True Demand-Driven Semiconductor Supply Chains for Europe

Project Acronym:

SC4EU

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Publishable Executive Summary

This deliverable outlines the comprehensive dissemination and communication strategy for the **SC4EU** project, which aims to drive advancements in the semiconductor industry and supply chains containing semiconductors. The strategy is designed to maximize awareness, engagement, and impact among stakeholders, including academia, industry, government, and the general public.

Key components of the dissemination and communication approach include the establishment of a strong visual identity, a dedicated project website, and active engagement across multiple social media channels. These elements serve as primary tools for promoting project updates, achievements, and future objectives.

Furthermore, this strategy sets measurable Key Performance Indicators (KPIs) for tracking the progress of engagement activities. By focusing on both quantitative metrics, such as outreach and engagement rates, and qualitative insights from sentiment analysis, the project team aims to optimize its dissemination efforts throughout the **SC4EU** lifecycle.

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Abstract

This deliverable outlines the comprehensive dissemination and communication strategy for the **SC4EU** project. The primary goal of the project is to strengthen European digital sovereignty by mitigating the chip shortage and reducing the bullwhip effect in semiconductor supply chains.

Aligned with the project's objectives, this strategy ensures effective dissemination throughout the **SC4EU** lifecycle. It provides a framework for sharing project work and results, both during and after completion. Furthermore, it serves as a guide for project partners, offering common tools that require active engagement from all participants.

The defined dissemination activities are designed to achieve two key objectives: raising public awareness and engaging targeted stakeholders. These activities will highlight the **SC4EU** project's objectives, activities, and outcomes.

To reach a diverse audience, the partners will utilize a variety of dissemination tools and activities. These include a dedicated website, social media platforms, newsletters, press releases, published articles, and presentations at conferences, events, and workshops.

Executive Summary

Objective and scope of the document

The objective of this deliverable is to present a comprehensive dissemination and communication strategy tailored to the **SC4EU** project's goals of strengthening European digital sovereignty, addressing the chip shortage, and mitigating the bullwhip effect in semiconductor supply chains. This strategy outlines a cohesive framework for sharing project activities and results, ensuring effective communication throughout the project's lifecycle and beyond. It aims to raise public awareness and engage targeted stakeholders by leveraging a wide range of dissemination tools, including digital platforms, media publications, and participation in relevant events. By providing common tools and guidelines, this deliverable supports active collaboration among project partners to maximize the project's visibility and impact.

Structure of the deliverable report

The deliverable is structured to provide a clear and comprehensive overview of the dissemination and communication strategy for the **SC4EU** project. Chapter 1 introduces the project, outlining its background, objectives, and relevance to European digital sovereignty. Chapter 2 focuses on the dissemination and communication strategy, identifying the target audience and detailing how the project will engage both stakeholders and the general public. Chapter 3 highlights the project's visual identity, including branding elements essential for consistent and recognizable communication. Chapter 4 presents the dissemination and communication tools and plan, outlining specific activities such as the use of websites, social media, publications, and events. Chapter 5 concludes the deliverable by summarizing key points and emphasizing the importance of collective efforts to achieve the strategy's goals. Lastly, Chapter 6 provides a list of abbreviations for clarity and ease of reference.

1. Introduction

1.1 SC4EU Overview

SC4EU, a collaborative Innovation Action aims at strengthening European digital sovereignty by the mitigation of the chip shortage through reduction of bullwhip effect in the semiconductor industry and supply chains containing semiconductors. This will be reached via a "truer"-demand signal gained from an **anonymous MPC (Multi-Party Computation) survey** on coarse granularity which will be broken down via Artificial Intelligence (AI) methods to fine granularities following the semantic web based digital reference structure.

The **ambition** of **SC4EU** consortium is to overcome these obstacles and to obtain high-quality, reliable data for semiconductor demand forecasting. In the solution proposed by **SC4EU**, data should be gathered via an anonymous survey based on Multi-Party Computation technology. **Anonymity and security of data flow** will encourage business partners to share their true demand data. Then, the gathered data will be mapped onto ontologies (semantic representations of the semiconductor industry) and processed with AI tools for demand breakdown of fine granularity.

Key Objectives

The overall goal of the **SC4EU** project is to develop a solution for better demand forecasting in semiconductor supply chains. This objective will be achieved by establishing a true demand platform – a service available to companies included in semiconductor supply chains. On its way to the platform realization **SC4EU** consortium will specifically target the following objectives:

- Establish an improved version of the Digital Reference ecosystem and ensure its maintenance
- Provide secure access to the true demand forecasting services and integrate them with cloud services and other dataspaces
- Integration of collaborative ontology processing tools into the **SC4EU** Ontology Curation Portal and availability of Continuous Integration pipelines
- Provision of an integrated and collaborative ontology editing and visualisation tooling
- Provision and establishment of an integrated SSO solution for all SC3 Portal connected tools
- Development of a consistent, modular and semantic description of semiconductor supply chains that can be used to generate meaningful demand forecasts for the supply chain
- Design and test of demand forecasting methods that especially allow to disaggregate demand information
- Development of the Survey Use Case

Overarching goals of SC4EU project are:

- Mitigation of the chip shortage
- Reduction of bullwhip effect in the semiconductor industry
- True-demand based forecast
- Resilient and sustainable semiconductor supply chains
- Promotion of data sharing.

