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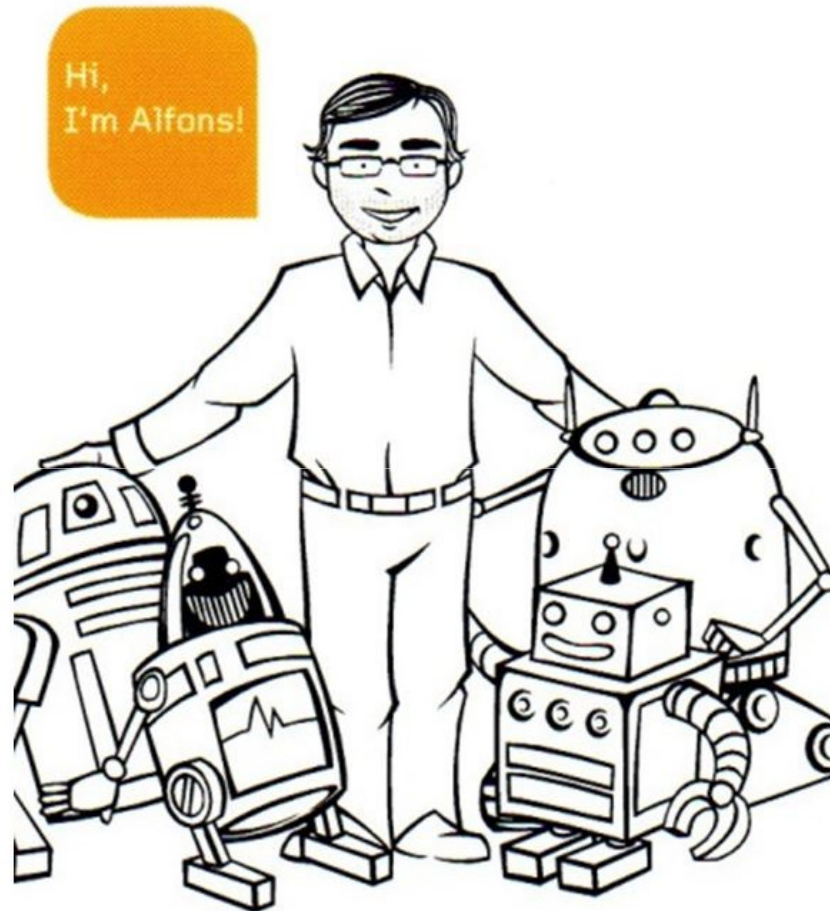
# Cap a l'economia circular al comerç

**Alfons Cornella**

Founder & CEO

[ac@infonomia.com](mailto:ac@infonomia.com)

# Alfons Cornella



1995



2016



# **LA REVOLUCIO DEL RECURSOS**

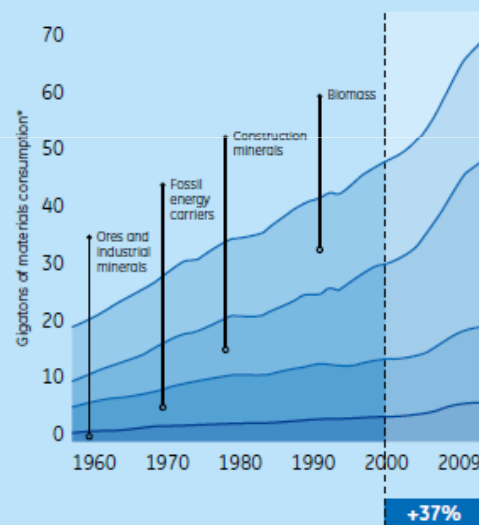


Figure 2. Global materials extraction and energy consumption (1960–2010)

### Global Materials Consumption

Between 2000 and 2009, global materials consumption increased 37 percent. The largest increases have come from construction materials.

