ONCOSCREEN

D7.2 ONCOSCREEN DISSEMINATION, COMMUNICATION, AND EXPLOITATION PLAN

30 June 2023

Funded by the European Union

Submission date: 30/06/2023

Due date: 30/06/2023

DOCUMENT SUMMARY INFORMATION

Grant Agreement No	101097036	**Acronym**	ONCOSCREEN
Full Title	A European "shield" against colorectal cancer based on a novel, more precise and affordable risk-based screening methods and viable policy pathways		
Start Date	1 January 2023	**Duration**	48 months
Project URL	https://oncoscreen.health/		
Deliverable	D7.2 – ONCOSCREEN Dissemination, Communication and Exploitation Plan		
Work Package	WP7- Dissemination, Communication, Exploitation and Impact Creation		
Type	Report	**Dissemination Level**	Public
Lead Beneficiary	CARRCOMMS		
Contributions	All partners		
Authors	Maryia Rohava (CARRCOMMS), Linda Henriksson (CARRCOMMS)		
Co-authors	Stephen Walker (CARRCOMMS)		
Reviewers	Athanasios Mavropoulos (CERTH), Anaxagoras Fotopoulos (EXUS)		

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DOCUMENT HISTORY

Version	Date	Changes	Contributor(s)	Comments
V0.1	23.05.2023	The table of contents was prepared.	CARRCOMMS	Discussed the table with involved partners
V0.2	05.06.2023	The first version of the deliverable was prepared and shared with the coordinator	CARRCOMMS	Feedback received and incorporated
V0.3	10.06.2023	Initial version of the exploitation plan was integrated	EXUS	Inputs were formatted and integrated
V0.4	15.06.2023	Dissemination plan and common branding for the ONCOSCREEN solutions added	CARRCOMMS EXUS	Inputs added after discussing with involved partners
V0.5	20.06.2023	Final version of the exploitation plan	EXUS	Inputs were formatted and integrated
V0.6	25.06.2023	Dissemination KPIs and details on impact monitoring added	CARRCOMMS	Inputs from involved partners were added
V0.8	27.06.2023	Pre-final version sent to the reviewers; peer review comments addressed	EXUS, CERTH	Incorporated comments from peer reviewers
V1.0	30.06.2023	Final version. Quality Check. Submitted to EC	EXUS	Final quality check

PROJECT PARTNERS

Partner	Acronym
EXUS SOFTWARE MONOPROSOPI ETAIRIA PERIORISMENIS EVTHINIS	EXUS
UNIVERSITAETSMEDIZIN DER JOHANNES GUTENBERG-UNIVERSITAET MAINZ	UMC-Mainz
INSTITUTE OF COMMUNICATION AND COMPUTER SYSTEMS	ICCS
FIRALIS	Firalis
UNIVERSITATSKLINIKUM SCHLESWIG-HOLSTEIN	UKSH
UNIVERSITAET zu LUEBECK	UzL
LIETUVOS SVEIKATOS MOKSLU UNIVERSITETAS	LSMU
MEDIZINISCHE UNIVERSITAT GRAZ	MUG
INSTITUTO PORTUGUES DE ONCOLOGIA DO PORTO FRANCISCO GENTIL, EPE	IPO
INSTITUTUL ONCOLOGIC PROF. DR. ALEXANDRU TRESTIOREANU BUCURESTI	IOB
TECHNION - ISRAEL INSTITUTE OF TECHNOLOGY	TECHNION
UNIVERSIDADE DO MINHO	UMINHO
UNIVERSITEIT VAN TILBURG	TLBG
VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK N.V	VITO
ETHNIKO KENTRO EREVNAS KAI TECHNOLOGIKIS ANAPTYXIS	CERTH
INNOVATION SPRINT	iSPRINT
SCIENTIFIC ACADEMY FOR SERVICE TECHNOLOGY EV	SERVTECH
AINIGMA TECHNOLOGIES	AINIGMA
CATALINK LIMITED	CATALINK
KONNEKT ABLE TECHNOLOGIES LIMITED	KT
BEIA CONSULT INTERNATIONAL SRL	BEIA
UNIVERSIDAD DE LA RIOJA	URIOJA
TIME.LEX	time.lex
CARR COMMUNICATIONS LIMITED	CARR
MINISTRY OF HEALTH	MoHGR
PAGALBOS ONKOLOGINIAMS LIGONIAMS ASOCIACIJA	POLA LT
EUROPACOLON PORTUGAL- ASSOCIACAO DE LUTA CONTRA O CANCRO DO INTESTINO	ECPT
ELLINIKI ETAIREIA OGKOLOGIAS PEPTIKOU	HSGO
EUROPEAN SOCIETY OF DIGESTIVE ONCOLOGY	ESDO
FUNDATIA YOUTH CANCER EUROPE	YCE
MEDIZINISCHE UNIVERSITAT INNSBRUCK	MUI
LIETUVOS RESPUBLIKOS SVEIKATOS APSAUGOS MINISTERIJA	MoH-LT
EY ADVISORY SPA	EY
AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	CSIC
UNIVERSITE DE FRANCHE-COMTE	UFC
ROZENBAUM KONSULTING	ROSENBAUM
GIE AXA	GIE AXA
ASSOCIATION GERCOR	GERCOR
LOUWEN ROGIER	CC RL
SANNE VOOGD - CCassured	CC SV

LIST OF ABBREVIATIONS

Abbreviation	Description
AI	Artificial Intelligence
CA	Consortium Agreement
CARRCOMMS	Carr Communications
CRC	Colorectal Cancer
CRISPR	Clustered Regularly Interspaced Short Palindromic Repeats
CRN	Colorectal Neoplasia
CTC	Circulating Tumour Cell
D	Deliverable
DNA	Deoxyribonucleic Acid
DoA	Description of Action
DOI	Digital Object Identifier
EC	European Commission
EU	European Union
FIT	Faecal immunochemical test
GA	Grant Agreement
GDPR	General Data Protection Regulation
gFOBT	Faecal occult blood tests
IBD	Inflammatory bowel disease
IP	Intellectual Property
IPR	Intellectual Property Rights
KER	Key Exploitable Results
KPI	Key Performance Indicator
mRNA	Messenger Ribonucleic Acid
NMR	Nuclear Magnetic Resonance
OA	Open Access
ONCO-AICO	ONCOSCREEN Real time AI-Assisted Colonoscopy
ONCO-AITI	ONCOSCREEN AI-Assisted Tissue Image Analysis
ONCO-BIOBA	ONCOSCREEN CRC Biobank
ONCO-CAWA	ONCOSCREEN Awareness Personalised Mobile Application
ONCO-CLIDE	ONCOSCREEN Clinical Decisions Support System for CRC Integrated Diagnosis
ONCO-CRISP	ONCOSCREEN CRC Screening based on CRISP-Cas9 biomarkers
ONCO-CTC	ONCOSCREEN CRC Screening based on Circulating Tumour Cells
ONCO-EVIDA	ONCOSCREEN Evidence-based Decision Analytics Dashboard
ONCO-NMR	ONCOSCREEN CRC Screening based on Urinal & Blood NMR Metabolomics
ONCO-RISTE	ONCOSCREEN Risk Stratification Engine
ONCO-VOC	ONCOSCREEN CRC Screening based on Volatile Organic Compounds
QoL	Quality of Life
QR	Quick Response
R&D	Research and development
SWOT	Strengths, Weaknesses, Opportunities, and Threats
URL	Uniform Recourse Locator
VOCs	Volatile Organic Compounds
WP	Work Package

Executive Summary

This deliverable constitutes a comprehensive Dissemination, Communication, and Exploitation Plan for the ONCOSCREEN project. The plan is inherently dynamic: it evolves and matures with the project to match changes in priorities and to address potential new challenges.

The primary dissemination objective of ONCOSCREEN is to ensure that all results are made available to targeted stakeholders and end-users, and that the reasons for the results being of interest, benefit, and relevance to them are communicated effectively. This in turn facilitates the exploitation strategy and wide acceptance of the results by end-users, including citizens, patients, and policy makers.

ONCOSCREEN project aims to develop a ground-breaking set of technologies and methods for colorectal cancer screening. In close cooperation with other Mission Cancer projects, ONCOSCREEN will provide solutions for risk-stratified cancer screening programmes for citizens, an integrated diagnostic decision support tool for clinicians as well as intelligent monitoring tools for policy makers. The project will collaborate closely with national cancer mission hubs to facilitate policy dialogue on cancer and related research actions.

The dissemination and communication part of the plan describes the main objectives and goes on to identify key target audiences, messages, and channels that will be used to maximise the impact and raise awareness about the project and its activities. It outlines promotional materials that will be developed in the project and specifies concrete goals for communication activities. The plan integrates some measures of managing communication and dissemination activities in order to monitor and analyse the effectiveness and success of conducted activities. It presents an indicative timeline of the described activities and initial KPIs. Furthermore, it incorporates useful information for the ONCOSCREEN partners on regular reporting of dissemination and communication activities, the open access approach, and guidelines for correctly acknowledging the European funding.

The project website and social media channels (Twitter, LinkedIn, YouTube) play a central role in the communication strategy, as they provide extensive opportunities for ONCOSCREEN partners to inform, engage and promote project results, while building relationships with the target audiences and facilitating two-way communication.

Given the focus of the project on a significant health condition and the novelty of the proposed technologies, the consortium aims at protecting and exploiting the novel project results. This document presents the efforts on task T7.2 led by EXUS, which include a preliminary exploitation plan, the key assets identified by the consortium, the initial intellectual property right management framework, along with a preliminary market, SWOT and PESTLE analysis.

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Introduction

A dissemination, communication, and exploitation plan, by definition, outlines a project's approach and concrete actions to increase the impact of the project results in three main dimensions. First, it outlines how research results are shared with the scientific community, key stakeholders, commercial players, industry representatives, policy makers, and civil society. Second, it describes strategic and targeted measures for promoting the project and its results to multitude of audiences, including the media and the public, and engaging them in conversation. Third, it identifies key exploitable results in the project to ensure that the project can address the use of project's outcomes in the context of future exploitation.

This deliverable constitutes a comprehensive Dissemination, Communication, and Exploitation Plan based on the initial plans included in the Grant Agreement (GA). The plan is inherently dynamic, which means that it evolves and matures with the project and can be reshaped as the project develops to match potential changes in priorities and ambitions. The dissemination and communication aspects of the plan will be followed by D7.3 ONCOSCREEN Dissemination and Communication activities (First version) in M18 and D7.6 ONCOSCREEN Dissemination and Communication activities (Final version) in M48. The exploitation part of the plan will be followed by D7.4 ONCOSCREEN Exploitation and IPR Management (First version) in M18 and D7.7 ONCOSCREEN Exploitation and IPR Management (Final version) in M48.

There is often some overlap between dissemination, communication, and exploitation activities. This means that we cover activities that involve not only project results but also project information in general, especially linked to project developments and highlights. These activities are essential in first months of the project, as they introduce the projects to diverse audiences, different stakeholders and help to establish the project's image and identity.

Dissemination, communication, and exploitation efforts are shared between all project partners. This deliverable was prepared by CARRCOMMS and EXUS. However, the effective implementation of the plan, its continuous monitoring and improvement will require contributions from all partners. The plan is designed to receive feedback and make necessary adjustments as the project progresses. All partners will contribute to the success of the ONCOSCREEN dissemination and exploitation activities through contributions to the project website, such as blog posts, opinion pieces, and interviews. Partners will also directly engage with media through interviews and reports. It is also expected that all partners will participate in dissemination activities by attending conferences and events, contributing with scientific publications and datasets, and by networking with key stakeholders at the national and European level. This deliverable presents important information that the partners should use in planning and reporting their dissemination activities.

It also provides information on the exploitation plan The consortium seeks to protect the novel project results, with the main aim to secure the intellectual property (IP) of its assets and carry out a rigorous exploitation plan explaining the tools and analysis that will be sued along with the initial IP registry that is going to be updated every 6 months by all involved partners.

1.1 The need of the ONCOSCREEN Dissemination, Communication, and Exploitation Plans

The deliverable presents a detailed overview of the ONCOSCREEN Dissemination, Communication, and Exploitation Plans. These plans are put in place to ensure that impactful dissemination activities have been designed to engage diverse audiences, create awareness and recognition of the project and its ongoing research and innovation activities as well as to create tangible exploitation opportunities after the end of the project. Furthermore, it provides clear guidelines to the partners how to plan and implement their dissemination and exploitation activities. It provides clear indicators how these activities will be measured and analysed during the project execution.

1.2 Deliverable objectives

Table 1 presents the connection of the contents of the present deliverable with the ONCOSCREEN Grant Agreement (GA) requirements in WP7.

Table 1 Description of Action: Task 7.1.

ONCOSCREEN DoA requirements	Deliverable addressing the requirements	Brief description
Task 7.1 Dissemination, communication activities of ONCOSCREEN Task 7.2 Citizen Awareness Campaign Implementation for Increasing Acceptance in CRC screening programmes Task 7.2 ONCOSCREEN Living Lab for Gender-Based Innovations Task 7.4 Impact Creation Activities with other EU Initiatives and Projects Task 7.5 IPR Management and Exploitation Pathways	D7.2 ONCOSCREEN Dissemination, Communication, and Exploitation Plan	The deliverable includes the Dissemination, Communication, and Exploitation Plans that will guide and structure the implementation of all tasks in WP7.

1.3 Relationship with other deliverables and tasks

This deliverable is closely linked to other projects tasks and the deliverables listed in *Table 2.*

Table 2 Linkages between D7.2 and other ONCOSCREEN deliverables

Deliverable	Description of the deliverable	Link to D7.2
D7.1	Project Website	The website is nucleus of all ONCOSCREEN activities
D7.3	Dissemination and Communication Activities (First Version)	The report presents an overview of dissemination and communication activities until M18.
D7.4	Exploitation and IPR Management (First Version)	The deliverable reports in more detail the exploitation pathways of each partner and their exploitable assets developed within the project using the tooles explained in D7.2.
D7.6	Dissemination and Communication Activities (Final Version)	The report presents and analyses the impact of all dissemination and communication activities conducted during the entire duration of the project (M48).
D7.7	Exploitation and IPR Management (Final Version)	The final version of the report that summarises the ONCOSCREEN exploitation pathways of each partner and their exploitable assets developed within the project.
D7.8 D7.9 D7.10 D7.11 D7.12	Progress report and updates on the common annual meeting of the 'Prevention, including Screening' cluster	Conclusions from the common annual meeting of the cluster and policy brief recommendations
D7.13	Citizen Engagement Summary Report	The report documents the activities implemented within the duration of the project contributing to citizen engagement with respect to colorectal cancer awareness and screening programmes.
D7.14	Mission Cluster EU – Common Video and Brochure of the Projects	The deliverable reports the production of the common video and brochure to be created the Mission Cancer EU-funded projects.

2 Brand guidelines

This chapter outlines the strategy behind the ONCOSCREEN brand that will help to amplify communication and dissemination activities during the entire duration of the project and beyond. It outlines the approach from the development of the ONCOSCREEN brand and provides clear guidelines for implementing them in the communication plan of the project.

2.1 ONCOSCREEN brand

A brand is the way a product, company, or individual is perceived by those who experience it. The project branding must be strong and consistent both on its visual and verbal identity. Branding is mostly realised through a systematically crafted series of messages and implemented actions that feed straight into the project's name and identity. Brand identity encompasses verbal, visual, and emotive elements. The relationship and interconnectedness between these three elements create powerful and long-lasting brands. The tone of voice in public communication and the visual elements of the brand are what set it apart and what make it instantly recognisable.

It is intended that the ONCOSCREEN brand will evolve throughout the project's 48-month lifetime as more events and activities take place, and more project results can be shared with stakeholders, citizens, and patients. Although it is adapted over the lifetime of the project following the developments of the project, the essence remains the same and is the motivating principal for all project branding.

A clear and coherent visual and graphical appearance allow an easier identification for the public. The ONCOSCREEN brand strategy will have an impact on all communication and dissemination materials, as it will provide guidance on the overall tone and direction of the project in carrying out events, campaigns, and networking activities.

