ALIGN
RESEARCH

Corcel

29th July 2021

Blue-sky battery metals exploration & flexible grid solutions offers a compelling play on the decarbonisation of the global economy

Corcel is best known for its vast PNG nickel laterite Mambare Project which was once valued at £40 million. It has been a bit quiet over recent years as the company has gone through a substantial restructuring since the previous Chairman was removed by shareholders. The decks have now been cleared and a period of substantial growth has begun. With James Parsons now at the helm and the 12 month "legacy clean up" behind them, investors are now witnessing the creation of a highly relevant vehicle.

Positioned to benefit from expected price hike in battery metals

The transition to a low carbon world needs grid level storage for renewables to be a viable and stable source of energy. **Hence we are seeing investors clamor for exposure to batteries and battery metals where a supply crunch is expected in the mid-2020s onwards with big structural price hikes.**

Mambare is positioned to become a DSO nickel supplier to China

A Mining Lease could be awarded within 4-6 months allowing a DSO operation to proceed, funded jointly with a JV partner. Together with Wowo Gap, another big PNG nickel project that looks like it is coming to the Company, Corcel is set to become a major nickel-cobalt player in the region.

Big opportunities as the UK switches to flexible power generation

Corcel is investing in energy storage/renewable projects to provide critical services to the UK grid as it transitions from coal/nuclear generated power to renewables. **Already, the team has 170MW of well-advanced projects, strongly backed by a major pipeline of projects that are under review.**

Peer comparisons & industry metrics suggest over 900% upside

Our conservative valuation begins to show the potential. We update coverage of Corcel with a target price of 19.35p and **Conviction Buy** stance.

Table: Financial overview. Source: Company accounts & Align Research

Year to end June	2019A	2020A	2021E	2022E
Revenue (£'000)	-	-	-	2,100
PTP (£'000)	(2,608)	(1,482)	(1,080)	370
EPS (p)	(26)	(2)	(0.72)	0.10

This investment may not be suitable for your personal circumstances. If you are in any doubt as to its suitability you should seek professional advice. This note does not constitute advice and your capital is at risk. This is a marketing communication and cannot be considered independent research.

CONVICTION BUY

Price target – 19.35p

Key data

EPIC	CRCL
Share price	1.625p
52 week high/low	2.40p/0.75p
Listing	AIM
Shares in issue	384.79m
Market Cap	£6.3m
Sector	Mining

12 month share price chart

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IMPORTANT: Corcel is a research client of Align Research. Align Research own shares in CRCL. For full disclaimer & risk warning information please refer to the last page of this document.

Business overview

Corcel Operations

Corcel PLC is an established AIM-listed resources company with a growth strategy focused on exploring for battery metals and developing flexible energy storage and production assets. The company is seeking to use energy generation and storage revenues to support corporate overheads as well as to finance the further development of its blue-sky battery metal mining opportunities.

• **Mambare Nickel/Cobalt Deposit** – The company has a 41% interest in this project in SE Papua New Guinea (PNG) which lies 90km NE of Port Moresby. Mambare is one of the world's largest laterite deposits and has seen a substantial amount of exploration effort. **Even so, just 3% of the main target has been drill tested, creating very substantial upside potential.** Currently, an application for a Mining Lease is underway which will allow for a planned direct shipping ore (DSO) operation.

• **Wowo Gap Nickel/Cobalt Deposit** – Also in Papua New Guinea and providing obvious synergies with Mambare, is the Wowo Gap deposit where a DSO operation has also been contemplated in the past. **Corcel has a A$4.7 million senior debt position in ASX-listed Resource Mining Corporation, the 100% owner of the Wowo Gap Nickel Project, and it looks as though this project is likely to be acquired in exchange for debt forgiveness.** The board sees the opportunity to create a significant regional nickel-cobalt player with these two large scale projects.

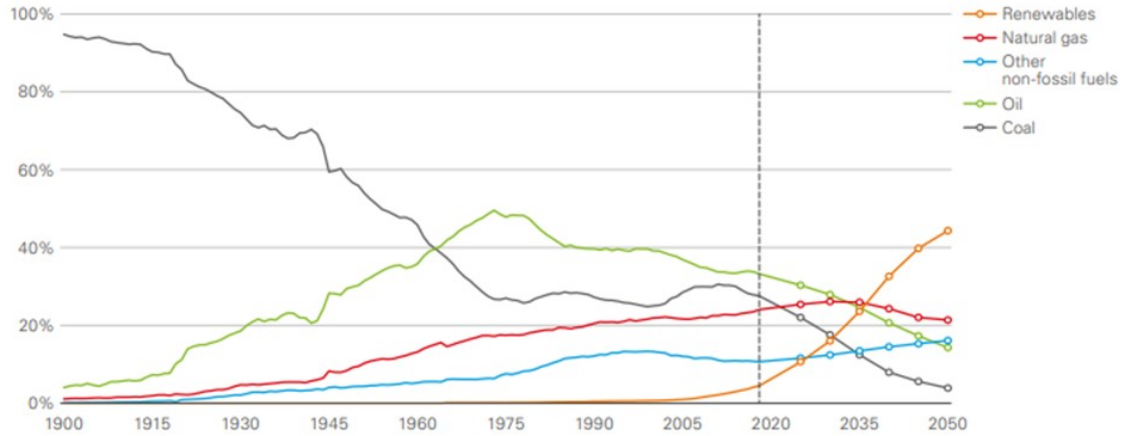
• **Dempster Vanadium Project** – Corcel has a 50% interest in this vanadium project that is located in the Yukon in Canada. This project has more than 20km of potential strike where the target is vanadium black shale deposits which are similar to projects being developed in Nevada. **Recent exploration has been highly encouraging and looks like it will generate accessible drill targets for 2021**.

• **Flexible Grid Solutions (FGS) –** This business unit is a developer of UK based energy storage and flexible power generation projects. As the energy mix in the UK transitions from base load generation provided by coal and nuclear power generation to become largely reliant on renewables, there are significant opportunities. Such investments neatly fit in with the UK's Net Zero 2050 initiative which concerns greenhouse gas emissions and increasing pressure on the UK grid. **Corcel has a 100% interest in the Burwell Battery Storage - a 50MW project (100MW grid connection) in Cambridgeshire which the team are rapidly moving to a shovel ready status. More recently the Company acquired interests in two gas peaker projects, now owning 40% of the Tring Road 50MW site and 100% of the Avonmouth 50MW installation. Both of these gas peaker opportunities are fully shovel ready and add immediate impact to the FGS portfolio.**

Burwell substation, location of the company's first FGS project. Source: Company

Climate change and energy transition

Climate change is considered to be the major environmental challenge facing the world. The Paris Agreement was designed to control and reduce greenhouse gas emissions and became the centre piece of the 21st Conference of the Parties (COP21) to the United Nations Framework Convention on Climate Change (UNFCCC), which took place in Paris in December 2015. The event was a watershed moment in the way in which the world interacts with the earth's atmosphere. But it really represented just the first step in a long process designed to hold countries accountable for their emissions of any CO_2, methane, and other greenhouse gases. Today, CO_2 emissions are rapidly becoming a significant liability for any emitter.



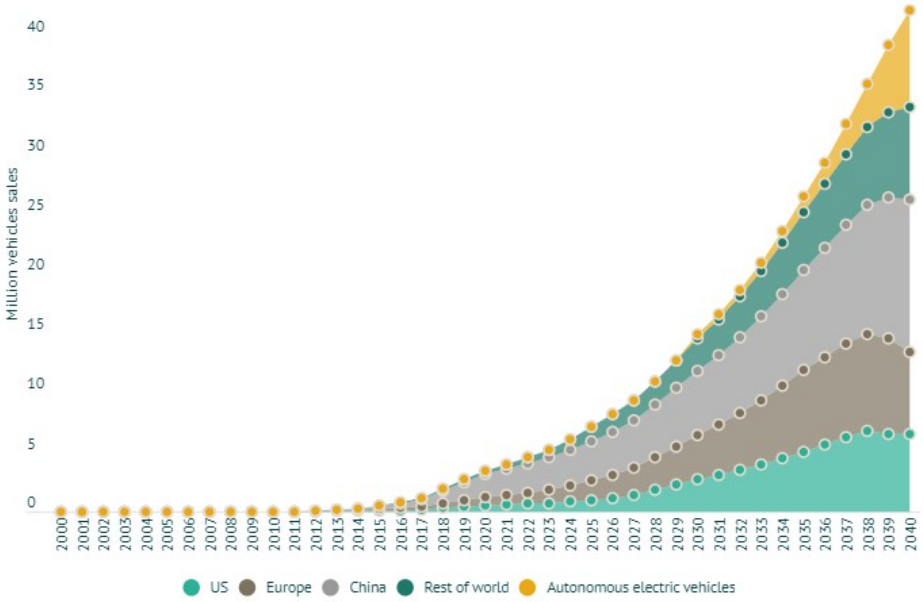
Low carbon transition – shares of primary energy in BP's rapid scenario.
Source: BP Energy Outlook 2020

The transition to a low carbon world has begun in earnest. Renewable energy is set to play an increasingly important role in meeting the planet's energy needs. **The Energy Research & Consultancy group Wood Mackenzie reckons that by 2032, renewables will overtake conventional power sources, making them the world's fast-growing energy source**. The electrification of transport, homes and industry will require substantial investment into electricity generation for decades. Technological advances mean that the cost of developing renewables has been falling significantly, resulting in renewables like wind and solar becoming cheaper sources of electricity than those generated by fossil fuels in most parts of the world. But to be a viable and stable source of energy for the grid, these renewable sources must be paired with flexible energy assets.

The switch to renewables and changing demand habits is rapidly resulting in energy storage being seen as the next major frontier in electrification. Battery storage can effectively integrate high shares of solar and wind renewables in power systems around the world. Storage batteries offer a viable solution for storing intermittent energy supplies associated with renewable energy and so it is of little surprise to see that the global energy storage market is growing fast. Wood Mac believes that in 2018 the market expanded to record levels with 147% year-on-year growth in GWh terms. In the next four years it expects to see growth in all directions as storage markets balloon. By 2024, the forecast is that the global market will increase to a sizeable 44GWh.

