



# INNOVATIONS

## MODULE 3



# INTRODUCTION

## OF MODULE 3

The main aim of *Module 3. Innovations* is to build up a potential **Practical Training Course In Innovations** for artistic and artisan women for their self-studies or by operators within the adult education field seeking to enhance and deepen the knowledge and competencies in the usage of contemporary materials and techniques of sustainable nature as well as increase their digital literacy levels through exercising in the non-fungible token (NFT) minting, with some basic knowledge in cryptocurrencies and blockchains.

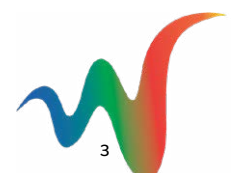
Based on the #WISE application evaluation, the project's innovation aspect was criticized as not clearly enough reflected, and partners were advised to consider the innovativeness of the idea (and project) for the geographical context in which the project is implemented, especially in rural regions.

That's why the Icelandic partner *Skref fyrir Skref* and Lithuanian VERSLI MAMA decided to include training on the most up-to-date technological approaches such as cryptocurrencies, blockchains, and NFTs. The above-mentioned technologies provide both professional and amateur artists with almost unlimited opportunities to execute and monetize their creative activities all over the world independently from the place they live and work, also increasing their digital literacy levels.

The other partners contributed to the development of the content with their valuable comments and promotion of the NFT concept among their piloting group participants, encouraging them to mint and present their own NFTs for the project's *grand finale*, the #WISE WOMEN WEEK in the Lithuanian capital Vilnius, as well as translation into the national languages.

Special thanks to Italian partner ETN School for the opportunity to visit their associated partner [MOON](#), a local workshop museum of narrative objects, which inspired a partnership with sustainability and practical training ideas.

The objective of this Practical Training Course is to provide the target group, artistic and artisan women, with the knowledge and skills required for their success, including financial, pursuing their creative practices in a rapidly changing digitalized world. Trainers can present this Module as a whole or use its parts that are most relevant to their audiences.



## THE AIMS OF MODULE 3

- Development of the Module's structure and its Training Programme in English
- Development of referential training materials for adult trainers/self-studying women, including theoretical parts, useful tips, videos, and practical tasks for individual or group activities
- Development of the Assessment of the Competence sheet in the form of a brief questionnaire
- Revisiting the Practical Training Course structure after receiving feedback after the pilot training
- Translation of Module 3 content into all national languages by partnership and uploading them on the project website as downloadable PDFs.

## CORE TOPICS ADDRESSED

- Sustainability concept and trends
- Artificial intelligence (AI) as emerging artistic practice
- Cryptocurrencies and blockchains
- Non-fungible token (NFT) in arts

## METHODOLOGY OF LEARNING

Module 3 uses so-called *learning by doing* training methods. The main aim of the course is **to provide female adult students with a set of practical tools**, including in-class exercises, discussions on real cases, interactive and individual activities, homework, and site visits, within a shared theoretical framework and with a set of expected learning outcomes.

**The main goals of the Practical Training Course in Innovations are as follows:**

- Encourage the understanding and practicing of contemporary trends in arts and artisan handicraft
- Upskilling in digital literacy
- Build up participants' self-confidence in sustainability and digital creativity, encouraging the field-specific skills
- Facilitate access to simple blockchain-empowered crypto services relevant to creative entrepreneurship
- Complement present curricula used in adult training with new approaches in digital literacy and creative entrepreneurship

## ORGANIZATION

The module consists of 48 contact hours and homework to do individually. Contact hours of the module may evenly be distributed during a period of 12 weeks, e. g. 4 contact hours one day per week, with the rest of the week, left for homework tasks and consultations in the group and individually with the lecturer/mentor.

For example, participants of the piloting workshops engaged in a variety of blended learning sessions and activities amounting to a maximum of 12 weekly face-to-face or online meetings per partnering country.

#### **A suggested weekly training scheme**

- Lecture (theoretical part): 90 min
- Interactive sessions/site visits for practical training: 120 min
- Questions and Answers on specific cases/sharing: 30 min
- Homework: *on a weekly basis*
- Individual consultation and assessment: up to 90 min

#### **WISE evaluation helps to**

- Assess and demonstrate the effectiveness in achieving the participant's learning objectives.
- Empower and motivate participants along their learning pathway.
- Assess the effectiveness of teaching and its strategies, methods, and techniques.

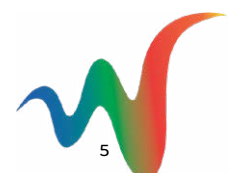
**The evaluation tool** is composed by:

- Acquisition of knowledge
- Ongoing evaluation through face-to-face discussion about the previous training session at the beginning of the next training session
- Post-training assessment of the competence
- Trainees' satisfaction (feedback using an online evaluation form/qualitative interviews).

#### **Competences:**

At the end of the *Practical Training Course in Innovations* participant is able to:

- Identify opportunities for more sustainable and financially stable performance
- Understand and individually use basic tools and platforms for NFT minting/selling, thus enhancing personal opportunities to live on private creative practices
- Understand the digital threats to their artistic practices and counteractive measures



# SUSTAINABILITY IN ARTS AND ARTISAN ANDICRAFTS

Sustainable art is about creativity to find new ways to make art that can benefit the environment, whether that is by using accessible and natural materials, or by inspiring social awareness on pressing issues.

While sustainability requires a reconsideration of how we consume, manufacture, and design art and objects, it also provides the opportunity for artists and designers to rethink their approach.

Sustainability consists of fulfilling the needs of current generations without compromising the needs of future generations while ensuring a balance between economic growth, environmental care, and social well-being (Santander Universidades, 2022).

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Sustainable art blurs the line between science and design for the benefit of both the audience and the environment.

According to the Brundtland report, also called „Our Common Future“, the publication released in 1987 by the World Commission on Environment and Development (WCED), there are 3 main pillars of sustainability:

- **Environmental** (protecting the environment by saving and preserving natural energy or agricultural resources, assessing their carbon footprint and reducing total greenhouse gas emissions and further achieving sustainable development goals, preventing water scarcity, and reducing overall waste for current and future generations),
- **Economic** (reducing energy consumption and therefore contributing to economic growth)
- **Social** (combating social exclusion and discrimination, promoting solidarity, contributing to the well-being of stakeholders).

However, terms such as *eco-friendly*, *environmentally safe*, and *green* have no generally recognized meaning and really are marketing language. Some distinctions — like [Fair Trade Certified](#), for example — have clearly defined standards the product has met. One can easily find these parameters through a simple Google search.

## SUSTAINABLE SOLUTIONS

Many artists aim to use art supplies made following eco-friendly practices, and there are some examples below:

### **Natural Ingredients**

Paints composed of plant dyes, free of toxic compounds.

### **Recycled packaging**

Using locally made, 100 percent post-consumer recycled packaging, biodegradable plastic bags, etc.

### **Alternative energy sources**

Solar/wind-powered energy

### **Less water usage**

Collecting and using rainwater/snowmelt water for the technological processes

### **Proper artistic waste disposal**

If an artist is working with products that are labeled hazardous, these should be segregated for disposal as hazardous wastes. Paint scrapings and painted-on papers and canvases usually contain toxic elements that should not be part of regular trash disposal.

The solvents or other liquids used to clean brushes should not be poured down the drain. Instead, they all should be stored and removed per the guidelines of local hazardous waste removal ordinances. The most environmentally friendly way is to evaporate a solvent by putting it outside in the sun.

It is not recommended to burn canvases outdoors, which releases fumes into the air. Burning canvases also don't completely carbonize the solid material, allowing it to seep into the groundwater supply.

### **Changing the format of exhibitions**

There is a decrease in large mass exhibitions observed, but an increase in the number of smaller-scale regional exhibitions dedicated to narrower topics, a specific region and area.

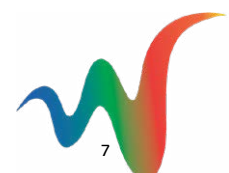
Moreover, it was decided that by 2050, all exhibitions will not increase environmental pollution with carbon dioxide, thereby contributing to the mission of the World Wide Fund for Nature (WWF) - to develop forest conservation projects, stop climate change, protect biodiversity and improve local livelihoods.

### **Digitization of exhibitions**

The virtual format has not established itself in this market, as it is impossible to replace live exhibitions. However, there is an emerging trend to have as many digital solutions as possible in the halls, making them more comfortable and suitable for business meetings.

### **Using recycled materials**

An example of a Lithuanian brand "Ūkai" of socks that protect nature, reducing the amount of plastic waste. At first, one recycled plastic bottle was used for pair of socks. Since the start of cooperation with the international organization "Plastic Bank", which cleans plastic from the oceans, each pair of "Ūkai" socks contains 51 recycled plastic bottles.



Plastic bottles are collected mainly in Asia. Then they are sorted, recycled into plastic pellets, and the plastic yarn is made from them. Later the plastic yarn is woven with recycled cotton.

From every pair of socks sold, the brand donates a certain amount of money to this organization. In summary, it would mean that a person who buys one pair of socks cleans 51 plastic bottles from the oceans. Moreover, these socks are more durable therefore it is a more profitable purchase compared to regular socks.



## SUSTAINABLE MATERIALS

In 2021, the Venice Biennale of Architecture (*Mostra di Architettura di Venezia*), an international exhibition of architecture from nations around the world, presented a set of contemporary sustainable materials developed by artistic and scientific collaborations.





