

GAUSS Institute



Foundation for
New Technologies,
Innovations, and
Knowledge Transfer

gaussinstitute.org

WHO WE ARE.

GAUSS Institute is a Foundation for New Technologies, Innovations, and Knowledge Transfer established on 15 August 2006 in Bitola, Republic of Macedonia.

GAUSS Institute is a private non-for-profit body, founded by Prof. Igor Nedelkovski (who provided 2/3 of the founding capital and still provides offices and utilities) and Dr Elena Kotevska (who provided 1/3 of the founding capital).

The aim of the establishment of the GAUSS Institute is through development and application of new technologies, innovations and knowledge transfer to contribute toward the establishment of the knowledge society in the region.

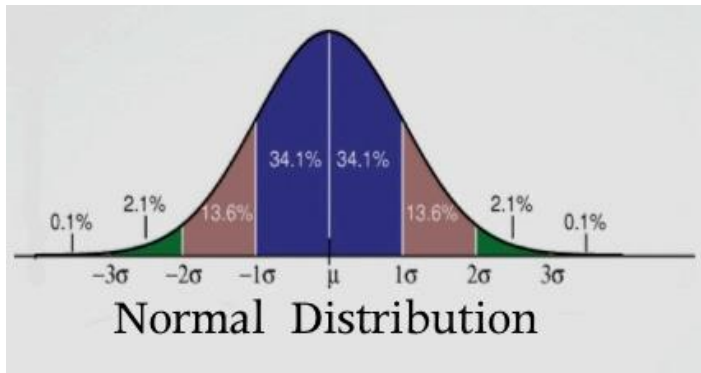


Knowledge society: Broadly speaking, the term Knowledge Society refers to any society where knowledge is the primary production resource instead of capital and labour. It may also refer to the use of certain information. The knowledge society "creates, shares and uses knowledge for the prosperity and well-being of its people".

A knowledge society is an innovative and life-long learning society, which possesses a community of scholars, researchers, engineers, technicians, research networks, and firms engaged in research and in the production of high-technology goods and service provision. It forms a national innovation-production system, which is integrated into international networks of knowledge production, diffusion, utilisation, and protection. Its communication and information technology tools make vast amounts of human knowledge easily accessible. Knowledge is used to empower and enrich people culturally and materially, and to build an eco-friendly sustainable society.

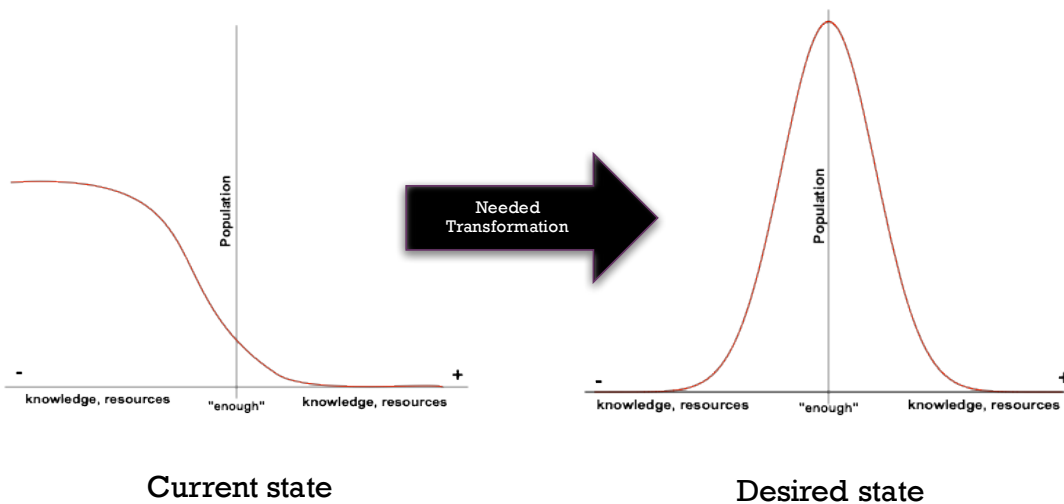
WHY GAUSS?

Because we sincerely believe that the prosperity of any society is possible only if the allocation of resources and knowledge is according Gaussian** function, i.e. exists their normal distribution.



This means that the majority of the population should have enough knowledge and resources to organise their society sustainably. The extreme cases (positive or negative) do not make society.

Unfortunately, in the Republic of Macedonia and wider on the Balkans region, the majority of the population currently have not enough (although it is very difficult to define what is "enough") knowledge and resources to organise society on sustainable, knowledge-based way.



