Impact Activities Report Y2

Deliverable D7.3



NEGOTIATING OLFACTORY AND SENSORY EXPERIENCES IN CULTURAL HERITAGE PRACTICE AND RESEARCH



The Odeuropa project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101004469. This document has been produced by the Odeuropa project. The content in this document represents the views of the authors, and the European Commission has no liability in respect of the content.

Grant Agreement No.	101004469	
Project Acronym	ODEUROPA	
Project full title	Negotiating Olfactory and Sensory Experi-	
	ences in Cultural Heritage Practice and Re-	
	search	
Funding Cohomo		
Funding Scheme	H2020-SC6-TRANSFORMATIONS-2020	
Project website	http://odeuropa.eu/	
	Prof. Dr. Inger Leemans	
Project Coordinator	KNAW Humanities Cluster	
	Email: inger.leemans@huc.knaw.nl	
Document Number	Deliverable D7.3	
Status & version	DRAFT	
Contractual date of delivery	December 2022	
Date of delivery	20 December 2022	
Туре	Report	
Security (distribution level)	Public	
Number of pages	43	
WP contributing to the deliverable	WP3, WP4, WP5, WP6 & WP7	
WP responsible	WP7	
EC Project Officer	Hinano Spreafico	
Authors: Sofia Collette Ehrich, ¹ Inna Novalija, ² Dunja Mladenić ²		
Internal reviewers: Inger Leemans, ¹ Mathias Zinnen, ³ George Alexopoulos ⁴		

Affiliations: (1) KNAW, (2) JSI, (3) FAU, (4) UCL

Keywords: Olfactory events, GLAMs, Impact, Olfactory storytelling; Co-creation, Communication and Dissemination

Abstract: In the Impact Activities Report, we provide a yearly overview and summary of the Odeuropa impact and dissemination activities. In this report of year 2 of the Odeuropa project, we provide:

- a. an overview of the general press communications and dissemination activities undertaken;
- b. an update on T7.3 'Follow Your Nose: A Guided Tour with Smells';
- c. a detailed description of the two major Olfactory Events the Odeuropa team organised: 1) a self-guided urban walking tour (T7.5) and 2) a Hackathon and workshop (T7.6)
- d. a preview of what we plan for the Olfactory Storytelling Toolkit (D7.4) and the associated launch event (T7.8).

In the report, we outline the projected aims of these activities, describe the process of creation, discuss how we met the projected aims and describe the challenges we faced. Furthermore, we discuss how the outcomes of these activities contribute to learned outcomes which inform future models of research, training, and dissemination of olfactory events.

This report can be read alongside the other impact related reports: Communication Plan version 2 (D7.9), Dissemination and Exploitation Plan version 2 (D7.10), and Questionnaires for measuring the value of introducing smells in GLAMs (D6.2)

Table of Revisions

Version	Date	Description and reason	Ву	Affected sections
0.1	22 November 2022	First draft	S.C. Ehrich	all
0.2	1 December 2022	Second draft	I. Novalija	6
0.2	1 December 2022	Internal review	M. Zinnen, G. Alexopoulos, I. Leemans	all
0.3	13 December 2022	Comments internal review processed	S.C. Ehrich, I. No- valija	all
1.0	20 December 2022	Final check and approval by project manager	Marieke van Erp	-

Executive Summary

e
The challenges for this deliverable were:
 The Covid-19 pandemic slowed down progress of year 1 events, which strained the timeline for the development of year 2 events;
 Due to Covid-19 delays, T7.3 'Follow Your Nose. A Guided Tour with Smells' was still in development in year 2;
 Due to GLAMs and creative industries of the Amsterdam Oosterdok area. Mediamatic's Expedition Oosterdok project was cancelled. As a result, Mediamatic was unable to participate in the planned; collaboration for T7.5. Odeuropa had to seek a new partner(s).
 The curation and coordination of olfactory events is time consuming and takes expertise. Executing the events as well as recording the knowledge gained from the process is challenging.
The barriers of this deliverable included:
 The coordination and management of the multiple Odeuropa teams (WP3, WP4, WP5, WP6 and WP7) involved in the execution of multiple olfactory events;
 The local locations of the self-guided urban walking tour (T7.5) required special attention to external communication of the event. This is a barrier due to the international scale in which Odeuropa operates.

Practices	The practices of this deliverable were dependent on the task:
-----------	---

- a. The summary of press communications and dissemination activities required the collection of each consortium partner's activities with the press and relevant network (presentations and keynotes);
- b. T7.3 Follow Your Nose. a Guided Tour with Smells required the finalisation of the guided tour's scent development, ordering supplies for performing the olfactory guided tours, and assisting the olfactory guided tour's launch event.
- c. T7.5 City Sniffers: a smell tour of Amsterdam's ecohistory required the research and choosing of the event's scent distribution method, olfactory storylines, and chosen walking path through the city of Amsterdam, Netherlands. These practices included choosing scents related to the olfactory storylines (with IFF scent designers), designing a creative smell presentation (with visual designer and scent communication professional) and development of a smartphone application (WP4, WP5 and WP7). Lastly, the event also required discussions with our host institution, the Amsterdam Museum and the training of their staff to successfully communicate the goals of the Odeuropa project, T7.5, and learn more about olfactory storytelling practices.
- d. **T7.6 Improve Your Olfactory Language** consisted of a two-day, hands on workshop with the main objective of gathering feedback from various audiences on the functionality and usability of Odeuropa's crossdisciplinary tools. This required a demo of the Odeuropa digital tools (Odeuropa Explorer, Smell Talk Tracker, Wikifier) were tested by the public and organised smell sessions.
- e. The early progress on D7.4 the Olfactory Storytelling Toolkit required the execution and documentation of the olfactory events in year 1 and year 2, further conversations with GLAM professionals and scent experts, and attendance to conferences focused on the GLAM sector.
- **Guidelines** The guidelines developed as part of this deliverable were mainly outlining the ideas behind two olfactory events. The goal of Odeuropa's olfactory events are to collect, document and report the knowledge gained from their coordination. The planning, execution and documentation of these events contribute to the development of the Olfactory Storytelling Toolkit (D7.4).

Contents

Та	Table of Revisions 3		
1	Introduction: Impact Strategy 6		
2	Impact Activities 2022	8	
3	Overview of the General Communication and Dissemination Activities of Year 2	8	
4	 T7.3; OE2. Olfactory Guided Tour: Odeuropa x Museum Ulm 4.1 Der Nase nach. Eine Führung mit Geruch - Follow Your Nose. A Guided Tour with Smell 4.1.1 Practical Information 4.1.2 Introduction: 4.1.3 Olfactory Tour Design 4.1.4 Olfactory Storytelling: 4.1.5 Scent Development: 4.1.6 Impact Measurement: 	9 9 11 12 13 13 14	
5	T7.3 OE4. Odeuropa's City Sniffers5.1A smell tour of Amsterdam's ecohistory5.1.1Practical Information5.1.2Introduction - Goal of the Olfactory City Tour5.1.3Realised Outcome - City Sniffers. a guided tour of Amsterdam's ecohistory5.1.4Overcoming Challenges5.1.5Olfactory City Tour Design and Olfactory Storytelling5.1.6Scent Development5.1.7Working with GLAMs5.1.8Impact Measurement	14 14 14 15 16 16 17 17	
6	T7.6; OE5. : Hackathon and Workshop, Improve Your Olfactory Language6.0.1Practical Information6.0.2Introduction:6.0.3Media Coverage6.0.4Evaluation of Odeuropa Demonstrators6.0.5Group Feedback Sessions6.0.6Smell Walks6.0.7Event Outcomes:6.0.8Conclusion	18 18 19 20 20 20 21 23	
7	Looking Ahead: D7.4 Olfactory Storytelling Toolkit7.0.1Introduction7.0.2Methodology7.0.3Early Progress on Functionality and Content	23 23 23 24	
8	Conclusion	24	
A	0E2 Olfactory Descriptions	25	
В	OE4 Museum Training Brief	34	
С	OE5 Programme	42	

1 Introduction: Impact Strategy

In the Impact Activities Report, we provide a yearly overview and summary of the Odeuropa impact and dissemination activities. The main aims of the impact activities in Odeuropa's second year were to:

- continue to communicate Odeuropa's goals and expertise to our audiences and provide updates on our progress;
- 2. continue to activate a network of different stakeholders;
- 3. engage with GLAM professionals to better understand their needs;
- continue to collect experiences and concerns from experts about working with scents in GLAM curation, documentation, exhibitions and education;
- to continue to apply, try out and evaluate techniques for olfactory storytelling. The actions under 3, 4 and 5 are important steps for the development of the Olfactory Storytelling Toolkit (D7.4) to be disseminated in 2023.

Impact is essential to the Odeuropa project to validate and emphasise that critically engaging with our sense of smell and our smell heritage is an important and a viable means for connecting and promoting Europe's tangible and intangible cultural heritage. To ensure these messages reach a broad audience, the Odeuropa team uses various outputs to disseminate its goals and works hard to broaden its network through diverse press, news outlets, and presentation opportunities.

A large part of our dissemination goes through the creation of our olfactory events. As a continuation of the knowledge acquired in the events of year 1, the Odeuropa team curated and developed two new olfactory events as well as concluded one event from year 1. Through extensive documentation during the development of all five events, the outcomes of the events contribute to the development of (**D7.4**), designed to help GLAM professionals work with olfactory storytelling in their own institutions.

