

Manufacturing Productivity Advisory Group

Chair's Summary & Recommendation

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16th April 2024

Process

The Manufacturing Productivity Advisory Group MPAG convened for its second meeting on 15th March to present Minister Andrew Bayly with recommended actions over the next 12 months.

MPAG is comprised of over 30 business leaders and industry group representatives selected by the Minister and Chair to represent the diverse sectors, regions, scales of business and demographics of people involved in the manufacturing sector.

The objective was to provide a recommendation to Minister Bayly on 'Quick Win' priorities for the coming 2024/25 financial year. To do this MPAG members self-selected across four key workstreams – Perceptions, Talent, Innovation and Investment.

MPAG members were given a framework which included identifying key problems, barriers, initiatives to address them, actions for both Government and Business, and proposed measures of success. The presentations from each working group are included in Appendix 1.

Manufacturing Aotearoa (AMA), coordinated the process which we estimate captured the feedback of over 100 companies and industry group representatives, encompassing:

- Four separate working groups comprised of MPAG, Government agencies, invited specialists and AMA Council members.
- Meetings and collation of feedback across AMA Regional Business Groups in Northland, Auckland, Tauranga, Wellington, Christchurch and Dunedin

Recommendations

- MPAG and Ministerial Recommendations are captured a 'Manufacturing Priorities on a Page' document that is released publicly (e.g. potentially by the Minister and MPAG at the EMEX Conference in late May). These priorities are being prepared collaboratively with industry, Minister Bayly and MBIE. It is a credit to the Minister and MBIE's team to have such a collaborative process working with industry.
- Universally MPAG believe that advancing the manufacturing industry through Process Innovation has the greatest potential impact on improving New Zealand's Productivity.
- MPAG members also stressed that our recommendations come purely as the first rung of scaffolding to realizing the manufacturing industry's full potential and we welcome the opportunity to work with the Minister to develop the long term plan and Vision.
- With Andrew Bayly as Minister for Manufacturing and Minister for Statistics, we hope to develop a set of robust statistics that will demonstrate over the next 10 years the enormous contribution of manufacturing to exports, the economy and ultimately the prosperity of our communities.
- The workload required to convene MPAG and to execute on MPAGs recommendations requires coordination. There was consensus that AMA have demonstrated they can bring industry together and should be engaged for the implementation of cross-sector business-led manufacturing initiatives.

Strategy

Problem identification

The key barriers identified by the industry to greater Process Innovation in the manufacturing sector can be summarised as:

Investment	Perception	Innovation	Talent
<p>Financial sector, Treasury and Procurement settings are not fit for purpose for encouraging investment in higher risk and capital intensive manufacturing process innovation.</p> <p><i>e.g NZ has the second highest cost of capital in the OECD. NZ Govt is one of the only in the OECD with zero incentives for foreign tenderers to incorporate local content/investment.</i></p>	<p>A long-standing public misperception of the manufacturing sector has led to challenges in attracting talent, market demand and investment, limiting the potential of the manufacturing industry in NZ.</p> <p><i>e.g Schools lose funding in Yr13 and are ranked nationally on UE, actively discouraging vocational engineering pathways.</i></p>	<p>Lack of understanding within Government on Process Innovation as the solution for productivity and R&Ds co-dependence on it for manufacturing future industry capabilities – such as space.</p> <p><i>e.g Industry estimates New Zealand is 10 years behind Europe in adopting Industry 4.0. Ranked 27th out of 63 countries overall by the global digital competitiveness index.</i></p>	<p>Very few school leavers choosing manufacturing, combined with outdated vocational curriculum and an aging workforce lacking necessary digital and management skills.</p> <p><i>e.g There is little to no vocational content on manufacturing programming or production software. It is common for 100% of qualified manufacturing trades job applicants to be immigrants.</i></p>

Purpose

The below table summarises businesses responses as to ‘why’ they’re participating in MPAG:

Purpose	Mission
<ul style="list-style-type: none"> Improved Manufacturing Productivity is the greatest opportunity to create prosperity for ALL New Zealanders To keep our companies ‘making’ in New Zealand To provide career opportunities for ALL our Rangatahi To build a resilient and internationally competitive sector 	<ul style="list-style-type: none"> Join the dots across Government – Industry must play a greater role in shaping policy on: <ul style="list-style-type: none"> Education – NZ is not producing fit for purpose graduates for industry. Innovation & Science funding – innovation is not just about new novel products, r&d funding to incentivise manufacturing exports not just IP, more commercialisation/manufacturing of IP in NZ, to shift the dial on productivity we need process innovation that lifts capital intensity/ productivity. Invent and invest in new ways of making things, not just entirely new things. Taxation / Treasury – Accelerated depreciation, easier access to investment for process intensification projects Collaborate – manufacturing is a function of most industry verticals, together for the first time we have huge opportunities to: <ul style="list-style-type: none"> Advocate collectively Share industry knowledge Attract manufacturing to NZ Improve the perceptions of manufacturing

We’re a purpose driven group on a mission to improve productivity in New Zealand. We KNOW that Manufacturing Process Innovation drives greater capital intensification, delivering higher productivity per worker, improved sustainability and ultimately better outcomes for our people.

