ALLENBY CAPITAL

July 6th, 2011

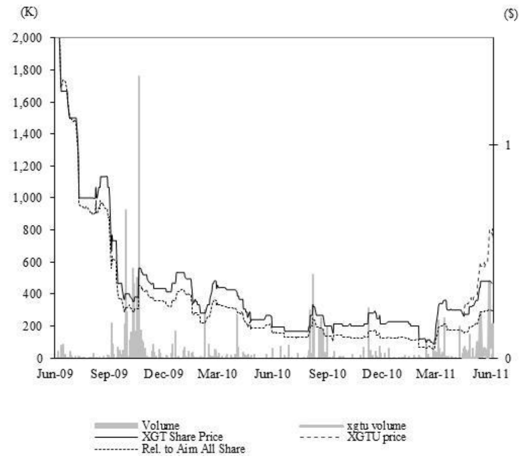
SPECULATIVE BUY

Summary Data

Price ($) – XGT/XGTU	0.32/0.68
Market Cap ($m) – based on XGTU	132.1
Shares in issue (m)	194.3
Sector	Technology

Source: Fidessa, Allenby Capital.

Share price performance



Source: Fidessa, Allenby Capital

Key data (Y/E 31 December)

($m)	2007A	2008A	2009A	2010A
Revenue	0.25	16.35	10.65	0.0
Adj EBIT	-6.17	8.56	-0.60	-10.61
EBIT Margin	na	52%	na	na
Adj PBT	-4.91	9.09	-0.50	-10.64
Adj EPS (c)	-2.72	4.86	-0.26	-5.09
Net debt / (cash)	(32.72)	(15.83)	(5.14)	4.12

Source: XGT.L, Allenby Capital

Key shareholders

MB Technology Hldgs, LLC	51.7%
Treco International	11.9%
Stormur Holding	4.1%
Joe Bobier	2.6%
George Schmitt	2.4%

Source: XGT.L

Contact details

Philip Carse (Research))
Philip.carse@is-research.co.uk
+44 (0) 1323 844 308

Graham Bell (Sales)
g.bell@allenbycapital.com
+44 (0) 20 3328 5656

Alex Davies (Sales)
a.davies@allenbycapital.com
+44 (0) 20 3328 5664

xG Technology, Inc. (XGT.L)

2010 results mask significant progress in last year

On paper, xG Technology's 2010 results make for poor reading, with no revenues and a $49m loss. However, they mask significant progress by xG in commercialising its cognitive radio technology; the company has made considerable headway with the US military and rural comms opportunities, added management capabilities, improved its financial position, and is on course with a major technology upgrade. In addition, the 2010 loss includes $39m of write-offs relating to unpaid Treco revenues and capitalised R&D, that clean up the balance sheet. xG remains a highly speculative investment, but success in commercialising its technology could generate substantial rewards.

2010 results showed significant loss but better cash flow. xG's full year 2010 results showed no revenues (against $10.65m last year), and a significant $49m loss. However, revenues in FY09 (and FY08) were sales to Treco, which have largely not yet been paid. The FY10 loss included $39m of write offs against the Treco revenues and of previously capitalised R&D, which significantly improves the balance sheet going forward. Cash burn improved, falling 36% to $10.8m.

Continued operational progress. The headline numbers also masked the progress made by xG. Most notably, the company has completed the first stage of a trial and laboratory evaluation with the US military, and the trial (at Fort Bliss) has now been extended from 'in-garrison' to field operations at the White Sands missile range. xG also added a second trial with US rural telco Townes Tele-Communications. The company has also embarked on a major technology upgrade, adding Broadband data to voice and SMS on the same xMax network, using smart (MIMO) antenna technology to increase range and interference resistance, adding new unlicensed frequencies and decreasing size and cost, which will all enhance the appeal of the products.

