

Expertise and Skills

Established Concepts for your HORIZON Security Proposals



Our Security Projects

















Social Media Crime

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

Programme: KIRAS

Number: 840799 | Role: Coordinator | AT



Graffolution

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

Programme: FP7

Number: 608152 | Role: Coordinator | AT



City.Risks

Avoiding and Mitigating Safety Risks in Urban Environments (RIA)

Programme: H2020

Number: 653747 | Role: Partner | EU



SHIELD

solutionS to enHance Interfaith protEction of pLaces of worship from terrorist Danger

Programme: ISFP

Number: 101034229 | Role: Coordinator | EU



PeaceTraining.eu

Strengthening the Capabilities and Training Curricula for Conflict Prevention and Peace Building Personnel with ICT-based Collaboration and Knowledge Approaches (CSA)

Programme: H2020

Number: 700583 | Role: Coordinator | EU





MINDb4ACT

Mapping, Identifying and Developing skills and opportunities in operating environments to co-create innovative, ethical and effective ACTions to tackle radicalization leading to violent extremism

Programme: H2020

Number: 741657 | Role: Partner | EU



TAKEDOWN

Understand the Dimensions of Organised Crime and Terrorist Networks for Developing Effective and Efficient Security Solutions for First-line-practitioners and Professionals (RIA)

Programme: H2020

Number: 700688 | Role: Coordinator | EU



TAKEDOWN

Counter Stories

Radicalization prevention and combating extremist propaganda through alternative narratives

Programme: KIRAS

Number: 867055 | Role: Coordinator | AT



ARMOuR

A radical model for resilience of young minds

Programme: ISFP

Number: 823683 | Role: Partner | EU



CHAMPIONS

Cooperative harmonized Action Model to stop Polarisation in our Nations

Programme: ISFP

Number: 741657 | Role: Partner | EU



PERCEPTIONS

Understanding the Impact of Narratives and Perceptions of Europe on Migration and Providing Practices, Tools and Guides for Practitioners

Programme: H2020

Number: 833870 | Role: Coordinator | EU



UNCOVER

Development of an efficient steganalysis framework for uncovering hidden data in diaital media

Programme: H2020

Number: 101021687 | Role: Partner | EU



Search & Rescue

Emerging technologies for the Early location of Entrapped victims under Collapsed Structures and Advanced Wearables for risk assessment and First Responders Safety in SAR operations

Programme: H2020

Number: 882897 | Role: Partner | EU



NOTIONES

CDE4Peace

Concept Development and Experimentation for EU Conflict Prevention and Peace-building

Programme: H2020

Number: 882055 | Role: Coordinator | EU



NOTIONES

iNteracting netwOrk of inTelligence and securlty practitiOners with iNdustry and acadEmia actorS

Programme: H2020

Number: 101021853 | Role: Partner | EU



iProcureSecurity PCP

Pre-Commercial Procurement of Innovative Triage Management Systems Strengthening Resilience and Interoperability of **Emergency Medical Services**

Programme: H2020

Number: 101022061 | Role: Coordinator | EU



SYNYO for HORIZON Security Union

Providing established concepts for your Security proposal

Over the past years, we have been conducting research and developing concepts as well as technical solutions within the frame of security research projects. Thus, we are able to join proposal consortia for the upcoming Security calls and bring in our approved concepts, which we can adapt to new contexts. Furthermore, we are able to take over further research and development tasks as well as creative services or dissemination activities.

The following sections provide an overview on our main concepts including dedicated showcases:

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ORGANISATION PROFILE: SYNYO GMBH.....

About SYNYO

We are an established partner of several research and innovation projects with profound experience in H2020 and further programmes. As a company located in Vienna, Austria, we are focusing on research, innovation and technology. We explore, develop and implement new approaches, methods and technical solutions with a particular focus on tackling the core societal challenges of our time. The interdisciplinary team of SYNYO consists of social scientists, engineers, developers and creatives, who are experienced in delivering high-impact outcomes for all phases of projects.

www.synyo.com/projects/ | www.synyo.com/partners/

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CONCEPT A: Open Information Hub



A Web Platform to Engage Audiences, Distribute Information, Share Knowledge and Solve Problems

Concept Summary

Digitalisation has reached every domain of our life. A majority of people – at least in societies with access to the internet – obtain information relevant for a variety of aspects of their life from websites, social media and digital platforms. However, information on particular issues is often fragmented or distributed across the internet, and hence it is requiring a lot of time for collecting information in order to get a profound overview combined with in-depth insights. **Awareness Hubs** intend to meet the requirements for increasing the accessibility of information through one dedicated entry point by combining information from different online instances. They are modern web-based platforms to create awareness for current and future societal challenges among the general public or particular segments of society.





