

# Mobile Computing

## Technology Report



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Foto: Wirtschaftsagentur Wien/David Bohmann

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# Introduction

Dear Readers,

Vienna is one of the five largest ICT metropolises in Europe. Around 5,800 ICT firms generate about 20 billion Euros annually. The 8,900 national and international ICT companies in the “Vienna Region” (Vienna, Lower Austria and Burgenland) are responsible for two thirds of the total turnover of the ICT sector in Austria.

According to various studies, Vienna scores especially strongly in innovative power, comprehensive support for start-ups, and a strong focus on sustainability. Vienna also occupies the top positions in multiple „Smart City“ rankings. This location is also appealing due to its research- and technology-friendly climate, its geographical and cultural vicinity to the growth markets in the East, the high quality of its infrastructure and education system, and last but not least the best quality of life worldwide.

In order to make optimal use of this location's potential, the Vienna Business Agency functions as an information and cooperation platform for Viennese technology developers. It networks enterprises with development partners and leading economic, scientific and municipal administrative customers, and supports the Viennese enterprises with targeted monetary funding and a variety of consulting and service offerings.

Support in this area is also provided by the technology platform of the Vienna Business Agency. At [technologieplattform.viennabusinessagency.at](https://technologieplattform.viennabusinessagency.at), Vienna businesses and institutions from the field of technology can present their innovative products, services and prototypes as well as their research expertise, and find development partners and pilot customers.

This technology report provides an overview of the various trends and developments in the field of mobile computing as well as a selection of 70 Vienna companies who are active in the mobile computing sector.

Your Vienna Business Agency team

# An unstoppable trend

Smartphones have become a global phenomenon unbelievably quickly and there is no end in sight to this growth. In just ten years, they have drastically altered the way we interact with the world. Apps act as an interface to connected devices, inform patients about the state of their health and control drones on inspection flights. However, it is also impossible to imagine professional and private life without other mobile forerunners such as wearables or devices that have been on the market for longer, such as tablet PCs and notebooks.

Thus and as a result of technological developments – think of the Internet of Things –, the wealth of applications available is significantly increasing. Besides entertainment and messaging, banking, health, trade and mobility also play an important role. These require the corresponding networks and telecommunications services. Notable examples here are the future mobile communications standard 5G and near field communication (NFC).

Technological leaps or the combination of previously separate technologies will lead to a rapid development in many areas. According to the “Hype Cycle for Emerging Technologies 2018” by analysts at Gartner, for example, augmented reality has already become part of real life and is on the way to becoming established. On the other hand, virtual assistance is still receiving quite a lot of hype and likely still has some way to go.

There are, of course, advantages in no longer being bound to one location: for example, knowledge about the respective location, the flexible use of devices and their functionality, including with measuring physical functions or language control, offer many new opportunities. Mobile use also entails disadvantages, such as a need to catch up with network expansion; but these are also shrinking through technical progress.

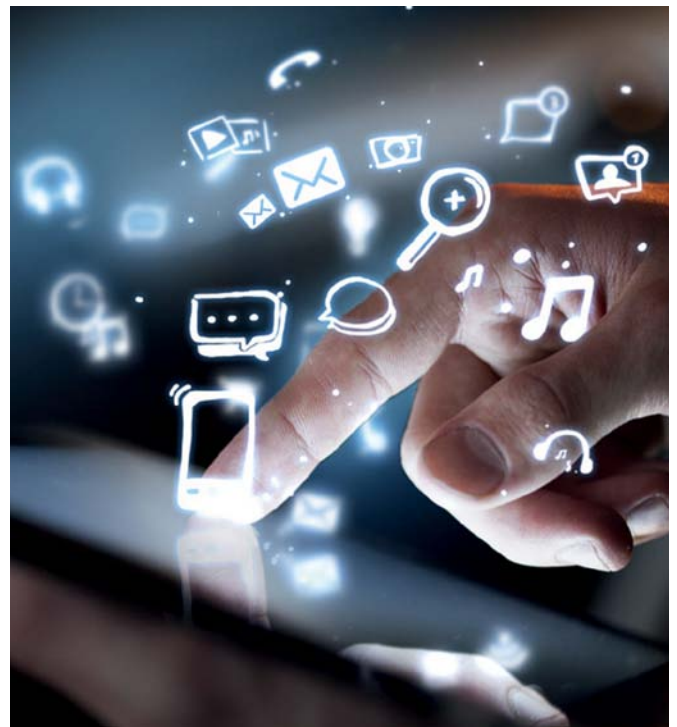


Foto: peshkova/ Fotolia

# Mobile computing in Vienna

Even if the intensity of competition continues to increase, Vienna seems to be well-positioned for all these developments. The location is characterised by a central function combined with a high quality of life, well-developed infrastructure and a small, strongly connected community. Along with this, a range of funding and support programmes are available.

Existing and newly emerging training offers are positively received by industry experts, with the pool of professionals (almost) completely filled. Overall, the track record of the Viennese “Mobile Computing Community” up to now is an indication of the innovative power of the companies and the quality of the location.

## 3.1 Education and research

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Vienna is one of the top 20 regions in the EU for science and research, and is the largest university city in the German-speaking world. This comes with many advantages: Harald Schnidar from the e-health company Scarletred calls the good integration in the R&D location of Austria a “key component”: “In this regard, companies based in Vienna are certainly well-positioned and are absolutely able to compete internationally.” The networking of players in the education sector is also considered very pronounced. Industry specialists praise the funding landscape as “ideal for a quick start”. However, there is still a need to catch up with private equity and bridge financing. Mobile application developers are in high demand. While they are primarily employed in IT companies and agencies, many also work as freelancers or are self-employed. Given that the professional area is still new, the education market is manageable. Industry

professionals primarily highlight the University of Applied Sciences Technikum Wien, the Technical University of Vienna (TU Wien) and the University of Vienna. The University of Applied Sciences Upper Austria in Hagenberg has also received praise. In general, the industry seems satisfied with the offers, despite the need for optimisation due to the somewhat later start.

The TU Wien offers a more general education in software development, while the degree programmes „Mobile Computing” at the University of Applied Sciences Upper Austria Campus Hagenberg or the specialisation “Mobile Innovation” in the Information Systems branch at the University of Applied Sciences Technikum Wien are more specifically tailored. More recently, the first technical short-term study programme (three semesters) for app developers in Austria started in 2014. The Media

Informatics Master's degree programme at the Faculty of Informatics at the University of Vienna covers topics including "Digital Media Production", "Software Engineering" and "Game Technologies". Several courses are also offered – for example, by the BFI, the SAE Institute or the WIFI.

Markus Pöhl from the Viennese company mquadr.at reports of good experiences with universities of applied sciences. Technical University graduates tend to strive more towards management rather than classic software development. Lateral entrants from other software sectors are ideally suited as they bring a lot of experience

and in-depth knowledge. This has now become very important in development, with Pöhl referencing increased demands for security and data protection as an example.

In the games sector, the offer is relatively broad, from the Technikum Wien (Master's degree programme in Game Engineering and Simulation) through the HTL Spengergasse (Media Design – Game Design) to the SAE Institute (Game Art & 3D Animation Programme).

According to the industry, a developer's practical experience in Austria is generally more important than an academic title.

## 3.2 Employment situation

Vienna – once again and repeatedly ranked the most liveable city in the world (both by consulting company Mercer and the "Economist Intelligence Unit Global Survey") – also scores points with a high quality of life. The industry, of course, considers this an argument for bringing good people to Vienna. Nevertheless, the demand for developers is as strong as ever – and sometimes without success.

While one cannot develop here as cost-effectively as in the neighbouring countries to the east, the quality awareness in Vienna is very high, as emphasised, for example, by Ludwig Meyer and Sandra Murth at the Viennese company alysis. Markus Pöhl, owner of the Viennese company mquadr.at also cites high personnel and incidental wage costs. Due to the lack of professional workers and the still high switching rate to IT, it is difficult to find suitable employees, as well as to build up and secure know-how on a long term horizon.

"As a major city in the heart of Europe, Vienna is an ideal location for the industry," say Sebastian Mack and Martin Zehetner from the Viennese agency Tailored Media. This is often an argument for talented developers from Austria and the surrounding countries to

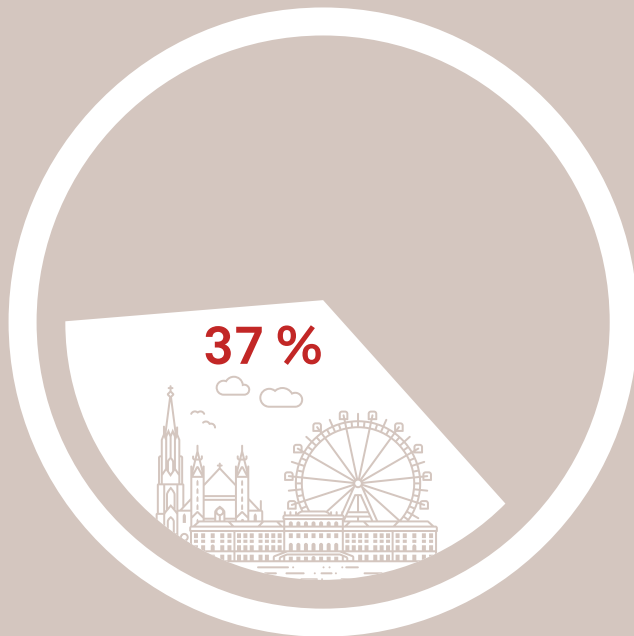
come here. A further advantage of the location from the industry's perspective: the high penetration of mobile devices is causing the population to cope more with the medium and technology.

According to a study<sup>1</sup>, around 35 to 45 companies in Vienna – above all SMEs – specialise in app development. If one-person enterprises are taken into account, the number rises to around 55. The latter especially is seeing increases. The "Mobile Computing Community" could probably contain almost twice as many companies. This is because alongside specialised companies, there are now many other providers – for example, classic advertising agencies, that cover the entire value-added chain for digital projects from websites to mobile applications. Numerous companies rely on in-house developments. Large, international operations play a limited role.

<sup>1</sup> SME Research Austria / eutema, ICT Location Vienna in Comparison II, December 2017 <https://www.wien.gv.at/wirtschaft/standort/pdf/ikt-standort.pdf>



## Significance of Vienna as an ICT location for Austria



### 37% of all companies in the ICT industry are based in Vienna (2015)

#### These:

- employ more than half of all workers within the ICT sector
- achieved 64% of sales within this economic sector
- achieve 59% of added value within this economic sector

#### Employees in the ICT sector in Vienna (2015):

- 42% IT service providers
- 27% telecommunications providers
- 17% data processing, hosting, etc.

