

LUXURY GOODS

The Social Media Boxing Ring – Two Years After

4 MAY 2017 at 06:37*

Luca Solca

(+41) 22 7186536
luca.solca@exanebnpparibas.com

Melania Grippo

(+39) 02 89 63 1724
melania.grippo@exanebnpparibas.com

Guido Lucarelli

(+39) 02 89 63 1726
guido.lucarelli@exanebnpparibas.com

Specialist sales

David Tovar
(+44) 203 430 8677



TRENDALYTICS
Trendalytics

With contributions from:

**Karen Moon, Charlotte Bax,
Melanie Appleby**

We continue our collaboration with Trendalytics ([The Social Media Boxing Ring](#)) to bring a quantitatively-grounded perspective on how luxury brands are doing in the social media world.

Luxury brands' social media engagement is rocketing

Instagram remains by far the "place to be", accounting for c.50% of brand posts (up from c.30% two years ago) and >90% of social actions. **Social media traction is growing rapidly**: The brands we monitored in June 2015 had c.2.5mln Instagram followers on average; today, that number has almost tripled. All brands now see digital as a strategic priority.

Influencers remain more effective than brands in generating social traction – for how long?

Influencers generate higher social actions / post than the brands. **One needs to analyse influencers' posts with a big pinch of salt** though, as their activity is driven by brands' media investments. This could over time undermine their credibility and relevance. Not yet, though, as influencers have continued to extend their lead during the past year: actions / post are up for all brands when we look at influencers' posts. **Burberry is the only brand with lower influencer posts in 1Q17 vs. 1Q16, which we take as another sign of weakness.**

We monitor brands punching "above their weight" and "below their weight"

To this end, we analyse social actions / post as a function of total posts. When we compare today (1Q17) with two years ago (2Q15), **we find contrasting fortunes at two brands: Gucci has been rising while Burberry has been declining**. Brands that continue to punch "above their weight" are: Chanel, LV, Michael Kors, Dior, Dolce & Gabbana. Brands that continue to lag and punch "below their weight" are: Hermès, Hugo Boss, Ferragamo, Tod's, BV, Céline.

We monitor "brand temperature" in social media

To this end, we analyse **volume trends** in brands' social media activity (# of posts in 1Q17 vs. 1Q16) and **effectiveness trends** (# of social actions / post in 1Q17 vs. 1Q16). **Saint Laurent** is the only brand doubling in effectiveness in the past year.

Key valuation metrics

	Rating	Mkt cap (EURm)	Price (LC)	TP (LC)	Upside	P/E (x)		EV/EBITA (x)	
						17e	18e	17e	18e
Cucinelli	(=)	1,642	24.2	20.0	-17%	39.4	35.9	26.8	24.6
Burberry	(=)	8,279	15.8	15.4	-3%	20.0	17.8	12.8	11.0
Hermès Int.	(-)	46,819	448.0	346.0	-23%	37.2	35.5	23.0	21.6
Hugo Boss	(=)	4,641	67.3	72.0	7%	18.8	17.0	14.1	12.6
Kering	(=)	35,872	284.7	310.0	9%	20.4	17.5	16.1	13.7
Luxottica	(=)	25,519	53.3	59.0	11%	25.3	22.4	15.8	14.0
LVMH	(+)	116,097	230.9	250.0	8%	23.7	21.4	15.6	14.6
Moncler	(=)	5,805	23.2	20.5	-12%	26.7	25.2	17.3	15.9
Prada **	(+)	10,962	36.4	37.0	2%	29.0	23.2	19.9	15.9
Richemont	(+)	43,990	84.3	87.0	3%	25.4	22.4	17.4	15.0
Ferragamo	(+)	4,896	29.1	30.0	3%	25.9	23.7	17.4	15.6
Swatch Group B	(-)	20,034	403.2	300.0	-26%	27.2	23.4	19.3	16.7
Tod's	(=)	2,350	71.0	63.0	-11%	24.8	22.8	16.2	14.8

Prices at 3 May 2017 ** Prices at 2 May 2017

* Date and time (London Time) on which the investment recommendation was finalised. It may differ from the date and time of broad dissemination on the website. See Appendix (on p21) for Analyst Certification, Important Disclosures and Non-US Research Analyst disclosures.

We continue our collaboration with Trendalytics to bring investors a quantitatively grounded perspective on how luxury goods brands are doing in the social media world – see our previous report: [The Social Media Boxing Ring](#).

Luxury brands' social media engagement is rocketing

Instagram remains by far the “place to be”, accounting for c.50% of brand posts (up from c.30% two years ago) and >90% of social actions. **Social media traction is growing rapidly**: The brands we monitored in June 2015 had c.2.5mln Instagram followers on average; today, that number has almost tripled. This was achieved on a higher number of brand posts – c.220 posts in 1Q17 vs c.130 posts in 1Q15. **Luxury companies are continuing to shift their media dollars from print to digital media**, and all brands now see digital as a strategic priority.

We monitor “brand temperature” in social media

To this end, we analyse **volume trends** in brands' social media activity (# of posts in 1Q17 vs. 1Q16) and **effectiveness trends** (# of social actions / post in 1Q17 vs. 1Q16). **Saint Laurent is the only brand doubling in effectiveness** in the past year, with **Cartier, Tod's, Gucci, Balenciaga, Hermes, and Salvatore Ferragamo** trailing behind – in this order. At the other end of the spectrum, **Valentino and Burberry posted the weakest effectiveness trend**, followed by Tory Burch and Michael Kors.

Influencers remain more effective than brands in generating social traction – for how long?

Influencers generate higher social actions / post than the brands. **One needs to analyse influencers' posts with a big pinch of salt** though, as their activity is driven by brands' media investments. This could over time undermine their credibility and relevance. Not yet, though, as influencers have continued to extend their lead during the past year: actions / post are up for all brands when we look at influencers' posts. **Burberry is the only brand with lower influencer posts in 1Q17 vs. 1Q16, which we take as another sign of weakness**, with all the caveats above.

We monitor brands punching “above their weight” and “below their weight”





To this end, we analyse social actions / post as a function of total posts. When we compare today (1Q17) with two years ago (2Q15), **we find contrasting fortunes at two brands: Gucci has been rising while Burberry has been declining**. There was no necessity to confirm Gucci's current strength: it is obvious in our view. The finding on Burberry, meanwhile, is another data point signalling the “brand malaise” we have identified and flagged in our “brand temperature” research previously. Brands that continue to punch “above their weight” are: Chanel, Louis Vuitton, Michael Kors, Dior, Dolce & Gabbana. Brands that continue to lag and punch “below their weight” are: Hermes, Hugo Boss, Salvatore Ferragamo, Tod's, Bottega Veneta, Celine.

Note: Influencers include bloggers, celebrities, brands, magazines and publications who are the taste-makers in the fashion industry.

Luxury brands' social media engagement is rocketing

Instagram remains by far the “place to be”, accounting for c.50% of brand posts (up from c.30% two years ago) and >90% of social actions. **Social media traction is growing rapidly**: The brands we monitored in June 2015 had c.2.5mln Instagram followers on average; today, that number has almost tripled. This was achieved on a higher number of brand posts – c.220 posts in 1Q17 vs c.130 posts in 1Q15. **Luxury companies are continuing to shift their media dollars from print to digital media**, and all brands now see digital as a strategic priority.

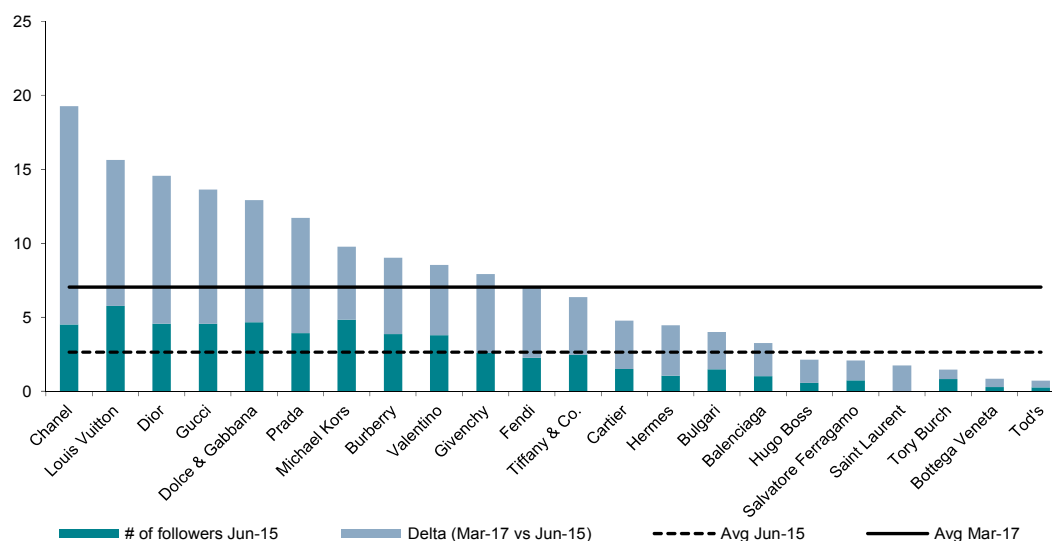
Figure 1: Key social networks and their features