By addressing these key areas, **SC4EU** will result in a better bullwhip reduced demand forecast on all levels of the semiconductor demand and of demands for supply chains containing semiconductors.

The table below presents additional descriptive information about the **SC4EU** project, intended to be communicated to the project's target groups & stakeholders.

Table 1: The SC4EU project

SC4EU Project Description
SC4EU in the center of semiconductor demand forecasting will result in a better bullwhip reduced demand forecast on all levels of the semiconductor demand and of demands for supply chains containing semiconductors. By that reduced chip shortage in boom phases and less oversupply, unused capacity and waste in phases of low demand.
Expected outcomes
▪ **Improved decision-making:** Sharing data can lead to better and more informed decision-making. By having access to a wider range of data sources, companies can gain a more comprehensive understanding of market trends and consumer behaviour, which can inform their strategic planning and product development. ▪ **Enhanced efficiency:** Data sharing can help companies streamline their operations and increase efficiency. By sharing data on processes and supply chains, companies can identify areas for improvement and optimize their workflows, resulting in cost savings and improved productivity. ▪ **Collaborative innovation:** Data sharing can facilitate collaborative innovation and cross-industry partnerships. By pooling data resources, companies can leverage their collective expertise to develop new products and services that might not have been possible otherwise. ▪ **Competitive advantage:** Companies that are able to effectively share and utilize data may gain a competitive advantage over their peers. By leveraging data insights, they can identify new business opportunities, optimize their operations, and develop innovative products and services that set them apart from their competitors.
Innovation of the proposed approach
▪ anonymous data sharing with use of Multi-Party Computation, ▪ semantic data processing to obtain high quality data of fine granularity, ▪ close cooperation of semiconductor companies and research institutes, ▪ focus on human factors, ▪ application of gamification and relate techniques for data sharing incentivization.
Identified stakeholders / partners
▪ Industry representatives with a grand coverage of the European semiconductor industry ▪ Scientific / academic community ▪ Representatives from the overall data community / economy such as data scientists, data- and knowledge engineers will be involved as partners not as stakeholders.

1.2 Organizing the Dissemination and Communication efforts

The **SC4EU** project recognizes the importance of effective communication and dissemination in achieving its core objectives. This strategy serves as a roadmap for project partners to navigate the identification of target audiences and determine the content and timing of messages necessary for project success.

Communication as a Strategic Tool:

By strategically utilizing communication tools, **SC4EU** will actively contribute to achieving its project goals.

Roles and Responsibilities:

- ❖ Communication Managers: Each partner organization will designate a communication manager responsible for implementing the communication plan at their organizational level.
- ❖ Lead Partner and Communication Group: Harokopio University of Athens (George Dimitrakopoulos, Eirini Liotou and Fenia Giannakopoulou) will act as the Lead Partner, overseeing the coordination of communication activities across the entire project.
- ❖ Project Communication Group: Together with the communication managers from each

partner, they will form the **SC4EU** project communication group. This group will facilitate collaboration and ensure a unified communication approach throughout the project.

2. Dissemination & Communication Strategy & Target Audience

2.1 Objectives

SC4EU aims to engage with our target stakeholder groups so that they closely follow the project outcomes. To accomplish this, the project's communication activities will be carried out in line with the following objectives:

- Build awareness of the project's mission and activities
- Provide the consortium with a set of useful guidelines to plan and perform communication activities, aiming to ensure a widespread dissemination of project results
- Ensure the production of high-quality communication materials
- Engage the key audiences through relevant communication activities
- Define the target audience, the key messages and the most appropriate channels and tools to ensure effective communication of the project's concept and objectives.

2.2 Quintuple Helix Innovation Model

To achieve optimal communication and dissemination results for the **SC4EU** project, we will employ a tailored approach based on the Quintuple Helix Innovation Model[1] adding an additional, necessary dimension, namely that of "natural environment". This model establishes an ecosystem that fosters collaboration and interaction between five key actors:

- Academia
- Government
- Industry
- Natural Environment
- Media and Culture-Based Public

SC4EU aims for a long-term effect on European and International level with specific activities for maximizing impact through dissemination, communication and exploitation of results during and beyond the project's duration. In this respect, **SC4EU** has conceived a unifying strategy for communication, dissemination, exploitation, and business growth, trying to maximise the potential of cross-fertilisation between these activities, fostering the combined effects of general communication, dissemination of specific peers'-driven messages, exploitation of new knowledge and ultimately diversification and business expansion through advanced products and services. This model will be further enhanced and used within the time frame of **SC4EU**, maximizing the project impact.

