Best Ideas

February 2016

Arete Access

Alban Cousin will be hosting a call with **Scott Gainey (CMO) of SentinelOne;** please dial in on **Tuesday, 9 February**. Our biggest event of the year, **Mobile World Congress 2016, in Barcelona, 22-25 February,** is fast approaching; last year we hosted over 60 meetings, including our renowned annual Industry dinner, this year booked on **Tuesday, 23 February,** and have already confirmed meetings with dozens of operators, chip makers, software ad tech and equipment vendors. Look out for details on our wrap-up conference call. We also have upcoming Internet and Semis bus tours on the West Coast, USA and in China-Taiwan, dates to be confirmed.
(For information on all Arete Access events, please contact Arete.Access@arete.net.)

New SHORT

Synaptics ($54 Jan. '17 Price Target) We think consensus needs to reset EPS by ~20% for both 2HFY16 and FY17, with three main drivers. First, revenues from Apple are likely to decline in the double-digits yoy in both 2H16FY and FY17 as units fall and display driver pricing gets pressured. **Second,** Synaptics' business with Samsung on fingerprint will also get more challenging as Samsung moves to introduce second sources. **Thirdly**, we see China as progressing slower than we had thought, with weaker traction in fingerprint. See *Synaptics: Apple Press* (Jan. '16).

Reiterate LONG

Charter Communications ($273 '17 Price Target) Lower share than Comcast/AT&T, public interest commitments and broad industry support suggest the Charter/TWC deal has high probability of gaining approval. Netflix's support is important given the FCC's historic concerns over OTT video. Gradual improvement in TWC growth, completion of its network upgrade plus delivery of merger cost savings should allow New Charter to begin to retire equity in '17 and reach over $17 taxed (at 30%) FCF/share by 2018. See *Decision Time: How to Play Charter/TWC* (Jan. '16).

Criteo ($60 '16 Price Target) We see four sources of upside for FY16: Facebook mobile revenues; China and other new markets ramping; continued outperformance of the U.S. vs. EU spend; and traction for its SEM product in 2H16. Criteo also can boost growth by investing its €270m of net cash; R&D hit €20m in 3Q15, up 64% yoy. Other costs should drop off post-'15, while its 4Q15 results should benefit from buoyant e-commerce spend, linked to its core re-targeting business. **After an expected CEO succession, Criteo must now manage its communications better than it did, haltingly, in FY15**. See *Criteo: No Time for Being Timid* (Jan. '16).

Facebook ($140 '16 Price Target) Facebook added an incremental $5.5bn of revenues to reach an $18bn business at YE15, with staggering 63% Adj. EBITDA margins; yet Street models still fail to detail the components of its next wave of revenue, be that Instagram, Oculus, Messenger or third-party ad sales. The number of opportunities and reach Facebook now has – with 1bn DAUs – give it ample "option value" even as its next legs of growth will likely bring it into sharper competition with digital content owners and Google for ad revenues. **Facebook remains positioned as a structural winner in digital advertising.** See *Facebook: Clear Marching Orders* (Feb. '16).

MediaTek (NT$340 '16 Price Target) We are reaching the point with MTK where there is no implied value for its smartphone business and yet the rest of its business is still undervalued. With a revenue boost from FX and a reduction in opex to sales in 2H16, **MTK could offer some operating leverage into 2H16, posting double-digit revenue growth and double-digit op margins.** We think MTK has scope to cut back opex aggressively, and we reiterate our Long rating given how cheap the stock looks here. See *MediaTek: Spinning on Smartphones* (Feb. '16).

Reiterate SHORT

Sprint ($2.00 Mar. '17 Price Target) Sprint thinks it can raise $6-9bn from handset and network leasing vehicles, staving off liquidity pressure from cash burn ($5.4bn LTM) and debt maturities ($3.3bn by end-FY16/17). These next financings will be "on-balance sheet", adding new debt-like liabilities, while further devaluing "EBITDA" quality. **With Sprint's service revenue likely to decline to trough by more than its $2bn planned cost savings, it seems unlikely there will be much equity value,** and we reiterate our Best Idea Short rating, with a $2 Mar. '17E price target. See *Sprint Corp: Another Nail in EBITDA's Coffin* (Feb. '16).

