

# OrChESTRA

HORIZON WIDERA Twinning

Grant agreement n°: 101079473

Call topic identifier: HORIZON-WIDERA-2021-ACCESS-03-01

## Organ-on-a-Chip Focused Strategic Partnership (OrChESTRA)

### Deliverable D4.1

#### OrChESTRA Joint Action Plan

### Work Package 4

#### Engagement and strategic networking activities

<b>Document type</b>	: R — Document, report
<b>Version</b>	: 1.0
<b>Date of issue</b>	: M6 (28.02.2022)
<b>Dissemination level</b>	: PU - Public
<b>Lead beneficiary</b>	: 4 - UFR
<b>Partners contribution</b>	: Prepared by UFR with input from all partners

*This project has received funding from the European Union's Horizon Europe Programme HORIZON-WIDERA action under grant agreement No 101079473. The dissemination of results herein reflects only the author's view and the European Commission is not responsible for any use that may be made of the information it contains.*

The information contained in this report is subject to change without notice and should not be construed as a commitment by any members of the **OrChESTRA** Consortium. The information is provided without any warranty of any kind. This document may not be copied, reproduced, or modified in whole or in part for any purpose without written permission from the **OrChESTRA** Consortium. In addition to such written permission to copy, acknowledgement of the authors of the document and all applicable portions of the copyright notice must be clearly referenced.

## Table of Contents

<b>0</b>	<b>INTRODUCTION</b>	<b>3</b>
<b>1</b>	<b>FRAMEWORK DESIGN</b>	<b>3</b>
1.1	Main objective	3
1.2	Measures	3
<b>2</b>	<b>IMPLEMENTATION</b>	<b>4</b>
2.1	Academic collaborations	4
2.1.1	Joint Grant Applications	5
2.1.2	Joint Publications	6
2.2	Industrial collaborations	7
2.3	International events	12
2.3.1	Joint Conference Participation	12
2.3.2	Organization of international events & sub-events	14
<b>3</b>	<b>EVALUATION AND FINAL REPORTING</b>	<b>15</b>

## 0 INTRODUCTION

This document lays out the planned framework for a Joint Action Plan of the OrChESTRA consortium, including (i) academic collaborations, (ii) industrial collaborations, (iii) international events. It will be updated when needed by UFR with contributions of all partners and the Advisory Board, being aligned with the research agendas of all partners.

The main objective of WP4 is to develop close and long-term ties within the OrChESTRA consortium towards research and innovation focused collaboration opportunities, while addressing the networking gaps and deficiencies of ODTÜ MEMS and also targeting new collaborations with European key research groups and stakeholders in microfluidics and biosensing, particularly on organ-on-a-chip platforms.

Task 4.1 deals mainly with the development of common roadmap for future activities between all OrChESTRA consortium members. It aims to set the basis for creating a long-lasting and effective partnership with a shared short-medium-long term vision enhancing peer-to-peer research and innovation focused collaboration activities. This document is organized as follows: The framework for the OrChESTRA Joint Action Plan is provided in Section 1. Implementation and possible measures are summarized under Section 2, whereas Section 3 is deals with the Evaluation and Final Reporting.

## 1 FRAMEWORK DESIGN

### 1.1 Main objective

OrChESTRA Joint Action Plan will draw a common roadmap for future collaborations including the research priorities, key topics, market overview, potential funding sources, investment strategies, and a list of potential partners and customers. Applications of the microfluidics technology in other technological domains will be explored in order to stimulate multidisciplinary collaborations. Consortium members have already defined specific common research and innovation topics in the microfluidics and biosensing fields targeting organ-on-a-chip technologies. Identification and periodical review of new common research topics of mutual interest will result in further development of new collaboration opportunities for all partners.

### 1.2 Measures

In order to achieve a close and long-lasting scientific relationship/collaboration between the consortium members, OrChESTRA Joint Action Plan constitutes of different measures:

#### 1. Academic collaborations

The main goal of this task is the exploration and coordination of new research activities to create new academic collaborations between the consortium members and beyond.

## 2. Industrial collaborations

This task aims at fostering new local and international collaborations with industry on the organ-on-a-chip technologies.

## 3. International events

In order to increase the visibility, share the project outcome and create new scientific networks, the consortium members will attend international events as well as organize conferences, seminars or workshops with focused sessions.