In short, the ultimate goal of the peer-based dissemination of results consists of providing a clearly understandable outreach to all main outcomes from various viewpoints, technical or business-related or relevant from a learning perspective. Communication activities are meant to raise the interest of different stakeholders and engage end-users for feedback on the implementation. Last, leveraging on the network effect, the exploitation activities will be devoted to fostering the market potential of products and solutions, while considering different applications for the developed technologies and services. The exploitation plan will be finalised to get a proper understanding of the market, identifying key products and solutions, defining IPRs management and conceiving the most effective marketing strategy for **SC4EU** towards ensuring the sovereignty of the European ECS industry.

[1] Carayannis E, Campbell D (2009) 'Mode 3' and 'Quadruple Helix': toward a 21st century fractal innovation ecosystem. Int J Technol Manag 46(3/4):2011–2234

The **SC4EU** project targets a diverse range of Stakeholders:

- **Academia:** Research institutions and universities involved in ECS technology and related fields.
- **Government:** Regulatory bodies, transportation authorities, and government agencies involved in technology and innovation.
- **Industry:** Representatives from companies working in the ECS industry, smart infrastructures and operations, and other industries
- **Natural Environment:** Organizations, NGOs, and experts focused on sustainable practices, environmental protection, and minimizing the ecological footprint of technology
- **Media and Culture-Based Public:** Journalists, bloggers, social media influencers,
- and other public figures who can help disseminate information about the project.

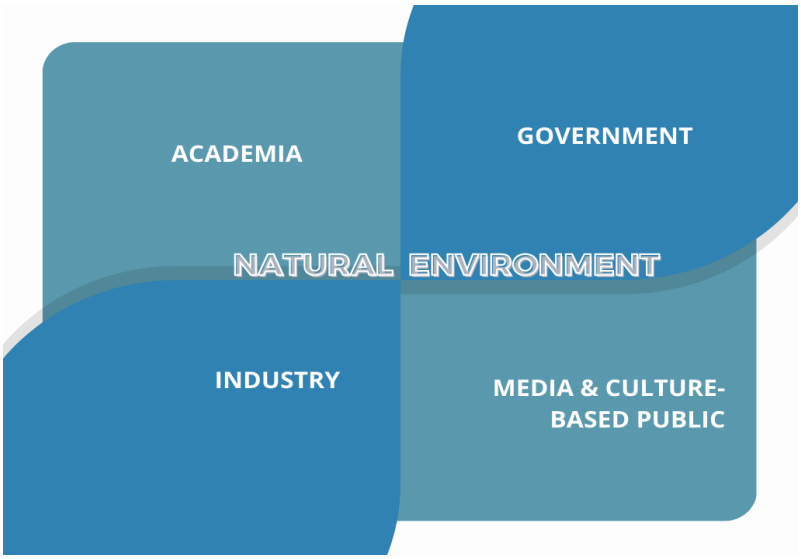


Figure 1: The Quintuple Helix Model

Tailored Messages

We will develop tailored messages for each target group, highlighting the specific benefits and implications of the **SC4EU** project for their respective interests and concerns. These messages will be disseminated through various channels, including:

- **Website and social media:** Our dedicated project website and social media channels will provide up-to-date information about the project's progress, achievements, and outcomes.
- **News releases and media outreach:** Press releases will be issued to announce key milestones and achievements, and media outreach efforts will be conducted to generate news coverage.
- **Presentations and conferences:** Project representatives will participate in conferences, workshops, and other events to present the project's goals, progress, and results to relevant audiences.
- **Publications and articles:** Research papers, articles, and other publications will be produced to disseminate the project's findings and insights into the academic and scientific community.
- **Stakeholder engagement:** Regular engagement with stakeholders will be conducted to gather feedback, address concerns, and build support for the project.

By adopting this comprehensive approach, we aim to optimize our communication and dissemination efforts, ensuring they resonate with our target audiences and have a significant impact on the development and adoption of ECS technology.

3. Project Visual Identity

The visual identity package consists of the project's logo versions, colour palette, visualizations, typefaces, branding ideas, and Templates for Minutes and PowerPoint presentations.

3.1 Project's Logo

The project's logo have been designed at the beginning of the project

Figure 2: Project's Logo

3.2 Color Palette

A palette based on blue and yellow has been chosen.