Security Project Focus

Our approach for developing Awareness Hubs is based on a flexible software architecture and on a set of modules, which can be adapted for different purposes. Depending on the topic of your project, we could for example create a digital hub for boosting awareness on radicalisation or violent extremism and organised crime as well as putting a particular focus on the impacts of online hate-speech. Another suggestion would be an awareness hub for promoting new prevention methodologies and good practices. Such an awareness hub could also focus on early prevention against radicalisation by disseminating alternative narratives, including material for first-line-practitioners such as teachers or social workers. However, of course the focus needs to be adapted to your overall project concept.

What SYNYO offers

SYNYO offers to conceptualize, program and set-up Awareness Hubs with a dedicated content management system and several other modules to be defined. We are therefore looking forward to work and collaborate as a partner in your security proposal. We can take over the conception of the awareness hub tailored to the topic and target groups of your project. By combining your thematic expertise with our concept and technical skills, we are sure that under your coordination we can submit a competitive proposal together.

Showcase TAKEDOWN

www.firstlinepractitioners.com



The TAKEDOWN project showcase outlines our experience on setting up modern web platforms to raise awareness, distribute information and share knowledge in various domains. The web platform consists of of different modules and besides the technical development also the creative materials, videos and designs have been provided by SYNYO.

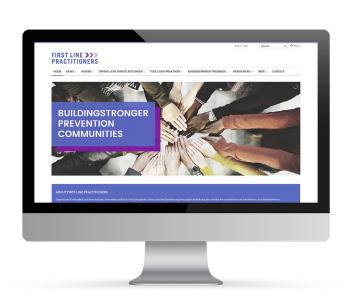
Organised Crime and Terrorist Networks (OC/TN) are a major challenge for the European Union. However, we need more knowledge in order to develop better strategies and instruments against these phenomena. TAKEDOWN aims at creating a better understanding of organised crime and terrorist networks and the consortium will develop digital and non-digital toolkits and solutions for more efficient and effective prevention, intervention and response strategies.

The open platform, which is developed in the TAKEDOWN project, includes response navigators and guidelines that provide information for the public about national contact points and as well as contacts of experts, organisations and platforms, which provide help. In case a person is at risk of becoming engaged in organised crime or in a terrorist network, a digital reporting tool will provide channels to law enforcement agencies and related actors. The open platform also includes

interactive and cube-model-based tools for first-line-practitioners as well as a dedicated finder, where first-line-practitioners can access digital support tools that might help them in their daily work. Finally, a knowledge base for researchers provides them with a literature overview, research reports and inputs for further research using the cube model.

Due to the challenge of radicalisation and violent extremism as well as organised (cyber)crime, a broad variety of tools and approaches has been developed for prevention and countering these phenomena. Based on comprehensive empirical research and conceptual work as well as on collection of relevant resources for practitioners, the TAKEDOWN project released the online platform www.firstlinepractitioners.com. The platform is intended as becoming the main entry point or hub and it aims at providing information to first-line-practitioners as well as the general public. Furthermore, it also intended as a resource-pool for researchers.

The design of the platform follows a dedicated and proven usability focus. Hence, the landing page was created with a strong emphasis on providing a clear and logical entry point to the services and resources that are provided on the platform as a service (PaaS) or – in this context – platform as a toolkit (PaaT) approach.





