zengo

2021 Portfolio

WHERE WE LIVE AND WORK

Szeged. Hungary's third largest city. Due to the high number of sunshine hours, the city is often called the "City of Sunshine".

zengo

About us

Zengo has been a successful, young and innovative software development company for several years, based in Szeged, Hungary. With our developers and video editors, we offer customised solutions, serve customer needs to the maximum and in many cases we look beyond the assigned task. With us, work and fun go hand in hand. We like people who are different, good jokes, crazy ideas and pancakes.

Film & Visual

Digital Solutions

Education

Arts & Entertainment

What do we do?

Innovation and good atmosphere in one place

We are actively present in several areas of IT and our solutions are widely used in different fields of life.

We truly believe that we are able to cope with challenges of any kind or complexity, thanks to our many years of experience, our expertise and the wide range of technologies we utilise.

We have experience in working with sectors such as travel, culture, finance, banking, energy and last but not least digital education. We offer complex solutions to our clients' businesses whether they need mobile app development, PR websites, enterprise solutions, game development, AR/VR development, promotional videos or documentaries.

Our teaching materials and digital school administration systems for basically all types of training and education are used by thousands of institutions in more than 20 countries, serving more than 100.000 active users a day.

How do we work?

Our aim is to be efficient and customer oriented

1. NEEDS ASSESSMENT

Our clients approach us with their individual needs, so we set goals together with them to offer customised solutions. We discuss their ideas and how we can grab user attention.

2. DETAILS ELABORATION

During the process, we work with our clients shoulder to shoulder. Comments and ideas are considered as we create the personalised software solutions. We fine-tune shared ideas and we also provide guidance on what the best technical solution is for implementing ideas.

3. CREATION & INTEGRATION

Based on the carefully prepared concept that has been created as a collective effort, we implement the development in a way that fits the best with our clients' ideas.

4. FEEDBACK

For us, the most valuable asset is a satisfied client. With the completion of the various stages of development, we provide an opportunity for feedback to guarantee the best possible outcome.
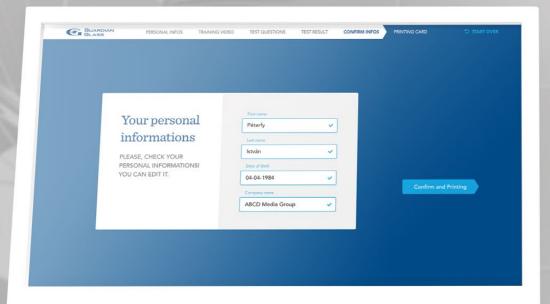
08 CONTENT

Self-service Solutions

Today self-service websites and applications play a very important role in the various IT sectors, as they offer convenient and fast administration to both companies and their customers. They also provide access to easy bill payment, personal information, account balances and purchasing services; what is more, notifications and reminders related to the service can also be sent by using them. This way they can establish a more efficient relationship between business management systems and customers without human intervention.

Guardian Glass
access control system

More information:
zng.hu/en/
guardianglass

We developed a custom-made access control system for the Orosháza factory of glass manufacturer *Guardian Glass.* The main feature of the automatic system developed for visitors is the workplace safety training, for which our video editors made an animated educational video. With the successful cooperation of our teams, we have created a comprehensive, safe and modern system that satisfies every customer need.

Guardian Glass
access control system

To implement the workplace safety training, it was required to connect and automate several areas. In addition to the automatic evaluation of the training material, the test system and the worksheet, we also had to develop a solution for doing the administrative work related to users who have completed the training, printing the access cards and integrating them into the existing system. It was a challenge to make an animated educational video that could completely replace personal safety training. We carefully elaborated the kiosk designs and visuals: we opted for the monolith solution and with these kiosks we were able to launch a pioneering system that stands alone on the market. During the implementation process our teams performed the multimedia, software and printing-related hardware tasks together. We managed to provide a complex solution for digital workplace safety training. As a result, the plant's visitors and partners complete the safety training with the help of our system, and they can freely move around the factory with an access card printed by the kiosk.

PROJECT DATA

date
2018

client
Guardian Glass is one of the world's largest glass manufacturers. Their Hungarian plant is located in Orosháza.

product
web application, educational video

task
design, comprehensive web development, filming, hardware procurement and installation

display
the software runs on a kiosk set up in the plant's lobby

fun facts

digitalisation of workplace safety training

fully automatic administration

installation of bespoke card printer

Prímaenergia application

Our customer service application for *Prímaenergia Zrt.* facilitates the administration work related to gas supply. In addition to map-based search, ordering and shopping, the app is the only one in Europe with a feature for measuring the level of the gas cylinders, thanks to the microphone built in the mobile device.

More information:
zng.hu/en/**primaapp**

PROJECT DATA

date
2017

client
Prímanenergia Zrt. has been the largest supplier of LP gas and pure propane gas in Hungary for 25 years.

product
Android and iOS apps for mobile phones and tablets

task
design, customised algorithm writing, application development

display
app stores

Prímaenergia
application

The app's wide range of features is always available to customers. They have the opportunity to search for LPG stations and gas cylinder exchange stations on the map, to purchase gas cylinders – by using the "Gas Cylinder Card" issued by *Prímaenergia* –, to read company news and moreover to access the *"Prímanet"* webshop.

With the help of the mobile phone's microphone, it is also possible to measure the level of gas cylinders within the application. To create this feature, we carried out measurements at *Prímenergia Zrt.'s* site under controlled conditions, based on which we set up a mathematical model. Within the application, we had to connect to the business management and ordering systems used by the customer, and we also needed a web-based administration interface to send push notifications.

In the year of release the user interface won the *"Media Design 2017"* bronze award in the "Mobile Interfaces/Applications" category.
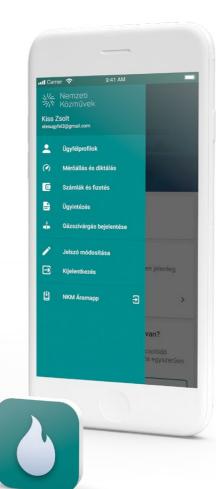
fun facts

gas-level indicator for the gas cylinders

managing "SuperShop" points when shopping

Media Design 2017 – Bronze Award

NKM Főgáz application

More information:
zng.hu/en/**nkm**

During the design and development process of our application for *NKM Energia Zrt.*, we paid special attention to developing the optimal interface and to guaranteeing the stability of data protection. Since then this solution has proved to be one of our most popular apps, with approximately 150.000 users.
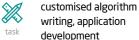
PROJECT DATA

date
2018

client
NKM Energia Zrt. provides continuous and secure natural gas and electricity services to nearly 4 million customers in Hungary.

product
Android and iOS apps

task
customised algorithm writing, application development

display
app stores

NKM Főgáz
application

We developed a modern and easy-to-use customer service application for the retail natural gas service of *NKM National Utilities*, which is one of the most downloaded and actively used customer service applications in Hungary. Creating optimal performance for all platforms and a variety of devices was a challenge, as the app's user base covers the majority of the population. Features include bill payment, e-invoice requests, reporting meter reading and querying their data, as well as viewing and downloading invoices. Users can easily manage their affairs, as it is possible to add multiple users to one account and the app also sends alert notifications when bills are due, just like for the meter reading periods. The application was downloaded by more than 176.000 people and has a monthly 91.000 user activity. Since its release the app has been working flawlessly on both Android and iOS platforms. We have been cooperating with our client in related operational and improvement tasks ever since.
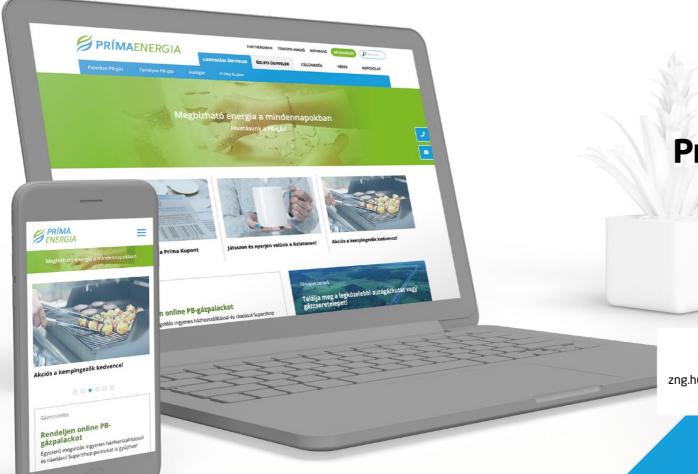
fun facts

200.000 downloads and nearly 150.000 active users

4.6 rating based on nearly 20.000 reviews

implemented in consortium with 4 companies

Prímaenergia website

More information:
zng.hu/en/**primaweb**

In our cooperation with *Prímaenergia Zrt.* we developed the company's website as well. We modernized the image of the website and redesigned its content, so that the page is more transparent and has a less formal style for both corporate and retail customers.
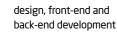
PROJECT DATA

2018
date

Prímanenergia Zrt. has been the largest supplier of LP gas and pure propane gas in Hungary for 25 years.
client

responsive website
product

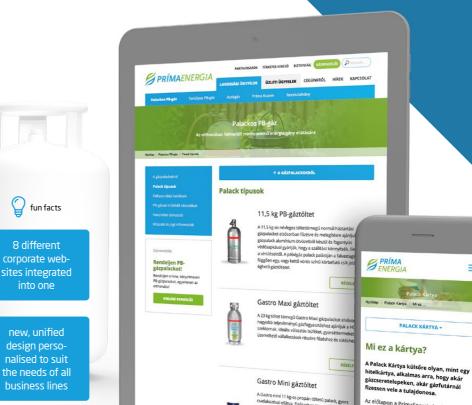design, front-end and back-end development
task

internet
display

Prímaenergia
website

During the course of development we not only refurbished the existing corporate website, but also integrated the contents of eight other support pages into a single unit – these used to be responsible for one product family each. We also synchronized the LPG station search and gas cylinder purchase functions with the company's internal business management systems. As a result, it became possible to order several retail gas cylinders at the same time, which are delivered to the customers by the "Príma Delivery" service. Accepting discount cards when purchasing – such as the "SuperShop" card and the "PrímaCard" – was integrated into the app as well. We made separate subpages available for corporate clients and retail customers: in addition to the latest news and events, specific product group descriptions and detailed information, users can also find out more about the company's history, quality policy and environmental protection efforts. With this brand new website we made it much easier for *Prímaenergia Zrt.* to perform their administrative tasks.

fun facts

8 different corporate websites integrated into one

new, unified design personalised to suit the needs of all business lines

automatic synchronization of the business management system and the corporate website

Corporate Solutions

We can provide IT solutions that meet the various special needs of the corporate environment. In addition to and in connection with existing business management systems, we have developed additional mobile and web applications for car sharing, HR, pharmaceutical and light industry service providers too. Whether the task is data visualization, production optimization, resource management, access authentication or production process for visual presentation, we are confident that we can find the right solution that fits into your workflow.

Hungarian Handball Association
online report system

We have expanded the digital system used to prepare handball match report for the *Hungarian Handball Association*. In addition to documenting happenings and exchange processes, we also made these information visible to viewers on a third interface, all in real time.