	Social network	Monthly active users (mln)	Key features
	Facebook	1,968	<ul style="list-style-type: none"> Facebook is free to join and free to use. It can be used by anyone wherever they are in the world as long as they have internet access. Facebook users can share messages, videos links, photographs and websites. Facebook users can join groups or follow people/hobbies that interest them You can search by name or email to find people. Users can choose to allow access or deny it. Privacy settings can be set to only communicate with people you have agreed to allow access. Facebook is available 24 hours a day so people can communicate without geographical timelines causing a problem.
	Instagram	700	<ul style="list-style-type: none"> Instagram is a social networking app made for sharing photos and videos from a smartphone. Similar to Facebook or Twitter, everyone who creates an Instagram account has a profile and a news feed. When you post a photo or video on Instagram, it will be displayed on your profile. Other users who follow you will see your posts in their own feed. Likewise, you'll see posts from other users who you choose to follow. It could be compared to a simplified version of Facebook, with an emphasis on mobile use and visual sharing. Just like other social networks, you can interact with other users on Instagram by following them, being followed by them, commenting, liking, tagging and private messaging. You can even save the photos you see on Instagram. Instagram stories: Users can now upload off-the-cuff or behind-the-scenes photos and videos to their Instagram Story which lasts only 24 hours before disappearing without disrupting the #aesthetic of your Insta profile (Note: In our analysis we can only capture actions on posts, not on Instagram stories)
	Twitter	319	<ul style="list-style-type: none"> Twitter is very simple to use as broadcaster or receiver. You join with a free account and Twitter name. Then you send broadcasts daily, or even hourly. Go to the 'What's Happening' box, type 140 characters or less, and click 'Tweet'. You will most likely include some kind of hyperlink. To receive Twitter feeds, you simply find someone interesting (celebrities included), and 'follow' them to subscribe to their tweet microblogs. Once a person becomes uninteresting to you, you simply 'unfollow' them. You then choose to read your daily Twitter feeds through any of various Twitter readers.
	Snapchat	300	<ul style="list-style-type: none"> Snapchat is a mobile app that allows you to send videos and pictures, both of which will self destruct after a few seconds of a person viewing them You can capture a photo or brief video with it, then add a caption or doodle or filter/lens over top, and send the finished creation (called a snap) to a friend You can also add your snap to your "story", a 24-hour collection of all your snaps that's broadcasted to the world or just your followers <p>Note: In our analysis we do not include Snapchat as we are not able to capture the number of followers and the social actions</p>

Source: Pocket-lint.com, Lifewire, Google images, Trendalytics

Figure 2: Brands' social media traction is growing rapidly: in June 2015 brands had c.2.5mln Instagram followers on average; today, that number has almost tripled

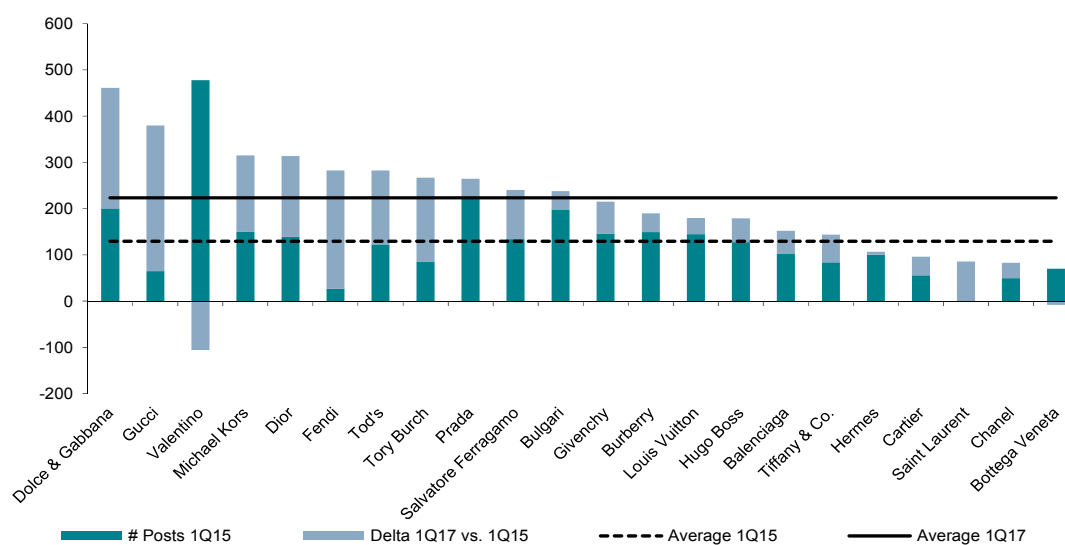
Followers on Instagram in March 2017 (mln)



Source: Trendalytics, Instagram

Figure 3: Brands' level of social media engagement is growing rapidly: brands had an average of c.220 posts in 1Q17 vs c.130 posts in 1Q15

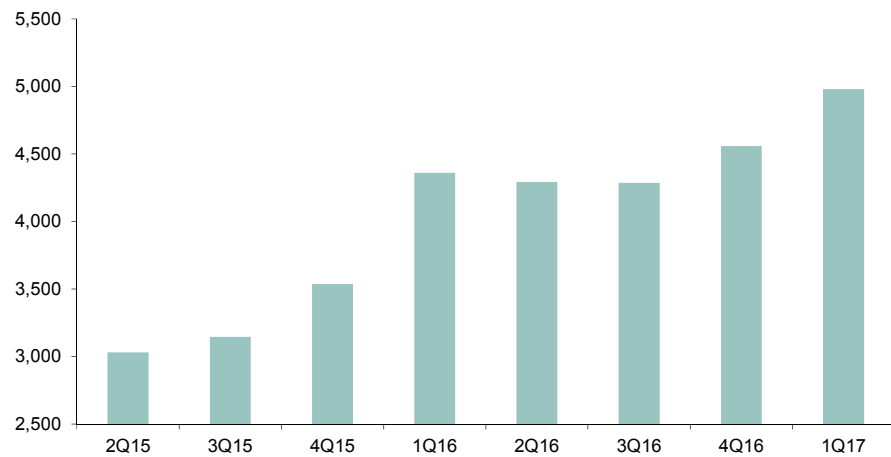
Number of posts in Q1 17



Source: Trendalytics, Instagram

Figure 4: The number of posts published on Instagram by luxury goods brands has been growing steadily over the past quarters

of Instagram posts



Source: Trendalytics

Note: Sample includes Balenciaga, Bottega Veneta, Bulgari, Burberry, Cartier, Celine, Chanel, Dior, Dolce & Gabbana, Fendi, Givenchy, Gucci, Hermès, Hugo Boss, Louis Vuitton, Michael Kors, Prada, Saint Laurent, Salvatore Ferragamo, Tiffany, Tod's, Tory Burch and Valentino

Figure 5: Chanel and Michael Kors consistently drove the most engagement throughout the quarters

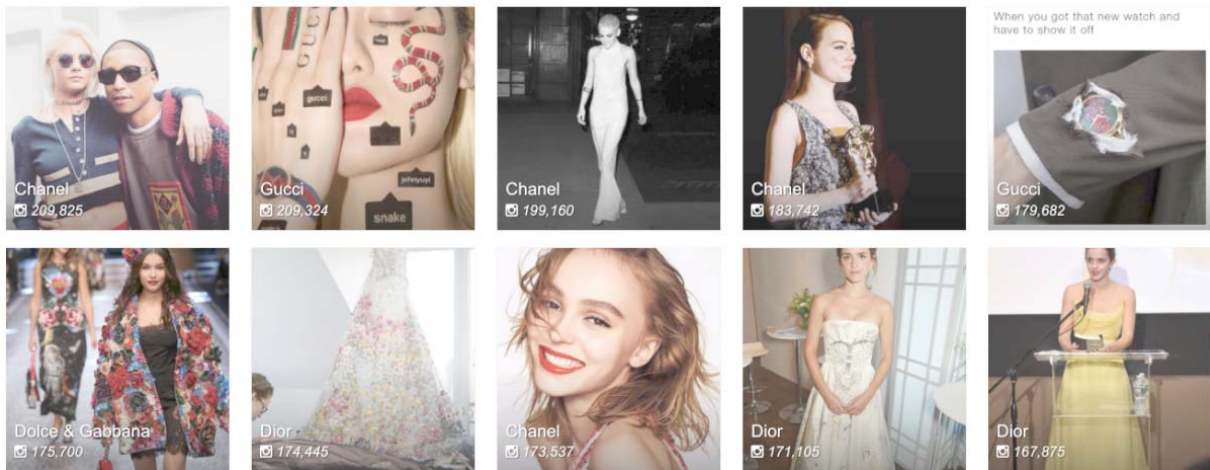
of posts in the top ten by quarter (3Q14-1Q17)

	3Q 14	4Q 14	1Q 15	2Q 15	3Q 15	4Q 15	1Q 16	2Q 16	3Q 16	4Q 16	1Q 17	Total
Chanel				2	5	9	8	7	7	5	4	47
Michael Kors	8	8	10	8	4	1	1		1	2		43
Dior					1		1	2	1	3	3	11
Louis Vuitton	2							1	1			4
Burberry		2										2
Gucci											2	2
Dolce & Gabbana											1	1

Source: Trendalytics, Instagram, Exane BNP Paribas estimates

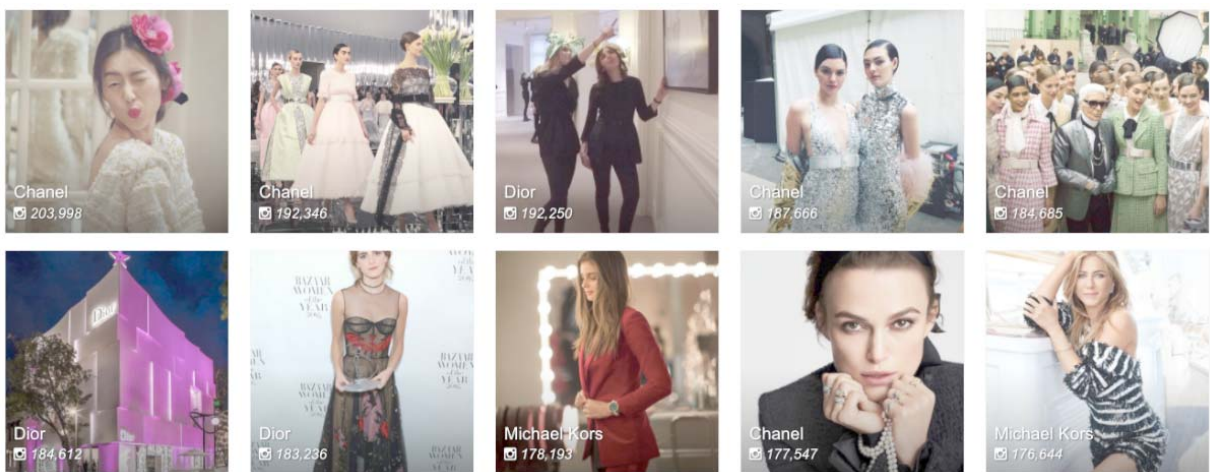
Note : Top ten posts are ranked by number of social actions from highest to lowest. Images featuring brand influencers and ambassadors often fall in the top ten posts.