As mentioned in **D7.2**, the Odeuropa project believes that co-creation is critical to our impact strategy. Our strategy of year 1 consisted of workshops (**T7.2 and T7.4**) which mostly focused on academics, scent designers, curators and consultants who had a previous interest in olfactory history and methods of olfactory storytelling. This focused strategy was crucial in understanding the state of the art for olfactory storytelling as well as gather best methods and practices from this unique group of experts. We were able to use this knowledge in our events of year 2. During year 2, we continued engagement with smell experts while making sure to also target those within the GLAM sector. The events of year 2, specifically the launch of **T7.3** and **T7.5**, helped us better understand the GLAM sector and how it works day to day. During our first EU Project Review, it was suggested that we could increase engagement with GLAM professionals. Taking this suggestion into consideration throughout year 2, Odeuropa put engagement with the GLAM sector at top priority. This is clear through Odeuropa's collaborations with museums, dedication to targeting GLAM professionals as the audience for events and press communications as well as attending conferences and events focused on museum and heritage professionals.

In year 2, our impact strategy continued to be committed to hands-on and nose-on learning approaches. As promised, the events of year 2 brought forward tasks and activities which encouraged participants to engage with their sense of smell in different ways. Through engagement with various audiences and stakeholders, we continued to evaluate Odeuropa's goals and assets and further tailor them to the needs of our target audience.

Lastly, we finalised our method for impact measurement and put these methods into practice during all of Odeuropa's year 2 events as well as other olfactory events across Europe. This impact measurement is important to better understand the societal benefit and value of olfactory events for the public.



Kaart met geurtjes doet historische stank van de stad herleven: "Amsterdam sloeg alles"

28 augustus 2022, 07.00 uur - Aangepast 28 augustus 2022, 10.12 uur - Door Quirien Euwe



Figure 1:Screen shot of the article made for the AT5 televisionnews show (Amsterdam, Netherlands).https://www.at5.nl/artikelen/216545/kaart-met-geurtjes-doet-historische-stank-van-de-stad-herleven-amsterdam-sloeg-alles

 \sim

0

in

2 Impact Activities 2022

In the **Impact Activities Report Y2**, we provide the outcomes of Odeuropa's activities of year 2. This includes the aims of these activities, the challenges faced and lessons learned throughout the process of creation. In the report of year 2 (2022), we provide:

- 1. An updated overview of the general communication and dissemination activities undertaken since the end of year 1;
- 2. A detailed description of the three main olfactory events (T7.3, T7.5 and T7.6) that the Odeuropa team organised:

 - (b) T7.5 OE4 Olfactory City Tour: City Sniffers: a smell tour of Amsterdam's ecohistory (collaboration with IFF, Scent the Brand, The Institute of Art and Olfaction; Hosted by The Amsterdam Museum);
 - (c) T7.6 OE5 Workshop: Improve Your Olfactory Language (collaboration with NUK, the National and University Library of Slovenia, Ljubljana);
- 3. A summary of targeted engagement with GLAM professionals;
- 4. An early progress report on the Olfactory Storytelling Toolkit (D7.4).

3 Overview of the General Communication and Dissemination Activities of Year 2

As summarised in **D7.2**, the Odeuropa Project was well-received by the public and broadly covered in various press outlets. This interest from the press has not decreased and project members continue to respond to frequent requests. In year 2, Odeuropa was featured in various forms of media: radio, podcasts, television, and newspaper articles. This includes outlets with a large following such as the BBC Travel show. We were also able to reach smaller audiences. For example, local Dutch news outlets featured, **T7.5**: Het Parool, AT5, Vice NL, and Noordhollands Tagblad to name a few. Odeuropa was again featured in NEZ Magazine, with a piece focused on **T7.3**.

The Odeuropa team continues to be invited to conferences and talks which are used as a means of dissemination and broadening of our network. The interdisciplinary context of these requests reflect the many domains we cover within the Odeuropa project: cultural heritage, scent development, history, digital humanities, artificial intelligence, and museology. To provide a few examples: our progress towards smells being an important part of tangible and intangible heritage were presented to experts in heritage and chemistry at the Heritage for the Future, Science for Heritage Symposium Indoor Air Quality in Heritage and Historic Environments Conference 2022, and the GDR03 Annual Meeting. Our progress in scent development and using bespoke scents in GLAM practices were presented to the scent industry, at the Osmothèque Annual meeting and the Memory of Scent Workshop. We presented our progress in computer science and artificial intelligence at multiple conferences around the world, Digital Humanities 2022, The International Conference of Pattern Recognition, and The Digital Humanities/Artificial Intelligence Seminar. Odeuropa presented progress within museological approaches at Odoetheka's Value and Role of Smells in Museum Practice workshop, The 55th Seminar for Arabian Studies and Museum Next Digital Exhibitions Summit. Our progress and research around olfactory storylines and their importance to Europe's history were presented at the workshop Ways of Knowing the Early Modern organised by King's College London's Centre for Early Modern Studies and Warwick University's History Research Seminar 2022-23.

In addition to press coverage and presentations, we had other activities of dissemination. Our collaboration with the American Historical Review has brought Odeuropa to the forefront of historical science. The journal committed to releasing three issues focusing on the different elements of our project: Introduction to the History and Heritage of Smell; History and Heritage Science and History and Computer Science. With the first issue, Odeuropa was able to participate in a podcast Follow Your Nose to discuss the goals of the project and talk about 3 bespoke Odeuropa scents created for **T7.3**. This collaboration with the American Historical Review not only allowed us to publish multiple papers but it also gave us the opportunity to experiment further with techniques in scent distribution and embodied learning. Together with the American Historical Review, Odeuropa created an online teaching module to encourage teachers to use smells and embodied learning in their own teaching practice. The module is composed of elements which can be reused for **D7.4**, for example written instructions for conducting your own *smell walk* and an instructional video on how to implement different diffusion techniques into various environments.

In addition to the teaching module, 2 scent cards were made: one *Rub and Sniff* card with the scent of *Helene's Gloves* from the Odeuropa event **T7.3**. The second scent card had a new scent developed by an independent perfumer: the *Smell of Liberty*. This card will be handed out to participants of Odeuropa's designated panel at the American Historical Association's conference in January 2023. This provided the opportunity to further test and gather feedback on our *Perfumer Brief* (discussed in **D7.2**) and extend opportunities of scent development to independent perfumers. Opportunities like these broaden our knowledge and ensure variability in our stakeholder community.

The Odeuropa project continues to directly engage with our audiences and stakeholders through various means of communication. Our main updates go through the Odeuropa website and Twitter as we have found that these are most engaging and prompt the most responses. Our Twitter gathered 400+ new followers during our second year and we have posted 10 project updates via the Odeuropa's website blog. We continue to send newsletters to keep the Odeuropa Network updated on the activities and results of the project. The Odeuropa team also finalised the design of a Smell Talk Tracker where visitors can keep track of the Odeuropa news coverage, as well as discover social media coverage on other smell-related events and ideas. During our first European Project Review, concern was raised that we were not capitalising enough on our press and media responses. To solve this during year 2, the team invested in two communication internships who assisted us on these tasks while also building knowledge on how to communicate forms of intangible heritage through social media platforms.

4 T7.3; OE2. Olfactory Guided Tour: Odeuropa x Museum Ulm

- 4.1 Der Nase nach. Eine Führung mit Geruch Follow Your Nose. A Guided Tour with Smell
- 4.1.1 Practical Information



Figure 2: Odeuropa member, Lizzie Marx giving an olfactory guided tour at the launch of T7.3, Follow Your Nose. A Guided Tour with Smell. Photo Credit: Christina Kotsopoulou.

Coordinators: Museum UIm Coordinators:	Sofia Collette Ehrich, Lizzie Marx, Caro Verbeek Eva Leistenschneider, Stefanie Dathe
Support Team:	Inger Leemans, Victoria-Anne Michel, Pia Jerger
Scent Development:	Advised by Bernardo Flemming at IFF
Date:	Launch Event 5 April 2022; Tours Start 10 April 2022
Location:	Museum Ulm, Germany
Number of Test Tours:	4
Number of Total Tours:	43 (as of 10 October 2022)
Approximate Number of Participants:	800 (as of 10 October 2022)
Number of Tour Guides Trained:	5 (as of 10 October 2022)
Number of Questionnaires Completed	89 impact and 16 value questionnaires
Media Attention	Medium

4.1.2 Introduction:

Throughout the first year, the Odeuropa team designed an olfactory guided tour, **Der Nase nach. Eine Führung mit Geruch**, in collaboration with Museum Ulm. Due to Covid-19, Odeuropa and Museum Ulm were unable to complete and launch the event as planned in year 1. We use this section to provide an update on the event's completion.¹

The goals of this olfactory event were:

- 1. To work with the curators at Museum Ulm to choose artworks in their collection which connect to the history of smell as well as enhance the narrative of the museum as a whole;
- To work with Museum Ulm and IFF on creating smell interpretations for the selected artworks. These smells should highlight the olfactory qualities of the artwork and object, hence adding a new layer of meaning to the collection;
- 3. Choose and advise on methods of scent distribution for the guided tour;
- 4. Evaluate the visitor pathway through impact questionnaires;
- 5. Enrich Museum Ulm's digital collections with olfactory vocabularies and information.

We faced some challenges during the development of this event mostly due to the Covid-19 lockdown. After our test tours in November 2022, many European countries went back into lockdown, which prevented more test tours and in-person meetings for further scent evaluations. Despite the challenges, the teams were able to finalise the development for the event and once most lockdown restrictions were lifted, Museum Ulm organised a launch and press event for the tours in April 2022.