Type Faces

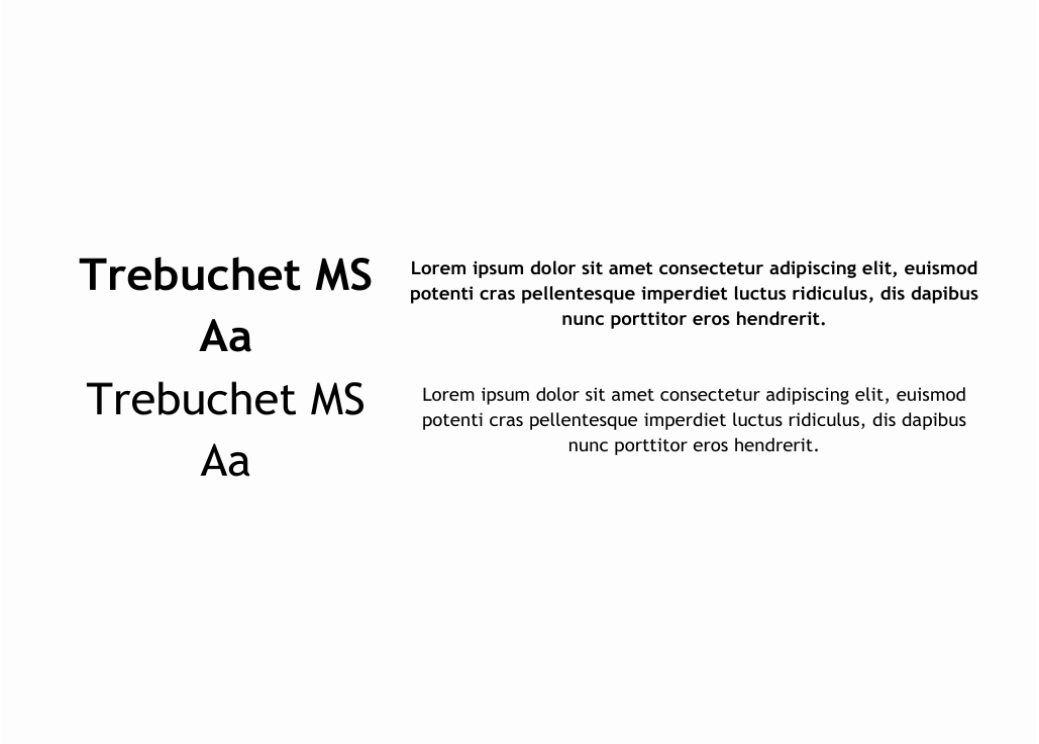


Figure 3: Typefaces

3.3 Project Website

The **SC4EU** project has taken the initial steps towards establishing a strong online presence by developing a website.

Structure of the website

This section presents the pages that comprise the website, as displayed in the Main Navigation Panel (Header).

Home Page

The public landing page of the website features the project logo and dynamic images, along with an overview of the project's main objectives. As visitors scroll down, they can also view acknowledgments and key facts about the project.

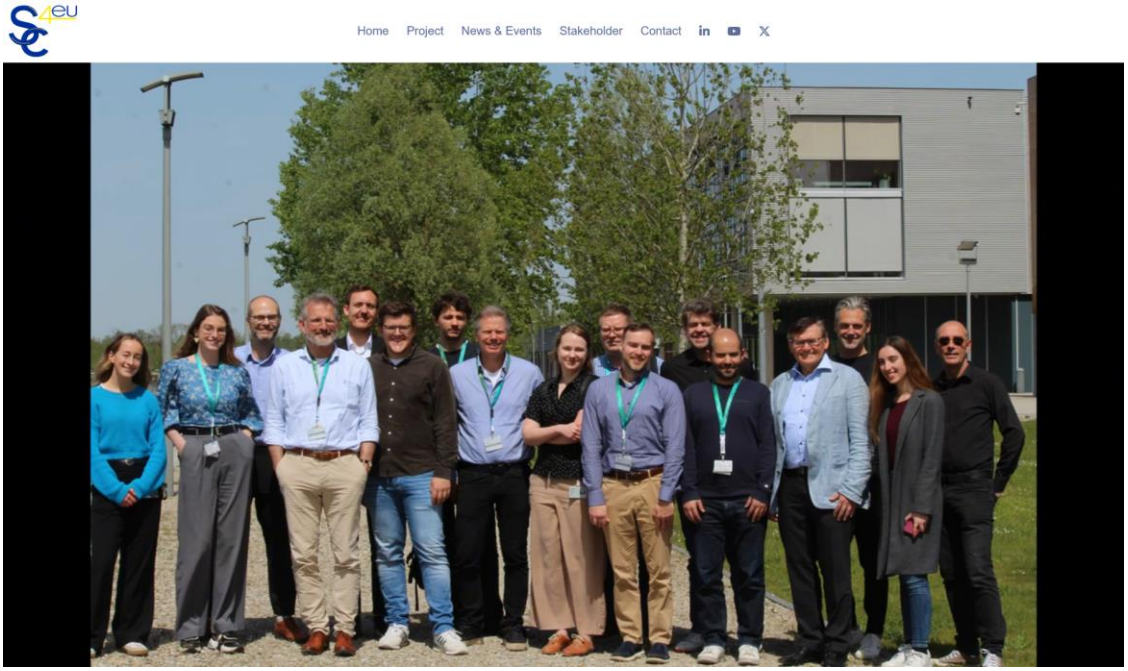


Figure 4: Project's Website

3.4 SC4EU Social Media

The **SC4EU** project recognizes the importance of a strong online presence to effectively communicate project information and engage with a diverse audience. By utilizing social media platforms, the project aims to increase visibility, foster collaboration, and encourage public participation.

Social Media Strategy

The proposed social media strategy for the **SC4EU** project is well-aligned with the project's goals and target audience, focusing on LinkedIn, YouTube, and X (Twitter), platforms popular among professionals, researchers, and the public. This strategy is further strengthened with HUA's team of experts.

