

austria wirtschaftsservice

aws

aws impulse XS/XL

Funded projects
2018





New ideas with
potential.

The catalysts: innovation, flexibility, interdisciplinary modes of operation and early anticipation of social change.

The result: incremental growth, high added value and above average potential for development.



© BMDW/Christian Lendl


Dr.ⁱⁿ Margarete Schramböck
Federal Minister for Digital and
Economic Affairs

Investing in creativity and innovation is the best way to secure our future, to safeguard our country's competitive position amongst the best and to become an innovation leader. Digitalisation and the associated novel forms of value creation offer our companies enormous opportunities. The mainspring of the digital transformation is the creative industries sector. This is where many ideas, products and processes, services and business models of tomorrow are being developed, and already successfully applied – with the cross-sector collaboration benefiting the rest of the economy. We aim to support this pioneering transformation in a purposeful manner and enable trendsetting creative projects to get off the ground – projects which benefit both the local economy and society at large!



Mag.ª Edeltraud Stiftinger
Managing Director of the AWS

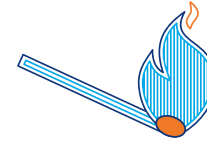
DI Bernhard Sagmeister
Managing Director of the AWS



The idea that innovation only relates to technology has long been obsolete. The defining term today is impact innovation. The starting point in Austria lies within the creative industries, which aws has been supporting for more than ten years. This booklet provides an insight into the wealth of ideas and the creative potential of companies. The strength and adaptability of this sector is particularly evident in these times of digitalisation. The creative industries have – in a kind of pioneering role – long recognised this potential. Many companies we support with the programmes ‘aws impulse XS’ and ‘aws impulse XL’ have long been concerned with the digital opportunities for new products, services and business models – this applies to both start-ups and established SMEs. In order to further promote this pioneering spirit, our impulse Calls place special emphasis on digitalisation projects. The creative industries are after all the driving force behind innovation within the entire economy. The next few pages provide insight into the highly innovative projects that have been implemented with the assistance of aws.



aws impulse XS

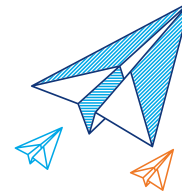


aws impulse XS promotes the early **development** phase of **prototypes and initial applications of innovative products, processes, business models and services** beyond high technology, for example in the context of digitalisation, design (including graphics and fashion), architecture, gaming, music & film exploitation (or technology) and digital media.

aws impulse XS supports projects with non-refundable subsidies of up to **50,000 Euros** and up to **70% of the eligible project costs**.

aws impulse XS is aimed at small and medium-sized enterprises (SMEs) in all sectors (existing or in the process of being established) and individuals.

aws impulse XL



aws impulse XL promotes the **implementation and market transition of innovative products, processes, business models and services** beyond high technology, for example in the context of digitalisation, design (incl. graphics and fashion), architecture, gaming, music & film exploitation (or technology) and digital media **at a stage at which the economic viability can already be comprehensibly demonstrated.**

aws impulse XL provides non-refundable subsidies of up to **EUR 200,000** and up to **50% of the eligible project costs.**

aws impulse XL is aimed at small and medium-sized enterprises (SMEs) in all sectors (existing or in the process of being established).

In addition to monetary support, aws supports (potential) start-ups, spin-offs and intrapreneurs through the transfer of know-how with a focus on entrepreneurial professionalisation. In this context, experts provide insights into current company-relevant topics and outlooks on the latest developments and trends.

Through targeted activities and a broad-based information programme, aws makes an essential contribution to raising public awareness of the value and potential of creative achievements and to strengthening the economic importance of this sector.

In 2018 aws was supporting partner of the subotron pro games series, the Vienna Design Week, the Forward Festival, cooperation partner of designforum Vorarlberg and the national host of the Creative Business Cup.

Content

Funded projects

2018

aws impulse XS

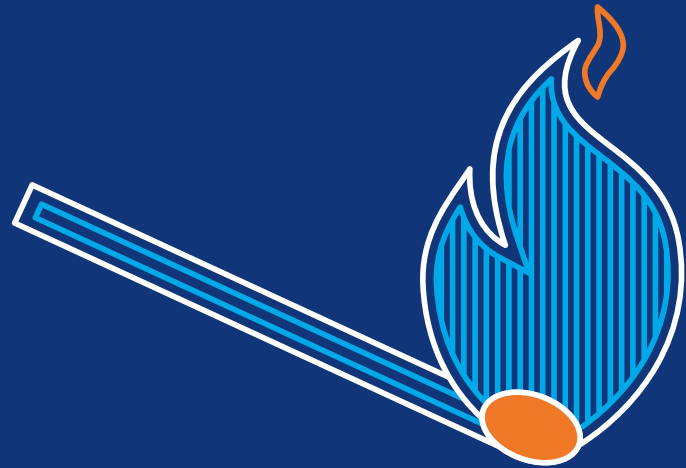
Architecture	16
Design	20
Digital/Games	46
Music Industry (Exploitation/Technology)	70
Film Industry (Exploitation/Technology)	72
Media & Publishing	74

14 aws impulse XL

Architecture	78
Design	80
Fashion	88
Digital/Games	90
Advertising Industry	108
Overview	110

aws **impulse XS**

Funded projects





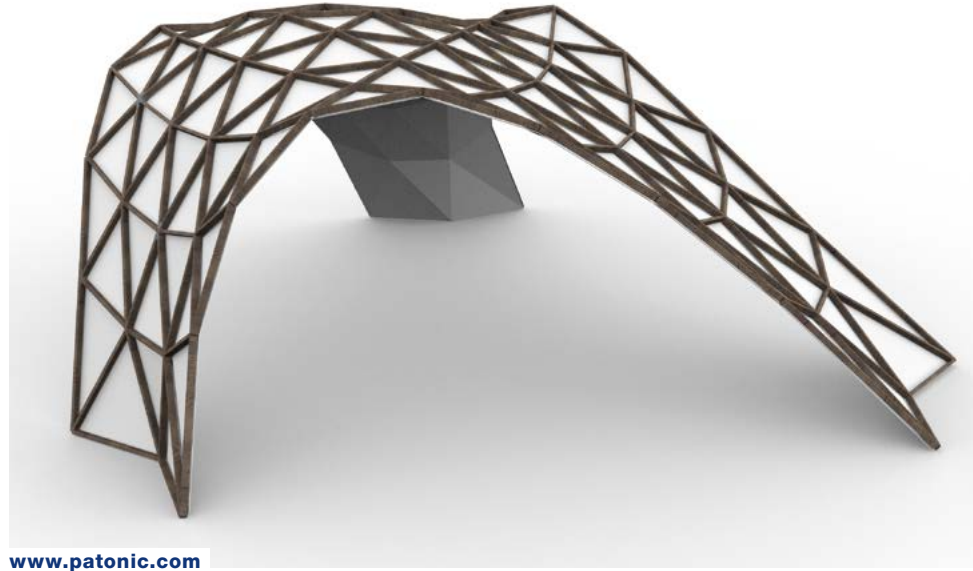
www.aprior-e.com

Tone-in-tone

Entwicklung von Do-It-Yourself Baustoffen aus Ton // aprior engineering – Technisches Büro Wallner – Ingenieurbüro für Innenarchitektur

With their undertaking the project developers want to contribute to making affordable, sustainable building materials available more quickly and easily in future. Clay, a building material that has so far been neglected but is of high technical quality, will play a key role. The aim is to develop a system module that enables clay, sand, gravel and organic fibres to be used to construct technically perfect load-bearing structures that create a particularly cosy ambience. In order to manufacture the modular components, it is first necessary to plan and construct a

suitable mould. Only then can the building blocks be produced on a larger scale and in a standardised format. In addition, the interdisciplinary project team intends to develop a „Do-It-Yourself“ training programme and set up a material storage system that is available to users in the form of an online library.

www.patonic.com

Improved tie-up

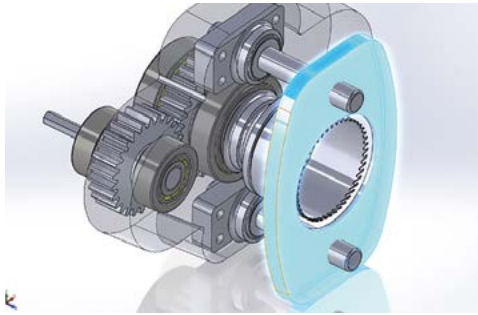
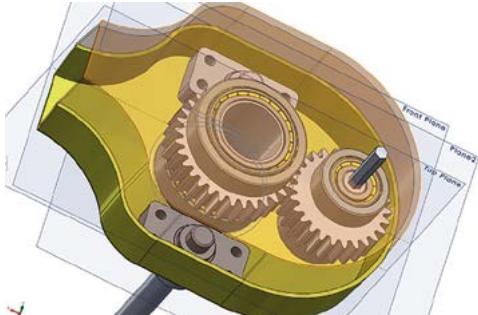
OPTI-KNOT-3D // ARGE OPTI-KNOT-3D

With Opti-Knot-3D a digital tool is under development which automatically designs and produces node connections for free-form frameworks. The system developed by Thomas Pachner and Benjamin Kromoser enables not only the design process but also the entire planning, optimisation and production process of the joints to be digitised and automated. In the sense of a “mass customization” approach, the complete process for a large number of node connections will in future be carried out by a single person and all technical feasibility considerations will be transferred

to the automated system. This way, the architects are given almost limitless freedom of design. Where a visible construction is concerned, this approach will make it possible to architecturally define the shape of the node and adapt it to the building – a solution that has not yet been available on the market in this form.