Hungarian Handball Association online report system

PROJECT DATA

date
2020

client
The Hungarian Handball Association is the organization that coordinate the operation of the sport in Hungary, which manages the organization of the national championships and the women's and men's national teams.

product
web application

task
design, comprehensive web development

display
internal use, internet

Our customers wanted to switch from the previously used digital logging formula to an extended version, for which we offered a complex user-friendly solution. The registrars record various shots, goals, penalties and substitutions on laptops and tablets. Based on these, the system is also suitable for generating various statistics. We tried to prevent the documenting person from recording irrelevant data, thus minimizing the error rate. In addition, after the right amount of practice, the processes can be operated with hotkeys.

One of our main goals was not only to allow data to flow between the devices of the protocol managers, but also to allow viewers to follow the events of the game on a third web interface with live text streaming. By sending data in real time, viewers can monitor matches through an instantly updated platform. One of the biggest problems to be solved in this regard was the unstable internet connection. This created a web interface that works without the Internet and synchronizes information when recovering. The system is designed to be applicable from children's tournaments to first grade.

fun facts

web-based but capable of working offline

real-time statistics

live stream

Dekra Akademie
competency matrix

More information:
zng.hu/en/
dekramatrix

For *Dekra Akademie* we developed a competency-based 3D data visualization system to support nursing education. For our client it was a key aspect to present information in the most exciting way possible, so our main objective was to bring the "wow factor" to them.

PROJECT DATA

date
2018

client
Dekra Akademie Kft. does adult education programs and personnel placement. Their competency comparison program is based on the European Union's competency framework.

product
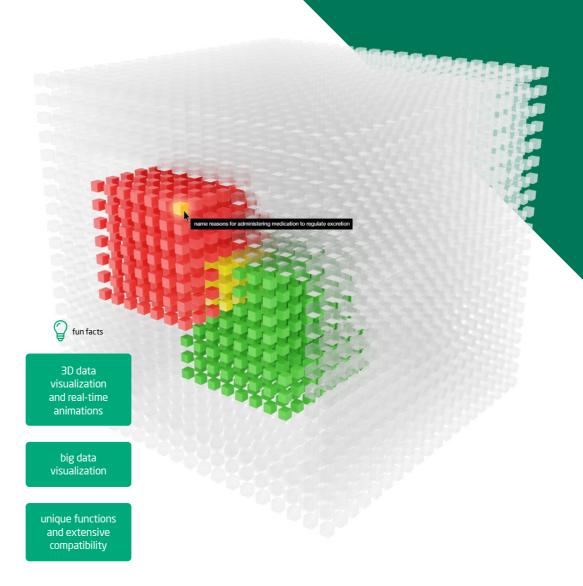web application

task
complete technological planning and software development, bespoke 3D visual display logic and design planning preparation

display
internal usage

Dekra Akademie
competency matrix

With our bespoke solution, it is not only possible to view information in a traditional list or on a sheet, but to present data with 3D cubes. These cubes can be spread out, making it easier for the users to work with. The cubes are coloured and all of the colours are accompanied with clear explanations. All elements can be rearranged in space at the same time, and with the help of the 2D layout it is also suitable for doing efficient work. The software runs in a browser, making it easily accessible from anywhere. We created a complex, multidimensional and at the same time spectacular system, which functions both as a competency measurement and as a presentation tool, thus facilitating the selection of the workforce and of the courses necessary for development. The premiere of the software took place as the main event of a 3-day conference in Dresden, Germany. During the presentation, when the speaker arrived at the 3D presentation part, the audience greeted the unexpected pioneering solution with loud applause.

name reasons for administering medication to regulate excretion

fun facts

3D data visualization and real-time animations

big data visualization

unique functions and extensive compatibility

Sanofi
zone access

More information:
zng.hu/en/**sanofi**

At the manufacturing plant of pharmaceutical company *Sanofi* employee access rights are limited for security reasons, so the company has asked us to develop a software solution that can be used to initiate entry requests, with the possibility to accept or reject them based on the given person's eligibility.

PROJECT DATA

date
2018

client
Sanofi is one Hungary's leading pharmaceutical companies. The company is active in Hungary with a wide range of activities, from clinical trials through production to international distribution.

product
web application

task
design, comprehensive web development

display
internal usage

Sanofi
zone access

From the beginning of the cooperation with *Sanofi* our company kept providing the implementation ideas. First we made design plans, which we improved during continuous consultations, so we were able to turn the client's ideas into reality already in the first steps of development. We made user login and authorization compatible with the company's existing system, so there was no need to create new users. During the process we periodically provided a test environment with the completed functionality, so we could quickly implement the recommended changes.

The result was a software environment that serves the full range of *Sanofi's* needs, thus the access authentication of their Hungarian plants has become manageable through a specific system. The software was installed on the company's server environment, but we also provided assistance throughout the operation. As users are using the application on a daily basis, we are able to add new features: based on the collected needs we come up with an implementation plan, which we put into practice within a short period of time.

fun facts

platform independent web application

Windows server environment

Windows Active Directory compatibility

MOL Limo
human resource
management

In the past car-sharing service provider *MOL Limo* used an Excel spreadsheet to manage its work shift and human resources schedule. The company asked us to replace their system with a new one, so we created their brand new internal human resource management system.

More information:
zng.hu/en/**mol**

PROJECT DATA

2018
date

MOL Limo was launched in 2018 as a startup initiative of the Hungarian oil company.
client

cross-platform mobile application, website
product

design, front-end and back-end development
task

internal usage
display

MOL Limo
human resource management

Our customer's idea was a software solution that facilitates the communication between employees and employers, and makes the HR manager's work easier. The result of our work was a software environment that serves specific employee needs. We created three different user interfaces, all of which perform different functions: an administrative interface for performing operational activities, another for registering for work shifts for external employees and a third one for checking the monthly work schedule for internal employees. Within the software not only staff requirements can be managed, but also the available leave days and the personal data of employees. We combined the features that Excel can offer with smart, useful tricks: for instance our software sends notifications when there are no available leave days left or when there are overlapping work shifts. The content of the mobile application was created based on web technology, so we could quickly make the small changes requested by the customer and there was no need to release a new version.
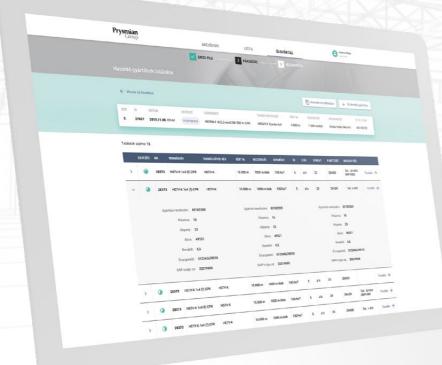
fun facts

transposing Excel worksheets into online website

managing the resources of 4 work shifts

adjustable weekly work hours and leave management system

Prysmian
web application

We created a bespoke web application for the international cable manufacturer *Prysmian's* site in Kistelek, which made their production instructions more efficient. This allowed the business unit to do the transition from using an Excel spreadsheet to their own system of operations.

PROJECT DATA

date
2020

client
Prysmian MKM is a market leading cable manufacturer in Hungary. Their products, such as power cables and insulated wires are designed for serving the needs of the domestic and international energy industry markets.
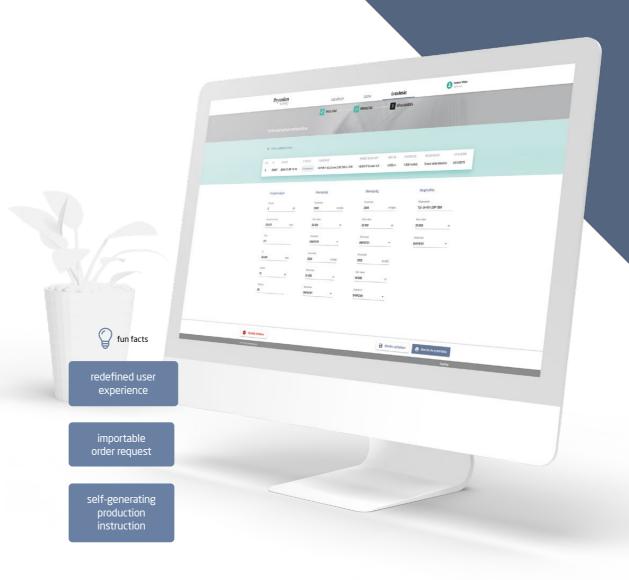
product
web application

task
design, front-end and back-end development

display
internal usage

Prysmian
web application

The company wanted to manage production instructions in Excel, making the work that was based on the formulas active in the spreadsheets more efficient. After careful and thorough consultations, we started to develop the software in continuous cooperation with the partner. It was a real challenge for us to master the specific production process, and to comprehend and implement the related formulas and calculations, as all of these were essential for creating the web application. The result was an interface into which different ordering requests can be imported. Based on the existing production instructions, the system reads the relevant data, calculates the figures for production and creates an exportable manufacturing instruction. In addition to this, the ideas we suggested for redefining the entire user experience were eventually implemented. After its launch the software was used in parallel with the existing system, in order to test its proper operation. Having evaluated the feedback, we also provided additional support activities.

fun facts

redefined user experience

importable order request

self-generating production instruction

Art & Entertainment

One of our credos is to help present Hungary's cultural values and Hungarian life with the most modern technologies and tools available. We make the visitor experience of tourist and museum attractions interactive with touchscreen games, mobile applications and various VR/AR solutions. Our film studio prepares widescreen films, image videos, drone footages and print materials to help with the realization in all media formats. Our main goal is to create exciting interactive exhibitions that offer a unique and lasting experience to all age groups.

"*Professional team, professional collaboration and execution. During the process of the joint work our suggestions and requests were professionally implemented, with smooth communication. An excellent short film was made about the history of Szeged, which speaks in a new voice and offers a modern, valuable and interesting viewing experience.*"

Dr. Konstantin Medgyesi – Deputy Scientific Director

Szeged 300
interactive exhibition

Móra Ferenc Múzeum Szeged

More information:
zng.hu/en/
szegedtorta

On the occasion of celebrating the 300th anniversary of Szeged becoming a royal free city, a huge cake-shaped structure was set up in the city center. Inside, a mini cinema was built in one side of the cake, while in the other half interactive digital games were displayed for visitors to play.

PROJECT DATA

date
2019

client
The Municipality of Szeged, a city with county rights and Móra Ferenc Museum – which is a major cultural center of the region – formed a partnership and were our customers together.

product
extra-widescreen educational short film, interactive wall, city-building game

task
Unity development, filmmaking

display
temporary exhibition in the city center, "Black House" exhibition hall

Szeged 300
interactive exhibition

One of our most defining projects, the *Szeged Cake* interactive exhibition, was developed for the occasion of Szeged's 300th anniversary. The temporary building served as an attraction in the heart of the city, with a diameter of 15 meters. The main goal of the exhibition was to present an interactive, exciting program that represented a unique experience to all age groups.

