

Connect the best

Regions



Upper Austria Linz | Nov. 2021

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Media Owner and Publisher
Office of the State Government of Upper Austria | Directorate
Secretariat General | Upper Austrian Future Academy
Kärntnerstraße 10-12, 4021 Linz, Austria
E-Mail: zak.post@ooe.gv.at | www.ooe-zukunftsakademie.at
Photo Credits: see direct image links at the respective photo
Graphic Design & Print: CONQUEST Werbeagentur GmbH,
Kürnbergblick 3, 4060 Leonding, Austria

Support
Office of the State Government of Upper Austria | Directorate
Secretariat General International Relations and Protocol
1st edition 2021: Subject to change, errors and misprints.

Information concerning data protection / data security:
www.landoberoesterreich.gv.at/datenschutz

DEAR RLS PARTNERS AND FRIENDS!

Connect the best! This is not only a vision. This is what we do in our RLS partnership, which already connects and enhances us for over 20 years now. It means two decades of special friendship and common growth.

As the 10th Regional Leaders' Summit in Linz had to be postponed due to the worldwide pandemic, we have bundled our power in a common virtual conference in November 11, 2021. Anew strong and smart.

"Smart Regions" is our summits' topic. A decisive factor for the future competitiveness of each location is how well it succeeds in transforming research into innovative products and services thus ultimately into economic success.

Upper Austria as a smart region consistently focuses on the alignment of politics along the innovation chain education-research-economy, represented by the University of Applied Sciences Upper Austria (FH OÖ), the research management company Upper Austrian Research (UAR) and the Upper Austrian business agency Business Upper Austria (Biz-up).

Smart Specialization is the basis. In accordance with the motto "strengthening strengths, daring new things", the strategic goals, topics and measures are based on the existing economic structures.

With this brochure we want to show that the term "smart" has already found its way into our daily life, including smart best practice examples to be highlighted. The smart approach runs through all dimensions: "Smart Economy", "Smart Living", "Smart People", "Smart Buildings", "Smart Governance", "Smart Environment" and "Smart Mobility". We want to learn from each other and want to connect each other globally. What we can already say now: The smartest regions will be the strongest regions – and we all want to be top global players.

But we also have learnt one important message from 2020: We not only need to be strong and smart, we also need to be healthy. Healthy of course in terms of a successful economic development. But especially healthy in a medical sense. We also need to work closely together in a way we have shown is possible with our common "Digital Health Initiative on COVID-19".

Therefore, I wish us all lots of physical health for the upcoming common 20 years to continue our successful way of a strong and smart partnership.

All my best!



Thomas Stelzer
Governor of Upper Austria



Germany:
BAVARIA



© Bayerische Staatskanzlei

We live in a world of change. Climate, digital transformation and the current Covid-19 pandemic are just a few examples that show how global challenges do not stop at national or regional borders. Only by working together can we face these challenges.

With our strong network of partner regions, we are ideally positioned for this task. In our "smart regions", we develop innovative solutions for a multitude of use cases. Our scientific network, RLS-Sciences, just recently started the "Digital Health" initiative to provide a platform for novel areas of research and collaboration.

It is by bringing together people and ideas, by commonly seizing opportunities that we can better the lives for everyone. Let us therefore give our successful cooperation across five continents a new drive for an ever "smarter" connected world of tomorrow!

Markus Söder
Bavarian Prime Minister



USA:
GEORGIA



© Georgia.gov

As an alliance dedicated to visionary, international partnerships that help drive development and keep us competitive, our fellow RLS participants will appreciate the State of Georgia's approach to addressing the key issues and emerging technologies that will determine our future. ...

... Georgia's economic competitiveness is driven by a partnership-focused approach to economic development in every region of our great state. We continue to invest heavily in growing innovative industry sectors and "smart cities" that serve as laboratories for forward-focused solutions. Through the Georgia Centers of Innovation, the newly established Partnership for Inclusive Innovation, and other public-private partnerships, we are making strategic advancements in transportation, broadband, and health care to develop solutions that create a foundation that can be replicated beyond our border. We look forward to engaging with our partner regions to share best practices and keep our economies thriving.

Brian Kemp
Governor of Georgia



Canada:
QUÉBEC



© Government du Québec

When Québec hosted the 9th Regional Leaders' Summit in May 2018, we could never have predicted that we would be living uncertain times as a result of the Covid-19 pandemic.

However, the challenges we have faced over the course of the last year highlighted the important role our partnership plays. For almost 20 years now, the Summit has been a forum for us to share expertise and prepare for the world of tomorrow. This work is all the more relevant at a time when societies across the globe are working hard to pull themselves out of this crisis and relaunch their economies. During the virtual edition of the 10th Regional Leaders' Summit, we will be discussing "Smart Regions". Digital technology—among other fields of the future—plays a key role in the development of these types of solutions. Québec is recognized as a world-class leader in artificial intelligence and information technologies thanks to our ground-breaking firms and researchers. Québec, proud to be one of the founding members of the Regional Leader's Summit, is more than ever determined to create wealth internationally by working with its partners. I would like to extend a warm thank you to Governor Thomas Stelzer for hosting this virtual forum!

François Legault
Prime Minister of Québec



Brasil:
SÃO PAULO



© São Paulo State Government

Subnational governments can impact their countries towards a more inclusive, sustainable and technological society.

In the State of São Paulo we believe and invest in science and technology.

We are constantly innovating our infrastructure in order to create smart regions.

Therefore, we have launched the Centre for the Fourth Industrial Revolution in Brazil (C4IR Brazil), the Centre for Artificial Intelligence (C4IA) and the International Centre for Technology and Innovation (CITY SP).

The São Paulo Research Foundation (FAPESP), an active member of RLS-Sciences, is deeply involved in many cooperation projects with international partners.

During the pandemic, we have substantially increased investments in health and as a consequence the Butantan Institute has produced and delivered more than 100 million doses of vaccines against Covid-19.

I firmly believe that international cooperation is fundamental to build a more sustainable and smart post-pandemic world.

João Doria
Governor of the
State of São Paulo



China:
SHANDONG



© Affairs Office Shandong

Deepening Exchange and Cooperation for a Smart Life

Gathering gives us inspirations and cooperation opens up the future. The 10th Regional Leaders' Summit provides valuable opportunities for partners to conduct cooperation in smart life, smart economy, smart transport, smart environment and smart government.

Over the years, Shandong has promoted the building of a new type of smart city, and accelerated digital transition in various areas. We have elevated the level of the Internet Plus Government Services model to develop smart application scenarios in traveling, education, and health and bring tangible benefits to the people. Going forward, we will promote 5G deployment and networking across the board and strengthen the application of the Internet of Things and AI to make cities smarter.

Covid-19 reminds us that our interests are closely entwined and so are our futures.

Shandong values the RLS mechanism and stands ready to take this summit as a new opportunity to contribute to building a community with a shared future for mankind.

Zhou Naixiang
Governor of Shandong
Province



South Africa:
WESTERN CAPE



© Western Cape Government

Regional governments which have the capabilities and capacity to do more, should. This will bring quality services closer to citizens.

In doing so, smart regional governments must facilitate an environment conducive to employment creation, including tech-enabled government services, ease of doing business and the development of skills for the economy.