By giving GAUSS prefix in the name of our foundation, we wanted to stress the importance of initiating changes in behaviour and lifestyle of our society, that will lead toward functioning of the society according to Gaussian function.



* Johann Carl Friedrich Gauss (1777 – 1855) was a mathematician and scientist who contributed significantly to many fields, including number theory, statistics, analysis, differential geometry, geodesy, electrostatics, astronomy, and optics. He formulated normal distribution with mathematical function which is called Gaussian Function. Gauss was an ardent perfectionist and a hard worker. He was never a prolific writer, refusing to publish works which he did not consider complete and above criticism. His moto was: *Pauca sed matura* (Few, but ripe).

ACTIVITIES AND SERVICES.

GAUSS Institute mainly realises, but it is not limited on, following high-quality activities and services:

- Promotion of new technologies and their usage in all components of society.
- Learning influence of new technologies on the environment and social life.
- Organizing modern professional education and training.
- Organizing courses, seminars, workshops.
- Providing consultancy services.
- Providing services of technology and knowledge transfer.
- Providing technological information and access to innovations.
- Connecting researchers and innovators from the region with companies.
- Support for finding and obtaining donations to the researchers, innovators and companies from the region.



NETWORKING AND COOPERATION.

GAUSS Institute is a member of International Think Tank for Research and Development Think BETA – Evolution of Smart Cities! This Think Tank is lead by the M2C Institute of the University of Applied Sciences from Bremen, Germany.

GAUSS Institute is a founding member of the umbrella organisation URBAN ALLIANCE - Alliance for advancement of participatory democracy with seat in Bitola.

Gauss Institute has signed an agreement for cooperation with Technical University – Sofia, Bulgaria (largest and most advanced technological higher education institution in Bulgaria) for joint realisation of short-term (six months to one year) and long-term (two years) professional courses in Information and Communication Technologies.



Gauss Institute is registered at governmental Agency for Support of Entrepreneurship of the Republic of Macedonia as a licensed organisation for providing consultancy services to local companies from the areas:

- Management: Business planning, Assistance in company management.
- Marketing/export development: Preparation and design of websites.
- Production: Optimization of production, Planning and production control.
- IT and MIS: Diagnosis of common systems for resource planning.
- General counselling in the areas: Information Communication Technology, Innovation, Production, Technology, Quality.



MANAGEMENT, STAFF, & EXPERTS.

MANAGEMENT

The GAUSS Institute is managed by a board of seven members and executive director - highly qualified professionals. Management of the foundation is organized on the **voluntary** basis of the professionals who through engagement in the GAUSS Institute want to support knowledge-based sustainable development of the region and share their expertise and knowledge.

Management Board:

- Prof. Igor Nedelkovski, PhD, President, Professor at St. Kliment Ohridski University – Bitola.
- Elena Kotevska, PhD, Vice-President, Associate Professor at St. Kliment Ohridski University - Bitola.
- Aneta Smit Guleva, MSc, President of CESOR– Skopje
- Petar Kotevski, Founder and director of KAMAJ Media – Bitola
- Subija Izeiroski, PhD, Project manager of Ohrid Summer Festival- Ohrid
- Suzana Trajkovska-Kocankovska, MSc, Co-founder of BSC – Bitola
- Violeta Nalevska, MSc, Advisor for Local Economic Development at Municipality Bitola

Executive Director:

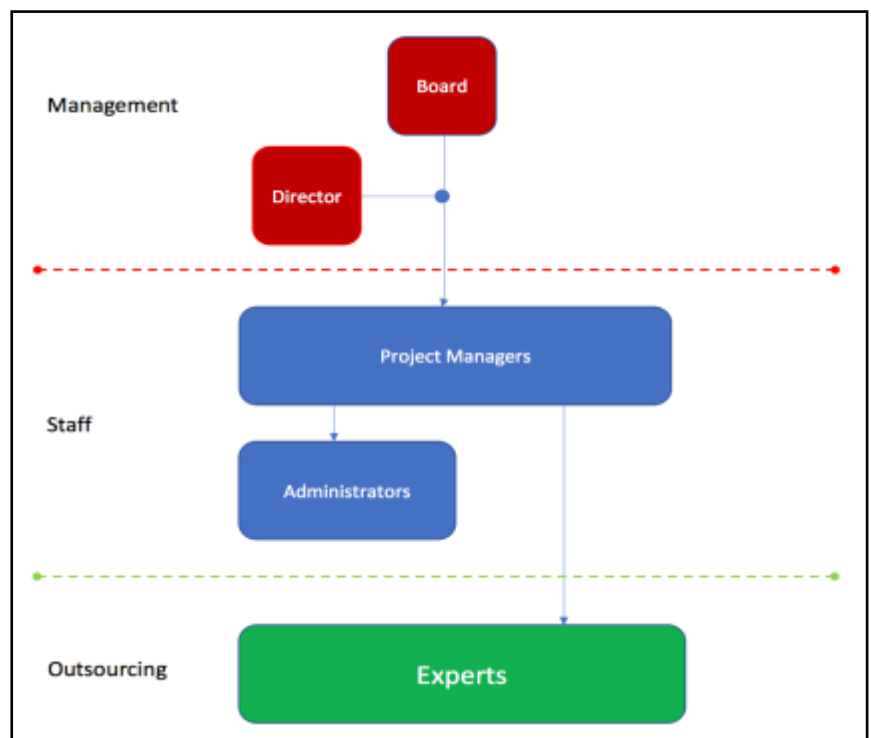
- Beti Angjelevska, PhD, Associate Professor at St. Kliment Ohridski University - Bitola

