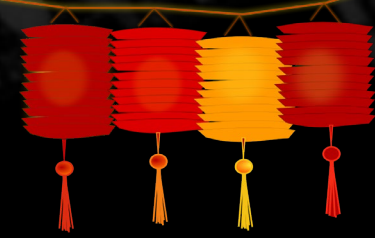


Ivent Solutions Market Trend Update

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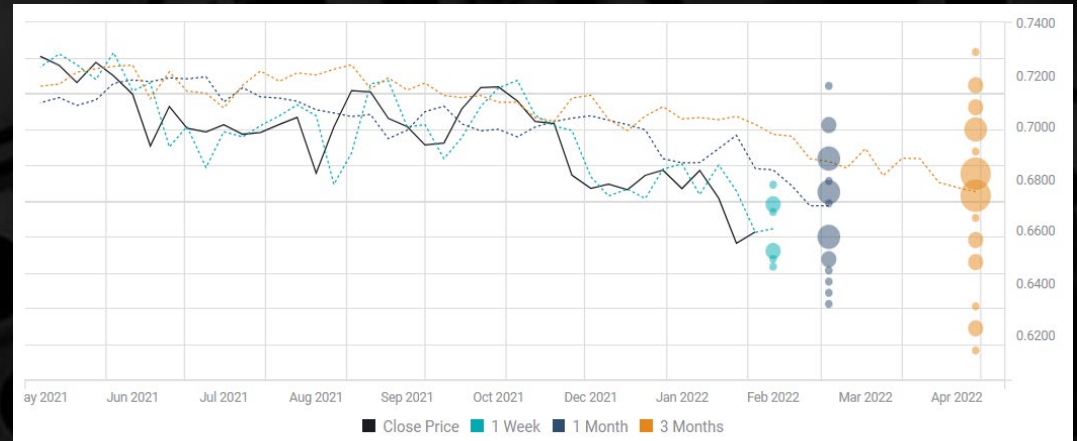
NZD Weaker Against Most Trading Currencies

Look out for price increases as the NZD tumbled to a 15-month low in late January against the USD. Although good for exporters local product pricing is sure to increase in the short term (petrol pricing being the obvious example). Converting orders to USD is currently trading in NZD is an option to cushion this impact. The causation of this NZD weakening it the pandemic boom is starting to go bust. The US Federal Reserve have acted more aggressively than predicted against high inflation and that has resulted in the NZ dollar being whip-lashed down to USD0.6540 to NZD1.000. The consumption and investment binge has ended abruptly as the extraordinary fiscal and monetary stimulus measures implemented across all western economies over the last two years are hastily removed from the table.

The Kiwi dollar (along with the Aussie dollar) was smashed down by 3.0% in the FX markets over the last few weeks as the US dollar strengthened sharply against all currencies due the Fed confirming an earlier and more stringent monetary tightening policy stance than was generally expected. In addition, the US economy is expanding at a more robust pace of 6.90% (annualized) in the December 2021 quarter. It was a double-whammy negative impact on the Kiwi dollar as selling intensified once the previous support level of USD0.6700 was decisively broken. Just where the next support levels (rates) will be for the Kiwi dollar to attract some buying interest is difficult to judge. There is no question that both the NZD and AUD (in having the label and reputation as “risk currencies”), suffer more than most under speculative selling attacks in the FX markets when equity markets tank. The extreme volatility in equity markets from the Fed’s tougher stance has prompted hedge funds to add to their short-sold NZD and AUD speculative positions.

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The graph here shows forecasted USD to NZD rates out to April 2022 →

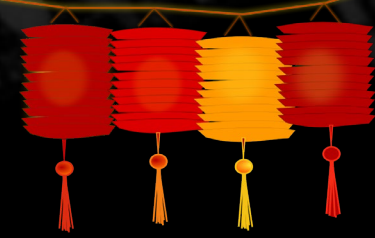


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Best Practices When Working With Manufacturers in China

Manufacturing sub-assemblies or finished product in China can be very advantageous from a number of perspectives (not just price). A high quality outcome can almost certainly be achieved if some basic, best practice, principles are applied. Some of the benefits that can be achieved include:

- Ownership of the product IP (if using factory-based developers), tools, jigs etc...
- Ownership over the supply chain of approved component suppliers. This is relevant if the manufacturer helps you source component suppliers, and also if you did some of the original sourcing work
- Since you own your product and supply chain knowledge, you can switch suppliers relatively easily as they will not hold on to the information (provided they have been paid for the work done)
- You are more involved in the R&D and manufacturing process, and you have more control and visibility over the projects progress, costs, quality, and estimated delivery time
- Working with a Chinese manufacturer can be more collaborative, if partnered with the right company

The following best practices may assist in getting the most out of partnerships with manufacturers:

Be prepared to get involved with project management

Working in partnership with the manufacturer will often provide better results down the line, but there's a learning curve as you're probably going to be involved in the following:

- Reviewing design files and storing them as a backup (don't trust their record keeping)
- Reviewing and signing legal agreements outlining everyone's responsibilities, your expectations, and who owns the IP (you may need legal assistance here)



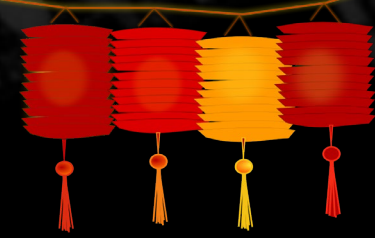
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- Reviewing a risk analysis on your new product design (ideally in the format of an FMEA)
- Understanding the material and process flow (fabrication, surface treatment, assembly, packing, testing) and the related control points, if you want to feel more at ease with the whole process
- Helping confirm the measurement and testing systems
- If that's applicable, reviewing the Cpk index of certain CTQ values and the plan to get it higher (for better consistency in production)
- Creating and/or reviewing a quality standard (checklist used, testing protocol used, putting golden and boundary samples in place)
- Obviously, these documents and activities have to be defined with and by the manufacturer. There is a significant upside if you can do some of that work in preparation, thereby go in to the factory with a great package that they can review and adjust.

Vet your supplier shortlist thoroughly

Typically, this involves sending a factory auditor to perform the audit for you. Ivent uses SOFEAST for this process and has found their service to be reliable and cost effective. In addition, make sure that your shortlist only contains suppliers that have good communication skills, response times are minimal and can provide reference customers.



Don't underestimate how much work goes into moving production to China

- Finalising production concept, and that often includes a detailed feasibility study and/or a 'proof of concept'
- Document product requirements and any other documents required by the manufacturer
- Perform reliability, safety, and quality testing on prototypes, as well as pilot runs before you ramp production up (in electronics, that process validation work is called EVT, DVT, and PVT). Numerous product samples will be produced and tested, and the rounds of testing may go on for some time before you have arrived at a product iteration where all can be locked and mass manufacturing can be safely commenced



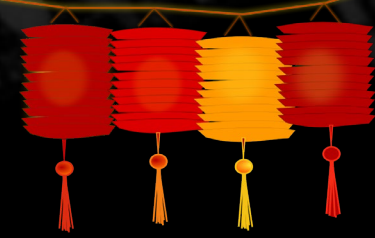
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Hold the manufacturer to account by inspecting quality during production

Even if you have found a great manufacturer to work with, the risks of not picking up issues early enough during production are huge. What would you do if you received a container of products, at great cost in money and time, only to find that they were defective and could not be sold? You can't return them, reworking in your country could be extremely costly, and you are going to have awkward conversations with your disappointed customers. Could your business cope with this level of disruption? Have any cost savings just evaporated?

Product inspections are a valuable 'safety net' you can use to pick up issues before it's too late. Supposing your product has been validated properly and is tested as reliable, it is not impossible for production errors to cause quality, safety, and reliability issues in products, hence sending in inspectors to keep the manufacturer on their toes. As long as the factory is informed in advance and it is stated in your manufacturing agreement, a contract manufacturer should not have any issues in accommodating an inspector.



Remember to protect your IP

This tip isn't specific to importers who work with manufacturers in China. In fact, IP protection should be a key concern regardless of who you outsource to as, by necessity, you have to divulge a lot of critical product IP to your chosen manufacturer/partner. This may include product designs and drawings, your BOM, supplier information, and much more...basically, everything required to create your product at your standards.

