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The State of Play in Battery Metals | Episode 4
Brian Menell, Chairman & CEO, TechMet

We close out *The State of Play in Battery Metals* this week with Brian Menell, Chairman & CEO at TechMet. David Greely sits down with Brian to discuss how short-term oversupply is distracting us from making the investments needed to meet the growing medium-term demand for battery metals and critical minerals – and why governments and sovereign wealth funds may need to take the lead on financing the investment that is needed.

Brian Menell (00s):
There is a lot of innovation both in terms of traceability, in terms of managing environmental impact and social interface and carbon footprint, which are essential for us to continue to fund and encourage and commercialize. And that's really, really important because we not only need to radically transform our industry in terms of volumes, we obviously want to radically transform our industry to prove to funders and prove to consumers that mining can be responsible. It can be low environmental impact, it can be low carbon footprint, and it can be very constructive from a social and political interface point of view.

Announcer (37s):
Welcome to SmarterMarkets, a weekly podcast featuring the icons and entrepreneurs of technology, commodities, and finance ranting on the inadequacies of our systems and riffing on ideas for how to solve them. Together we examine the questions: are we facing a crisis of information or a crisis of trust, and will building Smarter Markets be the antidote?
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David Greely (01m 19s):
Welcome back to The State of Play in Battery Metals on SmarterMarkets. I am Dave Greely, Chief Economist at Abaxx Technologies. Our guest today is Brian Menell, CEO and Chairman at TechMet. We will be discussing how short-term oversupply is distracting us from making the investments needed to meet the growing medium-term demand for battery metals and critical minerals, and why governments and sovereign wealth funds may need to take the lead on financing the investment that is needed. Hello Brian. Welcome back to SmarterMarkets.

Brian Menell (01m 51s):
Great to be with you Dave.

David Greely (01m 53s):
It's great to have you here. I really enjoyed when we got to sit down together last April at the FT Commodities Global Summit 2024 in Lausanne, Switzerland and it's great to be able to discuss the state of play and battery metals with you once again. At TechMet you're focused on supplying critical metals for the energy transition and when we spoke last year, you contrasted the short term oversupply in many of these markets with the lack of investment that's currently happening and how that will likely lead to a medium term shortage of these metals. So I thought that could be a great place to start off today start and getting your sense of how are you seeing the state of these markets today?

Brian Menell (02m 36s):
Dave, what we discussed last year has become that much more severe with respect to the extent of short term mark of weakness and the impact on growing medium term structural shortage. So you know, the temporary short term oversupplied, lithium nickel, cobalt, rare earth metals have continued to depress market sentiment and retard investment and delay or result in the scrapping of projects that need to be built in order to supply or meet the demand that hasn't stopped growing two years, three years, five years, 10 years out. So the extent of that shortage of supply continues to grow every day. And the other elements of these global critical mineral supply chains that is continuing as we suggest as it would when we spoke last year to shift is the extent of Chinese control over all of these global supply chains because they are not slowing down their investment programs because they have ability or luxury or foresight to see the medium term and not be caught in short term negative market sentiment as non-Chinese players in our industry tend to be.

David Greely (03m 58s):
And maybe you could explain, I think sometimes people find it a little counterintuitive that they want to infer that, well if we're able to oversupply today, doesn't that mean that maybe supplying the market is easier than we thought? So why should I be worried about the medium term? What's happening there in the production process?

Brian Menell (04m 17s):
It's a good question because one of the causes of the oversupply in the short term of these metal is the increase in supply that came about as a result of a speculative excessive boom in the prices for lithium nickel cobalt two and a half or three years ago and the supply response to those price increases was material in terms of oversupplying a market that was going into a period of subdued sentiment anyway, but not in any way material with respect to the scale of supply growth that we need to meet demand two years, three years, five years and 10 years out. You know, as the energy transition progresses and as electrification mobility continues to accelerate and it will, we can discuss if you want, why short-term negative sentiment is utterly irrelevant with respect to medium to long-term trends with respect to electric vehicle penetration and renewable energy growth.

Brian Menell (05m 22s):
But it, the developments are such that we require five years out of 10 years out, five times or 10 times the present global annual supply of the number of these metals, not 10% more. You know, if you want to increase global production by 5% or 10% or 15%, you can tend to tweak existing operations if you need to double and triple and quadruple. That's a 10, 15 year program of finding and developing new resources on scale. It's a completely different and it's not easily achievable even with funding support of a magnitude that is required and presently not in evidence.

