report 2018-2019*. Section 1: Economic Assessment; Part Two: SME Developments and Outlook (pp 16–47). http://www.smecorp.gov.my/images/SMEAR/SMEAR2018_2019/final/english/SME%20AR%20-%20English%20-%20Chapter%202.pdf

United Nations. Sustainable Development Goals: <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

University of Leeds, Doughnut Economics, Oxfam, and the Economic and Social Research Council. 2020. 'A good life for all within planetary boundaries' webpage: University of Leeds: goodlife.leeds.ac.uk

Xero and the Mental Health Foundation. 2019 Small Business Wellbeing Report, Wellington: Xero: <https://www.xero.com/nz/wellbeing-report/>

Appendix 1: Q&A during the Forum

This appendix records questions and answers raised during the Forum. The question-and-answer discussions followed each keynote and some of the presentations during the Forum. This appendix also captures some of the presentations and discussions at the Forum's launch on Monday, 2 December 2019. The appendix follows the same thematic structure as the main report. Where specific economies are mentioned, the economy is noted at the start of the comment.

The people and contributor economy recorded in this appendix

People	Contributor economy
Louise Aitken — Chief Executive, Ākina Foundation	New Zealand
Melissa Anderson — Entrepreneurs' Programme digital canvas	Australia
Rebecca Barnes-Clarke — Director of Policy, Ministry for Women	New Zealand
Barbara Bedeschi-Lewando — Victoria University of Wellington	New Zealand
Victor Bennett — Associate Professor of Strategy, Duke University, Durham, NC	USA
Jon Cable — Manager Enterprise Policy, Ministry of Business, Innovation and Employment	New Zealand
Scott Claydon — Accelerating Commercialisation & Incubator Support Delivery, Entrepreneurs' Programme Branch, AusIndustry – Support for Business	Australia
Mel Cox, Department of Industry, Innovation and Science	Australia
Anna Guenther — Co-Founder and Chief Bubble Blower, PledgeMe	New Zealand
Bevan Hall — Business Performance Manager, Ministry of Business, Innovation and Employment	New Zealand
Andrew Hamilton — Chief Executive, The Icehouse	New Zealand
Stephanie Honey — Associate Director of the New Zealand International Business Forum, and policy advisor to NZ members of the APEC Business Advisory Council	New Zealand
Simon Keast — Managing Director, Spotcap Australia & New Zealand	New Zealand
Matthew Kennedy-Good — Director of business.govt.nz	New Zealand

Ramkumar Ravichandran, Business Performance Advisor, Ministry of Business, Innovation and Employment	New Zealand
Abbe Marks — Senior Policy Advisor, Digital Capability, Ministry of Business, Innovation and Employment	New Zealand
Mandy McGirr — Student Volunteer, Victoria University of Wellington	New Zealand
Ian Moran — Economist, Department of Industry, Innovation and Science	Australia
Paul Nalder — Principal Insights Analyst, Ministry of Business, Innovation, and Employment	New Zealand
Katie Noble — Managing Director, Allied Medical	New Zealand
Patrick Nolan — Director, Economics and Research	New Zealand
Teerana Paradornuwat — SME Policy Analyst, The Office of SME’s Promotion, Thailand	Thailand
Phil Patterson — Senior Partner, BNZ Wellington Partnerships	New Zealand
Katie Phillipps — Managing Director, Provincial Education	New Zealand
Donna Purdue — Chief Economist, Ministry of Business, Innovation and Employment	New Zealand
Rafiza Rajab — Senior Manager, Knowledge Management and Strategy Division, SME Corp	Malaysia
Julia Richardson — Head of School of Management, Curtin University	Australia
Miranda Smith — Director, Miranda Smith Homecare	New Zealand
Abrie Swanepoel — Office of the Chief Economist, Department of Industry, Innovation and Science, Australia	Australia
Rachel Taulelei — CEO, Kono NZ	New Zealand
Tai Kin Ip — Director of the Macao Economic Bureau	Macao, People’s Republic of China

Theme 1: Management capability

Improving management capability improves productivity

The questions, answers, and comments in this section follow the keynote presentation by **Victor Bennett, Associate Professor of Strategy, Duke University, USA**

1. The Have you seen a relationship between the age of the entrepreneur and/or the age of the employee? Does this affect the diffusion of management practices?

(Nolan, NZ, 2019 Forum)

I have seen a relationship. It is hard to distinguish the age of the business from the age of the entrepreneur (which one has the effect?). Succession planning and professionalised practices are important. We see dramatic decreases in performance after chief executives die or leave. Tacit knowledge dies too. Formalised practices are more important as chief executives get older — skills need to be passed on.

The flipside is when chief executives are replaced, sometimes management practices improve. Non-founder leaders often have different incentives. They have less need to maintain control, for example.

Comment from Australia: We have looked at 1-year-old firms that are exporting – so called born global firms. Most of those firms' founders are older and as such might for example be more likely to have existing networks overseas. Multinationals have the most formalised practices and they can be more easily replicated in other economies. Focusing on improving the practices of multinational firms is likely to have less effect because they are already doing well. *(Swanepoel, Australia, 2019 Forum)*

2. The reach of the Australian Entrepreneurs' Programme is small because of narrow eligibility criteria and the programme relies on self-selection. How do we target businesses that need help, but do not self-select?