TalkTalk (66p Mar. '17 Price Target) Talk needs a credible plan to arrest a sharp decline in gross adds and stem its rapid market share losses in a maturing, competitive market. The low-end of the market looks especially competitive, with Talk's wholesaling eroding its own retail share. In higher-spending segments, we see little hope for a renaissance given the blows to Talk's reputation and its inferior TV offering. Regulation will not offer a quick fix as revenues decline, while its (uncovered) dividend should be scrapped. **No acquirer seems likely to risk an expensive deal for a challenged, declining business.** See *TalkTalk: Two Steps Back* (Jan. '16).

Arete's Global Best Ideas by Sub-Sector

(* = Short Ideas)

Idea (Rating)	Share Price	Comment	Target Price	% Upside	Inception Date/Price	Perf. Since Inception
Semiconductors						
ASM Intl. (L)	€36.55	**Our confidence level in wide-scale ALD adoption has grown since we initiated on ASMI back in March**, with emerging industry trends – adoption of spacer-defined double patterning in the foundry roadmap, a more aggressive ramp of 3DNAND capacity – adding to our existing thesis around high-k for logic and DRAM and multi-patterning in foundry/logic. See *ASMI: A Rolling Stone* (Nov. '15).	€53	+45.2%	3 Feb. '15/ €40.92	-10.8%
MediaTek (L)	NT$214	**See *Best Ideas* (front page) and *MediaTek: Spinning on Smartphones* (Feb. '16).**	NT$340	+58.9%	11 Feb. '15/ NT$454	-52.9%
NXP Semi (L)	$74.78	The NXP story has been increasingly appreciated by investors since its IPO in '10: a gross margin that has gone from the low 30's (at IPO) to the high 40's, a cleaned-up and re-focused portfolio driving share gains and above-industry revenue growth. **We have seen nothing in the 4Q15 peer reporting season so far that would make us question our (or consensus) '16 estimates. China and Apple exposure are an obvious risk but are, we think, already reflected in heavily re-set Street numbers.** We think our pro-forma '17E EPS of $8.64 is delivering an unwarranted steep P/E discount to peer multiples. See *NXP: Into The Big Leagues* (Dec. '15).	$115	+53.8%	8 Dec. '15/ $87.55	-14.6%
SMIC (L)	HK$0.67	SMIC's thirst to scale up in foundry has led to the exploration of various M&A scenarios, but we think the most obvious deal to transform the company would be to acquire No. 2 Chinese foundry Hua Hong and its 12-inch associate, Huali. **This would not only be accretive to earnings (~35% boost to EPS), but we think it would lead to the creation of a top 3 foundry with $5bn+ in annual revenues by 2018. With Hua Hong generating healthy FCF of its own (with 30%+ gross margins) and trading at just 0.7x book value, SMIC has little reason not to pursue this move, in our view.** Following our recent meeting with SMIC, we think fundamentals remain healthy, despite its exposure to Qualcomm acting as a near-term headwind. While 28nm is now unlikely to generate significant revenues this year, **we continue to like the prospects for the company. Local Chinese fabless players' semis continue to grow and ultimately SMIC's eventual ramp of 28nm will substantially raise its TAM.** See *SMIC: The Scale Game* (Sep. '15).	HK$0.9	+34.3%	09 Oct. '14/ HK$0.80	-16.3%
Synaptics (S)*	**$73.31**	**See *Best Ideas* (front page) and *Synaptics: Apple Press* (Jan. '16).**	**$54**	**-26.3%**	**27 Jan. '16/ $67.02**	**-9.4%**
Digital Consumer						
Samsung (L)	1,150,000	There is no doubting how difficult commodity tech end markets have become; in this environment, having market-leading cost and market share positions gives Samsung a chance to out-perform peers; at the same time, the company is finally starting its long-awaited capital return policy, part of its group-wide corporate restructuring effort. Its dividend yield could rise to 3-4% (up from the 1-1.5% historical level), on par with global peers. With consensus looking for flat EPS into '16 (in-line with Arete) and flat EPS from 2Q16-4Q16, **we think earnings momentum into 2H16 (from OLED, improving memory and a re-vitalized handset portfolio) will catalyse stock performance.** See *Samsung: Proactive Move* (Dec. '15).	1800000	+56.5%	8 Mar. '11/ 899,000	+27.9%
Universal Display (L)	$49.10	**We believe a massive OLED investment cycle is about to kick off over the next 2 years.** UDC is the only pure-play OLED name out there, and we believe the stock has substantial upside from OLED disruption in the >$120bn display sector. See *Universal Display: Ready for the Big Cycle* (Nov. '15).	$60	+22.2%	18 Nov. '15/ $43.51	+12.8%
LG Display (S)*	21,900	**We believe LCD sector fundamentals are worse than what we previously anticipated as Chinese LCD suppliers plan to spend >$20bn in capex over the next three years**, and we again cut our earnings forecasts. We expect LGD to lose ~$1bn in its OLED business in FY16 while LCD margins continue to deteriorate. See *LG Display: Deteriorating Fundamentals* (Nov. '15).	17,000	-22.4%	28 Oct. '13 24,450	+10.4%

