



Digital marketer and content writer with a passion for technology, sustainability and innovation. When she's not working, you can find her underwater or travelling.



BUILDING FOR TOMORROW, TODAY

[Federica Tadiello](#) speaks to [Luca Caruso](#), a warranted architect with robust professional experience and now a researcher at the University of Malta. Luca is also the co-founder at MEDmeUP and is an expert in sustainability in architecture and building construction.

The Malta Sustainability Forum opened its virtual doors at the end of January for five days of debate about some of today's most significant sustainability opportunities and challenges. Following a pandemic that took the world by surprise, the need to understand what is happening to our planet and society has never been so strong.

"The Time is Now" was this edition's theme. It brought together an online panel discussion of more than eighty international and local

speakers to discuss "sustainability" in all its possible variations: from ocean plastic pollution to climate change and, of course, architecture and the construction sector.

F So, Luca what is MEDmeUP?

L MEDmeUP is a network of passionate architectural and engineering professionals, green marketing consultants and climate coaches operating across the Mediterranean and beyond. Our final goal is to make a

tangible impact in our local economies by placing the Mediterranean habitat back at the core of the current debate around sustainability, regenerative design and environmental impact. What is the meaning of "sustainable architecture", and why is sustainability important in architecture?

In general, sustainability is the capacity to thrive today without reducing future generations' chance to meet their own needs tomorrow. To understand this better, though,

we must look back into our history. Finding a comfortable shelter has been paramount for the human species, and when we stopped being nomadic, we developed the idea of “dwelling”. With time, we created an industry that could fulfil this basic need, but this came at the cost of increasing demand for finite resources. Now, these resources were sufficient until the Industrial Revolution kicked off, changing the game forever. Also, the world population skyrocketed from the '50s onwards, with a consequent change of lifestyle in the Western countries that led to massive consumption of planetary resources. Architecture and building construction play a key role in our lives (we live indoor 90% of our time), and have a relevant environmental impact. It's easy to understand why we must act immediately and work hard to make sustainability in construction an industry standard.

F Is sustainable architecture a benefit that only wealthy people can afford?

L Not anymore. It is now a necessity for every building to have some of these features. After the Second World War, we started building cheap and fast thanks to new technologies and affordable materials. An entire industry developed with this approach in mind where the focus was on quantity and not quality. Nowadays, every little effort to change this mindset finds resistance to change.

Building differently from the “accepted” standards is an innovation that introduces potential risk and increases the upfront cost of construction and design. Here is why the average man thinks that sustainability is (wrongly) a fancy and expensive add-on. It is up to professionals to transform forward-looking clients' ideas into reality and make people understand that sustainability is a synonym of quality. With MEDmeUP, we want to accelerate this transition by sharing knowledge and stimulating the discussion.

F What are the benefits of “green buildings” for the people and the environment?

L A “green building” is a catchy term coined in the 90s to identify a resource-efficient building in water, energy and waste. When

we understand this definition, most of the doubts should disappear regarding the benefits for the people and the environment. If a building has a low energy demand for heating and cooling, artificial lighting will have lower operational costs. Freshwater is scarce globally, especially in Malta, where the necessity to meet the demand has driven significant investments to the Reverse Osmosis plant. This infrastructure can convert seawater into high-purity drinking water. But this process comes at relevant energy costs. A well-proven strategy is the exploitation of the greywater re-use for toilet flushing and irrigation, for example.

These years of economic growth have seen a steady increase in demolition activities to make space for new constructions. In 2019 a report provided by the local Environmental Resource Agency (ERA) had disclosed that

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Construction Demolition Waste accounts for roughly 80% of all the total waste generated every year. This model of taking, making and disposing of is depleting the precious local resources by creating tons of debris with minimal reclamation scope. Being Malta an island country, where land is scarce, solving the waste issue is a national problem as crucial as the stable drinking water and electricity supplies.

F During your speech at the Malta Sustainability Forum, you talked about regenerative buildings. Can you tell us more?

L MEDmeUP has a statement to raise awareness and stimulate a regenerative building market based on our Mediterranean cultural heritage as sustainability pioneers. A regenerative building is a green building that enhances human indoor health and well-being by exploiting the use of less harmful building materials to benefit the indoor air quality. It also performs better in terms of daylighting, thermal and acoustic comfort. It introduces a human-centric approach on top of resource efficiency. Also, Regenerative Buildings consider the topic of embodied carbon, namely the CO2 emissions released in the process of procuring raw materials, manufacturing and installation of building materials, because so far we have focused only on operational carbon released into the atmosphere. →



F Is there anything that we can do, to make our houses (and our way of living) more sustainable?

L Apart from the things that we can do immediately, like reducing our energy demand, investing in renewable energies and choosing alternative forms of transport (other than cars), we all should re-think our approach to life in general and be more minimalistic. We should ask ourselves: do most of the things we possess spark joy for us? Another thing is having an active role in this society by asking for better solutions from the local industry to create a market

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transformation. A good input comes from the significant ex-pat community here in Malta, who is open to new opportunities.

F What do you think is needed to shift the local mentality and make people act more on a long-term basis?

L We must say no to property speculation and start focusing on the community’s interests, not just on our individual needs. The current developers’ mantra is to make a profit by building fast and cheap only for the sake of reselling a property straight afterwards at an inflated price. They should focus on the needs of future users and the overall quality instead. I believe that changing this mindset by providing evidence for the

regeneration thanks to a forward-looking brief developed by the Valletta Design Cluster team: they intend to turn it into a community space for cultural and creative practices. In the past, the Knights used to build by quarrying the stone on-site and, thus, the void underneath became a rainwater cistern. The Valletta Design Cluster project is trying to redesign this good old practice to meet our current needs, and I have great expectations from them.

Other interesting case studies have been the restoration of the Malta Stock Exchange in the early 2000s (pioneering natural ventilation strategies to cool down the building) and the Valletta City Gate hosting the Maltese Parliament.

In terms of private business initiatives, Trident Park and Avenue 77 in Birkirkara are currently being built by following a rigorous green rating scheme ensuring sustainable strategies and experimenting with innovative technological solutions used worldwide. These are just significant examples, in any case. I know many passionate professionals share the same values as MEDmeUP, putting their effort to raise our built environment’s overall environmental quality, even in smaller projects.

F Do you think the Government is doing its part? Are we on the right path?

L There are mandatory policies like the Energy Performance Certification, building rainwater cisterns in new and refurbished buildings, and some other minor schemes like introducing green walls and the Green Public Procurement.

Unfortunately, there are still barriers to improve efficiency during construction, and no policies are mandatory to exploit the re-use of secondary raw materials from demolition waste. The reason is simple: again, it’s easier to build fast and cheap without any environmental features raising the quality.

Today, there isn’t a full set of legally robust building regulations, which is the benchmark for quality in buildings. I hope in the Kamra Tal-Periti and its efforts to influence policymakers to have a new set of tools to provide a robust and sustainable impact. **M**



business case of sustainability in construction is a good starting point.

F Are there any remarkable projects going on in Malta that you want to mention?

L One good example is the Old Abattoir (Il-Biċċerija) in Valletta. This historic building is currently under restoration and