INFORMATION AND COMMUNICATION TECHNOLOGIES

H2020 Project Interests
SYNYO Expertise

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SYNYO

About

SYNYO GmbH, an enterprise based in Vienna, Austria, is an independent research, innovation and technology hub that explores, develops and implements novel technologies to tackle business and societal challenges. The interdisciplinary team at SYNYO focuses on the intersection between ICT and Society to provide smart solutions to citizens, consumers and decision makers. SYNYO has designed and realised a number of modern concepts for national and international companies, ministries and municipalities. Additionally, SYNYO is a member of various networks and well-connected within the scientific community to keep up to date on new technologies, solutions, and methodologies.

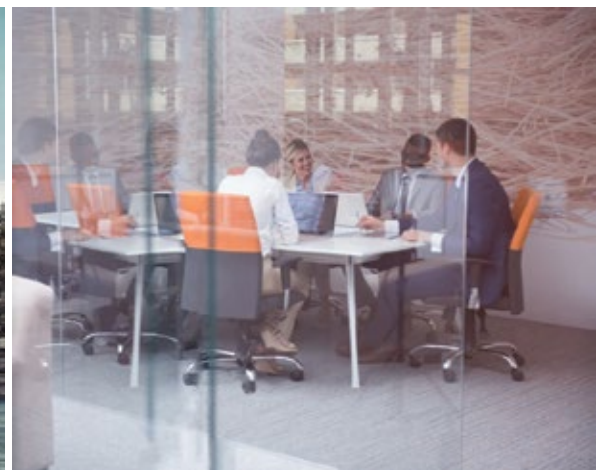|	
Future TDM *Reducing Barriers and Increasing Uptake of Text and Data Mining For Research Environments* Program: H2020 GARRI Role: Coordinator Number: 665940	**iCareCoops** *Fostering Care Cooperatives in Europe by Building an Innovative Platform with ICT-Based and AAL-Driven Services* Program: AAL Role: Coordinator Number: 802030
SciChallenge *Next Generation Science Challenges Using Social Media To Make Science Education And Careers Attractive for Young People* Program: H2020 SEAC Role: Coordinator Number: 665868	**IMOPOL+** *iMobility and Police: Technologies, Concepts and Solutions for security related deployment scenarios* Program: KIRAS Role: Coordinator Number: 8500180
City.Risks *Avoiding and Mitigating Safety Risks in Urban Environments* Program: H2020 FCT Role: Partner Number: 653747	**Sicher Social** *Information and Knowledge Platform for Safe and Secure Handling of Social Media* Program: NETIDEE Role: Coordinator Number: 1351
UrbanData2Decide *Integrated Data Visualisation and Decision Making Solutions to Forecast and Manage Complex Urban Challenges* Program: JPI Urban Europe Role: Coordinator Number: 847511	**TAALXONOMY** *Development of a Feasible Taxonomy for Efficient Classification of Active & Assisted Living (AAL) Products and Services* Program: BENEFIT Role: Coordinator Number: 846232
Graffolution *Awareness and Prevention Solutions against Graffiti Vandalism in Public Areas and Transport* Program: FP7 SEC Role: Coordinator Number: 608152	**Social Media Crime** *Structured Analysis and Characterization of Criminal Activities in Social Media and Deduction of a Crime Pattern classification* Program: KIRAS Role: Coordinator Number: 840799
OpenDataMonitor *Monitoring, Analysis and Visualisation of Open Data Catalogues, Hubs and Repositories* Program: FP7 ICT Role: Coordinator Number: 611988	**SmartCareBase** *Web-based Information and Collaboration Platform to Support Independent Living of Elderly People* Program: BENEFIT Role: Coordinator Number: 840699
UniteEurope *Social Media Analytics and Decision Support Tools Enabling Sustainable Integration Policies and Measures* Program: FP7 ICT Role: Partner Number: 288308	**SMD4Austria** *Social Media Services and Mobile Applications for Security and Prevention in Austria* Program: KIRAS Role: Partner Number: 836317

