Digitalplan Bayern

Future strategy for our home country

DIGITALPLAN BAYERN –

LIVING BETTER IN A DIGITAL WORLD!

Dr. Markus Söder, MdL
Bavarian Minister-President

Judith Gerlach, MdL
Bavarian State Minister for Digital Affairs

DEAR READER,

Digitalisation affects us all and is increasingly shaping our everyday private and professional lives. "Living better in a digital world!" is our maxim for actively shaping the digital transformation in Bavaria, and for Bavaria. Under this banner we are forging strategic guidelines for the coming years with Digitalplan Bayern. We want digital technologies to facilitate and enrich our lives, and we want to ensure that everyone can take advantage of the opportunities and master the challenges of the future together!

What does this mean in concrete terms? We want our children to be media-competent and digitally adept so that they can harness the possibilities of an increasingly digitalised world in the best way possible, but also in a protected way. We want fellow citizens, who have so far tended to be digitally aloof, to use these technologies to their advantage, be it for health or communication purposes. We want citizens to have confidence in a digital future because their digital competence is strengthened and they are offered secure infrastructure. We want digital administration services to be as easy as online shopping. We want economic losses due to cybercrime or espionage to be minimised. And we want both urban and rural areas in Bavaria to remain attractive, liveable and loveable.

Under the leadership of the Bavarian State Ministry for Digital Affairs, the Bavarian State Government has developed a comprehensive and interdisciplinary strategy to drive forward the digital transformation in a targeted manner. Via a broad-based participation process with a range of stakeholders – from online citizen participation and consultation of interest groups to interviews and workshops with digital experts – we are ensuring we move forward in a pragmatic, inclusive, user-oriented fashion.

The Digitalplan Bayern places particular emphasis on digital education and skills, infrastructure and data, security and networked administration – all urgent challenges for Bavaria. With the Digitalplan we are investing in our future and making our society fit for all analogue and digital challenges the coming years may bring. For a liveable and loveable, strong and secure Bavaria!

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INTRODUCTION

We are shaping Bavaria's digital future so that digitisation serves everyone in Bavaria and makes their lives easier. The Digitalplan Bayern comprises

- three basic areas – guiding principles, data and infrastructure – as well as

- four fields of action – society, living spaces, value creation and government.

With this framework defining the strategic guidelines and measures that shape the digital transformation in the Free State of Bavaria, we aim to keep people in the focus.

The digital transformation is the most important journey for our society today – it is nothing less than the shaping of our future. A journey that will lead us to new – perhaps even still unknown – destinations. A journey that brings innovation to the fore, and requires courage and prudence. A journey that encompasses all areas of our lives: Education and community, health and environment, urban and rural areas, work and value creation, business and science, government and administration. To be prepared for this journey, more than new technologies are needed. Creativity and a spirit of innovation, responsible use of resources and an openness to change, but above all, enthusiasm for the new opportunities arising from digitalisation: in the best sense of the word – a Digital Ambition.

VISION BAYERN

LIVING BETTER IN A DIGITAL WORLD!

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This overarching guiding principle accompanies the digital transformation in Bavaria so that digitalisation serves everyone in Bavaria and makes their lives easier. This is our goal and mission! Each and every individual should be able to shape their digital life securely, confidently and self-determinedly. Equal participation in digital opportunities ensures societal cohesion. Our value-based coexistence is also our compass in the digital world across borders of age, gender, origin, education or digital skills.

Further strengthening trust in the performance of the state and administration through openness and transparency is particularly important to us in shaping the digital transformation. Digital sovereignty as well as the resilience of government, society and business are further guiding principles that orient us. Information security and cyber security is a collective responsibility that will contribute to our long term competitiveness and safeguard peace, freedom and democracy.

We have clear ideas about the Bavaria of the future:

Society, business and science, as well as the government and administration, have access to high-performance, modern infrastructures as the basis for the digital transformation. Data is used responsibly, efficiently and innovatively for the benefit of everyone in Bavaria. Data protection and data utilisation go

hand in hand so that digitalisation can unfold its full potential and enrich and facilitate the lives of everyone in Bavaria in the most diverse ways.

