



3 – 11 June  
Valletta Design Cluster  
Malta

**steam**



## introduction

welcome to steam	2
speakers	4
the programme	8

## course outline

introduction & teambuilding	10
audiences	12
evaluation & planning	14
performance skills	16
science theatre	18
communications & branding	20
STEAM event	22

## social events

open-mic night	23
social calendar	24

## useful information

shopping & activities	26
culinary & nightlife	27
local map and contacts	28



# welcome to steam

STEAM is a 9-day intensive summer school in science communication. We introduce an innovative form of education that includes Arts into the classical STEM (Science, Technology, Engineering, and Mathematics). Interactive experiments and informal learning with the use of creativity and arts are the key ingredients of our approach. Our ultimate goals are to improve science awareness and develop informed opinions, increase student uptake of STEM careers for high-level jobs, stimulate the socio-economic wellbeing of partner countries, and enhance the transferable skills of current researchers.

## The Host: Valletta Design Cluster

The Valletta Design Cluster is a community space for cultural and creative practice situated in Malta's capital city of Valletta. It was developed as a legacy project of Valletta's European Capital of Culture 2018, with modern, air-conditioned classrooms, meeting and conference spaces, studios and a beautiful roof garden. STEAM has been using the cluster to host

our summer school since 2022 as it provides our participants the creative space they need, whilst also giving access to the busy heart of Valletta. During our breaks you will be able to step outside directly onto historical streets with cultural attractions, shops, restaurants and the coast only minutes away. ✨



*The roof garden of the Valletta Design Cluster, in the heart of Malta's capital city.*

## Malta: Islands of Culture

Made up of three islands, (the main island and the smaller islands of Gozo and Comino), Malta spans a total area of 316 km<sup>2</sup>. Despite its small size, it boasts a population of over 400,000, making Malta the 4<sup>th</sup> most densely populated country in Europe. Located in the centre of the Mediterranean, between Italy and Africa, the archipelago experiences a typical Mediterranean climate with an average of 300 days of sunshine per year.

Malta has a rich history with many rulers, including the Romans, Normans, Knights of St John and the British. In 1964 it became an independent state and it joined the EU in 2004. The official languages of Malta are



*Luzzu boats - traditional fishing boats of Malta.*

Maltese and English and you will find English is commonly spoken. Turn to pages 26-27 to find out more about modern Maltese culture. ✨



# speakers

The STEAM consortium brings together outstanding higher education institutions, science communication organisations, artists and freelancers. Through the exchange of best practice, an intensive study programme has been developed to train students and researchers to engage with the public.



## Edward Duca

University of Malta  
Science in the City (Malta) Festival Manager, Science and  
Innovation Communication Lecturer, EU Project Leader

Dr Edward Duca is a Science and Innovation Communication Lecturer at the University of Malta, co-runs the science communication STEAM Summer School, involved in several large EU funded projects, and has created and managed several science communication events through the NGO the Malta Chamber of Scientists. The largest activity being the national science and arts festival Science in the City attracting 6% of Malta's population annually. He's recently

been appointed as Rector's Delegate for STEM Popularisation (Engagement) and EUSEA board member. His aim is to continue developing transdisciplinary research and activities to develop evidence for the effective communication of research that will encourage a scientifically aware society leading towards an informed democracy and active citizenship. Edward wishes to embed a culture of public engagement and research that benefits society. ✨

## Amanda Mathieson

University College Dublin, Ireland  
BiOrbic Education, Public Engagement and  
Communications Manager



Amanda has been working in the area of public engagement for 7 years. In that time she has managed a number of EU projects focused on combining the arts with STEM, including STEAM Summer School and CREATIONS, a project that brought the arts into the formal science classroom. She has worked as a public engagement professional in a variety of institutions across Europe and draws from this experience in the delivery of her science communication training. These institutions include the University of Malta,

Imperial College London, the University of Manchester and University College Dublin. Amanda has always been an advocate of bringing the arts and science together as it often leads to impactful engagement with broader audiences and can resonate on new levels. Her speciality is the design of STEM escape rooms but her interests also lie in science theatre, storytelling, festivals and other science games. Amanda was the creator and host of the SciComm Stories Podcast until 2021. ✨



## speakers



### Frederike Oetker

University of Amsterdam  
PhD Student (Computational Science Group)  
and STEAM Summer School Facilitator