What are the best practices for the 'do not know what they do not know' people? The research so far has been about management practices — research on disseminating it is nascent. Modest effects from incubators have been observed, but nothing is too concrete or research-based yet. We could use more government–academia collaboration here. *(Bennett, USA, 2019 Forum)*

3. The Churchill and Lewis Framework: Survival and Grow is where most New Zealand business leaders are. Is there a correlation between 'survive to grow' and the 'motivation shun' you mentioned?

(Ravichandran, NZ, 2019 Forum)

Many firms are founded with the intention of only ever being small. We looked at the percentage of prospective entrepreneurs who want to grow (before starting their business). Fewer than 50% want to get bigger than five employees. Their motivation is not to grow — it might be to operate how they want to or offer jobs in the community. People might prefer to make themselves comfortable rather than rich. Others who want to grow may be motivated to formalise early on.

Comment from New Zealand: Your mindset approach supports our research. The motivation paradox is: I want to give jobs to my family. But I'm not as productive as I could be. How do I improve without giving

up on family? Also motivations can change over time. Should we segment our aid and target our advice based on the stage of a business? (*Hall, NZ, 2019 Forum*)

Response by Victor Bennett: The reason you create a business to make jobs for your family is because they'd be out of work otherwise. But a more vibrant economy may motivate current businesses to become more productive. A focus on goal setting or operations practices might get business owners to a point where they think about leaving a legacy rather than keeping power to themselves.

4. Do more innovative management practices lead to better firms or vice versa?

(*Honey, NZ, 2019 Forum*)

If we improve these practices, we assume we'll get more productivity. Some evidence exists that we will — the effect is strongest for the poorest-performing firms. For example, when is a good time implement performance pay? We suggest businesses do it in a situation where it is clear that the output of your efforts correlates to your work (so for salespeople, not for scientists). We suggest we look at bundles of practices together. Some correlates of improvement might be useful to discover.

5. To what extent do exporting SMEs need better management capabilities? Findings from the Marshall School of Business research showed that the most successful MSME was one that was already a good business. MSMEs need particular skill sets. How do we grow those?

(*Honey, NZ, 2019 Forum*)

Some economies have moved from being very closed to very open. We believed more openness made more competition and better productivity — it improves businesses' learning. However, policy is moving towards protectionism in some economies. Their logic is that you need to be incubated before you are ready for a certain level of competition. We need to better understand how policies on openness fit in with the assumption about productivity being created.

New Zealand: The more open business is to external influences, the more likely it is to be profitable. How do we get owners and executives to be more open? That's important. Closed-ness means lower productivity. Our SMEs in New Zealand could continue living without the worry of external forces. Xero has created data on yearly profit differential. Businesses have a 10% to 40% profit differential if they have advisors, use technology, have high diversity in the team, are exporters, and have a vision.

(*Hamilton, NZ, 2019 Forum*)

6. Is there a gender dimension to this? Is there data on women-led SMEs?

(*Honey, NZ, 2019 Forum*)

Comment from New Zealand: New Zealand does not have much official data on gender characteristics that relate to management practices, but we know other economies do. We want to understand other economies' data and how it might relate to New Zealand. We'll consider how relevant it is to collect New Zealand's data. (*Hall, NZ, 2019 Forum*)

7. If we bundle management practices, do we start by coming from what the research tells us to do, or what our customers tell us they need?

(*Ravichandran, NZ, 2019 Forum*)

What is Strategy by Michael Porter distinguishes between operational effectiveness and strategy. Operationally effective practices will never become a business differentiator. Many practices may not be good for all businesses all the time. We are not even seeing adoption of basic best practices, let alone

the significant strategic decisions above it. We do not know enough about which order is best to do these interventions in.

Government has a role to play in improving management capability

The questions, answers, and comments in this section follow individual economy presentations on the topic of government programmes to improve management capability.

Comment from New Zealand: We implement management practices in five ways.

- Provide information and encourage firms to engage
- Get effective SMEs to tell their stories
- Supplement and provide external advice to help SMEs understand the stories
- Benchmark to help SMEs understand where they stand in their industry
- Develop peer networks, as SMEs like to learn from each other.

New Zealand's Minister for Small Business asked the Small Business Council to create a strategy, which they published as [The New Zealand Small Business Strategy](#), released in November 2019. (*Cable, NZ, 2019 Forum*)

8. What's New Zealand's policy on sharing resources?

(*Kennedy-Good, NZ, 2019 Forum*)

New Zealand: We are happy to share. The pains of small business are universal across economies. If you want to test these in your home economy, ask us. We are happy to help you adapt them to your economy. (*Hall, NZ, 2019 Forum*)

9. What would you like to see business.govt.nz provide? What's your utopian idea for the site?

(*Claydon, Australia, 2019 Forum*)

New Zealand: We have access to lots of our SMEs thanks to this platform. We want to be able to diagnose market failure and market services using the channel, so SMEs can go to a business advisor who has a solution for them. For example, for a builder who clicks 'I want more money', the site diagnoses their problem and connects them with Deloitte. Bridging the gap between 1-to-many to 1-to-some is the Holy Grail for us. (*Hall, NZ, 2019 Forum*)

New Zealand: We want the tool to improve businesses all over the world in the long term. (*Kennedy-Good, NZ, 2019 Forum*)

10. When businesses are giving the government data (for example, tax information), it is an opportunity to benchmark that business against all sorts of criteria. Have you looked into that?