Fund raising and corporate developments. The $10.8m of cash burn was funded by existing cash and a shareholder loan from MBTH, the holding company for founders Richard Mooers and Roger Branton and new Director George Schmitt. MBTH has converted a $10m shareholder loan into equity, providing $4.8m net new funding, and made available a new $15m shareholder loan facility. MBTH's stake has increased from 39.7% to 51.7%, formally making it xG's parent company.

Potentially significant valuation upside. We are not publishing forecasts for xG because the magnitude and timing of revenues is uncertain, and the company has suffered in the past from over-ambitious expectations. However, the current market capitalisation of $132m (using the unrestricted shares $0.68 price), post conversion of the $10m loan from MBTH, provides considerable potential upside should xG succeed in commercialising its technology. It is also partly supported by 55 patents filed in the US and 124 internationally, of which 17 and 38 respectively have been awarded.

2010 financial performance

On paper, xG's financial results for the year to December 2010, with zero revenues and a $49.3m operating loss, show a deterioration compared with 2009, when the company booked $10.65m in revenues and $2.1m in adjusted EBITDA. However, the 2010 financials mask strong progress by the company on several fronts (as described below), and have cleaned up the Balance Sheet. Cash burn was also significantly reduced.

The company did not book any revenues for FY10, reflecting the fact that the company is still undergoing trials of its technology with various parties. The $10.65m of revenues booked in FY09 (and the $16.35m in FY08) reflected sales under an agreement with Treco, under which xG would have largely only received cash once Treco had leased the equipment to end-user customers in the US. xG has now reacquired the rights from Treco, and has fully written off the unpaid revenues of $22.8m (in return for relinquishing the rights, Treco was given 2.25m shares in xG plus a $2m convertible promissory note with the right to convert the note into shares in xG at $1 per share). In addition, xG has written off $16.2m of capitalised R&D, reflecting the fact that it is now upgrading its technology platform (see below), reducing its intangible asset base to $29m.

Excluding these significant one-off, non-cash charges, underlying cash operating costs were up 15% to $10.6m, whilst operating cash outflows were up 19% at $7m. However, capitalised R&D fell by two-thirds to $3.7m, resulting in net cash outflow falling 36% to $10.8m.

Military opportunity

The main highlight of 2010 was the progress made by the company in developing the US military opportunity, which we highlighted in our 26th November 2010 note. This included:

- a full working trial at Fort Bliss (the U.S. Army's largest training facility and a leading centre for the testing of new weapons and communications systems), involving several xMax BSN-250 base stations, an xMSC mobile switching centre and trial TX70 handsets
- an evaluation of xG's technology by CERDEC, the U.S. Army's Communications-Electronics Research, Development and Engineering Center
- an agreement with US private company Western Datacom, under which the company will incorporate xMax technology into its ComCase product line.

According to xG, the CERDEC evaluation has now been completed successfully, whilst the Fort Bliss trial has received positive feedback. The Fort Bliss trial has moved to a second stage, from 'in-garrison' to the White Sands missile range. Thus, xG's technology is being tested both for army base and field deployments, highlighting the ability of the technology to meet a wide range of military requirements. The missile range deployment includes xG providing coverage using a vehicle-based base station and satellite backhaul to support troops on the ground, with a coverage area of 96 square miles. This thus supports troops as they move around the total 3,000+ square miles of the facility, where cellular coverage is otherwise non-existent.

Rural broadband opportunity

The second major US opportunity being pursued by xG is the provision of comms services for rural telecoms companies, where there are over 1,000 providers, many facing increasing competition from mobile companies. xG is undertaking two trials with Townes Tele-Communications in Arkansas and Florida. The trial in Arkansas involves two neighbouring schools, and offers free voice calls between the schools compared with the long distance charges that they currently have to pay.

xG is targeting that rural telcos will be able to obtain government subsidies from the Rural Utilities Service to finance a roll out of xG mobile services, and one barrier was removed recently with the US government dropping a requirement for suppliers to gain approved status. Despite this change, the rural opportunity seems to be taking second stage to the military opportunity at present.