In responding to Covid-19, the Western Cape Government (WCG) has built capability in data and analytics to provide real-time intelligence that guides decision making and the allocation of resources towards geographic "hotspots." We are now applying these lessons learnt to our recovery, so that we remain agile and innovative in everything we do. It is also why we are establishing an Innovation Hub at our Provincial Training Institute, located in the Cape Winelands region of our province.

I welcome the opportunity to engage with fellow regional leaders at the RLS and look forward to sharing ideas and best practice toward building a better future that will help deliver the jobs, safety and well-being that our citizens deserve.

Alan Winde
Premier of Western Cape





GEORGIA:
The Curiosity Lab
The Ray

BAVARIA:
BayernLabs
Digital Village Bavaria
TEMPiS
Your House 4.0

QUÉBEC:
Bioénergie La Tuque (BELT)
Urban Air Mobility
Smart Construction

SÃO PAULO:
Living Lab

Within the framework of the Regional Leaders' Summit of the Power Regions, the focus of this conference in Linz is placed on Smart Regions.

Smart Region is a comprehensive concept to improve the sustainability of regions. In this respect, "smart" is the combination of "technological" and "social" innovation to improve the quality of life of citizens, strengthen economic competitiveness and reduce the consumption of resources in a region.

The smart approach therefore

- means high quality of life, prosperity and security
- while at the same time reducing the use of energy and resources
- as well as the predominant use of renewable energies,
- integrates new technologies and innovations into all areas of society,
- aims at changing processes,
- promotes a functional networking of the regions,
- addresses challenges in all areas of society.