2.1.1 Brand Vision

The project's name plays on the creation of a new word that encapsulates the essence of both the words that help the audience to understand it. The "ONCO" stands for "oncology", which helps to identify the main field of research and innovation, in which the project operates. The second part of the word "SCREEN" links the project to the main objectives of the project, such as introducing breakthrough low-cost colorectal cancer (CRC) screening technologies. The creation of a single word 'ONCOSCREEN' creates a unique marking brand for the project, allowing an easy identification of each activity linked with the project through it. Furthermore, the combination allows to create a clear strategy for the branding of technologies and solutions that will be developed during the project.

The ONCOSCREEN name assists in finding the project website and social media accounts:

- ONCOSCREEN is always uppercase
- Project website: https://oncoscreen.health/

- Twitter account: @oncoscreen (https://twitter.com/oncoscreen)
- LinkedIn account: ONCOSCREEN (https://www.linkedin.com/company/oncoscreen)
- YouTube account: ONCOSCREEN (https://www.youtube.com/@oncoscreen)

The project tagline is: **ONCOSCREEN – A European "shield" against colorectal cancer**

The tagline is designed to be simple, accessible, and concise, capturing what ONCOSCREEN aims to achieve during the project timeline. It was also selected to correspond to the name of the project, having diverse and multilingual audiences in mind. The tagline features on the website, communication materials and other outputs.

2.1.2 Visual identity

2.1.2.1 ONCOSCREEN Logo

The ONCOSCREEN logo, as presented in *Figure 1,* has been specifically designed to provide a modern look and feel to the brand whilst also providing instant identification with the research on CRC as well as CRC screening. The brand logo serves as a visual anchor, instantly conveying the project's identity, while also symbolising a commitment towards the EU Mission Cancer on advancing cancer research and cancer screening technologies. The logo is designed to foster instant recognition among different audiences. The strategic placement of the main focal point ensures a memorable and cohesive experience, reinforcing the project's purpose.

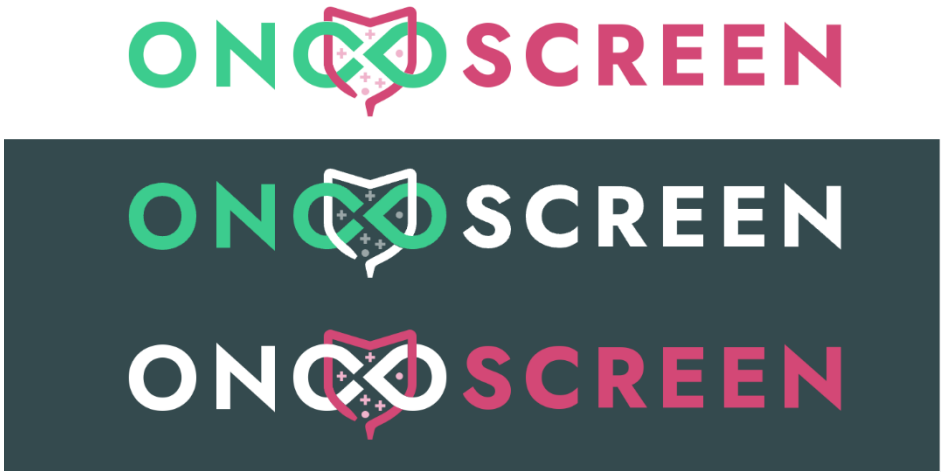


Figure 1 ONCOSCREEN Logo

The text uses a modern uniform style to give impact, instant legibility and to represent the inspiring ambition of the project. How to use the logo and common mistakes to avoid is described in **Appendix A: Brand Guidelines**.

In keeping with the best-practice principles of logo design, the ONCOSCREEN provides several colour options for the logo that follow the following principles:

- Simplified down to the core components
- Bold in the use of colour
- Minimal in its reliance on graphic effects

2.1.2.2 ONCOSCREEN typefaces

The overarching brand font for ONCOSCREN is TT Norms, as presented in *Figure 2*. The font has been selected for its on-screen clarity while also working well for printed materials. The secondary font is Calibri. It will be used as the default Windows font. This font works well for for research reports and documents to ensure full compatibility and readability of long-form texts on screen. Both fonts are available open source from Google Fonts in desktop format. The fonts are included in the ONCOSCREEN branded materials, which are available to all partners. They are also embedded in the ONCOSCREEN templates and can be used even if the user does not have them installed.

Figure 2 ONCOSCREEN Typefaces

2.1.2.3 ONCOSCREEN colour palette

The ONCOSCREEN colour palette, presented in *Figure 3,* has been specifically designed to work in the digital environment. The colours are vibrant and modern, giving impact and contrast to any digital and print communication materials. The colour palette will be used to solidify the brand and create modern look in digital assets for ONCOSCREEN social media channels.

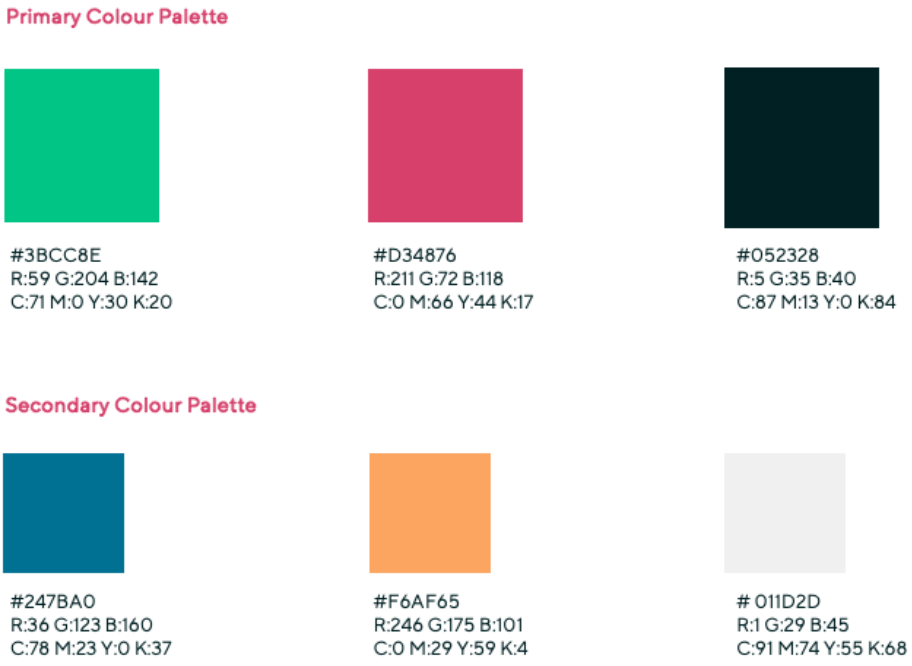


Figure 3 ONCOSCREEN Colour palette

3 Dissemination and Communication Plan

This deliverable was prepared at an early stage of the project (M6). Its primary focus is on presenting the dissemination and communication plan and how it will be implemented and monitored. The plan was developed based on the conceptualisation of ONCOSCREEN with an overarching goal of maximising the project impact through carefully planned dissemination activities and raising awareness about the research and developed solutions. The plan describes the strategic objectives and approach and identifies target audiences, key messages, channels, and materials for communication and dissemination activities. It provides relevant information to all partners on procedures and requirements for scientific publications and dissemination events. The plan introduces joint communication and dissemination activities within the "Prevention, Including Screening Cluster". The deliverable details initial communication and dissemination KPIs and provides a timeline for planned activities. It also discusses performance measurement and analysis, detailing tools and methods that are used for continuous monitoring. The section on the management of dissemination activities presents the procedures for dissemination reporting and outlines the open access approach for scientific publications and the risk management strategy.

3.1 Dissemination objectives

ONCOSCREEN partners have identified and set five main dissemination objectives, which are summarised in *Table 3*.

Table 3 ONCOSCREEN Dissemination objectives

Category	Objective	Description
Societal	DO-1	Maximise the outreach by describing and communicating the benefits to citizens via appropriate messages
Technological	DO-2	Diffuse key exploitable results to allow the take-up of developed technologies and further exploitation actions
	DO-4	Engage a diverse group of end users in iterative participatory co-design activities to increase the acceptance of ONCOSREEN solutions and technologies
	DO-5	Attract potential users, clients, and funds to stimulate appropriate market segments to support the exploitation strategy
Policy	DO-3	Establish close liaison with other EU-funded projects and existing national initiatives on cancer prevention and cancer screening
		Organise meetings with national and regional health authorities, cancer patient associations, and CRC healthcare providers

3.2 Overview of planned communication and dissemination activities

ONCOSCREEN Dissemination and Communication Plan

ONCOSCREEN – a European "Shield" against Colorectal Cancer

Messages	Policy decisions in regard to cancer should be more targeted and based on evidence	New technologies and latest scientific advancements can improve identification of high-risk CRC patients. Innovative measures can create more targeted preventive measures and individualised CRC screening programmes	Citizens can take proactive actions in reducing colorectal cancer risk factors	Citizens can receive reliable, accessible, and cost-effective colorectal cancer screening tests	Healthcare providers will acquire integrated diagnostics to affectively classify CRC patients		
Target Groups	Healthcare authorities and policy makers	Healthcare providers, public and private hospitals	Healthcare professionals CRC clinicians	Cancer patient associations	Citizens and cancer patients	Academic institutions, research organisations and centres specialising in cancer research	Technical developers industry stakeholders	EU Mission Cancer projects
Communication	Meetings with national and regional health authorities	Meetings with cancer patient associations	Meeting with healthcare providers and CRC clinicians	Press releases, media pitches	Newsletters, videos, website	Social media, blogs, database of stakeholders	White papers, brochures, presentations	Video and brochure of the 'Prevention, Including Screening' cluster
KPI	20 high-level meetings with health policy makers	30 meetings with patient associations	12 press releases promoting the project across the timeline	20 media outlets reached at the national and EU level	>50 visits per day, >25,000 unique visitors	40 videos about the project with 2,000 combined views	40 blog entries and 5 social media posts per month	2,000 social media followers across social media channels
Dissemination	15 open access publications in high impact scientific journals	30 scientific conferences covering all ONCOSCREEN technologies	5 workshops on developed technologies and solutions	15 datasets from technical partners,	8 cluster meetings, 1 joint white paper 2 joint public events	Final conference with key stakeholders, including health authorities, policy makers, and EU representatives		

3.3 Target audiences and key messages

The ONCOSCREEN project aims to offer new non-invasive methods for CRC screening and early detection methods to be applied more frequently and to wider population. The main objectives of the project will directly impact citizens, CRC patients, public healthcare systems and healthcare providers of CRC screening and treatment. Furthermore, the project aims to improve detection and precise classification. Healthcare professionals will benefit from research results and solutions offered by the project, upgrading their skills in digital pathology and integrated diagnostics. Policy makers at different levels, from national healthcare ministries to regional health authorities, will benefit from the solution that enables them to dynamically monitor and review relevant information, including CRC mortality rates as well as level of participation in screening programmes at the local, regional, and national levels. The target audiences and key messages have been summarised in *Figure 4*.

Primary audiences:

- Citizens, patients, CRC survivors and their families
- National governments and healthcare ministries
- Healthcare providers: public and private hospitals
- Healthcare professionals, e.g. general practitioners, gastroenterology specialists and clinicians, endoscopy nurses
- Academia and R&D institutions
- Medical Companies specialising in lab tests, biomarkers, and diagnostics

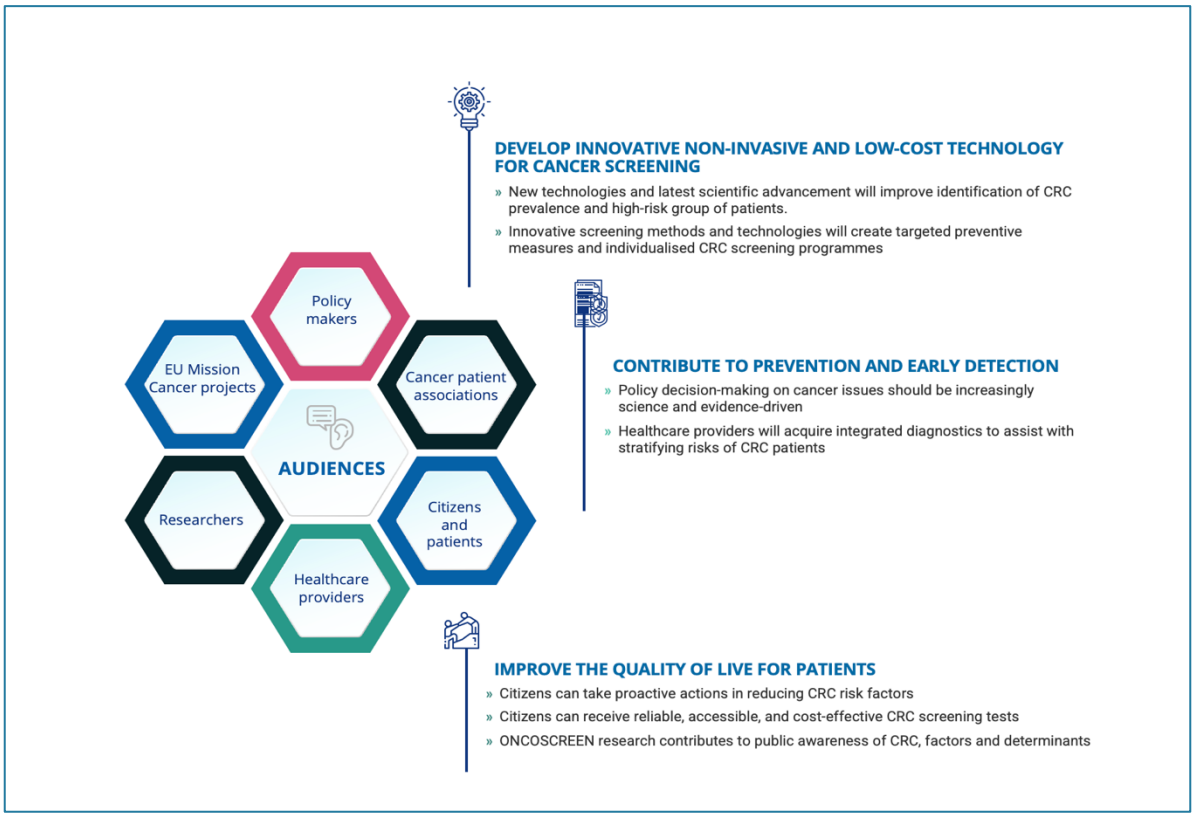


Figure 4 ONCOSCREEN Target audiences

4 Communication and dissemination channels

ONCOSCREEN uses diverse communication and dissemination channels in order to ensure far-reaching impact and effectiveness of the plan. Following best practices in research communications, the most useful approach is to explain and present the same research outputs in different formats and channels to appeal to different audiences.

ONCOSCREEN will establish a strong online identity thanks to the project website and its digital channels, such as Twitter and LinkedIn. The ONCOSCREEN YouTube channel was also created. Active social media presence and engagement provide extensive opportunities for ONCOSCREEN to inform target audiences, promote events, and research results. At the same time, social media allows to build and strengthen two-way communication with our audiences. It enables online users to share insights, opinions, and experiences. It facilitates the creation of communications of people, organisations, and businesses with common interests.

The next step in the communication strategy is to create a social media grid that will plot the most appropriate social media channels for reaching specific groups among the selected target audiences. A content management plan will be put in place for continuous monitoring of information and engagement and for securing and maintaining followers. Social and digital media will help to amplify the messages and create stronger linkages to cluster research projects and cancer organisations and research centres. The project will rely on strong and impactful visual media, original video content, engaging and educational infographic to create richer content experiences for users across all ONCOSCREEN digital platforms.

ONCOSCREN visual identity will also be supported by publications and events promoting the innovation potential of the project. The project newsletter will share news, updates, and analyses drawing on the ongoing developments in the ONCOSCREEN project and updates from the project partners and cluster projects. ONCOSCREEN blog series will include insights of daily work of project partners, focusing on their individual contributions. External publications, such as journal articles, opinion pieces, conference outputs, will focus on reaching specialised audiences and stakeholders. Other ONCOSCREEN outputs will include videos, presentations, and events conducted in online, hybrid and in person formats.