Bavarian society is digitally adept and uses digital technologies confidently and prudently – the focus is on people, nobody is left behind. The teaching of digital skills is firmly anchored in schools, academia and vocational education. People who have so far tended to be digitally marginalised have digital skills to participate in their private and professional lives. All citizens and social actors benefit from the digital transformation and can optimally use the opportunities and possibilities of digitalisation.

Digital technologies help to ensure that Bavaria remains liveable and loveable, our towns and villages lively and attractive, our nature intact and diverse. The potentials of digitalisation for more sustainability, climate and environmental protection are being fully grasped. Advanced and climate-neutral technologies minimise the negative effects of growing data-volumes and computing capacities. In this way, digitalisation makes a profitable contribution to all living spaces.

There are excellent framework conditions for business and science, allowing them to benefit from the digital transformation and boldly drive it forward. As a result, Bavaria attracts the brightest minds, competes globally and is the number one place in Europe for the digital technologies of the future.

A modern government with efficient, service-oriented and innovative administration and justice ensures broad acceptance and satisfaction. Firmly embedded in European society and bound to the liberal, democratic values of the European Union, the trusting cooperation of all actors shapes governmental action in Bavaria and thus makes an indispensable contribution to strengthening our democracy.

GUIDING PRINCIPLES

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We shape the digital transformation in such a way that Bavaria benefits from it in all its diversity as part of a modern Federal Republic of Germany as well as a value-based, prosperous Europe.

Further strengthening people's trust in the performance of the government and administration through openness and transparency is particularly important to us in shaping the digital transformation. Digital sovereignty as well as the resilience of government, society and business are further guiding principles that give us orientation in this regard. As a task for society as a whole, information security and cybersecurity make an important contribution to maintaining our competitiveness and securing peace, freedom and democracy in the long term.

✔ We are shaping the digital transformation in a value-based and responsible manner and aligning our measures with the needs of the citizens, companies and science.

✔ We strengthen the digital sovereignty of government, business, science and society to increase their resilience, to reduce dependencies and optimally participate in digital progress.

✔ We reinforce information security and cybersecurity and therefore confidence in advancing digitalisation.

✔ We increase openness and transparency for the public at all levels of government as well as between the different governmental institutions.
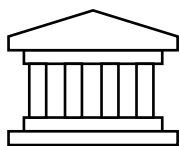
SELECTED MEASURES

People are in the center of citizen-oriented digital administration in Bavaria: online services, portals and apps are developed together with the users in innovation labs.

For a powerful, resilient infrastructure, Bavaria relies on cloud-based solutions.

Bavaria is safe – even in cyberspace: security authorities in tune with the times and the intensive dialogue between government and business community are fighting cybercrime and hate speech, espionage and sabotage. With our cybersecurity strategy 2.0 we are strengthening information security and cybersecurity.

With Open Government, Bavaria is creating innovative transparency and participation initiatives to better and more comprehensively inform the public, civil society, business and science, and to increase involvement in innovation processes.

DATA

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We want data to be used responsibly, efficiently and innovatively for the benefit of all of Bavaria.

As the State Government, it is our goal to intensify the innovative, responsible provision and use of data – in science and business, civil society and administration. We want to consistently seize the opportunities that arise from the analysis and use of data – for innovations, for new business models, for the development of new markets, as well as for fact-based decisions in politics and administration, for improved medical care, climate and environmental protection. Data protection and data use go hand in hand so that digitalisation can unfold its full potential and enrich and facilitate the lives of everyone in Bavaria in the most diverse ways.

✔ We strengthen data literacy, increase responsible, innovative and effective use of data for the benefit of all and establish an open data culture.

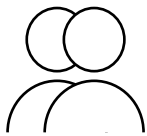✔ We ensure a high-performance, secure and sustainable date infrastructure.

SELECTED MEASURES

With an innovative data strategy we lift data treasure out of data sets.