Battery metals

Mass electric vehicle (EV) adoption is now becoming a real possibility. Range, cost competitiveness and availability of charging stations might continue to be the biggest hurdles to EV adoption, but matters are changing rapidly. Governments around the world are ushering in regulations that favour EV use. This is being led by the UK government which is now set to ban the sale of new petrol and diesel cars by 2030 in its plan to accelerate the switch to EVs.



Electric vehicle sales forecast to 2040. Source: Wood Mackenzie

In 2020, Tesla sold close on 500,000 EVs and the increase in EV demand seems to have re-ignited investors' interest in battery metals. Big changes to EV economics, along with technical innovations, are serving to disrupt the metals markets. **Critical battery metals include lithium, nickel, cobalt and vanadium where there are now increasing concerns that a supply crunch from the mid-2020s onwards across all these four key metals will cause upward pressure on prices.** Below we investigate the three battery metals which Corcel currently offers exposure to.

Nickel

Nickel is seen as one of the critical metals for use in batteries as its inclusion facilitates the necessary energy density. Importantly, nickel also comes at a much lower relative cost than other effective battery metals. In the past, the use of batteries was confined to consumer electronic products, but the rapid rise in EVs, which require much larger batteries, has focused increasing attention on nickel. **Industry analysts forecast a significant increase in global nickel consumption for batteries in both the EV and energy storage markets.**

Moving forward, it does increasingly seem that the prospects for nickel will be driven by EVs which look set to remodel demand. Concerns about pollution and environmental benefits are creating a dramatic increase in the adoption of EVs globally. Rapidly rising demand has also been fuelled by green legislation being embraced by many countries including the UK, India, Germany, France, Norway and China. **Morgan Stanley believes that by 2050, four out of every five cars sold will be a battery-electric vehicle.** Already, recognition of nickel's importance as a battery metal in EVs and energy storage applications, along with increased demand in China, has led to a sharp positive price movement. Electric vehicle manufacturers are now acquiring upstream deposits and offtakes.

Cobalt

There is no doubt that cobalt is a vital component of lithium-ion batteries in EVs which allow the structural integrity of the battery cathodes to be maintained. Cobalt's role is to provide high energy density for batteries and give them a longer life span. In addition, the metal also improves the thermal stability of a battery, thus improving its safety. It is cobalt's high energy density that allows batteries to be energy dense and lightweight.

Cobalt is the key to battery stability and so far, no viable alternative exists. The metal is also used in smart phones and laptop batteries as well as EVs where each vehicle requires 6-12kg of the material. In all, around 50% of cobalt produced around the world is used for rechargeable batteries. Cobalt is usually mined as a by-product of copper and nickel mining, which serves to make it harder to obtain.

For all the above reasons, Cobalt is essential for EV manufacturers and Tesla agreed to buy 6,000tpa from Glencore a few months ago. A report by researcher Benchmark Mineral Intelligence published in November 2020 forecast that the battery industry will need a further 100,000t of cobalt by 2025. **The researcher reckons that in 2020, 57% of the world's cobalt demand will come from the battery sector but see that rising to 72% over the next five years.**

Vanadium

Demand for vanadium looks as though it could rise substantially due to the advancement of vanadium redox flow battery (VRFB) technology. In a nutshell, VRFBs store energy in liquid vanadium electrolyte (which makes up to 80% of the VRFB) that never degrades. **This looks like being the ultimate green energy storage system as the hardware can be recycled whilst the vanadium can be used repeatedly.**

VRFBs are fast being heralded as the most sustainable and advanced technology available for large scale energy storage for electricity generated by solar and wind. **These redox flow batteries can discharge and recharge up to 20,000 times with little performance loss.** In fact, VRFBs do seem to offer the potential to give rise to a true revolution in power grids and brand-new applications based on sustainable energy storage. The real key to the full-scale commercialisation of this green energy storage technology looks as though it hinges on having a sustainable supply of vanadium.

For these sorts of reasons, the World Bank in a 2019 report on battery metals said that vanadium would be one of the top five minerals and expected that there will be a significant increase in demand by 2050 on the back of a forecast 500% increase in demand for battery metals. This is all to meet the mushrooming demand for clean energy technologies.

Corporate Background

Corcel plc is the old Regency Mines plc which was founded in 2004 and listed in London in 2005. On flotation, Regency had a number of option agreements over exploration licences applications in Australia. Soon after listing, Regency acquired the Mt Ida iron ore project, north-west of Kalgoorlie in Western Australia, which formed the basis of the AIM-quoted Red Rock Resources when it was spun-off in 2005.

In 2006, the company acquired a 75% interest in the 584km² nickel/cobalt exploration interest covering the Mambare Plateau in Papua New Guinea, which it subsequently increased to 100%. The decline in the nickel price in 2008 led management to move the focus of its exploration efforts to nickel sulphide opportunities in Western Australia, which had lower processing costs and substantially lower capex costs than nickel laterite projects. In 2009, the company acquired various prospective nickel sulphide tenements in Western Australia.

One of the keys to unlocking the value at Mambare has always been to have access to an economic beneficiation technology. The company's search led to a 50:50 joint venture being agreed in 2009 with Direct Nickel, a company which had the requisite nickel treatment technology. The joint venture company has a 100% interest in Mambare along with a licence to use DNi's technology. **In 2012, the maiden JORC-compliant Mineral Resource Estimate for Mambare was announced together the successful operation of Direct Nickel's pilot plant in Perth, Australia.**

Over the years, the company has been involved in Australian exploration interests in the Fraser Range, onshore oil interest in the UK near Gatwick Airport (Horse Hill Developments - HDDL), a US onshore West Virginia shallow-oil project, the Motzfeldt Multi-Element Project in Greenland and the Rosa metallurgical coal mine in Alabama, USA amongst others.

In 2017, the interests in the HHDL were sold, netting the company a profit of around £1.8 million. These funds were invested in the then newly launched Battery and Storage Technologies Division. **Since then, Corcel acquired a 50% interest in the Dempster North American vanadium project in early 2019.**

A strategic review in 2019 resulted in the company being refocused around mineral interests in nickel and vanadium alongside existing business in UK flexible energy assets. The interests in metallurgical coal and natural gas were held as non-core assets for future realisation.

In December 2019, the company's energy storage business seemed to come of age with the execution of an MOU with ion Ventures with a view to partnering up with the company to identify commercially attractive projects, securing funding and moving to cash flow. Straight after this move there was news that James Parsons had joined the board and there was a 1-for-100 consolidation to make the stock more attractive to investors.

The name was changed in August 2020 to Corcel as part of a larger rebranding effort, which better reflected the company's strategy to develop its businesses across the battery metals exploration and flexible grid solutions space.

Operations

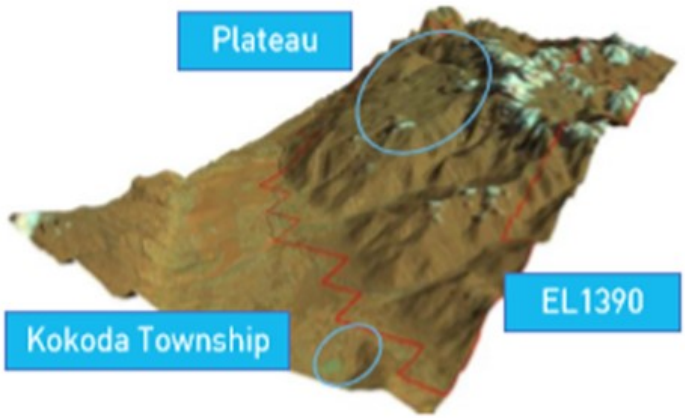
Corcel has a clear growth strategy focused on battery metals exploration and flexible energy asset development. The company is seeking to use energy generation and storage to support corporate overheads as well as finance the further development of its blue-sky battery metal mining opportunities.

Battery Metals Exploration

Corcel identifies, evaluates and develops mineral exploration projects in critical battery metals at a number of projects around the world. The forecast rapid increase in demand for batteries for EVs etc. is pointing towards a looming supply crunch for metals such as nickel, cobalt and vanadium. The company has worked hard to position itself in these key battery metals ahead of these expected structural price rises.

Mambare Nickel/Cobalt Project (41%)

The Mambare Plateau in Papua New Guinea represents one of the world's largest laterite nickel/cobalt deposits. The project is located 90 kilometres inland north-east of Port Moresby, near the village of Kokoda. This joint venture company has a 100% interest in licence EL1390 which covers 256km², with a nickel-cobalt laterite deposit in eastern PNG. Mambare is 100% owned by Oro Nickel Vanuatu, which is a joint venture between Corcel 41% and Battery Metals Pty Ltd 59%. The project is licenced to use Direct Nickel's revolutionary nickel laterite treatment process.



Mambare nickel laterite project. Source: Company

On the Mambare Plateau, the weathered ultramafic bedrock has formed significant layers of nickel and cobalt bearing lateritic and saprolitic material which are overlain by volcanic ash up to six metres in thickness. Laterites are rich in iron and aluminium and are a rusty-red colour due to the high iron oxide content and are caused by tropical weathering. Saprolites are also chemically weathered rocks but form a lower zone and represent deep weathering of the bedrock surface.

Exploration

Mambare was explored in the 1960s with fairly good results. Between 1960-71, there were a total of five exploration phases conducted by different operators totalling 240 auger holes, 56 test pits and one costean (a small pit through the superficial deposits down to solid rock). In 1999, Anaconda Nickel Ltd carried out data compilation of the previous work over 158km² of Mambare plateau.

In 2006, Regency acquired a 75% interest on a 584km² exploration licence from a private entity for £45,000. Regency went on to commence the first phase drilling programme on 100 metre centres at the southern end of the licence area. A total of more than forty drill holes were completed by hydraulic auger drill and wacker drill.

The 2008-09 period saw Regency gain a 100% interest in Mambare and successfully conclude the first phase of the exploration and drilling programme, producing 4,000 metres of drill core from 335 drill holes. One of the keys to unlocking the value within Mambare has always been access to mineral processing technology which was both economical and provided decent levels of recovery. To achieve this, the company entered into a 50:50 joint venture agreement with Direct Nickel Pty Ltd (DNi).