(*Anderson, Australia, 2019 Forum*)

New Zealand: We have looked into benchmarking with lots of research groups. When we use a star-rating system on the site, people congratulate themselves on what they are doing well. We need to help people focus on what they could be doing better, and benchmarking can definitely help with that. (*Hall, NZ, 2019 Forum*)

New Zealand: [Kiwi Business Boost](#) is a new online platform that focuses on wellbeing. We are getting into 'compare me with people'. We are already doing 'connect me' with others in the same region and industry. (*Kennedy-Good, NZ, 2019 Forum*)

New Zealand: This could get big-brother-ish. This social licence requirement needs a conversation before we use other data-gathering moments to teach or comment on business performance. (*Cable, NZ, 2019 Forum*)

11. Is it the government's role to give this kind of advice? Maybe the failure is on the data gathering?

Bennett, USA, 2019 Forum

New Zealand: With Kiwi Business Boost, we talked to lots of people before we started. People said, 'If you ask me for it, I want you to be using this data'. They are annoyed when we do not share data among agencies. We have got to start doing it. Social licence is important, of course. (*Kennedy-Good, NZ, 2019 Forum*)

The private sector has a role to play in improving management capability

The questions, answers, and comments in this section follow the presentation by Andrew Hamilton from The Icehouse, New Zealand, on private sector interventions to improve management capability.

12. Picking winners is very difficult. What should governments do to better support and reach high-growth firms?

(Kennedy-Good, NZ, 2019 Forum)

New Zealand: Through segmentation and portfolio management. Venture capitalists build portfolios to hit a few home runs. They ask, 'Which segments am I looking to back to get the results I want?' Is there a core thesis around market failure, lack of ability, or confidence, etc? For example, we have a free trade agreement with China, but many New Zealanders do not realise what's possible until they go there. We generally advise investors to focus on a sector or a stage, but that's unlikely to work in a small economy such as New Zealand. (*Hamilton, NZ, 2019 Forum*)

13. How do you define 'high growth'?

(Swanepoel, Australia, 2019 Forum)

The World Bank definition of a high-growth company is 20% growth year on year for three years. The number of staff gained is not so relevant when describing high growth. (*Hamilton, NZ, 2019 Forum*)

14. The Icehouse supports whatever the business owner wants to achieve. Sustainability and self-employability may be things they want to achieve. Are you aiming to get recognised for your potential to contribute to these non-financial goals?

(McGirr, NZ, 2019 Forum)

New Zealand: Yes. People now expect more of us, for example on diversity, climate change, the future of work, etc. When we first made courses, we asked 'How can I improve the business?' Now it is, 'What's the relationship between the owner and others in the business?' and 'How can I help the business owner themselves?' We want to encourage people to be contributors to their community. We plan to ask customers 'What role are you having in your community beyond yourselves?' (*Hamilton, NZ, 2019 Forum*)

Mindset is a management capability worthy of further research

Mindset emerged as a theme during the Forum. The questions, answers, and comments in this section cover the topic of having the right mindset to improve capability. This topic came up in a number of presentations, questions, and comments.

15. There is a challenge in reaching firms. We have been looking at how targeting resources can influence uptake. What trials have you heard of about encouraging people to turn up to that free event or be more open to influence?

(Kennedy-Good, NZ, 2019 Forum)

16. Who should be the target? Is it the tail of the curve (on the business capability graph) or the middle group?

(Honey, NZ, 2019 Forum)

Look at the societal and environmental impact that a company should be having. United Nations Sustainable Development Goals can be woven across training. Japan has launched an SDG business management guide. It is focused on large companies, but it will relate well to SMEs. *(Bedeschi-Lewando, Victoria University of Wellington, NZ, 2019 Forum)*

Many programmes focus on new companies with lots of potential. ‘The naturals’ will find their way to assistance. The laggards are still there. We want to lift up the laggard group, regardless of their motivation *(Hall, NZ, 2019 Forum)*

Most SMEs are working well but have poor vision. We need to help them get a vision so they are not stuck in today. Start-ups have lots of vision. A challenge is that what a business needs changes according to the size of the company. They need individual guidance to work well. How do you do these things beyond a bespoke intervention — that is scalable? Barriers exist that prevent management practices. The perception shun suggests owners do not know about their practices. Many managers feel they do not need any training. They do not need measuring. But when you see results in productivity terms, they are bad. How do we tell them they need to create management practices? *(Hamilton, NZ, 2019 Forum)*

Sometimes it is rewarded culturally to say you are doing fine. More research would be good in this area — we do not know. *(Bennett, USA, 2019 Forum)*

Australia: The entrepreneurs programme is a services programme. ‘They do not know what they do not know’ is what advisors tell us a lot. We use a trusted advisor model. Some advisors spend months just working on building a relationship to get businesses to sign up. We encourage businesses to access external consultants, but they cannot always provide a clear brief as they do not know what they do not know. SMEs are more likely to trust independent advisors. *(Cox, Australia, 2019 Forum)*

Best practice may be more of an excellence model, where we are helping with incremental improvements rather than pushing people towards a certain model. Ten recommendations are too overwhelming. We need to do it over time. *(Cox, Australia, 2019 Forum)*

Can we share what works? This is a problem and opportunity for all of us. We have made personas, understanding mindsets better to be able to change them. Create networks in similar firms in the same industry, or in the same supply chain in the same industry. Succession mindsets require new mindsets from staff. *(Cox, Australia, 2019 Forum)*

It is very difficult to compare economies. People are afraid to ask for help. It is saying ‘I’m weak’. We need to teach people that asking for help is fine. Strengthen communication between government and business owners — you cannot teach if you do not have trust. *(Cox, Australia, 2019 Forum)*