SYNYO has extensive experience in collaborative European-level and national research projects. Under FP7 and H2020 SYNYO is coordinating pioneering projects and participating in other interdisciplinary consortia. Strongly committed to project management and coordination, SYNYO is characterized by its integrity and cooperates closely with its partners and clients to meet their needs accordingly. By fostering collaboration across practices, disciplines, industries and levels, SYNYO stands for a culture of constructive communicative exchange, which is fundamental to developing solutions for businesses, economy and society.
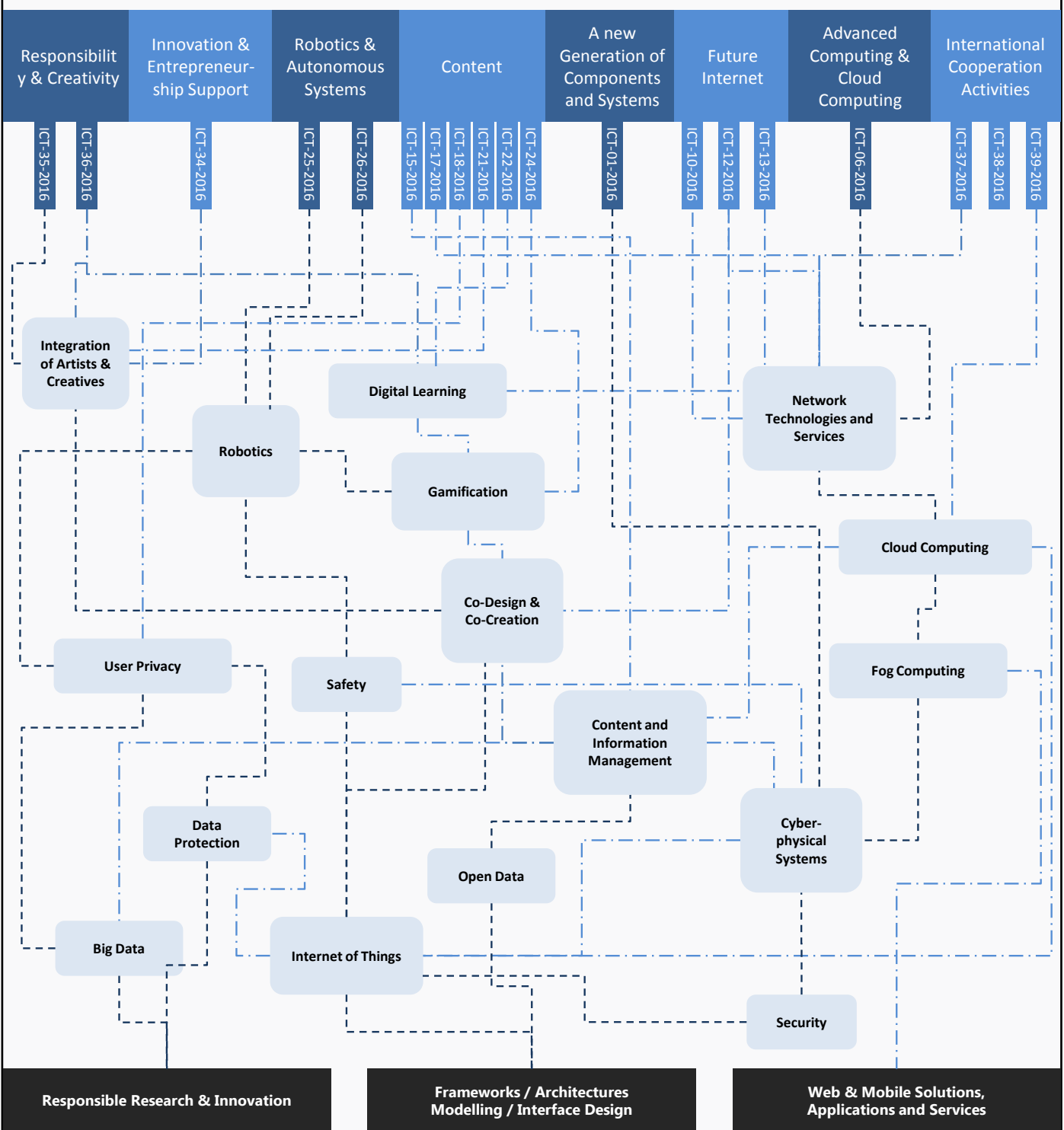
SYNYO in H2020
A Vision for Digital Technologies

