OAK Securities
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Switch Metals Plc

SWT-AIM **Conceptual Valuation**

10.8p **15.8p**

Non-Conflict Tantalum

Switch Metals holds the largest tantalum exploration licence and application package in Côte d'Ivoire and is advancing its 100% owned Issia Project to near-term production. Initial, Phase 1 production at Issia will focus on extracting coltan, a tantalum-niobium mineral, from near-surface (1-5m) placer deposits. The nature of coltan placers means they are low-cost to explore and mine, requiring limited processing equipment, making an ideal fast-track entry point into mining operations for a junior company. The cash flow generated from Phase 1 production is expected to be reinvested into expanding placer exploration and production and commencing exploration for hard rock sources of tantalum, which will form the resource base for future Phase 2 production.

Stock Data

Market Cap:		£12.7m
EV:		£10.5m
Shares in Issue		118.1m
Change:	1m	+27%
	3m	+27%
	12m	0%

Non-conflict Tantalum are Essential

The Dodd–Frank Act and the EU Conflict Minerals Regulation are forcing manufacturers and importers to source conflict-free tantalum. Given tantalum's importance in electronic devices such as mobile phones, deposits located outside of the DRC, which historically accounted for 80% of global production, have become highly prized. Côte d'Ivoire, where Switch Metals operate, is largely considered to be one of the most attractive mining jurisdictions in Africa.

Milestones

Switch Metals anticipates being in a position to file its maiden resource estimate at Issia in early 2026. This initial resource will form the basis of a scoping study targeted for completion within 12 months. Following this the company plans to secure the mining license and development funding, potentially moving the project into commissioning in 2027.

Management

Switch is led by an experienced team of public company directors who have been involved in natural resources and mining enterprises as well as investment banking, particularly, its CEO and another Director, both residing in Côte d'Ivoire.

Valuation

We have created a model of what a potential placer operation at Issia could look like. This conceptual valuation makes a number of assumptions that are unvalidated at this stage in the project's development and will be revised following the publication of the scoping study. To the net present value generated by our valuation we apply a 30% development stage discount to reflect the current value of the project and consider the company's net cash position of £1.3 million. This results in a conceptual valuation of £18.6 million or 15.8p per share, an upside of 46% on the current share price of 10.8p.

Initiating coverage

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Switch Metals

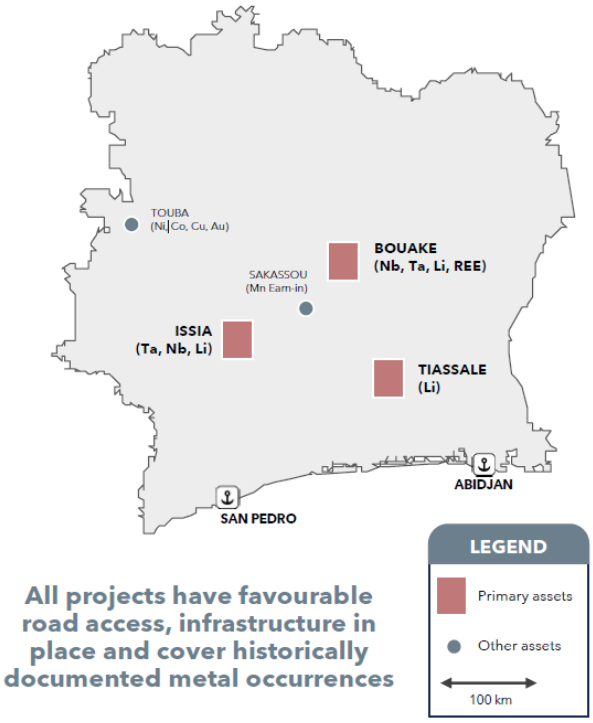
Overview

Switch Metals controls 100% interests in four exploration licences and applications that cover an area of 1,065 km^2 and has options or joint ventures over an additional nine exploration licences and applications that cover an area of 2,643 km^2.

This gives the company the largest tantalum exploration ground holding in Côte d'Ivoire. These exploration licences and applications form three main project areas Issia, Tiassalé and Bouaké, covering a combined area of 3,172 km^2 (Figure 1).

Figure 1 Switch Metal's Project

Location map



Source: Switch Metals

Issia is the most advanced of Switch Metals Projects, it is also where the company plans to focus its exploration activities in the near term. It therefore forms the focus of our research note.

The Tiassalé Lithium Project could form a stand-alone asset in its own right but given the low—level of investor interest in the lithium market at present the company is treating it as a future option on improved investor sentiment towards the lithium space.