When you put owners together, they feel safe to share their problems. Peer to peer works better than the person in the front teaching. So make that environment for people. *(Cox, Australia, 2019 Forum)*

Australia: We use personas to work out how deeply we'll engage with a client. Mindsets can sometimes shift over time, but we need to tailor our services to the businesses rather than seeking to change their mindset (a belief that mindsets do not tend to shift). Storytelling, engagement, and connection are key to reaching people. *(Cox, Australia, 2019 Forum)*

Benchmarking can help — it makes peer-to-peer work more relevant for some people. *(Cox, Australia, 2019 Forum)*

Australia: Australian Accelerated growth programme requires participants to have committed. If people are committed, we get good results. Dragging people along does not work. *(Cox, Australia, 2019 Forum)*

Financial and technological infrastructure (theme 4)

SMEs' productivity relies on financial and technical infrastructure

The questions, answers, and comments in this section follow individual economy presentations on the topic of financial and technical infrastructure. It also covers presentations and conversations at the Forum's launch event on Monday 2 December 2019.

Panel discussion on access to finance for SMEs

The panel moderator was Bevan Hall — Business Performance Manager, Ministry of Business, Innovation and Employment, New Zealand. Panel members were from New Zealand and Australia.

- Phil Patterson — Senior Partner, BNZ Wellington Partnerships
- Simon Keast — Managing Director, Spotcap Australia & New Zealand
- Louise Aitken — Chief Executive, Ākina Foundation
- Andrew Hamilton — Chief Executive, The Icehouse
- Anna Guenther — Co-Founder and Chief Bubble Blower, PledgeMe

1. What do you think of the policy change that allowed equity crowdfunding?

It is good that government is thinking about how to make finance accessible for companies. But legislation can cause problems as it can have unintended consequences that do not benefit companies.

2. Do we see fundamental differences between markets in New Zealand and Australia?

Australia: Education and awareness are critical to help people access finance. People need to know where to go and what they can do. In Australia, those support services such as lawyers and accountants charge double compared to New Zealand. I think Australia needs to make support services more financially accessible.

3. Do you see using the family home as collateral currently working for SMEs?

We want fewer loan sharks and more products to help SMEs repay debt over time. It is not just equity crowdfunding, and not just tools, we need more products. We are all responsible for making that happen.

We need investment markets to value businesses that contribute socially and environmentally as well as financially. Governments need to play a role in valuing impact investing over profitability.

Historically, bank lenders have wanted a full suite of security (including the family home), especially for start-up businesses. In recent years, businesses that can demonstrate sustainable practices and cash flow can remove the family home from their collateral. However, having a house in the mix gives borrowers a cheaper interest rate.

4. Do you think there is a capability issue with micro-SMEs (fewer than 6 staff) and cash flow?

Answers are summarised below.

- Micro-SMEs are good at what they do, but have limited skillsets in other areas. To be ready for investment, you need access to the people who can help you. We need funds and grants that are relevant to the market today, and not 20 years ago. We have made it too hard for companies today to have access to capability in the early stages of their businesses.
- Established SMEs can get lending, but they need options. They need access to the right tools to work out what suits their business, so they can make their own decisions.
- What are the initiatives that Australia has in giving small businesses access to finance? How do they differ from New Zealand?
- The rules and criteria can be different. Governments play a big part.

5. Succession planning. Is that a challenge with age, access to finance, and the house as collateral?

Answers are summarised below.

- As a bank lender, I'd prefer to lend to a proven business rather than a start-up.
- A long-established business might not be fit for purpose in the current market. Conversely, many young entrepreneurs have talent and drive but possibly no opportunity to access finance.
- Some onsens (inns) in Japan have been handed down from generation to generation. One iwi (tribe) in New Zealand has a 1000-year plan.
- More people want to buy businesses than sell them. And many people who want to buy a business do not have experience in the field. It is called a succession plan for a reason. You need the right advisors in place to help you plan a successful transition.

Comment by Paul Nalder, New Zealand. Access to finance is primarily of importance to growth orientated businesses, like exporters.

Access to capital

6. What should be the priorities? E-invoicing? Seed funds? Venture capital funds? Financial Technology?

(group discussion with Stephanie Honey, NZ, on access to capital)

There is no easy answer. We need a well-developed policy programme including supply and demand.

We should consider the merits of direct approaches versus more wide-spread approaches, for example tax credits versus targeted programmes. With information issues, the cause of the issue should shape the solution. Education and online products are valuable. *(Moran, Australia, 2019 Forum)*

New Zealand: We suggest a matrix that tells people what are good options for the stage you are in. People do not get to a stage where they need capital unless they want to grow. For example, iwi (New Zealand tribal) businesses do not feel comfortable risking their assets. Understanding and trusting banks — education — is important. Mindsets play a role here too.

Access to technological infrastructure improves SME capability

Questions after presentation by Abbe Marks, Digital Capability, Ministry of Business, Innovation and Employment, NZ

6. A machine-learning add-on sounds interesting. Please share more as it develops. Digital marketing was a category. Why not have digital operations etc? Why focus on marketing?

(Hall, NZ, 2019 Forum)

Ninety percent of firms are business-to-business firms. They are woeful at digital marketing. (Business-to-consumer firms do not have this problem). *(Anderson, Australia, 2019 Forum)*

7. The cut-off for eligibility (to the digital programme) is \$A1.5 million. Have you thought about firms below that threshold?