Research and development endeavors in ICT are a core part of the research agenda of the European Commission, enabling Europe novel innovations in a global competitive market. With emerging technologies like 5G communication and industry 4.0, European R&D organizations and companies have new chances to position and prove them among international competitors. With the motivation to deliver ICT to society, SYNYO has built up a broad expertise to tackle future challenges in applications design and development in the fields of Internet of Things, Cyber-physical Systems as well as network technologies and services. Through in-depth know-how on content information and management, open and big data combined with expert knowledge on privacy, safety and security in ICT, SYNYO proved itself as an international successful research and development SME. By steadily delving into new fields, we positioned ourselves to tackle new challenges in the fields of co-creation, digital learning, cloud computing and gamification, delivering high quality concepts, designs and developments.

SYNYO brings together professionals of diverse research backgrounds, including algorithms, architecture, data management, machine learning, privacy & security, user interfaces, and visualization. SYNYO is a key partner that can actively contribute to the definition of new research and innovation opportunities harnessing the potential of Big Data.

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SYNYO H2020 PROJECT INTERESTS

Responsibility & Creativity	Innovation & Entrepreneurship Support	Robotics & Autonomous Systems	Content	A new Generation of Components and Systems	Future Internet	Advanced Computing & Cloud Computing	International Cooperation Activities
ICT-35-2016 ICT-36-2016	ICT-34-2016	ICT-25-2016 ICT-26-2016	ICT-15-2016 ICT-17-2016 ICT-18-2016 ICT-21-2016 ICT-22-2016 ICT-24-2016	ICT-01-2016	ICT-10-2016 ICT-12-2016 ICT-13-2016	ICT-06-2016	ICT-37-2016 ICT-38-2016 ICT-39-2016

Integration of Artists & Creatives

Digital Learning

Network Technologies and Services

Robotics

Gamification

Cloud Computing

Co-Design & Co-Creation

User Privacy

Safety

Fog Computing

Content and Information Management

Data Protection

Cyber-physical Systems

Open Data

Big Data

Internet of Things

Security

Responsible Research & Innovation

Frameworks / Architectures Modelling / Interface Design

Web & Mobile Solutions, Applications and Services

Innovate Products, Processes and Business Cases

Demonstration of Competitive Technology

Increase Development Efficiency

IMPACTS

Create Open Knowledge and Systems

Enhance Quality of Experience

Build Trust in Novel ICT Solutions

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Research
Interdisciplinary Expertise for Strong Insights.

At SYNYO we focus on the intersection between Information and Communication Technologies (ICT) and society to provide smart solutions to citizens, consumers and decision makers. Our team consists of highly motivated employees specialized in various technical fields, including software engineering, social media analytics and information visualization. This technical expertise is applied to tackle contemporary societal challenges in various disciplines such as big/open data research, smart technologies, web entrepreneurship, citizen inclusion, and urban security.

Understanding society, processes of social, cultural, economic and political change and social phenomena in general, are indispensable prerequisites for identifying technological demands as well as for designing and implementing new technologies. Therefore, SYNYO connects available data to a wide array of research fields from which valuable insights into issues of societal relevance can be deduced and for example social inclusion of marginalised groups can be fostered.

Instead focusing on particular area in regards to ICT and society, SYNYO assigns great importance to interdisciplinarity and considers the whole range of social and technological research, which enables to view and analyse issues of interest from various perspectives.

Roles

+ ICT for Society and Future Tech

+ Open, Big and Social Data

+ Data Analytics

+ Information Visualisation

+ Urban Futures and Smart Cities

+ Security and Urban Governance

+ Dissemination Channels

+ Demonstration Activities and Pilots

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Research

Data-driven Solutions and Applications
The high volume of data available for a given problem does not represent a hurdle, but rather a potential toward the solution. This mind-set allows SYNYO to create the most suitable application for the end-user and to achieve the objectives.