<http://alle4einen.at>



Photocredit: DI Daniel Pressl | PhD

It ought to be that simple

WALLinONE // Alle4Einen OG

Anyone who wants to install a socket outlet faces a number of challenges. Old and new cables and wires embedded in the wall should not be damaged – not least for safety reasons. Whilst traditional attachments for drilling machines allow drilling in the desired size, they do not provide apertures for existing cables and the drilling depth can usually not be defined in advance. This is exactly where WALLinONE comes in: The product, which can be combined with all commercially available drilling machines, allows previously laid cables to be fed through the

cutting tool so that they are not damaged during drilling. Depending on the machine and industrial design to be created, the product is supposed to be manufactured by means of additive manufacturing in order to obtain a final product that is as precise and cost-effective as possible.



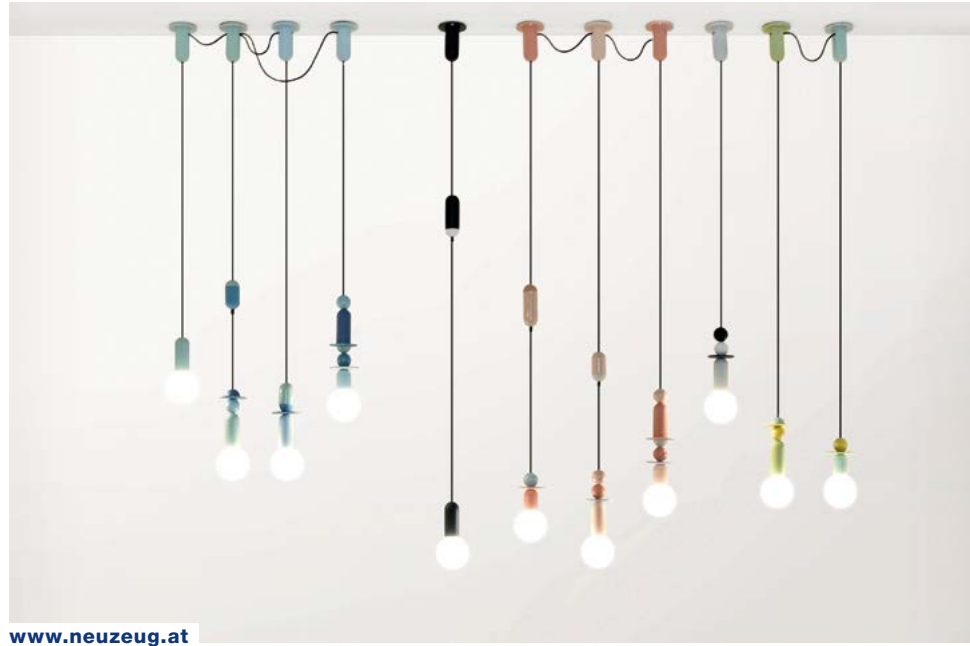
www.plasticpreneur.com | www.doingcircular.com

Plastic recycling – simply efficient

Plasticpreneur // Lex Sören

The project plasticpreneur is concerned with the development of easy to manufacture and cost-effective plastic and plastic waste processing machines. Three different machines, intended to address three different applications, have already been designed. These are a shredder, an injection moulding machine and an extruder. Although large companies may already be equipped with machines featuring similar functionality and properties, plasticpreneur's goal is to make plastic processing systems more easily accessible to smaller companies.

The main focus is on the fast and simple operation of the machines, which is also ensured by, among other things, a flexible modular design. In order to be able to work electrically self-sufficiently and even more cost-effectively, further development phases envisage the offering of non-motorised machines in addition to some motor-driven variants.



Porcelain lamp from the design laboratory

Neu/Zeug denkt Licht aus Porzellan neu! // Neu/Zeug Design OG

The Upper Austrian company Neu/Zeug produces high-quality porcelain lamps that can be individually manufactured and used as modular units. Following the successful crowdfunding for the production of the first collection “Pearls”, a modular wall and ceiling lamp as well as a series of umbrella lamps based on the first series are now being created. In the course of its development into an experimental studio for visionaries, the porcelain manufactory offers workshops in cooperation with specialists from the fields of 3D printing, robotics and lighting technology. The aim

of the workshops is to gain insights into the quality of light and processing of bone porcelain, which will be incorporated into future design developments. Whilst the production of porcelain and ceramics in Austria is considered to be a dying craft, Neu/Zeug is breaking new ground in creation and production. Experts from the fields of technology, design, sales and production team up to work on a concept for design and manufacture based on a combination of high-tech processes and traditional production methods.



www.jakobglasner.com

Build a loft bed – and do it fast!

Entwicklung eines Hochbettkonzepts // Jakob Glasner

Having high aspirations where sleep is concerned means you are faced with a difficult choice. It takes time, the right material and craftsmanship to build a loft bed on your own. Ready-made kits facilitate the construction, but often leave a lot to be desired in terms of stability. Whereas in most classic free-standing loft bed variants the weight of the bed is transferred to the ground via vertical uprights, this new high-bed concept uses gravity instead of fighting against it with high material costs. Two metal frames, which serve as the head and foot sections,

are pushed vertically onto the bed frame and set at an angle. The dead load of the frame and the mattress pulls the metal frames to the ground, leading to the interlocking of the head and foot sections. This technology simplifies assembly and at the same time provides great stability regardless of the load. Whilst a first prototype for this model has already been completed, the project team is now aiming to find an attractive and functional solution for the railing, a ladder and a height-adjustable or modular frame.

www.reflo.bike

Breaking smart

Fahrrad-Energierückgewinnungssystem // roundic OG

This energy recovery system for bicycles is designed to convert the energy generated during braking into drive energy. With this system, the two project developers and company founders Andreas Zobl and Martin Moser not only want to offer cyclists assistance when they get started, they also want to close the gap between classic bicycles and e-bikes. Due to their ability to absorb and release the comparatively high braking energy much more directly, so-called supercaps (supercapacitors) will be used instead of conventional rechargeable batteries. Particularly during long stop-

and-go journeys, the intuitive operation of the system is to enable a completely new driving experience. The aim of the development team is to position this system as a high-quality product within the lifestyle segment. For the implementation of this project, the two company founders have been able to bring together a highly qualified team and have carried out several tests already.



www.waibrosports.com

Looking ahead

WAIBROsports – MVP & Product Design // WAIBROsports e.U.

Katerina Sedlackova's WAIBROsports project entails the development of a navigation belt designed to enable blind and visually impaired athletes to independently practice sports such as cross-country skiing and running. The device's signal transfer was designed in such a way that context-related information and intuitively comprehensible action commands can be communicated to the blind athlete through easy-to-learn vibro-tactile impulses. A particularly differentiated design of the vibration feedback will make it possible to pass

on 15 different commands quickly and comprehensibly to the user. The vibration motors on the belt can be repositioned in order to adapt the belt to any body shape. Katerina Sedlackova's research work on auxiliary aids for the sports sector was inspired by her own work as an accompanying athlete.



www.raiseaplant.com

Floor lamp with a green thumb

Shreba – die smarte Pflanzenstehlampe // raiseaplant GmbH

Room lighting, green space and living design in one? The smart Shreba plant floor lamp makes this possible; it not only provides pleasant lighting, but also takes care of indoor plants. Through innovative design the lamp integrates perfectly into the living space. The plant system consists of a planter, a water tank, a climbing aid, a unique pollination system, a lamp with Tuneable White Light and sensors such as a daylight detector so as to add only the light required for the plant. A cartridge-like inner pot filled with seeds, soil and fertiliser is hinged into the plant pot. The intelligent

system automatically controls lighting, irrigation, fertilisation and even pollination. The plants are set in motion so that the pollen is released from the anthers. The pollen is transferred onto the pistil in the same flower thereby pollinating it. Thus, for the first time, a variety of fruit and vegetable can be cultivated in one's own living room. The ingenious system ensures that the effort in caring for the plants is kept to a minimum and renders Urban Gardening suitable for everyday use.