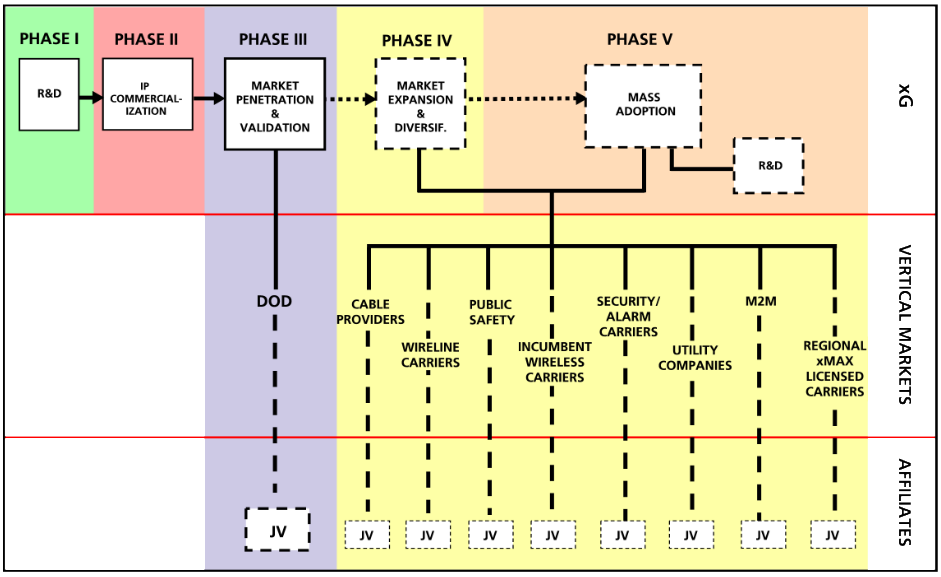
Other opportunities

The US military and rural comms opportunities are the most immediate for xG, and ones where it is currently undertaking trials. However, xG's technology is applicable across numerous other market verticals where access to spectrum is limited or unavailable and where spectrum cost, when available, is prohibitive. One particular opportunity is in 'white spaces' – the unused gaps in existing spectrum (typically between TV and radio broadcasting channels) that have been designed to ensure no interference between spectrum users. Cognitive radio technologies provide a means for such spectrum to be utilised whilst still preserving the integrity of neighbouring licensed spectrum.

Regulators in many countries (for example the US FCC and Ofcom in the UK) have been examining how best to promote the utilisation of white spaces, typically based on creating real time geolocation databases of spectrum users. Companies have also been undertaking technical trials, often on a consortium basis. For example, Microsoft has worked with Google in the US and has just launched a UK trial with BT, the BBC and BSkyB. These developments create direct opportunities for xG and also promote awareness of cognitive radio based technologies.

The following diagram shows xG's broad approach to targeting vertical markets, by pursuing multiple discussions at all levels (from Advisory Board members down), and taking forward those opportunities (for example US military via the Department of Defense) that hold the most promise and for which there is an effective means for xG to validate the opportunity.