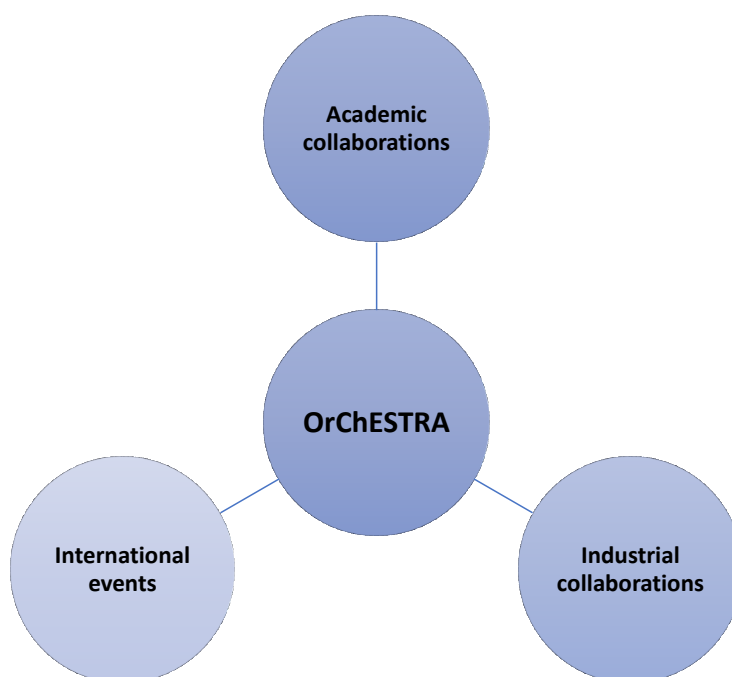


Figure 1. Summary of the measures.

## 2 IMPLEMENTATION

### 2.1 Academic collaborations

This task aims to coordinate efforts to explore new opportunities for potential research collaborations. Peer-to-peer communication will lead to contributions in the preparation of joint project proposals (D4.2) and collaborations for publication of research articles and reviews in high-quality journals (such as Nature Biotechnology, Advanced Materials, Biosensors and Bioelectronics, Lab on a Chip). Open and forthcoming calls of Horizon Europe and other R&D funding programmes (such as KDT, COST, Eurostars, bilateral cooperation programmes etc.) will be continuously followed by the consortium members and they will inform each other about potential opportunities. On agreed topics, the consortium will collaborate for proposal drafting and writing. A report on collaboration activities (D4.3 and D4.4) will be prepared in M18 and M36.

### 2.1.1 Joint Grant Applications

During the OrChESTRA project, the consortium aims at preparing and submitting various grant proposals on topics, including but not limited to microfluidics, biosensors and organ-on-a-chip devices, for open and forthcoming EU calls (see Table 1). Herein, the main goal is to create long-lasting and productive partnership between the all partners of the OrChESTRA consortium and beyond (by inviting scientific and industrial partners from other countries). Besides, the members will also try to apply for bi-national project calls, for example, Turkey with Germany (possibly via DFG and TÜBİTAK), the Netherlands and Belgium.

**Table 1.** List of possible calls for the OrChESTRA consortium.

Call	Description	Submission deadline(s)
<b>Tools and technologies for a healthy society (HORIZON-HLTH-2024-TOOL-05-two-stage)</b>	Innovative non-animal human-based tools and strategies for biomedical research	1 <sup>st</sup> stage: 19 September 2023 2 <sup>nd</sup> stage: 11 April 2024
<b>Tackling diseases (HORIZON-HLTH-2024-DISEASE-03-two-stage)</b>	Validation of fluid-derived biomarkers for the prediction and prevention of brain disorders	1 <sup>st</sup> stage: 19 September 2023 2 <sup>nd</sup> stage: 11 April 2024
<b>Tools and technologies for a healthy society (HORIZON-HLTH-2024-TOOL-11)</b>	Bio-printing of living cells for regenerative medicine	11 April 2024
<b>HORIZON-KDT-JU-2023-2-RIA (HORIZON-KDT-JU-2023-2-RIA)</b>	Global call according to SRIA 2023 (RIA) Topic: 3.4 - Health and wellbeing Major Challenge 1: Enable digital health platforms based upon P4 healthcare Major Challenge 2: Enable the shift to value-based healthcare, enhancing access to Open 4P's game-changing technologies Major Challenge 3: Support the development of the home as the central location of Open the patient, building a more integrated care delivery system Major Challenge 4: Enhance access to personalised and participative treatment for Open chronic and lifestyle-related diseases Major Challenge 5: Ensure more healthy life years for an ageing population	1 <sup>st</sup> stage: 03 May 2023 2 <sup>nd</sup> stage: 19 September 2023