Idea (Rating)	Share Price	Comment	Target Price	% Upside	Inception Date/Price	Perf. Since Inception
Enterprise Software & IT Services						
Fortinet (L)	$28.14	**Our field work suggests Fortinet should continue to gain share rapidly in the marketplace.** The sales organization re-org performed in January could cause disruption, but is generally viewed positively by partners. Management is also laying out a path towards 20% operating margins, a long-term concern of investors. Finally, we think Fortinet can still over deliver on the guided 23% billings growth in FY16. See *Fortinet: Delayed Gratification* (Nov. '15).	$50	+77.7%	10 Jun. '15 $41.20	-31.7%
ServiceNow (L)	$62.21	Despite printing revenue growth 4ppts ahead of guidance the focus is on a quarterly billings number which, at 39% growth, came in at the low end of the range. Projected billings growth of up to 38%cc to $1.6bn was just shy of street expectations. Misgivings over the potential deceleration FY16 bookings suggests is understandable yet there is scant evidence that the glide path will be steeper than the street anticipates. FY16 guidance implies subscription growth will be 42% vs 39% expected. Other metrics look good. Renewal rate ticked up to 99%, the company delivered 174 net new customer adds vs 171 a year ago, and had an average 39% ACV upsell. Annual contract value growth per global 2000 company reaccelerated to 6% vs 3% in 3Q15 (an area of concern last quarter.	$110	+76.8%	23 Mar. '15/ $79.28	-21.5%
Tableau (L)	$80.24	Into 4Q15 results, CIO and reseller feedback remains positive on momentum. **Our conversations at the event suggest no major inroads from Qlik or Microsoft, nor impact from recent releases from legacy vendors, such as MicroStrategy.** See *Tableau: Analyse This* (Oct. '15).	$140	+74.5%	6 Feb. '14/ $88.59	-9.4%
SAP (S)*	€73.00	2H15 license growth defies expectations – we see little sign of an s/4 upgrade cycle in our CIO conversations and FY16 guidance suggests momentum will be short lived. We see evidence of pressure on margins and cashflow. Operating profit growth lags revenues, up 5% in FY15, and that includes a 7% tailwind from stock option expense. Operating cash flow declined 11%, adjusting for TomorrowNow litigation costs. As the mix shift to cloud continues we expect further strain. Street expectations for operating profit are already at the high end of SAP's guided range and given historical performance that is likely to be a stretch. We also note an implicit downgrade to FY17 operating margins in SAP's revised mid-term outlook.	€48	-34.2%	21 May '13/ €61.97	-17.8%
Teradata (S)*	$24.34	**Competitive headwinds are increasing, and we are seeing the first signs of enterprises actively replacing Teradata, a phenomenon absent from our CIO conversations as recently as six months ago.** The rapid evolution of Hadoop continues, and we argue it has greatly diminished the role for Teradata. Increasing use of cloud for data processing should further contribute to falling Product revenues in 2H15 and beyond. See *Teradata: Seven Ages of Man* (Sep. '15).	$21	-13.7%	23 Oct. '14/ $39.87	+39.0%
Internet / Retail						
Alphabet (L)	$742.95	**Alphabet FY15 results showed accelerating revenue growth to cap off a surge in monetisation – mostly around mobile search and video – built around its overlapping 1bn user base properties** (YouTube, search, Maps, Android, Play and Gmail). Alphabet also showed long-hidden operating leverage, with core Google margins up 310bps yoy, now apparent as the company outlined the $3.6bn of losses related to Other Bets, up from a $1.9bn loss the prior year, with minimal sales. **We see ample scope for Alphabet to make further optimisation of its balance sheet and capital structure, with just $3.7bn remaining in buybacks, $65bn in net cash, and after an FY15 when operating cash flow was $24bn;** we do not see acquisitions featuring in its near-term outlook, but see a rising importance for Google to stave off regulatory scrutiny in the EU and increase transparency around its tax structure. Disclosure is still maddeningly limited, even with the Other Bets breakout, but Google likely feels little need to explain itself when its core ad-based revenues are accelerating. See *Alphabet: Substance, Not Just Style* (Nov. '15).	$825	+11.0%	14 Sep. '12/ $354.84	+109.4%