## BIO LINO

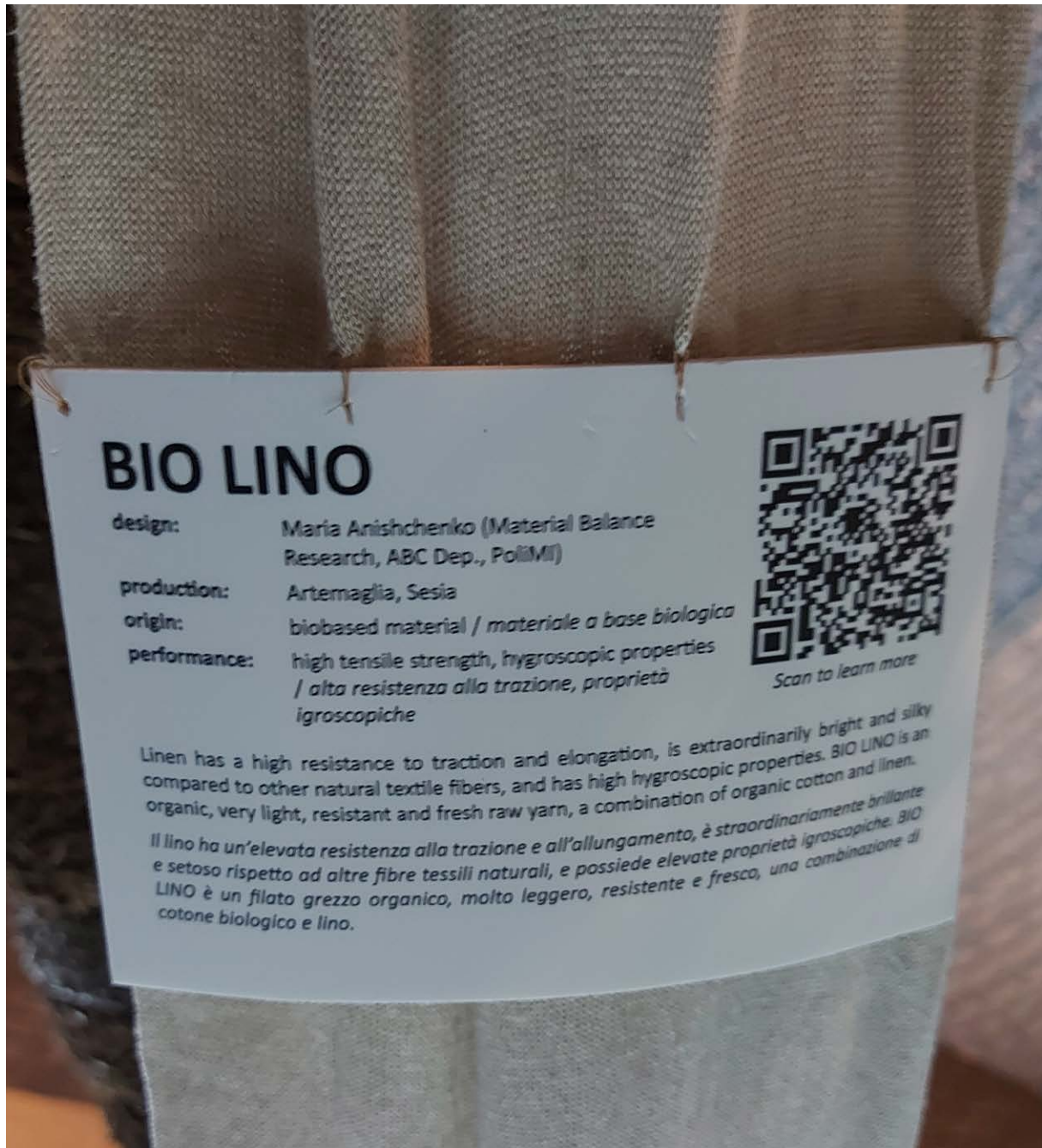
**Design:** Maria Anishchenko (Material Balance Research, ABC Dep., PoliM)

**Production:** Artemaglia, Sesia

**Origin:** biobased material

**Performance:** high tensile strength, hygroscopic properties

Linen has a high resistance to traction and elongation, is extraordinarily bright and silky compared to other natural textile fibers, and has high hygroscopic properties. BIO LINO is an organic, very light, resistant, and fresh raw yarn, a combination of organic cotton and linen.



## AMOTEX

**Design:** Anna Barbara (PoliMI, Design Dep.) with Alessandro Simoni

**Production:** Alessandro Simoni

**Origin:** compose material

**Performance:** electromagnetic protection

In the installation, the hollow cylinders in pure virgin wool woven with amorphous microfilament protect from electromagnetic waves based on the principle of energy absorption of a <<skin effect>>. Being micro, the metal filament can be knitted with natural or synthetic fibers without changing their original properties.





## BIOTAPE

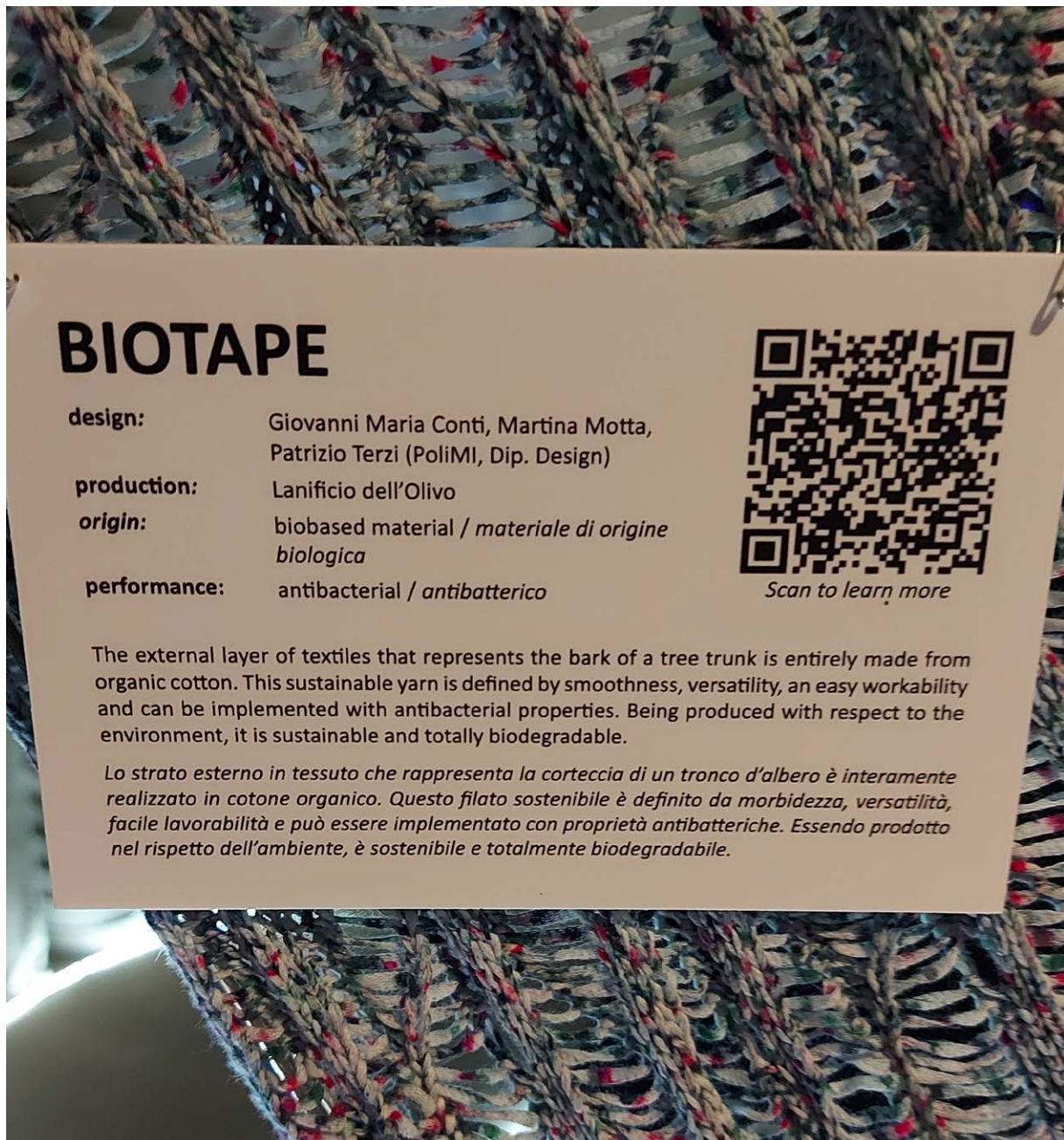
**Design:** Giovanni Maria Conti, Martina Motta, Patrizio Terzi (PoliMI, Dip. Design)

**Production:** Lanificio dell'Olivo

**Origin:** biobased material

**Performance:** antibacterial

The external layer of textiles that represents the bark of a tree trunk is entirely made from organic cotton. This sustainable yarn is defined by smoothness, versatility, and easy workability and can be implemented with antibacterial properties. Being produced with respect to the environment, it is sustainable and totally biodegradable.



## BIOTAPE

<b>design:</b>	Giovanni Maria Conti, Martina Motta, Patrizio Terzi (PoliMI, Dip. Design)
<b>production:</b>	Lanificio dell'Olivo
<b>origin:</b>	biobased material / <i>materiale di origine biologica</i>
<b>performance:</b>	antibacterial / <i>antibatterico</i>



Scan to learn more

The external layer of textiles that represents the bark of a tree trunk is entirely made from organic cotton. This sustainable yarn is defined by smoothness, versatility, an easy workability and can be implemented with antibacterial properties. Being produced with respect to the environment, it is sustainable and totally biodegradable.

*Lo strato esterno in tessuto che rappresenta la corteccia di un tronco d'albero è interamente realizzato in cotone organico. Questo filato sostenibile è definito da morbidezza, versatilità, facile lavorabilità e può essere implementato con proprietà antibatteriche. Essendo prodotto nel rispetto dell'ambiente, è sostenibile e totalmente biodegradabile.*