Data Harvesting and Analytics
Automated screening, identification and collection of relevant data sources based on intelligent algorithms and a smart organisation of information can support all involved parties to derive novel insights and to make better decisions.

Social Media Monitoring
Continuous and smart monitoring of social media channels permits to retrieve user-generated content and derive valuable information which can be used in a number of fields such as decision making, urban planning, crisis management and business strategy development.

Text and Data Mining
As most of the content shared via social media and open data repositories contains huge amount of data expressed in textual form, the use of specific methods to analyse content is crucial to generate useful insights about frequent terms, trending topics, rising users and correlation among them.

Information Visualisation
Volume, variety and velocity of data make the discovery of patterns and relations among data harder. Therefore, the adoption of intuitive visualisation as well as rich user interfaces enable data exploration through interaction and raise awareness and involvement.

Predictive Analytics
The use of multiple sources such as closed data, open data and social media provide multiple perspectives of the same event. The intertwined adoption of analytical methods and visual interactive solutions allows to set parameters, interpret results and draw conclusions based on different scenarios, and predict future outcomes.

Urban Research
Due to the relevance of the urban space for society, economy and ecology, SYNYO is following a holistic approach in addressing the complexity of current urban phenomena. Aiming at contributing to more sustainable and smart cities, our urban research portfolio and our interests therefore include mobility, housing, gender, youth, governance and participation as well as climate change and security issues in urban spaces.

Demonstration Activities and Pilots
SYNYO connects providers and users to test and validate new services efficiently. To increase the overall quality of services we provide essential knowhow on piloting plans and respective techniques and tools in order to integrate real-life experiences into projects.

As Coordinator and Partner of European research projects (FP7, H2020, UrbanEurope) we are involved in various security-oriented projects such as City.Risks, Graffolution, Social Media Crime, SMD4Austria, and other related projects FutureTDM, SciChallenges, UrbanData2Decide, iCareCoops, TAALXONOMY. With our diverse background SYNYO can bring in your Secure Societies proposal expertise and already developed frameworks in order to better integrate your proposal into certain work programme requirements.

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Development
Technical Excellence for Smart Solutions.

Modern software solutions require knowhow in more than one technology to be effective. At SYNYO, we have the skills and knowledge to turn your idea into a project which will include all the technologies needed and which will meet the highest standards in your industry. We offer the best realization of your project with the implementation of the latest and most advanced technologies.

Our experience in different business areas allows us to suggest the technologies that work best for your research project and business. We are here to listen to your requirements and provide best of breed solution for your particular web and mobile application to create something outstanding across you (research and industry) sector.

SYNYO evaluates user requirements and transfers them to comprehensive use cases which drive both design conception and technical implementation activities. Our digital solutions help turn ideas into the actions required to mobilize individual and collective engagement for the co-creation of a sustainable future.

Software Engineering Expertise

+ Requirement Analysis

+ Use Case Definition

+ Architecture Design

+ Database Processing Architecture

+ Design and Mockup

+ Usability Engineering

+ Application Testing

+ End User Validation

+ Visualisation Dashboards

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Development

Software Engineering and App Development
SYNYO delivers outstanding web and mobile applications, collaborative platforms, open information hubs and decision support solutions to tackle emerging societal challenges and to support different stakeholders including decision-makers, businesses and citizens.

Requirements Analysis and Use Case Specification
To uphold consistent high quality standards, SYNYO emphasizes thorough and iterative communication techniques between all partners during the stages of requirements engineering.

Data Processing Architectures
Creating powerful and flexible architectures using state-of-the-art technologies are a key competency of SYNYO. We not only work with proven relational database solutions (e.g. MySQL), but also with new, innovative approaches to store and process an extremely high amount of data like NoSQL databases or scalable, distributed frameworks respectively solutions like Hadoop or HBase.