<u>Exhibit 1: xG Campaign Plan</u>



Source: Company data

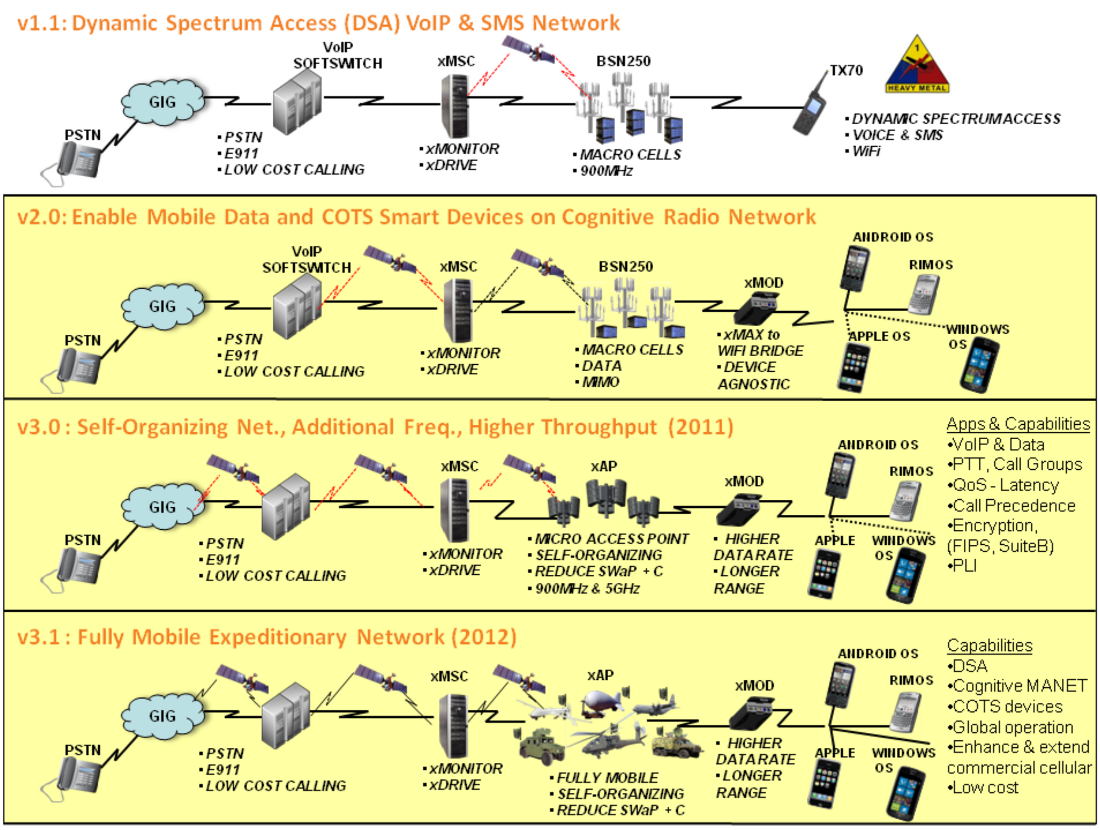
Technology upgrades

Following a major review in November 2010, which addressed the requirements of the military, xG has embarked on a major technology upgrade. Broadly speaking, xG is extending the fundamental cognitive radio function, that is the basis for its technology, from the handset across the whole network/system. By using a small bridging device, the xMax network will be able to communicate with any Wi-Fi enabled handset and tablet device, rather than requiring a dedicated xMax handset, as now. This will thus make the service more attractive (we noted the limited capabilities of the xG handset in our August 2010 initiation report), and lower the cost of service take up for an organisation with existing Wi-Fi enabled handsets, or which can buy them cheaply 'off the shelf'.

In addition, xG is significantly upgrading its base station design, adding in enhanced data capabilities, improving the base station's frequency self organising capabilities, and cutting its weight from 250lbs to 30lbs, with attendant savings in power, site infrastructure and engineering requirements. The aim is to build self-organizing access points that can easily be transported and easily installed on opportune high points while minimizing the requirement for extensive RF planning, tower construction and skilled technician installation.

The roadmap is demonstrated in the following exhibit, with v2.0 being a demonstration version targeted for Q3 2011 and v3.0 being the production version available by Q1 2012.

<u>Exhibit 2: xG Technology Roadmap</u>



Source: Company data, Allenby Capital

Funding and corporate developments

xG has raised considerable funding over the years, most recently from its major shareholder, MB Technology Holdings, LLC (MBTH), which represents the interests of founders Richard Mooers and Roger Branton and new director, George Schmitt. MBTH recently converted the February 2011 $10m convertible loan into equity at $0.25 per share, taking its shareholding to 51.68% to become xG's parent company. This investment required xG to obtain a waiver from shareholders such that MBTH's investment would not trigger a mandatory takeover offer. $5.2m of the new funding was used to repay an existing loan provided by MBTH, including fees and interest. MBTH has also offered a $15m, five-year shareholder loan facility, convertible at $0.75 per share and attracting interest at 8%, payable in cash or shares.

