



**ALIGN**  
RESEARCH



## Wishbone Gold

19<sup>th</sup> November 2018

**Innovative gold play providing artisanal miners with processing equipment to gain highly profitable gold off-take agreements**

Wishbone Gold listed on AIM in 2012 as a gold exploration play. 2016 saw the business refocused on gold trading following the acquisition of Black Sand FZE, based in Dubai. This is a location which has quickly emerged as a leading global hub for the precious metals trade. The strategy is to reverse integrate down into the supply chain to gain a guaranteed supply of gold under long term contracts at highly attractive margins.

### ■ Issues behind the share price collapse seem to have been solved

The past 12 months has seen the share price wilt due to the combined effect of delays at the maiden reverse integration project in Honduras combined with the ramifications of a funding arrangement. With the final completion of the Honduran plant expected by the year-end and the RiverFort finance deal now unwound, it looks as though the clouds have lifted.

### ■ Rapid growth in gold trading using the Marc Rich/Glencore model

Wishbone is financing equipment to dramatically improve gold production for artisanal miners in countries like Honduras and Nigeria. In this way, the company can negotiate long term gold off-take contracts with attractive margins as Marc Rich + Co AG pioneered, which was the basis of Glencore.

### ■ First mill in production shortly with more on the cards in 2019

Artisanal miners provide 20% of world gold production. High level discussions with governments in Africa look as though they will pave the way now for a more rapid roll-out of company's compelling strategy whereby Wishbone effectively becomes a high margin gold producer.

### ■ A conservative multiple of 2020 profits suggests over 500% upside

Our initial target is 0.589p, but discounting forecast gold trading cash flows suggests a higher price of 1.19p. **We reconfirm our Conviction buy stance.**

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

Year to end Dec	2017A	2018E	2019E	2020E
Revenue (US\$m)	8.24	8.00	34.10	78.24
PTP (US\$m)	(0.91)	(1.04)	0.39	2.43
EPS (cents)	(0.070)	(0.072)	0.017	0.095

*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 0.589p



### Key data

EPIC	WSBN
Share price	0.095p
52 week high/low	0.65p/0.08p
Listing	AIM
Shares in issue	2,104.23m
Market Cap	£2.0m
Sector	Mining

### 12 month share price chart



### Analyst details

Dr Michael Green  
[michael.green@alignresearch.co.uk](mailto:michael.green@alignresearch.co.uk)

**IMPORTANT:** Wishbone Gold is a research client of Align Research. Align Research and a director of Align hold an interest in the shares of WSBN. For full disclaimer information please refer to the last page of this document.

## Update

Wishbone provides exposure to the gold market in being a trader in gold and precious metals and being a proxy producer through the supply of expertise and equipment. Moving forward, the company looks to be set firmly on a path leading to increasing cash flows and profitability. Early progress has not been as rapid as some investors hoped, but it has to be realised that this time has been well spent by the team laying the proper foundations necessary on which to build a potentially fast-growing business of reverse integration into the world's gold supply chain.

The past twelve months has seen the share price eroded by lack of progress on the maiden reverse integration deal (Honduras) plus mounting concerns surrounding the true ramifications of the funding provided by RiverFort Capital. There has been confirmation on the Honduras project going into production before the year-end and the recently announced fund raising and share sale which served to terminate the earlier Investment Agreement that had provided so much angst. **This means that both these issues have been fully resolved. We believe that this creates an attractive opportunity for investors to buy into the Wishbone story at a fraction of the historic share price. We believe that the tremendous upside potential we highlighted on initiation remains intact.**

### Gold and Precious Metals Trading

Black Sand FZE is a 100%-owned precious metals trading business based in Dubai which was acquired by Wishbone in early 2016. This company is licensed as a precious metals and gem trader in the United Arab Emirates (UAE), and provides a secure supply chain from the mine to trade buyers.

Over recent years, margins in gold trading have become squeezed with one reason being India changing its import rules, which provides a premium for gold doré shipped to and processed in certain economic zones in that country. Such a move has attracted more gold production to come to India but served to reduce overall margins on gold trading. In order to guarantee supplies of gold and also gain a higher margin, Wishbone is now seeking to become involved higher up the supply chain.