The emphasis on creating high-quality content aligns perfectly with HUA's expertise. We will work closely with the project team to develop engaging content across all platforms, fostering a strong community around the **SC4EU** project. Our Strategy includes the following Social Media Platforms are the most popular concerning the topic of our project:

LinkedIn offers a professional network ideal for reaching project stakeholders. It is a valuable platform for the **SC4EU** project as it allows for networking, sharing industry related content, and engaging in relevant discussions. By utilizing LinkedIn, **SC4EU** can connect with key stakeholders, such as researchers, policymakers, and industry leaders, building a professional community interested in the project. HUA will help establish the project and its team through regular articles, newsletters, blog posts, and insightful participation in relevant groups. While organic reach limitations exist, HUA has experience in crafting compelling content and utilizing targeted advertising strategies to maximize audience engagement.

YouTube provides a powerful platform for highlighting the project's visual aspects. This platform allows for engaging storytelling and can effectively communicate the project's goals, progress, and impact to a wider audience. Additionally, YouTube's searchability and shareability make it a powerful tool for reaching new viewers and increasing brand exposure. HUA's team will handle everything from shooting and editing to promotion and audience engagement. This ensures high-quality videos optimized for search, driving organic traffic, and increasing project visibility.

We understand the importance of real-time updates on **X (Twitter)**. By using hashtags and engaging with industry influencers, **SC4EU** can increase its visibility and reach a larger audience. Twitter also allows for real-time interactions, making it a valuable tool for engaging with the target audience and addressing queries or feedback promptly. We will collaborate with the project team to share timely news and updates, strategically utilizing relevant hashtags to maximize reach.

The proposed strategy acknowledges the potential challenges of each platform, such as organic reach limitations on LinkedIn and the competitive nature of YouTube. HUA's expertise lies in mitigating these challenges through creative content strategies, targeted advertising, and ongoing analytics monitoring. By continuously analyzing the effectiveness of the strategy, we will make data-driven adjustments to optimize performance on each platform.

In conclusion, the proposed social media strategy offers a solid structure to effectively reach the **SC4EU** project's target audience, build brand awareness, and achieve project goals.

Social Media Strategy

By utilizing the following social media platforms as part of the marketing strategy, **SC4EU** can effectively connect with its target audience, increase brand awareness, and drive engagement and traffic to its website.

Table 2: Social Media Platforms

Social Media Channel	Direct Link
LinkedIn	https://www.linkedin.com/in/sc4eu-project/
Twitter	https://x.com/sc4eu
YouTube	www.youtube.com/sc4eu-project/