David Greely (06m 06s):
And I would love to dig into these longer term needs that you are bringing up because I have heard you talk about this as a 20 year energy transition. So how early are we in this transition and are we missing the big picture by focusing too much on short-term market weakness?

Brian Menell (06m 24s):
We certainly have to look beyond short-term market ups and downs in order to invest in and build for the medium term and the medium term and the longer term is inescapably compelling. You know, in 10 years' time it's going to be very difficult to buy a diesel or pet engine vehicle anywhere in the world, including the United States. So along the way they are going to be accelerations and decelerations and ups and downs and many, many challenges but the longer term direction of travel is pretty clear and in my view is difficult to see anything that will compromise it. Likewise the growth of renewable energy systems as a portion of global power grids is likewise a one-way street. In 10 years' time, renewables are going to account for, you know, many tens of percentages of higher penetration in terms of global electrical generation that it does today with all the infrastructure and battery storage requirements that would involve.

Brian Menell (07m 34s):
So you know, we really can't allow ourselves as a industry to be caught in the ups and downs of short-term sentiment and governments and regulators have to incentivize or force us to look at the medium term and if they don't we and the markets and our industry will continue to fail the world and failing the world is not just about climate change, mitigation failing the world is about national security. Countering China's aspirations on the global stage with all the implications that they evolve for our values and way of life and political systems and failure involves not adequately supplying industry in Europe and the US and elsewhere and hence not sustaining economic growth and jobs and radically ping the stability of our societies. So you know, it's not just about whether what we think about climate change, it's about what we think about rise of China geopolitics, national security and economic growth.

David Greely (08m 44s):
And I want to come back to the geopolitics and the national security issues of it all with you but first I wanted to ask you, because you have brought up a number of times the short term sentiments that drive prices to extremes and then crashes and, and I'm curious, is there something that you're seeing in our markets that isn't working quite right that we might need to change, that we need to incentivize that more medium term behavior? Or is there something in our financial markets that's making it difficult to obtain the financing for that medium term investment that we need?

Brian Menell (09m 22s):
Markets have inefficiencies and over the medium term those inefficiencies tend to cancel out and markets work in the short term markets are often driven by herd mentality, inadequate information and sentiment that feeds on itself and results in distortions and failure to, you know, for markets to adequately reflect medium term realities, which we would like them to from a global, national or global and national interest point of view. So in order to mitigate that, we do need governments, regulators and we do need imaginative leadership from our industry, from providers of capital and from end users of our products and from governments and they will need to be coordinated in order to ensure that short term market inefficiencies don't sabotage medium term national and global imperatives.

David Greely (10m 19s):
And you at TechMet have a somewhat unique perspective as a western producer backed by the United States governments, specifically the US International Development Finance Corporation. So I was curious what are the challenges and opportunities you see as a western producer in these markets?

Brian Menell (10m 38s):
The challenges are fairly self-evident. You know, we are part of an industry that needs to radically transform in terms of volumes, in terms of standards because we want to do it responsibly as a feeder of you, you know, western industry and in terms of independence from Chinese control with all the geopolitical and national security implications that come with that. So the challenges are enormous. The opportunities likewise are enormous. You know, the opportunities to leverage the right standard in terms of governance and transparency and the right alignment with us interest and the interest of US economic allies in terms of access to efficient funding sources from sovereign entities be there in Washington or be there in Brussels or Tokyo and elsewhere. And in terms of investing into the supply demand dislocation where prices for all of our metals two years, three years, five years, 10 years out are gonna have to radically outperform most other commodities and most other asset classes in order to over a period of time incentivize production to eventually balance out this unstoppable growth in the market over a 5, 10, 15 year horizon.

David Greely (11m 54s):
And how are you at TechMet positioning yourself to weather these challenges and seize those opportunities?

Brian Menell (12m 00s):
We're a private company. We have, as you mentioned, have been fortunate to have received now three rounds of US government equity and investments through the DFC, the first one being in 2020 under the first Trump administration and the follow-ons will happen been under the following administration or the last administration. So we are very well positioned to accelerate our development programs and expansion of existing production across all of our 10 operating companies in alignment with US interests and the U interest of US economic allies and to leverage that position and we are China free in terms of sources of investments and major partnerships or counterparties, which does put us in a unique position to access what will continue to be prioritized programs across government agency to support critical manure supply chain security and those programs that will have to continue to evolve to compete with the United States in Brussels and in Berlin and in Paris and in SEO and in Tokyo.