Apart from the ONCOSCREEN communication channels, we will also focus on external communication activities by issuing press releases to digital and print media. We will actively use the established platforms and freely accessible tools offered by the European Commission. Such tools include Horizon Magazine and CORDIS (news, interviews, results). We will inform the Project Officer about news, events, developments about ONCOSCREEN to raise the profile of the project during different research stages. Specialised publications and dedicated sections in print and digital media, focusing on public health policy, cancer research, and health services, will be targeted to create public awareness about CRC screening methods and technologies.

4.1 Communication channels

4.1.1 Project website

The ONCOSCREN website (https://oncoscreen.health/) serves as the central digital hub of communication and dissemination activities during the project lifetime. Social media channels amplify and multiply key messages, updates, and information which will be published on the website. The website is a powerful dissemination tool and a key element of engagement with target audiences of the project. The project website incorporates the visual identity of ONCOSCEEN and the project branding as well as provides easy access to well-presented non-confidential information and deliverables.

The project website will evolve and mature throughout the lifetime of the project, and the process of updating and improving the website is continuous. News and updates will be shared as they become available. Input and information from all the partners will be included to provide updates on their progress in various WPs. The website will function as central depository of all post-project activities as it will stay live for five years after the end of the project.

The full description of the project website and its privacy and cookie policy is available in D7.1 ONCOSCREN Project Website.

4.1.2 Social media channels

4.1.2.1 LinkedIn

For the ONCOSCREEN Project, a LinkedIn company page has been created at the outset of the project: https://www.linkedin.com/company/oncoscreen.

The company page allows greater visibility and engagement opportunities with external stakeholders and diverse audiences. The ONCOSCREEN project page is visible to all registered LinkedIn users. The LinkedIn icon is also displayed at the bottom of the project website, and it leads directly to the ONCOSCREEN's LinkedIn page.

ONCOSCREEN LinkedIn is primary used to raise awareness about the project and to engage with relevant stakeholders. Interested individuals, organisations, academic institutions are encouraged to follow @ONCOSCREEN to receive updates on the latest developments, publications, and events. Project news, content from newsletters and blog posts will be cross-posted and promoted on the page with an objective to lead interested parties to the project website.

The ONCOSCREEN partners are encouraged to be active on social media and share updates, posts and publications from the project and to tag the project using @ONCOSCREEN in relevant social media posts. The project hashtag is #ONCOSCREEN, which allows quick and easy searchability of relevant content across social media channels. It also strengthens social media footprint of the project from established institutional and individual accounts. In support of #ONCOSCREEN, the following hashtags may be useful:

- #HorizonEurope
- #MissionCancer
- #CancerScreening
- #CRCScreening
- #CancerResearch
- #CancerAwareness
- #EU4Health
- #EUCancerPlan
- #HealthUnion

4.1.2.2 Newsletter

A newsletter series will provide regular updates on project developments, results, outputs, and events throughout the ONCOSCREEN project. The ONCOSCREEN website homepage includes a link to subscribe to the Newsletter that will be issues on LinkedIn twice per year, beginning at in September 2023. By M6, ONCOSCREEN has 162 followers on LinkedIn, which constitutes a reachable and interested audience for the project newsletter.

LinkedIn Newsletters are GDPR compliant, as first-tier connections are shown the newsletter and invited to subscribe. This ensures that the subscriber list is fully opted in. LinkedIn Newsletters is a relatively new feature to the social media channel but has impact and direct link to attaining subscribers. It is straightforward for readers to subscribe – they can subscribe while using the LinkedIn platform, therefore the process does require the user to have a LinkedIn account, but it does not require visiting a different third-party website to sign-up, making it homogenous with their everyday social media use. Whenever a LinkedIn newsletter is published, an automatic notification is sent to subscribers and inboxes, which will increase awareness of the ONCOSCREEN project. The LinkedIn analytics can be used to monitor and analyse the number of views and subscribers.

4.1.2.3 Twitter

The ONCOSCREEN Twitter account is available at: https://twitter.com/oncoscreen

The primary function of using this platform is to raise awareness about the project and its developments among multiple audiences, interact and build relationships with them, communicate project news and results as well as interesting information, news, and events on the topics relevant to ONCOSCREEN and the cluster projects. The account will play an essential role in building a real-time conversation hub, as it provides opportunities for direct interactions with target audiences. Partners are encouraged to tag the account @oncoscreen and use the hashtag #ONCOSCREEN when posting or sharing any tweets relevant to the project. CARRCOMMS is responsible for monitoring the page and scheduling content.

4.1.2.4 YouTube

The ONCOSCREEN YouTube channel is available at: https://www.youtube.com/@oncoscreen

Project videos will be uploaded on the channel as they become available. Short video content will become a central feature of social media posts, enhancing engagement and interaction with target audiences. Planned video content includes infographic explainer videos, spotlight interviews with project partners, and summary videos from ONCOSCREEN and cluster events. ONCOSCREEN videos will be carefully edited and follow strict confidentiality protocols. Edited videos will be uploaded and made available on the YouTube channel. YouTube video content will be used across social media platforms: embedded into tweets, LinkedIn posts, and blog posts on the project website.

4.1.3 Promotional materials

The first instalment of communication materials will be developed in M6-M9, presenting an overview of the ONCOSCREEN consortium, main objectives as well as the infographic of the ONCOSCREEN solutions and technologies. As the project advances to next stages, communications materials will be continuously updated to correspond to the most recent developments in the project. As we would like to minimise the environmental footprint of printed materials, the preference will be given to electronic and digital materials, such as electronic posters, video materials and presentations. We can also link materials with a QR (quick response) code and connect with more detailed information published on the ONCOSCREEN website. Additional resources will be developed as identified and required by the project consortium.

All promotional materials are produced in line with the ONCOSCREEN brand guidelines. Both printed and electronic promotional materials can be made available in editable format to the project partners, so they can be adjusted to a specific event and audiences. Partners can also edit text fields and translate the text into their own language.

Several templates (PowerPoint and Word*)* were created for the project. They are available to the partners to use via the ONCOSCREEN SharePoint. Every template integrates the Style Gallery, including font and colour palettes designed for ONCOSCEEN. The templates help with creating unified and professionally looking documents and presentations. The partners can make use of the following templates for preparing their publications and presentations:

- PowerPoint Template
- Word Template for notes
- Deliverable Template (Word)

4.1.4 Media outreach

Media is an important audience, as well as being a multiplier channel to reach other priority audience groups. During the first year of the project, significant efforts of CARRCOMMS will be

invested in building and growing media contact database of outlets specialising in public health reporting, medical technologies, and cancer research at the local, national, and European levels. CARRCOMMS will prepare and issue press releases and pitch events and research updates to gain media coverage.

Other activities include one on one media briefings with key journalists, pitching potential interview ideas with project partners, drafting articles for pitching, and providing media training to project partners prior to their media interviews. Local media will be targeted during specific events, recruitment, and public awareness campaigns. Press releases can be translated and issued to media with contact information of the local project partner. These efforts will continue into the second year of the project. As the work on the ONCOSCREEN progresses to next stages, media engagement and activities will become increasingly result-oriented, promoting innovative CRC screening methods and technologies.

The ONCOSCREEN project will be presented to EU-level media outlets with a view to get coverage of the project results and updates from the cluster projects. For examples, we will pitch ONCOSCREEN to such series as Futuris produced by Euronews presenting latest news about the leading scientific and technological research projects in Europe.

In addition, we will rely on valuable EC resources that can serve as amplifiers and multipliers of the ONCOSCREEN results. The EC offers to support the dissemination efforts of Horizon Europe projects, using the following outlets:

- Horizon Magazine https://ec.europa.eu/research-and-innovation/en/horizon-magazine
- CORDIS (news, interviews, results) https://cordis.europa.eu/en
- Horizon Results https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/horizon-results-platform
- Horizon Results Platform TV https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/horizon-results-platform/hrptv

4.2 Dissemination channels

4.2.1 Scientific publications

Scientific publications play a crucial role in dissemination activities and allow to reach broader scientific community and specialised research groups. Moreover, the added benefit of scientific publications is independent peer review, which enhances the innovative potential of the project and provides new avenues for research collaboration.

The ONCOSCREEN project will cover a spectrum of disciplines. As a result, we expect outcomes in a range of scientific fields, including interdisciplinary areas. The project partners are determined to make major efforts towards publishing in high-impact peer-reviewed journals as well as leading international publications, such as conference proceedings.

ONCOSCREEN is strongly committed to promoting open science research, and all the scientific articles and conference papers produced will be published according to the Horizon Europe Open Access guidelines and made publicly available.

It is important to coordinate information about scientific publications in progress to avoid potential risks and conflicts, such as simultaneous or repeated submissions, or potential objections to the publication from project partners. To guarantee that publications can proceed as planned, the lead partner of the publication should follow the steps outlined below:

- As early as possible and at least 30 days in advance, a partner needs to inform the consortium about a planned scientific publication.
- Provide the following provisional details of the planned publication:
  - Author(s), partner organisation(s);
  - Title of the publication;
  - Links to relevant project task(s);
  - Research data to be used;
  - Target journal(s);
  - Planned submission date;
  - Open access arrangement.

All publications must be recorded by partners in the ONCOSCREEN Dissemination and Communication Registry, which is managed by CARRCOMMS. The registry will keep record of the project scientific publications and act as a valuable database. It is essential that each partner assesses and chooses the most suitable publication based on the following criteria: field, ranking, scientific impact, prestige, readership, and open access policy. From the onset of the project, we compiled a list of journals (see *Table 3*) that can be relevant and useful to the partners.

Table 4 Selected list of scientific journals

Journal title	Publisher	Homepage
Informatics	Multidisciplinary Digital Publishing Institute (MDPI)	https://www.mdpi.com/journal/informatics
IEEE Journal of Biomedical and Health Informatics	IEEE Xplore	https://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=6221020
Quantum Machine Intelligence	Springer	https://www.springer.com/journal/42484
Nature Computational Science	Springer Nature	https://www.nature.com/natcomputsci
PharmacoEconomics	Springer	https://www.springer.com/journal/40273/
Health Economics Review	Springer Nature	https://healtheconomicsreview.biomedcentral.com/
ACS Nano	ACS Publishing	https://pubs.acs.org/journal/ancac3
Nanotechnology, Science and Applications	Dovepress	https://www.dovepress.com/nanotechnology-science-and-applications-journal
PLOS ONE	PLOS ONE	https://journals.plos.org/plosone/
Biosensors and Bioelectronics	ScienceDirect	https://www.sciencedirect.com/journal/biosensors-and-bioelectronics

Communications Biology	Springer Nature	https://www.nature.com/commsbio/
Journal of the National Cancer Institute (JNCI)	Oxford Academic	https://academic.oup.com/jnci
Cancer Epidemiology	ScienceDirect	https://www.sciencedirect.com/journal/cancer-epidemiology
Cancer Epidemiology, Biomarkers & Prevention	American Association for Cancer Research	https://aacrjournals.org/cebp

4.2.2 Dissemination events

ONCOSCREEN will be presented and promoted at a wide range of events throughout the lifetime of the project. These events include virtual and in person scientific and industry conferences, workshops, seminars, and webinars relevant either to the areas of expertise of the partners or to the project. All partners will play a key role in presenting the project, promoting its ongoing developments and results. Details about event participation will be shared on the project website and across social media platforms, highlighted in the ONCOSCREEN Newsletter, and reported in periodic progress reports. In our communication about events, we plan to use photography and videos to enhance our strategy and gain more engagement across different audiences.

ONCOSCREEN comprises of multiple disciplines, and all partners are encouraged to participate and engage in external specialised events that they find the most suitable and important for their respective field of expertise. All partners will be asked to report on their participation in external events.

5 Impact monitoring

5.1 Timeline of activities

The described communication and dissemination activities will be implemented from M7 to M18, as presented in *Table 4.* The communication and dissemination strategy will be evaluated and reviewed based on the performance indicators during M18, and necessary adjustments will be included and described in D6.4.

Table 5 Timeline of communication activities

Activity	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18
Task 7.1 Dissemination, communication activities of ONCOSCREEN												
WP6 Email updates and surveys of the partners												
Cluster meetings (communication & dissemination tasks)												
Project website update												
Twitter content												
LinkedIn content												
YouTube content												
Newsletter												
Promotional materials												
Annual review of the website												
Media contacts database created												
Press releases												
D7.3 Dissemination and Communication Activities Report (1st version)												

5.2 Key performance indicators

In terms of the communication and dissemination activities, measuring and monitoring their success can be a difficult task with numerous variables to consider. Not all success factors are tangible, nor can all elements leading to impactful dissemination be possible to quantify.

Despite these challenges, it is possible to identify certain numerical targets that can facilitate the measuring of how well the project is achieving its dissemination goals. These are included in the key performance indicators (KPIs) as outlined in the GA, and will be monitored by CARRCOMMS regularly.

The metrics that are presented in *Table 5* the quantifiable targets against key communication and dissemination activities for the duration of the project. However, the specified figures are cumulative and reflect the outlook at the start of the project. The numeric values will be reviewed as the project progresses, with *D7.3* providing the first update on the status and potential readjustments (up or down) at M18.

Table 6 ONCOSCREEN KPIs

No.	Activity	Indicator	M18	M48	Source
1	Project website	Visits	1000 per month	1500 per month	Matomo Analytics
	Blog posts and news updates on the website	Number	15	40	
2	Newsletter	Publications	6	12	LinkedIn Analytics
3	Social Media Platforms (LinkedIn and Twitter combined)	Followers	1000	2000	LinkedIn and Twitter Analytics
4	Videos	Published videos	10	40	YouTube Analytics
5	Articles/publications in media	Number	5	20	Project records
6	Press releases	Number	3	12	Content media analysis
7	Open-access scientific publications	Number	2	15	Project records
8	Datasets	Number	2	15	
9	Conference presentations	Number	5	30	
10	Workshops	Number	-	5	
11	Cluster events	Number	1	8	
10	White Papers produced	Number	-	1	
11	Public Events	Number	1	2	
12	Final conference	Number	-	1	

5.3 Performance measurement tools

In measuring the quantitative impact, we will rely on several available tools: Matomo Analytics, LinkedIn Analytics, Twitter Analytics, and YouTube Analytics.

The number of followers that ONCOSCREEN has on LinkedIn and Twitter represents the main performance indicator for social media. However, we will also rely on the impression metrics and the number of shares/likes to improve the engagement rate and the overall performance of our social media posts. Potential improvements may include timing, tags, and the number of posts in our social media calendar.

Matomo is leading open-source analytics, which is respectful of user data, ownership, and privacy. This web analytics tool helps us to understand and analyse the overall performance and trends of the ONCOSCREEN website. It is used to measure website traffic patterns, e.g. total number of visitors, pageviews, duration of visits, downloads, and the geographical spread of visitors. This information is used to gain insights into performance and provide feedback how we can improve and optimise the website structure, so that the content and the design of the project website match the preferences of visitors. The website will undergo annual review, using the analytics and feedback from the partners to improve the website performance. If a particular section proves to

be frequently visited, we can make it more prominent on the website and ensure that the navigation journey becomes easier for visitors.

We will also employ the use of YouTube Analytics to monitor the performance of the ONCOSCREEN YouTube channel and the number of views of posted project videos.

5.4 Management of dissemination activities

CARRCOMMS is the WP7 Leader and the Dissemination Manager of the project. This means that CARRCOOMS is responsible for the successful planning and implementing of the Dissemination and Communication Plan as well as maintaining records of all dissemination activities during the project lifespan. This will take place in close cooperation with all consortium partners.

All partners are informed about the management of the dissemination activities through emails. As the project progresses to more active development stages, regular bimonthly calls with all the partners will be organised. The coordinator and specific partners are consulted on relevant issues when necessary.