So, when working with a new contract manufacturer, consider taking the following steps:

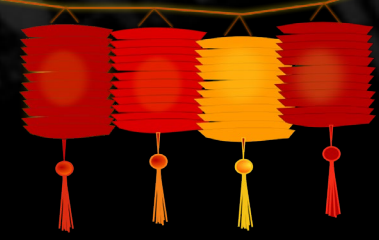


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- Register trademarks in China to prevent third parties from registering them for themselves and producing similar products using them. Depending on your budget and product type you may possibly consider registering patents, too, but this is usually out of budget and, arguably, not as important at an early stage for many entrepreneurs and SMEs.
- Sign a product development/manufacturing agreement that outlines who owns the product IP (particularly relevant if they are helping you to develop the product before it is manufactured)
- Sign an NNN NN agreements (non-disclosure, non-circumvention, non-use) that will protect your IP against being used without authorization, such as being shared with third parties, being used to produce your product without your consent, and being used by the supplier to circumvent you and deal with your own suppliers
- Sign a manufacturing agreement that outlines who does the manufacturing and your relationship with the supplier, including exclusivity, deliverables, agreed costs, penalties, IP ownership, and more

Maintain visibility over the manufacturers activities

Some contract manufacturers could be assisting you with pre-production product development and validation, with some possibly only handling the assembly aspect. Either way, make sure that you're going to be given full visibility over whatever it is that they're doing for you. A credible manufacturer should be providing you with access to the suppliers they source for you, their internal testing regime for your product, and their internal NPI processes that will be used as milestones to get your product from development into mass production.

The point of working with a China based manufacturer is for you to have the advantage of their expertise and facilities, basically at your command, with the control over the project as if you own factory and the staff in situ, so if the information is being left vague that is a certain **red flag**. As 'project principal,' it's also on you to guide them as to what you want to be kept informed of throughout the project. By following all or even some of these points you should be able to produce a quality product at a highly competitive price, and most importantly do it on a repeatable basis.



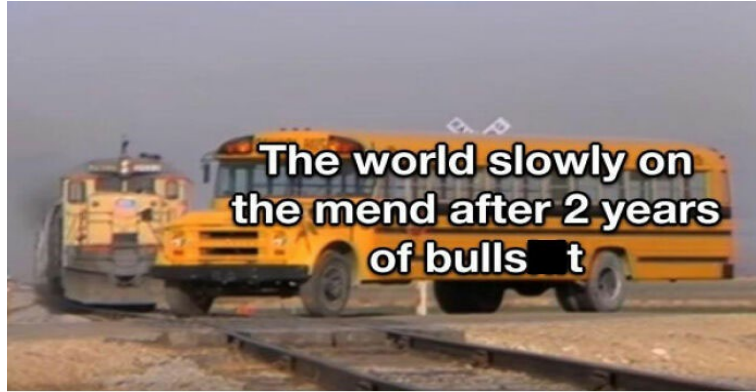
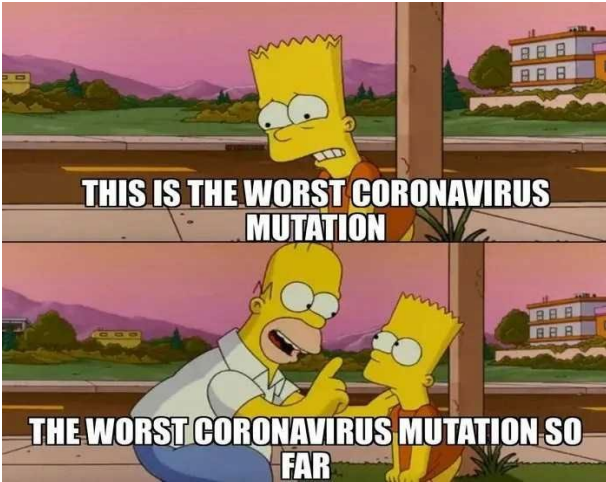
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Humans: Please God let ~~2021~~ be
a good one 2022