Another challenge we faced was enriching Museum Ulm's digital collection with olfactory vocabularies and information. Odeuropa was unable to fulfil this goal due to Museum Ulm lacking a strong digital platform that we could adapt. However, Odeuropa wanted to keep its promise. Throughout the first 18 months of the project (and still ongoing), Odeuropa has been working closely with lconclass, an online classification system that museums use to classify iconographical scenes in artworks of their own digital collection databases. Iconclass presents a rich database of over 28,000 classification types and 14,000 keywords. Members of the Odeuropa team applied lconclass as a use case to understand the level of olfactory information included in GLAM digital collections. After this research, outcomes were reported through the paper, Nose-First. Towards an Olfactory Gaze for Digital Art History. Since this publication, Odeuropa has been working closely with the lconclass team to develop a plan for enriching their current system with olfactory information. Early insights are already reported on the lconclass Forum. A successful collaboration between lconclass and Odeuropa would make a big impact and open doors for digital collections of GLAM institutes to be more inclusive of olfactory information.

¹For more details about the planning, development and test tours achieved in the first year of pre-development, please refer to D7.2. Impact Activities Report Y1.



Figure 3: Hand fan, blotter and point of scent distribution technique. Three different scent distribution techniques tested for the olfactory guided tour in Museum Ulm 2022. Photos: Sofia Ehrich

The UIm tours, as well as the other Odeuropa olfactory events, are intended as case studies, which help us to research how to improve the pathways for olfactory interpretation, event design, visitor experiences, and conservation. Although smells have been used in the GLAM sector before, the best practices of this have yet to be reported. Event **T7.3** greatly contributed to our knowledge of olfactory storytelling, specifically for olfactory guided tours in GLAMs. After the completion of this event, we can contribute this knowledge to **D7.4**. The below sections will provide an update via valuable learning outcomes which came from this event's completion.

4.1.3 Olfactory Tour Design

Outcome 1: Offering flexible options of olfactory design is helpful for GLAM professionals. Odeuropa and the Museum Ulm curators chose to develop an olfactory tour with flexible diffusion methods. Tour guides were trained to work with three different methods: Hand Fans, Point-of-Scent devices, and Blotters. It was important to Museum Ulm that the tour guides had options which suited different group sizes and age groups and this point became more clear after the launch when tours were fully running. After six months, the tour guides reported that all methods were effective and utilised in different instances. The ability to pick and choose these methods based on group size and the tour guide themselves was very important.

This possibility is also of importance for scent storage. Museum UIm advised that each distribution method requires different management. With some distribution methods the chosen storage place was emitting an odour that bothered someone's work space, which could not be prevented. Museum UIm also reported that every time an olfactory tour was conducted in the museum (no matter which distribution method) a smell trail lingered in the museum after the tour. These aspects are important to evaluate in **D7.4**, so GLAM professionals can balance between the pros and cons of the different methods and choose what is best for their institution.

Outcome 2: The scent distribution method influences the visitor experience. Tour guides reported that the Blotter technique created a more "vibrant" smell experience, whereas the Point-of-Scent technique was described as "flat". This can seriously impact the tours. For instance, when using Blotters, visitors commented on how the smell changed within minutes of receiving the Blotter and according to the tour guides, this impacted how visitors perceived the artworks. For example, visitors noticed different visual elements and asked different contextual questions. This differed from the Point-of-Scent technique where the state of the scent is more stable and tour guides reported that questions and observations regarding the artworks were predictable from tour to tour.

4.1.4 Olfactory Storytelling:

Outcome 1: *Malodours, as well as fragrant smells, can make an impact on visitors.* Odeuropa and Museum Ulm experimented with malodours for this event. Malodours can help heritage institutes provide new perspectives of their collections, narrating new, unexpected, and seminal stories about Europe's culture and history. However, incorporating malodours into olfactory events can be a challenge due to their evocative and intense hedonic impact. Past research has stipulated that malodours can pose a higher risk to visitors because they can cause negative emotional responses. To our surprise, most visitors to our olfactory tours had quite positive reactions to the malodours and they were interested in engaging with more. We learned that malodours can be quite powerful in narrating *darker histories.*

Outcome 2: Providing information about the individual ingredients of the scent compositions is essential for visitors and tour guides. In **D7.2** we raised concerns about the lack of transparency within the fragrance industry. As a result of its complex intellectual property laws, fragrance companies are highly protective of their production processes. This poses a challenge for the open access ideology of European research and innovation actions. To resolve this, the Odeuropa project developed the *Perfumer Brief*, which is used in all our scent development projects. In this brief, perfumers provide an olfactory pyramid with details of the smell's components. This detailed level of information was helpful for the tour guides, as it provides them with all the necessary information to answer questions form visitors about the smell compositions.

This outcome is important for the development **D7.4** as we better understand the knowledge necessary for GLAM professionals to have when working with smells. When reviewing the detailed smell information, Museum UIm expressed that they lacked apt knowledge about olfaction and olfactory vocabularies. To bridge this gap, we will include a short section on olfaction and olfactory language in **D7.4**.

(see Appendix A for the Olfactory Descriptions)

4.1.5 Scent Development:

In **D7.2.** we outlined important elements of scent development. Since the launch of the event, we collected feedback from the perfumers we worked with to evaluate our process.

Learned Outcome 1: For a successful scent development process, it is important to have a clear timeline and scope of the project. As summarised in D7.2, while working with perfumers on the scent development, we learned that perfumers must be briefed ahead of time. They require a considerable amount of in-depth information about the intended smell and its cultural-historical background. Additionally, they need to know its intended connection to the selected artwork. To streamline this process, Odeuropa created the *Perfumer Brief* which we collected for each smell created for the olfactory guided tour. This brief outlines all practical information necessary for the development of a scent as well as the cultural-historical information needed. To streamline and ease the process of scent development for GLAM professionals, D7.4 will offer the *Perfumer Brief* as a downloadable document which can be amended to different needs.

Outcome 2: Perfumers should be directly involved in the scent development process from the beginning. During the pre-development of this event, we went through three rounds of scent evaluation. This process involved the Odeuropa team working with a representative at IFF who communicated our written brief to the perfumers. Throughout the development process, we found that direct communication between all teams was most effective. Upon reflection, the perfumers reported that their inability to view the artworks in person (due to Covid-19) greatly limited their work process. These points raised the importance of involving perfumers throughout the entire process of event development as well as engaging them with the GLAM institution and its collection.

This outcome is important for continuing to shape the best practices and challenges of the scent development process. We are aware that there is still a lot to be learned, however, we hope that the *Perfumer Brief* can be a helpful tool that leads GLAM professionals through the scent development process. We do keep in mind that not every GLAM professional will be comfortable

using such a document. We are also aware that some perfumers communicate best through verbal communications.

4.1.6 Impact Measurement:

During the test tours reported in **D7.2**, the Museum Ulm team collected data through impact questionnaires. In year 2, Museum Ulm continued collecting impact questionnaires and value questionnaires. The details and evaluation of this data will be reported in **D6.2**.

5 T7.3 OE4. Odeuropa's City Sniffers

5.1 A smell tour of Amsterdam's ecohistory

5.1.1 Practical Information

Coordinators: Collaborative Partners:	Sofia Ehrich, Christina Kotsopoulou IFF, Scent the Brand, The Institute of Art and Ol- faction, The Amsterdam Museum
Support team:	Inger Leemans, William Tullett, Lizzie Marx
Application Development:	Thibault Ehrhart, Pasquale Lisena, Raphaël Troncy
Scent Development:	advised by Bernardo Fleming at IFF
Number of Museum Professionals Trained:	15
Date:	Launch 1 September 2022, End 30 September 2022
Location	Amsterdam, Netherlands
Number of Rub and Sniff Cards made:	1000 plus 350 for dissemination and internal use
Number of Rub and Sniff Cards dis- seminated:	600
Impact Questionnaires Completed Value Questionnaires Completed Number of Application Downloads	20 20 65 Android downloads; 195 iOS downloads
Number of Unique Visitors on Web Application	260 users
Media Attention	High

5.1.2 Introduction - Goal of the Olfactory City Tour

Throughout the first half of year 2, the Odeuropa team designed a self-guided olfactory city tour in Amsterdam, Netherlands. The objectives of this event were: **1**. to develop an olfactory walking tour through the city of Amsterdam; **2**. to develop demonstrators and multisensory storytelling that enhance cultural and climate awareness to the general public; **3**. to develop a smartphone application that can be used as a tool to narrate storylines of smell history and intangible heritage; and **4**. to collect user evaluations through questionnaires for **D6.2**.

T7.3 was originally planned as a component of Expedition Oosterdok (summer 2022), coordinated by Mediamatic. However, due to the impact of Covid-19, Expedition Oosterdok was cancelled. This cancellation forced the Odeuropa team to seek new partners quickly. We were unable to find a partner that would coordinate the creation of the tour. Therefore, the Odeuropa



Figure 4: *Rub and Sniff* map containing six emblematic scents connected to Amsterdam's past and present, created for Odeuropa's, City Sniffers – A smell tour of Amsterdam's ecohistory, printed for the event by Scent the Brand. Designed by Liam R. Findlay.

team had to organise the path, content, scent distribution, and communication strategy themselves.

5.1.3 Realised Outcome - City Sniffers. a guided tour of Amsterdam's ecohistory

T7.3 City Sniffers. a guided tour of Amsterdam's ecohistory consisted of a self-guided tour to be followed using a smartphone application developed by Odeuropa researchers and a *Rub and Sniff* map to engage with smells. The humanities and computer science groups of Odeuropa worked together to decide the best option for event design. This included the trail that the tour would take, the storylines it would follow, and the olfactory distribution design and application design. The Amsterdam Museum hosted the event by handing out the *Rub and Sniff* maps and by instructing participants about how to participate in the tour.