Freddie Oetker is a PhD student at the University of Amsterdam working on criminal computational models, specifically in the field of cocaine networks in the Netherlands. Within the Computational Science Group, she is working closely with the Amsterdam police to model network dynamics as well as intervention strategies and tie relations using Agent Based Models. With a master's

degree in Forensic Science and a bachelor's degree in Science Communication and Bionics she has a diverse background and a special interest in connecting disciplines in the realm of criminal computation. Freddie has been involved with STEAM Summer School since 2016 and is currently one of the organisers as well as lecturing on Science Communication. ✨

### Ciara Lynch

University College Dublin  
PhD Student (BiOrbic)  
and STEAM Summer School Facilitator



Ciara has always focused strongly on outreach and engagement of the public in the course of her studies in science, even as an undergrad student in Genetics. While currently in the final year of her PhD in Biotechnology, she has been enthusiastically involved in many outreach activities, from extracting DNA from a banana in Irish primary schools, to touring Ireland with a science sustainability themed escape room as an on-site researcher for audience questions! She places a strong emphasis in teamwork within all her

work, as science becomes increasingly more interpersonal in the age of technology, and this means that all scientists have to know how to work together more effectively. In terms of other science events she has been involved in, this includes workshops on coding games for secondary school children, talks on what science research is like as a career, and training newer science researchers on how to speak to crowds and design posters. ✨



## Sean Briffa

Performance Artist  
Sean Briffa Entertainment, Malta



Sean Briffa is an actor and a performing artist. Apart from his work on stage, he also performs on the streets with puppet shows and fire shows all around Malta. He even enjoys bringing puppetry and theatre together, taking his home-made puppets

and his skills in poi to Maltese pantomime and other plays at The Manoel, Malta's most established theatre. The shows closest to his heart are the ones he puts up from scratch, creating entirely new concepts in theatre and experimenting with improvisation. ✨



## Mohamed Soliman Daoud

Public engagement and DEI Expert  
University of Malta, Malta

Leveraging over a decade of expertise in science communication and engagement. Soli's passion for the field has centered on bridging the gap between research and practice, empowering marginalized communities, and promoting diversity, equity, and inclusion (DEI) initiatives. His work has been

recognized and awarded by various organizations, including Falling Walls Engage Breakthrough of the Year 2020 and the Study UK Alumni Social Action Award 2022. He has recently been appointed to the PCST Scientific Committee. ✨

## Guest Speakers

During the summer school we'll be joined by a few guests from STEAM's extended science communication family in Malta. These local experts will join as speakers or as consultants for you to test out your STEAM activities on. They may also join us during some of our social events, providing a great opportunity to meet new people and expand your science communication network.

# the programme



## steam 2023 Programme

SESSION	TIME	MON 29 [ ONLINE ]	SAT 3 [ IN MALTA ]	SUN 4	MON 5
Morning Session	9:00 am				
	10:00 am			Audiences	Performances Skills
	11:00 am				
Lunch	12:00 pm				
	1:00 pm				
Afternoon Session	2:00 pm				
	3:00 pm			Evaluation & Planning	Open-mic Night Prep
	4:00 pm		Welcome & Teambuilding		
Evening Social Programme	5:00 pm				
	6:00 pm	Pre-school Introduction			
	7:00 pm				
	8:00 pm		Dinner in Valletta	Earth Garden Music Festival	Open-mic Night
	9:00 pm				
	10:00 pm				
	11:00 pm				

## Where should I go?

Every day transport will be provided from the 5-Senses Apartments in Msida. The coach will leave at 8:30am each morning unless stated otherwise. Those making their own way should head to Valletta Design Cluster at 25, Bull Street II-Belt, Valletta. If you are lost or need information contact Amanda on +353 85 767 1656.