<p><b>EIC Pathfinder –Open Call</b></p>	<p>EIC Pathfinder Open provides funding for projects in any field of science or technology, based on high-risk/high-gain science-towards-technology breakthrough interdisciplinary research.</p>	<p>Not known for 2024</p>
---	--	---------------------------

## 2.1.2 Joint Publications

This task mainly deals with the publication of project results, summarizing the field of lab-on-a-chip platforms and biosensors via review articles as well as discussing new concepts and ideas through perspective and forum articles. Besides, for all inventions (such as designs, devices, methodologies and materials) there will be a patent application before a possible publication in order to protect the Intellectual Property of the OrChESTRA consortium. Our goal is to submit more than 9 manuscripts in form of research, review and forum/perspective articles within the project duration. You can find more information about the possible journals and planned submission dates in Table 2.

**Table 2.** List of possible journals for joint publications.

Journal name	Description	Impact factor
<p><b>Advanced Materials</b></p>	<p>A weekly peer-reviewed scientific journal covering materials science. It includes communications, reviews, and articles on topics in chemistry, physics, nanotechnology, ceramics, metallurgy, and biomaterials.</p>	<p>32.086</p>
<p><b>Biosensors and Bioelectronics</b></p>	<p>A peer-reviewed scientific journal devoted to research, design, development, and application of biosensors and bioelectronics.</p>	<p>12.54</p>
<p><b>Lab on a Chip</b></p>	<p>A peer-reviewed scientific journal publishing research at the micro- and nano-scale across a variety of disciplines including chemistry, biology, bioengineering, physics, electronics, clinical science, chemical engineering, and materials sciences.</p>	<p>7.517</p>
<p><b>Nature Biotechnology</b></p>	<p>A monthly peer-reviewed scientific journal focusing on the science and business of biotechnology.</p>	<p>68.164</p>
<p><b>Trends in Biotechnology</b></p>	<p>A monthly peer-reviewed scientific journal publishing reviews and perspectives on the applied biological sciences.</p>	<p>21.942</p>

## 2.2 Industrial collaborations

Starting from market studies in the area of organ-on-a-chip applications (exploiting partners' expertise from the finished EC ORCHID CSA and the EuroOCS society), we have started to chart potentially interested industrial actors both on a location scale (proximity to METU, in partners' regions, countries or network) and across the OoC value chain (module manufacturers, microfluidics manufacturers, instrumentation builders, end users in pharma, biotech). Dedicated actions are planned with "go2industry" approach including personal introduction to the identified industrial players, meeting at conferences, face-to-face meetings by inviting or visiting them, organization of outreach events in order to foster collaboration with industry.

**Table 3.** List of possible international industrial collaborations.

Company	Location	Expertise	Link
<b>microfluidic ChipShop</b>	Jena, Germany	Offers solutions for every microfluidic need: from single microfluidic chips, complimentary accessories to custom-made designs.	<a href="http://www.microfluidic-chipshop.com">www.microfluidic-chipshop.com</a>
<b>Mimetas</b>	The Netherlands	Biotechnology company developing human organ-on-a-chip tissue models and products for drug development. It also is involved in the testing of chemicals along with food and personalized medicine applications.	<a href="http://www.mimetas.com/en/home">www.mimetas.com/en/home</a>
<b>Initiocell</b>	The Netherlands	Provides organ-on-chip devices and assays for invasion/chemotaxis, distance dependent cell-cell interactions, extravasation and homing choices of cancer cells.	<a href="http://www.initiocell.com">www.initiocell.com</a>
<b>Besi</b>	The Netherlands	Design and manufacturing of semiconductor equipment with a focus on assembly processes and equipment for lead frame, substrate and wafer level packaging.	<a href="http://www.besi.com">www.besi.com</a>
<b>thinXXS</b>	Germany	Development and production of Microfluidic consumables systems made of plastic. Customised solutions for in-vitro diagnostics, DNA analysis, laboratory automation.	<a href="http://www.thinxxs.com">www.thinxxs.com</a>
<b>TissUse</b>	Germany	Biotechnology company, which has developed a unique "Multi-Organ-Chip" platform that provides unparalleled preclinical insight on a systemic level using human tissues.	<a href="http://www.tissuse.com">www.tissuse.com</a>

		This enabling technology platform consists of a miniaturized construct that closely simulates the activity of multiple human organs in their true physiological context.	
<b>EV Group</b>	Austria	Bonding systems, die-to-wafer bonding systems. EVG addresses markets for advanced packaging and 3D integration, MEMS, as well as advanced compound semiconductor and SOI substrates.	<a href="http://www.evgroup.com">www.evgroup.com</a>