STAFF

The highest asset of our foundation is its staff. The staff is composed of full-time or part-time project managers, and administrators (technical, administrative, financial, IT...).

EXPERTS

Professional duties are outsourced to external experts (local and international). Local experts are mainly hired from academic staff as well as graduate students of the University "St. Kliment Ohridski" - Bitola. Established close cooperation with the University ensures a high potential of our foundation for realization of high-quality projects from a broad range of areas.



PROJECTS.

GAUSS Institute is a Research & Development (R&D) Civil Society Organisation (CSO) from a horizontal type. Horizontal CSOs are organisations which have not specific target group in their activities (e.g. SMEs, environment, minorities, women, LGBT etc.) but address different target groups with the implementation of the specific tools.

We realise projects about the implementation of new technologies (mainly ICT based) in different areas of socio-economic development. Thus, our projects are divergent, but all of them converge towards the application of new technologies for initiating changes in society (to different target groups).



Because GAUSS Institute is a completely self-funded funded foundation (we are not receiving operational funds from any public body), the realization of projects is the highest priority for us.

We have high standards for implementation of the projects and provide useful and practical outputs, and yes, we are always open to new partnerships and collaborations in projects.

- 12 co-funded by EU (CREATIVE EUROPE, IPA-CSF, CARDS, INTERREG GR-MK, AL-MK, EUROPE FOR CITIZENS).
- 2 co-funded by NATO Charity; 1 co-funded by CEPF (Critical Eco-Partnership Fund – established by World Bank and EC); 1 co-funded by Civica Mobilitas (Programme of Swiss Development Cooperation); 1 co-funded by Swedish Institute; 5 co-funded by GTZ – Germany ; 4 co-funded by USAID Business without Borders project; 2 co-funded by International Organization for Migration – Geneve; 2 co-funded by SPARK – Amsterdam (Dutch Ministry of Foreign Affairs); 2 co-funded by UNDP (United Nations Development Programme); 2 co-funded by Ministry of Environment and Physical Planning of Republic of Macedonia; 1 co-funded by SINTEF – Norway; 5 co-funded by local industry.
- The largest project in which we participated is funded by EU- Creative Europe Programme with a budget of 1.994.662,27 EUR and 12 partners from 8 countries.
- The largest project which we coordinated was funded by EU IPA- Civil Society Facility Programme with a budget of 250.000 EUR and 4 partners from 4 countries.

As an annex, short descriptions of realised projects are given.

Full details about projects and their outputs can be found on our website.

LOCATION AND PREMISES.

GAUSS Institute is located in modern premises near the centre of the city of Bitola. Premises consist of three offices and one training/ meeting room. GAUSS Institute has on disposal state-of-the-art computer and presentation equipment for management and administration of the projects.

GAUSS Institute also has a branch office in Skopje, capital of the Republic of Macedonia which is used for logistics during the realization of the projects.

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ANNEX: PROJECTS' DESCRIPTION.



- *BalkanMed e-Business Pages* (Project funded by the European Union, Balkan-Mediterranean Programme)

The project tackles the common challenges of the BalkanMed area with regard to the distinct economic disparities in the region, the relatively low business competitiveness as compared to other European territories, the market fragmentation and the necessity for a better integration of the socioeconomic links between the involved countries. The project's main goal is to enhance the competitiveness of the exporting SMEs in the BalkanMed region through development of conditions for expanding the transnational collaboration. The goal will be accomplished by fostering the exchange of business information among the BalkanMed SMEs, by facilitating the cooperation and technology transfer processes in the eligible areas and through the development of digital tools for improving the integration of the local markets.