Within the Odeuropa team, the development of the event required the domain knowledge of a history (WP5), art history (WP7), museology (WP7) and computer science to create the smartphone application (WP4). The application content was available in English, Dutch, and French which required the hiring of a translator. WP6 designed the impact measurement methodology for the event. For the creation of the *Rub and Sniff* map, IFF supplied the scents, Scent the Brand printed the map with micro-encapsulation technology, and a graphic designer created the map design.

The final tour path was 2.3 kilometres and consisted of six stops and five smells. The tour started at the Amsterdam Museum where participants were handed a *Rub and Sniff* map and directed to the back of the map where they could download the smartphone application via a QR code. Stop 1 was the Amsterdam Museum with the smell of rosemary. This stop focused on the history of rosemary and the smell's important uses and associations throughout time. Stop 2 was the Pecunia Olet Money Building which did not have a smell on the map. The stop taught about the foul history and dark practices behind the production of money (e.g metal mining). Stop 3 was Jacob Hooy, the oldest apothecary in Amsterdam where participants could smell civet. This stop focused on the history behind the production and use of civet rooted in the history of the civet cat's captivity in the city centre of Amsterdam. Stop 4 was at the Bushuis or

the Oost-Indisch Huis which staged the pomander composition created for (T7.3). This stop told the history of the plague in Europe and how olfactory objects such as pomanders were used as smell strategies against diseases and malodours. Through the spicy origins of the pomander, this stop also describes the *dark histories* behind the Dutch slave trade and the colonial empire behind the history of this building. Stop 5 was at the Trippenhuis with the smell of a linden tree, highlighting the importance of plant-human-animal communication. The tour concluded in front of the Amsterdam Museum at the Amstel canal with the smell interpretation of a seventeenthcentury canal originally used at the Mauritshuis exhibition, Fleeting- Scents in Colour. This stop narrates stories of city life, urbanisation and sanitation.

5.1.4 Overcoming Challenges

The first challenge we faced during this event was that due to Covid-19, the events of year 1 were delayed. This caused a strain on the entire event's timeline, execution plan and workload of involved team members. Secondly, as discussed above, the Odeuropa team had to invest more time in planning and designing the event's concept and execution. The new GLAM partnership (Amsterdam Museum), had limited resources. The museum agreed to hand out Rub and Sniff maps to participants, but were not able to assist further.

Thirdly, a challenge for this event was choosing an olfactory distribution method. Since the event was self-guided, smells had to be distributed in a way that was mobile. Following the challenges of scent distribution techniques presented in D7.2, careful attention was put into choosing a method that would be successful and effective for the nature of the tour. Lastly, a main goal of this event was for WP6 to use the event as an opportunity to collect data about the impact of olfactory storytelling. Data collection turned out to be less successful than we hoped. These challenges will be further outlined in D6.2.

Not only were we able to overcome these challenges, they also offered opportunities for innovation, learning and the broadening of Odeuropa's network. For example, Odeuropa expanded its network through new partnerships with Scent the Brand and the Amsterdam Museum, opening further opportunities for knowledge sharing, collaboration, dissemination and exploitation efforts. Additionally, Odeuropa was able to select innovative olfactory design methods that would contribute best to the development of **D7.4**.

Lastly, the challenge of collecting sufficient impact data (KPI: 250 questionnaires) urged us to build new connections with other GLAMs using olfactory storytelling techniques and to measure the impact of their projects. It provided new and interesting opportunities to observe how other GLAMs are using smells in their institutions and bring new GLAMs into our network.

5.1.5 Olfactory City Tour Design and Olfactory Storytelling

T7.3 used techniques of multisensory and digital storytelling. Designing and implementing techniques of olfactory storytelling was a challenge which turned into three learning outcomes:

Outcome 1: The balance of multisensory and digital event curation takes extra coordination. The event involved a Rub and Sniff map for smelling and a smartphone application for navigation and storytelling. The downside of combining those two is that it takes a lot of hand coordination. While observing participants, we noticed that many wanted to either engage with the Rub and Sniff map or with the application. Coordination of both was difficult for participants.

Outcome 2: Since smells can be a new pathway of engagement for many, the combination of multisensory and digital methods have to provide information strategically. It was a challenge to make the curated storylines rich and informative without over stimulation. Since many individuals have never smelled in this context before, it is important to keep the concept of the event simple and the information clear. To solve this challenge, we created a template for the application's curated storylines. The storyline started with a summary of the chosen smell's importance to the city and chosen location throughout time. The smell then led to three different concepts which could be read as desired through expanding menus. Five storylines concluded with a question that helped participants engage directly with the smells.

Outcome 3: One smell can lead to multiple topics throughout history. The tour taught us that multiple concepts can be explored through one smell. This was something that directly impacted the design of the smartphone application and helped us communicate structured storylines.

This event also had the goal to use smells as a way of worthwhile storytelling. In other words, using olfactory storytelling to not only tell fun and interesting stories through smell, but to also dig deeper and communicate narratives around environmental awareness and lesser told histories. Through the smell compositions of a pomander and sixteenth century canal, we were able to communicate lesser known olfactory histories. In this case, the Dutch colonial spice trade and the environmental impacts of water pollution and sewage.

5.1.6 Scent Development

Outcome 1: Different scent distribution techniques require different smell dilutions and legal clearance. Odeuropa chose the method of Rub and Sniff for **T7.3**. This technology, also known as microencapsulation, has many upsides (the smell can last on the card for up to 10 years, the smell is strong, it is flexible and can be disbursed in various ways) but it comes at a higher price. While working with this method, we learned that Rub and Sniff requires specific scent dilutions and paperwork. Furthermore, we noticed that colder temperatures make the scents less noticeable, something to consider when organising outside smell tours in colder seasons. This information accentuates challenges that GLAMs will face while coordinating olfactory events. This knowledge adds to the variability of options that we can offer GLAM professionals in **D7.3**. Resources and goals will vary by institution so offering a variability in olfactory storytelling methods help showcase different opportunities for what GLAM professionals can do in their own institutions.

Outcome 2: Scents presented together in one event should have noticeable variability. For **T7.3**, three of the smells had a similar olfactory pyramid. The smells of rosemary (stop 1), civet (stop 3) and pomander (stop 4) were all sweet and pleasurable. Adding to their similarities, we know that the pomander smell (stop 4) contains civet and rosemary in its composition. Many tour participants reported that although the *Rub and Sniff* technology worked well and the smells were strong, some of the smells were too similar and therefore difficult to distinguish. This feedback raises the importance of making sure there is noticeable variation between the chosen smells of one olfactory event.

5.1.7 Working with GLAMs

Outcome 1: When collaborating with GLAM institutions, a well-established relationship is necessary. The Amsterdam Museum hosted **T7.3** by distributing *Rub and Sniff* maps. However, the short timeline did not allow much time for Odeuropa and the Amsterdam Museum to establish working processes. Covid-19 was still a threat which also resulted in online-only working meetings and email communications. Additionally, due to the museum's own commitments, they had to delegate tasks within their team strategically as to not strain their own working processes.

This experience was important as Odeuropa could better understand the inner workings of GLAMs and the challenges they face. We learned that olfactory events are difficult to commit to when resources are limited and guidelines and working plans of such events should be outlined from the beginning.

Outcome 2: The use and incorporation of olfactory methods must be flexible and work towards specific needs and requirements of differing GLAM institutions. GLAMs can have limited time for training staff and participating in test tours. To ensure that the Amsterdam Museum staff were well informed about the event, the Odeuropa team developed a training brief which provided the staff with helpful information and details. The staff were sent *Rub and Sniff* maps and the brief three weeks before the event launched for review. Odeuropa team members were available to provide in-person training and answer questions via email.

(Appendix B for the full brief.)

5.1.8 Impact Measurement

Data collection was taken into consideration when designing **T7.3**. After completing the tour using the smartphone application, participants were directed to a digital version of the impact questionnaire. Despite our efforts to communicate and clearly lead participants to the impact questionnaire, data collection was extremely challenging. The Amsterdam Museum passed out 600 *Rub and Sniff* maps but only 20 impact questionnaires were completed in the application. Lack of questionnaire completion could be due to the open format of the tour. Upon collection of a *Rub and Sniff* map, participants could continue the experience at their own will. To solve these issues, in October 2022 we organised 3 registered guided tours to facilitate the dissemination of value questionnaires. We learned that guiding participants through the city tour and verbally instructing them to fill out questionnaires directly afterwards helped data collection but this is a time-consuming method.

We did respond to requests that the Amsterdam Museum received from large groups who wanted to participate in **D7.3**. Unfortunately, these groups were either unable to fill out the questionnaire due to their age (we did not have ethics clearance for those under 18 years of age) or these groups were not willing to complete questionnaires. Specific examples include high school teachers who wanted to take their students on a guided walk through Amsterdam and a few Amsterdam tour guides who wanted to lead their own city tours with the *Rub and Sniff* maps. Although these groups could not be part of our data collection, their enthusiasm and interest in the event offered interesting insights into how olfactory events can be beneficial for diverse groups and inform further exploitation efforts. For example, a high school teacher who facilitated tours using Odeuropa's *Rub and Sniff* maps adapted the tour material to meet her student's specific age groups. These lessons can be taken into account when outlining the best practices of olfactory storytelling for **D7.4**.

6 T7.6; OE5. : Hackathon and Workshop, Improve Your Olfactory Language

On November 7–8th, Odeuropa organised a hands-on Hackathon and workshop in collaboration with the National and University Library of Slovenia.