The DNi process is designed to process nickel laterites and has been tested at a pilot plant stage in Perth. The process is sustainable and cost effective using nitric acid, with 95% of this acid being recycled. As well as having very reasonable operating costs, capital expenditure is also low by industry standards and in particular scalable; not requiring expensive high atmospheric pressure tanks. **The Mambare project is licensed to use DNi's revolutionary nickel laterite treatment process up to a production capacity of 40,000tpa.**

The then joint venture partners were committed to the development of Mambare as well as piloting and applying DNi's advanced nickel-cobalt extraction technology. In 2010-11, the second phase of the exploration and drilling programme began, which comprised of 220 holes for a total of 4,000 metres. Also, during this period, an exploration licence application was filed to explore the region for geothermal targets in order to meet the potential power requirements of the project. The team believe that the combination of green geothermal energy and a world-class nickel laterite project coupled with DNi's technology could result in the potential project operating in the lowest quartile of world nickel production cash costs.

JORC-compliant resource

The extensive drilling programme allowed the joint venture partners to announce a JORC-compliant Indicated and Inferred Mineral Resource Estimate (MRE) in 2012 of 162.5Mt @ 0.94% nickel and 0.09% cobalt giving 1.53Mt of contained nickel at a 0.60% nickel cut-off grade, which was announced in April/May 2012. This included 47Mt @ 1.23% nickel at a 1% cut-off grade.

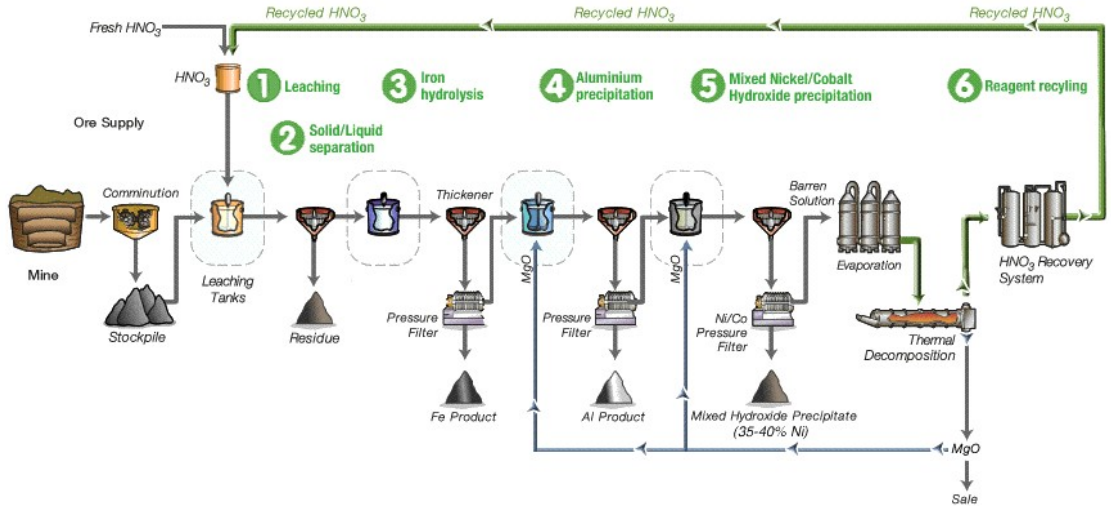
	Mt	**Nickel %**	**Cobalt %**
Indicated	3.3	1.00%	0.07%
Inferred	159.2	0.94%	0.09%
Total	**162.5**	**0.94%**	**0.09%**
Contained metal (Kt)		**1,528**	**146.25**

JORC-compliant MRE for Mambare Nickel/Cobalt Project June 2012. Source: Company

In all, there have been 477 core holes (average 16.3m depth) 297 auger holes, 45 wacker holes, 61 test pits and 1 costean drilled and dug over the years. In addition, there has been extensive ground mag, ground penetrating radar, airborne mag & radiometrics analysis, along with a satellite topography survey. **The resource at Mambare could be far, far larger than this MRE outlines as it was calculated primarily over the flank of the plateau which includes just 2km² of the 80km² of the plateau, 3% of the main target of the project (which has been drilled tested).**

Direct Nickel production technology

In the past, the company's joint venture partner at Mambare was Direct Nickel. Now the joint venture partner is Battery Metals Pty Limited (BMA) which is decedent of sorts from Direct Nickel and has a proven DNi Process™ for extracting valuable minerals from laterites. The DNi Process™ is protected by registered patents and has been demonstrated to have both low opex and capex. The key to the process is the use of nitric acid as the leaching agent.



Simplified schematic diagram of the Direct Nickel Process. Source: Direct Nickel

The DNi Process™ is an atmospheric hydrometallurgical route designed to treat all types of nickel laterite ores, in a single flow sheet to produce a number of final saleable products. Direct Nickel believes that the DNi Process™ is the only process available which can treat the whole limonite/saprolite profile (from 90% limonite to 100% saprolite) enabling maximum economic recovery. Limonite refers to a type of laterites (also known as oxide type) which are highly enriched in iron due to very strong leaching of magnesium and silica.

Direct Nickel's pilot plant. Source: www.chemicals-technology.com & Direct Nickel

The technology seems to have some clear advantages over the alternative methods which largely rely on some type of high-pressure acid leach. These methods all seem to have high capital and operating costs which are due to high temperatures, high pressures and/or the large consumption of reagents. By comparison, DNi's technology uses commercially available components, with no applied pressure, mildly elevated temperatures, recycles 95% of the reagents and offers a far lower cost alternative.

Amended joint venture agreement

Progress has not been as swift as hoped due to a period of poor nickel prices. In April 2020, the Mambare partners amended the JV agreement to help drive forward future activities and to reflect work done by BMA during the previous year. As a result, Corcel now has a revised 41% project interest, with BMA holding the remaining 59% via a 100% holding in Oro Nickel. Should a mining lease be awarded over the Mambare project, or at least to be recommended by the relevant PNG government agency by November 2021, then BMA's interest will increase to 65% and Corcel's holding would drop to 35%. The revised agreement required Corcel to pay BMA US$50,000 in cash along with issuing 4,909,610 new ordinary shares and 4,909,610 warrants (exercisable at 1.245p per share).

Direct Shipping Ore

Oro Nickel is currently progressing a plan to upgrade the existing exploration licence to a Mining Lease based on a direct shipping ore (DSO) operation. This DSO operation would be a simple operation which purely consists of excavating, drying and exporting raw ore, so would not involve any processing plant, chemicals, pipeline or tailings.

The amended JV agreement provided a big incentive for BMA to rapidly progress the award of a Mining Lease for Mambare. In early 2020, Corcel reported that a 230km line cutting exercise had been completed and that a ground penetrating radar (GPR) exploration programme was underway that was targeting 200km of surveys. At that time, it was reported that the Environmental Permit application had been submitted, the Exploration Lease renewal process was underway and also that the Mining Lease application material was being finalised. All of this work was in preparation for the commencement of a DSO operation at Mambare which would allow Corcel to benefit from the strongly growing demand for battery metals.

In the end, the application to renew the EL1390 Exploration Licences, encompassing the project, was submitted to the PNG authorities in March 2019 and is expected to be renewed by June 2021. In July 2020, Corcel was able to announce the result of a Warden's Hearing for Mambare, which represents an important milestone in the process of applying for a mining licence to conduct a DSO operation over a portion of this vast nickel-cobalt project.

Environmental Permit

In May 2021, the joint venture partners in the Mambare Nickel Cobalt Project received the approval of the Environmental Permit Ep-L2 (708) authorising the excavation of laterite ore deposit and DSO operations at Mambare. The approval is conditional, as is normal in PNG, on the activity complying with the Environmental Act 2000 and its policy objectives and on certain further plans and submissions being completed within three months. This process has certainly taken a while as the documents were formally lodged with the PNG Government way back in December 2018. This milestone represents one of the final hurdles before the award of a Mining Lease.

Wowo Gap Nickel/cobalt deposit

Wowo Gap is located at the south-eastern end of the Papuan Ultramafic Belt, a complex of peridotite, pyroxenite and gabbro that forms the prominent east-west trending Didana Range. The project hosts 125Mt @ 1.06% nickel and 0.07% cobalt Indicated Resource Estimate (JORC 2004) within the laterite profile based on drilling along the 12-kilometre strike length. The project lies roughly 160km east of Port Moresby.

Corcel has a A$4.7 million senior debt position in Resource Mining Corporation (ASX-RMI) which owns a 100% interest in the Wowo Gap Nickel Project and is focused on resource development at the project's main tenement EL1165 which consists of 28 Sub Blocks totalling 94.4km².

At Wowo Gap, the nickel mineralisation is associated with a laterite weathering profile which has developed over the underlying ultramafic geology. This has served to create an enrichment of nickel, cobalt, iron, chromium, magnesium and magnesite. Here the complete lateritic profile has been preserved, with partial truncation associated with recent drainage systems. The depth of lateritic weathering varies according to rock type and the degree that the rocks have been broken down into fragments. The lateritic profile is typically 10-15m thick, and more than 20m in some places.

Over the years this project has attracted a lot of interest. Exploration at the project dates back to the 1950s and has consisted of multiple drilling programmes, including diamond drilling, wacker holes and ground penetrating radar activities.

In 2008, RMI completed a Scoping Study that indicated that the development of this project would cost US$626 – 860 million. The study was undertaken by process and metallurgical engineering company Simulus which chose the production of a mixed hydroxide precipitate via heap leaching as being the most favourable out of nine possible options. An independent valuation of the project in 2009 showed a preferred valuation of A$168 million which was determined using peer comparisons with other similar lateritic nickel/cobalt projects, mainly in PNG, nearby Caledonia and Australia.

In 2010, an extensive drilling programme commenced to define the lateritic nickel resources at a drill hole spacing of 200m x 200m along the 12km strike of the project to determine an MRE (JORC 2004), although this has not been independently verified on behalf of Corcel and is not in accordance with JORC 2012. Following on from that in 2014, RMI announced a DSO Exploration Target of 40 - 60Mt at 1.6 -1.8% nickel.