Idea (Rating)	Share Price	Comment	Target Price	% Upside	Inception Date/Price	Perf. Since Inception
Criteo (L)	**$29.58**	**See Best Ideas (front page) and Criteo: No Time for Being Timid (Jan. '16).**	**$60**	**+102.8%**	**27 Feb. '15/ $45.36**	**-34.8%**
Facebook (L)	**$112.21**	**See Best Ideas (front page) and Facebook: Clear Marching Orders (Feb. '16).**	**$140**	**+24.8%**	**21 Oct. '14/ $78.69**	**+42.6%**
JD.com (L)	$26.03	**We see JD – in concert with Tencent – embarking on a more radical re-shaping of Chinese e-commerce than Alibaba, bringing lower costs to an ever-expanding range of product categories and, over time, offline services**. As Alibaba re-focusses on "high quality GMV" this increases the opportunity for JD to rival it as a long-term structural winner in Chinese e-commerce. We expect JD to grow GMV 52% yoy, and see JD Mall's revenues expanding by 41% in '16, while the company posts more rapid growth in emerging areas such as Internet finance and O2O services. In addition, the company will focus on demonstrating its financial discipline to balance top-line growth and spending, delivering non-GAAP net margins at JD Mall of 1.2%, based on our recent call with the company. Furthermore, JD Finance, in which the listco owns an 85% stake, was recently valued at $7.1bn and could be listed in China as early as 2017, providing option value for JD's long-term investors. See Amid the A-Share Storm (Jan. '16) and JD.com: Setting a New Retail Standard (Nov. '15).	$46	+76.7%	30 Nov. '15/ $30.68	-15.2%
Tencent (L)	HK$144.9	The combination of ad revenue and payments makes us increasingly optimistic about Tencent's growth profile over the next few years. We see continued growth in Tencent's advertising base: **WeChat's active user base constitutes the deepest pool of mobile advertising inventory in China in '16.** We forecast Tencent's ads revenues to grow at 117% in '16, driven by social ads. Tencent's financial services, Tenpay, could be the optional value. On one hand, Tencent generates payment revenues from its payment networks. **More importantly, the strategic value of Tencent payment services is to transform social networks to service platforms, making Tencent even more relevant to the daily activities of its comprehensive coverage of Chinese Internet users.** Tencent also has a leading position in the emerging field of e-sports, which further supports and expands its mid and hard-core gaming franchises. Tencent reports FY15 results rather late, in March. See Amid the A-Share Storm (Jan. '16) and Tencent's Ads: Another Leg to Run (Nov. '15).	HK$180	+24.2%	8 Aug. '14/ HK$ 129.8	+11.6%
Autohome (S)*	$24.57	**While we have a more constructive view of BITA's e-commerce business, both online auto stocks were hit hard in January – with ATHM dropping 30% – on a weakening Chinese macro economy, as well as currency depreciation**. We think both ATHM and BITA fundamentals are closely linked to China's economy, with saturating auto penetration and peaking car sales, while their advertising operations depend heavily on OEM and dealer marketing budgets, which also face macro headwinds in 2016. As budgets get impacted by declining auto sales, both companies are likely to see less ad business. Our concern on Autohome is if ad budgets are closely correlated to future car sales, partly shifting to a direct sales e-commerce model, its ads business would be negatively affected by this structural transition, and the company would have to spend more on promotional services to preserve its current customer base. **We think Autohome's growth and margin outlook do not support the stock's 20x 16E P/E, while its media model will face rising challenges, and unlike travel or O2O, there is no easy way to consolidate this segment of the online market.** See Bitauto/Autohome: Collateral Damage (Sep. '15).	$20	-18.6%	3 Dec. '14/ $40.30	+39.0%
Twitter (S)*	$16.80	**A soap opera of management changes has accompanied a collapse in share price, esp. troubling for a company so dependent on stock compensation (36% of '15E sales).** Twitter faces a dilemma in resolving its weak user growth while boosting advertising revenues. We think these stem form structural problems, which its many product initiatives will not easily resolve. We also see Twitter "pivoting" towards off-network revenue streams as no panacea, while Moments has had very limited impact. **We will review our Twitter price target after we see whether management will close the gap between our FY16 EBITDA forecasts and far higher consensus numbers**. See Twitter: Breaking Off the Engagement (Nov. '15).	UR	—	11 Jun. '15 $35.84	+53.1%