- *Development of mobile application/ Living History Living Nature II* (Project funded by the European Union, IPA Cross-Border Programme Greece - Republic of Macedonia 2007-2013)

The main objective of the project is the realization of common interventions by the partners in order to jointly raise the awareness of the historical and natural resources of the cross-border area and present them in a form that can reinforce local-driven sustainable development. This will be mainly achieved through the documentation and exploration of the connection between the historical monuments, and between the natural sites of each area and the revealing of their dynamics as valuable attraction sites. In this project, GAUSS Institute develops mobile (for Android, iOS and Windows platforms) and web application which will enable immersive exploration (3D video) of the natural beauties in the region of Mariovo in the Republic of Macedonia.

- *Urban Dialogue* (The project is co-funded by CIVICA Mobilitas)

The overall objective is the deepening of the democratic process in the Republic of Macedonia through fostering innovative approaches and cooperation that can empower participatory/participatory culture in the Macedonian society, with special focus on the urban planning. The specific objective is to strengthen the civil activism in the field of urban democracy, through creating a network of CSOs with the task to stimulate a participatory culture and improve the process of adoption of Detailed Urban Plans. Results: - Increased knowledge base and application of the participatory culture in the urban planning sector; - Increased capacities for the democratization of the urban planning on the local level in Macedonia; - Networked civil society, which will initiate a participatory culture in the urban planning sector; - Initiated changes to the regulation and practice for urban planning.

- *Fostering Urban Democracy through Participatory Urban Art* (The project is funded by Swedish Institute, Creative Force Programme)

Specific objective(s): Project objective is to contribute to deepening the democratic process in the Republic of Macedonia through fostering innovative approaches that can empower participatory democracy with a special focus on the urban art and city planning.

The project introduces methods for participative urban democracy in the Republic of Macedonia; to encourage a culture of participative democracy with a focus on urban art and city planning. It also fosters civil activism and instigates more vibrant CSOs in the area of urban democracy. Main activities: Development of web platform for participatory urban art and planning; Virtual creative artistic interventions; Workshop on Participatory Urban Art and Planning in Bitola.

- *The People's Smart Sculpture* (4D – Virtual Urban Art subproject – co-funded by the European Union, Creative Europe Programme)

The People's Smart Sculpture" (PS2) fosters participative art and collaborative urban art&culture processes in Europe's cross-cultural city spaces. It is constituted by 12 project partners in 11 sub- projects in 8 European countries with artists and creatives from 29 European countries. The approach works on two levels: the implementation of cultural participation projects by artists, creatives and researchers and the ongoing optimization of the art and participation aspects in these projects through reflection and evaluation in participation workshops-series in the 8 countries. We will integrate diverse groups of people into a practical dimension of re-design of the urban environment through the workshops. The People's Smart Sculpture is about social art in European spaces.

Artists, citizens, creatives with a new user's perception and new skills more and more change cities into places of art, culture and science: into European spaces of a new public.

- *Agricultural Water Stewardship Initiative in Ohrid Lake Basin* (Project co-funded by Critical Ecosystem Partnership Fund)

The overall objective is to contribute toward biodiversity conservation in the Ohrid Lake Basin through the application of agricultural water stewardship.

Specific objectives are: - To assess sustainable water use for agriculture in the Ohrid Lake basin; - To build positive incentives to promote a change in behaviour and practices of agricultural water use, management and governance; - To propose policy measures for support of water stewardship practices at a farm level.

- *Digital Exhibition/ Living History Living Nature* (Project funded by the European Union, IPA Cross-Border Programme Greece - The former Yugoslav Republic of Macedonia 2007-2013)

The main objective of the project is the realization of common interventions by the partners in order to jointly raise the awareness about the historical and natural resources of the cross-border area and present them in a form that can reinforce local-driven sustainable development. This will be mainly achieved through the documentation and exploration of the connection between the historical monuments, and between the natural sites of each area and the revealing of their dynamics as valuable attraction sites.

The GAUSS Institute developed an advanced web application which enables exploration in very high resolution the paintings painted by prominent artists from Macedonia and Greece in the region of Mariovo in the Republic of Macedonia.

- *Development of Methodology for Preparation of Natural Resources Inventory.* (Project Funded by Ministry of Environment and Physical Planning of the Republic of Macedonia)

The aim of the project is to improve sustainable management of natural resources through the preparation of Natural Resources Inventory.

Specific objectives: - to demonstrate methodology for preparation of Natural Resources Inventory;- to develop pilot Natural Resources Inventory in the region Bitola/Resen

Target groups are local authorities from involved municipalities (Bitola and Resesn), non-governmental organizations, universities, business sector, as well as central authorities and institutions.