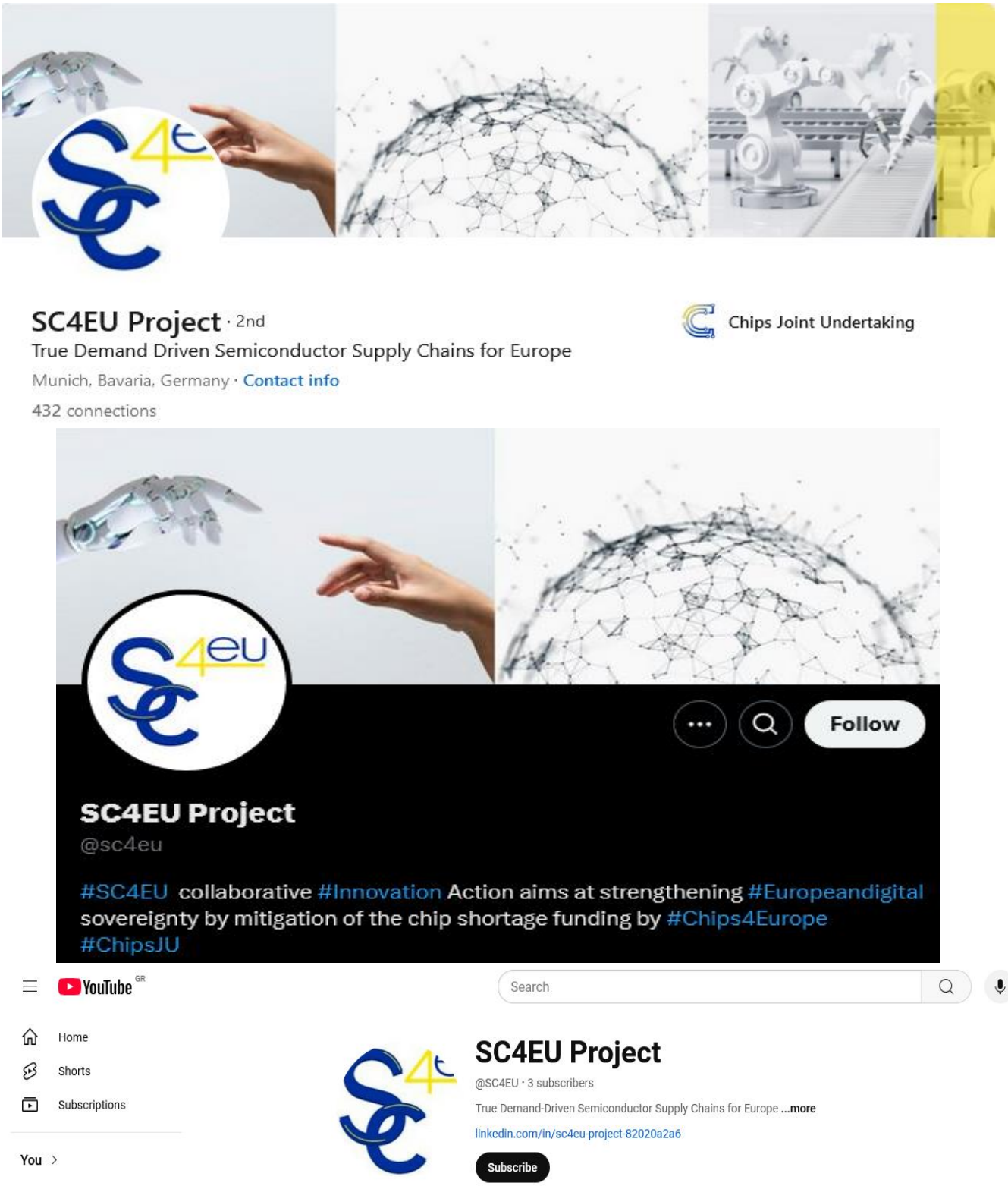


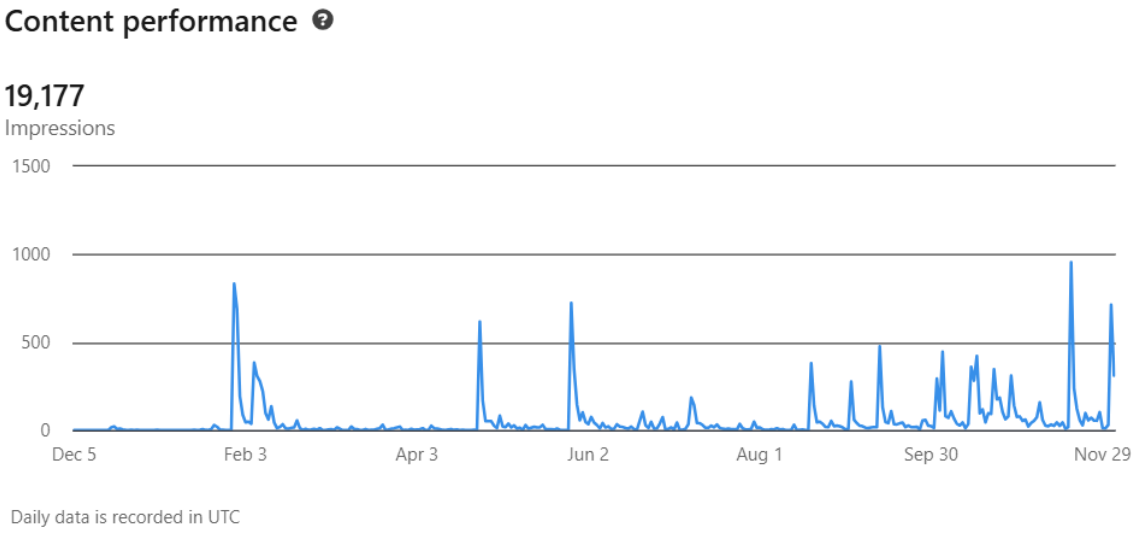
Figure 5: Project's Social Media Channels

Social Media Analytics

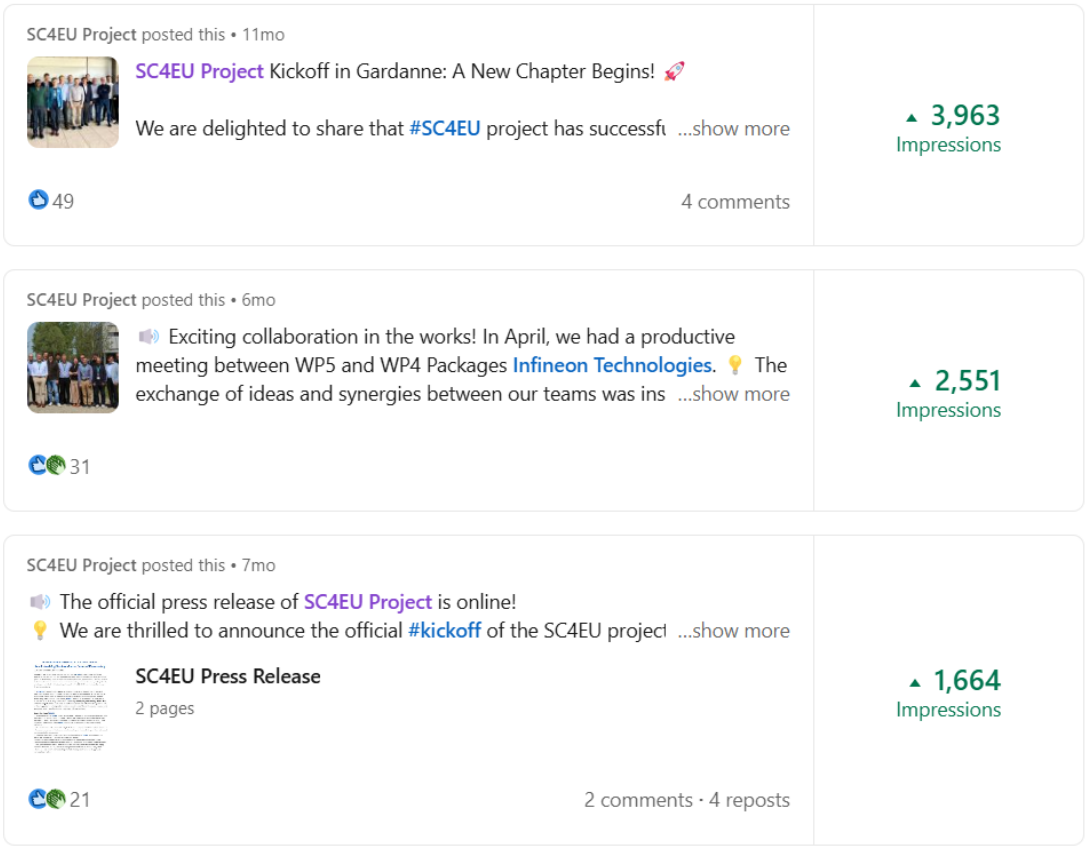
Below, there is an overview of the first analytics for LinkedIn:

The **SC4EU** LinkedIn page has seen positive engagement. Over the past period, the page has garnered 19,177 reactions and gained new followers, bringing the total to 600 followers. Here is some statistic data from LinkedIn Group:

Additionally, the page has attracted 19k impressions of new unique visitors. These metrics indicate growing interest in the project and its mission.



The average interest per each post is around 3k.



According to the job titles statistics the group very well spread between different job position and covered the top managers till PhD and master students.

The same statistics give an overview to the industries that participate actively in the project process. Almost 33,3% covered by semiconductor manufacturing and the rest divided between IT services, Research companies and Universities.

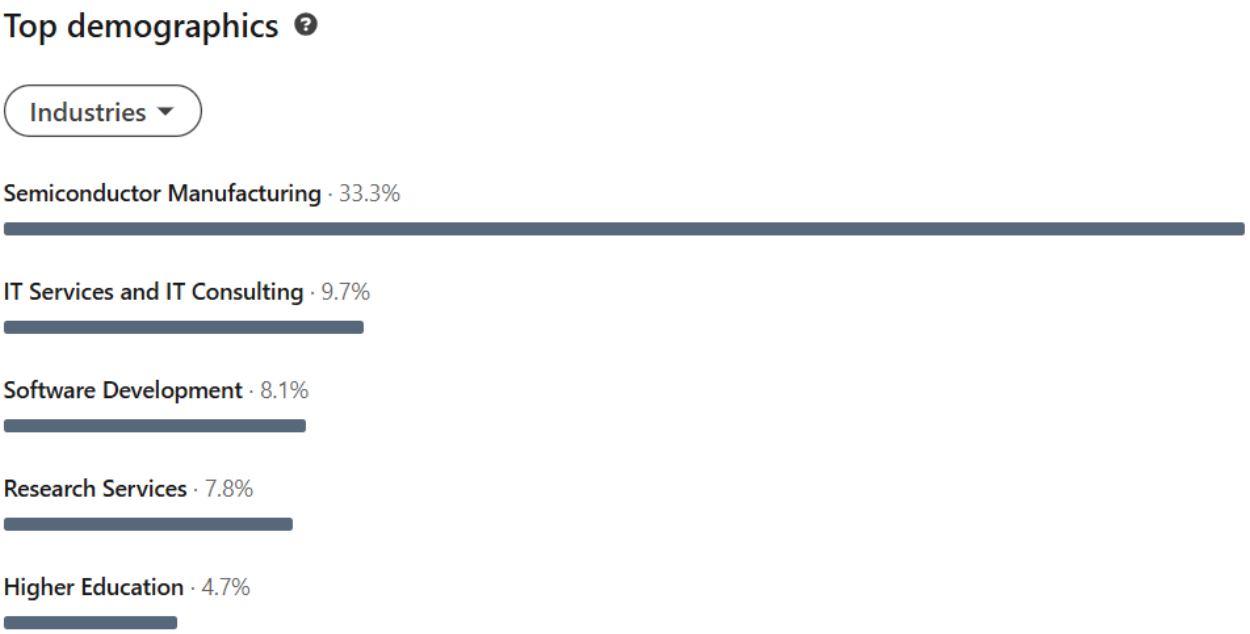


Figure 6: Project's Social Media Analytics

4. Dissemination and Communication Tools and Plan

4.1 Key Performance Indicators for dissemination and communication

The **SC4EU** project has identified Key Performance Indicators (KPIs) to help set, track, and evaluate goals. These KPIs serve as measurable targets that guide the project's progress. By actively participating and supporting the project, all partners contribute to achieving these goals efficiently. The collective effort of the consortium partners will accelerate the project's success and ensure the desired outcomes are realized in a timely manner.