#### Viennese economy (2015):

- 41% of companies are one-person enterprises (OPE)
- 47% have between 2 and 9 employees
- 12% employ 10 and more people

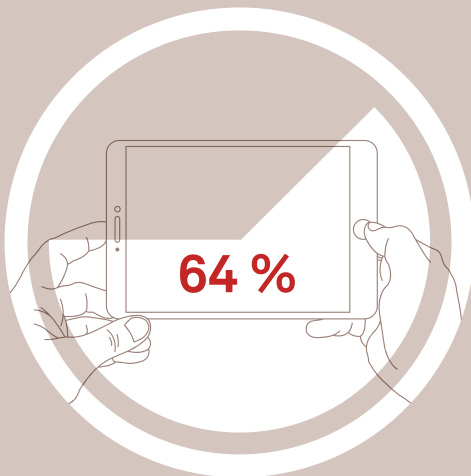
**In the ICT sector, the OPE share is even higher than the regional average, at 55%.**

# Data, facts and figures

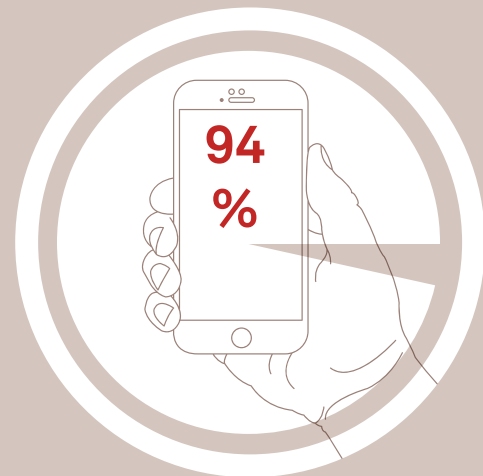
In Austria, 36 percent of mobile telephone users are considered “digital natives”; mobile internet is deeply integrated in their lives. 57 percent are digital immigrants, that is, conscious and selective users. Seven percent take a critical view on the topic, according to the Mobile Communication Report 2018.

In Vienna, people use their mobile phones 3.7 hours a day, while this figure is just 2.8 hours in Western Austria. More than half (54 percent) of app users use push features and 76 percent use GPS. NFC is only used by 17 percent. On average, Austrians have 27.5 apps installed, 5.5 percent of which are paid.<sup>2</sup>

## Mobile usage data of Austrians



**64% of Austrians use a tablet**



**94% of Austrians use internet on their mobile phone**

**Mobile phone usage  
per day in hours:**

Vienna  
3.7 hours

Eastern Austria  
3.2 hours

Western Austria  
2.8 hours

Data: Mobile Communication Report 2018

<sup>2</sup> Mobile Communication Report 2018 <https://www.mmaustria.at/single-post/2018/10/04/Neue-MMA-Studie-2018>

## Which mobile services do Austrians use?

**78 %**  
Bluetooth

**54 %**  
of app users  
use **push functions**

**17 %**  
NFC

**97 %**  
of smartphone users  
use **WiFi**

**76 %**  
of app users  
use **GPS**



Data: Mobile Communication Report 2018

## 4.1 Smartphones

Saturated markets are forcing companies that produce mobile phones to think about new offers and features to maintain high sales figures. According to the market research institute Gartner, smartphone sales fell slightly in 2017 and in 2018 will even fail to reach the 2016 figures, when almost 1.9 billion devices were sold over the counter.<sup>3</sup> Smartphone penetration is already very high in Austria, at 96 percent.<sup>4</sup>

The latest trends are flexible screens and augmented reality technology (AR), according to analyst Ben Wood from the consulting company CCS Insight. Although some patience is required before foldable phones arrive, AR applications are being increasingly used already on conventional smartphones and tablet PCs.

<sup>3</sup> APA0106, 2 September 2018

<sup>4</sup> Mobile Communication Report 2018 <https://www.mmaustria.at/single-post/2018/10/04/Neue-MMA-Studie-2018>

## 4.2 Tablet-PCs

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Worldwide tablet PC sales are set to fall by 4.3 percent to 145.5 million devices in 2018 compared to the previous year, according to the market researcher TrendForce.<sup>5</sup> The leader here is Apple with a market share of 29.6 percent, ahead of Samsung with 15.1 percent. As tablet PCs

are replaced much less frequently than smartphones and a certain level of saturation is determined in some markets, earlier growth forecasts have obviously been too optimistic. In Austria, almost two thirds (64 percent) of the population have a tablet PC.<sup>6</sup>

## 4.3 Notebooks

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The global market for notebooks has stagnated. In 2018, around 160.9 million devices will have been supplied, according to the analytical company IDC.<sup>7</sup> Minimal growth levels only are expected until 2022. Convertibles and ultra-thin notebooks are standing out positively.

In Germany, demand for conventional notebooks fell by 10.4 percent in the first quarter of 2018. However, ultra-mobile devices were in demand, with sales rising by 6.3 percent.<sup>8</sup> According to professionals, a similar trend can be expected for Austria too.

## 4.4 AR- und VR-devices

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The global market for augmented and virtual reality devices is set to grow to 8.9 million devices in 2018, according to the IDC.<sup>9</sup> This represents a six percent increase over the previous year. A rise of 65.9 million units is predicted by 2022. Despite high expectations, virtual reality is still a niche business because until recently, high-quality VR glasses were expensive and bulky.

However, thanks to technical advancements, relatively cheap and light glasses are now available.

In Vienna, you can try out virtual reality glasses in Europe's first VR Café. Vrei is additionally a centre of excellence for virtual reality and supports customers in the B2B sector with using VR glasses.

## 4.5 Wearables

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In 2018, 122.6 million wearables were sold worldwide, up 6.2 percent from the previous year. By 2022, two-figure annual growth rates are expected again, which will

lead to a rise of 190.4 million devices.<sup>10</sup> Smartwatches have dominated worldwide with 46.2 million devices sold in 2018 and growth of 38.9 percent compared to the

<sup>5</sup> Trend Force, Global Tablet Shipments to Decline 4.3% in 2018; Huawei to Become 3rd Largest Manufacturer Surpassing Amazon, 12. November 2018 <https://press.trendforce.com/press/20181112-3177.html>

<sup>6</sup> Mobile Communication Report 2018 <https://www.mmaaustria.at/single-post/2018/10/04/Neue-MMA-Studie-2018>

<sup>7</sup> IDC, Notebook PCs and Detachable Tablets Show Some Positive Signs Ahead While Desktops and Workstations Continue to be Challenged, According to IDC, 31. Mai 2018 <https://www.idc.com/getdoc.jsp?containerId=prUS43860518>

<sup>8</sup> APA0420, 28 May 2018

<sup>9</sup> IDC, Augmented Reality and Virtual Reality Are on the VRge of Growth, 19 June 2018 <https://www.idc.com/getdoc.jsp?containerId=prUS44001618>

<sup>10</sup> IDC, IDC Forecasts Slower Growth for Wearables in 2018 Before Ramping Up Again Through 2022, 13 September 2018 <https://www.idc.com/getdoc.jsp?containerId=prUS44276818>

previous year. A rather level development is predicted for wristbands, while earwear should see strong growth.

According to a survey conducted by MasterCard, one in four Europeans are prepared to pay for a smartwatch,

wristband, keyring or similar. In Austria, 18 percent of respondents could imagine making cashless payments with wearables.<sup>11</sup>

## 4.6 Operating systems

According to the Mobile Communication Report 2018 generated by MindTake Research, Android is stable in Austria, with a market share of 65 percent (2017: 65 percent) of operating systems installed on smartphones. Apple iOS has gradually increased its share to 24 per-

cent (2017: 23 percent). Windows is further losing significance with a market share of 1 percent (2017: 3 percent). In terms of tablet PCs, Android is also dominating significantly ahead of Apple iOS and Microsoft.<sup>12</sup>

## 4.7 Apps

The number of app downloads on the almost four billion internet-ready mobile devices across the world rose by 60 percent to 175 billion from 2015 to 2017, according to the analytics firm App Annie.<sup>13</sup> Consumer spending more than doubled in the same period to around 86 billion US dollars (€ 75 billion) and the duration of app usage has climbed by 30 percent to an average of 43 days a year. By 2022, an increase to six billion mobile devices is projected, on which 258 billion apps will be downloaded. This equates to spending of 157 billion US dollars.

People who use Apple devices are still more willing to buy than users of Android devices, who dominate the smartphone market. According to calculations by App Annie, while Google with the Play Store was ahead in terms of number of downloads in the past year at a ratio

of 70:30, two thirds of revenue went to Apple. The experts see no end to this growth either: it is predicted that consumers will spend over 75 billion dollars in Apple's App Store in 2022 alone.

However, many programmes will gather dust somewhere deep in the App Store cellar. Experts believe these "zombie" apps currently account for 96 percent of all applications, which are practically invisible unless they are specifically searched for. Providers are trying to counteract this by redesigning the App Store.

According to the Mobile Communication Report, Austrians have an average of 27.5 apps installed on their smartphone. While mainly free apps are significant here, only 1.5 of these fall within the range of paid apps (5.5%).

<sup>11</sup> DerStandard, Jeder vierte Europäer wäre bereit, mit Wearables zu bezahlen, 23 February 2018 <https://derstandard.at/2000074885730/Jeder-vierte-Europaeer-waere-bereit-mit-Wearables-zu-bezahlen>

<sup>12</sup> Mobile Communication Report 2018 <https://www.mmaaustria.at/single-post/2018/10/04/Neue-MMA-Studie-2018>

<sup>13</sup> App Annie, 2017 Retrospective: A Monumental Year for the App Economy, 17 January 2018 <https://www.appannie.com/en/insights/market-data/app-annie-2017-retrospective/>

## 4.8 Hybrid Apps

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Hybrid apps – a compromise between native apps and web apps – offer both advantages and disadvantages. Opinion is divided over which is the better option. At the moment, developments are taking place for each individual platform to achieve the best result regarding user experience (UX) and security, according to the service provider analysis: “We hope that there will be a development opportunity in future to allow this quality to be achieved. Things are already moving in this direction with the hybrid apps. Nevertheless, there are some

technical restrictions that make this kind of development impossible for some fields.”

Above all, the rapid development cycles will affect start-ups and new companies with limited staff resources, says Harald Schnidar, Entrepreneur and Director of Scarletred, a company involved in the field of diagnostics. He points out the high diversity of smartphones and tablets, and the operating systems and software versions installed on them.

## 4.9 Chatbots

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Chatbots – programmes that are able to hold a conversation with people – may not only represent another channel in the future for companies to keep in contact with their customers, but also play a key role in mobile communications. There are hardly any restrictions in application opportunities, yet the digital assistant is still carving out a niche existence. Vienna was the first city to create a chatbot for their citizens with the “WienBot”,

which responds to queries about short-term parking zones, opening hours and addresses of offices.

