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DIGITAL SIGNAGE & DOOH

OFFICIAL MAGAZINE
DIGITAL SIGNAGE SUMMIT EVENTS

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OFFICIAL MAGAZINE

THE BRANCH IS ALIVE

It's been quite a year for Digital Signage and DooH, with both branches still experiencing double-digit growth. With the gradual convergence of digital signage and DooH branches, we've decided to follow this trend closely here in the invidis yearbook. New design, new content and DooH as a stand alone – yet still integrated – part of digital signage.

The **Digital Signage market** experienced double digit growth in 2015 both in EMEA as well as DACH. The combined revenues of Germany, Austria and Switzerland of 930 million Euros lay just shy of the billion mark, a target which will almost certainly be broken this year. Naturally, the market has changed continuously during this course of growth and expansion. As the software sector, for example, is one such market segment experiencing significant change, we've dutifully incorporated a new license count.

The **Digital out of Home (DooH) market** is also developing at a steady rate, last year growing 30% in the DACH region alone. Important market-ready technologies such as programmatic buying and so-called smart cities are set to continue the positive development of the DooH market in the future.

The **DSF Digital Signage Summit Europe** has also grown parallel to the digital signage and DooH markets. Beginning life as a small insider event (called the OVAB Digital Signage Conference Munich), the DSS Europe – a joint venture between Integrated Systems Events and invidis consulting – has become Europe's most important Digital Signage and DooH strategy conference. In addition to the conferences in Europe, the Gulf States and Russia, there is to be a further extension of the conference series to Africa and North America.

The associations have also adapted to the market. Since February 2016, the branch association OVAB Europe has been cooperating with the US based Digital Signage Federation (DSF) and will be present on the market from now on as the DSF Europe. Through cooperation with the DSF, both organisations on both sides of the Atlantic will have access to resources and events from one another.

Finally, we'd like to thank once again all those who took the time to take part in our survey and to all the companies who supported us with data, information and bookings. Only because of your support have we been able to put together and offer this 100 page concentrated Digital Signage and DooH know-how free of charge.

Warmest regards

F. Rotberg

Florian Rotberg

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How much market share do the various professional display manufacturers have? How are the brands developing? Two pages of data regarding the digital signage market in the EMEA.

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A lot happened in the DACH market in 2015, especially with regards to software providers and integrators.

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DooH is booming – we explain why and pick the most important trends in technology.

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DIGITAL SIGNAGE MARKET EMEA

DRIVING MARKET FORCES IN THE NORTH AND SOUTH

MOST OF THE EMEA COUNTRIES WERE ABLE TO OVERCOME THE FINANCIAL AND ECONOMIC CRISES OF 2015. FOR RUSSIA, HOWEVER, IT HAS PROVED DIFFICULT.

The professional display market in EMEA in 2015 development was generally positive, however the actual growth did not meet expectations. Roughly 707,000 displays were sold in the calender year, an increase of 13 percent. The areas that experienced the most growth were the Benelux countries, France, Italy, Turkey and the Middle East, while Russia and Poland both reported a decline.

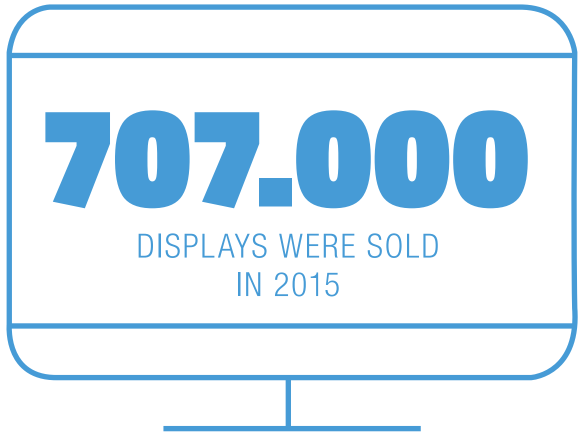
Like in 2014 the strongest and most significant markets were the DACH region, France, and Great Britain. “These markets represent 40 percent of the total EMEA market”, said Bob Raikes, managing director of Meko. “The other regions have a huge growth potential, despite the political and economic hardships which have slowed development in Southern Europe, Russia, and the Middle East. Even more frustrating, Africa and the Middle East lack system integrators capable of running and operating the facilities.”

DBCI DELIVERS THE BEST MARKET INSIGHT

The Digital Signage Business Climate Index (DBCI), polled every two months by invidis and DSF Europe, is the best indicator of how individual markets and moods are developing within the EMEA. Since 2009, the number of countries participating in the index has grown to 22, with Great Britain projected to join for 2016. In writing the country reports for the current invidis yearbook, the DBCI has been the primary source of information.

PHOTO: FLORIAN ROTBERG, INVIDIS CONSULTING

Adidas Flagship Store in Dubai with LED Screen



FRENCH CUSTOMERS LIKE IT ‘TRÈS SIMPLE‘

In 2015, France, with a 12 percent market share and 25 percent growth, proved to be one of the most important markets. The DBCI revealed a thoroughly positive outlook: roughly 69 percent of the digital signage companies in France reported hiring new employees, which translated to a total of 150 new jobs.

“2015 was a very good year for France. At the moment, the customer has a solid understanding of the medium, however, in regard to new concepts, like Omnichannel, or new technological developments, the customers knowledge is often inadequate,” said Michel Baronier, CEO of TMM. For the customer, this can prove too complex and thus many project related decisions come too late. Most of the projects planned for 2016 will not be implemented until the end of the year at the earliest.

The desire for simplicity can be seen in the demand for easy to handle CMSs. Samsung’s MagicInfo, for example, has had a successful start on the French market.

Retail, corporate communications and shopping centres represent the major target markets of 2015. The small signage displays and the displays greater than 85 inches were the year’s most dynamic segments. Due to a price slump, market players are forecasting a large growth potential for high brightness and ultra high-resolution displays. Nevertheless, high costs for both energy and content is somewhat holding back the growth. As a result, a gain of more than 10 to 15 percent is not expected.

CONSOLIDATION AND GROWTH IN SCANDINAVIA

The Scandinavian countries appear to have finally overcome the financial crisis. The crisis, which began in 2008, is nowhere to be seen and things are moving noticeably uphill. The display market has expanded by about 20 percent, meaning a 9 percent stake in EMEA.

"Norway was largely unaffected by the crisis and was without a doubt the dominant market force in Scandinavia," said Frank Larsen, managing director of Digital Experiences Nordic. "This is still true, though it's moving at a slower pace, and Sweden, Finland, Denmark, and Iceland have finally caught up." This dynamic has made 2015 a year of positive growth. The general good development of the economy has allowed companies to invest in digital signage, specifically in corporate communication, retail, and shopping malls. Roughly 200 new positions were created in the digital signage industry.

In spite of the euphoria: No other EMEA market is as affected by the general consolidation process in the industry as Scandinavia. Though the remaining companies are successful, though hemmed in by the small size of the domestic markets. Europe-wide expansion represents the only opportunity to increase their footfall.

Primary examples for these developments, one need look no further than the Norwegian software provider Scala, the Finnish system integrator Elisa Videra, or the Swedish market players Zeta Display and MultiQ/Mermaid.

SPAIN AND PORTUGAL WIN WITH DYNAMISM

Though a bit weaker than the Scandinavian market, the Iberian market has shown itself to be quite dynamic with a growth of more than 15 percent, claiming a 5 percent EMEA market share. The Iberian target markets are similar to other countries: corporate communication, retail and Digital out of home generated the most revenues in 2015.

Like in many other EMEA countries, businesses in Portugal and Spain were able to generate new jobs. About 60 percent reported growth, with a grand total of 100 new positions. Many projects, some with 1000 or more displays, were realised or begun in 2015 from the likes of Vodafone, Burger King, and Carrefour.

Carrefour is currently implementing something that has been a particularly important issue for Spain and Portugal: Multichannel with integrated mobile devices. Here, the members of the DBCI stand united in that most of these installations do not utilise the interactive possibilities of digital signage, rather they are just digitalised posters.

Everything but cheap: Primark's flagship store in Madrid's Gran Via

PHOTO: MOOD MEDIA

Not your typical bank branch: the Virgin Money lounges in the UK

PHOTO: FVIRGIN MONEY

LARGE CONCERNS IN ITALY

The Italian market was able to close 2015 in fine order with an EMEA share of 7 percent and a display market growth of 30 percent. After a lukewarm start, the 2015 Expo appears to have had positive effects. 100 new positions were created.

As in the past, the main problems for digital signage firms were bureaucratic issues and constrictive regulations. The relatively high number of unprofessional service providers, as well as the poor quality of some of the hardware on the market has also led to difficulties. Though Italy's end of year results were overall positive, there are still a number of areas for improvement.

BENELUX IS GOING BIG, POLAND LIKES IT SMALL

The digital signage branch in Benelux has profited from a rallying economy. A moderate increase in both the gross domestic product and exports has had a positive effect. Businesses were again ready to invest in digital projects. In 2015, the display market grew by about 20 percent and thus secured an 8 percent share in EMEA. In general, the projects and installation are growing in size and complexity.

The situation in Poland is just the opposite. Here, 80 percent of the projects were small to medium sized, with a maximum of 50 installed displays. Large projects generate high revenues, but discounts increase with the number of hardware used and tear into the margin. Moreover, only few market participants can sustainably carry out projects with over 100 displays. Currently, 17 percent of the projects involve 100 or more displays.

The Polish market represents a 3 percent share in EMEA and reported a 5 percent loss for 2015. Cautious optimism dominates in 2016: There is a single-digit growth projected for the IT sector. However, some fear that the new banking and trade taxation will halt the anticipated growth.

ICY CLIMATE IN RUSSIA

In Russia, the digital signage industry was faced with the most serious battle. The market took a 15 percent nosedive and closed 2015 with a 3 percent share in EMEA. The falling Rubel and oil prices caught the Russian market participants in a downward cycle: many components need to be imported, the expenses increase, which in turn raises the total cost, and leads many customers to delay or even call off entire projects. High hopes are being placed upon the anticipated positive effects of the FIFA World Cup in 2018.

The Russian market sees potential in the falling price of LEDs. Because of the low pixel pitch, LEDs can now be used indoors, something which may prove interesting for the many shopping malls in Russia. As in the past, these are the major target markets for digital signage. No wonder, as a third of the total revenues were generated through mall installations. The malls, which owe their ubiquity to the Russian climate, feature not only retail signage, but also information and queue management systems. Here, digital signage companies are able to generate constant revenue.

BIG CHANGES IN THE GULF STATES

In the Gulf States, shopping malls and retail are the major target markets. Likewise, the demand for small and mid-sized retailers is on the rise. The trend is clearly headed towards an integration of digital concepts in the store design and digital window displays.

The Gulf display market grew by a cool 40 percent, leading to a 7 percent EMEA share. The mood for 2016 is a bit subdued, as the falling oil prices are making the corporate customers cautious. As a result, many projects are being delayed or reduced in size.

Despite this, the government is still investing heavily in infrastructure and tourism projects, including the 2020 Expo and the 2022 FIFA World Cup, both of which are expected to have impressive budgets. The growing education market should be of particular interest to the digital signage community. The education sector owes it's emerging importance to economic restructuring as the states in the region hope shift the focus from oil exportation to a knowledge-based society.

A positive change in the prevailing type of installation has also been noted: Gone are the projects which had purely flagship value or possessed a "wow" effect without any thought to sustainability. Instead, the focus has shifted to projects with an emphasis on sustainability and this is predicted to remain the trend in the coming years.

DIGITAL SIGNAGE TRENDS 2016

INCREASING DEMAND FOR...

CONTENT

83%
INTERACTIVE CONTENT WITH TOUCH FUNCTIONALITY

70%
CONTENT WITH SOCIAL MEDIA INTEGRATION

71%
INTERACTIVE CONTENT WITH INTEGRATION OF MOBILE DEVICES

DISPLAYS

85%
LARGE FORMAT DISPLAYS 70“ AND BIGGER

80%
VIDEOWALL DISPLAYS WITH NARROW BEZEL AND DEDICATED VIDEOWALL FUNCTIONS

64%
SUN-LIGHT READABLE LARGE FORMAT DISPLAYS

SOFTWARE

86%
INTERFACES FOR CONNECTING EXTERNAL SYSTEMS TO THE CMS

67%
FUNCTIONS TO ADAPT THE WORKFLOW TO THE CMS

64%
SOLUTIONS FOR LARGE FORMAT DISPLAYS WITH INTEGRATED MEDIA PLAYER

MEDIA PLAYER

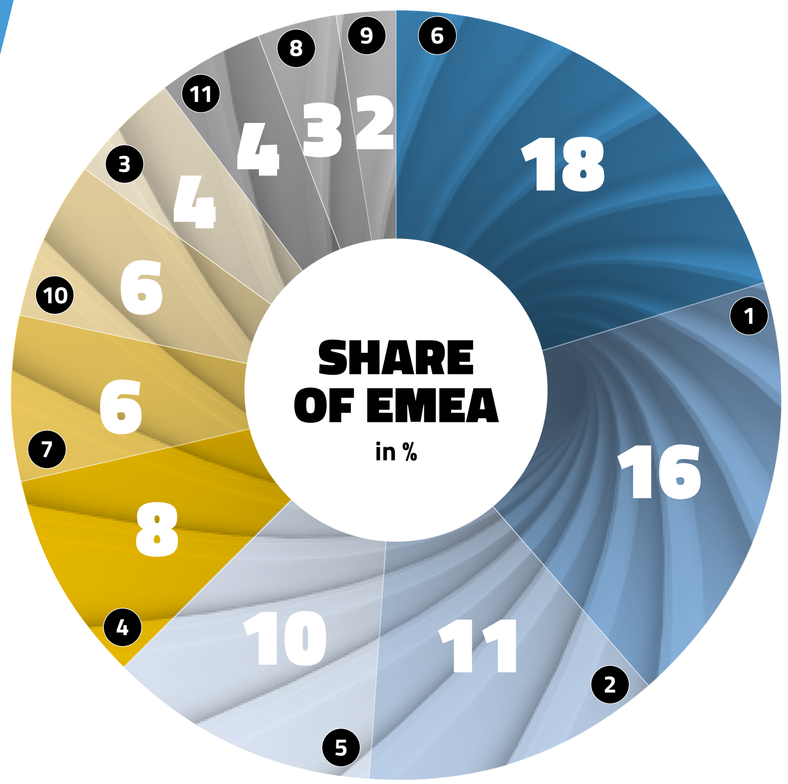
57%
MEDIA PLAYER APPLIANCES WITHOUT FAN

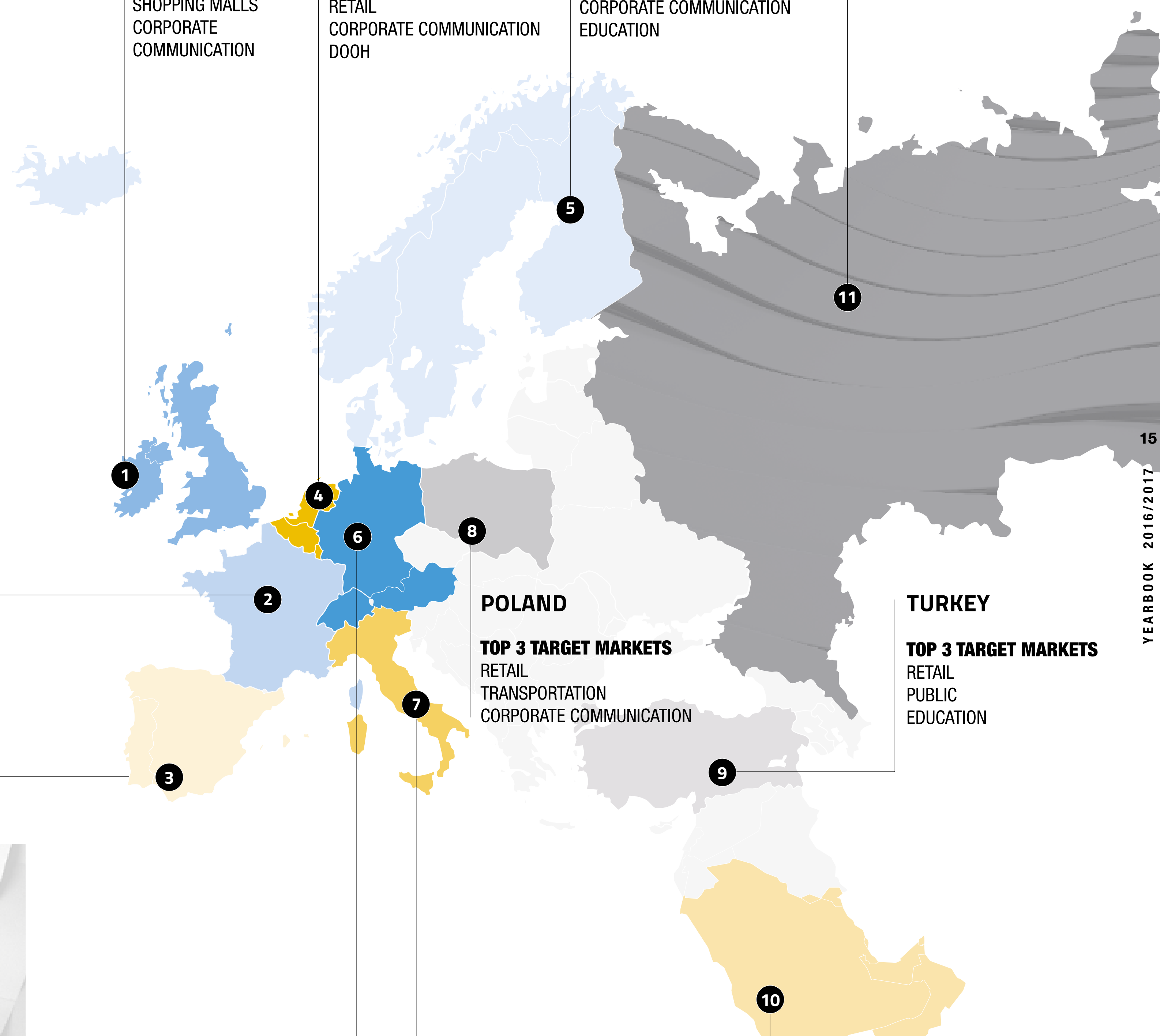
53%
SOLUTIONS WITH SMALL FORM FACTOR

42%
MEDIA PLAYER WITH ANDROID

DIGITAL SIGNAGE IN EMEA 2015

TOP MARKETS FOR PROFESSIONAL DISPLAYS





GREAT BRITAIN & IRELAND

TOP 3 TARGET MARKETS
RETAIL
SHOPPING MALLS
CORPORATE COMMUNICATION

BENELUX BELGIUM, THE NETHERLANDS, LUXEMBOURG

TOP 3 TARGET MARKETS
RETAIL
CORPORATE COMMUNICATION
DOOH

NORDICS SWEDEN, DENMARK, NORWAY, FINLAND, ISLAND

TOP 3 TARGET MARKETS
RETAIL
CORPORATE COMMUNICATION
EDUCATION

RUSSIA

TOP 3 TARGET MARKETS
RETAIL
CORPORATE COMMUNICATION
SHOPPING MALLS

FRANCE

TOP 3 TARGET MARKETS
RETAIL
CORPORATE COMMUNICATION
BANKING

SPAIN, PORTUGAL

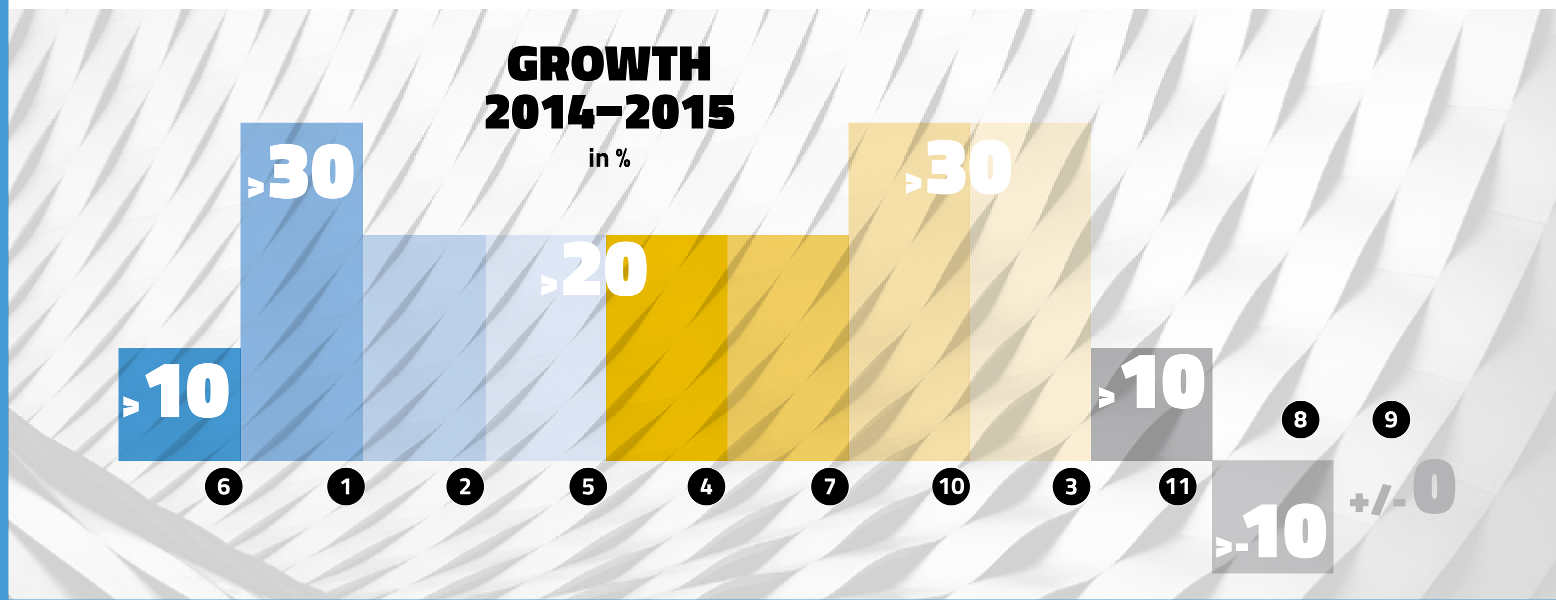
TOP 3 TARGET MARKETS
RETAIL
CORPORATE COMMUNICATION
SHOPPING MALLS

POLAND

TOP 3 TARGET MARKETS
RETAIL
TRANSPORTATION
CORPORATE COMMUNICATION

TURKEY

TOP 3 TARGET MARKETS
RETAIL
PUBLIC
EDUCATION



DACH GERMANY, AUSTRIA, SWITZERLAND

TOP 3 TARGET MARKETS
RETAIL
CORPORATE COMMUNICATION
BANKING

ITALY

TOP 3 TARGET MARKETS
RETAIL
CORPORATE COMMUNICATION
SHOPPING MALLS

GCC SAUDI ARABIA, BAHRAIN, QATAR, KUWAIT, UAE

TOP 3 TARGET MARKETS
RETAIL
SHOPPING MALLS
DOOH

Source: Meko, invidis

DIGITAL SIGNAGE MARKET GERMANY, AUSTRIA AND SWITZERLAND (DACH)

SMALL TREMORS, BIG SUCCESSES

A LOT HAPPENED IN THE DACH MARKET IN 2015, ESPECIALLY WITH REGARDS TO SOFTWARE PROVIDERS AND INTEGRATORS.