www.sqalo.com

Diving fins that fit

Sqalo: Innovations in Diving // Daniel Logar, Arno Schrittwieser

Large pack sizes, considerable weight and a low capacity for adaptation: A large proportion of diving fins currently available on the market are restricted in their suitability for transport as carry on baggage on planes and there have been few further developments in this sector for years. It is this shortcoming which Daniel Logar and Arno Schrittwieser want to tackle with their fin Sqalo 5. An innovative use of materials in combination with modularity and individual production tailored to personal needs seeks to offset some of the weaknesses of currently

available products. The interchangeability of components such as the foot pocket, the web and the blade of the fin allows different diving conditions to be catered for. Whereas a soft fin blade is comfortable when diving in warm water with light equipment, a firmer high-performance fin blade is needed in cold water with heavier equipment. Customers also have the option of configuring their diving fins to suit their own requirements and to determine the design of the fin blade themselves.



hello@love-a-duck.com



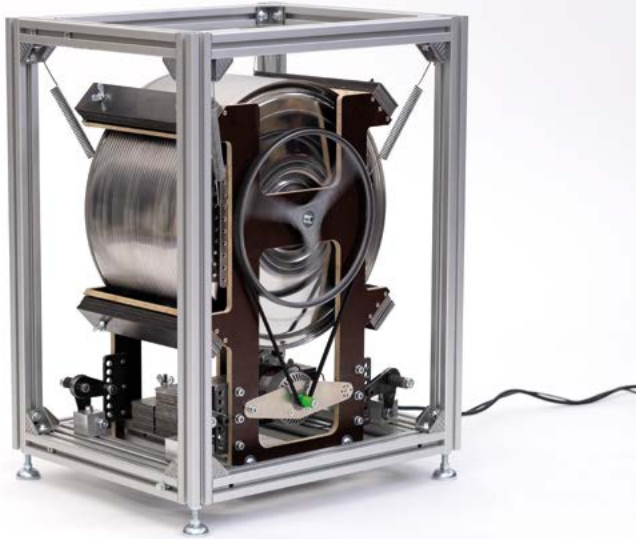
Design „Azul“: Anna Breitenberger, Photos: Geetha Breier, Copyright (c) Design and photos: LOVE A DUCK

Red wine, ketchup, puppy

Abwischbare Segeltuch-Teppiche // Martina Grünewald

Whether in the hallway, in the living room or in the children's play corner, appropriate carpets are an essential basis for successful interior design. Their cleaning, however, quickly becomes a nuisance. In a house where guests are welcome or where children or pets live, stains are commonplace. In order to make them vanish without a trace, Martina Grünewald, international design expert and mother herself, develops unique carpets made of cotton canvas that combine high-quality graphic design, genuine sustainability and astonishing ease of care. The carpet

surface can be cleaned with a damp cloth, is non-slip and hypo-allergenic. The carpet construction consists of a digitally printed and specifically sealed cotton canvas laminated onto felt. Another unique feature of the production technique is that the motif, format and size can be individually selected. Each carpet is printed, sealed, assembled and delivered to order – inclusive of a relaxed serenity towards stains.



Photocredit: Julian Hagen

Proud Age

100jährige Waschmaschine – Machbarkeitsnachweis // Permanere – Verein zur Erforschung und Entwicklung nachhaltiger Produkte und Lösungen

With their registered association Permanere, the project team consisting of Peter Knobloch, Daniel Kloboucnik, Bernhard Ranner and Billie Rehwald aims to develop a particularly durable washing machine with competitive washing performance. Also in the planning is the conceptual design of a small batch production. The explicit objective of the project is to develop a washing machine that can be used for up to 100 years. This requirement will primarily be met due to the stability of the individual components, but also by the ease of maintaining and

repairing the machines and the ready availability of spare parts. A new design should additionally contribute to a better ergonomics of the device. By means of a “digital spare parts warehouse”, the project team also intends to ensure that parts can be manufactured individually if required. All parts that are to be manufactured must therefore be designed in such a way that their production can take full advantage of “digital fabrication” possibilities, i.e. computer-controlled processing.



Well protected

Smart Hearing Protection – Selective Hearing // Matthaeus Unger

The Smart-Hearing-Protection project is dedicated to the development of new technologies in the field of hearing protection. The focus is on the conception of an artificial acoustic reality that is designed to protect the wearer of hearing protection even in extreme noise situations, whilst at the same time ensuring that he or she remains accessible at all times. The specifically developed technology consists of the two components of sound proofing and noise cancelling and ensures that all unwanted noise sources are eliminated. At the same time, the identification and

synthetic recording of certain acoustic signals makes it possible for individual signals to still penetrate. On the basis of this information, the software is then able to create individual sound profiles, which can be exchanged between different people. “Selective hearing protection and Professional team communication for Heroes”.



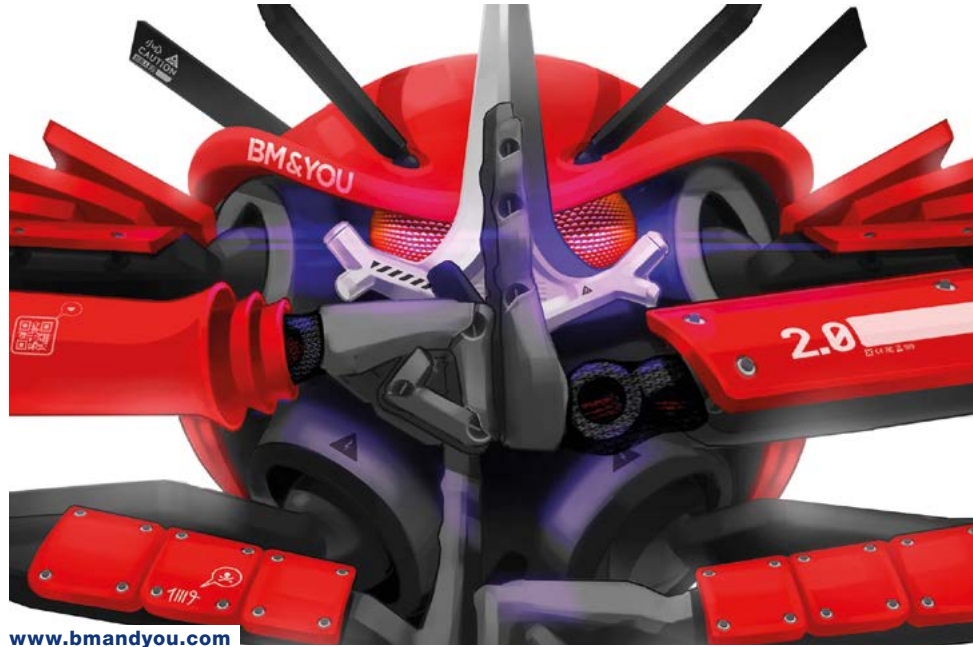
www.gloom.at

A matter of packaging

Gloom // Thomas Schiefer

Gloom is a project dedicated to the question of what simple yet smart packaging for high-quality charcoal can look like. The development of an innovative cardboard packaging concept is primarily intended to make it easier for the consumer to light the charcoal. However, the project by Thomas Schiefer and Florian Schweiger pursues a more comprehensive approach, which also provides for considerable facilitation where shipment is concerned. In a particularly simplified method, the charcoal packages will be made available directly from the producing plant via an online shop. It is

also envisaged that the packages will be appropriately portioned in advance, so that they simply have to be placed on the grill and lit there. The unprinted and carefully selected packaging burns off whilst the enclosed ignition agent of waxed wood fibre lights the charcoal.

www.bmandyou.com

The big crawl

Hero Robo Bugs// Benjamin Cselley

Aiming to make video games come alive, Benjamin Cselley's plan is to create robot beetles that can be constantly trained and developed. In tournaments they can compete against other "Hero Robo Bugs" and demonstrate the skills they have acquired so far. Coupling transmissions and cam controls should ensure that particularly realistic-looking movements are possible. At the same time Benjamin Cselley intends to create the structure of the robots in such a universal and systematic way that specific characters, gameplays and stories can be realised on

a basic platform. For example, there will not only be fast and slim bugs, but also more solid robot beetles, which will be able to act in a much more stable way. Since the gameplay envisages a close bond between the bug and the trainer, the degree of autonomy of the robots is secondary in comparison to the experience and the learning factor.



Species protection with the use of IoT

BeeSaver-Algorithmen // BeeSaver OG

With the help of a smart beehive, the BeeSaver team aims to support young beekeepers in their activities and help reduce bee mortality. In Austria alone, an average of 70,000 bee colonies die each year as a result of constantly changing environmental influences and new pests. To counteract this trend, BeeSaver intends to develop a measuring system that can be attached directly to the hive. The hives will be equipped with sensors that measure weight, temperature and sounds. Artificial intelligence then has the important task of evaluating all the

collected data. Finally, the app linked to the measuring system provides information about the condition of the bees and gives recommendations for action. In addition, a platform promoting the exchange of knowledge and experience will be set up in order to enhance beekeepers networking opportunities.

