Innovate for Europe: a showcase of solutions in green tech, health tech and smart city solutions

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Vienna, Austria—The URBAN TECH final event, 'Innovate for Europe: Greentech, Health Tech & Smart City Showdown,' concluded successfully on 6 June 2024 at the prestigious Hofburg Palace in Vienna. The event was a part of the Impact Days 2024 festival, held during ViennaUP, a city-wide celebration of innovation and entrepreneurship.

The event provided a unique platform for over 20 companies participating in the URBAN TECH programme to meet with investors and pitch the groundbreaking solutions developed in response to challenges across the green tech, health tech and smart city sectors.

In the morning session, 22 companies were interviewed, allowing them to briefly describe the solution they have been working on in the past three years, as well as lessons learnt and the benefits they could get from the project.

In the afternoon session, the event featured **two series of investor meetup sessions**, where URBAN TECH companies had the opportunity to connect with an EU-wide network of investors, followed by the **final pitch competition of the project**.

A total of **18 investor meetup sessions have been held with 21 companies**. These sessions facilitated important

conversations that may lead to significant partnerships and funding opportunities, providing URBAN TECH companies with the potential to sustain their growth beyond the project's duration.

The pitch competition was a focal point of the day, featuring 12 competing companies, four from each sector: smart city, green tech and health tech. The competition was intense, culminating in the awarding of three €5000 URBAN TECH prizes to the best companies in each category, celebrating their potential to transform their respective fields.

Pitching competition winners

Green tech sector: IngeniousWare

IngeniousWare developed a cloud-based platform designed to automate and optimise the management of water networks. It offers tools for detailed visualisation and management of water infrastructure, including tanks, pumps and

meters, and integrates a comprehensive data structure for handling water meter information and readings. The platform enables real-time calculations of water balances across different sectors and generates customised reports on water consumption.

The jury member, Petra Jung-ErcegKarlsruhe from Technology Region Action Group stated: "The solution has been presented almost all over the world also thanks to URBAN TECH and has a significant impact in saving one of the most limited resources in our world: the water."

OwnersPartners

OwnersPartners developed QUICK, a smart charging station designed to support the integration of electric personal mobility vehicles (ePMV), such as e-bikes, into urban environments. The stations are equipped with innovative

IngeniousWare

OwnersPartners

Zana Technologies

features, including lockers with UV disinfection systems and air quality monitoring capabilities. Additionally, the stations incorporate solar panels on protective shelters to enhance energy sustainability. The system includes a user-friendly mobile app for end-users and a web app for city managers, allowing for efficient station usage management and monitoring. QUICK's scalable and adaptable design makes it suitable for expansion and replication in various urban settings to promote sustainable mobility.

The president of the board, Lauri Antalainen from EstBAN, stated: "The winner is a company that has several potential customer segments. They are making our environment cleaner, safer and the whole jury really liked their idea."

Health tech sector: Zana Technologies

Zana Technologies developed a digital patient companion for at-home rehabilitation in chronic obstructive pulmonary disease (COPD). It integrates digital technology to support individuals with COPD in managing their condition and undergoing rehabilitation from the comfort of their homes. It includes features such as personalised exercise programmes, monitoring of vital signs and symptoms, educational resources and communication channels with healthcare providers for remote guidance and support. Overall, this solution aims to enhance the accessibility, convenience and effectiveness of COPD rehabilitation while empowering patients to take an active role in their care.

URBAN TECH results and key achievements

The jury member Dasa Slezakova, initiator of the Roche Healthcare Lab startup accelerator programme, stated: "This is something really disruptive for us in comparison to the traditional biomarkers. You are very well set, you have the first clinical trials, MDR almost, very scalable, so I see, especially from the pharmaceutical perspective, a huge potential."

Watch the pitching competition: Innovate for Europe - Greentech, Health Tech & Smart City Showdown Watch the event highlights: URBAN TECH Final Event - The After Movie.