The primary objective of the event was to test the effectiveness of the text processing demonstrators and to provide general information about the Odeuropa project to potential stakeholders. Nose-on components of the event included a smell session and a smell walk on the library premises and around the city of Ljubljana.

6.0.1 Practical Information

Coordinators:	Inna Novalija, Dunja Mladenić
NUK Coordinators:	Alenka Kavčič - Čolić
Support Team:	Victoria-Anne Michel, George Alexopoulos
Date:	7-8 November 2022
Location:	National and University Library of Slovenia
Number of Demonstrators Tested:	4
Number of Participants:	30
Number of Questionnaires Completed	15 value questionnaires
Media Attention	low (expected)

6.0.2 Introduction:

The event offered an intensive, two-day, nose-on and hands-on meeting, where participants tried out cutting-edge research and development in sensory data-mining, and discussed the opportunities of olfactory approaches to cultural collections and archives. Additionally, participants



Figure 5: Hackathon Day 1. Prof. Dr. Dunja Mladenić and Dr. Ines Vodopivec speaking at the introductory session of the Odeuropa Hackathon and Workshop. Photo provided by NUK

obtained a possibility to explore rich olfactory lexica of the past for research and exploitation purposes. The nose-on setup of the workshop included sniffing sessions and a smell walk through the library, offering participants the chance to learn by sensing. The event included poster and networking sessions in the library where attendees were able to network on an international level. All participants used their own laptops, and covered their own travel expenses.

The main goals of the Hackathon and workshop were:

- 1. To promote text analysis results of the project;
- 2. To test effectiveness of the text processing demonstrators;
- To engage a network of librarians and digital heritage collection specialists that can work with Odeuropa vocabularies and ontologies and possibly integrate these into their own collections.

Through an online survey, we were able to capture feedback from the participants. **T7.6** received positive feedback from Slovenian attendees as well as from international participants. The attendees specifically highlighted interesting organisational aspects of the event, which combined an overview of the work done in Odeuropa project. For example, they commented on the practical sessions like demonstrator testing and smell sessions with evaluations. Participants from the National and University Library of Slovenia are interested in continuing the collaboration with the Odeuropa project and engage in future utilisation of the Odeuropa developed tools and demonstrators. (see Appendix C)

6.0.3 Media Coverage

The news about **T7.6** was published in the news portal for librarians Knjižničarske novice. This blog post covered the general information about the event, details about the Odeuropa project and its project partners, it gave insights into the Odeuropa demonstrators and summarised the overall feedback gained from the event. The program for **T7.6** included a public event with press on the morning of day 1.

The presentations for the workshop for general public on the morning of day 1 have been recorded by Videolectures.NET team and will be available at the Videolectures.NET portal Videolectures.net. VideoLectures.NET is an award-winning free and open access educational video lectures repository which holds lectures by distinguished scholars and scientists. The portal aims to promote topics within the sciences, exchange ideas and foster the sharing of knowledge.

6.0.4 Evaluation of Odeuropa Demonstrators

During **T7.6**, participants were split into three groups who tested out three different Odeuropa demonstrators:

- 1. The Odeuropa Smell Explorer a tool for browsing Odeuropa's collection of texts and images in various languages (English, Dutch, French, Italian, German, Slovenian). The database search can be sorted by language, time period, location, source, etc.
- The Smell Talk Tracker a tracker for references to scent in social media, with special functions for sensory mining in Slovenian texts, Wikifier, a semantic annotation service for multiple languages. These tools were developed at the Jožef Stefan Institute and enable the analysis of olfactory expressions in texts with various annotations.
- INCEpTION a tool for the annotation of olfactory expressions in texts which is used by Odeuropa annotators.

For each tool, organisers (WP3) prepared a set of basic and advanced usage scenarios. Basic scenarios involved experiments with tool interfaces whereas advanced scenarios were targeted at participants with programming skills. Participants could either try out multiple tools or focus on the tool of their choice. At the end of the sessions, participants were asked to fill in the online usability questionnaire.

6.0.5 Group Feedback Sessions

The questionnaire contained a demographic section, a section for general event assessment, and lastly, a section for tool evaluation. In the demographic section, participants specified their organisations and profiles (historian, librarian, cultural heritage expert, digital technology expert, data scientist, etc.). In the general event assessment, they responded on how they found out about the event, why they participated, if they found anything unique about this event compared to similar events, and how likely they would recommend such an event to other colleagues.

In the tools evaluation section, participants provided information and feedback about the tools that they tried. For example: how long it took them to complete the task, if their expectations for text processing and data exploration were met, the biggest challenge they faced while working with tools, if the tasks were clearly formulated, if the tools were self-explanatory and well documented, if the tools were useful, and which visualisations/functionalities they would use in their own work. We also asked them about how they used the tool, for example: if they tried text search and concept search/filters, if they understood the difference between text search and concept search/filters, and what their favourite feature of the tool was, and if any functionality was missing.

6.0.6 Smell Walks

The **T7.6** program included several smell walks, where participants were invited to explore their sense of smell inside and outside of the National and University Library of Ljubljana premises. Participants were asked to fill out a smell walking questionnaire, in which they assessed how

smelling changes while moving from space to space. These smell walk opportunities introduced participants to nose-on learning methods. Additionally, it allowed the Odeuropa team to collect and test methods of olfactory storytelling. WP5 conducted and evaluated the smell walks for PhD research and WP6 collected questionnaires.

6.0.7 Event Outcomes:

Outcome 1: The event showcased the interdisciplinary fields that the Odeuropa tools can serve and captured feedback to help make these tools stronger for the future.

This event gathered a number of experts from different sectors: librarians, historians, cultural heritage experts, data science and information technology professionals. Following the multi-disciplinary working environment, the organisation team covered tasks for both general and specific technical aspects. These tasks were related to the Odeuropa language technologies and these scenarios for the Odeuropa demonstrators were prepared taking various user profiles into consideration.

Below we provide a few responses from participants on their favourite feature of the Odeuropa tools:

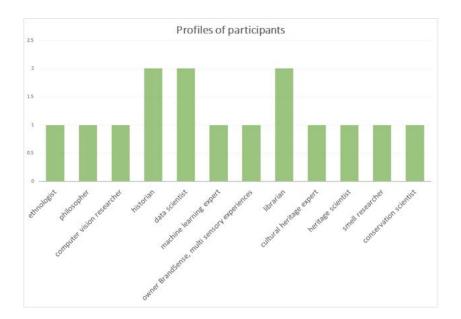
- "For Smell Explorer I liked the hovering idea, makes me come to conclusions sooner about observations. For Wikifier - I liked the API, that I could play with and write my custom codes for exploring new things."
- 2. "The Odeuropa Explorer's ability to filter through historical texts and images relating to smell is superb."
- 3. "get a list of sources for future use. Especially useful are the adjectives associated to smell words showing in the smell explorer"
- 4. "Smell Tracker: the different visualisation views // Inception: the UI which makes it very easy to annotate words // Wikifier: the API for implementing in your own projects"
- 5. "With the smell explorer the best feature is the possibility to get in an easy and fast way information regarding the selected word and then filtrate the research with the location, period of time, emotion, carrier. Moreover, I think that also the image research is extremely interesting. These features would save lot of time from a simple google research."

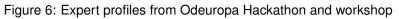
Outcome 2: Nose-on methods and organised tasks can keep participants actively engaged when using digital tools.

User engagement seemed very high during the event. Due to the straightforward tasks, clear instruction and nose-on methods, participants were actively engaged during the entire Hackathon and workshop and willingly provided feedback. The Hackathon and public event had a very pleasant atmosphere. Participants characterised the event in the following ways:

- 1. "Very nice group energy among experts from very different disciplines."
- 2. "I haven't participated in similar events, however, being my first experience, it was a lot of fun to try out things and discuss."
- 3. "Very special, completely new knowledge and experience."

Most of the users reported that they would strongly recommend participating in events like these to their colleagues. Participants mentioned "Learning new technologies" and "Curiosity to trying new things" as very important reasons to join the event. Several participants mentioned "Smelling sessions" as an important reason for participation in **T7.6**.





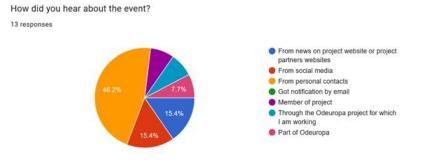


Figure 7: Users respond on how they have heard about the event

How likely is it that you would recommend such event to other colleagues 13 responses

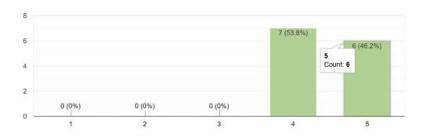


Figure 8: Users respond if they would recommend such event to colleagues

Which visualizations/functionalities would you use in your work?

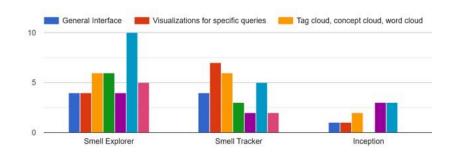


Figure 9: Users respond on which visualisations and functionalities they would use

6.0.8 Conclusion

In summary, **T7.6** was a successful, interdisciplinary event organised by the Odeuropa project partners. The event gathered various professionals in the area of digital libraries, history, olfactory research, and digital technologies as well as provided participants with an opportunity to test the developed Odeuropa tools. Odeuropa partners obtained valuable feedback regarding the usability and functionalities of these tools, which is important future development and improvement.