God:

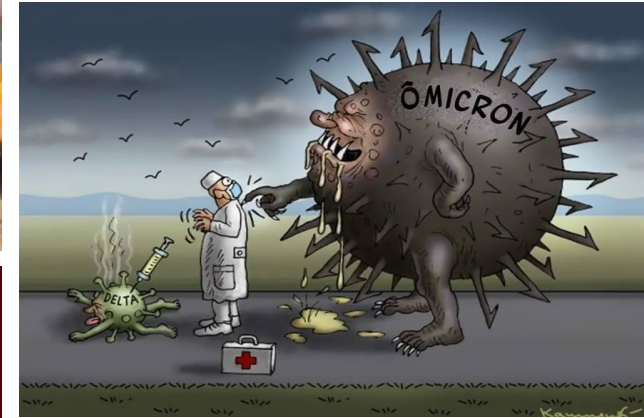


If one of your pillows
looks like this



You can survive
Omicron

MemeZilla.com



How Greeks look at everyone
trying to pronounce omicron



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Omicron delivers yet another blow to our little South Pacific Peso!

NZD versus AUD - AU\$0.930 vs NZ\$1.00 ↓



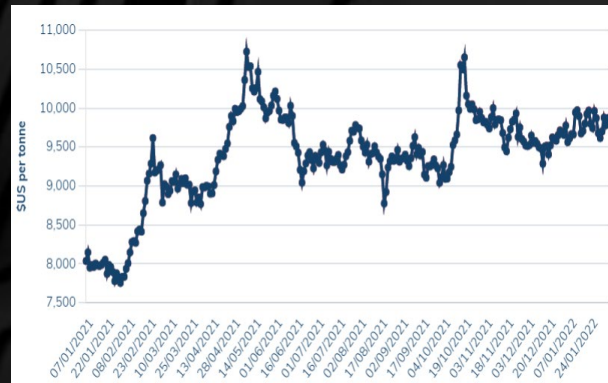
NZD versus USD - US\$0.665 vs NZ\$1.00 ↓



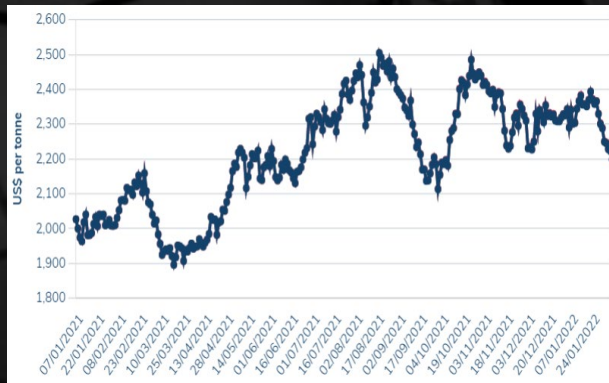
NZD versus EUR - EU\$0.580 vs. NZ\$1.00 ↓



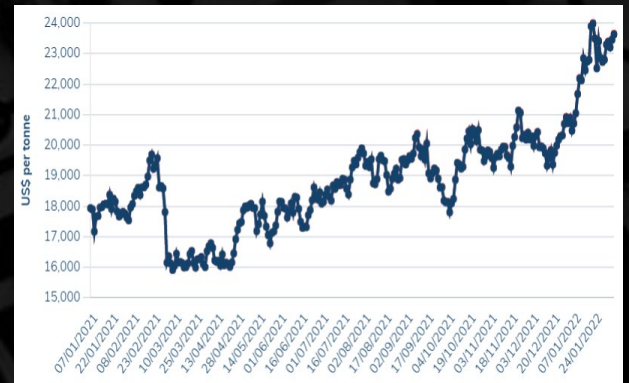
Copper - USD9850 / tonne ↑



Lead - USD2200 / tonne —



Nickel - USD23500 / tonne ↑



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This Month in Tech History...