Idea (Rating)	Share Price	Comment	Target Price	% Upside	Inception Date/Price	Perf. Since Inception
Cable, Satellite & Media						
Charter Comm. (L)	**$171.36**	**See *Best Ideas* (front page) and *Decision Time: How to Play Charter/TWC* (Jan. '16).**	**$273**	**+59.3%**	**23 May '14/ $140.59**	**+21.9%**
Numericable-SFR (L)	€36.55	**The declaration of a €5.7/share dividend should remove lingering concerns about abuse of NUM-SFR minority shareholders, while offering shareholders an immediate 13% dividend yield** and probably raising expectations of future distributions as and when NUM-SFR leverage dips below 3 turns. Key for NUM's ex-dividend rating will be the sustainability of improvements in customer losses, revenue trends and margins. See *ATC/NUM: Up-Streamed* (Oct. '15) and *ATC/NUM: A Pause for Breath* (Oct. '15).	€51	+39.5%	13 Jul. '15/ €45.98	-20.5%**
Telecom Operators						
Mobistar (L)	€19.10	**3Q15 results showed a company executing on its LTE-led strategy and delivering that most precious and elusive quality amongst EU telcos – growth.** Wholesale cable access regulation should further bolster Mobistar's competitive positioning and help drive commercial performance, with commercial launch now more likely in 1Q16. As organic prospects improve, the case for 53%-owner Orange to buy in MOBB minorities becomes ever more compelling. See *Mobistar: Lesser Spotted Growth* (Oct. '15).	€29	+51.8%	28 Nov. '14/ €19.165	-0.4%
T-Mobile US (L)	$40.15	While competitive effects and continuing success with multi-line plans are dilutive factors, there will likely be a recovery in Data Stash revenue deferrals in 4Q15, setting a higher starting point for ARPU in '16. **We think TMUS can maintain phone net adds at high levels as it enlarges its addressable market with deeper 700MHz coverage and a push into Business**. See *T-Mobile US: ARPU Drum Beat* (Oct. '15).	$80	+99.3%	20 May '15/ $35.21	**+14.0%**
Vodafone (L)	223.9p	**After years of poor execution, Project Spring investment is delivering not only an improved customer experience, but belief and direction within management**. The initial fruits are gradual revenue improvement; next comes structural cost reduction, driving mid-single-digit EBITDA growth. See *Vodafone: Tasty and Organic* (Nov. '15).	262p	+17.0%	13 Jan. '09/ 138.85p	+61.3%
AT&T (S)*	$36.06	**AT&T looks like a hostage to its dividend.** Clinging to dividend commitments likely costs it market share; cutting dividends would cost it its rating. Either way, T looks set for an earnings downgrade, in our view, which will force the dividend to be questioned, especially as its huge non-debt liabilities – which are currently ignored in most sell-side valuations – are brought into focus. See *T/VZ: The Dividend Hostages* (Aug. '15).	$23	-36.2%	27 Jan. '14 $33.51	-7.6%
Sprint (S)*	**$3.02**	**See *Best Ideas* (front page) and *Sprint Corp: Another Nail in EBITDA's Coffin* (Feb. '16).**	**$2.00**	**-33.8%**	**27 Jan. '14 $8.87**	**+66.0%**
TalkTalk (S)*	**220.2p**	**See *Best Ideas* (front page) and *TalkTalk: Two Steps Back* (Jan. '16).**	**66p**	**-70.0%**	**7 Jun. '13 227.7p**	**+3.3%**

Source: Arete Research. Rating Key: (L) = Long, (S) = Short. * Short performance is shown as a positive if the stock price falls. ** Excl. Dec. '15 €5.70 special dividend. UR=Under Review. LG Display, Samsung prices in KRW. Inception price is the closing price on the date in which the stock was added to Best Ideas. Note: Past performance should not be viewed as an indicator of future performance.