The digital signage market in DACH grew steadily in 2015, with Germany, Austria and Switzerland experiencing adjusted sales growth in the double digits at 930 million Euros.

As before, the most important market is retail, which accounts for a quarter of the turnover and is attractive for all sizes of companies thanks to the mix of large and small projects. Although corporate communication is as important as ever, it lost some significance in 2015. Turnover in the transport sector – including train stations, airports and public transport – increased significantly in 2015. Swiss providers profited particularly well from this sector.

The growth of the market in 2015 has also a positive knock-on effect with regards to employment figures, with the number of employees in this region increasing by around 10 percent equating to a total of 350 to 400 new positions. Although qualified workers were needed through all sectors, supply didn't always meet demand. In Switzerland, for example, there is a shortage of skilled personnel as a result of the recent restrictive immigration policies imposed by the state. Extremely high wages also create difficulty in ensuring Switzerland can remain internationally competitive.

Analogue-digital branding on Vienna's Stephansplatz. Samsung used Gewista digital media screens during a recent launch campaign.

PHOTO: GEWISTA

DIGITAL SIGNAGE MARKET
GERMANY, AUSTRIA, SWITZERLAND
2009–2015
IN MILLION EUR

YEAR	DISPLAYS	INTEGRA-TORS	SOFTWARE	DOOH	MEDIA PLAYER	OTHERS*	TOTAL
2009	**106**	**112**	**15**	**67**	**15**	**15**	**330**
2010	**100**	**135**	**18**	**96**	**19**	**21**	**389**
2011	**132**	**174**	**21**	**117**	**26**	**26**	**496**
2012	**157**	**186**	**24**	**145**	**30**	**31**	**573**
2013	**183**	**210**	**30**	**168**	**39**	**36**	**666**
2014	**190**	**235**	**35**	**218**	**44**	**40**	**762**
2015	**220**	**276**	**49**	**286**	**49**	**50**	**920**

* Contains Content, Hardware, Consulting, Media.
Note: All information comes from company reports or estimations by an advisory board.
No direct comparison between 2014 and 2015 possible due to a new calculation of software licenses and "others"
Source: Meko Ltd, invidis consulting GmbH „invidis Digital Signage & DooH Yearbook 2016/17"

CONCEPTION AND CONTENT BECOME MORE RELEVANT

Multichannel is an important issue in the retail market. "Truly successful digital marketing requires an integral handling of digital channels and a combination of online and offline media, or stationary and mobile channels at the point of information or sale," explains Guido Stillhard, CEO of JLS Digital. Digital signage solutions are increasingly used in conjunction with other channels, not simply as a medium on its own. Most of all, the integration of mobile devices plays an increasingly important role.

According to Stefan Knoke and Markus Deserno, Managing Partners of Lakes Media: "Digital signage is regarded increasingly conceptually by customers, in the sense that there has been a general growth in the willingness to accept higher costs for pilots and trail installations. As a result of this shift change, projects can be tackled more professionally in the long-term."

Fortunately, this has also had a positive effect on the relevance of content and the desire for high quality bespoke content created specifically for digital signage installations. "Our medium is only as effective as the content displayed," said Maarten Dollevoet, Regional Sales Director of Broadsign International. "I believe that the trend is moving towards dynamic content." The demand for 4K content has, however, remained slightly constrained due to the cost intensive nature of installation.

While newer technologies such as Beacons are hot topics at the moment, credible reference points are still lacking. In Germany, concerns have also been raised with regards to data security. The same can also be said for Big Data Analytics, which often fail to receive financing.

GOOD VIBES IN GERMANY

The German market finished 2015 on a high. The year saw many tenders – a trend that has continued through 2016 – and an excellent first quarter. Although the high expectations were not met towards the year's end, the balance sheet remained roughly equal. Reasons for growth in the German market can be characterised by the generally good economic situation and high consumer spending, spurred on by lower energy prices, low unemployment and low interest rates. As a result, the retail sector was able to invest significantly: a positive trend that is still continuing.

UHD, HDR, LED, OLED & CO. – THE DISPLAY TRENDS

Ultra-high HD – 4K – has barely worked its way into the market and manufacturers are already talking about 8K (probably in the hope that UHD will soon be standard across the board). An additional format, High Dynamic Range (HDR), will soon be available, which makes high-resolution content even more brilliant and full of contrast. The first models are already to be found in the digital signage market.

LCDs will all but disappear in their present form. Whether OLED, quantum dots or IGZO displays - manufacturers are fiddling feverishly with screens generating more colour, high-contrast images, UHD support and lower energy consumption. Although OLED technology is being well received thanks to its unusual display formats, this technology is by no means fully matured and is still too expensive.

There has been a clear trend for LED video walls since 2015. Thanks to developments in technology, the pixel pitch of such LED walls is small enough to be used indoors. In addition to more attractive pricing, LED walls offer flexible installation solutions. Even larger manufacturers have recently begun adding these solutions to their portfolios. Samsung, for example, recently took over the LED solutions provider Yesco Electronics. LED has also arrived in Germany, with Ströer planning the construction of 1000 Megalights over the next three years.

HIGH HOPES FOR AUSTRIA IN 2016

The situation looks completely different in Austria. 2015 was a difficult year for the entire Austrian economy, including the digital signage market. Due to high levels of unemployment and low purchasing power, companies held back on investments. There's hope for 2016, however, with many new project requests and tenders taking place in the retail sector, bringing Austria a little closer to its German speaking neighbours. Currently important is the rollout of a total of 400 displays for the Vienna Medical Association through y-doc, Grassfish and SoloIT.

PHOTO: DIMEDIS

Dimedis column in the 'Höfe Am Brühl' shopping mall in Leipzig

TOP 20
DIGITAL SIGNAGE INTEGRATORS
GERMANY
2015
BY REVENUES

RANG	CATEGORY*	COMPANY	REVENUE in Mio. EUR
1	TSI	xplace	35–40
2	TSI	T-Systems International	25–30
3	TSI	CANCOM DIDAS	10–15
4	TSI	NORDLAND systems	10–15
5	FSI	PMS Perfect Media Solutions	5–10
6	FSI	SEEN MEDIA	5–10
7	FSI	Radio P.O.S.	5–10
8	TSI	heinekingmedia	5–10
9	TSI	Gundlach Intelligent Solution	2–5
10	FSI	NEXGEN smart instore	2–5
11	FSI	MuSe Content	2–5
12	FSI	ICT	2–5
13	TSI	Media-NEL	2–5
14	FSI	echion Corporate Communication	2–5
15	FSI	komma,tec redaction	2–5
16	FSI	netvico	2–5
17	FSI	ipos 24 / Interactive Point of Sale	1–2
18	TSI	InoNet Computer	1–2
19	FSI	Visual Art	1–2
20	FSI	Neo Advertising	up to 1

* TSI: Technical Service Integrator; FSI: Full Solution Integrator
Note: All information comes from company reports or estimations by an advisory board.
Source: invidis consulting GmbH „invidis Digital Signage & DooH Yearbook 2016/17"

PHOTO: FLORIAN ROTBERG, INVIDIS CONSULTING

'The Beach', a shopping centre directly on the beach in Jumeirah, Dubai

SWISS STAY ATTACHED TO HOME

The Swiss economy experienced a shock in 2015 with the revaluation of the Swiss Franc. Investments were initially few and far between, but by mid-year the situation returned to normal. New installations have had a positive effect in the transportation sector, for example, with APG's investment in new LED boards and the construction of a Passenger TV network in Geneva. Retail projects are also becoming increasingly common in Switzerland.

DISTRIBUTORS BACK DIGITAL SIGNAGE

In recent years, distributors in the DACH region have become increasingly aware of the fact that digital signage is an attractive market providing opportunity for potential additional sources of revenue. Distributors are increasingly offering services in this field, or in the case of DELO Computer, even specialising in Digital Signage. In Germany the market is dominated by Ingram Micro, followed by ALSO, Tech Data, DELO and Comm-Tec. Between 40 and 70 percent of the companies we questioned for the digital Signage Business Climate Index work with these distributors. In Austria and Switzerland, the market leaders are national champions such as Omega, SoloIT. MobilePro, Littlebit and Telion.

TOP 10

DIGITAL SIGNAGE INTEGRATORS
AUSTRIA
2015
BY REVENUES

RANG	CATE-GORY*	COMPANY	REVENUE in Mio. EUR
1	FSI	feratel media technologies	**2–5**
2	TSI	Kapsch BusinessCom	**2–5**
3	FSI	DMS Digitale Mediensysteme	**2–5**
4	FSI	Pichler Medientechnik	**1–2**
5	TSI	A1 Telekom Austria	**1–2**
6	FSI	NarComm DACH	**up to 1**
7	FSI	IT.PARK Service & Technologie	**up to 1**
8	TSI	Wincor Nixdorf International	**up to 1**
9	TSI	Panatronic	**up to 1**
10	TSI	DATAplexx	**up to 1**

* TSI: Technical Service Integrator; FSI: Full Solution Integrator
Note: All information comes from company reports or estimations by an advisory board.
Source: invidis consulting GmbH „invidis Digital Signage & DooH Yearbook 2016/17"

DIGITAL SIGNAGE MARKET GERMANY, AUSTRIA AND SWITZERLAND (DACH)

SUMMARY OF IMPORTANT EVENTS

1. The overall DACH market grew to almost one billion euros, with Germany enjoying most success.
2. Embedded Systems are classed as digital signage solutions for the first time in 2015 by invidis. As a result, the software market registered a 40 percent increase.
3. Google came onto the market for the first time in 2015 as a digital signage platform, but announced in 2017 a merge with Android, resulting in discord between Media Player and software providers.
4. Some integrators have shifted their focus entirely. The biggest change took place with Cittadino, who withdrew from the integrator and software business completely.

TOP 15

DIGITAL SIGNAGE INTEGRATORS
SWITZERLAND
2015
BY REVENUES

RANG	CATEGORY*	COMPANY	REVENUE in Mio. EUR
1	FSI	JLS DIGITAL	**15–20**
2	TSI	Kilchenmann	**5–10**
3	FSI	ScreenFOODnet	**5–10**
4	TSI	Invertag	**2–5**
5	TSI	Westiform	**2–5**
6	FSI	Habegger	**2–5**
7	FSI	B+T Bild+Ton	**2–5**
8	TSI	ESAG	**2–5**
9	FSI	screenIMAGE Systems	**1–2**
10	TSI	Bison IT Services	**1–2**
11	TSI	AVS Systeme	**1–2**
12	TSI	SwissScreen	**up to 1**
13	TSI	swisspro PM	**up to 1**
14	TSI	Ruf Avatech	**up to 1**
15	TSI	auvisio	**up to 1**

* TSI: Technical Service Integrator; FSI: Full Solution Integrator
Note: All information comes from company reports or estimations by an advisory board.
Source: invidis consulting GmbH „invidis Digital Signage & DooH Yearbook 2016/17"

CONSOLIDATION ON THE INTEGRATOR MARKET

Integrators also benefitted from the positive state of the market in 2015, increasing their sales by around 18 percent from 235 to 276 million Euros. These developments in the integrator market are very exciting.

"The digital signage market is characterised in 2016 by sustained concentration processes on the supply side in the form of acquisitions and / or project collaborations, and by a tendency in bidding for major projects to access capital from strong and globally active suppliers," commented Stefan Knoke and Markus Deserno, Managing Partners of Seen Media.

This is also reflected in the pure figures: While large integrators grow, smaller ones are increasingly pushed to the side, and may be forced to leave the market in the future. The three leading German integrators have the financial clout to be able to take on large international projects thanks to their strong backers. Especially interesting here is the role of market leader xplace. As a subsidiary of Media Saturn, xplace won the contract for the electronic shelf label rollout in all Saturn stores. This contract alone was responsible for bringing significant movement to the market and catapulted xplace from third to first place in Germany.

Austria's DMS Digitale Mediensysteme moved from seventh to third place in 2015. DMS is certainly aware of the fact that content plays an increasingly important role in the market, and has therefore adjusted its focus accordingly. The new Austrian market leader is feratel media technologies, an integrator increasingly specialising in tourism and outdoor installations.

TOP 10

VENDORS PROFESSIONAL DISPLAYS GERMANY, AUSTRIA, SWITZERLAND 2015

BY REVENUES

RANG	COMPANY	MARKET SHARE in %
1	Samsung Electronics	**43,0**
2	NEC Displays	**18,0**
3	LG Electronics	**16,0**
4	Philips Professional Display Solutions	**4,5**
5	Data Modul Weikersheim	**3,5**
6	Sharp Electronics	**3,5**
7	Panasonic	**2,5**
8	iiyama	**1,0**
9	BenQ	**1,0**
10	Toshiba	**1,0**
-	Andere	**6,0**

Source: Meko Ltd, invidis consulting GmbH „invidis Digital Signage & DooH Yearbook 2016/17"

ESL ELECTRONIC SHELF LABELS

They're small, practical and affordable: Electronic Shelf Labels (ESL) are on the rise thanks to Media Saturn. Such installations aren't, however, to be regarded as digital signage as they are lacking in dynamism, as well as requiring no individual media player and software licenses.

ESLs may be found in LC display or – as is most common due to financial considerations – e-paper form. ESLs are controlled centrally via radio, with batteries providing power. As the electronic signs are only activated when a price is changed, battery life is typically very good.

ESLs are attractive for all retailers who need to make frequent pricing alterations. Electronic retailers, for example, benefit from ESLs as their prices need to be adjusted regularly to account for online trading. Here ESLs save a lot of time, manpower and money.

INTEGRATORS ARE TRANSFORMING

In Switzerland, Invertag lost its second place to Kilchenman. The revenues of the transportation specialist had to be reassessed due to the fact that they didn't flow completely into Digital Signage projects. Kilchenman on the other hand profited from its loyal client base, which invested heavily in 2015.

Of particular note is the reorientation of certain integrators in the DACH region in 2015. Cittadino withdrew itself from the integrator side of the business in order to concentrate on Digital out-of-home networks. In Austria, Pichler Medientechnik is also reoriented itself to specialise in software solutions. Swiss integrator ScreenFood, on the other hand, has chosen to shift its focus from software provider to full service integration. It still remains to be seen how far this new focus will affect the various relationships with partners.

DISPLAY MANUFACTURERS SCORE WITH SIZE AND BRIGHTNESS

Display manufacturers remained slightly more predictable in 2015. The top three manufacturers remained in their positions in 2015, making up 70% of the total market share. Samsung defended its number one spot with a whopping 40% market share. LG Electronics lost a small amount of its market share in 2015 due to internal restructuring within the company. Newcomer BenQ was able to secure a first foothold in the market.

Turnover in the display market reached 220 million Euros in 2015, an increase of around 16 percent compared to 2014, which can be attributed in part to the affordability of large format displays and high brightness screens. Life-size screens over 70 inches are currently in high demand due to the fact that they can replace video walls with multiple displays. While high brightness displays were once the reserve of niche providers, now such solutions are standard among all large manufacturers. As a result of the increase in availability of the screens, we've seen a huge increase in various types of screen installation in display windows and shopping centres.

Although demand for high resolution (4K or UHD) and special formats have noticeably increased, ultra high definition screens remain something of a rarity. The production costs for 4k content is one potential reason for this. Market players are, however, expecting a turnaround in the near future.

Electronic Shelf Labels have become something of a necessity for retailers, who can benefit from being able to spontaneously adapt prices in response to the often-erratic online pricing policies of competitors. 2015 saw the introduction of electronic shelf labels in several European high street retailers such as Media Markt and Saturn. Small signage displays, mostly used as door signs, were also on the up in 2015. The second generation of screens with their comprehensive solutions are experiencing noticeable demand on the market

Quite different is the situation with screens touted as Entry Level Digital Signage by leading manufacturers. The attempt to disseminate these devices over non-professional distribution channels was largely unsuccessful and was abandoned in 2015.

THE SOFTWARE MARKET COUNTED ANEW

According to statistics, the software market changed a great deal in 2015. As of a result of the on-going market consolidation, the number of market players listed in the yearbook was reduced from 30 to 25. Embedded systems created a significant movement in the rankings, including, for example, scales, banking and vending machines. By including these solutions, the number of software licenses and the market itself has increased significantly, growing 40 percent from 35 to 49 million euros. Online Software AG and engram performed especially well.

The reason for the measurement of these systems is that they have evolved significantly in recent years, becoming much more intelligent. Thanks to integrated software, embedded systems are now managed dynamically. For example, a scale can display different deals throughout the day, and the cheese counter can display different deals compared to the sausage counter. Embedded systems

DIGITAL SIGNAGE MARKET GERMANY, AUSTRIA AND SWITZERLAND (DACH)

are now able to meet the requirements of digital signage. Electronic Shelf Labels, on the other hand, are not (see box).

Two new North American entries to the ranks this year are Onelan from the USA and Avuda from Canada. While Ayuda may not have made it to the top 25, they are expected to improve upon their position in 2016 thanks to the fact that Ayuda is to provide software for Ströer's 3500 displays. Moving up in the ranks this year is Samsung with MagicInfo, who moved from twelfth to ninth place. The software – which was first introduced to the market in 2014 – has since been incorporated into several large projects, which have improved credibility.

As with the integrators, software provider Cittadinois is not represented in the ranking due to their focus on its Digital out-of-home networks.

SOC COMPETES WITH MEDIA PLAYERS

Despite the fact that sales increased from 44 to 49 million euros, the Media Player market experienced the weakest growth of all sectors in 2015, experiencing around only 11 percent growth. The increase in sales can be attributed to a rising demand for professional systems. TV sets with DVD recorders as digital signage solutions are a thing of the past. This sales trend has been curbed somewhat by the increasing demand for system on a chip (SoC) solutions, whose presence on the market made a noticeable impact on media player providers for the first time in 2015. Still two thirds of all installations still utilise external media players, with only 10 to 15 percent relying upon SoC systems.

Customer demand for compact solutions also reflects the high demand for fanless media players. Compact size and ease of maintenance and installation are the main decision criteria for the customer.

Android is still the most popular operating system. Although Google Chrome OS – introduced to the market in late 2015 – hasn't been around long enough to make an impact on the market, many software and media player vendors have already integrated it into their solutions. With the announcement that Chrome OS and Android are to merge in 2017, we can expect further movement on the market in the coming years.

PHOTO: GEWISTA

Adidas-Spot on 84" column by Gewista in Mariahilfer Straße, Vienna

TOP 25

DIGITAL SIGNAGE SOFTWARE VENDORS GERMANY, AUSTRIA, SWITZERLAND 2015

BY LICENCES

RANG	COMPANY	LICENCES*
1	Grassfish	**40.000–49.999**
2	mdt Medientechnik	**40.000–49.999**
3	Scala	**30.000–39.999**
4	Online Software	**30.000 – 39.999**
5	easescreen	**20.000–29.999**
6	~sedna	**10.000 –19.999**
7	engram	**10.000–19.999**
8	BroadSign	**10.000–19.999**
9	Samsung / MagicInfo	**10.000–19.999**
10	screenFOOD	**10.000–19.999**
11	heinekingmedia	**10.000–19.999**
12	SalesTV	**10.000–19.999**
13	komma,tec redaction	**5.000–9.999**
14	Net Display Systems	**5.000–9.999**
15	netscreens digitale Schaufenster	**5.000–9.999**
16	STiNO	**5.000–9.999**
17	dimedis	**5.000–9.999**
18	Videro	**5.000–9.999**
19	netvico	**2.500–4.999**
20	Navori	**2.500–4.999**
21	BrightSign	**2.500–4.999**
22	SpinetiX	**2.500–4.999**
23	Onelan	**2.500–4.999**
24	Smartsign	**1.000–2.499**
25	Tripleplay	**1.000–2.499**

* Number of active software licences 31st December 2015
Note: All information comes from company reports or estimations by an advisory board.
Source: invidis consulting GmbH „invidis Digital Signage & DooH Yearbook 2016/17"

DIGITAL SIGNAGE MAP 2016

GERMANY
AUSTRIA
SWITZERLAND

INTEGRATION & DISTRIBUTION

FULL SOLUTION INTEGRATORS

GERMANY	AUSTRIA	SWITZERLAND
echion	Digitale Medien Systeme	B+T Bild + Ton AG
heinekingmedia	feratel media technologies	ESAG
ICT	IT.PARK Service & Technologie	Habegger
iPOS24	NarComm DACH	JLS DIGITAL
komma,tec redaction	Pichler Medientechnik	SCREENFOODnet
Mood Media		screenIMAGESystems
MuSe Content		
Neo Group		
netvico		
NEXGEN smart instore		
PMS Perfect Media Solutions		
Print Screen Media		
opta data		
Radio P.O.S.		
SEEN MEDIA		
Stüber Systems		
Visual Art		

TECHNICAL SERVICE INTEGRATORS

GERMANY	AUSTRIA	SWITZERLAND
AV-Solution Partner	A1 Telekom Austria	AVS Systeme
BEN HUR	DATAplexx	Bison IT Services
CANCOM DIDAS	Kapsch BusinessCom	Invertag
Gundlach Intelligent Solutions	Panatronic	Kilchenmann
heinekingmedia	Wincor Nixdorf	swisspro PM
InoNet Computer		SwissScreen
Media-NEL		Westiform
NCR		
Nordland Systems		
Supravision		
T-Systems International		
x-place		

DISTRIBUTORS

GERMANY	AUSTRIA	SWITZERLAND
ALSO	ALSO	ALSO
Avnet	Ingram Micro	Ingram Micro
Christiansen	Maverick	Inputech
Concept	Omega	Littlebit
Delo	SoLoIT	Maverick
dexxIT		MobilePro
Ingram Micro		Telion
Inputech		
ITZ		
Kern & Stelly		
Kindermann		
Littlebit		
Maverick		
MSC Technologies		
pilot Computerhandel		
syscomtec		
Vitec Imago		