**Table 4.** List of possible regional industrial collaborations.

<b>Company</b>	<b>Location</b>	<b>Expertise</b>	<b>Link</b>
<b>Bioanalize Tibbi Malzemeler Sanayi Ve Ticaret Ltd. Şti.</b>	Ankara, Turkey	Exporting antimicrobial susceptibility testing discs, group dispensers, PCR test kits, oxidase test strips, auxiliary products, mic test strips etc.	<a href="https://www.bioanalize.com/index_en">https://www.bioanalize.com/index_en</a>
<b>Bome Trivitron Sanayi Ürünleri Dış Ticaret A.Ş.</b>	Ankara, Turkey	Providing new-born screening, routine laboratory and chromatography laboratory services.	<a href="http://www.bometrivitron.com.tr">www.bometrivitron.com.tr</a>
<b>Çınar Validasyon ve Deney Laboratuvarları Ltd. Şti.</b>	Ankara, Turkey	Provides laboratory tests and validation services for medical devices, pharmaceuticals, food, cosmetics and many other sectors.	<a href="http://www.cinarlabs.com">www.cinarlabs.com</a>
<b>ERTUNÇ ÖZCAN</b>	Ankara, Turkey	Offers medical devices and equipment to the service of hospitals and laboratories.	<a href="https://ertuncozcan.com/en/">https://ertuncozcan.com/en/</a>
<b>Genz Biyoteknoloji A.Ş.</b>	Istanbul, Turkey	A biotechnology company developing innovative diagnostic solutions: POC diagnostic platforms, COVID-19 lab solutions, genetic tests etc.	<a href="https://genzbio.com">https://genzbio.com</a>
<b>Geotek Medikal ve Sağ. Hiz. ve San. Tic. Ltd. Şti.</b>	Ankara, Turkey	Produces disposable biopsy needles and catheters for urology and interventional radiology etc.	<a href="http://www.geotekmedikal.com/en/index.html">www.geotekmedikal.com/en/index.html</a>
<b>Kobay D.H.L. San. ve Tic. A.Ş.</b>	Ankara, Turkey	First and only private laboratory in Turkey to produce test animals, including SPF (Specific Pathogen Free) and conventional test animals.	<a href="https://www.kobay.com.tr/index.html">https://www.kobay.com.tr/index.html</a>
<b>NANObiz Ltd. Şti.</b>	Ankara, Turkey	Conducts R&D activities in areas like microbiology, nanobiotechnology and molecular biology aiming healthcare sector. Microbial Sterility: Microbial sterility tests of medical devices under BSL-2 laboratory settings. Microbial Biofilm: Biofilm development capacity tests of medical devices with continuous flow-cell systems. Nanotakip Temperature and Humidity Tracking System and Nanotakip Vehicle Tracking System.	<a href="http://nanobiz.com.tr/en/home-3/">http://nanobiz.com.tr/en/home-3/</a>
<b>Nörometrika Limited Şirketi</b>	Ankara, Turkey	Develops brain mapping systems, hardware and software, neuropsychometric test materials to be used	<a href="http://www.neurometrika-tech.com/beta/">www.neurometrika-tech.com/beta/</a>



