Summary

European city administrators, public transport services, law enforcement agencies and other stakeholders spend enormous amounts of money attempting to tackle graffiti vandalism. Effective and more holistic approaches to fighting illegal graffiti are needed, including a community resource to help understand vandalism problems whilst at the same time sharing and innovating new ideas and responses. Graffolution seeks to decreases graffiti vandalism in public areas and transportation networks by providing information on smart awareness and available prevention solutions for all affected stakeholder groups, including those who manage graffiti, as well as those who have utilised street art as part of city regeneration, place making or community involvement strategies.

A The project context and the main objectives

Graffolution delivers an extensive set of “Collaborative Tools and Resources” that include a space for dutyholders, with case 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. Additionally, Graffolution develops an interactive “Open Information Hub” addressing local communities, citizens and graffiti writers to strengthen public awareness and enforce the prevention of illegal spraying activities, using effective tools and visualisations. Graffolution main objectives can be summarized as follows:

1. Conduct research on graffiti vandalism in public areas and transport, and identify relevant stakeholders, roles and processes.
A fundamental objective of the project is to conduct an in depth research on the current state of graffiti vandalism in public areas and transport in Europe. Therefore all relevant stakeholders, roles and processes have to be identified. The explored data should give a clearer picture on the graffiti vandalism situation for stakeholders such as cities, public transport services and law enforcement agencies are facing.

2. Analyse initiatives, measures, technical methods and best practices in response to graffiti vandalism in Europe and survey requirements of all affected stakeholders.
A main focus of the Graffolution project is the analysis of the range of initiatives, measures and methods aiming at the reduction and prevention of illegal spraying activities that damage public and private property. The requirements of all affected stakeholders have to be surveyed in detail to enhance all project outputs according their needs.

3. Develop concepts and solutions against illegal graffiti and design a web-based awareness and prevention framework for stakeholders and public.
Based on a comprehensive research on graffiti vandalism and its prevention, concepts and solutions meeting the stakeholder requirements will be created. These elaborations of practical solutions and technical concepts build a strong foundation for the web-based platform.

4. Develop a Collaborative Knowledge Base for experts and affected stakeholders to improve the exchange of know-how and support decision makers at European level.
Graffolution will maintain a Collaborative Knowledge Base that enables relevant stakeholders and local experts to interact, transfer information and share their knowledge with each other.
5. **Provide an Open Information Hub adopting social media technologies to increase awareness among writers and citizens by presenting information and visualisations.**

The project seeks to raise public awareness and pinpoint how illegal graffiti negatively affects a whole community and which legal alternatives are available to support pro-social activities. To achieve this goal an Open Information Hub is being established which uses social media technologies to maximize understanding and opportunities among all stakeholder, including graffiti writers.

| B | Description of work performed and main results |

The research conducted in the first and second project period has provided fruitful insights on graffiti ranging from anti-social accounts of graffiti to pro-social effects of graffiti and street art. Within the Graffolution project both perspectives were taken into account from the start. More than 300 pieces of literature and data were examined and analysed and it became clear that duty holders around Europe are under great pressure to find appropriate and cost-effective solutions to tackle the issue. Graffolution has examined and performed a comparative analysis in Austria, Germany, Spain and the UK by desk top research and interviewing more than 80 stakeholders and graffiti writers. Socio-cultural and regional aspects as well as ethical and privacy issues in regard to graffiti in these countries were reported. Comprehensive libraries were established including collection of stakeholders on the one hand, and a list of case studies collected around the world, on the other. A Graffolution typology of the prevention of graffiti vandalism including recommendations for decision-makers were prepared, a generative synthesis of all findings was provided, persona created and a response typology developed. The stakeholder analysis also revealed a great support for the idea of establishing an online platform to discuss and share ideas about the topic from various perspectives.