We created three Szeged-themed interactive attractions for visitors: an extra-wide touchscreen wall and an interactive table, accompanied by a widescreen historical short film and an image video made by our film studio.
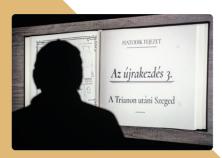
Touch-sensitive wall

To implement the touch-sensitive wall, we used special laser and customised touchscreen technologies. With this bespoke solution we are able to make almost any flat surface interactive: we applied the same technique to the project's 14-square-meter wall. By combining different technologies we managed to create a multifunctional, complex interactive game. To achieve interactivity, we used laser sensor technology that is normally utilised as a security device, but we adopted it for perception purposes. With the help of these sensors, the related information and curiosities appear when the user reaches the various attractions of Szeged.

Furthermore, as we wanted to add something exciting and sensational to the game that brings the "wow-factor" to visitors, we enabled them to interact with their own creations. After on-site scanning our software uses digital image processing to insert the fish, balloons or boats coloured by the visitors into the 3D interactive scene, where the drawing itself comes to life as a 3D object on the screen. This allows visitors to move their own drawing on the interactive surface and take it with them as a postcard when they leave.

fun facts

14-square-meter, huge interactive interface

scanned drawings come to life on the touch-sensitive wall in 3D
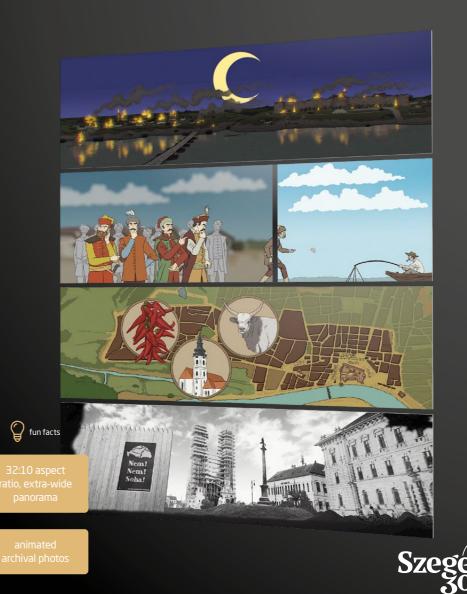
Szeged 300
Szabadon szeretjük!

Widescreen documentary

We made a historical and image video about Szeged in accordance with special needs. Thanks to the experts of our film studio, we are able to create films or videos of any kind, which is reflected in the many different techniques used during the process; therefore the extra-wide screen and the extra-high resolution did not cause any problems.

We wanted to present Szeged's history in a linear narrative, from the Turkish occupation to the present day. In addition to the historical storyline, we integrated the parts presenting today's Szeged with image and touristic elements. The animations required extreme precision, as every tiny detail could be seen clearly on the extra-wide screen, so there were parts which we were drawing for two weeks.

It was a special and uplifting task for us, born and bred Szeged citizens to make such a film, and the finished piece reflects our commitment and dedication. The result is outstanding, as we have created a niche film that helps all Szeged and non-Szeged residents to learn about the city's history, at the same time offering a great viewing experience to all age groups with its visual and content.

fun facts

32:10 aspect ratio, extra-wide panorama

animated archival photos

Szeged 300

City-building game

In our city-building game, the processing program we wrote for a special sensor is able to recognize various 3D geometric shapes on a touch-sensitive surface, and we utilised this to build a model city.

In this 3D interactive city-building game, we can move Szeged's iconic buildings, put them in place and create roads across the city. Thanks to our object recognition system, we can move the rails with the triangular objects, the roads with the circular objects and the attractions of Szeged with the rectangular objects.

Due to the location's characteristics, we had to pay special attention to the projector's position. Eventually we mirrored the device's image at a 45-degree angle, thus achieving the appropriate projection distance, and this way the special camera set above the table did not cast a shadow on the surface. We've also boosted the game with extra features, such as vehicles moving on the virtual roads built by visitors, simulating an ever-changing route. We can follow both the road construction works and the movement of the buildings on a TV screen, where we can observe the continuously changing and building cityscape in 3D.
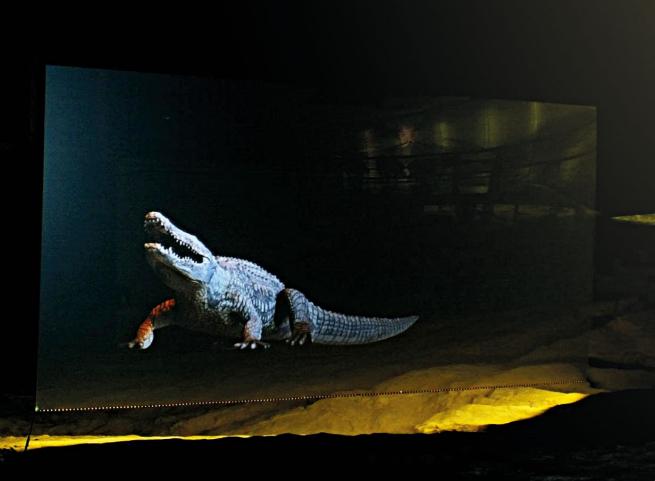

fun facts

freely re-buildable Szeged

the number of visitors has reached the targeted 10.000 after just 2.5 months instead of the planned 4 months

Ipolytarnóc
interactive contents

More information:
zng.hu/en/
ipolytarnoc

We made an educational and interactive video on the occasion of the *World Hunting Expo* for the Ipolytarnóc Fossils visitor center. We projected the video onto a 2-meter high and 7-meter wide interactive wall, showcasing the secrets of hunting, conservation and the past in a playful way. In this short film Miocene epoch animals come to life and viewers can interact with them by touching, and at the end of the film one can also marvel at the volcanic eruption, which conserved the characteristics of fossils.

PROJECT DATA

date
2019

client
The Ipolytarnóc Fossils Nature Reserve is a world-famous paleontological site managed by the Bükk National Park.

product
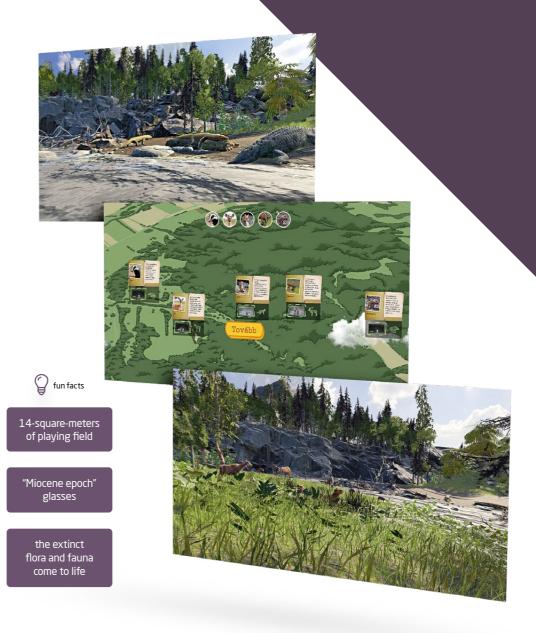short documentary, interactive 360 VR video, interactive film

task
live action and professional drone footages, animated scenes, laser projection technology

display
exhibition hall, professional conferences

Ipolytarnóc
interactive contents

Our development is based on a special nature documentary that turns into an interactive playing field after the first few frames: when they reach the wall, the animals in the film react to our touching the screen – the deer startles and runs away, the bear dog rears up, the crocodile swims across the stream, so the visitors become active participants of the hunting life of the past and the present. In the film live action and animated scenes keep coming one after the other, and we used several technological solutions to integrate them into the production. The interactivity problem was solved with laser technology and the projection is provided by ultra-close projectors. Modelling and animating the Miocene epoch animals, plants and the environment was carried out with the help of experts, and for the production of scenes showing contemporary hunting was assisted by hunters. The interactive experience is boosted with VR goggles, thanks to which visitors can admire the nature reserve in 360°, either through the eyes of birds or from a hunting blind. The film was screened at four other venues in Hungary, featured in the programmes of conferences held in Budapest, Miskolc, Eger and Debrecen.

fun facts

14-square-meters of playing field

"Miocene epoch" glasses

the extinct flora and fauna come to life

Tessedik Sámuel Museum
digital development

TESSEDIK
SAMUEL
MÚZEUM

More information:
zng.hu/en/**tessedik**

We won the museum's digital development project in 2018 within the framework of a public procurement, during which we could participate in the building's renovation. We modernized the exhibition by developing various attractions and we made the visitor experience interactive. In the museum's halls we redefined the museum tour experience, making them more exciting with videos, VR experiences and digital games, building the whole concept on a shopping mall theme.

PROJECT DATA

date
2018-2020

client
We won the city museum's digital development project in the public procurement of the Municipality of Szarvas.

product
promotional video, VR video, interactive games, mobile application, website

task
design and corporate identity, filmmaking, Unity development, application and web development

display
app stores, exhibition halls, internet

Tessedik Sámuel Museum
digital development

The complex development included the renovation of all exhibit areas of the museum. The process not only involved software development work, graphic design and filming, but also the installation of a hardware infrastructure on site. During the work we collaborated with all the participants of the renovation, in order to make each part of the exhibition a uniform and seamless experience for the visitors. We elaborated the attractions together with the museum's historians, ethnographers and archaeologists to fill the exhibition halls with authentic and lifelike professional content.

Our mobile app's location feature and the renewed website help and navigate visitors, and we improved the museum environment with our videos, holographic projections and digital games. All the elements of the exhibition halls are in line with the theme of the given room, so they complement each other and reflect the atmosphere of the given historical period. With the help of marketing experts we integrated awareness-raising and experience-sharing elements into our solution, to take advantage of the opportunities provided by social media and the online world.

Promotional video

In connection with the museum renovation in Szarvas, we got the assignment for making a promotional video. Since the building was not ready for shooting at the time, we had to brainstorm other ideas how to motivate potential visitors for the museum's re-opening. In our live action image video viewers can learn about the tourist attractions of Szarvas, followed by an animated part which introduces the most important artworks of the museum. During the project we placed great emphasis on creating a unique concept and mirroring the special museum atmosphere.

VR video

One of the most spectacular elements of the museum's renewed exhibitions is our animated 360-degree video about witchery. When creating the 360-degree footages, it was particularly important to grab visitors' attention and lead them all the way through the video with eye-catching solutions. Visitors are guided through three different scenes, where they can learn about the stereotypes about witches and the major changes that have taken place in their roles.

TESSEDIK SAMUEL
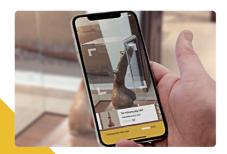MÚZEUM

Interactive games

During our project the development of gamification processes was highlighted. Each of our games has unique but uniform style and elements, ensuring the harmony between the different contents displayed on different screens.

In the witchery exhibition hall we can acquaint with the witches' curses and healing potions, which we can try out on a 75" touchscreen in the form of a fight. In addition to the archaeologically important runic scripts, a digital chalkboard awaits the visitors, which they can use to compete in writing down the names of the exhibited museum artwork in runes. Visitors can shop in the historic market, for which they have to collect and exchange contemporary money. Virtual fortune telling aims to present the Roma population's culture in more detail. As part of this we can feel like sitting at the fortune-teller's table with the help of the camera and the furniture.