Design and Mockup
SYNYO's broad experience in the fields of rapid prototyping and interface design allows the quick creation of sophisticated yet intuitive applications. Extensive knowledge on human-computer interaction as well as user experience testing complete the usability engineering package.

Programming and Usability Engineering
SYNYO's broad experience in the fields of interface design, prototyping and mockup creation allows the quick creation of sophisticated yet intuitive applications.

Testing and Validation
In order to provide high quality software we place a strong focus on quality assurance during the testing of our applications. Techniques like Continuous Integration and Automated testing help to incorporate the evaluation process into our software development life-cycle.

Open Information Hubs
Raising awareness on relevant topics and starting participatory processes with the community is often a key element in research and business projects. SYNYO holds many years of experience in designing and developing Open Information Hubs that provide knowledge to a broader audience and create awareness among particular target groups.

Information Visualisation Dashboards
Using latest technologies and knowledge on intuitive user interaction and information visualisation the team of SYNYO is able to deliver outstanding solutions to tackle emerging societal challenges and provide useful applications for various stakeholders as proven in projects such as OpenDataMonitor and UrbanData2Decide.

SYNYO delivers outstanding web and mobile applications, collaborative platforms, open information hubs and decision support solutions to tackle emerging societal challenges and to support different stakeholders including decision-makers, businesses and citizens. Our enthusiastic research engineers and software developers create high-quality, customised solutions to provide highly useful applications using state-of-the-art technologies in areas such as safety and security, urban decision support, open data, active assisted living and many more.

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Advisory
Customised Services for Project Success.

The team at SYNYO has invaluable experience in managing and coordinating research and development projects at national and European level. The primary goal of our project managers, dissemination specialists and researchers is to partner with collaborators and clients to deliver strong value and support to their projects.

Particularly international project proposals often require the composition of a large topic-attuned consortium including research, development and demonstration partners, as for example from academia, industry, NGOs public authorities and law enforcement agencies. SYNYO supports you in consortium construction activities such as structured scoping for potential partners establishing contacts, and clarifying content-related, financial and administrative questions.

Besides scientific and technical reports funding agencies generally require transparent, comprehensible and accurate financial and administrative reporting. SYNYO advises on the elaboration of respective project documentations and therewith contributes to the successful operational management of your research or development project.

Project Support Services

+ Proposal Setup

+ Project Management

+ Reporting

+ Research Marketing

+ Project Websites

+ Social Media Channels

+ Quality Assurance

+ Science Events

+ Exploitation Strategies

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Advisory

Project Proposal Setup

SYNYO supports the partners in building a consortium through a structured mapping and screening of potential partners, establishing contacts, and clarifying content-related, financial and administrative questions. SYNYO provides efficient proposal management and helps to systematically develop national and international proposals for a broad range of topics.

Project Management

SYNYO provides you with experience in holistic project management and supports you professionally in implementing administrative, financial and coordinative tasks. SYNYO additionally provides quality assurance services for a successful project and elaborates roadmaps for establishing an ideal project-structure.

Scientific and Technical Reporting

Delivering reports and informing funding agencies continuously about the project status is an integral part of research and development projects. SYNYO provides comprehensive support regarding scientific reporting, including literature exploration, technical reports and the presentation of social-scientific research.

Budgeting and Financial Reporting

Funding agencies generally require a transparent and accurate financial and administrative reporting. SYNYO advises on the elaboration of financial documentations and contributes to the successful operational management of your research or development project.

Exploitation Planning and Implementation

It is vital that the project's exploitation potential is accurately assessed and that the business models, on which the innovative products or services will be based, are analysed. SYNYO develops exploitation plans, performs detailed analyses of possible business models and provides assistance in writing business plans.

Dissemination Planning and Execution

SYNYO offers the setup of websites, the creation of newsletters, factsheets, policy briefs, or user manuals. Additionally, the setup and maintenance of social media appearances are crucial for a successful knowledge and technology transfer within your initiative. These activities aim at an implementation according to the strategy defined in your project.

Science Events

In order to complement the research and development activities, SYNYO provides support in setting up events and conferences. In addition to rather classical formats, we are creative in meeting your expectations regarding other formats such as science events or product launches.