A special segment of the event was dedicated to presenting the results of URBAN TECH. The Consortium of the project discussed the successful development and pilot testing of numerous minimum viable products (MVPs), pilots and demonstrations, highlighting the overall impact of the project, which includes:

- 314 challenges collected from 12 countries
- one open call for solutions with 559 applications and 323 companies selected from 36 countries
- eight international challenge-based hackathons were organised, with 160 travel vouchers issued
- 80 companies invited to submit a full proposal
- 80 solutions incubated in the tech parks, with €9500 of financial support provided for each and 900+ hours of mentoring provided
- 33 working solutions tested in a real environment with challenge owners, with €27 000 of financial support provided for each and 12+ joint training workshops for upskilling organised
- 23 fully developed solutions promoted in international markets, with €14 000 of financial support for going global provided for each and 6+ international fairs attended to demonstrate them
- 32 innovative solutions are available for the market, and a total of €2+M of financial support is provided to 160+ companies that have established cross-border collaborations.

Get an overview of all project stages and impact: URBAN TECH - The Movie.

Discover the companies (solution providers) who participated: URBAN TECH Solutions Providers.

Get to know the people behind the URBAN TECH companies: Interviews at URBAN TECH Final event during Impact Days 2024.

WINNER

A deep dive into the pitch competition winners

Ingeniousware GmbH

Ingeniousware GmbH is a company specialising in developing innovative solutions for smarter water management. Their mission is to provide advanced tools that streamline the management of water networks, making them more efficient, reliable and easy to monitor. Ingeniousware GmbH focuses on leveraging modern technology to address the challenges faced by water utilities worldwide, enhancing their operational efficiency and environmental sustainability.

Services offered

Ingeniousware GmbH offers a range of services designed to optimise water network management. These include **water network visualisation**, providing tools to create comprehensive diagrams of water networks that display elements such as water sectors, tanks, pumps and meters. **Data is integrated and managed** from various sources, enabling efficient management of water meter information, readings and replacements. Their platform also provides **automated water balance calculations** at different network sectors, based on stored readings and connectivity data, and generates detailed, customised reports on water consumption for each sector. Additionally, Ingeniousware offers **geographic information systems (GIS) integration** with a QGIS plugin, which integrates water meter visualisation and reading information with geographic information systems.

Project overview: WaterIng—smarter water networks

Ingeniousware GmbH has developed a cutting-edge product called WaterIng, which is designed to revolutionise water network management. WaterIng addresses the critical needs of water utilities by offering a suite of features that enhance operational efficiency and accuracy.

Key features and benefits

WaterIng revolutionises water management with its robust platform that enables users to **create comprehensive, interactive diagrams of their water networks**. These diagrams provide a vivid graphical representation of various network components, such as sectors, tanks, pumps and meters, offering a clear overview of the entire system. The platform excels in data integration, enabling the **centralisation of water meter information, reading processes and replacement data, making it easily accessible**.

The system simplifies complex data analysis by automating the calculation of water balances for each sector. **By leveraging stored readings and understanding the connectivity among network elements, WaterIng ensures accurate and timely insights**. Additionally, the platform supports custom reporting, enabling users to generate detailed reports on water consumption that comply with the specific requirements of different utilities, enhancing both compliance and usability.

WaterIng also enhances monitoring capabilities through an advanced graphical user interface that depicts the entire network in a synoptic diagram and supports a multi-user environment with comprehensive access controls. This feature is particularly beneficial for teams and large organisations, facilitating collaborative efforts.

Integration with GIS is streamlined via a QGIS plugin, augmenting WaterIng's visualisation and spatial analysis capabilities. The platform's user-friendly configuration prioritises the user experience by simplifying the setup of complex systems and assisting users in identifying and implementing necessary configurations.

Operating entirely in the cloud, WaterIng guarantees high availability, robust security and convenient access from any location, eliminating the need for local software installations. This cloud-based approach ensures that users can rely on a secure and efficient system for managing their water networks, making WaterIng a groundbreaking tool in water management.

Impact and future plans

Ingeniousware GmbH plans to continue enhancing WaterIng by focusing on internationalisation, improving user documentation and expanding its market presence through partnerships. Their goal is to make WaterIng a global standard for water network management, providing utilities with the tools they need to operate more efficiently and sustainably.

Contributions URBAN TECH

Ingeniousware GmbH has significantly expanded its global reach by participating in URBAN TECH, which has been instrumental in transforming the company's business strategy. Originally focused on local markets and facing challenges with regional utilities, Ingeniousware has successfully pivoted to the international stage. Its transition from local struggles to launching a pilot project in Washington DC represents this strategic shift. Furthermore, the company has moved from addressing the needs of an Austrian client to securing a significant agreement with Kamstrup. This deal provides Ingeniousware access to all Kamstrup water meters for a project in Mexico, marking a substantial leap in its international business operations.