The Dissemination and Communication Registry has been created from the start of the project. It is a living document which will keep the records on all ONCOSCREEN dissemination and communication activities. The registry will be regularly monitored and updated by CARRCOMMS. It includes the following sections:

- Communications contacts
- Tags
- Stakeholders
- Event Registry
- Communication Registry
- Publications
- Blog Rotation Plan
- Social Media Statistics
- Website Statistics
- Guide on acknowledgement of EU funding
- Gantt chart on partners' contributions

The dissemination tracker may be updated with new sections if new relevant dissemination activities not yet classified may arise.

5.5 Dissemination reporting, compliance, and obligation to disseminate results

CARRCOMMS maintains a record of all dissemination activities carried out throughout the lifetime of the project. The obligation to disseminate results are specified in Article 17 of GA. According to Article 29.1, the beneficiaries must promote the action and its results by providing targeted information to multiple audiences (including the media and the public) in a strategic, coherent, and effective manner.

In addition, a beneficiary that intends to disseminate the results must give advance notice to the other beneficiaries of – unless agreed otherwise – at least 15 days, together with sufficient information on the result it disseminate (please see para 2 of Article 17 of GA). Any objection to the planned publication shall be made in accordance with GA in writing to the Project Coordinator (EXUS) and to the partner(s) proposing the dissemination result within in case of publications 15 days of receiving the notification (para 3 of Article 17 of GA). If no objection is made within the indicated period, the dissemination may proceed.

Informed consent is always obtained from individuals taking part in dissemination activities. An example of the consent form for dissemination activities. We will notify in advance about any video/photo/audio recording and obtain consent for using edited materials for dissemination purposes within this project. Collected materials, such as photo and video records, will be managed by CARRCOMMS.

5.6 Open access to scientific publications

ONCOSCREEN strictly follows the open access approach to all peer-reviewed scientific publications in accordance with Article 17 of GA, which requires to disseminate results as soon as feasible, in a publicly available format.

ONCOSCREEN scientific publications will be published following two main routes to open access practices, evaluated on a case-by-case basis:

- Self-archiving / **'green' OA** – the representative (CARRCOMMS – Dissemination Manager) archives (deposits) the published article or the final peer-reviewed manuscript in an online repository before, at the same time as, or after publication. The following depositories will be utilised: OpenAIRE, Open Research Europe, Zenodo, which allows to deposit the research data needed to validate results presented in scientific publications.
- Open access publishing / **'gold' OA** – an article is immediately published in open access mode. Researchers can also publish in open access journals, or in hybrid journals that offer openly accessible individual articles. Monographs can also be published either on a purely open access basis or using a hybrid business model. Publications will be made accessible through a repository (OpenAIRE/ Zenodo/ Open Research Europe) upon publication.

To ensure open access using the repository, it is essential that the bibliographic metadata that identify the deposited publication is included (para 7 of Article 17 of Annex 5 of GA). The following information must accompany all scientific publications and submitted to the Dissemination and Communication Registry or sent directly to the Dissemination Manager (CARRCOMM):

- Author(s), title, date of publication, publication venue
- The unique and persistent digital identifier for the author and contributors (e.g., Open Researcher and Contributor ID - ORCID)
- Author(s)'s organisation
- Horizon Europe funding

- Grant project name, acronym and number
- Licensing terms
- Persistent identifier (e.g., a Digital Object Identifier – DOI)
- Metadata to validate the conclusions of the publication (if applicable)

5.7 Acknowledgement of EU funding and the use of the EU emblem

Acknowledging EU funding in dissemination activities is a legal obligation of every beneficiary under Article 17.2 of GA. All dissemination activities (including in electronic form, or via social media) related to the ONCOSCREEN project must display the EU emblem and include the quality of information disclaimer (Article 17.3 of GA):

> *"Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or [name of the granting authority]. Neither the European Union nor the granting authority can be held responsible for them."*

The EU emblem must be displayed in high resolution. Consortium members are asked to consult the detailed graphics guide to the European emblem, which includes geometrical descriptions and the regulation colours. It can be downloaded in high resolution from the European Union website, and it must not be modified or merged with any other graphic elements or text. When displayed together with another logo, the EU emblem must have appropriate prominence, according to para 4 Article 17.2 of GA.

6 Exploitation Plan

ONCOSCREEN aims at delivering novel solutions on a critical cancer type, i.e. the colorectal cancer, that affects a large number European citizens, many cases of which are undetected or detected late because of the intrusive nature of the existing tests (i.e colonoscopy), which the project targets to radically simplify and enhance the efficiency using novel methods.

The consortium seeks to protect the novel project results, with the main aim to secure the intellectual property (IP) of its assets and carry out a rigorous exploitation plan from maximizing the high exploitation potential of the planned results.

In this section we present the preliminary exploitation strategy, the identification of key assets, the initial intellectual property right (IPR) management framework, a preliminary market, SWOT and PESTLE analysis. The analysis is part of the Task 7.2 that is led by EXUS. Updates and detailed exploitation and IPR management plans are planned to be provided in deliverables D7.4 and D7.7.

6.1 Exploitation Strategy

Commercialisation and transfer of knowledge are the two mainstream tools to turn science into business. They can though often converge and operate in a complementary fashion. This is the way ONCOSCREEN consortium shall address the use of project's outcomes in the context of future exploitation. ONCOSCREEN's exploitation methodology relies on:

1) Identification of the exploitable assets, whether these are technological, development of standards, components, algorithms, models, or added value services to be delivered to the target users.

2) Conduction of a thorough market analysis aiming at the identification of the market towards which the project's results are targeted, its segmentation, the positioning of current competitors and all emerging trends.

3) Elaboration of an analytical IPR management strategy based on the principles outlined in the project's CA which will guide joint and individual exploitation capabilities.

4) Definition of possible commercial exploitation models.

5) Definition and evaluation of the sustainability and viability of possible business models.

An effective exploitation of the research results relies on a proper management of intellectual property rights, not limited to patents or trademarks, but extended inter alia to copyright and confidential trade information. Our efforts during the initial phase of the project are focused on identifying the Key Exploitable Results and setting out an IPR management plan. In particular, in relation to the aforementioned steps, within 6 months since the beginning of the project the consortium performed a preliminary analysis of steps 1, 2, 3, 4 mentioned above, i.e. identifying the main assets that seem to have the highest exploitable potential, performing an initial market analysis, setting out an IPR management strategy and identifying possible exploitation models, the details of which are described in the following sections.

The consortium dealt with extra attention with the IPR issues in the Consortium Agreement, on which all partners have agreed. It is identified that a more appropriate channel for future exploitation of ONCOSCREEN results is an informal joint venture between partners that aim to exploit further the development and explore the commercialization of their achievements. Working jointly for the exploitation of ONCOSCREEN outcome the consortium has the following advantages:

- Access to resources not present on the market
- Sharing further R&D costs and commercialization opportunities
- Show up as a specialized international and multidisciplinary group
- Ensure knowledge and technology transfer
- Access to new markets
- Investigate the development of new products
- Re-elaborate suitable business models that may boost the commercialisation

6.1.1 Overview of possible exploitation strategies for generated IP

During the initial period (i.e. 0-6 months), we have identified common ways that the consortium partners can use to exploit the intellectual property arising from the project, which we describe below.

- Patents: A patent is a legal protection granted to an inventor or creator for a specific period. In the context of screening and software products, patents can be used to protect novel and non-obvious software inventions, such as algorithms, software and screening processes, and computer programs. By obtaining a patent, a company can prevent others from making, using, or selling similar products for a set period, obtaining a competitive advantage in the marketplace.
- Copyrights: Copyrights protect original works of authorship. In the context of software products, copyrights can be used to prevent others from copying or using the source code or other parts of the software without permission. Copyrights also allow the company to control the distribution, modification, and adaptation of their products.
- Trade Secrets: Trade secrets refer to confidential information that is critical to a company's success, such as customer lists, financial data, and business strategies. In the context of screening technologies and software products, trade secrets can be used to protect proprietary information related to software design, architecture, and functionality. By keeping this information secret, a company can prevent others from replicating or reverse-engineering their products and technologies.
- Trademarks: Trademarks are used to protect a company's brand identity, such as logos, slogans, and product names. In the context of screening technologies software products, trademarks can be used to distinguish a software product from competitors and to build brand recognition and loyalty.
- Licensing: Licensing is the process of granting permission to use a software product or technology in exchange for a fee or royalty. By licensing their screening technologies or

software products, companies can generate revenue from the use of their intellectual property without having to sell the underlying software or screening process itself.

- Open source licensing: Together with licensing the created diagnostics for a royalty can also be licensed under an open source licence. In this case the procedures are made freely available and can be used, modified, and distributed by anyone. This means that anyone can access, use, and even improve the test by modifying the process or source code. The selected open source licence sets out the terms and conditions under which the software can be used, modified, and distributed.

6.2 Exploitation potential of the project results

6.2.1 Overarching Challenges

It is estimated that, in EU-27 countries in 2020, Colorectal Cancer (CRC) accounted for 12.7% of all new cancer diagnoses and 12.4% of all deaths due to cancer. It is the second cause of cancer death in men (after lung cancer) and the third one in women (after breast and lung cancers). The methods that are recommended for CRC screening include stool-based and direct visualization tests. However, in order to achieve the benefits of screening, re-evaluate abnormal results from stool-based and visualisation tests, subjects should be followed up with colonoscopy. This method encompasses risks for the subjects which include belly pain and discomfort, bleeding, bad reaction to anaesthesia, infection and the colonoscopy preparation risks. Human error in diagnosis of CRC cancer or a diagnosis at a late stage due to unwillingness of human subjects to conduct the screening, leads to multiparametric undesirable consequences ranging from reduced life expectancy of diagnosed patients and changes in their Quality of Life (QoL) and higher costs for the patients and the overall healthcare system. Additionally, the time for the delivery of CRC results is a very important factor. Despite recommendations from EU, it is estimated that only 14% of European citizens participate in CRC screening programmes. Fear and other socio-economic factors of patients are not studied in depth and may contribute negatively to prevention and early diagnosis. Furthermore, several CRC screening solutions have been published in scientific articles, however very few have been validated in large scale clinical trials and certainly not at an EU-wide level with the involvement of an adequate number of countries.

The management of screen-detected pre-cancerous lesions and early disease is intended to reduce CRC mortality. When diagnosed at stage I, the overall 5-year survival rate is around 90%, whereas it is only around 10% in the metastatic stage IV. It is estimated that, only around 13% of patients are diagnosed at stage IV. The overall CRC trends present large disparities among EU countries, especially in the survival rates which are highest in Western Europe and lowest in some countries of Eastern Europe, which is distant from a health-equal Europe in regards to access. Additional factors beyond age, such as sex and gender, race and ethnicity and lifestyle could improve the prevention strategies and update the recommendations from policy makers. From the patient's perspective, other barriers include fear, socio-demographic, psychosocial, economic/geographic factors, as well as awareness, understanding, or lifestyle. For clinicians and healthcare providers, low screening recommendations, poor coordination and communication between patients and providers, or lack of follow-up actions hinders the success of such

programs. At a higher scale, health system policy makers, may be hesitant to adopt radical measures due to cost-related constraints and the capacity to move patients from screening to colonoscopy to effective treatment. A more detailed patient-level data risk-based screening program is needed to control for comorbidities, oncological therapies, stage-related variations at time of diagnosis, and other factors in the screened and non-screened populations

6.2.2 ONCOSCREEN Solutions

ONCOSCREEN seeks to resolve the aforementioned challenges by introducing a series of breakthrough, low-cost, CRC screening technologies of high sensitivity and specificity that will be clinically validated in an observational study of 4100 European citizens and patients from 10 different countries. It also provides tools and methodologies for: a) Risk-based early detection for citizens b) Integrated diagnostic decision support tool for clinicians and c) Intelligent monitoring tools for policy makers.

In particular, ONCOSCREEN aims at delivering novel non-invasive screening and early detection methods on CRC, namely: Screening based on Volatile Organic Compounds, Screening based on NMR Metabolomics, Screening based on CRISPR-Cas Dipstick, Screening based on Microfluidic Assay with Antibody decoration. All these new CRC diagnostics tests, offering high specificity and sensitivity (the target is ≥90%), have the potential to benefit citizens (healthy, patients, survivors), since these complement the golden CRC standard of FIT tests and colonoscopies promoted by the EU, and thus have high exploitation potential.

In addition, and responding to the need for personalized screening, ONCOSCREEN plans to deliver a Personalised Risk Stratification methodology based on the analysis performed in the medical results of the screening technologies mentioned above for each individual that will be also completed by the personal self-assessment of citizens via ONCOSCREEN's Personalised Mobile App. Apart from delivering the aforementioned diagnostics ONCOSCREEN aims also at achieving to offer them at low cost/examination (VOCs: < 35€, NMR: < 85€) and by delivering the AI-assisted colonoscopy sessions at 20% reduced costs and the AI-assisted tissue imaging reducing costs by 5% less costs. F

The above ONCOSCREEN's diagnostics have the potential to affect various scientific, technological, economic and societal aspects relevant to CRC. More specifically, on the societal front, due to the decreased cost, ease of use and their early detection results, we expect an increase in the percentage of people getting screened in Greece and Lithuania (who are targeted as early adopters via the corresponding Ministries of Health). More specifically, based on the "Report on the implementation of the Council Recommendation on cancer screening" as a baseline, we expect the corresponding percentage in Lithuania to increase from 53% to 60%. In Greece there is currently no organized screening programme for CRC, with recent publications indicating that less than 5% of people in the 50-74 age group are getting screened for CRC. We expect that, owing to the ONCOSCREEN results, Greece will adopt an organized screening programme and more than 15% of eligible people will be examined for CRC using the project solutions. Furthermore, we expect a wider adoption of project results to take place closer to the

end of, and after this 5-year period after the end of the project ser to the end of, and after this 5-year period after the end of the project.

In addition, citizens from the countries adopting the ONCOSCREEN results can enjoy better, faster and cheaper healthcare services either by hospitals (public/private) or through the packages offered to them by the medical insurance companies. Furthermore, we expect that the mobile app for personal self-assessment will receive ≥ 500k downloads attributed mainly to the high adoption rate of the citizens in the participating to the trials countries. In the scientific & research front we expect that all consortium publications related to ONCOSCREEN's CRC diagnostics and risk stratification will create a high impact on the targeted domains.

In the technological and economic front, it is expected that TECHNION, UMINHO, CCASSURED will commercialize their products by following project's individual and/or joint exploitation paths with consortium members. As a direct result of this we expect that ≥ 1 big pharma/medical diagnostics company will be interested to invest in ONCOSCREEN's CRC diagnostics, while ≥ 1 insurance company will incorporate part of ONCOSCREEN's diagnostics tests in their medical insurance portfolio offered to citizens. Through further technological improvements on the CRC diagnostics methods proposed by the project, and the higher adoption rate by hospitals (private/public) and the citizens, we expect that the overall cost per examination will be decreased by additional 20%.

All technical solutions developed within the project, as well as the knowledge generated through the analysis of retrospective and prospective data, will be deployed and evaluated in a multi-centre proof-of-concept study, scheduled to be conducted in at least 16 clinical sites in 10 EU countries. As such, the ONCOSCREEN technological results will reach TRL 7 at the end of the project. The majority of technical solutions, including data analytics methods, AI-based recommendation systems, and sensing devices, developed within the project have been deployed in other contexts and will be adapted to support ONCOSCREEN.

Overall, we expect that the developed solutions have the potential to identify ~170,000 new CRC cases at an early stage, help to save 153,000 EU citizens due to early detection, benefit 200k family members indirectly, and ultimately positively impact 750,000 EU citizens in 5 years.

The developed technologies have the potential to improve by more than 5% the Expected Life Years and by more than 10% thr Expected Quality-Adjusted Life-Years within 7 years from project closure.