Europe's future economic growth is dependent on innovative products, services and business models. SYNYO has a representative record of national and international projects. Due to our positive reputation as successful project managers, we have built a broad partner-network with leading organizations all over Europe. Our network provides a strong foundation of collaboration and support that delivers unparalleled value for both our partners and customers.

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Selected Research Projects

City.Risks
Avoiding and Mitigating Safety Risks in Urban Environments

The main objective of the **City.Risks project is to increase the perception of security of citizens in cities by activating in a more transparent and sustainable way their participation in communities**, through which information and interventions can be provided both to proactively protect citizens from falling victims to criminal activities as well as to reactively provide more timely and effective response and assistance. In order to do so, the **City.Risks project will leverage a set of innovative technologies, city infrastructures, and available data sources**, but more importantly will **aim at making the citizens' smart phones the modern tool for increasing their personal and collective sense of security. The project will design and develop an innovative ecosystem of mobile services that will transform the smart phone or the tablet of the citizen into a tool that will collect, visualise and share safety-critical information with the appropriate authorities and communities.** The project will rely on a wide spectrum of available technologies to design and implement an interactive framework among authorities and citizens through mobile applications that will allow in a collaboratively way to prevent or mitigate the impact of crime incidents or other security threats. **Thus, it will contribute to an increase of the citizens' perception of security, which will be measured and validated in real-life scenarios and conditions through the deployment and operation of pilot trials at several selected cities by the project partners.**

Graffolution
Awareness and Prevention Solutions against Graffiti Vandalism in Public Areas and Transport

Graffolution seeks to counteract the increase of graffiti vandalism in public areas and transportation networks by focusing on smart awareness and positive prevention solutions for all affected stakeholder groups, including those who have utilised street art as part of city regeneration and placemaking strategies. The project will work to deliver an extensive set of "Collaborative Tools and Resources" that would include:

- a secure space for duty holders, with cases studies and other methods of evidencing successful practice, to empower city administrations, public transport services and law enforcement agencies, to share knowledge and more widely promote best practices
- an interactive "Open Information Hub" addressing local communities, citizens and sprayers to strengthen public awareness and enforce the prevention of illegal spraying activities, using effectual tools and visualisations.

iCareCoops
Fostering Care Cooperatives in Europe by Building an Innovative Platform with ICT-Based and AAL-Driven Services

iCareCoops is a new, ambitious 2-year project funded by the AAL Programme, that tackles the increasing demand for elderly care at a time of limited resources. Eight partners from seven European countries create novel ICT-driven solutions to empower carers and elderly people to extend the time they can live in their preferred environment by facilitating the cooperative model. **iCareCoops is designed as a three-level-concept with information, cooperative, and, AAL-driven service levels. These intelligent, interactive, and inclusive services will be developed with deep end-user involvement and will be provided via a powerful web-based platform, a mobile app, and an Open API.**

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Selected Research Projects

Social Media Crime
Structured Analysis and Characterization of Criminal Activities in Social Media and Deduction of a Crime Pattern classification

The rapid rise of social media (e.g. micro-blogs such as Twitter, social networks such as Facebook, video sharing portals such as Youtube), and subsequent user interaction, have led to the spread of criminal activities within such platforms. Besides well-known offences such as fraud also new criminal dimensions have appeared since the advent of this kind of communication technology. For instance, the public incitement of thousands of people to commit a crime (so called crime mobs) or the usage of a multiple fake identities to collect sensitive or confidential information from private persons as well as from companies are only two examples of steadily evolving crime phenomena. Additional examples include cyber grooming, profile cloning, social engineering, social phishing, cyber stalking and many more.

Due to these circumstances and the high dynamics of social media crimes, police departments and legal actors in charge face new challenges in handling respective cybercrime-related phenomena in a structured and systematic way. Therefore, a structured and case-related treatment and analysis of social media crimes and respective phenomena is urgently needed, but does not exist yet, within Austria or internationally.

