

# **POLICIES**

#### Institute for Economic, Social and Innovation Research





### **JOANNEUM RESEARCH Forschungsgesellschaft mbH**

JOANNEUM RESEARCH develops solutions and technologies for business, industry and public authorities over a wide range of sectors and conducts applied cutting-edge research on an international level.

The company makes a significant contribution towards safeguarding the economic success of the region and assumes a key role in the transfer of technology and expertise into the economy.

#### Owners \_\_\_\_\_\_

State of Styria

80,75% 14,25%

BABEG Carinthian Agency for Investment Promotion and Public Shareholding

**5%** Wirtschaftsagentur Burgenland GmbH

### **Certifications**

**ISO 9001** Requirements for quality management systems

**ISO 14001** Environmental management systems

#### **ISO 13485**

Medical devices - Quality management systems -Requirements for regulatory purposes

**ISO 14644** Cleanrooms and associated controlled environments

**ISO 17025** Accredited test laboratory ROBOTICS Evaluation Lab GLP

**Good Laboratory Practice** 

### Numbers – Data – Facts

around **500** employees (from over 25 nations)

7 research units

6 locations

around **50** million Euro of research services per year





### CONSULTING. PLANNING. EVALUATION.

»Towards evidence-based decisions in politics and business – with the competence of POLICIES.«

Wolfgang Polt *Director* 

### **POLICIES** Institute for Economic, Social and Innovation Research

POLICIES stands for successful, evidence-based decisions in politics and business.

We apply our empirical and methodological competence in projects by providing economic, social scientific and statistical support for the development of innovation strategies and policies, as well as for the development of technologies and products. For example, we investigate the innovative behaviour of companies, assess the impact of political measures, evaluate regional development potential or investigate gender-specific access and the effects of scientific and technological developments.

In our research activities, we strive to uphold the highest ethical principles such as impartiality, objectivity and transparency. For us, »Responsible Research and Innovation« is not just a research object but the guiding principle of our research practice. We are able to refer to a large portfolio of projects and many years of successful work with regional, national and international customers and partners.

We conduct research for all important national stakeholders such as Federal Ministries, grant bodies and advisory boards as well as a large number of counties and councils. We are a cooperation partner for a series of highly innovative Austrian companies. Our customers include international organisations such as the European Commission, the OECD and companies from European, Asian and Latin American countries.



## Our Focus

The Institute for Economic, Social and Innovation Research supports customers from the public sector and companies with distributed teams based in our locations in Graz, Vienna and Klagenfurt.



Technology, Innovation and Policy Consulting



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Data Analytics and Statistical Modelling



**Regional Economics** and Structural Policy

#### **Consulting • Planning • Evaluation**

- of Technological and Innovation Strategies
- of Policies and Support Programmes
- for Regional Location Evaluation and Cluster Development
- with Data-supported Innovation Projects in a Company

# Technology, Innovation and Policy Consulting

The research group Technology, Innovation and Policy Consulting stands for predictive analysis, new policy impulses, critical reflection and the renewal of policies concerning research, technology and structure on a sound basis.

We are a development partner for institutes belonging to the public sector, international organisations and business partners for whom we develop targeted empirical foundations and new theoretical and conceptual approaches. The team sees itself as a partner that scientifically questions, designs and advises. Its competences and instruments are intensified in an international network of partner institutions in a complementary way.

Our activities are focussed on the following fields:

#### Empirical Research into Science, Technology and Innovation

- Indicator development and indicator-supported policy analysis
- Analysis of research and business innovation microdata from businesses, higher education, employment market, regional data, as well as scientific and patent data
- Empirically-based impact analyses of policy measures
- Analysis of long-term development trends and specialisation patterns of national, regional and sectoral innovation systems

## Systemic Consulting, Measure Development and Evaluation

- Development of evaluation and monitoring systems
- Evaluation of policies, institutions and programmes in regional, national and supra-national innovation systems
- Socioeconomic impact assessment

#### Innovation and Development of Human Resources

- Analysis and design of gender, diversity and users aspects in innovation processes
- Analyses of individual professional career paths and their institutional and political contexts
- Conceptual design of measures to be taken to strengthen the potential of human resources in R&D and the measurement of their impact on equality

The research group works together with international partners to evaluate support programmes and makes a profound contribution to the further development of existing political instruments and the orientation of new ones.

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# Data Analytics and Statistical Modelling

Data analytics and statistical methods provide both service and technology oriented companies with new insights, a basis for objective decision-making, and a tool to increase efficiency in product and process development. They offer customers in the public sector improved and empirically based recommendations for action.

The research group Data Analytics and Statistical Modelling provides methods and analysis tools for the optimisation of economic systems, processes and products. This improves the cost-benefit-efficiency ratio and increases quality while promoting evidence-based decision-making in general.

The combination of specialist expertise in the fields of statistical modelling, data analysis methods and Al competence with many years of experience in solving practical issues allows the research group to deliver the basis for decisionmaking and optimisation approaches for clients from the areas of business and administration with a focus on:

- System analysis and project conception
- Data generation (test and survey planning)
- Optimisation of products and facilities in the design phase
- Digitalisation in agriculture
- Data analysis, modelling and optimisation of manufacturing processes for industry 4.0
- Development of soft sensors (virtual metrology)
- Lifetime and reliability prediction
- Condition-based planning of intervention and maintenance (predictive maintenance)
- Analysis and modelling of large amounts of data (big data analytics)
- Creation of customer-specific predictive models (predictive analytics)



Agriculture



# **Regional Economics and Structural Policy**

The research group Regional Economics and Structural Policy focusses on the opportunities and challenges arising from land management, regional employment and economies, and particularly between urban agglomerations and the periphery. The combination of precise, geographically located and quantitative economic information, econometric methods and consistent analysis and interpretation create actionable knowledge and added value for our customers. The focus is on instruments designed to contribute to growth and employment by promoting innovation.

#### Central areas of activity include:

- Creation of regional economic monitoring systems
- Analysis of all major and economically relevant indicators (of economic development, regional labour markets, migration and demography) each with the highest possible spatial resolution
- Econometric methods and quantitative analyses
- Generation of long- and medium-term, quantitatively supported, regional forecasts for employment, labour market and population
- Impact analyses and macro-economic modelling



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further Reading



# Selected Projects

#### Technology, Innovation and Policy Consulting

- Mission Oriented Policies (MOP): We accompany the EU Commission, the OECD and Austrian ministries and support agencies with the development of mission oriented policies.
- European Tertiary Education Register (ETER): We are responsible for the collection and provision of data for the European Tertiary Education Register (ETER) on behalf of the EU Commission.
- Accompanying Research on the funding programme "Experiment" by the Volkswagen Foundation, evaluation of the German Research Foundation (DFG) programme "Open Access", contribution to the EU framework programme Major Innovations, evaluation of the effectiveness of the EUREKA programme.

#### **Data Analysis and Statistical Modelling**

- BUMIS (Information System for Soil and Environment Management): This project uses cutting-edge farming methods to optimise field yields.
- LUSI-Q (Laser Ultrasound for In-line Quality Assurance in the Semiconductor Industry): The goal of the project is to research and trial a sensor technology for contactless and non-destructive detection of anomalies on chip wafers.

#### **Regional Economics and Structural Policies**

- WIBIS: For more than 20 years, we have been running the economic policy reporting and information system on behalf of several Federal counties.

200000

The Koralm Tunnel – An Opportunity for Southern Austria? This project considers the social and economic implications that could result from the Koralm Tunnel infrastructure project.





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