6.2.3 Key Exploitable Results (KERs)

Based on the preliminary analysis we have identified a number of Key Exploitable Results (KERs) that we summarize below. KERs are referring to any entity within the range of service/module/integrated solution offerings of ONCOSCREEN as well as any other direct side-product of the consortium partner's effort, which have the property that:

- can be deemed commercially exploitable by one or more project partners in collaboration;
- and/or can become a source of direct/indirect revenue in the near future extending the project's sustainability and spanning beyond its contractual lifetime;

- and/or have potential to contribute for further work, research or innovations;
- and/or can create impact during and (most importantly) after the funding and the project's contractual lifetime.

KERs include the most important and most (commercially) prominent entities (inventions, products, services), elements (knowledge, technology, processes, networks) generated during the project by the consortium partners. They can be either "final end-products or services" or intermediate methodologies, tools and solutions which are both self-contained to constitute exploitable assets themselves, and which might have also led incrementally to the final offering formulation throughout the project's progress.

KERs are the selected subset of the exploitable results which present, according to the consortium view, the biggest potential in Innovation, Exploitability, Market Impact and Readiness to Market Launch. The OONCOSCREEN consortium has identified the following Key Exploitable Results for joint exploitation that are presented in *Table 7.*

Table 7 Key Exploitable Results of ONCOSCREEN

IP Asset	**Technology**	**Owner**
ONCO-VOC	CRC Screening based on Volatile Organic Compounds	TECH
ONCO-CRISPR	CRC Screening based on CRISPR-Cas9 biomarkers	CCASSSURED
ONCO-NMR	CRC Screening based on Urinal & Blood NMR Metabolomics	UzL
ONCO-CTC	CRC Screening based on Circulating Tumor Cells	UMINHO
ONCO-AICO	Real Time AI-Assisted Colonoscopy	ICCS, CERTH
ONCO-AITI	AI-Assisted Tissue Image Analysis	MUG, MUI
ONCO-RISTE	CRC Risk Stratification Engine	EXUS
ONCO-CAWA	CRC Awareness Personalised Mobile Application	iSPRINT
ONCO-CLIDE	Clinical Decisions Support System for CRC Integrated Diagnosis	KONN
ONCO-EVIDA	Evidence-based Decision Analytics dashboard	VITO, ICCS
ONCO-BIOBA	CRC Bio Bank	MUG, MUI
Data Fusion	Data fusion components for identification of tumors	CERTH, EXUS

6.3 IP Protection Plan

In the initial phase of the project, EXUS who leads the exploitation established a concrete stepwise Intellectual Property Strategy directly linked with the exploitation strategy and commercialization roadmap of the project. The IP is base on the following 5 stages:

1) IP Analysis under which the consortium understands the IP Assets relating the IP Strategy with the project objectives and commercialization roadmap towards market.

2) IP Strategy Definition, under which the consortium will create its IP Strategy aligning diverse IP Strategies into a common strategy through multiple iterations.

3) IP Operations, under which the consortium establishes its IP goals and monitoring tools.

4) IP Execution, under which the consortium carries out its IP actions set in its IP strategy and communicates to involved partners.

5) IP Positioning, under which as a last phase an analysis is made on the known IP strategies of the market and competitors. In case that an IP re-alignment is needed to avoid potential IP risks the stepwise process will be repeated iteratively until an IP strategy is produced minimizing IP risks that could potentially harm the market uptake of ONCOSCREEN tools.

Towards the above steps, an IP registry is setup during this phase with the aim of allowing easy identification of the Exploitable Results and to monitor for each of them the possible exploitation strategies. Continuous monitoring and update of the IP registry will allow, during the course of the project, to identify the maturity and steps that need to be taken towards the exploitation of the key assets.

The following information is collected for each KER, which will be updated every 6 months:

- Relevant WP(s) and/or task(s)
- Ownership of the IP
    - Single ownership
    - Joint ownership
- Identified possible exploitation route (e.g. patenting, licensing, …) and description of the licence if published
- Short description of the IP item
- Location of the IP item (e.g. Github), if available
- Description of any open access results, if applicable
- Short description of the protection mechanisms of each IP item towards commercialization
- Preferred ownership scheme model

A first version of this registry, identifying the KERs, likely exploitation plans and target groups has been used as a foundation for this document. The IP Registry has been nonetheless devised as a live document and will be updated regularly during the course of the project. This will allow a clear tracking of the evolution of IP generated by the project, definition of single or joint

exploitation paths and immediate identification of the most exploitable technologies and possible risks through the results of the SWOT analysis, mentioned later. The main information extracted from the IP Registry, as compiled during the writing of this deliverable, are reported in the below table.

Table 8 Preliminary Intellectual Property Registry

No	Exploitable Result	Exploitation Route	Ownership	Target Group
1	**ONCO-VOC**	Commercial Exploitation due to market demand for cost reduction in CRC screening. Market Analysis, Business Plan, IPR protection	TECHNION (lead) ICSS, BEIA, FIRALIS	Medical device manufacturers, Clinicians, Citizens
2	**ONCO-CRISPR**	Commercial Exploitation due to market demand for cost reduction in CRC screening. Market Analysis, Business Plan, IPR protection	CCASSURED (lead)	Medical device manufacturers, Clinicians, Policy Makers
3	**ONCO-NMR**	Scientific Exploitation (further development of existing SOP for Urine/Blood NMR measurement)	UzL (lead)	Clinicians, Policy Makers, Academia, Clinicians
4	**ONCO-CTC**	Commercial Exploitation due to demand for early identification of CTCs. Market Analysis, Business Plan, IPR protection **Target Group:** Medical device manufacturers, Academia, Clinicians	UMINHO (lead) FIRALIS	Medical device manufacturers, Academia, Clinicians
5	**ONCO-AICO**	Scientific Exploitation (Non-clinicians (e.g. Nurses or GPs) experts can use this tool for CRC polyp identification)	ICCS (lead) ICCS, KONN, AINIGMA	Clinicians, Academia
6	**ONCO-AITI**	Scientific Exploitation (Non-experienced histopathologists can use this tool for CRC polyp identification)	MUG (lead) CERTH, CTL, UMC MAINZ, UzL, IOB, UFC, GERCOR	Clinicians, Academia
7	**ONCO-RISTE**	Commercial Exploitation since this tool can be applied in various sectors and can improve existing or create new products.	EXUS lead)	ICT-AI industry, Academia, Clinicians, Policy Makers

8	**ONCO-CAWA**	Commercial Exploitation due to increased need for personalised approaches in almost all aspects of life.	ISPRINT (lead) EXUS, TECHNION, BEIA	All
9	**ONCO-CLIDE**	Scientific and Economic exploitation due to the need of DSS to assist Clinicians and application of such tools in multiple industry verticals respectively	KONN	Academia, ICT-AI industry
10	**ONCO-EVIDA**	Policy Exploitation Route to enable evidence decisions in realistic decision scenarios based on real life constraints. Cancer Policy change.	VITO (lead) ICCS, CERTH, CTL KONN	Policy Makers
11	**ONCO-BIOBA**	Scientific exploitation due to the need to further expand existing biobanks with data that can be used worldwide considering privacy rights.	MUG (lead) MUI, FIRALIS, ROSENBAUM	Policy Makers, Healthcare Owners
12	**Data Fusion**	Scientific and economic exploitation due to the need to further expand existing banks with data that can be utilized to create data fusion based healthcare systems.	CERTH (analytics), EXUS (connection / architecture), TLBG (privacy part) Supporting: ICCS, SERVTECH, CTL	Healthcare Owners

In **Appendix B**, the live registry with more details for each KER is shown. The registry will be updated every 6 months from relevant partners as per the GA, to help monitor the progress and maturity of each KER. The detailed results will be provided in D7.4, the first version of the IPR and exploitation management activities, as well as in D7.7 where the final results will be presented.

6.4 Initial Market Analysis

According to Fortune Business Insights[1] report titled, "Colorectal Cancer Screening Market, 2022-2029." The Colorectal Cancer Screening Market size is anticipated to reach USD 22.88 Billion by 2029. In fact, the market size was USD 14.32 billion in 2021 and is anticipated to rise at a CAGR of 4.3%. It is noticed that the market is growing exponentially due to the rising demand for colorectal cancer screening tests worldwide. The rise in awareness among people about colorectal cancer screening and increasing cancer prevention initiatives are some significant factors that have

[1] https://www.globenewswire.com/en/search/organization/Fortune%2520Business%2520Insights

surged the demand for the product to a great extent. Another reason that escalates the need for the product is the growing screening rates for colorectal cancer patients at minimal costs.

In Europe, Colorectal Cancer (CRC) is the second cause of cancer death in men (after lung cancer) and the third one in women (after breast and lung cancers). It is estimated that, in EU-27 countries in 2020, CRC accounted for 12.7% of all new cancer diagnoses and 12.4% of all deaths due to cancer. The colonoscopy, is the Gold standard in CRC screening due to its excellent results in terms of specificity and sensitivity. However, it is often rejected within wide populations due to distaste, discomfort, the fear of pain, sensitivity. However, it is often rejected within wide populations due to distaste, discomfort, the fear of pain, complications and other risks.

On the other hand, stool-based screening with a faecal immunochemical test (FIT) is most commonly used worldwide also due to cost effectiveness and non-invasiveness. The adherence to CRC screening is currently poor. It is estimated that nearly 1/3 of eligible adults go unscreened for CRC. Furthermore, less than 50% of patients who have a FIT ordered will subsequently complete the test on the first round and adherence diminishes with each annual interval. It is evident that stool-based methods, is an unpleasant process and a difficult sampling method. In contrary, there is no blood sample test available at this time with prospectively validated sensitivity for advanced adenomas equivalent to either FIT in the CRC screening setting.

6.4.1 Key Industry Players

According to the 2022 Fortune Business Insights[2] report top firms including the Laboratory Corporation of America Holdings, Clinical Genomics Technologies Pty Ltd, and FUJIFILM Holdings Corporation are investing heavily in R&D activities to expand their market presence. With soaring investments in better design, the market is merged, with few market players for better healthcare treatments which are enlisted below:

Table 9 Key Players Worldwide

Company Name	Country	Geographical Area
NOVIGENIX SA	Switzerland	Europe
Epigenomics AG	Germany	
KARL STORZ SE & Co. KG	Germany	
bioMérieux, Inc.	France	
Clinical Genomics Technologies Pty Ltd.	U.S.	North America
Exact Sciences Corporation	U.S.	North America

[2] https://www.fortunebusinessinsights.com/industry-reports/colorectal-cancer-screening-market-101144

EIKEN CHEMICAL CO., LTD.	Japan	Asia
Olympus Corporation	Japan	Asia
FUJIFILM Holdings America Corporation	Japan	Asia

6.4.2 Market by Test Type

The global market is segregated into stool-based, colonoscopy and others. The colonoscopy segment, representing 75.7% of the market, generated the highest revenue in 2021 and is expected to grow at a moderate GAGR between 2022-2029. Stool-based tests are expected to grow at the highest rate due to the rising government programs for CRC screening and time efficient results obtained from stool-based tests. The stool based segment is further sub-segmented into faecal occult blood tests (gFOBT), faecal immunochemical tests (FIT) and stool DNA tests. The FIT screening tests are expected to grow at a significant CAGR between 2022-2029 due to their simple use and high positivity rate as compared to other stool-based tests.

Given the issues with colonoscopy mentioned above, the market players are increasing their focus on the development and commercialization of technologically advanced products for efficient screening. For instance, recently, market players developed products for the detection of CRC by identifying cells released by colorectal polyps and tumours into the bloodstream.

6.4.3 ONCOSCREEN Competitive Position

ONCOSCREEN solutions are timely given the current and forecasted market growth towards more innovative and less intrusive tests compared to colonoscopy. In fact, ONCOSCREEN plans to introduce 3 novel 'liquid biopsy' and 1 'breath biopsy' CRC screening methods into a large-scale clinical study in 4100 citizens/patients in 10 European countries. As it is pivotal to create successful CRC prevention strategies and reduce high increasing health costs of severely diseased CRC patients, wide populations should be able to participate in screening programs. As CRC often slowly aggravates by adenoma-carcinoma sequence for a long time, the early diagnosis is vital to elevate precancerous polyps, identify early cancer stages and eventually improving the survival rates and ease treatment for the earlier diagnosed patients[3]

Particularly for high-risk early onset CRC populations, many causes lead to CRC development, often related to unhealthy lifestyle habits, such as overweight or obesity, smoking, intake of processed meat, sedentary lifestyle, and excessively alcohol consumption. In addition, other risk factors that do not depend on the life-style of individuals can be classified into the following categories: (1) having predispositions to cancer diseases, with conditions such as the presence of polyps in the colon or rectum, and inflammatory bowel diseases (IBD) such as Crohn's Disease or

[3] Kim, E.R., et. Al., Urine-NMR metabolomics for screening of advanced colorectal adenoma and early-stage colorectal cancer. Sci Rep 9, 4786 (2019)

Ulcerative Colitis, (2) having previously suffered from CRC which increased risk of subsequent cancers, and (3) having genetic factors, such as Lynch syndrome and familial adenomatous polyposis (FAP), or other family factors, as the incidence is higher in those with relatives who have developed colorectal cancer.

ONCOSCREEN will introduce a multi-tier risk stratification approach that will accumulate for the first-time medical disease history, heredity, genetic mutations, environmental stressors, dietary habits, diagnostic test results (including metabolic pathway), along with other socio-economic factors dictating a personalised risk status considering health inequalities within and across EU countries. The consortium's view is that a more accurate risk-based grouping of citizens that can be screened earlier than 50-55 years age limit will lead to a higher impact for prevention. The CRC survival rates are clearly stage-dependent with 94%, 82%, 67%, and 11% for stages I, II, III, and IV, respectively. Therefore, screening and the early detection of CRC are critical for the individual improvement of long-term survival rates, as well as to ensure significant decrease in the population's CRC incidence and mortality. It is expected that ONCOSCREEN detection solutions will have a bigger adherence due to the ease of use. Furthermore, compared to other similar solutions; ONCOSCREEN has a considerably strong Intellectual property background with 17 Patents for the Volatile Organic Compound test, 1 Patent for the CRISP-based diagnostic test and 1 Patent for the Circulating Tumour Cells based test. Finally, several studies have also suggested that the utilization of non-invasive tests can contribute positively to the quality of the performed colonoscopies. In regard to AI algorithms in Colonoscopies and Histopathological images, the current results are quite high overpassing clinicians in some categories. The focus of ONCOSCREEN is to utilize AI technologies (retrospectively and not during colonoscopy procedure) for the first time solely for the training of non-experts (e.g. Nurse endoscopists), junior colonoscopists and junior histopathologists respectively. The ambition is to improve the current levels of Adenoma Detection Rate and Polyp Detection Rate with a primary focus on Stages 0, I and II.

Based on the market analysis and cost existing examinations (e.g. colonoscopy >30€), we provide an estimated cost/examination for four of ONCOSCREEN's tools, which indicates the rather competitive pricing compared to existing tests.

Table 10 Targeted Estimated Examination Cost

Component	Initial Estimated Cost/ Examination
ONCO-VOC	< 3€
ONCO-CRISPR	< 9€
ONCO-NMR	<8.5 €
ONCO-CTC	<35€

6.4.4 Current Protection of Assets

ONCOSCREEN partners have already a series of patents relevant to the developed technologies which bring an extra competitive advantage in such a rapidly growing market. Below is a list of patents relevant with each tool and unique expertise gained via recent European projects.