		in the diagnosis and treatment of various diseases of the brain.	
<b>Koek Biyoteknoloji</b>	Izmir, Turkey	Develops microchip technology to measure releasing of label free live cells, with antigen-antibody interactions and ambient temperature for counting.	<a href="http://www.koekbiotech.com">www.koekbiotech.com</a>
<b>GlakoLens Biyomedikal Biyoteknoloji San. ve Tic. A.Ş.</b>	Istanbul, Turkey	A medical devices company developing innovative biosensors based on proprietary technology, first of which is a non-invasive continuous intra-ocular pressure (IOP) monitoring device.	<a href="https://glakolens.com">https://glakolens.com</a>
<b>Cellsway</b>	Ankara, Turkey	Develops microfluidics and lab-on-a-chip systems for biomedical applications. The core product of the company is a liquid biopsy platform which uses a simple blood sample for cancer diagnostics and cancer research. Cellsway's liquid biopsy platform will exploit the potential of Circulating Tumour Cells (CTCs) by integrating patent-pending microfluidics for CTCs enrichment with a number of proprietary downstream assays. The platform enables identification and characterization of CTC's, thus providing clinically actionable data for clinicians in diagnosis, therapy selection and cancer monitoring.	<a href="https://cellsway.com">https://cellsway.com</a>
<b>Eczacıbaşı</b>	Istanbul, Turkey	Turkish leading industrial group with core sectors: building products, consumer goods, healthcare. The Healthcare Division focuses on advanced technology biopharmaceuticals and biosimilars.	<a href="http://www.eczacibasi.com.tr/en/home">www.eczacibasi.com.tr/en/home</a>
<b>Nobel</b>	Istanbul, Turkey	Pharmaceutical company: drugs, supplements, dermocosmotic products.	<a href="http://www.nobel.com.tr/en-us">www.nobel.com.tr/en-us</a>
<b>Koçyaşa</b>	Istanbul, Turkey	Produces digital health solutions that renew and develop themselves with the usage of modern technologies by working on artificial intelligence, data analytics, software, and hardware design. Their long-term goals include providing sectoral consultancy services both in Turkey and abroad to create a broad entrepreneurial ecosystem for health technologies.	<a href="http://www.kocyasa.com/en">www.kocyasa.com/en</a>
<b>Abdi İbrahim</b>	Istanbul, Turkey	Pharmaceutical company.	<a href="http://www.abdiibrahim.com.tr/en">www.abdiibrahim.com.tr/en</a>
<b>Atabay Kimya Sanayii ve Ticaret A.Ş.</b>	Istanbul, Turkey	Produces fine chemicals and other products for Human and Animal health.	<a href="http://www.atabay.com/en">www.atabay.com/en</a>
<b>Aselsan</b>	Ankara, Turkey	The largest defence electronics company of Turkey whose capability/product portfolio comprises communication and information technologies, radar and electronic warfare, electro-optics, avionics, unmanned systems, land, naval and weapon systems, air defence and missile systems, command and control systems, transportation, security, traffic, automation and medical systems.	<a href="https://www.aselsan.com/en">https://www.aselsan.com/en</a>
<b>Nanosens</b>	Ankara, Turkey	Developing spectroscopic solutions in food and agriculture. In this scope, this company provides	<a href="https://www.nanosens.com.tr">https://www.nanosens.com.tr</a>

		studies on spectroscopic methods such as NIR, FTIR, Raman and LIBS are continuing and optical accessory designs can be made for system designs and consultancy services.	
<b>Acıbadem Labmed</b>	Istanbul, Turkey	Offers comprehensive clinical laboratory services to Acıbadem Healthcare Group Hospital's as well as private and public institutions in Turkey and abroad.	<a href="https://www.acibademlabmed.com.tr/en/">https://www.acibademlabmed.com.tr/en/</a>
<b>Titck - Türkiye İlaç ve Tıbbi Cihaz Kurumu</b>	Ankara, Turkey	Turkish Medicines and Medical Devices Agency serving the society with regulatory, supervisory and directive actions for pharmaceuticals, medical devices, traditional herbal, supportive and advanced treatment medicinal products and cosmetic products.	<a href="https://www.titck.gov.tr">https://www.titck.gov.tr</a>
<b>Bıçakçılar Tıbbi Ürünler Sanayi ve Ticaret A.Ş.</b>	Istanbul, Turkey	Provider of medical products from disposable medical supplies to operating room devices.	<a href="https://www.bicakcilar.com/en-US">https://www.bicakcilar.com/en-US</a>
<b>Güven Future</b>	Ankara, Turkey	Developer of first smart Holter software; the first medicine box design with remote image recognition technology for Alzheimer's and Dementia patients; Telehealth solutions; chronic heart failure solutions; a brand-new healthcare model by integrating new and innovative telemedicine devices; artificial intelligence algorithm that performs general health risk analysis over eye health estimation.	<a href="https://en.guvenfuture.com">https://en.guvenfuture.com</a>
<b>Nehir Biyoteknoloji Ltd.</b>	Ankara, Turkey	Lab-on-a-chip focused biotech company offering innovative products and solutions for the university labs and medical, pharmaceutical, and life science industries.	<a href="https://www.nehirbt.com.tr">https://www.nehirbt.com.tr</a>
<b>AdviQual</b>	Istanbul, Turkey	Consultancy company specialized in Medical Devices and In Vitro Diagnostic Medical Devices, providing international services on quality management processes and regulatory compliance.	<a href="https://www.adviqual.com.tr/en">https://www.adviqual.com.tr/en</a>
<b>KOSGEB</b>	Ankara, Turkey	Small and Medium Enterprises Development Organization of Türkiye provides support for SMEs to make technology-oriented production with domestic and national resources.	<a href="https://en.kosgeb.gov.tr/">https://en.kosgeb.gov.tr/</a>
<b>Türkiye Cumhuriyeti Sağlık Bakanlığı</b>	Ankara, Turkey	The Ministry of Health, responsible for health affairs, working under the Presidency of the Republic of Turkey.	<a href="https://www.saglik.gov.tr/?_Dil=2">https://www.saglik.gov.tr/?_Dil=2</a>
<b>TÜBİTAK MAM</b>	Kocaeli, Turkey	Marmara Research Center, established in TÜBİTAK Gebze Campus, focuses on many different topics such as pharmaceuticals and medical devices, age determination, food products, recycling and the environment etc.	<a href="https://mam.tubitak.gov.tr/en">https://mam.tubitak.gov.tr/en</a>
<b>İstanbul Sanayi Odası (İSO)</b>	Istanbul, Turkey	Istanbul Chamber of Industry is the largest industrial chamber of Türkiye with its number of members exceeding 22 thousand in 2023 and the strongest representative of the Turkish industry.	<a href="https://www.iso.org.tr/Home/">https://www.iso.org.tr/Home/</a>