The chatbot scene in Vienna is very lively and one of the most exciting in the world. The first chatbot conference was organised in Vienna in 2016 and, with the chatbot accelerator Elevate, Vienna also plays a pioneering role in funding and developing start-ups in this area.

## 4.10 Responsive design

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Websites that are not optimised for mobile use are being increasingly rejected. In Austria, 33% of mobile web surfers perceive them as disruptive. The trend, however, is heading in a positive direction, given that one year earlier, 37 percent of smartphone users were still dissatisfied with the mobile representation of many websites.<sup>14</sup>

<sup>14</sup> mindtake, 55% der heimischen Smartphone-Nutzer shoppen mobil und 66% vergleichen Preise

<https://www.mindtake.com/de/press-release/55-der-heimischen-smartphone-nutzer-shoppen-mobil-und-66-vergleichen-preise>.

## 4.11 Streaming

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Almost half (43 percent) of domestic smartphone users purposefully watch videos on their smartphone or tablet at least once a week. The most popular are funny short videos (54 percent), ahead of music videos (41 percent), tutorials or explanatory videos (36 per-

cent), cinema film trailers (34 percent) and selfie videos (33 percent). Upstream advertisements have now become the norm: 59 percent of people that use moving image contents frequently encounter advertising messages on streaming services such as YouTube.<sup>15</sup>

## 4.12 NFC

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This acronym stands for the telecommunications technology “Near Field Communication”, which was developed back in 2002. To use NFC in practice, a chip is held to a reading device. NFC chips can be found in bank or access cards, as well as in a range of smartphones, among other things. The chip receives the energy for the transmission from the electromagnetic field of the reader. Based on technology, smartphone payment services, among other things, are offered.

While contactless payment was previously primarily used in food retail, increasingly higher penetration rates are now being observed in other sectors, above all with

debit and credit cards. According to MasterCard Austria, Austria lies in third place in Europe behind the Czech Republic and Poland.<sup>16</sup> Almost every second payment to national debit terminals are now made using NFC, according to Erste Bank.<sup>17</sup> Contactless payment by mobile phone is, however, still a niche programme in Austria.

Besides payment, NFC is also used for other purposes – for example for entry systems. The new e-card (social security card), which is to be delivered from autumn 2019, is also getting an NFC function. Contactless identification will then be possible at doctors' surgeries.

<sup>15</sup> Mobile Communication Report 2018 <https://www.mmaaustria.at/single-post/2018/10/04/Neue-MMA-Studie-2018>

<sup>16</sup> APA0022, 15 May 2018

<sup>17</sup> APA0208, 07 May 2018

# Infrastructure

The digital infrastructure of a country is becoming an increasingly important competitive factor – with regard to the telecommunications networks and internet connections. According to Forum Mobilkommunikation (FMK), mobile data volume, at any rate, shot up by around 60 percent to over a billion GB in 2017. As a result, the call from the mobile telecommunications branch for a fast 5G expansion is becoming greater.<sup>18</sup>

The nationwide supply of the Austrian population with superfast broadband high-performance access (100 Mbit per second) – primarily in rural regions – is still significantly out of sight. This may also be due to the users. According to the Austrian Court of Audit, usage in the end-user fixed-line business came to only 4.2 percent in 2016<sup>19</sup>. Referencing an evaluation report from external consultants for the Ministry of Transport, the Austrian Court of Audit writes about a “remarkably” low demand for internet connections with high bandwidth.

The latest amendment to the Austrian Telecommunications Act is aimed at stepping up the supply of broadband internet needs. For example, the coordination of network construction is being placed on a new footing. In future, federal states and municipalities are also encouraged to report their excavation activities, so that telecommunications operators can lay down a fibreglass cable if necessary. Vice versa, federal states and municipalities can also join forces with the excavation activities of private third parties.

In Vienna, a “digitisation pact” was concluded, which provides for measures to be taken in eight areas such as schools, research and further education. Among other things, it was agreed that the expansion of WiFi – primarily in vocational schools – needs to be accelerated and that the digital study areas at universities, universities of applied sciences and secondary colleges of engineering (HTLs) should be expanded. In addition, the “best possible framework conditions” for providing technical infrastructure, such as the expansion of the broadband network and the communications network 5G should be created.

<sup>18</sup> Forum Mobilkommunikation, FMK Jahres-PK: Schulterschluss von Politik, Verwaltung und Wirtschaft für 5G-Strategie (mit Videolink), OTS 7 June 2018 [https://www.ots.at/presseaussendung/OTS\\_20180607\\_OTS0093/](https://www.ots.at/presseaussendung/OTS_20180607_OTS0093/)

fmk-jahres-pk-schulterschluss-von-politik-verwaltung-und-wirtschaft-fuer-5g-strategie-mit-videolink-bild

<sup>19</sup> APA0201, 21 September 2018



## 5.1 5G

Numerous new business models are expected through the introduction of 5G. The latest mobile telecommunications generation offers greater reliability and faster response times, for example, for critical applications



Foto: Fotolia

such as tele operations or self-driving cars. Many opportunities are opening up for other areas too – from the connected factory through the entertainment sector to the smart city. 5G in turn offers the mobile communications companies increased capacities with greater energy efficiency, and thus a more cost-effective network.

According to specialists, many potential applications are, however, still in the experimentation phase. Entirely new business models for an as yet unforeseeable number of sectors are expected. The development is to proceed rapidly: according to an analysis by ABI Research, more than 1.4 billion 5G-ready smartphones will have been supplied in 2027.<sup>20</sup>

Due to the latest amendment to the Austrian Telecommunications Act, Austria has been able to position itself as a strong player here in the international environment, according to mobile telecommunications companies. The amendment will allow 5G antennas to be installed on public buildings in a non-bureaucratic way. The government aims to provide comprehensive 5G coverage by 2025. The auction of 5G frequencies, which had originally been planned for autumn 2018, will not take place before February 2019. Overall, the comprehensive 5G expansion should cost around €10 billion.

The first 5G tariffs are – depending on the availability of equipment – expected from 2020 onwards. The sub-range 3,600 to 3,800 MHz (LTE band 43) can be used as of when the frequency allocation decision comes into legal effect, while sub-range 3,410 to 3,600 MHz (LTE band 42) expires as of 1 January 2020 after the current frequency allocation. In general, the more megahertz, the more expensive the frequencies.

<sup>20</sup> ABIresearch, Foldable Screens, 5G, and Smart Biometrics Among Technologies to Completely Transform Smartphones by 2027, 25 September 2018  
<https://www.abiresearch.com/press/foldable-screens-5g-and-smart-biometrics-among-technologies-completely-transform-smartphones-2027/>

# Trends & success stories from Vienna

The Viennese “Mobile Computing Community” has already introduced numerous highly successful applications to the market. These range from augmented reality apps to citizen science solutions. The following are a selection of topical areas that have most recently produced particularly innovative applications.

## 6.1 Augmented- & virtual-reality

Following the PR disaster surrounding Google’s camera-equipped AR glasses “Glass”, the furore surrounding the concept that one could view the real world as virtually enhanced died down. Meanwhile, however, technology and applications are being readied for a major comeback. Trade has long since discovered their potential and offers apps that allow furniture in your own bedroom or clothes on your own body to be viewed virtually. Travel and museum guides provide targeted information on sights and objects using phone cameras and localisation. There are now over 3,000 AR apps in Apple’s App Store alone.

One example of an innovative application is the company **INSIDER NAVIGATION (INS)**, which offers AR-based indoor positioning and navigation for mobile devices without the use of special hardware. Buildings (factory halls, warehouses, tunnels, etc.) can thus be

easily identifiable by mobile devices. At the airport, for example, directional arrows to the gate can be opened up when looking at your mobile phone.



Foto: Wirtschaftsagentur Wien/Klaus Vyhnalek

## 6.2 Authentication and security

Biometric processes are increasingly migrating to the mobile phone – from facial recognition through iris scanning to voice recognition. This facilitates the use of banking apps, but also of all other applications for which authentication is necessary or recommended.

There is also strong demand for the management of digital identities for mobile end devices – for example, in the field of access control. As such, the **AUSTRIAN INSTITUTE OF TECHNOLOGY (AIT)** has developed a mobile security app for using normal smartphones for personal identification. Here, the person's face is compared with the stored facial data of the passport using the incorporated camera and a similarity evaluation is created for the border control staff. A new approach has also emerged for taking contactless fingerprints using a mobile device.

The privately owned **ÖSTERREICHISCHE STAATSDRUCKEREI (OSD)** expanded its portfolio in 2018 through the subsidiary company younixx Identity AG with solutions for secure digital identities. With the “My Identity App” (MIA), for example, the first system for integrated identity management has been created, which brings all centrally stored national identification documents into one app.

In general, the market for (mobile) IT security is set to grow. This is because the Internet of Things and Cloud computing are currently developing into the cornerstones of digital infrastructure. Nonetheless, devices for end customers – such as local routers, connected teddy bears, smart lightbulbs or surveillance cameras – are as yet still very poorly protected.

## 6.3 e-Government

Around three quarters of Austrians (74 percent) use eGovernment services according to the eGovernment Monitor 2018. By comparison, this figure is 55 percent in Switzerland and 40 percent in Germany.<sup>21</sup>

For example, the **AUSTRIAN SOCIAL INSURANCE** is running with the times and now offers its most important electronic services on smartphone apps. These are called “MeineSV Check” and “MeineSV Cash” and can be retrieved in the Google and Apple App Stores. The most important new feature is whereby invoices from an optional physician can be submitted for reimbursement by mobile phone. Registration takes place by mobile phone signature, after which invoices can be photographed and sent to the health insurance company after entering other data.

Another service is offered by the “Check” app. Here, an extract of insurance data can be retrieved, while it is possible to view doctors' visits under e-card (social security card). The Federal Association of Social Insurance Institutions, whose subsidiary ITSV GmbH created the app, aims to offer further mobile services in future. The electronic health files (ELGA) are also set to arrive on

the smartphone.

The offers of the **CITY OF VIENNA** in the field of mobile computing are also diverse. For example, the “Stadt Wien live” app offers direct access to the digital offers of the City of Vienna. The offer ranges from the city map through WiFi locations and the current waiting times at the district authorities to a street directory.

The “Sag's Wien” app allows a concern, danger zone or disruption to be reported to the Vienna City Administration by smartphone at any time and from anywhere. This application was developed as part of the Digital Agenda Vienna (Vienna's digital strategy) in cooperation with citizens of the city of Vienna. The City Administration processes the report as quickly as possible and informs you about the current status using push notifications.