	Mt	Nickel %	Cobalt %
Indicated	72	1.03%	0.07%
Inferred	53	1.09%	0.06%
Total	125	1.06%	0.07%
Contained metal (Kt)		**1,325**	**83**

Wowo Gap MRE (JORC 2004) dated 2011. Source: Company

In April 2020, Corcel acquired A$1.7 million of debt in RMI for £178,096 cash and 13.3 million shares (at 5p per share) which represented a 62% discount to the face value of the debt). Plus, there was a 6-month option to acquire the balance of A$3.05 million of debt for A$640,000 cash and 23.7 million new ordinary shares in the company. In November 2020, this was followed by Corcel executing the option and acquiring the remaining outstanding A$3.05 million debt. As a result of these moves, Chinese-owned Sinom Group became a significant shareholder in Corcel.

Wowo Gap lies 150km SE of Mambare and is a similar deposit with a slightly higher grade and clear synergies between the two projects. Discussions are ongoing with RMI to explore potential PNG consolidation with the possibility of creating a significant regional nickel player. **In the end, this deal could result in Corcel becoming a leading PNG exploration company with very significant scale in the region and the ability to get things done with the PNG government and mining authorities.**

Dempster Vanadium Project (Yukon, Canada)

The Dempster Vanadium Project is located in Yukon, Canada and lies some 65km north of the Eagle River Lodge. There is excellent infrastructure access with the whole project lying within easy access of the Dempster highway. In all, the project includes 196 claims over an area of 40.96km². Corcel has a 50% interest which was acquired in January 2019 for C$450,000, in a deal which saw the company effectively acquiring this interest for shares.

The project covers a mineralised trend which has over 20km of potential strike. The primary exploration target is vanadium in black shales which are termed Vanadium-rich Black Shale, or BSV deposits, which represent regional scale contract between two distinct sedimentary formations. In these types of deposits, the BSV horizon lies at the bottom of the upper formation and at the base of the BSV horizon is a discrete layer of metal-bearing, organic-rich black shale.

BSV deposits are suitable for low-cost mining/processing and at the moment similar sorts of plays are being developed in Nevada, US, by Cellcube, Prophecy and First Vanadium. Work in the past at Dempster has focused on the nickel potential and largely ignored the vanadium. A chance discovery led to geochemical sampling followed by the drilling of 7 diamond drill holes for 720.9m in 2006 which showed that then BSV horizon was broadly continuous within the property with minor offsets to vertical faults.

Hole no	From m	Interval[1]	V_2O_5[2] %	Comments
DV-01	62.63 95.96	3.67 1.77	0.40 0.15	Missed NiMo target
DV-02	32.18	5.32	0.47	Short hole stopped short of target horizon
DV-03	77.73	12.42	0.07	
DV-04	-	-	-	Lost hole
DV05	66.30	4.20	0.26	
DV-06	79.79 114.56	1.25 4.38	0.54 0.22	
DV-07	33.56	4.19	0.53	

[1] all intersections open up and down hole so the V_2O_5 intervals are potentially wider than reported

[2] vanadium ppm converted to V_2O_5 by a factor of 1.7852

Dempster Vanadium Property – drill intersection reported by Southampton Ventures. Source: Company announcement (Mark Fekete and Marty Huber, 2020, Exploration Proposal 2020)

The work on the Dempster Vanadium project conducted to date, as outlined in a report by Breakaway Exploration Management Inc., has confirmed that the shales underlying the property contain significant vanadium over broad stratigraphic intervals. The best results include 0.39% V_2O_5 over 75.9m, 0.32% V_2O_5 over 38.2m and 0.39% V_2O_5 over 90.16m. These intersections are comparable to grades and thicknesses for similar deposits currently being explored both in Canada and the United States and do really demonstrate the potential to host an economic deposit of vanadium.

Region	Company	Prospect	Hole no	From m	Interval m	Weighted average V_2O_5 %	Reference
NE Yukon	DVY196	Dempster	DV07-10	12.34	90.16	0.39	Fekete & Huber 2019
Nevada	First Vanadium	Carlin	RCC18-46	0.00	73.15	0.60	First Vanadium, 2019
Nevada	Prophecy	Gibellini	GIVC-5	2.13	23.17	0.32	Orbock, 2017
Nevada	Cell-Cube	Bisconi-McKay	BMK 05-02	7.01	98.15	0.53	Ullmer, 2016
Nevada	Victory	Iron Point	VM-26i	5.00	37.00	0.55	Victory. 2019
Northwest Territories	Vanadium North	Val	na	na	52.50	0.42	Regency, 2019

Dempster Vanadium Property – comparison with similar projects. Source: Company announcement (Mark Fekete and Marty Huber, 2020, Exploration Proposal 2020)

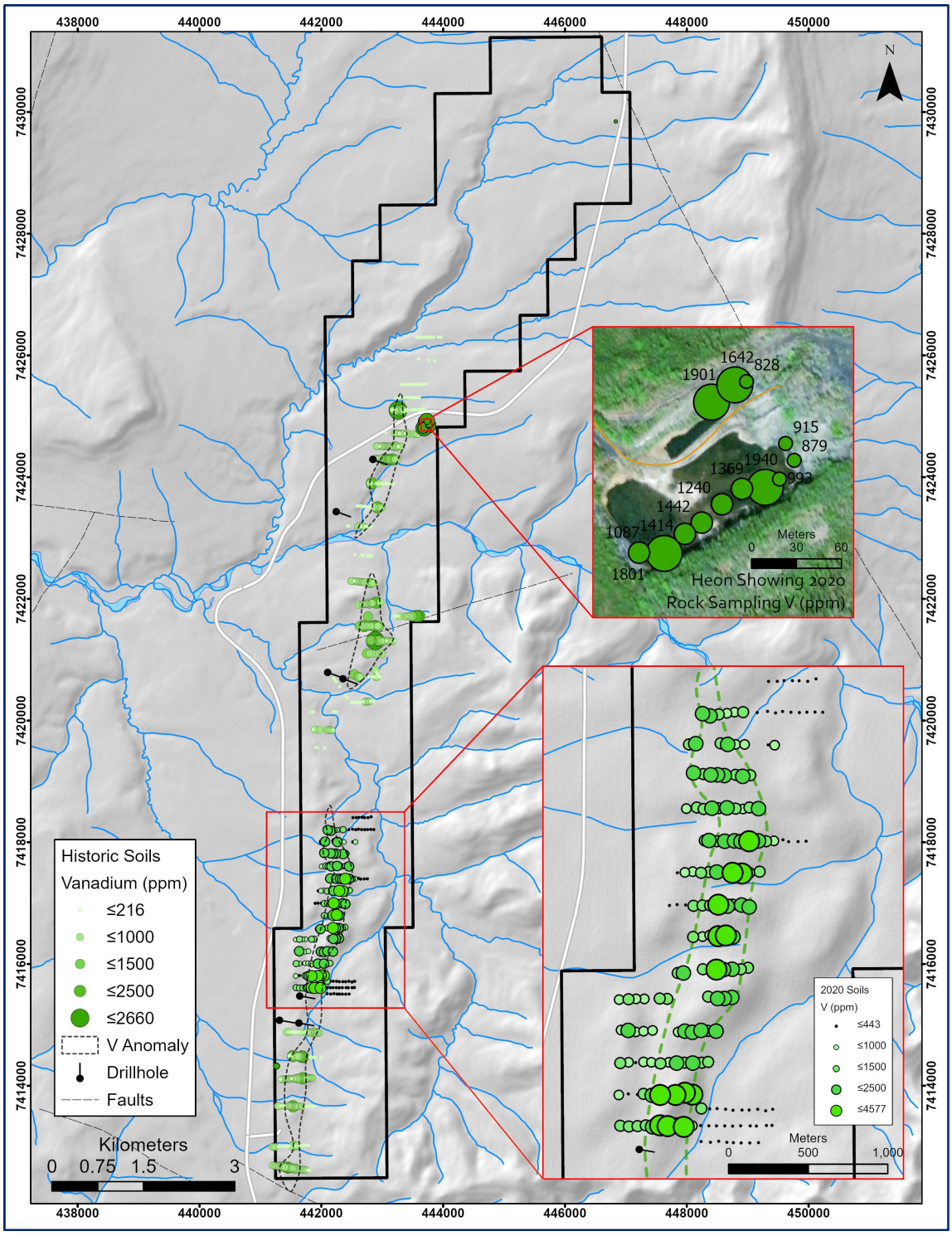
Recent exploration

The summer 2020 exploration programme was planned to increase the understanding of the geology at the site and included soil geochemical surveys to define drill targets for 2021. Some of the work on this project was undertaken in collaboration with a PhD candidate from McGill University who collected further data on metal enrichment, which contributed to an improved geological model.

Delays at Canadian labs, mostly due to COVID-19, meant that the results from the 2020 exploration programme were not announced until January 2021. In all, some 14 rock and 179 soil samples were collected during this work programme. **The rock samples yielded anomalous vanadium values in the 0.12 - 0.35% V_2O_5 range, with 13 out of the 14 also returning anomalous zinc and silver values.** Soil samples returned vanadium values up to 0.82% V_2O_5 with 18 samples equal or better than 0.40% V_2O_5. All this is shown in the map overleaf.

This latest rock sampling around the Héon indicated the presence and grade of the Canol Formation and has convincingly demonstrated that soil geochemistry is an effective tool to trace the vanadium bearing Canol black shales. It is noticeable that grades are higher than earlier reported drill core samples, which can be put down to the weathered rock being relatively metal-enriched. In addition, these latest results seem to show that Canol outcrops on surface further west than is shown on the government's geological maps.

These are excellent results, which indicated the presence and grade of the Canol Formation. Planning for the 2021 exploration programme is underway and it is expected that the team will have multiple accessible targets for near term drilling. Work will also involve extending the soil geochemistry and gaining a five-year operating licence for more advanced exploration, with the goal of targeting an initial NI 43-101 resource.