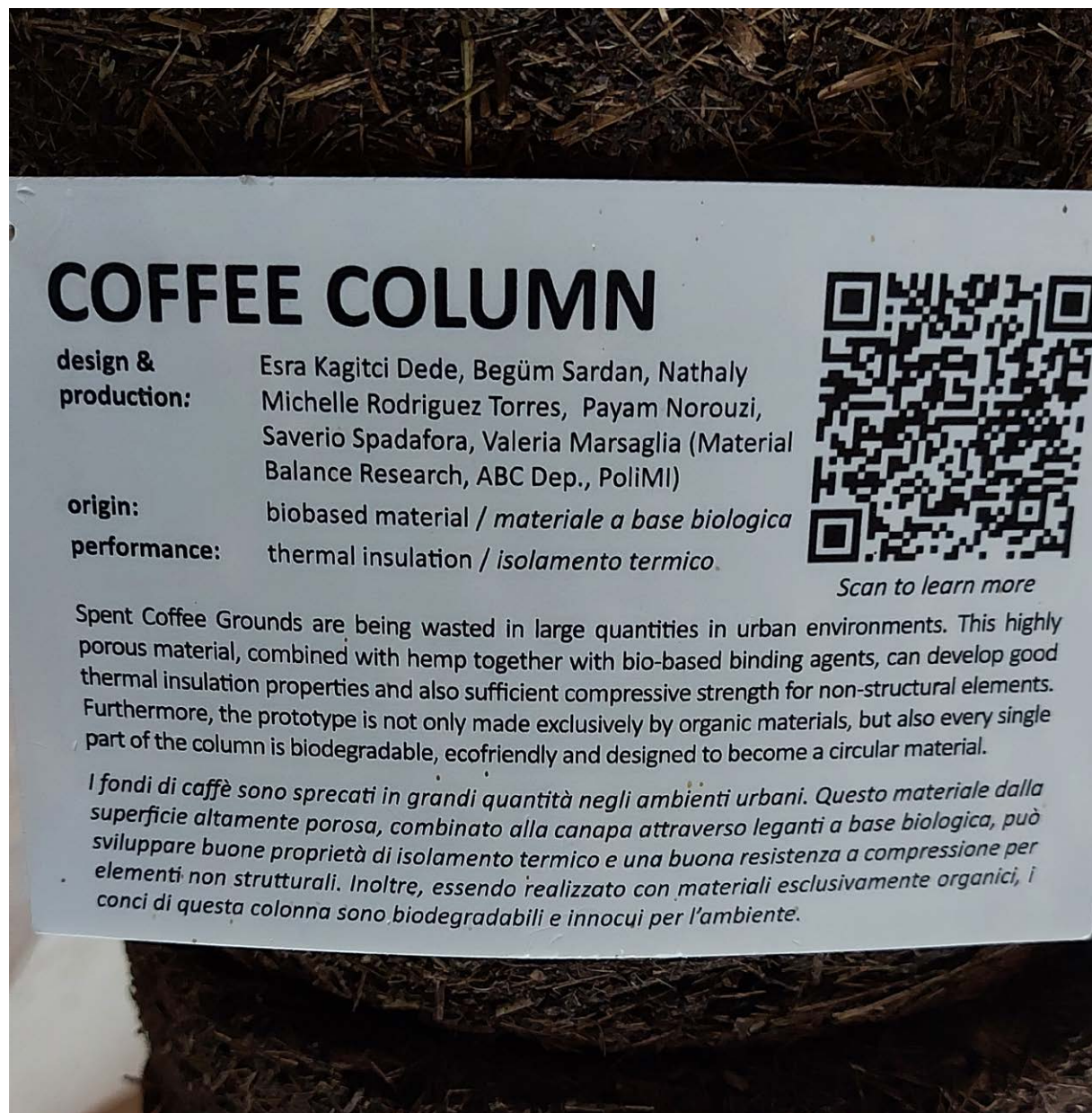
## COFFEE COLUMN

**Design & production:** Esra Kagitci Dede, Begüm Sardan, Nathaly Michelle Rodriguez Torres, Payam Norouzi, Saverio Spadafora, Valeria Marsaglia (Material Balance Research, ABC Dep., PoliMI)

**Origin:** biobased material

**Performance:** thermal insulation

Spent Coffee Grounds are being wasted in large quantities in urban environments. This highly porous material, combined with hemp together with bio-based binding agents, can develop good thermal insulation properties and also sufficient compressive strength for non-structural elements. Furthermore, the prototype is not only made exclusively with organic materials, but also every single part of the column is biodegradable, eco-friendly, and designed to become a circular material.




**COFFEE COLUMN**

**design & production:** Esra Kagitci Dede, Begüm Sardan, Nathaly Michelle Rodriguez Torres, Payam Norouzi, Saverio Spadafora, Valeria Marsaglia (Material Balance Research, ABC Dep., PoliMI)

**origin:** biobased material / *materiale a base biologica*

**performance:** thermal insulation / *isolamento termico*



*Scan to learn more*

Spent Coffee Grounds are being wasted in large quantities in urban environments. This highly porous material, combined with hemp together with bio-based binding agents, can develop good thermal insulation properties and also sufficient compressive strength for non-structural elements. Furthermore, the prototype is not only made exclusively by organic materials, but also every single part of the column is biodegradable, ecofriendly and designed to become a circular material.

*I fondi di caffè sono sprecati in grandi quantità negli ambienti urbani. Questo materiale dalla superficie altamente porosa, combinato alla canapa attraverso leganti a base biologica, può sviluppare buone proprietà di isolamento termico e una buona resistenza a compressione per elementi non strutturali. Inoltre, essendo realizzato con materiali esclusivamente organici, i conci di questa colonna sono biodegradabili e innocui per l'ambiente.*



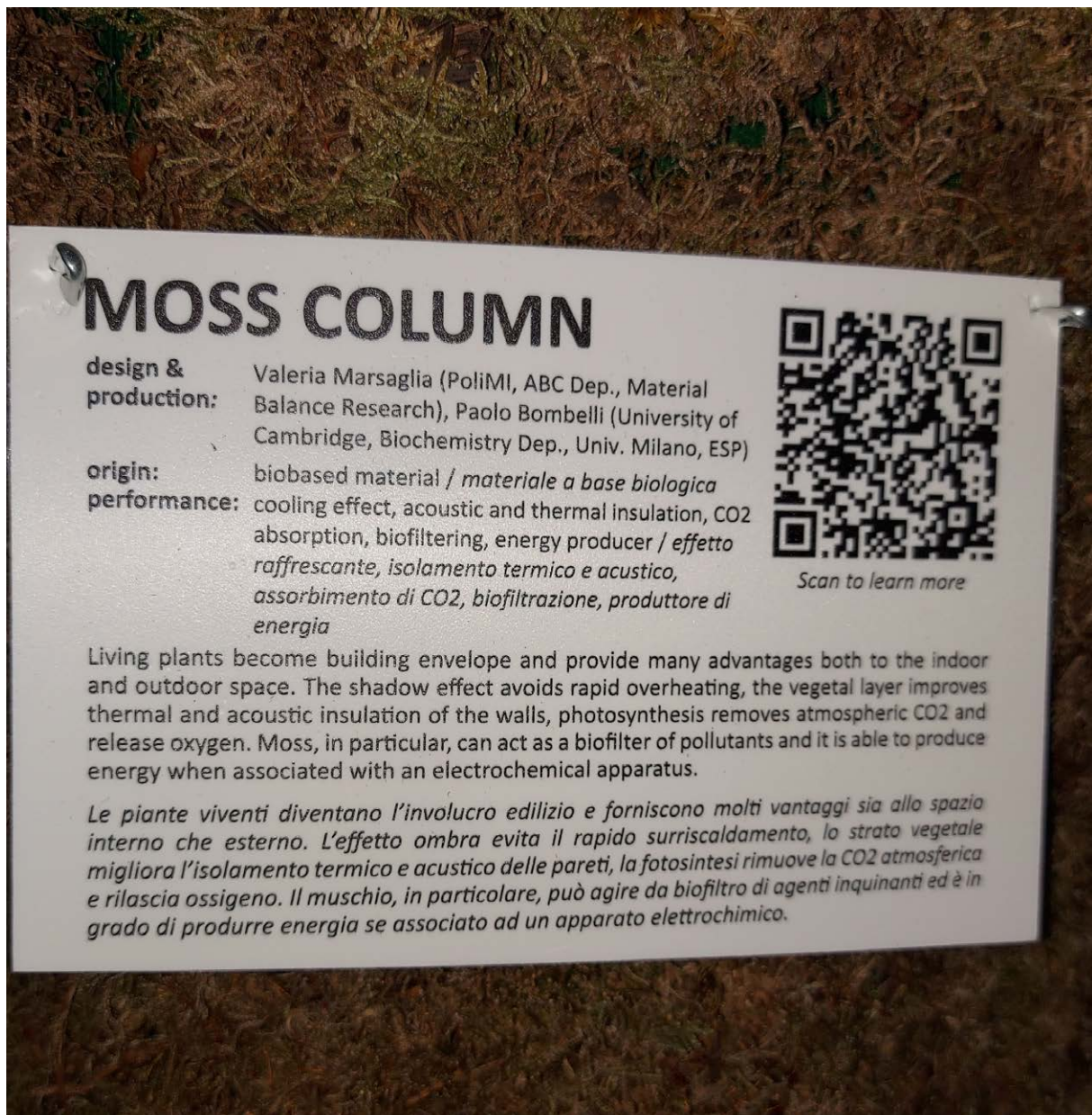
## MOSS COLUMN

**Design & production:** Valeria Marsaglia (PoliMI, ABC Dep., Material Balance Research), Paolo Bombelli (University of Cambridge, Biochemistry Dep., Univ. Milano, ESP)

**Origin:** biobased material

**Performance:** cooling effect, acoustic and thermal insulation, CO<sub>2</sub> absorption, biofiltering, energy producer

Living plants become building envelope and provide many advantages both to the indoor and outdoor space. The shadow effect avoids rapid overheating, the vegetal layer improves thermal and acoustic insulation of the walls, and photosynthesis removes atmospheric CO<sub>2</sub> and releases oxygen. Moss, in particular, can act as a biofilter of pollutants and it is able to produce energy when associated with an electrochemical apparatus.



**MOSS COLUMN**

**design & production:** Valeria Marsaglia (PoliMI, ABC Dep., Material Balance Research), Paolo Bombelli (University of Cambridge, Biochemistry Dep., Univ. Milano, ESP)

**origin:** biobased material / *materiale a base biologica*

**performance:** cooling effect, acoustic and thermal insulation, CO<sub>2</sub> absorption, biofiltering, energy producer / *effetto raffrescante, isolamento termico e acustico, assorbimento di CO<sub>2</sub>, biofiltrazione, produttore di energia*

Living plants become building envelope and provide many advantages both to the indoor and outdoor space. The shadow effect avoids rapid overheating, the vegetal layer improves thermal and acoustic insulation of the walls, photosynthesis removes atmospheric CO<sub>2</sub> and release oxygen. Moss, in particular, can act as a biofilter of pollutants and it is able to produce energy when associated with an electrochemical apparatus.