Questions on the opening hours and addresses of offices, about parking or the events programme can be posed to the “WienBot”, a chatbot for the city of Vienna. Similar to with Apple service Siri, the information is requested through voice input or in writing. The virtual agent also responds via the chat or voice output, depending on this.

<sup>21</sup> fortiss, eGovernment Monitor 2018 <https://www.egovernment-monitor.de/die-studie/2018.html>

## 6.4 E-Health & fitness

E-health is rapidly developing into M-health: more and more applications are becoming mobile. And so the next generation of digitalised health and fitness offers, as well as therapy opportunities, is rolling in – in the form of new applications that have been developed to measure blood sugar levels, help manage chronic diseases or concussions, detect cardiac arrhythmias and skin cancer. Many start-ups and other innovative companies are very successful right here in Vienna.

With the “Smart COPD Trainer“, the service provider **ALYSIS** has developed a digital assistant for patients, which is designed to help support them in dealing with the chronic lung disease COPD. Using persuasive strategies (e.g. gamification), patients are motivated to take part in physical activity. To promote the formation of ad-hoc self-help groups and real-life meetings, participants can network digitally. The app, which is funded by the Vienna Business Agency, should help achieve better control of the disease, and to detect and counteract crises in good time. The Austrian Institute of Technology (AIT) is a research partner.

The e-health company **DIAGNOSIA** develops innovative solutions for everyday clinical life, including a medication directory which is available as a smartphone app. The software is intended to help select the correct medication by displaying information on dosage, appli-

cation or interactions. According to the company, the Diagnosia software is used in approximately 50 hospitals and health institutions. The company also states that the mobile application is the most frequently used doctors' app in Austria and is continually used by more than 5,500 doctors. In addition, there is an experts' chat in the app, which offers doctors the opportunity to obtain a second opinion from experts.

The digital agency **HELLO MINT** has developed a mobile application that helps those with metabolic illnesses to log their daily nutrient requirement and an application for pre-operative information for patients. The company is involved in the fields of E-health and M-health and offers a wide range of services – from consulting through content production to websites and apps. In addition, it offers a course for becoming an “ePharma Marketing Manager”.

The digital health company **SCARLETRED** offers a clinically tested, objective and digital tool that facilitates quick analysis of some 3,000 different skin diseases. All that is required is a skin sticker as a colour and size reference and a smartphone. A crowd investing campaign for future growth was recently successfully completed. Apps for use in the field of geriatric care and the telemonitoring of rare diseases are planned.

## 6.5 Research and science

Research institutions are also increasingly using mobile solutions – whether it comes to citizen science, feedback or usage data.

Experts at the **AUSTRIAN INSTITUTE OF TECHNOLOGY (AIT)** are working on a new training concept to boost moral courage with playful access. In a subsequent project, a smartphone app is being developed which will then be available to institutions such as NGOs offering workshops and training in the field. As part of another research project at the AIT, electric scooters are being tested in the greater Vienna area. The test subjects get out

and about with a scooter for one week each and provide feedback through a mobile phone app.

Scientists in the Industrial Software research group at the **TECHNICAL UNIVERSITY VIENNA (TU WIEN)** specifically developed the YLVI app to automatically record smartphone usage data. Around 150 student participants were equipped with this and the results compared with questionnaires and brief diary entries. By combining two types of data sets, the experts were able to check whether the self-assessment matched the actual usage behaviour. The result was that the test

subjects looked at their phones an average of 84 times a day – approximately every 13 minutes while they were awake. During this, the smartphone was unlocked 44 times.

Apps are also being used increasingly more often in citizen science. With “Naturkalender ZAMG”, the **CENTRAL INSTITUTION FOR METEOROLOGY AND GEODYNAMICS (ZAMG)** is calling for the populati-

on to regularly share their observations of plants and animals. These records flow into international databases and are used in climate research, among other things. The observations were previously captured with pencil and paper and sent to the ZAMG by post. In recent years, the data is increasingly being input on the computer. Now there is an app with which the observations can be captured directly outdoors, for example on a walk or in the user's garden.

## 6.6 Art & culture

In the field of arts & culture, the multimedia agency **NOUS** has implemented projects in augmented reality, virtual reality and 360-degree videos. Through this, for example, the world of the Vikings is made accessible through the multimedia preparation of objects, stories and facts. Since its founding, NOUS has executed more than 200 projects of varying sizes and orientations across the world. Their customers include ORF, Louvre Abu Dhabi and Red Bull.

In turn, **FLUXGUIDE** develops solutions for mobile knowledge transfer, information systems for visitors and new learning – for indoor, outdoor, museums, events, hiking paths, trade fairs, hotels, cities or companies – as apps for smartphones, multimedia guides and touchscreens, including multi-lingual.

## 6.7 M-Banking, -commerce und -payment

According to a study, 62 percent of mobile terminal owners in Austria use banking apps. Among millennials – people born between 1980 and 1999 – this figure is as high as 72 percent. The digital payment study conducted by credit card provider Visa, which surveyed around 2,000 people in Austria that use mobile telephones, tablets and wearables, thus suggests that banking apps count as the most popular means of digital payment in Austria.<sup>22</sup> A new rule could add momentum: banks now have to allow third-party provider companies, such as fintechs, access to their customers' accounts and data if they have given their explicit consent to do so.

Mobile shopping is also becoming increasingly popular in Austria and is already established among young people. 55 percent of mobile internet users have purchased a product or made a booking on their smartphone in the past six months.<sup>23</sup> The significance of stationary trade as an advertising medium is also increasing: 33 percent compare or research prices, inform them-

selves about campaigns and special offers (27 percent), obtain information on a product or service (23 percent) or check their personal shopping list (21 percent).

For trade, smartphones are also coming to the forefront as regards payment. For example, the mobile payment service **BLUECODE**, which is based in Vienna and the Swiss community of Lachen, views itself as a European alternative to offers such as Apple Pay or Google Pay. When paying with Bluecode, a one-time valid barcode in an app on the mobile phone's screen is scanned at the checkout. The paid amount is then debited from the linked current account. The app is free for the user and the company is financed through transaction fees.

In Austria, Bluecode can be used at Rewe (Billa, Merkur, Penny, Adeg, Bipa) and Spar, as well as Hartlauer and Hervis. Only recently, Bluecode cooperates with a subsidiary company of e-commerce giant Alibaba. Chinese tourists can therefore pay increasingly with their

<sup>22</sup> APA0252, 28 February 2018

<sup>23</sup> Mobile Communication Report 2018 <https://www.mmaaustria.at/single-post/2018/10/04/Neue-MMA-Studie-2018>



phone in Austrian supermarkets as of now – and via the popular Chinese payment service Alipay at that, which is one of the largest providers in the world with around 700 million customers.

Beacons, that is small Bluetooth transmitters, also come with many advantages; they can be mounted on the walls of shops or integrated invisibly into the lighting or electronic price signs. This allows individuals' behaviour to be tracked more precisely. The digital agency **IQ MOBILE** has, for example, already fitted locations of a large retail chain with beacons. As a result, location-

based information such as special offers or other information relevant for shopping can be sent to the smartphone.

Wearable technology is also popular and not only in the field of self-tracking of, for example, fitness, health and well-being. Wearables have also scored points in M-commerce. For example, one in four Europeans can now conceive making a contactless payment with a smartwatch, wristband, keyring or other devices worn on the body.<sup>24</sup>

## Mobile shopping in Austria

**55 percent** of mobile internet users in Austria have already purchased a product on their smartphone once



Data: Mobile Communication Report 2018

<sup>24</sup> MasterCard Survey, APA0168, 23 February 2018

## Mobile shopping in Austria

**65 percent** of mobile users in Austria pull out their smartphone in stationary trade:



**33 %**

to compare or research prices

**27 %**

to inform themselves about campaigns and special offers

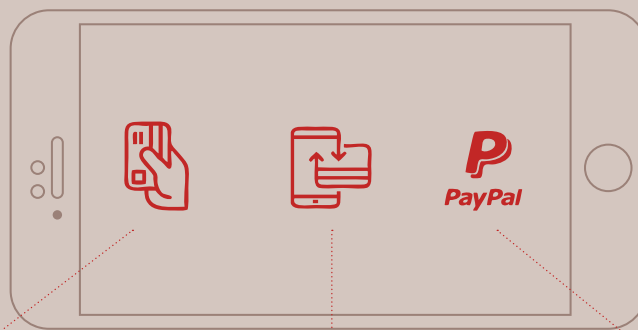
**21 %**

to check their personal shopping list

**23 %**

to obtain info on a product or service

## The most popular payment methods of Austrian mobile shoppers:



**48 %**

credit card

**42 %**

online bank transfer

**41 %**

PayPal

Data: Mobile Communication Report 2018

## 6.8 Mobility

Mobile applications in the field of mobility already have a longer history when you consider navigation services. The subject has made a further leap with the strong

distribution of sharing offers. Whether bicycles, scooters or taxis, nothing works here without mobile applications. However, the digital assistant is indispensable in public transport too.

WienMobil, the official smartphone app of **WIENER LINIEN**, links, for example, the offers of different mobility options in a single app – whether public transport, bike, car-sharing, walking or a combination of these. In the latest version, the application contains several improvements, such as a clearer portrayal of the services and the real-time information of Wiener Linien. Traffic messages and disruptions are integrated and displayed in routes.

With the app WienMobil from Wiener Linien, support is available for all journeys made in the federal capital. So

as to really choose the best route, the app is linked with Citybike, rental cars (car2go, DriveNow, Europcar), radio taxi networks (40100 and 31300) and WIPARK garages.

WienMobil also gives passengers access to digital tickets. Owners of personal season tickets such as the semester ticket or annual ticket can load these into the app. Single tickets, weekly and monthly tickets, as well as other tickets, can be purchased without cash on WienMobil. The ticket is therefore available on the smartphone at all times.

## 6.9 Smart home and digital assistance

Nearly each one in two Austrians were already using smart devices in 2018 – for example, a smart TV, intelligent lighting or connected heating, according to the Curatorium for Transport Safety (KFV).<sup>25</sup> The usage scenarios are becoming increasingly more diverse through new technological developments. **EMAKINA** has, for example, developed a “Smart Home Control App” in cooperation with the **ASPERN SMART CITY RESEARCH (ASCR)** research society. This allows heating, ventilation and diverse household devices to be controlled by a smartphone or tablet.

Digital assistants such as Amazon’s Alexa, Apple’s Siri and Google Assistant are being used increasingly in local households. This development will likely accelerate, because for example, Amazon offers companies that manufacture household devices favourable integration models with which they can integrate Alexa into their technology and connect with other devices. An alarm system, for example, is launched on the market which starts up when it hears a window pane has been smashed.