Table 11 Current Protection of Assets

IP Asset	Owner	Protected	Open	Method	Background (Patents, H2020 projects)
ONCO-VOC	TECH	Yes	No	Patent	17 patents including EP2281193A1, EP2376913A1, WO2011083473A1
ONCO-CRISPR	CCASSSURED	Yes	No	Patent	WO2018111104A1, STAMINA
ONCO-NMR	UzL	No	Yes	Open Licence	Internal UzL protocol for NMR from BRUKER
ONCO-CTC	UMINHO	Yes	No	Patent	WO2021038507 and ERA-Chairs FoReCaST
ONCO-AICO	ICCS, CERTH	No	Yes	Open Licence	AI@EDGE
ONCO-AITI	MUG, MUI	No	Yes	Open Licence	HEAP, BIGPICTURE
ONCO-RISTE	EXUS	Yes	No	Trade Secret	ONCORELIEF (H2020)
ONCO-CAWA	iSPRINT	Yes	No	Trade Secret	Healthentia
ONCO-CLIDE	KONN	Yes	No	Trade Secret	Search & Rescue
ONCO-EVIDA	VITO, ICCS	No	No	Open Licence	HBM4EU, EIFFEL
ONCO-BIOBA	MUG, MUI	No	Yes	Open Licence	BBMRI, EOSC-Life, FeatureCloud

6.5 Tools for Formulating the Exploitation Plan

In order to formulate the best possible exploitation strategies for ONCOSCREEN KERs, the consortium is already utilising popular exploitation tools and models such the SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis, and Business Model Canvas as described below. At his phase, preliminary analysis is being performed for the identified KERs, but as mentioned in the Grant Agreement, the SWOT and PESTLE analysis and the detailed business model for each one of the project's exploitation assets will be provided in the deliverables D7.4 and D7.7.

6.5.1 SWOT analysis

SWOT (Strengths, Weaknesses, Opportunities and Threats) is a useful tool for organisations to develop strategic plans. By identifying and analysing the strengths, weaknesses, opportunities, and threats for the exploitation of a given KER, SWOT analysis will help the partners to formulate

strategies that capitalise on strengths, minimise weaknesses, seize opportunities, and mitigate threats.

Here is a brief overview of each component of a SWOT analysis:

- Strengths: these are the internal factors that give the KER a competitive advantage over what is currently available to relevant stakeholders on the market. For example, a new technology, more performing algorithms, a complete toolbox.
- Weaknesses: These are the internal factors that hinder the exploitability of the KER. For example, low maturity of the technology, lack of resources to scale up.
- Opportunities: These are the external factors that can create new opportunities for the exploitability. For example, emerging markets, new technologies, increased public attention to specific social issues (e.g. accessibility).
- Threats: These are the external factors that can threaten the exploitability. For example, increased competition, already existing solutions, changing markets.

The use of SWOT analysis will be helpful in understanding the potential of each KER given the market needs, key players and potential and limitations of the given technology. This will aid the consortium partners in maximising the exploitation output of the project.

A preliminary SWOT analysis for the ONCOSCREEN methods is shown below.

Table 12 Preliminary SWOT Analysis

Strengths	**Weaknesses**
• Less intrusive screening methods compared to colonoscopy • High detection efficiency • Early detection of cancer • Low cost per examination • Supported by large clinical study • Multi-tier stratification methodology • Intelligent analytics dashboard • Relevant patents and high expertise by key partners	• Non-commercialised product yet • Not part of existing commercial solution • New screening solutions are difficult to be adopted
Opportunities	**Threats**
• Rapidly growing market towards new screening technologies • Train large number (>2500) of clinicians on the developed technologies • Inform the public via the mobile app about the new screening technologies • >5000 people will get screened during the project • Adoption of the screening technologies by regional/national programs	• Key players are developing alternative solutions • Clinicians are not familiar and not willing to use the screening technologies • National programs are hesitant to use the developed technologies • Medical approval of new screening methods takes time

A detailed SWOT analysis for all the identified IP assets will be reported in deliverables D7.4 and D7.7. Through this process and the protection of partners' individual interests, we will avoid information bottlenecks related to confidentiality or competitiveness among the Consortium members, securing the chances for market visibility and the exploitation.

6.5.2 PESTLE Analysis

In addition to SWOT analysis, PESTLE analysis will be also used. PESTLE analysis is a strategic management tool used to analyse the external factors that may impact a business or organisation. By examining each of these factors, the consortium will gain a better understanding of the challenges and opportunities it may face in the marketplace. This analysis will help partners to identify areas where it needs to adapt and make strategic decisions to ensure long-term exploitation of the project's results.

In the table below, we present the preliminary PSTLE analysis for the overall ONCOSCREEN assets.

Table 13 Preliminary PESTLE Analysis

Political	Economic	Social/Cultural	Technological	Legal
• Lack of national and EU health authorities to adopt innovative digital health solutions due to negatively biased opinions of the public. • Insufficient infrastructure with lack of supplies and personnel. • Other political priorities due to unforeseen events (e.g Covid-19, war). • Knowledge deficits about guidelines and barriers to screening.	• Absence of health insurance or coverage of the costs of screening. • Unavailability of big pharma to invest in CRC screening and detection tools since treatment is more profitable. • Inequalities between countries to use AI/software tools for assistance in detection and diagnosis.	• Lack of awareness for the benefits of CRC screening. • Health care authorities are negatively biased on the use of AI in healthcare. • Patients are unwilling to share their personal bio-data, due to security and/or legal concerns. • Lack of trust between the clinician and the patient/citizen. • Poor knowledge and subsequent dissemination of cancer risk and information. • Language and psychosocial reasons.	• Poor performance of clinicians during the screening activities. • Limited or no knowledge of AI utilization in risk-based stratification. • Another initiative or project develops better monitoring solutions for CRC screening with higher accuracy risk prediction.	• Continuous change of legislation. • Legal restriction for the use of the tools. • Developed technologies shall be compliant with GDPR and EU Cookie policy directives.

		• Negative/Painful experience from previous CRC screening programs.		

The consortium has identified mitigation measures against such external factors by mainly applying an active and effective communication and dissemination actions involving patient and clinicians' associations in co-operation with policy makers in EU level. Moreover it is planned, and has already started, to engage stakeholders to increase the acceptability of the solutions.

Concerning the economic factors, the ONCOSCREEN solutions will include in the study EY and AXA where novel innovative schemes will be proposed. The cost of the solutions is estimated to be low and it will get even lower with increasing usage from wider populations. Non-experts will be able to use the ONCOSCREEN AI algorithms to assist in the detection of adenomas in colonoscopies.

Concerning the social factors, the consortium developed detailed communication packages for targeted populations related to CRC early detection based on their needs and understanding as explained in this document. It is also planned to utilize a mobile application which can help towards more personalised approach to citizens/patients' recommendations. Campaigns and material will be prepared for explain to the public the advantages and reliable and under specific rules usage of Trustworthy and explainable AI-assisted systems in Healthcare.

Concerning the technological and legal factors, analytical training activities for the ONCOSCREEN tools and feedback loops between developers/clinicians will be carried out. The market landscape will be monitored for new advancements and will liaise with other projects and initiatives aiming to collaboratively improve project results.

6.5.3 Business Model Canvas

The Business Model Canvas is a strategic tool that will be followed to develop, evaluate, and communicate business models. The Canvas provides a visual framework that will enable partners to identify the essential components of a business, including customer segments, value proposition, channels, customer relationships, revenue streams, key resources, key activities, key partnerships, and cost structure. By focusing on these elements, we will be in a better position to understand stakeholders' needs, how to deliver value to them, and how to generate revenue.

To implement the Business Canvas Model, we will follow a series of steps:

1. Initially, we will identify the customer segments that will be interested in a specific KER, together with their specific needs.
2. We will then determine the value proposition that ONCOSCREEN partners can offer, and how it addresses the needs of the target customers.
3. The channels through which we will communicate and deliver our value proposition to customers will be identified.

4. We will determine the types of relationships we want to have with our customers and the revenue streams we will use to generate income.
5. Lastly, we will identify our key resources, key activities, key partnerships, and cost structure to determine how we will deliver our value proposition effectively and efficiently, ensuring a sustainable exploitation of each KER.

Following this strategy, we will ensure to develop a comprehensive, effective and sustainable business model for all the identified KERs, which will be detailed at a later deliverable, that meets the needs of the relevant stakeholders and will have a positive impact on the economic sustainability of the project outcomes.

6.6 Means of Implementation of the Exploitation Plan

Communications activities will play a major role in the implementation of the Exploitation Strategy for the ONCOSCREEN project. In pursuing the business plan developed to exploit the end results and technological innovations of the project, communication channels and key messaging must be aligned to ensure that ONCOSCREEN is being advertised to a receptive audience of stakeholders, with consideration to competitors in the market and the tool's unique selling points. These activities will primarily consist of three areas over the remaining lifetime of the project.

Communication Outputs – Building on the strength of the communications strategy for the ONCOSCREEN project, the project's current communications channels can be leveraged for the purpose of exploitation. This means identifying how the project's outputs can be effectively communicated across existing ONCOSCREEN channels including social media (LinkedIn and Twitter) to identified audiences. It is also envisioned that project partners will provide blogs for the ONCOSCREEN website which will serve as advertising material for the project's tools and technological developments. A comprehensive newsletter including depictions and descriptions of all tools will also be circulated to ONCOSCREEN's mailing list which consists of individuals and organisations already working in the area who could be key to the commercialisation of the project's outputs.

Communication Opportunities – Events such as trade fairs, workshops and international exhibitions will be prioritised over the remaining months of the project with the objective of communicating and advertising the project's tools to receptive audiences, focused on those who are responsible for purchasing within their organisation.

Communication Collateral – In support of exploitation efforts both online and through ONCOSCREEN attendance at industry events, the project will develop a selection of impactful communications collateral to advertise the project to prospective end-users. Material will be developed including project brochures for the ONCOSCREEN tools and Handbook, training videos showcasing how the tools are used for training purposes, a single consolidated infographic to describe the project's outcomes and video interviews with project partners which will be used to effectively explain and advertise the project's tools and technologies to interested groups via the project's social media platforms, website and through direct engagement efforts with identified potential end-users.

6.7 Common Branding

In order to ensure effective exploitation of the ONCOSCREEN project's end results, a common branding approach will be implemented. The purpose of this is to present the ONCOSCREEN diagnostic technologies as part of one larger coherent effort which will allow for greater commercialisation opportunities. During the first period we have developed the logos of the identified KERs as can be seen in *Figure 5.*

Figure 5 ONCOSCREEN diagnostic technologies logos

This branding, in line with the overall Brand Strategy for the ONCOSCREEN Project, will be used for exploitation purposes in all future events with ONCOSCREEN involvement, in addition to being used in all marketing material including project brochures and on the project website.

6.8 Timeline of the exploitation plan

6.8.1 Actions During the Project

The consortium has already established a legal framework in the Consortium Agreement of the project in order to provide clear regulations for issues within the consortium related to the work, IP-Ownership, Access Rights to Background. During the project beyond the value proposition determination and the market and business innovation study, a dedicated IPR management procedure is developed via a live IP registry where the Foreground and ongoing activities is reported and updated every 6 months considering the Open Science and FAIR principles. Towards

the end of the project a dedicated plan for the after-project period will include IP Assessment, IP Legal Risk Management, IP Exploitation and finally IP enforcement.

In the next deliverables D7.4 (first version) and in D7.7 (final version) a detailed market analysis, SWOT and PESTLE analysis for each KER will be provided as we discussed in the previous sections.

To facilitate this, EXUS who leads T7.4 will hold a series of workshops in the next semesters to inform partners of the available business tools mentioned above and guide them on the completion of the SWOT, PESTLE and, Canvas templates and help them update the IPR registry with more details concerning competitive products and existing patents.

The consortium will deliver a two-version business model which will be presented in D7.4/D7.7 as a first step towards marketisation of project results. This plan will describe a roadmap of necessary activities for commercializing the ONCOSCREEN solution and to become "market ready" in a midterm horizon. Finally, a business plan addressing the 2 to 5-year period beyond project closure will be implemented, covering the long-term vision of the project.

The business plan will describe concrete measures of how follow up funding will bring the developed solutions to higher TRLs, before proceeding with the definition of plans for the economic exploitation of results, either via a joint-venture vehicle or for each partner individually.

6.8.2 Actions Post Project

1-6 months after the project , we intend to implement: a) continuous networking with Cancer patient organisations & Cancer Experts' Societies b) a potential sign of MoUs with non-participating Regional/National Authorities for adopting the developed diagnostic tools and risk-based screening methodology is foreseen. c) Continuous Legal search from technical partners for Active Patents and patent applications in EU within the domain of their interest.

6-18 months after, policy makers promote the adoption of out screening and early detection strategies in other countries and in associated regions, while health owners promote the adoption of replicable measures in regards to risk factor reduction for environmental related parameters. Technical partners work on minimising threats and weaknesses (derived from SWOT), risks/barriers/limitations (derived from individual exploitation plans) or other negative factors (derived from PESTL).

Finally, 24-48 months beyond project end, the market analysis performed during project will be considered for the developed tools. Then, additional necessary funding opportunities (National & EU funding frameworks, VCs, bank loans, etc) towards TRL increase and thus commercialization will be considered. Utilization of all available EU tools to find potential investors for the uptake of modules and tools. Patent mapping and potential application of patents of the modules that exhibit the most promising results.

Conclusions

This deliverable was written with an objective to map and detail the dissemination, communication, and exploitation plan for the ONCOSCREEN project.

It provided a detailed account what activities have been already set up to successfully implement and monitor dissemination, communication, and exploitation efforts in the project. It provided guidelines of important steps in preparing publications, dissemination activities, engaging with media, and planning their strategies of exploiting project's results. These guidelines should be useful to the partners throughout the project timeline.

The current plan follows the dissemination objectives that aim at maximising the impact of technological innovations in CRC screening programmes and early detection. The deliverable identified key target audiences, messages, and channels that will be used to maximise the impact and raise awareness about the project and the overall EU Cancer Mission, such as improving understanding of CRC cancer, advancing CRC screening and early detection, and optimising cancer treatment.

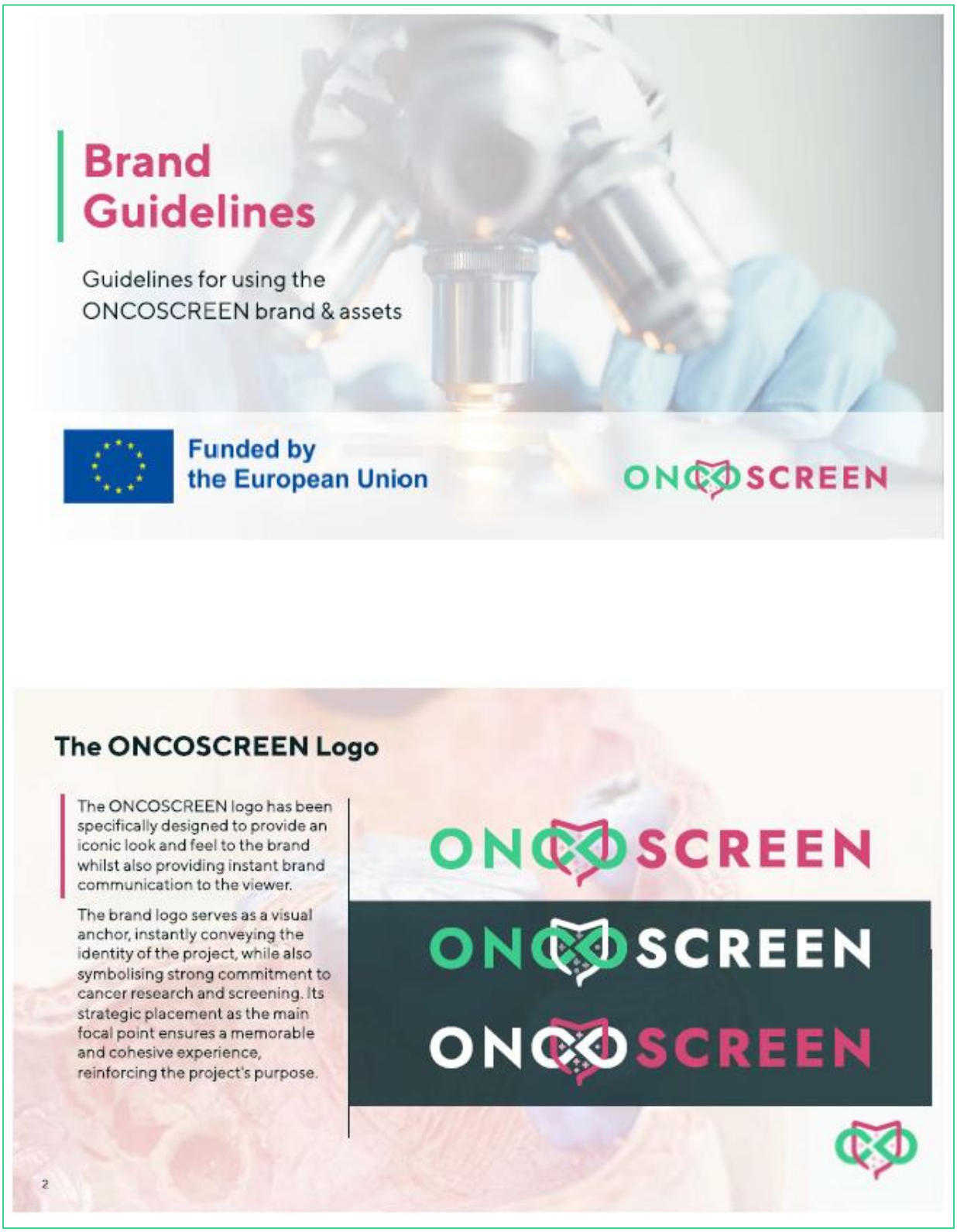
The deliverable also includes the sections on monitoring and analysing dissemination and communication activities. It presented an indicative timeline of the described activities and initial KPIs that will be continuously monitored and, if needed, revised to achieve the set dissemination objectives. The deliverable integrates information on regular reporting, the open access approach for scientific publications, and the acknowledge of EU funding in all dissemination materials.

