

THE INTERNATIONAL STATE OF PROGRAMMATIC

***BETTER, SMARTER, FASTER:
LOOKING AHEAD TO AN
AUTOMATED FUTURE***

April 2014
MAGNA GLOBAL

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THE PROGRAMMATIC NECESSITY



No wonder ‘programmatic’ was 2013’s marketing buzzword of the year! Behind are the days when we had the option to procrastinate or even decline programmatic. Born out of necessity to harness the infinite display inventory, programmatic trading is here to stay.

Programmatic allows marketers, media owners and agencies to invest more on higher-touch, higher-value solutions that drive client business results, and less on transactional, time-consuming and low-value processes like requesting proposals, and matching invoices.

Advertisers are quickly adopting programmatic because it provides an unprecedented level of choice over inventory. The newly acquired capacity of continued adjustment in campaign settings – where measurability is nearly in real-time - is what makes programmatic so essential to the marketer of today. Advertisers are no longer approaching programmatic as a segment of their overall strategy; data and targeting permeate all aspects of digital planning. Brands are demanding that media owners make their inventory available for programmatic.

Media owners see programmatic as the instant access to millions of ad dollars that their sales force would have never reached otherwise. The maximization of inventory, the revenue streams and the visibility – transparency - about what is being bought, by whom and what the fair price is for their inventory is redefining their commercial model.

As a marketer who has been on both sides of the table – client and agency – I strongly agree with many who suggest that programmatic is the transformative force in the industry. However, the human factor – the brilliant minds behind programmatic campaigns – is what makes programmatic achieve its maximum potential. Programmatic is young and in constant evolution, thus, in some cases misconceived, but it’s here to stay and now is the time to embrace it.

Shaffia Sanchez, President, MAGNA GLOBAL, World Markets

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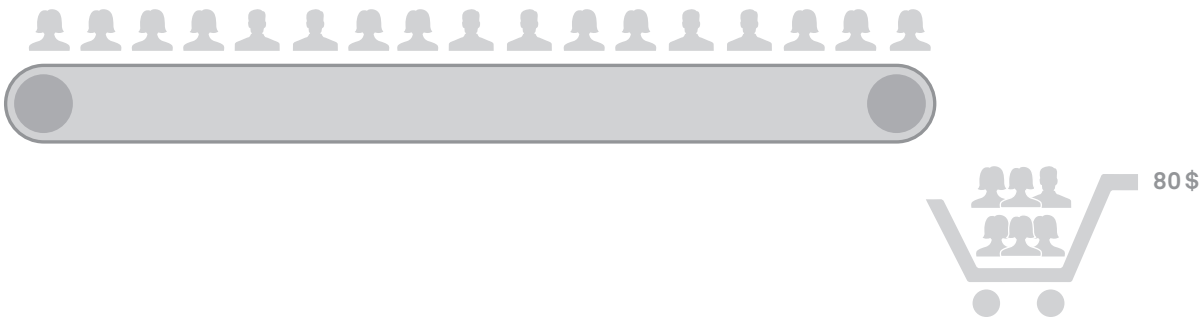
* Markets covered in this study include Argentina, Brazil, Chile, Colombia, Czech Republic, Denmark, Ecuador, Indonesia, Hong Kong, Hungary, Korea, Malaysia, Mexico, Peru, Poland, Portugal, Philippines, Romania, Serbia, Singapore, Sweden, Taiwan, Thailand and Vietnam.

PROGRAMMATIC IN INTERNATIONAL MARKETS

WHAT IS PROGRAMMATIC?

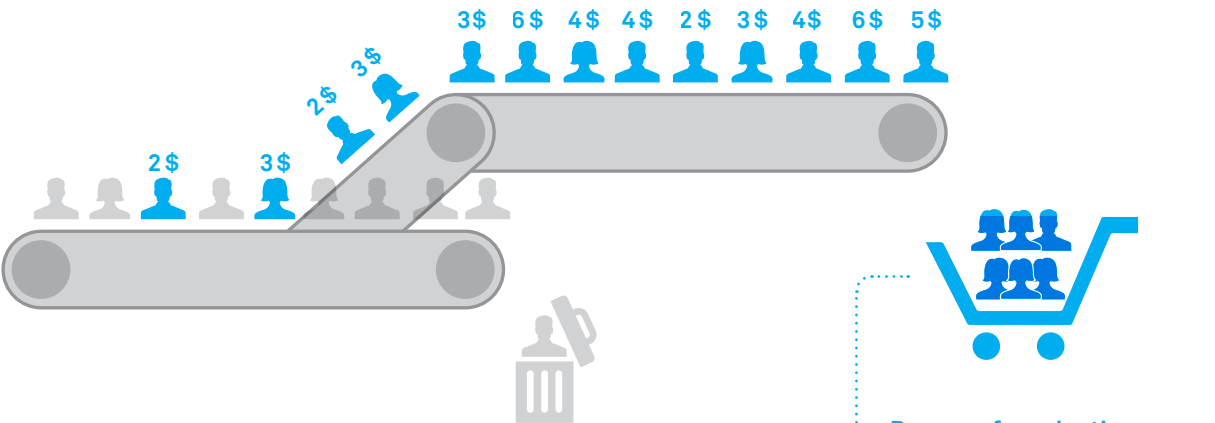
Traditional Buying:

Purchase a bucket of impressions based on assumptions about a website's readers



Programmatic Buying:

Select individual impressions based on the value of each specific consumer





- Traditional buying costly to scale to a modern online advertising environment.
- Programmatic buying allows for consumer targeting at scale. Efficiencies are increased by outsourcing most of the heavy lifting to computer search algorithms.

Reasons for selection:

- Retargeting / Pretargeting
- Demographic Statistics
- Audience specific info

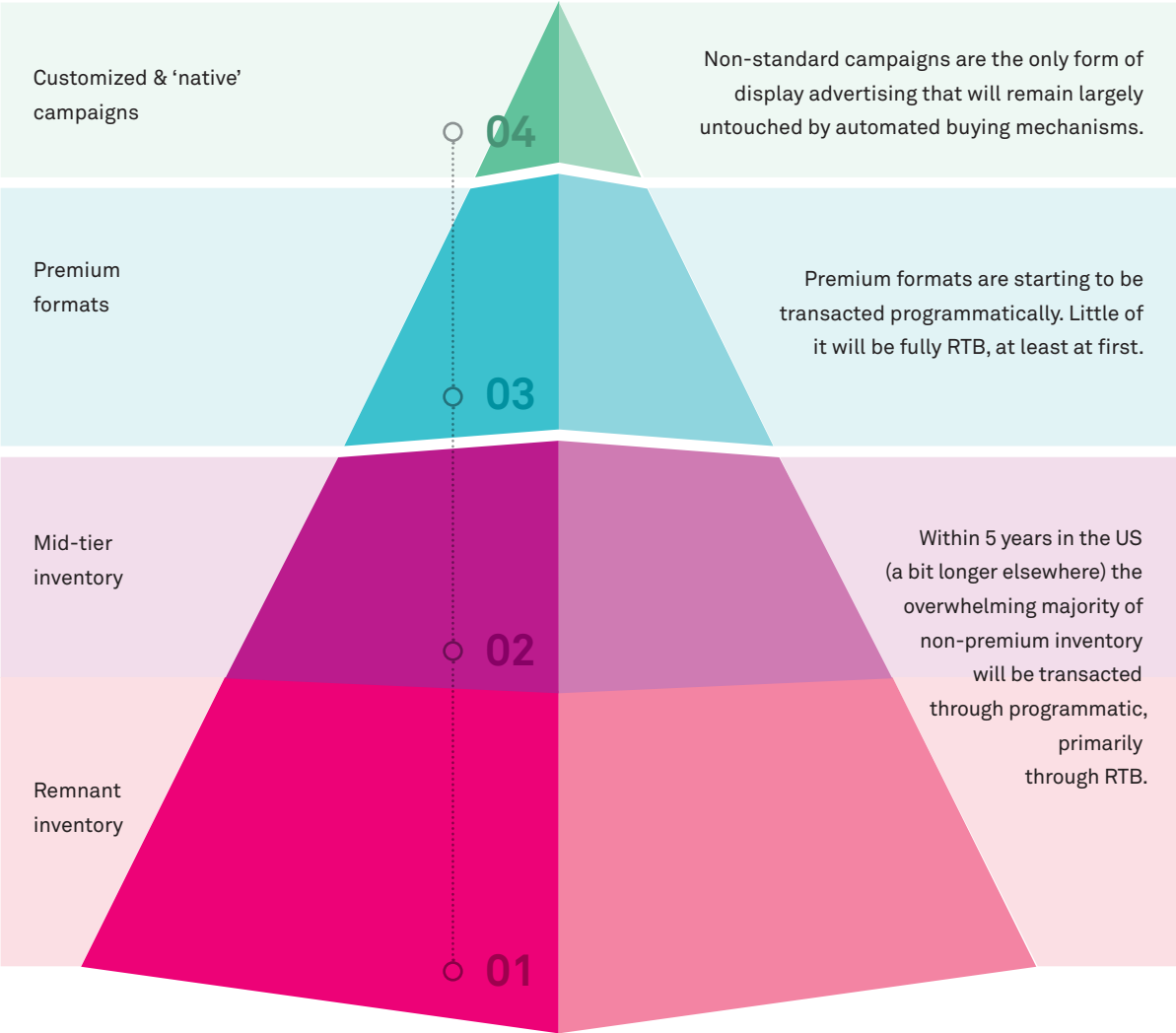
DEFINITION

While ‘programmatic’ was 2013’s marketing buzzword of the year, the term itself has been used in various ways since its inception and continues to evolve. To us, the difference between RTB and non-RTB (automated) transactions within programmatic can be recognized by whether the transaction is...

	 RTB	 NRTB
01 Driven by advanced technology and streamlining the traditional mediabuying workflow...	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
02 Integrated with, and empowered by, media usage and consumer data...	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
03 Capable of addressing discrete impressions as opposed to packages of impressions, in a cost efficient way...	<input checked="" type="checkbox"/>	<input type="checkbox"/>
04 Targeting specific demographic groups or behavioral groups while being vendor-agnostic and content-agnostic...	<input checked="" type="checkbox"/>	<input type="checkbox"/>
05 Can be bought in "real-time", allowing feed-back loop and continued adjustment in campaign settings...	<input checked="" type="checkbox"/>	<input type="checkbox"/>
06 Matches demand and supply from multiple vendors and multiple buyers through bidding mechanisms...	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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WHAT INVENTORY WILL MIGRATE TO PROGRAMMATIC?