	Course Sessions		Practical Work		Social Events	
	TUE 6	WED 7	THU 8	FRI 9	SAT 10	SUN 11
Performance Skills	Science Theatre	Event Prep		Event Prep		Event Reflection
			Social Excursion to Comino		Event Day	Goodbye Lunch
					Schedule TBC	
Open-mic Night Prep	Communications & Branding	Event Prep		Event Prep		
		Rehearsal		Rehearsal		
Open-mic Night	Escape Room	Tour of Valletta		Science Cinema Night	Wrap Party	

# introduction & teambuilding

pre-school workshop:  
6pm – 7pm  
Mon 29 May

teambuilding session:  
3pm – 7pm  
Sat 3 June

focus

introduction  
ice breakers  
science communication aims  
psychometric testing & team  
building

speakers

Edward  
Duca



Amanda  
Mathieson



Ciara  
Lynch



Frederike  
Oetker



## Pre-school introduction

Flights can be tricky so we'll conduct our first session online on the Monday before the school to make sure no one misses it. We'll start with an introduction to STEAM, the programme content, what to expect from the 9 days and how to prepare to for your trip to Malta. Then we'll follow that with some icebreakers so we can get to know each other ahead of time!

In the main part of this session we will kick off the STEAM programme by reflecting on why we communicate science at all. What are the benefits to communicating science and which ones matters to us most, both as individuals and as a group? From there we will start to identify an aim for the STEAM event you will deliver as a group at the end of the programme.

## Teambuilding

The following Saturday afternoon, we'll meet in Malta to welcome you to the first in-person session of the school. After another brief introduction we'll begin with some teambuilding



activities developed by Ciara Lynch so we can get comfortable working with each other. Ciara will also help us take some psychometric tests to explore our personalities and understand each other's strengths and weaknesses. This will help us form a cohesive team and plan for success over the next 9 days. If there's time, we may even get a head start on the next day's session where we'll focus on audiences.

## Relevant online modules

Introduction to science communication

# audiences

9 am – 12 pm  
Sun 4 June

focus

audience profiling  
tailoring to your audience  
engaging your audience

speakers

Amanda  
Mathieson



Mohamed  
Soli



# Audiences

One of the most common mistakes in science communication is to design activities that *you* would want to take part in, rather than your audience. Even if you've considered your audience at the concept level, when you start to get into the details of a project, making decisions about venues, timing, content and so on, it's easy to insert yourself into those decisions without realising. This is why it's important to develop a profile of your audience and continue to refer back to it throughout, to ensure you are making choices on behalf of the people you want to reach.

In this session we will be looking at the needs and interests of different audiences and how this can be built into the design of your science communication activity. First we will create profiles for several audience groups in Malta, looking not only at their demographics and where to find them but also their priorities, interests and emotional needs. You will then have the opportunity to design an activity for these audiences with all of these factors in mind. In teams, you will pitch your chosen audience to the group, arguing why they would be a great audience to work with for our STEAM event and why the design choices you have made are appropriate. Finally, we will deliberate as a group and come to a decision on which audience we will actually work with and how.

After our audience is chosen we will be visited by some experts in audience engagement from Explora Science Centre. They will be offering some tips and tricks for hooking an audience into an activity or performance and keeping their interest high!

## Relevant online modules

- Dialogue
- Audiences
- Presentation skills



# evaluation & planning

1 pm – 5 pm  
Sun 4 June

focus

designing an evaluation strategy  
role assignment  
front-end evaluation

speakers

Amanda Mathieson





## Evaluation & planning

Rather than being an afterthought, evaluation should be part of any professional engagement project from the very start. Based on our aim we need to consider what success looks like and how we can measure it to ensure we've achieved what we set out to do. It's easy to get overwhelmed at the thought of evaluation, whether you're confused about what methods to use, worried about the time involved or anxious about the feedback you might get. However, evaluation doesn't need to be a painful process. It can be scaled up or down to suit your project, embedded into the activities you're already doing and be used as a tool for your own benefit.

We'll start to develop our evaluation plan on the afternoon of the second day. Based on our chosen aims, audience and format, we can figure out how we will approach our event and what knowledge we're currently missing. What information do we need on the front-end so we can create a better design for our event? How can we test out our event in the design stages to make sure we're on the right track? And how will we measure our outcomes and document our successes during the event itself?

We'll explore these three evaluation stages as a group, setting out a detailed plan and assigning roles. Then there'll be some time later in the afternoon to get out into the public and start to collect some formative evaluation data!

## Relevant modules

Evaluation



# performance skills

9 am – 5 pm  
Mon 5 June

focus

confidence building  
improvisation session  
individual science skits

speakers

Amanda  
Mathieson



Frederike  
Oetker



## Performance skills

As our STEAM event will involve the arts, performance skills are going to be key. However, we recognise that for many of us, this can also be one of the more intimidating parts of science communication. For this reason, our main goal in this session is to build up your confidence and comfort in performance spaces. Whether you are completely new to performance or want to try something new that you're unsure of, we will provide the ideal, safe space to step out of your comfort zone and explore your own creativity and talent.