### Reverse integration into the supply chain

The strategy of reverse integration into the supply chain was pioneered by the international commodities trader Marc Rich and his company Marc Rich + Co. AG, which would later become Glencore. Marc Rich showed that oil and other raw materials could be traded with less capital and fewer assets than the big producers believed, if backed by bank finance. **This highly leveraged business model became the template for modern traders like Trafigura, Vitol and of course Glencore.**

Over recent years, Wishbone has been successfully targeting artisanal and small-scale mining to provide a guaranteed supply of gold, with decent margins. This is planned to be achieved by gentle integration, supplying equipment and expertise to the local miners. The company is not seeking to buy these mines but is locking them into long-term supply contracts in exchange for the equipment and expertise. **Wishbone might portray this as gold trading but in actual fact the company is effectively becoming a high margin gold producer.**

## Artisanal and Small-Scale Mining

Wishbone is targeting artisanal and small-scale mining to provide a guaranteed supply of gold, with decent margins. This sub-sector of the gold mining industry attracts little interest, but the World Bank reckons that artisanal and small-scale mining accounts for some 20% of world gold production. It has been estimated that worldwide there are 15 million artisanal miners, compared to 2 million people employed in large scale mining. So, small scale mining employs around 88% of the global mining workforce.

Artisanal miners use hand tools in simple mines, either chasing gold veins in hard rock mines or mining alluvial material. These miners lack finance and proper equipment, and the mines can be very unsafe with low levels of output. While production costs for large-scale mining may be in the region of US\$600 – 1,000 per ounce of gold, artisanal miners' costs can be of the order of a few hundred dollars per ounce.

The Minamata Convention, a UN environment scheme was signed in 2013 by more than 100 countries to stop the use of mercury in artisanal and small-scale gold mining. Although many countries in Africa and South/Central America signed and have banned the use of mercury, it still continues to be used as there are few other options for the artisans.

The work of artisanal miners is thus creating a ticking time bomb. The environmental damage created by these mines is enormous as gold in these areas is commonly recovered using mercury. The gold bearing ore is combined with mercury to create a gold-mercury amalgam. The mercury is burnt off, leaving the gold, but in this process, mercury is released into the air, soil and water.

Mercury is highly toxic and being an element means that it does not break down in the environment. This poison can seep into the water table and can cause terrible deformities to wildlife and people. Graphic news stories from around the world have demonstrated the appalling tragedy caused when mercury gets into the water supply and the food chain. So, in providing modern mineral processing equipment, Wishbone will be helping reduce the damage to the environment as well improving the lot of many people in poorer countries around the world – something we applaud.

## Supply contracts agreed

Wishbone has made tremendous progress in Honduras as well as working on negotiating similar supply contracts in Nigeria, Tanzania, Uganda, Mali and Thailand. Honduras looks like a good place to start as the country's artisanal miners are responsible for the bulk of gold production.

The key problems facing Honduras include: low gold production and taxes not being paid by artisanal gold miners. In addition, there are poor levels of exploitation, as a lot of the gold fails to be recovered, along with environmental problems. **Wishbone's strategy will allow these problems to be resolved, with all parties benefitting, including the environment.**

In March 2017, Wishbone signed a joint venture agreement with a US based equipment manufacturer to work on the development and exploitation of existing gold mining sites in Honduras. **This is a 10-year deal whereby the company will be providing equipment and expertise to existing small mines in Honduras, in order to help increase gold production.**

The deal left the JV partners supplying and installing the mining equipment and taking care of the necessary permitting. The range of mining equipment to be supplied to artisanal miners includes: concentrators, conveyors, crusher and grinders, generators, shaker tables and crushers. This equipment is simple to install and operate but acts to transform the processing capability at the mines.

#### **Final completion of the maiden plant by the year-end**

The Honduras reverse integration deal provides a good blueprint of the style of future deals and the benefits that negotiating such contracts will bring to the company. Wishbone is seeking to help these artisanal/small-scale miners which currently may only be processing some 0.5t per day of gold ore from a team of ten miners using hammers, with gold recovery rates as low as 50%. With the equipment that the company supplies, 5t per hour of ore can be processed with 80-90% recovery as well as the benefit of not needing to use mercury to capture the gold.