DIGITAL SIGNAGE MAP DACH

HARDWARE

DISPLAYS

AG Neovo	LG Electronics
Asus	Philips Professional Display Solutions
Barco	NEC Displays
BenQ	Panaosonic
DATA MODUL Welkersheim (Conrac)	Samsung Electronics
DynaScan	Sharp Electronics
Elo Touch Solutions	Sign Point
eyefactive	Sony
Eyevis	Toshiba
Ilyama	Viewsonic
LEDCON Systems	

MEDIAPLAYER

ADVANTECH	InoNet
Acer	Kontron
AOPEN	Liondata
Asus	Littlebit
Concept	smilplayer
Congatec	spo-comm
Fujitsu	STEP Electronic
Giada	ZOTAC
IAdea	

INTEGRATED MEDIAPLAYERS

Brightsign	Samsung Electronics
Cayin	SpinetiX
LG Electronics	
Onelan	

INFRASTRUCTURE AND ACCESSORIES

DTW Networks	LINDY GROUP

MOUNTINGS

Hagor	Solutions
peerless AV	UNICOL
PeTa	vogel´s
SMS Smart Media Solutions	

PRODUCT INTEGRATION

AHA Systeme	Vangenhassend
ST-Digital	Werkstation

SOFTWARE & CONTENT

SOFTWARE

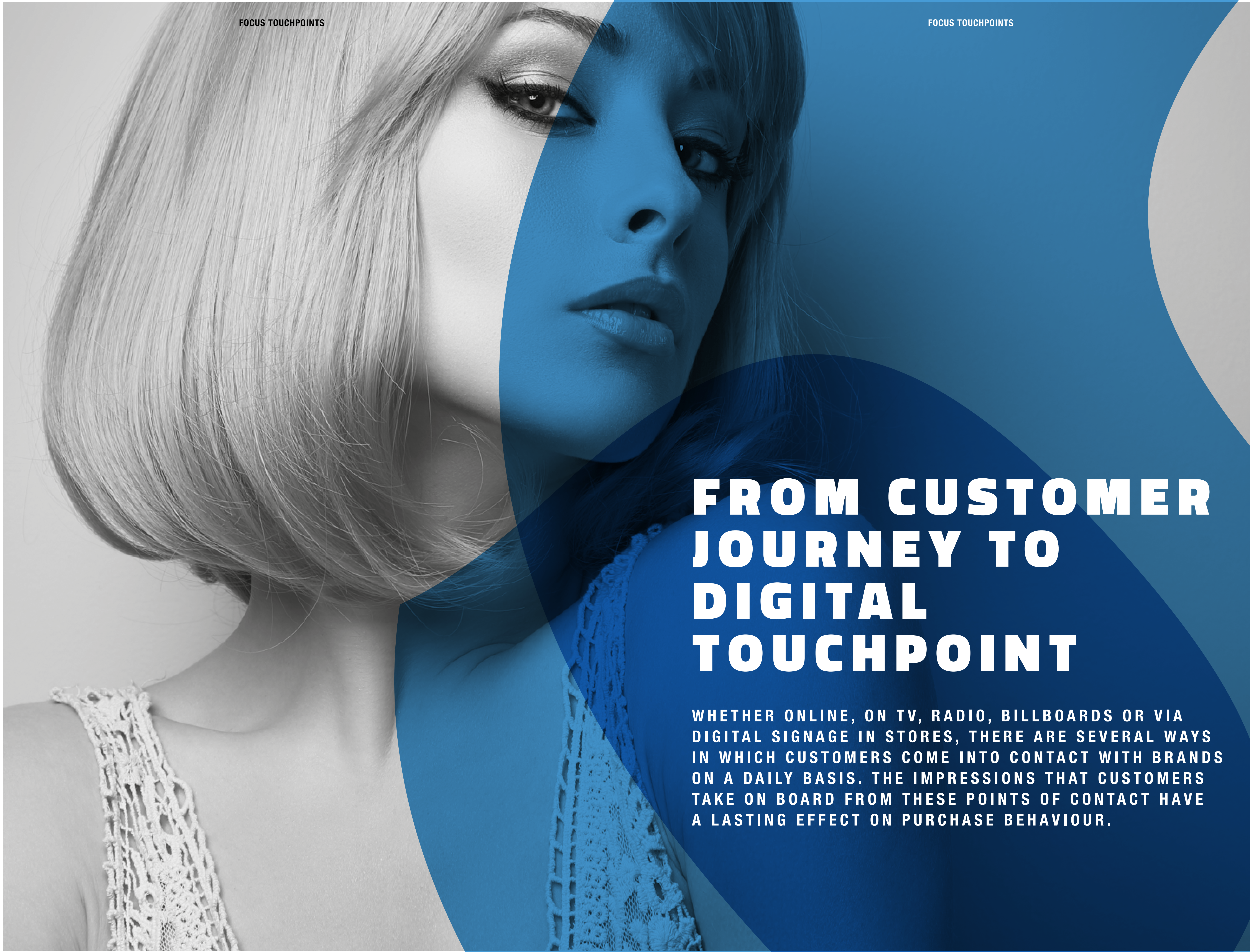
~sedna	Navori
BrightSign	Net Display Systems
dimedis	netscreens
easescreen	netvico
engram	Online Software
eyefactive	Provisio
Four Winds Interactive	RMG Networks
friendlyway	SalesTV
Grassfish	Samsung Electronics
heinekingmedia	Scala
Innoforum	screenFoodnet
komma,tec redaction	Signagelive
LG Electronics	Smartsign
Macnetix	Stinova
mdt Medientechnik	Tripleplay
Mood Media	vfree.tv
	Videro
	Wondersign

CONTENT AGENCIES

3Sixty:TV	Netvico
baermedia	Oestreicher+Wagner
Digitale Medien Systeme	Online Software
echion	pilot Screentime
JLS DIGITAL	PrintScreenMEdia
komma,tec redaction	screenFOODnet
MuSe Content	SEEN MEDIA
Neo Group	Visual Art Germany

CONTENT LICENSING

Adversign Media	N24
AFP	n-tv
Airmotion	Promiash
BlueFox	Sky Deutschland
dpa	Thomson Reuters



FROM CUSTOMER JOURNEY TO DIGITAL TOUCHPOINT

WHETHER ONLINE, ON TV, RADIO, BILLBOARDS OR VIA DIGITAL SIGNAGE IN STORES, THERE ARE SEVERAL WAYS IN WHICH CUSTOMERS COME INTO CONTACT WITH BRANDS ON A DAILY BASIS. THE IMPRESSIONS THAT CUSTOMERS TAKE ON BOARD FROM THESE POINTS OF CONTACT HAVE A LASTING EFFECT ON PURCHASE BEHAVIOUR.

Each contact with a brand leaves traces – whether unconsciously or not – in the mind of the customer. The task for the marketing team is to tap into the customer journey and to continuously optimise the marketing campaigns throughout various channels. In this context, customer touchpoint management is one of the key success factors for brands.

Experience shows that the fundamental principles of marketing, the customer journey and touchpoint management are not taken into account with regards to the planning of digital signage systems.

There are several reasons for this, which mostly relate to the lack of suitable implementation strategies and the significant cross over with IT infrastructure.

Digital signage is first and foremost a communications channel, comparable to other marketing platforms such as website or email.

In the decision to install a digital signage system, the same processes and considerations which one would take into account with other communication canals should also be implemented: Who are the target groups? Which points of contact do I have with any given target group? Which content should be communicated, and how can I measure the efficiency?

More often than not, the placement of digital touchpoints is dependent upon technical criteria: where are the best (and often most convenient) installation or mounting points? Where are the best points for power supply and network connectivity? Where is there free space?

When digital touchpoints are selected purely on the basis of such criteria, their marketing potential is highly diminished. The formation of a brand experience is dependent upon the coordination of all touchpoints, not just singular touchpoints. An effective and harmonious interlocking of the various touchpoints is for this reason of primary importance.

Digital touchpoints should always be oriented around the pre-determined path followed by the consumer in the store or branch. As stores are generally split into different zones, content displayed on the screens needs to be adjusted correspondingly to the various zones within the customer space.

While content should always contain a clear call to action, branding should always remain visible so as to strengthen the connection between consumer and brand.

If digital touchpoints are used predominantly for product advertisement, it is imperative that the advertised product should be kept within reach of the target group in the store.

In the design of a digital touchpoint, the integrator should put themselves in the customer's shoes and consider what kind of information could be expected, and also what kind of value the customer could deduce from the installation. Especially when interactive systems are in use, it must be ensured that potential hurdles are kept to a minimum. This begins with the usability and ends with the CI conform design of the content, which should have the same design as all other contact points.

Digital touchpoints can only be sustainably controlled throughout the length of the project if they can be measured and monitored continually. As a general rule, what can be measured should be measured. Only in this way can the KPIs of individual touchpoints be optimised. The goal here is to develop an improved understanding of the interdependencies of digital touchpoints, ultimately leading to a more effective and efficient operation.

PRIMARK: HIGH-TECH MEETS LOW PRICE

IN ITS FLAGSHIP STORE IN MADRID, THE FASHION CHAIN PRIMARK PRESENTS ITSELF AS MODERN, ELEGANT AND TECHNICALLY UP TO DATE.

PHOTOS: MOOD MEDIA

Primark demonstrates that displays can be incorporated into historic architecture with spectacular results.

You'd think that the historical ambience and the stunning architecture of the flagship store on Madrid's Gran Via would be enough of an incentive to pull customers into the shop. But no, Primark has managed to go one step further. Known for low cost fashion, the Irish company is now setting new standards with a high-end multimedia installation.

The building which houses the flagship store is a completely renovated palace-like early 20th century listed building. Located in the main shopping street of the Spanish capital, the centrepiece is the light-filled octagonal atrium, around which four floors cover 13,000 square metres of store space. The atrium houses the installation itself: 11 transparent 10mm thick LED screens have been installed in the arches around the atrium on each floor to create a 360 degree viewing experience allowing unobstructed views of the historic interior of the building and the products. The digital installation blends into the architecture and meets the stringent requirements regarding the protection laws governing the building.

The solution was developed by the London agency Dalziel & Pow and Mood Media subsidiary Techno Media Solutions, and succeeds in combining both video and audio content. Thanks to the fact that content dynamically responds to the environment and interacts with it, the models on the screens actually give the impression that they are moving through the store. For example, peeping children suddenly appear behind a column, giving a 3D effect for customers – a rare phenomenon in commercial spaces. The basis for this effect, among other things, is a sophisticated playback system with eight-channel surround speaker system controlled via media player.

While it may not be the first digital installation from Primark, it's certainly one of the most impressive and unusual. Upon entering, the customer is transported into a complete new world. Neighbouring shops are underwhelming by comparison.

MCDONALD'S 2.0: INDIVIDUELL AND DIGITAL

AS A RESULT OF THE FALLING POPULARITY OF MCDONALD'S TRADITIONAL SERIES OF BURGERS, THE WORLD'S MOST FAMOUS FAST FOOD CHAIN IS TURNING TO MODERN CONCEPTS. PART OF THE NEW STRATEGY IS THE DIGITALISATION OF ITS BRANCHES.

Mushrooms on quinoa, barbeque sauce on pineapple – with such custom burger combinations, McDonalds puts the focus upon individuality with its first 'Next' Restaurant in Hong Kong. The reason? Competition, of course. In Germany, for example, high quality burger bars and fast food are in vogue. The burgers are original, individual and – for the most part – ethically correct. To position themselves effectively against this new trend, McDonalds has opted for a more attractive pricing strategy, better quality and a modern customer oriented visual appearance.

Once something of a rarity, digital media now forms a normal part of the visual landscape of a McDonalds' restaurants. Easy order stations allowing customers to choose, order and pay for their food themselves are now in operation throughout Germany.

Around the globe, the fast food chain is permitting more variations with regards to burger and menu creation. In Germany, the McMenu was recently extended to give customers ten times more combination possibilities, thus catering for all possible tastes and preferances.

Although large surface digital menu boards, screens in the window and entrance area and video walls aren't yet installed in Germany (with the exception of the flagship store in Frankfurt); in Hong Kong, Peking or Dubai, this digital landscape is something of a normality in McDonalds restaurants. Here, customers can order their personalised menu and burgers on large screen digital menu boards, pay, and then wait for the food to be served at the table. The interior design is similar to that of the McCafés, with the modern and inviting atmosphere a far cry from the quick service canteen atmosphere that once came to characterise the fast food chain's restaurants.

If this modernised concept succeeds, the company will surely continue the digitalisation process in its other branches. Whether screens, kiosk systems, digital menu boards or video walls, the potential for digital signage service providers and the opportunity this brings should not be underestimated.

PHOTO: MCDONALD'S HONG KONG

Modern, customer-oriented appearance with a smattering of digital elements: McDonald's Next in Hong Kong

FOCUS TOUCHPOINTS

PHOTO: HUNKEMÖLLER

Hunkemöller has opted for an innovative and sensual concept in its flagship store

HUNKEMÖLLER: SENSUAL AND SEDUCTIVE

HUNKEMÖLLER USES MULTICHANNEL FOR A SENSUAL EXPERIENCE IN ITS FLAGSHIP STORES.

Enchanting smell and relaxed music surround customers as they enter the store, screens display emotional pictures, and touch screen tables invite the customer to search for the perfect underware. Once selected, the item can be taken to the changing room, where customers can try on the garment to the backdrop of their own customisable lighting ambience. A sure fire method to woo the customer into a purchase? Hunkemöller thinks so.

Hunkemöller opts increasingly for such multi-sensorial innovative concepts in its flagship stores. In Germany, the stores are located in Düsseldorf and Stuttgart. While digital signage is already to be found in the shop windows of normal branches of Hunkemöller, digital signage to assist the customer journey is a completely new concept for the brand.

Hunkemöller has been following a multimedia strategy for a number of years – a strategy which even earned the Netherlands firm a reta award from the EHI in 2015. Hunkemöller connects the online and offline world in its flagship stores with its touchscreen tables. Customers are able to find more information about individual products while surfing through the shop's online store. While customers can try out and purchase in store items ordered online, the option to order items in the shop is also planned.

In the same way that Hunkemöller combines different multimedia channels in this multichannel project dubbed 'Ann', the retailer has seamlessly incorporated new digital surfaces in its flagship stores, which contribute and add to the overall concept and aesthetic. While the touch tables create added value and serve to actively involve the customer, screens and video walls entertain the customer into making a purchase by creating a special ambience. This ambience is also reflected in the store's colour concept, which is consistent right down to the smallest of details – the shopping basket included. Hunkemöller has succeeded in creating a feel good atmosphere which speaks to all the senses – of central importance when shopping for lingerie.

PHOTOS: CONNECTIV

Example for in-store digitalisation:
the duty-free shops in Dubai Airport

FOCUS TOUCHPOINTS

DUBAI DUTY FREE: DOOH MADE IN DUBAI

THE DUTY FREE SHOPS AT DUBAI AIRPORT WITH THEIR EXPANDED ADVERTISING NETWORK ARE EXTRAORDINARILY SUCCESSFUL.

Duty free shops in airports are attractive: They offer branded products at reduced prices and provide a shopping experience to shorten waiting times for travellers. Dubai airport's duty free shop offers a very special experience. With 7000 flights, seven million passengers and 140 airlines passing through the airport on a weekly basis, it's fair to say that the airport has significant potential for advertisers. Dubai duty free – according to official figures the most commercially successful duty free retailer in the world – occupies an area of 31,000 square meters across all terminals. In 2014, Dubai Duty Free was awarded with the Business Traveller M.E. Award for 'Best Airport for Duty Free Shopping in the Middle East'.

Of particular note is the appearance of Dubai Duty Free at Terminal 1, Gate A: The retail area is a perfect example of digitalisation in a commercial setting. In 2013, the store was opened over 4700 square meters sporting a network of 120 displays. The emirates passengers arriving or departing from this part of the airport with the Airbus A380 have access to this extraordinary shopping opportunity, surrounded with attractive advertising.

The service providers have succeeded in installing a Digital out-of-home network to match the scale and size of Dubai airport. Through countless small and large screens, video walls, LED displays and digital POS systems, Dubai airport demonstrates the possibilities with large scale digital signage installations. The displays are distributed over the entire floor of the duty free area and are in operation 24/7. Advertising is permitted only for products available to be purchased at Dubai Duty Free. Advertisers are able to transport their marketing message to several or all screens simultaneously to achieve maximum effectiveness.

Being located past the security checkpoints, the network had to guarantee the highest level of protection for the IT system to guarantee failure free operation; and for obvious reasons, high maintenance in this security-sensitive zone of the airport had to be avoided. According to operators, all these aims have been achieved.

The goal of the DooH network was also achieved with regards to sales figures: The products and brands that are advertised on the displays have proven to have significantly better sales numbers compared to the other products.

With the network extended to Gate D to include an additional 650 square meters of store space, the Dubai Duty Free network is a continuing success story. Further seating possibilities with screens and large video walls provide more advertising space and extend the installation even further.

FOCUS TOUCHPOINTS

Customers can look into the future of shopping in the Munich weShop.

PHOTO: SERVICEPLAN

WESHOP: SHOPPING IN THE FUTURE

IN MUNICH'S WESHOP, CUSTOMERS EXPERIENCE THE FUTURE OF SHOPPING. NOW THERE'S ALSO A MOBILE VERSION.

How would a typical shopping trip in the future look like? In the changing rooms, you'd probably expect the mirror to measure you for size and suggest other potential models and colours, wouldn't you? You'd also expect to be able to place an order for any kind of garment or size with an app on your smartphone and pay for items without even having to go to a checkout?

Although this may sound futuristic, it is by no means unrealistic. In the Munich weShop, this future doesn't look so far away. The project was implemented by Service Plan, Vitrashop group, Cancom, NEC and Cisco with the aim of utilising all digital channels at the point of service. As of 2015 there's also a mobile shop, which gives customers the chance to test the weShop service.

While much of what weShop offers is already in use in various commercial settings, this is the first time that all elements have been concentrated into a single installation. Here, in-store meets online retail meets digital and traditional communication. Instead of a pre-determined customer journey, weShop accompanies customers on their individual paths and channels.

Digital and traditional out-of-home advertising media are equipped with QR codes containing additional information to the store and products on offer. Customers can even be reached at home on the couch: through television advertising and the online shop in which a real fashion consultant answers customer product questions. The option to return products in the weShop is offered on all platforms.

For customers visiting or simply passing by the store with an activated customer card, the smartphone app personally addresses customers. In addition, the screens in the window show individually tailored information and advertising, with price tags adjusted automatically, for example, if the customer has a discount coupon or voucher. These functions are operated by Beacons.

While customers are still able to browse and try on clothes in the store, they're also able to access the entire range of the online shop and purchase items via smartphone or tablet, thus multiplying the selection of the 50 square metre store tenfold. Another positive side effect is that storage space is minimised, of particular importance in expensive city centre locations. Logistics costs remain low thanks to the fact that stock and delivery processing of the existing online shop are employed.

Thanks to RFID chips placed in garments, additional information about the items is made available for customers in the weShop. A digital fashion consultant on a touch screen in the changing room shows other sizes and available colours. The highlight of the whole changing room experience? Upon clicking on one of the proposed models, the customer sees him or herself projected onto the mirror wearing the selected garments.

Following a similar pattern to the touchscreens in the changing rooms, the consulting table in the sales area also offers one-on-one customer interactivity with services such as payment processing. Whoever doesn't want to wear the purchases immediately can have them sent home. Interestingly, the need for sales personnel in weShop is virtually eliminated, and the customer has all the amenities of a personal – and highly personalised – shopping experience.

The aim of the personalised customer journey is achieved: While the project utilises all channels, the customer can choose which to use according to their own needs. The fusion of all channels and all digital opportunities may still sound a little futuristic, but in this highly competitive marketplace, traders will have to capitalise on such concepts in the bid to connect and remain relevant to customers – sooner than you might have expected.

FOCUS BANKING

MORE MULTI-CHANNEL, MORE LOUNGES, LESS BRANCHES – CURRENT TRENDS IN RETAIL BANKING

CUSTOMERS IN 2016 AND 2017 ARE MOBILE. ARMED WITH SMARTPHONES AND OTHER DEVICES, MOBILE CHANNELS, CONTACTLESS PAYMENT AND VIDEO CHAT REFLECT THE CURRENT NEEDS AND REQUIREMENTS OF THE CUSTOMER.

In the future, services like account management will need to be financed more than hitherto through service charges, thanks in part to the currently low interest rates by the European Central Bank.

The second quarter of 2016 began with the announcement that several banks – including Deutsche Bank and Sparkasse – were to minimise their financial networks within Germany, thus affecting hundreds of branches.

Although pure digital signage installations are a rarity in this sector, more often than not, retail banks are concerned with expanding their multichannel offerings, such as installing further platforms into cash machines with screens offering new user experiences.

In an attempt to incorporate multichannel to improve the overall customer experience, banks have begun to develop multichannel strategies aligned with mobile apps. Four examples of large projects from four countries can be found on the following pages.

Among the German speaking countries in DACH, Austria is furthest ahead with regards to the incorporation of multichannel technologies in banking. The Austrian banks – first and foremost Erste Bank and Bank Austria – began early with national rollouts, and have implemented several successful projects to date. Since 2015, the Austrian banks have been introducing both flagship stores and branches throughout the country. The start of 2016 also saw a new multichannel rollout at BAWAG.

Banks have introduced new ATMs worldwide, in addition to new ATM software with additional features including video, iris scan verification and, of course, upgraded and modernised apps. While pure digital signage projects are rare in the banking sector; in places such as the UK, Turkey and the Gulf countries, mobile channels are an obvious point to start the continued expansion of the branches.

An interesting technological development can be currently seen in British retail banking. Virgin Money UK, for example, has succeeded in creating a unique brand identity with their funky lounges and out of the box offerings.

The combination of retail and banking is also seeing an increase in importance worldwide. The Michigan First Credit Union and retailer Kroger, for example, have agreed upon a long-term cooperation involving in-store bank branches in many Kroger stores in the US.

FRANKFURTER SPARKASSE'S NEW DIGITAL SIGNAGE NETWORK

PHOTO: MOSTRON ELEKTRONIK

Sparkasse Frankfurt uses columns and screens to communicate with its customers.

AFTER TWO AND A HALF YEARS, THE FRANKFURTER SPARKASSE HAS COMPLETED ITS DIGITAL SIGNAGE ROLL OUT, WHICH HAS INCLUDED MORE BRANCHES THAN ORIGINALLY PLANNED.