David Greely (13m 07s):
And are there certain metals or areas in that space that you think might have the strongest opportunity?

Brian Menell (13m 14):
We as TechMet focus on seven metals or groups of metals where we see the greatest opportunity to have a impact on global supply and where we see the most compelling supply demand dislocation that we are at the beginning of. So we have chosen to do lithium nickel, cobalt, rear of metals, tin tucks from vanadium and to build across the value chain reasonably spread across production, processing, refining, recycling and in the case of US vanadium and Arkansas industrial waste processing for specialty metals and metal chemicals. So you know, that is our positioning. It's not, you know, we are a private diversified, critical north supply chain security and industrial project development company.

David Greely (13m 59s):
It seems like the recycling aspect is kind of a growing part. I don't know how many people are aware of, I was wondering if you could just take us through that and how much is that space growing out? I know you need a certain amount of the metal in use obviously before the recycling aspect becomes economically important, but how do you prepare for that?

Brian Menell (14m 18s):
Yeah, we have done a lot of work on recycling, having funded and built lifecycle and they exited and now fund funding and building a next generation lithium on battery recycling company momentum in Texas and was preparing to build our first commercial cloud in Ohio and that's specifically the recycling of black mass from lithium on batteries. So that's the only recycling we really know about. Obviously recycling of other critical minerals is likewise important but if we could just focus on lithium batteries, it's extremely, the market has come a long way. There are a lot of players in the space, there are a lot of new technologies that can recycle lithium batteries successfully and commercially with high recoveries. It's become a very competitive space since we first started investing and engaging in battery recycling in 2018. So it's a tough industry to compete for feedstock to build volumes from which you can generate returns, but it's possible and it's gonna happen and it's gonna be a substantial and important part of the battery metals ecosystem going forward.

Brian Menell (15m 32s):
And in our view, in 10 years' time, recycle materials could account for up to 25% of the supply of battery metals into the manufactured new batteries, which is very material and very important I guess in three ways. One is it's puts value back into the supply chain and hence helps to drop the cost of batteries and increase the pace of adoption and growth. Number two, it deals with a major environmental issue because spent and damaged and end of life lithium batteries are a big environmental pollution issue that need to be dealt with and thirdly, it displaces reliance on Chinese controlled supply chains from newly mine materials. So it is really important that needs to be supported. Technologies and innovation need to be encouraged in order for it to fulfill that potential over the coming years, not only for end of life batteries but in the shorter term much more so for industrial waste, you know, scrappage and wastage in new battery manufacturing facilities which right, obviously there's a lot. So that's really the base load feed of recycling for the years to come while end of life batteries are starting to come into the pipeline in volume.

David Greely (16m 49s):
I wanted to return to the politics of all this, you know, president Trump returned to the White House last week and signed a flurry of executive orders with important implications for battery metals and critical minerals. What's your understanding of the new administration's approach to battery metals and critical minerals?

Brian Menell (17m 07s):
I think clearly there is a big change in narrative and in prioritization. I think where there's not a big change is in the priority focus on critical mineral supply chain security because it is a key front in the competition with China. It's a key component of national security and feeding effects industries and it's a very key component in industrial competitiveness to fuel growth at jobs and all of those things will continue to be very high and in fact increasing political imperatives and priorities. So I think while a lot of the programs firstly, I mean we, as I mentioned, our first equity investment into TechMet was through the DFC from US government was under Trump won. So you know, a lot of what we did to define and build our strategy and our portfolio was in consultation with the then Trump administration's focus on this area and a lot of the same people involved and the focus of critical supply chain security and cuts of China and industrial protectionism and competitiveness have not gone away. They grow it. So a lot of the programs that have been evolved across numerous government departments to support this space, you know, they might be somewhat repurposed and reprioritized but they're not going away. They're equally as important today as they were yesterday and they'll be even more important tomorrow.

David Greely (18m 42s):
And what would you like to see the new administration do in this space?

Brian Menell (18m 47s):
I think the new administration has, I think the vision and the ambition to do new things on a large scale and to be less beholden to precedent and bureaucracy than some previous administrations in order to be able to be bold and imaginative and change the paradigm and critical minerals and the security of supply to US industry and domestic processing and domestic production are areas that require really bold government action in order to catalyze the scale of growth that the country and the world needs. And I think and hope that we'll see, you know, innovative and bold moves to support our industry. And some of those will use existing tools and programs and some of them will be new tools and new programs.