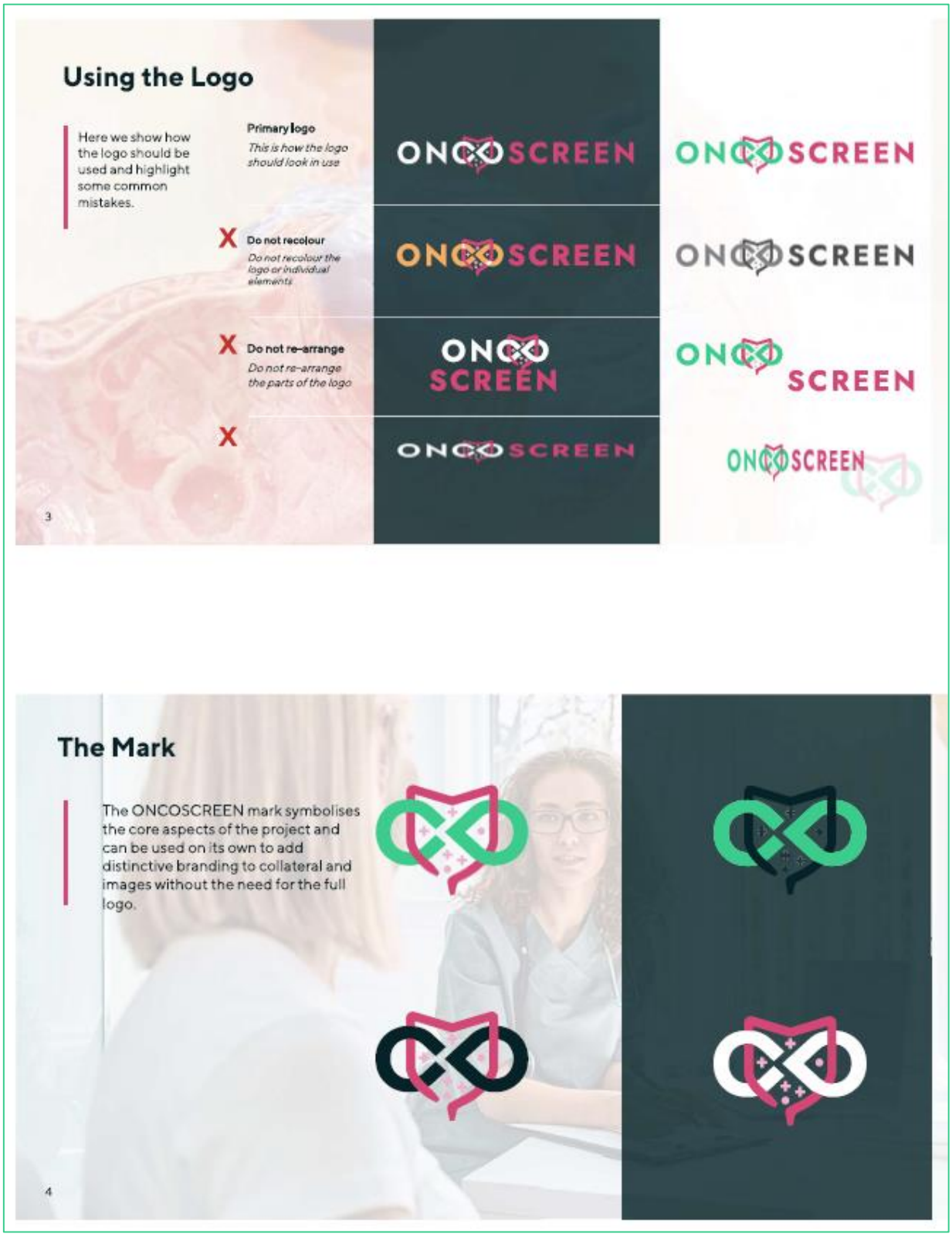
The deliverable also describes the preliminary exploitation strategy, the identification of key assets, the initial intellectual property right (IPR) management framework, along with a preliminary market, SWOT and PESTLE analysis.

The deliverable marks the first instalment of the ONCOSCREEN Dissemination, Communication, and Exploitation plan. Its contents will inform and guide the reports on communication and dissemination activities, D7.3 (M18) and D7.7 (M48), as well as the deliverables on the ONCOSCREEN exploitation pathways and IPR management, D7.4 (M18) and D7.7 (M48). The next deliverables will also evaluate the activities and present any changes and adjustments to the activities and implementation strategies. The plan serves as a solid base for ensuring that the project results that are generated are disseminated effectively and systematically.

Annex A: Brand Guidelines

The ONCOSCREEN Brand Guidelines are show below.




Using the Logo
Here we show how the logo should be used and highlight some common mistakes.
Primary logo
This is how the logo should look in use
X Do not recolour
Do not recolour the logo or individual elements
X Do not re-arrange
Do not re-arrange the parts of the logo
X
ONCOSCREEN
3
The Mark
The ONCOSCREEN mark symbolises the core aspects of the project and can be used on its own to add distinctive branding to collateral and images without the need for the full logo.
4


Using the Mark
When using the ONCOSCREEN mark on it's own there are two usage versions for both the light and dark versions.
Use whichever variation suits the space it will occupy best.
Coloured
Solid
Coloured
Solid
5
The Colour Palette
The ONCOSCREEN colour palette has been specifically designed to work in a digital arena. The colours are vibrant and modern, giving impact and contrast to our on-screen communication materials.
Primary Colour Palette
#3BCC8E
R:59 G:204 B:142
C:71 M:0 Y:30 K:20
#D34676
R:211 G:72 B:118
C:0 M:66 Y:44 K:17
#052328
R:5 G:35 B:40
C:87 M:13 Y:0 K:84
Secondary Colour Palette
#2478A0
R:36 G:123 B:160
C:78 M:23 Y:0 K:37
#F6AF65
R:246 G:175 B:101
C:0 M:29 Y:59 K:4
011D2D
R:1 G:29 B:45
C:91 M:74 Y:55 K:68

The Font Palette

The overarching brand font is TT Norms (Heading and body fonts).

Both fonts have been specifically designed for on-screen clarity while still working well for print.

Calibri has been selected as the default Windows font as well as the font for the deliverable documents to ensure full compatibility.

The fonts are included in the ONCOSCREEN resource pack.

They are also embedded in the presentation templates so can be used even if the user does not have them installed.

Alternatively you can download them from fonts.google.com

Header Font
TT Norms

Feasibility
Courage is knowing what not to fear
HYPOTHESISING
3964 Elm Street and 1370 Rt. 21

Body Font
TT Norms

Feasibility
Courage is knowing what not to fear
HYPOTHESISING
3964 Elm Street and 1370 Rt. 21

Windows Font
Calibri

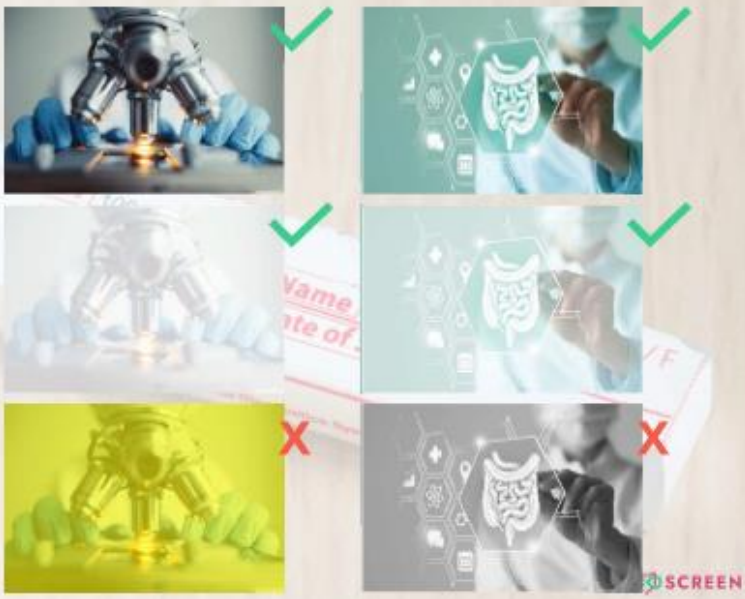
Feasibility
Courage is knowing what not to fear
HYPOTHESISING
3964 Elm Street and 1370 Rt. 21

Images

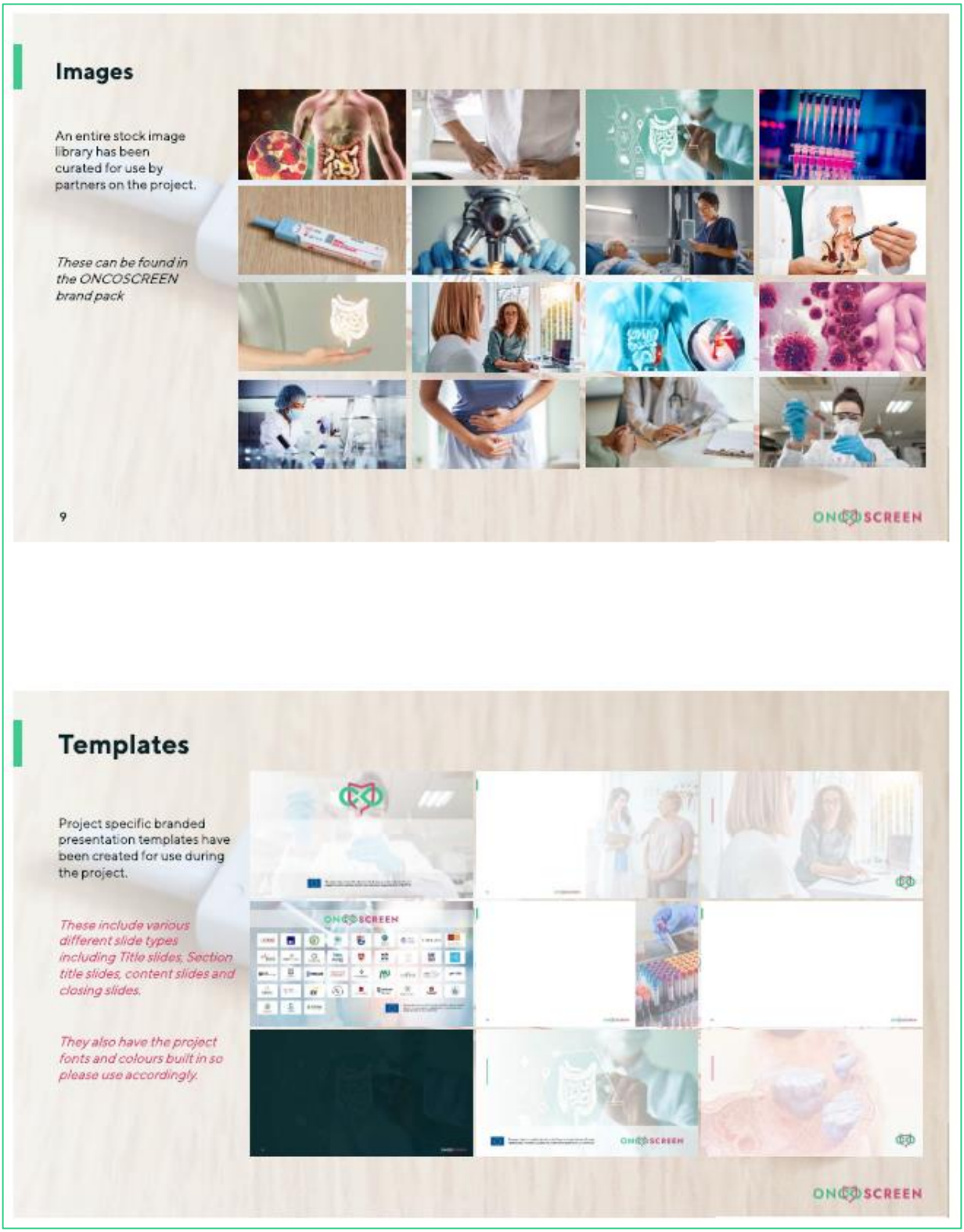
Use images that are consistent with the images provided in the ONCOSCREEN Stock Image Pack.

Images can be used full colour or faded against a light white background.

Try not to use images that are monochrome and do not use images with a strong colour fade in front.



8


Images
An entire stock image library has been curated for use by partners on the project.
These can be found in the ONCOSCREEN brand pack
9
ONCOSCREEN
Templates
Project specific branded presentation templates have been created for use during the project.
These include various different slide types including Title slides, Section title slides, content slides and closing slides.
They also have the project fonts and colours built in so please use accordingly.
ONCOSCREEN

Annex B: IP Registry

As discussed in Section 6, the consortium is monitoring any updates relevant with the IP in a live registry shared with all partners, which is depicted below.