OwnersPartners

WINNER

OwnersPartners is a dynamic and innovative company dedicated to revolutionising urban mobility through sustainable and user-friendly solutions. With a strong commitment to enhancing the efficiency and convenience of urban transportation, OwnersPartners focuses on developing cutting-edge technologies that promote multimodality and sustainability. Their expertise lies in creating integrated solutions that cater to the growing demand for electric personal mobility vehicles (ePMVs), making cities smarter and more eco-friendly.

Services offered

OwnersPartners delivers a comprehensive range of services aimed at enhancing sustainable urban mobility. The firm specialises in the **development and deployment of electric mobility solutions**, including the **installation of electric vehicle (e-vehicle) charging stations** specifically designed for **e-bikes and e-scooters**. These stations provide an efficient and accessible charging infrastructure that supports the growing demand for electric transport options.

In addition to mobility solutions, OwnersPartners is pioneering in the field of **smart urban furniture**. This innovative furniture supports charging capabilities and includes integrated features such as **UV disinfection and air quality monitoring**, enhancing the functionality and safety of urban spaces.

The company also excels in digital solutions, designing user-friendly mobile applications for end-users and robust web platforms for city managers. These digital tools facilitate the interaction, efficient data collection and effective management of urban mobility systems.

Committed to environmental sustainability, OwnersPartners **incorporates solar panels and other renewable energy sources into their charging stations**, significantly contributing to a greener urban environment. Furthermore, the firm offers expert **consulting services**, providing bespoke solutions that are tailored to meet the specific needs of municipalities and other stakeholders, ensuring that each project aligns with local requirements and sustainability goals.

Project overview:
QUICK—the next-generation charging station

In collaboration with the Maribor Tourist Board, OwnersPartners has developed QUICK, an **advanced charging station** designed to address the challenges of promoting multimodality and sustainability in urban transport. QUICK is specifically tailored to support electric personal mobility vehicles (**ePMVs**) like e-bikes, making it a versatile and essential addition to modern urban landscapes.

Key features and benefits

QUICK **stations** provide a comprehensive **charging solution**, featuring **lockers for e-bikes equipped with charging plugs and UV lights for disinfection**. This not only ensures the e-bikes are charged but also maintains them in a hygienic state, enhancing the user experience.

To facilitate ease of use, the development of a mobile **app for users and a web app for city managers** allows for easy interaction with the charging stations. Through these applications, users can effortlessly **reserve parking spots, monitor the charging status of their e-bikes, and manage their accounts**, simplifying the overall process.

Additionally, **integrated air quality monitoring systems** at the QUICK stations offer **real-time data on environmental conditions**. This feature provides valuable health-related information and contributes to heightened public health awareness.

QUICK stations feature **solar panels** connected to the grid, providing renewable energy for charging and significantly reducing the carbon footprint associated with urban transportation.

The design of QUICK stations is both **modular and scalable**, allowing for easy adaptation and customisation to fit various urban settings. This flexibility ensures that the **stations can be specifically tailored** to meet the diverse needs of different municipalities and user groups, enhancing their applicability across different locations.

Impact and future plans

Collaborative development has been a cornerstone of the QUICK station project. OwnersPartners worked in close cooperation with local suppliers and the city government to ensure that the stations not only meet the specific requirements of the Maribor Tourist Board but also align with the city's broader development plans. This partnership approach ensured the stations were well-integrated within the local infrastructure and community needs.

QUICK stations have already been installed and validated, demonstrating their effectiveness and user-friendliness. The success of these installations has laid the groundwork for future expansions and additional implementations across Maribor and beyond. OwnersPartners plans to continue collaborating with the Maribor Tourist Board and the City Council to deploy more stations in various locations, catering to different types of e-vehicles and enhancing urban mobility infrastructure.

Contributions from URBAN TECH

Thanks to URBAN TECH, OwnersPartners was able to develop their solution in real scenarios, such as a public school in Maribor, Slovenia, and establish strategic partnerships with Slovenian and international companies in Europe, enabling the company to develop the solution in other countries.

Zana Technologies

WINNER

Zana Technologies GmbH is a leading innovator in digital health solutions, dedicated to transforming patient care through advanced technology. Specialising in the development of intelligent digital companions, Zana focuses on enhancing at-home rehabilitation and self-management for patients with chronic diseases. By leveraging artificial intelligence and user-centred design, Zana aims to improve the quality of life for patients and streamline healthcare delivery.

