# **Corporate Profile**

Committed to Research. Committed to the Future.





## **Overview**

SYNYO GmbH, an SME based in Vienna, Austria, is an independent social research and innovation hub that develops and implements novel technologies to tackle business and societal challenges. The interdisciplinary team at SYNYO focuses on the intersection between Information and Communication Technologies (ICT) and society to provide smart solutions to citizens, consumers and decision makers. SYNYO holds a comprehensive skillset on data analytics, information visualisation and web development. SYNYO has already developed and implemented a number of modern concepts for national and international companies in selected industries (energy providers, financial services, telecommunications, and retail) and political organisations such as the Austrian Ministry of the Interior and the City of Vienna. Additionally, SYNYO is a member of various networks and well-connected within the scientific community to keep up to date on new technologies, features and methodologies in the field of modern web applications, monitoring tools and interface design.

The team at SYNYO 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.

## **FP7** Research Projects

#### Graffolution

Awareness and Prevention Solutions against Graffiti Vandalism in

**Public Areas and Transport** 

**Duration:** 03/2014 – 02/2016 Role: Coordinator Program: FP7 SEC Number: 608152

#### **OpenDataMonitor**

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

**Duration:** 11/2013 – 10/2015

Role: Coordinator Program: FP7 ICT Number: 611988

#### UniteEurope

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

**Duration:** 10/2011 - 09/2014 Role: Partner Program: FP7 ICT Number: 288308

# **National Research Projects**

#### **Social Media Crime**

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

**Duration:** 10/2013 – 09/2014 Role: Coordinator Program: KIRAS Number: 840799

#### **SmartCareBase**

Web-based Information and Collaboration Platform to Support Independent Living of Elderly People

**Duration:** 09/2013 – 04/2015 Role: Coordinator Number: 840699 Program: BENEFIT

#### SMD4Austria

Social Media Services and Mobile Applications for Security and

Prevention in Austria

**Duration:** 10/2012 – 09/2013 Role: Partner Program: KIRAS Number: 836317

SYNYO has extensive experience in collaborative European-level and national research projects. Under FP7, SYNYO is coordinating two 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.

# **H2020 Partnerships**

As a research and development firm on the European scale we are always broadening our network of research partners. As part of the recent Horizon 2020 initiative, SYNYO aims to actively contribute as a social sciences research and ICT development partner in novel project proposals addressing modern societal challenges. If you need an innovative partner for transforming strong ideas into practical solutions, do not hesitate to contact us:

cooperation@synyo.com



## Research

The research team at SYNYO addresses all steps of research including initial problem definition and conception, through rigorous qualitative and quantitative analyses, and technical implementation. The research themes at SYNYO include among others:

## **Data Analytics and Information Visualization**

Interpreting, understanding and unlocking the intrinsic value in extremely large volumes of data or so called Big Data is at the forefront of innovation. SYNYO specializes in the design and implementation of interactive platforms that aggregate big and openly available data from various disciplines and sources. With expertise in informatics and data structures, SYNYO delivers sophisticated data analytical tools for not only businesses but also policy makers and society as a whole. The research and development team at SYNYO concentrates on developing unique metrics and intuitive visualisations of data analytics for decision support.



## **Social Software and Collaborative Web Platforms**

Understanding social, cultural, economic and political dynamics within a society are indispensable prerequisites for identifying technological demands, and for implementing inventive solutions. Innovative technologies and web services have changed the web-user from a passive information consumer to an active contributor. As such, the staff at SYNYO specialize in the development of user-friendly platforms that aggregate such contributed information via social media and big data hubs. SYNYO provides state of the art tools for decision-makers, businesses and citizens to understand the immense possibilities of such new channels of communication. Using techniques such as text mining and emotion detection algorithms, the team at SYNYO uncovers the vast potential of social media data to deliver policy shaping solutions. With expertise in technological sociology, SYNYO concentrates social collaborative platforms to improve approaches to social innovation, entrepreneurship, crowdsourcing and youth engagement.