Measure	Indicators	Target Number
Events (Participation)	No. of events participated	30+
Events (Organisation)	No. of workshops organised	20+
	No. of participants (total)	200+
Project Website	No. of visitors (average per month)	80+
Articles / Blog posts	No. edited (yearly)	14+
Printed material	No. of hard copies distributed	2+
Webinars / Trainings	No. of participants (average per session)	20+
Newsletters	No. of newsletters contributed/released	6??
Mailing list	No. of subscribers by the end of the project	500+
Social media	Size of the online community (e.g., Twitter followers, LinkedIn members, mailing list subscribers) by the end of the project	500+
	No. of impressions (monthly average)	200+

Promo Videos	No. of videos produced	15+
	No. of visits by the end of the project	400+
Press Releases	No. of press releases by the end of the project	5+

4.2 SC4EU Newsletters

The **SC4EU** project will disseminate information through regular newsletters. These newsletters, provide updates on project milestones, upcoming events, and relevant industry news. By adopting a reader-friendly format and incorporating engaging visuals, the newsletters aim to foster a deeper connection with our stakeholders. So far we have created two newsletters, posted on our website news, LinkedIn and shared via email.

SC4EU

ChipsJU Funded by the European Union

JUNE 2024

Newsletter

We are thrilled to announce the official **kickoff** of the *SC4EU* project, funded under the HORIZON-KDT-JU-2023 call. This pioneering initiative aims to tackle the pervasive challenges posed by the bullwhip effect in semiconductor supply chains, a phenomenon that has resulted in detrimental consequences such as excessive inventory, decreased revenue, and significant shortages, particularly evident during crises such as the COVID-19 pandemic and previous financial downturns.

Our Project's Press Release

SC4EU, a collaborative Innovation Action aims at strengthening European digital sovereignty by mitigation of the chip shortage through reduction of bullwhip effect in the semiconductor industry and supply chains containing semiconductors. This will be reached via a "truer"-demand signal gained from an anonymous MPC (Multi-Party Computation) survey on coarse granularity which will be broken down via AI methods to fine granularities following the semantic web based digital reference structure.

Innovation Strategy:
The *SC4EU* consortium's approach for improving supply demand forecast in the semiconductor industry and mitigating bullwhip effect is based on:

- anonymous data sharing with use of Multi-Party Computation,
- semantic data processing to obtain high quality data of fine granularity,
- close cooperation of semiconductor companies and research institutes,
- focus on human factors,
- application of gamification and relate techniques for data sharing incentivisation.

Key Objectives:
The overall goal of the SC4EU project is to develop a solution for better demand forecasting in semiconductor supply chains. This objective will be achieved by establishing a true demand platform – a service available to companies included in semiconductor supply chains.

The project SC4EU is supported by the Chips Joint Undertaken and its members under grant agreement no. 101139949

SC4EU

ChipsJU Funded by the European Union

Exciting collaboration in the works!

In **April**, we had a productive meeting between **WP5-Survey Use Case and Demand Forecasting** and **WP4-Ontology Development and Tailoring of Demand Forecasting Methods**- at **Infineon Technologies**. The exchange of ideas and synergies between our teams was inspiring.

Partners

Infineon, ASML, FTK Forschungsinstitut für Telekommunikation und Kooperation, Harokopio University of Athens, Mines Saint-Etienne Une école de l'IMT, Involvation Driven by Possibilities, NXP, SAP, ST life.augmented, TACEO, TIB Leibniz-Informationszentrum Technik und Naturwissenschaften Universitätsbibliothek, Tilburg University

Contact

www.youtube.com/sc4eu-project/ www.linkedin.com/sc4eu-project/ https://x.com/sc4eu

The project SC4EU is supported by the Chips Joint Undertaken and its members under grant agreement no. 101139949

Figure 7: Newsletters

4.3 SC4EU Templates

The **SC4EU** project document templates are designed to ensure a consistent and professional representation of the Project across all communication and documentation facets. These templates adhere to the project's branding guidelines, embodying a coherent visual identity.

Figure 8: PowerPoint Template

5. Conclusions

After one year of coordinated efforts, the **SC4EU** project has successfully established a foundation for effective stakeholder engagement and communication. Key accomplishments include the launch of a fully functional project website and the creation of a cohesive brand identity that will enhance the project's visibility across multiple platforms. Initial dissemination efforts, including the utilization of social media channels, have demonstrated positive audience engagement and a growing interest in the project.

As the project progresses, the ongoing use of tailored messages and stakeholder-specific communication strategies will ensure that SC4EU's objectives and achievements are conveyed effectively. These efforts are expected to increase stakeholder acceptance, foster collaborations, and contribute to the project's overarching goal of revolutionizing the semiconductor demand forecasting.

Looking forward, the project team is committed to building upon these foundations to further expand the project's impact on the future of European digital sovereignty.

6. Appendices

6.1 Appendix A – Abbreviations

Table 3: Abbreviations

Abbreviation	Meaning
SC4EU	True Demand-Driven Semiconductor Supply Chains for Europe
IPR	Intellectual Property Management