<b>Klinik Arařtırmalar Derneđi</b>	Ankara, Turkey	Clinical Research Association: to ensure the development of clinical research science in Turkey, to increase the quality of service by ensuring that private and legal persons working in the field of clinical research learn national and international practices, to provide adequate training, experience and knowledge needed in clinical research.	<a href="http://www.klinikarastirmalar.org">http://www.klinikarastirmalar.org</a>
<b>Massiad - Marmara Tıbbi Cihaz Üreticileri ve Tedarikçileri Derneđi</b>	Istanbul, Turkey	Marmara Medical Equipment Producers and Suppliers Association: Import, export, manufacturing, representation, maintenance, repair, wholesale and retail of medical devices and supplies, laboratory kits, orthopaedic and surgical materials, accessories, bespoke devices, human blood derivatives, clinical research devices, In Vitro Medical Diagnostic Devices, medical chemicals Coordinating, encouraging, raising awareness, disciplining, helping to establish standards, conducting joint studies with relevant public institutions and organizations.	<a href="https://www.massiad.org.tr/eng/">https://www.massiad.org.tr/eng/</a>
<b>SEİS Türkiye Sağlık Endüstrisi İşverenleri Sendikası</b>	Ankara, Turkey	It was established to support the development of companies serving in the Medical Devices sector in an efficient and sustainable environment of progress and to be the representative of the sector in the determination of national health policies.	<a href="https://www.seis.org.tr">https://www.seis.org.tr</a>
<b>İnovita Sağlık Teknolojileri Kuluçka Merkezi</b>	Istanbul, Turkey	İnovita Collaboration Platform is an initiative funded by the Istanbul Development Agency with a purpose of transferring knowledge resulting from the scientific research in the life sciences into economic value and the development of new technologies for the region's welfare.	<a href="https://tto.boun.edu.tr">https://tto.boun.edu.tr</a>
<b>Lifesci - Boğaziçi Üniversitesi Yaşam Bilimleri ve Teknolojileri Uygulama ve Araştırma Merkezi</b>	Istanbul, Turkey	It was established in 2010 with the motto of "Providing the production of knowledge and technology to understand and improve life", with the gathering of academics working in the fields of life sciences, health and biotechnology within the body of Boğaziçi University.	<a href="https://lifesci.boun.edu.tr/home/">https://lifesci.boun.edu.tr/home/</a>
<b>SUNUM - Sabancı Üniversitesi Nanoteknoloji Araştırma ve Uygulama Merkezi</b>	Istanbul, Turkey	Centre of excellence for multidisciplinary and cross-disciplinary research and development studies; Providing global nano-technological solutions to societal challenges; Creating socio-economic added-value through commercialisation of research results; By exploiting synergies and long-term strategic partnerships with stakeholders while contributing to the training of high calibre researchers.	<a href="https://sunum.sabanciuniv.edu/tr">https://sunum.sabanciuniv.edu/tr</a>
<b>Aksense</b>	Istanbul, Turkey	Biosensor company for diagnosing healthcare-associated infections within one minute, enabling rapid diagnosis and treatment.	<a href="https://www.aksense.com">https://www.aksense.com</a>
<b>Arbilim Biyoteknoloji</b>	Istanbul, Turkey	Produces diagnostic kits and components, microbiological stains, specific reagents, unique media, labware and devices.	<a href="http://arbilim.com.tr/en/">http://arbilim.com.tr/en/</a>