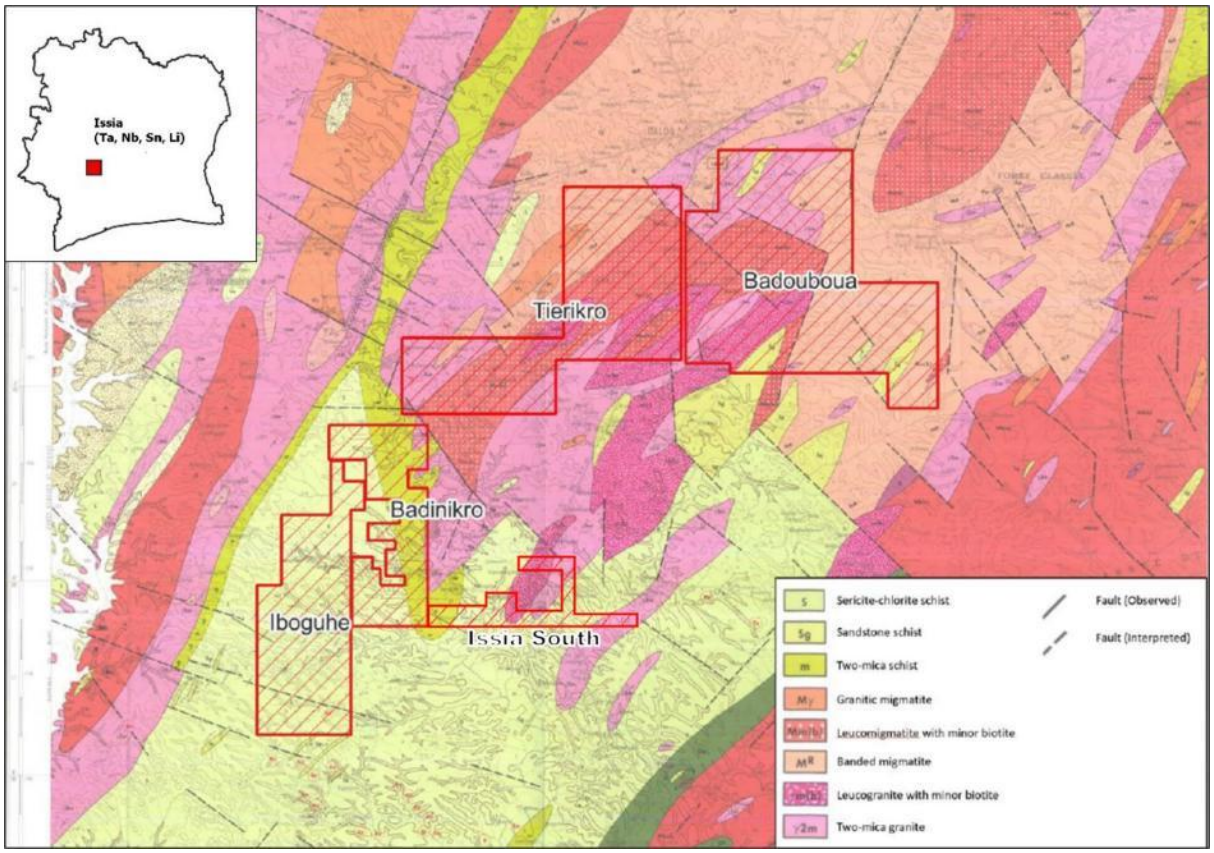
The Bouaké Project is also considered prospective for coltan, but is earlier stage than Issia, and is as a result further down the priority chain. The project has seen some historic coltan mining activity with 15 t extracted between 1957-1966 as a secondary product of a gravel quarry.

Issia

The five exploration licenses and applications that make up the Issia Project cover an area of 1,015 km^2 within the centre-west district of Côte d'Ivoire (Figure 2).

Figure 2 Issia Project

Location map



Source: Switch Metals

Issia is located adjacent to Ivoire Coltan's PE-52 Project, which covers an area of 44.97 km^2 and is focused on the Étienne-Méguhé and Bemadi placer deposits. Ivoire Coltan is a joint venture between SODEMI, the State-owned mining company (51%) the Côte d'Ivoire Government (10%) and the Chinese company, Jiangxi (39%).

Ivoire Coltan is targeting annual production of around 30 t of coltan over a seven-year mine life from the PE-52 Project.

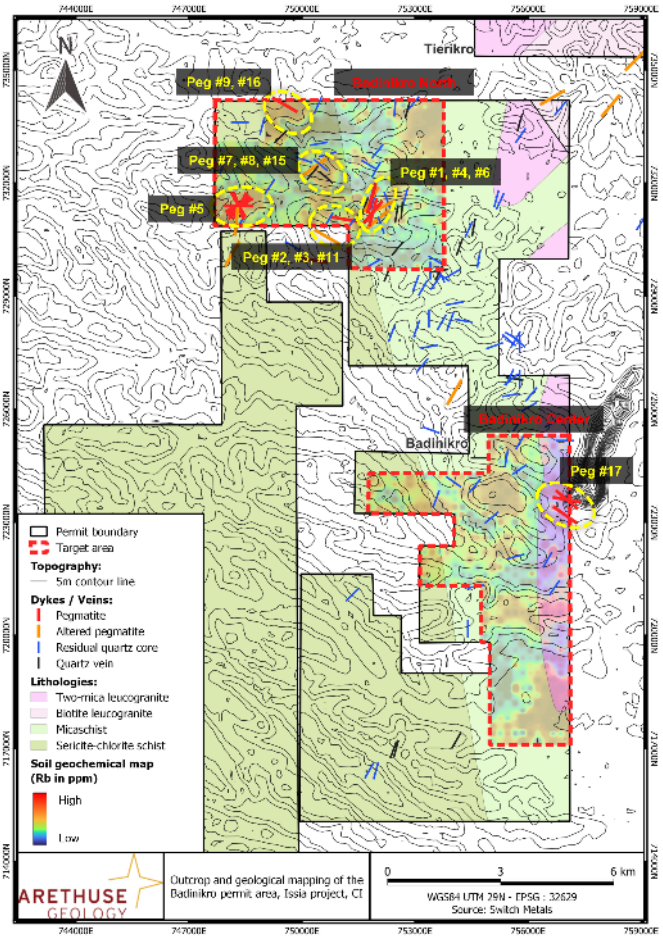
Initial exploration at Issia by Switch indicates the presence of both coltan-bearing placer deposits and lithium-caesium-tantalum (LCT) pegmatites.