(Marks, NZ, 2019 Forum)

Australia: How do we scale and reach that tail? Our remit is clear about the size of the businesses. The point of the digital programme is once we have the machine learning done, we can offer the tool to smaller (and all) businesses. We'd also need to re-map the different needs of the smaller businesses to make it relevant for them. *(Anderson, Australia, 2019 Forum)*

Measurement and evaluation (theme 2)

Measurement helps us know whether we should intervene, and whether what we do works

The questions, answers, and comments in this section cover the topics of best-practice evaluation techniques, and the importance of evaluating before intervening.

The first questions and answers followed the keynote presentation by **Bilal Zia, Senior Economist, World Bank, USA**

1. Would you expect to see a doubling in results if you gave the training to both groups in the South African study?

(Hall, NZ, 2019 Forum)

We'd have to run the trial again to find out. I'd test the sequencing of the training rather than training people in both skills at once. After absorbing one type of training, they might be primed for the next set of training.

2. How do you define a performance index if SMEs are afraid of declaring their profits? What other indices might be considered? If people do not tell you information, how can you find it out?

(Tai Kin Ip, Macao, People's Republic of China, 2019 Forum)

It is difficult to accurately measure outcomes for small firms. However, survey-based measures can elicit reasonably accurate responses. For example, recent research focuses on asking the same question three or four ways and triangulating to get a more accurate answer. An SME might not know their monthly sales. But if you also ask for their weekly and daily sales, you can get closer to the truth. You could also ask for their best, worst, and average weekly income. Some new research is available on this topic.

3. We are asked to evaluate after policies have been implemented. How do you deal with score matching after the fact?

(Nolan, NZ, 2019 Forum)

Policy makers like round numbers. For example, they'll create a subsidy programme with a minimum threshold — applicants need sales above \$10,000 to be eligible. So work around that arbitrary threshold — SMEs are likely to be similar on either side of that line. Follow over time the SMEs who just missed out on the threshold with those who got into the programme. Then match firms on observable characteristics, such as size, location, and number of employees.

4. Are you aware of universities or other entities who would be willing to research management capability with us?

(Kennedy-Good, NZ, 2019 Forum)

World Bank and others: The World Bank, Poverty Action Lab (Nobel Prize winners), and Innovations for Poverty Action. They often have funding and researchers available for priority areas, and they often have calls for proposals. Gates Foundation provides this kind of funding too.

5. How much can you generalise results? To what extent can this approach be translated into an APEC context?

(Honey, NZ, 2019 Forum)

We should do more in different contexts to learn more. Also, RCTs are growing in scale, which make their results applicable to other contexts. Variations can then be explored to see how different groups of individuals are affected. We can look at differential impacts, for example, female versus male entrepreneurs, more educated versus less, one racial group versus another. Those sub-differentiators can be relevant comparison points across economies.

Changing management practices

Questions after the presentation on changing management practices in New Zealand (by Gina Williamson, MBIE, NZ)

1. The paper looks at long timeframes. Is there a correlation between changes in management practices and events or policies affecting those industries?

(Hall, NZ, 2019 Forum)

We have not looked at the data that way in this research — we have not looked at the ‘why’ yet. It is an interesting question. If we could identify key elements, we may be able to zero in on those to explore the impact of those events on changes in practices. *(Gina Williamson, MBIE)*

Management capability is not stagnant. Capabilities evolve over time. Looking at the impact on productivity, you could take various angles for various needs, where you can intervene. *(Swanepoel, Australia, 2019 Forum)*

2. Does it evolve over time for an economy as well as for an industry?

(Honey, NZ, 2019 Forum)

Some work shows that when the economy gets worse, you see an increase in aggregate management practices (perhaps because poor firms dissolve). If we look at technological advances, the results might be skewed by a more competitive environment. We’d like things to be stable so we can measure changes over time. But things change very quickly now. Longer-term planning may not be such a good management practice these days. We should ask, ‘What are the bundles of practices that go together?’ We should ask, ‘What type of good planning works these days, for example just-in-time plans, short-term plans?’ *(Bennett, USA, 2019 Forum)*

New Zealand: We looked at literature. We confirmed a growing consensus that management practices are correlated and likely causal with productivity. In the last 30 years, the New Zealand government has implemented 16 initiatives. We do not know how well they worked. Only eight were evaluated. And the evaluation relied on the opinions of the business owners affected (not robust). *(Cable, NZ, 2019 Forum)*

Focus on sustainable economics (theme 3)

Sustainable economics is the way of the future for SMEs

The questions, answers, and comments in this section follow the keynote presentation by **Donna Purdue, Chief Economist, Ministry of Business, Innovation and Employment, NZ**

1. We acknowledge the importance of sustainable development to strong growth. How is the buy-in to the idea of a circular economy? Are SMEs willing to implement a circular economy within their business?