CONCEPT B: Security Products Marketplace



Promoting Security Solutions for defined Target Groups through Databases and Showrooms

Concept Summary

As part of the H2020-project TAKEDOWN, SYNYO has developed the product platform www.fightcrimeterrorism.com for registered and authorised users. The general purpose and objective of the platform is to connect endusers or customers such as law enforcement agencies or public authorities and others with developers of security solutions. The platform therefore offers security companies to present and promote their products and digital or non-digital solutions and to furthermore establish contacts with potential clients. For the purpose of security, the platform integrates a dedicated registration system, where users can adapt their profile. Furthermore, the platform also includes a dedicated content management system, where companies or developers can manage their profile and upload new products. In addition, the closed part of the product platform also hosts a dedicated decision support for end-users. The decision support is based on real crime and terrorism cases as well as a description of the most common cybercrime scenarios, which are also linked to related products from the database.





Security Project Focus

The product platform as well as the decision support and further functionalities have already been tested during the project lifetime. For ensuring the sustainability of the platform, it was decided to choose a non-project branding but instead use a broader branding of the platform. Therefore, the platform can directly be integrated in further security projects - especially when they are product based or include a string exploitation and market component. This would save development resources and – as the platform has already been promoted among endusers - minimised the effort for introduction to the market. Additionally, the concept and the framework can also be adapted to other contexts or markets by using the basic functionalities and programming as well as redesigning them for a new security domain.

What SYNYO offers

As the main developer of the training concept and the online platform, SYNYO offers organisations which intend to apply for a security project, to bring in the platform as it is and extend it with new functionalities during the project. A second option would be to make use of the validated framework and concept and develop a new product platform for another context and end-user / customer base. Depending on the topic, we can also approach our diverse network of partners in the security field and bring in other partners to guarantee a successful proposal.

Showcase Terrorsim

www.fightcrimeterrorism.com









CONCEPT C: Pre-Commercial Procurements



Innovation Procurement Platform

Concept Summary

In the framework of the Pre-Commercial Procurement actions, fostered by the European Commission, SYNYO implemented a dedicated platform for accessing, monitoring, managing and submitting Calls for Tender.

The Pre-Commercial Procurement (PCP), as defined by the European Commission, is an approach to public procurement of research and development (R&D) services. PCP challenges industry from the demand side to develop innovative solutions for public sector needs and it provides a first customer reference that enables companies to create competitive advantage on the market. The Marketplace has been set up as living and growing **online eco-system**, showcasing existing products, solutions and services and fostering international cooperation among the suppliers. Additionally, the Innovation Procurement Platform allows to access open, closed and forthcoming Calls for Tender, monitor, submit and manage proposals. It has therefore, the ambitious scope of serving big and differentiated portions of the market. By doing so, the Marketplace for Innovation Procurement can be considered a <u>comprehensive eco-system for technical innovation and proposals for the suppliers</u>, and on the other side, <u>an informative hub for the demand-driven end-users</u>.





Security Project Focus

The Innovation Procurement Platform has been adapted to the need of the security market, with particular focus on disaster management and mass casualty incidents. The core idea behind it, is to foster the Pre-Commercial Procurement initiatives from one side – and thus, buy R&D and the development of tailored made innovative technologies – and on the other side to create a dynamic echo-system which showcases opportunities and solutions. Additionally, the concept and the framework can also be adapted to other contexts or markets by using the basic functionalities and programming as well as redesigning them for a new security domain.

What SYNYO offers

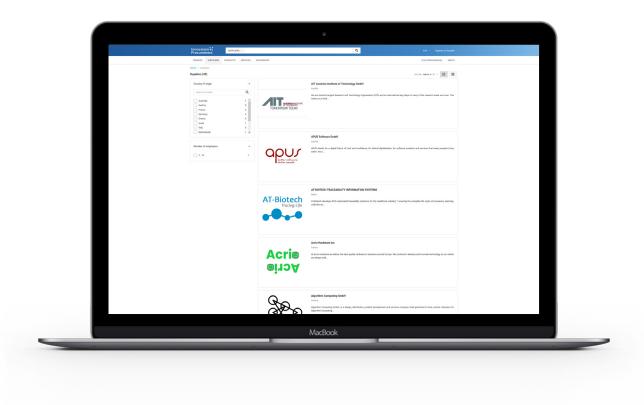
SYNYO offers organisations, which intend to apply for a security project, to take over the lead of the dissemination and communication. SYNYO has several years of experience in this field and has furthermore graphic designers in-house. This allows direct communication between the project managers and the graphic designers, which ensures quick workflows. The designers of SYNYO are furthermore closely working with our in-house developers, who are setting up the project websites. The triangulation of the involved staff ensures a common project identity and high quality of the public outputs and channels for representation.