Data protection and data use go hand in hand: we are expanding the State Office for Data Protection Supervision (Landesamt für Datenschutzaufsicht) into a competence centre for data protection and strengthening the advisory function for SMEs, start-ups, associations and volunteers.

Bavaria's digital twin provides information about health, energy, climate etc. in real time and forms the basis for sound political decisions without Excel spreadsheets and around the clock.

INFRASTRUCTURE

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We provide powerful and modern infrastructures as the foundations of the digital transformation.

The constitutional goal of comparable living and working conditions in urban and rural areas also applies to unrestricted access to digital offers and services. This requires high-performance digital infrastructure, state-wide fibre-optic based and mobile data and communication networks, intelligent and robust energy grids as well as high-performance digital networks in cities and municipalities, administrations, security authorities as well as health and educational institutions.

✔ We ensure that all of Bavaria is provided with future-proof and high-performance communication networks and invest today in the information and communication technologies of tomorrow.

✔ We make the government more powerful, resilient and efficient with platform-based services.

SELECTED MEASURES

With the "Pakt Digitale Infrastruktur", Bavaria is pursuing the goal of raising the scope and availability of gigabit-capable infrastructures to a new level. The pact provides the necessary platform to prepare and rapidly implement the best measures and solutions for gigabit infrastructure in Bavaria with the involvement of all parties related to broadband and mobile telecommunications.

The "Competence Center Cloud" builds up its own know-how so that it can evaluate the latest technologies and to be able to implement digital technologies independently, self-determinedly and securely.

As one of the world's leading high-performance scientific computing centres, the *Leibniz Supercomputing Centre* will receive a *computer in the latest exascale technology. This technology will enable it to achieve a performance increase of at least a factor of 50* for enabling cutting-edge research in the natural, life and technical sciences. Even the development of new computer and software technologies as well as simulation and data analysis at the highest level and cutting-edge research will be possible.
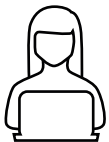
SOCIETY

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We shape Bavaria's digital future with a society that has digital skills and uses digital technology in a confident and informed manner.

Bavaria's society is digitally adept and utilises digital technologies confidently and prudently – people are the focus, nobody is left behind. The teaching of digital skills is firmly anchored in schools, academia and vocational education. We also want to specifically empower people who have few or no digital skills so that all members of the public and societal actors benefit from the digital transformation and can make the most of the opportunities and possibilities of digitalisation.

✔ We reinforce the involvement and participation of everyone in the digital transformation and thus make the opportunities of digitalisation available to society as a whole

✔ We promote digital education and digital skills.

✔ We drive forward digitalisation in the health sector to improve health and care for everyone involved.

✔ We promote digital cultural offerings as well as the games sector, and thus increase the cultural participation of citizens.
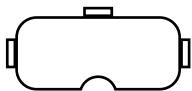
SELECTED MEASURES

The successful talent program "BayFiD – Bavaria's Women in Digital Professions" will be continued in order to inspire more women and girls for professions in the tech sector – for more diversity and more skilled personnel.

Digital skills are the basis for the future viability of our country. The basis for comprehensive digital education must be created now because people are our capital and our future. With interdisciplinary commitment to digital education and the "Alliance for digital skills", we are harnessing the opportunities of digitalisation for everyone – from young children to senior citizens.

We continue to promote the megatrends of digital film-making, XR and games in a targeted and sustainable manner.

LIVING SPACES

We use digital technologies to ensure Bavaria stays life-enriching and appealing, our cities and villages remain vibrant and attractive, our nature remains intact and diverse.

Digital technologies make an important contribution to the attractiveness of all living spaces. We will make the best possible use of the potential of digitalisation for greater sustainability, climate and environmental protection, energy and resource efficiency. With advanced, climate-neutral technologies we will minimise the negative effects of growing data volumes and computing capacities.

✔ We develop urban and rural areas into smart cities and regions, thereby ensuring equal living and working conditions in urban and rural areas.

✔ We make planning, building, housing and transport more sustainable, resource-efficient and future-orientated through consistent digitalisation.

✔ We systematically use the opportunities of digitalisation for climate protection and minimise its carbon footprint at the same time.