The project "Social Media Crime" aims at supporting stakeholders, first and foremost the Austrian Federal Ministry for the Interior (BM.I) including the Federal Crime Police Office (.BK) as a member of the project team, with a scientifically sound, case-related and practice-oriented, structured, interactive and flexible grid for the systematic classification and evaluation of social media crimes, which as a next step can facilitate the drafting of social media crime laws. Completing the consortium is the Austrian Center for Law Enforcement Sciences (ALES), which provides comprehensive legal expertise. Systematic literature reviews and in-depth requirements studies using qualitative interview guides with relevant stakeholders, as well as with other experts (e. g. security researchers, experts in the field of cybercrime, legal experts and international stakeholders), will be conducted. The project will result in a comprehensive taxonomy of social media crimes and related phenomena, respective practice-oriented and intuitive resources for stakeholders, knowledge about best practices, strategies and methods to prevent and counteract social media crimes, a sound legal evaluation including recommendations for legislation and an interactive collection of cases with the possibility to include new cases and relevant phenomena.

Unite Europe
Social Media Analytics and Decision Support Tools Enabling Sustainable Integration Policies and Measures

The integration of third-country nationals is one of the most important topics for governments and policy makers in the European Union and has risen in prominence on the agenda because it is seen as one of the most visible challenges of globalization. UniteEurope aims at building scalable and flexible Social Media monitoring and decision support tools enabling sustainable integration policies and measures.

After the collection of citizen generated content and mass data related to integration issues out of Social Media and already existing participation platforms an intelligent filter and aggregation architecture delivers relevant information for policy makers. An integration issue grid model with multi-layer logic patterns is used for consistent categorisation of relevant integration areas (e.g. education, business, culture) in cities. Coherent layers with multilingual semantic tags, significant sources and parameters are used for the logical core of the tool. Supported with information on web-based dashboards with intuitive visualisations, local decision makers can initiate effective and efficient integration measures and policies. An integrated decision support system suggests adequate measures in case of critical integration issues. Users of the UniteEurope tool can save, monitor and track specific cases to measure impacts and to predict the effect of future decisions.

UniteEurope supports operational integration measures and strategic policy development at regional and pan-European level.

The UniteEurope team consists of system architects, software developers, E-Government, Social Media and integration experts from leading universities, competence centres, companies and three European cities considering integration **an agenda priority.**

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Selected Research Projects

Open Data Monitor

Monitoring, Analysis and Visualisation of Open Data Catalogues, Hubs and Repositories

OpenDataMonitor brings open datasets to light. As a platform, it gives visitors an overview of available open data resources, allowing them to analyse and visualise existing data catalogues using innovative technologies. The framework harvests datasets, collecting metadata from diverse open data sources. The harvested metadata is then harmonised, in that the gathered information is structured and processed. Scalable analytical and visualisation methods allow end users to learn more about the composition of regional, national or pan-European open data repositories. For example, the aggregation of catalogues of one region or country can be easily visualised to draw an exact picture of the open data situation and allow comparison to other areas. Analysing and visualising metadata will reveal hidden potential and essential insights from existing resources and identify gaps where additional open data are needed.

One of OpenDataMonitor's main goals is to research and develop a harmonisation scheme and methodologies for addressing the diverse, largely interoperable and multilingual metadata available for open datasets. This will help us to analyse the harvested metadata consistently and understand open datasets better. In this context, we will concentrate on the following: metadata schemas (e.g. DC, CKAN, INSPIRE, ISO), vocabularies (e.g. GEMET), thematic domains, code lists (e.g. EuroStat), publisher taxonomies (e.g. public bodies, publisher roles), licensing (e.g. local vs. international licenses). Our work will be based exclusively on open standards, with emphasis on those formally adopted by the European Commission (e.g. INSPIRE, DC, DCAT). In the OpenDataMonitor project we will adopt CKAN as the underlying software architecture within which all our software contributions will be integrated as plug-ins. This will help make sure the platform is available to a wide population.