- *AITOLOS: Cross-border collaboration to fight illegal logging and timber trade* (Project partially funded under the IPA Cross-border programme between Greece – Republic of Macedonia)

AITOLOS aims to answer the need for integrated regional action on monitoring forests in order to minimize illegal logging and the cross-border trade in illegally logged timber, which is currently a major concern among many countries worldwide. The AITOLOS project aims to foster cross-border collaboration and coordinate the activities of Greece and the Republic of Macedonia against illegal logging and timber trade.

GAUSS Institute was a subcontractor who developed two key studies in the project on the side of the Republic of Macedonia:

- Forest market and timber trade value chain analysis: Assessment of forest market dynamics and timber trade value chain in the Republic of Macedonia.
- Technical and operational plan for implementation pilot project for automatic detection of illegal logging: Development of technical specifications and operational plan development with regards to combating illegal logging. User requirement and specifications for the pilot installation in the Republic of Macedonia. Review of technical characteristics of pilot elements, with special emphasis on RFID tags design and functionality, software tool, transfer checkpoints structure and functionality.

- *PEEBPE National Conference on Energy Efficiency in Buildings* (The project is partially funded by European Union, Greece – Republic of Macedonia IPA Cross-Border programme 2007-2013)

GAUSS Institute was subcontracted to organize the key event in Republic of Macedonia of the project Promotion of Energy Efficiency in Buildings and Protection of the Environment (PEEBPE): National Conference on Energy Efficiency in Buildings.

The objective of the PEEBPE project is to stimulate local societies and authorities on the great potential that public and corporate buildings have to decrease energy consumption. The goal is to propose all the possible interventions on selected public buildings from target regions (Region of Western Macedonia, Greece and Region of Pelagonia, Republic of Macedonia) in order to decrease their energy consumption and to cover a significant part of their consumption with environmentally-friendly or renewable energy technologies.

- *Know-how Transfer for District Heating Applications in Bitola and Novaci - TELETHERM* (Project partially funded by the IPA CBC Program between MK - GR)

District Heating (DH) is an efficient energy system for distributing heat generated in a central station to residential and commercial customers for heating buildings and hot water uses. In Bitola and Novaci (Republic of Macedonia) the idea has been around for some 30 years, since the time the Steam Electric Station was built, while in Amyntaio (Greece) a DH installation is in operation since 2004. Within the project framework, the two regions will cooperate for know-how and good practices transferring as far as it concerns the respective technology application in the two municipalities in the Republic of Macedonia.

- *Integrated Sustainable Environmental Management with Decision Support System Implementation* (Project funded by the IPA CBC Program between MK - ALB)

The aim of the project is to improve the Sustainable Natural Resources Management in the cross-border region between Macedonia and Albania using Decision Support System based on information and communication technology. Specific objectives: to increase public awareness of cross-border area for the importance of Sustainable Natural Resources Management, to identify and present priority of Natural Resources problems in local and cross-border regional level with Decision Support System implementation.

- *Capacity Building for Banning and Phasing out Asbestos in West Balkan Countries* (Project partially funded by the European Union, IPA programme)

The overall objective of this project was to strengthen the capacity of Civil Society Organizations from West Balkan Countries to be able to deal with the asbestos issue in these countries. Following activities are foreseen: Preparation of a study for the current situation with asbestos in the West Balkan Countries; Organization of Balkan conference about problems with asbestos; Development of partnership network among interested organizations from West Balkan countries, and with EU member countries; Campaign for increasing the public awareness about problem with asbestos; Development of Action plan for implementation of EU Directive about asbestos; Lobbying at relevant authorities for adoption and implementation of EU Asbestos Directive in national legislatures of West Balkan Countries; Training seminar for occupational health and safety specialists and inspectors in identifying asbestos risks, as well as organizing and carrying out works on asbestos-containing hazardous substances including asbestos-cement products; Preparation and publishing educational materials about asbestos and his hazardous influence on the humans' health, as well as about working with materials containing asbestos.

- *Hive – from games to business* (Project partially funded by US Embassy in Macedonia)

GAUSS Institute in partnership with the Macedonian Game Development Association – MAGDA will initiate an acceleration program targeted at increasing youth employment in the IT creative industry (specifically the video game industry). The beneficiaries will be young adults aged 18-35, with or without higher education, from all areas of Macedonia.