SMART
Regions

 **CONNECT THE BEST**

www.smart-region.at

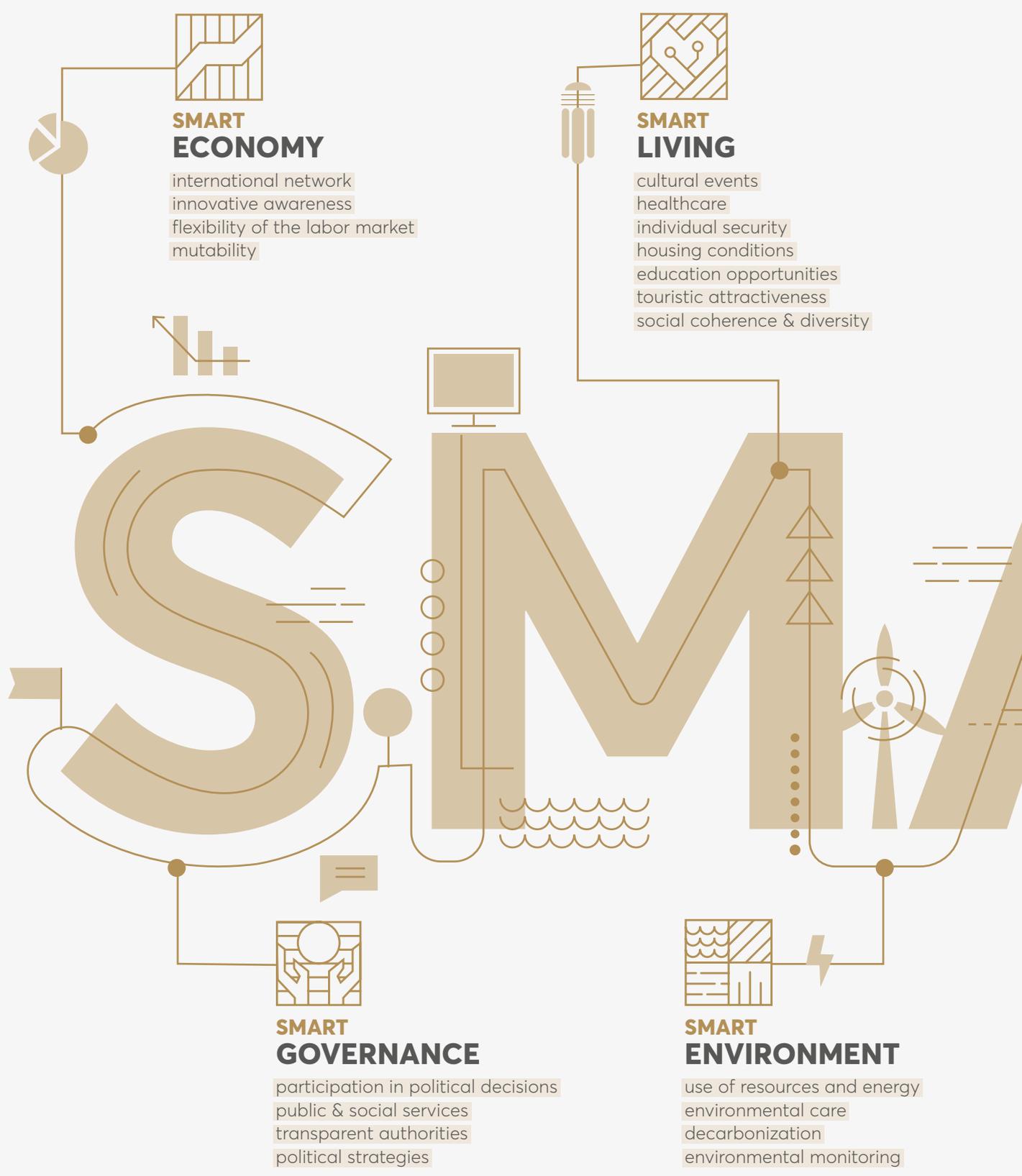


SHANDONG:
Smart Ecopark
Smart Travel Solutions

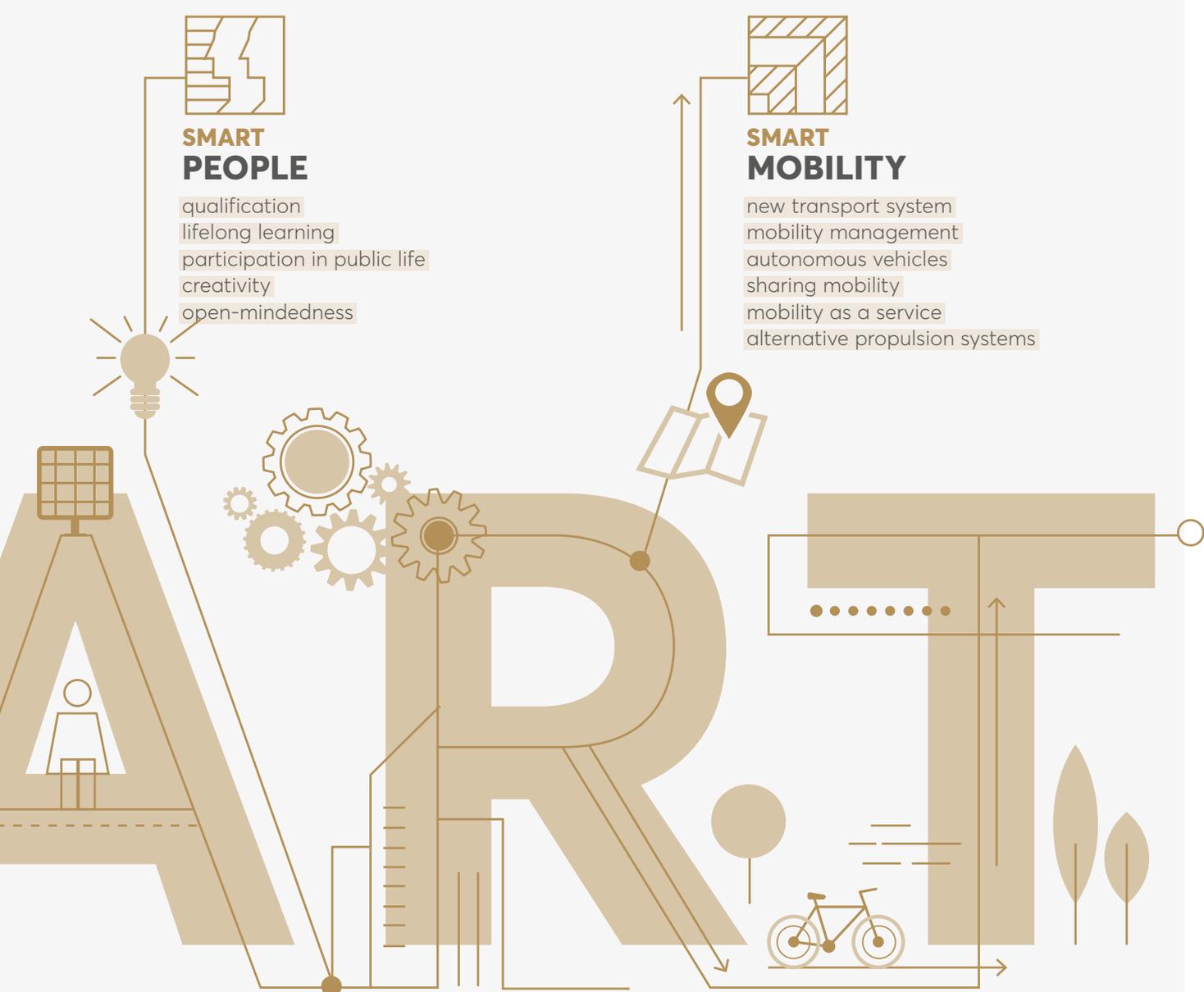
UPPER AUSTRIA:
4D-Joystick
Digital Upper Austria
Smart Energy Savings
Linz Institute of Technology (LIT)
PEAKapp

WESTERN CAPE:
Growth Mindset
Smart Agriculture
Smart Environment
Province-wide data governance

SMART REGIONS



Please find further details and many more projects from all Power Regions on www.smart-region.at.



SMART PEOPLE

- qualification
- lifelong learning
- participation in public life
- creativity
- open-mindedness



SMART MOBILITY

- new transport system
- mobility management
- autonomous vehicles
- sharing mobility
- mobility as a service
- alternative propulsion systems



SMART BUILDINGS

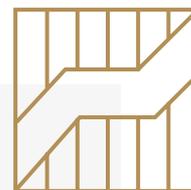
- efficient energy- and water management
- assisted living
- real-time feedback systems
- intelligent lighting

SEVEN DIMENSIONS OF SMART REGIONS

The smart approach runs through all social and economic sectors: environment, mobility, buildings, living, economy, governance and people.

To get an impression of all smart activities, you will find in this brochure smart examples from all Power Regions.

international network
innovative awareness
flexibility of the labour market
mutability
etc.



SMART ECONOMY

Upper Austria:

LINZ INSTITUTE OF TECHNOLOGY (LIT)

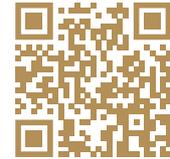


© Mark Sengstbriatl

The Linz Institute of Technology (LIT) pools the JKU's resources and brilliance in engineering and technology. Researchers focus on cutting-edge, forward-thinking areas that include digitalization, artificial intelligence, and big data. The LIT Open Innovation Center and the LIT Factory provide space to test and implement projects that have real-world applicability.



More information: <https://smart-region.at/lit-factory>



Plastics are a key aspect in a circular economy and together with notable companies, the LIT FACTORY is conducting research to explore the entire life cycle of polymer products, including testing new methods and recycling.

The port city of Qingdao in the eastern Chinese province of Shandong has introduced, through the "National Smart City Pilot" project, an intelligent management decision-making platform based on multi-dimensional data analysis technology.



CIMOS platform integrate BIM+GIS+LOT technology, comprehensively apply massive data mining, analysis, cloud platform, IoT, AI and other fields to improve the overall level of scientific, refined and intelligent city management. It established and improved a big data assisted scientific decision-making mechanism and created a high-level sample of city development. CIMOS will promote the park to a new stage of high-quality development.

More information: <https://smart-region.at/smart-ecopark>



Shandong:

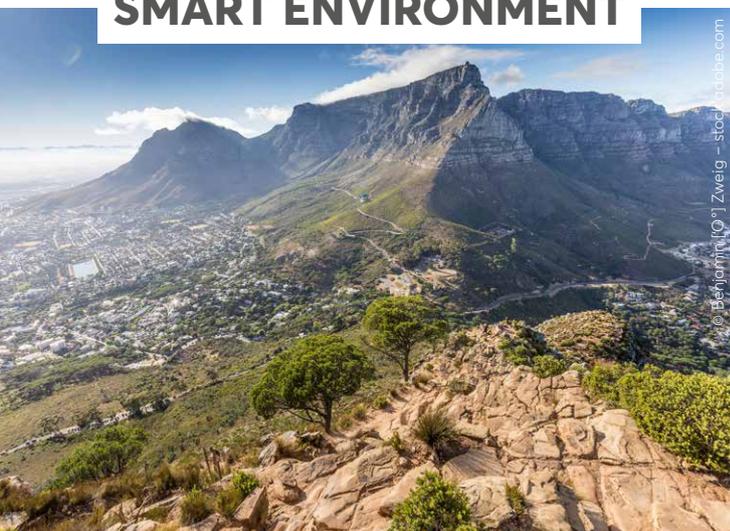
SMART ECOPARK



© Sino-German-Ecopark Qingdao

Western Cape:

SMART ENVIRONMENT



© Benjamin [O] Zweig - stock.adobe.com

To protect the environment and preserve it for future generations, Western Cape relies on the use of new technologies and the adaptation of existing technologies to the African context.



More information: <https://smart-region.at/smart-environment>



The role of the Department of Environmental Affairs and Development Planning is two-fold; it is to safeguard the natural environment of Western Cape for future generations, as well as to sustainably develop the landscape.