✔ With the help of our digital tools we make a significant contribution to a secure and sustainable energy supply in Bavaria.

✔ We support the digital transformation in agriculture so that modern, efficient farms in Bavaria can continue to supply us with high-quality food, maintain our cultural landscape and contribute to sustainability, climate and environmental protection.

SELECTED MEASURES

The TwinBy project supports Bavarian local governments in the accelerated establishment and expansion of digital twins.

Climate protection and digitalisation must be thought of together. With a comprehensive agenda of digitalisation and climate protection, we are raising the enormous potential of digital technologies for climate protection. This is how innovative climate and environment protection succeeds – without prohibitions. To ensure that digitalisation does not become a boomerang for climate protection, Bavarian computer centres are to become climate-neutral.

We are using Building Information Modeling as the basis for efficient management, construction and utilisation processes as well as the key to the circular economy.
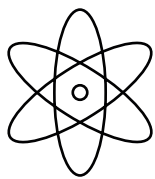
VALUE CREATION

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We create the framework so that business and science in Bavaria benefit from the digital transformation, drive it forward and thereby make Bavaria the number 1 location in Europe for digital technologies of the future.

Bavaria is one of the most attractive and strongest locations for business and science. The Digitalplan Bayern as a future-oriented digital strategy, a strong SME sector and excellent framework conditions create the basis for successful digital transformation. This provides the impetus for ground-breaking innovations, new economic and value-added structures, as well as innovative business models.
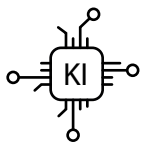
✔ We provide impetus for innovations and technologies of the future and strengthen the transfer from science to application in order to establish Bavaria as a world-leading location for digital technologies.

✔ We create an outstanding framework for the economy, in particular our small and medium-sized enterprises, to support them in their digital transformation.

✔ We continue to create excellent framework conditions for science, research and teaching as a driver for the further development of digitalisation.

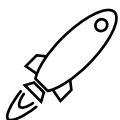✔ We make Bavaria the top start-up centre of Europe.

SELECTED MEASURES

Together with Austria, we want to establish national and transnational quantum communication infrastructure test beds for a European communication network.

AI in a new dimension: thanks to its Hightech Agenda, Bavaria is leading in AI research. We ignite the next stage and bring AI into widespread use – SMEs, agriculture and administration can benefit enormously from this future technology, make processes more efficient and create new business models.

We are strengthening the start-up ecosystem in Bavaria in a targeted manner to promote Bavaria as a place to be in international competition and make it even more attractive for international talent.
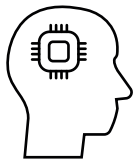
GOVERNMENT

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We provide a user-centred, collaborative, efficient, innovative administration and modern government for broad acceptance and satisfaction in the population and among businesses.

A citizen-oriented, modern administration is essential for our democracy. Democratic governments are only truly capable of acting through functioning administrations and trust-based cooperation with all social actors. The modernisation and digitalisation of public administration are therefore key factors for the future viability of our state and our democracy. We want to organise and further develop our government and our administration such that they can optimally fulfil their core functions.

✔ We create modern, sustainable structures in government and administration.

✔ We establish a user and future-oriented, accessible and efficient, connected digital administration.

✔ We protect the rights of citizens with a modern, digitally accessible justice system and guarantee freedom, internal security and social peace.

✔ We regulate smartly and create an outstanding, modern legal framework for the digital transformation.

✔ We strengthen the expertise in the administration and promote digital skills and enthusiasm among our employees.

✔ We strengthen IT infrastructure and IT security as the operational backbone of the digital transformation of the administration.

✔ We walk the path of digital transformation hand-in-hand with local governments.

SELECTED MEASURES

We are quickly and vigorously expanding the central advisory and support unit for the digital transformation in Bavaria – byte – the Bavarian Agency for Digital Affairs – to specifically advance government administration, e.g. in relation to open data, the cloud and process digitalisation.