*Le piante viventi diventano l'involucro edilizio e forniscono molti vantaggi sia allo spazio interno che esterno. L'effetto ombra evita il rapido surriscaldamento, lo strato vegetale migliora l'isolamento termico e acustico delle pareti, la fotosintesi rimuove la CO<sub>2</sub> atmosferica e rilascia ossigeno. Il muschio, in particolare, può agire da biofiltro di agenti inquinanti ed è in grado di produrre energia se associato ad un apparato elettrochimico.*

Scan to learn more

## MILLEFORMA

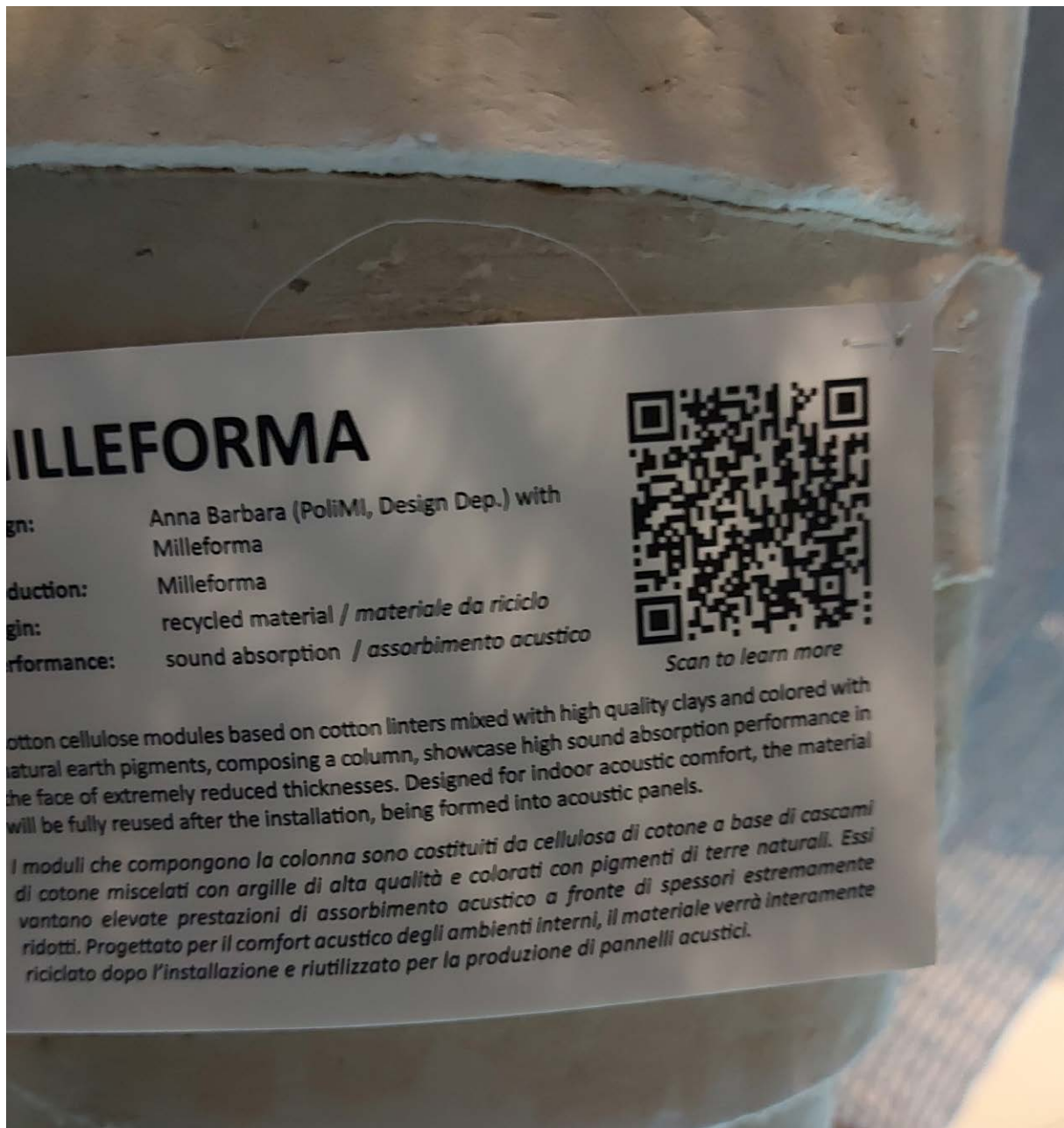
**Design:** Anna Barbara (PoliMI, Design Dep.) with Milleforma

**Production:** Milleforma

**Origin:** recycled material

**Performance:** sound absorption

Cotton cellulose modules based on cotton linters mixed with high-quality clays and colored with natural earth pigments, composing a column, showcase high sound absorption performance in the face of extremely reduced thicknesses. Designed for indoor acoustic comfort, the material will be fully reused after the installation, being formed into acoustic panels.





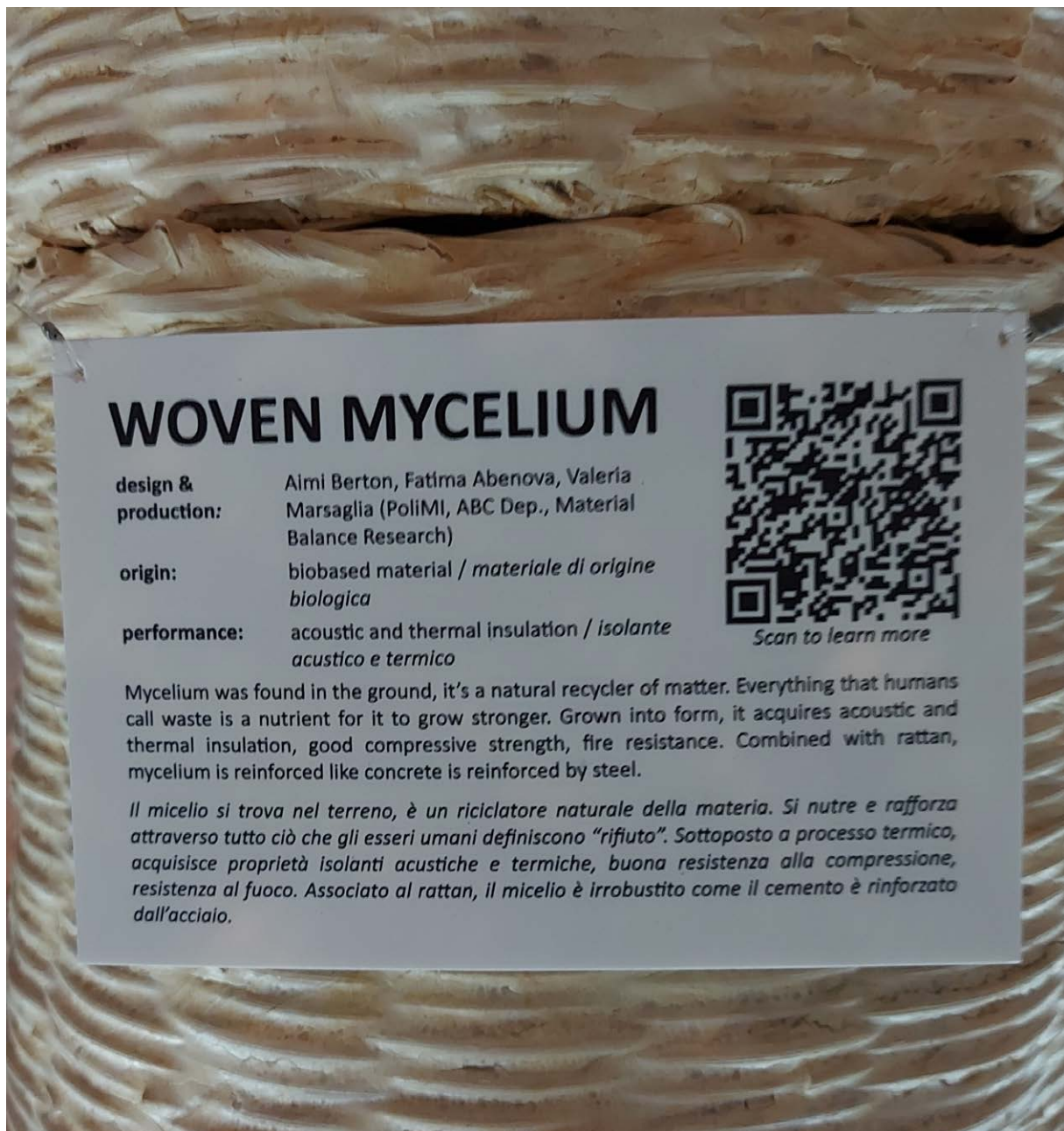
## WOVEN MYCELIUM

**Design & production:** Aimi Berton, Fatima Abenova, Valeria Marsaglia (PoliMI, ABC Dep., Material Balance Research)

**Origin:** biobased material

**Performance:** acoustic and thermal insulation

Mycelium was found in the ground, it's a natural recycler of matter. Everything that humans call waste is a nutrient for it to grow stronger. Grown in form, it acquires acoustic and thermal insulation, good compressive strength, and fire resistance. Combined with rattan, mycelium is reinforced like concrete is reinforced by steel.



## SUSTAINABILITY MANIFESTO

Fashion industry is considered one of the biggest polluters in the world, **accounting for up to 10% of global carbon dioxide output**—more than international flights and shipping combined, according to the United Nations Environment Programme (2022). It also accounts for a fifth of the 300 million tons of plastic produced globally each year.

In 2014, the grim trends inspired British designer Stella McCartney to create *the most beautiful, desirable products with the least impact on our environment*. She partnered with the NGO Canopy and made a commitment to ensure that all of its cellulose fabrics (viscose) meet strict sustainability standards by 2017, adding that these conscious values are also the inspiration behind their innovation.

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Fashion (if you hadn't noticed) is art and art (by way of its infinitive nature) can be fashion.

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Louise Oliphant

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The short overview of the Sustainability manifesto by Stella McCartney

- In 2001, her company committed to use no leather, feathers, fur, or skin since day one
- In 2008, they began using organic cotton
- In 2010, they went completely PVC free
- In 2012, company introduced bio-acetate in eyewear, started using recycled polyester, launched Clean By Design in their Italian mills, banned plastic water bottles, ensured all of their wood was sustainably certified, and joined the Ethical Trading Initiative (ETI).
- In 2013, stopped using angora, introduced eco Alter Nappa, began using solar panels and LEDs in their stores.
- In 2014, ensured that all of their paper and cardboard packaging was certified sustainable.
- In 2016, achieved 100% sustainable viscose, and ceased using of virgin cashmere.
- In 2017, launched the first garment made with Bolt Threads' Microsilk™ and introduced Econyl® regenerated nylon.
- In 2018, Banned the use of mohair, launched the Loop sneaker, committed to going plastic free, released the first vegan Stan Smith and created the first handbag made by Bold Thread's Mylo™ mushroom leather.
- In 2019, launched the first-ever garments made with Evrnu's NuCycle™ yarn and KOBA® Fur Free Fur, a sustainable, recyclable animal alternative made from recycled polyester and plant-based plastic.