7 Looking Ahead: D7.4 Olfactory Storytelling Toolkit

7.0.1 Introduction

Throughout year 2 of our impact activities, Odeuropa focused its efforts on disseminating Odeuropa's mission to GLAM professionals and including them in our events. The Odeuropa project also aimed to learn more about the work processes within GLAM institutes. We felt this was crucial for the development of **D7.4**. In year 2, we worked closely with two GLAMs (Museum Ulm, Germany and The Amsterdam Museum, Netherlands), interviewed GLAM professionals for **D6.2** and we attended conferences within the GLAM sector. The Network of European Museum Organisations Conference 2022 (NEMO Conference) was particularly beneficial. We are on track for (**D7.4**) being both informative and meeting the needs of various GLAM professionals. This is achieved through the knowledge gained by developing all five Odeuropa olfactory events and workshops, attending conferences geared towards GLAM professionals, and deliberate engagement with GLAM professionals in year 2 and 3 of the project. This section will briefly summarise the methodology for **D7.4** and introduce the next steps for its development.

7.0.2 Methodology

To advance our understanding of the GLAM sector further, Odeuropa attended a conference geared towards museums and museological practice. The NEMO Conference is a yearly conference that brings together an international group of GLAM and heritage professionals in one room to discuss the current state of the sector. The conference in 2022 included more than 200 GLAM professionals from a diverse background. 33 speakers shared their current experiences, challenges, and learnings within the industry. The outcomes from attending this conference are beneficial to the development of **D7.4** as the Odeuropa team could understand the current situation and the working methods of attending GLAM professionals.

Overall, the conference revealed that the GLAM sector is at a turning point, especially since the impact of the Covid-19 pandemic. They are looking for new and innovative methods that will assist them in telling new stories and reaching new audiences. On the other hand, due to their working processes which often have various limitations, they seek methods that are flexible and responsive to their needs. Since the attendance of the NEMO conference, Odeuropa team members are working together on how to best address this audience and shape the Olfactory Storytelling Toolkit to their needs.

7.0.3 Early Progress on Functionality and Content

We are still in early development of **D7.4**. We aim to release it in the form of an online demonstrator or website that interested parties can access and use as they wish. Actions are in motion to unify the design of the **Olfactory Storytelling toolkit (D7.4)**, **Odeuropa Explorer (D4.6)**, and **Online Encyclopaedia of Smell Heritage (D5.3)**. This is to draw a clear relationship between all platforms and make them similar in functionality for their users.

In the early development stage, we foresee a module-like interface where GLAM professionals can either reach curated content based on their needs, professional profile and interest in olfactory storytelling techniques, or explore the digital toolkit in its entirety. Information will be accessible directly via the website or via downloadable tools in the form of documents, slide presentations, and videos. These downloadable tools will be uploaded in an editable format for the user to adapt to their own needs. The planned content and tools are directly derived from knowledge and resources developed throughout the Odeuropa project.

The Odeuropa team (WP5, WP6, WP7) is nearing a final outline of the content that will be included in **D7.4**. The development of written content and the organisation of tools is on track to start in February 2023. The current outline of the toolkit was developed based on experiences and knowledge that we collected while working with GLAMs, on the Odeuropa olfactory events, listening to scent experts, and past research. Topics include (but are not limited to): an introduction to the olfaction and important olfactory vocabularies, ethical concerns and challenges of olfactory museology, methods for finding olfactory scenes and stories in GLAM digital collections, and tips for presenting (heritage) scents in diverse GLAM environments.

8 Conclusion

For the Odeuropa project, the olfactory events are case studies, which help us to research how to improve the pathways for olfactory interpretation, event design, visitor experiences, and conservation, while integrating digital heritage collections in these pathways. The expected tasks and activities outlined in the grant agreement for year 2 were completed successfully. In year 2, the Odeuropa team continued to communicate the Odeuropa project (goals, activities and results) with a diverse and interdisciplinary network of stakeholders as well as ensuring engagement with GLAM professionals. We set our impact measurement plan in motion and used it on T7.3, T7.5, and T7.6 as well as exhibitions internationally. In addition, we continued to collect experiences and concerns from sensory (museology) experts, and evaluate techniques for olfactory story-telling which go into the development of the Olfactory Storytelling Toolkit (**D7.4**). In year 2, we put engagement and communication with GLAM professionals at top priority to better understand how to fit D7.4 to their needs.

A 0E2 Olfactory Descriptions

Title: Ideal concept of a Fortified Pleasure Garden Date: 1645 Creator: Jonas Arnold (c.1609-c.1669) Medium: oil on canvas



Description: From the upper storey of an imaginary building, the viewer looks down like a ruler on his palace garden by the sea: the grounds offer space for sport and play, for walks amid fragrant flowerbeds, past artificial lakes, grottos, aviaries and a pavilion, through arcades and an animal garden. A fortress wall with bastions protects this paradise against any outside threat.

This ideal garden was designed by the UIm architect Josef Furttenbach (1591-1667). In his book "Architectura civilis" he published a plan with a detailed description in 1628, in the middle of the Thirty Years' War. The painter Jonas Arnold translated the architect's ideas into a painting that vividly illustrates the almost paradisiacal charm of the garden and Furttenbach's world of ideas.

Scent Description:

Name: Heidrun Harder - JeeHee Han; Company/Institution: IFF

This is a classic green-floral scent, starting with a hint of mimosa, cedarleaf and a fresh seabreeze, leading over to the fresh scent of tulips and springtime flowers, based on woody and earthy elements, using very classical materials to underline the historic aspect of the painting.

TOP: Mimosa, Hyacinth, Cedarleaf, Seabreeze accord HEART: Tulip, Rose, Violet, Ylang Ylang BASE: Cedarwood, Moss, Amber

While being a composition, the structure features many classic natural materials, like floral greens. Mimosa, Violet leaves, florals like Ylang and woody vegetal ones like Cedarwood and Moss

The notes are fresh green notes like springtime flowers, a seabreeze effect, a floral bouquet with tulips and roses and woOdy ambery notes like Cedarwood and Moss

Title: Anastasis / Christ in limbo Date: 1549 Creator: Martin Schaffner (c.1478-after 1546) Medium: Oil on panel Dimensions: 146 x 112cm



Description: This recounts the story in Christian liturgy when Christ descends into Limbo. After Christ was crucified, and before He was resurrected, He brought salvation to all of the souls who had been committed to Hell. Through the gates of Hell Christ is depicted pulling up Adam, followed by Eve, and other souls. A devilish figure also pushes the gate expelling fire from its mouth, and the smoky residue of hell seeps from the stone walls.

Scent Description: Name: JeeHee Han; Company/Institution: IFF Animalic, fecal, indolic, smoky and spicy

The ingredients were selected to have foul scent and smokiness. Foulness is to give unpleasant feeling and smoky part is to express the smoke in the painting and, also burnt flesh and sulfuric scent of the Hell. Spicy note was used to give hotness of the hell.

how did the perfumer solve the sulfur challenge?

Title: Tableau piège N° 7 Date: Creator: Daniel Spoerri (b.1930) Medium: Mixed media



Description: The French word "piège" translates as trap. Daniel Spoerri invented the trap images. The French term is "tableau piège". Spoerri gave this explanation: "Objects found in random neat or messy situations, fixed on their random support (table, box, drawer, etc.). ... By declaring the result an image, the horizontal becomes vertical. Example: The leftovers of a meal are fixed on the table and hung on the wall with the table."

Because it appeals to all the senses, Spoerri, founder of the so-called Eat art, liked to work so much with food. In his Düsseldorf restaurant, which he opened in 1968, he cooked for the guests himself. He fixed what was left over in his trap images. Transience became an elementary component of his works; the separation between art and life seemed almost completely abolished.

Scent Description

Name: Rebecca Kirchmeier; Company/Institution: IFF

The opening is fruity, fresh and a bit pungent like wine. The wine scent is detectable combined with something weird but known. A butyric, overripe, sour and cheesy smell turns into a woody, smoky, dry scent. It feels like entering a room after someone left a while ago but you are still able to feel a person was present, having dinner, wine and smoking a cigarette.

Olfactive pyramid: Top:fruity, wine, cheesy, tropical Heart:Rose, Violet, Coffee, spices Base: Cedarwood, dry, smokey

A wine accord, different types of Cedarwood, smokey notes, foul, cheesy and fishy facets. Cedarwood, Coffee, Patchouli, Cade, Cumin, Rose aspects, fermented wine notes Title: Kleine Landschaft Date: Creator: Dieter Roth (1930-1998) Medium: processed cheese on sandpaper wrapped in plastic



Description: In the vast food oeuvre of Dieter Roth (1930-1998), the use of edible and thus bodily substances reflects a direct connection to elementary life processes, to becoming and passing away, preservation and decay. Whereas real food had previously been used and understood primarily as an expression of the vital principle, Dieter Roth moved the inevitable mortality of all organic matter into the focus of his artistic interest. The valid work of art that transcends time became a radically real memento mori.

In the mid-sixties Dieter Roth began to work with foodstuffs such as potato salad, bread, sausage, cheese and, again and again, minced meat. He directly presented the processual decay of these materials, i.e. their successive destruction by mould, rot, insects and maggot infestation, as a work of art. He calculated the sometimes beastly stench as a new sensory experience. In 1968, Joseph Beuys appointed him to the Düsseldorf Art Academy. Here Daniel Spoerri ran his Eat Art Gallery, where Roth repeatedly exhibited. He visibly toned down his choice of materials and initially worked with chocolate, which he heated and moulded, spread on wood or paper and into which he sank toys, garden gnomes and knick-knacks. Their connotation, positive in itself, could quickly turn into the opposite with increasing maggot infestation.