Frankfurter Sparkasse – part of the Helaba Landesbank Hessen-Thüringen – is the fourth largest Sparkasse bank in Germany. With its numerous financial service offerings for both private and business customers, the bank has the largest network of branches in the Rhein-Main region, and is also the market leader in the retail-banking sector there. To strengthen its market position, the bank decided upon a future proof strategy for the upgrading of the bank's facilities.

Over the past two and a half years, the Institute has equipped numerous branches with digital signage systems displaying customer information on large columns and screens, in addition to conference room systems.

The retail bank uses a network of 59 columns and screens with visual video communication in its branches to address customers via display window in the most optimal manner possible.

To ensure the future viability of its design, since 2014, 35 branches in Frankfurt's inner city have been equipped with modern digital signage solutions. The installation partners included MOStron – who supplied the 42" Screens und 42" und 55" Digital Signage columns – and Komma,tec redaction GmbH, who supplied the content management software. The software allows branch-specific broadcast content to be centrally controlled. An efficient management of target group oriented content is the central focus of the bank.

The digital signage information service has proved popular with customers: „In general, the ability to quickly and flexibly advertise special promotions in the store has been welcomed,' said Ottilie Wenzler. According to Wenzler, both outsourced and internally produced content have been well received. „Thanks to the various playback options, our self-created content is extremely simple to create and also to implement."

FROM BRANCH TO FLAGSHIP – THE ERSTE BANK CONCEPT

IN AUSTRIA, LARGE BANKING CHAINS HAVE MODIFIED AND MODERNISED THEIR BRANCHES OFTEN QUICKER THAN EQUIVALENT GERMAN BANKS. THE AUSTRIANS HAVE ALSO BEEN AHEAD OF THE GERMAN BANKS FOR SOME TIME WITH REGARDS TO THE DEVELOPMENT OF APPLICATION FOR ITS CUSTOMERS.

The Erste Bank is no exception. As the bank belongs to the Austrian Sparkasse group, it could be said that the bank is something of a second cousin to the Stadtsparkasse München.

In addition to its flagship branch, advice centres and service branches, there are 180 'Banking Stations' in Austria – Erste Bank branches in petrol stations.

In the Vienna pilot branch in the Lerchenfelderstraße, new approaches are constantly tried and tested, with some of the more successful aspects of the trails being incorporated into the branches.

The first additions to the flagship branches were carried out early in 2015. In 2016, the third flagship was opened in Vienna. The smaller multichannel branches are also currently being rolled out throughout Austria. Somewhat purist in design, these branches offer customers a comfortable atmosphere. From interior design to lighting to ATMs, Erste Bank ensures the balance between practicality and comfortable ambiance is struck for the customers.

Locations for service branches are shopping malls and other places with high customer traffic, such as the Shopping City Süd in Vienna. In addition to technical additions, one of the features to be implemented into these smaller bank branches – of central importance to the customers – was an improved privacy sphere. Rooms for video chat, for example, is one such service addition available to customers. Despite the fact that fewer personnel are present in the branches, a personal atmosphere remains, with experts from different departments on standby for customer inquiries.

Erste Bank has also launched its very own app for mobile banking on all devices: George. An adjoining website is available for customers wanting to get to grips with the app. The instructional site has been created in such a way so that the information is rendered entertainingly: no small feat considering the rather dry nature of consumer banking.

PHOTO: ERSTE BANK OESTERREICH

The Erste Bank combines practical user value and comfortable ambience.

VIRGIN MONEY LOUNGES AROUND WITH ITS NEW BRANCH CONCEPT

EVERY VIRGIN MONEY UK BRANCH IS UNIQUE. CUSTOMERS CAN MEET AND DRINK TEA, DISCUSS, PLAY MUSIC AND WATCH TV. AND YES, YOU CAN WITHDRAW MONEY TOO!

The Virgin Money bank branches – of which there are only six in the UK – aren't what you'd come to expect from a typical bank branch. Come to think of it, the term 'branch' isn't exactly an appropriate description, which is why Virgin has introduced the 'Lounge' concept. This term also extends to the classic British vintage style elements that are incorporated within the branches. There's also a grand piano for concerts and gatherings.

Virgin Money's lounge concept has proven very successful for the community and customers.
The last lounges were opened in 2014 and 2015: two in London and one in Glasgow, with the remaining branches located in Norwich, Edinburgh und Manchester. But that isn't the end of the story. Virgin Money is currently on the look out for further possible locations to capitalise on this successful development.

In departing from the traditional branch concept, Virgin Money opts to follow in the footsteps of the out of the box branding techniques of bigger brother, Virgin Airlines. While customers can still make use of all regular customer services on mobile devices and webpages, the lounges can be considered as something of a bonus feature.

The lounges were created by Havelock Europe, with each branch adhering to a standardised design concept putting customer comfort first. You'd be forgiven for walking past the stylish ATM – on first glance completely unrecognisable. In the Edinburgh branch, the panelled interior and mixed assortment of comfy seats award the branch with a modern clubhouse feel. Each realisation of the concept changes with location. In London, for example, a red telephone box and luxury airplane seating are installed. In Glasgow, a cinema of sorts has been integrated into a large room to accommodate evening events.

While Virgin Money has opted to include consumer technologies such as iPads, games consoles and iMacs instead of digital signage, the bank hasn't given up on digital signage completely.

Each Virgin Money Lounge is tailored to its location. Pictured is the London branch

PHOTO: VIRGINMONEY

PHOTO: PLANAR, A LEYARD COMPANY

Entrance to the Michigan First Credit branch in Eastpointe, Michigan

MICHIGAN FIRST CREDIT UNION – CASH CAFÉ

WHO SAID COOPERATIVE BANKING CAN'T BE SEXY? THE MICHIGAN FIRST CREDIT UNION IN THE USA CERTAINLY THINKS SO. ORIGINALLY FOUNDED IN 1926 AS THE DETROIT TEACHERS UNION BY NINE HIGH SCHOOL TEACHERS, THE INSTITUTE HAS DEVELOPED OVER THE YEARS INTO A BANK WITH SOME 100,000 CUSTOMERS.

Michigan First Credit demonstrates exactly how the incorporation of multichannel technologies can transform the entrance and reception area of its retail banks in Eastpointe, Michigan.

In the entrance, customers are welcomed by a rather atypical video wall assembled from screens randomly laid out in different formats. All in all, 14 screens from Planar make up the installation: four large format screens surrounded with 10 quadratic LCD screens, five above and below respectively.

Customers wanting to utilise the self-service option on offer in the branch are able to do so directly next to the entrance. A large interactive signage screen was installed additionally in the main banking area.

One could say that technology runs in the cooperative's blood: In 1980, the Detroit Teachers Credit Union became one of the first cooperative banks in the USA to introduce computers across the board in all of its branches. In addition, as early as January 1983, the bank installed a network of ATM machines, simultaneously striking up cooperation with Visa and Master Card.

After rebranding, the bank introduced mobile banking for its customers in 2010. With the introduction of the new branch – the 'Gratiot Financial Store' – towards the end of 2014, the multichannel age was officially declared open. The branch – sporting an interior not dissimilar to retail flagship stores – is divided into the areas known as 'coin café' and 'cash café'.

These gastronomy-tinged terms refer to the areas within the branch where cash deposit machines and ATMs are to be found. Like in so many multichannel bank branches, tablets have also been integrated into the store. Together with the design of the interior, the tablets are another takeover from the retailers.

After the first multichannel flagship store in Eastpointe, Michigan, First is moving directly into retail stores. In May 2015, the bank opened the first of five planned in-store bank branches with US supermarket chain Kroger (of its 2640 supermarkets worldwide, 123 are to be found in the state of Michigan). Building on this initial successful collaboration, a long-term contract has been signed to ensure the opening of further bank branches in Kroger stores throughout the US.

FOCUS STADIUMS

MODERN FOOTBALL THEATRES

DIGITAL SIGNAGE IS ALREADY IN USE FOR MANY YEARS IN (FOOTBALL-) ARENAS. WHILE IN THE EARLY DAYS MAINLY THE SCOREBOARDS WERE DIGITALIZED, SCREENS ARE NOW IMPLEMENTED IN NUMEROUS OTHER APPLICATIONS.

Rekord breaking façade: 25.500 m², 16 million colours, more than 300.000 LEDs

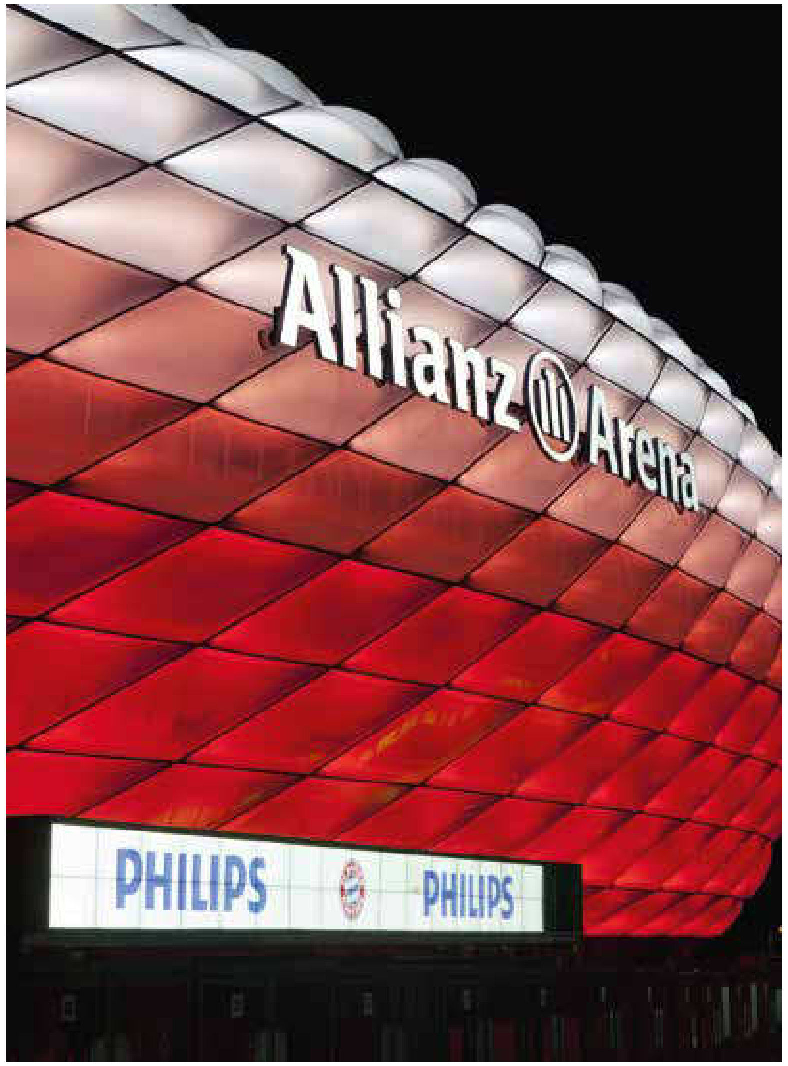


PHOTO: PHILIPS

Through the high attendance and hence possible number of viewers, screens are very popular both as information and as an advertising media. For Example, in the ten years since its inauguration in 2005 more than 25 million fans have followed games in the Allianz Arena in Munich.

The use cases for digital signage in football stadiums are very diverse. Starting with

outdoor LED lighting such as at the Allianz Arena in Munich. The system makes the Arena Germany's first and Europe's largest stadium with a completely comprehensive LED lighting facade. It can illuminate an area of 26,000 m² with 16 million colours.

Inside of a stadium digital billboards are now the standard. While in many locations video panels are mounted on both sides of the pitch, the stadiums in Gelsenkirchen and Frankfurt have video cubes mounted above the lawn. In the Veltins-Arena in Gelsenkirchen a 29 ton video cube was installed, consisting of four big screens. The screens with a size of 35.6 square meters and a viewing angel of 160 degrees offer spectators the best view from almost any perspective.

Also in the advertising band alongside the pitch digital LED boards increasingly take over from the traditional analogue boards. Although the costs of 500 000 up to two million Euros are relatively high, they do offer many advantages. According to a study by the consultancy Sport + Markt the positive perception of LED boards is almost twice as high as a static version. Likewise, the number of direct viewing contacts as well as the dwell time of the viewer is significantly higher.

Next to these use cases there are also numerous other application. In most modern stadiums there are fan shops, QSR and VIP areas equipped with displays. Also the control rooms rely heavily on digital screens.

Today sports stadiums also cover all kinds of technology innovations - and even are technology leaders in some fields. Whether touch solutions, high brightness displays, video screens or LED screens, hardly a modern stadium today where these technologies aren't integrated. Also mobile solutions as well as beacons are increasingly being implemented. Installed at important central points in the stadium, they can supply visitors with dedicated information or be used together with the individual smartphone as way-guiding systems. Likewise the topic of social media and the interaction with the fans does play an increasingly important role.

Of course a global Wi-Fi service in the stadiums is a prerequisite for these technologies. This will now become the standard. For example, Borussia Dortmund offers its fans in the Signal-Iduna-Park the opportunity to log onto the Internet for free. The telecommunication blue-chip Huawei has installed 900 transmitters and has laid over 40 km of cable. To supply this network, the stadium is connected with a 10 gigabit broadband line.

Modernization of football stadiums usually coincides with major tournaments. For the current European Championship in France stadiums were either built completely new or modernized - and equipped with digital media. For example, the Stade de France in Paris, in which among other things the final will take place, nearly 1,000 Wi-Fi access points and 400 IP TVs were installed. Also very high-tech is the Stade Pierre-Mauroy in Lille.

PHOTO: TMTFACTORY

Top class digital production: the FC Valencia fan shop

FC VALENCIA: OF FANS AND ROBO-HANDS

A SPORTS BAR, A VIDEO WALL, CUSTOM JERSEYS AND – THE ICING ON THE CAKE – A ROBOT FORM NEW ADDITIONS TO FC VALENCIA'S FAN SHOP.

Instead of the traditional black and white club colours, the FC Valencia fan shop shines and radiates in all colours. Similar to Spanish rivals Barcelona, Valencia has opted to kit out its fan shop with a modern digital installation. Six video screens consisting of 85 46-inch displays make up the 1150 square metre digital wall, which extends over three storeys to ensure a completely unique shopping experience.

The eight-metre high video wall at the entrance to the store greets customers. Information about products, events and the club itself are displayed on the wall, which acts as the centrepiece of the entire store concept. To complete the installation, FC Valencia has also opted to install an audio solution throughout the store.

In the upstairs area, a sports bar provides seating for 100 fans, with games and other content offered for guests on touch screen tables. Football enthusiasts also have the option to watch FC Valencia live or per pay-per-view, made possible by Software from the integrator TMT Factory. In addition to the implementation of Valencia's entire shop concept, TMT Factory is also responsible for the digital installation in FC Barcelona's fan shop.

As well as club memorabilia, all kinds of products – from boots to jerseys – are available in the shop. Similar to the use case FC Barcelona, fans are able to customise their jerseys at the in-store interactive kiosks or 'Digital Lockers'.

The delivery of the personal fan shirts is without doubt the highlight for many fans in the store: A KUKA robotic arm – usually to be found in the auto industry – hands over and presents the customer with his or her personalised jersey. The glowing orange metal arm can't fail to leave a lasting impression on fans of all ages. FC Valencia is without doubt in the Champions League of fan loyalty and in-house production.

THE BARCA TEMPLE

IN FC BARCELONA'S STADIUM FAN SHOP, DIGITAL MEDIA AND INDIVIDUALISED PRODUCTS OFFER AN ATTRACTIVE SHOPPING EXPERIENCE.

PHOTOS: AOPEN

The wow effect: FC Botiga fanshop in Camp Nou stadium in Barcelona

With its new interactive touch screens, Barca fans can now make use of several new features in the FC Botiga fan shop at the Nou Camp Stadium, such as buying and personalising Barcelona club jerseys with name and number.

FC Barcelona is proving that it isn't just a leading player in Spain's Primera Division, but also at the point of sale. Over 2100 square meters on three floors, the club's entire selection of football memorabilia is presented in cooperation with Nike Football. The in store lighting design and merchandise presentation are modern, with all digital elements working in unison to create a special customer experience: that all-important 'wow factor'.

In the football shaped entrance area, a 16-metre wide LED Wall welcomes visitors to the fan shop. At the interactive touch kiosks around the store – the so called digital lockers – customers customise their own merchandise, which can then be collected without further delay in the printing lab. Here, FC Barcelona shares an identical approach to its competitor from Valencia. The 'Make-it-Barca-Service' gives customers the chance to personalise the basic football shirts with Nike emblem and club badge, leaving it up to the customer to customise exactly how he or she wants.

Responsible for the implementation of this multi-channel and interactive solution is the Catalan digital signage and Digital out-of-home specialist, TMT Factory. The media players are from AOPEN and features multi-display capabilities and quick response times.

BroadSign supplied the CMS, which is connected to the product and order management as well as the payment and communication system of the business and can be centrally managed and controlled. The figures demonstrate that a short time after completion of the installation, numbers of personalised jerseys sold in the fan shop were up. Moreover, checkout waiting times decreased significantly as customer decisions are sped up with the on-screen product visualisation. With this installation, FC Barca is proving that it is capable of extending its on pitch successes further afield.

PHOTO: ELSIA/VALODE&PISTRE ARCHITECTES/ATELIER FERRET ARCHITECTURES/J. BIDON

Germany vs Ukraine Euro 2016 Qualifying match at the Stade Pierre-Mauroy in Lille

BEHIND THE SCENES AT THE CONNECTED STADIUM IN LILLE

WITH ONLY A FEW DAYS TO GO BEFORE THE KICK-OFF OF THE EURO 2016 CHAMPIONSHIP, WE VISITED THE NETWORK AND VIDEO SYSTEM INSTALLATIONS AT THIS STADIUM SITUATED IN THE NORTH OF FRANCE THAT WILL HOST SIX OF THE MATCHES. BY FABRICE MARINONI

The Pierre Mauroy stadium, which took three years to build, can seat 50 0000 spectators and was officially opened in the summer of 2012. Its multifunctional arena convertible into an open air stadium also staged the France vs Spain semi finals of the 2015 European Basketball Championship in front of a crowd of 27 000 people.

As it is one of the new venues chosen to host some of the Euro 2016 matches, connected services and video solutions feature prominently in the design of this state of the art stadium.

A CISCO IP NETWORK

«In order to optimise time sent on the planning and execution of the environments only five different products were selected and in fact the whole network platform is provided by Cisco » said Fabien Sirondelle, in charge of the information systems at Eiffage (the company chosen to manage the stadium until 2043).

The IP network management system is very extensive. The 2 400 terminals control the stadium lighting, telephone network, 380 screens and 218 full HD video surveillance cameras connected to a Milestone platform.

« We guarantee the availability of 2000 simultaneous wi-fi connections in the Hospitality lounges and VIP boxes as well as in the press room » continued Fabien Sirondelle.

But one of the most original and practical features are the fly cases placed at the edge of the playing area for the photographers who can not only use broadband to send their photos but can also charge their batteries. « This cuts out the numerous trips to the press room that are usually required in other stadiums» added the IT systems manager.

NEXTIRAONE DESIGNED THE WHOLE OF THE NETWORK.

Fibre optics, video production, digital signage and screens, sound and 4G…

No less than 11 kilometres of fibre optic cable (mainly single mode) ensures connectivity for multiple videocasts throughout the stadium as well as outside the stadium via OB production vans stationed in the basement.

Camera locations designed as part of the stadium's architecture include fibre optic connections, triax systems and a Riedel intercom system.

In-house production teams use a Tricaster IP workflow solution to drive content from various sources to almost 380 screens of varying types. The sound system is provided by Electro Voice.

Finally, Manganelli DS installed the numerous digital displays.

« To deliver on the UEFA's planned specifications for the Euro 2016, we are busy completing the project concerning 4G network availability provided by the four French mobile operators.» concluded Fabien Sirondelle.

It has to be said that stadiums absolutely need to keep up with ongoing technological developments if they want to continue attracting fans outside of large events.

ALLIANZ ARENA MUNICH: SIMPLY FOOTBALL? THAT WAS YESTERDAY

FOOTBALL MATCHES AND STADIUM VISITS ARE INCREASINGLY SEEN AS OTHER ENTERTAINMENT EVENTS, ALSO AT FC BAYERN. FOR THIS REASON, THE CHAMPIONS HAVE TRANSFORMED THE ENTIRE ALLIANZ ARENA INTO A MULTI-SCREEN STADIUM.

Whether at home or in Europe, Bayern is among the best of the best. It comes perhaps as no surprise, then, that the club wants to present its stadium accordingly. With more than 700 displays and 70 video walls, Bayern is top of the table when it comes to digital installation in the football stadium world.

The reason for this new digital offensive was the desire to improve the fan experience, in addition to opening up the possibility for new advertising markets. The recent trend converting stadia into event arenas for multipurpose use is an incentive for many teams to rebuild and modernise. Here, Bayern follows the general trend towards digitalisation in a bid to present themselves as modern.

70 video screens are installed on the walls and hang from the ceilings of the stadium. The displays are mostly mounted horizontally and in arrays of two times two or four by four screens. Altogether, 758 screens were installed in the Allianz Arena, displaying additional information about the games, live streaming, entertainment and interactive services from the club and association.

In addition to the video walls and different sized HD screens, content can also be viewed via the FCB app for the 75,000 fans in the Arena with their smartphones or tablets. The integration of mobile devices is performed by Stagevision Mobile, who has succeeded in integrating four streaming channels with different camera angles and replays for smartphones. The content is distributed through software to the digital media player, which in turn sends content to the screens and video walls.

To guarantee the smooth operation and playback of all screens with increasing Internet usage and demand from visitors, Bayern had to build a correspondingly suitable network infrastructure. According to stadium integrators Cisco, the system is the largest of its kind in the world.

FC Bayern Sponsor Telekom played an instrumental role in the reconstruction and equipping of the stadium. In just nine months, Telekom planned and implemented the entire data supply and transmission, installing around 115 kilometres of fibre optic cable and 940 WLAN antennas.

While long-term collaboration between Deutsche Telekom and Bayern Munich is still uncertain (The sponsorship contract runs only until 2023) Telekom explains that it is intending to intensify its close cooperation in the coming years and implement long-term cooperation projects in the development of new products. In addition to its own mobile service, Telekom is also set to take care of the entire IT operations of the Allianz Arena in the coming years.