Thanks to our team's creativity and attention to detail, we were able to develop the witches' and fortune tellers' animations based on lifelike gestures. Our wide range of test audiences made it possible for us to create digital games that are enjoyable for both younger and older generations.

fun facts

40-point laser
touch technology
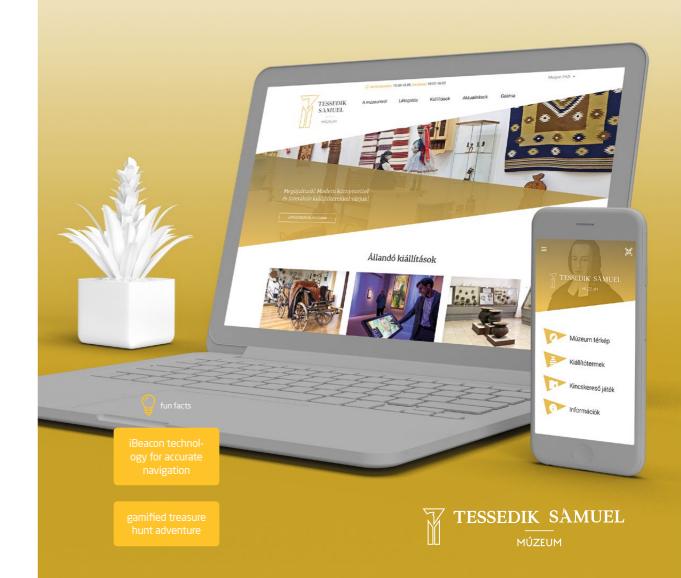
bespoke
thematic games

TESSEDIK SAMUEL
MÚZEUM

Visitor mobile application and website

We developed our visitor mobile application with Bluetooth-based technology, which is unique in Hungary. Navigation between the various exhibition halls is aided by an audio guide and an internal map of the museum, which features an accurate location service.

Synchronized with the museum's website, the app provides easy and quick information about the exhibition and its history. The purpose of our application is to make the visit more fun and a memorable experience. A treasure hunt game with an image recognition feature can be used to collect various hidden objects virtually, for which promotional gifts can be won.

In addition to exciting features for both children and adults, the audio guide is also available for both target groups. Content on the website and in the app is available in three languages. Content composition and structure have been constructed based on several aspects, as we had to process a lot of material – so the composition of the website and the structure of its pages provide a simple and clear guide to accessing the information.

fun facts

iBeacon technology for accurate navigation

gamified treasure hunt adventure

TESSEDIK SAMUEL
MÚZEUM

Museum of the Hungarian Parliament kiosks

ORSZÁGGYŰLÉSI · MÚZEUM ·

More information:
zng.hu/en/
1956kiosk

We created digital repositories for visitors of the two exhibitions in the *Parliament Museum* in Budapest; one for the "The Victims of the Massacre on 25 October 1956" and another for the "Gallery of the Speakers of the House".

PROJECT DATA

date
2018, 2019

client
The Museum of the Hungarian Parliament was established in 2014, with the aim of collecting, preserving and exhibiting historical artifacts of Hungarian parliamentarism.

product
web applications

task
design, front-end development, hardware installation

display
museum exhibition halls

Museum of the Hungarian Parliament kiosks

The kiosks set up at the museum are digital complements to these exhibitions, as they provide extra information about the items on display. We created a customised visual and content structure, adjusting them to the theme of the hall. The kiosks switch on when a user touches the screen and the software starts automatically, making the devices extremely quick and easy to operate. A special feature of the kiosk placed in the Speakers of the House exhibition hall is that visitors can navigate between contents in the panoramic photo of the hall: here users can select the painting that is interesting for them for more information and interesting facts. We can browse in alphabetical and chronological order too, so we can also access portraits and photos of the Speakers of the House that aren't on display. The kiosk about the victims of the 1956 massacre also has a unique content structure: the visual and textual displays of the content are based on a customised look, and they are easily accessible from the main menu. We also created image and text content animation in the media library.

customised content structure

software runs "at the touch of a button"

Szindbád
interactive development

NYÍREGYHÁZA

More information:
zng.hu/en/**szindbad**

We made 3D films and several interactive attractions based on four theatrical eras for the *Szindbád Színháztörténeti Rendezvénytér* during our project, which was won within the framework of public procurement.

PROJECT DATA

date
2021

client
The Municipality of Nyíregyháza operates the Szindbád Színháztörténeti Rendezvénytér in the heart of the city center.

product
VR application, dressing mirror, greenbox photo space

task
design, modeling, Unity and web development

display
Szindbád Színháztörténeti Rendezvénytér

Szindbád
interactive development

The development took place in close cooperation with our film studio as the design of the attractions is built on each other. You enter the interactive experience space after the 3D film made by *ZengoFilm,* so by this time you already have all the information about the four theatrical eras.

In the dressing mirror, you can choose from the traditional costumes of the eras and try on what we like virtually. The outfit can also be captured in the greenbox photo space and forwarded to an email address you provide. Those who come as a team or family can use the attraction together, and they can even set a different view for the group image for each era with the help of the background selection function.

Once you get to know the contemporary costumes, you drop into a renaissance theater. Standing on stage, a karaoke-like VR experience awaits you, where you have to present a detail of an iconic Shakespeare monologue to a virtual audience. The audience gives real-time feedback on your acting skills and either flowers or tomatoes await at the end of the performance.

fun facts

a complex experience built on each other

virtual renaissance theater

Retro
digital dressing mirror

More information:
zng.hu/en/**retrotukor**

We created a virtual dressing mirror for the visitors of the *Budapest Retro Museum* which fits into the existing elements of the experience center. The interested ones can try out the unique style of clothes that revive the fashion of decades ago in digital form.

PROJECT DATA

date
2021

client
Budapest Retro Élmény-központ invites you to an adventurous, interactive time travel.

product
digital dressing mirror

task
Unity, Python development
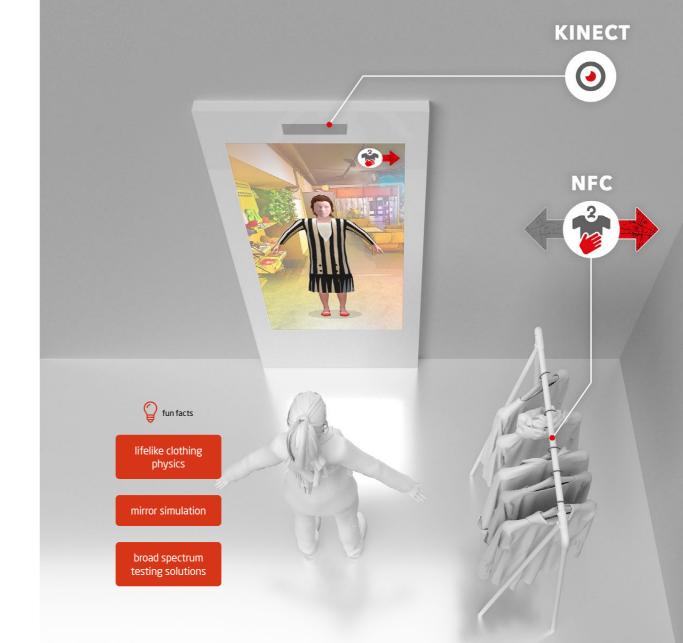
display
Exhibition hall of the Budapest Retro Élményközpont
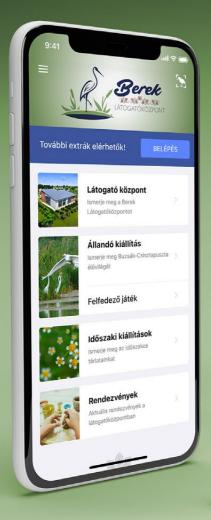
Retro
digital dressing mirror

We adapted to the style of the experience center in terms of all elements during the implementation of the project, so a completely retro-looking software was created. As soon as they reach the attraction, visitors will find the iconic retro costumes arranged on hangers. An NFC reader was placed on the cabinet rail with NFC tags on the hangers so the software could detect and identify the garment chosen by the participant.

Modern visuals were important to us, so we used clothing physics: the garments adapt to the movement of the body in a similar way to reality. This process was new to us, as we were using it for the first time in a Kinect environment. We put a lot of emphasis on setting up Kinect properly to enhance the visitor experience. We added an extra camera so that we could display the sharpest possible image, and we also created a separate program for facelifting, which we connected to the software.

KINECT

NFC

fun facts

lifelike clothing physics

mirror simulation

broad spectrum testing solutions

Berek
interactive development

More information:
zng.hu/en/**berek**

We created a comprehensive series of attractions presenting the region for the *Berek Visitor Center*. We developed a variety of products for our customers from interactive games, through mobile applications, to VR experience applications. The Visitor Center will open in the spring of 2022.

PROJECT DATA

date
2021

client
The Municipality of Buzsák wanted to expand its visitor center (Berek Látogatóközpont) with a unique series of attractions.

product
Android and iOS apps, interactive games, VR app, movie
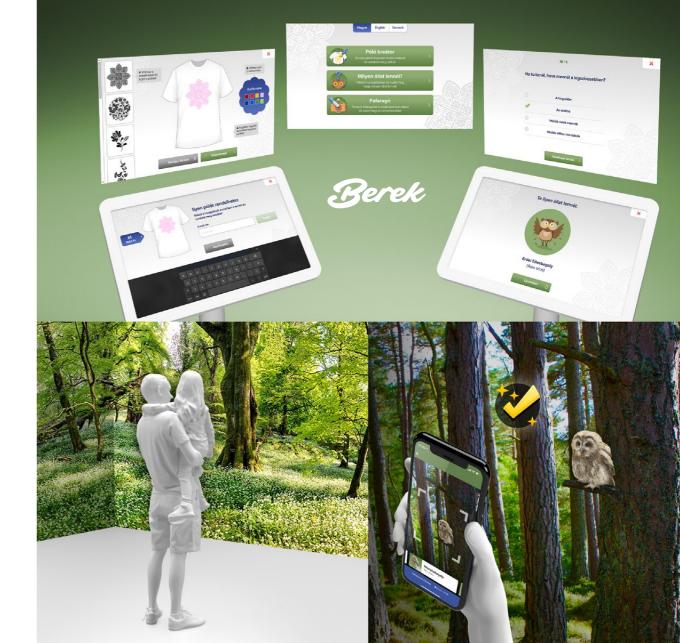
task
design, mobile application and web development, Unity development

display
Exhibition halls of Berek Látogatóközpont

Berek
interactive development

The *Berek Visitor Center* presents the characteristics and special features of the Nagyberek region, which also bears its name. We have developed 5 attractions, each element of which supports cognition and the playful transfer of information. Kiosk-based browser games are a fun pastime for young and old alike, as „What Animal Would You Be?" quiz to a T-shirt designer, there are many entertainment options to choose from. In addition to the projected environment in the visitor mobile application, the insignia of the given animals and plants can be collected in a playful, augmented reality way, and it also provides information about permanent and temporary exhibitions. For all this, we have created a comprehensive admin interface where information about all games and applications can be edited and added with new units.
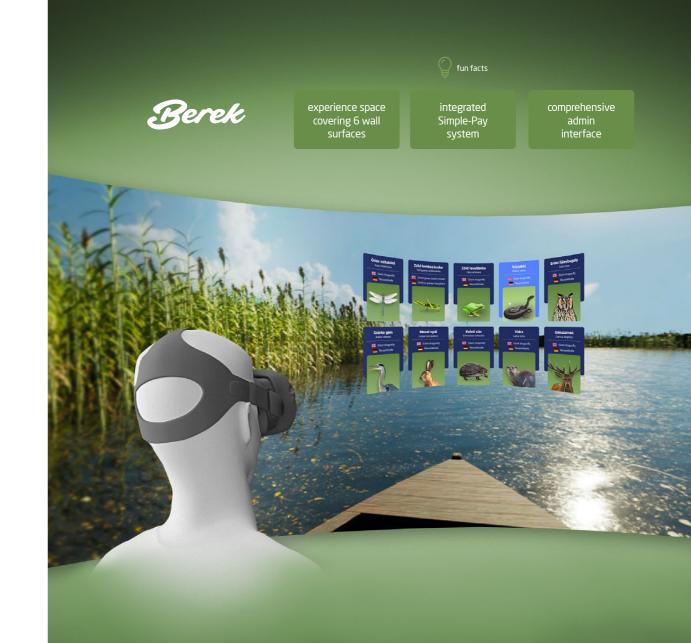
One of the most spectacular attractions is the inter-active game in the permanent exhibition. Our goal was to achieve a complex AR experience, so that the application can be used to recognize animals that are periodically projected onto a projected background. This was the biggest teamwork of the development, as our film team filmed for a long time in the *Berek* coun-tryside to create the visual basis for our developers. The end result was an experience space projected onto 6 surfaces, on which control software displays the animals drawn by our graphic designers. Creating this highly configurable control software was a challenge. It was important that everything be interchangeable and variable so that the software could adapt to – for example – seasonal changes. We also had to provide offline operation, thus the system is constantly saving the last configuration file.