The session starts by easing everyone in slowly with the kinds of public speaking you are most used to: introducing yourself to a group. Then we'll graduate to a game of slide roulette, where you will present a randomised powerpoint presentation. This takes us one more step into an unknown creative space, while still allowing us to rely on our old crutch: the slide deck. From there, with your confidence growing we'll try some full-blown improvisation, performing made-up skits completely on the spot. If this sounds scary don't worry, it's usually one of the most fun parts of the school!

## Open-mic night

In the afternoon, you should feel much more creative, confident and excited about the idea of performing. We'll ask you to develop a small, 5-minute skit to deliver to the group at an open mic-night that evening. This is your opportunity to push your own boundaries among friends and of course we will be on hand to help you workshop whatever you come up with!

## Relevant online modules

- Audiences
- Presentation skills
- STEAM



# science theatre

9 am – 12 pm  
Tue 6 June

focus

science theatre introduction  
STEAM event content

speakers

Sean  
Briffa





## Science theatre

More often than not, our STEAM event will involve some form of theatre. Whether we put on a traditional performance, a comedy routine, a science tour, or even street performances, there are elements of theatre holding it all together. This includes developing a script, set-design, setting up a stage, planning out stage locations, lighting, sound and other technical aspects.

By day four we will have an idea of our audience and format and may even have some content that we can pull from the open-mic night we did the previous evening. It will now be time to start developing or expanding our content into a full event and ironing out the particulars around it. For this reason, on the morning of day four we'll be joined by science theatre expert Sean Briffa who will give an introduction to educational theatre and will guide you in developing your content. He will be able to workshop ideas with you and give advice based on his many years of experience putting on different kinds of productions.

He will also join us again on day five to help you develop your content event further.

## Relevant online modules

- Audiences
- Presentation skills
- Science and art

# communications & branding

12 pm – 5 pm  
Tue 6 June

focus

brand identity  
communications  
social media promotion  
campaign strategy

speakers

Edward  
Duca



Frederike  
Oetker



## Communications & branding

By the afternoon of day four we will start to have a picture of what our event is going to look like, which means we can start to promote it. This is one of the most important steps as no matter how great our event is, if no one attends then no one will be able to enjoy it! Therefore we have to put some careful consideration into where, when and how we communicate about it. This is not only to help it reach the right people but to ensure they decide that this is an event that's relevant to them and worth their time.

For this reason we'll first spend some time thinking about our brand identity, which will dictate the way we communicate to our audience and what they think about us. For example, if our event is for kids, does our branding communicate that? Does it give off the playful, humorous impression we want? Does it look like it's a quality event and worth parents' time? Through this workshop, we can tease out these decisions, referring back to our audience profile and our aims. We can then make a plan for how we will promote the event and assign some tasks to this.

Don't worry, STEAM will have promoted the event beforehand and we will be able to leverage our networks in Malta, so we won't be starting completely from scratch. This year we may also have some science communication enthusiasts who have arrived early for the Ecsite conference attending. Either way, we will always have an audience for our final event!



## Relevant online modules

Communications and branding

Writing

Online and social

Videography

# STEAM event

TBC  
Sat 10 June

focus

event preparation  
dress rehearsals  
event delivery

speakers

Edward  
Duca



Amanda  
Mathieson



Frederike  
Oetker



Ciara  
Lynch



Sean  
Briffa





## STEAM event rehearsals and performance

The rest of the week will be dedicated to preparing our STEAM event. By this point we will all have specific roles and tasks to work on. You might be developing your performance, creating a survey for your evaluation, posting about the event on social media or sourcing and making props for set dressing. Whatever it is, you will have the next few days to workshop things with the course facilitators and really refine them. We will also have a couple of dress rehearsals to give you the opportunity to receive some feedback and incorporate it. We will be inviting some guests from our science communication network in Malta to take part in your rehearsals and give you advice from an outsider's perspective. One dress rehearsal will take place Wednesday afternoon, just before our day off. The day off should then give you some time to relax, reset and let new ideas percolate before we come back for serious tweaking and final rehearsals on Friday.