Show the innovation procurement platform iProcure Security № PCP



https://pcp.iprocuresecurity.eu/





CONCEPT D: Radicalisation Prevention Tools



Alternative Narratives for Early Radicalisation Prevention using Digital Media and Smart Apps

Concept Summary

International research has shown that alternative narratives focusing on inclusion, diversity, openness, and critical thinking are especially effective in early prevention against radicalisation. Furthermore, they also have an impact when applied by state actors such as the police. The overall objective of the project Counter Stories (funded within the Austrian security research framework KIRAS) is therefore to develop alternative narratives that are the core of new didactic concepts and material for the early radicalisation prevention work conducted by the prevention police. Based on national and international good-practices as well as on the requirements of the end-users, a catalog of alternative narratives is being developed. The **early-prevention-package** provided to the Austrian police consists of a set of four videos, a comprehensive didactic methodology and a handbook with exercises that is tailored to young vulnerable people in the pre- and early-stage of radicalisation. Furthermore, a detailed early prevention roadmap is provided as well for the Austrian federal states.





Security Project Focus

Although the project is nationally funded, the concept is flexible in its nature and allows the adaptation to different national contexts. As the early-preventionpackage builds on the one hand on international good practices and as it is inspired by situational crime prevention, it is universal regarding the overall framework and furthermore addresses common vulnerabilities of young marginalised individuals. On the other hand, it builds on the requirements of national law enforcement agencies as endusers for a didactic methodology and dedicated material as well as trainings and a roadmap for early prevention. Hence, concept and the logical plan can provide the overall framework for a security proposal, which is then - during the project - adapted to the requirements of the different national law enforcement agencies and the national context in general.

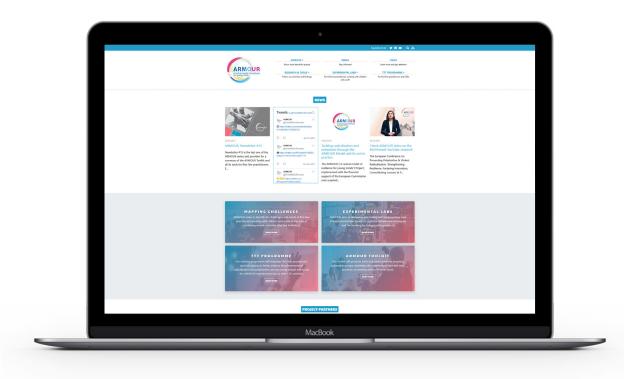
What SYNYO offers

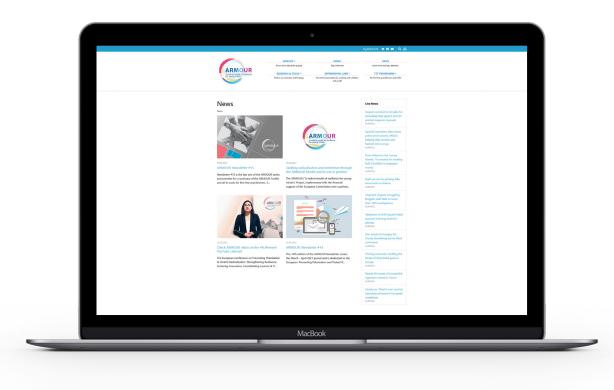
As the coordinator of the Counter Stories project, SYNYO offers organisations, which intend to apply for security project, to develop together with us a proposal that builds on this concept, its focus and its logic. The aim is to develop alternative narratives package for early radicalisation prevention that are tailored to different national contexts. By combining your thematic expertise with our concept and technical skills, we are sure that under your coordination we can submit a competitive proposal together.