Table 2: Recent Notes Published

Report/Comment	Date	Analyst	Price Target
Facebook: Clear Marching Orders	02 Feb. '16	R. Kramer	$140
MediaTek: Spinning on Smartphones	02 Feb. '16	B. Simpson	NT$340
Sprint Corp: Another Nail in EBITDA's Coffin	01 Feb. '16	A. Beale	$2.00
eBay: Perspective on Persistence	01 Feb. '16	R. Kramer	$36
Nokia: IPR Shortfall Raises Restructuring Pressure	01 Feb. '16	R. Kramer	€8
Sony: Game/Media Take Over as Devices Fades Away	01 Feb. '16	N. Kim	¥3,180
Arete Snapshot: Microsoft	29 Jan. '16	A. Shepherd	$65
Citrix: Now What?	29 Jan. '16	A. Shepherd	$60
Arete Snapshot: Baidu	29 Jan. '16	M. Li	$210
Samsung SDI: Electric Dreams	28 Jan. '16	N. Kim	KRW120,000
Arete Snapshot: ServiceNow	28 Jan. '16	A. Shepherd	$110
Apple: Facing an Innovator's Dilemma	27 Jan. '16	R. Kramer	$100
VMware: No Easy Way Out	27 Jan. '16	A. Shepherd	$50
Synaptics: Apple Press	27 Jan. '16	B. Simpson	$54
Decision Time: How to Play Charter/TWC	25 Jan. '16	W. Milner	$273/$244
Proofpoint: Spammity Spam	21 Jan. '16	A. Cousin	$65
TalkTalk: Two Steps Back	21 Jan. '16	S. Malcolm	66p
Arete Snapshot: Sky	20 Jan. '16	S. Malcolm	957p
Arete Snapshot: Netflix	20 Jan. '16	W. Milner	$135
TSMC: Shrugging Off iPhone Weakness	14 Jan. '16	B. Simpson	NT$120
CHKP: CyberArk Not Addressing Its Main Issue	14 Jan. '16	A. Cousin	$70
Amid the A-Share Storm	14 Jan. '16	M. Li	—
UK Communications: Year of the Regulatory Monkey	13 Jan. '16	S. Malcolm	—
Criteo: No Time for Being Timid	13 Jan. '16	R. Strauss	$60
The Telco Telex: Le Stitch-Up?	11 Jan. '16	A. Beale	—
LinkedIn: Profit Mountains to Climb	11 Jan. '16	R. Strauss	$175
The CIO Compiler #12	07 Jan. '16	A. Shepherd	—
Palo Alto Networks: Shifting Focus	10 Dec. '15	A. Cousin	$215
YouTube: Prove It or Lose It	08 Dec. '15	R. Kramer	—
NXP: Into the Big Leagues	08 Dec. '15	J. Fontanelli	$115
Virtual Reality: Feeling the Force	08 Dec. '15	J. Bajwa	—
AMD: Extreme Makeover?	08 Dec. '15	J. Bajwa	$3
Skyworks: As Good as It Gets?	08 Dec. '15	B. Simpson	$74
Netflix: Pricing Power Proof	07 Dec. '15	W. Milner	$135
Media: Give Life Back to Music	03 Dec. '15	L. Citroen	—
Vivendi: Never Mind the Boll***	03 Dec. '15	L. Citroen	€22.7
Samsung: Proactive Move	02 Dec. '15	N. Kim	KRW1,800,000
Cybersec: Bay Area Research Trip	02 Dec. '15	A. Cousin	—
Nokia-Alcatel vs. Ericsson: Passing Ships	01 Dec. '15	R. Kramer	€8.6/SKr64

Source: Arete Research.

Share prices are as of 29 January 2016 market close, unless otherwise indicated. This report compiles comments from Arete Research's entire team of analysts. The following analysts contributed to this report:

Internet Services	Telecom/Wireless/Cable/Satellite Operators
Richard Kramer, Analyst, Arete Research Services LLP *richard.kramer@arete.net/+44 (0)20 7959 1303* **Muzhi Li,** Analyst, Arete Research Asia Ltd. *muzhi.li@arete.net/ +852 2541 5559* **Rocco Strauss,** Analyst, Arete Research Services LLP *rocco.strauss@arete.net/+44 (0)20 7959 1304* **Aysha Zaman,** Analyst, Arete Research Services LLP *aysha.zaman@arete.net/+44 (0)20 7959 1305*	**Andrew Beale**, Analyst, Arete Research Services LLP *andrew.beale@arete.net/+44 (0)20 7959 1316* **Will Milner**, Analyst, Arete Research Services LLP *will.milner@arete.net/+44 (0)20 7959 1318* **Steve Malcolm**, Analyst, Arete Research Services LLP *steve.malcolm@arete.net/+44 (0)20 7959 1308* **Louis Citroen**, Analyst, Arete Research Services LLP *louis.citroen@arete.net/+44 (0)20 7959 1319*
Telecom Equipment/Mobile Devices	**Alternative Energy – Solar**
Richard Kramer, Analyst, Arete Research Services LLP *richard.kramer@arete.net/+44 (0)20 7959 1303*	**Jim Fontanelli**, Analyst, Arete Research Services LLP *jim.fontanelli@arete.net/ +44 (0)20 7959 1312*
Cloud – Software, Networking, Storage	**Semiconductors**
Adam Shepherd, Analyst, Arete Research Services LLP *adam.shepherd@arete.net/+44 (0)20 7959 1311* **Alban Cousin**, Analyst, Arete Research Services LLP *alban.cousin@arete.net/+44 (0)20 7959 1314* **Patrick Colville**, Analyst, Arete Research Services LLP *patrick.colville@arete.net/+44 (0)20 7959 1324*	**Brett Simpson**, Analyst, Arete Research Services LLP *brett.simpson@arete.net/ +44 (0)20 7959 1320* **Nam Hyung Kim**, Analyst, Arete Research Asia Ltd. *nam.kim@arete.net/ +852 2541 5552* **Jim Fontanelli**, Analyst, Arete Research Services LLP *jim.fontanelli@arete.net/ +44 (0)20 7959 1312* **Jaguar Bajwa**, Analyst, Arete Research Services LLP *jaguar.bajwa@arete.net/ +44 (0)20 7959 1321*

Regulation AC - The research analyst(s) whose name(s) appear(s) on the front cover of this report certify that: all of the views expressed in this report accurately reflect their personal views about the subject company or companies and its or their securities, and that no part of their compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed in this report.

Required Disclosures

For important disclosure information regarding the companies in this report, please call +44 (0)207 959 1300, or send an email to michael.pizzi@arete.net.

Rating System: Long (L), Positive (+ve), Neutral (N), Negative (-ve), and Short (S) - Analysts recommend stocks as Long or Short for inclusion in Arete Best Ideas, a monthly publication consisting of the firm's highest conviction recommendations. Being assigned a Long or Short rating is determined by a stock's absolute return potential, related investment risks and other factors which may include share liquidity, debt refinancing, estimate risk, economic outlook of principal countries of operation, or other company or industry considerations. Any stock not assigned a Long or Short rating for inclusion in Arete Best Ideas may be rated Positive or Negative indicating a directional preference relative to the absolute return potential of the analyst's coverage group. Any stock not assigned a Long, Short, Positive or Negative rating is deemed to be Neutral. A stock's absolute return potential represents the difference between the current stock price and the target price over a period as defined by the analyst.

Distribution of Ratings - As of 31 December 2015, 17.6% of stocks covered were rated Long, 31.5% Positive, 7.4% Short, 33.3% Negative and 10.2% deemed Neutral.

Global Research Disclosures - This globally branded report has been prepared by analysts associated with Arete Research Services LLP ("Arete LLP"), Arete Research, LLC ("Arete LLC"), and Arete Research Asia Ltd. ("Arete Asia"), as indicated on the cover page hereof. This report has been approved for publication and is distributed in the United Kingdom and Europe by Arete LLP (Registered Number: OC303210, Registered Office: 26 Red Lion Square, London WC1R 4AG), which is authorized and regulated by the UK Financial Conduct Authority ("FCA"); in North America by Arete LLC (15 Broad St, Boston, MA 02109), a wholly owned subsidiary of Arete LLP, registered as a broker-dealer with the Financial Industry Regulatory Authority ("FINRA"); and in Asia by Arete Asia (CE No. ATS894, Registered Office: Suite 5A, Abdoolally House, 20 Stanley Street, Central, Hong Kong), which is authorized and regulated by the Securities and Futures Commission in Hong Kong. Additional information is available upon request. Reports are prepared using sources believed to be wholly reliable and accurate but which cannot be warranted as to accuracy or completeness. Opinions held are subject to change without prior notice. No Arete director, employee or representative accepts liability for any loss arising from the use of any advice provided. Please see www.arete.net for details of any interests held by Arete representatives in securities discussed and for our conflicts of interest policy.

U.S. Disclosures - Arete provides investment research and related services to institutional clients around the world. Arete receives no compensation from, and purchases no equity securities in, the companies its analysts cover, conducts no investment banking, market-making or proprietary trading, derives no compensation from these activities and will not engage in these activities or receive compensation for these activities in the future. Arete restricts the distribution of its investment research and related services to approved institutions only. Analysts associated with Arete LLP and Arete Asia are not registered as research analysts with FINRA. Additionally, these analysts may not be associated persons of Arete LLC and therefore may not be subject to Rule 2711 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account.