Geology

Issia is underlain by metasedimentary units composed of sericite-chlorite schist, mica-schist and sandstone-schist with staurolite. These have been intruded by three different types of granites and subjected to polyphase deformation. These granites have formed a series of 17 pegmatite dykes (mapped to date), within 2-3 km of the granites (Figure 3).

Figure 3 Badinikro Licence Pegmatites

Location map

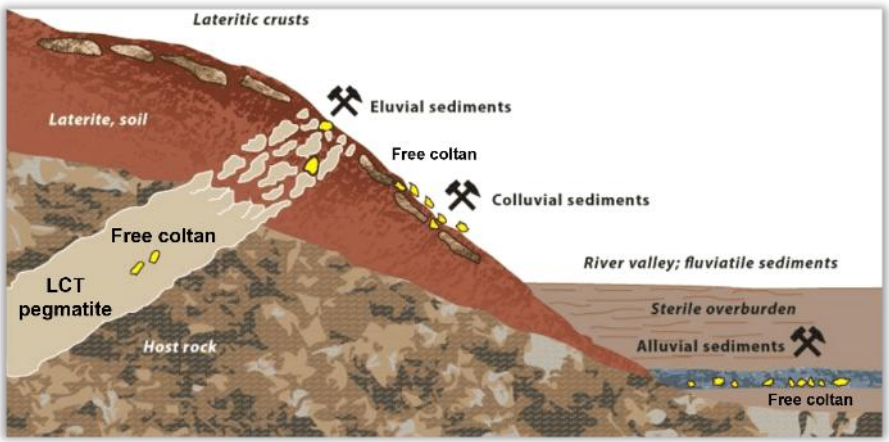


Source: Switch Metals

The coltan placers are located spatially next to the pegmatite dykes, either above (eluvial) or in nearby basins (alluvial), within gravels containing sand and clay (Figure 4), and were formed by the weathering of the pegmatites. These placer gravels are overlain by soil and vegetation but remain relatively close to the surface, typically 1-5 m deep.

Figure 4 Cartoon of Placer Geology

Location map



Source: Switch Metals

Exploration History

The Issia Project was first explored in the 1960s by SODEMI, who identified several coltan placer targets within the project's current boundaries, as well as discovering the Étienne-Méguhé and Bemadi placer deposits, that lie within Ivoire Coltan's PE-52 Project.

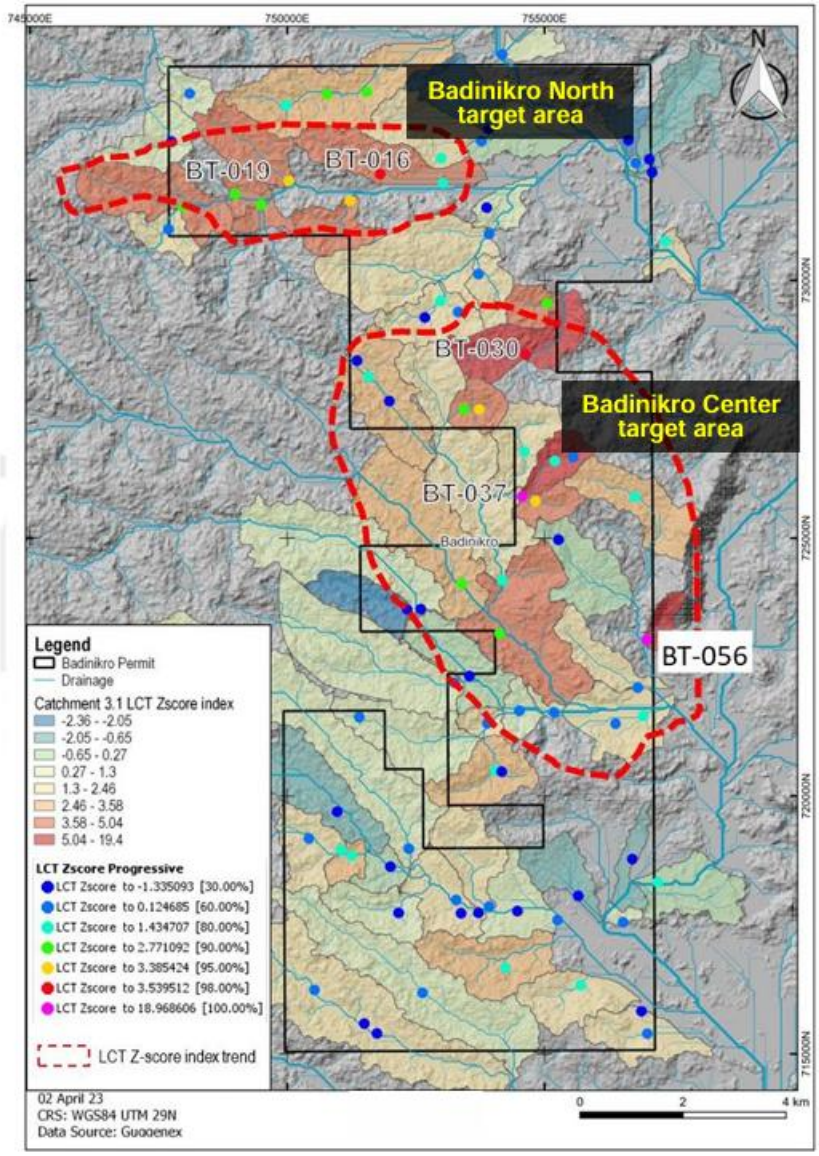
While semi-industrial mining occurred on an ad-hoc basis within the PE-52 Projects boundary between 1990 and 2002, producing 10,018 kg of coltan, no further work was completed at the Issia Project since the 1960s until Switch commenced work in 2018.