## 6.10 User experience

As humans, we are increasingly attracting the attention of companies, developers and research institutions. Classic usability or user experience (UX) culminating in human centred solutions is gaining significance. With these approaches, greater consideration is being given to the needs of users in order to boost acceptance and participation.

Service companies have been trying for years to anchor the subject in the minds of customers. According to experts, even the industry players need to catch up. “Often, the development process in larger organisations still pays too little attention to good usability. Agile development processes have now been extensively established. The next step goes in the direction of human-centric design,” say Ludwig Meyer and Sandra Murth at UX service provider **ALYSIS**.

There is an increasingly strong demand for simple, intuitive use, which is also confirmed by Markus Pöhl of **MQADR.AT**, which specialises in self-service solutions for telecommunications companies and internet service providers. The applications of the future will enable customers to put together individual functionalities to meet their needs and for example, retain information or control elements that are actually needed.

“There are millions of digital products and applications but only very few of them actually make it to the ‘homescreen of the user’,” says **TAILORED MEDIA**, pointing out the variety of components that are necessary to offer tangible added value. One of the biggest mistakes is said to be that, unlike building a house where an architect creates a well thought out concept, programming starts without an analysis phase.

<sup>25</sup> APA0302, 15 November 2018



# Services of the Vienna Business Agency

## 7.1 Information & Consulting

The objective of the Vienna Business Agency is the continuous development of international competitiveness by supporting the Vienna-based companies and its innovative strength, as well as a sustainable modernization of the business location. To achieve this, the Vienna Business Agency provides free consultations to all entrepreneurs in Vienna on the topics of business creation, business location or expansion, business support

and financing. Furthermore, networking contacts in the Viennese economy are also made available.

The Vienna Business Agency supports and helps businesses complete their research and development projects with both individual consulting and monetary funding. Depending on requirements, they will receive information about sponsorships, financing opportuni-



Foto: Wirtschaftsagentur Wien/Christian Husar

## 7 Services of the Vienna Business Agency

ties, possible development partners, research service providers, or research infrastructure, according to their needs.

The Vienna Business Agency sees itself as a network of the Viennese ICT industry and supports businesses with consultations, as well with distribution and networking among themselves. Events and workshops on topics from the field of ICT are held regularly.

Additionally, the Vienna Business Agency helps company relocations or internationalization services. Help is provided to business founders and young entrepreneurs in the start-up area. Free workshops and training sessions on topics of everyday business are offered as well as small, affordable office spaces.

### 7.2 Funding

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The Vienna Business Agency supports Viennese companies with aid from the City of Vienna. The monetary subsidies are aimed at all Viennese companies of different sizes and sectors: from services and local shopping to research and innovation through to creative industries.

Each funding has a different thematic focus. All necessary detailed information, such as conditions for

monetary support, funding and eligibility criteria are available for download directly at the funding programs. Applications can be submitted through the online funding application. The funding application must be submitted before the project begins.

### 7.3 Content Vienna

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With “Content Vienna”, the Vienna Business Agency has been supporting media and creative professionals in the digital sector in developing projects since 2009. With Content Vienna, a total of five €10,000 production support awards are conferred on projects under development, ranging from the subjects of games and virtual reality through animation to wearables. As a result, striving creative professionals and start-ups are given the opportunity to develop their projects further. Content Vienna is one of the most important prizes for digital content in Austria.

The professional jury awarded a total of €50,000 to five projects out of more than 80 submissions in 2018. The Women’s Bonus of €1,000 was also awarded to each prize-winning project in 2018. The following projects were winners: Brain Hero, a neurofeedback game for children on the autistic spectrum; EscapeFake, an interactive augmented reality escape room game, which is to offer young people an attractive opportunity to equip them against populism; Infra-Ordinary Palm Trees, a multimedia performance about the construction of memory using virtual reality and 360° images; Inside Lieutenant Gustl, a virtual theatre experience from Poesie Media Network e.U. based on Arthur Schnitzler’s novel “Leutnant Gustl” and Value App, a GPS-based, geo-localised smartphone game about sustainability and planting trees.

# Businesses in Vienna

The alphabetical listing on the following pages will provide you with an overview of 70 selected mobile computing companies from Vienna. This list is an excerpt from the varied mobile computing scene and provides no claims to completeness.

An overview of Vienna technology businesses is also provided by the Vienna Business Agency's Technology Platform. At [technologieplattform.viennabusinessagency.at](http://technologieplattform.viennabusinessagency.at), Vienna businesses and institutions can present their innovative products, services and prototypes as well as their research expertise and find development partners and pilot customers.



Foto: Wirtschaftsagentur Wien/Klaus Vyhnalek

Companies						
Company	Since	Staff	Description	References	Adress / Website	Phone / E-Mail
aaa - all about apps	2011		all about apps implements high-quality mobile solutions for medicine, industry and retail, as well as for banks and insurance companies. With an expert team of over 30 “mobile aficionados”, the company develops tailored mobile applications. It states that all about apps has already implemented more than 420 mobile projects and reports a total of 152 billion app downloads.	Astellas, BAWAG PSK, BWT, Erste Bank, Guntamatic, MSD, Novartis, Porr, Ratiopharm, REWE, Spar, Trumpf, Wüstenrot	Siebenbrunnengasse 17/ TOP3 1050 Wien  http://www.allaboutapps.at	+43 1 547 12 73  office@allaboutapps.at
advantage apps	2011		advantage apps specialises in app development and all areas of digital communications. As a full service agency, advantage apps is not just a technical partner, but is also a one-stop shop for all services, from consulting through the design and technical implementation of digital solutions to marketing. The team at advantage apps combines skills from the fields of web/mobile, advertising/ marketing and corporate consulting.	APA-IT, Bank Austria, ecoplus, University of Applied Sciences St. Pölten, City of Vienna, TU Wien, Pfizer, Wiener Prater	Heiligenstädter Straße 28/3 1190 Wien  www.advantage-apps.com	+43 1 890 5294
alysis	2011		Originally founded as a classic IT service company, the team at alysis has years of experience in developing and maintaining individual software within enterprise and e-government environments. Aside from the development activities, the issues of usability, user experience and accessibility take priority. The user is viewed as the most important stakeholder.	AMS AG, Austrian Gaming Industries, several Federal Ministries of Austria, EVN, Chamber of Civil Law Notaries, Salomon Automation, Austrian federal pension fund, Federal Environment	Schrotzbergstraße 6/1 1020 Wien  http://www.alysis.at	+43 1 9463992  office@alysis.at
anvartec	2010		anvartec offers products for mobile platforms. Here, the company pays particular attention to research in the field of mobile augmented reality (AR) applications. anvartec references comprehensive IT know-how, years of experience with high-tech product development and international marketing of new products.	XAL GmbH	Phorusgasse 8 1040 Wien  http://www.anvartec.com	office@anvartec.com
Anyline	2013		Anyline offers text recognition solutions for smartphones. The flexible toolkit is integrated into the customer's applications and adapted to the respective use case. Through the solution, electricity meters and car registrations alike, as well as passports or serial numbers, can be scanned and converted into text.	Canon, E.ON, Red Bull Mobile, Wiener Netze	Zirkusgasse 13/2b 1020 Wien  https://anyline.com/	+43 1 997 2856  hello@anyline.com
apptec			Apptec offers both app development and the modernisation of websites and portal solutions, or the organisation of marketing promotions.	Burger King, FITINN, Kattus, Raiffeisen	Slamastraße 43 1230 Wien  https://apptec.at	+43 1 890 891 1  office@apptec.at
atwork	1999		Atwork specialises in the consulting and development of business applications in the field of Microsoft Office 365 and Microsoft Azure. The focus lies on business apps, Cloud computing and internet solutions.	Porr, Würth, Fonds Soziales Wohnen, Österreichischer Werberat	Kreilplatz 1 1190 Wien  www.atwork.at	+43 1 370 83 90  office@atwork.at
auXala by LINEAPP GmbH			auXala is an innovative, flexible and cost-saving streaming software which transmits audio to mobile devices over the internet. True to the motto “bring your own device”, event visitors can receive the transmitted audio signal. As a result, freedom of movement at events is no longer restricted and event organisers do not have to worry about any transmission hardware. The streaming software can be used for different application scenarios, such as hearing assistance, as a broadcasting tool for live translations or interpretations or for special events such as silent conference, silent cinema and much more. With auXala, the simplest operation, inclusion, multifunctionality and flexibility are paramount for events venues.	Lyconet Elite Seminar, o2-Arena Prag and Tauron Arena Cracow	Mariahilfer Straße 101/1/21 1060 Wien  www.auXala.com	info@auxala.com



Companies						
Company	Since	Staff	Description	References	Adress / Website	Phone / E-Mail
bitsfabrik	2014		bitsfabrik brings content to smartphones and tablets, smart TVs and desktops in a high quality way. The digital agency draws on its own team with years of experience in native app development, back-end systems and the development of websites. From conception through development to app store optimisation and marketing – everything from a single source.	ATV, Lotterien, Immofinanz, UPC, Wienerberger, Drei, Samsung, ORF, tipp3	Schönbrunner Straße 131/2/3 1050 Wien  http://www.bitsfabrik.com	office@bitsfabrik.com
blockhaus medienagentur	2008		The multimedia agency develops mobile apps for iOS and Android smartphones as well as tablets and designs online games – whether as a Facebook app or on mobile end devices. In addition, the company is involved with online communities, microsites, interactive websites, HTML 5 and responsive design.	In conjunction with indoo.rs responsible for the development of the formal Lifeball-App 2014 and the E-Day:14 App of the Austrian Federal Economic Chamber	Rechte Wienzeile 19/1 1040 Wien  http://blockhaus.wien	
Blue Monkeys	2000		The Blue Monkeys have worked on the market as a digital agency under the motto “your success is our banana!” for many years. They offer strategic consulting, conception and implementation of online solutions. Blue Monkeys implements applications for mobile shopping, infotainment, productivity and optimises existing websites for use on mobile devices for all operating systems.	Haus der Musik, MAM Babyartikel, UNIQA, Wien Energie	Stella-Klein-Löw-Weg 11 1020 Wien  http://www.blumonkeys.at	+43 1 715 34 41  office@blumonkeys.at
bluesource	2001		bluesource – mobile solutions gmbh develops mobile software solutions for prominent companies from a range of sectors such as industry, retail and insurance, and also works on tools in the fields of mobile marketing, mobile payment and mobile commerce. One of the best known products developed by bluesource is “mobile-pocket” – a loyalty & couponing HUB that is also connected to other apps alongside its own “mobile pocket”. Traders can make use of the contents of numerous apps through a portal.	Bipa, Merkur, Ökofen, Vodafone	Sechshauser Straße 1/4-5 1150 Wien  https://www.bluesource.at/de	+43 7236 3343 - 900  office@bluesource.at
CALISTA	1999		The company concerns itself intensively with mobile applications and develops innovative mobile communities. Since 2015, the issue of artificial intelligence has been brought into focus. Current focal points are natural language processing (NLP).	Erste Bank, A1, viadonau, Rapid Wien, Red Bull Mobile	Moeringgasse 20/2 1150 Wien  http://calista.at	+43 1 403 30 64  office@calista.at
CELLULAR	1999		CELLULAR has branches in Vienna and Hamburg (headquarters). Major brand and media companies are CELLULAR's special field. The experts develop for mobile end devices and their portfolio also includes smart TV solutions. As a full service agency, CELLULAR offers its clients comprehensive solutions: from strategy, consulting, conception through design and project management to technical implementation, quality management and support.	Deutsche Bank, ORF, Sunrise, TUI, ZDF	Hermannngasse 18 1070 Wien  https://www.cellular.at/	+43 1 3236010-10  info@cellular.at
Control Center Apps	2013		CCA specialises in mobile apps and cloud-based services for business-critical applications, whose implementation requires technical competence. Thus, for example, in the case of flooding, up-to-date information on the situation can be notified immediately and clearly to employees and partner organisations using spoken announcements on the smartphones to communicate efficiently with employees and external players or – such as in crises situations – form and manage operations teams in a flash. The company draws on many years of experience in developing software for the fields of public transport, public security and flight security.	Frequentis, ÖBB, Swisscom	Phorusgasse 8/9 1040 Wien  https://www.cca.io/	+43 660 2428654  office@cca.io