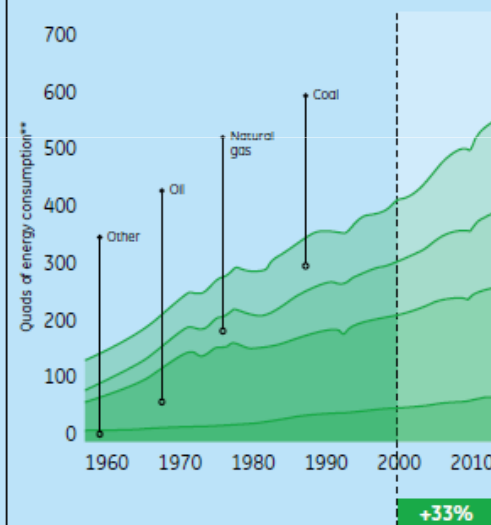
**+37%**



### Global Energy Consumption

Between 2000 and 2010, global energy consumption increased by 33 percent. The largest increases have come from coal.

**+33%**



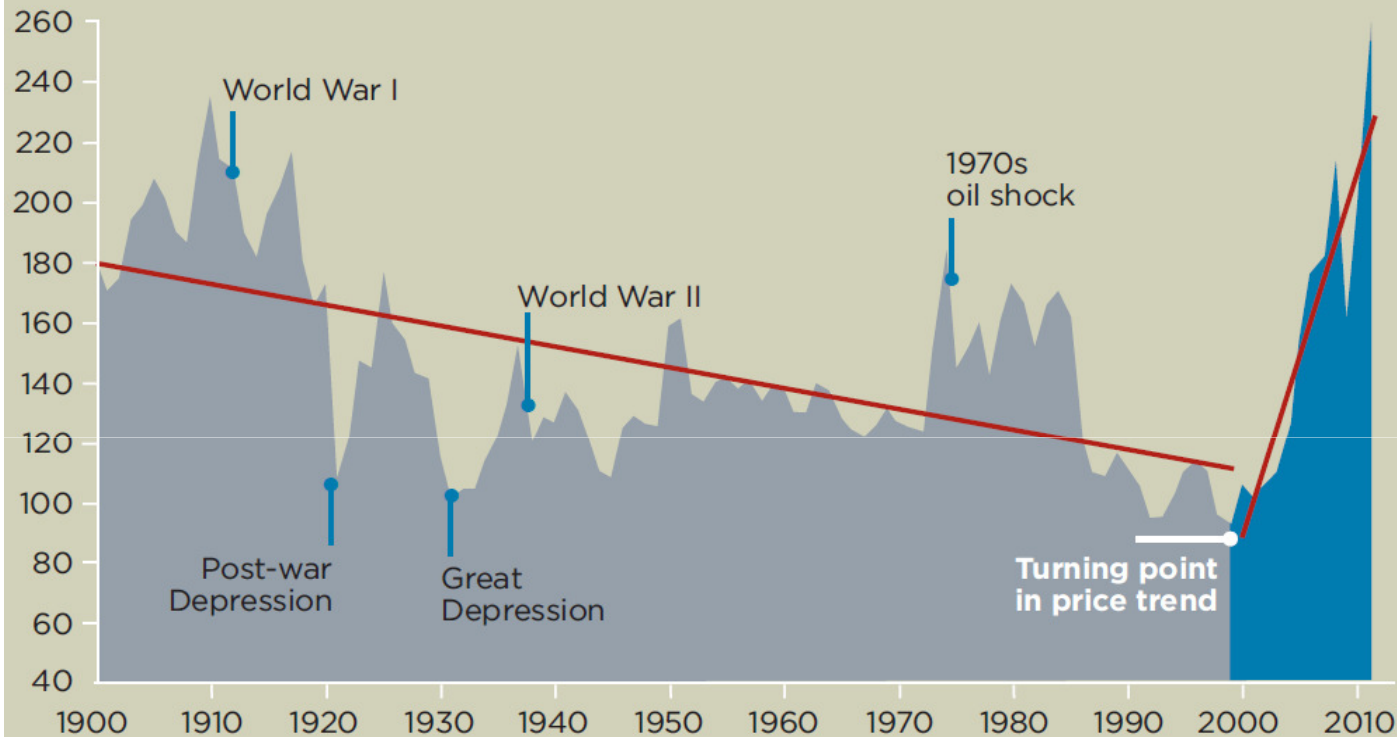
\*Source: Krausmann et al., "Growth in global materials use, GDP and population during the 20th century," *Ecological Economics* 68, no. 10 (2009): 2696–2705. Data version 1.2, revised August 2011.