Exploration Conducted by Switch Metals

Switch Metals has completed initial stream-sediment sampling across some of its permits, defining anomalous trends in K/Rb, Li, and Ta, to the north and centre of the Badinikro licence (Figure 5).

Figure 5 Badinikro Licence Targets

Location map

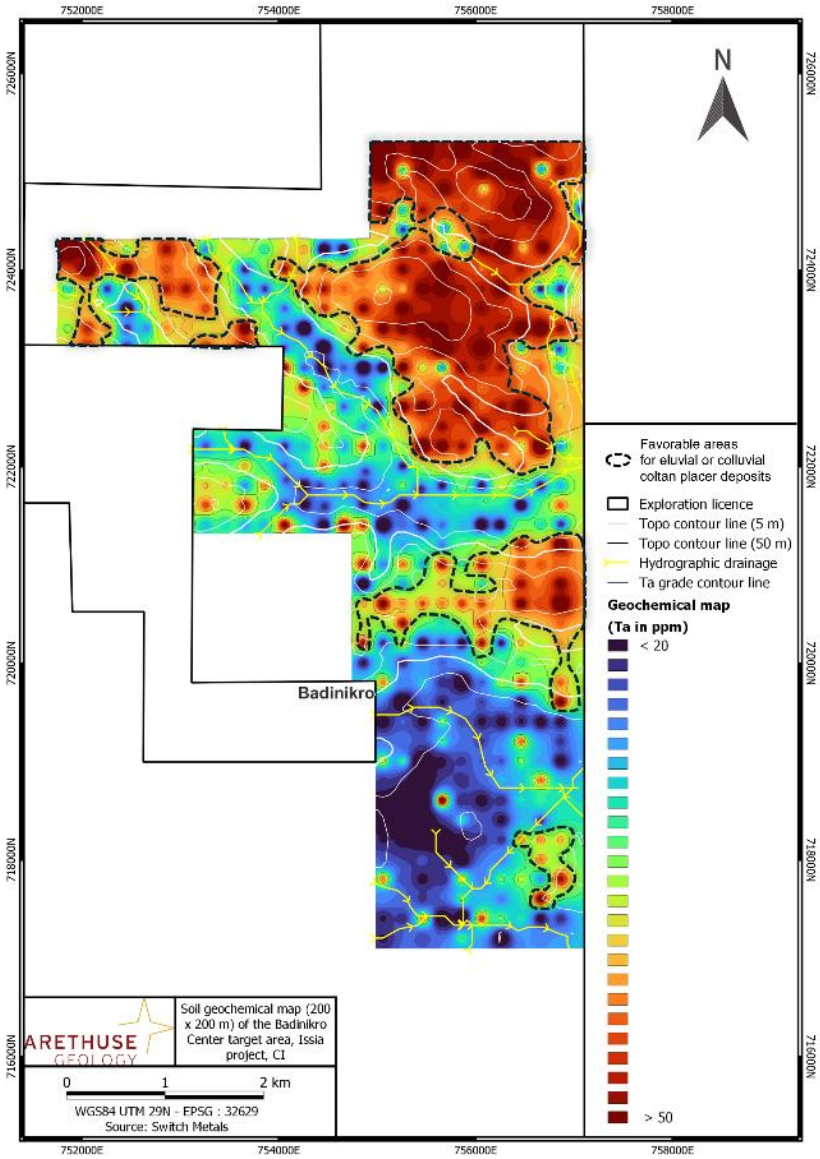


Source: Switch Metals

This work is supported by soil sampling results that confirmed the anomalous trend. Geological mapping then established the presence of LCT-pegmatites, with rock chip sampling indicating significant concentrations of Li, Ta, and Nb in some pegmatite samples (Figure 6).

Figure 6 Badinikro Licence Ta Soil Anomalies

Location map



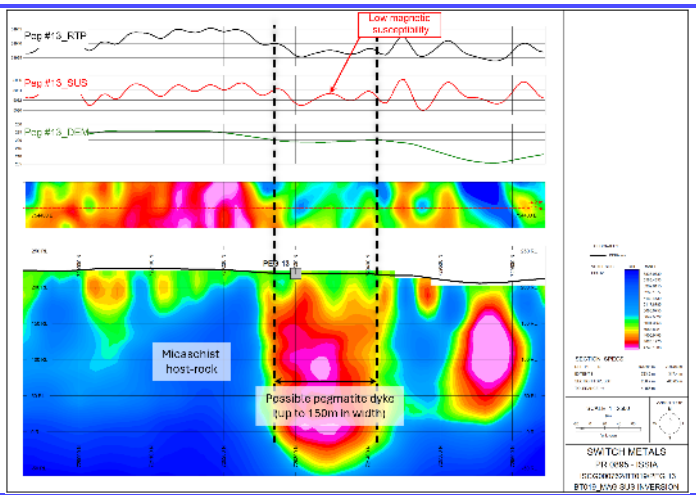
Source: Switch Metals

Ground-based geophysics defined subsurface structures and potential pegmatite dykes in the two target areas, Badinikro North and Badinikro Central. Trenching at the two targets defined 17 structurally controlled northeast and northwest-trending pegmatite dykes (Figure 2).

In the Badinikro North Target, dykes have been traced in trenches over a strike length of c. 100 m and up to c. 10 m in width. These dykes appear to thicken up to c. 150 m at depth, based on magnetic susceptibility anomalies (Figure 7). Sampling of the dykes demonstrated relatively continuous coltan (Ta and Nb mineral) concentrations as well as traces of Li.