Soil and rock chip sampling results from the Dempster Vanadium Project. Source: Company

Flexible Grid Solutions

Corcel is also establishing itself as a developer of UK based energy storage and flexible power generation projects. There are impressive opportunities arising in providing flexible grid solutions (FGS) in the UK as the energy mix transitions from base load generation provided by coal and nuclear power generation to become largely reliant on renewables. The company is seeking to invest in projects and infrastructure required to provide critical services to the UK grid to flexible power generation and storage to smooth grid volatility and maintain system stability.

Such investments neatly fit in with the UK's Net Zero 2050 initiative which concerns greenhouse gas emissions and increasing pressure on the UK grid. Moving ahead, flexible energy production and storage capacity is vital to balance growing renewable power generation.

The board plans that such investments in renewables energy generation and energy storage projects will become the cash generative engine that will not only help to pay the company's overheads but also provide internally generated funds that can further finance and develop the blue-sky battery mining ambitions.

Strategic partnership

Corcel has a strategic partnership with ion Ventures Ltd, an investor in and also a developer of energy storage and flexibility assets. Ion's business model involves originating and developing energy storage projects as well as advising international energy developers. Following the financial close for individual projects, ion generates earnings through yield from its carried interest and management fees earned by having a continuing role as project manager and operator of assets. The ideal project is one with a good quick grid connection and a decent lease on the site.

With its strategy of focusing on opportunities in the transition to a low carbon world, the team at ion is seeking to develop a large asset base and provide solutions that maximise the returns. Nowadays, this company prefers taking equity stakes in projects rather than fees. In this way ion is seeking to establish a long stream of growing and reliable earnings stretching many years into the future. Basically, ion is acting as a technical consultant to Corcel and sharing its impressive project pipeline of energy storage and distributed energy projects in the UK with the Company.

Burwell Battery Storage and Solar Project

Corcel's initial FGS project is the 100%-owned Burwell Project, a 50MW (100MW grid connection) project which is located outside of the town of Burwell in Cambridgeshire. The company has the core ingredients, such as the grid connection already in place and is finalising the land lease and planning consent. The grid connection is a 100MW 132KkV connection available at the substation at Burwell and there are multiple expansion options including solar and storage.

The Burwell Energy Storage project is expected to begin operations in 2022, and intends to enter the capacity market in 2026, providing a fixed and guaranteed source of revenue over an initial 15-year period. This project is designed to be a virtual power platform with the aim of delivering 100% renewable energy through real-time connectivity between energy source, storage flexibility provided by batteries and demand response services. **Once constructed, the Burwell project will be a very sizeable part of the energy network in the Cambridge area and will generate significant cashflows for Corcel in the form of fees and a likely ongoing carry.**

In December 2020, investors learnt that Burwell's project economic review had been completed with positive results. This review was based on current revenue projections provided by potential project aggregator/trader Limejump, along with current capital cost estimates which thoroughly demonstrated that the 50MW battery storage project at Burwell is highly robust from an economic standpoint. On the back of this favourable analysis, the project is expected to move to shovel ready status shortly and then the focus will be on the financial close and ultimately construction and energisation. The project is expected to be funded through a Special Purpose Vehicle (SPV) structure, with Corcel taking a development fee and likely a free carry. In late 2020 Corcel acquired the remaining 50% interest in Weirs Drove Development Limited (WDD) and hence become the 100% owner of the Burwell Project for £90,000 in shares and some additional success based earn-outs for the sellers.

Tring Road

Early May 2021 saw the company acquiring a 40% interest in the shovel ready Tring Road 50MW gas peaking project outside of Aylesbury from Arlington Energy Limited (AE). Gas peaking projects plants are natural gas burning power plants which run when there is either high demand for electricity or particularly low or intermittent production from renewables. Further to this, Corcel also intends to look to co-develop and fund additional flexible energy assets with AE, which is expected to cover the full gambit of energy storage, gas peaking and solar projects in the UK.

Corcel and AE have agreed to take the Tring Road project through to financial close later in 2021. The purchase consideration of £400k was satisfied by £150k in cash and £250k in shares at roughly 2.08p each, with a 6-month lock in. **This will result in AE becoming the second cornerstone investor in the company, alongside the Chinese owned Sinom Group**.

Corcel and AE have formed an industry standard joint venture to operate the project and plan to jointly arrange the funding for the project over the coming months, targeting financial close later in 2021. AE is expected fall back on their expertise to lead the construction and ultimately operation of the project. The joint venture partners intend to procure a development fee at financial close as well as an equity carry as part of ultimate arrangements negotiated. On top of this, Corcel expects to get a 3% fee covering all equity funding arranged.

Tring Road seems to have all the makings of becoming a cracking asset, being a 50MW gas peaking project which lies just 40 miles NW of London**. Importantly, the project is shovel ready. Firstly, a 50MW grid connection has already been secured which will allow electricity to be exported.** Secondly, a binding option to lease has been signed with the landowner. Thirdly, planning permission has also been secured. **As a result of Corcel's comprehensive due diligence on the project, third party estimates have suggested annual gross margins of between £103-147k per MW/per annum when the project is operational.**

Avonmouth

Also in May 2021, the company gained the exclusive rights to acquire a 100% interest in the shovel ready Avonmouth 50MW gas peaking project outside of Bristol from FPC Electric Land Limited (Electric Land) plus an additional 15MW of grid capacity. This takes Corcel's current pipeline of projects up to 185MW.

The company has acquired six months of exclusivity over a 100% interest in the 50MW Avonmouth gas peaking project from Electric Land. Consideration for the acquisition is £72,000 payable immediately, and a further £72,000 payable at financial close; roughly equating to Electric Land's costs to date. Corcel will also be entering into a formal agreement with Electric Land on a 30-year project land lease over the project site.

In addition, Corcel has also acquired the rights over an additional 15MW of potential grid connection capacity and associated land at the Avonmouth complex. All of which means that the company has the rights to take on the connection for use in a potential generation or battery project on similar terms. **The company plans to take Avonmouth through to financial close, alongside Burwell and Tring Road, during calendar year 2021.**

Corcel's FGS Pipeline

Already, the company has a pipeline of energy production and storage projects in development or under review for sanction that include gas peaking, flexible energy storage, combined heat & power systems and solar projects.

Such energy storage projects can provide electricity potentially to something like thirty markets. Options including power arbitrage where the batteries are filled up at 6am when power is free and then some two and a half hours later the power is sold for £120 per MW when people are up and about, and demand is higher.

It is more than likely that Burwell, Tring Road and Avonmouth will provide the blueprint for further deals in the sector with the company having the ability to take available opportunities, with some going into electricity generation and others being monetised. **With the target of developing 4-5 such FGS projects a year, it is clear that this rapidly growing division is set to create an increasing stream of long-term reliable earnings which can be used to fuel the company's battery metal ambitions.** Moving ahead, this means that at Corcel, investors will not have the normal concerns typical of small cap exploration plays with their regular fund-raising exercises that cause significant dilution and poisoned relationships with long term shareholders.

Strategy for growth

Corcel has been treading water for the last couple of years as the company has gone through a substantial restructuring since the last Chairman was voted out by shareholders. Newsflow has been a bit disappointing as restructuring does not really generate regular upbeat RNS announcements, as difficult decisions are made, good projects retained and flawed ones exited**. However, the good news is that this process has been completed and the impairments seem to have all been taken on the chin**. Now the decks had been cleared for a period of sustained and solid growth, James Parsons has his feet firmly under the table as the Executive Chairman. **So, investors can expect to see value being generated by key inflexion points being triggered, as well as the prospect of M&A action to create a far larger FGS entity relatively quickly.**

The company has been sitting on a stake in the Mambare Nickel Cobalt Project since time in memoriam. **In the period 2007 – 2011, the company under its old guise of Regency Mines drilled it out and established an initial resource which attracted a £40 million valuation.** Since then, nickel prices have waxed and waned but recently have moved up strongly and are now sitting close to the $18,000/t level on the back of the burgeoning battery metals story. This fits in very well with Corcel's corporate strategy of picking up such blue-sky battery metals resources ahead of the expected structural price hikes in battery metals. Given the positive developments in the wider battery metals space it is high time that the stock market took a good look again at the large Mambare nickel/cobalt project**. This could well lead to the historic £40m valuation number being brought back into investors' awareness and focus.**

Despite Direct Nickel being subsumed by its debt holders, the Mambare project still has the rights to the DNi process. **The DNi process may be an ideal processing route for lateritic nickel with an attraction that an initial plant could be put up for US$10s – 100s million compared to more than US$1.5 billion for a High-Pressure Acid Leach plant (HPAL).** In more recent years there has been a growing interest in a relatively low-cost starter project here with a DSO operation shipping nickel ore to China and competing with and providing an alternative to the likes of Indonesia and the Philippines, which would provide the prospect of early cash flow. The potential for installing a larger DNi style plant remains after the DSO operation is up and running successfully.

The big inflexion point to this happening is the granting of a Mining Lease which may well come to pass in the coming months. Recently, the Environmental Permit was granted which can be seen as one of the final hurdles ahead the award of a Mining Lease, but obviously COVID-19 has not helped the speed of this process. The award of a 20-year Mining Lease will open the door to begin unlocking the value at Mambare for everyone to see and potentially attract the interest of larger nickel entities. There is no shortage of supply here as the plateau has yet to be fully or even partially drilled out. For DSO 1% nickel looks ideal although higher grades are always better. At the same time there are clear synergies with Corcel's potential second nickel project at Wowo Gap and we should watch this space to see how the Company potentially integrates and co-develops these two nickel-cobalt assets.