cultural events

healthcare

individual security

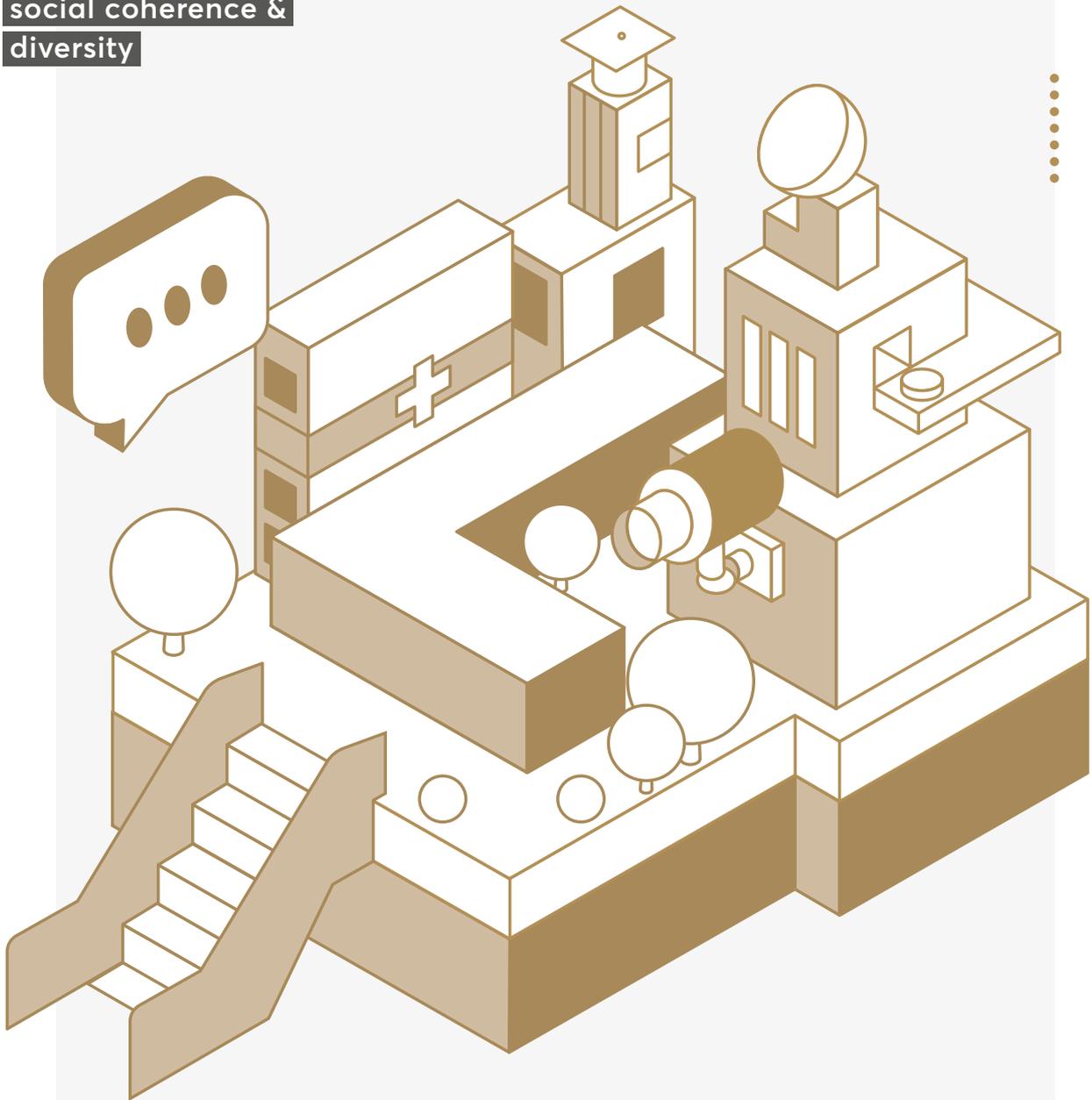
housing conditions

education opportunities

touristic attractiveness

social coherence &

diversity



SMART LIVING

Bavaria:
TEMPIS



Telemedical Stroke Network (TEMPiS) has set itself the target to improve stroke care also in rural areas. Stroke experts from the TEMPiS centres advise regional hospitals via video conference. Within the TEMPiS network, regional hospitals receive competent support by stroke centres around the clock.



More information:
<https://smart-region.at/tempis>

In 2003, two specialized stroke centres and 12 (meanwhile 24) regional hospitals founded a telemedical network in eastern Bavaria with the aim to provide modern stroke management and advanced stroke expertise in non-urban-areas.



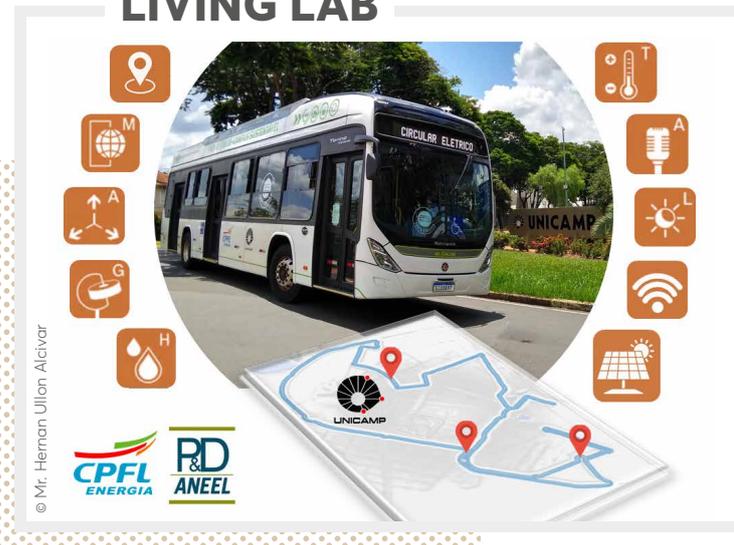
The aim of this project is to develop and install a Living Lab on electric mobility at the University of Campinas. This includes the investigation of its technical, economic and ecological impact and the development of approaches for an intelligent management of electric mobility (sustainable charge stations, comprehensive monitoring and real-time connectivity of buses).

More information:
<https://smart-region.at/living-lab>

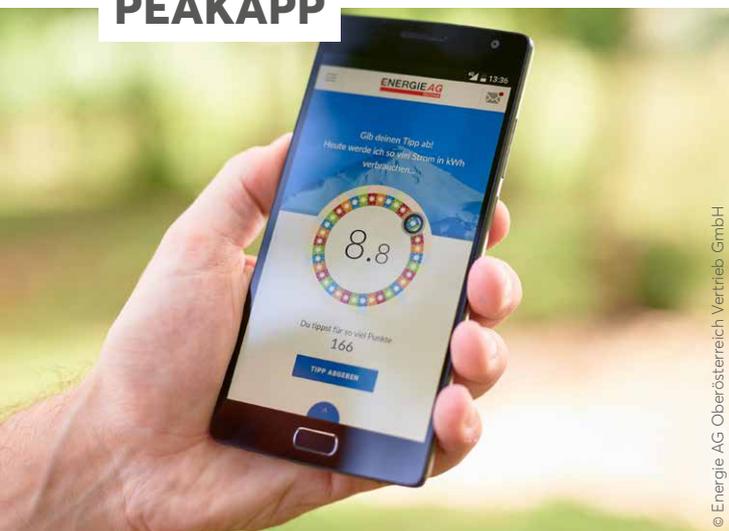


This project is based upon the wide monitoring and real-time connectivity of urban public transport vehicles, in order to enable the design of useful solutions.

São Paulo:
LIVING LAB



Upper Austria:
PEAKAPP



The PEAKapp is a mobile application especially developed to sensitize consumers to energy consumption. Moreover, it offers incentives to save energy.