\*\*Source: US Energy Information Administration (EIA), International Energy Statistics, available at <http://www.eia.gov/cfapps/ipdbproject/IEDIndex3.cfm>, accessed August 26, 2014.

Ge.com

**Sharp price increases in commodities since 2000 have erased all the real price declines of the 20th century**

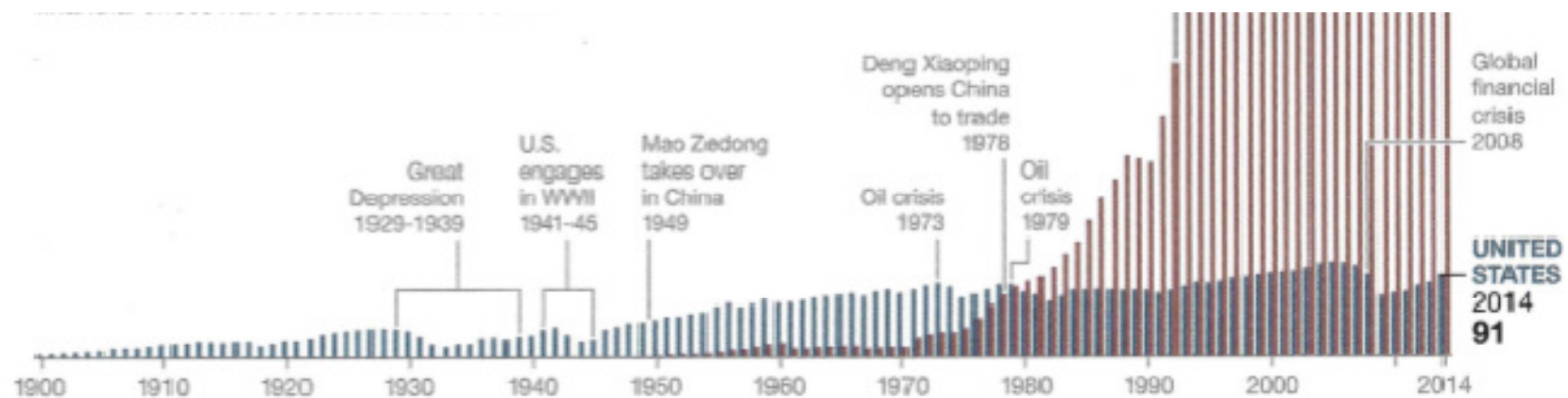
McKinsey Commodity Price Index (years 1999-2001 = 100)<sup>1</sup>



