

The Circular Economy

How are Businesses in Florence and Tuscany Adapting to the New Economic Reality?

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Abstract

This article outlines the key features of a circular economy and the business opportunities that may arise from adopting these techniques. Also, it reviews some of the businesses and organizations that are adopting these principles in Florence and elsewhere in Tuscany.

Keywords: economy, business, family business, economics, circular economy

Introduction – The Climate Emergency and Economics

It is apparent that we are experiencing a climate emergency!

“Human activities, principally through emissions of greenhouse gases, have unequivocally caused global warming, with global surface temperature reaching 1.1°C above 1850–1900 in 2011–2020 [...]. Widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred. Human-caused climate change is already affecting many weather and climate extremes in every region across the globe. This has led to widespread adverse impacts and related losses and damages to nature and people. Vulnerable communities who have historically contributed the least to current climate change are disproportionately affected.” Extracted from the 2023 IPCC report (the United Nations body for assessing the science related to climate change).

How we deal with this emergency is a matter of some political conjecture; many environmentalists would say that we should slow down and even stop much economic activity (Greenpeace, 2023). To maintain

ecology at the current state, some experts believe that we would need to return to the levels of GDP (Gross Domestic Product) seen in 1965 (IPCC report, 2018). Even the International Monetary Fund (IMF), responsible for global financial stability and growth, believes that growth in GDP should be sacrificed to counter climate change and is recommending that countries act quickly (IMF, 2022).

The words of Bobby Kennedy resound louder than ever today.

*“GDP measures neither our wit nor our courage, neither our wisdom nor our learning, neither our compassion nor our devotion to our country. It measures everything, in short, except that which makes life worthwhile.”
Kennedy (1968).*

The Circular Economy allows for growth in economic activity, even encouraging many new industries, whilst defending the infrastructure of the planet and its future viability. This is the reason so many politicians and businesspeople are convinced this reset of economic thinking is required.

What is the Circular Economy?

Much of our current economy is made up of products which are produced from virgin materials (materials that have not been used before or recycled). They are made into products that have a shorter and shorter product life, due to breakage, obsolescence, rapid degrading or fashion. It is well documented that light bulb producers in the 1930s formed a cartel to limit the life expectancy of their bulbs, to ensure a constant marketplace, as bulbs fail and must be replaced (Mihm, 2020). Yet, in Livermore California, there is a light bulb that has been burning for over 120 years (Centennial-bulb website). This is typical of many industries that design products to be obsolescent or fail within limited time periods. This strategy appeared valid when resources were thought to be unlimited, but today these types of products are unsustainable. This conventional economy is often referred to as the take-make-waste economy or the linear economy.

The circular economy breaks this pattern by adopting measures that change the way we produce economic value.

Take less virgin resources from the natural world.

- Use recycled or renewable raw materials where possible.
- Only produce what is strictly necessary.
- Create economic value by using recycled materials.

Optimise the use and the life of the product.

- Design products to be serviceable, repairable, and upgradable.
- Design durable products (design against planned obsolescence towards planned endurance).
- Share the usage of these products.
- Optimise the usage of these products.

Create zero waste systems.

- Design products to be disassembled into recyclable components.
- Use materials that will disperse back into nature (biodegradable and compostable).
- Ensure that all materials are treated as resources not waste.

Using recycled materials mean that we don't need to take new virgin resources from the eco-system and it also reduces waste.

The European Union and Circular Economics

On 11 March 2020, the European Commission adopted a new Circular Economy Action Plan (Eurostat 2020). This plan, put forward as part of the EU Industrial Strategy, presents measures to make sustainable products the norm in the EU, to empower consumers, to focus on sectors that use the most resources, where the potential for circularity is high and to ensure less waste. The World's leading economies had already formed PACE (an organization set up to investigate the ideas and principles of

circular economics) to accelerate the adoption of these precepts (World Economic Forum 2018). PACE has developed 7 key measures of circularity, that nations can use to assess their performance regarding circularity. These 7 measures include:

- Recycling refuse.
- Percentage of circular materials being used.
- The productivity of resources.
- Relationship between used resources and the amount of refuse.
- The amount of renewable energy being used.
- The repairing of products.
- Soil degradation.