Companies						
Company	Since	Staff	Description	References	Adress / Website	Phone / E-Mail
creative workline	2004	4	As one of the first app developer companies in the German-speaking world, the creative workline entrepreneurs and companies help to implement innovative app products of the highest quality. As an app agency, the company passionately specialises in the development and design of a range of mobile app solutions for platforms such as Android, iOS and Web. For more than 10 years now, clients from Austria, Germany and Switzerland have been placing their trust in creative workline when it comes to the development of mobile apps.	Austrian Post, PayPal, T-Mobile, Spar, OGM, webgears, YFU. Android-App „WienBot“ for the City Administration of Vienna. creative workline was a GEWINN Young Entrepreneur in 2007 in the area of E-Business and IT, and nominated for the Best Real World Game 2011 award for Tourality.	Piaristengasse 11/1-3 1080 Wien  https://www.creativeworkline.at	+43 1 3059571  wien@creativeworkline.at
CSS Computer- Systems- Supports	1995		CSS develops individual software solutions for medium and large enterprises – including apps and mobile websites. The CSS team deals intensively with software for mobile end devices – both technically and regarding the special requirements for usability, screen design and project management. The company relies 100 percent on its production location in Austria and rejects any kind of outsourcing or offshoring models.	„WeatherServicePlus“ app for the Vienna Insurance Group and ZAMG, app for the sales staff of Kapsch, home control app for Eaton („xComfort Smart Home“), AMA, Frequentis, Siemens	Landstraßer Hauptstraße 167 1030 Wien  https://www.cssteam.at/	+43 1 712 18 21  office@cssteam.at
cybertime	2011		Cybertime is dedicated to app and game development, and creates digital solutions in VFX, animation, post-production, web, apps, social media and games.	A. Eberle, Bosch	Mariahilfer Straße 113 1060 Wien  http://www.cybertime.at/	+43 1 718 55 00 50  office@cybertime.at
Diagnosia	2011	17	The e-health company Diagnosia develops innovative solutions for everyday clinical activities, including a medication direction which is available as a smartphone app. The software is designed to help select the right medication by displaying information on dosage, application or interactions. In addition, there is an expert chat in the app which allows doctors to obtain a second expert opinion.	The Diagnosia software is used in about 50 hospitals and healthcare facilities. The mobile app is the most widely used medical app in Austria and is used continuously by over 5,500 doctors.	Mariahilfer Straße 27/10 1060 Wien  https://www.diagnosia.com/	+43 1 295 66 05  office@diagnosia.com
Digitalsunray Media	2007		Digitalsunray is a digital full service agency focusing on cross-platform developments, mobile marketing, digital advertising creations as well as media planning. The company is fully responsible for many creative implementations in the mobile-digital campaign environment as well as mobile media planning for prominent national and international brands and has developed a technical solution for key media houses and publishers with ADvantage, a marketing SDK and web framework.	Bank Austria, Coca Cola, International Press Institute, Mobilitätsagentur Wien, NÖM, Post, Römerquelle, UPC, Volvo, WU Executive Academy	Gonzagagasse 11/25 1010 Wien  http://www.digitalsunray.com/	+43 1 920 66 33  office@digitalsunray.com
Dolphin Technologies GmbH	2001	32	With solutions by Dolphin Technologies, insurance for damages already made by the regulator are transformed into a valuable everyday companion for the customer. They directly help in emergency situations, reward good behaviour, warn against potential risks in good time, inform about the right time and support with intelligent services. Dolphin designs, develops, implements and operates scalable platforms, products and services in the fields of telematics, mobility and marketing automation. The Austrian company was founded in 2001 and has been recognised both nationally and internationally for its innovative power.	UNIQA, Generali, Munich Re, DEVK, AXA, Santander, Volkswagen, Porsche, Ö3	Stella-Klein-Löw-Weg 11 1020 Wien  https://www.dolph.in/	+43 1 715 34 43
DonkeyCat			The company DonkeyCat develops gaming apps for mobile devices. Its core competences lie in the development of casual mobile games focussing on intuitive operability, multiplayer features as well as great recognition value. The company primarily concentrates on the development of apps on traditional card games. Overall, DonkeyCat has 1.1 million app downloads and 150,000 monthly users.		Heinestraße 40/21 1020 Wien  https://www.donkeycat.com/	office@donkeycat.com

Companies

Company	Since	Staff	Description	References	Adress / Website	Phone / E-Mail
EBCONT			Business branches such as enterprise software development, business analysis, software quality assurance and management consulting (technology location, process definition/optimisation) are part of the daily project work by EBCONT, along with mobile app development (above all, iPhone/iPad/Android), the integration of big data databases and the implementation of IT infrastructure solutions. Furthermore, the company has marketing experts in the online and mobile communication sectors as well as vast expertise in the conceptualisation and implementation of GUI projects.		Handelskai 94-96 1200 Wien  https://www.ebcont.com/	+43 1 2700 202 210  office-wien@ebcont.com
Emakina CEE	1999		Emakina is a new media agency that covers the entire digital value added chain. From internet and IT services through multimedia, content and dialogue to mobile, online and social media marketing. Emakina has, for example, developed a “Smart Home Control App” in cooperation with the Aspern Smart City Research (ASCR) research society. As a result, heating, ventilation and various household devices can be controlled by smartphone or tablet.	BILLA, BauMax, Hypo Lower Austria, SOS Kinderdorf	Weyringergasse 30 1040 Wien  https://www.emakina.at/	+43 1 31 567 21 – 0  office@emakina.at
Eversports			Eversports is an online search and booking platform for sports offers. Here, sports opportunities in the area are displayed and access is made easier. With the booking tool, pitch hours, sports courses and camps from over 150 types of sports can be booked and paid for directly online.	Vienna Sporthotel,Tennispoint Vienna, Soccerdome, Plus Bowling Center,City & Country-Club Wienerberger, Happyland	Heiligenstädterstraße 31 1190 Wien  http://www.eversports.com	+43 660 7005041  support@eversports.com
evolaris next level	2000		evolaris realises the potential of digital networking and places the person at the centre of attention. The primary focus lies on the conception and development of digital assistance systems that support employees and customers in consuming context-specific information at the right time and right place. Through accompanying acceptance surveys and a high-quality system design, evolaris guarantees solutions with a unique user experience.	AT&S, AVL List, Kapsch, Kleine Zeitung, Porsche Informatik, Raiffeisen-Landesbank Steiermark, Shoppingcity Seiersberg, Ski amadé, Skidata, SPAR	Spittelberggasse 3 II/6 1070 Wien  http://www.evolaris.net	+43 316 - 35 11 11  office@evolaris.net
FLINK			FLINK allows travellers to have their own personal internet access. Therefore, the search for coffeehouses that attract with free internet access or the purchase of prepaid SIM cards is over. Thanks to a mobile hotspot, travellers are completely independent and can decide for themselves when and where they are online.	Vienna Tourist Board, Hotel Le Méridien	Plösslgasse 11/3b 1040 Wien  http://www.getflink.com	+43 1 890 03 57 – 0  office@getflink.com
Fluidtime Data Services GmbH	2004	37	Fluidtime is an internationally leading provider of mobility information systems. Since 2004, Fluidtime has been developing and operating user-friendly software solutions and mobile services in the fields of integrated mobility, traffic data management and traffic operator services.	ASFiNAG, Holding Graz, Kapsch TrafficCom, ÖAMTC, ORF Ö3, Wiener Linien	Neubaugasse 12-14/25 1070 Wien  http://www.fluidtime.com	
Fluxguide Ausstellungssysteme			Fluxguide develops solutions for mobile knowledge transfer, user information systems and new learning – for indoor, outdoor, museums, events, hiking paths, trade fairs, hotels, cities or companies – as apps for smartphones, multimedia guides and touchscreens, including multi-lingual.	Deutsches Technikmuseum (Berlin), Kunsthaus Wien, Kennedy Space Center (Florida, USA), Porsche Museum (Stuttgart), Museum Niederösterreich, Kunst Historisches Museum Wien	Burggasse 7-9/9 1070 Wien  https://www.fluxguide.com	+43 1 9974214  office@fluxguide.com
Fox Education Services GmbH			SchoolFox is a collaboration platform for teachers and parents, which helps reduce organisational input and improve teamwork between school and family. With the SchoolFox app for smartphone and computer, notifications, photos, documents, sick notes, events, school info and much more can be directly sent to the right contact people.	SchoolFox has been live since September 2016 and is now used by around 1,800 organizations in Austria, Germany and Switzerland.	Liechtensteinstraße 25 1090 Wien  http://www.schoolfox.com	office@schoolfox.com