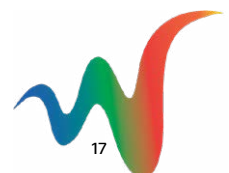


- In 2020, debuted Coreva™ biodegradable stretched denim, bio-lenses in Stella McCartney eyewear, bio-acetate frames in Stella Kids eyewear and launched Stellawear - a sustainable innovation fusing underwear and swimwear, made from Aquafil Econyl® regenerated nylon and ROICA™ elastane.



# THE BUYERARCHY of NEEDS (with apologies to Maslow)

© SarahL.com. Buyherarchy of Needs.



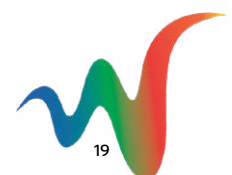
## PRACTICAL TASK

Name	How to come up with brilliant ideas
Type of the activity:	Puzzle with a brainstorming session
The aim of the activity:	Developing new thinking patterns Exercising the innovative way of thinking
Skills that the activity develops:	Thinking out-of-the-box Creative thinking Innovative approach
How many people the activity is suited for:	At least of 2
The time requirement of the activity:	30 min
How many instructors are needed?	Moderator/lecturer to disclose the trick behind the task
Other requirements for the activity (space, equipment, etc.)	Printed patterns of nine points*, a flipchart and pen, small sheets of paper, pencils
Description of the activity:	<p>A really innovative idea, rather than an old idea that has been applied to a new context, or a variation of an existing idea, is rare. Innovative ideas usually emerge when we leave out of our comfort zone, or when we break the rules. The task provided is the 'nine-point problem', which first appeared in puzzle magazines at the beginning of the 20<sup>th</sup> century. This puzzle is often used as an example of creative thinking.</p> <p>The first part of the task is to connect the 9 points using a maximum of 4 straight lines without lifting the pen from the paper.</p> <p>The trick how to do this is to extend the lines outside the box.</p> <p>The second part of the task is to propose at least one idea of how the above-listed sustainable materials could be used in artistic or artisanal practice. For this, participants may need to 'extend' their ideas outside the typical thinking patterns.</p>

\*Pattern is available as *Module 3. Annex 1*.

## Resources

- <https://climate-pact.europa.eu › about › priority-topics>
- <https://www.artistsnetwork.com/art-business/how-to-be-an-eco-friendly-artist/>
- <https://www.labecalondon.com/labeca-world/art/stella-mccartneys-a-z-manifesto-an-in-tersection-of-fashion-art-and-sustainability>
- <https://www.stellamccartney.com/us/en/sustainability/sustainability.html>
- [https://environment.ec.europa.eu/strategy/zero-pollution-action-plan\\_en](https://environment.ec.europa.eu/strategy/zero-pollution-action-plan_en)
- <https://www.15min.lt/gyvenimas/naujiena/namai/kojinems-is-perdirbto-plastiko-patike-ta-svarbi-misija-prisideti-galite-ir-jus-1034-1609842>



# ZERO-WASTE

The concept of **zero waste** generally refers to the conservation of all resources by means of responsible production, consumption, reuse, and recovery of products, packaging, and materials without burning and with no discharges to land, water, or air that threaten the environment or human health.

Today zero waste increasingly is becoming popular within mainstream society, and because of that, there is an urgency now for efforts and attention to focus on the implementation of zero waste at the local level. Sustainable choices and decisions create a cleaner environment for future generations every day.

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In nature, none of any other species creates waste, but humans are able to create trash that does not decompose.

Sustainable choices create a cleaner environment for future generations every day. Choosing a zero-waste lifestyle doesn't mean giving up everyday pleasures like high-quality, delicious food or fashionable clothes.

According to zero-waste bloggers from [zerowaste.com](http://zerowaste.com), the zero waste principles include three underlying obligations that target different sections of society:



Producer  
Responsibility



Political  
Responsibility



Community  
Responsibility

Each represents a specific stage of the waste stream. Producers are at the front end, and they must take responsibility for product design and manufacturing. The Community sits at the back end, taking responsibility for consumption and disposal. In between, political responsibility must bridge the gap between community and producer, promoting both environmental and human health while enforcing new laws designed to promote the zero waste principles.

## ZERO WASTE HIERARCHY PRINCIPLES:

### Rethink

Use reused, recycled, or sustainably gathered non-toxic materials. Incentivize cyclical materials and extended producer responsibility for the entire lifecycle of a product.



### Reuse

Optimize the reuse of materials and products through repair, refurbishment, modular technologies, and repurposing in alternative ways.



### Reduce

Sustainable purchasing that supports social and environmental concerns and local markets, or take back programs to avoid disposal of products. Minimize the quantity and toxicity of materials while planning for consumption habits to minimize waste.





## Residual management

Minimize polluting gasses and toxic residuals from materials. Encourage the preservation of resources and minimize destructive disposal methods.



## Material recovery

Optimize material recovery and only use energy recovery systems that operate at biological temperatures and pressures.

## Recycle / Compost

Support and expand existing systems that allow for high-quality recyclables and materials. Build local markets for collection and processing of recyclables. Promote decentralized composting at home.



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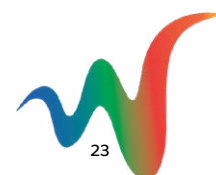
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## PRACTICAL TASK

Name	Why live a zero-waste life
Type of the activity:	Group discussion with brainstorming elements
The aim of the activity:	Re-thinking artistic and artisan practices in a zero-waste way
Skills that the activity develops:	Thinking out-of-the-box sustainability awareness Innovative approach
How many people the activity is suited for:	At least of 3
The time requirement of the activity:	60 min
How many instructors are needed?	Moderator for monitoring time and discussion
Other requirements for the activity (space, equipment, etc.)	Video device with audio for watching, a flipchart
Description of the activity:	<p>Watch the videos first:</p> <p><b>Why I live a zero waste life   Lauren Singer   TEDxTeen (video)</b>  <a href="https://www.youtube.com/watch?v=pF72px-2R3Hg">https://www.youtube.com/watch?v=pF72px-2R3Hg</a></p> <p>Why we should rethink Zero Waste (video)  <a href="https://www.youtube.com/watch?v=JLS6n-GrsZqo">https://www.youtube.com/watch?v=JLS6n-GrsZqo</a></p> <p>Based on the videos, discuss the following quotes about zero-waste living and suggest at least 1 proposal on how you can change your own artistic practice.</p> <p>We don't need a handful of people doing zero waste perfectly. We need millions of people doing it imperfectly. <i>Anne Marie Bonneau aka The Zero Waste Chef</i></p> <p>The most environmentally friendly product is the one you didn't buy. <i>Joshua Becker, founder of Becoming Minimalist</i></p> <p>If we want to move towards a low-polluting, sustainable society, we need to get consumers to think about their purchases. <i>David Suzuki.</i></p> <p>Be part of the solution, not part of the pollution. <i>Unknown</i></p> <p>Waste is a design flaw. <i>Kate Kreba</i></p>



	<p>Modern society will find no solution to the ecological problem unless it takes a serious look at its lifestyle. <i>Pope John Paul II</i></p> <p>Waste isn't waste until we waste it. <i>Will.I.Am, musician</i></p> <p>We have forgotten how to be good guests, how to walk lightly on the earth as its other creatures do. <i>Barbara Ward</i></p> <p>Do something drastic – cut the plastic! <i>Unknown</i></p>
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## Zero-waste culture: generating less waste in your creative business

While businesses have a larger role—and responsibility—in fighting climate change, the individual impact shouldn't be overlooked. After all, our personal choices do escalate to bigger results. What steps could you take now to generate less waste in your creative business?

The World Bank states that the fashion industry alone is responsible for 10% of annual global carbon emissions. They are also responsible for the consumption of 93 billion cubic meters of water—which equals to the yearly water consumption of five million people.

Textile waste is also a problem: according to The Ellen MacArthur Foundation, every second, the equivalent of a garbage truck full of clothes ends up in landfills since fast-fashion pieces are more likely to be discarded or fall apart in a shorter period of time.

### The following aspects should be considered by every creative business

- Saying yes to 30°C or less laundry cycles

And saying no to hot and long ones, because the general rule is the colder, the less waste. 10 degrees can help you save energy if using laundry is a technological must in your creative business.

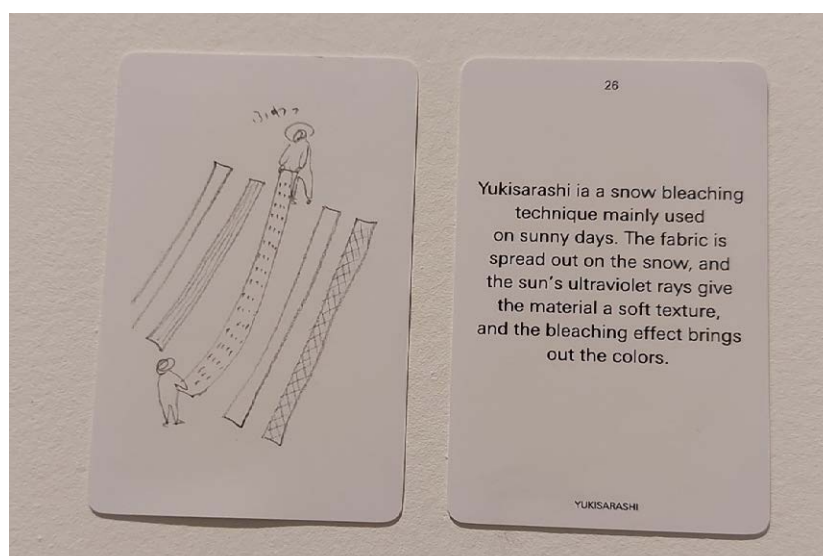
- Saying yes to air drying

And no to ironing and dry-cleaning instead as “every person emits 190 [kilograms] of CO<sub>2</sub> equivalent in greenhouse gases each year by ironing clothes,” wrote climate activist Mark Gersava on a viral Facebook post.

Pro-tip: If crisp shirts are a must; however, try and iron all your items at once since the highest consumption comes from heating up your iron.