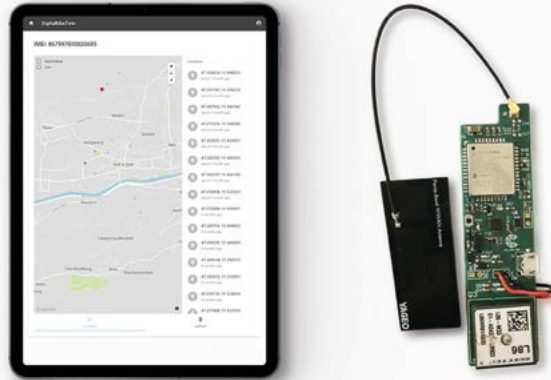


Learning by playing the Escape Game

Die 17 Weltziele als Escape Game // Elke Szalai

Escape Games are currently experiencing a worldwide boom. The common decryption of codes, the search for hidden objects or tools and the triggering of circuits not only promotes team spirit, but also brings the gaming experience of virtual games into reality. It is this component that is to be used in a new project idea for the transfer of scientific knowledge in order to educate entire school classes on topics ranging from history, geography, and economics, to astronomy and chemistry. In order to solve a puzzle, players must, for example, close

electric circuits, measure PH values or produce chemical reactions. The goal is to create a game that conceptualises the 17 objectives for sustainable development, as defined by the UN in a catalogue of measures. The Escape Game should fulfil a clear educational mission and at the same time offer a deeply engaging and attractive gaming experience. Whereas classical Escape Room Games are typically tied to a single place, this solution is intended to be mobile and able to be used in different locations.



<https://www.tributech.io/digital-bike-twin/>

Digital theft protection

Digital Bike Twin // Tributech Solutions GmbH

With his Digital Bike Twin project, Simon Pfeifhofer aims to develop a digital theft protection solution for bicycles based on the new Narrowband IoT technology – a unique radio technology. The aim is to enable accurate positioning even in remote areas, such as basement compartments. If the bicycle is stationary, the owner can be informed about the location of the bicycle five to ten times a day. Special blockchain technology additionally provides a tamper-proof certificate of ownership. In comparison to conventional GPS sensors, the sensors from Tributech

Solutions consume significantly less energy and therefore need to be replaced less frequently. The challenge from a creative industry point of view lies in the design of the tracker and its permanent mounting on the bicycle together with the preparation of the collected data for other stakeholders.



<https://spoco.me>

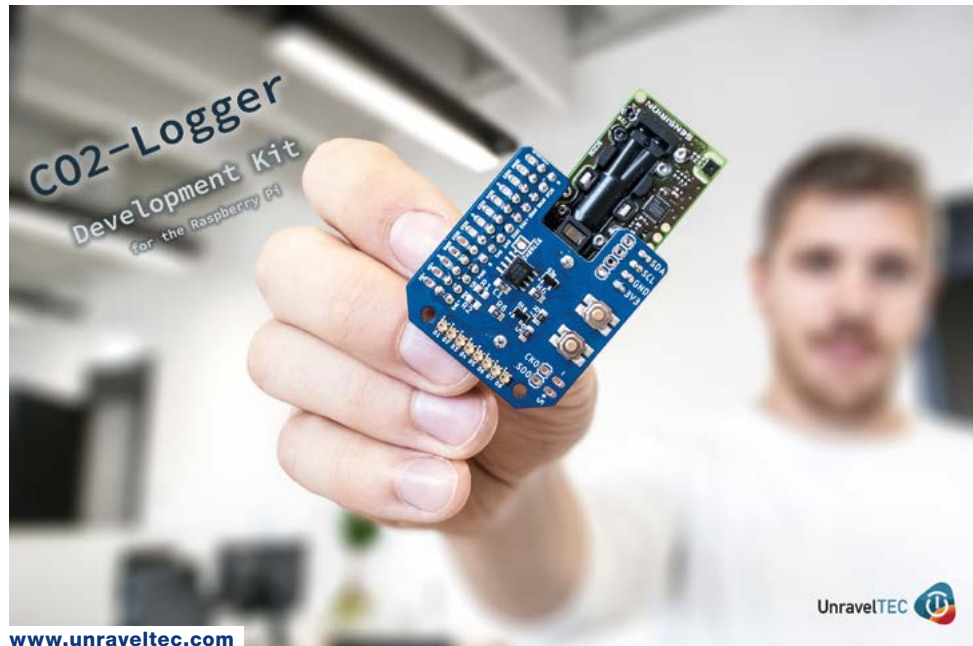
Photocredit: unsplash.com

Cooperative Activities

Spoco – Spontaneous Cooperation // Research Studios Austria
Forschungsgesellschaft mbH

Spoco wants to support spontaneous gatherings between people with common interests and in doing so draw as little attention as possible. The decentralised WoN technology (Web of Needs) developed by the project team forms the basis for this concept. For the time being, the technology will only be used in the AR game Pokémon GO and will make it easier to schedule so-called “Raid Battles”. Until now players still tend to organise themselves via numerous time-consuming communication channels of different types in order to – within the framework

of such a Raid – jointly catch a powerful Pokémon. In contrast to other apps and platforms, Spoco uses interest-based matching to ensure that the organisation of these meetings does not generate spam and only involves those users who are genuinely interested in a particular event. The service is intended to be gradually expanded and extended to other areas.



Henri – Measuring the world once

Usability-Ansätze für ein Allzweckmessgerät // UnravelTEC OG

Whereas smartphones can now use built-in sensors to measure distance, steps or altitude and, with additional gadgets, heart rate, other data measured by sensors is hardly used, let alone understood in context. In contrast to devices that provide isolated measurements, Henri is intended to serve as a general-purpose measuring tool that not only displays isolated data, but also displays correlations and processes them in an app. The measurement is carried out with a large number of sensors. The aim is to create a single, multi-functional platform that

enables users to explore and understand their own environment. In addition to the measuring device, an open source framework will be developed, which will serve as a basis for the subsequent application. The open source approach is designed to facilitate further development by the community. As the prototype of a future line of personal and mobile measuring devices, the CO₂-Logger will help to keep productivity, performance and creativity at a high level in any situation and to avoid environments with excessive CO₂ emissions.



„The most accurate
sports tracking application“

www.crossbox-laptiming.com



Laped

Interactive Lap Timing Systems // CrossBox Lap Timing e.U.

With its “Interactive Lap Timing Systems” project, CrossBox Lap Timing e.U. would like to introduce ambitious amateur racers to a system that helps them analyse their driving behaviour on the basis of actual measurements. What is common practice in professional sport has so far only been available to a very limited extent to recreational racers. The project therefore focuses on the development of technologically sophisticated evaluation and analysis software that provides sportspeople with all the information they need about a race they have just

completed. During the ride, the driver is provided with all important information via headphones, followed by a clear presentation of the data in the app and on the specially developed web platform. These can then also be used for the purpose of comparisons with each other.



iAudio Sensor



Noise-Cancelling in the car

iAudio – Intelligent Audio Noise-Cancellation // Evolve.tech GmbH

As a high-tech start-up, Evolve focuses primarily on the combination of machine learning and acoustics in the automotive sector. The central concern of the iAudio project is the suppression of all background noise in moving cars in order to make ASR services, i.e. Automatic Speech Recognition services, more reliable and thus minimise the risk of accidents. For five years, Matthias Zöhrer and his team have been working on a technology that renders the car a place where crystal-clear communication is possible in the near future. The aim of the project

is to prevent drivers being distracted due to the need to reach for a smartphone or touchscreen. According to studies, this could prevent about 30 percent of all car accidents. The project also takes account of the constantly growing trend in speech recognition in the automotive industry.

www.x-droid.com

Back to Reality

xDroid // xDroid GmbH

Remote-controlled cars, RC cars for short, were once omnipresent toys – now they are increasingly being replaced by game consoles, PCs, smartphones or handhelds. While many game developers are trying to put the players deeper and deeper into a virtual reality, the Viennese startup xDroid has taken an exactly opposite approach – and wants to help the RC cars, which they loved in their childhood, to a new resurgence. Using a specially developed app, RC cars can be remotely controlled in the real world, while storytelling and gamification elements are used to transfer

the game logic from classic console games to the real world. The interface in combination with exciting storytelling makes it possible to transfer the game logic of classic racing games into the real world, thus making the gaming experience more exciting and at the same time more social. The concept is to be expanded in the future to include a gamification kit for various games. An electronic chip replaces the classic remote control and enables operation and gaming via app.



Charging when parking instead of parking when charging

Etonomy // TOTALdeluxe GbmH

How the mobility of our society will develop in the coming years depends not least on the technology available. The ranges of electric vehicles and the charging options are currently limited in Austria, despite electricity being available throughout the country. The aim of Etonomy is to develop cost-effective charging points that can be easily integrated into the cityscape and which reduces the range limitations via a shift from a frequent to a permanent charging model. Thus making electric vehicles an attractive option for urban areas as well. Current charging stations

rely on the classic refuelling station principle and try to charge vehicles as quickly as possible – in urban areas it would make more sense to use idle times for charging. To ensure this, loading points would have to be available in high density, which could be provided, for example, by parking garage operators or companies with parking spaces for customers. The car can thus be recharged anywhere, just like a smartphone, the billing takes place via mobile phone or an account.