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good mobile	2017		In February 2017, the first social mobile communications offer in Germany was launched with goood mobile. Building on its initial successes in Germany and participation of German hip-hop band “Die Fantastischen Vier”, goood mobile was also able to launch in Austria in October 2017. The customers of goood mobile telephone and surf in the carbon-neutral A1 network, the market leader in Austria and donate 10 percent of their monthly basic fee to a good cause of their choice. Goood also offers the donation platform developed for goood mobile as a plug-play solution to other impact-oriented companies that want to address sustainably thinking consumers.		Mommsengasse 35 1040 Wien  https://goood-mobile.at	+43 67761592272  office@goood-mobile.at
Hearonymus			Hearonymus specialises in the cost-effective creation of professional audio guides for culture and tourism for smartphones. In addition, Hearonymus offers a platform for the sale and marketing of audio guides.	There are currently more than 500 professional audio guides on the platform	Kreuzgasse 63 1180 Wien  https://www.hearonymus.com/	+43 1 295 84 70  info@hearonymus.at
hello mint	2012	6	The digital agency hello mint is active in both the e-health and m-health sectors, and offers a wide range of services – from consulting through content production to websites and apps. It has, for example, developed an app that helps metabolic disease sufferers to log their daily nutrient requirement and in addition, an application for pre-operative patient information. Furthermore, it offers a course for becoming an “ePharma Marketing Manager”.	Boehringer Ingelheim, Lundbeck Austria, Diagnose Zentrum Urania, Austrian Medical Chamber, Gemini, Novartis, Exeltis, Amgen, Roche, Merck	Mariahilfer Straße 27/10 1060 Wien  https://hellomint.com	+43 660 61 55 891
indoo.rs	2010	20	This company, which is funded by the Vienna Business Agency and others, develops and licences software for the precise positioning and navigation indoors. There, GPS signals have only limited availability, which impedes orientation in large buildings. Using Bluetooth Low Energy Beacons (e.g. iBeacons) and specially developed algorithms, indoo.rs opens up completely new paths and opportunities for B2B customers and end users to explore buildings and location-based services such as proximity marketing, analytics and asset tracking. Whether for airports and shopping malls or for heavy industry and high-security solutions - the application fields have few limits. Company headquarters in Lower Austria, development office in Vienna and branch in Silicon Valley.	Its customers include San Francisco Airport, KLM Airlines, Swisscom, Konica Minolta, High Point Market, Copenhagen Fashion Trade Show, Immofinanz Group	Vienna Office: Geyschlägergasse 14 1150 Vienna  https://indoo.rs/	+43 720 11 5980  contact@indoo.rs
INS Insider Navigation Systems GmbH	2014	18	Insider Navigation (INS) is the first company to offer augmented reality-based indoor positioning and navigation for mobile devices without the use of special hardware. Thanks to augmented reality and efficient navigation technologies, INS offers a globally unique overall solution that allows the customer to make buildings (factory halls, goods warehouses) easily detectable for mobile devices and to create added value with augmented reality. All kinds of buildings (factories, warehouses, tunnels, etc.) can be interactively designed to optimise processes for navigation, inspection, inventory, maintenance and much more.	F/List, Volkswagen, A1 Telekom Austria, Antea Group, PTC (USA), NCS (Singapur & Hong Kong), visionaries777 (Hong Kong), Singapore Airlines	Stubenbastei 10/6a 1010 Wien  https://www.insidernavigation.com/	+43 1 3619 920  office@insidernavigation.com
IQ mobile	2006		The digital agency IQ mobile specialises in mobile technologies and communications solutions. The four competence areas of the company focus on retail and POS solutions, CRM and data solutions, connected screens and mobile media with the special subject location-based advertising.	Adidas, IKEA, Sky, TUI, T-Mobile	Trabrennstraße 2A 1020 Wien  https://www.iq-mobile.at/	+43 1 324 533 60  info@iq-mobile.eu
Journi GmbH	2014		Journi develops mobile applications for iOS and Android to help people remember personal experiences in the form of automatically created digital stories and photobooks, and to share them with others.		Einwanggasse 12/2 1140 Wien  http://journiapp.com	info@journiapp.com



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Kalbeck Ventures	2014		Kalbeck Venture offers services in the development of digital communications solutions, advertising & marketing, technology, strategy and communications consulting, provision and operation of technology infrastructures as well as the licencing of software solutions.	Vienna General Hospital, Medical University of Vienna, Merkur, Donau-Auen National Park, Oracle, ORF, Bank Gutmann, Verbund, APA, EY, weAreDevelopers, City of Vienna	Türkenstraße 25/6 1090 Wien  https://www.kalbeck.com/	+43 1 890 34 34  office@kalbeck.com
LOCCA lost&found services	2012		Locca has developed a universal tracker which locates objects and subjects such as bicycles, cars, keys, suitcases, dogs, children and elderly people. The device is managed via a mobile application of the Locca website. Albert Fellner (of Emporia) is involved in Locca and developed the technology and also provided the product design.		Liechtensteinstraße 25 1090 Wien  http://www.locca.com	+43 699 199 999 66  office@locca.com
LOOP21 Mobile Net GmbH		50	LOOP21 develops solutions on the basis of WiFi networks. With 50 employees at the locations in Vienna, Innsbruck, Dusseldorf and Palo Alto, the WiFi specialist now manages more than 2000 telecommunications systems in 18 different countries. Numerous ski resorts, leisure parks, stadiums, shopping centres, retailers, events or even cities have now been equipped with the WiFi solutions on LOOP21. LOOP21 offers mobile infrastructure and mobile services.	ÖBB Infrastructure, Europa-Park, Doppelmayr, Caritas, kabelplus, City of Vienna, Corio, Silvretta Montafon, mountain railways Sölden	Hirschstettner Straße 19-21 L1 1220 Wien  http://www.loop21.net	+43 1 2929699-50  office@loop21.net
LuxActive			LuxActive is an expert team with a university background that specialises in digital search, marketing and process optimisation solutions in tourism and has developed the product oHA (online Holiday Assistant), among other things. oHA can increase the revenues from tourism offers and significantly boost the service of a tourism operation (24h/multi-lingual) for guests, positively influence guest reviews and provide statistics on an entity's niche and service development.		Media Quarter Marx 3.2 Maria Jacobi Gasse 1 1030 Wien  https://luxactive.com	+43 69911 000 301  info@myoha.at
LV7 Media Services	2006		LV7 Media Services deals with the user-oriented conception and implemetation of electronic applications. Its primary activity is the operation and development of search machine technologies for automatic data extraction and algorithms for their further processing. Currently, these approaches are mainly used for the automatic content generation of diverse web platforms.	Developed, for example, the Lunch iPhone app for finding today's lunch menus in the specified area and the ALLiSEARCH.com app to get current location-based information.	Zwerggrabengasse 27/12 1230 Wien  www.LV7.ms	+43 650 43 650 85  i@LV7.ms
Mokey Arts	2008		Freelance designer with specialisations in web design, mobile design and illustrations.	Developed the discover Vienna app „Story Hunter.“ Further references are the DietApp, Peach or Prune app and sports finder app.	Barbara Haider 1120 Wien  http://www.mokey-arts.com/	office@mokey-arts.com
mquadr.at	2001		The company mquadr.at develops self-service software for telecommunica-tions and internet service providers (ISP) which facilitate the simplest internet installation as well as management and problem solution in local networks for their end customer. The solutions are available for mobile devices as well as desktop version and support all internet and connection technologies as well as hardware (modems/routers, WiFi repeater, powerline adaptors, etc.). The integrated analyses and optimisations contribute significantly to reducing costs in the support field of leading ISPs and are thus an integral component of their service strategy.	Swisscom, A1 Telekom Austria, T-Mobile, Proximus, Telefónica, UPC	Albertgasse 35/Top 15 1080 Wien  https://www.mquadr.at	+43 1 505 40 50 - 0  m2press@mquadr.at
mySugr	2011	50	mySugr offers an app-based all-around diabetes care. The majority of the team is made up of diabetics themselves. The objective of mySugr is to improve the lives of people with diabetes and to offer them products and services, and make everyday life easier for those living with the disease. In 2017, mySugr was acquired by Swiss pharma giant Roche.	The mySugr app is approved as a medical device of risk class 1 in the US and EU, and the mySugr bonus calcu-lator as module class 2B. The company mySugr is ISO13485 certified.	Trattnerhof 1/5 OG 1010 Wien  https://mysugr.com/	+43 720 884555  support@mysugr.com

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Netural	1998		The digital media agency Netural offers comprehensive services in the field of digital transformation. From social media marketing to the realisation of apps with e.g. mixed reality. They operate their own lab where internal and external experts from various fields work together for the duration of a project. From this, creative customer solutions as well as separate Netural products are created. Their areas of competence include E-business solutions, sales-support apps and digital tools, innovative platforms and new ground projects.	adidas, Bank Austria Uni Credit, Cineplexx, Swarovski. As the first spinoff from Netural, the Roomle app was also conceived and developed.	Köstlergasse 1/29 1060 Wien  https://www.netural.com/	+43 1 890 90 30  hello@netural.com
NOUS Wissens-management	2006	33	NOUS emerged from a mediation project with digital handhelds in Vienna in 2006 and is now one of the leading providers in the field of app development, mobile guides and projects of the digital transformation. Since its founding, NOUS has executed more than 200 projects of varying sizes and orientation across the world.	Installations and apps for the Louvre Abu Dhabi, Vienna Art History Museum, MAK, ORF-TVthek, European Central Bank, Spar, Austrian Lotteries, Ö3, Ö1, Lexis Nexis, diePresse, Norddeutscher Rundfunk, Mercedes. International brands such as Anheuser Busch, Red Bull or oakley are also among the customers.	Ullmannstrasse 35 1150 Wien  http://www.nousdigital.net/de/	+43 1 236 5891  info@nousdigital.net
ovos			The agency's focuses are the development of online platforms and playful knowledge transfer. ovos is convinced that people absorb new content best when they are having fun. With applications by ovos, users learn something about the themes that move the customers in an entertaining and playful way.	International Goethe Institut, Siemens, National Bank of Austria, Austrian Post, Volkswagen, Westbahn	Schottenfeldgasse 60/36-38 1070 Wien  https://ovos.at/	+43 1 890 33 89  office@ovos.at
PHACTUM Software-entwicklung			PHACTUM views itself as a software development company that is mainly shaped by the different backgrounds and branch experiences (telecommunications environment, e-government, software development, research, ...) of the employees. With Tapkey, the NFC-ready smartphone is transformed into a secure and central key for the house door, car and much more.		Wickenburggasse 26/2 1080 Wien  http://www.phactum.at	+43 1 890 22 20  office@phactum.at
s4w straight4ward	2013		s4w straight4ward offers solutions in the field of web, mobile and individual software development. Using a vast network of specialists, we can cover large parts of the project scope. This includes requirements analysis, conceptual design, graphics/design, implementation as well as hosting and post-support.	City of Vienna	Hugogasse 5 1110 Wien  http://www.straight4ward.at/	+43 1 961 6666
Scarletred			The digital health company Scarletred has developed a clinically tested, objective and digital tool that facilitates quick analysis of some 3,000 different skin diseases. All that is required is a skin sticker as a colour and size reference and a smartphone. A crowd investing campaign for further growth was recently successfully completed. Apps for use in the field of geriatric care and the telemonitoring of rare diseases are planned.	L'Oréal, Henkel, Origimm, Marinomed, Eli Lilly	Maria Jacobi Gasse 1 1030 Vienna  http://www.scarletred.com	+43 664 4109404  office@scarletred.com
SELSYS Software Solutions	2006		SELSYS is a renowned engineering partner of industry and research and specialises in the field of technical informatics. The Austrian company develops, among other things, products and solutions focussing on object localisation. In addition, SELSYS deals with the development of mobile applications for tourism and leisure economy under application of modern data transfer technologies.	The fununo app developed by Selsys leads fun enthusiasts to the best leisure attractions in their area or a specific region. The collection includes around 10,000 attractions such as high ropes courses, miniature golf courses, summer toboggan runs and indoor playgrounds.	Neulinggasse 29 1030 Wien  http://www.selsys.com	+43 1 271 2121 – 0  info@selsys.com
Simpleloop Technologies GmbH & Co. KG	2014	3	Simpleloop develops tailored digital products, web apps and websites for established companies, brand and innovation agencies and companies.	ambuzzador, Austrian Airlines, AutoScout, LV1871	Franzensgasse 25/15 1050 Wien  https://www.simpleloop.com/	+43 650 200 20 82  hello@simpleloop.com