## **Security and Urban Governance**

Being a complex theme, urban security can be considered in the context of various issues, such as natural disasters, major events, protest movements, emergencies, potential terrorist attacks or petty crimes. At SYNYO, security research combines both, the social research and the technological implementation. SYNYO is not only interested in the threats within social media, but also the capacities of social media and big data analytics for serving security and community governance. With expertise in criminology and technological sociology, SYNYO also concentrates on developing user-friendly platforms providing strategic foresight and proactive management for law enforcement agencies.

#### **Smart Technologies and Digital Future**

The data infrastructure of urban transport, energy and water, networks will become the important nervous systems of smart cities. SYNYO sees the future challenges of smart cities as an opportunity for the development and implementation of a variety of new and innovative potentials that will not only increase the quality of life, but also enable sustainable economic growth. SYNYO is pushing forward the societal uptake of modern ICT-based solutions in the fields of transportation, and intelligent mobility.



#### Integrated Care and Ambient Assisted Living

Due to inevitable demographic developments, dignified ageing and care giving will become an ever more relevant topic in the long-term future with large-scale social implications. In this respect, SYNYO has done much work to strengthen and enable the elderly with the help of ambient assisted living systems to continue an autonomous, healthy and safe life. SYNYO has focused on in-depth research on structured categorization and comparability of the abundance of innovative ICT-based products and services in the field of Ambient Assisted Living.



# **Development**

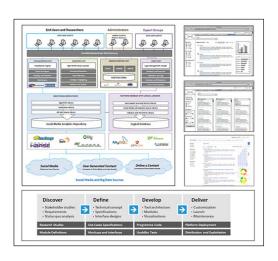
SYNYO's enthusiastic research engineers and software developers deliver high-quality, customized solutions to tackle emerging societal challenges and provide useful applications for various stakeholders. SYNYO supports innovative projects along the whole development cycle focusing on high standards including end-user-driven methodologies as well as state of the art technologies and frameworks. The following areas are covered by the development team of SYNYO:

## **Requirements Engineering and Use Case Specification**

SYNYO's software projects are based on a profound requirements analysis and negotiation approach, which helps to address the specific needs of the clients and the end-users. In order to refine the specifications collected within this phase, we strategically employ various quality assurance techniques (i.e. expert surveys) in all stages of our projects. To uphold consistent high quality standards, SYNYO emphasizes thorough and iterative communication techniques between all partners during the stages of requirements engineering.

## **System Modeling and Application Design**

SYNYO creates powerful and flexible architectures using state of the art technologies. This philosophy is applicable to all parts of our development and starts at the persistence layer in which we not only work with proven relational database solutions like MySQL or PostgreSQL, but also with new, innovative approaches to store and process an extremely high amount of data like NoSQL databases (MongoDB, CouchDB) or scalable, distributed frameworks respectively solutions like Hadoop or HBase. This future oriented approach continues in the conception of the business layer of our platforms in which we work with the newest web application frameworks (Yii, Laravel, Symfony, Zend, Django) in order to increase the productivity in the development. Besides the development of customized applications completely from scratch, we also work with established CMS solutions and adapt those solutions to the specific needs of our partners.

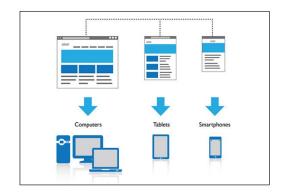


## **Programming and Usability Engineering**

SYNYO evaluates user requirements and transfers them to comprehensive use cases which drive both design conception and technical implementation activities. SYNYO's broad experience in the fields of interface design, prototyping and mockuping allows the quick creation of sophisticated yet intuitive applications. Extensive knowledge on human-computer interaction as well as user experiences testing complete the usability engineering package. Our quality throughout the whole software development life-cycle is overseen by an insightful project management system. Through the use of agile and lean software process models (Scrum, Kanban) we are able to increase software development flexibility, while addressing partners' requirements. By using new advances in web technologies like HTML5 and CSS3 in combination with powerful JavaScript libraries like jQuery, our developers are able to provide rich user interfaces. Due to the implementation of responsive design features, our web-based platforms and apps can be used with all modern devices featuring different screen sizes (computers, tablets, and smartphones) including easy and clean interfaces.