Italy and Circular Economics

Italy leads the way in Europe in terms of adding circularity in keeping with these 7 key measures, reported ANSA on May 16, 2023. The main source for this piece of information is the annual report published by the Circular Economy Network (CEN) in collaboration with the Italian National Agency for New Technologies, Energy and Sustainable Economic Development (Enea).

Circular Economics in Florence and Tuscany

Rifò

Niccolò Cipriani founded Rifò in 2017 in Prato. His company takes old clothes and recycles or upcycles them into new items. 'Recycle' means to reduce to the constituent parts and then remake from these materials; 'upcycle' means to take an old item and repair, modify and add to it, to make a new item. Cipriani's firm only makes to order; so, it only produces what is necessary. Rifò informs customers of the percentage of recycled materials in its products, which in turn drives an economic value in them.

2.3 Fighting overproduction


Limited editions Zero-Waste

We keep working to reduce production surplus as much as we can, that is physiological for every clothing brand.

Whenever there is a leftover yarn or fabric, we do not throw it away but instead we try to reuse it to turn it into something else.

In this way, no resource is wasted and we are able to offer garments at a convenient price as the material is practically cost-free.

Our zero-waste capsules are the result of a joint effort between imagination and the production needs of local artisans. Generally these materials are thrown away because it is easier than trying to reuse them. However, thanks to the willingness of our artisans, we are able to take on this new challenge.




66 Our concrete commitment

2.3 Fighting overproduction

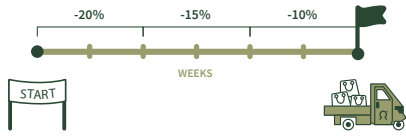
2.3 Fighting overproduction

We have always felt that circular economy and sustainability are ideals that may be attained not only by using recycled materials, but also by reducing consumption and preventing overproduction, that cannot be absorbed by textile recycling techniques. We want to raise awareness toward a reasoned consumption model. That is able to return to valuing what is truly necessary and thus deserves to have an influence on the environment for its production.

Presale model



To avoid overproduction, we test our garments both online and at trade fairs to evaluate if they could be potentially successful before placing a production order to our suppliers. The presale period lasts from 3 to 6 weeks, during which customers can pre-order our products at a discounted price, up to 20%. The closer the order is to the shipping date, the more the discount applied decreases. The pre-sale takes place before effective garment production so that we are able to produce targeted quantities that take into account the actual market demand. This is possible thanks to our proximity to the local artisans involved in the creation of our garments. The lean structure of these family artisanal businesses allows them to be flexible and adopt a collaborative approach.



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Extractions from website no overproduction, no sales.

Funghi Espresso

Funghi Espresso (Scandicci) collects coffee grounds from local bars to grow mushrooms which are rich in statins and protein. When the mushrooms are harvested, the remaining material is composted and used for growing worms that feed fish in an aquaponics system that produces more food. Of course, coffee grounds could be easily returned to nature through composting, but this is not truly circular economics, because of the waste of the nutrients contained in the grounds. Circular economics means giving value to all materials; there is no such thing as waste, there are only resources.

Treedom

Treedom is a Florence-based business that provides tree planting services for companies such as Dell, Intimissimi, Ferragamo, and Pinko. Whilst some environmentalists question the use of carbon offsetting as

an indulgence, the benefit of these systems is circular and has a positive ecological and sociological effect. After all, the indulgence for carnal sins was effectively invented by a Florentine family, i.e., the Medici (Parks 2006); hopefully this indulgence won't cause the same kind of split in the ecological community as it did in the religious community of its time.

Zero Waste Centre, Capannori

In 2013, Rossano Ercolini, a primary school teacher from Capannori, near Lucca, won the Goldman Environmental Prize for protesting successfully against the installation of a refuse incinerator. After receiving the prize in the oval office in the Whitehouse from President Obama, he was instrumental in setting up the Zero Waste center in Capannori. This center has the aim of making the local "commune" (council) zero waste by developing the recycling of all household disposed items, implementing a compulsory door-to-door recycling collection service. Again, this is directly circular, as it turns waste back into resources (and valued resources, for that matter) not just energy that could be recovered from an incinerator. Just like Funghi Espresso, it's not only about recycling, but about using resources to their best effect.