Figure 6: Top ten Instagram posts in 1Q17



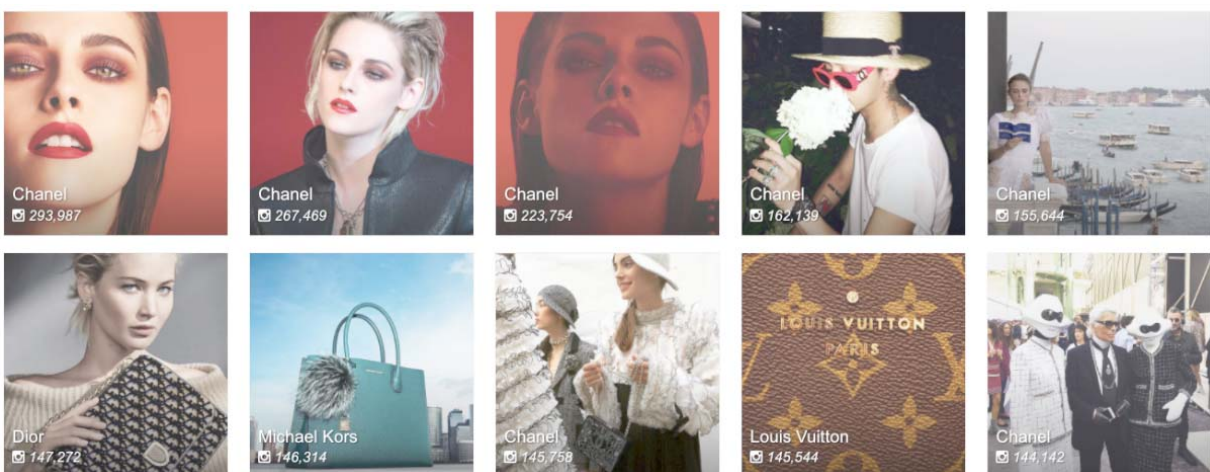
Source: Trendalytics, Instagram

Figure 7: Top ten Instagram posts in 4Q16



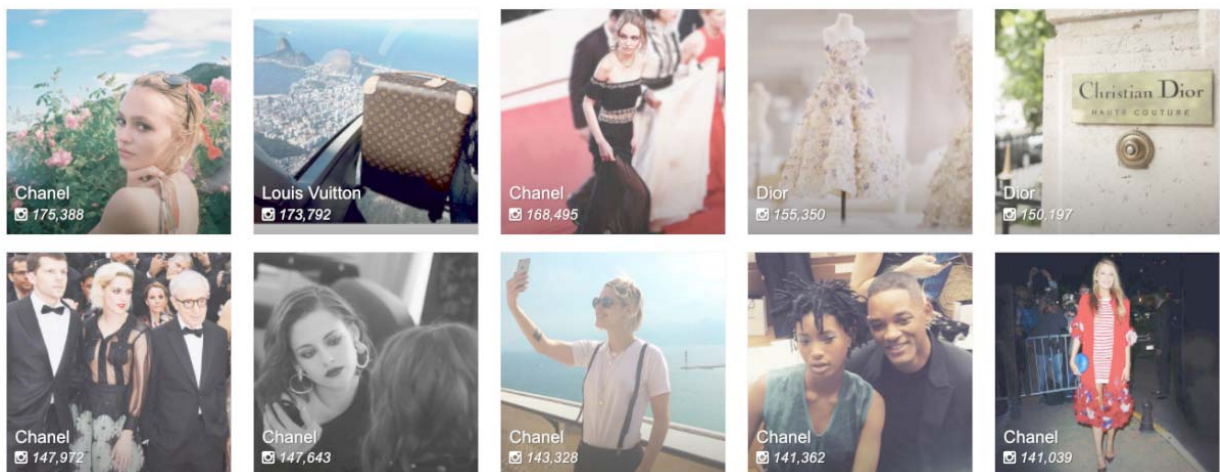
Source: Trendalytics, Instagram

Figure 8: Top ten Instagram posts in 3Q16



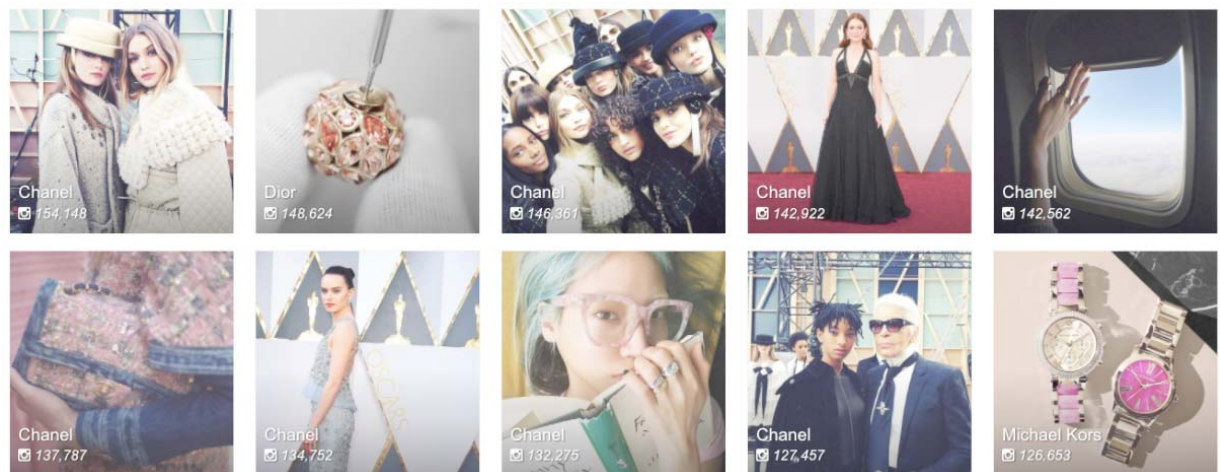
Source: Trendalytics, Instagram

Figure 9: Top ten Instagram posts in 2Q16



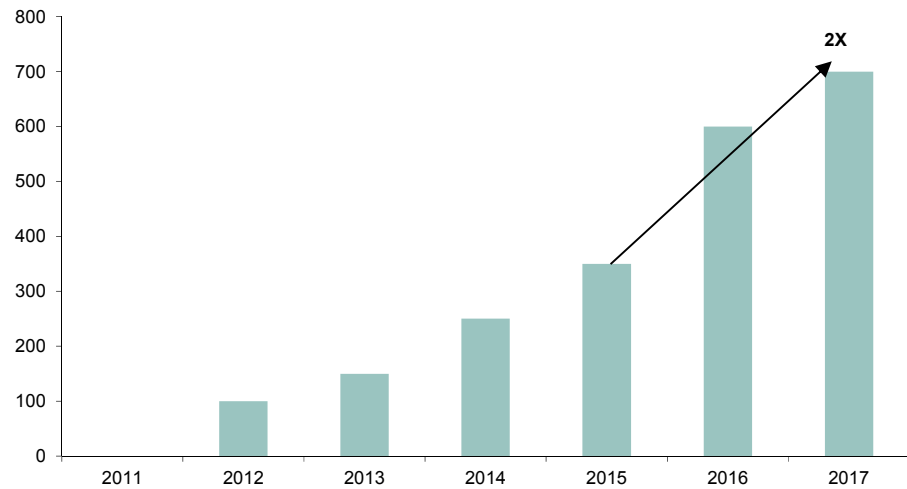
Source: Trendalytics, Instagram

Figure 10: Top ten Instagram posts in 1Q16



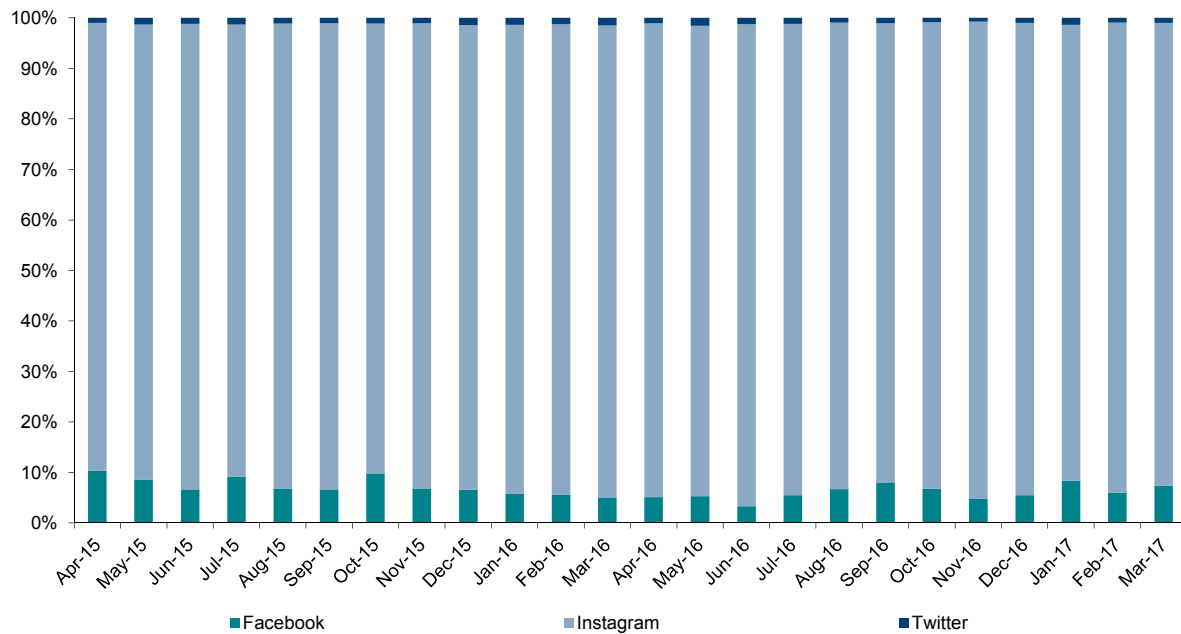
Source: Trendalytics, Instagram

Figure 11: The number of Instagram users has been growing exponentially
Instagram # of users (mln)