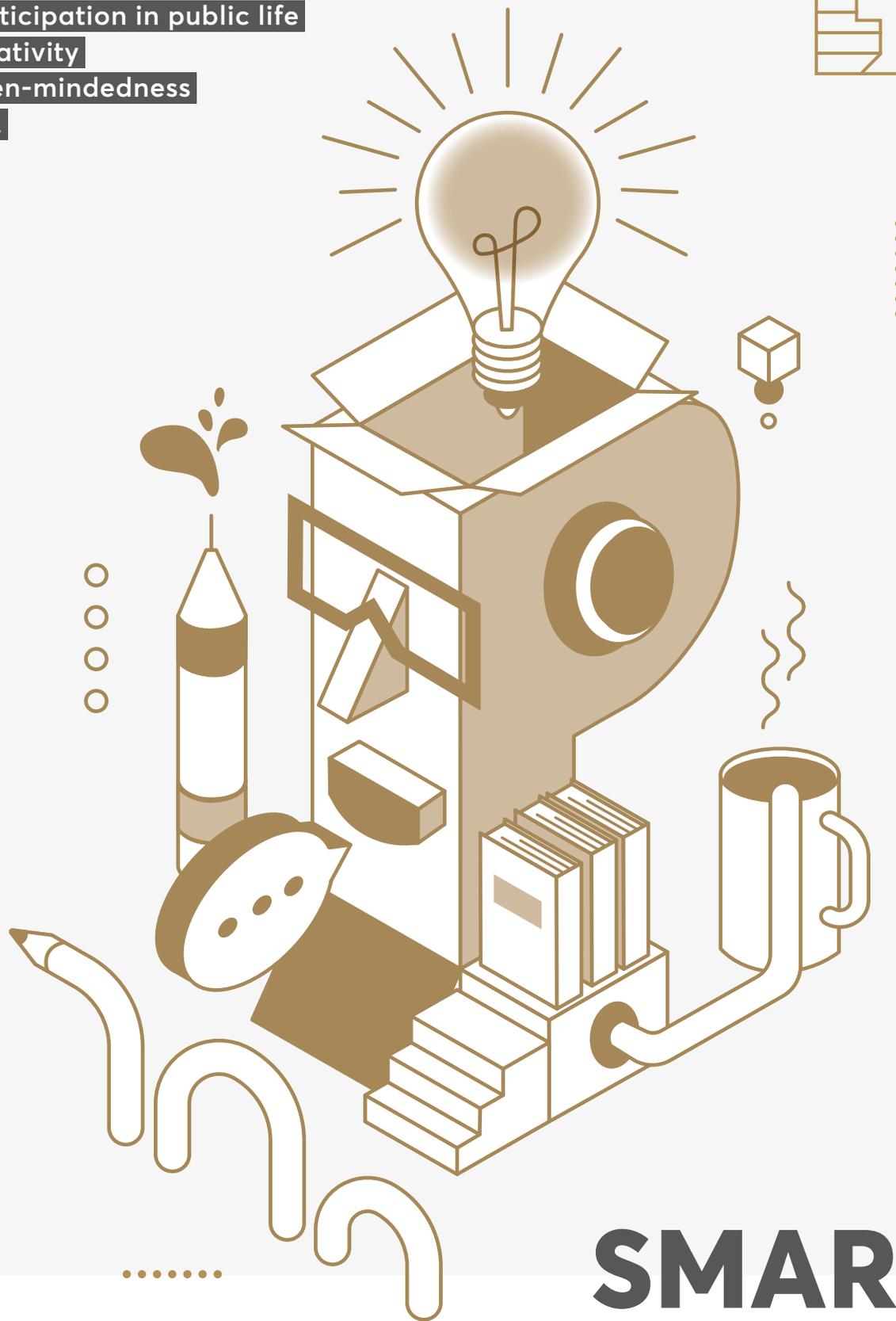


More information:
<https://smart-region.at/peakapp>

PEAKapp is a research and demonstration project funded by the European Commission under the Horizon 2020 research and innovation program. The aim of PEAKapp is to use a specially developed mobile application to sensitize consumers to their energy consumption and to use various incentives to save energy and/or shift electricity loads.



qualification
lifelong learning
participation in public life
creativity
open-mindedness
etc.



SMART PEOPLE

Bavaria:
BAYERNLABS



© nova/Arte for design

BayernLabs are centres for digital knowledge creation. In the Labs you can learn about topics and trends relating to the ongoing digitalization process. At least one BayernLab will be established in each administrative district also with the aim to strengthen rural areas.



More information:
<https://smart-region.at/the-network-of-bayernlab>

"look - touch - try" – BayernLabs offer a wide range of services for everyone, for example explaining digital transformation in a clear and practical way based on various "topic islands", such as 3D printing, drone flights or virtual reality (VR).



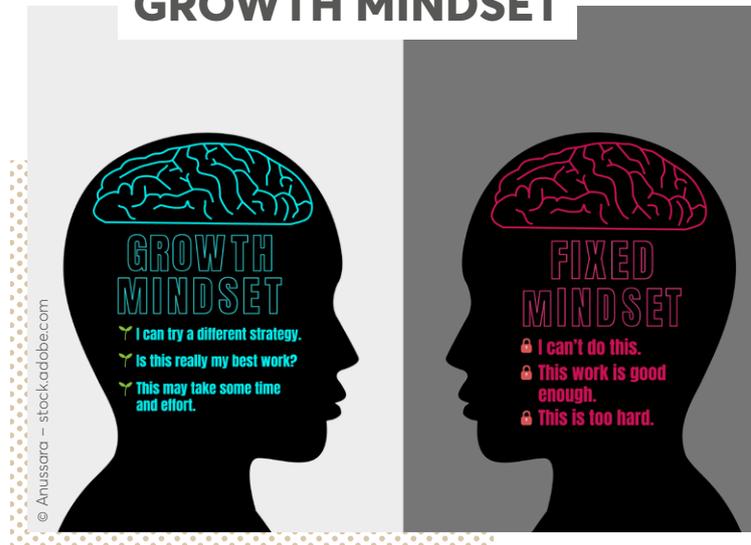
The project deals with the training of the human brain. The project started as a pilot project in schools in low income communities. Due to its success, the program will be implemented in all schools in the province.

Growth Mindset (GM) is the concept that intelligence is not predetermined but rather malleable; that the brain can be trained to grow and improve over time like a muscle. By cultivating a growth mindset, students adopt a more positive attitude towards learning and develop greater effort, perseverance, and self-motivation, which ultimately leads to better academic outcomes.

More information:
<https://smart-region.at/growth-mindset>

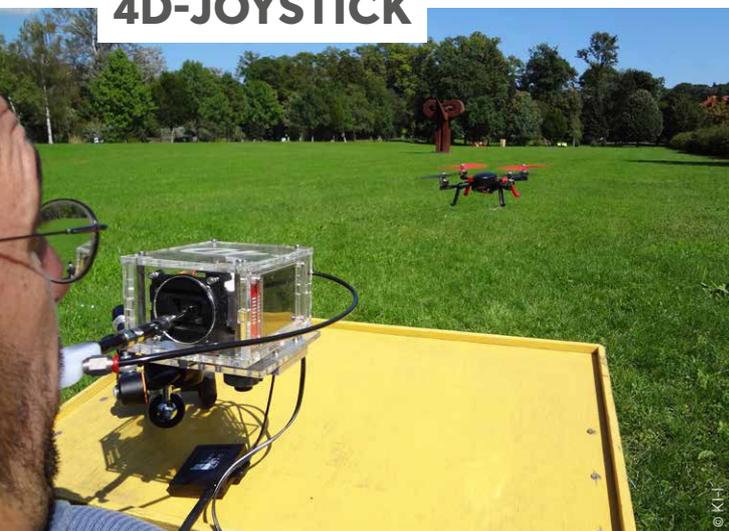


Western Cape:
GROWTH MINDSET



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Upper Austria:
4D-JOYSTICK



© KLF

The 4D-Joystick is an innovative award-winning system which enables people with disabilities to pilot remotely controlled, non-trivial toys with their mouth.