For Advertisers

WHY BUY MEDIA PROGRAMMATICALLY?



For Publishers

Enhanced targeting capabilities as consumers can be narrowed down beyond simple website demographics.	Instant access to millions of ad dollars that their sales force isn't currently reaching.
Improved reach and frequency as programmatic buying scales better than traditional buying methods.	Maximize value of inventory by selling at real-time market rates and increasing yield.
Increased control over which consumers they're targeting and for what price.	Increased transparency about what is being bought and by whom and what the fair price is for each piece of inventory.
Reduced waste as impressions that aren't valuable aren't being purchased.	New revenue streams by monetizing proprietary 1st party information as well as by exposing one's brand to advertisers that are not endemic to one's sector (i.e. auto to auto).
Reduced costs as programmatic campaigns see higher CTR and conversion rates for the same dollars spent.	Reduced overhead by minimizing the publishing sales force; programmatic selling requires less manpower.



Drivers

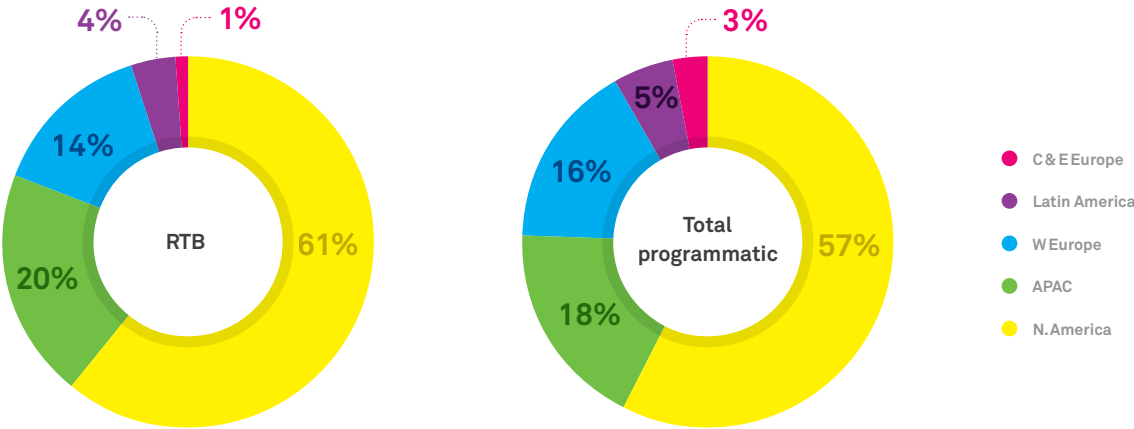


Inhibitors

Successful programmatic markets in more developed regions have shown undeveloped markets the benefits of programmatic.	Lack of programmatic education , both for brands and publishers.
Surplus of inventory and untapped opportunities.	Worries around arbitrage in what is at least at first an opaque and not well understood system.
Access to new audiences in a fast & easy manner.	Underdeveloped audience data availability.
Tech infrastructure improvements as western programmatic companies expand into less developed markets.	Fear of cannibalization of direct sales.

INTERNATIONAL MARKET SIZE OF PROGRAMMATIC

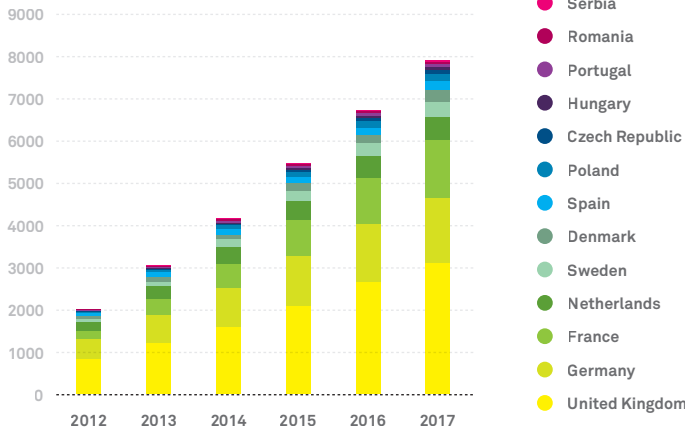
2014 REGIONAL PROGRAMMATIC MARKET SHARE



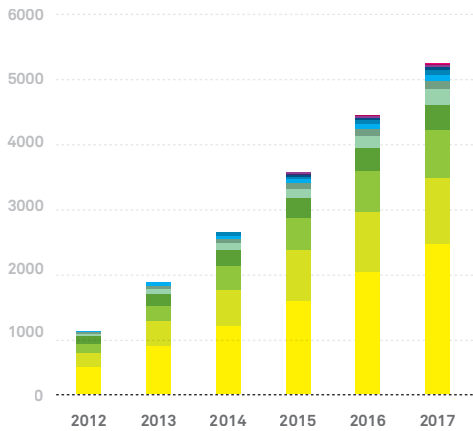
- The top 10 programmatic markets are growing by 39% this year, while the others will grow by 57% and the smallest 10 will grow by 66%.
- The top 10 RTB markets are growing by a healthier 47% this year, while the other markets will grow by 109% and the smallest 10 markets will grow by 243%.
- RTB penetration in many growth markets will reach the same levels as in many of the largest markets in each region. Publishers and brands alike are interested and enthusiastic about transacting more efficiently.
 - Colombia’s RTB penetration will match that of Brazil and Mexico.
 - Malaysia and Singapore’s RTB penetration will lead those of developing APAC, and surpass that of China.
 - Hungary will grow rapidly and approach the penetration levels of Sweden and Denmark.
- A successful programmatic infrastructure isn’t built overnight, and the lessons learned from well-developed programmatic markets translate to the small growth markets: publishers and brands that wait to commit to programmatic are left playing catch-up and missing many of the efficiency gains seen by first movers.

* Markets covered in this study include Argentina, Brazil, Chile, Colombia, Czech Republic, Denmark, Ecuador, Indonesia, Hong Kong, Hungary, Korea, Malaysia, Mexico, Peru, Poland, Portugal, Philippines, Romania, Serbia, Singapore, Sweden, Taiwan, Thailand and Vietnam.

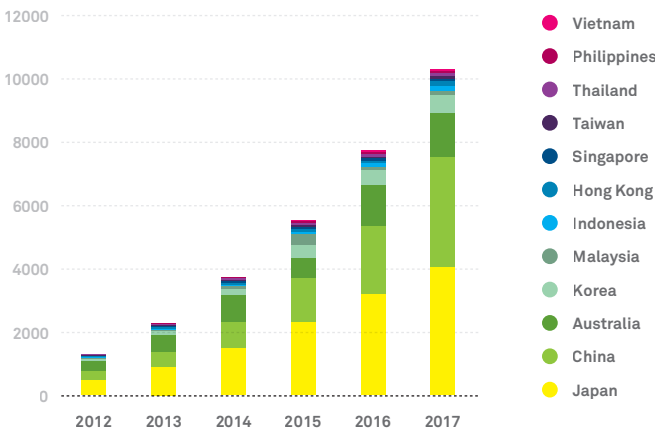
European Total Programmatic Spend (\$mm)



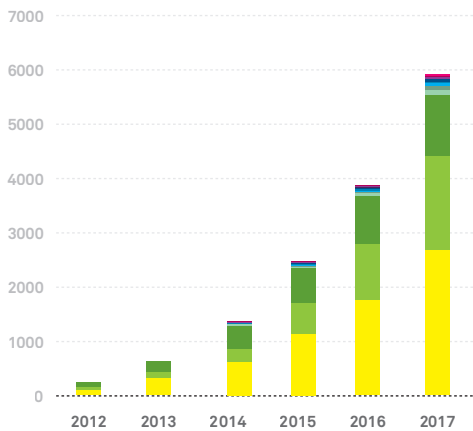
European RTB Spend (\$mm)



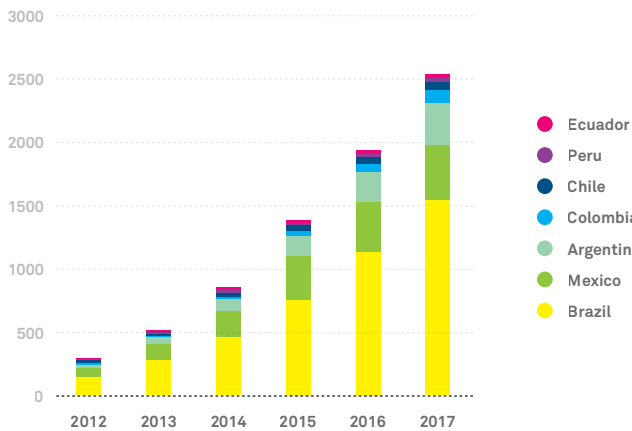
APAC Total Programmatic Spend (\$mm)



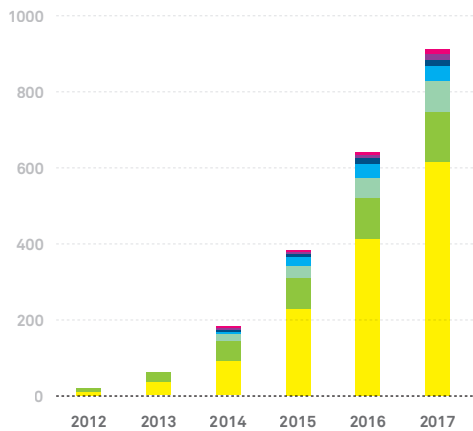
APAC RTB Spend (\$mm)



Latam Total Programmatic Spend (\$mm)



Latam RTB Spend (\$mm)



KEY FINDINGS

PROGRAMMATIC IN LATIN AMERICA

- Programmatic spend in Latin America* (both RTB and non-RTB programmatic) will be \$836mm in 2014, up from \$502mm last year (67% growth).
- RTB spend in Latin America will be \$177mm in 2014, up from \$53mm last year (232% growth).
 - Social represents the majority of non-RTB programmatic spend in Latin America.
- Brazil is the largest programmatic market in Latam, representing \$466mm total dollars, and \$94mm RTB dollars in 2014.
 - Brazil is followed by Mexico and Argentina as the largest programmatic markets in the region.
- Desktop display represents 93% of total RTB spend, with the remaining 7% representing video and mobile RTB.
 - Video and mobile RTB will take share from desktop due to higher growth rates through 2018, although desktop display RTB will remain the majority of spend even in 2018.
- Programmatic including both RTB and non-RTB purchases will represent 35% of total display spend in Latin America in 2014. This will expand to 61% by 2018.
 - RTB will represent 7% of total display spend in 2014, and this will expand to 23% of total display spend by 2018 in Latin America.