Unicoop Firenze

Unicoop Firenze have several programs that are circular. Both Coop and Conad source more than 30% of their products locally. This is a much higher proportion than we would usually see in supermarkets in other countries. These products have a much better chance of circularity than globally sourced products; this is not just because of the carbon footprint of global logistics, but the ability of the retailer and the producer to vertically integrate and become closer in their relationships. In this way, for example, they can ask their meat suppliers not to use antibiotics or encourage organic farming methods. They also have programs to recover plastic from the sea, use solar energy for their stores, and reduce packaging.

Shake Café

Shake Café used the pandemic break in operations to retrain their kitchen staff in zero waste production, proportioning and sourcing ingredients in the exact quantities that are going to be used. In this way, less food waste is developed. According to Dana Gunders, food waste is the world's dumbest problem, because if wasted food were a country, it would be right behind China and the US in producing greenhouse gases.

Scooter Rentals

According to an article in *Firenze Made in Italy Magazine* (Favi, Jan. 2021) "In Florence, since December, the electric scooter and scooter rental service has been in operation, alongside electric cars and bicycles. On the electric mobility front, the Florentine fleet consists of 900 scooters, 600 mopeds and 220 cars, which can be used in 'free flow' mode, i.e., a method that allows the vehicle not to be returned to the place where it was rented." It's most likely, as walking around the streets of Florence would suggest, that these numbers have now increased. This too is part of our circular economy, as the shared ownership means that products are used more efficiently. Conventionally, our vehicles spend most of their life parked and this creates waste.

Shared or rented usage can influence suppliers as well. Imagine that we no longer purchased lightbulbs but rented them directly from a manufacturer. In this way, the manufacturer would have an advantage in making the lightbulb last longer and would receive value from making the product more durable. By shifting these paradigms from conventional economics to circular economics, we can still drive economic value, creating GDP and wealth for our society, but also move towards a sustainable future. Of course, some people may say that it is not enough.

There are many more organizations in Florence and Tuscany that consider these principles to be important and are taking valuable steps towards circularity. Apologies to those not included in this review; the author would be delighted to hear of your projects.

Quotes

“We are at the beginning of a mass extinction, and all you can talk about is money and fairy tales of eternal economic growth. How dare you!”

Greta Thunberg (2019) speaking to the U.N.

“Even if we act to erase material poverty, there is another greater task; it is to confront the poverty of satisfaction -- purpose and dignity -- that afflicts us all. Too much and for too long, we seemed to have surrendered personal excellence and community values in the mere accumulation of material things. Our Gross National Product, now, is over \$800 billion dollars a year, but that Gross National Product -- if we judge the United States of America by that -- that Gross National Product counts air pollution and cigarette advertising, and ambulances to clear our highways of carnage.

It counts special locks for our doors and the jails for the people who break them. It counts the destruction of the redwood and the loss of our natural wonder in chaotic sprawl. It counts napalm and counts nuclear warheads and armoured cars for the police to fight the riots in our cities. It counts Whitman’s rifle and Speck’s knife, and the television programs which glorify violence in order to sell toys to our children.

Yet the gross national product does not allow for the health of our children, the quality of their education or the joy of their play. It does not include the beauty of our poetry or the strength of our marriages, the intelligence of our public debate or the integrity of our public officials.

It measures neither our wit nor our courage, neither our wisdom nor our learning, neither our compassion nor our devotion to our country; it measures everything in short, except that which makes life worthwhile.

And it can tell us everything about America except why we are

proud that we are Americans. If this is true here at home, so it is true elsewhere in world.”

Bobby Kennedy at University of Kansas March 18, 1968

“Ecology and economy have the same route, “Eco”, from the Greek, “Oikos” meaning home or dwelling. Economy must defend ecology, but globalist, capitalist economy is destroying our ecology.”

Carlo Petrini, founder of Slow Food 2012.

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