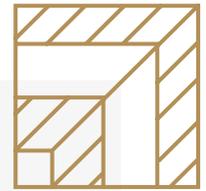


Thanks to this, they can control aircrafts, helicopters, drones, cars, boats, etc. on their own, without having to use their hands.

More information:
<https://smart-region.at/4d-joystick-2>

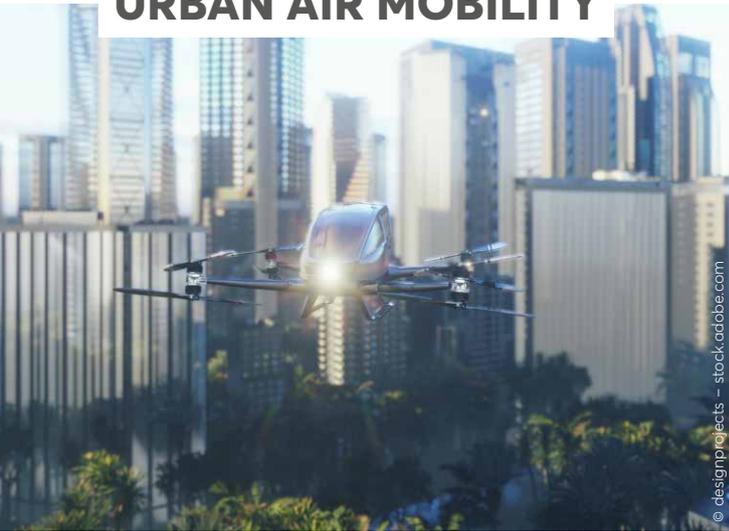


new transport systems
mobility management
autonomous vehicles
sharing mobility as a service
alternative propulsion systems
etc.



SMART MOBILITY

Québec:
URBAN AIR MOBILITY



© designprojects - stock.adobe.com

Cooperation of companies and university to promote and assess the feasibility of air taxis.



Bell Helicopters is involved in an air taxi vertical take off and landing vehicle development for urban mobility. Marinvent Corporation is a company in Québec working with Bell who specializes in avionics solutions. Concordia University has worked with Marinvent on flight, energy and traffic management systems for electric and hybrid vehicles, including urban air mobility.

More information:
<https://smart-region.at/urban-air-mobility>



Curiosity Lab is a Public, Private, Philanthropic Partnership (P4) economic development initiative by the City of Peachtree Corners in metro Atlanta that provides startups and established companies with a "living lab" that's packed with resources and infrastructure needed to imagine, build, and validate next generation IoT, smart city, and mobile technologies.

More information:
<https://smart-region.at/the-curiosity-lab>



Its 1.5-mile autonomous vehicle test track, fully operational 5G, 1G of dedicated fiber, DSRC units, video surveillance, and smart poles, are provided free of charge to companies of all sizes.

© The Curiosity Lab



Georgia:
THE CURIOSITY LAB

Shandong:
SMART TRAVEL SOLUTIONS



© Department of Transport of Shandong

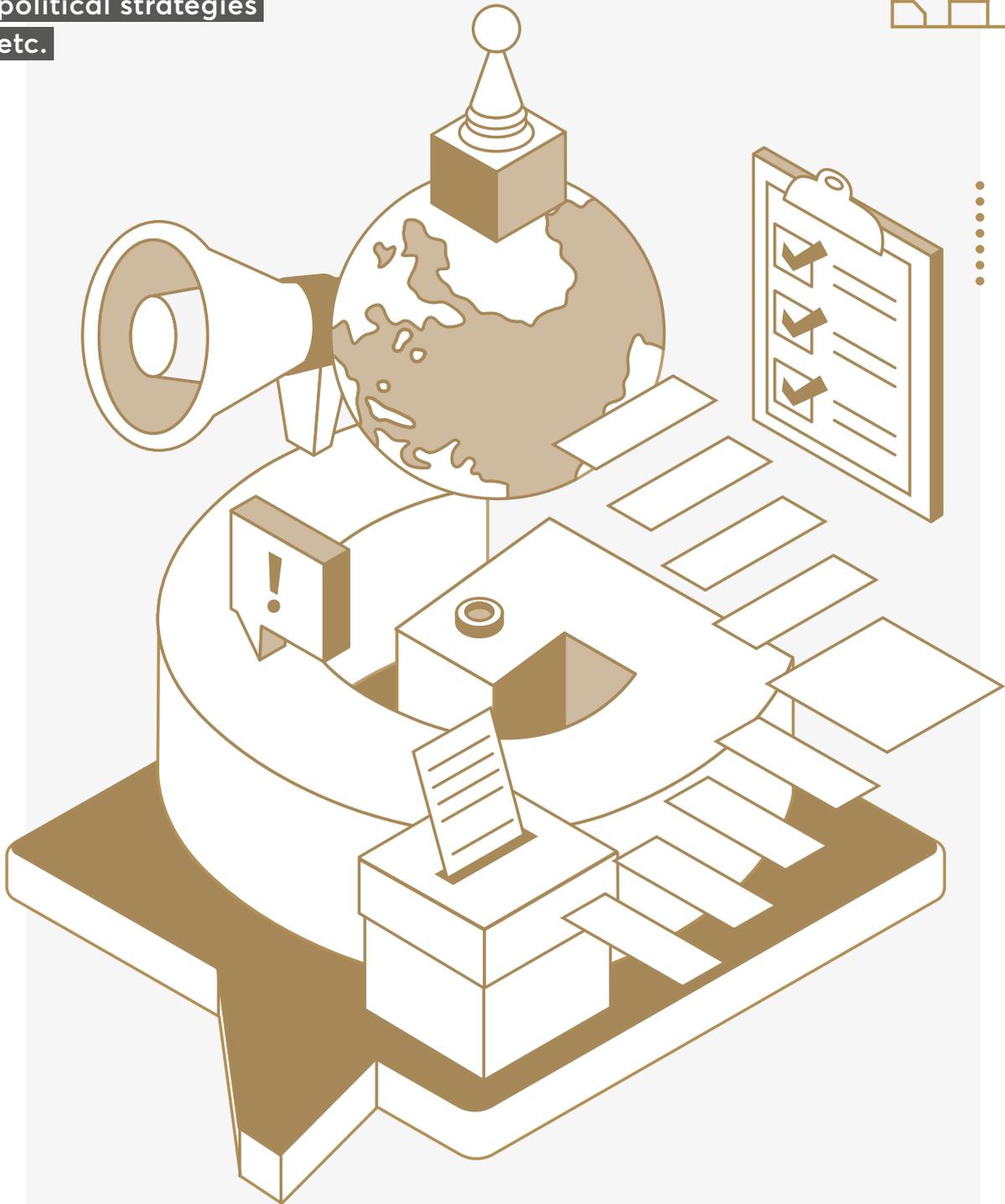
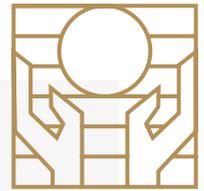
Department of Transport of Shandong Province uses the basic data of the highway network, highway road condition information in the transportation industry, and information outside the industry such as weather, hydrology, geology, marine forecasts and disaster warning, tourist attractions and travel agency information to build a travel information service platform, providing comprehensive, real-time, and accurate road condition information to optimize public travel choices.