Additional equipment is now being installed on site in Honduras for six months by its JV partner to bring the plant up to full specification. This will provide processing facilities in an area where there is high grade gold of 15-20g/t close to the surface. Moving ahead, the miners can concentrate on mining and leave the processing to Wishbone, which could generate in the order of a couple of kilos of gold a day. There is plenty of demand for the processing facility in Honduras, as it is the only one in the region.

Production costs are deemed to be probably less than US\$400 per ounce at 5t/hour. So, after paying additional costs such as fees to the landowner, **with gold at US\$1,200/oz it is not inconceivable that the company and its joint venture partner could be sharing 20-30% margins of US\$240 – 360/oz.** The end result is that the company could conceivably receive something like US\$250,000 per month, which would be transformational for lowly capped Wishbone. **But this just marks the beginning of a much larger story.**

In all, US\$250,000 worth of equipment has been installed at the site in Honduras, with a 10-year deal in place. The equipment was funded by and belongs to Wishbone. The set up consist of a 5t/hr ball mill, a 10t/hr jaw crusher concentrator and a 10t/hr concentrator. So, there is the scope to double the capacity of the plant to 10t/hr simply by adding an additional ball mill. **The terms of the deal include Wishbone receiving 80% of profits until the capex is paid off.**

## Strategy for growth

The board of Wishbone is seeking to create rapid and sustainable growth via a strategy which has been designed to ensure that the company will be a beneficiary from a rising gold price. In reality, moving ahead, the company shows all the signs of becoming a fast growing high-margin gold producer. **Low-risk precious metals trading and controlling the company's supply chain in physical gold have been designed to create growing margins as the gold price rises.** At the same time, there are the EPMs (exploration licences) in Queensland which cover areas which are highly prospective for a number of metals and which have the scope to generate interest from a joint venture partner or for Wishbone to explore themselves.

There have been delays in Honduras due to the required permission not having been granted. However, management believes that the necessary permit will be in place by the year-end. This, together with the installation of some further ancillary equipment, will allow the processing plant to begin operation with gold production expected to be ramped up in H1 2019 to achieve nameplate capacity. Once funds start being received by Wishbone, the validity of the company's reverse integration strategy will be confirmed.

**This operation will provide a good shop window for the company's solution to improving the lot of artisanal/small-scale miners in many countries around the world.** In addition, it will provide clear evidence of the powerful and robust economics of such schemes which ought to serve to unlock financing on attractive terms to roll out Wishbone strategy in both South America and Africa over the coming years.

It looks likely that the roll-out of the reverse integration strategy will be focused mainly in Africa. Although Wishbone has yet to announce any MOUs or agreements in this continent, there seems to be plenty of anecdotal evidence to suggest that a lot is going on behind the scenes to pave the way for such a roll-out. The company's Security Consultant Captain Simon Mann (a former British Army officer with proven connections at the highest level in Africa) has taken the team to discuss the artisanal mining position in Nigeria, which was mentioned in the last annual report. There is video footage of this meeting on the company's website.

Consultant Oliver Poole has been working on helping to plan for the roll-out of the Wishbone model in Uganda and so we can guess that similar sorts of discussions have happened in other African countries. There are lot of good opportunities in Nigeria, Tanzania, Uganda and Zimbabwe. The scale of the gold potential in countries such as Nigeria and Tanzania, would probably lead the team to negotiate far larger schemes in these high-level discussions.

The plan for countries like Nigeria and Tanzania seems to be the setting up of a gold refinery which is supplied by individual processing plants. These would require an investment in the order of US\$5 – 10 million for the refinery plus additional processing plants at US\$250,000 – 350,000 each, processing plants will also have buying offices to capture other gold mined locally. A period of exclusivity would need to be negotiated with the government to ensure that Wishbone could recapture its investment and make the necessary return which would be attractive to the potential financial backers that are being lined up for such deals.

These schemes are highly attractive to the country's governments. Nigeria for example has a healthy small-scale gold mining industry, however most of this production slips over the border and so the country gains little benefit. Governmental support for Wishbone's strategy is good as the company's plans would very neatly bring artisanal miners into the banking system, reduce illegal exports of gold, reduce environmental damage and allow these nations to collect much needed tax.