In addition to the AR, we also represented the VR line, as a VR experience application was created for the Visitor Center: through this, viewers can view the *Berek* landscape from the perspective of 10 different animals. In addition, our film studio supported the visi-tor experience with 2 films, where the interested ones can find out about the preservation of *Buzsák's* tradi-tions and natural treasures and wildlife.

Berek

experience space covering 6 wall surfaces

integrated Simple-Pay system

comprehensive admin interface

Dám Pont
visitor center

The constantly developing *Tamási* is a town located 30 minutes from *Siófok*, which is characterized by a population of live fallow deer, which is considered to be one of the largest in the world. In addition to the tourist value of *Tamási*, our customers also wanted to draw attention to this, for which we provided complex, software and hardware solutions.

Dám Pont
visitor center

PROJECT DATA

date
2020

client
The Municipality of Tamási puts great emphasis on highlighting the tourist values of the settlement.

product
interactive games, typographic posters

task
design, software development, publishing

display
Exhibition halls of Dám Pont Visitor Center

To fill the *Dám Pont Visitor Center* on the outskirts of the settlement, we created 11 interactive games built into the furniture and mounted on the wall, for which we provided the complete IT infrastructure. The purpose of the exhibition space is to provide the most important information about the area, so that visitors can start exploring it with more accurate knowledge. Our task was complex, as the development required a multi-team process. The 1-2 minute games, which are broken down into many parts, are interconnected and in sync in terms of design. The interested ones have the opportunity to try out the sound shower, which helps to differentiate the roar of deer breeds, dress up a male and a female character according to local folk costumes, and learn about *Tamási's* history with the help of a timeline. It was a challenge to align several smaller but connected games, as our goal was not only to entertain but also to spread knowledge effectively. We combined the player tasks with the knowledge acquisition formulas, all in Hungarian, English and German.

selfie wall

11 content-related games

full service: graphics, softwares, devices

Hungarian Natural History Museum magic mirror

Magyar Természettudományi Múzeum

More information:
zng.hu/en/**mtmtukor**

We made a giant virtual motion detection and dressing mirror for the temporary exhibition of *NASA, the Embassy of the United States of America in Budapest* and the *Hungarian Natural History Museum*. The interested ones can see themselves in a spacesuit during a moon walk.

PROJECT DATA

2021
date

The Hungarian Natural History Museum wanted to add color to its exhibition.
client

magic mirror
product

Unity development
task

Discovering the Moon temporary exhibition
display
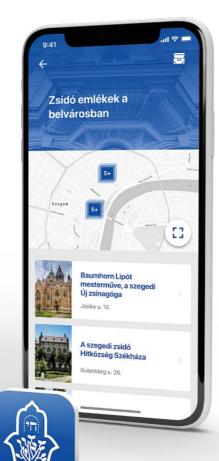
Hungarian Natural History Museum magic mirror

One of our largest surface projects to date can be try out on an 86-inch, 2.5-meter-wide giant display where visitors can hide in the skin of moonwalkers. The software can detect 5 people and display them on the moon in a spacesuit. Those interested appear in front of the sensor in the virtual scene and then see their own movement on the screen. We not only focus on the main characters, but also try to create an atmosphere that provides a real experience. When designing the background, we used NASA's 3D database as a reference and then colored it according to our own ideas.

One of the challenges in the development was to aligne Kinect and Unity, as this was our first project to combine the two. In addition, the alignment of the spacesuit plug-in and the boning of the model caused a headache during the preparation of the model. The movements of the bones had to be grouped in order to realistically repeat the complex movements. To do this, we also had to consider how ordinary movement appears in a spacesuit.

fun facts

giant display

optimized movement

Szeged Jewish Heritage
mobile application

More information:
zng.hu/en/
rediscover

Szeged is a city rich in Jewish heritage: in the city center you can find many Jewish monuments, here is the second largest synagogue in the country, and you can also visit the Israelite tomb garden. Our customers wanted to orient the users in the many sights, as well as to provide deeper knowledge about the Jewish people, buildings and historical events of Szeged. To do this, we created a mobile application with three function groups.

date
2020

client
The Municipality of Szeged, a city with county rights and Móra Ferenc Museum – which is a major cultural center of the region – formed a partnership and were our customers together.

product
Android and iOS applications, landing page

task
design, mobile application and web development
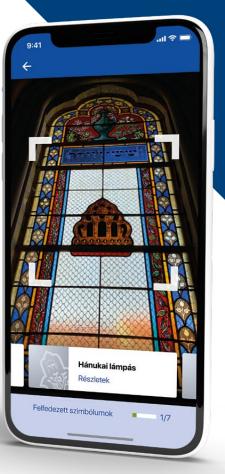
display
mobile application stores, internet

Szeged Jewish Heritage
mobile application

We used iBeacon indoor navigation technology inside the building – so it is also an exhibition guide – which has been supplemented with an audioguide option. Highlights of the *Synagogue* are stained glass windows, so a treasure hunt game can be found on the selected custom window based on the pattern shown by the application. In addition, moving through the building, the app constantly accompanies the attractions with information and additional images.

In addition to learning about the *Synagogue*, a city-viewer of various monuments will also help to acquire interesting informations. Iconic buildings appear in 3D on a digital map, making it easy to plan your route between attractions.

The third unit of our development is a function to support the exploration and traversal of the Israelite tomb garden, which marks the most significant tombstones on a map, as well as providing a wealth of information about the cemetery itself and the famous Jews buried there. All elements of the application are available in Hungarian, English, Romanian and Serbian.
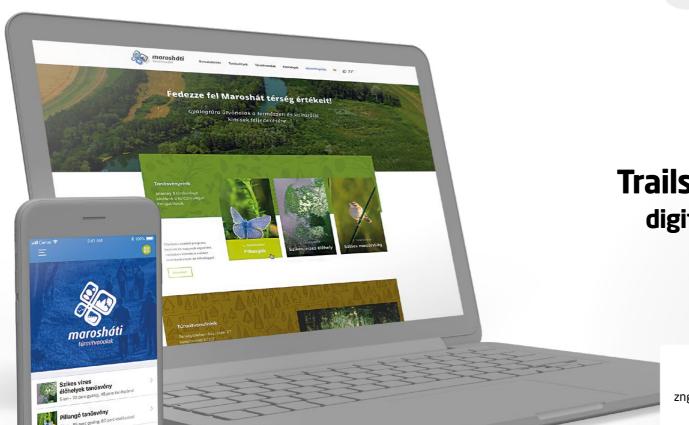
fun facts

indoor navigation support

AR treasure hunt game

virtual tour

Educational
Trails in Maroshát
digital development

In connection with the tourism development of the *Maroshát region*, we made nature documentaries, a historical video, a website and an application. With our short videos and gamification app the aim was to familiarise people with the hidden treasures of the rich native flora and fauna in the area.

Educational Trails in Maroshát digital development

PROJECT DATA

date
2019

client
In connection with a European Union development, Nagyér's municipality decided to present natural values in a more exciting fashion, using modern tools for the younger generation.
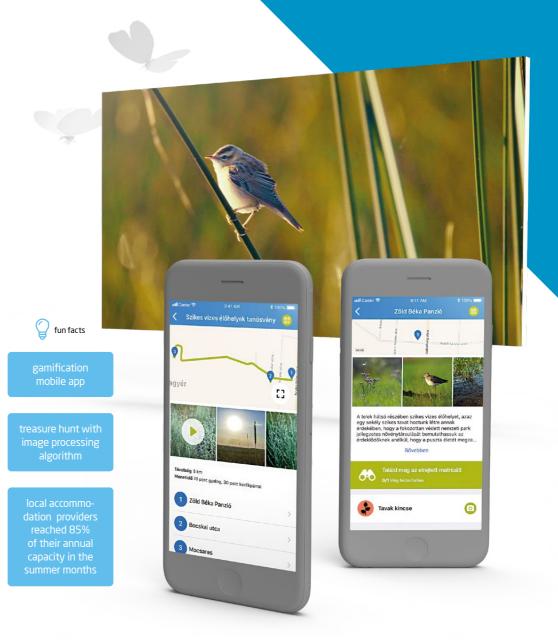
product
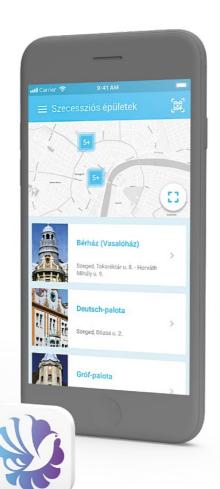Android and iOS apps, website

task
design, web and application development

display
app stores, internet

For the village *Nagyér* we shot three short nature documentaries about the educational trails in the catchment area of the village. We managed to take pictures of almost all animal and plant species, and to make their descriptions come alive with appropriate dramaturgical approach. We made a twenty-minute historical video about the village in record time, without compromising on quality. In addition to this, we created a uniform design that is synchronized with each and every element, even with the signs along the educational trails. Our application presents the lookout tower, the guest house and birdwatchers built specifically for the area's tourism development. The mobile app contains the stops – where exciting stuff is waiting for hikers – broken down by educational trail, helping users find their way with a map view showing the appropriate route and correct walking directions. The map also shows the user's own position, helping them to find the right direction to follow. Thanks to the marketing activities, the village's guest house was full for the whole summer and a multitude of student groups could enjoy the mysteries of treasure hunting and the cultural heritage of the region.

fun facts

gamification mobile app

treasure hunt with image processing algorithm

local accommodation providers reached 85% of their annual capacity in the summer months

Art Nouveau application

Szeged (HU) and Subotica (SRB) had the opportunity to present their Art Nouveau heritage to the wider public within the framework of a joint European Union project. As part of the cross-border *Art Nouveau heritage project*, we introduce the shared architectural values and treasures of the region that has a common history, through taking tours in Szeged, Subotica and Palic.