- CPMs are low and average ~60-80c although it varies depending on what inventory is being targeted. This compares to non-programmatic average display CPMs of \$6.10 in Latin America. Non-programmatic purchases, however, are typically higher value premium inventory.
 - While programmatic trading has a slight overall deflationary effect on digital CPMs, in more developed markets we see CPMs continuing to increase on average as more and more premium inventory enters the programmatic pool.

* Latin American markets in this study include: Argentina, Brazil, Chile, Colombia, Ecuador, Mexico and Peru.



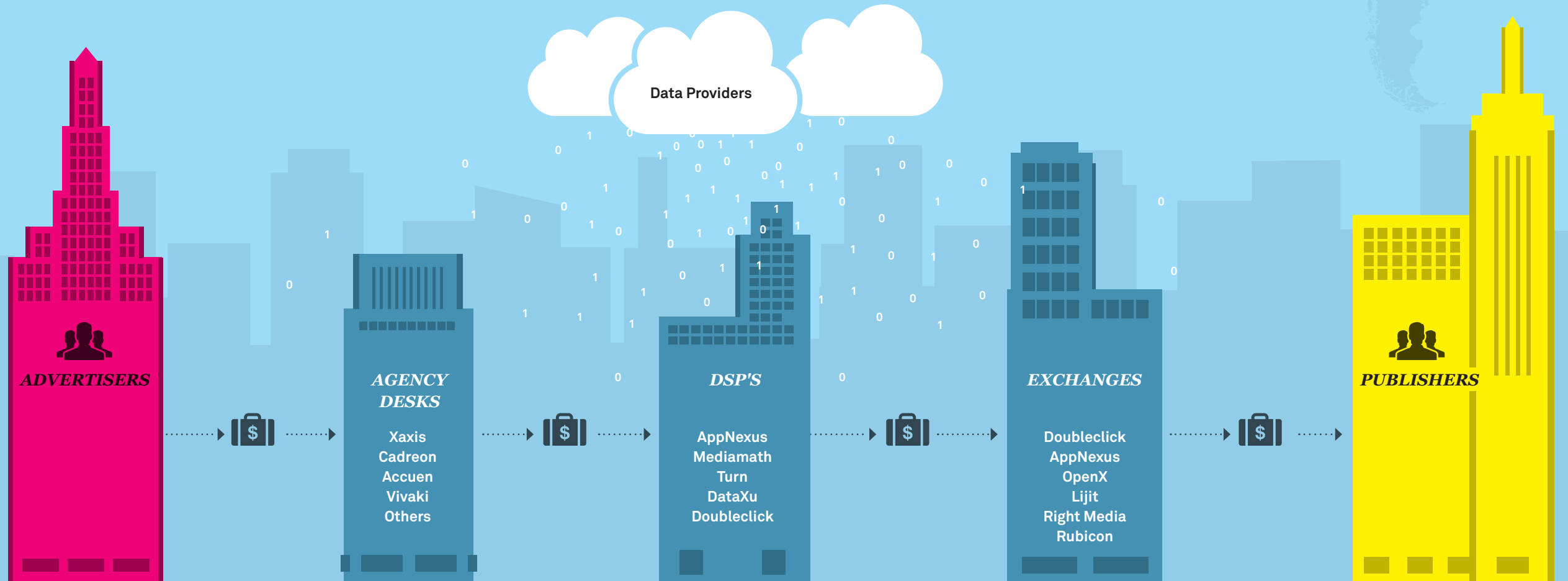
ECOSYSTEM IN LATAM

- The programmatic ecosystem is primarily comprised of larger Western companies that have expanded to the region, rather than smaller local start-ups as we see in the largest APAC markets.
- Brands and publishers are receptive to programmatic although lacking some understanding; they're used to transparency and will have to weigh the efficiency increases that programmatic offers against the opacity of programmatic transactions.

GROWTH CONSIDERATIONS

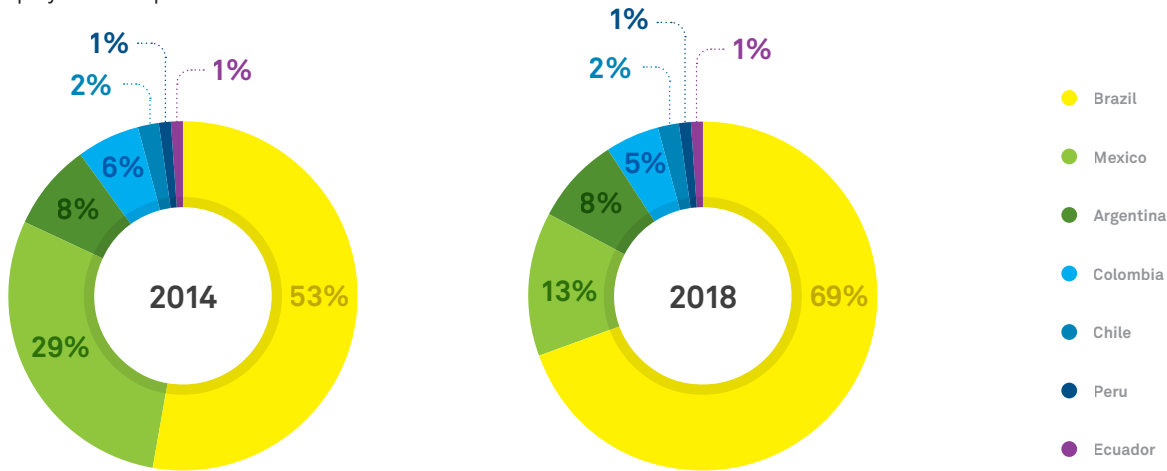
- Infrastructure is expanding rapidly; global holding companies are moving trading desks into local markets.
- Prices still vary significantly for programmatic inventory, from as low as 10c CPMs for unsold remnant to as high as \$20 for premium video.
 - Adding a data layer to inventory can cost as much as \$1 - 2 CPM to compensate DMPs.
 - 1st and 3rd party databases will be just as important to the development of Latin American programmatic as they have been in larger markets.
 - 3rd party providers such as NavEgg and DataXpand are just building up the Latin American data provider market.
- In some markets the dominant media owners are reluctant to change and can force advertisers to combine digital media buys with traditional buys on an RFP basis.
 - The biggest media owners (Universal in Mexico, Tiempo in Colombia, Clarin in Argentina, El Mercurio in Chile, Globo in Brazil etc.) could potentially build their own private exchanges to maintain control.

* Latin American markets in this study include: Argentina, Brazil, Chile, Colombia, Ecuador, Mexico and Peru.



PROGRAMMATIC SHARES IN LATIN AMERICA

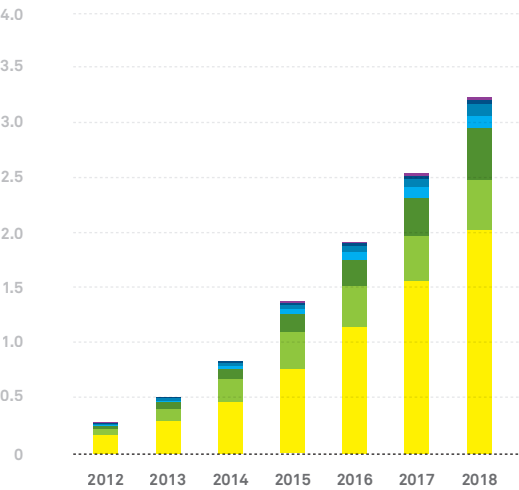
- Brazil is already the dominant programmatic market in Latin America, but it will only become more so as time passes. Strong growth in the Brazilian digital market will see it claim over 60% of the region's display spend, up from today's ~50%. Its share of the total programmatic spend will see comparable growth.
- Despite Mexico's strong 33% CAGR for RTB growth through 2018, it will lose share of total RTB spend in the region given the stronger growth of its neighbors, especially those with high inflation and therefore rapidly increasing nominal spend totals. Through 2018 as undeveloped markets can quickly catch up once regional technology players are in place.



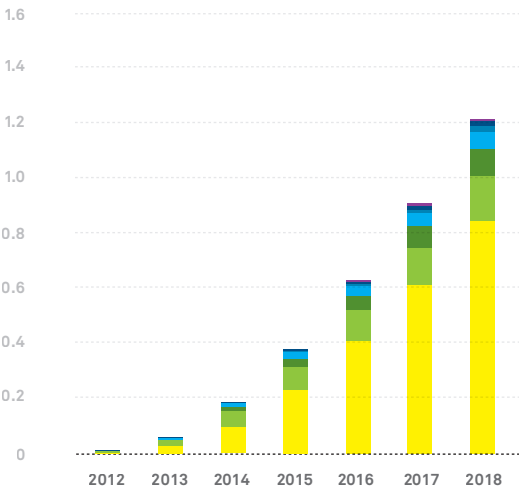
SPEND BY COUNTRY

- The expansion of the programmatic market into Latin America is a recent phenomenon as elements of the ecosystem come into existence.
- The market is most developed in Brazil and Mexico, although as we've seen in other more developed regions, lessons learned by one country quickly spill over to neighboring locations.