Exhibit 3: xG Technology Fund Raising

Date	Amount ($m)	Share price ($)	Sources
May-07	38.0	5.79	Convertible
May-09	2.0	2.65	Convertible
Jul-09	1.0	3.00	Spartan Mullen
Dec-09	6.6	0.34	Treco + others
July-10 to June-11	10.0	0.25 - 0.34	Convertible, MBTH

Source: XGT.L, Allenby Capital. Note: For Spartan Mullen $1m was received but no shares were issued as Spartan Mullen defaulted.

From an external investor perspective, the lifting of MBTH's stake above 50% to become parent company further increases MBTH's influence over xG.

Aside from funding, the other main corporate development in recent months was the recruitment of two very experienced figures to the company: John Coleman and George Schmitt. John Coleman joined the xG Advisory Board in March 2010, was appointed COO in June 2010 and CEO in December 2010, and was appointed to the Board in March 2011. He brings to xG 34 years combined experience in military operations from both government service and the private sector, and has been instrumental in opening up and driving the US military opportunity.

George Schmitt also joined the xG Advisory Board in March 2010. He brings over 40 years of international and US wireless and wireline C-level experience at companies such as Mannesmann Mobilfunk and AirTouch (both acquired by Vodafone) and PCS PrimeCo (now part of Verizon Wireless) and Omnipoint (which is part of T-Mobile US), and was also a Chairman of the GSM Association. He has invested in and become CEO of MBTH, and was appointed an xG board member in March 2011.

Financial prospects and valuation

As was the case when we initiated coverage in August 2010, we are not publishing forecasts for xG because the magnitude and timing of revenues is uncertain, and the company has suffered in the past from over-ambitious market expectations. The company's business model is also evolving rapidly; for example, the US military opportunity has only become clear in the last year, and is now probably the company's best initial prospect for commercialising its technology.

It is clear, however, that xMax works technically, fulfils a need in the marketplace (for using unlicensed spectrum), is relatively future-proof in terms of supporting mVOIP, and can offer opex and capex advantages compared with existing mobile technologies, particularly those requiring expensive licensed spectrum. Should xG start to gain traction with service providers and/or in vertical markets such as the US military, its potential financial performance would be significantly greater than would be prudent to forecast at the current time.

A lack of forecasts makes it hard to place a firm valuation on a company. However, the current market capitalisation of £62m (at a £0.32/$0.51 share price), post conversion of the $10m loan from MBTH, still provides considerable potential upside should xG succeed in commercialising its technology. The valuation is also supported to a degree by xG's patents covering VoIP system design, Physical Layer (PHY), and Media Access Control (MAC) layer protocol, with 55 patents filed in the U.S. (17 granted) and 124 international patents filed (38 granted).

Exhibit 4: xG Technology, Inc. P&L ($m)