<b>Axolotl Biosystems Ltd.</b>	Istanbul, Turkey	Provides tissue engineering solutions.	<a href="https://www.axolotlbio.com">https://www.axolotlbio.com</a>
<b>Genomize</b>	Istanbul, Turkey	Offers fast, cheap and accurate NGS Analysis with SEQ.	<a href="https://genomize.com">https://genomize.com</a>
<b>NanoBiotech</b>	Kayseri, Turkey	Produces biological nanomaterials with antibacterial properties from plant extracts.	<a href="https://nanobiotech.com.tr">https://nanobiotech.com.tr</a>
<b>Nesiller Genetik</b>	Istanbul, Turkey	Pioneer in a procedure to provide preimplantation genetic diagnosis service (PGD). Offers non-invasive prenatal screening of chromosomal aneuploidies through extracellular fetal DNA (cfDNA) analysis from maternal blood. The test, called Üçgen®, was the first cfDNA-based non-invasive prenatal screening test brand performed entirely in a private laboratory in Turkey.	<a href="https://nesiller.com">https://nesiller.com</a>
<b>RS Research</b>	Istanbul, Turkey	A clinical-stage biotechnology start-up discovering and developing smart nanomedicines for targeted therapy.	<a href="https://rsresearch.net">https://rsresearch.net</a>
<b>Biyomod</b>	Ankara, Turkey	Patient tracking, medical sensors, IoT solutions in healthcare.	<a href="http://www.biyomod.com.tr">www.biyomod.com.tr</a>

## 2.3 International events

### 2.3.1 Joint Conference Participation

The staff of the consortium members will jointly attend international conferences and workshops such as Transducers, Biosensors, IEEE MEMS, IEEE Sensors, Eurosensors, Micro and Nano Engineering (MNE), the International Conference on Miniaturized Systems for Chemistry and Life Sciences ( $\mu$ TAS), SLAS Europe Conference and Exhibition etc. (Table 5). In these events, the participants are expected to present scientific papers and make presentations. Attending the international conferences together will enable the partners to enhance peer-to-peer collaborations while exchanging relevant knowledge, networking with other research organisations for new collaboration opportunities and learning about new application areas and the latest scientific developments in the microfluidics area. Periodical reports (D4.5 and D4.6) including agenda, copy of presentations, and contacted persons will be prepared.

**Table 5.** List of conferences for joint conference participations.

Conference name	Scope	Date(s)
<b>World Congress on Biosensors</b>	This premier event for the biosensor community and the largest in the field includes high-quality contributed oral talks and large poster sessions.	June 2023 (bi-yearly), Busan/Korea
<b>Transducers</b>	The goal of the Transducers conference is to enhance the collective knowledge of the global transducers technical community and to stimulate its through providing an inclusive forum for communication, education, and collaboration. Over 1200 engineers, scientists, and other professionals from universities, research institutions, industry, and government agencies gather at the	June 2023 (bi-yearly), Kyoto/Japan

	Transducers conferences for four days of talks, posters, tutorials, and collaboration events relating to the latest advances and opportunities.	
<b>Euroensors</b>	Euroensors is a series of highly successful conferences that began in Cambridge in 1987 and that has been the only European forum to cover the entire field of sensors, actuators, microsystems and nanosystems. It is the leading European conference devoted to the advancement of high technologies in the aforementioned fields, providing an excellent opportunity to bring together scientists and engineers from academia, research centres, national research institutes and companies to present and discuss the latest results in these fields. Euroensors attracts more than 500 participants every year, mainly from Europe but also from abroad.	September 2023 (yearly), Lecce/Italy
<b>IEEE International Conference on Micro Electro Mechanical Systems (IEEE MEMS)</b>	Reflecting the rapid growth of the MEMS field and the commitment and success of its research community, the IEEE MEMS Conference series has evolved into a premier annual event in the MEMS area. This Conference reflects from the rapid proliferation of the commitment and success of the Microsystems research community. In recent years, the IEEE MEMS Conference has attracted more than 700 participants, 800+ abstract submissions and has created the forum to present over 200 select papers in podium and poster/oral sessions. Its single-session format provides ample opportunity for interaction between attendees, presenters and exhibitors.	January 2024 (yearly), Austin, Texas/USA
<b>IEEE Sensors</b>	This conference is intended to provide a forum for research scientists, engineers, and practitioners throughout the world to present their latest research findings, ideas, and applications in the areas of sensors and sensing technologies. It also includes keynote addresses and invited presentations by eminent scientists and engineers.	October/November 2023 (yearly), Vienna/Austria
<b>Micro and Nano Engineering (MNE)</b>	The MNE conference is the flagship event of the International Society for Micro- and Nanotechnology (iMNEs). It has always been the leading international conference for micro- and nano-fabrication, manufacturing techniques, as well as applications of the fabricated micro/nanostructures, devices and microsystems into electronics, photonics, energy, environment, chemistry and life sciences. The MNE brings together researchers and experts from all over the world to meet and discuss the latest research results and their applications. Furthermore, the conference aims to promote, involve and train young talent in the field of micro and nano engineering.	September 2023 (yearly), Berlin/Germany
<b>International Conference on Miniaturized Systems for</b>	The International Conference on Miniaturized Systems for Chemistry and Life Sciences ( $\mu$ TAS) is an international conference series that is the premier forum for reporting research results in microfluidics, microfabrication,	October 2023 (yearly), Katowice/Poland