Uganda and Zimbabwe have the capacity for a series of standalone processing plants using the Honduras model. Wishbone expects that its ongoing developments in early stage projects should begin gaining some real traction in 2019. **With the RiverFort funding deal ended, financing for these early processing plants is likely to be obtained on far more attractive terms from new finance partners that the team has been warming up. There would seem to be the opportunity to fund such plants using debt finance at the asset level.** This debt would pay for the equipment, which represents the bulk of the expenditure, covered by the security on the asset and insurance.

There is a lot going on beneath the surface at Wishbone, there have been senior level meetings with governments of a number of African countries over the past 24 months. Non-disclosure agreements mean that much of what has been achieved has probably not as yet been allowed to be broadcast, but it does suggest that now the stage is set for what could be substantial progress on a number of different projects. In our view it seems that the latest deals could be far more attractive in scale.

The board of Wishbone is seeking to create rapid and sustainable growth via a strategy which has been designed to ensure that the company will be a beneficiary from a rising gold price. Low-risk precious metals trading and controlling the company's supply chain in physical gold have been designed to create growing margins as the gold price rises.

## Forecasts

We update coverage of Wishbone Gold with forecasts for full year 2018, 2019 & 2020. In 2018 the company has been working hard to establish the reverse integration of the precious metals trading business. There has been a hold-up in Honduras although all the equipment is now in place and so revenue is seen to come only from Black Sand's traditional gold trading activities. For 2018, we forecast revenues of US\$8.0 million, a pre-tax loss of US\$1.04 million with a loss per share of 0.072 cents.

In 2019, we expect to begin to see the process of reverse integration up the supply chain begin in Honduras and which represents the company's maiden such deal. Following the receipt of the necessary licences, the supply of gold doré to the company can begin. In this period, we expect the full benefits of the first supply contract plus further similar contracts entered into that will begin to provide additional off-take agreements. The number of shares in issue is assumed to increase with the October 2018 warrants being exercised on the back of a rising share price. Minorities relate to the joint-venture interests of SION in the Honduran off-take agreements. For 2019, we forecast that revenue will rise to US\$34.1 million and estimate a pre-tax profit of US\$0.39 million, which equates to earnings per share of 0.017 cents. This grows rapidly with the roll out to allow us to forecast PTP of \$2.43 million in 2020 and a derived EPS of 0.097c (equivalent to 0.076p) putting the company on a PE ratio of just over 1 times based on these forecasts.

US\$'000s. Year end Dec	2017A	2018E	2019E	2020E
Sales	8,241	8,000	34,100	78,240
Cost of sales	(8,157)	(7,927)	(30,970)	(69,050)
<b>Gross profit</b>	84	73	3,130	9,190
Administration expenses	(885)	(1,000)	(1,000)	(1,100)
Profit share to Black Sand preference shareholders	-	-	(190)	(1,073)
<b>Operating profit/(loss)</b>	(801)	(927)	1,940	7,017
Impairment of investments	(1)	-	-	-
Foreign exchange gains	(32)	(15)	-	-
Finance costs	(79)	(100)	(50)	(70)
Minorities	-	-	(1,500)	(4,514)
<b>Profit/(loss) before taxation</b>	(913)	(1,042)	390	2,433
Taxation	-	-	-	-
<b>Profit/(loss) for the financial year</b>	(913)	(1,042)	390	2,433
<b>Profit/(loss) per share:</b>				
Basic and diluted (cents)	(0.070)	(0.072)	0.017	0.095
Weighted average number of shares	1,305,256,635	1,445,235,442	2,286,910,732	2,558,720,184
Total shares plus options, warrants and deferred shares to be paid to the vendors of PMI and Black Sands.	1,322,268,221	2,647,913,609	2,688,513,609	2,688,513,609

*Table: Wishbone Gold summary forecasts. Source Company accounts and Align Research*



## Valuation

We believe that the ultimate size of the prize fully justifies the meticulous planning and negotiations that are continuing across of number of well-known gold producing countries. Discussions at government-level, along with those with groupings of artisanal miners and the process of gaining the right regulatory permissions, have successfully led to an impressive pipeline of these reverse integration deals spread across a number of countries in Africa and South America. These are long-term deals with ten-year contract terms which serve to provide a highly visible earnings stream that stretches many years into the future. Just the sort of quality earnings that investors are prepared to pay a premium rating for.