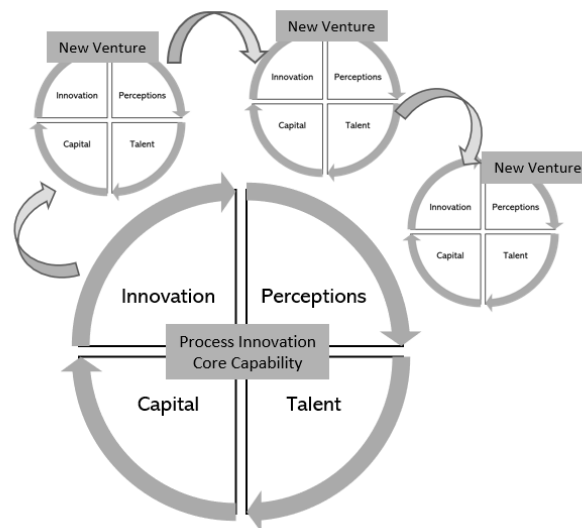
Solution

Manufacturing is not an industry, it's a function across all sectors producing physical products. When we talk of Agri-Tech, Space-Tech, Bio-Tech, Med-Tech, Clean-Tech – in actual fact most of the time we're actually talking about manufacturers.

All of these industries are developing rapidly and require manufacturing capability to realise the full commercialization value of the products they're developing.

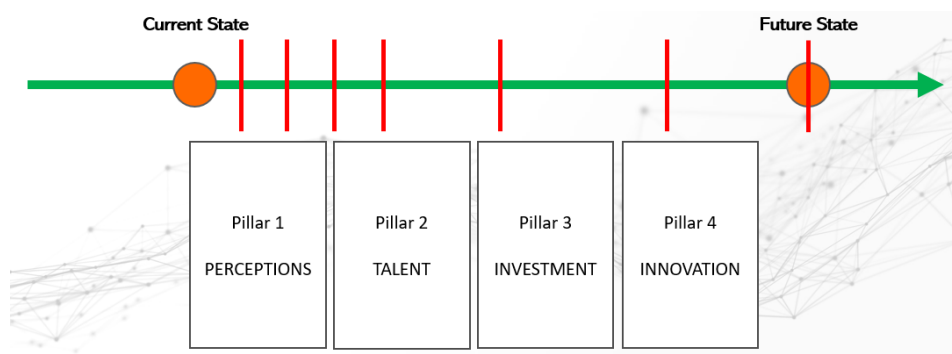
MPAG believe Process Innovation is the solution to raising productivity and resilience across all manufacturing export sectors, starting with developing Talent.

We identify Process Innovation as a co-dependent system of Talent, Capital and Innovation. And that development of a company's (and country's!) internal core capability in Process Innovation in itself will rapidly stimulate further innovation. Including the potential for commercialization of new and separate ventures through the invention of new processes and systems.



However Process Innovation is heavily reliant on Talent. Talent is not attracted to the manufacturing industry due to ingrained Perceptions that have persisted since the 90s economic reforms. To overcome this and attract critical talent, Government does have a role to play in supporting industry to improve manufacturing Perceptions across all stakeholders.

We have identified where we believe New Zealand sits in a Global context on the advanced manufacturing continuum. That while there are some well recognized exemplars such as Nautech, Rocket Lab and Fisher & Paykel Healthcare, as a whole industry adoption of new technology is low and perceived to be 10 years behind Europe.



Process Innovation projects go beyond a pure capital investment. There are high levels of uncertainty, extensive testing and development before being ready for production, and as such high talent, prototype and digital resource costs. Getting started can be simply out of reach for a business without any existing internal capability.

Our innovation funding system, led by Callaghan Innovation, needs to be accessible to de-risk and expedite SME Process Innovation projects – particularly opening up Work Experience and Graduate Grants, RDTI and Trailblazer grants.

There is a fundamental disconnect between the complexity of existing Government programmes and communications, and what the bulk of industry, particularly SMEs, is ready for – which is to just get started. There are a plethora of excellent programmes across NZTE, Export Credit Office, Callaghan, Workforce Development Council, Universities and Vocational training providers that with a focus on manufacturing could ‘turn the key’ on manufacturing.

To optimize adoption and translation of participation in these programmes to outcomes requires a cross-sector and cross-Government approach. This is the role of MPAG and Advanced Manufacturing Aotearoa, which has been successful in forming the AMA Council and AMA Regional Business Groups stimulating significant activity across New Zealand. AMA is the only body that represents manufacturing across all sectors in either industry or Government.

Finally, for businesses to invest they require confidence, particularly on the back of such global economic uncertainty. Fit for purpose financing which provides for interest only periods, deferring of GST and accelerated depreciation in the first year of development will help significantly with onboarding new capability.

But first companies need certainty of demand, there are simple wins in Government procurement that do not require major policy change or investment. These changes can leverage existing Government procurement rules and be consistent with trade agreements and good procurement practice. We should be cognizant of models overseas such as the Australian Sovereign Industry Capability (ASIC) or other off-set programmes – with the bare minimum being a ‘Score’ in tenders for the scale of local content foreign tenderers incorporate into their bids. In the case of major domestic infrastructure tenders, Government procurement teams need to understand timeframes required for local manufacturers to ‘tool-up’ for major projects. Longer term contracts allow businesses to make productive capital investments with greater certainty.

Going even further and doing a full loop back to Innovation, R&D funding of firms could be scaled on an upfront or payback basis based on how much ‘productive’ value will be generated through domestic production.

Conclusion

Industry is excited about the opportunity to have manufacturing on Governments agenda, especially to have our first Minister for Manufacturing Andrew Bayly.

In the 12 month horizon we hope to work together to change perceptions, amplify existing programmes, create a manufacturing narrative across all of Government, define the vision and lay the scaffolding for long term capital investment and workforce transformation.