(Rajab, Malaysia, 2019 Forum)

Australia: Australia has not adopted policies yet. They are seeing their SMEs taking the lead, but not the majority of businesses. It is front of mind for the government. We have just started a series of information sessions and workshops to start introducing the idea of a circular economy. We have had a mixed reception. It is hard to find the right hook to get businesses to engage. We wish we were further along than we are. *(Anderson, Australia, 2019 Forum)*

2. Is the circular economy well understood by policy makers?

Certain parts of government have a good understanding. But in translating theories to actions, there are big gaps for policy makers and industry thinkers. *(Anderson, Australia, 2019 Forum)*

Australia: Business schools in Australia are moving towards teaching ethics, responsibility, and sustainability. To get accreditation, business schools have to demonstrate they are including these topics in their curriculum. *(Richardson, Australia, 2019 Forum)*

New Zealand: New Zealand has been working with the Ministry for the Environment on the idea of a circular economy. At MBIE we are starting to look into it. We are asking how we can integrate these principles into our policy work. A [study](#) that looked at what circular could mean in Auckland found that it could add \$NZ 9 billion to the Auckland region. We do not yet know what the environmental impacts are of circular behaviours, for example, is reprocessing bad environmentally? Europe has economy-wide strategies — only 4% of Danish waste goes to landfill. In New Zealand, we need to draw on te ao Māori (the Māori worldview). Kaitiakitanga (or guardianship) is central: 'The economy is within the environment' in te ao Māori. The Formary Limited is an example of a growth company and a circular business model in Wellington where used materials are repurposed. Another example is The Junk Den, which picks up rubbish and transforms it for other purposes. But these businesses are not pervasive as a business type yet. *(Purdue, NZ, 2019 Forum)*

3. Is there value in individual SMEs taking on a circular model, even if it is not national policy?

(Honey, NZ, 2019 Forum)

Yes. There is a competitive advantage to be gained in figuring out how to do things better. But how do you access the finance? *(Purdue, NZ, 2019 Forum)*

4. Businesses are creating conditions for change and new forms of financing are needed. What forms are those? Do we assume the end game is less government input and more private sector input?

(Rajab, Malaysia, 2019 Forum)

We need more finance options. We do not know what yet, but impact investing is starting to grow the pool of capital for these circular businesses. (*Purdue, NZ, 2019 Forum*)

Macao, People's Republic of China: We are all trying to move from the right to the top-left side of Donna's graph. We understand the need for a circular economy. We are doing some policy work on 'what is the situation on earth?' It is up to society, and SMEs are still catching up on the development path. Government acknowledges the importance, but it is up to us all to make it important. SMEs have a responsibility to try too. Our policy focus is on helping SMEs develop in the traditional paradigm at this stage. (*Comment from Tai Kin Ip, Macao, People's Republic of China, 2019 Forum*)

Thailand: Thailand has implemented a 20-year national plan. Government agencies and private corporations are working on waste management from plastic debris: a public-private sector partnership. It is a priority in our development plan. Thailand has lots of micro enterprises working in this sphere as well. (*Comment from Paradornuwat, Thailand, 2019 Forum*)

Malaysia: There are a few SMEs looking to the circular model. There is no push yet from government. An inclusive business model has been pushed, for example, renewable energy, product waste management etc. We are not there yet, but the government is looking at it. (*Comment from Rajab, Malaysia, 2019 Forum*).

5. Have you found a correlation in your economies with Australia's findings in the study that sustainable business is a win-win for bottom lines as well as the environment?
(*Honey, NZ, 2019 Forum*)

In terms of management practices, firms have little opportunity to compare their management practices with others. It could be the government's role to nudge those considerations, including environmental work and impact. (*Moran, Australia, 2019 Forum*)

Australia: When we offered our sustainability program, we thought about messaging and asked, what is the audience's level of sophistication for our messaging? Is it accessible? We also consider what our role within the program is and that is to help SMEs understand the business case for sustainability. They understand a business case that assists them but may not necessarily relate to efforts to reduce their carbon footprint. (*Cox, Australia, 2019 Forum*)

6. Are you seeing an attitude difference in small businesses versus large ones? Are there any case studies?
(*Honey, NZ, 2019 Forum*)

Macao, People's Republic of China: Big companies are a major share of GDP. They have a more integrated concept of circular. They can ask SME providers to be more environmentally friendly, for example by asking for degradable packaging. Procurement is a powerful way to affect SME behaviour. Market-oriented forces encourage a move towards circular. We like the te ao Māori philosophy, but we are still in the middle. (*Tai Kin Ip, Macao, People's Republic of China*)

7. Is there any minimum threshold for investment (or government procurement)?
(*Rajab, Malaysia, 2019 Forum*)

Macao, People's Republic of China: No. We cannot define any local requirement for investment. Private companies have all the say in who they procure from. Three types of company (small businesses, micro businesses, and entrepreneurs) occupy up to 10% of the procurement of big companies. Around \$9

billion of Macao production per year is procurement through private initiatives. (*Tai Kin Ip, Macao, People's Republic of China*)

8. If we rely on the business community to be innovative and solve the world's problems, what is the role of policy makers? What about research and development? (*Honey, NZ, 2019 Forum*)

New Zealand: Yes, governments should do more. The focus was on how do we do the same things but better? That's not enough. We have got to change the structure of what we do. New Zealand is agricultural focused. We need to replace a lot of that if we believe growth is necessary for progress. Replacing old industries with new ones relies on research and development. If we keep researching agriculture, we are not researching the right things — we'll keep getting agriculture. We want new types of research and development in new areas, for example waste use. (*Purdue, NZ, 2019 Forum*)

Comment: Agriculture can be part of the solution, for example, we could get rid of distorting subsidies. Is broader reform needed? Do we need regulatory change? (*Honey, NZ, 2019 Forum*)

9. Businesses want to know how to be more sustainable. New York Stern University will work with us to build an operational solution for small businesses. Have you got a toolkit in your economy for helping SMEs build a solution? (*Hall, NZ, 2019 Forum*)

No direct replies.