Latam Programmatic Spend (\$bn)



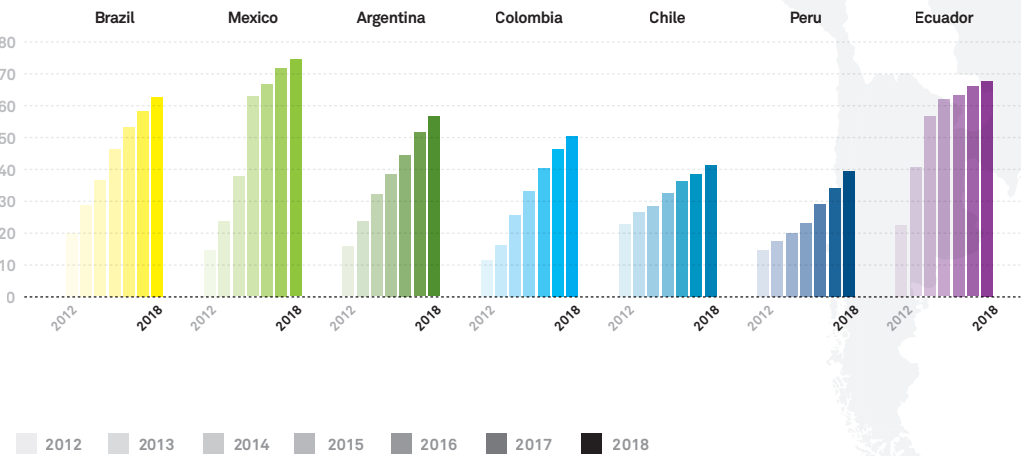
Latam RTB Spend (\$bn)



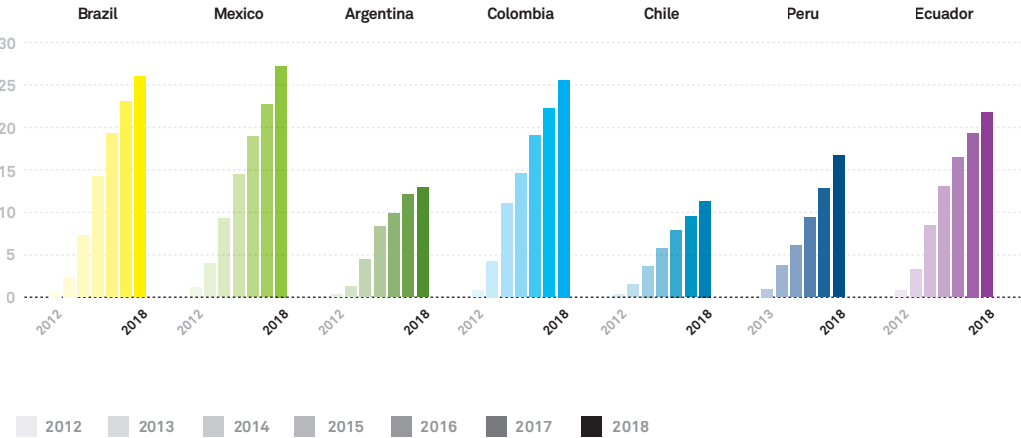
SHARE BY COUNTRY

- Brazil and Mexico are the largest markets by total spend (as their digital markets are also the largest in the region).
- By market share, however, there is more similarity across the region than there is by raw dollars.
- RTB shares in Latin America will surpass 25% of total display spend by 2017 in several of the largest Latin American markets; while this doesn't compare to the 40%+ of Western European markets and the US, it's still a big leap forward in a small amount of time.

Latam Programmatic Market Share (%)



Latam RTB Market Share (%)



* Latin American markets in this study include: Argentina, Brazil, Chile, Colombia, Ecuador, Mexico and Peru.

KEY FINDINGS

PROGRAMMATIC IN DEVELOPING ASIA

- Programmatic spend in developing Asia* (both RTB and non-RTB programmatic) will be \$501mm in 2014, up from \$290mm last year (73% growth).
- RTB spend in developing Asia will be \$54 mm in 2014, up from \$19 mm last year (176% growth).
 - Social represents the majority of non-RTB programmatic spend in our researched Asian markets.
- The combined size of the Japanese, Chinese and Australian programmatic markets are 6x larger than the rest of those in developing APAC.
 - China's display market will be \$15 billion by 2017, 5x the size of all the developing APAC display markets combined.
- Korea represents the largest share of the total programmatic spend in the region, with \$237mm of total programmatic spend in 2014. When looking at just RTB, however, Malaysia and Singapore will be the #1 and #2 markets this year with \$12mm and \$10mm of spend respectively.
 - By 2018, Korea will become the largest RTB market even though its RTB penetration will be one of the lowest in the region, the significant total size advantage it has on the other markets will eventually win out.
- Desktop display represents 94% of total RTB spend, with the remaining 6% representing

video and mobile RTB.

- By 2018, we expect desktop to only represent ~2/3 of total RTB spend in the region, and while mobile is currently the smallest total share, we believe that it will make up more of that remaining 1/3 than video based on a higher CAGR between now and then.

- Programmatic including both RTB and non-RTB purchases will represent 25% of total display spend in developing APAC in 2014.
 - RTB will represent 3% of total display spend in 2014, although this will grow quickly with the most developed markets (Malaysia & Singapore) passing 30% RTB shares by 2018.
- Programmatic CPMs are typically <50c although they can range much higher for video and even mobile has a slight premium vs. desktop display. This compares to non-programmatic average display CPMs of \$9.40, although non-programmatic purchases are typically more premium inventory.

* Developing Asian markets in this study include: Hong Kong, Indonesia, Korea, Malaysia, Singapore, Taiwan, Thailand, Philippines and Vietnam.



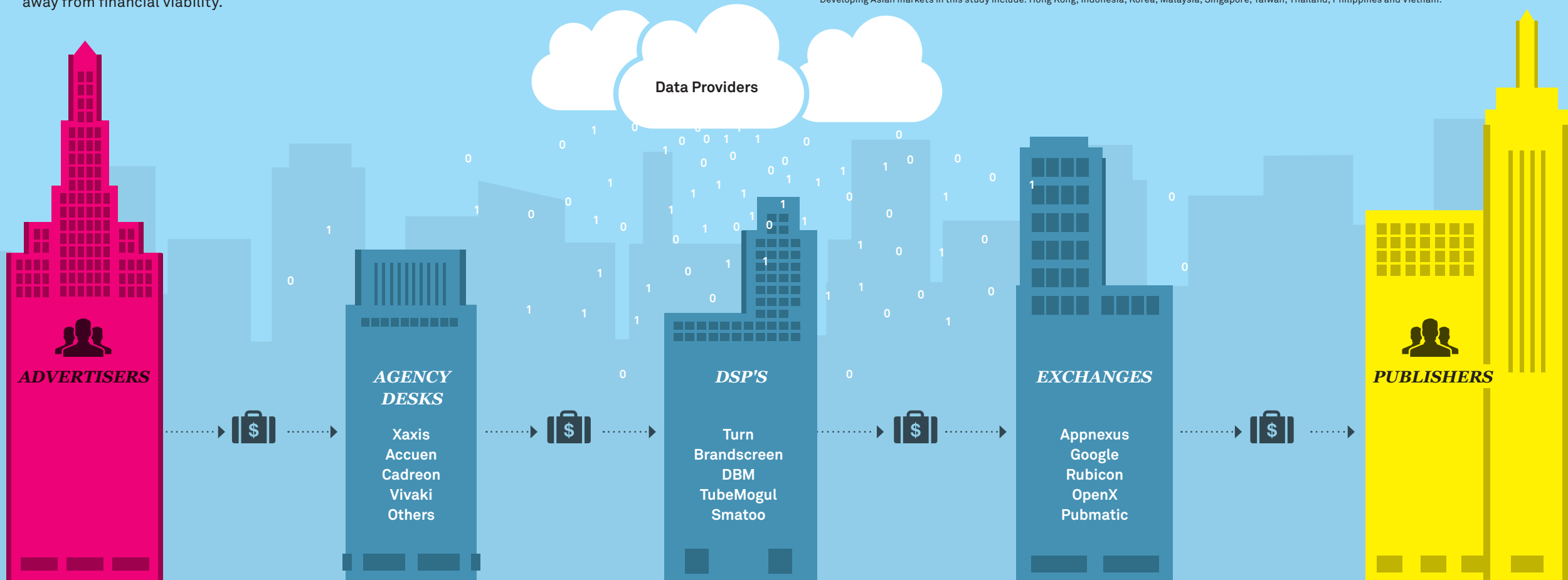
ECOSYSTEM IN DEVELOPING ASIA

- The dominant ecosystem players in these developing Asian markets are the big international players seen in more developed regions.
- Because no individual market is substantial individually, few national players have developed to compete with the standard DSP/Exchange/Trading desk options.
- Growth rates are high enough in some of the smaller countries to justify global programmatic companies in establishing a presence despite the market being 1-2 years away from financial viability.

GROWTH CONSIDERATIONS

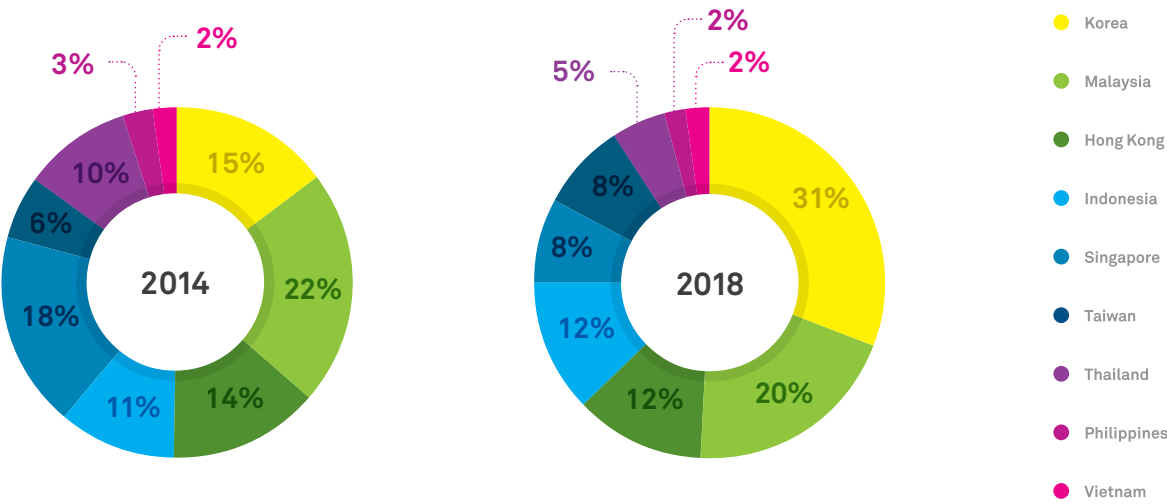
- While in many of the largest APAC markets the ecosystem has developed from local companies (with big Western players moving in after the market was established), in the smaller and newer markets the ecosystem was built by global programmatic companies from the outset.
 - In many developing APAC markets, Google remains the dominant exchange player by impressions.
- CPMs remain low as is typical for markets in their infancy. For desktop display, most CPM levels in APAC are in the 20-40c range depending on the inventory.
 - Video is much higher with CPMs closer to \$10 on average.
- Mobile is typically at a premium to desktop banners, but still in the 50c-\$1 range on average.
- The improvements in CPA and CPC for retargeting are seen despite the fact that retargeted CPMs are increasing over nonretargeted impressions.
- It isn't until several years after programmatic spend takes off that branding campaigns typically start taking a noticeable share of total programmatic spend.