Year ended December	H1-09	H2-09	FY-09A	H1-10	H2-10	FY-10A	Comments
Revenue	8.03	2.62	10.65	0.00	0.00	0.00	FY09 revenues from Treco, now reversed
Growth	*7%*	*-70%*	*-35%*	*na*	*na*	*na*	
Cost of sales	-1.82	-0.20	-2.02	0.00	0.00	0.00	
Gross profit	6.21	2.42	8.63	0.00	0.00	0.00	
Gross margin	*77%*	*92%*	*81%*	*na*	*na*	*na*	
EBITDA	2.00	-0.99	1.01	-2.99	-42.87	-45.86	
Depreciation & amortisation	1.10	1.60	2.70	1.96	1.41	3.37	Company now starting to amortise R&D
Adjusted EBITDA	2.57	-0.47	2.10	-3.67	-3.58	-7.24	
Adjusted EBITDA margin	*32%*	*-18%*	*20%*	*na*	*na*	*na*	
Operating costs	-5.31	-5.01	-10.32	-4.95	-44.28	-49.23	
Underlying operating costs	-4.74	-4.49	-9.23	-5.62	-4.98	-10.61	Relatively constant cash operating costs
Reported EBIT	0.90	-2.59	-1.69	-4.95	-44.28	-49.23	
Share based payments	-0.57	-0.52	-1.09	-0.33	-0.32	-0.65	Early stage options now fully expensed
Exceptional costs	0.00	0.00	0.00	1.00	-38.97	-37.97	Significant write off of Treco revenues and capitalised R&D
Total adjustments	-0.57	-0.52	-1.09	0.68	-39.30	-38.62	
Adjusted EBIT	1.47	-2.07	-0.60	-5.62	-4.98	-10.61	
EBIT margin	*18%*	*-79%*	*-6%*	*na*	*na*	*na*	
Finance costs	0.16	-0.06	0.10	0.03	-0.06	-0.03	
Reported PBT	1.06	-2.65	-1.59	-4.92	-44.34	-49.26	
PBT before exceptionals and AAG	1.06	-2.65	-1.59	-5.92	-5.37	-11.29	
Adjusted PBT	1.63	-2.13	-0.50	-5.60	-5.04	-10.64	
Tax rate							
Reported tax	0.00	0.00	0.00	0.00	0.00	0.00	
PAT before exceptionals and AAG	0.74	-1.85	-1.11	-4.15	-3.76	-7.90	
Fully adjusted PAT	1.14	-1.49	-0.35	-3.92	-3.53	-7.45	
NOPAT	1.03	-1.45	-0.42	-3.94	-3.49	-7.42	
Average shares in issues m	132.01	132.48	132.48	140.63	146.41	146.41	
Reported EPS c	0.80	-2.00	-1.20	-3.50	-30.15	-33.65	
EPS before exceptionals and AAG c	0.56	-1.40	-0.84	-2.95	-2.45	-5.40	
Fully adj EPS c	0.86	-1.12	-0.26	-2.79	-2.30	-5.09	

Source: Company data, Allenby Capital

Exhibit 5: xG Technology, Inc. Cashflow Statement ($m)

Year ended December	H1-09	H2-09	FY-09A	H1-10	H2-10	FY-10A	Comments
Adjusted EBITDA	2.57	-0.47	2.10	-3.67	-3.58	-7.24	
Adjustments	0.00	0.00	0.00	1.00	-3.42	-2.42	
Working capital movement	-7.25	-0.78	-8.03	-0.44	3.07	2.63	
Operating cash flow	-4.68	-1.25	-5.93	-3.11	-3.93	-7.04	
Interest	0.16	-0.05	0.10	0.03	0.00	0.03	
Tax	0.00	0.00	0.00	0.00	0.00	0.00	
Free cash flow	-5.62	-2.90	-8.53	-5.04	-5.33	-10.37	
FCF per share c			-6.44			-7.09	
Capex	-5.64	-5.34	-10.98	-2.05	-1.70	-3.75	Slowdown in R&D spending
Acquisitions	0.00	0.00	0.00	0.00	0.00	0.00	
Dividends	0.00	0.00	0.00	0.00	0.00	0.00	
Investing and financing	-5.64	-5.34	-10.98	-2.05	-1.70	-3.75	
Net cash flow	-10.16	-6.65	-16.81	-5.13	-5.63	-10.76	
Shares issued	0.00	5.12	5.12	1.50	0.00	1.50	$1.5m funding from MB Technology Holdings
Other movements	0.00	1.00	1.00	-1.00	5.21	4.21	
Opening net cash	15.83	5.67	15.83	5.14	0.51	5.14	
Closing net cash	5.67	5.14	5.14	0.51	0.09	0.09	
Borrowings	0.00	0.00	0.00	0.00	4.21	4.21	Cash burn part funded by convertible loan
Net debt (cash)	-5.67	-5.14	-5.14	-0.51	4.12	4.12	

Source: Company data, Allenby Capital

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Tel: 0203-328-5666

Email: m.butlin@allenbycapital.com

There is no planned update to this research recommendation.

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