Singapore Disclosures - This document is distributed in Singapore only to institutional investors (as defined under Singapore's Financial Advisers Regulations ("FAR")) in reliance on Regulation 27(1)(e) of the FAR read in conjunction with Section 23(1)(f) of the Financial Advisers Act, Chapter 110 of Singapore. This document does not provide individually tailored investment advice. Subject to the foregoing, the contents in this document have been prepared and are intended for general circulation. The contents in this document do not take into account the specific investment objectives, financial situation or particular needs of any particular person. The securities and/or instruments discussed in this document may not be suitable for all investors. You should independently evaluate particular investments and strategies and seek advice from a financial adviser regarding the suitability of such securities and/or instruments, taking into account your specific investment objectives, financial situation and particular needs, before making a commitment to purchase any securities and/or instruments. This is because the appropriateness of a particular security, instrument, investment or strategy will depend on your individual circumstances and investment objectives, financial situation and particular needs. The securities, investments, instruments or strategies discussed in this document may not be suitable for all investors, and certain investors may not be eligible to purchase or participate in some or all of them. This document is not an offer to buy or sell or the solicitation of an offer to buy or sell any security and/or instrument or to participate in any particular trading strategy. This document may not be reproduced or provided to any person in Singapore without the prior written permission. The use or reliance on any information in this document is at your own risk and any losses which may be suffered as a result of you entering into any investment are for your account and Arete Research Services LLP and its affiliates shall not be liable for any losses arising from or incurred by you in connection therewith. You will conduct your own evaluation and consult with your own legal, business and tax advisors to determine the appropriateness and consequences of any investment and you will make any investment pursuant to an independent evaluation and analysis of the consequences of the same in reliance only upon your own judgment and not in reliance upon this document and/or any views, representations (whether written or oral), advice, recommendation, opinion, report, analysis, materials, information or other statement by Arete Research Services LLP or any of its affiliates, agents, nominees, directors, officers or employees. Arete Research Services LLP and its affiliates do not hold out any of its affiliates, agents, nominees, directors, officers or employees as having any authority to advise you, and Arete Research Services LLP and its affiliates do not purport to advise you on any investment. You will evaluate and accept all of the risks associated with an investment in any investment. Accordingly, Arete Research Services LLP and its affiliates is entitled to rely on your own independent evaluation and analysis. Any investment will be made at your sole risk and Arete Research Services LLP and its affiliates are not and shall not, in any manner, be liable or responsible for the consequences of any investment.

Section 28(e) Safe Harbor - Arete LLC has entered into commission sharing agreements with a number of broker-dealers pursuant to which Arete LLC is involved in "effecting" trades on behalf of its clients by agreeing with the other broker-dealer that Arete LLC will monitor and respond to customer comments concerning the trading process, which is one of the four minimum functions listed by the Securities and Exchange Commission in its latest guidance on client commission practices under Section 28(e). Arete LLC encourages its clients to contact Anthony W. Graziano, III (+1 617 357 4800 or anthony.graziano@arete.net) with any comments or concerns they may have concerning the trading process.

Asian Disclosures - The contents of this document have not been reviewed by any regulatory authority in Asia. You are advised to exercise caution and if you are in doubt about any of the contents of this document, you should obtain independent professional advice. Whilst considerable care has been taken to ensure the information contained within this document is accurate and up-to-date, no warranty is given as to the accuracy or completeness of any information and no liability is accepted for any errors or omissions in such information or any action taken on the basis of this information. The information may not be current and Arete Asia has no obligation to provide any updates or changes.

General Disclosures – This research is not an offer to sell or the solicitation of an offer to buy any security or in any particular trading strategy in any jurisdiction. It does not constitute a personal recommendation or take into account the particular investment objectives, financial situations, or need of the individual clients. Clients should consider whether any advice or recommendation in this research is suitable for their particular circumstances and, if appropriate, seek professional advice. The price and value of the investments referred to in this research and the income from them may fluctuate. Past performance is not a guide to future performance, future returns are not guaranteed, and a loss of original capital may occur. Fluctuations in exchange rates could have adverse effects on the value or price of, or income derived from, certain instruments. As with all investments, there are inherent risks that each individual should address.