* Developing Asian markets in this study include: Hong Kong, Indonesia, Korea, Malaysia, Singapore, Taiwan, Thailand, Philippines and Vietnam.



PROGRAMMATIC SHARES IN DEVELOPING ASIA

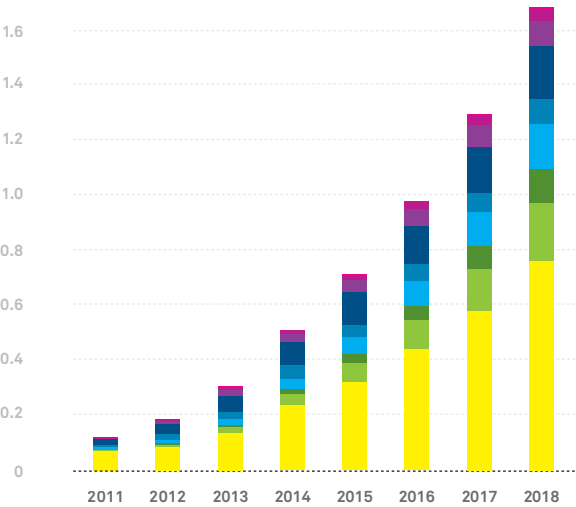
- The markets that dominate RTB spend in the region in 2014 are a mix between high penetration markets that are small overall (such as Singapore) and low penetration markets with large display spend overall (such as Korea).
- Over time, the larger digital markets will assert regional share dominance (as seen by Korea's market share growth through 2018) as undeveloped markets can quickly catch up once regional technology players are in place.



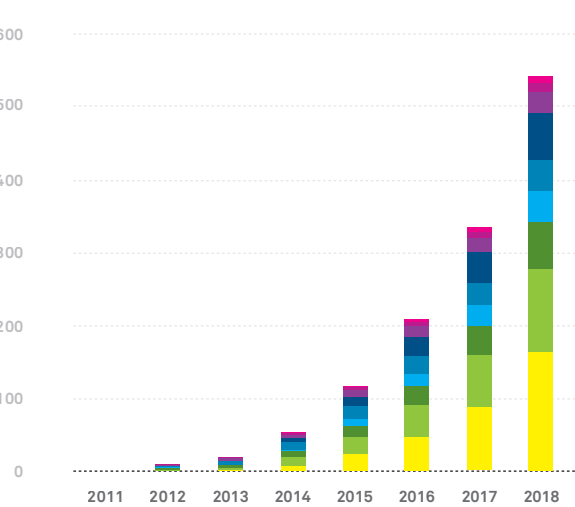
SPEND BY COUNTRY

- The total programmatic spend in developing Asia will be \$501 million in 2014. Korea and Taiwan comprise the lion's share of that spend.
- Total RTB spend will be \$54 million in 2014, with a more even split in spend between countries.
- Social comprises the majority of the non - RTB programmatic spend in the region.

Developing Asia Programmatic Spend (\$bn)



Developing Asia RTB Spend (\$mm)



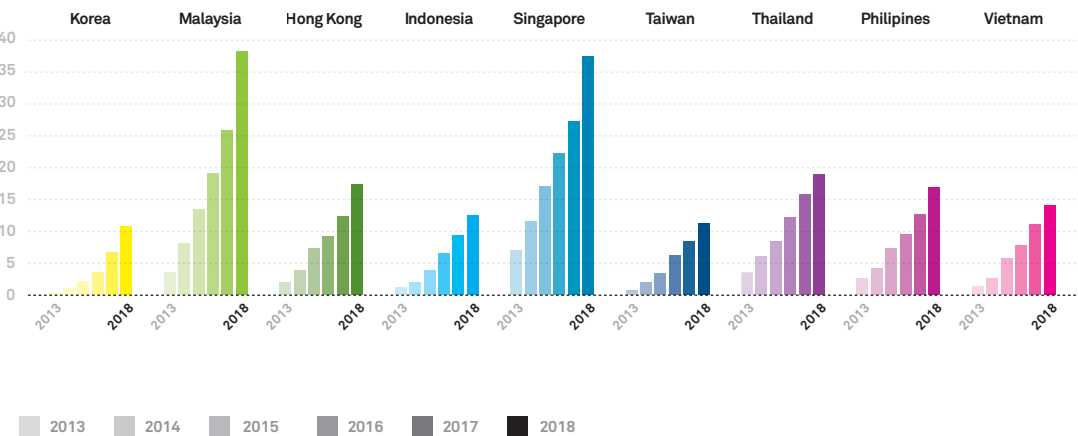
SHARE BY COUNTRY

- Total programmatic shares in the region will range from Vietnam's mid-teens penetration and Singapore's 70% + penetration in 2018. The differences in social spend make up the majority of this difference.
- RTB shares will vary significantly between low penetration markets like Korea & Taiwan barely in double digits, and Malaysia and Singapore which will top 30% RTB market share by 2018.

Developing Asia Programmatic Market Share (%)



Developing Asia RTB Market Share (%)



* Developing Asian markets in this study include: Hong Kong, Indonesia, Korea, Malaysia, Singapore, Taiwan, Thailand, Philippines and Vietnam.

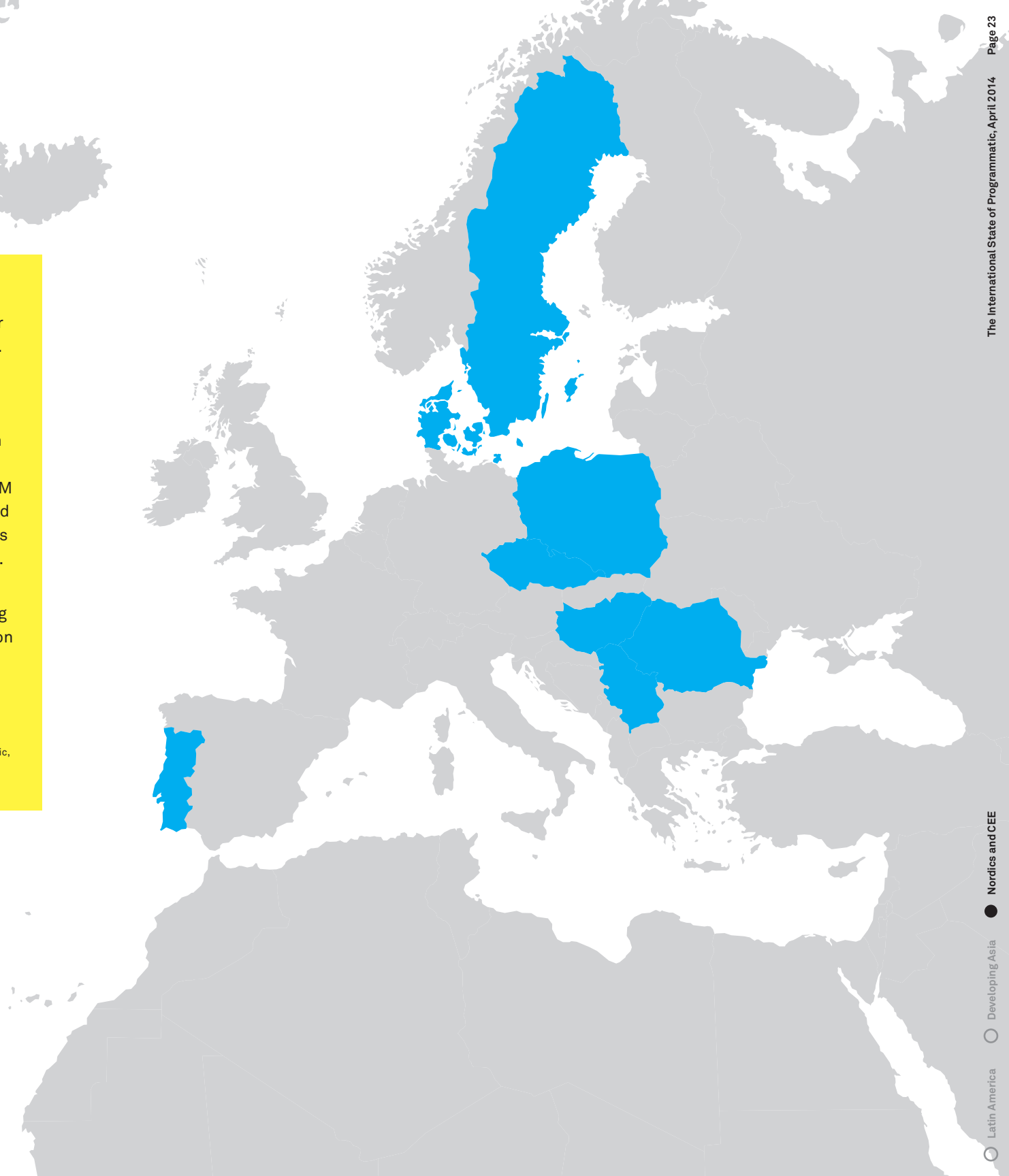
KEY FINDINGS

PROGRAMMATIC IN NORDICS AND CEE

- Programmatic spend across the eight* markets researched in this report (both RTB and non-RTB programmatic) will be \$488mm in 2014, up from \$324mm last year (51% growth).
- RTB spend in our researched European markets will be \$210 mm in 2014, up from \$132mm last year (59% growth).
 - This growth is skewed lower by some of the more developed markets i.e. Sweden and Denmark. CEE (Central and Eastern Europe) RTB growth will be 365% overall this year.
- Desktop display represents 85% of total RTB spend, with the remaining spend split between video at 6% and mobile at 9% of the total. By 2018, we expect desktop display to represent 68% of total RTB spend, with mobile taking a larger share of the remainder than it does currently.
- Programmatic including both RTB and non-RTB purchases will represent 30% of total display spend in our growing European markets in 2014. This will expand to 52% by 2018.
 - RTB will represent 13% of total display spend in 2014, and this will expand to 26% of total display spend by 2018.

- CPMs are higher on average in the region than they are in many of the other developing regions at \$1.00-1.20 in 2013. This varies substantially by country though, with Denmark and Sweden at the higher end, and some of the entirely remnant markets such as Serbia or even Portugal at the lower end at <25c CPMs. This compares to non-programmatic CPM averages of \$9.90 in Western Europe, and \$7.10 in CEE although these aren't apples to apples comparisons across inventory.
- We see the same trend in Nordics and CEE that we see globally i.e. increasing CPMs as markets develop. The injection of more premium inventory outweighs the deflationary forces of programmatic trading.