In addition, skip the dry-cleaners—whose products might include toxic air pollutants and health-damaging volatile organic compounds (VOC)—and air dry as much as possible. This will make your laundry routine more environmentally friendly and, at the same time, increase the lifespan of your clothes.

Also, when appropriate try an ancient Japanese technique Yukisarashi, snow bleaching on sunny days (see picture below):



- **Saying yes to turning the heater down by 1°C**

Many countries are going through an energy crisis, with gas, coal, and electricity trading at much higher prices. Heating level reduction is an important money-saving step and an even more important one in terms of not wasting these non-renewable resources.

According to the UK's Energy Saving Trust, reducing your heating by 1°C can save you £55 (about €60) a year.

- **Saying yes to environmentally friendly transportation/delivery means**

Using car-free delivery is the most effective action an individual could take to reduce their GHG emissions, according to a study by Sweden's Lund University. Consider public transport and cycling as the obvious climate-positive delivery choices. Also, most of the trains run on 100 percent renewable power.

If your items can be delivered only by GHG-emitting vehicle, try the following tips:

Low tire pressure can affect your gas usage—make sure to check them often

Go easy on the air conditioning and opt for open windows instead

Save your car for longer journeys, and carpool when possible

- **Saying no to paper**

While paper is often a better alternative to plastic since it decomposes more quickly and is more widely recyclable (especially in terms of packaging), reducing paper usage is also an easy, achievable zero-waste step to add to your entrepreneurial routine.

You can start by saying no to paper bills and receipts, for example. In addition, e-receipts are harder to lose and don't require any physical storage, which saves you precious space. Considering digital subscriptions is another option, and so is investing in an e-book reader. In addition to reducing paper usage, they can help you save money too.



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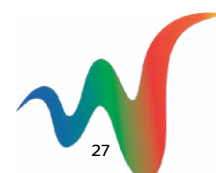
## PRACTICAL TASK

Name	<b>Saying no to ultra-fast fashion</b>
Type of the activity:	Group discussion with case studies
The aim of the activity:	Re-thinking artistic and artisan practices in a zero-waste way
Skills that the activity develops:	Thinking out-of-the-box Sustainability awareness Innovative approach Commercial flexibility
How many people the activity is suited for:	At least of 3
The time requirement of the activity:	60 min
How many instructors are needed?	Moderator for monitoring time and discussion
Other requirements for the activity (space, equipment, etc.)	Video device with audio for watching, a flipchart, exemplary items
Description of the activity:	<p>We have carefully selected products that comply with the zero-waste philosophy and are produced in an environment-friendly way. Discuss the following exemplary items:</p> <p>Pavyzdys su skirtukais</p> <p>Ingridos puodkėlės</p> <p>Papuošalai po Ingridos likučių</p> <p>Maišeliai iš marškinėlių</p> <p>What main features would you include in their marketing message? What do you think about the commercial potential of the items presented? Is sustainability a key driver behind their value?</p>

For more ideas watch **#WISE Women Go Fashion Design Business** [https://www.youtube.com/watch?v=-gyNpZv\\_a\\_A&t=103s](https://www.youtube.com/watch?v=-gyNpZv_a_A&t=103s)

## RESOURCES:

1. <https://www.zerowaste.com>
2. [https://www.torontoenvironment.org/zerowaste\\_benefits](https://www.torontoenvironment.org/zerowaste_benefits)
3. <https://www.zerowasteprekes.lt/>



# ARTIFICIAL INTELLIGENCE IN ARTS

Images generated by artificial intelligence (AI) have become popular in recent years with the advent of AI image-generation programs. Both artists and critics admit that AI-generated artwork has had a major impact on the art world. Even with all of the varied results we've seen, there's likely going to be even more innovation and controversy on the horizon. The original artwork when placed next to the AI-generated one to compare in most cases shows a striking resemblance.

AI generates images based on the mathematical principles of diffuse patterns. The loaded data is destroyed and turned into noise, and from that noise, a completely new image is created, albeit similar to the ones the model was trained on. Interestingly, the AI-generated artwork seems to struggle with the anatomy of human figures, adding extra fingers, or failing to render certain aspects convincingly. Even if the final result resembles the personal style of one or another artist, it is not a copy, and a new work simply because of the specifics of the technology.

The main advantage of AI image generation tools is the accessibility of the creative process to a wide audience. The idea is that anyone should create art. At the same time, it is noted that most of the images created by AI are not intended for public use, but for personal purposes.

However, new technologies have always brought with them new opportunities and new threats, fears, and mistrust. Until recently, creators who mastered traditional paint painting resented those who draw on a computer and resented such a technique as inauthentic, over-optimizing the process. These developers were worried that digital artists would take away their jobs. The opinion was held that if you draw with computer programs, the program draws, not you.

In principle, very similar arguments are used that are now being made by digital painters for AI applications. Many artists whose main livelihood is drawing for video games, movies, or other commercial activities are afraid they will run out of work because of AI.

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In nature, none of any other species creates waste, but humans are able to create trash that does not decompose.

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According to art researchers, even in the world of art, technological progress and the paradox it creates is not a new phenomenon. As soon as photography appeared, it was not considered art, because the image created by technology is very fast and does not require much effort, compared to a classical painted picture.

With the advent of digital photography, those who worked with analogue were angry. Before the advent of photography technology, only the rich, aristocratic class could have their portraits painted, and photography gave everyone the opportunity to have their portraits. The process we are witnessing now is a process of democratization of technology, with AI technologies that until now only a small group of people could create, and now it is becoming available to everyone.

Seen as a huge disrupter in the industry by many, AI will probably not put an end to all photography styles, but when it comes to illustrations AI is widely considered to dominate in the nearest future. Some artists already utilize AI as part of their toolbox, study how it works, and what new features it will have, and also try to educate others along the way.

Artists are also concerned about the possibility of using the creator's recognizable style in unwanted contexts. Using the AI model, one could ask to create a "watercolor shop selling drugs or guns" and publish it with a specific artist's name attached, even though the author would not want to. Although the artist's apprehensions raise a serious problem, it is also unavoidable with reproductions created by people, and imitations of the style of other artists.

Experts note that the author's drawing is not a mathematically defined thing, and society has not fully solved the problem of copying. Even if the copycats are not machines but other people, the line between copying and taking inspiration from another author's work can be blurred and often requires expert investigation.

The aspect of unequal competition also arises here. Some creators do not agree to have works created by artificial intelligence published alongside their work.

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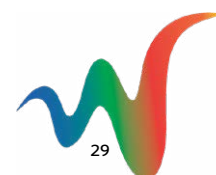
To upload an image created by artificial intelligence next to works of art that took hundreds of hours of practice and years of experience to create is beyond disrespectful.

*Dan Eder*

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Another issue of great concern is the AI training process infringing on the copyrights of developers. When it comes to AI-generated images, there is still no legal framework to regulate machine learning and copyright matters. For example, when creating the Artstation tool, AI was fed hundreds of millions of artists' work, but the tool's creators did not listen to or obtain permission from the authors of the works for such use of their work. Therefore, the artists did not receive compensation and artistic recognition for their works used in AI education.

The AI image generation company admitted that hundreds of millions of artists' works from around the world were used to create the tool (Forbes, 2022). However, since these works do not have encoded metadata that would provide information about the creator of the image, it was allegedly impossible to inquire about the use of the works. The company says there is no way to find an image online and automatically track down its owner and then authenticate it.



Legally, the authorship of an artwork is completely independent of what is stated in the metadata. The law requires that the author's name always appear when using the work, but it does not have to appear in the metadata. The fact that attribution is not everywhere does not mean that the work is not protected by copyright or that it can be used without permission.

There is currently a debate over whether machine learning should be allowed to collect data online without asking the authors individually. Countries such as the United Kingdom, Estonia, Germany, and France have already approved exceptions to copyright and allowed works found in open-access sources to be used for text and video collection without further consultation (Text and Data Mining (TDM) for non-commercial purposes.

According to the laws currently in force in some European Union countries, permission from the rights holders is required to use copyrighted works in this way. If the authors have not given such permission, then their rights are violated. This requirement applies to using works created by other authors in any way and by any means.

It remains to be seen whether the authors whose copyrights have been infringed will go to court and how the process will develop. There is no case law in this area yet, but in the near future, it can be expected that rights holders will apply for infringement of their rights. Each such case is individual and each particular situation would undoubtedly be assessed and dealt with individually. Until it's built, this is more an area of opinion than copyright expertise.

Some AI page rules already include a clause for those creators who don't want their work to be used to train AI to mark it with "No AI" when uploading their work. This is included in their work as metadata and prevents the work from being used to collect data for machine learning.

Legally speaking, AI art is not prohibited. Proponents of AI art say they don't want to single out any one way of the creative process and encourage pictures created by AI to be labeled as created with the help of artificial intelligence.

The question of AI-created art is reminiscent of an old phenomenological problem - to what extent does a work depend on its perceiver, or can a work of art exist alone? According to some opponents of AI, a work created by a machine does not have a creative process, an idea, so it is a worthless work of art or cannot be called such at all.

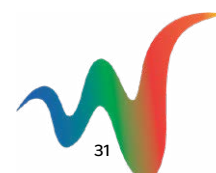
Even the greatest masterpiece becomes art only when it is understood as a work of art. AI technologies are also not autonomous from humans, and only humans can order AI-generated images and place them in a context where they can be perceived as a work of art.

There are no good or bad technologies or tools in modern art, and no one should tell an artist what medium or tool they can and cannot use. However, the artists in this field are not worried, because the discussed problems mostly affect not the field of contemporary art as self-expression, activism, or the search for new meanings, but the creative industries.

It is important to understand that the emergence of new technologies and their development is an inevitable attribute of human existence. It is important not to run away from them but to integrate them into our daily lives, to create a legal and ethical model that suits all parties.