Based on this comprehensive research the project developed a two-sided web platform consisting of a so called Collaborative Knowledge Base and an Open Information Hub. The Collaborative Knowledge Base enables relevant dutyholders to interact, transfer information and share their knowledge with each other. Through this system, single dutyholders (such as city administrations, transport organisations, law enforcement services etc.) but also other professionals and enthusiasts have the opportunity to identify new approaches tackling graffiti vandalism, share knowledge, find good practices and create their own prevention strategies. Furthermore they can connect with relevant local experts, stakeholders and initiatives in the field of graffiti vandalism prevention to force collaboration activities. Another main element of the Graffolution project was to foster the idea of a better informed community which enforces efficient and sustainable graffiti vandalism prevention solutions. Public awareness should be raised and the website should pinpoint how illegal graffiti negatively affects a whole community and which legal alternatives are available. Also positive effects of street art (and legal graffiti) have a prominent place on the platform to indicate that graffiti also has inter alia the potential to improve areas. To achieve this goal a so called Open Information Hub was established which informs all kinds of stakeholders and let them participate on the platform to share perspectives and opinions. Furthermore the community can contribute to the platform in suggesting new pieces of information (e.g. new legal walls, events).

To ensure the platform was created according the identified needs and requirements, end users were integrated during several stages of the design and development process. In addition workshops and a Graffolution event were performed to present the platform to a wider audience and get
further feedback for adjustments. To reach a wider public different kinds of materials were created including quick start guides, instruction videos, event videos, factsheets and flyers. The project and outcomes were further disseminated via various channels and activities including: project website, Graffolution platform, newsletters, social networks, blogs, scientific publications, workshops and meetings, conference attendance, engagement with policy makers, media communications and flyers. Besides the very positive feedback at the events and the growing number of users of the platform the success of the project is also shown as during the project duration several collaborations with other organisations and further activities were initiated which will continue after the end of the project such as the Open Galleries Pilots which connects the Graffolution web-platform with offline actions fostering street art and thereby reducing illegal graffiti.

C Expected final results and potential impacts

The Graffolution project provides a web-platform that addresses a wide range of actors from a diverse field of experience and specialism including state/local authorities, transport operators, law enforcement, social/cultural projects, manufacturers and suppliers, street art networks, graffiti writers and collectives, researchers and also different types of partnerships, alliances and initiatives that consist of several of the mentioned actors. With the Collaboration Knowledge Base and the Open Information Hub the Graffolution platform will consist of two parts. The distinction of the two parts is based on different target groups with different tasks and ambitions. The Collaborative Knowledge Base is a virtual meeting point for all stakeholders and experts in the field of graffiti vandalism prevention. They can search for other local, national or pan-European stakeholders to get in contact and collaborate in further projects. Descriptions of interventions will allow stakeholders to identify more options they have to prevent graffiti vandalism. These best practices can be permanently updated by the stakeholders and should lead to improved graffiti prevention strategies based on proven knowledge of other stakeholders in Europe. Besides the best practices the stakeholders will be able to share data such as recent statistics and documents (e.g. reports and policy briefs). This data can be of utmost importance to assess the current situation of graffiti vandalism, find appropriate partners and develop efficient new measures. Due to the fact that most stakeholders who operate against graffiti vandalism have very limited resources (time, money, staff, equipment etc.) the whole platform is designed as system which is easy to use and created along the requirements of the relevant stakeholders and experts.

The second part, the Open Information Hub is designed to raise awareness among citizens and writers. The platform will provide information on free walls and connect people who are interested in graffiti art to support creative expression without damaging property. Citizens who are heavily affected by illegal graffiti will find useful information on prevention opportunities they can take and contacts they can refer to if they become victims of graffiti vandalism. The Open Information Hub increases the awareness on the issue but also seeks to include writers in local communities to find appropriate ways that create more liveable environments for all citizens.