Comment from Australia: Going back to policy making, the economic frameworks that inform policy take time to change. But there appear to be shifts globally, for example increasing interest in mission-based innovation policy. It is unclear to what degree these shifts will take place in Australia. (*Moran, Australia, 2019 Forum*)

10. Thinking about the Thailand presentation about a national strategic plan, should we have one as well? There are lots of different efforts, but they are in silos. We need an integrated approach. Is this the time to develop our own national strategies? (*Honey, NZ, 2019 Forum*)

New Zealand: The Ministry of Business, Innovation and Employment has been working with Treasury on a new economic plan. The goal is to improve living standards by growing and sharing prosperity, transitioning to carbon neutral, and improving governance. Eight economic shifts are needed to achieve the goals, for example enabling critical capabilities, transforming land use, energy use, skills changes, and capital. We need to build deeper pools of capital to build better infrastructure. We need to move from volume to value, creating more competitive businesses, which is a productivity challenge. We need sustainable and thriving regions. We need change for Māori and Pacific communities, including affordable housing. (*Purdue, NZ, 2019 Forum*)

11. Is current policy work transformational enough? What else do we need to focus on, including regulatory changes? (*Purdue, NZ, 2019 Forum*)

Integrated policies bring challenges. The regulatory challenges for each sector are difficult, for example access to water, land use, and energy. Human behaviour plays a role — will it be hard work to convince

people that recycled goods are desirable? Renewable energy policy needs to work closely with sustainable policy. (Swanepoel, Australia, 2019 Forum)

Is there value in sharing stories of looking at two complex problems together? An example is the problems of youth employability and the changing nature of the workforce. Here's an example: First work experience is a big barrier to getting into the workforce. Riparian river planting (planting areas beside waterways) requires a lot of labour and provides youth with work experience. Getting young people to do this work provides transferrable skills for the future. It can help solve the problems of the changing nature of the workforce and ecological degradation. (McGirr, NZ, 2019 Forum)

This section records the panel discussion at the Forum's launch event on Monday, 2 December 2019.

Women mentors, role models, and societal change will encourage more women-led SMEs

Panel discussion on women-led SMEs in New Zealand

The panel moderator was Julia Richardson, Head of School of Management, Curtin University, Perth, WA, Australia. Panel members were women from New Zealand.

- Katie Noble, Managing Director, Allied Medical
- Katie Phillipps, Managing Director, Provincial Education
- Miranda Smith, Director, Miranda Smith Homecare
- Rachel Taulelei, CEO, Kono NZ
- Rebecca Barnes-Clarke, Director of Policy, Ministry for Women

12. What are the challenges faced by women who want to set up and run a sustainable SME?

Answers are summarised below.

- Access to a woman mentor or champion is difficult to get, but would make a big difference as they understand the particular struggles of women business owners
- Lack of confidence and impostor syndrome
- Not knowing how to comply with the requirements of running an SME
- Biases that mean women are less likely to access finance
- Girls' lack of exposure to women running SMEs, and so a lack of role models

13. What deters young women from setting up their own businesses?

Answers are summarised below.

- Some cannot see themselves in that position. They may not recognise the value in creating a sustainable business that supports their community.
- It is scary to be a woman in business. Mentors could help support women through that fear.

Panel members disagreed on whether successful business women should be celebrated, or whether idolising them made success seem unattainable for young women.

14. What can we do to support women, knowing that they have got a greater share of household responsibilities?

A: Answers are summarised below.

- You need a support network to help share the responsibility.
- Be focused in your roles: 'When I'm at work, I'm at work. When I'm with my children, I'm with my children.'

15. Imagine it is 2029 and 10 years have passed. We have been invited back by the New Zealand government. What would you like to be saying about female-led SMEs in New Zealand and globally?

Answers are summarised below.

- That there are equal numbers of men and women business owners.
- That women no longer experience guilt.
- That it is way easier now to be a woman leading an SME.

16. How can we address the assumption that it is a woman's responsibility to manage the home, and support them with their business?

This is a societal problem New Zealand needs to address, rather than a small business problem. The Ministry of Women's affairs believes if we value unpaid work as a society, unpaid tasks will be shared more equally.

New Zealand: Women are under-represented as owners and managers of New Zealand businesses in general, but over-represented in some segments. (*Nalder, NZ, 2019 Forum*)

Appendix 2: Interview questions from the I4 Check-up programme in Thailand

The I4 Check-up programme is a one-to-one programme that helps businesses in Thailand to move towards full automation. Below are interview questions asked as part of this programme. The questions keep changing depending on the situation of the business being interviewed.

Quality Control	
<p>Could you explain the QC activity? How do manage 'no good' product? How do you manage information flow? Are you using the technology to help the QC activity? What is the KPI for QC? How does communication between QC and production work? Do you have anything to help the QC activity? How do you qualify the QC skill? Are employees aware about data input?</p>	<p>How is the inspection planning done? What are your quality control loops? How do you deal with errors or error data in production? In what form are your business processes documented? How is the process of your business process controlled and adapted? Is it a centralised or decentralised QM? Which key figures exist? (lead time, core time, rejects, rework, on-time delivery, reaction time) Is the share for complaints committee, rework known? Which tools and methods are currently used? How high do you estimate the quality awareness of the employees? Which symptoms and causes are the most common?</p>

