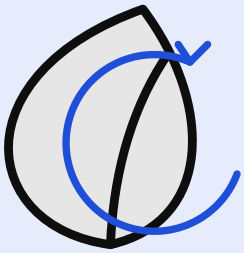
Discipline

Sustainable design

Designs products, services and systems with their environmental and social impact in mind across their whole life cycle, from materials to end of life.



In Spanish
Diseño sostenible

Origin
Papanek (1971); Brundtland report (1987)

What it deals with

Design decides the materials, how long something lasts and whether it can be repaired, and with that much of its impact. In the European Union, some of those decisions are now regulated by law.

Principles

Life cycle
Think about materials, manufacturing, use and end of life, and measure the impact before choosing.

Real needs
Design what is needed, not more things.

People too
Sustainability cares for those who make, use and live nearby, not just for the planet.

From object to system
Sometimes the change isn't in the product but in the service, or in how a community organizes itself.

Applications in design

✓ Use it like this
Decide at the start how the product will be repaired, reused or recycled.

✗ Avoid
Swapping one material for an "eco" one without looking at the whole cycle, or calling it "green" without proof.

👁 Don't fall for it
Sometimes the most sustainable thing is not to manufacture: consider a service instead of a product.

Especialidades



Specialty

Circular design

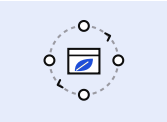
Designs so that products and materials stay in use instead of ending up in the trash.



Specialty

Regenerative design

Goes beyond reducing harm: it aims for designs that help restore living systems.



Specialty

Ecodesign

Reduces a product's environmental impact at every stage of its life, starting when it's designed.



Specialty

Product-service systems

Designs the mix of products and services that meets a need, instead of selling more things.



Specialty

Sustainable web design

Designs websites and digital services that use less energy, without losing usefulness or accessibility.

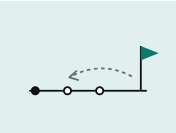
Methods and tools



Method

Life cycle assessment (LCA)

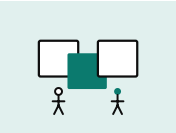
Measures a product's environmental impact over its whole life, to know where to act when designing.



Method

Backcasting

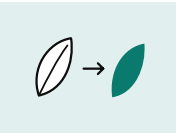
Imagining the future you want and walking back to today to see which steps lead there.



Approach

Co-design

Designing together with the people who will live with the result, with tools so they can create too.



Method

Design by analogy

Look at how a similar problem is solved in another field and transfer the idea.



Method

Scenario planning

Imagining several plausible futures to make decisions that hold up in all of them.

Connections

Builds on

- Design history and criticism
- Ten principles for good design
- Planned obsolescence
- Design for the real world

Related to

- Fashion design
- Packaging design
- Transition design
- Industrial design
- Systemic design

Authors and works

1971	**Victor Papanek**	Called on design to take on its social and environmental responsibility.
1987	**Brundtland Commission**	Defined sustainable development as development that meets the needs of the present without compromising those of the future.
2015	**Ezio Manzini**	Showed how communities and designers invent together more sustainable ways of living and organizing, through social innovation.
2016	**Fabrizio Ceschin and İdil Gaziulusoy**	Mapped the field's evolution in four levels, from the most concrete to the broadest: the product, the product-service system, the spatio-social level and the socio-technical system.
2024	**European Union, Ecodesign Regulation**	Sets the framework for requiring, product by product, durability, repair and recycled content, and the digital product passport. Since 19 July 2026 it bans large companies from destroying unsold clothing, accessories and footwear, with some exceptions.
	European Union, Directive 2024/825	Since 27 September 2026, it bans advertising a product as "green" or "eco-friendly" without proving it or saying in what way it is.

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- World Commission on Environment and Development (1987). Our common future. Oxford University Press. View source (https://digitallibrary.un.org/record/139811)
- Manzini, E. (2015). Design, when everybody designs: An introduction to design for social innovation. MIT Press.
- Reglamento (UE) 2024/1781 del Parlamento Europeo y del Consejo, de June 13, 2024, por el que se instaura un marco para el establecimiento de requisitos de diseño ecológico aplicables a los productos sostenibles. Diario Oficial de la Unión Europea, serie L, June 28, 2024. View source (https://eur-lex.europa.eu/eli/reg/2024/1781/oj)

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Academic reviews

- Ceschin, F., & Gaziulusoy, İ. (2016). Evolution of design for sustainability: From product design to design for system innovations and transitions. Design Studies, 47, 118–163. View source (https://doi.org/10.1016/j.destud.2016.09.002)

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