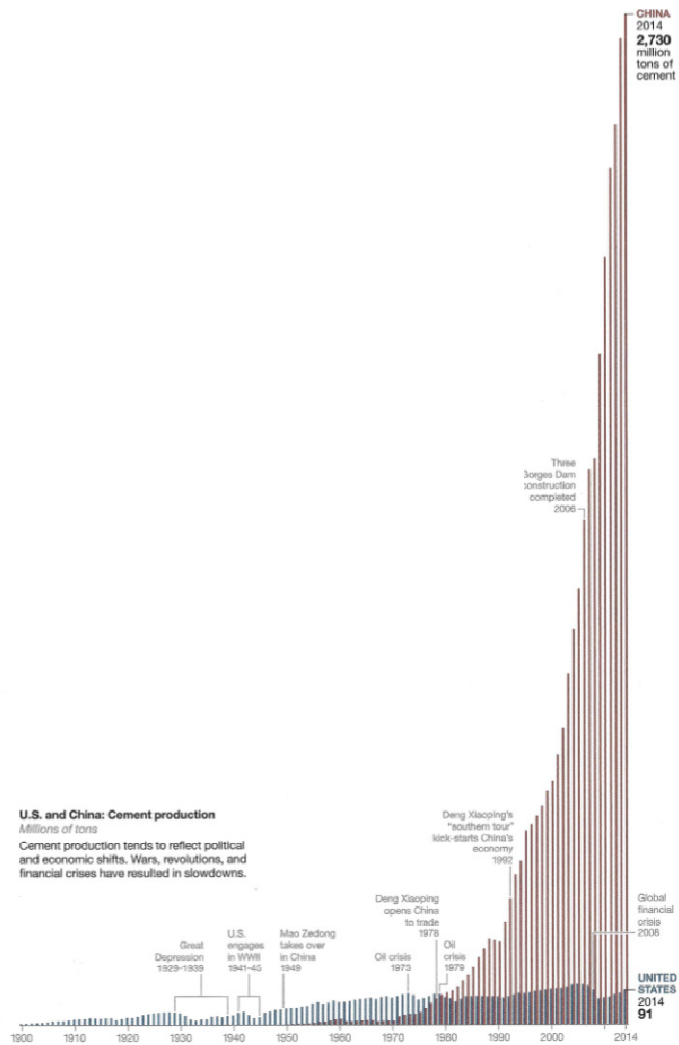
<sup>1</sup> Based on arithmetic average of 4 commodity sub-indices: food, non-food agricultural items, metals, and energy; 2011 prices based on average of first eight months of 2011.

SOURCE: Grilli and Yang; Pfaffenzer; World Bank; International Monetary Fund; Organisation for Economic Co-operation and Development statistics; UN Food and Agriculture Organization; UN Comtrade; Ellen MacArthur Foundation circular economy team

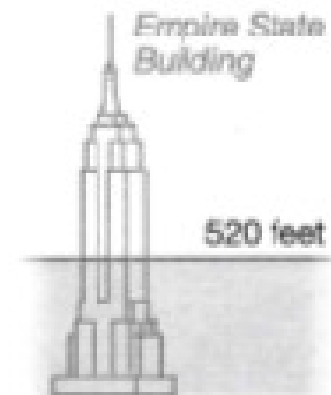
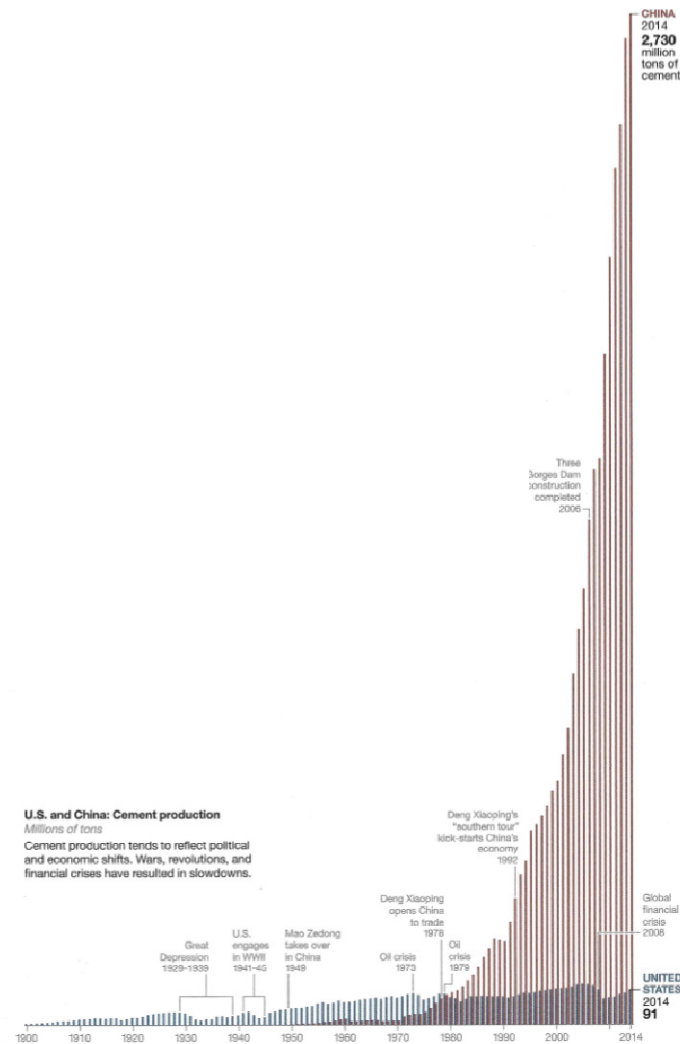
[ellenmacarthurfoundation.org](http://ellenmacarthurfoundation.org)