Source: Exane BNP Paribas estimates, Business Insider

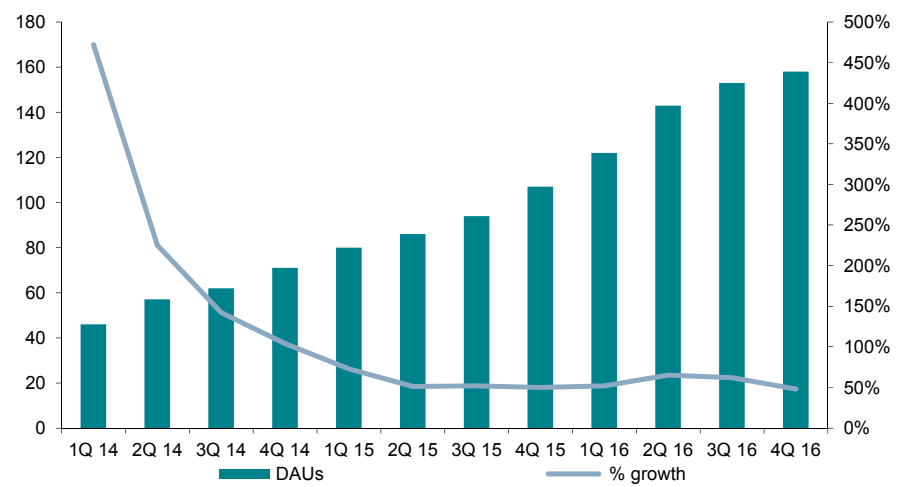
Figure 12: Instagram remains by far the “place to be”
% of social actions by social media



Source: Trendalytics, Instagram, Facebook, Twitter

Figure 13: Instagram remains by far the “place to be”...but is being rivalled by Snapchat

Snapchat - Daily active user by quarter



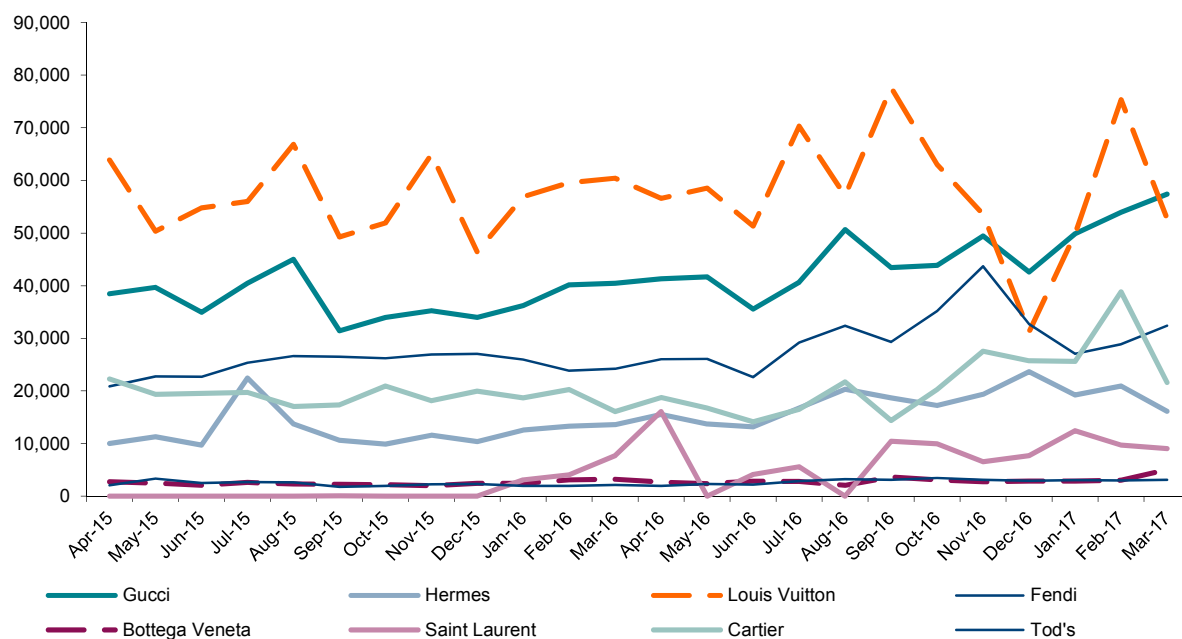
Source: venturebeat

We monitor “brand temperature” in social media

To this end, we analyse **volume trends** in brands' social media activity (# of posts in 1Q17 vs. 1Q16) and **effectiveness trends** (# of social actions / post in 1Q17 vs. 1Q16). **Saint Laurent is the only brand doubling in effectiveness** in the past year, with **Cartier, Tod's, Gucci, Balenciaga, Hermes, and Salvatore Ferragamo** trailing behind – in this order. At the other end of the spectrum, **Valentino and Burberry posted the weakest effectiveness trend**, followed by Tory Burch and Michael Kors.

Note: Influencers include bloggers, celebrities, brands, magazines and publications who are the taste-makers in the fashion industry.

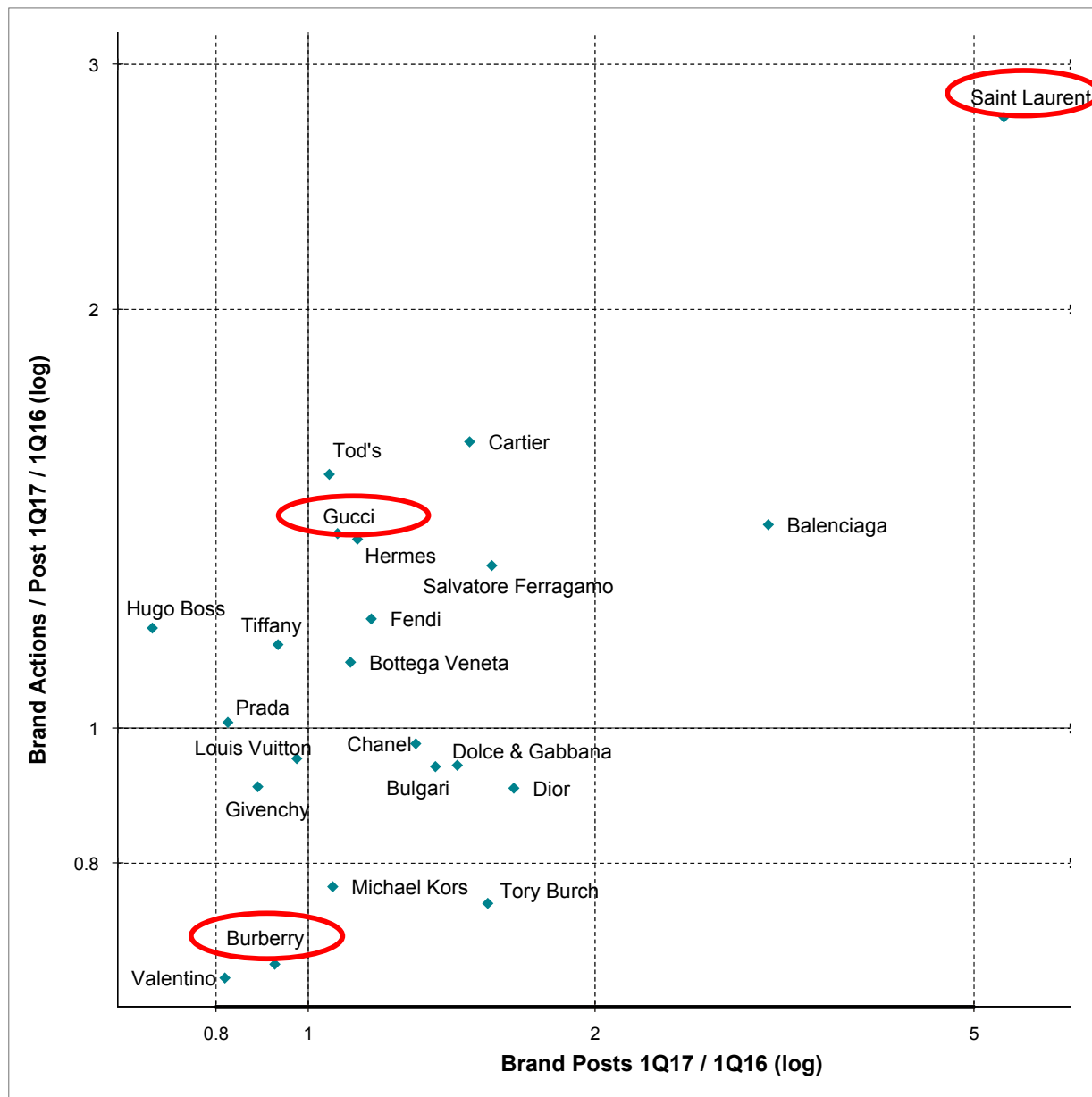
Figure 14: # of Instagram/actions per post by brand



Source: Trendalytics, Instagram

Figure 15: Saint Laurent is the only brand doubling in effectiveness in the past year...