More information:
zng.hu/en/
artnouveau

Art Nouveau
application

PROJECT DATA

date
2019

client
Szeged és Térsége Turisztikai Nonprofit Kft. is responsible for providing tourist information and promoting attractions, events and tourism services in Szeged.

product
Android and iOS apps

task
design, app development

display
app stores

During the development of the application we established continuous cooperation with several partners and development teams, for which we managed to create appropriate and efficient communication channels. We had to run our application on all platforms and different devices, as the app's user base covers the majority of the population. In the mobile application users are greeted by a specific user interface with different colours for each city, in which *Art Nouveau* buildings are grouped into tours, with routes on the map and estimated times for each route. The app can also navigate us towards the destination buildings from the connected web pages that contain details of the chosen building. During the project information boards with QR codes were placed at the *Art Nouveau* attractions and by scanning these users can immediately get a description of the building, both in the mobile application and on the website. What is more, on full screen maps users can find the restaurants, places of accommodation and entertainment programmes of the given city, with the indicated hospitality units' phone number, website and opening hours, as well as the route to the chosen destination.

fun facts

position, navigation and timing

full screen interactive maps and routes

indicated nearby hospitality units

Mini Hungary
digital development

More information:
zng.hu/en/
minihungary

When the *Mini Hungary Park* was established in Mórahalom, our task was to create the projects' complete online presence, to acquire information kiosks and devices that assist exhibition guides in their work, and to develop the applications in relation to them. To implement these ideas we used complete solutions, which also included the creation of the print material for the park's graphic elements and image.

PROJECT DATA

date
2013

client
The open-air museum in Mórahalom covers a two-hectare area and exhibits the symbolic buildings and historical monuments of the so-called Greater Hungary in miniatures of 1:25 scale.

product
Android and iOS apps, website, promotional video

task
design, comprehensive mobile and web development, filmmaking, hardware procurement and installation

display
app stores, internet

Mini Hungary
digital development

Fifty realistic miniatures have been built in this unique open-air museum in Hungary, which recreate the most popular Hungarian monuments.

The creation of this historical attraction in southern Hungary required a bespoke solution that met all needs. We developed an Android and iOS application and also a unique website for the park, which was accompanied by a promotional video. The app features an offline interactive map to help visitors find their way around the park. More information about the various attractions is available from the application, moreover an audio guide is also provided on site. Besides, thanks to the gallery feature visitors can learn about the prominent historical figures of Hungary, as well as receiving information about the park's contact details, prices, current events and news, both in Hungarian and in English. Our film studio also made a twenty-minute presentation video, in which the owner speaks about the story of the park, while we can get an insight into the miniatures on display.

fun facts

offline interactive map
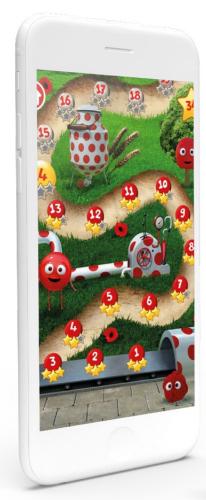
battery-saving location feature

data synchronization between kiosks and mobile devices

PR & Branding

The rapid development of social media and content marketing is fundamentally influencing the corporate communication practices, as visual storytelling is becoming increasingly dominant. In our portfolio we already present a wide range of mobile games, applications and promotional websites in the fields of PR and branding, but alongside with our clients we always strive for a customised and unforgettable brand experience.

Tejsüti Pöttykaland
mobile game

We created the most successful Hungarian mobile application for the *Pöttyös* brand for launching their *Tejsüti* product. Both our client and the customers were winning by playing.

PROJECT DATA

date
2015

client
Pöttyös is one of the most popular Hungarian brands of all time, which is owned by FrieslandCampina.

product
Android, iOS and Windows Phone applications

task
design, application development, promotional film

display
app stores

Tejsüti Pöttykaland
mobile game

"Have a good time playing on your mobile and you can even get rewarded!" This was our main goal during the development of our promotional mobile app game.

The implementation went so well that the game was featured as one of the most popular logic games in the app stores on all three mobile platforms. Game statistics showed more than 100.000 users by the end of the program, which was one of the most important successes in our company's history. The game follows the extremely popular "Match 3 Game" mechanism, which is best known for the Candy Crush and Bejeweled series. The purpose of these games is to line up 3 or more identical items by swapping adjacent items, but we added a number of special features to this model. We "dressed up" the game according to the brand image of *Pöttyös*, we created a map to display the 80 different levels, and we also added animations and special effects to each element of the game. The highlight of the game is a snowboard designer, in which the stickers gained during the game could be used and the winners could take home a snowboard of their own design.

fun facts

an average of 20 minutes of game time

100.000 players with 600.000 hours of game time

the app was in the Top 10 in several categories

Topjoy Summer
promotional website

The *Topjoy* brand set off the summer of 2017 with a prize draw, for which we created a promotional website. Users could upload the codes hidden on the back of Topjoy bottle labels for daily and weekly prizes.

PROJECT DATA

date
2017

client
Topjoy is one of the most popular and unique beverage brands in Hungary.

product
responsive website

task
design, front-end development
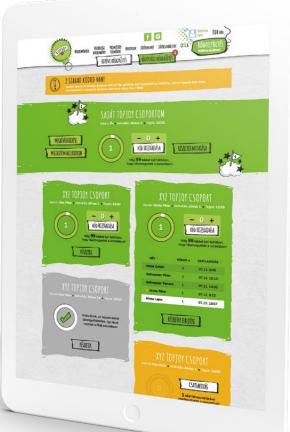
display
internet

Topjoy Summer
promotional website

At the request of our client, we created an admin interface through which a marketing agency could manage the promotion during the course of the game. At the beginning of the game, it was possible to assign the draw dates to the prizes through this interface, based on which the system operated. It was a bespoke innovation that users were also able to form groups, thus participating together in the draws for group prizes. The codes uploaded by the users, their group memberships and teammates were listed on the interface, plus the list of winners could also be viewed for contact purposes.

Besides the admin interface, we also needed to develop a promotional website, where users could upload their codes after registration. During the game three prizes were drawn daily and those were selected as winners, who uploaded their codes at the moment closest to the time generated by the system. As a result, *Topjoy* launched a new, bespoke gaming mechanism to the market, with lots of positive user feedback on group gaming.
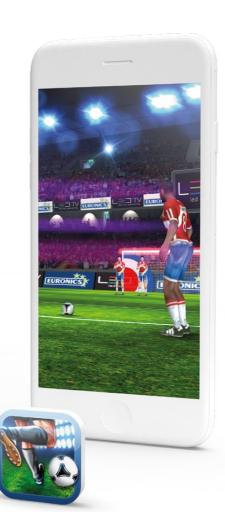
fun facts

more than 5 million promotional codes managed by the system

users could play in groups

Eurokicks
mobile game

United Retail

We benefitted from our creativity in the Dutch market too, when we developed a 3D goal-scoring mobile game for our client, United Retail, in connection with the 2012 UEFA European Football Championship. Our client's main goal was to promote their *Euronics* store chain brand.

Eurokicks
mobile game

According to the campaign message, large-screen TVs are the most suitable for watching the championship, which can be purchased at *Euronics* stores with their product experts' assistance. Playing with the app game, potential buyers could not only receive this hidden campaign message, but could even win one of these high-tech televisions.

The application has been optimized for both iOS and Android platforms, phones and tablets. Since we needed to take into consideration occasional users as well, eventually we chose a goal-shooter challenge game, which was completed with other interesting game modes, such as shooting at a moving target or getting the giant striped beach ball into the goal. Besides, players could be ranked on a leaderboard, increasing their chances of winning. We also created a microsite to promote the application, where the leaderboard's ranking was also available; moreover we placed dynamic ads at several levels within the application. The game proved to be extremely popular and the client was exceptionally satisfied with the result.

fun facts

10.000 players in total of 500.000 games

4 different game modes

integrated advertising and ad management system

Hajrá magyarok!
application

More information:

zng.hu/en/
hajramagyarok

We made Hungary reach fever pitch before the 2016 Summer Olympics with our guessing game app for the *Pöttyös* brand.

PROJECT DATA

date
2016

client
Pöttyös is one of the most popular Hungarian brands of all time, which is owned by FrieslandCampina.

product
Android and iOS apps

task
application development

display
app stores

Hajrá magyarok!
application

In the year of the *Rio 2016 Summer Olympics*, our client launched a joint marketing campaign with the Hungarian Olympic Committee under the name "Hajrá Magyarok!". The application was created as part of this campaign for Hungarian fans, both for Android and iOS devices.

Users had to guess the answers to questions about the sports in which Hungarian athletes were competing at the Olympics and if they gave the correct answer, they could participate in a prize draw. They could take daily guesses and view the results of the previous ones, and could also check their ranking on their own leaderboard.

fun facts

more than 10.000 active players

quick admin interface

community building effect

Digital Education Development

Ever since the foundation of our company, we have developed various projects whose main profile was digital education. We have been cooperating hand in hand for almost a decade now with our main business partner, *Mozaik Publishing House.* Our journey set off with the digitalization of text books, and later as digital education became prominent, our tasks had been expanding. Today we do development work in many areas of digital education. With our modern, customised and practical approach, our customers can enjoy a bespoke new learning experience.

ELECTRIC v2

Dekra
VR e-learning

DEKRA

More information:
zng.hu/en/**dekravr**

We developed a VR-based, three-dimensional education solution for the repair and maintenance of high-voltage vehicles at the request of a market leader expert organization in Europe. The target platform was Oculus Quest, newly released at the time, so we were among the first in the world who could develop for this wireless solution, which gives users complete freedom of movement and access.

PROJECT DATA

date
2018

client
Dekra is a world-leading expert organization whose primary mission is to provide quality and safety to its customers in the world of technology, the environment and mobility.

product
VR application

task
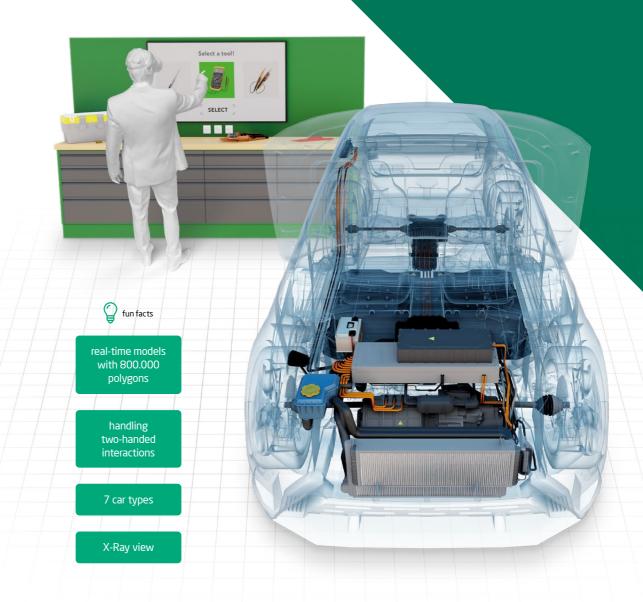Unity development, 3D modelling

display
internal corporate training

Dekra
VR e-learning

The main goal of our project was to create a bespoke educational methodology in virtual space where a student can operate freely in a high-voltage vehicle, supervised and instructed by an instructor with the presence of the other students. Our solution gives the opportunity for the person wearing the VR helmet to be monitored by others on an external display, which can even be done virtually and remotely.