Figure 7 Badinikro North Magnetic Susceptibility Anomalies

Magnetic Susceptibility Image

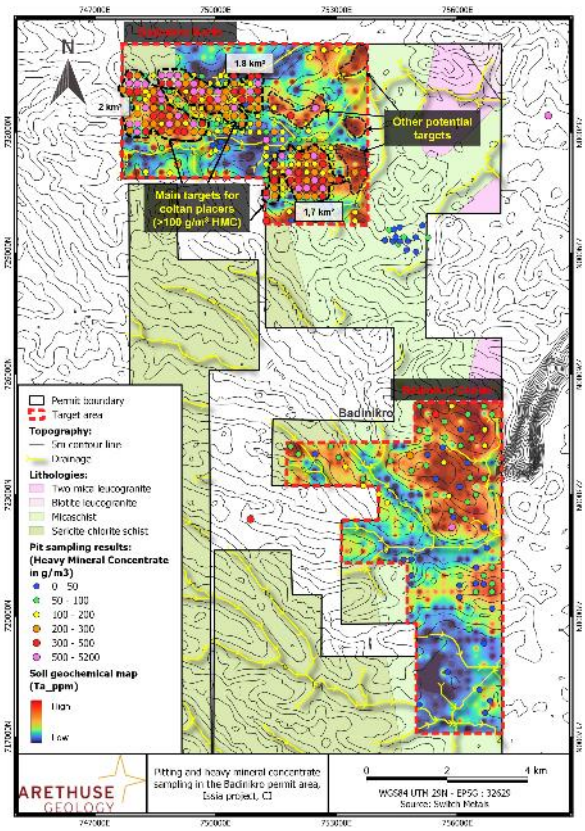


Source: Switch Metals

To test the eluvial coltan placer potential at the Badinikro North Target, Switch commenced systematic pitting from 369 pits over a 100 m by 100 m grid to an average depth of 4 m (Figure 8). This exploration programme is testing the initial conceptual exploration target at MRE1 and MRE2, covering a total strike length of 3.5 km^2 and was based on a cut-off grade of 300 g/m^3 from the surface sampling of heavy minerals.

Figure 8 Badinikro Pitting Results

Location map



Source: Switch Metals

The pitting programme, completed in September this year, has collected over 400 tonnes of material that will be processed in the five-tonne-per-hour pilot wash plant, which is expected to be on site shortly.

Once the wash plant is operational, the soil samples from the pitting programme will be treated to produce a heavy mineral sample for each metre sampled. The samples will be assayed for tantalum pentoxide grade and will feed into the maiden mineral resource estimate.

Processing is expected to commence in October/November 2025. The samples will initially be assayed using Switch's XRF analyser before independent lab analysis. Initial assay results are expected to be announced as they become available.

This initial exploration is only testing the eluvial coltan placer potential, and the alluvial coltan placer potential remains to be examined. Follow-up exploration is expected to focus on the eluvial coltan and the alluvial coltan potential.

Conceptual Exploration Target

The exploration target ranges from 25 Mt to 32 Mt, containing 10,000–15,000 t of heavy minerals. Select assays from around 50 initial samples indicated grades ranging between 0.01% and 41 % tantalum, with an average of 2.3% tantalum. Extrapolating and applying the average grade of 2.3% tantalum to the exploration target would assume contained tantalum of between 230-345 t.

Management is confident that this conceptual exploration target underestimates both the heavy mineral content and the grade of tantalum within the heavy minerals of the placer deposits.

The underestimate is driven by the fact that the exploration target is based on small samples from a series of hand pans rather than larger full pit samples that have been mechanically washed.

This is highly inefficient from a recovery point of view, as not all the coltan is recovered, and the larger nuggets of coltan are less likely to have been included in the sample. It also introduces higher levels of dilution as not all the waste is removed, reducing the estimated tantalum grade.

In its next exploration programme, Switch Metals plans to install a pilot wash plant that will process all the material from the pits and also improve recoveries of all heavy minerals, but also reduce waste silica, which will increase tantalum grades in the concentrate.