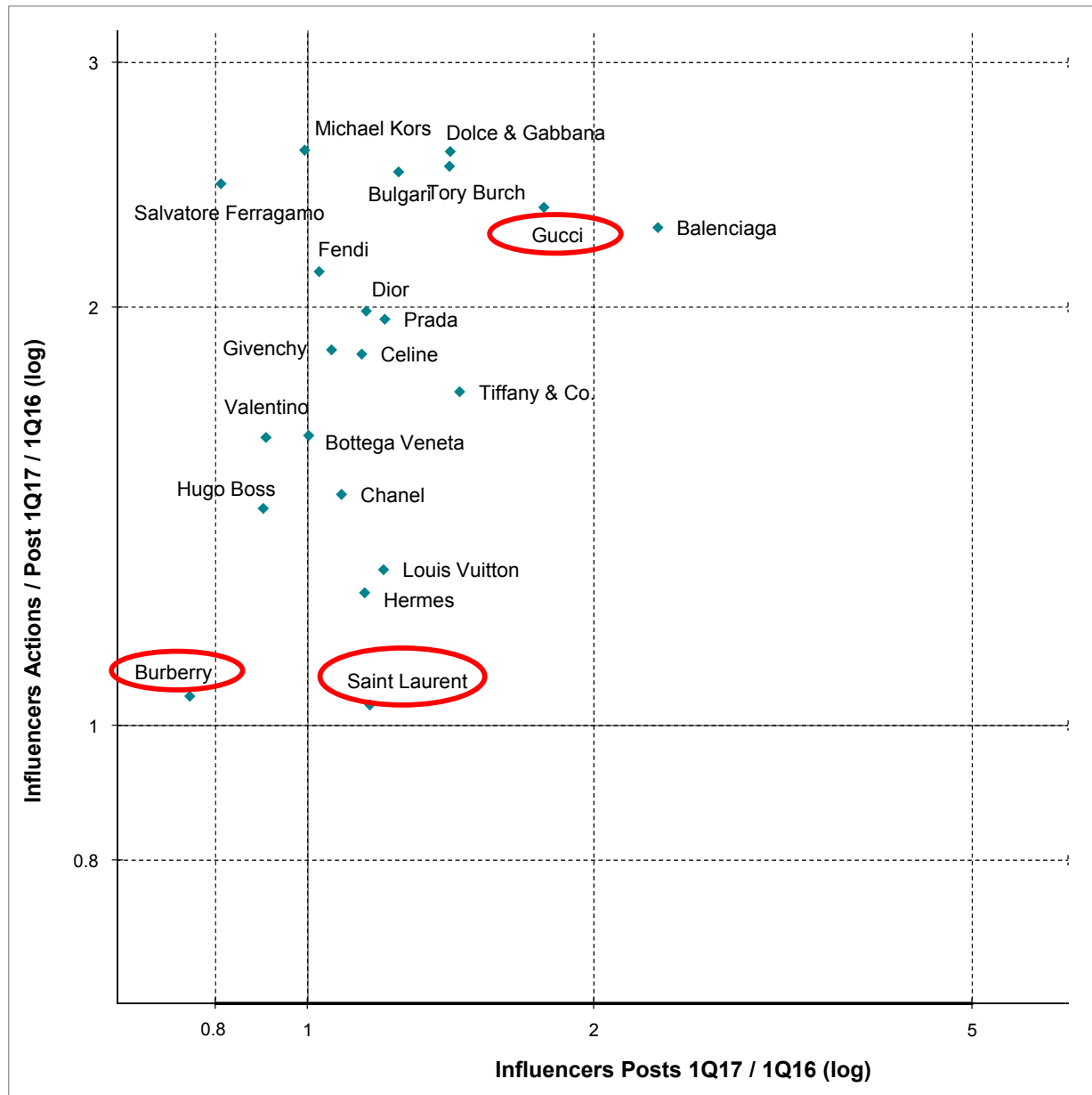
Delta (y/y growth) Instagram performance posts and actions/post (Brands' own) [Ref. to Fig 21 and 22 for tot # of actions]



Source: Trendalytics, Exane BNP Paribas analysis

Figure 16: ...but less so when we look at top influencer data

Delta (growth) Instagram performance posts and actions/post (influencers)



Source: Trendalytics, Exane BNP Paribas analysis

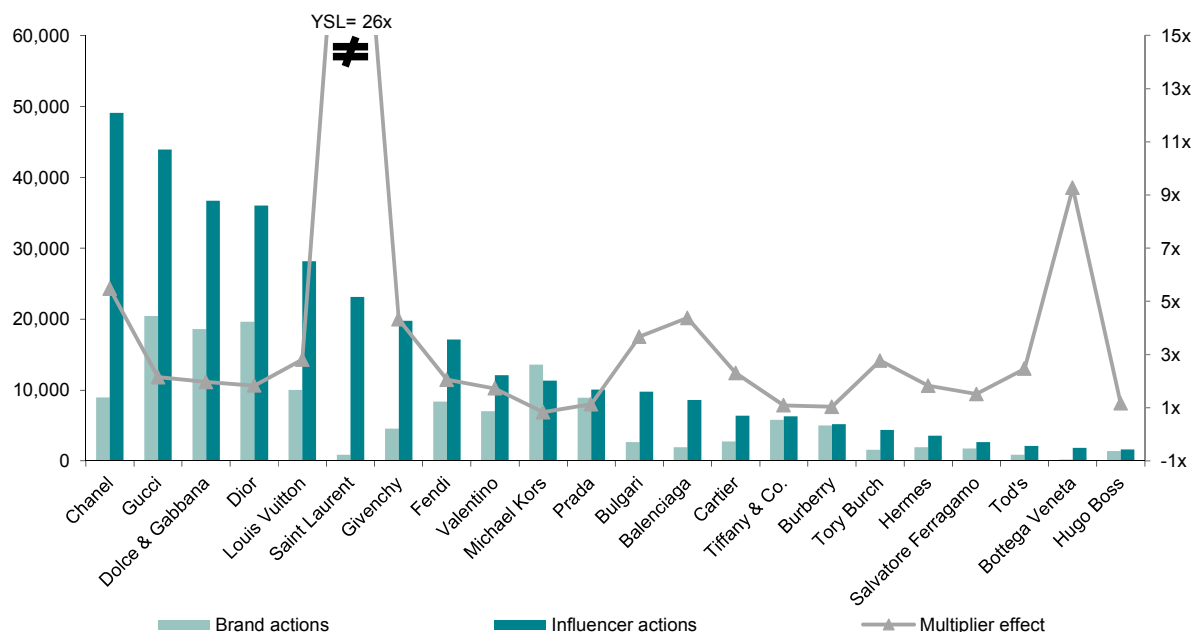
Note: Influencers include bloggers, celebrities, brands, magazines and publications that are the taste-makers in the fashion industry

Influencers remain more effective than brands in generating social traction - for how long?

Influencers generate higher social actions / post than the brands. **One needs to analyse influencers' posts with a big pinch of salt** though, as their activity is driven by brands' media investments. This could over time undermine their credibility and relevance. Not yet, though, as influencers have continued to extend their lead during the past year: actions / post are up for all brands when we look at influencers' posts. **Burberry is the only brand with lower influencer posts in 1Q17 vs. 1Q16, which we take as another sign of weakness**, with all the caveats above.

Figure 17: Multipliers of social buzz – Luxury brands are not the only ones telling their stories, as influencers drive the most actions for their brands

#of actions by brands and influencers ('000) in 1Q17



Source: Trendalytics, Instagram

Figure 18: Influencers remain more effective than brands in generating social traction

Social actions/post by Top influencers and Luxury Goods Brands in 1Q17 social traction

	Top Influencer	Social Actions/Post by top influencer (a)	Social Actions / Post by brands (b)	(a) / (b) "Top influencer multiplier effect on avg actions/post"	Top influencer actions as a % of total influencers actions
Celine	Kim Kardashian	1,182,087	1,875	630.48x	18%
Salvatore Ferragamo	Nina Dobrev	601,316	7,361	81.69x	22%
Valentino	Demi Lovato	1,385,467	18,864	73.45x	11%
Bulgari	Bella Hadid	591,423	11,152	53.03x	18%
Bottega Veneta	Kris Jenner	102,457	3,199	32.03x	21%
Givenchy	Nicki Minaj	629,753	21,241	29.65x	12%
Balenciaga	Nicki Minaj	341,862	12,905	26.49x	12%
Tory Burch	Shay Mitchell	134,751	5,928	22.73x	21%
Fendi	Gigi Hadid	653,272	29,483	22.16x	30%
Dolce & Gabbana	Cameron Dallas	742,342	40,335	18.40x	22%
Saint Laurent	J Balvin	181,475	9,965	18.21x	9%
Michael Kors	Blake Lively	759,670	43,102	17.62x	19%
Burberry	Dove Cameron	447,287	26,353	16.97x	8%
Tod's	Naomi Campbell	40,647	3,056	13.30x	15%
Hugo Boss	Mariano Di Vaio	91,041	7,773	11.71x	10%
Cartier	Nikkie Tutorials	290,287	28,779	10.09x	13%
Dior	Rihanna	629,179	62,550	10.06x	5%
Gucci	Nina Dobrev	458,444	53,853	8.51x	5%
Chanel	Cara Delevingne	662,894	107,953	6.14x	11%
Prada	Chiara Ferragni (The Blonde Salad)	116,169	33,523	3.47x	11%
Tiffany & Co.	Reese Witherspoon	77,643	40,228	1.93x	16%
Hermes	Xenia Tchoumi	27,692	18,147	1.53x	5%
Louis Vuitton	Kevin Ma (Hypebeast)	26,689	55,737	0.48x	3%
Average		442,341	27,972	48.27x	18%