## PRACTICAL TASK

<b>Title</b>	<b>Creating art with Artificial Intelligence</b>
Type of the activity:	Group activity with a discussion
The aim of the activity:	Re-thinking artistic practices in AI way
Skills that the activity develops:	Thinking out-of-the-box AI awareness Innovative approach
How many people the activity is suited for:	At least of 3
The time requirement of the activity:	120 min
How many instructors are needed?	Moderator for monitoring time and discussion
Other requirements for the activity (space, equipment, etc.)	Devices with stable internet connection
Description of the activity:	<p>The moderator encourages and helps if needed participants to sign up for any AI-assisted artistic platform, e. g. Artstation (<a href="https://www.artstation.com">https://www.artstation.com</a>)</p> <p>Participants individually or as an artistic group upload and create AI-generated artwork(s). Later, they discussed the results in the following aspects, such as</p> <p>Resemblance to the original artwork,</p> <p>Features added by AI</p> <p>Ethical and legal aspects</p> <p>Implementation and <i>practical</i> aspects of using AI into their own practices</p> <p>Marketing opportunities</p> <p>Personal feelings</p> <p>Community feedback</p>



**Resources:**

1. [https://mymodernmet.com/antii-karppinen-ai-generated-art/?utm\\_source=convert-kit&utm\\_medium=email&utm\\_campaign=weekly-broadcast&utm\\_term=ai-art-jan-23](https://mymodernmet.com/antii-karppinen-ai-generated-art/?utm_source=convert-kit&utm_medium=email&utm_campaign=weekly-broadcast&utm_term=ai-art-jan-23)
2. <https://www.forbes.com/sites/robsalkowitz/2022/09/16/midjourney-founder-david-holz-on-the-impact-of-ai-on-art-imagination-and-the-creative-economy/>
3. <https://www.artstation.com>
4. <https://lithuania.ai/>



# CRYPTOCURRENCIES

A simplified definition describes cryptocurrencies as virtual money that exist in computer systems (White, A. K, 2017). As a phenomenon, they have existed since 1997, when the first version of cryptocurrency “B-Money” was created.

Cryptocurrencies use cryptographic methods to protect and support transactions: transaction codes are encrypted and, once a cryptocurrency financial transaction has been made, it is recorded on the currency’s blockchain.

The blockchain is like a cryptocurrency ledger, safely storing information about every single transaction ever made in that cryptocurrency. The blockchain technology on which cryptocurrencies are based was first described in a doctoral thesis by David Chaum in 1982. Later still, there was Bit Gold and other currencies.

Cryptocurrency units are created through a technological process called “mining”. People who want to mine a cryptocurrency download and install software on their computers. The computer then carries out mathematical calculations to create the new cryptocurrency units.

Cryptocurrencies have recently been increasingly seen as an equivalent alternative to conventional money, even though they are decentralized and not under the supervision of any national authority.

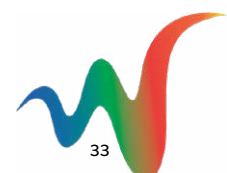
Although cryptocurrencies have no physical form - no coins or notes to touch - their greatest advantage is considered to be the ability to make anonymous online payments directly between users without using traditional banks or other intermediaries.

The most popular and best-known cryptocurrency is bitcoins, which are considered the benchmark for cryptocurrency. However, this currency can be considered the pioneer of the virtual financial market, as it is the one that made people believe in the future of this instrument and attracted millions of investors to the market.

The second most popular currency is Ethereum. There are over a thousand different cryptocurrencies in existence, many of which are worth a couple of euros or even less.

In 2022, the total market capitalization of cryptocurrencies worldwide was estimated at more than USD 1 trillion.

Economists believe that the cryptocurrency market is directly linked to the overall state of the global economy. For many investors, the question is no longer how to make more money, but how to keep their savings safe in an inflationary context. This has led to a division of the crypto market into different sectors: cryptocurrencies, DeFi, NFTs (see next section), tokenization projects, mining, and other blockchain technologies. Each of these sectors is evolving independently of the other, which confirms the maturity of the market.



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Lithuania is the EU leader in terms of the number of cryptocurrency companies operating in the country. According to the Bank of Lithuania, in 2022 there will be more than 700 cryptocurrency companies in the country. Estonia, in second place, has half as many crypto companies, with only 381.

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In 2020, only 8 cryptocurrency companies were registered in Lithuania. In 2021, the number increased to 188, and before the end of 2022, the Ministry of Finance of the Republic of Lithuania reported that at least 250 companies were operating in the cryptocurrency services market.

### **Cryptocurrency market regulation**

There is a general consensus that the cryptocurrency sector needs clearer regulation and rules of the game to ensure its further development. MiCA, a set of crypto regulatory rules in Europe, will enter into force in several stages in 2023. The introduction of new laws and regulations, clarification of taxation, and even the introduction of CBDCs (national central bank digital currencies) are the next improvements to the regulatory framework in line.

In preparation for global changes at the EU level, Lithuania, which leads the world in the number of cryptocurrency companies, has introduced stricter regulation of cryptocurrency service providers in recent years, with more detailed rules on customer identification and a ban on anonymous accounts. The new regulation has tightened the requirements for operators of cryptocurrency exchanges, which must increase their authorized capital to at least €125,000 from 1 January 2023. Only permanent residents of the Republic of Lithuania are allowed to hold managerial positions in cryptocurrency companies.

### **Taxation**

As cryptocurrency investing is gaining momentum, players in the art and fine craft field are aware that some buyers may be interested in purchasing their works of art in cryptocurrency. Therefore, as an innovative way of thinking about the future, it is essential to make this possibility available on online platforms where one's creations or products are traded.

Income from cryptocurrency transactions may result in tax and declaration obligations.

It is important to note that the production (mining) of cryptocurrencies is not considered as income in itself, without realisation. Cryptocurrency revenue is considered to be the remuneration derived from the subsequent sale, realisation or exchange (purchase of commodities such as NFTs) of the cryptocurrency purchased.

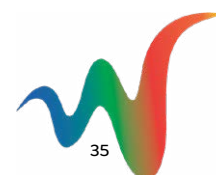
From a tax perspective, there are two ways to make money from cryptocurrencies: through one-off transactions or through individual activities. The tax treatment and declaration of income from cryptocurrency transactions depends on the type of activity.

One-off transactions are defined as occasional, one-off transactions, i.e. where no cryptocurrency buying and selling activity is planned. Income from the sale of cryptocurrencies from one-

off transactions during a calendar year is declared and taxed as income from the sale or other disposal of other property.

### THE EXAMPLE OF LITHUANIA

- The total amount of income from cryptocurrency transactions is calculated by subtracting the costs of acquiring the asset from the total income received.
- If this amount does not exceed €2,500 per year, the income is tax-free and does not need to be declared.
- If the amount exceeds this, the part of the income exceeding €2,500 is taxed at a personal income tax (PIT) rate of 15% or 20%. Such income must be declared.
- The total amount of other taxable income received during the calendar year, up to 120 national average wages, is taxed at 15% PIT. The total amount that exceeds 120 national average wages, is taxed at 20% PIT.
- The obligation to register a cryptocurrency-related self-employed activity on the basis of a certificate arises when the activity of buying, selling, or making cryptocurrencies is carried out for a continuous period of time and is intended to generate a permanent economic benefit. That is to say, there must be a certain continuity in the person's transactions and a motive to engage in future transactions, including the provision of cryptocurrency production services or the rental of the necessary facilities.
- For cryptocurrency activities, PIT is payable on the taxable income of the individual's cryptocurrency activities. This income is calculated by deducting from the income of the individual activity during the calendar year the expenses actually incurred, supported by documents proving the cost of acquiring or producing cryptocurrencies, or by deducting 30% of the income without supporting documents.
- The rate of PIT applied to self-employment income depends on the amount of taxable income earned by the resident in the calendar year:
  - if the taxable income does not exceed €20,000 per year, a PIT 5% tax rate applies;
  - if the taxable income exceeds €20,000 but does not exceed €35,000 per year, the PIT tax rate is between 5 and 15 % depending on the amount of income received;
  - if the taxable income exceeds €35,000 per year, a PIT 15% tax rate applies.
- In the case of individual activities involving cryptocurrencies, the income from such activities must be declared in all cases, regardless of the amount of income received and whether income tax is due. In addition, such activities give rise to an obligation to pay National Social Insurance (NSI) and Compulsory Health Insurance (CHI) contributions.
- Cryptocurrency trading does not give rise to an obligation to register for value added tax (VAT), regardless of the amount of consideration received for the cryptocurrency sold. However, there is an exception: if cryptocurrency production services are provided and the person providing such services is already a VAT payer or the amount of €45,000 is exceeded, such services must be taxed at a VAT rate of 21% (if the person is not a VAT payer and the amount of VAT exceeded is €45,000, the obligation to register for VAT arises).
- At the end of the calendar year, anyone who has received income from cryptocurrencies is obliged to submit an annual income tax return and pay the income tax due by 2 May of the following year (as 1 May is a public holiday in Lithuania).



## PRACTICAL EXERCISE

<b>Title</b>	<b>Getting to know cryptocurrencies</b>
Type of activity:	Group activities and discussion
Operational objective:	Using cryptocurrencies in creative activities
Skills developed through activities:	Thinking outside the box Understanding Cryptocurrencies Innovative approach
Minimum number of participants:	1
Duration:	120 min
How many instructors are needed?	A moderator able to help navigate the cryptocurrency site
Operational requirements are different;	Smart device or computer, stable internet connection
Description of activities:	<p>First, the moderator explains that there are no bank charges when purchasing and paying for cryptocurrency. However, there are fees payable to intermediaries, which are often higher than buying something online and paying by bank card.</p> <p>The process of buying cryptocurrency is then put into practice:</p> <ul style="list-style-type: none"> <li>• A virtual wallet for that cryptocurrency is created on the chosen cryptocurrency website;</li> <li>• Once your wallet is created, you get your <b>personal</b> and <b>public</b> account numbers. They are unique for each person. The personal one is used to log in to the system and the public one must be provided to receive money. The facilitator explains that the personal account number can be compared to an e-banking password, while the public account number can be compared to a bank account number. Unlike e-banking, if a personal cryptocurrency account number is lost or forgotten, the cryptocurrency units it contains cannot be recovered. Alternatively, you can contact service providers who offer to set up bitcoin accounts on their websites and use them as intermediaries. There is then no need to fear the loss of a personal account number.</li> <li>• Next, you need to open a payment account on one of the special websites that act as intermediaries between the bank and the cryptocurrency exchange.</li> </ul>