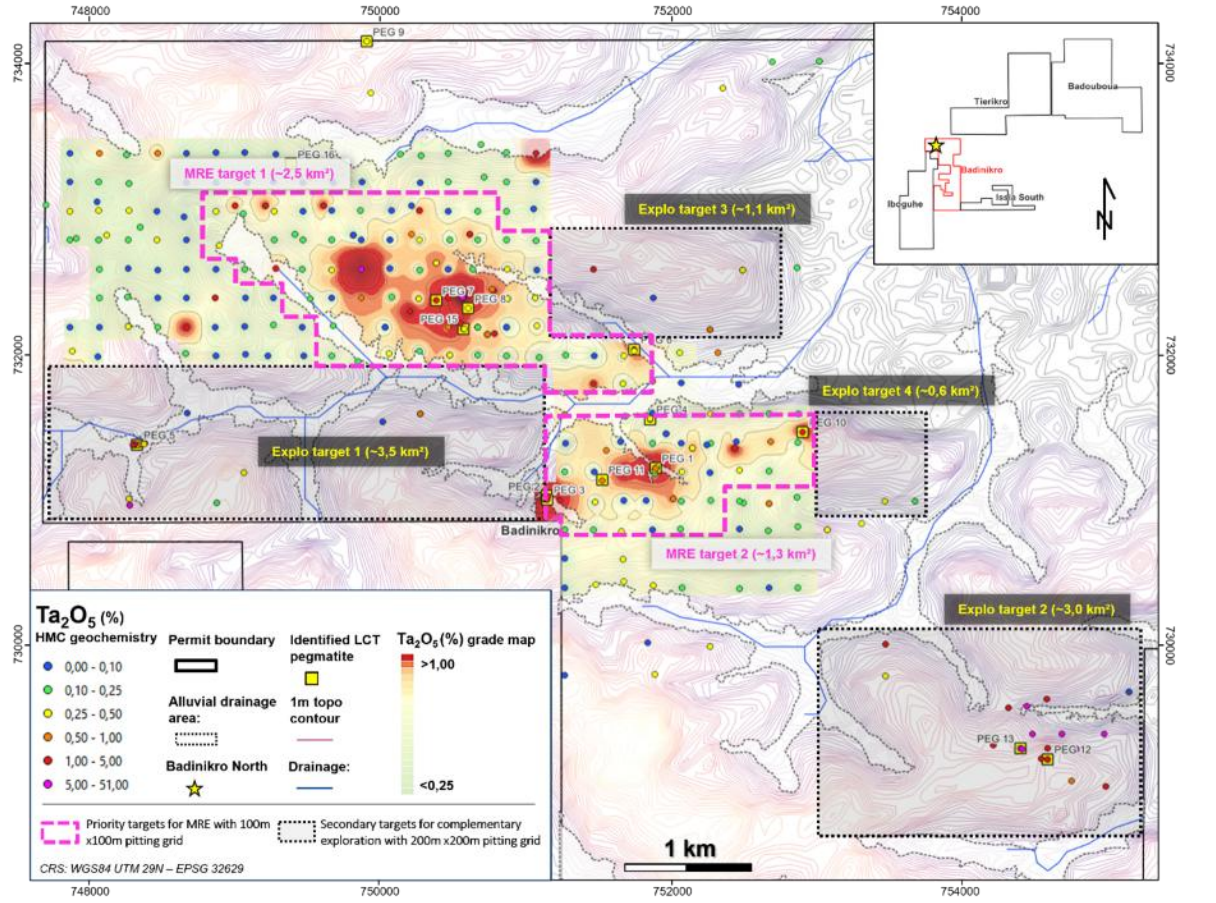
2025 Work Programme

The recently completed 2025 work programme at Issia was focused on the placer deposits at Badinikro North and advancing them towards production. Switch Metals expects to have a maiden mineral resource estimate early in 2026.

More regionally, the company plans additional pitting sampling at a 200m x 200m line spacing grid covering a cumulative area of 6.5 km² over four target zones (Explo Targets 1-4, Figure 9), to define new exploration targets for future resource expansion.

Figure 9 Badinikro North Exploration Targets

Location map



Source: Switch Metals

In addition, Switch is planning a series of trenches and a rock sampling programme on Lithium-Caesium-Tantalum (LCT) pegmatites associated with the significant coltan concentrations at the surface. This is part of the company's longer-term strategy to delineate deeper source rock targets for future hard rock exploration drilling.

Potential Mining and Processing Methods

Placer coltan deposits have the advantage of being amenable to free-dig mining and gravity separation.

As a result, no expensive drilling and blasting is required to extract the coltan; the unconsolidated gravel can be extracted using a loader and placed through a series of trommels or screens to remove oversized material and other debris.

The heavy minerals are then separated from the gravels and sands using low-cost gravity separation, such as spirals, jigs, shaking tables or multi-gravity separation units (MGS) for fine particle recoveries.

The concentrate could then be passed through grinding, further gravity and magnetic separation steps to produce a coltan concentrate meeting market specifications in the range of 20 – 30% Ta^2O^5.

The majority of this process can be conducted at the pit, dramatically reducing the amount of material that needs to be transported. The waste can then be stockpiled close to the pit and then dozed back into the pit once mining is completed as part of the rehabilitation process.

Switch Metals is planning to use a series of up to four modular gravity plants that will be focused on different placer deposits and then feed material into a central coltan concentration (finishing) plant, combining gravity and magnetic separation techniques.

Conceptual Valuation

To assess the potential value of a placer operation at Issia, we have built a theoretical model (Figure 10). This model makes a whole host of broad assumptions that have yet to be validated by the results seen to date at Issia, and as such, it should only be treated as a guide to a potential valuation until more refined metrics are published in the upcoming scoping study.

In the model, we conservatively assume that an initial ore resource tonnage of 5 Mt (or 167 tonnes of contained Ta_2O_5) is established in the maiden resource estimation process, rather than the 25-32 Mt highlighted in the exploration target. This maiden resource is assumed to cover the first years of production, therefore derisking the start and ramp-up phases. We assume continuing exploration throughout the operations life continues to add additional resources, culminating in a total of 30 Mt being extracted over a period of just over 13 years. We have assumed that the operation will commence commissioning towards the end of 2027, with commercial production in 2028, ramping up from 1.2 Mt to 1.8 Mt in 2029 and 2.4 Mt thereafter.

We assume a heavy mineral grade of 667g/t and a 5% Ta content, above that highlighted in the exploration target for reasons outlined in the exploration target section.

We assume an initial development capex cost of US$3 million, and an opex of US$60,000/t of recovered tantalum, with a 1% cost inflation rate applied. We also factor in G&A totalling US$1 million per annum, with a 1% cost inflation applied. We use an initial tantalum price of US$200,000/t in 2028 (Current price US$220,000), with a 5% price inflation applied in each subsequent year. No value for the recovery of niobium is included.