Source: Exane BNP Paribas estimates, Trendalytics, Instagram, Facebook, Twitter

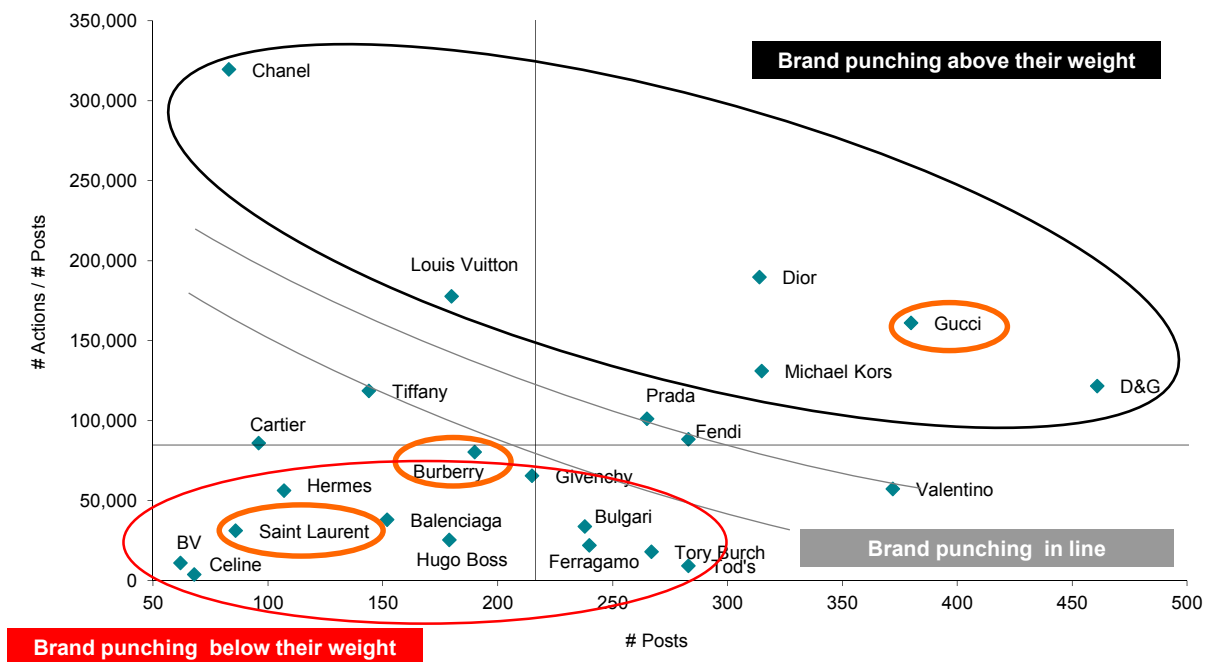
Note: Influencers include bloggers, celebrities, brands, magazines and publications who are the taste-makers in the fashion industry

We monitor brands punching “above their weight” and “below their weight”

To this end, we analyse social actions / post as a function of total posts. When we compare today (1Q17) with two years ago (2Q15), **we find contrasting fortunes at two brands: Gucci has been rising while Burberry has been declining**. There was no necessity to confirm Gucci's current strength: it is obvious in our view. The finding on Burberry, meanwhile, is another data point signalling the “brand malaise” we have identified and flagged in our “brand temperature” research previously. Brands that continue to punch “above their weight” are: Chanel, Louis Vuitton, Michael Kors, Dior, Dolce & Gabbana. Brands that continue to lag and punch “below their weight” are: Hermes, Hugo Boss, Salvatore Ferragamo, Tod's, Bottega Veneta, Celine.

Figure 19: We monitor brands punching “above their weight” and “below their weight” – we find contrasting fortunes at two brands: Gucci has been rising while Burberry has been declining (1/4)

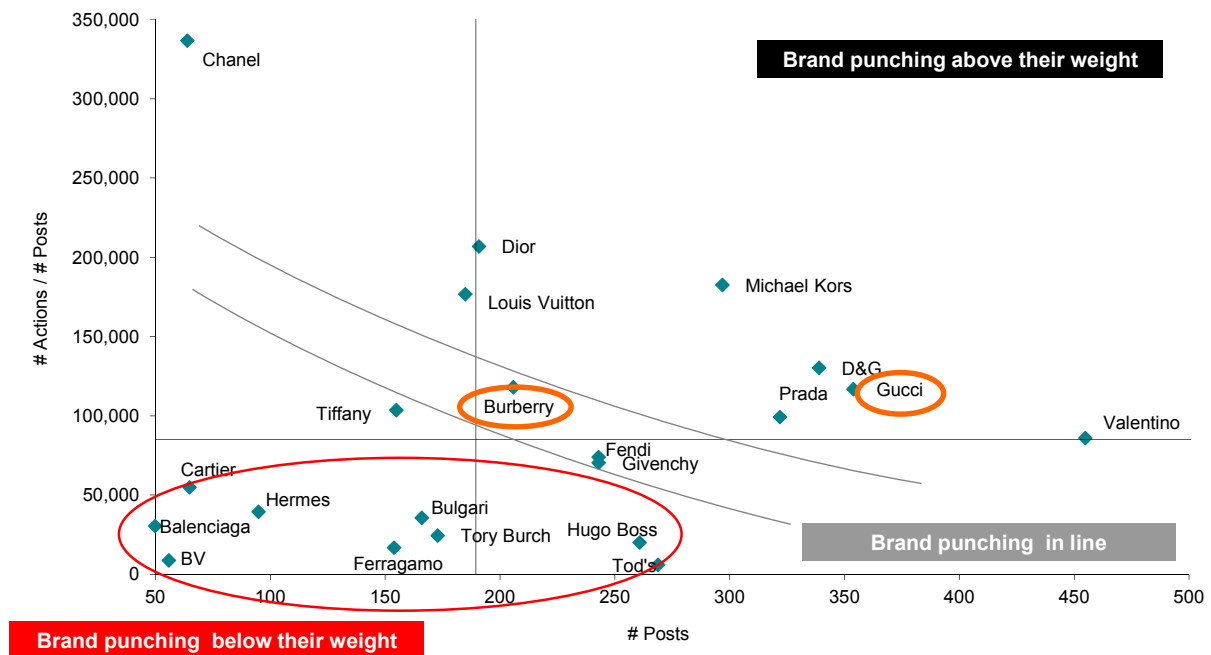
Actions / Posts vs # of Posts by brand (1Q 2017)



Source: Trendalytics, Instagram

Figure 20: We monitor brands punching “above their weight” and “below their weight” – we find contrasting fortunes at two brands: Gucci has been rising while Burberry has been declining (2/4)

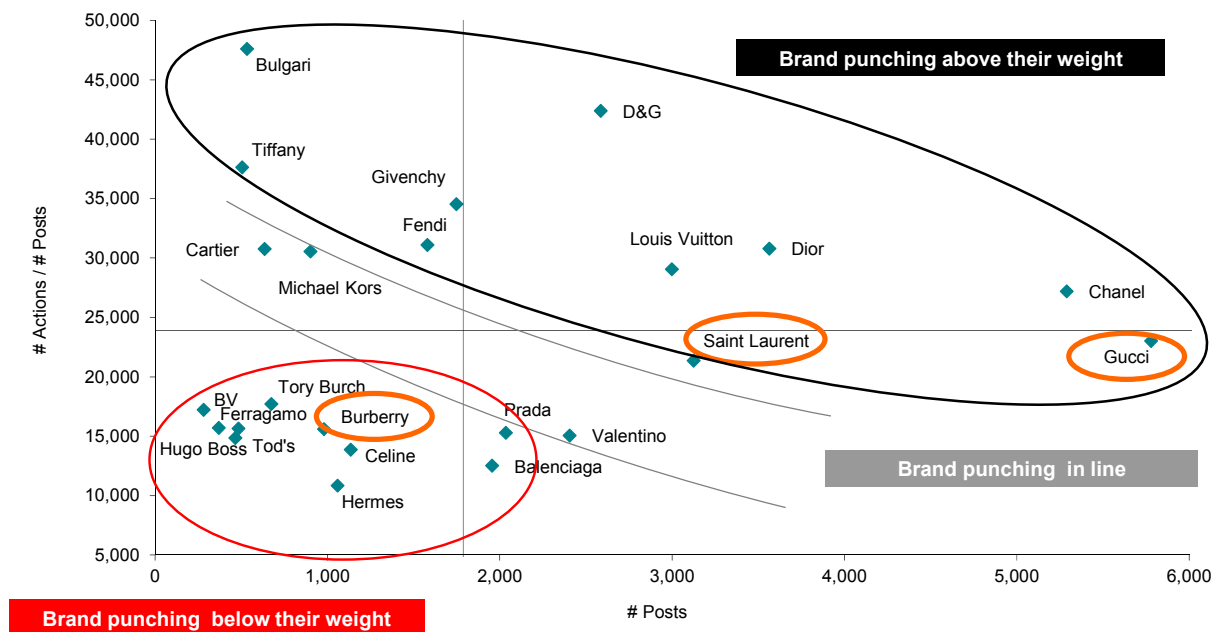
Actions / Posts vs # of Posts by brand (1Q 2016)