Run the world

Spinnortality: a cyberpunk management game // James Patton

The game Spinnortality turns its players into managers of a multinational company and demands full commitment at all levels: from the bribery of political personnel to the exertion of influence on media companies and secret interventions to ensure that players have power over entire nations. Spinnortality plays in a cyberpunk future, but the inspiration for many of the storytelling elements comes from the present. The goal of the game is to gain power over the whole world. The gamers should not only build up a joy of playing, but also critically deal with a system

that is characterised by capitalism and geopolitical considerations. The dystopian portrayal of a hyper-capitalist world of the future is designed to convey complex global economic and political contexts as it were. Whilst many games use a cyberpunk world purely as an aesthetic basis, Spinnortality uses game dynamics to make power dynamics tangible.

www.path-tuq.at

On a discovery tour

PATH – The Urban Quest // PATH – The Urban Quest GmbH

PATH is a company in the recreation and tourism industry that has set itself the goal of developing unique adventure tours in an urban environment. Instead of conventional city tours, the PATH team, consisting of the three founders Thomas Bergermayer, Paul Braunstorfer and Lisa-Maria Koark, intends to offer so-called “quests”. Quests are story-based tours – the integration of modern, interactive technologies such as AR and VR removes the boundary between reality and fiction and increases the experience factor. This way, tours are created that not only convey well-founded

historical knowledge but also uniquely combine reality and the game world, whilst at the same time providing an incentive for cooperation and teamwork. The target group includes both private individuals and companies who would like to engage in exploratory tours of this kind as part of company excursions.

Rückruf anfordern kontakt@benu.at 24h erreichbar 0800 88 44 04

Benu. TRAUERFALL VORSORGE RATGEBER

Unverbindliche Planung einer Bestattung

PLANUNG STARTEN

Bestattung bei Benu erklärt in 1 Minute.

BEKANNT AUS Die Presse KURIER DER STANDARD Salzburger Nachrichten

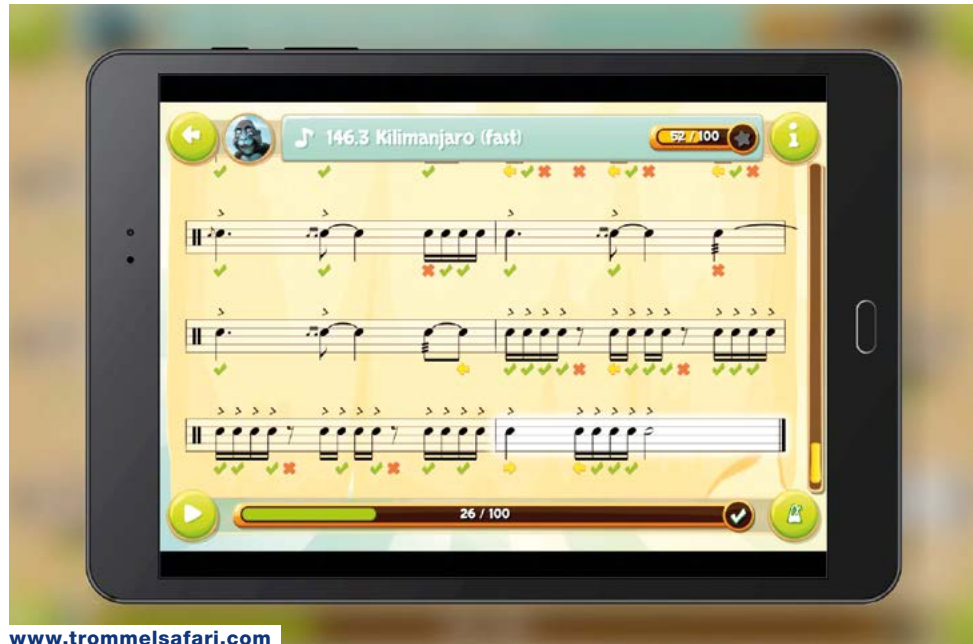
www.benu.at

No pressure at all

Benu – Bestattungen online planen und beauftragen // Benu GmbH

With their project Benu, Stefan Atz and Alexander Burtscher aim to raise the topic of burial to a new, digital, but at the same time very personal level. All those people who find themselves in an exceptional emotional situation should be able to plan a funeral from home via a specially configured platform and design it according to their individual wishes. In order to be able to tailor the preparation of all information to the needs of the users, the project team is striving for cooperation with experts from the multimedia and audiovisual sectors. User friendliness

and intuitive operation of the platform are therefore the central considerations and ensure that the effort is manageable, even with a small concentration span and limited receptivity. Benu's team also sees innovative potential in the area of transparency – both services and prices should be readily available to customers at all times.



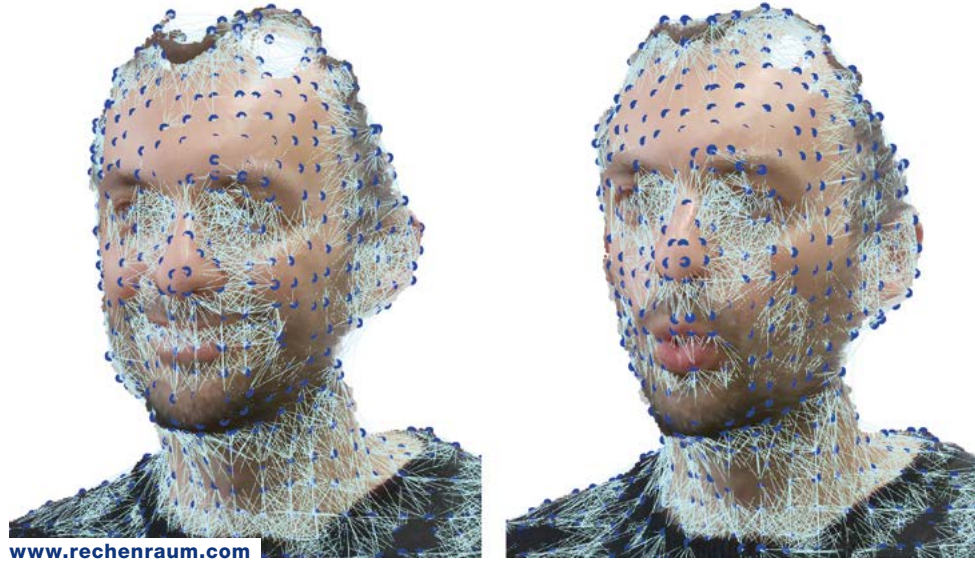
Photocredit: DI Michal Kolasinski

Beats per App

Trommelsafari E-Learning Tool Prototypentwicklung // Hermann Aigner

The successful percussion textbook Drum Safari Snare Drum Level 1 transforms into an intelligent e-learning system for use via smartphone and tablet: The innovative pedagogical teaching concept is further enhanced by future-oriented technology in the app. A total of over 300 exercise tracks and numerous quiz exercises are available, which have been specifically developed for the training content. The beat recognition by the terminal device's microphone enables interactive real-time feedback on the timing of played notes, thus practically eliminating the possibility of learning errors.

Gamification approaches such as scoring and the adoption of a safari trip format are intended to further increase the motivation of learners. Whereas classical aids such as metronomes were hardly able to motivate young students to pay attention to rhythmical precision, immediate feedback and the reaching of scores lead to superior results. This makes the app developed for Android and iOS ideal for home based learning.

www.rechenraum.com

True faces

3D Gesichtsanimation – neue geometrische Methoden // Rechenraum e.U.

In order to develop more detailed and realistic 3D facial animations that can also be implemented with limited resources, the company Rechenraum is investigating the feasibility of a new software method for creating such animations. Of particular interest are content and economic viability. To implement this project, current research results in geometry must be combined with machine learning and some 3D animation techniques successfully applied in the film, games and advertising industries. The combination of a powerful deformation algorithm with machine learning should

render it possible to utilise considerably fewer key-frames than was previously the case in 3D animation. This also eliminates the need to create countless blendshapes, which have to meet a number of strict requirements. The project is aimed primarily at companies in the creative sector, particularly the film, games and advertising industries.



www.media-test.com

TV & RadioTest was yesterday

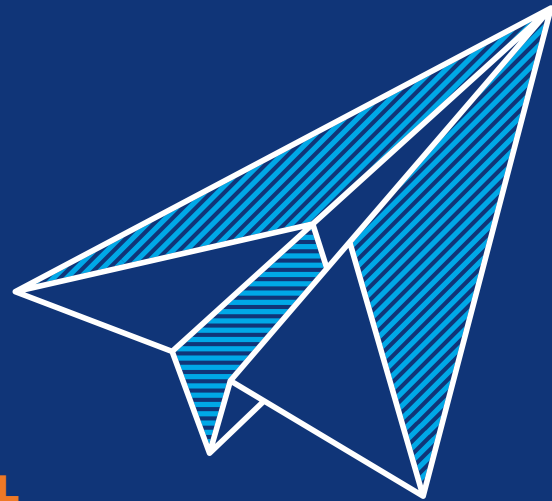
MEDIATEST -die neue, mobile TV u. Radiotest Methode // MediaTest Research GmbH