David Greely (19m 40s):
And you have talked a lot about the importance of this given China's increasing dominance across the supply chain in battery metals and vehicles. And I was wondering if you could put that in perspective this week, of course in an entirely different area in the artificial intelligence area, you've had deep sea come out and I think people have kind of been blown away by how innovative China is in that area kind of unexpectedly so. But I feel like people in the, the manufacturing mining area have been seeing that it's almost like a different and a qualitative way what China's been able to do in this space. I was wondering if you could put that in context about when you look at what's being done by China around the world in manufacturing, in production, how good have they gotten?

Brian Menell (20m 26s):
They have done an extraordinarily effective job and their performance across all of these metals in terms of primary production processing component manufacturing has been an extraordinary achievement. Achievement and they have been doing it over the last 15, 20 years during which time they've built these overwhelmingly dominant position and our metals, all of our metals are controlled 60 to 95% of global supply by Chinese interest. And that's an extraordinary achievement. I mean some of that achievement arose out of innovation, but a lot of that achievement just arose outta the fact that everybody else was sleeping and they had cheap government money, they had lower environmental standards that allowed them to build, you know, quicker and bigger and more competitively. They had built economies of scale, which you know, and all of the value of that in terms of economics, in terms of incumbency with respect to refining process technologies. So they have just done a remarkably successful, effective and comprehensive job across all of these critical minerals.

David Greely (21m 32s):
And now the countries outside of China are in effect needing to play catch up. What do you think we have to learn from their success?

Brian Menell (21m 40s):
There is a lot one can learn about governments, regulators, financiers focusing on medium term strategic objectives and therefore having a degree of flexibility with respect to the short term challenges and economics to target those medium term objectives. But that's a difficult thing for us to do. I don't think we can out Chinese, the Chinese, they operate from a very different political and economic paradigm. What we can try and do is out innovate the Chinese and out regulate the Chinese. And I think that's what has started in the US and Europe and has to go a very long way in order for us to succeed and succeeding is not replacing the Chinese capacity and technologies and position that they have acquired. It's balancing it because the Chinese, you know, they're not doing this for fun, they're doing it to have an extremely potent weapon in their arsenal, which they are starting to use and will increasingly use it two ways. One is to either threaten or act in any escalation of global diplomatic or trade conflict. And the other is clearly to advantage their domestic industry relative to the industries in the US and Europe and elsewhere in order to dominate global EV supply as they did solar cells rather than to sell lithium hydroxide to VW, which is a much less interesting thing for China Inc. to do in terms of sustaining domestic economic growth, domestic employment, domestic wealth creation, which again, from their perspective is a political and security imperative.

David Greely (23m 21s):
And when you look around the world outside of China, whether it's the US Europe, Australia, other countries, are there approaches you are seeing being taken now even if they are in the early phase that you are like, yeah, that's, we need to be doing more of that?

Brian Menell (23m 35s):
There certainly are. I mean the Australians in terms of their funding support for domestic mining and processing have been not inconsiderable and somewhat innovative, albeit early days, the inflation reduction act and some of the bipartisan infrastructure still programs in the states have obviously done a lot to move the dial and catalyze action in Europe where there's a lot of initiatives, you know, again somewhat in their infancy but will mature and will evolve. They are however, all subjects unfortunately to politics and bureaucracy, which can does to an extent sabotage the scale and efficiency of their deployment and that we have to do the best we can to minimize the impact of,

David Greely (24m 20s):
Have you seen examples where that minimization of the negative impact of politics has been effective or is that a puzzle we are still trying to figure out?

Brian Menell (24m 29s):
I think it's one of the challenges of our system and you know, there are places where it has been done better and places where it's been done worse, but it's never not a challenge other than in countries that obviously like China who have very different systems where one can exercise top down authority over private sector and public sector money and technologies and industrial development much more effectively. But as I previously said, we are not going to out Chinese, we have to out innovate the Chinese and we have to out democracy the Chinese and mobilize popular will to support government action in these industries by continuing to educate people with respect to the implications of failure of critical minerals, supply chain security and the imperatives of success.

David Greely (25m 20s):
Maybe switching gears, I know you recently attended the Future Minerals Forum in Riyadh Saudi Arabia. I am curious, what was the mood there and were there any key takeaways from you from the discussions?