The recent GPR work at Mambare was designed to determine the location for the DSO operation for the Mining Lease. This development is likely to require US$25 – 30 million of capex and at that stage, Corcel would either be looking to bring in larger players for a JV or consider a complete disposal. Currently, the company owns 41% of the project, but given a perceived inability of BMA to fund the asset through to production, it would seem logical that the entire asset is vended into Corcel to allow for meaningful development. **Chinese investor Sinom has been happy to accept Corcel's paper, as demonstrated by the 2020 debt deal, and has now emerged as a highly supportive shareholder. Such backing speaks volumes for being a potential source of both offtake agreements and future funding.**

There is an obvious plan in progress to explore synergies with or indeed perhaps acquire the Wowo Gap nickel-cobalt asset. Corcel could do an RTO but it is also possible that the RMI management will trade the asset in forgiveness of their fairly sizeable debt and hang onto the shell for another venture. Recently, RMI has acquired a second nickel project in Africa, which does look like the foundation of a post WoWo Gap entity. While Corcel does not technically own WoWo Gap at the time of writing, after some time has passed it now appears to be just one step away from taking control of it. The degree to which Wowo Gap and Mambare are combined depends on a host of factors. **However, putting them together as a combined PNG nickel-cobalt entity would make Corcel a big player in PNG and likely further support relations and interactions with the PNG government.** There is no doubt that the synergies are extensive here with the opportunity to cherry pick the best bits of DSO at each deposit, potentially exporting using the same logistical streams and applying revenues from one to further develop the other. In the end Corcel looks like it will acquire this quite second large nickel cobalt play for a song, and indeed a fraction of what has been spent on the project to date, which is some £8 million.

Dempster was drilled in the mid-2000s by a nickel explorer and the vanadium potential looked interesting, even though that was not the main target. It was a cheap and cheerful investment for Regency, but undoubtedly has real blue-sky upside with the growing clamour for vanadium for use in redox flow batteries where there is no alternative material. The summer 2020 exploration efforts look like they were successful in helping to design a drill and exploration programme to build an initial resource. The team did not go into the traditional area as they were looking for possible extensions of the orebody and so drill targeting is likely to be adjacent to the previously drilled areas. The great thing about BSV is that the processing should be relatively simple, which makes the deposit more likely to be economic and ultimately to enter production.

The first stab at FGS was the inherited Southport project where FGS spent significant time and efforts but was unable to agree on commercial terms with the landowner and so ultimately walked away. Burwell is a completely different kettle of fish, a brownfield site on farmland where the team is quite advanced on the planning efforts and needs only complete an agreement to lease. Corcel recently announced that a land sale was taking place at the site, and that it expected to arrange a lease with the new owners of the land once that sale completed. The Company has moved swiftly to own a 100% interest at Burwell so that it can now bring in partners for the 50MW of energy storage and an additional 50MW of grid connection yet to be committed to. At Burwell, planning is expected soon followed by financial close and ultimately construction. Capex is planned to be funded using SPVs, which will be a low-risk type of financing with each coming in at around £20 million with a 50:50 debt equity split.

In rapid succession the Corcel team has unveiled two new 50MW gas peaking projects, which take the company's tally to 185MW attributable. These two latest peaker projects are shovel ready and so Corcel is seeking to offer them as a 100MW package deal and financial close looks as though it could be achieved successfully over the June-September 2021 period. This would result in a sizeable success fee, development fee and free carried interest. We have heard of carried interest around the 20-25% level for projects of this nature, although Corcel would probably be happy with double digit figures and also there is scope to ensure a larger stake by investing its own funding. Development fees of around £30,000/MW are the norm for these projects. Construction is expected to take 12 months with a month for commissioning, leaving the company with a funding stream which would be used to finance corporate costs and ongoing mineral exploration activities. **This seems to be the start of a long stream of reliable earnings stretching out for thirty years into the future**.

Solar projects used to be all the rage. Developers have been doing them for years across the UK and so nearly all the easy land has now been snapped up, leaving only more challenging project sites. FGS may arrange a tie up with solar specialists as such sites are obviously becoming increasingly rare. The point is that a 50MW solar site needs c.200+ acres, whilst you can get a 50MW battery storage project into a couple of acres at most. Batteries do however look like the future, with the chance to buy energy on the cheap (when there is excess power around) to smooth out the highs and lows of energy markets. Gas peaking plants also have had a lot of interest and substantial investment over recent years but batteries appear to be ESG/green focus at present. **Battery storage is such a hot sector, that at this stage, FGS will likely have the option to flip the Burwell project or co-develop it as it sees fit.**

As a listed company, Corcel sees its niche in FGS as being in the middle ground, sitting between smaller often cash-poor developers and larger funds and institutions with large minimum ticket sizes. Smaller developers are guys running around hustling and selling dreams but who can only take projects so far as they largely lack access to capital and often complex management skills. Then there are the institutional players such as pension funds for whom these projects are too small and who wish to write checks starting in the £100m+ range. All of this creates a dynamic niche for Corcel and FGS where they believe 4-5 projects per year could be developed, funded and built. In addition to single projects, the team is seeking bolt on acquisitions which could dramatically increase the scale of the FGS division quite rapidly.

It is well worth looking at the calibre of partners that Corcel has gained recently in the form of Arlington and Electric Land which are both very successful groups. Arlington is one of the more experienced players in the space currently developing several hundred megawatts of battery, gas peaker and solar projects, with several already in operation. They bring with them both developmental skills as well as the ability to manage both construction of a project and the ongoing operational requirements once a project has been turned on.

Synergies are particularly high with Electric Land as this business has a development team bringing projects to shovel ready status, while the parent entity ultimately seeks ongoing land leases. This dovetails exceptionally well with FGS, who can take a nascent project from someone like Electric Land, fund it and put it on the pathway to construction, and reap the fees and cashflow potential along the way. Going forward, the FSG pipeline will be quietly advanced out of sight of investors with disclosures only being made when the due diligence has been completed and the projects are largely locked-in; so no one should think that any temporary silence means the pipeline is not both expanding and advancing. Ultimately, battery metal exploration and development alongside the exciting FGS project portfolio look as though they will provide a series of key inflexion points over the coming 18 months, which should see Corcel comfortably re-rated.

Financials & current trading

Recent years have seen Corcel expanding its interest in mineral exploration projects for battery metals as well as adopting a twin strategy of UK based energy generation and storage. These projects all continue to be at a pre-revenue stage, with losses incurred from historic exploration write-offs and administrative expenses.

Y/E 30 June £'000s	2016A	2017A	2018A	2019A	2020A
Revenue	25	113	-	-	-
Pre-tax profit/loss	(1,966)	(534)	(1,550)	(2,608)	(1,482)
Net profit/loss	(1,966)	(534)	(1,550)	(2,608)	(1,482)

Corcel five-year trading history. Source: Company accounts

2020 results

The twelve months ended 30th June 2020 was a period which saw a transformation of the company, with the overhaul of its corporate strategy, fresh capital structure and a new look board following a December 2019 relaunch. Key expenditure included exploration expenses of £0.205 million (reflecting increased activity at Mambare), net finance costs of £0.247 million and a slightly higher administrative cost of £0.838 million. Corcel incurred a loss of £1.482 million. Basic and diluted earnings per share came out at 2p.

2021 Interim results

The six months to 31st December 2020 saw Corcel continuing to progress its balanced portfolio of mineral exploration projects combined with UK based energy generation and storage, despite a highly challenging period driven by the global pandemic. During this period, the company recorded a pre-tax loss of £0.526 million largely due to administrative expenses (£0.493 million). The loss per share for the period came out at 0.23p.

Recent developments

May 2021 saw the acquisition of two 50MW flexible energy projects. Firstly, Corcel acquired a 40% interest in the shovel ready 50MW Tring Road gas peaking project, outside of Aylesbury, from Arlington Energy. Secondly, the company has acquired exclusive rights over the acquisition of the shovel ready Avonmouth 50MW gas peaking project outside of Bristol from FPC Electric Land Limited.

Also, in May 2021, Corcel's joint venture partner in the Mambare Nickel Cobalt Project received the approval of the Environmental Permit Ep-L2 (708) authorising the excavation of laterite ore deposit and DSO operations at Mambare. The approval is conditional, as is normal in PNG, on the activity complying with the Environmental Act 2000 and its policy objectives and on certain further plans and submissions being completed within three months. This process has certainly taken a while as the documents were formally lodged with the PNG Government way back in December 2018.

Risks

Geological risks

There are a series of technical risk factors concerning the amount of understanding of the geology of the project areas, the mineralisation being targeted and the distribution and magnitude of the indicators that have been identified in exploration work.

Political risk

There are political risks involved in companies operating in PNG. The mining industry is arguably the most susceptible sector of the market to political risks largely due to its importance to the host county's economy.

Commodity price risks

Metal and electricity prices are highly cyclical and changes in these prices could have a negative or positive impact on the valuation of the company's projects and sales revenue.

Exchange rate risks

Movements in the value of currencies will have an effect on the company's accounts on translation from US dollars, Canadian dollars and PNG Kina into sterling. Fluctuations in the value of such currencies against the pound may have an effect on the valuation Corcel is awarded by the UK stock market.

Future funds

The market for raising funds for small cap companies looks to have had improved from the worse conditions a couple of years ago. However, the global spread of the COVID-19 pandemic has meant that equity markets have become extremely difficult. Even ahead of the arrival of this pandemic, some fund raisings in the small cap mining and energy sector have seen share prices being undermined by incoming investors demanding substantial discounts to provide the necessary capital.

Board of Directors

James Parsons – Executive Chairman

James has more than 20 years' experience in the fields of strategy, management, finance and corporate development in the energy industry across Europe, South America and Central America.

He was formerly the Chief Executive Officer at Sound Energy plc since 2012. James started his career with the Royal Dutch Shell group in 1994 and spent 12 years with Shell working in Brazil, the Dominican Republic, Scandinavia, the Netherlands and London.

Leading up to 2006 (when he left Shell to join Inter Pipeline Fund), James held various positions in Shell's exploration and production business, latterly as Vice President Finance – New Business. He is a qualified accountant and has a BA Honours in Business Economics.

James is also the Non-Executive Chairman of Echo Energy plc, Non-Executive Director at Coro Energy plc and Executive Chairman at Ascent Resources plc.

Scott Kaintz – CEO

Scott joined Corcel Plc in 2011 in a Corporate Finance role before becoming an Executive Director. Previously he worked in corporate finance and investment funds in London, focusing on capital raising efforts and debt equity investments. Scott has over a decade of experience in management and operating international natural resource businesses.

Originally, he was US Air Force Officer and has a degree in Russian and an MBA from London Business School and Columbia Business School.