National Geographic, 01/16







### How much concrete?

In 2014 China produced enough cement to make 330 billion cubic feet of concrete. That's enough to cover the entire island of Manhattan with a block 520 feet thick.

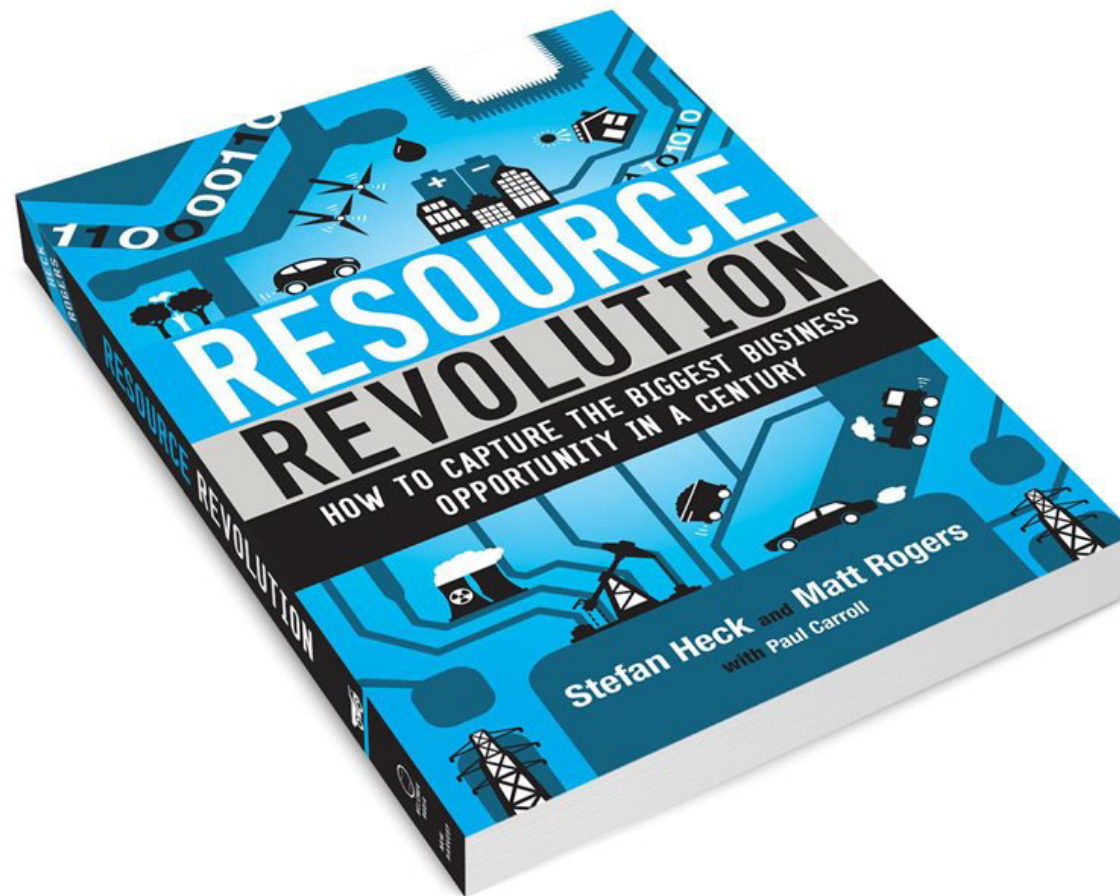
2.500 Mpax més  
a la classe mitjana  
i a les ciutats