The OpenDataMonitor will allow a variety of analytical functions such as:

- comparing public bodies (national/local), indicating changes and updates of catalogues
- showing quality of meta data
- sorting available catalogues for specific thematic domains
- showing licensing information
- making data available in specific open formats
- diverging among available open data of EU member states
- showing the percentage of population (and SIGs) with access to purposeful data
- automatic scoring to indicate the level of openness

UrbanData2Decide

Integrated Data Visualisation and Decision Making Solutions to Forecast and Manage Complex Urban Challenges

The UrbanData2Decide project aims to extract and process information from two rich sources, namely public social media and open data catalogues. This information, combined with advice from expert panels, will support local governments towards a holistic, sustainable and well-founded decision-making process which takes into account the views and perspectives of all relevant stakeholders. Building on the broad data pools in the form of social media content and open data sets, the UrbanDataVisualiser will aggregate, structure and visualise this data using a multi-layered and multi-dimensional approach. The framework will extensively use data mining, sentiment analysis and visualisation techniques and lead to the development of a proof-of-concept demonstrator to showcase the information using intuitive and clear dashboards. The UrbanDecisionMaker on the other hand will complement this bottom-up approach by integrating external experts and advisors using scientific multi-round expert integration methods and tools such as the Delphi method, a structured communication technique, developed as a systematic, interactive forecasting method which relies on a panel of experts.

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Selected Research Projects

FutureTDM
Reducing Barriers and Increasing Uptake of Text and Data Mining for Research Environments

The widespread growth of data in this current digital age has led to the development of powerful techniques for the effective harnessing of information from digital communications technologies. In this context, Text and Data Mining (TDM) is an inventive approach for analysing and extracting new insights and knowledge from the exponentially growing world of machine-read material, known as Big Data. TDM techniques and tools enable researchers from different disciplines to exploit datasets of increasing complexity and diversity from various forms of media. However, the present use of TDM tools across Europe is significantly lower than some countries in the Americas and Asia, likely due to limitations imposed by the European legal framework. As such, the FutureTDM project identifies and reduces the barriers that inhibit the uptake of TDM for not only researchers, but also innovative businesses. FutureTDM provides critical up-to-date assessments of legal regulations and policies on TDM within the EU, while maintaining an international scope of the competitive world of Big Data exploitation. Such assessments will lead to the development of novel policy frameworks and interdisciplinary case-driven practitioner guidelines to facilitate the spread of TDM activities. **Furthermore, the acquired knowledge base from both quantitative and qualitative research will be incorporated into a web-based Collaborative Knowledge Base and Open Information Hub using insightful and intuitive visualisations.**

SciChallenge
Next Generation Science Challenges Using Social Media To Make Science Education And Careers Attractive for Young People

Science education is tremendous in shaping the present and future of modern societies. Thus, the EU needs all its talents to increase creativity and competitiveness. Especially young boys and girls have to be engaged to pursue careers in Science, Technology, Engineering and Mathematics (STEM). However, statistics still show that enrolment rates in STEM-based degree programs are low and will lead to a workforce problem in industries, especially in many of the new member countries. The SCICHALLENGE project focuses on developing novel concepts to actively integrate young boys and girls in science education using a contest-based approach to self-produced digital education materials from young people for young people. Driven by inspirational topic sheets, guides and toolkits created through this project and distributed by partner schools, teachers, and other youth-oriented institutions, contestants (individuals or groups) between the ages of 10 to 20 will generate creative digital materials (videos, slides, or infographics). The initiative will broadcast and distribute content over various social media channels and aggregated on a modern SCICHALLENGE Web Platform to generate wide reaching awareness and promotion. Winning submissions will receive prizes funded by science-oriented industry and stakeholders. Intelligent cross-sectoral positioning of various awareness modules on the SCICHALLENGE Open Information Hub will increase awareness on science careers and open opportunities for youngsters on internships or taster days in STEM through the strong involvement of related organisations and industries. Additionally aggregated information on science events (slams, nights, festivals etc.) is shared. With this multi-level approach, SCICHALLENGE will boost the attractiveness of science education and careers among young girls and boys leading to more public engagement in science, economic prosperity and global competitiveness on a pan-European level.

Ideas inspire, motivate and encourage change. Let's work together to make this happen.

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