<p><b>Chemistry and Life Sciences (μTAS)</b></p>	<p>nanotechnology, integration, materials and surfaces, analysis and synthesis, and detection technologies for the life sciences and chemistry. It offers plenary and invited talks, expansive poster sessions, networking forums, and an array of industry exhibitions, as well as numerous contributed oral and poster presentations selected from submitted abstracts. In recent years, over 1000 scientists, trainees, and industry professionals from around the globe attended to μTAS conferences to share advances regarding integrated microsystems and nanotechnology for chemistry and life sciences.</p>	
<p><b>SLAS Europe Conference and Exhibition</b></p>	<p>The Society for Laboratory Automation and Screening (SLAS) is a global, non-profit professional community made up of scientists from academia, government and industry who are collectively focused on leveraging the power of technology to achieve scientific objectives. Their mission is to unite great minds in life sciences and technology to transform research.</p>	<p>May 2023 (yearly), Brussels/Belgium</p>
<p><b>EUROoCS Annual Meeting</b></p>	<p>The EUROoCS conference is a scientific meeting covering all aspects related to research, development and application of organ on a chip (OoC) systems. Topics such as (multi)-organ and disease models, organoids-on-chip, PBPK modelling, technology platforms, read-out assays, standardization and qualification, regulatory aspects and toxicity among others, will be addressed.</p>	<p>June 2023 (yearly), Berlin/Germany, co-organized with the Microphysiological Systems World Summit (MPS World Summit).</p>

### 2.3.2 Organization of international events & sub-events

An international workshop on “Emerging Organ-on-a-Chip Technologies and Integration of MEMS and Organ-on-a-chip” will be organised by TU/e in month 18 with participation of researchers from Europe, and other countries. It will be a 2-day event with participation of an expected number of ~100 attendees. Experts from all partners will participate as speakers. The expected impact of this workshop is to create collaboration opportunities in microfluidics and organ-on-a-chip technologies. As an outcome of this task a summary report (D4.5 and D4.6) including agenda, conclusions, presentations, and a list of participants will be prepared by TU/e.

International BioMEMS and Microfluidic Technologies Days will be organised annually by ODTÜ MEMS. In these events, researchers from academia, research institutes and industry will be targeted through 3 international workshops in Turkey aiming to build up and maintain inter-personal and inter-institutional relations, collaborations and partnerships on BioMEMS research subjects, to increase national awareness on BioMEMS technology and to create synergy among national institutions to more actively participate in the Horizon Europe projects. Each workshop will be a 1-day event with participation of an expected number of ~100 attendees. Experts from the partners and Advisory Board members will be invited as speakers. As an outcome of this task a summary report (D4.5 and D4.6) including agenda, conclusions, presentations, and list of participants will be prepared by ODTÜ MEMS.

In month 30, a brokerage event will be organised by the Department of Microsystems Engineering (IMTEK) at the University of Freiburg (UFR) as jointed to an event hosted by renowned European networks such as EPoSS, in order to foster new project proposals (especially Horizon Europe, COST, ERA-NET etc.) and other types of collaborations among universities, research centres and industry organisations in research areas relevant to the microfluidics field. The brokerage event will start with a brief presentation about collaboration and research funding opportunities at the European level presented by representatives from EC and/or National Contact Points. Research entities and industry organisations will be invited. The brokerage event is thought to be a place where research demands and offers as well as different research opinions can meet. Suitable spaces will be provided for opening stands, making presentations or for bilateral meetings. The most specific expected outcome of this event is consortia built for Horizon Europe calls. As an outcome of this task a summary report (D4.6) including agenda, conclusions, presentations, and list of participants will be prepared by IMTEK @UFR.

### **3 EVALUATION AND FINAL REPORTING**

The Joint Action Plan will be completed after a final evaluation along with a final report, which will be carried out at the end of the OrChESTRA project. Herein, we will compare our initial goals for the OrChESTRA project (in terms of funded grants, joint publications, patents, conference proceedings, organized events etc.) with the achieved outcome. Besides, the final report will include the challenges and lessons learned while implementing the Joint Action Plan and could help us for future initiatives.