ONCOSCREEN Foreground Results

No.	Key Exploitable Result (KER) Title	Created in (WP)	Copyright/Ownership	Expected License (if applicable)	Published License	License check	Description of the IP item	Location of the item (URL?)	Open Access	Open Access Results	Protection of Results	Joint Ownership Scheme
KER No.	*(name of the component etc.)*	*Which task or WP was the work done*	*Who holds the © or ownership*	*What License do you expect to use?*	*If the work is published (legally "distributed") what license was used?*	*Have you checked that your indented license is compatible with the licenses of pre-existing work?*	*What does it do?*	*URL to repository internal or external (e.g Github, bitbucket, etc.)*	*Are you going to offer any part of your work as open? E.g. Open Dataset, Open Source codes*	*If answered yes in the previous column please name here the expected open access of results*	*Please refer here to how you are going to protect your results towards commercialization*	*For the cases of joint ownership describe the preferred ownership scheme model*
Numeric Value	e.g. ONCO-RISTE	e.g. WP4	EXUS (40%), ICCS (60%)	CC, BSD3, GPL v3, LGPL v3, Apache v2, Consortium-only, you can google for more licences and select the one that fits your needs	No additional licenses are required. / Same as previous column	Yes/No	Give a one sentence description		Yes/No	e.g. The x service will be offerred as open source.	e.g. Submit a Patent in the next 3 years, no protection, keep innovation confidential to allow further development, sui generis right for databases (96/9/EC)	e.g. X partner will receive LL% royalty fees from Y partner, joint venture, public-private partnership etc.
1	ONCO-RISTE	WP4	EXUS (100%)	Consortium-only	No additional licenses are required.	Yes	ONCORISTE solution provides a semi-empirical risk stratification process to automatically identify dependencies and reveal correlations among a variety of features concerning the clustering of citizens/patients	N/A	No	N/A	Trade Secret	N/A

							into their respective risk-Level CRC classification					
2	ONCO-CRISPR	WP3	CCASSURED (lead)	Patent and depending on the partner it can be an exclusive license or shared one, which will become clear during the negotiations if the patent is successfully filed	None yet	Partly	The IP will focus on patent filing to protect our CRISPR-Cas based tools, related modules and its usage in CRC	https://patents.google.com/	No, when patented, only the related scientific paper accompanying the patent will be Open Access	CRISPR-Cas tool performance and related results	Patent	This depends on who or whom is/are doing the discovery and intellectual property contributions added, the guidelines for that are quite strict in the netherlands, but if one or more partners have come up with the ID for the invention, X partner will receive LL% royalty fees from Y partner, joint venture, public-private partnership depending on its percentage of contribution related to teh invention..
3	ONCO-NMR	WP3	UzL (lead)	Consortium only, exclusive or shared license	None yet	N/A	CRC Screening based on Urinal & Blood NMR Metabolomics. Primarily targetting scientific exploitation with a potential for an exclusive license depending on commercial interest	N/A		Results planned to be included in publicaions	Keep some information confidential for future exploitation	Based on mutual agreements between partners
4	ONCO-CTC	WP3	UMINHO (lead) FIRALIS (supporting for biobanking part)	UMINHO is analysing the process for filling a patent on the basis of ONCO-CTC tecnologies (generation 1st and 2nd). ONCO-CTC will be used in the consortium.	No additional licenses are required	Ongoing license check.	THe patent will focus on the method and application of a size separation of biological entities (CTC's and EV's)	N/A	No	N/A	Patent	N/A
5	ONCO-AICO	WP3	ICCS (lead) CERTH (supporting) KONN (supporting) AINIGMA (supporting)	Apache v2	No additional licenses are required.	N/A	The platform serves as a training tool for junior colonoscopists, offering automated annotations and analysis of colonoscopy videos to enhance their learning and skill development.	TBD	Yes	The expected open access results include providing access to the source code and related	As the onco-aico tool is open-source, commercialization can be pursued through separate	The preferred ownership scheme model will be based on mutual agreements and legal arrangements between the parties involved, taking into

										resources through the repository to be defined.	commercial agreements or licenses, allowing for dual-track availability for both open-source and commercial usage.	account factors such as contributions, responsibilities, and rights to ensure fair and equitable distribution of ownership.
6	ONCO-AITI	WP3	MUG (lead)	Lesser General Public License v3.0 (GPLv3)	No licence yet	N/A	An training tool based on an AI algorithm for young patholigists during the observation of WSIs and in some kind a decision support system.	N/A	Yes	the usage of the tool should be offered as open access	not yet determined	N/A
7	ONCO-EVIDA	WP3	VITO (lead) ICCS (supporting) CERTH (supporting) CTL (supporting) KONN (supporting)	Consortium only or exclusive licence depending if commercial interest is identified	No licence yet	N/A	Evidence-based Decision Analytics dashboard	N/A	No	Results planned to be included in publicaions	Keep some information confidential for future exploitation	Based on mutual agreements between partners
8	ONCO-CLIDE	WP4	KT(Lead)	BSD3, GPL v3, Apache v2 depending on the tools that will be used further licenses maybe will be provided	No additional licenses are required. / Same as previous column	Yes	TBD	TBD, when the tool is ready (M29)	Yes.	Instances of the tool will be provided	Copyright-upon creation	TBD
9	ONCO-BIOBA	WP3	MUG (lead)	Lesser General Public License v3.0 (GPLv3)	not yet	Yes	catalogue of bio data banks	N/A	Yes	it should be possible to search in the catalogue for datasets	not yet determined	N/A
10	ONCO-VOC	WP3	TECHNION (lead) ICSS (supporting) BEIA (supporting) FIRALIS (supporting)	Consortium-only for now. Latter, Patent and depending on the partner it can be an exclusive license or shared one, which will	None yet	Yes	Cancer detection from exhaled breath samples.	TBD by ICCS	No, only the related scientific paper accompanying the patent will be Open Access	N/A	Patent	N/A

				become clear during the negotiations if the patent is successfully filed								
11	ONCO-CAWA	WP4	ISPRINT (lead) EXUS (supporting) TECHNION (supporting) BEIA (supporting)	N/A	N/A	N/A	Collect data from subjects and display data to them.	Installed on phones of subjects	No	N/A	Keep innovation confidential to allow further development	N/A
12	Data Fusion	WP4	CERTH (analytics) EXUS (connection / architecture) TLBG (privacy part) ICCS (supporting) SERVTECH (supporting) CTL (supporting)	Apache v2	No additional licenses are required.	N/A	The data fusion tool integrates diverse data sources to uncover insights and relationships related to non-communicable diseases.	TBD	Yes	The expected open access results include providing access to the source code and related resources through the repository to be defined.	As the data fusion tool is open-source, commercialization can be pursued through separate commercial agreements or licenses, allowing for dual-track availability for both open-source and commercial usage.	The preferred ownership scheme model will be based on mutual agreements and legal arrangements between the parties involved, taking into account factors such as contributions, responsibilities, and rights to ensure fair and equitable distribution of ownership.
13	FIT thresholds optimisation	WP5	IPO (lead)	N/A	N/A	N/A	Only statistical analysis will be performed using data from FIT test from the patients enrolled in clinical studies in order to evaluated if better cut-offs could be used to discriminate the high risk groups.	N/A	TBD	TBD	N/A	N/A

ONCOSCREEN Background

No	Technical Partner Name	Related ONCOSCREEN Solution	Describe Background	Specific restrictions and/or conditions for implementation (Article 16.4 Grant Agreement and its Annex 5, Section "Access rights to results and background", sub-section "Access rights to background and results for implementing the Action")	Specific restrictions and/or conditions for Exploitation (Article 16.4 Grant Agreement and its Annex 5, Section "Access rights to results and background", sub-section "Access rights for exploiting the results")
1	EXUS	ONCORISTE	Part of the solution ONCOSCREEN CRC Risk Stratification Engine (ONCO-RISTE is based on the developments of the ONCORELIEF project that will be further enhanced and extended to the needs of the ONCOSCREEN project.	The access to background will be provided from EXUS to the consortium on a royalty-free basis for the necessary developments of the ONCOSCREEN project only.	Access to the background of EXUS for the exploitation of results is limited for the other partners. In case of a request, a consent form shall be signed beforehand for the provision of the background under fair and reasonable condition according to Art. 16.4/GA. Specific details will be examined on a case by case approach.
		Data Fusion	Part of the algorithms and system infrastructure of "Multisource Data Fusion" task is based on the EXAITE (EXUS AI Suite) referred to Part A, that will be further enhanced for the needs of the ONCOSCREEN project.		
2	UMC-Mainz	N/A	No data, know-how or information of UMC-Mainz is Needed by another Party for implementation of the Project	N/A	N/A
3	ICCS	ONCO-AICO	No data, know-how or information of ICCS is Needed by another Party for implementation of the Project	N/A	N/A
4	FIRALIS	Biomarker Development	Expertise and know-how in biomarker development, as well as in clinical study management and monitoring from Firalis.	Expertise and know-how in biomarker development, as well as in clinical study management and monitoring from Firalis, which are directly involved in carrying out the Project and necessary for the development of the Project, will be made available for the duration of the Project itself.	In case a Party/ies wishes to use the listed Background for another project, or beyond the duration of the Project, its use will be subject to specific agreements between Firalis and the Party/ies.
5	UKSH	ONCO-NMR	No data, know-how or information of UKSH is Needed by another Party for implementation of the Project	N/A	N/A
6	LSMU	N/A	No data, know-how or information of LSMU is Needed by another Party for implementation of the Project	N/A	N/A

7	MUG	ONCO-AITI	SAAT-Semi-automated annotation tool: The SAAT toolset is a system to extract structured information out of unstructured pathologic diagnosis data. It uses a ruleset-based algorithm and regular expressions to structure the data.	Software code is still closed source; license model has to be negotiated.	Software code is still closed source; license model has to be negotiated.
			Visualization glyphs for patient timelines: It is a visual language designed to give a quick overview of timelines. Users can get an impression of a patient's history without reading the diagnosis text of each event in the timeline.	Graphical elements (icons) available under the GNU General Public License (GNU GPL) Commercial use to be negotiated	Graphical elements (icons) available under the GNU General Public License (GNU GPL) Commercial use to be negotiated
			Multilevel data glyphs: It is a visualization system to dive into structured data from a scale of millions of data points down to individual events, including clustering, searching, and filtering the data.	https://doi.org/10.1186/1471-2105-15-S6-S5 the software code is still closed source; the principle is available under the GNU General Public License (GNU GPL)	https://doi.org/10.1186/1471-2105-15-S6-S5 the software code is still closed source; the principle is available under the GNU General Public License (GNU GPL)
			BIBBOX framework and APP store: BIBBOX is a modular, component-based toolkit for biobanks and bioinformatics. BIBBOX provides an app store for software solutions, mainly in the fields biobanking and bioinformatics.	Published as open source Details see https://github.com/bibbox	Published as open source Details see https://github.com/bibbox
8	IPO	FIT threshold optimization	No data, know-how or information of IPO is Needed by another Party for implementation of the Project	N/A	N/A
9	IOB	N/A	No data, know-how or information of IOB is Needed by another Party for implementation of the Project	N/A	N/A
10	TECHNION	ONCO-VOC	No data, know-how or information of TECHNION is Needed by another Party for implementation of the Project	N/A	N/A
11	UMINHO	ONCO-CTC	No data, know-how or information of UMINHO is Needed by another Party for implementation of the Project	N/A	N/A

12	TLBG	N/A	No data, know-how or information of TLBG is Needed by another Party for implementation of the Project	N/A	N/A
13	VITO	ONCO-EVIDA	No data, know-how or information of VITO is Needed by another Party for implementation of the Project	N/A	N/A
14	CERTH	ONCO-EVIDA	Visual Analytics (VA)-based, decision support technologies for policy makers, as it has been developed in the WELCOME project.	Access Rights to CERTH's Background is only granted to the extent that is needed for the implementation of the action, being agreed that no Access Rights to source code will be granted by CERTH. CERTH may freely use them in the Project or in any other collaborative R&D project. All Background IP rights included is subject to the terms described in this Consortium Agreement and cannot be used for commercial purposes or any other economic purposes without the prior authorization of CERTH.	No provision of source code. Access by other beneficiaries to background needed to exploit their own tasks under the action will be given under fair and reasonable conditions in the framework of a bilateral license agreement. Excludes all background and confidential information which is the subject of other contractual agreements with third parties which restrict access to said information
		ONCO-BIOBA	Scoring algorithms for user evaluation.		
		Data Fusion	Algorithms for information fusion and data aggregation using, among others, ontology patterns and rules.		
		Data Fusion	Other background generated by the Centre for Research and Technology Hellas (CERTH).	Centre for Research and Technology Hellas (CERTH) hereby informs that the following information is excluded: (i) All Background developed by Centre for Research and Technology Hellas (CERTH) personnel not participating in the ONCOSCREEN Project; (ii) All Background developed by Centre for Research and Technology Hellas (CERTH) researchers participating in the ONCOSCREEN Project which is outside the scope of the tasks allocated to Centre for Research and Technology Hellas (CERTH) under the ONCOSCREEN Project. (iii) All Background, which Centre for Research and Technology Hellas (CERTH), due to existing or pending third party rights, is unable to grant Access Rights to	Centre for Research and Technology Hellas (CERTH) hereby informs that the following information is excluded: (i) All Background developed by Centre for Research and Technology Hellas (CERTH) personnel not participating in the ONCOSCREEN Project; (ii) All Background developed by Centre for Research and Technology Hellas (CERTH) researchers participating in the ONCOSCREEN Project which is outside the scope of the tasks allocated to Centre for Research and Technology Hellas (CERTH) under the ONCOSCREEN Project. (iii) All Background, which Centre for Research and Technology Hellas (CERTH), due to existing or pending third party rights, is unable to grant Access Rights to
15	iSPRINT	ONCO-CAWA	Healthentia is an eClinical platform that is used for capturing and processing of RWD.	The described background will be made accessible to project partners for the purpose of the project as defined in the workplan	Prior to exploitation involving any of the stated background, explicit consent must be obtained from INNOVATION SPRINT SPRL in the form of a written agreement.

16	SERVTECH	ONCOSCREEN DATA LAKE	Medical Digital Twin environment for cancer and CVD patients. This environment represents patient, disease symptoms and cure procedures and can be used for querying and simple analytics purposes	Prior to any exploitation /commercial use of this environment explicit consent must be affirmed in a clear formal written statement.	Prior to any exploitation/commercial use of this environment explicit consent must be affirmed in a clear formal written statement.
17	AINIGMA	ONCO-CLIDE	No data, know-how or information of AINIGMA is Needed by another Party for implementation of the Project	N/A	N/A
18	CATALINK	Data Fusion	No data, know-how or information of CATALINK is Needed by another Party for implementation of the Project	N/A	N/A
19	KONN	ONCO-CLIDE	No data, know-how or information of KONN is Needed by another Party for implementation of the Project	cDSS strongly depends on the incoming data in order to provide the required outcome. The code will be stored into a KT's repository (gitlab). Instances maybe provided after request.	TBD
20	BEIA	ONCO-CAWA	No data, know-how or information of BEIA is Needed by another Party for implementation of the Project	N/A	N/A
21	URIOHA	N/A	No data, know-how or information of URIOHA is Needed by another Party for implementation of the Project	N/A	N/A
22	TIMELEX	N/A	No data, know-how or information of TIMELEX is Needed by another Party for implementation of the Project	N/A	N/A
23	CARR	N/A		N/A	N/A

			No data, know-how or information of CARR is Needed by another Party for implementation of the Project		
24	MoH-GR	N/A	No data, know-how or information of MoH-GR ICCS is Needed by another Party for implementation of the Project	N/A	N/A
25	POLA	N/A	No data, know-how or information of POLA is Needed by another Party for implementation of the Project	N/A	N/A
26	ECPT	N/A	No data, know-how or information of ECPT is Needed by another Party for implementation of the Project	N/A	N/A
27	HSGO	N/A	No data, know-how or information of HSGO is Needed by another Party for implementation of the Project	N/A	N/A
28	ESDO	N/A	No data, know-how or information of ESDO is Needed by another Party for implementation of the Project	N/A	N/A
29	YCE	N/A	No data, know-how or information of YCE is Needed by another Party for implementation of the Project	N/A	N/A
30	MUI	N/A	Colorectal cancers are a very heterogeneous group of cancers and not all of them respond to the same drugs in the same way. By collecting	Sensitive data have to be requested from access committee of ONCOTRACK	Sensitive data have to be requested from access committee of ONCOTRACK

			tumour samples from patients and then analysing them in the laboratory, the OncoTrack project found molecular fingerprints of those tumours and then correlated them to how these tumours respond to various drugs. The project's outputs are already helping doctors in choosing the right treatment for the right patient, and could also help in the future search for more effective drugs. As a result of the project, two spin out companies have been created and several patents filed, demonstrating tangible socio-economic benefits.		
31	MoH-LT	N/A	No data, know-how or information of MoH-LT is Needed by another Party for implementation of the Project	N/A	N/A
32	EY	N/A	No data, know-how or information of EY is Needed by another Party for implementation of the Project	N/A	N/A
33	CSIC	N/A	No data, know-how or information of CSIC is Needed by another Party for implementation of the Project	N/A	N/A
34	UFC	N/A	No data, know-how or information of UFC is Needed by another Party for implementation of the Project	N/A	N/A
35	ROSENBAUM	N/A	No data, know-how or information of ROSENBAUM is Needed by another Party for implementation of the Project	N/A	N/A
36	AXA	N/A	No data, know-how or information of AXA is Needed by another Party for implementation of the Project	N/A	N/A

37	GERCOR	N/A	No data, know-how or information of GERCOR is Needed by another Party for implementation of the Project	N/A	N/A
38	CCRL	ONCO-CRISPR	No data, know-how or information of CCRL is Needed by another Party for implementation of the Project	N/A	N/A
38	CCSV	ONCO-CRISPR	No data, know-how or information of CCSV is Needed by another Party for implementation of the Project	N/A	N/A