Our media consumption behaviour has changed significantly due to the Internet, media online services, new distribution methods and new mobile devices. At the same time, the sensors of smartphones and smartwatches have improved so that mobile devices are technically mature as measurement sensors and make purely passive measurement possible. The Teletest in Austria and similar tests in many countries throughout Europe and the world are not purely passive measurement methods. The old methods do not verify how many people are in

the room of the television or whether anyone is in the room at all while the television is running, or they require active participation in the measurement by the consumers. The previous Radiotest merely provided ratings four times a year, based on telephone interviews. In contrast, MEDIATEST delivers precise live data including TV and radio consumption outside the home! MEDIATEST essentially measures when, where and for how long media, including radio, are consumed simultaneously via audio-matching and audio-marking.



aws impulse XL
Funded projects





Smart design tool for architecture

Archilles Pro – Smartes Designtool für Architekten // Archilles Software

The maxim “less is more” is not only applicable to the design of buildings, but can also be applied to the development of software tools for architects. The existing CAD and BIM systems have grown into powerful and expensive design suites, however, in the creative early stages of design, architects use only a fraction of the functionality they offer. In architectural competitions, for example, designers are surrounded by hundreds of functionalities that they do not use at all. At the same time, very few really helpful features are offered to “actively” support the creative

design process. The sleek cloud-based software Archilles Pro offers a novel environment for innovative designs. It is tailor-made for the creative early phase, which is of particular importance for architecture professionals, students and teachers. There is still no comparable tool for this niche, which is extremely relevant for the creative industry. Founder and inventor is Martin Emmerer, an independent architect and software developer.



www.stepdive.com

Simply dive down

STEPDive, SCUBA learning system for kids/handicap // Seven Seas Gear GmbH

With its STEP Dive project, SD Snorkel Dive Innovations seeks to give diving-enthusiastic parents the opportunity to practice their sport together with their children and friends. In order to introduce the children to scuba diving in the most uncomplicated way possible, their natural curiosity should be leveraged. The focus of the project is on the development of a system especially designed for beginners, the core element of which is an air supply element floating on the surface of the water that supplies up to three divers with air simultaneously. With the help of

a sophisticated hose system, breathing can first be practised near the surface, before the diver dares to venture meter by meter further into the depths. In addition, the development of a collection of training videos is planned to present scuba diving as an easily accessible and varied family experience.



www.atempo.at | www.nueva-network.eu

Photocredit: atempo, using a Shutterstock motif

The barrier-free survey tool

nueva Online Tool // atempo Betriebsgesellschaft mbH

Due to the rising cost pressure on the nursing market, it is becoming increasingly difficult to interview people with disabilities about the quality of their care. Traditional face-to-face surveys have their advantages, but are costly and time-consuming. The company atempo, which is managed by Walburga Fröhlich and Klaus Candussi, is therefore working on an appropriate digital solution. Nueva is to become the first digital survey tool that is barrier-free and can therefore be used by people with a wide range of disabilities. Until now, this has not been

possible with conventional survey tools. With the introduction of nueva, people with disabilities can for the first time be surveyed nationwide regarding the quality of their care, which will contribute to sustainable improvements in nursing care.

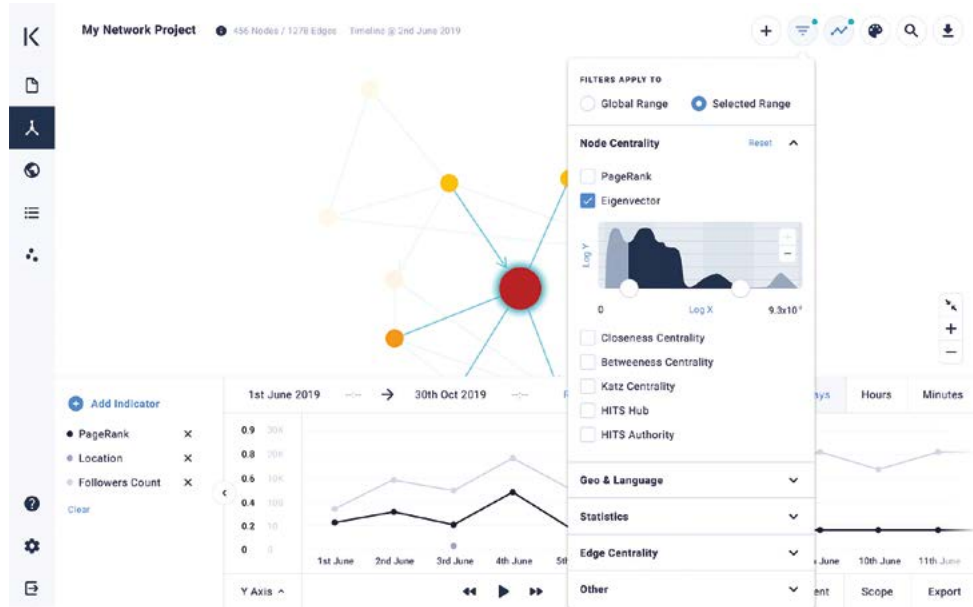


Beautiful linkages

3D-Konfigurator, digitaler Prozess für echtschmuck // Boltenstern GmbH

In October 2017, Marie Boltenstern opened up a niche in 3D jewellery collections printing with her Embrace collection. Boltenstern GmbH was the first company in the world to present a collection which was printed directly in gold and silver and combined with crystals and precious stones. The development of a 3D configurator should now help to ensure that the entire production process is not only digitised and automated, but that the individual steps can also be better interlinked. The configuration tool not only facilitates the work, which is reflected

in a significant shortening of the entire production process, but also renders a much higher degree of individualisation. With the help of the new interface, all customers will in future be able to put together their own individual pieces of jewellery.



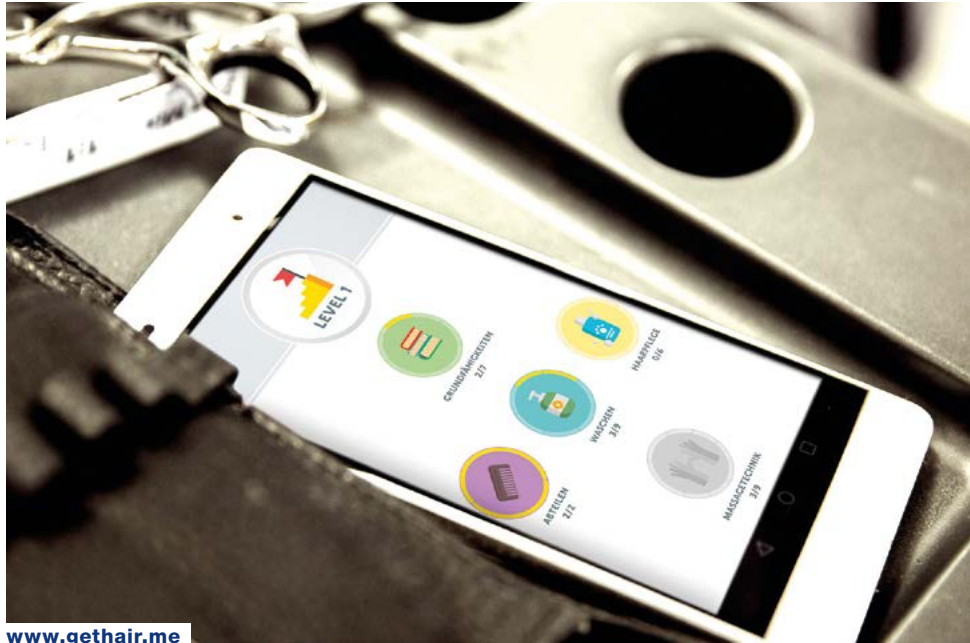
www.kivu.tech

Intuitive tool for network analysis

Eine visuelle Zeitreise durch vernetzte Daten // KIVU Technologies GmbH

The software start-up KIVU, founded by Robert Wesley, Jan van Oort and Christian Weichselbaum, is evolving. Over the last three years, a network analysis platform has been developed that enables IT analysts to review and understand the data traversing their networks. Now the platform is to include the time factor. This enables users to visualise and analyse developments and changes in the data that occur over a certain period of time. This way, networked data is presented in a kind of time travel. The analysis of networked nodes reveals new patterns in

the data that would not have materialised as a result of static evaluation. The platform is suitable both as security technology and for the analysis of fraud networks. Due to the temporal analysis feature and the intuitive user interface, for the use of which no special IT knowledge is required, this product from KIVU Technologies is currently unrivalled.



www.gethair.me

A new part

Impulse Projekt – GetHair // Andreas Innfeld

Under the name GetHair, Andreas Innfeld wants to develop an app that will accompany the apprenticeship as a hairdresser in the form of a digital red thread. The entire training programme will comprise twelve modules, which will be subdivided into individual sub-themes. In order to guarantee maximum flexibility, the order of the modules can be adapted not only to the apprentice's level of knowledge, but also to the requirements of the training company. In this way, knowledge from all competence areas can be passed on to apprentices at any time and any place.