Showcase ARMOuR

https://armourproject.eu/







CONCEPT E: Large Scale Piloting

Validation and testing of solution impact on users and their environment



Concept Summary

In order to ensure that the various technologies, concepts and solutions that are developed within research and innovation projects, meet the needs of their respective end-users, simulations or large-scale piloting activities have become increasingly important. SYNYO, through the implementation of a wide range of projects, has gained significant experience in the planning, implementation and evaluation of such piloting activities. For instance, in the SHIELD project, coordinated by SYNYO, large scale simulations of developed security concepts, designed to protect public spaces of worship, will be implemented using virtual reality. The simulations will hereby not only serve to identify potential shortcomings in the developed concepts but also to train stakeholders on how to use them, while ensuring a safe and controlled environment.





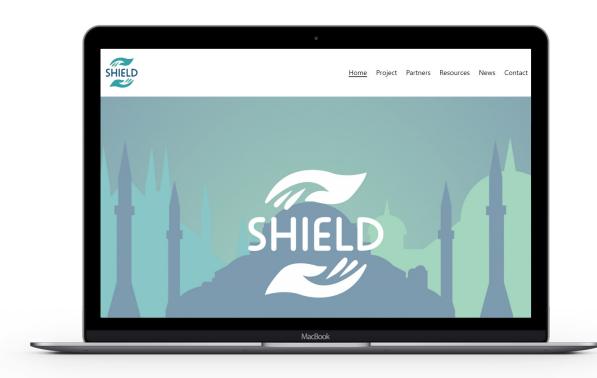
Security Project Focus

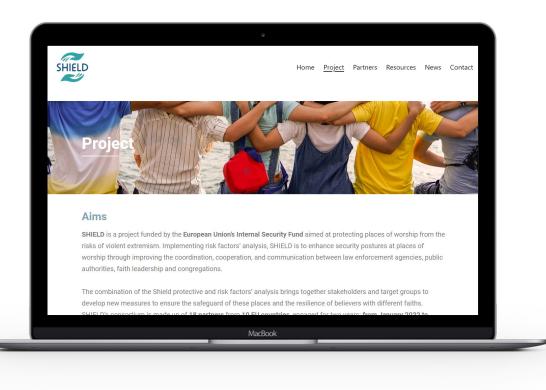
Validation of any project outcome, may that be a toolkit, a holistic software solution or a structured, methodological service, is an essential part to ensure the uptake of the solution by including feedback of various forms. Key metrics being usefulness, performance and relevance of the project results in the relevant context ensure that final feedback may be collected from the relevant stakeholder and enduser groups and integrated into the solution before it enters the exploitation stage. In addition to validating the usefulness, the long-term piloting brings insights into how a potential solution may be misused, raise critical question, by the general public and the stakeholders, that go far beyond the productivity of the solution itself, and contribute with deep insights about the potential ethical consequences, or challenges, that the developed results may pose beyond the expected application.

What SYNYO offers

SYNYO offers to coordinate the end-to-end piloting activities in your research project. The coverage ranges from the infancy of the pilot preparation, setting up the relevant research questions, KPIs and a structures execution methodology together with the relevant stakeholders, monitoring of the piloting activities throughout while offering the necessary support to all the involved parties, over to the evaluation and processing of the results and outcomes from the pilot, such that they may be fed back into the project solution. This methodology, together with a strong interlinkage with the exploitation provides a encompassing strategy to make sure that the solutions lives on, way beyond the project duration and provides a high level of value to the all the relevant stakeholders.







CONCEPT F: Training Curricula & Platforms

Strengthening Capabilities of Training with Web Based Collaboration and Sharing Approaches



Concept Summary

Responding to differential needs of training in various fields we have developed a complex model for assessing the gaps and needs in training delivery and customisation of novel **Training Curricula** meeting the needs of a specific field and integrating innovative methods backed by ICT technologies. As part of this concept we have developed the PeaceTraining.eu web platform and are working on the development of this model on similar fields, offering to create an online community and facilitate online collaboration and training. Our **Training Platform** architecture includes the newly developed curricula framework as well as an online training module hosting various training activities such as Webinars, MOOCs etc. A second integral module of the platform is the training dashboard which features training courses from various providers and integrates a complex selection and filtering system allowing matchmaking of results for users. This module offers training seekers with an overview on the overall offerings by the training landscape and an easier selection of what fits their needs. In line with this, the third module of the platform includes, a directory of individual trainers and their profiles and skills, enabling them to be more visible to the training seekers and allow the development of new on-demand training courses for specific groups of training seekers.