Services offered

Zana offers a comprehensive suite of **services to enhance patient rehabilitation and manage chronic diseases**. The company specialises in developing **digital health platforms**, including mobile and web applications specifically tailored to **foster patient engagement and facilitate remote health monitoring**. These platforms are designed to make medical care more accessible and interactive, providing patients with the tools they need to manage their health effectively.

In addition to its digital platforms, Zana utilises AI-powered chatbots that deliver personalised health advice, rehabilitation exercises and psychological support. These intelligent chatbots are crafted to interact with patients in an informative and comforting way, enhancing the rehabilitation process and offering continuous support.

Recognising the diverse needs of patients with chronic conditions, Zana also offers **customised rehabilitation programmes**. These programmes are meticulously designed to address the physical, psychological, and lifestyle aspects of patient care, ensuring a holistic approach to rehabilitation tailored to individual patient requirements.

Zana also provides **regulatory compliance support**, assisting clients in navigating the complex landscape of medical device regulations. This includes help with obtaining CE marking and achieving ISO certifications, which are essential for meeting health and safety standards in the healthcare industry.

Furthermore, Zana actively collaborates with healthcare institutions to co-design and validate digital health solutions. Through partnerships with these institutions, Zana engages in clinical trials and studies, ensuring that their products and services are effective and scientifically validated, paving the way for innovations that can significantly improve patient care and disease management.

Project overview: Digital Patient Companion for At-Home Rehabilitation

In collaboration with Maastricht University Medical Center+ (MUMC+), Zana developed a digital patient companion specifically designed for at-home rehabilitation of COPD patients. This innovative solution aims to address the need for effective and accessible rehabilitation options outside the clinical setting.

Key features and benefits

Zana's digital companion offers a holistic approach to rehabilitation, designed to cater to the unique needs of each patient. This innovative tool provides **personalised rehabilitation programmes that include customised fitness training, breathing techniques and psychological support**. The personalisation algorithm continuously adapts these programmes based on patient feedback and progress, ensuring that each individual receives the most effective and responsive care possible.

To **aid patients in their recovery**, the digital companion features a comprehensive **library of exercise videos and breathing techniques**. This resource enables patients to perform their rehabilitation routines accurately and effectively from the comfort of their own homes, fostering independence and confidence in their recovery process.

Enhancing the interactive experience, **the companion includes an AI-powered chatbot** that guides patients through their rehabilitation journey. This chatbot offers reminders, motivation and real-time feedback on exercises, acting as a supportive coach throughout the rehabilitation process.

The user-friendly **mobile app** is another key feature of the digital companion. Designed to be intuitive and accessible, the app ensures that patients of all ages and levels of 'tech-savviness' can easily navigate and benefit from its features. To better serve the local population, the app is available in Dutch.

In terms of compliance, Zana has taken meticulous steps to ensure that the digital companion meets all necessary regulatory standards. This includes **ISO 13485** documentation and the preparation of the **MDR CE Mark Technical Documentation**, affirming the companion's adherence to the highest safety and quality standards.

The initial testing phase with COPD patients and healthcare professionals at MUMC+ has been met with considerable enthusiasm. An impressive **80% of patients provided positive feedback**, particularly appreciating the physical activities and mindfulness assignments integrated into the app. Healthcare professionals have also expressed strong support for incorporating the digital companion into clinical practice, highlighting its potential to transform patient care and rehabilitation.

Impact and future plans

The collaboration with MUMC+ has been highly productive, with ongoing interactions and positive feedback leading to continuous improvements in the digital companion. The solution is poised for further implementation at the clinical site, with plans for market entry in the Netherlands.

The scalability of the digital companion will support its expansion into the European market with a commercialisation strategy based on health insurance reimbursements. Future steps include incorporating feedback from patients and healthcare professionals to refine and enhance the app's features, completing the CE mark technical documentation and conducting a randomised controlled trial (RCT) for further validation and expansion to new markets, leveraging proximity to Zana's home market in Germany.

Contributions from URBAN TECH

Zana has significantly advanced its offerings since URBAN TECH, which allowed it to establish a strategic clinical partnership with Maastricht University Medical Clinic, develop a unique proprietary dataset, and generate validated evidence through peer-reviewed publications. These advancements have paved the way for successful commercialisation and market validation. Zana is indeed actively involved in a major COPD initiative in the Netherlands, working alongside clinical partners—Lung Alliance and Lung Foundation.