We have determined a sum-of-the-parts valuation for Wishbone Gold which is based on a financial model of the company and its growing precious metal trading/reverse integration strategy business. **Below are set out the various assumptions which are based upon discussions with the management team which have been tempered by our own opinion.**

**To remain conservative, we have used a flat gold price of \$1,200 per ounce in our analysis.** The average level of trading in kilograms of gold per week has been put at 7kg per week in 2019, rising rapidly to 11kg/week and 17kg/week in 2021 and 2022 respectively.

The first gold from the maiden offtake agreement is expected to be received early in Q1 2019. From then onwards, it is assumed that two new gold reverse integration projects will be established each and every year. The Honduras model has been used as the blueprint and so we have assumed all these new projects have capacity to produce 5-10kg/week, which equates to a circa 8,000 - 16,000 ounces of gold per annum operation. In this analysis, it has been assumed that \$350,000 of funding will be required for each plant with a six-month payback period. Full nameplate capacity is assumed to be reached at each project following a commissioning period. Each off-take agreement is assumed to have a ten-year life.

Margins for the traditional gold trading business have been under pressure. Going forward, we have assumed a flat constant margin of just under 1%, which reflects the current margin. **For the offtake agreements, the margin could conceivably be as high as 20 - 30%, but to remain conservative we have assumed an average of just 15%.**

Wishbone is pursuing its strategy in Honduras in a joint-venture with SION, with the company and SION sharing the profits equally. The board is seeking to use a similar joint-venture arrangement with a mining equipment supplier as it expands into other countries in South America and Africa once production has become stable at the first gold processing operations. On that basis, we have assumed a 50:50 split on profits on the gold off-take agreements resulting from all the reverse integration deals.

We have also assumed that once the first two plants are in full production, that the roll-out of these reverse integration projects could be become self-funded. There is a 30% entitlement to any annual audited profits after tax of the gold trading business for the holder of the Preference Shares, which has been allowed for in this analysis.

**We also use a particularly high discount rate of 14% to further apply conservative assumptions to our forecasts and provide for hoped for upside surprises.**

Discount rate	12%	14%
NPV US\$ million	45.83	40.34
NPV £million	35.53	31.27

NPVs for the gold trading interests. Source: Align Research

Our target price is based on a sum-of-the parts valuation of the NPV(14) of the gold trading business allowing for current cash and debt.

£ million	Valuation
Gold trading, exploration expenditure and plc costs	31.27
Cash	0.50
Debt (US\$400,000 Sanderson Capital)	(0.31)
<b>Total</b>	<b>31.46</b>

Target price	Number of shares	SOTP valuation £million	Per share p
Currently in issue	2,144,831,466	31.46	1.47
Fully diluted basis	2,647,913,609	31.46	1.19

Table: Sum-of-the-parts valuation and target price for Wishbone. Source: Align Research

Our valuation for Wishbone is thus £31.46 million, which equates to 1.47p based on the number of shares currently in issue (2,144,831,466). Our target price however has been calculated on a fully diluted basis (2,647,913,609 shares) dividing the valuation by the sum of the total number of shares and warrants expected to be in issue by the year-end, plus the 240 million shares that will result from the payment of the deferred consideration for PMI and Black Sands. **On a fully diluted basis this results in a per share valuation of 1.19p.**

As the gold trading business is being ramped up and the off-take contracts begin to bear fruit, we expect there should be good news flow over the next eighteen months. Each and every deal in supplying mining equipment brings a long-term off-take agreement, providing a guaranteed additional supply of gold at an attractive discount to the current gold price. **This has the potential to create a growing, highly visible stream of earnings for the company stretching well into the future.**

In this way, each of these deals will add value as the strategy is rolled out in a number of countries. We have refined our model based on the improved understanding we have gained over the past twelve months concerning the capital and operating costs as well as the likely levels of production. What has become apparent over this period is management's desire to become involved in larger scheme involving a setting up a central gold refining facility that is fed by a series of satellite mills. This looks like an exciting development however, at this stage, we have modelled a growing operation that looks more achievable by Wishbone as it stands today. We look forward to revisiting our valuation once more detailed plans become put in place.