The project funds will be used to train local development teams in project development and tracking, game development skills that the teams are lacking, bringing their finished project to market via digital publishing platforms, set up a framework to receive payments from worldwide sales

This will be achieved through establishing an office space in Bitola where teams can gather and work in a focused manner, where they will be provided with mentorship through a network of industry professionals, and attend training sessions to various aspects of game development. At least 50 young developers will be trained (10 per training), 5 curricula with practical solutions will be developed, a manual for game development based on case study will be promoted.

- *Win-Win-Win Technology Transfer Toolbox* (Project partially funded by USAID)

The new win-win-win approach was introduced as technology transfer mechanism between academia and SMEs. The core of this approach is that technology ideas come from businesses (technology-based business plan competition), ideas are analysed, evaluated and developed by academia (designs of the needed technology are created by staff and students from university), developed designs by academia are produced by local companies. This process is iterative while satisfactory outputs are achieved. For example: 1) based on the business running experience a company gives ideas what kind of technology would help them (what they would like to have); 2) researchers analyses idea and propose solutions what is feasible to be produced within available budget (process is iterative ideas from the company and academics are jointly evaluated in order to achieve satisfactory and feasible design); 3) local manufacturing companies evaluate proposed designs and analyse them from their perspective – feasibility for production and past experience in similar manufactures (process again is iterative while all three partners agree that solution is optimal); 4) machines are produced and installed at the company which requested that technology, operation is monitored by users but also from researchers and manufacturer (machine is tested in real conditions, and eventual drawbacks are corrected on-the-fly). With this approach **wins** SMS that needed new technology: they will get new technology, **wins** University: their staff and students have an opportunity for applied research, **wins** local manufacturing companies: they will mature new products. This process is currently supported by grants from USAID Business without Borders project, and designed, implemented and facilitated by Gauss Institute. With this approach, two machines are already produced and are operational, and few others are under development. Produced are Mushroom dryer powered on agricultural biomass waste (trims from cutting apple trees) and Veneer vacuum press powered on sawdust.

- *Technology Transfer Projects for Local Companies from Bitola Region* (Project partially funded by GTZ, Germany)

This initiative enabled cooperation between Small and Medium Enterprises (SMEs) and researchers of Faculty of Technical Sciences, University "St. Kliment Ohridski" - Bitola. Projects were partially funded by GTZ-Technology Transfer. As results of these activities, real machines/ procedures/ trainings were designed by researchers at the Faculty of Technical Sciences, produced locally and installed/ implemented at beneficiaries. Role of Euro-regional Technology Center (rebranded later in Gauss Institute) was facilitating and implementing technology transfer process. Following sub-projects were implemented:

- Quality Assurance of Home Appliances in DOOEL "Parnovod" - Bitola: The project resulted in the issuance of the European Certificate - CE for the quality of the stainless steel water-heating boilers produced by DOOEL "Parnovod" - Bitola, which greatly facilitates their entry into EU markets.
 - Intensive Training Course for Modelling with CAD/CAE Tools: The project envisaged an intensive training course in 3D modelling with Solid Works™ software package in order to aid the modernization of production processes. The participants were 45 engineers from several enterprises and organizations in Bitola.
 - Redesign of the Production Process in a Small-Scale Vegetable Oil Plant: The realization of the project helped the improvement of the vegetable oil production process (higher level of oil extraction and reduction of waste) in "Olidonia" DOOEL – Bitola through an upgrade of the existing equipment, and construction of new equipment items, namely a centrifugal separator and a gravity separator.
 - Packaging Line for Moulded Semi-finished Article: The project resulted in the design, manufacture and installation of a packaging line for moulded semi-finished articles in "Algreta" AD – Resen, aimed to greatly help the rise of competitiveness of this company's products on the market.
 - Development of Cultivator Production in the Pelagonian Region: The project resulted in the manufacture of a prototype of a special soil cultivator. The project was developed in cooperation with the "Factory for Equipment and Spare Parts" (FOD) – Bitola and the Agricultural Enterprise (ZK) "Pelagonija" – Bitola.
- *European Innovation Scoreboard in Republic of Macedonia* (Project partially funded by SPARK, Amsterdam)

Gauss Institute for the first time in the Republic of Macedonia developed European Innovation Scoreboard as a tool for assessment of national innovation performance. The European Innovation Scoreboard (EIS) is an instrument of the European Commission, developed under the Lisbon Strategy to provide a comparative assessment of the innovation performance of EU Member States. The EIS 2007 includes innovation indicators and trend analyses for the EU27 Member States as well as for Croatia, Serbia, Turkey, Iceland, Norway and Switzerland. A pilot version of the European Innovation Scoreboard was published in 2000. Full versions have been published every year since 2001. The latest report, the EIS 2009, was published March in 2010. The aim of this project is to elaborate, develop and implement European Innovation Scoreboard methodology in the Republic of Macedonia. Assignments of the Gauss Institute were to Elaborate Methodology for generating of European Innovation Scoreboard (EIS) in the Republic of Macedonia; Analyse available statistical data need for generating of EIS; Define eventually missing statistical data needed for generation of EIS; On the basis of available data generate demonstration EIS study for Republic of Macedonia and compare it with official EIS published by European Commission.