Due to VR's individual features, we elaborated detailed 3D models for electric, plug-in hybrid and fuel cell vehicles and for their variations. Thanks to our solution, the student can bend extremely close to each part and element of the car, maximizing the entire field of view. These 3D models have been developed in close collaboration with experts from the German company, to be able to use the technology on a wide range of high-voltage cars, which are currently on the market. The result was a great success for our client and they continue to count on us to implement new innovative e-learning solutions.

fun facts

real-time models with 800.000 polygons

handling two-handed interactions

7 car types

X-Ray view

K&H
online competition interface

LWp
PR/SOCIAL/DIGITAL

More information:
zng.hu/en/
khvetelkedo

K&H „Ready, steady, money!" national financial competition is a high-quality competition for primary and secondary school students with a history of more than 10 years. The three-round competition used to take place on paper or in person, but the year 2020 required the full digitization of the program. We have created the right software environment for this.

K&H
online competition interface

Together with the *LWP Agency* responsible for conducting the competition, we implemented the online version of the financial quiz for the 3-11th grade students. Previously, the first round was through a paper-based application, followed by a full-day semi-final and final that required a personal presence. We had to come up with a COVID-proof solution for virtual events because of the 2020 pandemic. We performed software development work for the digital rounds, which included the creation of a complete registration system and the generation and operation of digital worksheets.

For each age group, we had to compile a set of tasks of different difficulty, for which the easy-to-interpret interface was of paramount importance. Given the different technical infrastructure available to students, we have created a user-friendly interface that is transparent and easy to use when displayed on any size screen. The efficient operation of our system has won the favor of our customers, so in the year 2021 the qualifying round will be also held online.

PROJECT DATA

date
2020

client
LWP Communication Agency is one of the leading communication agencies in the country, which has been listing a number of successful projects since its inception.

product
html games with website admin interface

task
design, comprehensive web development

display
internal use, internet

fun facts

online competition and repair interface

time-based playful tasks

diverse, interactive task types

Mozaik Education
e-learning platform

More information:
zng.hu/en/oktatas

Mozaik Publishing House and *Zengo* have been collaborating since 2009. The unique cooperation set off with the digital revolution in education at the time. Our oldest partner's integrated digital education system has been used with great success in many schools throughout several countries.

PROJECT DATA

Since 2009
date

Mozaik is the largest Hungarian textbook publishing house, which has long been a prominent role model in Hungarian education due to its concept, publications, teaching materials and programs.
client

digital education materials, educational videos, mobile apps, website
product

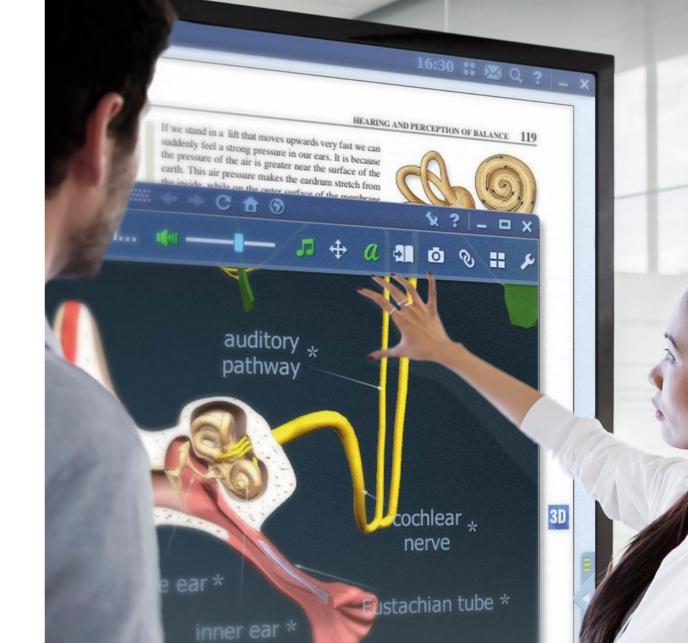software and web development, filmmaking
task

app stores, internet
display

Mozaik Education
e-learning platform

MozaLearn's integrated digital education system is unique in the country. Our interactive board software, online education platform and study information system support the work of both teachers and students.

With the help of this software, teaching is much more spectacular and illustrative without teachers bringing any additional tools to the class. The curriculum is significantly more understandable; students can get answers to all their questions with the help of uploaded materials and additional applications. The animations and educational videos available in the program were made with our video editor team. Our non-stop customer service provides the opportunity to solve any errors that may arise and to answer questions related to the use of the software.
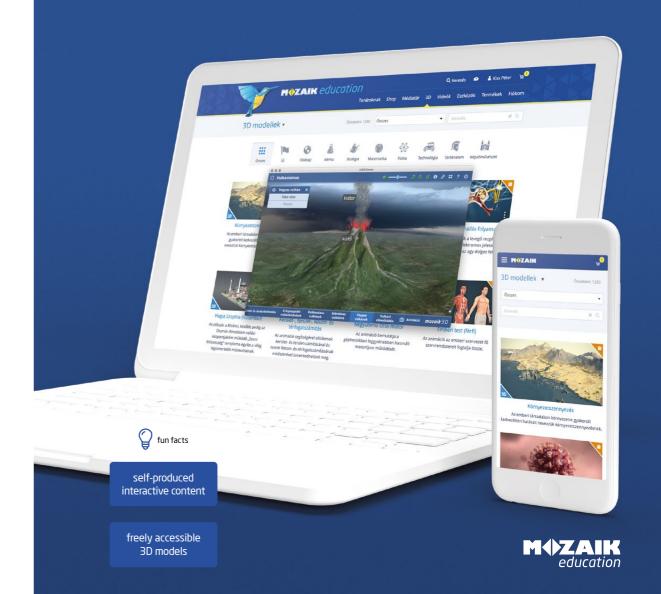
mozaWeb

The *mozaWeb* online platform provides a unique help both for students to learn at home and for teachers to prepare for the classes. They can flip through the textbooks, zoom in on details without compromising on quality and play related interactive content. Students can find their digital textbooks, exercise books and online homework on a single unified, easy-to-use and understandable platform. Learning is aided by a media library with over two thousand 3D models, education videos, interactive exercises, education tools and games. Categorized by topic, teachers and students can choose from thousands of extra content which are accessible instantly with the built-in media player. More than 100 interactive applications are available to make it easier to process the curriculum and practice the acquired knowledge in a playful way. The thematic applications are regularly expanded with new features – the number of available tools and games is also growing. In the test editor teachers can easily create spectacular assignments. The completed set of questions can be submitted as homework, which can be solved by the students in mozaWeb, but can also be integrated into the corresponding curriculum of *mozaBook* publications.

fun facts

self-produced interactive content

freely accessible 3D models

MOZAIK *education*

mozaLog

Our digital school register is an educational information system that enables the performance of administrative and organizational tasks that arose during daily school routine on a single, unified, user-friendly platform. By using *mozaLog*, it becomes redundant to keep laborious and cumbersome traditional paper-based class registers.

With *mozaLog* the school principal can receive up-to-date information about the teachers' personal and employment data, the number and composition of students, and their progress and absences statistics. The system allows teachers to perform lesson-related administration anywhere, from any device as quickly as possible. Thanks to the built-in schedule editor, rescheduling lessons can be done during the school year, and the system can also handle lesson swaps and teacher substitutions. Continuous availability is provided by high-bandwidth servers, and our developers back up the entire database on a daily basis. With *mozaLog*, parents also have the opportunity to keep track of their children's academic achievements, absences, assessments of their behaviour and diligence, about which they can also be notified by e-mail.

fun facts

the software runs in browser

versatile analysis of academic achievements
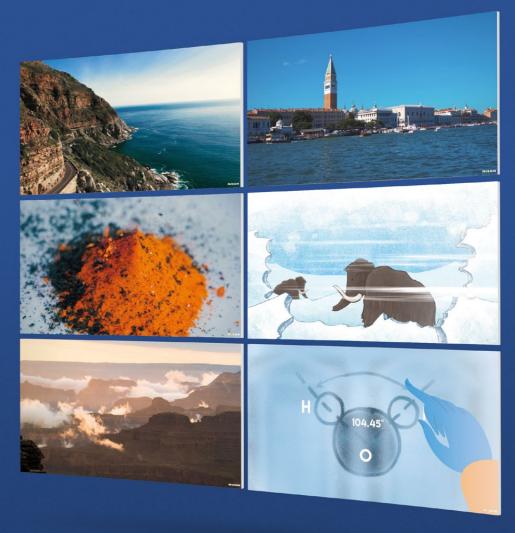
MOZAIK
education

Educational video series

As extra content for the digital education system, we made short educational videos in a variety of subjects and also translated them into several languages. With more than 1.000 educational videos produced over the years, students can master the curriculum more easily and effectively, exploring a new kind of learning experience. During filming our team visited many fascinating locations around the world: from the cool, rugged northern landscapes to the hot, desert climate. With our quality educational videos, we have greatly contributed to the internationally recognized results of *Mozaik*.

Over time the issue of multilingualism has become a source of many problems. We were able to standardise a system which makes the videos easy to subtitle besides narrating, so we can efficiently produce videos in multiple languages at once. In our videos unknown landscapes, interesting people and unusual stories come to life. We roam special locations, process ancient history and even travel to space! With our 2D and 3D animations we present stories that have never been seen before.

mozaBook

MozaBook is an educational software product, which was developed for an interactive whiteboard that expands teaching tools with versatile illustration, animation and presentation possibilities.

Teachers can create their own exercise books and digital publications from the textbooks they use in a few simple steps, aided by nearly 100 thematic applications. They can also create spectacular assignments quickly and easily, with several built-in question templates to choose from. The custom tests can be inserted into *mozaBook* publications or they can also be submitted as homework, which students can solve at home on the *mozaWeb* platform.

The exercise books and worksheets can be shared at school or national level as well, giving teachers the opportunity to use each other's work. They can also create virtual classrooms, where students can be invited to join class work. Student attendance can be monitored; moreover teachers can also request screenshots of the students' task solutions. *MozaBook's* programs, videos and 3D models are available in several languages, and language support is constantly expanding.

fun facts

can also be used on interactive whiteboard, smart device and PC

making your own textbooks

video help function

mozaBook application

MozaBook's interactive textbooks, programs and extras are also available in many languages on mobile platforms as well. By using the app, teachers and students can access all important information about textbooks and view the external table of contents and extras in the specific textbook by category.

Books can be flipped through in two-sided view in the same way as traditional books. Important contents can be highlighted and easily copied, and pages can be bookmarked. Seeing the extra content is easily available by clicking on the icons in the book margins. Thanks to the responsive design, the app adjusts smoothly to various screen sizes.