Source: Trendalytics, Instagram

Figure 21: We monitor brands punching “above their weight” and “below their weight” – we find contrasting fortunes at two brands: Gucci has been rising while Burberry has been declining (3/4)

Actions / Posts vs # of Posts by influencer (1Q 2017)

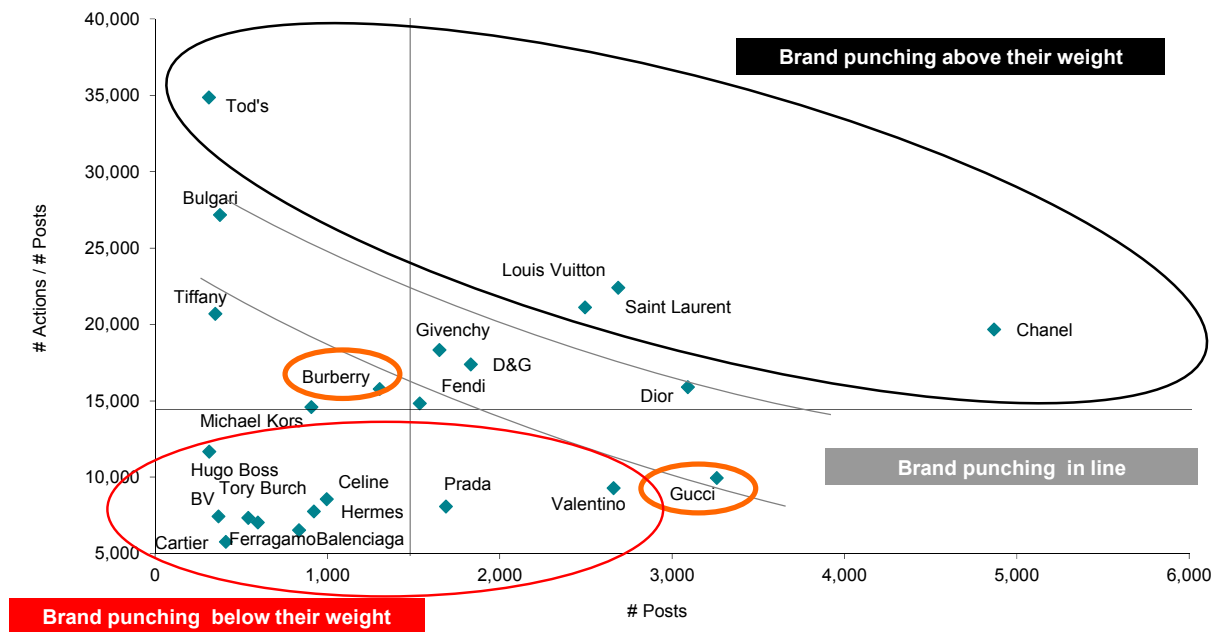


Source: Trendalytics, Instagram

Note: Influencers include bloggers, celebrities, brands, magazines and publications who are the taste-makers in the fashion industry

Figure 22: We monitor brands punching “above their weight” and “below their weight” – we find contrasting fortunes at two brands: Gucci has been rising while Burberry has been declining (4/4)

Actions / Posts vs # of Posts by influencer (1Q 2016)

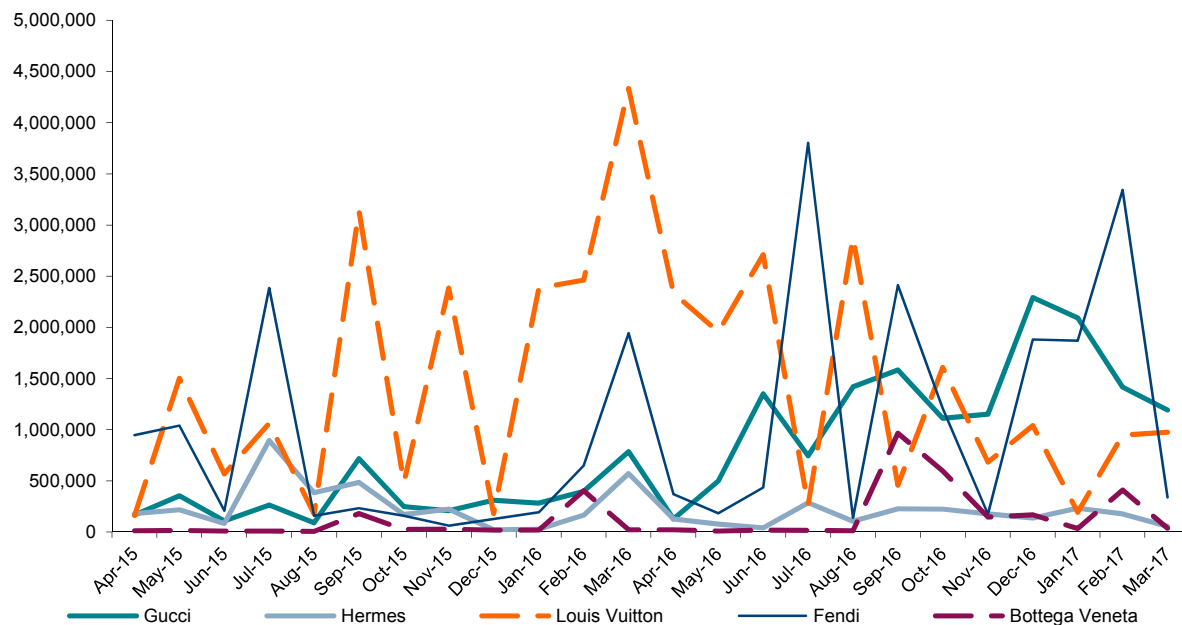


Source: Trendalytics, Instagram

Note: Influencers include bloggers, celebrities, brands, magazines and publications who are the taste-makers in the fashion industry

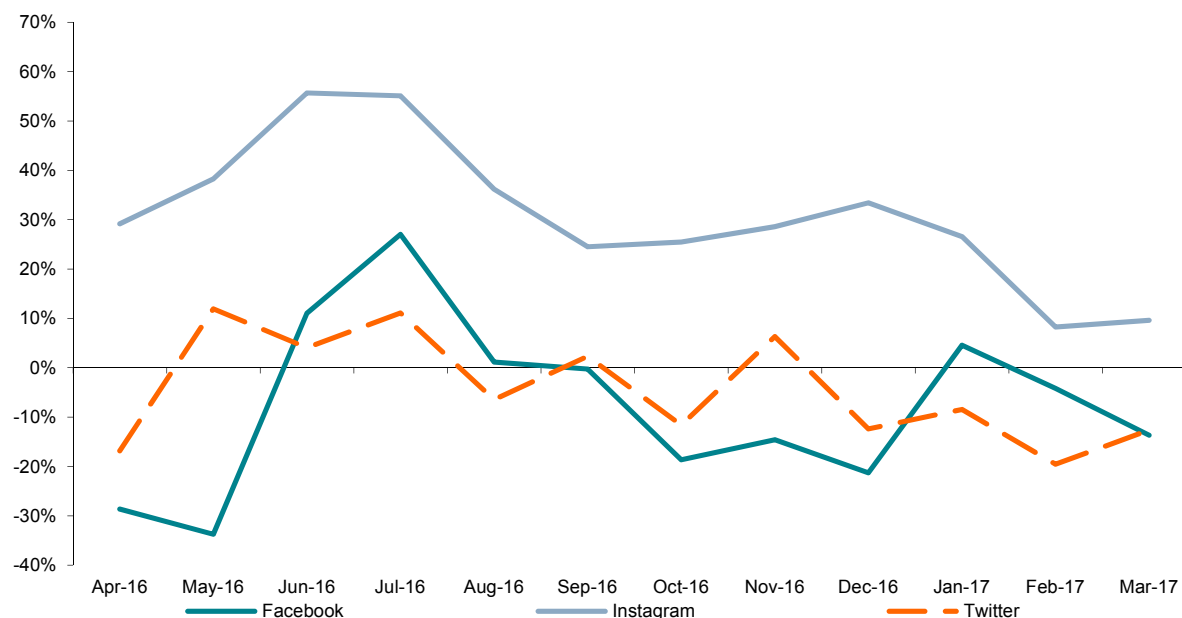
Appendix

Figure 23: # of actions on social networks by influencer (Facebook + Instagram + Twitter)



Source: Trendalytics, Instagram, Facebook, Twitter

Figure 24: y/y % chg in social media actions



Source: Trendalytics

Note: Sample includes Balenciaga, Bottega Veneta, Bulgari, Burberry, Cartier, Celine, Chanel, Dior, Dolce & Gabbana, Fendi, Givenchy, Gucci, Hermès, Hugo Boss, Louis Vuitton, Michael Kors, Prada, Saint Laurent, Salvatore Ferragamo, Tiffany, Tod's, Tory Burch and Valentino

Figure 25: Brand engagement by top 20 influencers (Mar 2015 – Mar 2017 period)

Influencer	# of brands engaged with likes/comments	Balenciaga	Bottega Veneta	Bulgari	Burberry	Cartier	Celine	Chanel	Dior	Dolce & Gabbana	Fendi	Givenchy	Gucci	Hermes	Hugo Boss	Louis Vuitton	Michael Kors	Prada	Saint Laurent	Salvatore Ferragamo	Tiffany	Tod's	Tory Burch
Chiara Ferragni (The Blonde Salad)	12	x		x		x	x	x	x		x			x		x		x	x			x	
Nicki Minaj	10	x						x	x	x	x	x	x			x		x	x				
Kristina Bazan (Kayture)	8			x		x			x						x		x			x		x	
Demi Lovato	7	x					x		x			x							x		x		
Kylie Jenner	6					x		x	x				x						x		x		
Tiffany Hwang	6			x					x					x			x				x		
Bella Hadid	5		x	x				x	x			x											
kris jenner	5		x				x				x	x											
Negin Mirsalehi	5					x				x										x		x	
Ashley Benson	5							x				x				x	x	x					
Camila Coelho	4								x		x					x							x
Anna Dello Russo	4		x							x				x						x			
Ellie Goulding	4				x						x		x						x				
Kim Kardashian	4	x					x					x											
Emma Roberts	4		x					x					x									x	
Lady Gaga	3	x																x			x		
Priyanka Chopra	3					x								x				x					
Mariano Di Vaio	3													x	x					x			
The Fat Jew	3						x					x					x						
Thássia Naves (Blog da Thassia)	3		x										x									x	

Source: Trendalytics

Exane – presentation

Specialising in European equities, Exane is active in three businesses:

- Cash Equities: under the brand name Exane BNP Paribas, Exane provides institutional investors with a range of services, such as research, sale and execution on European equities;
- Equity Derivatives: Exane Derivatives has built a robust structured products franchise, based on its longstanding leadership in European convertible bonds and options;
- Asset Management: Exane Asset Management is one of the leaders in long/short equity fund management in Europe.