FOCUS STADIUMS

PHOTO: ALLIANZ ARENA/B. DUCKE

The best that European football has to offer: the Allianz Arena in Munich

Further to digital equipment, Bayern also scores with its lighting concept: A Philips installed LED facade lighting installation. The entire installation can be controlled digitally, and includes 16 million colours and 300,000 LEDs over an area of 26,000 square meters. Despite the large lumen output, the new lighting will save 60 percent of current energy costs.

To illuminate the unusual diamond shaped membranes on the exterior of the arena, more than 6500 compact ColorGraze luminaires were installed 25 metres above ground. 45 tonnes of material and 5000 meters of cable were laid to enable the lights to be digitally controlled, making the Allianz Arena Europe's largest stadium with comprehensive and dynamic LED outdoor lighting. Choreographies with fluid colour gradients of all kinds are possible thanks to a frame rate of 40 frames per second. On St. Patrick's Day, for example, the whole façade was immersed in green.

Despite all the new installed technologies and the possibilities this brings, Bayern remains firmly grounded: the stadium is to be found shining most of the time in the traditional red and white club colours.

FOCUS CONSULTING

THE CUSTOMER IS KING – EVERYWHERE AND ALWAYS

WHOEVER WANTS TO MAKE A POTENTIAL NEW CUSTOMER FEEL LIKE A KING, HELP NEEDS TO BE SOUGHT FROM EXPERTS WHO RECOGNISE CHANGING TRENDS IN MARKETING. THE IMPORTANT KEY PHRASE HERE: THE PERSONALISED BRAND EXPERIENCE.

FOCUS CONSULTING

PHOTO: FLORIAN ROTBERG, INVIDIS CONSULTING

Digital signage creates an emotional shopping experience here in the Mall Of The Emirates

The seemingly unstoppable development of communications channels and tools puts enormous amounts of pressure on communications experts and their instruments. It's clear that traditional methods of communication such as newspapers, TV, websites – and even Facebook for that matter – are being usurped by personalised channels made readily available to target groups and individuals on all manner of mobile devices.

Although these channels were first used a few years ago in the context of multichannel concepts, today's marketing has taken a significant step further, with the product – not the channel – central to the concept. Omnichannel is tearing down the barriers between individual communications and sales channels in favour of presenting the product or brand as the central focus of the concept. In practice, this means that the customer always has a tailored brand experience regardless of the particular channel he or she is using. In an ideal situation, technical barriers for customers are non-existent and the customer journey highly personalised. The crucial thing here isn't the channel itself, but the result: the placement of the brand message and the triggering of the buying impulse.

While this may sound simple enough, this creates a huge challenge for marketing. Omnichannel concepts rely on networks and technical systems that share information: information that can then be used to improve communication with customers at the point of contact. Such an exchange should be automised and follow an intelligent system of rules. However, due to the sheer possibilities of combination between the points of contact, customer data and time/location dependencies, manual control is near on impossible. As a result, intelligent decisions and autonomous action must form the basis requirements of omnichannel systems.

How is this relevant to digital signage? Well, considering that digital signage systems provide the physical tools for the omnichannel touch points, digital signage is the main interface for customers interacting with the brand when not in front of the computer or holding a tablet or smartphone. In stores, digital signage is the key on the way to the point of sale.

While timing and placement of the brand message was once the norm; today, a custom tailored shopping experience is the main focus for digital signage concepts. Based on consumer data gathered from the customer journey and environmental data (waiting times, weather, mood of the consumer etc.), the current marketing campaign and product management; a customer orientated communications process is initiated with the aim of optimising the shopping experience for the customer and ultimately triggering that all important purchase impulse.

CONQUERING COMPLEXITY

Omnichannel concepts sound like a great idea, at least in theory. They're also going to be essential in the future. In practice, however, such projects often fail due to basic obstacles not being addressed during the planning phase.

All too often during an omnichannel project, customers begin with a digital signage installation without having done the necessary preparation. Instead of a detailed requirement analysis, more often than not, digital signage projects begin with a conceptual analysis covering processes, workflows, content and targets – considerations which ultimately only amount to a theoretical analysis of any given omnichannel installation.

While such an approach may suffice in the strategic planning stages of the project, in the operative implementation of the project, crucial details are lacking. Project managers responsible for the implementation of digital signage within Omnichannel strategies are often overloaded due to several reasons.

Firstly, key marketing knowledge regarding the necessary processes for the operation of digital signage systems is fundamentally lacking. This may come as little surprise, given that more than 100 similar solutions are available on the German market alone. However, it must be noted that there are significant differences between the top 10 market offerings; differences which are further increased by the fact the functional scale of the digital signage CMS develops and changes every six months.

Depending on the intended purpose, requirements of digital signage software differ dramatically, given that each customer has their own processes, strategies and IT infrastructure. Because digital signage software alone – as part of an isolated solution in an omnichannel concept – can't bring added value to the project, the digital signage CMS needs to be adapted to the customer's needs and their system infrastructure. That goes for the central IT system as well as the various branches and subsidiaries. This requires an intensive analysis of the systems, processes and requirements of the company: a demanding task involving several weeks of work. For project managers with limited time, however, allocating sufficient time to the project is an issue, given that digital signage is often one of many projects that need to be coordinated simultaneously.

Aside from functional requirements, necessary processes, usability and reporting; digital signage should transform innovative ideas in the various project phases into reality. Security of investment here is of primary importance, and can only be achieved if the various projected requirements are clearly defined at the very beginning of the project. Admittedly, this is no easy task, and can only be achieved through a corresponding workshop with the customers.

Another aspect that needs to be decided upon is the operation method: should everything be done independently, outsourced to an external service provider or should both elements be combined? Certain is the fact that constraints of the IT need to be addressed early on in the game so as to discuss and outline the possibilities and limitations of the project. Legal assistance should be sought – at the very latest – when questions on customer and product data arise. As most companies have specific regulations as to where data can be saved and applied, this has a direct effect upon the choice of service provider.

Like in all IT projects, the SLA (Service Level Agreements) need to be specifically defined. If they are too restricted, the costs incurred by the customer could be potentially huge.

On the other hand, if the SLAs are too loosely defined, the communication concept is endangered. To find the right balance, the company needs to find a trade off between business administrational and operational issues.

Service providers don't just bring technical aspects to the table, but also content and content conception. The service provider should also be able to provide and implement new cost and resource saving compilations from existing content. To be able to take these factors into account when choosing a service provider, content, content-pools, campaigns, KPIs and performance measurements need to be discussed with the relevant departments at the beginning of the respective digital signage project.

THE ADVANTAGES OF CONSULTING

Consultation and external project support have several advantages for the customer with respect to saving time and money. Despite incurring short-term costs, investment in digital signage consulting saves both time and money in the long term.

Consulting always begins with a workshop in which we outline the expectations and targets of the customer's digital signage system. This opens up the project on a meta-level in which we attempt to define the strategic orientation. To ensure success, we outline the requirements of the different departments integrated within the project. The departments are then familiarised with the project through a series of workshops and exchanges while simultaneously gathering a list of the expected limitations and potential reservations.

This phase typically lasts a few weeks, depending on the size of the organisation. The different use cases are created in narrative form, which serve to illustrate the individual modules of the digital signage system. During this phase the project begins to take shape and everyone involved begins to have an understanding for how the entire system functions, in addition to its requirements.

As soon as the use cases have been dealt with, the translation of the technical requirements gets underway, whereby questions of functional design, processes and IT are taken into consideration. All details are recorded in the catalogue of requirements, which must be designed in such a way as to provide a comparison of all the offers of the various service providers outlining the strengths and weaknesses of each service provider.

As soon as this phase is completed, we begin to compile a shortlist of service providers. 10 years of experience in digital signage enable us to identify the right combination between service provider and software.

This is followed by the submission of RFP/RFI, depending on the customer. The ensuing discussions follow an agenda which aims to scrutinise the performance ability of the service provider. With each service provider discussion lasting up to four hours, there's a torrent of information needing to be recorded and analysed, a process which takes several days. On the basis of transparent analysis, a ranking is created displaying clear recommendations for the service provider. When this is completed, the purchasing process can begin.

Further development and expansion

In addition to the selection and introduction of digital signage systems, consulting can also be helpful in the following stages of further development. Technology is always developing, and we like to help our customers with the identification and evaluation of these new developments. Through intensive contact with a variety of industry partners and the B2B portal invidis.de, we understand exactly what is required from both the customer and service provider perspectives.

With this expertise, we're able to discuss complete new approaches with customers, or indeed Best-of-Breed. Through our partner network, we're able to offer all kinds of service: from conceptual planning regarding prototyping to roll out implementation.

One of the most important criteria we take into account from the very beginning of the project is the installation in the retail environment and the utility for the end-user. This is especially important to keep in mind, as new POS systems rolled out en masse must fulfil completely different requirements to flagship projects, where installation is typically only envisioned for temporary or short term purposes.

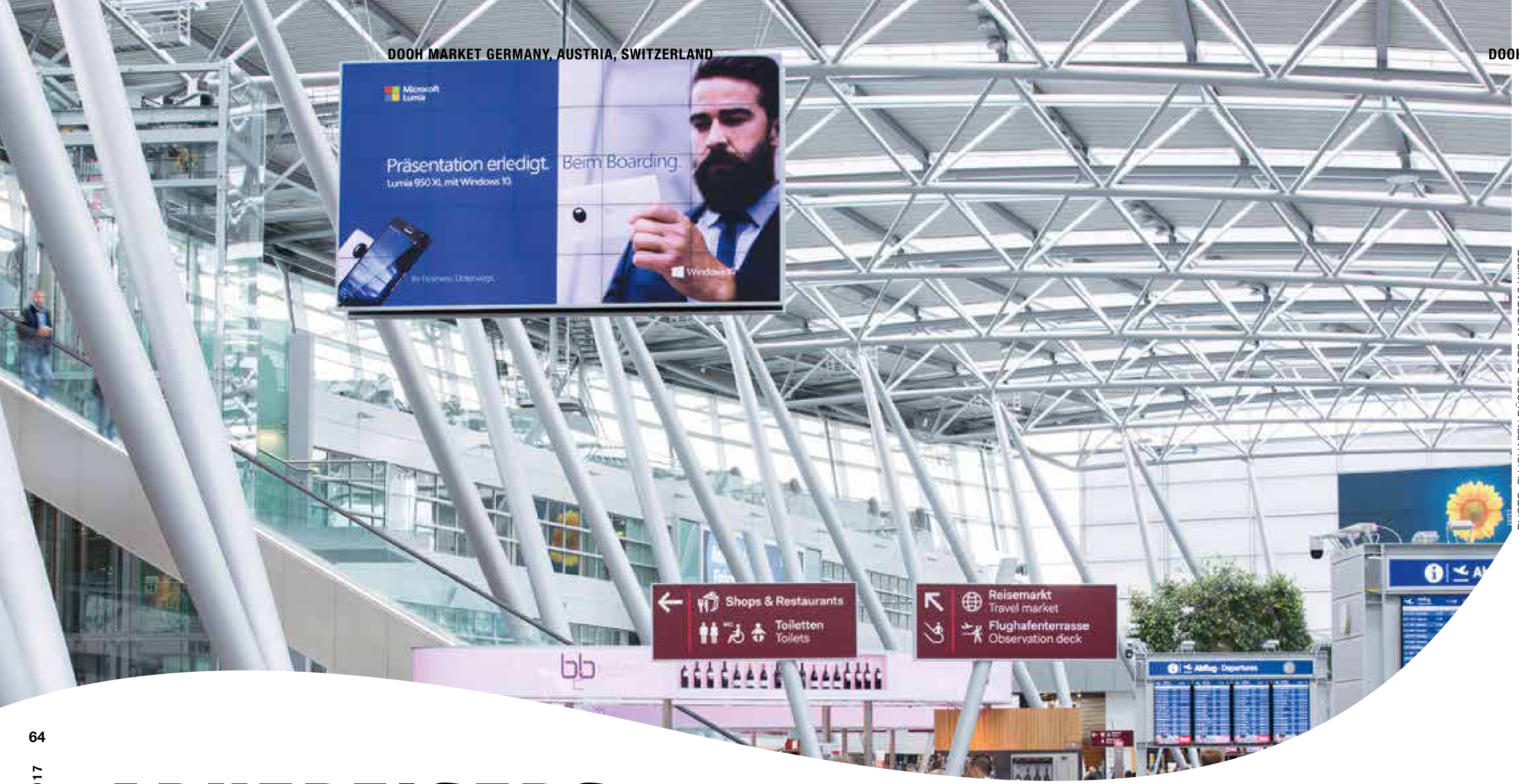


PHOTO: FLUGHAFEN DÜSSELDORF, ANDREAS WIESE

ADVERTISERS WANT DOOH

NETWORK QUALITY IS ON THE RISE AND AN INCREASING NUMBER OF MARKETERS ARE RELYING UPON MULTI-SCREEN STRATEGIES – MAKING DOOH BOTH ATTRACTIVE AND INNOVATIVE.

Digital-out-of-Home (DooH) has just experienced its largest success to date: An advertising concession to the tune of 1.4 billion Euros with Transport for London (TfL). The concession, which was awarded in early 2016, includes the digitalisation of 400 stations in the British capital. Because of its involvement with the network, TfL shares a portion of the profit – a new business model for public transportation.

Though such announcements are exceptional, they more importantly showcase the expanding relevance of digital outdoor advertisement. DooH is no longer just an extension of the classic outdoor advertisement, it's a serious medium for the moving image. Multiscreen marketing is experiencing Europe-wide success, including in the DACH market.

The market increased by 31 percent over the previous year, with a total revenue of 286 million euro. There was an 11 percent increase in the out-of-home sector of the market, making DooH one of the only mediums experiencing growth in an otherwise stagnant advertising market. Thanks to its success, the digital advertising sector was able to increase the number of employees between 10 to 15 percent.

The most represented advertisers were producers of short-lived consumer goods, telecommunication providers, and the pharmaceutical industry, whose inclusion knocked the automobile manufacturers off third place. Tourism providers and airlines were new arrivals to the top 10. These sectors are all united in that their prices are subject to daily fluctuations and thus an interest in a dynamic medium

DOOH MARKET GERMANY, AUSTRIA, SWITZERLAND

Düsseldorf airport's double sided video wall – made up of 50 Sharp 4K screens, 7m wide and 4m high – is the largest digital indoor screen installation of any airport in Germany

TOP 10
ADVERTISING CATEGORIES
IN %

1	Fast Moving Consumer Goods (FMCG)	**17,0**
2	Telecommunication	**17,0**
3	Pharma	**11,8**
4	Events & Tourism	**9,2**
5	Retail	**6,5**
6	Automotive	**5,2**
7	Entertainment & Leisure	**5,2**
8	Services	**5,2**
9	Banking	**3,9**
10	Fashion	**3,3**

* Source: invidis consulting GmbH "invidis DooH Jahrbuch 2016/17"

like DooH is quite high. The stable and relatively attractive Thousand-Contact-Price (TCP) guarantees investment confidence.

Something extremely positive to note is that the 2015 DooH budgets are showing a significant increase. In many cases, budgets were shifted from classic to digital outdoor advertising, with instances of cross-media bundling with online or television also on the rise.

Germany is again the strongest market in the DACH region with a revenue of 208 million euro, an increase of 31 percent in comparison to 2014. Nevertheless, Austria was able to overtake its neighbour in 2015 with 35 percent more sales, translating to an almost 14 percent share of the classic outdoor digital advertising market.

The surge in revenue for DooH can be attributed to an increased workload. 43 percent of participants in the Digital Signage Business Climate Index, including the ten leading market players, have reported an increase in transactions as compared to last year. This means that DooH is being taken seriously and also being successfully marketed.

The number of networks has grown only marginally over the past year, a trend that first became apparent in 2013 and will likely continue into the near future. Nearly all of the investments in existing networks are concerned with technological advancements. This means that hard- and software are being updated and modernised. Once relegated to the wish list due to their high price; Digital totem, LEDs, and high brightness displays have now become affordable. In the coming years, the number of these displays is expected to rise significantly. For example, Ströer plans to install 1,000 LEDs over the next three years. Nevertheless, the number of locations has increased insignificantly.

Interestingly, this trend has not affected Austria or Switzerland where for 2015 the number of locations has grown to 16 and 45 percent respectively. In Austria, this growth is mainly attributed to a reconfigured calculation method in the Media-Saturn network. Instead of the stores representing one individual department, each of the departments in a Saturn affiliate count as a separate "location". In Switzerland, the sky rocketing number of locations is largely due to the installation of 1,000 displays by Battery Doctor as well as the 600 locations of Geneva's new Passenger-TV.

Battery Doctor is one of the most notable new networks in Switzerland. The displays are connected to mobile phone charging stations and can be found in hair salons, restaurants, and other locations. Moreover, networks have been developed at the Geneva Airport and the Aperto Shops, while digital City Light Poster (dCLP) were installed in Zurich.

Beginning in 2015, the dCLPs began to appear also on important shopping streets in Vienna thanks to Gewista. Other than that, there were not many other noteworthy new networks in Austria. Eni Filling Stations, because of an un-renewed contract, and Amscreen are both no longer participating in the market.

Germany also experienced network loss. The gallery walks in Frankfurt Airport are no longer marketed and TUI Instore TV is concentrating solely on self-advertisement. However, this loss is mitigated by the new installation of networks: at gates in Dusseldorf Airport, in Sanifair service stations at highway petrol stations, and dCLP networks in Cologne and Hamburg. "In 2015, we have digitalised our most important format and placed it successfully on the market: the digital city light poster (dCLP) in 84 inch format," commented Andreas Prasse, Director of Marketing and Sales for WallDecaux.

The digitalisation of CLPs at transport stations, on roadsides, and in pedestrian zones is quite concise in each of the three DACH countries. JCDecaux is the market driver. They hold shares in the other companies as well (Gewista, APG, Wall). They have announced the digitalisation of their CLPs as an important business objective for the next few years.

"While almost all of the prime indoor locations have already been acquired, marketers are just now beginning to expand their digital networks in the Top 10 cities, something that should continue into 2016", said Thorsten Ebbing, CEO of Kinetic Worldwide Germany and Central Europe. According to Ebbing this step – for which he has been advocating since last year – is absolutely necessary. "Firstly, these deluxe networks in prime locations are a deciding factor for quality enhancement. Secondly, DooH is becoming even more important for integrated communications."

"Network" is without a doubt the keyword in the DooH sector. The ideas and possibilities of Multichannel, Beacons, other sensors and the integration of mobile telephones have been around for quite some time. Although Ströer is seriously advancing measures in the Internet of Things (IoT) sector, IoT in the DACH countries is not widespread. Included in each Beacons installation, for example, one finds reasonably priced sensors. However, creatives and advertisers are not educated well enough on how to actually begin working with them. As a result, there is a lack of solid implementation that could function as both an example and a driving force.

DISPLAYS AND LOCATIONS IN CATEGORIES 2016

CATEGORY	NUMBER DISPLAYS	NUMBER STANDORTE	DISPLAYS PER LOCATION
Retail – Electronics	75.974	1.036	73,3
Transport – Public	19.066	7.802	2,4
Retail	17.598	5.581	3,2
Healthcare	10.963	10.372	1,1
Leisure	6.012	2.127	2,8
Shopping Mall	3.490	256	13,6
Transport – Station	2.931	681	4,3
Transport – Airport	2.266	107	21,2
Pump Stations	919	146	6,3
Car Rental	252	195	1,3
Education	218	174	1,3
Government	155	112	1,4
dCLP	109	83	1,3
Trade Shows	72	1	72,0
Hospitality	15	15	1,0

* Source: invidis consulting GmbH "invidis DooH Jahrbuch 2016/17"

It's definitely worth observing what's currently going on in U.S.A., where integrated communication has long since been a reality.

In this context, Big Data also deserves to be mentioned. Here the installations, which are equipped with many sensors and link together various devices, allow data to be compiled which concerns: user frequency, effect, and much more. This data cannot only be utilised by advertisers and marketers, it can also be sold by network operators. For quite some time there have been successful campaigns which drew their information from a single, real-time data pool. Ebay utilises digital screens to show current deals and prices, while sports betting agents offer the running score of any and all local football club.

DooH provides outstanding usage possibilities, most notably as a part of the customer journey. The advertisers can reach potential customers outdoors when the digital screens are used in conjunction with mobile devices, online or TV. It stands to reason that multi screen marketing will be increasingly sought after. As industry forerunner, Ströer has been successfully pursuing this strategy for several years. With the entrance of 7screen, daughter company of SevenOne Media, the company from Cologne finally haas some competition. In Austria and Switzerland, Goldbach is following a similar path. The multiscreen marketing strategy has proved itself to be a genuine success factor for DooH. At the moment, it is an important link in the media chain and in the last three years has become much more relevant to advertisers and agencies.

However, multiscreen is not the only marketing strategy. The utilisation of a range of networks is becoming more relevant. With the exception of market leader Ströer, hardly any other network provider can offer national coverage. Over the past few years, various marketers have begun working together to bundle their networks in order to provide more comprehensive coverage. POS-TV in Edeka and Rewe or Passenger-TV in municipal transportation services are both examples in which this strategy has proved both sensible and successful.

National coverage does not, however, come at regional expense. Just as in the aforementioned campaigns, in which real-time data is used to advertise locally, the response of the regional public is a major success factor for DooH and will certainly be focus in the future. Ströer's massive and, up until now, unrivalled build-up of local marketing structures demonstrates just how important this is.

For years, booking platforms have been developed in order to more efficiently market networks and screens. Programmatic Buying is the current hot topic, something that has long since been established in online marketing. Extended to DooH, region-and target-specific advertising slots can be booked to separate screens. Goldbach's current programmatic buying trial is meeting massive success in Germany. Nonetheless, there is a large amount of scepticism as customers fear that the automated process could lead to placement in less attractive markets. Programmatic buying is already one of the most important trends in the USA and is sure to assert itself here as well: definitely an area where multi-screen marketing and DooH could stand to profit.

The lack of consistent standards is still a huge impediment for the industry. Thanks to the initiative of the Digital Signage Federation Europe, far-reaching standards have been established in regards to number of contacts, frequency, and hardware. However, there remains a problem for the content management system. As many of the networks are still incompatible, joint marketing remains a veritable challenge and will require some good solutions in the near future.

DOOH-BUDGETS

WHERE DO DOOH BUDGETS COME FROM?