Necessitarem més recursos  
i més energia

---

O una millor utilització  
dels recursos i energia







1/3 dels aliments produïts  
no es consumeix

suficient  
per alimentar a 2000 Mpax

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# Més auto-suficiència

## ライフスタイルに合わせて選べる、 3種の Green Farm ラインナップ。



### Green Farm **Cube**

かわいい畑でお部屋に彩りを。  
インテリア感覚で野菜を楽しむ、  
自分スタイルのコンパクトモデル。



### Green Farm

家族みんなで  
毎日野菜の成長が楽しめ、  
収穫できるスタンダードサイズ。



トライタワー

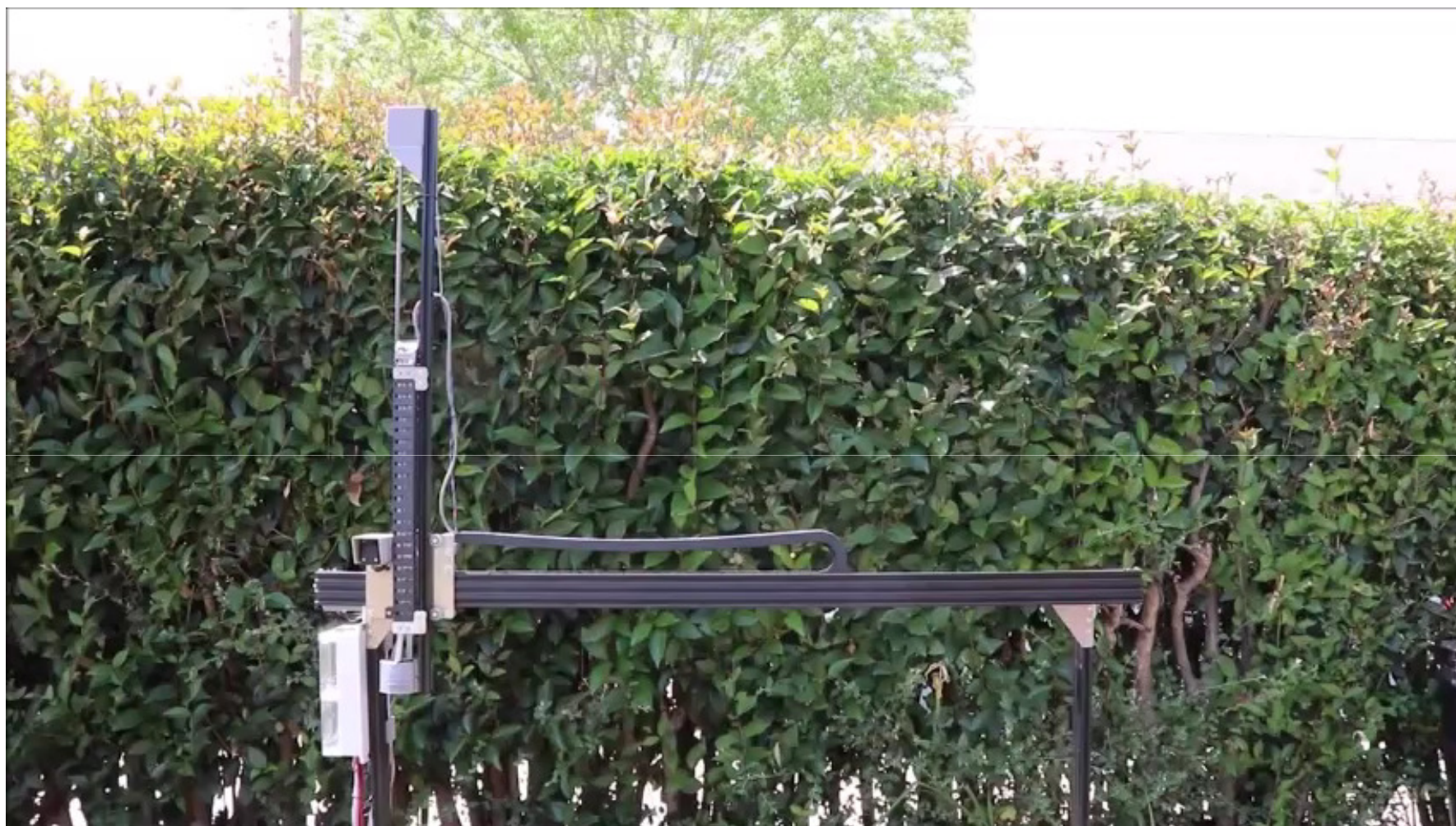
### Green Farm **TRI-TOWER**

安心の自家栽培をこころゆくまで。  
ミニトマトもしっかり育てられる、  
大容量&多品種育成のグランモデル。



[greenfarm.uing.u-tc.co.jp](http://greenfarm.uing.u-tc.co.jp)









RESIDENTIAL

BUSINESS & GOVERNMENT

CAREERS

COMPANY

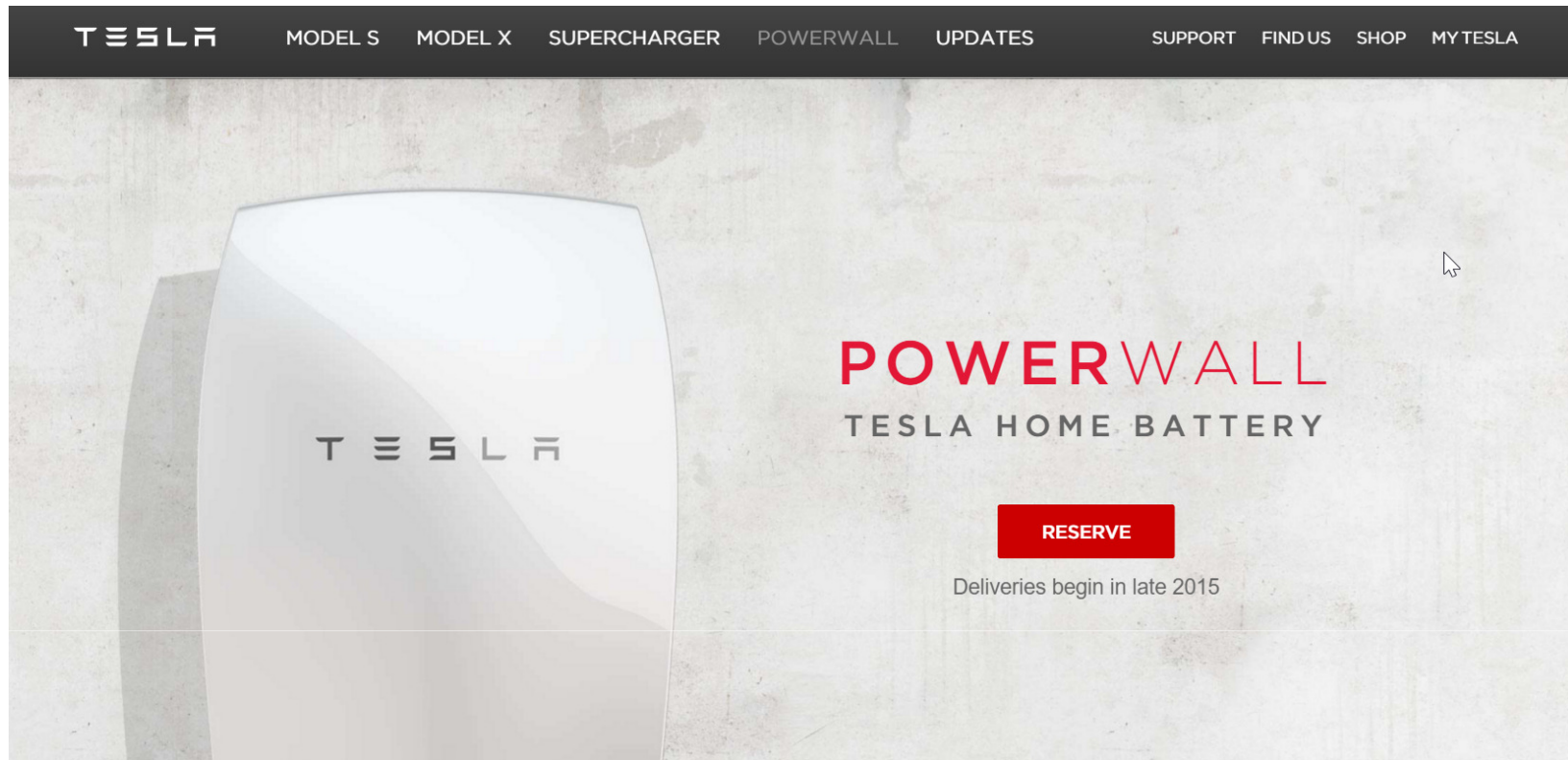
Get control over energy costs  
with America's #1 solar provider.