Security Project Focus

Due to their dense schedules and workload, security practitioners from different domains often find themselves not well equipped with the skills that are actually required in the field. Furthermore, as security threats constantly change due to the political transformations and due to the speed of technological innovation, continuous training is crucial for all key players in the security domain. Our training methodology along with the online platform architecture, could thus be implemented in the context of training practitioners and in the training of specialised staff on a broad variety of topics.

What SYNYO offers

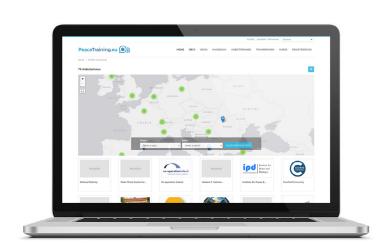
As the main developer of the training concept and the online platform, SYNYO offers organisations which intend to apply for a security project, to conceptualise the implementation of the concept in a specific field relevant to youth, combining our technical expertise with your thematic focus on the field. Depending on the topic, relying on our network of partners in the field of education and training, we offer expanding the consortium by bringing in other partners to guarantee a successful proposal.

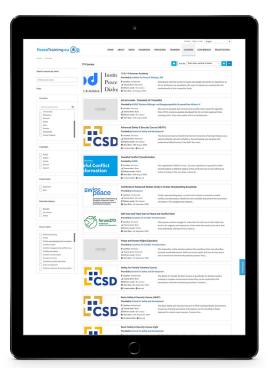
Showcase PeaceTraining

www.peacetraining.eu

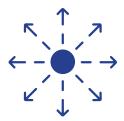








CONCEPT G: Dissemination and Communication



Improving the Visibility and the Impact through State-of-the-Art Design and Channels

Concept Summary

Dissemination and communication are crucial tasks in every security project in order to increase the impact of the research project. The work, which is usually combined in a dedicated work package, starts with the development of the project identity (logo and color scheme) and continues as an ongoing activity throughout the entire project lifetime.

Major milestones are the implementation of the project website as well as the launch of a dedicated communication and dissemination plan, which all partners follow. Ongoing monitoring by the dissemination and communication lead is crucial for ensuring that all partners are in line and that a common message is communicated. The tasks also include the collection, the solid documentation and comprehensive reporting of the activities as well as the networking with other projects and entities. Furthermore, the dissemination and communication lead is also responsible for searching for new channels and opportunities to promote the project.



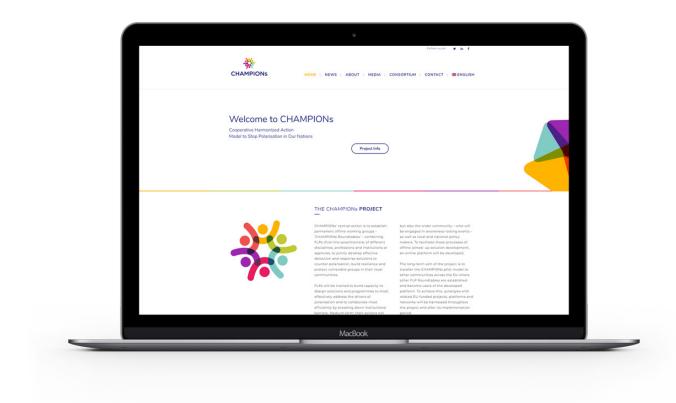


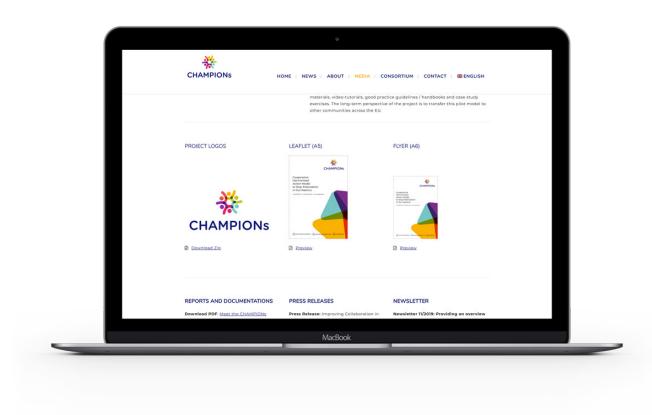
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http://www.championsproject.eu