Scent Description

Name: Rebecca Kirchmeier; Company/Institution: IFF

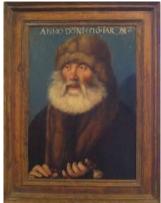
Cheese combined with something a bit rotten and foul

It's a quite disgusting cheesy smell - which is unpleasant.

It is representative for old, rotten smelly cheese, which is already noticeable from far away – reminding a bit on stinky feet and something uncomfortable.

The main raw material representing a rotten cheese smell occurs in cheese and fish.

Title: Portrait of Eitel Besserer Date: 1516 Creator: Martin Schaffner (c.1478-after 1546) Medium: Oil on panel; Dimensions: 43.5 x 31cm



Description: Martin Schaffner's portrait of Eitel Besserer shows the Ulm councillor at prayer. The slightly open lips are saying a prayer while the hands dasp the wooden rosary. The filigree silver ball on the rosary represents a pomander filled with fragrant substances.

Besserer's coat is trimmed with valuable fur and shows the wealth and high social status of the portrait subject. For the painter, on the other hand, the masterfully rendered texture of the fine fur serves as proof of his artistic skill. The blue background of the painting does not reveal any space; only the direction of the light and the shadow of the head lend depth to the painting. Scent Description:

Name: Rebecca Kirchmeier; Company/Institution: IFF

Historical Recipe Provided: Nutmeg Rosemary 'Schlag' (a balm made up of nutmeg, cinnamon, cloves, lavender, marjoram, rosemary, ambergris, musk, civet) Cloves	Perfumer Interpretation: Olfactive Pyramid Top: Rosemary, Oregano, Cinnamon Heart; Rose, Lavendel, Clove Base: Civet, Ambergris, Musk
Rose	
Lavender	
Lemon	
Combine, in equal proportions	

It's a quite spicy fragrance worked around nutmeg, dove, rosemary, origanum, cinnamon combined with rose, ambergris and civet.

Its spicy floral fragrance combined with animalic musky notes

Title: Orange Blue Date: 1964–1965 Creator: Elsworth Kelly (1923–2015) Medium: oil on canvas



Description: Ellsworth Kelly's works are characterised by an extreme reduction of forms and colours. He contributes to the development of the "shaped canvas", a playful form of hard-edge painting. Here, the motif of the painting becomes identical with the outer form of the painting support. In "Orange-Blue" Kelly explores the relationship and interaction between colour and form, the connection between coloured light and optical weight.

Scent Description Name: Heidrun Harder; Company/Institution: IFF TOP: Seabreeze, Aldehyde, Citrus accord HEART: Orange Flower BASE: Amber, Musk

It is a fresh modern simplistic composition, opening on a watery, slightly salty fresh air accord in combination with fresh citrusy, orange undertones, drifting on an orange flower part with a soft musk to round off.

Fresh citrusy elements in combination with watery, salty elements, underlined by some orange flower floralcy and softened by an ambery and a musky material that was also seen by consumers in this colour world.

It shall communicate the story of the picture that plays with colours and shapes, so that this rather abstract painting will become palpable. It features a simplicity and clearness in the perception as the accord is willingly kept the shortest possible to reflect the reducedness. The aim is to lead to a direct synaesthetic effect of smelling and watching.

Title: Adoration of the Magi Date: c. 1480 Creator: Jörg Stocker (c. 1461–after 1527) /Martin Schaner (c. 1478–after 1546) Medium: Oil on panel



Description: A the nativity of the Christ child, He is visited by three magi, who each come bearing gifts of gold frankincense and myrrh. It is remarkable that two of the gifts presented to Christ were fragrances. The tradition usually follows that Caspar, the eldest of the Magi, o ers gold, Melchior, the middle Magus, brings frankincense from Arabia, and Balthazar, brings myrrh from Africa or Yemen. The frankincense usually stands for Christ's divinity, while the myrrh stands for Christ's humanity, as its bitterness forewarns the su ering of Christ.

Scent Description: Myrrh

Name: Rebecca Kirchmeier; Company/Institution: IFF

Typical myrrh -quite decent and soft mixed with some resinous and spicy aspects. For adding more depth and volume the three myrrh qualities were combined with another resinous raw material called Opoponax resionoid (Bisabol – Harz).

Myrrh in different qualities due to different extraction processes.

Scent Description: Myrrh (Olibanum/Frankincense)

Name: Company/Institution: IFF

Any other ingredients added or is this just the Raw material?

Title: Portrait of Helena Schermar Date: c. 1620 Creator: Andreas Schuch (c. 1634–1680) Medium: Oil on canvas



Description: This portrait depicts Helena Schermar from Ulm. In the year the painting was created, she married the councillor Anton Schermar. Andreas Schuch portrayed the newlyweds in two related paintings.

The couple belonged to the patriciate, the most distinguished social class in the bourgeois society of the city of UIm. Even very wealthy citizens usually had their portraits painted only once in a lifetime, often on the occasion of a wedding. The only picture that remained for posterity therefore not only had to reflect a person's appearance, but also immortalise their social status. The jewellery, the clothes made of expensive fabrics and the elaborate headdress testify to wealth. A knowledgeable contemporary would have been able to recognise Helena Baldinger's social status from her jewellery alone: The dress codes of the city of UIm allowed only patrician women to wear large gold chains. Scent Description (Tanned Leather):

Name: Company/Institution: IFF

Historic Recipe Provided: Slaked lime (calcium hydroxide /slaked lime – calcium oxide (quicklime) mixed with water, known as slaked lime. Not the citrus, more trigeminal) Alum Urine	Perfumer Interpretation: Olfactive pyramid Top: ammonium, cheesy, Middle: violet, cresolic, phenloic Heart: leathery, animalic, civet
---	---

Typical leathery scent – quite strong waxy, animalic, leathery – not super unpleasant but also not nice.

Scent Description (Perfumed Gloves): Name: Company/Institution: IFF

Historic Recipe Provided: Civet	Perfumer Interpretation:
Rosewater	Olfactive pyramid
Water of myrtle flowers	TOP: Mimosa, Cypress, Myrtle
Cyprus powder	HEART: Jasmin, Neroli, Rosewater, Orris
Oil of jasmine	BASE: Incense, Amber, Musk, Civet, Tolu
Frankincense	
Ambergris	
Oil of Ben	
Perfumed water	
Dried roses	
While measurements are not provided, the	
ingredients listed should all be combined	
together.	

For the final rework used qualities of raw material closer to ones used in the ancient formulations (eg rose) and rebalanced the "cyprus powder" scent following what ingredients mentioned in the details of brief you provided and making the reconstruction even more true to the original scent.

The perfumers found that the habit of perfuming the gloves had come from Italy with the Conte de Franginpani who seemed to be the first one, having the idea of perfuming the smelly leather. Catharina di Medici started the fashion of perfumed gloves at the French Court introducing techniques that were used in Italy (Florence). It seemed that the Comtessa de Nerola wore perfumed gloves with the perfume of orange flowers, hence the name "Neroli".

At that time cities like Grasse that produced fragrant flowers like Jasmin, Rose an lavender and leather also started the production of perfumed gloves.

The perfumes used were violet, orris and orangeflower as well as ambergris, musk and civet and again those of the region, like rose, lavender, dove, verbena or cinnamon.

Sources:

https://musee-parfum-paris.fragonard.com/actualite/histoire-de-grasse-des-tanneurs-aux-parfumeurs/ https://ze-mag.info/petite-histoire-gants-parfumes/?utm_source=cpp https://auparfum.bynez.com/petite-histoire-du-parfum-et-de-la-parfumerie-1-4,212

B OE4 Museum Training Brief

Manual - City Sniffers: A smell tour of Amsterdam's ecohistory

Location: The Amsterdam Museum, Amstel 51, 1018 DR Amsterdam, Netherlands Start date: September 1st, 2022 Duration: 1 month; release 250 cards each week; 1000 cards in total Format: Self-guided multisensory walking tour using an online demonstrator application Language: English; Dutch; French Price: Free Target Audience: individuals 18+; children can participate with parents and not fill out questionnaire Creator: <u>The Odeuropa Project</u>; Host: <u>Amsterdam Museum</u>; Additional Collaborators: <u>Scent the Brand</u> (print of map), <u>International Flavours and Fragrances</u> (supplier of scents), <u>Institute for Art and Olfaction</u> (IAO), Liam R. Findlay (designer of X t (1 w(Y '-Map)

Contact: Sofia Ehrich: sofia.ehrich@huc.knaw.nl; Inger Leemans: inger.leemans@huc.knaw.nl



Overview

What is the Odeuropa Project?

Odeuropa is a three-year, European funded, Horizon 2020 research project that advocates for smells and smelling as being important to Europe's tangible and intangible cultural heritage. The first goal of Odeuropa is to identify and trace smell references in European digital image and text collections between the 17th and early 20th century in six languages. The second goal is to find out and share the best practices of bringing smells into the museum and to educate and train cultural heritage professionals in these strategies. At the end of the project, we will have developed digital and multisensory resources that allow people to access the project's results and explore different parts of smell heritage.

Why the sense of smell?

Overall smell can heighten the impact of the museum experience - through increasing attention, emotions and memory and diversifying the stories and approaches we take in the museum. Olfaction, or

our sense of smell, is processed in the brain's limbic system which is directly involved with the regulation of the emotions and memory which lead to more memorable and emotional connections. Through increasing sensory input, attention is heightened and this more sensational approach can provide a more approachable way to engage with the space. Smell diversifies the pathways of engagement offering a place for those with other abilities, children, young adults and adults alike!