The agreement between Exane and BNP Paribas, signed in 2004 and strengthened in 2010 and 2011, revolves around three core elements:

- An operational partnership in European cash equities where BNP Paribas conferred exclusivity on secondary equity brokerage and the distribution of primary market activity to Exane under the Exane BNP Paribas brand;
- A balance sheet partnership, which is particularly well suited to our Equity Derivatives business, providing financing and support for our rating;
- A capital partnership uniting the strength of BNP Paribas with the independence of Exane.

Exane works primarily with institutional clients worldwide (pension funds, fund managers for banks and insurers and hedge funds), and markets its derivatives products to a broader pool of clients comprising private asset managers and investment advisors. Exane has a workforce of over 800 employees operating from offices in Paris, London, Frankfurt, Geneva, Madrid, Milan, New York, Stockholm and Singapore. Exane BNP Paribas equity research team covers c.600 companies. UK companies represent the biggest part of our coverage universe (29% of covered market cap), followed by France (15%) and USA (14%). Our research receives regular acclaim in leading industry surveys.

For further information, log on to our website at www.exane.com

Trendalytics – presentation

About the collaboration with Trendalytics

Exane has worked in collaboration with *Trendalytics* on this report and the sections provided by *Trendalytics* are clearly highlighted. Karen Moon, Charlotte Bax and Melanie Appleby from Trendalytics have contributed to this report.

Contributors from *Trendalytics* are not Research analysts and are not FCA or AMF registered. Contributors from *Trendalytics* have only contributed their expertise on clearly delineated sections of the report and did not have access to the full report or its conclusions prior to publication.

About Trendalytics

Trendalytics is a visual analytics platform that monitors the \$483 billion retail industry to measure how consumers engage with your brand and products relative to competitors. We provide a consumer centric lens to support decisions on product, regional allocation, timing and pricing.

For more information visit their website www.trendalytics.co

DISCLOSURE APPENDIX

Analyst Certification

We, Melania Grippo, Guido Lucarelli, Luca Solca, (authors of or contributors to the report) hereby certify that all of the views expressed in this report accurately reflect our personal view(s) about the company or companies and securities discussed in this report. No part of our compensation was, is, or will be, directly, or indirectly, related to the specific recommendations or views expressed in this research report.

Non-US Research Analyst Disclosure

The research analysts named below were involved in preparing this research report. Research analysts at Exane Limited and Exane SA are not associated persons of Exane Inc. and thus are not registered or qualified in the U.S. as research analysts with the Financial Industry Regulatory Authority (FINRA) or the New York Stock Exchange (NYSE). These non-U.S. analysts are not subject to the NASD Rule 2241 and NYSE Rule 472 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account.

Melania Grippo	Exane SA	Guido Lucarelli	Exane SA	Luca Solca	Exane SA
----------------	----------	-----------------	----------	------------	----------

Exane SA is regulated by the Autorité des Marchés Financiers (AMF) in France, Exane Limited is authorised and regulated by the Financial Conduct Authority in the United Kingdom, and Exane Inc. is regulated by FINRA and the U.S. Securities and Exchange Commission in the United States.

Research Analyst Compensation

The research analyst(s) responsible for the preparation of this report receive(s) compensation based upon various factors including overall firm revenues, which may include investment banking activities.

Disclosure of the report to the company/ies

Companies	Disclosures
NONE	

1 – Sections of this report, with the research summary, target price and rating removed, have been presented to the subject company/ies prior to its distribution, for the sole purpose of verifying the accuracy of factual statements.

2 – Following the presentation of sections of this report to this subject company, some conclusions were amended.

Commitment to transparency on potential conflicts of interest: BNP Paribas

While BNP Paribas ("BNPP") holds a material ownership interest in the various Exane entities, Exane and BNPP have entered into an agreement to maintain the independence of Exane's research reports from BNPP. These research reports are published under the brand name "Exane BNP Paribas". Nevertheless, for the sake of transparency, we separately identify potential conflicts of interest with BNPP regarding the company/(ies) covered by this research document.

The latest company-specific disclosures, valuation methodologies and investment case risks for all other companies covered by this document are available on <http://cube.exane.com/compliance>.

This document was reposted after its initial publication to amend the presentation text for Trendalytics with regard to their contribution to the content of this report.

LONDON

Exane Limited
1 Hanover Street
London W1S 1YZ
UK
Tel: (+44) 207 039 9400
Fax: (+44) 207 039 9440

PARIS

Exane S.A.
6 Rue Ménars
75002 Paris
France
Tel: (+33) 1 44 95 40 00
Fax: (+33) 1 44 95 40 01

FRANKFURT

Branch of Exane S.A.
Europa-Allee 12, 3rd floor
60327 Frankfurt
Germany
Tel: (+49) 69 42 72 97 300
Fax: (+49) 69 42 72 97 301

GENEVA

Branch of Exane S.A.
Rue du Rhône 80
1204 Geneva
Switzerland
Tel: (+41) 22 718 65 65
Fax: (+41) 22 718 65 00

MADRID

Branch of Exane S.A.
Calle Génova, 27
7th Floor
Madrid 28004
Spain
Tel: (+34) 91 114 83 00
Fax: (+34) 91 114 83 01

MILAN

Branch of Exane S.A.
Via dei Bossi 4
20121 Milan
Italy
Tel: (+39) 02 89 63 17 13
Fax: (+39) 02 89 63 17 01

NEW YORK

Exane Inc.
640 Fifth Avenue
15th Floor
New York, NY 10019
USA
Tel: (+1) 212 634 4990
Fax: (+1) 212 634 5171

SINGAPORE

Branch of Exane Limited
20 Collyer Quay
#07-02 Tung Centre
Singapore 049319
Tel: (+65) 6212 9059
Fax: (+65) 6212 9082

STOCKHOLM

Branch of Exane Limited
Nybrogaten 5
111 48 Stockholm
Sweden
Tel: (+46) 8 5629 3500
Fax: (+46) 8 611 1802

All Exane research documents are available to all clients simultaneously on the Exane website (<http://cube.exane.com>). Most published research is also available via third-party aggregators such as Bloomberg, Thomson Reuters, Factset and Capital IQ. Exane is not responsible for the redistribution of research by third-party aggregators.

Important notice: Please refer to our complete disclosure notice and conflict of interest policy available on <http://cube.exane.com/compliance>

This research is produced by one or more of EXANE SA, EXANE Limited and Exane Inc (collectively referred to as "EXANE"). EXANE SA is authorized by the Autorité de Contrôle Prudentiel et de Résolution and regulated by the Autorité des Marchés Financiers ("AMF"). EXANE Limited is authorized and regulated by the Financial Conduct Authority ("FCA"). Exane Inc is registered and regulated by the Financial Industry Regulatory Authority ("FINRA"). In accordance with the requirements of Financial Conduct Authority COBS 12.2.3R and associated guidance, of article 313-20 of the AMF Règlement Général, and of FINRA Rule 2241, Exane's policy for managing conflicts of interest in relation to investment research is published on Exane's web site (cube.exane.com). Exane also follows the guidelines described in the code of conduct of the Association Française des Entreprises d'Investissement ("AFEI") on managing conflicts of interest in the field of investment research. This code of conduct is available on Exane's web site (<http://cube.exane.com>).

This research is solely for the private information of the recipients. All information contained in this research report has been compiled from sources believed to be reliable. However, no representation or warranty, express or implied, is made with respect to the completeness or accuracy of its contents, and it is not to be relied upon as such. Opinions contained in this research report represent Exane's current opinions on the date of the report only. Exane is not soliciting an action based upon it, and under no circumstances is it to be used or considered as an offer to sell, or a solicitation of any offer to buy.

While Exane endeavours to update its research reports from time to time, there may be legal and/or other reasons why Exane cannot do so and, accordingly, Exane disclaims any obligation to do so.

This report is provided solely for the information of professional investors who are expected to make their own investment decisions without undue reliance on this report and Exane accepts no liability whatsoever for any direct or consequential loss arising from any use of this report or its contents.

This report may not be reproduced, distributed or published by any recipient for any purpose. Any United States person wishing to obtain further information or to effect a transaction in any security discussed in this report should do so only through Exane Inc., which has distributed this report in the United States and, subject to the above, accepts responsibility for its contents.

BNP PARIBAS has acquired an interest in VERNER INVESTISSEMENTS the parent company of EXANE. VERNER INVESTISSEMENTS is controlled by the management of EXANE. BNP PARIBAS's voting rights as a shareholder of VERNER INVESTISSEMENTS will be limited to 40% of overall voting rights of VERNER INVESTISSEMENTS.