Showcase CHAMPIONs

http://www.championsproject.eu











ORGANISATION PROFILE

SYNYO GmbH



Vienna, Austria 30+ Employees | Researchers, Engineers, Developers, Creatives

SYNYO GmbH, a leading SME based in Vienna, Austria, is an independent **research**, **innovation and technology organisation** that **explores**, **develops and implements novel technologies** to tackle major societal challenges. We focus on increasing the knowledge and understanding of social, economic and political dynamics within society as well as on the identification of related future technological demands and the development of creative solutions for addressing such challenges.



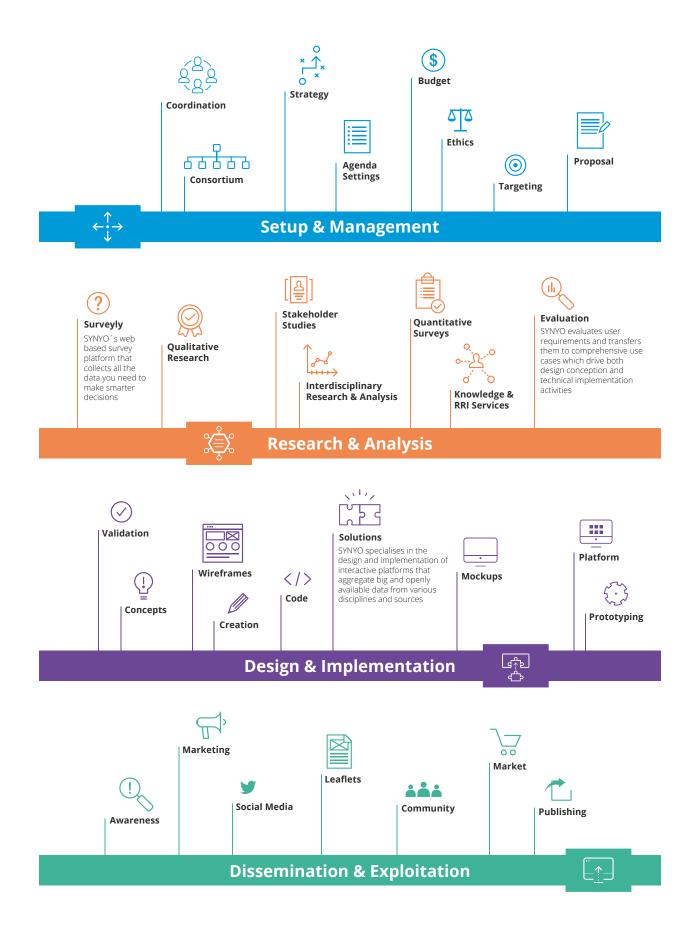


As such, the interdisciplinary team at SYNYO consists of high-skilled employees specialised in various social and technical domains, including **research**, **requirement analyses**, **application design**, **software engineering**, **data analytics**, **and information visualisation**. This expertise is applied to tackle contemporary challenges in various disciplines such as **youth**, **education**, **radicalisation**, **deviant behaviour**, **science communication**, **big/open data research**, **digital futures**, **and smart technologies**. The innovation processes and proprietary methodologies are designed to **convert complex information into clear and precise insights** for developing definitive actions.

Beyond its research and innovation expertise, SYNYO has a dedicated software development team to carry out ICT related innovation from analyses to deployment. Key system attributes for SYNYO include collaborative systems operated by large end-user groups, **awareness hubs, open information platforms, and modern graphical interfaces** to transmit a bigger visual human perception, as well as keeping security and lean management as a baseline for successful solutions. Furthermore, SYNYO has access to a vast network of technology providers, industry leaders, academic institutions, practitioners and city networks.

SYNYO Project Expertise







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