More information:
<https://smart-region.at/smart-travel-solutions>



participation in political decisions
public & social services
transparent authorities
political strategies
etc.



.....

SMART GOVERNANCE

Bavaria:
DIGITAL VILLAGE



© TH-Degehoort/Technologie Campus Garfenau

The Digital Village is an initiative by and with local citizens. The aim is to make the best possible use of the opportunities offered by digitization to face the everyday challenges of rural life.



The aim of the Digital Village Bavaria project is to take advantage of the potential offered by digitization and to implement it in model regions. The focus here is on the question of how the supply of rural areas can be supported with the help of new information and communication technologies and, thus, how the future viability of these areas can be secured.

More information:
<https://smart-region.at/digital-village-bavaria>



The project deals with the digital transformation of the Upper Austrian government authority. A new application is the app "Mein OÖ" ("My Upper Austria").

The aim is the digital transformation of the Upper Austrian government authority. Customers require a system which is easy to handle and up to date. They want to deal with their issues quickly and easily. Therefore, a possibility for communication and interaction which is location and time independent is needed. The advantages of the digitalization for the government authority are more efficiency, higher safety and a modern and attractive working environment.

More information:
<https://smart-region.at/digital-upper-austria>

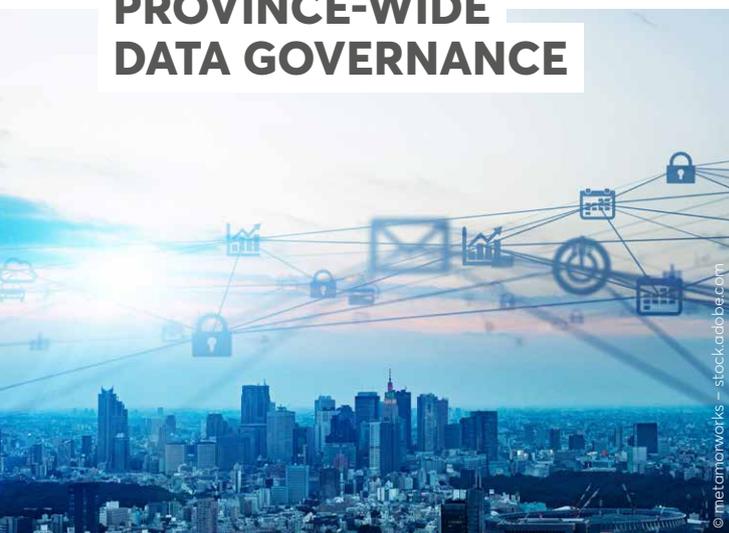


Upper Austria:
DIGITAL UPPER AUSTRIA



© 123levit - stock.adobe.com / Land OÖ

Western Cape:
PROVINCE-WIDE DATA GOVERNANCE



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Western Cape put data management on a new modern footing to build data capacity, enable intelligent use of data, improve service delivery and thereby make life easier for people.

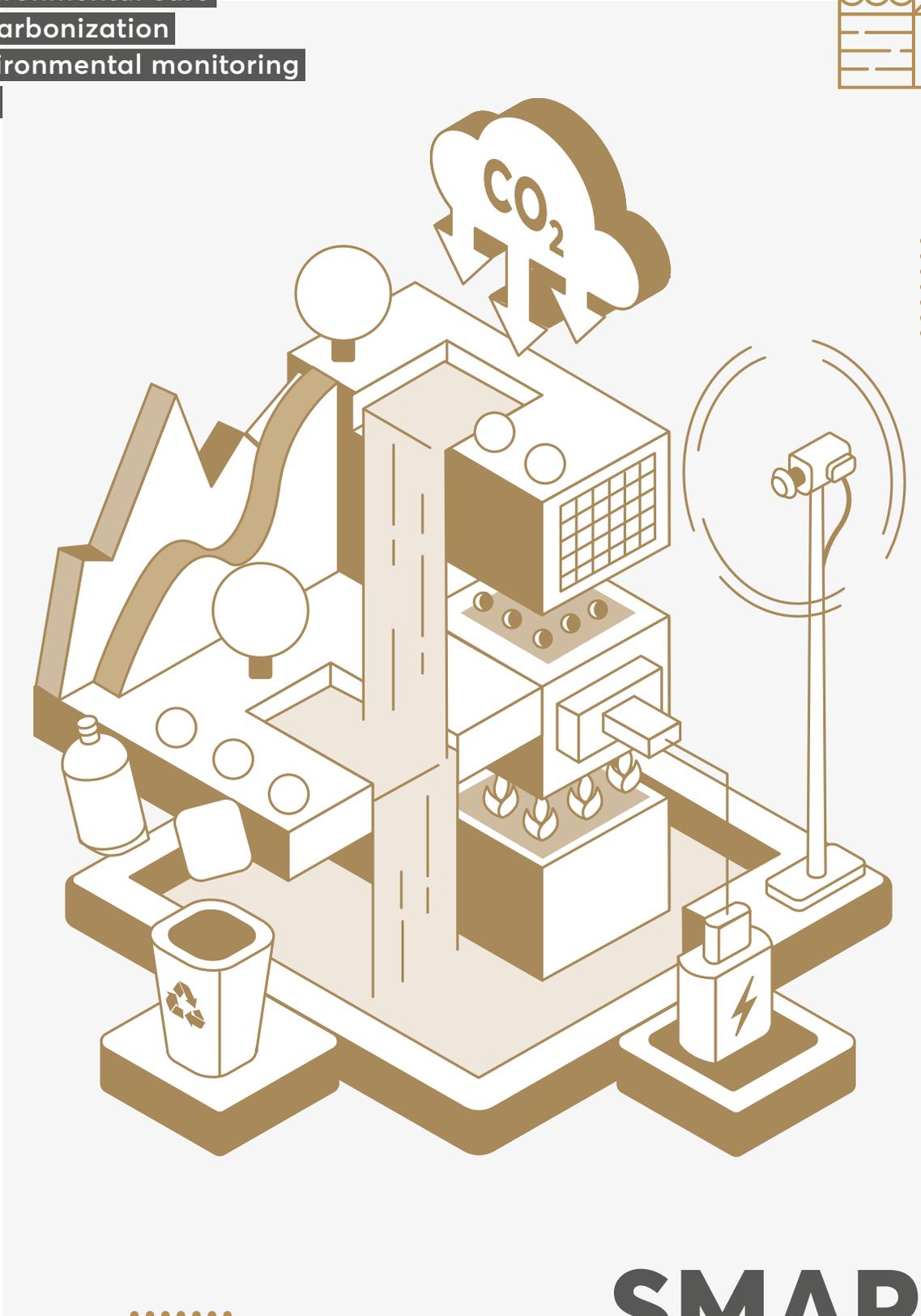


The province-wide data governance investment encompasses the overall management of the availability, usability, integrity, and security of data assets within the WCG. This initiative is documented in a master plan as a recipe for smart governance and smart service delivery for economy, safety, mobility and environment.

More information:
<https://smart-region.at/province-wide-data-governance-towards-achieving-smarter-service-delivery>



use of resources and energy
environmental care
decarbonization
environmental monitoring
etc.