The implementation of communication channels should also enable both apprentices and teachers to exchange information via the app. This also provides apprentices with an easy opportunity to measure themselves against others and better assess their own knowledge.

www.pool3.at

Photocredit: Jungheinrich AG

Accident-free stacking

VR Trainings Simulator mit MotionFeedback // Hofstätter & Stöttner OG

Between 25,000 and 30,000 training sessions are held each year for system vehicles. The training often takes place during operating hours, which means that valuable production time is lost. The company Hofstätter & Stöttner, led by Klaus Stöttner, therefore wants to launch a virtual reality simulator for learning how to operate a forklift truck. The simulation of the driving lesson not only saves time for the trainers, it also provides a safe environment for practice in order to avoid damage later in real life use. The great challenge lies in the latency-

free superposition of the movement experienced in VR to the feeling of the movement conveyed by the movement platform. This training simulator is unique due to its compact design including a 4-axis movement platform. Increased safety and the time gained translate into savings for companies. Target groups for the system are forklift truck manufacturers and logistics companies, furthermore the concept can be delivered to manufacturers of other vehicle types at a later stage.



Unser intelligenter Sizing Algorithmus
empfiehl die richtige Kleidergröße
auf Basis einfachster Fragen für den Kunden.

twinster.eu

With 3D body scanner to the the right size

Show my size // twinster GmbH

A major problem for online clothing shops is the high return rate, which results, among other things, from customers not being able to try on the goods before they buy and therefore sending back unsuitable items of clothing. Etienne Koo's company twinster therefore offers the "show my size" service. This is a database of 3D body measurements that is used to help customers choose the right size. Customers scan their own bodies with a 3D scanner, which they can control themselves with an app. The scan takes only three seconds and captures

all necessary body measurements. Show my size is implemented in online shops and can therefore directly deliver recommendations and filter out unsuitable clothing sizes. This not only increases customer satisfaction, but also reduces the drop-out rate and the costs and emissions caused by returns.

www.starballsports.com

Capturing football training data

Starball // Starball Sports GmbH

Small football clubs in particular tend to have only a relatively short training period at their disposal, which can often result in long waiting times. The company Starball by Maximilian Neukirchner, Anton Neukirchner and Michael Fischinger offers an opportunity to revolutionise training procedures. With the help of a training facility consisting of a ball machine and a goal system, players will also be able to train alone. The machine can be controlled via smartphone and touch display and can thus also be used by individuals without the help of others. It can execute

predefined or personalised training sessions, which purposefully support each individual player; the performance of the players is recorded and the data is evaluated in a well-structured and graphical format. This enables the club and the coach to view the progress of the team objectively and to specifically address certain strengths and weaknesses.

www.audvice.com

Learning for exams with podcasts

Personalisiert, effektiv & flexibel lernen // Audvice GmbH

With the app developed by Audvice, students will be able to learn anytime and anywhere in the future – without having to carry heavy books and folders. Students can create audio summaries of their learning content, share them and listen to other students' tracks. The audio files are a maximum of six minutes long. They can be compiled, evaluated and commented on by users in personalised playlists. The fact that the learning content is always available on the smartphone means that students' spare time, which has been shortened by learning, can be

used differently. Learning on the move is simplified, since there are no disturbing environmental noises that distract. Audvice is unique in this sense, as alternative models such as podcasts or audio books can only be tailored to the needs of users to a limited extent. The crowdsourcing model of the app is expected to lead to strong growth, furthermore there is ample possibility for international expansion.



vrgiants.com



Big helps small in Virtual Reality

VR Giants // Wolfgang Tschauko

Most virtual reality games are only available in single player mode. What gives VR Giants an edge over them? The minimalistic world can be used by two people. The game, which was created as part of the master thesis of developer Wolfgang Tschauko and which has already been further developed by aws impulse XS, motivates players to move and communicate. One of them plays Goliath, a giant controlled via a VR headset. The other plays the comparatively tiny David who is controlled by a conventional gamepad. Goliath can use his body in different levels as a bridge over which David

can move. In this way VR Giants promotes cooperation among users. The game is still under development, but has already been showcased and awarded internationally. VR Giants was honoured with the main prize “Innovation in Games” at the Ludicious – Zürich Game Festival. At the JEF Festival it was voted the best installation of the Medialab by a children’s jury. It was also nominated for the Revolution Experience Award at LAVAL VIRTUAL. Both wired. de and GameStar provided reports on VR Games after it was showcased at Gamescom 2018.



www.gamegestalt.com | www.freshfx.at | www.entrez.world

Opening up new spaces

Multiuser Free-roam VR Abenteuer für Holodecks // Game Gestalt GmbH

The hype about location-based VR Entertainment (LBE) doesn't seem to stop. Having recognised this as well, Lev Ledit wants his company to contribute to making VR adventures for holodecks even more creative and diversified. The real-time simulated and reacting environments of Holodecks provide VR portals to new worlds where one can move freely and interact with other players. In order to creatively fill these new spaces, Game Gestalt is dedicated to the development of new, creative content concepts. It will for example be tested how interaction

mechanisms between individual users can be simplified and new communication possibilities accessed. The primary objective of all these advancements is to generate a positive, meaningful and inspiring experience for multiple users. The project is a co-production of Game Gestalt, FreshFX and EntreZ World.

www.yodel.io

The digital receptionist

Yodel – Enhanced Enterprise Communication // YodelTalk GmbH

Corporate communication has changed significantly in recent years, internal chat programs are increasingly becoming the norm. With the start-up “Yodel” founded by Mike Heininger, calls can be integrated into these programs. The artificial intelligence behind Yodel analyses incoming calls. The program is able to comprehend who is calling and what it is about, and forwards callers directly to the right person in the company. In addition, Yodel provides call logs that are displayed in the respective chat tool. When callers bring up keywords or names, they are immediately forwarded

to the relevant person. Yodel also enables “canned responses”, i.e. ready-made answers with which employees can reply via the chat platform. This makes it possible to reply to calls with a single click. With all its additional features, Yodel is currently the only program of its kind on the market.



fiskaly.com

© stereosense GmbH

The e-receipt instead of a cash slip

obono e-Belege und Kundendisplay // fiskaly GmbH

Cash register slips, which customers receive more or less daily, are considered hazardous waste because they are made of thermal paper containing phenol. The sheer volume of payment slips, which for legal reasons have to be issued with every transaction, also generates a large amount of waste every day. fiskaly, headed by Johannes Ferner, has found a solution to this problem: the “obono fiskal service”, which gives shops the option of sending an electronic sales slip to anonymous casual customers – unique in Austria to this date! Conventional POS systems

usually only support printed receipts or can send these as PDFs, which greatly restricts the use of these systems. Obono enables electronic document sharing independent of the target format. Companies such as Uber, Bolt and myPlace already rely on it.



Learning sustainability with Game App

Rebuilders, das Spiel mit kreativer Nachhaltigkeit // Anti Entropy GmbH

Rebuilders, the game project of the company Anti Entropy, founded by Franz Langthaler, Michael Benda and Gerald Reitschmied, creates a completely new game concept. It aims to combine the need for social progress with a love of games and to open up gamers to the idea of sustainability without being an educational game as such. Sustainability plays an important role in the design of the game, for example in the construction of buildings. Users create and design their own vehicles with which they can move around. The game is based on a genre

mix that appeals to many different types of gamers. It also offers endless possibilities to encourage sustainable rethinking in individual areas by creating humorous and meaningful events together with users, for example through challenges to avoid waste, which are rewarded with better game equipment.