- *The Challenges of the Untouched Nature* (Project partially funded by the European Union, INTERREG programme)

Development of multilingual (Macedonian, English) web tourist portal and database of tourist services for Municipality Demir Hisar. The objective of the web portal was to provide comprehensive "one-stop" data content together with relevant site linkages, a booking engine, and a payment gateway, to enable travellers to make ground handling and accommodation arrangements. Specifically the portal is: - a fully maintained web site with text and images providing up-to-date information on the tourism infrastructure in the Demir Hisar region, with specific relevance to the two identified products/themes, hunting tourism and eco-tourism based on natural and cultural heritage - a database-driven portal that interfaces with

industry sites (hotels, tour operators, ground handlers, destination management companies, etc.) and has a secure payment gateway and processing facility.

- *Appraisal of the Urban Economy of the City of Bitola (Project partially funded by GTZ – Private Sector promotion)*

The objective of this research study was to make an analysis of the urban economic development as a tool for creation of economic opportunities in the City of Bitola. The study has been completed by using modern methods of research, analysis and synthesis of the official statistic data available in the literature and surveys, as well as discussions with all the stakeholders that are relevant to the economic development of the City of Bitola, such as the local self-government unit, managers of the private businesses, and other supporting institutions.

- *Development and Introduction of Food Safety System HACCP in MIK Sveti Nikole (Project partially funded by SINTEF – Norway)*

Provided consultancy services for preparation, planning, training and the realization of a project for implementation of Food Safety systems according to the requirements of the HACCP system in Meat Processing Industry - MIK Sveti Nikole.

- *Developing of Strategy for Establishing Integrated Information System of Municipality Bitola (Project partially funded by SPARK, Amsterdam)*

The aim of this project was to develop a strategy that will propose goods to be purchased (software and hardware) and services to be implemented in order to establish integrated information system at Municipality Bitola. Information system will have three main parts: Document Management System (DMS) – system for integrated distributing, sharing, recording, etc. of documents circulated in the Municipality; Web Content Management System (WCMS) – upgrading current web portal to web-based system for giving on-line municipal services to the citizens; Document Repository System (DRS) – system for digital archiving of electronic and paper-based documents.

- *DMS for Business Incubator (Project funded by SPARK, Amsterdam)*

Gauss Institute - Bitola was contracted by Business Startup Centre - Bitola for development for Document Management System (DMS) for the staff and tenants of the Business Incubator in Bitola.

Applied solution is based on OpenKM platform, and it is focused on creating an Open Source Electronic Document Management System, that due to its characteristics can be as a useful tool in processing knowledge management, providing a more flexible and cost-effective alternative to other proprietary applications. The use of a Knowledge Management System in the Incubator helps to manage, more efficiently, the intelligence of the available resources of this company; this implies an increase of productivity in the short term. Through these systems, the information, as well as the knowledge generated within the organization, can be both globally accessed.

- *Building sustainable CSOs through cooperation and strategic lobbying management for enhanced participative policy and decision-making (Project funded by EU, IPA)*

The overall objective of the action is to support the civil sectors' sustainability through enhanced partnership and cooperation between the civil society associations and the social partners, i.e. trade unions, to improve their advocating skills and knowledge for strategic lobbying management in order to improve the environment for joint decision-making and participative policy-making at local and national level. This improvement is an important input in order to effectively influence existing legislation and initiatives for harmonization with the acquis and to produce a positive impact on the sustainable economic and social development.

- *WIN- WIN: Women Network for Innovation and Entrepreneurship (Project funded by EU, programme for cross-border cooperation between Greece and Republic of Macedonia)*

WIN- WIN: Women Network for Innovation and Entrepreneurship project was aimed to the growth of the development figures and ratios, through the increase of female employment and entrepreneurship. The intervention areas of this project were within the trans-border area of Greece and Republic of Macedonia, more specifically: Florina, Pella, Resen, Bitola, Krusevo and Demir Hisar.

In this project, women who are unemployed, workers, entrepreneurs, cooperative members, women who live in rural, semi-rural areas, or small towns and who face difficulties in the labour market, had the right to participate as beneficiaries.