#### **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. This implies that our applications are tested and functional at any given time of the project. Additionally to automate testing principles, we validate our products through the opinion of end-users via user acceptance tests. Due to this approach we can integrate real-life experiences into our projects and therefore increase the overall quality of our software as well as of our services.





# **Advisory**

Combining our existing experience within the research landscape we help other project consortia and organizations to run successful projects. Our advisory services are delivered by a motivated team of experts supported by proven methodologies, best practices and modern tools. We focus on building long-term relationships with our clients based on trust and our commitment to deliver high quality solutions. The primary goal of our project managers, dissemination specialists and researchers is to partner with our research-oriented clients to deliver a strong value to their organizations and projects by providing the following services:

## **Consortium Building and Proposal Creation**

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 or city administrations. SYNYO supports you in consortium construction activities such as structured scoping for potential partners, establishing contacts, and clarifying content-related, financial and administrative questions. Furthermore SYNYO provides you with efficient proposal management and helps to systematically elaborate and create national and international projects and funding proposals.

#### **Project Management and Quality Assurance**

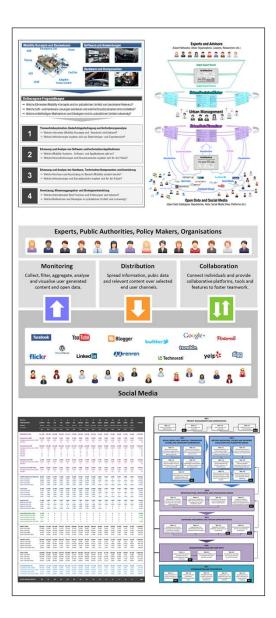
Functioning research and development projects do not only need extensive and in-depth content-related expertise and professional competence, but also well-planned project management and coordination. SYNYO provides you with perennial experience in holistic project management and supports you professionally in implementing administrative, financial and coordinative tasks. SYNYO additionally provides quality assurance services for successful project execution and elaborates sophisticated roadmaps for a well-structured project.

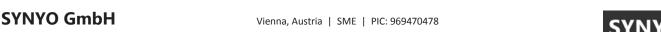
#### **Dissemination Activities and Project Marketing**

Besides management services SYNYO provides the setup of professional project websites, the creation of project newsletters, factsheets, policy briefs, or user manuals for its partners. Additionally, the setup and maintenance of social media appearances are main aspects for successful knowledge and technology transfer within your project. Together with you, SYNYO plans all dissemination and project marketing activities and therewith supports you to appropriately implement the respective strategy defined in your project proposal.

## **Scientific Publishing and Financial Reporting**

The frequent delivery of scientific and technical reports and consequently informing funding agencies about the project status is an integral part of research and development projects. SYNYO provides you with comprehensive support regarding scientific reporting, including technical reports, the presentation of social-scientific research and the elaboration of literature investigations and reviews. 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.





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# Cooperation

SYNYO has formed partnerships 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. Through our network of partnerships with experienced research institutes, universities, municipalities and companies, we are able to extend our capabilities.

# **Project Partners**



# **Future Cooperation**

As part of the recent Horizon 2020 initiative, SYNYO aims to actively contribute as a partner in novel project proposals. Furthermore, the team at SYNYO is also looking for collaborators as we build our own inventive projects to tackle societal challenges using ICT-based solutions. If you need an innovative partner for transforming strong ideas into practical solutions, do not hesitate to send us an e-mail:

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