Maintenance	
<p>Could you explain the maintenance activity? What do you do when a machine breaks down? Do you use WI to repair the machine? How do you manage the PM plan? How do you manage information flow? Are you using the technology to help the maintenance activity? What is the KPI for maintenance? If you have finished work, where is the data flow and storage? How does the communication between MNT and production work? Do you have anything to help the maintenance activity? How do you manage the spare part? How do you qualify the maintenance skill? Are employee aware about data input?</p>	<p>How are scheduled and unplanned maintenance performed? How are maintenance data and information recorded? How are findings used? How are quality, energy and sound data used? How are employees supported informally or physically? How is the communication between the actors of the maintenance? May the plant operator also do maintenance? Is the operator supported? OEE? Who initiates the maintenance process based on which data? How is the plan communicated to production planning?</p>

Marketing	
<p>Function Role & Responsibility; How many staff? Who are your customers? What kind of segmentation? What are your products? What kind of segmentation? Are there made-to-order products? What kind of processes are there between you and customers? What is the Market/Sales forecast process? How many sales channels do you have? What are they? How do you get customer orders? How do you communicate sales order to manufacturing function? What is the sales planning process? How do you get sales results data? Is there any after sales service? What kind of service? What kind of Customer Relation Activity do you have? Is there any system support? What kind of customer complaint processes do you have? Is there any system support? Are your members aware of Ind4.0 development? Why? If you had 3 wishes to improve your performance, what would you ask for?</p>	<p>Are marketing and sales goals specified in the sales area? Which personal and departmental goals exist? (Target agreements) Is there a contradiction between personal goals and business goals? (Example: payment according to utilisation and company objective short DLZ) How is customer satisfaction measured? Are short-term price or demand fluctuations existing in the sales market? Could the company, in terms of the behaviour of other companies established on the market, come into difficulties in the medium term with their own sales strategy? customer structure classification ABC analysis Main customers and their share Geographical distribution of customers Where are the main sales markets?</p>

Information Technology	
<p>Function role and responsibility Major KPI IT system policy. (self-development, outsource) User requirement receiving process System utilisation (efficiency, benefits for user) IT development (process, investment) Network system and infrastructure (type, coverage) Shop floor data and machine interface (control system) IT integration (between function, customer and supplier) Data security Data validation system (manual, automatic input) Human awareness and digital competency</p>	<p>What does the IT structure look like? How can you describe the horizontal and vertical exchange of information in your company? How are data from production and logistics reported back? How are data from production and logistics used? How are the collected data used? How does your company deal with data quality? How is your IT system backed up? What is Internet access actually for? What type of information/data is exchanged with other companies via internet or e-mail? What type of information/data is exchanged within the company via the network or email? Which concrete security concepts exist for the areas of network security, data security, data protection, virus control and general operational readiness? What is the budget for the IT sector? Is there a clearly defined IT strategy for the company? What does this strategy say about the technologies used, the organisation, and the staff?</p>

	<p>How do order data become order data?</p> <p>How do supply data become the control data for logistics and production?</p> <p>How do you get the quality data from this product data?</p> <p>How are quality data used to optimise business processes?</p> <p>What is your standard interface for data transfer? OPC UA?</p> <p>Which bus systems do you use?</p> <p>Role concept in the access of data</p>
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Human Resources	
<p>What are the role and responsibility of the department?</p> <p>What are KPIs in your department?</p> <p>What are the major problems in work?</p> <p>How do you go about planning manpower or human resource planning?</p> <p>What is the recruitment and selection process?</p> <p>What is the performance evaluation process of personnel?</p> <p>What is the process or method of health and safety care and how is this communicated to employees?</p> <p>How is department information managed?</p> <p>How are labour relations promoted?</p> <p>What training standards do employees have to meet?</p> <p>How are personnel planned for, and developed, within the organisation?</p> <p>How does the system and operation support aspects of service staff training?</p> <p>Is there a measurement and evaluation of the training program? If so, how is this managed?</p> <p>How are employees followed up after the training?</p> <p>If you had 3 wishes for making your work more convenient, what would you ask for?</p>	<p>How is the knowledge used in your company?</p> <p>Are methods and approaches used to design good user interfaces?</p> <p>Employee surveys?</p> <p>Workforce management</p> <p>Personal conversations?</p> <p>Trainings and trainings?</p> <p>Ergonomics reviews?</p> <p>Digitisation skills among managers?</p>

Engineering	
<p>Could you explain the administrative structure in the department and how many employees are in the department?</p> <p>Can you explain the work of the engineering department?</p> <p>What are KPIs in your department?</p> <p>What are the major problems in the working process?</p> <p>In the event of a problem in work, how do your management and analysis solve the problem?</p>	<p>How are resources managed? Software, hardware, people?</p> <p>How do digital engineering and operation support?</p> <p>How do you communicate project implementation to other departments?</p> <p>How do you report project progress? To whom? Daily or weekly?</p> <p>How do you get requirements from another department?</p>

Could you explain the workflow of each step in your department at the beginning of the process until the end of the process?

In terms of communication, how do you communicate both within the department and between departments?

In terms of data acquisition, how do you get the information (such as from the paper), and then input the data into system (manual or automated)?

How do you store data (such as paper, file)? How is the data managed (such as authorised), decentralised or centralised).

How high is employee awareness about data acquisition and processing?

How are employee decisions supported by data and information analysis?

What are the technologies to support the work of employees?

How is knowledge managed within the department?

How high is employee understanding and acceptance of new technologies and worlds of work?

Do you have any the skill matrix for defining the basic knowledge and skill required of employees in the department (what those in each position must know)?

16 If you had 3 wishes, what would ask for?