The beneficiaries had access to information for career and subsidy opportunities, and also they were able to participate in consulting, mentoring, training and networking meetings.

Gauss Institute was subcontracted for organizing six workshops in the Republic of Macedonia. Objectives of the workshops were: – Briefing the beneficiaries for employment opportunities, subsidies, legal services and business plans' drafting; – Training of beneficiaries to improve their entrepreneurial skills, so that they are able to create effective business plans, leading to sustainable enterprises.

- *Development through Twinning* (Project partially funded by the European Union, Europe for Citizens programme)

The project general objective is creation twinning network and transfer of experience from two rural municipalities from two Balkan EU-member countries (Greece and Bulgaria) and two rural municipalities from Balkan non EU-member countries (Macedonia and Albania). This will contribute towards sustainable development of these rural municipalities on the path of EU integration of their countries. Project activities are related to transfer of experience in municipal work and legislation from Bulgaria and Greece to Albania and Macedonia and creation of a Twinning Strategy for development of rural areas.

Role of Gauss Institute in this project was to develop software - decision support system (DSS) for strategic planning of municipal development. The problem of insufficient effectiveness and efficiency of decision-making in implementing strategic planning of local sustainable development through local agenda 21 (LA21) process was also analysed. With the implementation of this DSS main priority strategic problems and actions (in accordance with LA21) was determined and identified in Twinning Strategy.

- *SOHO Based Employment on International Market of Outsourced Engineering Jobs* (Project partially funded by the European Union, CARDS programme)

The overall project objective was to promote job creation by introducing innovative entrepreneurial actions on the international market of outsourced jobs. Unemployed engineers were trained in how to access and entrepreneur on the international market of outsourced jobs, through the realization of the course: Searching, contracting and managing outsourced job. They were also trained in one of the today's most wanted engineering skills on the international market of outsourced jobs –CAD/CAE/CAM applications– through the realization of the course: Modelling with CAD tools (SolidWorks–Getting Started). At the end of these two training courses, the participants had practical exercises for finding and contracting engineering job.

- *Novel Approach to Raising Awareness for Education, Technology and Civil Rights among Roma Population* (Project partially funded by the European Union, CARDS programme)

The project aims were: 1) raising awareness for education and technology among Roma ethnic community in the Municipality Bitola by providing them access to computers, internet and multimedia contents, and, 2) improving the quality of municipal administration services for the Roma ethnic community by establishing in their habitat a local branch office of the existing municipal Citizen Information Center.

- *Promoting the ratification and implementation of United Nations Convention on the Rights of Persons with Disabilities* (Project partially funded by the European Union, EIDHR programme)

The overall objective of this project realised in partnership with Association of the Persons with Physical Disabilities from Bitola, Demir Hisar and Resen, was to promote Macedonia's ratification and

implementation of the UN Convention on the Rights of Persons with Disabilities. Specific objectives: Strengthening capacity of non-governmental organizations of the persons with disabilities, especially in the monitoring of implementation of the Convention; Raising knowledge and capacity of the national authorities about the Convention and about making proper decisions about its ratification and implementation; Establishment the Lobby Group for lobbying at national authorities for ratification of the Convention; Raising public awareness about persons with disabilities, their needs and the Convention.

- *Business Skills Training and Business Plan Development for IOM Beneficiaries* (Project partially funded by International Organization for Migration, Geneva)

The project consisted of following activities: Organization of the training course (four days) on basics business skills and business management for a group of 20 selected by IOM beneficiaries as per the topics defined in Terms of Reference. Provide individual consultancy services to beneficiaries in regards to the establishment and running of a small enterprise upon beneficiaries' request. Undertake an assessment of the beneficiaries with the three months of the business start-up to evaluate their strengths and weakness. Based on the assessment of the beneficiaries' business performance, assist the group of 20 beneficiaries in preparing and finalizing business plans.

- *Study about Mapping Local Labour Market in Municipality Bitola* (Project partially funded by International Organization for Migration, Geneva)

The objective of this study was to make an analysis of the urban economic development as a tool for creation of opportunities for starting new businesses in the Municipality of Bitola. Activities for study preparation included: Development a research methodology for the Bitola market research comprised to contain desk review and field survey. Analyse the existing data and studies about the local labour market. Identification of data, which should be updated. Prepare a questionnaire for the field research to examine the services that exist or are lacking in the municipality of Bitola. Conduct a field survey (field research) with two hundred interviewees. Enter the survey results and process them. Analyse the survey results and compare them with the existing data. Based on the desk review and field survey prepare a report with conclusions and practical recommendations for businesses that are over presented or deficit in the municipality of Bitola.