Ewen Ainsworth – Non-Executive Director

Ewen has over 30 years' experience in variety of senior and board-level roles in the natural resource sector, most recently as Finance Director for Gulf Keystone Petroleum Limited. He is a Non-Executive at Ascent Resources Plc, CEO of Discovery Energy Limited which is an advisory consultancy and investment company. Ewan is a qualified chartered management accountant with degree in Economics and Geography.

Forecasts

We initiate coverage of Corcel with forecasts for the financial years ending 30th June 2021 and 2022. In 2021, after £0.2 million of exploration expenses, £0.8 million of administration expenses and £0.1 million of finance costs, the pre-tax loss is forecast to be £1.08 million. After the restructuring of the past years and asset write downs, no impairments are expected. With no tax paid, the loss for the year is forecast at £1.08 million, with a loss attributable to equity holders of the parent of £1.075 million and a loss per share of 0.72p.

In 2022, it is thought that the Mambare Nickel Cobalt Project could be awarded a Mining Lease which would allow the planning of the DSO to begin in earnest**. In this period, it is forecast that the shovel ready Tring Road and Avonmouth gas peaking projects will reach financial close which should generate a development fee equivalent to £30,000 per MW. This would equate to £2.1 million, which is deemed to be the likely revenue for the year.** Following that, we should also see the construction of the Tring Road and Avonmouth projects where first revenues are expected to come following the year-end. In this period, the Burwell battery storage project is also expected to become shovel ready which will allow the team to also move to financial close and construction. Exploration expenses are anticipated to increase to £0.5 million as a result of drilling at the Dempster Vanadium Project and some initial work on Wowo Gap. We expect £1.0 million of administration expenses from an expanded operation plus £0.25 million of finance costs. The pre-tax profit is forecast to total £0.37million. With no tax paid due to accumulated losses, earnings per share of 0.10p are expected.

Year End 30 June (£'000s)	**FY 2019a**	**FY 2020a**	**FY 2021e**	**FY 2022e**
Revenue	-	-	-	2,100
Gain on sale of financial instruments as FVTPL	38	-	-	-
Exploration expenses	(69)	(205)	(200)	(500)
Impairment of investments in joint ventures	(1,503)	-	-	-
Impairment of goodwill	-	(106)	-	-
Impairment of right-to-use asset	-	(41)	-	-
Impairment of loans and receivables	(26)	(37)	-	-
Administration expenses	(653)	(838)	(800)	(1,000)
Foreign currency loss	(43)	(26)	-	-
Other income	26	21	20	20
Finance costs, net	(377)	(247)	(100)	(250)
Share of loss of associates and joint ventures	(1)	(3)	-	-
Profit/(loss) for the year before income tax	(2,608)	(1,482)	(1,080)	370
Taxation	-	-	-	-
Profit/(loss) for the year	(2,608)	(1,482)	(1,080)	370
Profit/(loss) attributable to:				
Equity holders of the Parent	(2,587)	(1,477)	(1,075)	370
Non-controlling interest	(21)	(5)	(5)	-
	(2,608)	(1,482)	(1,080)	370
Earnings per share attributable to owners of the Parent:				
Basic (p)	(26)	(2)	(0.72)	0.10
Weighted average number	9,767,280	75,338,810	272,603,559	384,787,601
Total shares plus options and warrants	22,064,613	250,749,674	554,199,464	554,199,464

Source: Company/Align Research

Valuation

Our intention is to generate a valuation which makes sense in today's equity market in order to determine a meaningful and robust target price for the stock. **Corcel seems to have missed out on the uplift in valuations enjoyed by base and precious metal resources plays in 2020 and today sits at frankly a derisory valuation which we believe is totally disconnected with the company's current fundamentals. All of this is surprising considering that the company has/or probably will have two large-scale undeveloped nickel projects just as forecasts for nickel demand are being escalated on the back of the large-scale penetration of EVs.**

In addition, we are also seeking to place a valuation on the vanadium play and the rapidly developing FGS interests. There is a lot of value here that we believe is not remotely reflected in the share price and below we look at these assets in turn.

Mambare Nickel/Cobalt Project

Mambare has the potential to be a large-scale nickel laterite project on a worldwide basis. In seeking to place a valuation of this project we have looked at two peer comparisons. Sunrise Energy Metals (ASX:SRL) and Horizonte Minerals (LSE:HZM) are in the midst of moving their nickel projects in Australia and Brazil prospectively towards production.

Sunrise Energy Metals is the new name for Clean TeQ which is blessed with having the backing of billionaire mining investor Robert Friedland. It owns the Sunrise Nickel/Cobalt/Scandium Project in New South Wales and is also a leader in metals recovery and industrial water treatment through its proprietary Clean-iX continuous ion exchange technology. The Clean TeQ Sunrise Project is one of the largest and most cobalt-rich nickel laterite deposits in the world and is now development-ready, with all key permits and approvals already in place. On top of that, Sunrise also represents one of the largest and highest-grade scandium deposits globally.

The Definitive Feasibility Study (DFS) on Sunrise was completed in June 2018 and demonstrated the global importance of this project as a sustainable, long-life, low-cost source of high purity cobalt and nickel sulphates for the battery revolution. The post-tax NAV came out at NPV(8) US$1.392 billion, with a post-tax IRR of 19.1% based on a long-term production rate of 18,520tpa nickel and 3,450tpa cobalt. The latest MRE shows a total of 922kt nickel and 162kt (Measured, Indicated and Inferred categories) at a 0% cobalt cut-off grade. The EV/t came out at £84.27.

Company	Share price	Market Capitalisation £m	EV £ million	Nickel Resource kt	EV/t £
Sunrise Energy Metals (ASX: SRL)	A$23.80	101.7	77.7	922	84.27
Horizonte Minerals (LSE: HZM)	7.0p	119.9	116.8	3,234	36.12
Average					60.20

Nickel laterite exploration/development companies. Source: Align Research

Horizonte Minerals has two tier 1 nickel projects in Brazil, both 100% owned. The flagship project Araguaia has been through a Feasibility Study and Stage 2 (expansion case) had an estimated IRR of 30.7% and NPV of US$1.2 billion for a 29,000tpa nickel to stainless market project and represents a construction ready project.

Project number 2 is Vermelho which is at the Prefeasibility Study (PFS) stage. This showed an estimated IRR of 26.3% and NPV of US$1.7 billion for 24,000tpa nickel contained in sulphate for the EV battery market. These studies were both undertaken using a $16,400/t nickel price. Araguaia's resources total 132.257Mt (Measured, Indicated and Inferred) at an average of 1.27% nickel and 0.06% cobalt for 1,679kt Ni and 7,752t cobalt. The larger Vermelho project's resources (Measure, Indicated and Inferred) all add up to 148.8Mt at 1.05% nickel and 0.05% cobalt for 1,555kt Ni and 78.7kt cobalt.

The EV/t for Horizonte came out at £36.21, a lot less than that awarded to Sunrise, and although both Horizonte projects lie comfortably within the lowest quartile of the global product cost curve, its rating is lower.

Sunrise's powerful proprietary ion exchange extraction and purification do look as though they have positioned this company to become one of the largest and lowest cost suppliers of key cathode raw materials to the lithium-ion battery market – nickel sulphate and cobalt sulphate.

	Mt	**Nickel %**	**Cobalt %**
Indicated	3.3	1.00%	0.07%
Inferred	159.2	0.94%	0.09%
Total	**162.5**	**0.94%**	**0.09%**
Contained metal (Kt)		**1,528**	**146.25**

JORC-compliant MRE for Mambare Nickel/Cobalt Project June 2012. Source: Company

On just a small corner of the deposit, Mambare has 1,528Kt of contained nickel and 146kt of cobalt. The presently outlined JORC resource is purely a function of exploration effort and available funding. **So, the true scale of the resource at Mambare could be very substantially larger. To be highly conservative, considering all this, we have chosen to risk the average peer EV/tonne figure of £60.20/t by 90% which results in a value of £6.02 per tonne.** This suggests a valuation of £9.20 million for Mambare, or £3.77 million for Corcel's 41% stake which has been carried forward into our SOTP calculation.

Wowo Gap Nickel Cobalt Project

In the fullness of time, it does look possible that Corcel will end up with a 100% interest in the Wowo Gap Nickel Cobalt Project following forgiveness of the RMI debt and a swap for the WoWo project rights. We have assumed this in our attempt to place a value on this business interest. Along with the company not yet really owning the project, Wowo Gap is at a slightly earlier stage of development (although something like £8 million has been spent here over time) than Mambare. **So we have chosen to use the EV/t figure ascertained for Mambare of £6.20/t then further risk by 70%.** This results in a value of £1.86/t, which applied to the 1,325kt of contained nickel suggests a valuation of £2.39 million.

	Mt	**Nickel %**	**Cobalt %**
Indicated	72	1.03%	0.07%
Inferred	53	1.09%	0.06%
Total	125	1.06%	0.07%
Contained metal (Kt)		**1,325**	**83**

Wowo Gap MRE (JORC 2004) dated 2011. Source: Company

Dempster Vanadium Project

Over recent years it has become clear that the global energy transition is happening faster than previous models predicted. Given this, it is little surprise that Canadian vanadium juniors have been attempting to position themselves to benefit from the vanadium-based energy storage chain by providing future supplies of this metal which has been deemed to be on the critical list by the US administration.

Corcel has a 50% interest which was acquired in January 2019 for C$450,000. The best results from Dempster include 0.39% V_2O_5 over 75.9m, 0.32% V_2O_5 over 38.2m and 0.39% V_2O_5 over 90.16m. These intersections are comparable to grades and thicknesses for similar deposits currently being explored in North America and demonstrate potential to host an economic deposit of vanadium.

Since the acquisition of this interest, vanadium plays have benefitted and there are now some quite chunky valuations given the excitement surrounding vanadium redox flow batteries. We can see some close parallels with Vanadium Energy (TSX-V:VEC) and its Huzyk Creek Property in Manitoba. Like Dempster, the vanadium potential was discovered by chance when testing for other metals (copper and zinc mineralisation for VEC). A broad vanadium zone was encountered at the Huzyk Creek Property from a single drill hole (NIM19 – 2017). Subsequent drilling in winter 2019 saw 13.77m (from 300.03m to 313.8m) at 0.18% V_2O_5 including 9.74m at 0.22% V_2O_5 (HZ-19-1) and 14.05m (from 153.95m to 168m) at 0.11% V_2O_5 (HZ-19-2). With the shares trading at C$0.09, Vanadium Energy has a market capitalisation of £2.22 million and an Enterprise Value of £2.36 million.