Brian Menell (25m 33s):
The mood was generally positive despite the weak present market environment. You know, I think the industry and the sovereign wealth funds in the Gulf certainly see what we see with respect to severe structural shortages, medium term imperative to scale and transform our industry and massive consequences of failure and obviously massive opportunities and value creation in success. So I think what the Saudis are talking about, the tars in Abu Dhabi, I mean we received as TechMet very substantial investment from the QIA in our most recent funding round as the sovereign wealth fund of Qatar who being extremely progressive and engaging and fully in aligned with our vision and our values. Likewise, what various sovereign structures institutions in Saudi are doing, and Abu Dhabi and elsewhere will become very, very important for our industry in order to fund what we need to do, which western funding institutions are not still doing need to do and dabbling in it, but not anything like on the scale that's necessary and western state institutions are doing a lot more than they were, but again, somewhat limited and clumsy and bureaucratic and therefore sovereign funding sources from the Gulf, you know, will make a very big difference.

David Greely (27m 01s):
You, I wanted to dig into that a little bit with you because when you think about that long-term patient money that can see the medium term, are we looking more towards the sovereign funds as potentially the, the important link in the capital markets relative to say Wall Street or the big commercial banks?

Brian Menell (27m 20s):
I mean we need all of those sources of funding to do what we need to do to transform metals and mining industry. The sovereigns PA are leading and that leadership is really important and hopefully catalyzing of more funding support from big financial institutions and banks in the capitals of the world or the western world who continue to lag radically and they lag radically because, you know, mining and metals historically is being perceived as being fundamentally high ESG and PR risk and therefore best led to somebody else, mainly the Chinese. Their expertise in our space has largely been denuded over the last 20, 30 years. So their ability to assess risk and value is limited and they have limited appetites until they are incentivized or forced to do it, to build that capacity and expertise and they are generally kind of bureaucratic and conservative. So for all those reasons we're being failed by Western financial institutions and therefore the leadership of sovereign funding institutions in the Gulf and elsewhere is crucial.

David Greely (28m 28s):
That seems like such an important point. Sometimes Wall Street gets portrayed as the masters of the universe, but you know, you kind of say that this, this resistance to taking risk or to having the, the knowledge and the experience to back important projects. Does it really require the sovereign funds at this point to be the ones who will take the lead and as you say, catalyze kind of get everyone else to be the followers?

Brian Menell (28m 52s):
It does and that's what's happening. Sovereign funds and government agencies in the US and elsewhere who have an enormously valuable role to play in dropping cost to capital and de-risking capital structures in order to bring in risk averse other funding from private sector institutions.

David Greely (29m 15s):
Such a big shift. And I wanted to ask you about some of the other big shifts as we kind of try to wrap this together for our listeners and with the idea that we need to kind of mobilize people in a democratic way. I was curious if you could kind of pull together what are the

big trends, the mega trends that the battery metals in critical mineral space is facing, and how do we need to be changing how our supply chains work so that we can meet these trends in a democratic sustainable way while maintaining reasonable environmental standards?

Brian Menell (29m 49s):
There is a lot of innovation both in terms of traceability, in terms of managing environmental impact and social interface and carbon footprint, which are essential for us to continue to fund and encourage and commercialize and that's really, really important because we not only need to radically transform our industry in terms of volumes, we obviously want to radically transform our industry to prove to funders and prove to consumers that mining can be responsible. It can be low environmental impact, it can be low carbon footprint, and it can be very constructive from a social and political interface point of view. So all of that requires money, it requires innovation, it requires commitment, and all of that is happening, but we need to do it in a manner that's competitive because otherwise we are not going to produce batteries and electric vehicles or anything else at a price point that is going to accelerate their adoption and growth and achieve the ends that we want.

Brian Menell (30m 56s):
And the ends that we want are industrial growth jobs. The ends that we want are a kind of clean, safe world and the ends that we want are democracy and stability. All of those require what we do and require us to do it better, better and do it differently because those objectives aren't achievable with our innovation process. Technology, innovations, traceability, innovations, component manufacturing innovations to use less of stuff that's more difficult or more expensive and more of a easily attainable and producible materials. And that is, those are all areas where we can compete in the United States can outcompete everywhere in terms of innovation and dynamism and imagination, and that's what we need on a bigger and bigger scale.

David Greely (31m 49s):
Thanks again to Brian Menell, CEO and Chairman at TechMet. We hope you enjoyed the episode. This concludes our series, the State of Play in Battery Metals. We will be back next week with our new podcast series, Carbon Frontiers 2025. We hope you will join us.

Announcer (32m 07s):
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