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skilled Events and New Media	2006		skilled Events and New Media mainly deals with services and activities in the field of interactive entertainment. Along with the programming of web applications such as flash games, CMS-based homepages or web-based infotainment applications, they are also involved in app development.	DiTech, Wien Energie, Samsung	Olympiaplatz 2 1020 Wien  http://www.skilled.at/	+43 1 264 00 53  office@skilled.at
SignTime	2008	15	The company Sign Time translates texts into sign language. Its goal is to facilitate accessible communication in different media. SiMAX is a specially developed software for translating text into 3D-animated sign language. A learning database in the background and deaf sign language experts provide high quality translation. All kinds of content such as websites, films, TV programmes, museum guides, citizen and passenger information as well as consumer information for medication are translated.	German Railway, City of Vienna, FFG, German state associations	Schottenring 33 1010 Wien  http://www.signtime.media/ http://www.simax.media/	+43 660 800 10 12  office@signtime.media
SPOTTERON			SPOTTERON specialises in apps for science and environmental protection and has developed an adaptable system for applications from the fields of citizen science, environmental protection and volunteer monitoring. All projects operated with SPOTTERON consist of the individual smartphone apps for iOS and Android and a map app for the browser that can be included in any homepage.	University of Vienna, University of Natural Resources and Life Sciences Vienna, University of Salzburg, Global 2000, ZAMG, Konrad Lorenz Research Center, University Zurich UZH, Science et Cité	Faßziehergasse 5 1070 Vienna  https://www.spotteron.net	+43 6765982272  office@spotteron.net
Stephan Petzl			Self-employed programmers and multimedia designers with over 10 years of experience. Until now, they have worked as individuals or in teams on more than 30 apps.	NZZ, ORF, SRF Swiss Radio and Broadcasting, Cultural Forum New York, Disney	Stephan's Studio Rechte Wienzeile 51/6 1050 Wien  http://www.stephanpetzl.com/	+43 650 597 64 37  stephan.petzl@gmail.com
subzero.eu software	2012		subzero.eu software designs and develops iOS and Android apps. These have included the development of the apps Wann, Wave and Zen Wars, which together have been downloaded more than one million times. Along with its own apps, design and development for other companies' apps are also offered.	Bank Austria, FlatscreenAdz, Lessing Photography, Liv Games, SX Interactive, TU Wien, Wien Holding	Patrick Wolowicz Tokiostrasse 3/1/29 1220 Wien  http://subzero.eu/	
Swelly	2016		The Swelly app promises help with making everyday decisions. Users receive feedback within minutes or help others to make decisions. Companies can also ask the community. The start-up has now built up expertise in the fields of chatbots (artificial intelligence), mobile apps, community building, blockchain technology and innovative market research solutions.	Red Bull, Swarovski, runtastic, Poster on the truck, KIN	troutloud GmbH Lechnerstraße 6/6 1030 Wien  http://www.swelly.ai/	info@swelly.ai
Tailored Apps	2010		Tailored Apps offers tailored solutions in the app field – starting with native and hybrid app development to augmented reality and virtual reality. According to the company, more than 450 projects have already been implemented, including the Hutchison Drei TV app, the Vienna City Card app and the Willhaben app.	Attensam, Nespresso, Vöslauer, Wienerberger	Heiligenstädterstraße 31/1 1190 Wien  https://www.tailored-apps.com/	+43 1 890 28 45  office@tailored-apps.com
teamworx mediamanagement	2004	30	The main project of teamworx mediamanagement GmbH is the digital health campus of vielgesundheit.at. It is backed by a young and innovative team of digital natives. It produces nationally and internationally certified e-learning for all medical professional groups, including doctors, pharmacists and nursing personnel. The focus here lies on film and animation.		Neustift am Walde 91 1190 Wien  https://www.vielgesundheit.at/	+43 1 890 59 65  office@vielgesundheit.at
Techtalk	1993	70	TechTalk supports companies with software development based on agile methods. Industry focuses: banking/insurance, public sector, online gaming, roads and infrastructure management.	Andritz, online regulatory agency for the state of Berlin, RBI	Leonard-Bernstein-Straße 10 1220 Wien  https://techtalk.at/	+43 1 402 35 96 – 0  welcome@techtalk.at

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TeleTrader Software	1995	70	TeleTrader Software GmbH is a leading provider of real-time data, technology and solutions for the financial industry and specialises in the development and sales of software for the fields of financial software applications, web and mobile applications (Teletrader apps), back office applications and content providing.	Raiffeisen-Group, Hello Bank, Volksbanken. The company has been on the market since 2012 with Stock Markets, a free stock market app that provides access to live prices and push data from markets around the world.	Marc-Aurel-Straße 10-12 1010 Wien  https://www.teletrader.com/products/	+43 1 5331656-0  office@teletrader.com
UNIspotter	2016	5	Universities pay agents €3.4 billion of commissions annually for the placement of international students. UNIspotter is a digital smartphone agent aimed at revolutionising this heterogeneous and opaque agent market. By digitalising 80 percent of the agency's activity, supplemented by 20 percent coaching from experienced advertising consultants, students are guided through the application process in the UNIspotter app. Universities can recruit more efficiently and receive high quality applications.	University of Glasgow, University of Newcastle	Praterstraße 1/OG 1 Space 16 1020 Wien  http://www.unispotter.com	hi@unispotter.com
VIENOM	2011		As an IT service provider, Vienom offers numerous developments from mobile applications through databases and database visualisations to guides for museums and games design.	Kunsthistorische Museum Wien, WKO, Chamber of Labour Vienna, Institute for Advances Studies Vienna, Weltmuseum Wien	Margaretenstraße 106/1 1050 Wien  http://www.vienom.com/	+43 699 1195 6914  office@vienom.com
ViewAR	2007	12	ViewAR specialises in creating augmented and virtual reality applications. The scope of application ranges from the creation of apps in the institutional sector through the visualisation of construction and architecture projects to use in sales optimisation such as air freight planning for Lufthansa Cargo. ViewAR applications can also be used with 3D glasses such as HoloLens.	Intel, Lufthansa Cargo, Porr, Kare Design, Bang&Olufsen, Willisau, Interio, Steinway&Sons, Markilux	Porzellangasse 43/29 1090 Wien  http://www.viewar.com/	+43 1 236 34 34  office@viewar.com
V-Play GmbH	2012	15	V-Play implements your project from the idea to the successful app in the App Store: the portfolio comprises consulting, conceptualising, design, development, publication, marketing (ASO) and maintaining apps for the platforms iOS, Android, desktop, Embedded and smart devices (IoT). Through the experience from more than 200 published apps for companies from industry, telecommunications, medicine, automotive, trade, fintech, government and entertainment, V-Play develops considerable and performing apps in record time and under the budget of comparable offers. The competences go beyond the creation of mobile apps and cover themes such as backends, AR/VR, AI, machine learning, blockchain and gamification.	T-Mobile (AT, EN), Siemens (DE), Kapsch (AT), Deutsche Telekom (DE), Red Bull (AT), Spar (CH), Herold (AT), Novartis (CH), The Qt Company (Finnland)	Kolonitzgasse 9/11-14 1030 Wien  https://v-play.com/apps	contact@v-play.com
Waltzing Atoms	2014	3	Waltzing Atoms develops tailored solutions for gamification, edutainment, further education, playful training and augmented reality. The published apps are characterised by platform independence, user-driven enhancement and social media challenges.	In 2016, the Ministry of Education brought the playful digital chemistry learning app Waltzing Atoms to Austrian schools. There is a new version of it now.	3DataX GmbH & Co KG Lambrechtgasse 3/3 1040 Wien  http://www.waltzingatoms.com/	+43 650 546 50 31  office@3datax.com
WH-Interactive			Interactive agency with strategic marketing know-how, creative ideas and comprehensive IT skills for successful implementation. The offer ranges from ideas and consulting through strategy and design to implementation and support. The portfolio in the mobile field covers mobile websites ("web apps"), native apps for smartphones & tablets and geotargeting.	Asfinag, BMVIT, Fairtrade, Wiener Stadtwerke	Renngasse 5 1010 Wien  https://www.wh-i.at/	+43 1 526 53 53  office@wh-i.at
Wikitude	2009	30	Wikitude is one of the pioneers of the mobile augmented reality (AR) technology and the company behind a series of award-winning AR solutions for smartphones, tablets and smart glasses. The Wikitude AR SDK and numerous free products are used by thousands of apps, brands, agencies, developers and AR enthusiasts for their projects. With around a hundred thousand developer accounts, Wikitude is the world's leading AR technology provider.		Office Vienna Bisambergerstraße 15 2100 Korneuburg Austria  https://www.wikitude.com/	+43 662 243310  info@wikitude.com

# Imprint

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LAST UPDATED: January 2019

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↪ Big Data	↪ Visual Computing
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↪ User Centered Design	↪ Smart Production

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The present activities of the Vienna Business Agency in this cooperation agreement are part of the IC3 project.

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Additional information on the [IWB/EFRE funding Programme](#)



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Europäische Union Investitionen in Wachstum & Beschäftigung. Österreich.

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