FAZID – grants from application to payment, entirely digitally: To ensure that grant funds get to where they are needed quickly and efficiently, we seamlessly digitise the processing of grants from the search for appropriate grants to payment.
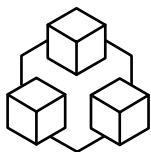
Digital justice: By the end of 2025, the electronic case file will be introduced state-wide in courts and public prosecutors' offices in Bavaria – for more proximity to citizens and faster decisions.
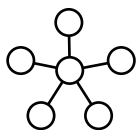
Screening of standards and digital check: We subject state law to a comprehensive screening of standards in order to remove obstacles to digitisation. With the digital check we examine legislative projects for their digital compatibility from the very beginning.

We are establishing the Digital Role Swap as a rotation programme between employees of state administration, companies, science and civil society. We want to specifically promote the opportunities of learning from each other and sharpen the perception of the activities of others.

By the end of 2023 we will prepare a forward-looking interdepartmental IT strategy. Among other aspects, this strategy will address the sustainability of the IT organisation of the Free State of Bavaria and thus ensure a dynamic, future-proof basis for the further development of the governmental use of IT.

BayKommun AöR will provide targeted support to Bavarian local governments in the follow-up use of online services developed according to the so-called "one for all" principle, thereby accelerating the state-wide roll-out of digital administrative services. In addition, with the digital "BayernPackages", the Bavarian State Government provides Bavarian local governments with a package of ready-to-use online services in order to offer particularly relevant services state-wide. In this way we are creating citizen-friendly e-government throughout Bavaria in both urban and rural areas.

PARTICIPATION PROCESS, MONITORING AND FURTHER DEVELOPMENT

"People are the focus of the digital transition" – for us, this is both a claim and an incentive. For us, it is axiomatic to think of digitisation from the point of view of the users – be they entrepreneurs, researchers, founders, digital natives or digital beginners. It was therefore also a matter of course to base the Digitalplan Bayern on a comprehensive participation process. This made it possible to take people's interests, needs, expectations and concerns into account from the very beginning.

Together with the Bayern Innovativ GmbH we offered interested stakeholders the following formats for participation:

- In November and December 2021 *more than 50 interviews* were held with digital experts from all over Germany and abroad.

- *24 workshops with more than 150 participants* covering the four fields of action of the Digitalplan – society, living spaces, value creation and government – followed in January 2022.

- In February 2022 we carried out a consultation in which more than *200 interest groups* were asked for their opinion as part of a survey.

- At the same time, a *platform for citizen participation* went online, where *235 ideas were submitted and 3,510 surveys answered* over a period of six weeks.

🔷 Finally, in May 2022 drafts of the *vision and initial texts* of the Digitalplan *were made available for discussion* both at an online event with experts and on the participation platform.

With this participation process, we have started a dialogue that we want to consistently continue during the implementation of the measures and the further development of the strategy. We see Digitalplan Bayern as an open, dynamic process with which we create an orientation framework and establish measures that, from today's perspective, support and promote the achievement of our goals to optimally shape the digital transformation for Bavaria. However, we also know that the speed of digitalisation and technological development make it necessary to continue to discuss opportunities and challenges in a broad discourse with citizens, experts from business, science and civil society.

We will accompany the implementation of the measures of the Digitalplan with monitoring. We want to measure Bavaria's digital progress closely to keep an eye on the impact of the measures and the achievement of our goals.

With Digitalplan Bayern we are shaping Bavaria's future. A future that brings forth new technologies, digital innovations and future trends that will open up new opportunities and that may also create new societal, economic or ethical challenges. To ensure that everybody in Bavaria can benefit from the digital transformation, we want to seize these opportunities boldly and meet the challenges courageously. The Digitalplan Bayern will therefore be consistently developed further: *so that we live better in a digital world!*

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Oskar-von-Miller-Ring 35
80333 Munich
poststelle@stmd.bayern.de

Editorial
Representative
Dr. Franziska Armbruster

Technical support and implementation of the entire process
Bayern Innovativ GmbH
Am Tullnaupark 8
90402 Nuremberg
digitalplan@bayern-innovativ.de

Digitalplan Bayern