The URBAN TECH methodology

URBAN TECH aimed to accelerate the market entry of products and services developed by its funded companies. The project was structured into four key phases: exploration, ideation, implementation and commercialisation. Each phase was designed to progressively refine solutions, moving from problem identification to bringing viable products to market.

Exploration phase

This initial phase focused on mapping and clustering challenges from public and private organisations (challenge owners), particularly within health tech, green tech and smart city sectors. The Consortium, comprising 11 science and technology parks (STPs) from nine countries, engaged local stakeholders, including authorities, corporates, SMEs and researchers, to identify over 300 challenges. These challenges were then categorised into a virtual library, serving as a resource pool for the companies and providing them with key information on the specific challenges, forming the foundation for the subsequent ideation phase.

Ideation phase

During this phase, an open call was launched, inviting European startups and SMEs to propose solutions to the identified challenges. The response was substantial, with 559 proposals submitted by SMEs from 36 countries. The most promising proposals were selected for further development through hackathons, where the companies worked closely with challenge owners to create demonstration solutions. The hackathons were not merely about generating ideas; they were designed to refine these ideas into tangible prototypes addressing the specific needs identified in the exploration phase. This iterative process ensured that the solutions were innovative and practically viable.

Implementation phase

In this phase, selected companies received support to develop and pilot their solutions. This phase required a deeper collaboration between SMEs and challenge owners, focusing on creating MVPs and the subsequent testing of these products in real-world settings. The goal was to move beyond theoretical solutions and ensure the innovations could perform effectively under practical conditions. This phase was crucial for identifying potential issues and making necessary adjustments before the solutions were scaled up.

Commercialisation phase

The final phase focused on supporting the most promising solutions to enter the global market. The companies that successfully developed and tested their products were supported in bringing these innovations to the global market. This phase included activities related to market entry, international partnerships and scaling strategies, ensuring that the solutions developed had the potential to make a significant impact beyond their initial local contexts.

Challenges and experiences

While URBAN TECH demonstrated the potential of cross-country collaboration in driving innovation, it also revealed several challenges that needed to be addressed for such initiatives to succeed. These challenges spanned across various phases of the project and reflected the complexities involved in managing international innovation efforts.

Time constraints

One of the most significant challenges encountered was managing time effectively. The challenges were inherently complex and often required prolonged periods for thorough research and development. However, the project's timeline imposed constraints that made it difficult for the companies to explore their solutions fully. For instance, obtaining necessary ethical approvals or completing comprehensive data collection were areas where time limitations were particularly felt, leading to delays in the project's progression.

Testing and implementation issues

Testing solutions in real-world environments presented several obstacles. The companies often faced difficulties related to the technical feasibility of their innovations, such as ensuring that prototypes could be scaled up or integrated into existing systems. For example, green tech solutions dependent on solar energy encountered challenges when natural conditions (such as insufficient sunlight) did not support testing, necessitating the use of synthetic datasets, which complicated the validation process. Similarly, some health tech solutions required extensive user testing, which was hampered by logistical issues or the availability of necessary facilities.

User engagement and feedback

Effective user engagement was crucial for refining innovations, yet it was an area where many companies struggled. The process of gathering user feedback was often hindered by time constraints or logistical challenges, resulting in incomplete or biased input that could skew the development of the final product. In the health tech sector, for example, the inability to involve patient groups in the early stages of product development led to designs that did not fully meet end-user needs.

Legal and regulatory barriers

Navigating the legal and regulatory frameworks of different countries was another significant challenge. SMEs frequently encountered delays related to the approval processes required to test and implement their solutions, particularly in highly regulated sectors like health tech. These delays slowed the project and increased costs, as additional resources were needed to comply with varying national regulations.

Communication and coordination

The cross-border nature of URBAN TECH required effective communication and coordination among diverse stakeholders. However, differences in language, time zones and organisational cultures often led to misunderstandings and delays. Ensuring that all parties were aligned in terms of expectations and timelines was a continuous challenge that required significant effort and adaptability from all involved.

Business development and market fit

As SMEs progressed through the project phases, many had to pivot their original business models to better align with market demands. This flexibility was essential but challenging, requiring SMEs to reassess their strategies and adapt to new information constantly. The dynamic nature of urban challenges meant that the solutions developed needed to be innovative, scalable and marketable, adding complexity to the project.