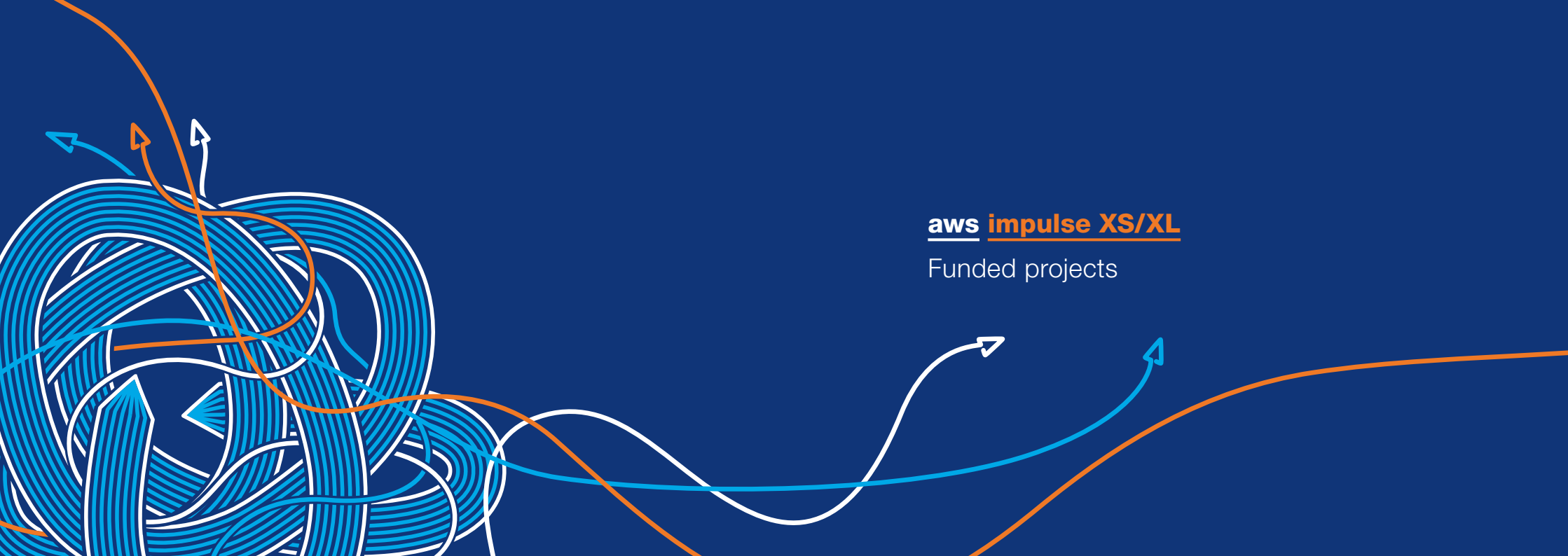
www.hypesthive.com

Assistance for Influencers

Automated & Data Driven Assistance for Influencers // Hypest Hive GmbH

The gaming scene on YouTube and Twitch is growing, and with them the market is growing. Cooperation between influencers and brands is lucrative for both parties. Hypest Hive offers a new tool to make these connections more accessible for both sides. Simple design and ease of use, similar to Facebook ad placements, will make it easier for brands to contact influencers and enter into collaborations. By collecting the data of all parties and cooperations, potential partnerships can be provided with success probabilities and corresponding pricing in advance. This not

only improves communication between video content creators and companies, but also actively promotes artists.



aws **impulse XS/XL**

Funded projects

Funded projects 2018

aws impulse XS

Architecture	Entwicklung von Do-It-Yourself Baustoffen aus Ton	aprior engineering – Technisches Büro Wallner – Ingenieurbüro für Innenarchitektur	www.aprior-e.com	016–017
Architecture	OPTI-KNOT-3D	ARGE OPTI-KNOT-3D	www.patonic.com	018–019
Design	WALLinONE	Alle4Einen OG	http://alle4einen.at	020–021
Design	plasticpreneur	Lex Sören	www.plasticpreneur.com www.doingcircular.com	022–023
Design	Neu/Zeug denkt Licht aus Porzellan neu!	Neu/Zeug Design OG	www.neuzeug.at	024–025
Design	Entwicklung eines Hochbettkonzepts	Jakob Glasner	www.jakobglasner.com	026–027
Design	Fahrrad-Energierückgewinnungssystem	roundic OG	www.reflo.bike	028–029

Funded projects 2018

aws impulse XS

Design	WAIBROsports – MVP & Product Design	WAIBROsports e.U.	www.waibrosports.com	030–031
Design	Shreba – die smarte Pflanzenstehlampe	raise a plant GmbH	www.raiseaplant.com	032–033
Design	Sqalo: Innovations in Diving	Daniel Logar, Arno Schrittwieser	www.sqalo.com	034–035
Design	Abwischbare Segeltuch-Teppiche	Martina Grünewald	hello@love-a-duck.com	036–037
Design	100jährige Waschmaschine – Machbarkeitsnachweis	Permanere – Verein zur Erforschung und Entwicklung nachhaltiger Produkte und Lösungen	permanere.org	038–039
Design	Smart Hearing Protection – Selective Hearing	Matthaeus Unger	office@realization.tech	040–041
Design	Gloot	Thomas Schiefer	www.gloot.at	042–043

Funded projects 2018

aws impulse XS

Design	Hero Robo Bugs	Benjamin Cselley	ww.bmandyou.com	044–045
Digital/Games	BeeSaver-Algorithmen	BeeSaver OG	www.beesaver.at	046–047
Digital/Games	Die 17 Weltziele als Escape Game	Elke Szalai / Planung & Vielfalt	www.planungundvielfalt.at	048–049
Digital/Games	Digital Bike Twin	Tributech Solutions GmbH	www.tributech.io/project/digital-bike-twin/	050–051
Digital/Games	Spoco – Spontaneous Cooperation	Research Studios Austria Forschungsgesellschaft mbH	https://spoco.me	052–053
Digital/Games	Usability-Ansätze für ein Allzweckmessgerät	UnravelTEC OG	www.unraveltec.com	054–055
Digital/Games	Interactive Lap Timing Systems	CrossBox Lap Timing e.U.	www.crossbox-laptiming.com	056–057
Digital/Games	iAudio – Intelligent Audio Noise-Cancellation	Evolve.tech	www.evolve.tech	058–059

Funded projects 2018

aws impulse XS

Digital/Games	xDroid	xDroid GmbH	www.x-droid.com	060–061
Digital/Games	Etonomy	TOTALdeluxe GbmH	etonomy.energy	062–063
Digital/Games	Spinnortality: a cyberpunk management game	James Patton	james-patton.net	064–065
Digital/Games	PATH – The Urban Quest	PATH – The Urban Quest GmbH	www.path-tuq.at	066–067
Digital/Games	Benu – Bestattungen online planen und beauftragen	Benu GmbH	www.benu.at	068–069
Music Industry (Exploitation/Technology)	Trommelsafari E-Learning Tool Prototypentwicklung	Hermann Aigner	www.trommelsafari.com	070–071
Film Industry (Exploitation/Technology)	3D Gesichtsanimation – neue geometrische Methoden	Rechenraum e.U.	www.rechenraum.com	072–073
Media & Publishing	MEDIATEST-die neue, mobile TV u. Radiotest Methode	MediaTest Research GmbH	www.media-test.com	074–075

Funded projects 2018

aws impulse XL

Architecture	Archilles Pro – Smartes Designtool für Architekten	Archilles Software	www.archilles.pro	078–079
Design	STEPDive, SCUBA learning system for kids/ handicap	Seven Seas Gear GmbH	www.stepdive.com	080–081
Design	nueva Online Tool	atempo Betriebsgesellschaft mbH	www.atempo.at www.nueva-network.eu	082–083
Design	3D-Konfigurator, digitaler Prozess für Echtschmuck	Boltenstern GmbH	www.boltenstern.com	084–085
Design	Eine visuelle Zeitreise durch vernetzte Daten	KIVU Technologies GmbH	www.kivu.tech	086–087
Fashion	Impulse Projekt – GetHair	Andreas Innfeld	www.gethair.me	088–089
Digital/Games	VR Trainings Simulator mit MotionFeedback	Hofstätter & Stöttner OG	www.pool3.at	090–091

Funded projects 2018

aws impulse XL

Digital/Games	Show my size	twinster GmbH	twinster.eu	092–093
Digital/Games	Starball	Starball Sports GmbH	www.starballsports.com	094–095
Digital/Games	Personalisiert, effektiv & flexibel lernen	Audvice GmbH	www.audvice.com	096–097
Digital/Games	VR Giants	Wolfgang Tschauko	vrgiants.com	098–099
Digital/Games	Multiuser Free-roam VR Abenteuer für Holodecks	Game Gestalt	www.gamegestalt.com www.freshfx.at www.entrez.world	100–101
Digital/Games	Yodel – Enhanced Enterprise Communication	YodelTalk GmbH	www.yodel.io	100–101
Digital/Games	obono e-Belege und Kundendisplay	fiskaly GmbH	fiskaly.com	104–105

Funded projects 2018

aws impulse XL

Digital/Games	Rebuilders, das Spiel mit kreativer Nachhaltigkeit	Anti Entropy GmbH	rebuilders.cc	106-107
Advertising Industry	Automated & Data Driven Assistance for Influencers	Hypest Hive GmbH	www.hypesthive.com	108-109

Impressum

Publisher

Austria Wirtschaftsservice Gesellschaft mbH
Walcherstraße 11A
1020 Wien

Editor

Simone Weinbacher-Traun

Texts

Monopol Medien Verlag GmbH

Concept, graphic design

buero bauer, Wien

Layout

Dunja Pinta (freigeist.at)

Photos and other visuals were provided by the companies portrayed. Although this booklet was compiled with due care and attention, errors and omissions cannot be entirely excluded. The publisher shall not be liable for the correctness and completeness of the information contained in this publication.

Consistently promoting innovation

aws impulse XS and aws impulse XL are part of the strategy of the Federal Ministry for Digitalisation and Economic Affairs to promote innovation projects beyond high technology, for example in the context of digitalisation, design (incl. graphics and fashion), architecture, gaming, music & film exploitation (or technology) and digital media. To support innovative products, processes, business models and services and to highlight the importance of creative achievements. In the commercial sector, the offer ranges from financial support and knowledge transfer to targeted awareness-raising.



Further information on the aws creative industry:

T +43 1 501 75 – 0

E kreativwirtschaft@aws.at

www.aws.at/kreativwirtschaft