While we plan for the STEAM event to take place on Saturday, exactly when and where will depend upon the decisions we make as a group for our specific needs. Keeping things slightly flexible gives you more freedom to try out something innovative, so don't forget to come with all your crazy ideas!

## Relevant online modules

All





# open-mic night

As well as the large group event you will deliver at the end of the programme, we will run a science open mic night. While this is part of the main programme, it's also a social event as there will only be STEAM participants in attendance. As individuals you will perform a short piece that could be anything from a talk, song, sketch or even comedy routine. It may be something that becomes part of your group event, so it will be a good opportunity to try things out. The idea is to practice running a relaxed, informal event in a pub environment where you can explore your science communication skills and creativity among friends!



## STEAM social calendar

As well as the public engagement events you will organise, we will also enjoy some social events over the nine days. These will be ad-hoc events that you are free to come and go from and will run on most evenings. As they are not part of the official programme, we will not provide a coach or arrange any other expenses but will be delighted to provide some logistics where necessary and show you a good time! Our schedule will look something like:

**Saturday** - an informal dinner at a local Maltese restaurant to get to know each other.

**Sunday** - a chance to go to one of Malta's biggest music festivals.

**Monday** - our open-mic night (STEAM family only) gives you the opportunity to deliver a small skit in front of a friendly audience.

**Tuesday** - an escape room, where teams are locked in a room and must solve puzzles to escape within the time limit to escape.

**Wednesday** - an optional tour of Valletta, exploring its history, provided by Ed!

**Thursday** - a full day excursion to the beautiful island of Comino for some swimming.

**Friday** - an optional science movie and pizza night, nice and chilled before our final event.

**Final Saturday** - a final wrap up dinner and party to celebrate the success of our event!

At the start of the programme there will be the opportunity to discuss some of these events and we can adapt them based on the interests of the group. ✨

# useful info

## Shopping & Activities

Gzira coast, which is close to the 5-Senses apartments, boasts numerous shops including ticket centres where you can book diving sessions, various tours and other experiences. Within walking distance is Manoel Island, home to Fort Manoel and built in the 18th century by the Order of Saint John. Further up is the city of Sliema where you can find shops, bars, restaurants and Tigné Point – Malta's largest shopping mall. Sliema coast is a popular spot for sunbathing on the rocks and is one of the few areas you can BBQ without a permit. The sea just off the rocks is also great for snorkelling with calm waters and plenty of fish to be seen!

You can take the Sliema ferry to Malta's capital city of Valetta every half hour. Valetta is the capital of Malta and has numerous tourist spots, museums, galleries and quaint restaurants. It is also a central travel point and you can go anywhere else on the island from Valetta. For those happy to travel, we recommend Mdina, the original capital of Malta. A fortified city with a population of less than 300, Mdina is home to St. Paul's Cathedral and nearby in Rabat you will find St. Paul's Catacombs. It's also where you will find the famous Crystal Palace – a café serving up the 'best pastizzi in Malta!' ✨

*Malta's coast has numerous diving sites and is great for snorkelling.*



## Culinary & Nightlife

As you can expect from its location, Malta's cuisine is an interesting mix of Italian and North African influences. You may be interested to try the rabbit stew, the aljotta (traditional fish soup) or the fried gbejna (crispy balls with molten sheep's cheese). For a quick lunch you'll find plenty of pizza and pasta places as well as the iconic pastizzi, a filo-like pastry stuffed with a cheese or pea filling. And at 30-40c each, they are a bargain!

When it comes to drinks, Malta has its own unique soda known as Kinnie. With a faintly aniseed-like flavour, it can be drunk on its own as a soft drink or mixed with alcohol. It is made by Farsons, the same company that distributes Malta's national beer: Cisk. Cisk is a refreshing lager with a low carb version as well as those flavoured with berry, lemon and ginger lime. With its Mediterranean climate, Malta is also a producer of delicious wine, steeped in tradition that dates back to the Phoenicians. There are many varieties produced in both Malta and Gozo but they are not widely distributed, so take the opportunity to try them while you're on the island!