* European markets in this study include: Denmark, Czech Republic, Hungary, Poland, Portugal, Romania, Serbia and Sweden.



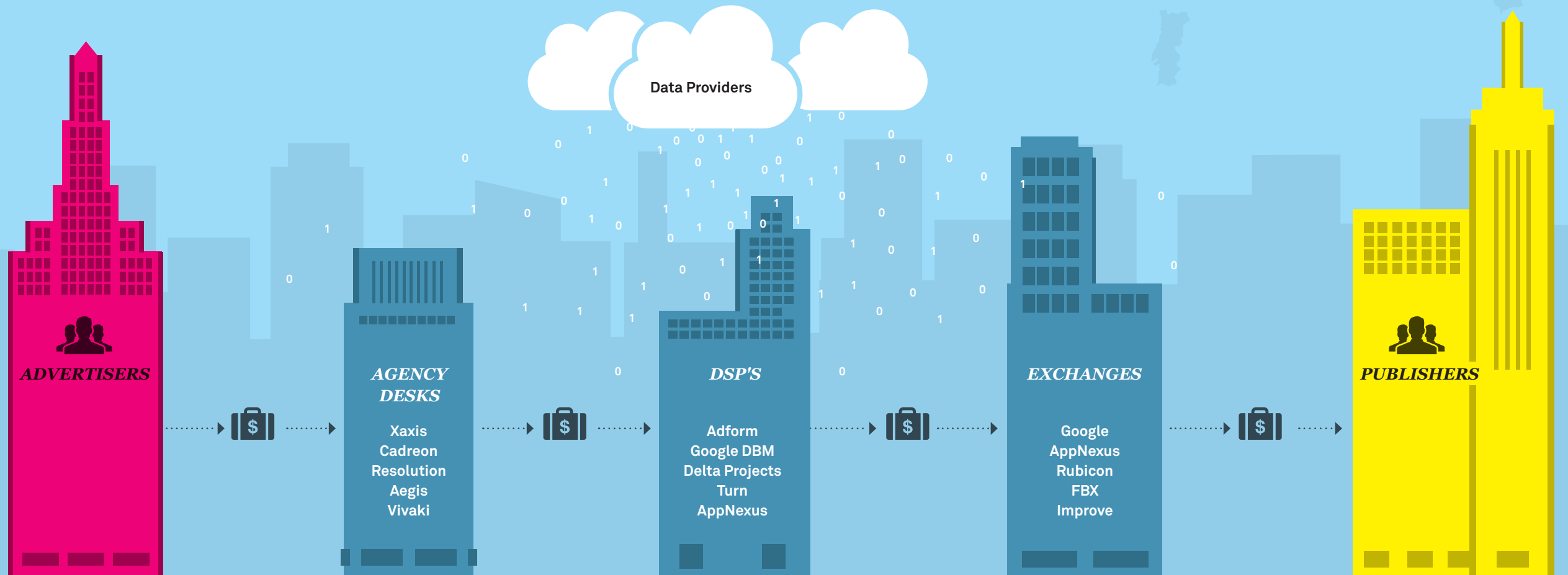
ECOSYSTEM IN NORDICS AND CEE

- While there are some big ecosystem players that dominate European emerging markets more than they do in the existing developed markets, the same big players are present.
- Google has come closer to unifying platforms here than in many other regions, with strong presence in both the exchange and DSP categories.

GROWTH CONSIDERATIONS

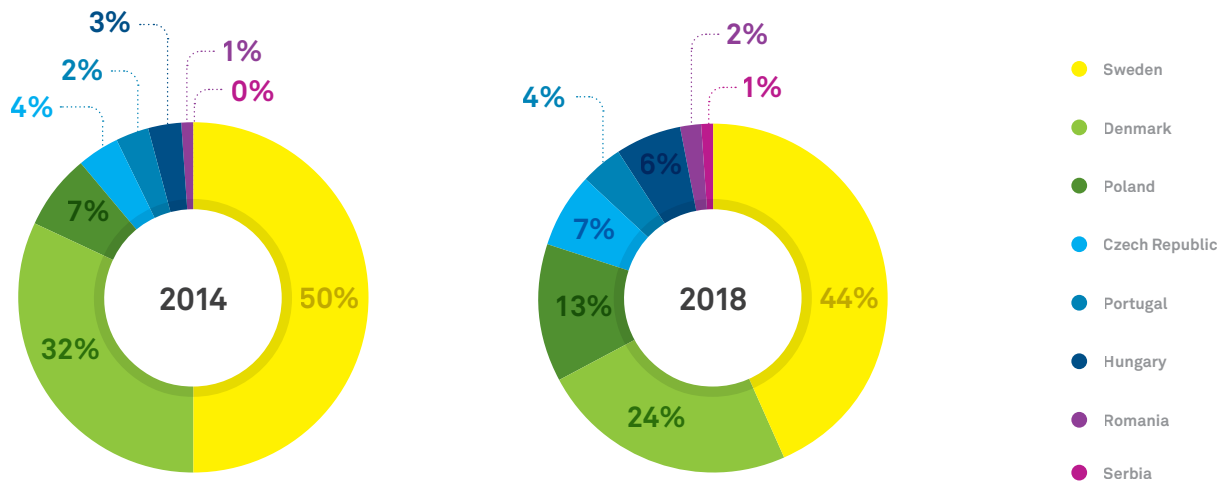
- While programmatic activity has been occurring in markets like Sweden, Denmark and Portugal for several years, in the CEE (Central and Eastern Europe) countries it is very new. Most of the big agency trading desks are just dipping their toes into the market in a regional hub and spoke model.
- While lack of information and education around programmatic pervades these markets, publishers and advertisers are eager to get involved.
 - While waiting for the RTB ecosystem companies to establish operations, Google Display Network and non-exchange Facebook has made up most of the activity of programmatic operations in the region.
- 1st party databases are critical to the operation of programmatic campaigns since in many of the CEE countries there is a dearth of 3rd party data available.
- Given the \$1-2 or higher CPMs that valuable 3rd party data sees elsewhere and the rapid growth of RTB regionally, it would not be surprising to see local DMP solutions crop up if global competitors are slow to act.
- The expansion of mobile and video RTB will be sooner on the heels of the expansion of the display market in these regions than it was in previously developed markets because tech solutions have already been developed.

* European markets in this study include: Denmark, Czech Republic, Hungary, Poland, Portugal, Romania, Serbia and Sweden.



PROGRAMMATIC SHARES IN NORDICS AND CEE

- The Scandinavian markets dominate among our researched European markets, as they have been active for several years whereas the CEE countries have been active in RTB for less than a year.
- The Swedish market is both the largest display market in the group and will also have the highest RTB penetration by 2018.



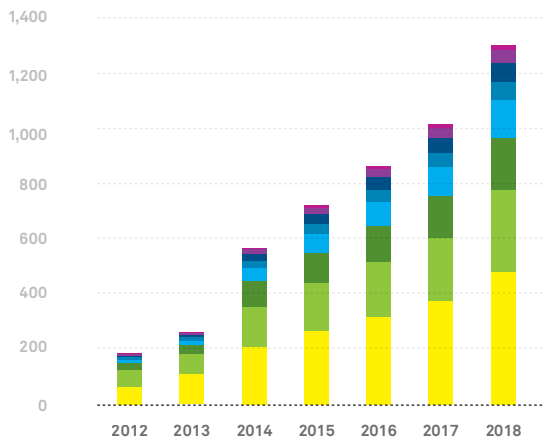
SPEND BY COUNTRY

- The Nordic markets have been active programmatically for several years, showing relatively advanced programmatic penetration rates in 2014 (ahead of many Western European markets). They are small relative to their level of advancement, however, with Sweden and Denmark combining to represent less than 25% of the spend seen in the UK.
- Non-RTB programmatic in many of the CEE markets such as Hungary has been Facebook PPC, GDN, eTarget,

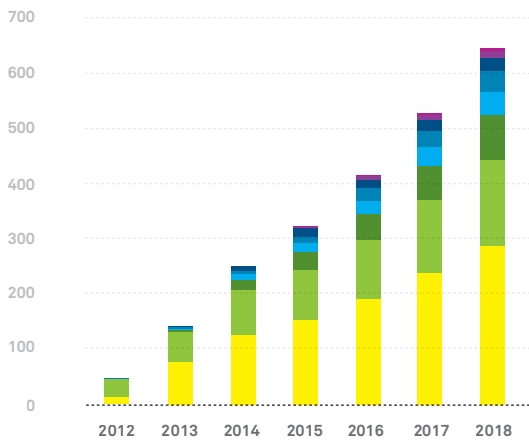
CT Network, etc. Growth going into 2014 of non-RTB programmatic is due to the rapid expansion of social media especially on mobile devices.

- Because RTB is even newer than the non-RTB programmatic in most of these markets, it will grow to represent a larger share of total programmatic over the next several years. By 2018 RTB will comprise ~50% of the total programmatic spend.

Nordics and CEE Programmatic Spend (\$mm)



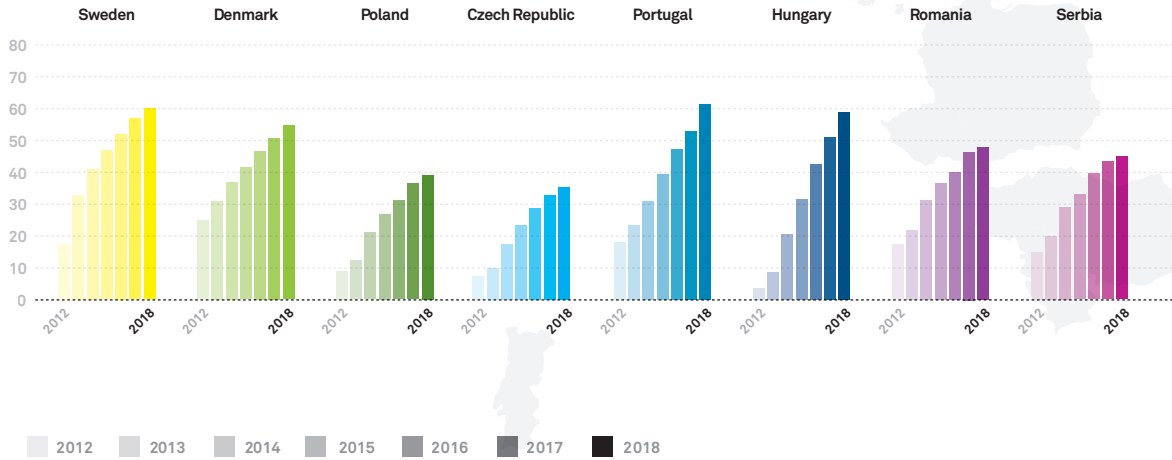
Nordics and CEE RTB Spend (\$mm)