Graffolution provides a new and comprehensive approach to discover unused potential for collaboration and knowledge exchange on local and pan-European level and involves the public to reduce illegal graffiti significant and sustainable.
The following list shows potential impacts and benefits that can be achieved on the long run through the realisation of Graffolution:

- Raise awareness and build capacities to respond to graffiti vandalism
- Improve security in public areas and transport
- Improve living environments
- Reduction of illegal writers who face lifelong negative effects
- Prevent adolescents and young adults from getting injured or killed
- Minimise costs on removal and prosecution
- More efficient use of stakeholders resources against graffiti vandalism
- Review environmental aesthetics and wellbeing for European citizens
- Preserve cultural heritage
- Improve local and national policy making on the strategic level
- Knowledge exchange on a pan-European level

### Graffolution contacts and consortium members

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<th>Project Website:</th>
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**SYNYO GmbH (Coordinator)**

SYNYO GmbH, an SME based in Vienna, Austria, is an independent social research and innovation hub that focuses on the intersection between Information & Communication Technologies (ICT) and Society to provide smart solutions to citizens, consumers and decision-makers. The SYNYO staff consists of highly motivated academics specialised in various technical fields, including social sciences, software engineering, architecture design, proof of concept prototyping, application development, Social Media analytics and usability testing.

**University of Barcelona**

The University of Barcelona is Spain's leading research university, publishing more research than any other Spanish institution with the exception of the Spanish National Research Council (CSIC) (Third European Report on Science and Technology Indicators). UB has 106 departments and more than 5,000 full-time researchers, technicians and research assistants, most of whom work in the UB’s 243 research groups as recognized and supported by the government.

**Eticas Research & Consulting**

Eticas Research & Consulting is a Spain-based SME working on the social, ethical and social impact of security policy, innovation and technology development, and the interaction between changing societal values, engineering possibilities and fundamental rights. Founded in 2012, its contribution focuses on the analysis of the contextual factors that can and should guide technological development and implementation, with a particular emphasis on understanding broader contextual issues linked to trust and acceptability, compliance with the legal context, social externalities and ethical issues at large.
University of Arts London

Design Against Crime as an approach to social innovation and the design of products, places and communications emerged at University of the Arts London between 1999-2009. The philosophy behind the DAC Research Centre at UAL is linked to a practice-led socially responsive design research agenda addressing multiple drivers including crime and sustainability. The Centre operates on the understanding that design thinking as well as design practice can and should address security issues without compromising functionality and other aspects of performance, or aesthetics. In everyday language, secure design has to be user-friendly.

Sine –Institute gGmbH

The SINE-Institut gGmbH is an independent social scientific research organisation based in Munich and carries out social science research at the convergence of (social) science, practice and public administration. SINE has performed numerous studies in the broad field of risk research, including natural and technological risks as well as social risks funded by public bodies such as municipalities, national institutions (e.g. German Parliament, Federal Institute for Risk Assessment, etc.), and international organisations such as OECD, WHO, International Risk Governance Council (IRGC) and particularly for the European Commission (since FP5).

Ferrocarrils de La Generalitat de Catalunya

Railways of the Generalitat de Catalunya was created on September 5, 1979 by the Generalitat de Catalunya as a result of the 1978 State cessions to the Generalitat de Catalunya, with the aim of exploiting the publicly owned railways that previously belonged to FEVE in Catalonia. As a diverse company that provides the services required by the Generalitat de Catalunya, FGC its mission among others is to manage effectively and efficiently the services and infrastructures that have been assigned to it as a public company, and to contribute to improving the mobility in Catalonia.

London Borough of Islington

Islington Council is the local authority for the London Borough of Islington in Greater London, England. Islington is divided into 16 wards, each electing three councillors. The council is split into five directorates: Children’s Services; Corporate Resources; Environment and Regeneration; Finance; HASS (Housing). The council currently employs around 3100 staff although this will increase as additional contracted services will be coming in house. Islington also has the highest population density of local authorities in England and Wales - 13,875 people per km2.

Union Internationale des Chemins de Fer

UIC is the worldwide organisation for international cooperation among railways and promotion of rail transport at a global level. Founded in 1922, it currently gathers 200 members on all 5 continents, among them railways, rail operators, infrastructure managers, railway service providers, public transport companies, etc. Further UIC maintains close cooperation links with all actors of rail transport, including industries, railway associations and public authorities. The Headquarters is located in Paris, France.

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