IN %

	2013	2014	2015
TV	18	14	12
Internet	9	10	10
Dediziert DooH	17	24	38
Außenwerbung	41	48	31
Ambient Media	15	4	9

* Source: invidis consulting GmbH "invidis DooH Jahrbuch 2016/17"

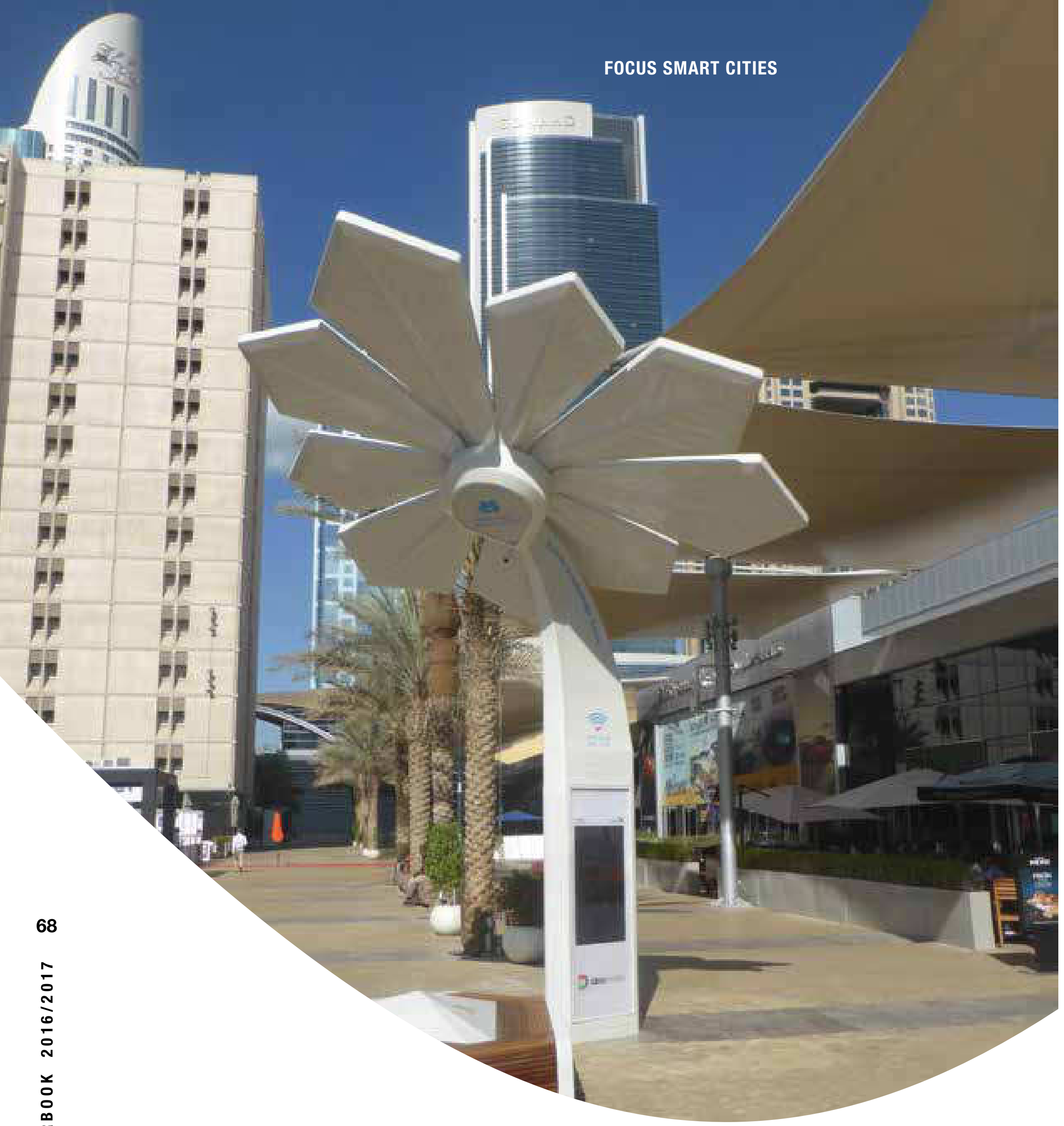


PHOTO: FLORIAN ROTBERG, INVIDIS CONSULTING

Dubai Smart Palms: the 6m high constructions are powered by solar energy and offer an abundance of services such as free wifi

A NETWORKED FUTURE

INTELLIGENT CITIES MAKE THE LIVES OF RESIDENTS EASIER. OFTEN, THESE CITIES UTILISE THE SAME TECHNOLOGIES AS DOOH. A NEW MARKET IS EMERGING.

Growing cities, increasing mobility, and finite resources – the list of complex challenges for modern society is endless. Digital technologies have the chance to provide solutions to many of these problems and potentially make life easier. One such idea is the smart city, in which digital signage can play an important role.

The vision for the smart city is an urban environment that collects data to be made available for the cloud. The goal is to have consistent interaction between technology and residents for the benefit of all.

Such smart solutions have been discussed since the beginning of the 21st century, and in some cases also implemented. The municipal administration is partially digitalised, with services such as car sharing platforms becoming normality. Many cities have also begun using digital media and technology to both promote and inform about environmental protection.

To make the smart cities concept a reality, a number of locations spread across the city need to be set up to collect and send data. It is exactly here that DooH comes into play. Large digital signage service providers have recognised the potential in many metropole regions worldwide for small cell and live data technologies.

- Out-of-Home network service providers rent their advertising locations to mobile telecommunications providers. So called small cells – very compact mobile communications receivers – are integrated into CLPs, columns and street furnishings, presenting the opportunity for additional income for the network owners. Electricity and broadband Internet are typically already installed for the digital advertisers, or indeed readily available from the surrounding area.
- Based on beacons, CCTV and other integrated sensors can simultaneously gather all kinds of anonymous data. Live frequency data at a bus stop, for example, supports the transport service provider with the planning of bus timetables. Advertising customers can be offered detailed campaign analysis: an interesting upside for network service providers.

Existing digital signage can therefore easily become part of the smart city, and vice versa. In New York, for example, the Linked NYC project – which offers free Internet throughout the city in addition to signposting and orientation – was instigated and lead by the city itself. Street side kiosk systems in all five city districts provide free internet access. To finance the entire project, kiosks are made available for digital signage advertising: a win-win situation for the city and digital signage.

Approaches of this kind are nothing new in Germany. Deutsche Telekom, for example, had a similar idea to New York with their entry into the DooH market. However, as support of telecommunications companies was lacking, the advertising market wasn't ready for this development. In the current climate, smart city concepts in large European cities are difficult to finance.

The video based InfoGates in Munich airport can be considered as an early form of the smart city vision. On the airport grounds, digital touchpoints provide directions and information for passengers. While expanding such concepts to a national base still is an economic challenge, in the near future, the costs for technology and infrastructure are set to reduce significantly enough to make possible the implementation of smart city solutions. There is certainly no shortage of innovative concepts.

Digital innovations in public spaces are trending across Europe, mostly in the form of smart cities or Internet of Things (IoT) initiatives. With IoT, different media, screens and sensors are infused to deliver data which can be used theoretically to make life easier.

The Smart Palm project in Dubai gives us a sneak preview of our digital future: Installed in 2015, the oversized palm's solar cells deliver power and thus serve as role model for sustainability and environmental protection. Passers-by can charge their cell phones, security cameras and emergency help buttons provide protection, and part of the screen informs in different languages about maintenance, with other displays being used for advertising. The city and advertisers are able to simultaneously find out how many people charge their cell phones or access the Internet on a daily basis. Additional sensors can also deliver more information on age or gender.

The operators of smart city locations – mostly in the public sector, Out of Home network service providers or public utility companies – are able to extract additional revenue from the rental to mobile telecommunications providers and the sale of data. Such a data dominated, networked communication has been a reality for some time now, especially in the USA. Businesses can determine whether advertising actually attracts customers to their store using the mobile data at hand. Alternatively, targeted advertising based upon mobile data and sensors can be shown on the advertising screens.

Digital signage is an integral component in Smart City conception, visualisation and refinancing. While displays make up the digital interface of the smart cities, the primary smart city platform is the individual screen: the smartphone.

In Germany, Austria and Switzerland, the development of smart cities and digital signage has merely begun. Beacons, however, already constitute a central part of almost every new digital advertising surface.

As Beacons are already part of practically every Ströer installation and IoT strategy, it would be fair to assume that this networking trend will continue in the future. Furthermore, since collected data is anonymous, concerns over individual privacy should theoretically be addressed. As long as complimentary wireless Internet access continues to be provided for passers-by, the benefits of such installations are to be had by all.

FOCUS MARKET RESEARCH

UNIFORM AT LAST

AN INCREASING NUMBER OF DOOH NETWORKS ARE EXPANDING THEIR REACH – IN MANY CASES TO A UNIFORM STANDARD. THIS ALLOWS FOR COMPARISON NOT ONLY WITHIN THE MARKET, BUT WITH OTHER FORMS OF MEDIA AS WELL. THE IMPROVEMENT HAS LED TO AN INCREASED RELEVANCE AND FACILITATED CROSS-NETWORK MARKETING.

In 2015, the DooH marketing was dominated by 'Programmatic Buying', 'Marketing Packages', and 'Multiscreen', trends which are sure to remain relevant for the next few years. However, it is a few long-awaited developments which are causing the most excitement. Reliable, comparable data concerning network reach is finally available in the DACH region.

For many years the industry, with the DSF Europe association as one of the most vehement proponents, has striven for uniform standards. In 2014, the Society for Consumer Research (GfK) working together with the Digital Media Institute conducted the first "DooH coverage measurement". At the time, it was mainly large networks which participated. In April 2015, at the initiation of IG DooH and Goldbach, a study tailored to the local requirements was carried out in Switzerland. In Germany, a second round of surveys are planned in which smaller networks will be taking part.

Thus, the market realises its most serious of needs: Networks which advertisers, marketers, and media agencies can compare. Those who won't allow their coverage to be measured will forfeit relevance, credibility, and thus customers. More importantly, DooH, often in conjunction with online, is being recognised and marketed as a leader in moving image media. Accordingly, it must stand comparison to online and TV as well. Thanks to the newly expanded network coverage, advertisers have been able to cement DooH as an integral part of the media mix.

The current situation for small networks wishing to participate in market research is a difficult one. They shy away from the costs and balk at data disclosure. One thing is clear: Small networks who do not co-operate will not survive. It is only in collaboration that they can provide customers with relevant, potentially nation-wide reach, while maintaining a regional focus.

Programmatic buying, which is the automated assignment of advertising space, is sure to play an important role in the future of DooH. Prerequisite is a standardised, or comparable, level of coverage and figures regarding contacts and frequency. Unfortunately, there is an even more challenging aspect to the digital signage infrastructure. Though the networks in the hardware sector may be fairly uniform, the content management systems are so varied that individual interfaces must be maintained for each and every software platform. Which means that the industry is already searching for solutions.

Unified and comparable reach – contact and frequency measuring are crucial to the success of DooH

PHOTO: JCDECAUX

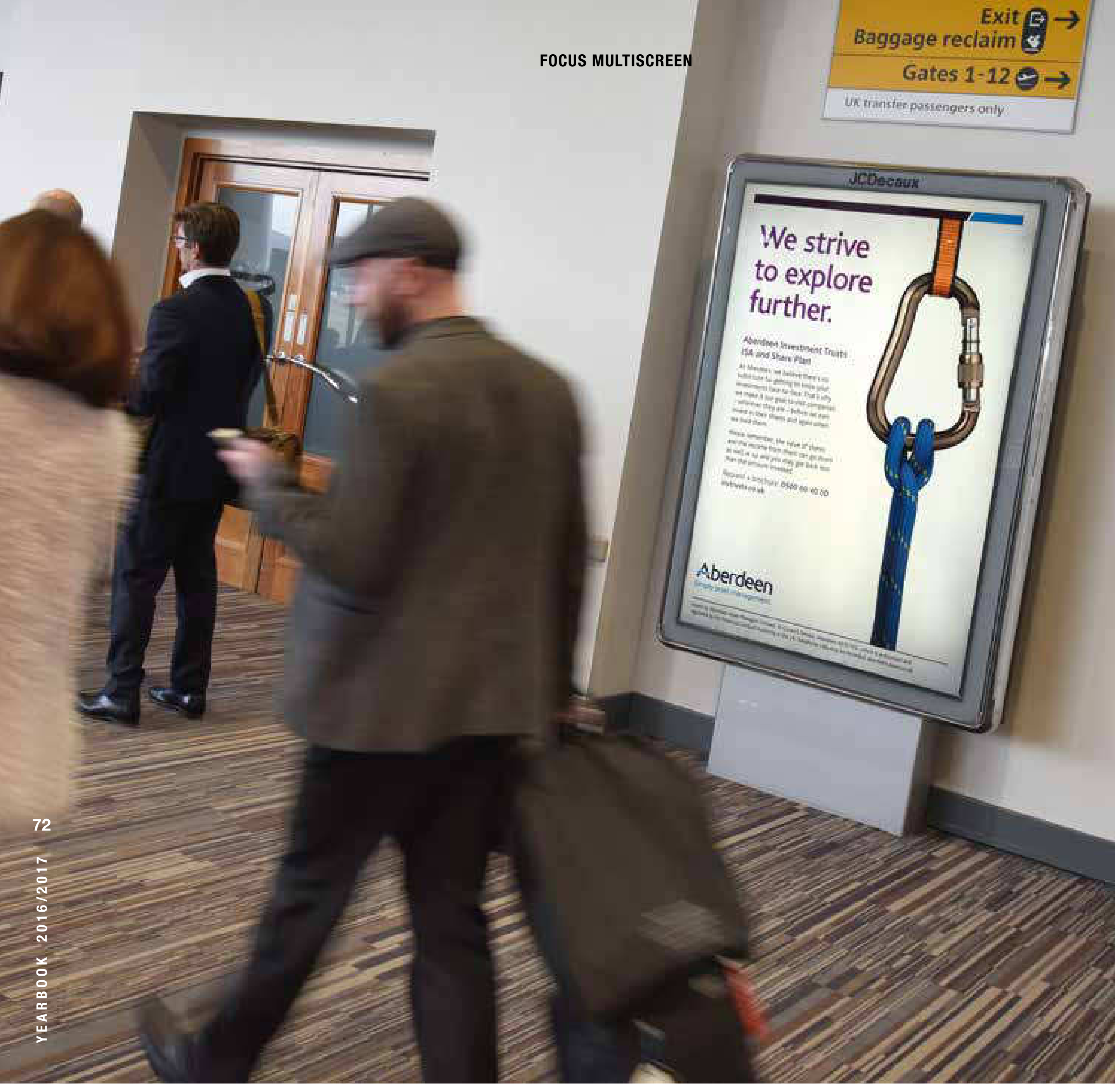


PHOTO: JCDECAUX

Digital Signage now includes TV, Online and mobile platforms – multiscreen strategies are becoming more and more important for DooH

MARKETING ACROSS EVERY CHANNEL AND SCREEN

STRÖER'S INNOVATIVE, MULTISCREEN MARKETING WAS AN INSPIRATION TO THE MARKET. NOW, OTHER PROVIDERS ARE UTILISING THE SAME STRATEGY. A NEW COMPANY FROM PROSIEBENSAT.1 MEDIA HAS JUST JOINED THE MARKET IN GERMANY TO OFFER STRÖER A BIT OF COMPETITION.

The newspaper at breakfast, a little internet while at work, a film after the evening news – those days are gone. The modern man consumes a near constant stream of media almost everywhere he goes. With a smartphone, one has continuous, on-the-go internet access. Digital out-of-home advertisements are present on many streets and with the help of certain apps, a favourite television series or newspaper is always just a click away. It is the advertising world's task to adapt to these modern usage patterns. An increasing number of advertisers are utilising cross-channel and cross-media marketing. Above all, they are using strategies that involve moving-image.

For DooH, this means that there is not only one kind of screen on which moving-image advertisements can be played. Meanwhile, digital out-of-home advertisement is being complemented by TV, online, and even mobile device. More and more marketers are pursuing a multiscreen strategy. Their challenge is to deliver advertising spots to every screen, something that aims to compensate for the diminishing reach of television ads and the growing demand online. The advertisers' goal is clear: they would like to reach the maximum amount of people in the most efficient way possible.

Ströer has been the industry pioneer of multiscreen marketing for some time. Over the past two years, the digital branch of the outdoor advertising giant has undergone a massive expansion. The reformatting of advertising media to a moving-image medium and the conversion of public to video, together with a corporate takeover, have allowed the Cologne-based concern to secure a considerable portion of the online market. From the beginning, it has been Ströer's intent to utilise moving-image marketing across various display mediums. This strategy has not only been successful, it has decisively altered the market in 2015.

The outdoor advertising sector, until now only marginally innovative, has finally become attractive to advertisers. With the help of mobile devices, televisions, online and big screens, the industry can finally provide a complete customer journey. The multiscreen marketing has not only strengthened DooH and expanded its relevance with advertisers and agents; it has also increased capacity and introduced new budgets. Up until now, Ströer has been alone in utilising this strategy. No other provider could offer a cross-media marketing campaign with comparable coverage. It was Ströer who recognised the demand for online videos; they were the first to bundle bookings and redirect to DooH.

Multiscreen marketing is perfectly suited to programmatic buying, one of today's trendiest topics. The (half) automated booking and play-out has optimised the entire process. Dependent upon certain factors (target group, region, or media), advertising spots are automatically played out, something which could imply an enormous growth in reach. Ströer has a distinct advantage here, having learned these lessons from their online marketing campaigns. Furthermore, the company-wide standardisation of its IT branch with Ayuda is sure to guarantee a smooth run.

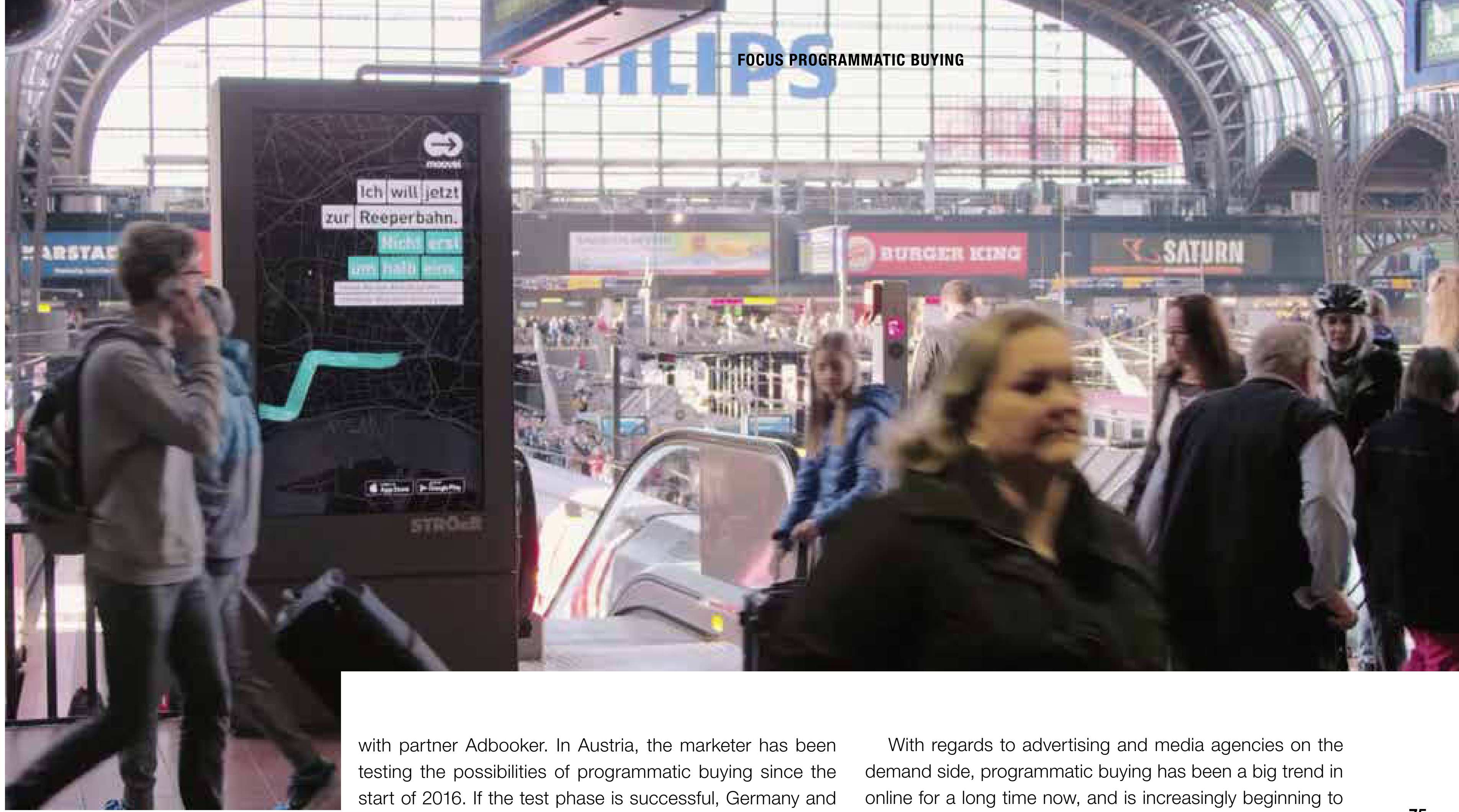
Ströer has really shaken up the DooH Market as well as the competition. Goldbach is making an attempt at multiscreen marketing, though with much less success in comparison. In Germany, the sector is operating on a modest level. Ströer is being pursued by a market greenhorn, 7Screen, the ProSiebenSat.1 Media SE daughter. They have been active in the outdoor advertising market since Autumn 2015, primarily at Cittadino, petrol stations, and rest stops. Thanks to a uniform software platform, automated bookings are no problem with 7screen.

The TV broadcaster will naturally utilise their marketing industry expertise to help grow the daughter firm, as well as the core business. Offering a bundle of TV, online, mobile and DooH is not a visionary strategy, rather, it is the future. Indisputably, the bundled offering will become the standard marketing packet for the broadcast organisation. 7Screen plans to utilise all this and more in order to reach Ströer. Surely, the coming years will provide some opportunity for movement at the top. For the DooH medium, this can only lead to more strength in development and a lasting relevance in the media mix.

AUTOMATIC, EFFICIENT AND TARGET ORIENTED

ALTHOUGH PROGRAMMATIC BUYING IS ALL THE RAGE, THE SHEER VARIETY OF CMS STILL PRESENTS A LARGE CHALLENGE DESPITE IMPROVEMENTS IN STANDARDISATION.

PHOTO: STRÖER



Ströer and media agency VivaKi created the first Digital-out-of-Home campaign in Germany for Moovel

A dream for media planners: advertising spots are booked and directly played out automatically. In online marketing, this so called programmatic buying is already readily available. Now, in Europe and especially in the DACH markets, we're seeing the first attempts in the digital signage industry. What is Programmatic buying exactly? In the DooH branch it is still unknown exactly what it constitutes and which opportunities are presented by programmatic buying.