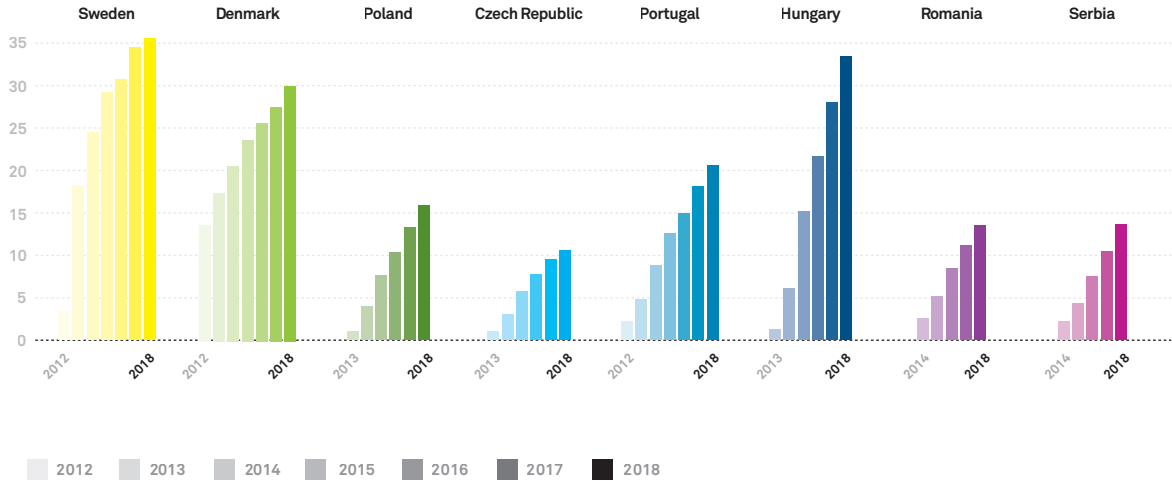
SHARE BY COUNTRY

- On a total programmatic basis (RTB and non-RTB combined), many of the countries will grow to over 50% of the total display market by 2018, with far more parity between the countries.
- On an RTB basis, the Scandinavian countries will see penetration rates similar to some of the Western European and more developed APAC countries. The CEE markets, on the other hand, are growing from essentially nothing in 2013 and therefore will only reach mid-teens or 20% penetration of total display in most cases.

Nordics and CEE Programmatic Market Share (%)



Nordics and CEE RTB Market Share (%)



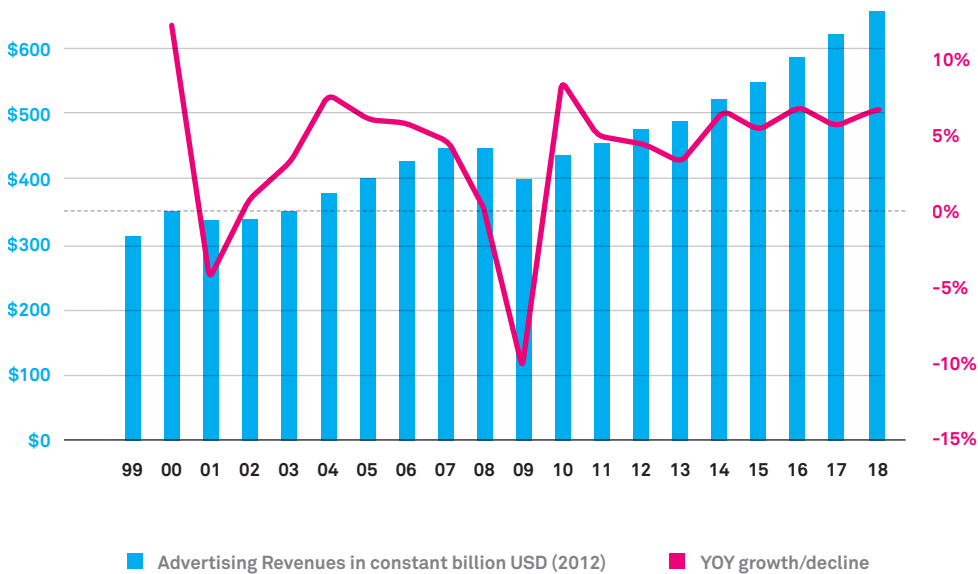
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THE GLOBAL ADVERTISING MARKET 2013-2014

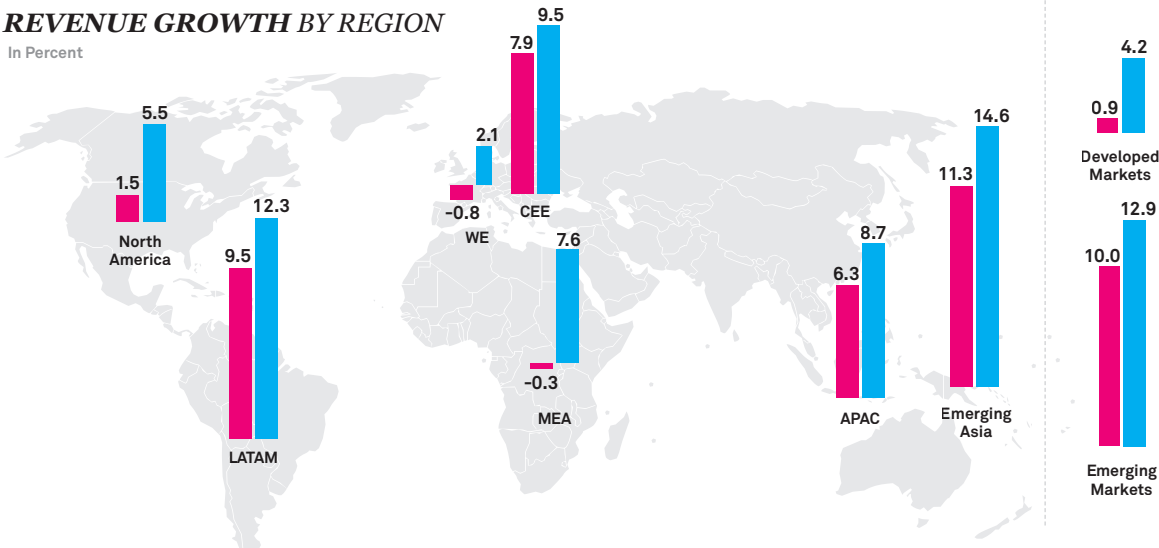
As the world economy gradually improves in 2014, so will advertising spending. We now expect global advertising revenues to grow by +6.5% (previously: +6.1%) and reach \$521.6bn, which will be the strongest year-on-year growth since 2010 (+8.4%, following the 2009 recession). The non-recurring sports events of 2014 (Sochi Winter Olympics, Brazil Soccer World Cup) and the US mid-term elections will contribute to the global growth of television (+7.5%). That compares a with a modest 1.8% growth in 2013 for TV globally.

The combination of an improved economic environment and stronger than usual cyclical drivers is bound to unlock marketing and branding budgets in 2014. This will primarily benefit television and digital media where new formats and opportunities are being explored for activation and branding campaigns. These insights are based on the bi-annual global advertising forecast update published on December 9, 2013. The next update will be published in June 2014.