Based on this peer analysis, we believe that the Dempster Vanadium Project is worth at least £2.36 million, with Corcel's 50% stake worth £1.2 million. We believe that such a valuation is innately conservative as drilling at Dempster by the previous operator has resulted in better grade and widths which were recorded in mineralisation that was a lot shallower than that encountered by Vanadium Energy.

The peer group comparison does show the sort of rating awarded to companies as they push their vanadium projects up the valuation curve through defining a NI 43-101 resource. Vanadium Corp Resources (TSX-V:VMX) has an NI 43-101 for its Lac Dore Vanadium MRE (2020) of 2.97 billion pounds of V_2O_5 in 300Mt and at a share price of C$0.09 has an EV of £16.6 million.

Flexible Grid Solutions

The move into renewable energy and battery storage began a couple of years ago with the establishment of the EsTeq business, subsequently renamed to FGS. Management is keeping its project pipeline under wraps so as not to jeopardise future deals. But investors can be assured that there is a lot going on to put together a sequence of robust projects. The relationships with ion Ventures, Arlington and Electric Land look as though they can provide an enviable flow of projects that have been heavily qualified by industry leading technical experts.

We have valued the FGS business solely on the 100%-interest in the 100MW (50MW of energy storage and 50MW of potential solar), the 40% interest in the Tring Road 50MW gas peaking plant and the 100% interest in the Avonmouth 50MW gas peaking projects; and have ignored the pipeline of further projects that have yet to reach the stage of public disclosure.

The truth is that lots of battery storage projects built in the UK are a bit on the small side, and so Corcel's 50MW projects are set to provide a pretty sizeable amount of power to trade and so FGS should have little problem in attracting the attention of the major aggregators. Capex, opex and cash flow from such projects are well-known and so the risk profile is fairly low. The excitement in the sector used to be surrounding peaker plants which basically goal hang and only jump into action when electricity prices are high. But now investors are moving onto batteries, which allow much more nuanced and advanced trading techniques and strategies. This all means that Corcel should have little difficulty in moving its projects to financial close in our view.

An industry rule of thumb is that once such projects are shovel ready, they are seen to be worth £20,000 – 50,000 per MW. "Shovel ready" means the lease, grid connection and planning are in place. These sorts of operations have had a cracking time of late and cashflow from these projects, rather than generating something like £48,000 per MW broadly assumed, over recent months have been making c.£120,000 per MW, largely due to the market in Dynamic Containment. Such Wild West conditions are unlikely to go on forever but could provide a flavour of what to expect over the next few years as batteries are so important in smoothing out the volatility inherent in renewable power generation.

There is growing attention on the dramatic shift from fossil fuel plants to a lower carbon generation model which is creating huge opportunities for the supply of continuous uninterrupted supply of base load electricity which Corcel is addressing. **April 2021 saw the arrival of a comparable stock on the market with the IPO of Mast Energy Developments (LON:MAST).**

MAST has a portfolio of small-scale power generation assets. At IPO, MAST had c.9MW immediate production capacity and c.20MW in production capacity within the first six months from listing. In addition, MAST also had another c.20MW in production capacity over the then next six months; plus, various other shovel ready sites have already been identified in the UK.

Comparative analysis makes for interesting reading. Corcel's attributable 170MW of projects very neatly trumps MAST's portfolio.

Projects	Project 1 (Bordesley)	Project 2	Project 3
Installed electricity generation capacity	9MW at IPO	5MW	6MW 6 months after IPO
Total electricity generation capacity	9MW	14MW	20MW
MAST EV	£22.3m	£22.3m	£22.3m
Valuation per MW	£2.47m	£1.59m	£1.15m
50% discount	£1.24m	£0.79m	£0.575m

Valuation per MW for MAST. Source: Align Research

Our analysis suggests valuations per MW for MAST ranging from £2.47 million to £1.15 million. **Even taking the lowest figure and discounting it by 50%, to remain conservative, points towards a valuation of £97.75 million for Corcel's growing tally of projects which now totals 170MW.** This is a very attractive space to be in as it is critical to the UK's transition to renewables and a lot of money is chasing such deals.

Total

Our SOTP valuation totals £104.96 million. Based on the number of shares currently in issue (384,787,601) the per share valuation would come out at 27.28p. Adding the funds that would result from options and warrants being exercised of £2.28 million gives a total of £107.24 million. This equates to 19.35p on a fully diluted basis and which we have chosen to use as our target price.

Asset	**£ million**
Mambare	3.77
Wowo Gap	2.39
Dempster Vanadium Project	1.20
Flexible Grid Solutions	97.75
Debt	(0.75)
Cash	0.60
Sub-total	104.96
Per share	
Based on the number of shares in issue (384,787,601)	27.28p
Fully diluted basis	
Funds coming from warrants and options being exercised (ignoring warrants exercisable at 25p & 60p and options exercisable at 45p & 80p)	2.28
Total	107.24
Based on the number of shares on a fully diluted basis (554,199,464)	**19.35p**

Sum-of-the-parts valuation. Source: Align Research

Conclusion

Corcel provides an extremely compelling way in which to play the push to clean power through the company's on-trend combination of impressive blue sky battery metal exploration plays and down to earth, highly cash generative FGS projects. A couple of years ago, the company established the Esteq business which has been rebranded FGS. The original idea was to ape the Friedland model out of Australia which saw a bumper valuation being placed on Sunrise Energy Metals for an outfit that had a foot in both camps – battery metals exploration and technology. It has to be said that there is a lot of logic to add such a second prong to the corporate strategy of a junior explorer.

Big mining projects involve both risk and massive upside potential from 100s of millions to billions of dollars being spent. In contrast, FGS provides more immediate and more fixed returns, but with much less risk. **In addition, a typical FGS project only takes 6-24 months to get into production, whilst mining projects often can take a decade or longer from early exploration to a producing mine.** Developing a business such as FGS does sit well with battery metals exploration as it allows management to keep their finger on the pulse of the industry and to truly understand where batteries and battery metal markets are going and what the banks are ultimately prepared to fund.

Corcel is now a very clean entity with little downside in our view. Truth is that James Parsons arrived on the scene at the right time when nothing at the company is being valued with any semblance of reality relative to peers. The stage is now set for him to create value. Corcel is highly relevant to investors as one of the major trends affecting the world in the first half of 21st century is the move to decarbonisation of the global economy. It is worth a quote from one of James' recent interviews:

"Q: How quickly can you build scale with firms like Corcel, which clearly have an interesting platform on which to grow?

Corcel is, in my view, one of the "yet to be recognised" early leaders of the energy transition in the micro-cap space.

We operate at the intersection of battery metals mining and its end-use in energy storage with a portfolio focused on first acquiring battery metal resources prior to the widely expected structural price hike and secondly generating low risk cash flow from energy storage and trading via batteries.

If we were directing a movie of the 2020/21 energy landscape, I would suggest a suitable working title to be "The Rise of Batteries".

Corcel is right in the middle of that space and looking forward to playing its part! Since 2019 we have focused on sorting out the inherited legacy issues, and then turned our attention to building the strategic foundations for the future – this is swan paddling stuff, with lots of work going on unseen but we are really making progress now.

The focus at the moment is on achieving shovel ready status at Burwell, the battery storage site in Cambridgeshire, on securing a Mining Lease at Mambare, our first PNG Nickel deposit, and on unlocking WoWo Gap in conjunction with RMI (an ASX listed company where Corcel has a significant debt position).

So, scaling up is critical and that will come as we both broaden and deepen the portfolio – however, I really want to see some of the inherent NAV we have already created reflected in our valuation before we make the next big move. I don't expect that to be too long!"

The entire interview can be found here:

https://www.proactiveinvestors.co.uk/companies/news/944275/coro-energy---company-qa-944275.html

We believe that Corcel is hugely undervalued by any yardstick. The company appears to have bigger and better flexible energy projects than MAST; and its projects are at a more advanced stage. There is no doubt that Corcel has far larger projects than MAST. Reality is that the same amount of due diligence and legwork has to be done advancing a 7MW project as for a 50MW project which is far more lucrative. In addition, Corcel's team believe that it is in fact easier to finance larger projects as the big players are not particularly interested in the small stuff.

The lowly battery, which once was perhaps most known for powering kids' toys or your torch, are now shaping up to become huge industrial plays that will change the world. As such, Corel has a seriously on-trend portfolio. Wowo Gap was picked up for buttons and the team can leverage it as there is big demand for both nickel and cobalt going forward. In parallel, the FGS division is being carefully crafted to become the cash cow to fund corporate overheads and further value creation in this ever so hot battery metals space.

We look forward to being given the chance to update our valuation going forward as the obvious key value inflexion points get ticked off. **We update coverage of Corcel with a Conviction Buy stance and a share price target of 19.35p.**

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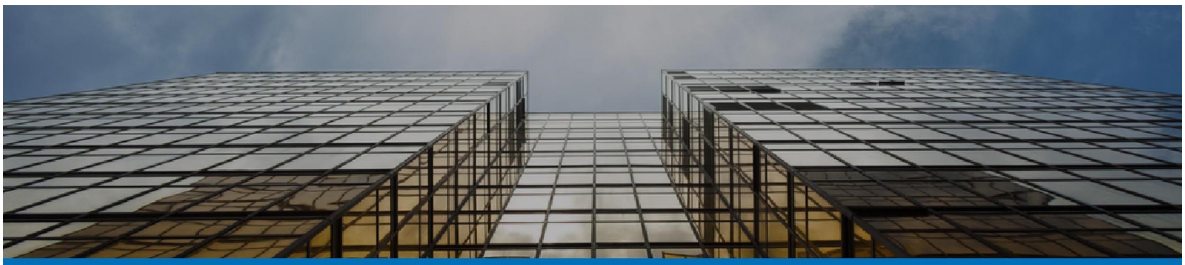

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