Programmatic buying is a digital marketing process, which is especially present in online marketing in North America. The exchange of information and booking process happens automatically through specially created platforms. Advertisers or agencies make up the Demand Side Platforms (DSP), and on the side of the network service providers or marketers are the Supply Side Platforms (SSP).

Advertisers determine exactly which groups are to be targeted in which areas and at which time. The DSP searches automatically for the most fitting advertising spots in the conjoining networks of the SSP. The SSP guarantees in turn the timely play-out and activation; for online media this occurs often only a few seconds after the booking enabling campaigns to become much more efficiently targeted and much more dynamic. The prerequisite for this is that all network data is unified and transparent.

While the standardised reach of DooH was for this reason an important first step for programmatic buying in DACH, there are still significant hurdles to be overcome. The biggest difficulties currently revolves around the differing Content Management Systems (CMS) varying from network to network. As uniform standards are non-existent, a fast play out across the network is almost impossible – the issue is now top priority within the industry. Goldbach, for example, tries to integrate the various CMS of connected networks with partner Adbooker. In Austria, the marketer has been testing the possibilities of programmatic buying since the start of 2016. If the test phase is successful, Germany and Switzerland will follow suit.

Ströer, on the other hand, has it much easier. CMS is standardised thanks to the fact that the company markets its own networks. With Ströer's entry into online marketing, the company also understands the mechanisms associated with increasingly frequent automated booking online. The switch to Ayuda as a total solution for the IT structure also helps to make the implementation and sale of advertising space particularly efficient – for DooH as well as Online.

Market newbie 7Screen is already utilising a booking platform which is to be expanded upon with DooH. Presently the ProSiebenSat.1 Media SE subsidiary markets the networks from Cittadino – all former Telekom-out-of-home networks, and the networks of Tank&Rast. As a result, there are currently no issues with the implementation of CMS with digital signage service providers. It still remains to be seen as to whether multiscreen marketing will also function this well.

Heineking Media is going its own way as a provider of the digital bulletin board, since the end of 2014 part of the Madsack media group. Heineking has access to a network of over 2000 locations (retailers, repair shops, catering) which are already utilising Heineking's own digital signage systems. To extend the power and reach of the network, the Hannoveranians are planning to introduce free software updates in the future, thus ensuring all networks are running on a single CMS that can also be marketed together easily. In addition, the cooperation with Madsack and other publishing houses offer daily and regional content and marketing potential. Further details and successes of this new strategy are to be seen throughout the rest of the year.

With regards to advertising and media agencies on the demand side, programmatic buying has been a big trend in online for a long time now, and is increasingly beginning to attract DooH. As advertisers increasingly request marketing strategies involving various moving image media, it is exactly here that automatic booking becomes especially efficient. The agencies pose the greatest problem to company organisations due to the fact that they are generally divided into different independently acting media units. For automated bookings, especially through different media, this strict division is something that must be overcome. However, seeing as programmatic buying is already very popular with international operating agencies as a planning tool, this is probably only a matter of time.

The core of automated booking and the sale of advertising space still faces scepticism and criticism amongst advertisers. Despite the fact that the planning and evaluation tools of the agencies work well and the details of the network operators are transparent and detailed, advertisers fear that their brand will appear on inappropriate advertising spaces. However, the more programmatic buying is adopted and implemented by agencies, marketers and network operators, the more quickly the doubts and scepticism are sure to be quelled.

FOCUS PROGRAMMATIC BUYING

TOP 30 DIGITAL OUT OF HOME NETWORKS

GERMANY 2016

NETWORKS	OWNER	MARKETER	CATEGORY	LOCA-TIONS	DIS-PLAYS
Media Markt-TV [1]	Media Saturn Holding	UAM, red blue	Retail – Electronics	263	31.560
Saturn-TV [1]	Media Saturn Holding	UAM, red blue	Retail – Electronics	157	18.840
Medimax (EP) TV [1]	Medimax (EP)	UAM	Retail – Electronics	127	8.890
TV-Wartezimmer	TV-Wartezimmer	TV-Wartezimmer, UDS	Healthcare – Doctor's Office	6.500	6.500
Viewento Edeka-TV [2]	Viewento	Viewento	Retail – Fast Moving Consumer Good (FMCG)	438	3.887
Berliner Fenster	Berliner Fenster	mc R&D	Transport – Public	1.106	3.768
Autobahn Channel	Tank & Rast	Sit&Watch; 7Screen, UDS, Goldbach, Cittadino	Retail – Convenience	596	3.259
DOOH.de	heinekingmedia	DOOH.de	Divers	2.500	2.500
Digital Touchpoints POS REWE	Cittadino	Cittadino, Neo Advertising, Goldbach, UDS, UAM	Retail – Fast Moving Consumer Good (FMCG)	430	2.254
Mall Video	Infoscreen	Infoscreen	Shopping Mall	89	2.114
Digital Touchpoints POS Lotto	Cittadino	Cittadino	Retail – Lottery	1.416	1.416
McDonald's TV	McDonald's Deutschland	UAM	Leisure – Restaurant/Bars	850	1.386
King Channel	Burger King	UAM, piranha media	Leisure – Restaurant/Bars	488	1.374
Neo Advertising EDEKA TV [2]	EDEKA	Neo Advertising, Cittadino, reflexmedia	Retail – Fast Moving Consumer Good (FMCG)	249	1.366
Münchner Fenster [3]	Berliner Fenster	mc R&D	Transport – Public	84	1.340
Fahrgast TV Nürnberg	VGN	Omni-Media	Transport – Public	299	1.202
real,- Shop Kontakt	echion Corporate Com-munication	echion	Retail – Fast Moving Consumer Good (FMCG)	265	1.060
Station Video	um schlu	Infoscreen	Transport – Station	165	1.045
APOVID [3]	Apovid	Apovid, Goldbach, UAM	Healthcare – Pharmacy	675	1.036
Brand Views [2]	Brand Views	Brand views, UDS, UAM	Leisure – Restaurant/Bars	278	1.021
Fahrgastfernsehen Hamburg (U-Bahn)	Hamburg Hochbahn	Ströer, Omni-Media, public broadcast	Transport – Public	504	1.008
fahrgast tv Leipzig	Leipziger Verkehrsbetriebe	videowerkstatt.net, mc R&D, Omni-Media, Goldbach	Transport – Public	304	1.007
Fahrgast-TV mobil Hannover	üstra	X-City Marketing, Ströer, mc R&D, Omni-Media, public broadcast	Transport – Public	165	906
Digital Toupoints Highway – Sanifair	Cittadino GmbH	Cittadino	Travel Services	333	903
Intersport TV	Das Mediativ	Ridotto	Retail – Sports	377	753
Kaufland Instore-TV [2]	Kaufland	reflexmedia, Goldbach, TIP Werbeverl	Retail – Fast Moving Consumer Good (FMCG)	187	520
Fahrgast TV Recklinghausen	Vestische Straßenbahnen	Omni-Media	Transport – Public	387	505
docspot.tv	Zeitsprung Infotainment	Zeitsprung Infotainment	Healthcare – Doctor's Office	361	451
INFAHRT Dresden	DVB	Format Media, mc R&D, Omni-Media, busSpot, Goldbach	Transport – Public	83	418
VetiPrax TV	VetiPrax	VetiPrax, UDS	Healthcare –- Doctor's Office	400	400

[1] TV sets on the retail loor included in marketing.
[2] Network still bookable. Details based on the 2015 survey.
[3] Network is being rolled out. Completion expected by the end of 2016.
Note: The table is based on company information (report/rate card). Period of survey March 2016.
Source: invidis consulting „invidis DooH Jahrbuch 2016/17"

DOOH MARKET GERMANY, AUSTRIA, SWITZERLAND

TOP 30 DIGITAL OUT OF HOME NETWORKS

SWITZERLAND 2016

NETWORKS	OWNER	MARKETER	CATEGORY	LOCA-TIONS	DIS-PLAYS
Media Saturn Instore-TV [1]	Media Saturn Holding	Goldbach Media	Retail – Electronics	26	5.220
MelTV [1]	Migros-Genossen-schafts-Bund	Goldbach Media	Retail – Electronics	102	4.284
passengertv	Livesystems	Livesystems	Transport – Public	2.200	3.200
Battery Doctor [2]	Battery Doctor	Battery Doctor, Goldbach Media	Divers	1.000	1.000
Canal TPG	TPG Publicité	TPG Publicité, Goldbach Media	Transport – Public	600	960
Neo Advertising Digital Shopping Media [3]	Neo Advertising	Neo Advertising	Shopping Mall	51	672
Manor Food [4]	Manor	Goldbach Media	Retail – FMCG	33	656
Migrol/Schell Zapfsäulen [5]	Salescreen	Goldbach Media, Neo Advertising	Pump Stations	98	648
Healthcare & Beauty Channel	Excom Media	Excom Media	Healthcare – Pharmacy	450	450
CanalPoste	Die Schweizerische Post	Die Post, Goldbach Media	Retail – Stationary	255	385
Valora Instore-TV	Valora Holding	Valora, Mediabox	Retail – Convenience	167	334
Tamoil Zapfsäulen und Shops	Tamoil	Goldbach Media	Pump Stations	48	271
Neo Advertising CoopPronto TV	Neo Advertising	Neo Advertising	Retail – FMCG	215	215
Adscreen Kinofoyer [6]	WerbeWeischer Schweiz	WerbeWeischer	Leisure – Cinema	32	195
APG|SGA TrafficMediaScreen	APG|SGA	APG|SGA	Transport – Public	193	193
Clear Channel Play Zurich Airport [7]	Clear Channel	Clear Channel	Transport – Airport	1	170
Amscreen BP & Socar Tankstellen Shops	Amscreen Group	Goldbach Media	Retail – FMCG	128	128
APG|SGA Shopping ePanel	APG|SGA	APG|SGA	Shopping Mall	17	113
Neo Advertising Airport Genf [8]	Neo Advertising	Neo Advertising	Transport – Airport	1	75
Neo Advertising Palexpo Coverage	Neo Advertisin	Neo Advertising	Trade Shows	1	72
APG|SGA Rail ePanel	APG|SGA	APG|SGA	Transport – Station	8	69
Impact Mountain [6]	Boutique Film	Boutique Film	Leisure – Sports	8	60
Aperto Shops	ROAD Media	Goldbach Media	Retail – Convenience	49	56
Migrolino Convenience Stores	Kilchenmann	Goldbach Media	Retail – FMCG	52	52
Clear Channel Digital Shopping Media	Clear Channel	Clear Channel	Shopping Mall	9	51
Moving Ads (Bergbahnen)	divers	Goldbach Media	Leisure – Sports	15	50
APG|SGA Rail eBoard	APG|SGA	APG|SGA	Transport – Station	13	39
APG|SGA City ePanel	APG|SGA	APG|SGA	dCLP	3	28
Woche-Pass Plus	Bison IT Services	Woche-Pass	Retail – Shop Window	23	23
APG|SGA Mountain ePanel	APG|SGA	APG|SGA	Leisure – Sports	3	20
APG|SGA Rail Beamer	APG|SGA	APG|SGA	Transport – Station	3	11
Clear Channel Digital Zürich	Clear Channel	Clear Channel	dCLP	9	10
APG|SGA City eBoard	APG|SGA	APG|SGA	Transport – Station	9	9
Neo Advertising Luxury Sport	Neo Advertising	Neo Advertising	Retail – Sports	2	9
Neo Advertising Luxury TV	Neo Advertising	Neo Advertising	Shopping Mall	5	8

[1] TV sets on the retail floor included in the network
[2] Network is being rolled out. Completion expected by the end of 2016
[3] 12" displays at the cash points.
[4] Coop, Migros & others
[5] 15" displays at the petrol pumps
[6] Network still bookable. Details based on the 2015 survey
[7] Contains the sigle networks Flight Information Media, Baggage Claim Media, Baggage Claim Media Plus, Digital Branding Media, ad-e-motion
[8] Contains the sigle networks Airport Boarding, Airport Shopping, Airport Welcome, Airport Branding Zone, Airport Business Lounges
Note: The table is based on company information (report/rate card). Period of survey March 2016
Source: invidis consulting GmbH „invidis Digital Signage & DooH Yearbook 2016/17"

TOP 30
DIGITAL OUT OF HOME NETWORKS
AUSTRIA
2016

NETWORKS	OWNER	MARKETER	CATEGORY	LOCA-TIONS	DIS-PLAYS
Media-Saturn TV [1]	Media Saturn Holding	red blue, Goldbach Media	Retail – Electronics	361	7.180
y-doc	y-doc	y-doc, Goldbach Media	Healthcare – Doctor's Office	905	905
Wien lokal INFOSCREEN	INFOSCREEN Austria	INFOSCREEN, Gewista	Transport – Public	187	679
Graz lokal INFOSCREEN	INFOSCREEN Austria	INFOSCREEN, Gewista	Transport – Public	146	591
Linz lokal INFOSCREEN	INFOSCREEN Austria	INFOSCREEN, Gewista	Transport – Public	150	534
Vita TV	TV Wartezimmer GmbH	y-doc, TV-Wartezimmer	Healthcare – Doctor's Office	526	526
Digital Media U-Bahn-Stationen	Gewista	Gewista	Transport – Station	7	388
Innsbruck lokal INFOSCREEN	INFOSCREEN Austria	INFOSCREEN, Gewista	Transport – Public	135	300
Gesundheits-TV	SMG Screen Media	Goldbach Media, y-doc	Healthcare – Pharmacy	196	286
sitour Ski Network	feratel media technologies	Sitour Marketing	Leisure – Sports	15	250
Apomotion	Herba Chemosan	Herba Chemosan, y-doc, Goldbach Media	Healthcare – Pharmacy	158	208
monitor werbung	peakmedia	peakmedia, Goldbach Media	Retail – Shop Window	129	181
TV-Wartezimmer	TV Wartezimmer	y-doc, TV-Wartezimmer	Healthcare – Doctor's Office	169	169
Flughafen Wien Giga-Pixel-Wall	Flughafen Wien	Flughafen Wien	Transport - Airport	1	165
flatscreenadz [2]	flatscreenadz GmbH	flatscreenadz	Retail – Shop Window	27	150
SCHOOL Screens	Coffe2watch	Goldbach Media, MIP	Education	133	133
Intersport Austria TV	Das Mediativ	ridotto, Goldbach Media	Retail – Sports	52	124
BUS Screens Salzburg	Stadt Salzburg	Goldbach Media	Transport – Public	80	120
Flughafen Wien Gepäcksbänder	Flughafen Wien	Flughafen Wien, Goldbach Media	Transport – Airport	1	120
Digilight	Digilight	Digilight, Goldbach Media, ÖBB	Transport – Station	42	94
UniScreens	MIP Media in Progress	MIP, Goldbach Media	Education	41	85
Klagenfurt lokal INFOSCREEN	INFOSCREEN Austria	INFOSCREEN, Gewista	Transport – Public	56	77
KINO Screens	United Cinemas International Multiplex	Goldbach Media	Leisure – Cinema	8	76
oruvision	oruvision	oruvision	Leisure – Tourism	68	68
CAT INFOSCREEN	INFOSCREEN Austria	INFOSCREEN, Gewista	Transport – Public	3	60
Shopping Mall-TV (SCS) [2]	Aeneas	Aeneas, Goldbach Media	Shopping Mall	2	60
Sonstige Shopping Malls	divers	Goldbach Media	Shopping Mall	5	49
Gewista Digital Media Outdoor [3]	Gewista	Gewista	dCLP	35	35
PatientenTV	SMG Screen Media	y-doc	Healthcare -- Doctor's Office	32	32
railscreen mall	ÖBB	ÖBB, Goldbach Media	Shopping Mall	2	31

[1] TV sets on the retail floor included in the network
[2] Network still bookable. Details based on the 2015 survey
[3] Network contains sub-networks Mariahilfstr. and Delux
Note: The table is based on company information (report/rate card). Period of survey March 2016
Source: invidis consulting GmbH „invidis Digital Signage & DooH Yearbook 2016/17“

DIGITAL SIGNAGE SUMMIT EVENTS

FROM SMALL CONFERENCE TO LARGE DIGITAL SIGNAGE SUMMIT – 10 YEARS OF HISTORY

MARCH 2016 – THIS SUMMER WILL SEE THE TENTH INCARNATION OF THE DSS EUROPE. WE LOOK BACK OVER 10 YEARS OF DSS EUROPE – FROM ITS HUMBLE BEGINNINGS TO BECOMING THE MOST IMPORTANT DIGITAL SIGNAGE AND DOOH CONFERENCE IN EMEA REGION.

We begin in 2007: the plasma screen is king, also in the B2B sector. In the same year, Panasonic launches its tenth product generation of its Professional Plasma Screens.

Two further changes are introduced in the autumn of the same year: a large US company called Apple brings the first iPhone on the market – and a significantly smaller company from Munich writes history, if a little smaller in measure.

When invidis organised the first Digital Signage Conference in Munich in 2007, the Digital Signage family in the German speaking regions was significantly smaller – and Digital Signage itself was relatively unknown. The first event took place in the Messe Systems in Munich. The themes that were discussed with the 50 visitors during the course of the event were what we could consider today as basic. “It was essentially like this: how can I get content to be presented on the display?” remembers invidis Senior Analyst Oliver Schwede.

The second Digital Signage Conference took place in 2008. Themes include Corporate TV and special moving picture formats for the DooH and DS use at the point of sale. Marketers, content agents, system operators and analysts present over 15 lectures and success stories.

One year later: the third Munich digital signage conference took place in Autumn 2009. Since then, the OVAB Europe has acted as Patron of the event. The event takes place for the first time on the ICM exhibition grounds – marking the end of the Messe Systems location, which had hitherto played host to the conference.

Around the same time the conference begins to become increasingly international. In 2009, presentations are translated for the first time from German into English and English into German simultaneously. 230 attendees from Germany, France, Scandinavia, the UK and Romania take part in the two-day conference.

For the fourth Digital Signage conference in 2010 – which welcomed 300 guests – the conference is moved to the Kempinski Airport Hotel in Munich. The Kempinski Hotel – which would soon be taken over by the Hilton chain – has housed the Munich conference ever since.

Less than 12 months later saw the next event take place in September 2011 instead of the usual October spot, poised directly before the first Oktoberfest weekend in Munich.

During the fifth Digital Signage Conference in 2011, interaction and 3D are two of the main points of focus of the event. Also new are the workshops, which run parallel to the

PHOTO: FLORIAN ROTBERG, INVIDIS CONSULTING

The first Digital Signage conference from invidis in 2007. At that time the conference was part of the ‘systems’ section of the Munich Messe with around 50 attendees

500 people attended the 9th edition of the Digital Signage Conference at the Hilton Airport Hotel Munich in 2015

PHOTO: STEFFEN HORAK, LOOK HOMEWARD

three series of lectures. After the first successful get together in the Airbräu in Munich Airport in 2010, the after hours event remains part of the conference tradition.

Under the motto “Digital Signage Eco Systems – The Key to Success”, the sixth OVAB Munich Digital Signage Conference in 2012 took place over three days, with the morning of the third day rounding off the schedule.

All together, eleven top class presentations on three stages, four panel discussions, three guided tours, the invidis Digital Signage Award and two evening events make up the busy schedule of the seventh conference in 2013. Included in the diverse themes discussed are context conscious Digital Signage and data protection aspects of Digital Signage – and how companies can avoid pitfalls.

On the eighth OVAB Digital Signage Conference Munich in 2014, 350 sector representatives from all corners of the digital signage market from around the world took part. A clear increase in interest from resellers can be seen in 2014, as they try to get a more comprehensive grip on Digital Signage technology. The applied AV technology for the conference itself also becomes more up to date, with edge blending projection and large format screens ensuring the clear and easily visible display of information.

The ninth OVAB Digital Signage Conference took place in Munich last year. For the first time, the event takes place as a joint venture with Integrated Systems Events. With this, the Digital Signage Summit Europe 2015 looks to take on a more international character.

In 2015, a matchmaking service for the DSS Munich is introduced, giving maximum networking opportunities for attendees before, during and after the event. In addition, the DSS programme is added to with a whole host of sister events: Autumn 2015 marks the first incarnation of the DSS MENA in Dubai, for example, which turned out to be a huge success.

For 2016, a new motto was decided upon for the DSS in Munich, “Challenging the Fundamentals of Consumer Engagement – Strategies for Tomorrow’s Advertising, Retail and Public Spaces.” Under this motto, the tenth Digital Signage Summit Europe is set to take place earlier in the summer on the 23rd and 24th June 2016.

Meanwhile, the insider event in Munich has grown into a whole conference series. The Digital Signage Summits are regional events of the Digital Signage und DooH industries, and are organised by invidis consulting and Integrated Systems Events in Europe, Russia, the Middle East, Africa and North America.

invidis CONSULTING

EXPERT CONSULTING

INVIDIS CONSULTING PROVIDES SUPPORT IN ALL MATTERS RELATING TO DIGITAL SIGNAGE AND DIGITAL OUT OF HOME.

Headquartered in Munich, invidis consulting GmbH is one of the leading European consulting companies for Digital Signage and Digital out of Home.

This is primarily down to the employees who know the market in detail. The Digital Signage market was still in its infancy when invidis consulting was founded by Florian Rotberg and Oliver Schwede in 2006. The company was quick to recognise the potential of Digital Signage and soon began specialising in it as an IT consultancy.

invidis consulting has now been operating in the market for more than nine years. Unlike other IT consultants, the company defines Digital Signage as a means of communication. From that perspective, Digital Signage needs a communication strategy, a concept and the technology to match. The medium is therefore looked at holistically.

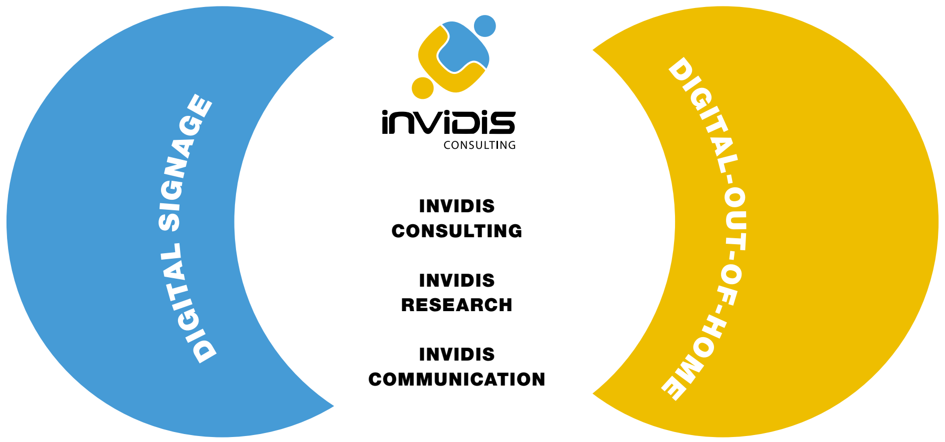
invidis consulting has meanwhile established a permanent base of seven employees in total and is supported by freelance consultants, editors, graphic artists, programmers and partners.