And if you're looking for night-life you won't need to go very far as the coast is packed with bars, pubs and clubs that are great for casual socialising. We recommend checking Facebook for daily events such as live music, open-mic nights, stand-up comedy, karaoke and more. For the more intense



*Aljotta (left), a fish stew and pastizzi (right).*



*Paceville is Malta's prime spot for nightlife.*

clubbing experience you can try Paceville, Malta's nightlife hub and a destination for many tourists and party-goers. ✨

## Main Venues

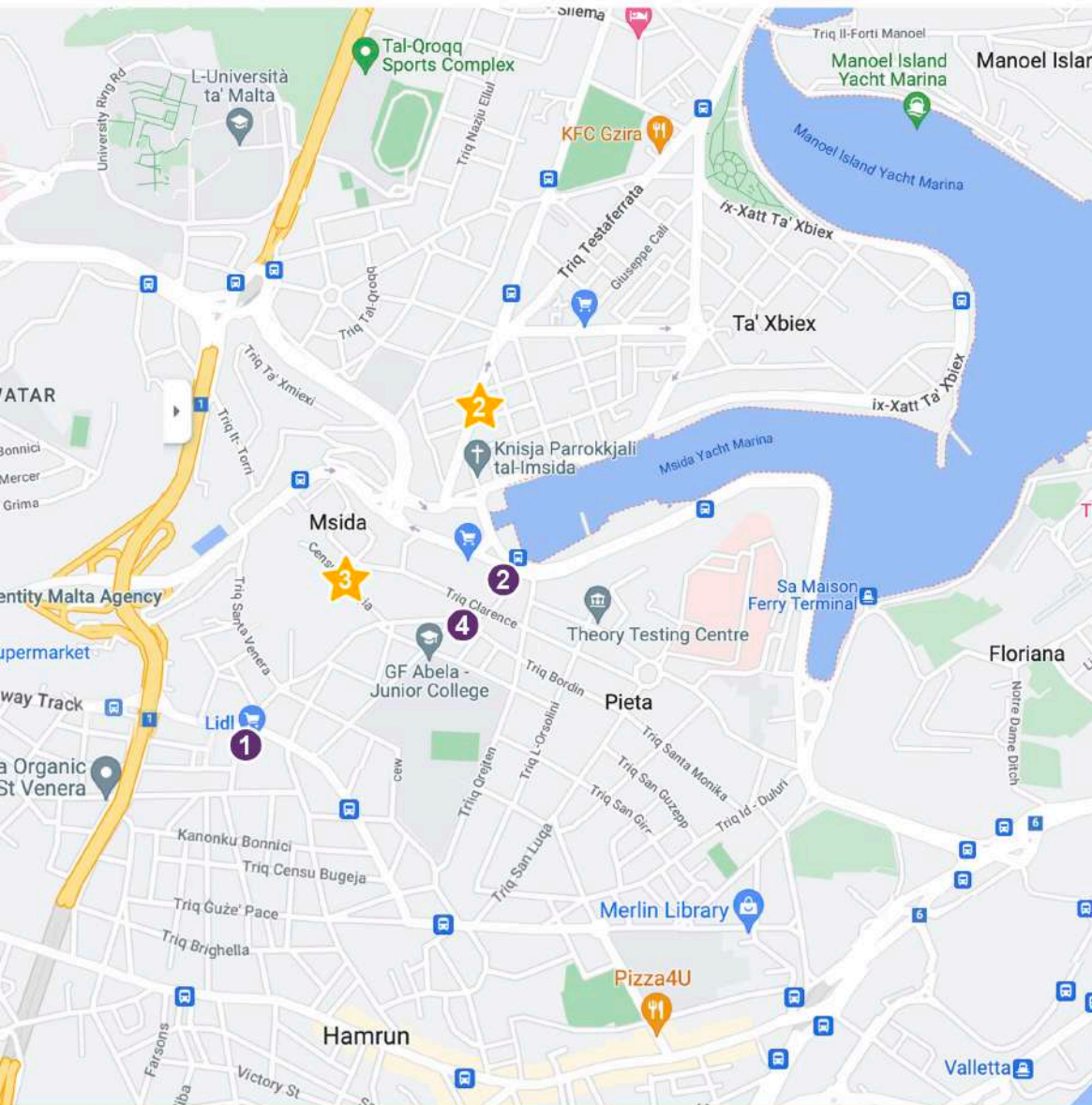
-  Valletta Design Cluster
-  Down The Rabbit Hole
-  5-Senses, Msida