What is the City Sniffers tour?

3´ (Y '-y (I (y ((-f) y wl (yu `´ is an experience based on one path of six stops with scents and stories within the city of Amsterdam. The goal of this tour is not only to explore the urban space of Amsterdam through smell narratives, but also to use smell as a narrative tool to raise awareness of dimate change and underlying histories. Through the use of a phone application and Rub and Sniff card with five emblematic scents, participants will be able to guide themselves through the tour.

To measure the impact of smell experiences, the tour also has a small questionnaire or survey at the end that we hope all participants will fill out upon completion. This is crucial to the success of the event and the research project as a whole. For this, individuals must be 18 and over because of the ethical dearance received for this research.

How do participants smell during this tour?

Scents will be experienced via a 'Rub and Sniff' map in which smells will be printed on a card and can then be sniffed. It is communicated that these maps can be picked up at the Amsterdam Museum information desk. The front of the card has five scent spots and the back of the card has a QR code for downloading the 3' (Y '-y application.

What is Rub and Sniff and how does it work?

Rub and sniff, also known as scratch and sniff technology, was invented by 3M in 1965. It is achieved through the process of microencapsulation. This is when perfume drops are enclosed at a microscopically small level and little "walls" go around the drops that well preserve the scent. One scent spot contains millions of these small microscopic scent capsules and when these scent spots are rubbed, the walls break and the scent is "freed" and you can then smell it. The microencapsulation technique preserves the aroma on the paper for extremely long periods of time (believed up to 10 years).

This technique has been used in the past within the entertainment industry for gaming and cinema as well as for scent communication and marketing.

How does the City Sniffers application work?

The City Sniffers Rub and Sniff map has all necessary information to access the application. Participants must scan the QR code on the back of the card which will lead them to the website to download the app in the Google or Apple application store. Access here: https://ditysniffers.odeuropa.eu/

The experience is guided by a phone application (developed by Odeuropa researchers) that is both a navigational tool to keep people on the right path and a way of storytelling. When participants go to

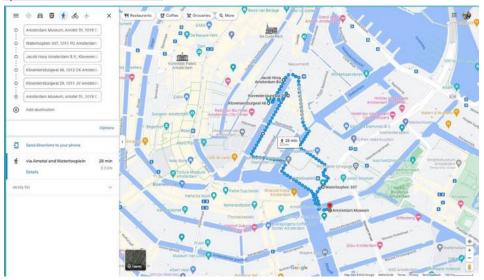
each stop on the tour, they explore that location by reading a text which accentuates the location's olfactory history. The application will also ask participants to test their nose by asking questions specifically related to the smells.

What stories are told on this tour?

Due to the dynamic and rich history smells carry, smells can also offer a way to tell fresh and diverse stories and visitors a whole new experience of exploring the past. This tour explores narratives around colonial histories, transportation and industry. To emphasize the impact of humans on the environment, the chosen locations and smells will bring forward stories related to our current dimate crises and how our present day is a cumulation of our past actions.

A note on ethics of smell:

The use of smells comes with ethical challenges as they can cause intimate experiences directly linked to personal memories. Some of the diverse stories and perspectives raised through smell can be sensitive topics for some but can also result in participants sharing interesting and personal insights. Be open and considerate to the unexpected reactions participants may have and the stories and thoughts that they may share.



Specifics of the Tour Route:

Route:

Total Stops: 6; Walking Distance: approximately 2.3 KM; Estimated Duration: 1 hour

Storylines and Smells

Stop 1: Amsterdam Museum: Amstel 51, 1018 EJ Amsterdam Smell - Rosemary (IFF) Storyline - The history of rosemary and its important uses and associations throughout time. For example, how this material was used in perfume and medicine.

Stop 2 Pecunia Olet Money Building: Waterlooplein 337, 1011 PG Amsterdam Smell - No smell Storyline - The foul history and dark practices behind the production of money.

Stop 3: Apothecary: Jacob Hooy Amsterdam B.V., Kloveniersburgwal 12, 1012 CT Amsterdam Smell - Civet (IFF)

Storyline - The history behind the production and use of the scented material, civet. This stop is rooted in the history of captivity of the civet cat in the city center of Amsterdam.

Stop 4: Bushuis - Oost-Indisch Huis: Kloveniersburgwal 48, 1012 CX Amsterdam (everyday); Oude Hoogstraat 24 (weekdays only) Smell - Scent of a Pomander created from a historic recipe (IFF) Storyline - The history of the plague in Europe and the olfactory object, a silver jewel called a Pomander. Through the spicy origins of the pomander, this stop also describes the dark history behind the Dutch slave trade and colonial industries.

Stop 5: Trippenhuis: Kloveniersburgwal 29, 1011 JV Amsterdam Smell - Linden Tree (IFF) Storyline - The history behind the linden tree and its significance in Amsterdam from the past to the present.

Stop & Canal near Amsterdam Museum: Amstel 51, 1018 EJ Amsterdam Smell - Stinky Canal (IFF) Storyline - The stinky history of canals in the Netherlands from past to present.

Application Walkthrough:

*Download the application at CitySniffers (odeuropa.eu) *

To download the application, participants just need to scan the QR code on the back of the City Sniffers map. They will be led to a webpage to download the application in the Google or Apple Store:



To enter the application, participants must agree to the Privacy Policy which can be read before agreeing:



In the top right hand corner of the main page, participants can find the main menu to explore the Introduction, more reading on smell studies and history, information about the partners involved in the event, credits of who was involved in the event's creation and the privacy agreement.



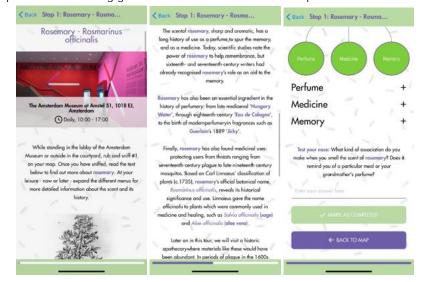
In the top right hand corner of the main page, participants can find the main menu to change the language to Dutch:



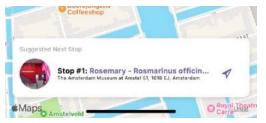
There are six stops to visit and mark complete:



Each stop has a short set of instructions. There is a short text for those who are not so interested and expanding menus towards the bottom of each stop to explore the scent's history further. Participants must mark each stop as completed as they go along. Some stops have an optional question that participants can fill out to engage with the scent on the Rub and Sniff map:



If participants get lost, the application suggests the next stop at the bottom of the screen. They can then press the little arrow on the right side and Google or Apple maps will open to show them the way to the next stop:



Upon completion of all six stops, the impact questionnaire will automatically pop up for filling out. Please encourage and communicate this when handing out cards! When the whole experience is over, participants can go back and read information at their leisure and can keep their Rub and Sniff map:



If you have any questions or concerns, feel free to reach out to me at sofia.ehrich@hucknaw.nl.

C OE5 Programme

Hackathon and Workshop 'Improve your olfactory language'

The event will offer an intensive, two-day, nose-on and hands-on meeting, to try out cutting edge research and development in sensory data-mining, and discuss the opportunities of olfactory approaches to cultural collections and archives. Also, the rich olfactory lexicons of the past may offer new opportunities for research and exploitation. The nose-on setup of the workshop, which includes sniffing sessions and a smell walk through the library, will offer participants a chance to learn by sensing. Furthermore, we offer a reception in the library, where you can make valuable new connections with an international network of colleagues.

Participation is **free**, however, participants are expected to **bring their own laptops**, and cover their own travel expenses.

Event Date: 7-8 November, 2022 Aim:

- promote text analysis results of the project
- test effectiveness of the text processing demonstrator

- engage networks of librarians & digital heritage collection specialists to work with Odeuropa vocabularies & ontologies and possibly integrate in their collections

Agenda

Day 1, Monday, 7.11.2022

Morning: Workshop for general audience

9:00 - 9:20 Registration at Antiq Hotel, Gosposka ulica 10, 1000 Ljubljana

9:20 - 9:40 Opening

9:40 - 10:00 The overall idea and the expected results of Odeuropa project

10:00 - 10:20 Importance of smell in museums and libraries

10:20 – 10:40 Analysis of smell in texts

- 10:40 11:00 NUK digital library
- 11:00 11:30 Coffee Break
- 11:30 12:30 Short presentation of Demos

- Odeuropa text collections and annotation in different languages, introduction to information extraction system

- Smell Tracker with specific functionalities for Slovenian
- Odeuropa Semantic technologies, demo of Smell Explorer and knowledge graph
- 12:30 13:00 Poster Session and Discussion
- 13:00 14:00 Smell walk

Afternoon: Hackathon for librarians and researchers

13:00 - 14:30 Networking Session with Lunch

14:30 – 15:30 Presentation and setting up the tasks for participants to accomplish to test the quality of the sensory text extraction using the demos

- 15:30 16:00 Let's do it together participants working on the tasks
- 16:00 16:30 Coffee Break
- 16:30 17:00 Evaluation satisfaction with the demonstrators
- 17:00 17:30 Library walk

19:00 Dinner

Day 2, Tuesday, 8.11.2022

- 09:30 11:00 Let's do it together participants working on the tasks
- 11:00 11:30 Coffee Break
- 11:30 12:30 Report on the outcome
- 12:30 13:30 Evaluation of effectiveness of the three demonstrators
- 13:30 15:00 Lunch Break
- 15:00 16:00 Olfactory training session
- 16:00 17:00 Smell walk