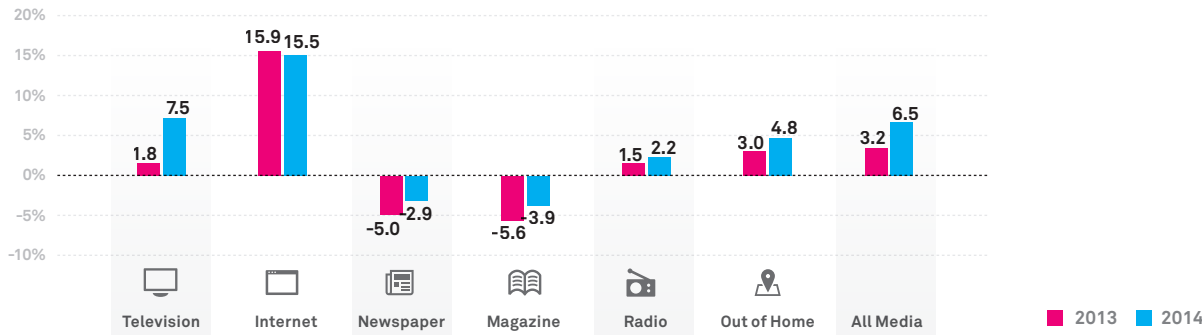
REVENUES 1999-2018



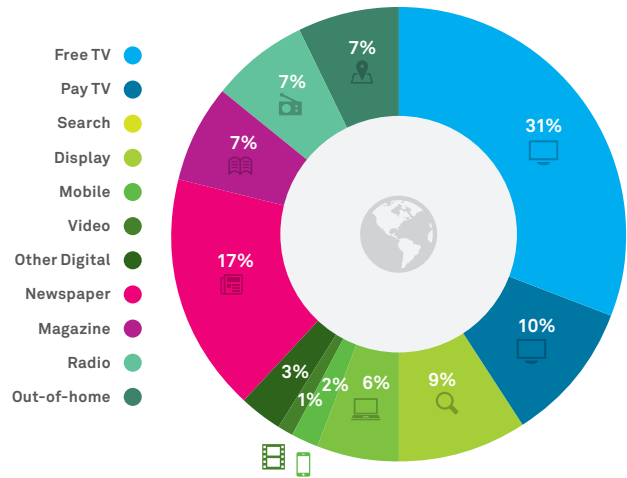
REVENUE GROWTH BY REGION
In Percent



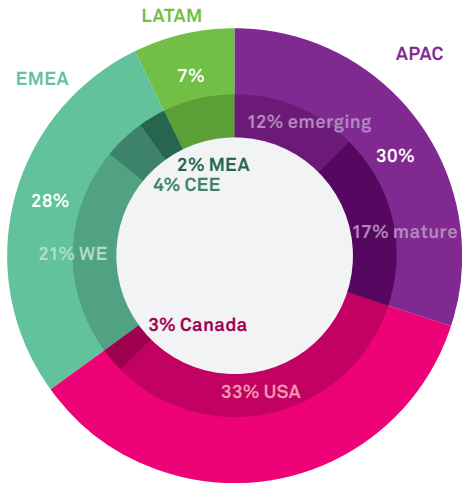
REVENUES BY MEDIA



GLOBAL MEDIA MIX

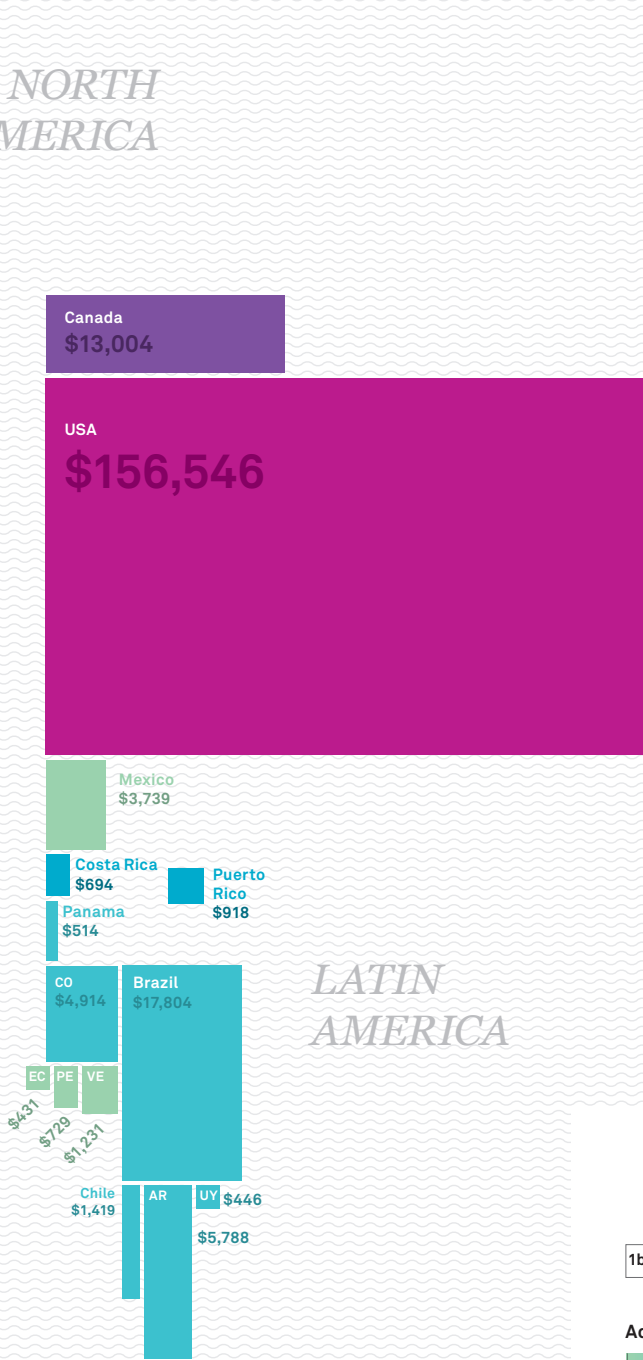


AD MARKET BY REGION



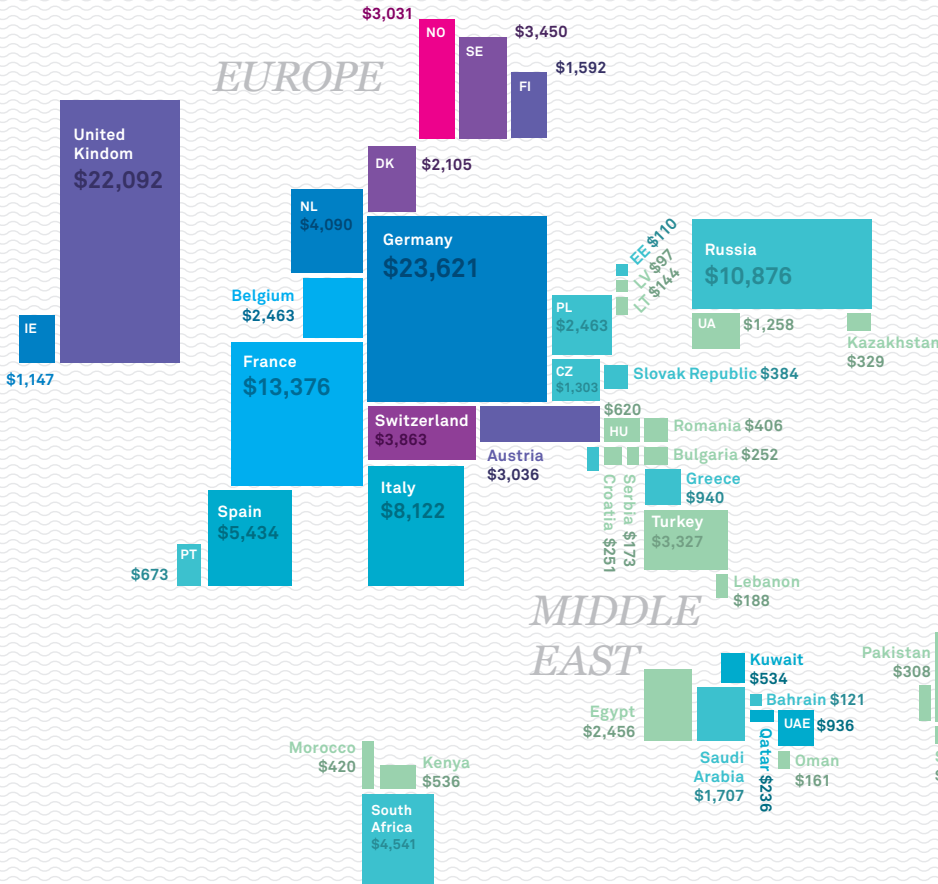
THE GLOBAL ADVERTISING MARKET 2013

NORTH AMERICA



LATIN AMERICA

EUROPE

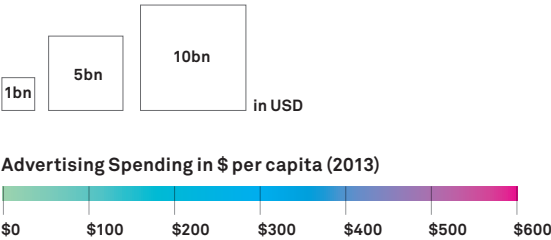
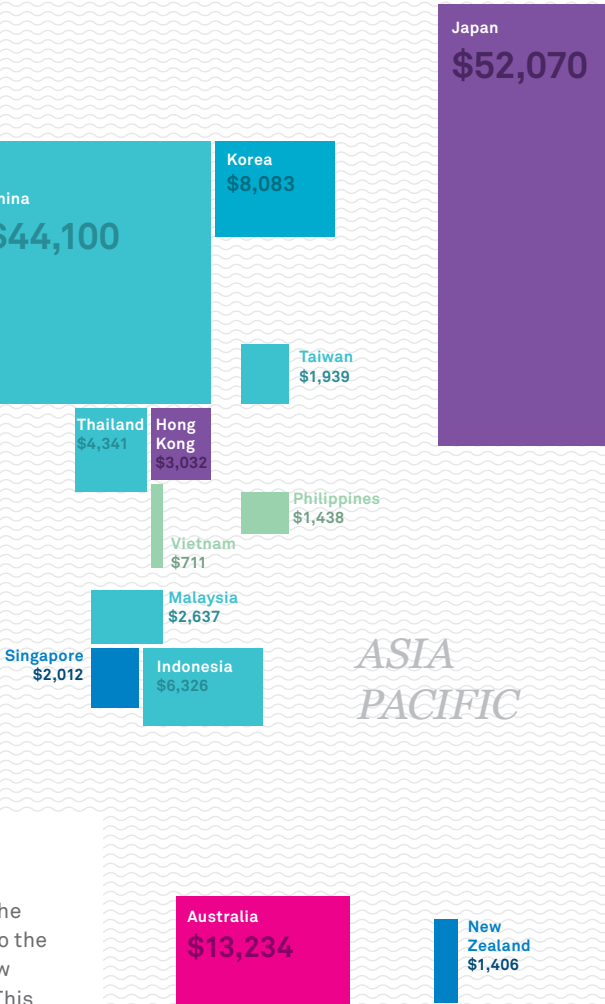


MIDDLE EAST

AFRICA

TOTAL MARKET SIZE
490
Billion Dollars

ASIA PACIFIC



Reading this map: the size of each country is proportional to advertising spending in billion USD; the color reflects the level of spend per capita, akin to the intensity of advertising pressure: green is very low (less than \$50), red is very high (\$400 and more). This map reveals that the US alone represents a third of global advertising market while some large countries by surface or population, like India or Russia, remain largely underdeveloped.

ABOUT MAGNA GLOBAL



MAGNA GLOBAL is the strategic global media unit of IPG Mediabrands, comprised of two key divisions.

MAGNA GLOBAL Investment harnesses the aggregate power of all IPG media investments to create power and leverage in the market, drive savings and efficiencies, and ultimately make smarter, more effective media investments on behalf of our clients. With a stated goal of reaching 50% automated buying by 2016, the team in North America invests across digital, programmatic, broadcast and all traditional media platforms and is therefore considered the most comprehensive buying and negotiating unit in the media industry.

MAGNA GLOBAL Intelligence has set the industry standard for more than 50 years by predicting the future of media value. MAGNA GLOBAL Intelligence produces more than 40 annual reports on audience trends, media spend and market demand, and ad effectiveness. For more information, please visit www.magnaglobal.com or follow us on Twitter @MAGNAGLOBAL.

ABOUT IPG MEDIABRANDS



We were founded by Interpublic Group (NYSE: IPG) in 2007 to manage all of its global media-related assets. Today that means we manage and invest \$37 billion in global media on the behalf of our clients, employ over 8,500 diverse and daring marketing communication specialists worldwide and operate our company businesses in more than 130 countries.

A proven entity in helping clients maximize business results through integrated, intelligence-driven marketing strategies, IPG Mediabrands is committed to driving automated buying, pay-for-performance and digital innovation solutions through its network of media agencies including UM, Initiative, BPN, Orion Holdings, and ID Media. Its roster of specialty service agencies including MAGNA GLOBAL, Mediabrands Audience Platform, Mediabrands Publishing, IPG Media Lab, Ensemble, and Identity offer technologies and industry moving partnerships that are recognized for delivering unprecedented bottom line results for clients. For more information, please visit www.ipgmediabrands.com or follow us on Twitter @IPGMediabrands.

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