	<ul style="list-style-type: none"> <li>• You need to transfer money from your bank into this account and use it to buy cryptocurrency on the exchange. For example, to buy bitcoins, opening such an account and making one bitcoin purchase in Lithuania would cost an additional €10-20.</li> <li>• Once you have purchased a cryptocurrency, you can try to use it to pay for goods and services, or to transfer money to another user - you just need to know their public account number. Bank charges do not apply to such transfers.</li> <li>• The cryptocurrency transfers themselves are <b>paid</b>. When making a transfer, you must specify the amount you agree to pay for the fastest possible execution of the transfer. The higher the amount, the faster the transfer is executed. In most cases, websites that help you transfer cryptocurrencies or convert them into regular currencies include the transaction fee upfront in their service and add their own brokerage fee. In Lithuania, intermediaries facilitating such transactions (Bitmarket, Spectrocoin, etc.) require personal data and even a copy of a personal document.</li> <li>• When a cryptocurrency performs any financial transaction, that transaction is recorded on the blockchain of that currency. This is like a cryptocurrency ledger, which securely stores information about every transaction ever made in that cryptocurrency. This blockchain information is regularly sent to all people with cryptocurrency accounts who have opted to receive such reports.</li> <li>• The number of cryptocurrency units in a personal account is visible to anyone at any time. However, the identity of the holder remains unknown. This ensures that no user of the system can „hack“ the central system and increase the number of units of currency they hold.</li> </ul>
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	<ul style="list-style-type: none"> <li>• Please note that even if the underlying system is secure, this does not guarantee that the various third-party systems linked to it, such as brokerage programs that make it easy to buy and sell cryptocurrencies or to convert them into traditional money, will be secure. The main cryptocurrency pages recommend not holding large amounts of money in cryptocurrency accounts when no transactions are taking place. And if the cryptocurrency wallet is held on your own computer, it is important to take extra care with the security of your computer.</li> <li>• Neither the banks nor the state knows about cryptocurrency transactions. Cryptocurrencies can be used for financial transactions without using banks and without keeping your name secret. Anyone can open a cryptocurrency account, even those who cannot or do not want to open a bank account. Discuss these aspects with the participants.</li> <li>• If a large amount of cryptocurrency is received from another country, you need to use intermediaries to exchange it into euros. As mentioned above, they will require personal data. Many e-shops that allow cryptocurrency payments also require personal data.</li> </ul>
Homework	Thinking about your creative practice, write at least 3 reasons why it is worth using cryptocurrencies in your practice and at least 3 reasons why it is not worth doing.

See Annex 2 on NFTs for further information.

See also the #WISE Women Go Crypto video training <https://www.youtube.com/watch?v=d-CWsXwueBZY&t=19s>



Kūrybos ir meno moterų verslumo skatinimas

## WISE WOMEN GO CRYPTO

2022-04-21 | Vilnius

Lektorė Skaidrė Vainikauskaitė-Tomaševičienė  
Asocijuotasis partneris Povilas Goberis



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## **Resources**

1. Cryptocurrency. Abraham K. White, 2017.
2. <https://www.15min.lt/verslas/naujiena/finansai/kas-laukia-kripto-2023-metais-662-1989826>
3. <https://www.verslimama.lt/kripto valiutu-era-kada-investavimas-i-sia-turto-klase-bus-apmokestintas/>



# NFT

For a long time, technology and art seemed hard to reconcile: ones and zeroes on the one hand, images, sounds, movements, and other forms of expression on the other hand. But things are changing, and if you can sell a banana stuck to the wall for \$120,000, why are the ones and zeros of virtual space any worse? They have measurable value thanks to blockchain technology and its new offshoot, non-fungible tokens (NFTs).

NFTs are becoming the main currency of the metaverse. Taking the form of tangible digital objects, they indicate the originality of an item and at the same time confirm ownership of it through blockchain technology. Owners of unique digital creations, such as images, GIFs, audio-visual content, and in-game merchandise, can turn them into assets and trade them on various games, social networks, and other online platforms.

NFTs can be seen in many different ways: some call it a platform, others call it a way to protect virtual assets, but there are many who see NFTs as just a game. From auction houses selling NFT artworks for millions to world-renowned artists and performers transferring their work to NFT, it is hard not to be amazed at how quickly NFT has grown in popularity and recognition. International companies are already looking into this field, for which the NFT would open up a space to offer their wares in the metaverse of the future.

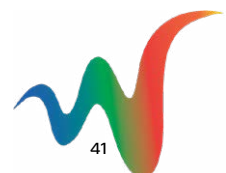
NFT tokens are unique and cannot be exchanged for other tokens. For example, blockchain cryptocurrencies such as bitcoins, ether, etc., are fungible ones, i. e. if you send a bitcoin and receive another one, you will have the same thing, one bitcoin. In contrast, NFT tokens are un-tized and your ownership changes when you exchange them.

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To use a board game analogy, in Monopoly, bitcoins would be the money, and NFT tokens would be the playing cards. If you exchange the same amount of money with another player, your holdings remain identical, while the street cards are different and unique, so the situation changes dramatically.

An NFT can be turned into virtually any virtual creation: a photo, a picture, a video, an audio recording, or simply a text document. The file itself is uploaded to the blockchain and, like virtually any digital content, can be viewed, saved, or copied. It is the NFT that makes that piece of content unique; it is a kind of certificate of authenticity that confirms that the person holding it is the true owner of the work.

A natural question might arise: if content can be viewed and copied, why do we need an NFT? There are several reasons:



Firstly, the publisher of the NFT can transfer certain rights of use of the work to the buyer. For example, to allow the owner of the NFT to sell clothes, cups, and other items with the image.

However, NFT owners are more likely to see themselves as “next-generation collectors”, hoping that the value of the unique assets they acquire today will increase in the future. After all, anyone can buy a poster of the Mona Lisa and have it framed, but there is only one real painting.

A number of celebrities have already warmed up to the NFT market by selling their first NFTs or NFT kits, including Kings of Leon, deadmau5, Justin Bieber, Snoop Dogg, actor William Shatner, NBA basketball player Steph Curry, footballer Lionel Messi and many more.

A number of companies are also looking into NFTs, such as Nike, which has announced that it will produce virtual sneakers and other apparel, and the Walmart supermarket chain is also considering its own cryptocurrency and NFT goods.

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” The most high-profile NFT transaction to date was the artist the artist Mike Winkelmann’s (aka Beeple) “Everyday: the first 5,000 days” sold at Christie’s for a staggering \$696 million.

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Winkelmann himself has called the NFT market “extremely speculative”, as anything people buy today could be worth full zero in a month, a year, or a decade. And indeed, some NFT projects raise questions about why people might need it.

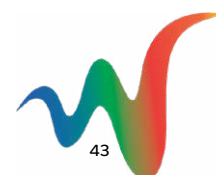
Perhaps the best example of this is “The Loot: (for Adventurers)” project by Dom Hofmann, co-founder of the social network Vine. The man created an app that generated random lists of “warrior gear” with fictional items ranging from headgear and armor to shoes and jewelry. He then uploaded 7,777 of these lists onto a blockchain and invited people to pick them up, paying only a transaction fee. They were snapped up immediately, and within days people were selling the meaningless text lists for thousands of dollars each - Coindesk estimates that the total value of the project has reached \$180 million.

On the one hand, people were asking that much for their lists, but they weren’t necessarily being bought by anyone. In addition, NFTs are traded in cryptocurrencies, which themselves fluctuate widely in value.

On the other hand, the value of all things - from stamps and paintings to diamonds and the same money - depends on how they are valued by the people who have them and the people who want them, in other words, on supply and demand. And perhaps there is not such a big difference between a banana stuck to the wall and an eight-point random-word text document.

## PRACTICAL TASK

Title	Key information on NFT
Type of the activity:	Individual activity with consultations
The aim of the activity:	Practicing NFT presenting on Solsea step-by-step
Skills that the activity develops:	NFT awareness Innovative approach Digital literacy, including digital marketing and SEO
How many people the activity is suited for:	1
The time requirement of the activity:	180 min
How many instructors are needed?	Mentor to consult and solve technical issues
Other requirements for the activity (space, equipment, etc.)	A device with a stable internet connection A piece of digital artwork to be minted
Description of the activity:	<p>NFT preparation process consists of 4 main steps each participant has to follow for a successful result.</p> <p><b>Step 1.</b> Choosing descriptive features that suit an NFT the best, including</p> <ul style="list-style-type: none"> <li>• Category (Art, Photography, CGI and etc.)</li> <li>• Subcategory (drawing, sculpture, collage, painting, performing arts, video, audio)</li> <li>• Title, e. g. “Sunrise” or “Lush forest in the wilderness” (up to 32 characters)</li> <li>• A short description of the NFT, e. g. “A girl walking down the road with flowers” (up to 128 characters)</li> <li>• Description, i. e. a long version of the description, which may contain a story about the art piece (unlimited number of characters)</li> <li>• <b>Step 2.</b> Choosing and selecting the right license for the NFT from the list below:</li> <li>• Private use/Non-commercial exploitation</li> <li>• Personal public display/ Non-commercial exploitation</li> </ul>



	<ul style="list-style-type: none"> <li>• Public display/ Non-commercial exploitation</li> <li>• Reproduction/commercial exploitation</li> <li>• In this step, the royalties from secondary sales should be indicated in percentage, that would be paid if the NFT is traded (e. g. 10%).</li> </ul> <p><b>Step 3. Uploading</b></p> <ul style="list-style-type: none"> <li>• A static preview image of the NFT as a JPG, GIF or PNG file image file (max 10 MB)</li> <li>• Animated preview (optional, not necessary; max 10 MB)</li> <li>• Actual artwork file, which may be JPG, GIF, PNG, MP4, M4A, MP3, OGG, WAV, MOV, PDF formats (max 40 MB)</li> </ul> <p><b>Step 4. Finalizing the NFT by adding</b></p> <ul style="list-style-type: none"> <li>• External URL, i. g. a link to the website, where this artwork is featured, described, or sold (e. g. Instagram, e-shop page) (optional)</li> <li>• Traits, i. e. certain attributes that well describe the artwork. It's like keywords for the NFT. Could be the Color (Red), Clothes (Casual), and etc. One NFT can hold several such traits.</li> </ul>
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For more read on #WISE website Danish artist Mugaska: my first NFT – an exciting trip to the Metaverse <https://mugaska.com/2022/09/19/my-first-nft-an-exciting-trip-to-the-metaverse/?fbclid=IwAR35lcR-ztLEchlo94tmTzO43bECPo7av3VhzflwINChOoRSbslrFklXBFw>

Also, find the album on the international exhibition of NFTs created by women for the first WISE WOMEN WEEK in Vilnius, Lithuania as Annex 3.



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