February 24, 1955 – Apple Computer co-founder Steve Jobs is born. Jobs was instrumental in developing the Macintosh, the computer that took Apple to unprecedented levels of success. After leaving the company he started with Steve Wozniak, Jobs continued his personal computer development at his NeXT Inc. In 1997, Jobs returned to Apple to lead the company into a new era based on NeXT technologies and consumer electronics. Some of Jobs' achievements in this new era include the iMac, the iPhone, the iTunes music store, the iPod, and the iPad. Under Jobs' leadership Apple was at one time the world's most valuable company.

February 6, 1959 – Jack Kilby of Texas Instruments files a patent application called "miniaturized electronic circuits" for his work on a multi-transistor device. The patent was only one of 60 that Kilby holds. While Kilby has the earliest patent on the "integrated circuit," it was Robert Noyce, later co-founder of Intel, whose parallel work resulted in a practical device. Kilby's device had several transistors connected by flying wires while Noyce devised the idea of interconnection via a layer of metal conductors. Noyce also adapted Jean Hoerni's planar technique for making transistors to the manufacture of more complex circuits.

February 13, 1980 – Apollo Computer is incorporated in Chelmsford, Massachusetts. Apollo helped create the original workstations, small but powerful computers mostly used for engineering. In 1989, Hewlett-Packard Company acquired Apollo in a \$476 million deal.

February 1, 1991 – Mike Sheridan, James Gosling, and Patrick Naughton of Sun Microsystems, Inc. start to develop Java technology. It grew out of a Sun project in embedded control called *7 (Star Seven). Naughton focused on Aspen graphics system, Gosling on programming language ideas, and Sheridan on business development.

February 10, 1996 – In the first game of a six-game match, IBM's Deep Blue chess computer defeated world champion Garry Kasparov. No computer had ever won a game against a world champion in chess. Kasparov would eventually win the series 4-2, but would lose to Deep Blue in a re-match a year later.

February 1, 2003 – The Space Shuttle Columbia disintegrates during reentry into the Earth's atmosphere, killing all seven astronauts aboard. The cause of the disaster was a piece of foam insulation the size of a small briefcase that broke off the external tank during launch and struck the leading edge of the left wing. This damaged the Shuttle's thermal protection system (TPS), which protected it from heat generated by the atmosphere during re-entry. The damage allowed hot gases to penetrate and destroy the internal wing structure, resulting in the in-flight breakup of the Columbia.

February 4, 2004 – Mark Zuckerberg launches Thefacebook, which later becomes Facebook. The world changes forever.

February 8, 2005 – Google Maps is launched to the public. I never had to ask for directions again. Not that I ever did before!



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CHINA HOLIDAYS 2022



JANUARY

						01
02	03	04	05	06	07	08
09	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

FEBRUARY

Chinese New Year

		01	02	03	04	05
06	07	08	09	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28					

Lantern Festival

MARCH

		01	02	03	04	05
06	07	08	09	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

APRIL

Qingming Festival

						01	02
03	04	05	06	07	08	09	
10	11	12	13	14	15	16	
17	18	19	20	21	22	23	
24	25	26	27	28	29	30	

MAY

May Day

01	02	03	04	05	06	07
08	09	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

JUNE

Dragon Boat Festival

						01	02
03	04	05	06	07	08	09	
10	11	12	13	14	15	16	
17	18	19	20	21	22	23	
24	25	26	27	28	29	30	
31							

AUGUST

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07	08	09	10	11	12	13	
14	15	16	17	18	19	20	
21	22	23	24	25	26	27	
28	29	30	31				

SEPTEMBER

Mid-Autumn Festival

						01	02	03
04	05	06	07	08	09	10		
11	12	13	14	15	16	17		
18	19	20	21	22	23	24		
25	26	27	28	29	30			

OCTOBER

National Day (Golden Week)

								01
02	03	04	05	06	07	08		
09	10	11	12	13	14	15		
16	17	18	19	20	21	22		
23	24	25	26	27	28	29		
30	31							

NOVEMBER

						01	02	03	04	05
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13	14	15	16	17	18	19				
20	21	22	23	24	25	26				
27	28	29	30							

DECEMBER

										01	02	03
04	05	06	07	08	09	10						
11	12	13	14	15	16	17						
18	19	20	21	22	23	24						
25	26	27	28	29	30	31						