This theoretical operation would generate a total positive free cash flow of US$101 million at an average of US$8 million per annum. The exercise suggests an internal rate of return (IRR) of 44%, and a net present value (NPV)of £24.8 million, to which we apply a 30% discount for the exploration stage and add the estimated net cash position of £1.3 million.

This results in a conceptual valuation of £18.6 million or 15.8p per share, an upside of 46% on the current market valuation of 10.8p per share. This theoretical valuation is only for the placer coltan deposits at Issia and does not consider the hard rock potential or the potential of the rest of the portfolio.

Figure 10 Conceptual Valuation

Conceptual Model

Years	2025 0	2026 1	2027 2	2028 3	2029 4	2030 5	2031 6	2032 7	2033 8	2034 9	2035 10	2036 11	2037 12	2038 13	2039 14	2040 15	2041 16	Total Average
Resource Base at start of Year (t)	0	5,000,000	5,000,000	5,000,000	8,800,000	7,000,000	9,600,000	7,200,000	9,800,000	7,400,000	10,000,000	7,600,000	10,200,000	7,800,000	5,400,000	3,000,000	600,000	
Ore Mined (t)	0	0	0	1,200,000	1,800,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	600,000	30,000,000
HMC Contained (t)	0	0	0	800	1,200	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	400	20,000
HMC Pre-concentrate Recovery (%)	0	0	0	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%
HMC Recovered (t)	0	0	0	760	1,140	1,520	1,520	1,520	1,520	1,520	1,520	1,520	1,520	1,520	1,520	1,520	380	19,000
Contained Tantalum (t)	0	0	0	38	57	76	76	76	76	76	76	76	76	76	76	76	19	950
Recovery (%)	0	0	0	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%
Recovered Tantalum (t)	0	0	0	32	48	65	65	65	65	65	65	65	65	65	65	65	16	808
Tantalum Price (US$/t)	0	0	0	200,000	210,000	220,500	231,525	243,101	255,256	268,019	281,420	295,491	310,266	325,779	342,068	359,171	377,130	279,980
Revenue (US$)	0	0	0	6,460,000	10,174,500	14,244,300	14,956,515	15,704,341	16,489,558	17,314,036	18,179,737	19,088,724	20,043,161	21,045,319	22,097,585	23,202,464	6,090,647	225,090,885
Opex (US$/t)	0	0	0	-60,000	-60,600	-61,206	-61,818	-62,436	-63,061	-63,691	-64,328	-64,971	-65,621	-66,277	-66,940	-67,610	-68,286	-64,060
Upex (US$)	0	0	0	1,938,000	2,936,070	3,958,908	3,998,447	4,038,381	4,078,715	4,114,452	4,155,597	4,197,153	4,239,124	4,281,515	4,324,331	4,367,574	1,102,812	-51,711,078
Exploration/Study Capex (US$)	-1,000,000	-500,000	-500,000	-500,000	-500,000	-500,000	-500,000	-500,000	-500,000	-500,000	-500,000	-500,000	0	0	0	0	0	-6,500,000
Development Capex (US$)	0		-3,000,000		0	0	0	0	0	0	0	0	0	0	0	0	0	-3,000,000
Sustaining and Reclamation Capex (US$)	0	0	0	-200,000	-200,000	-200,000	-200,000	-200,000	-200,000	-200,000	-200,000	-200,000	-200,000	-200,000	-200,000	-200,000	-200,000	-2,800,000
EBITDA	-1,000,000	-500,000	-3,500,000	3,822,000	6,538,430	9,590,392	10,263,068	10,970,960	11,715,843	12,499,584	13,324,141	14,191,572	15,604,036	16,563,803	17,573,254	18,634,890	4,787,834	161,079,807
Tax Rate	0	0	0	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Tax Paid (US$)	0	0	0	955,500	1,634,608	2,397,598	2,565,767	2,747,740	2,928,961	3,124,896	3,331,035	3,547,893	3,901,009	4,140,951	4,393,313	4,658,722	1,196,959	-41,519,952
G&A (US$)	-1,000,000	-1,010,000	-1,020,100	-1,030,301	-1,040,604	-1,051,010	-1,061,520	-1,072,135	-1,082,857	-1,093,685	-1,104,622	-1,115,668	-1,126,825	-1,138,093	-1,149,474	-1,160,969	-1,172,579	-18,430,443
FCF (US$)	2,000,000	1,510,000	4,520,100	1,836,199	3,863,218	6,141,784	6,635,781	7,156,084	7,704,035	8,281,002	8,888,484	9,578,010	10,576,202	11,284,759	12,030,466	12,815,198	2,418,297	101,129,412

Source: Oak Securities

Tantalum Market

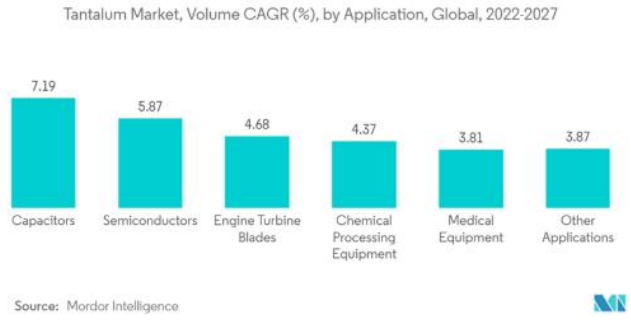
Uses

The largest use of tantalum globally is in capacitors for electronic devices, accounting for around 25% of the market for all tantalum products. Capacitors are an essential part of almost all electronic products, from smartphones to wind turbines. Tantalum-based capacitors have significant advantages over those using other metals, including response times, weight and size.