The core team is made up of consultants, analysts, market researchers, engineers, system architects, project managers as well as marketing and communication specialists who have different focal areas of consulting and qualifications and can be assembled into teams to meet the customer's needs for the project in question.

invidis consulting's employees have an excellent knowledge of the Digital Signage and Digital out of Home market and play an active part in shaping it.

PHOTO: ANETTE MAYERHOFER

invidis consulting 2015:
Daniel Russell, Thomas Kletschke, Theresa Amann, Oliver Schwede, Jörg Sailer, Christine Koller, Florian Rotberg (v.l.n.r.)



DIGITAL SIGNAGE FEDERATION

DSF EUROPE: AN INTRODUCTION

Since February 2016, the OVAB Europe trade association (Out-of-home Video Advertising Bureau Europe) has been cooperating with the US based Digital Signage Federation (DSF) to enter the market as DSF Europe.

The association remains independent as a registered association with its headquarters in Munich, headed by the proven Board Trio Dirk Hülsermann (President), Winfried Karst (Vice President) and Markus Deserno (treasurer). Through the cooperation with the DSF, the organisations on both sides of the Atlantic obtain access to resources and events of the respective partners. DSF Europe is to continue as sponsor of DSS Europe in Munich and will continue to expand the budget for the continuing activities in Europe. The association is to obtain a seat in the DSF Board of Directors as DSF Europe.

With close cooperation, the previously autonomous associations are to take into account the global structure within the digital signage industry. Globally active companies on both sides of the Atlantic are to profit in the future from this venture, specifically with regards to training and recruitment.

Dirk Hülsermann has held the presidential position of the OVAB Europe since its inception. He comments: "The close cooperation with the digital signage federation will give us a strong foundation from which to build upon, hopefully accelerating the growth of DSF Europe. The allegiance to the DSF will allow us to offer members with additional education opportunities whilst forming a more comprehensive trade organisation."

Ken Goldberg, CEO of real Digital Media and former president of the Digital Signage Federation comments: "Just as the DSF was created to fill a gap six years ago, it is now the right moment to unify industry lobbying and the further development of the branch worldwide. DSF Europe is merely the beginning. Our goal is to increase possibilities and visibility for the members in the digital signage industry regardless of geographic position."

THE PULSE OF THE DIGITAL SIGNAGE AND DOOH INDUSTRY

FACTS ABOUT THE DSF EUROPE DIGITAL SIGNAGE & DOOH BUSINESS CLIMATE INDEX I DBCI

- The leading index for the Digital Signage and Digital out of Home industry in the EMEA region.
- DBCI registers the current business situation and provides a 6 months market outlook.
- Additional questions offer insights on current trends and drivers.
- DBCI offers transparency for market participants, investors and end-users in a fast growing and dynamic economic environment.
- Regular feedback by leading market players ensure high quality data for the relevant segments displays, integrators, software and Digital out of Home.
- DBCI will cover 80% of the EMEA public display market at the end of 2016.

DBCI | COOPERATION PARTNERS

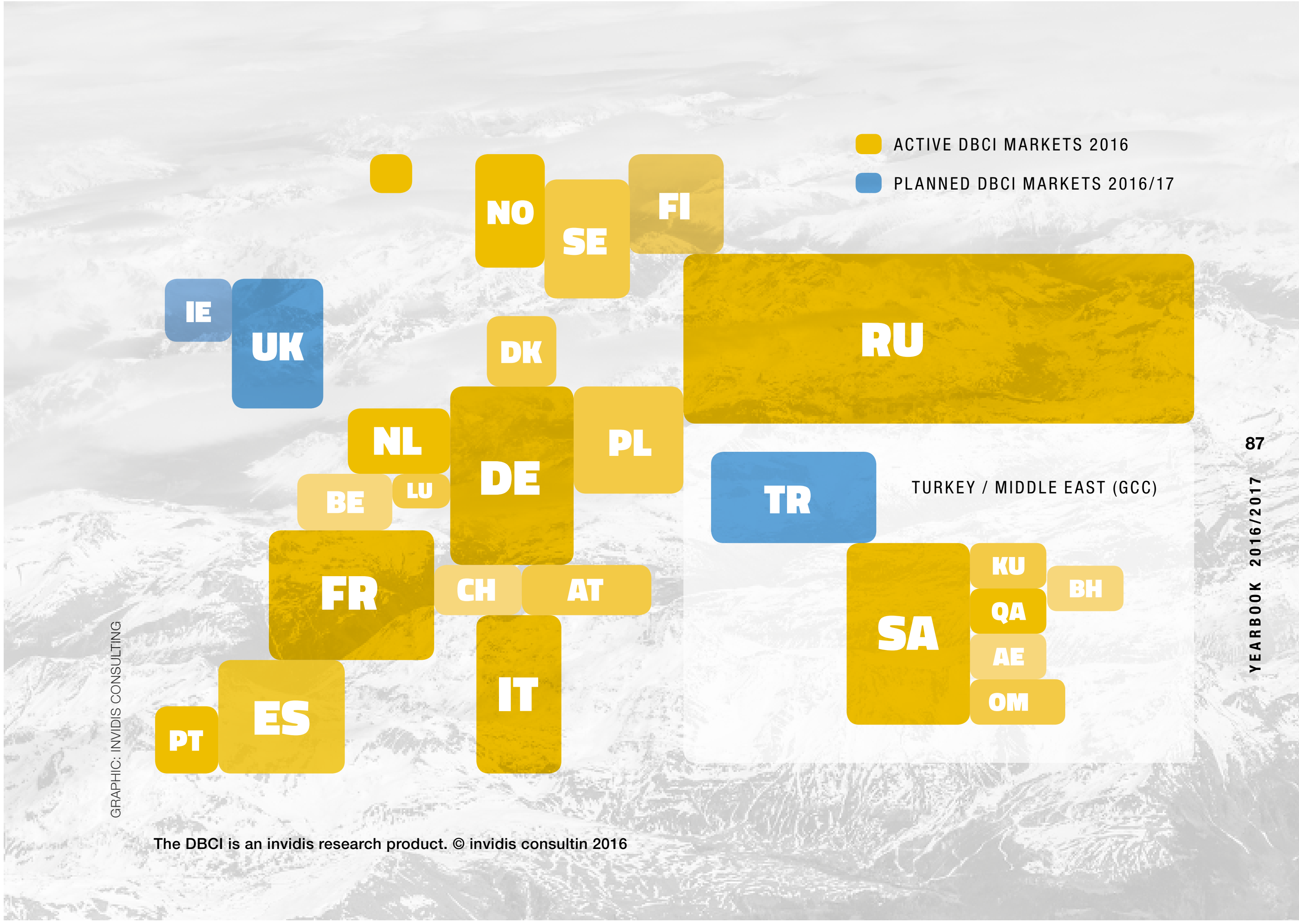
club-digital

AssoDS

PDSA

IG-DooH

DSF EUROPE DIGITAL SIGNAGE & DOOH BUSINESS CLIMATE INDEX | DBCI



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INDUSTRY OVERVIEW

ON THE FOLLOWING PAGES YOU WILL FIND COMPANIES FROM THE DIGITAL SIGNAGE AND DOOH INDUSTRY SORTED BY CATEGORY.

~sedna GmbH

~sedna **gmbh**

~sedna **gmbh** provides high-grade professional solutions for digital signage, multitouch and interactive setups. Its flagship product is ~sedna presenter, a worldwide leading digital signage software solution that offers a maximum of flexibility, reliability and extraordinary performance.

~sedna **presenter** makes it a breeze to create fascinating brand presentations. No wonder that ~sedna **presenter** is the primary choice on a world-wide basis when it comes to building top-quality and robust digital signage setups that operate under most demanding conditions.

Presenter Cloud provides a customizable and flexible enterprise grade digital signage solution and is the ideal platform agnostic tool to manage and accomplish complex digital signage projects anywhere at anytime.

If you are looking out for the ultimate creative tool for your own digital signage projects, or want to support your customers with optimizing their solutions? Do not hesitate to contact us today.

~SEDNA GMBH

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COMPANY PROFILE

Android Player Windows Player Android Smart Display

Concept International

CONCEPT INTERNATIONAL GMBH

Concept is a leading European Digital Signage hardware distributor. Its portfolio includes slim mini-PCs, smart android displays and protective housing for monitors.

- **Giada i200:** The ultra-compact i200 is equipped with Intel's actual powerful Core-i processor technology, COM port, and optional Wifi and GSM. It plays multiple Full-HD videos simultaneously onto two screens.
- **Giada F210:** The fanless slim-PC F210 runs OS Windows 10 or Android. Costefficient in terms of operation, it is the perfect choice for large quantity Digital Signage projects.
- **Android Smart Displays:** These up to 21.5" sized displays are easy to integrate in Digital Signage networks – just via app.

Concept's special offer to Digital Signage providers is the "Total Preparation Package": Players are being delivered with project-specific, burn-in tested and activated software configuration – which supports easy roll-out and deployment in a breeze.

System Integrators and Solution Vendors benefit from special pricing.

CONCEPT INTERNATIONAL GMBH

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dimedis

dimedis

The software company dimedis, founded 1996 in cologne, is specialized in trade fair- and digital signage software solutions. It's customer base includes the trade fairs in Düsseldorf, Stockholm, Cologne and Stuttgart, the Westfalenhallen Dortmund, Reed Exhibitions Deutschland, Bosch, snipes, Schalke 04, BVB, EnBW, United Ambient Media Group, as well as the shopping mall operators ECE, SEC, mfi and Abu Dhabi Mall.

Digital Signage Software kompas by dimedis

kompas® is one of the most powerful and most flexible digital-signage systems on the market. **kompas** can be used intuitively and simply per drag and drop by the digital-signage end user and is in use on more than 5,500 players throughout Europe. Thus, **kompas** controls one of the largest networks in Germany. kompas is based completely on HTML5. The award-winning **kompas wayfinding** solution belongs to the **kompas** product family. **kompas** has received several awards: VISCOM DS Best Practice Award 2015, 2011 & 2008, POPAI Digital Award Gold 2011.
www.kompas-software.com, www.kompas-wayfinding.com

Credit: © SRMedia

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Image Courtesy of DSignage, www.dsignage.net

DynaScan

DynaScan

DynaScan Technology is the #1 manufacturer of premium visual solutions. Founded in 1998, DynaScan is an award-winning industry leader in creating cuttingedge display solutions.

With thousands of installations around the world, **DynaScan** displays are the proven solution for high ambient light applications. With brightness ratings as high as 7,000 nits, **DynaScan** high brightness LCDs shine bright in direct sunlight – making them the ideal solution for outdoor enclosures, semi-outdoor, and in-window applications.

DynaScan offers the widest variety of sizes – 15 models ranging from 32"–84", in brightness levels from 2,500–7,000 nits, and are available in stand-alone and video wall configurations.

With offices in Europe, North America, and Asia, **DynaScan** is equipped for international rollouts and support. **DynaScan** works closely with system integrators around the world to deliver premium LCD and LED display solutions for retail, banking, public information, and advertising.

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easescreen

easescreen is an Austrian Digital Signage solution which stands for uncomplicated scheduling, editing and distribution of multimedia contents. Available in several versions, eight languages and suitable for all purposes, the possibilities extend from automatically updated electronic posters in all sizes to interactive terminals to the management of large networks.

Professional display quality is based on a unique 3D-rendering engine which allows smooth text tickers, transparent superposition of all supported file formats as well as easy setup of arbitrarily positioned displays within a video wall.

Third party systems can be effortlessly integrated into **easescreen** due to a wide range of interfaces. Interactive presentations can be locally triggered or modified in real-time through touch screens or other input-devices.

easescreen can be precisely adjusted to meet all requirements – regardless of using it in retail, industry, transportation, healthcare or education, as guidance systems or for digital door signs.

The digital signage software is currently sold in over 80 countries worldwide.

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COMPANY PROFILE

iiyama

iiyama stands for high level proven expertise in the monitor business, a versatile display portfolio, quality and outstanding customer service.

Taking the best from our heritage of one of the first brands involved in the display industry and combining it with Vision and Technology facing the future, it is iiyama's aim to continue to build the number one brand in the display solutions field. iiyama values customer relations, delivering trustworthy commercial advice to B2B clients and end-users allowing them to make informed purchase decisions. Serving our clients with a professional support system is always at the core of our actions. Extensive warranty options are available for both B2B and B2C clients.

iiyama's portfolio includes desktop monitors for home and business use, professional gaming monitors, protective glass LCDs, CCTV monitors, Large Format Displays and a broad range of touchscreens including open frame monitors.

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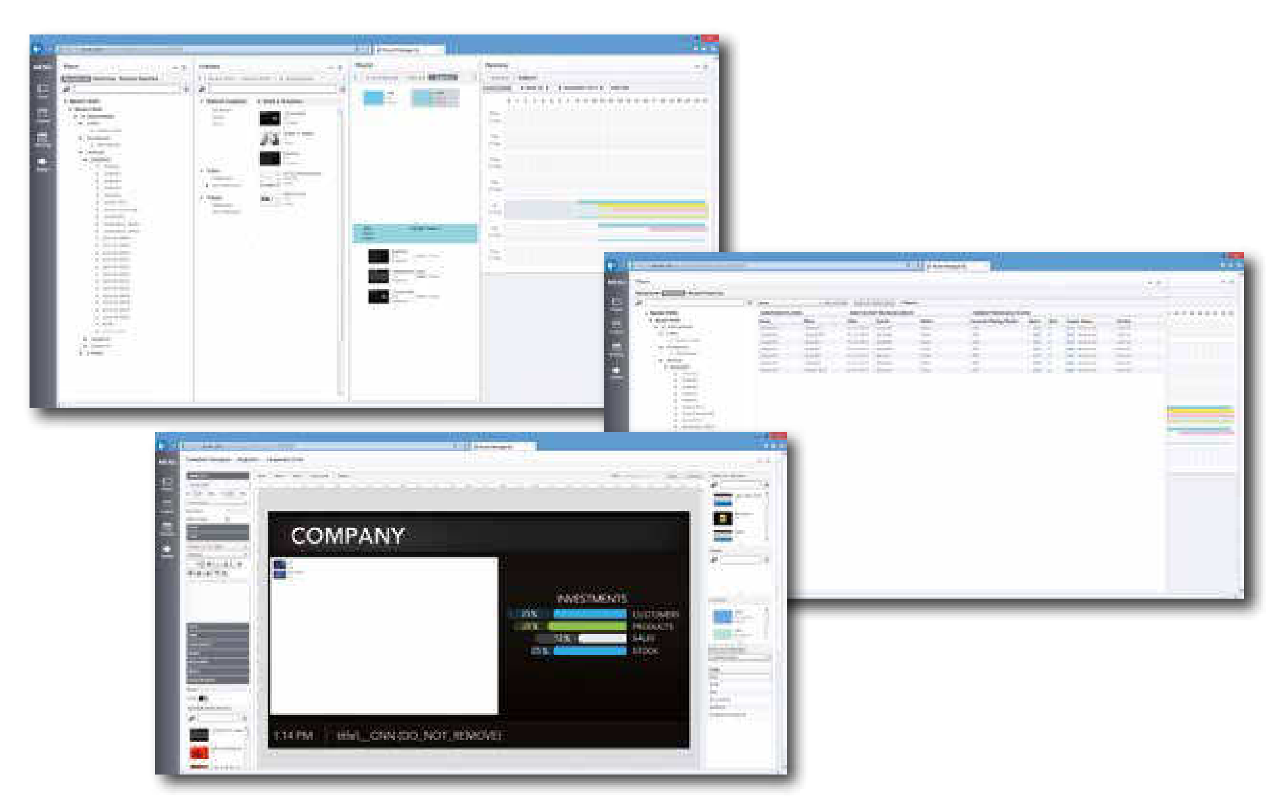

Navori Labs

Navori has a passion for creating digital signage software since 1997.

Navori QL informs, connects staff members, consumers, visitors with a message. Empowering more than 500,000 screens worldwide including the largest connected deployment composed of 20.000 screens. Our software solution upgrades your communication and performances. **Navori** leads through technology innovation.

Our software QL is easy-to-use and enterprise grade while meeting our clients' unique needs through customizable Software development kits (SDK) and API. Flexible deployment options support self-hosted or cloud-based architectures to meet best requirements.

Our References: QL software powers digital signage of companies such as McDonald's,Citibank, Swatch, Daimler, Shell, KPMG, Honeywell, Intercontinental, Kempinski, Lexus, Jaguar, Gillette Stadium Boston, Bell Center of Montreal, government facilities of New York, Calgary, Ottawa, Geneva and many more…

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COMPANY PROFILE

Net Display Systems

Back in the nineties **Net Display Systems (NDS)** was one of the pioneers of digital signage, developing one of the very first standard software products with a focus on Public Area Display Systems (PADS).

Nowadays, their award-winning PADS4 digital signage software is a leading software solution for every situation that requires dynamic display communication. PADS4 offers intelligent ways to communicate with your audience. Content can automatically respond to predefined situations, such as temperature driven and stock-based advertising. The people at **NDS** also know exactly how to connect with existing data sources to dynamically change the content on your displays.

With an extensive partner network **NDS** is active in over 75 countries. Their partners are dedicated specialists, providing professional advice, installation, training and support in the field of digital signage solutions.

Together with their partners **NDS** transforms new technology into the smart digital signage solutions of tomorrow.

NET DISPLAY SYSTEMS

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Philips Signage Solutions

PHILIPS

Whatever business you are in, it always pays to look professional. That is why, when you are looking for a digital signage solution, you want the best. Using the most innovative technologies, we have developed impactful signage solutions that bring the best to your business. Our latest generation of Signage Displays offers best in class picture performance, while focusing on convenience for integrators and total cost of ownership for end users.

Each application is unique, which is why we developed our SmartCollection to offer you customizable solutions to meet your specific requirements. Take our latest innovation, CMND, a display management platform that allows users complete control over their settings and content.

With this broad range of professional displays we are dedicated to meet the highest quality standards and operational excellence.

For more information about us, our SmartCollection or our product portfolio please visit our website or contact our headquarters in Amsterdam.

MMD MONITORS & DISPLAYS
BRAND LICENSEE FOR PHILIPS
PROFESSIONAL DISPLAY
SOLUTIONS

BUSINESS MANAGER EMEA

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DISPLAYSOLUTIONS

SCALA

SCALA
COMMAND ATTENTION.

Scala solutions deliver engaging experiences by connecting networks of digital signs, kiosks, mobile devices, websites and Internet-connected devices – in both public and private environments. **Scala** provides the platform to easily create and centrally manage deployment of experiences, while retaining the flexibility to rapidly adapt to local business conditions.

Scala has over 25 years' experience entertaining, informing and educating audiences in wide-ranging industries including retail, quick-service restaurants, finance and more, as well as in private areas like corporate environments.

Scala is known for its innovation and leveraging best-of-breed technologies such as mobile and predictive analytics to create award-winning solutions that are easy-touse yet infinitely customizable to meet our clients' unique needs. Our solutions can be found all over the globe. **Scala's** network of partners and developers located in more than 90 countries drives more than 500,000 screens worldwide.

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Sharp

As a pioneer and world leading manufacturer of display technology, **Sharp** offers a wide range of solutions for all professional applications. Displays range in size up to 90 inches, employ state-of-the-art UV2A technology for outstanding images, high brightness, low power, reliable 24/7 operation and many advanced features, such as video wall functions, ensuring all demands are met. Our portfolio also includes the interactive white boards, BIG PAD, and advanced 4K UHD displays.

- Our digital signage displays create eye-catching images for a lasting impression, with bottom-line business benefits.
- For occasions demanding the finest detail, we offer 4K UHD ultra-high resolution monitors.
- Our IWB solutions promote creativity, productivity and effective decisionmaking.
- Different locations can also take part via the host-to-host BIG PAD functionality.

Sharp helps you to communicate, collaborate and inform.
This is why: **Sharp** is the perfect solution for all professional display needs.

SHARP BUSINESS SYSTEMS DEUTSCHLAND GMBH

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COMPANY PROFILE

Smartsign

Smartsign – get your message through

Imagine a world where no boundaries limit your ability to communicate. An omnipresent solution that elevates your business above the noise and puts you in perfect control of your message. **Smartsign** can help strengthen and extend your communication. Thousands of companies worldwide rely on our comprehensive digital signage platform to manage, publish and verify custom content across the globe. On any platform, on any device.

Smartsign was founded in 1998 and develops and sells software for internal and external communication on both screens and other devices, e.g. smartphones. The company's headquarters are in Dalarna and Stockholm, Sweden. **Smartsign Manager** is a product used in more than 30 countries. Our user friendly interface and compatibility with all kinds of file formats makes the everyday usage of **Smartsign** really efficient. Setting up a professional information channel has never been easier.

Visit our website **http://www.smartsignmanager.com**

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Virtueller Empfang in Eingangszone via Livestream

Informationssystem im Unternehmen


Dynamische Mediawall am POS


LED-Wall im Einkaufszentrum


Produktinformation im Schaufenster

Westiform

westiform
visuelle Kommunikation

Westiform – we make brands visible.

The family company has been making brands visible since 1959. From classic illuminated signage to directional systems and analogue POS advertising through to innovative digital signage solutions — as a general contractor Westiform offers everything from a single source.

Westiform services for your project:
Consultancy/conception – Prototype construction, pilot installations, performance measurements, design
Hardware – Selection of hardware taking into consideration project-specific general conditions, production and supply of customised systems.
Software – Checking of the requirements for content management software and selection of the most suitable system
Integration – Integration of hardware and software in the existing or new infrastructure
Installation – On-site installation and roll-out with survey and documentation with the aid of an “on-site information and documentation tool”
Operation – On-site service, operating, and monitoring the system and supporting the content management system

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MULTIQ PARTNERSHIP

MultiQ has over 25 years' experience of Digital Signage. We are aiming for a strong position on the European market. Do you want to be a part of our expansion? Find out more about what we can offer you:

www.multiq.com/about-multiq/partners