## Social Venues

-  1 Nenu Artisan Baker
-  2 Maori Bar
-  3 Haywharf

## Handy Locations

-  1 Lidl Supermarket
-  2 Kullegg Bus Stop
-  3 Food Market



ons

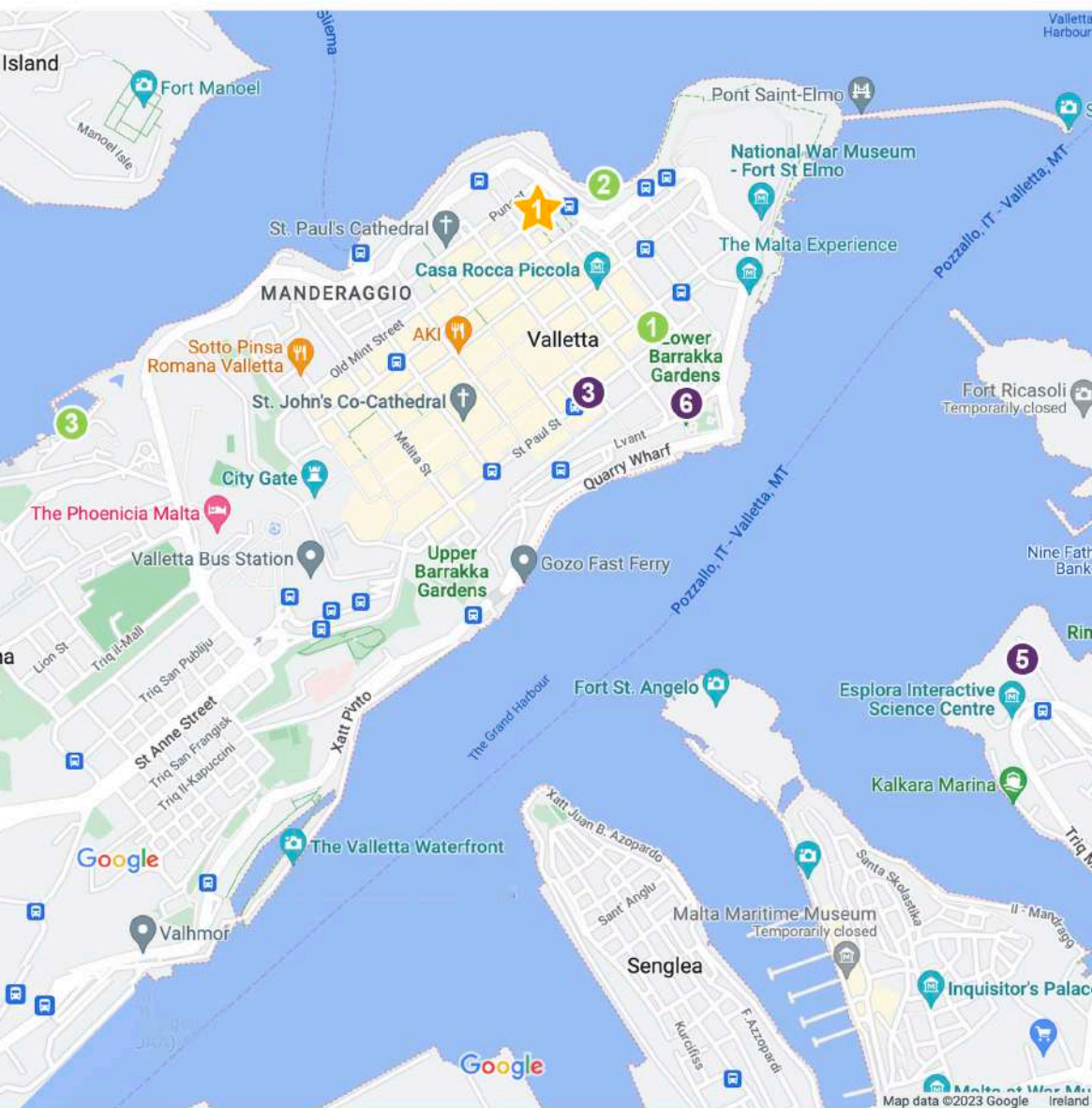
ket

op

- 4** Pharmacy
- 5** Esplora Science Centre
- 6** Lower Barrakka Gardens

## Phone Numbers

Ed +356 9923 9974  
 Amanda +353 85767 1656



Use this page for contact details and notes.