The virtual classroom feature is also easy to use on iOS platforms, as the app runs on all iOS devices. When we look for a specific textbook in a search engine of any device, by clicking on the appropriate book from the listed results, it will open in *mozaBook. MozaBook* can also be used hand in hand with the Notes app, as we can easily copy and paste important content from one to another.
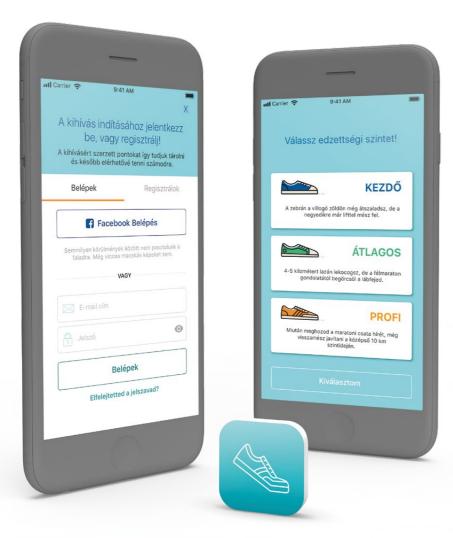

fun facts

virtual classroom function

responsive design

MOZAIK education

Sports & Lifestyle

Today healthy lifestyle, physical and mental wellbeing are becoming increasingly important. We provide digital solutions for conscious self-care, which is one of the key elements of the time we spend with ourselves. During the course of our extensive development projects, we create completely new applications and we also modernize existing interfaces.

RunAddict application

NN

RunAddict is a discount-based application for runners, in which users collect points based on their running distance and time. These collected points can be redeemed when purchasing sports equipment, accessories or services to support runners' sporty lifestyle.

More information:
zng.hu/en/**runaddict**

PROJECT DATA

2018
date

As a global company, the NN Group is active in 18 countries, mainly in Europe, as an insurance and investment service provider.
client

Android and iOS apps
product

application development
task

app stores
display

RunAddict
application

During the development of the application, we aimed to find the best features and functions that are important for runners. We collected the most popular running races, so the users can start the race registration with a single tap within the app. To prepare for the races, *NN Insurance* provides assistance with services for runners, such as phone consultation with trainers, orthopaedic examination and a 24/7 medical call centre within the application.
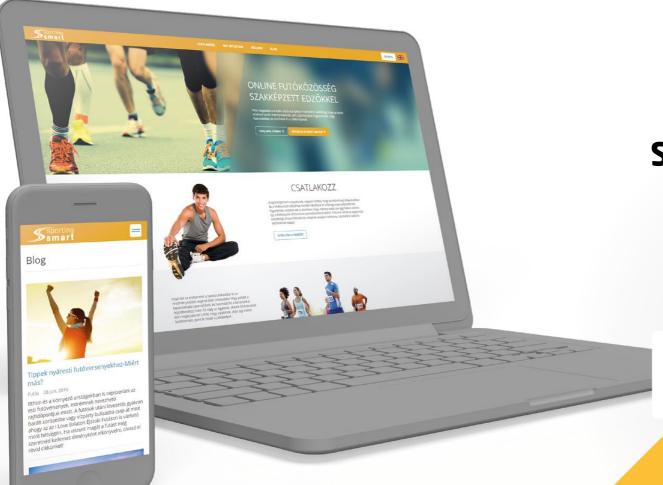
The *RunAddict* app can track the run through Google Fitness or the Apple Health apps, but the workout can be measured with any device or app; just a few simple permissions are needed to sync and to authorize access to the Google Fitness app. In addition to these, *RunAddict* can also be connected to other running applications such as Strava, Runkeeper or PolarFlow.

fun facts

collecting points by running

accident insurance option within the app

synchronization with external applications

SportingSmart
website

The *SportingSmart* website is focusing on running, encouraging both beginner and advanced runners. Our bespoke website is mainly designed for those who want to change their lifestyle, but find it difficult to do so because of the busy working hours or school attendance.

SportingSmart
website

PROJECT DATA

date
2016

client
SportingSmart is the first global online sports community with personal trainers – providing automatic, but person-alized training plans.

product
responsive website

task
design, comprehensive web development, filmmaking, providing server background

display
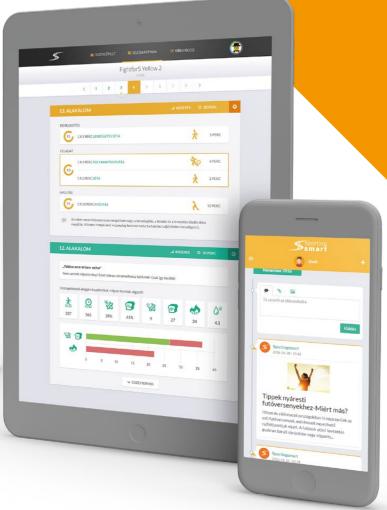internet

SportingSmart creates personalized training plans according to the overall fitness and chosen goal of the users. After completing a fitness assessment, a custom training plan is presented, which is compiled with elements based on a special algorithm created by professional personal trainers. These training plans combine workouts with varying exercise intensity, depending on the person's stamina, with both stretching and strengthening exercises. Based on the training level, the goal and the time dedicated to training, the software is combining the options of running types, such as running-walking combinations, jogging, progression run, fartlek, intervals, hill repeats, sprint and tempo run.

The individual goal, for which the system prepares the runner, can differ on a scale ranging from reaching the fit state to running a marathon. The system also includes a social website where athletes have the opportunity to post their performances and follow other runners, as well as a professional blog that constantly helps to prepare for the running trainings and to maintain motivation.
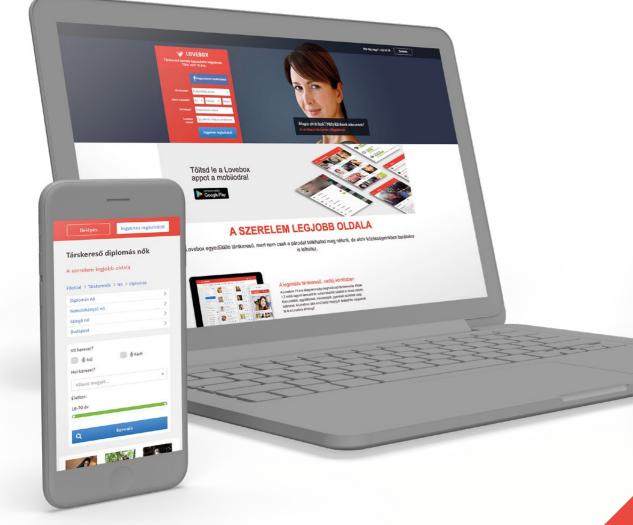
fun facts

algorithmically generated training plans

fitness assessment

system developed with professional athletes

Lovebox website

More information:
zng.hu/en/**lovebox**

Creative agency "*The Cook*" contacted us to modernize their *Lovebox.hu* dating site's user interface, based on their visual design. Furthermore, we rewrote the background system responsible for the site's design, making the website easier to operate and maintain.

Lovebox
website

PROJECT DATA

date
2015

client
The Cook is a Budapest agency that employs creative and marketing professionals and developers.

product
responsive website

task
comprehensive web development

display
internet

In constant consultation with our client, first we rewrote and modernized the front-end interface, making it responsive to provide the same user experience on mobile devices, tablets or larger screens.

Using modern back-end technologies, we modified data processing and background systems, and also optimized database queries. In addition, the search algorithms have been improved and the site's loading time has been accelerated, so that the existing operational logic and the well-known brand have been completely modernized within and across the interface.

After delivering improvements, the system has been easier to operate for our client and it's more distributable in terms of resources. Since its handover in 2015, *Lovebox.hu* has been operating with an unchanged design and is one of the leading dating sites in Hungary.

fun facts

30.000 users,
3 million photos,
500 million chats

unchanged design since 2015

Financial Services Solutions

A growing selection of easy-to-use, fast and convenient financial services both for service providers and their customers. During the course of our developments for the financial sector, the primary aspect is the acquisition of the calculation and other specific operational processes. This allows us to create systems that operate efficiently and meet user needs.

Hitel.hu website

More information:
zng.hu/en/**hitelhu**

For real estate agency "*Otthon Centrum*" we developed a website, which helps customers to compare different loans and to make smart borrowing decisions. Our website allows quick, easy comparisons of nearly 200 mortgage loans from 20 different banks.
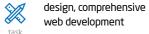
PROJECT DATA

📅 2016
date

👤 The employees of Hitel.hu are experts with decades of bank lending, consulting and management experience.
client

🎯 responsive website
product
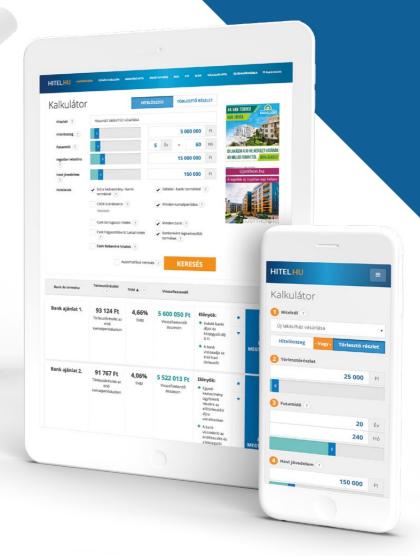
✂️ design, comprehensive web development
task

🖥️ internet
display

Hitel.hu
website

The special bespoke feature of our listing page is the comparison of product services, which we specialized for loans, integrating the basic service with a "reverse" search function. With the help of the website, customers can not only calculate with the loan amount to be taken, but they can also make calculations on the basis of the monthly expenditure: this is how we made the "reverse" calculation feature possible. Since the system integrated the loan products of several banks, it was a great challenge for us to master the individual loan calculation processes, based on which we managed to develop a universal algorithm. It was important for us to be able to perform different calculations quickly when assessing a given loan application, and then display the various options to the user. The software was developed in close cooperation with our client, and after launching the first version, we provided support activities for a long period of time and made minor additions to the service. The website has been actively used ever since.

💡 fun facts

20 banks, nearly 200 mortgages

"reverse" search engine

loan payments calculator

universal algorithm for different loans

Veneo Sys
web application

immo**1**

For experienced realtors, we developed a workflow system by rewriting their old system, expanding it with additional features.

Veneo Sys
web application

Over the years, the company's user needs have transformed; therefore changes were needed in certain processes. To this end, we have developed several implementation plans, which we fine-tuned during the consultations with our client. As a result, the web application was extended with a mobile application and with a user management system.

We worked with a large data set, therefore from the beginning of the database architecture development work, our priority was to create a high-capacity software environment. For this reason, we could divide one large web application into several smaller parts, as the navigation between different applications was not a problem due to our unified access system. A designer, a tester, several back-end and front-end developers were also involved in the development, so at the end the project became a huge team effort.

During the work, we were in constant consultation with our client, so that the result perfectly reflected their ideas.

PROJECT DATA

date
2021.

client
Immo1 is a company with almost 20 years of experience in the real estate market, with an established own broker network in Hungary.

product
web application

task
design, front-end and back-end development

display
internal-use system, internet

fun facts

bespoke user management system

high-capacity software environment

Have any ideas?
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MOZAIK education

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telenor

vodafone

K&H

ERSTE BANK

otpbank

SANOFI

teva

DEKRA

MVM

ORSZÁGGYŰLÉSI MÚZEUM

Móra Ferenc Múzeum Szeged