SMART ENVIRONMENT

Québec:
BIOÉNERGIE
LA TUQUE (BELT)



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BELT is a non-profit organization aiming at developing the bio-energy sector in La Tuque, including renewable fuels.



BELT's mission is to implement the first large scale wood biorefinery that will produce drop-in biodiesel from the large amounts of wood residues from forest harvesting in Québec Haut-Saint-Maurice area. The main partners of the project are Neste corporation and the Atikamekw nation.

More information:
<https://smart-region.at/la-tuque-belt-project>



With the development and improvement of new and existing technologies, the agricultural sector is being prepared for climate change and supported with appropriate measures.

The Department of Agriculture (WCDA) provides a wide range of development, research and support services for the agricultural community. To this end, the Department has become quite innovative in its usage of technology, development and enhancement of new and existing technologies to achieve its objectives.

More information:
<https://smart-region.at/smart-agriculture>



Western Cape:
SMART AGRICULTURE



© cherrymdbee - stock.adobe.com

Georgia:
THE RAY



© The Ray

The Ray, an 18-mile stretch of highway in west Georgia, boasts intelligent-like qualities for drivers, serving as a proving ground for emerging technologies in the areas of transportation, energy, and the environment. This corridor functions as a living laboratory for the active traffic management of interstate lanes and enables real-world testing of advanced mobility/modalities, such as platooning and autonomous driving.

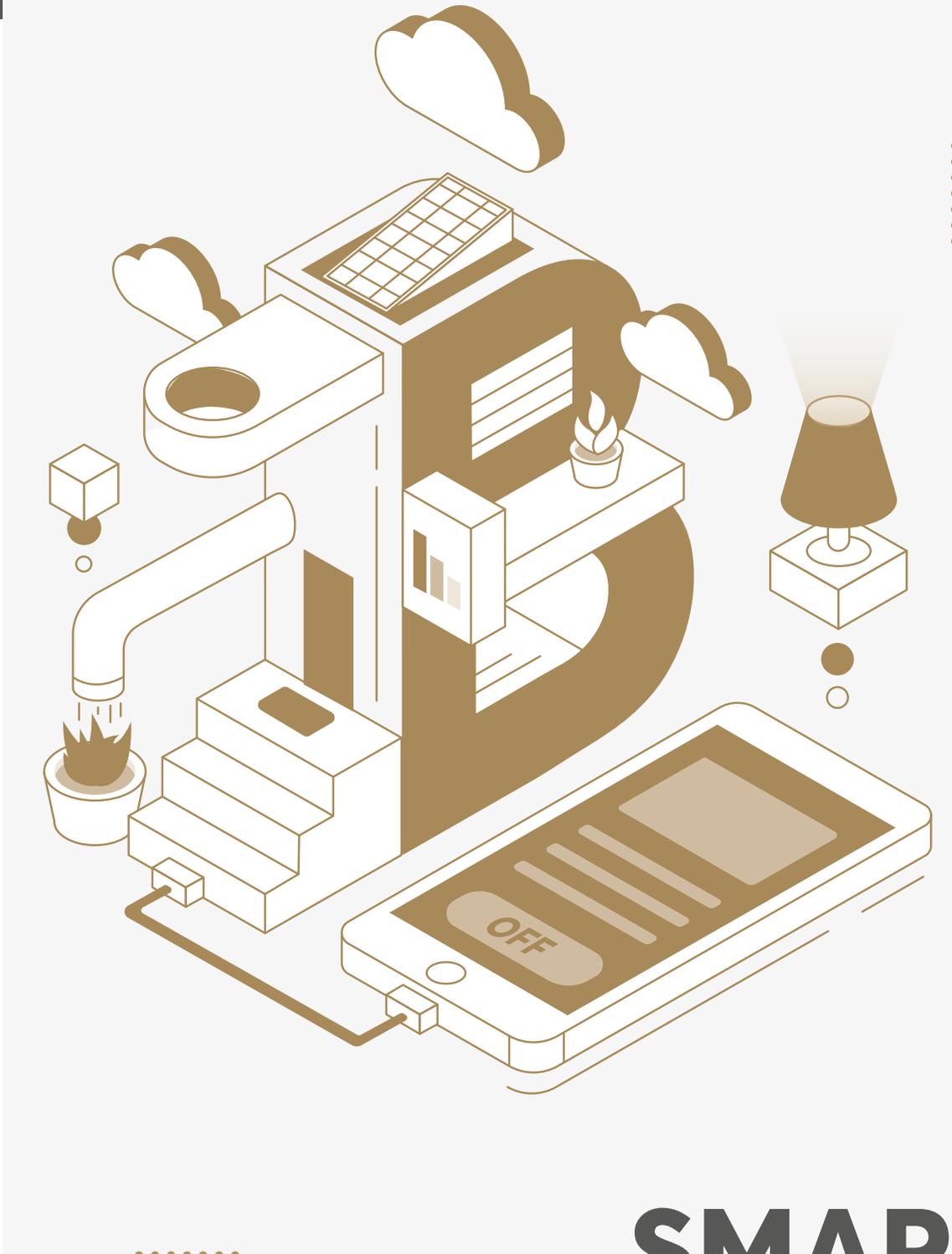


A Public, Private, Philanthropic Partnership (P4) resulted in physical infrastructure along the road in LaGrange for machine vision systems and wayfinding. A cost-sharing partnership resulted in the connected, digital environment for vehicle-to-everything.

More information:
<https://smart-region.at/the-ray>



efficient energy and water management
assisted living
real-time feedback system
intelligent lighting
etc.



SMART BUILDINGS

Upper Austria:
SMART ENERGY SAVINGS



© ÖÖ Energiesparverband

Upper Austria's energy contracting programme. The energy contracting model allows for investments in energy efficiency and in renewable energy without high upfront investment costs from the building owner. A specialised company plans, builds and finances the energy efficiency measures while guaranteeing the project's success.



More information:
<https://smart-region.at/smart-energy-savings-upper-austrias-energy-contracting-programme-energy-contractin>



Higher investment costs, compared to conventional solutions, are often a major challenge when investing in sustainable energy solutions. In many cases, these higher upfront costs are more than offset by the reduction in energy and maintenance costs during the service life.



Life can be challenging for elderly people but thanks to this project, they will not need to leave their home. The "YourHouse 4.0" project deals with different everyday topics and offers solutions to how it is possible for elderly people to live independently – with the help of modern technology.

More information:
<https://smart-region.at/yourhouse-4.0>



Digital technologies can increase the autonomy of people in need of care and allow them to stay at home or in their own apartment autonomously. Furthermore, they can relieve relatives or professional nurses of the task of taking care of them.

© DeinHaus 4.0 Niederbayern



Bavaria:
YOURHOUSE 4.0

Québec:
SMART CONSTRUCTION



© images - stockphoto.com

Smart cities often require large infrastructure projects that are very costly. An important risk of such projects are cost overruns.



More information:
<https://smart-region.at/smart-construction>



This project uses Internet-connected devices to monitor large construction sites in order to improve accountability of costs, safety of workers, and efficiency of the use of construction resources. The technologies are being developed jointly by Concordia University and the Indus.ai company. On the campus of Concordia University the Centre for Zero Energy Building Studies (CZEBS) is located. The mission is to reduce the environmental impact of buildings while enhancing their safety and comfort.



www.smart-region.at

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THE BEST**