For a further element of conservatism in our forecasts and as the company rehabilitates itself with investors after a difficult 2018, we update our coverage of Wishbone Gold with a renewed Conviction Buy stance and price target based on 8 times 2020 profits (0.0736p per share – based on a GBP/USD FX rate of 1.29) giving a first price target of 0.589p. **The DCF value of 1.19p gives investors an idea of the medium-term upside potential as the company's strategy gains traction.**

## DISCLAIMER & RISK WARNING

It is the policy of ALIGN Research to only cover companies in which we have conviction in the investment case. Our "Conviction Buy" recommendation is derived from our conviction in either taking equity as payment for our research services, or applying our fee to the purchase of equity in a covered company whilst absorbing the cash cost of our freelance analyst payments.

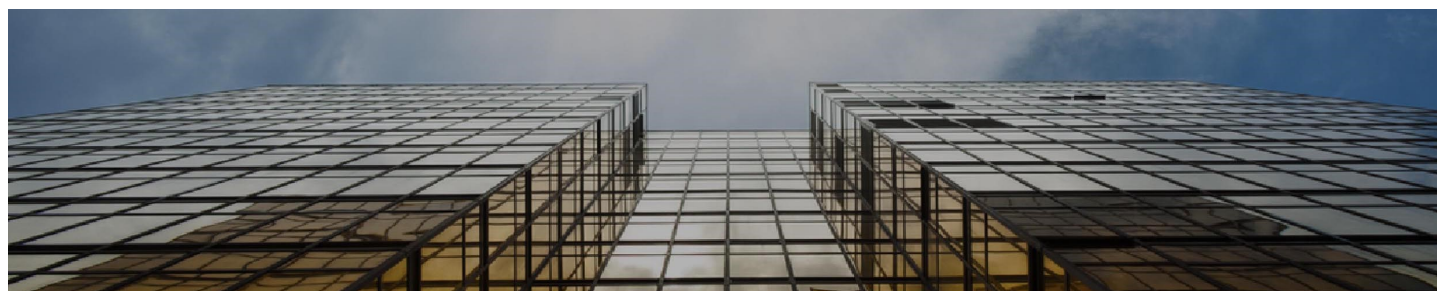
Wishbone Gold Plc is a research client of Align Research. Align Research & a Director of Align Research owns shares in Wishbone Gold Plc. Full details of our Company & Personal Account Dealing Policy can be found on our website <http://www.alignresearch.co.uk/legal/>

ALIGN Research has made every reasonable effort to ensure the accuracy of the information in our research reports and on our website, although this can not be guaranteed. Our research reflects the objective views of our team of analysts. As we actively seek to take the majority of our fees by the way of equity payment in the companies we cover, we believe that we are aligned with both investors and the subject company. Additionally, we only write about those companies that we have conviction in. However, as a consequence of this alignment, our vested interest is in an increase in value of the subject company's equity. As such, we can not be seen to be impartial in relation to the outcome of our reports.

ALIGN Research has both a personal & company dealing policy (covering staff & consultants) in relation to the dealing in the shares, bonds or other related instruments of companies that we follow & which adhere to industry standard personal account dealing (PAD) rules. ALIGN Research may publish follow up notes on these securities/companies but has no scheduled commitment and may cease to follow these securities/companies without notice. Our reports are not subject to any prohibition on dealing ahead of their dissemination by staff members.

Your capital is at risk by investing in securities and the income from them may fluctuate. Past performance is not necessarily a guide to future performance and forecasts are not a reliable indicator of future results. Nothing in this report should be construed as an offer, or the solicitation of an offer, to buy or sell securities by us. As we have no knowledge of your individual situation and circumstances the investment(s) covered may not be suitable for you. You should not make any investment decision without consulting a fully qualified financial advisor. The marketability of some of the companies we cover is limited and you may have difficulty buying or selling in volume. Additionally, given the smaller capitalisation bias of our coverage, the companies we cover should be considered as high risk.

ALIGN reports may not be reproduced in whole or in part without prior permission from ALIGN Research. This financial promotion has been approved by Align Research Limited, which is authorised & regulated by the Financial Conduct Authority. FRN No. 768993. © 2018 Align Research Limited.



Align Research Limited  
7 Moorhead Lane  
ShIPLEY  
UK  
BD18 4JH

Tel: 0203 609 0910  
E: [info@alignresearch.co.uk](mailto:info@alignresearch.co.uk)