Tantalum has numerous other uses such as cutting tools, acoustic filters in electric devices, prosthetics, high-temperature alloys and many more. Much of the tantalum demand growth is expected to come from high-tech applications such as capacitors, semiconductors, turbine blades, chemical equipment and medical equipment (Figure 11).

Figure 11 Demand Market Growth 2022-2027

Demand Forecast



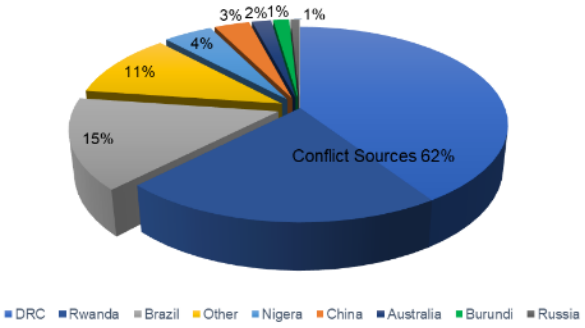
Source: Mordor Intelligence 2025

Supply

Conflict sources, such as the DRC and Rwanda, accounted for 62% of global tantalum supply in 2023 (Figure 12). Major non-conflict tantalum-producing countries include Brazil 15%, Nigeria 4%, and China 3%.

Figure 12 Global Tantalum Supply in 2023

Supply Analysis



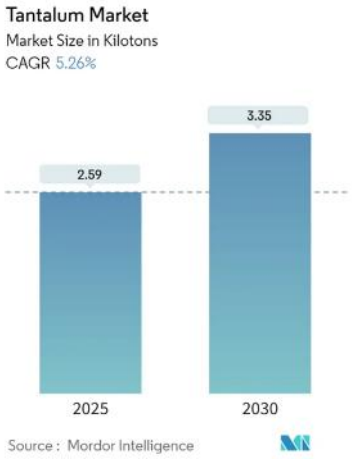
Source: USGS 2024

Demand

Demand for tantalum has been forecast by Mordor Intelligence to increase at a CAGR of 5.25% between 2025 and 2030, growing from 2,590t to 3,350t (Figure 13).

Figure 13 Global Tantalum Demand 2025-2030

Demand Forecast



Source: Mordor Intelligence 2025

Switch Metals Management

Karl Willis Akueson-Gannyi (CEO)

Karl is an Ivorian National and resides in Abidjan, he founded Switch Metals in 2017 and was also a co-founder of Awalé Resources (ARIC.TSX-V) where he remains as a director and in an advisory role since listing on TSX-V in 2017. Karl has over 15 years' experience in the mining sector.

Didier Marcel Murcia (Chairman)

Didier Murcia has an extensive legal career and is an accomplished non-executive director with over 35 years of experience across many jurisdictions. He is currently the non-executive chairman of Centaurus Metals (CTM.ASX) and a non-executive director of Alicanto Minerals (AQI.ASX) and previously served as COO of Aminex (AEX.LSE). In 2014 Didier was appointed a Member of the Order of Australia in recognition of his significant service to the international community.

Andrew ("Andy") Robert Yeo (CFO)

Andy has significant expertise in the resources sector and recently, served as Non-Executive Chairman of Oneiro Energy (ONE.LSE) before the acquisition of Switch Metals Côte d'Ivoire. He was also CEO of Sunda Energy (SNDA.L) having initially joined it as a Non-Executive Director. In addition to this, he has held a variety of roles in private equity and has operational and financial experience in exploration and production activities while serving as CFO of Wessex Exploration (WSX.LSE).

John Michael Treacy (Non-Exec)

John is a London-based experienced financier and a qualified solicitor, specialising in capital markets, mergers and acquisitions. He has also worked in corporate finance and advisory teams of several prominent UK brokerages, where he acted as an adviser to many AIM companies and advised on numerous IPOs, acquisitions, debt restructurings and placings. John was a Non-Executive Director of Oneiro Energy (ONE.LSE) before the acquisition of Switch Metals Côte d'Ivoire.

Mamadou Doumbia ACA (Non-Exec)

Mamadou is an Ivorian national residing in Abidjan with over 24 years of experience in senior management positions with leading companies on several continents, specialising in corporate restructuring, mergers & acquisitions and consulting. He is CEO and co-founder of Africa Energy Transition Services, a Director of the National Investment Bank (BNI) and was formerly CFO of the national cocoa-coffee trade organisation in Côte d'Ivoire, ex-CEO of the West African regional bitumen producer (SMB), former Finance Director at Shell Côte d'Ivoire and auditor at PwC.

Shareholding

Management and Directors have significant vested interest in the Company. They have participated in the IPO funds raise and together hold approximately 10% of Switch Metals plc. .

Research Analyst Disclosures

Dr Ryan D. Long BSc MSc MCSM PhD FGS

Ryan has over 18 years of experience in the mining and exploration sector. He has a strong technical background in geology, having worked on exploration to mining stage projects with leading mining companies such as Barrick Gold, Anglo American, and Xstrata.

He also has extensive knowledge and expertise in equity research analysis, having previously held roles with Edison Group and Northland Capital Partners.

He has published multiple scientific papers in international journals, holds a PhD in Economic Geology, and is a fellow of the Geological Society of London. He is also the founder of Junior Mining Insights, a mining and exploration-focused newsletter.

Mining and Metals Research Corporation Ltd. a company that Ryan D. Long is a Director of, and 50% shareholder in, holds 320,000 shares in Switch Metals.

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