SEE IF YOU QUALIFY

ZIP CODE

[solarcity.com](https://solarcity.com)





## Energy Storage for a Sustainable Home

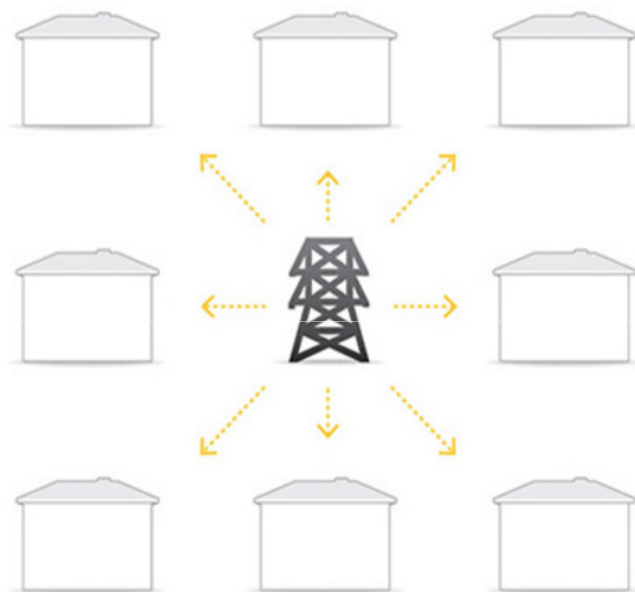
Powerwall is a home battery that charges using electricity generated from solar panels, or when utility rates are low, and powers your home in the evening. It also fortifies your home

[teslamotors.com](https://teslamotors.com)

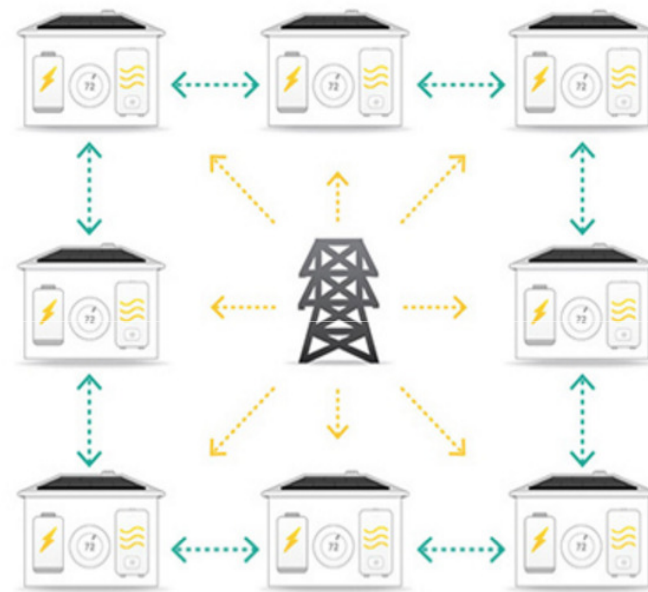


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Xarxes intel.ligents



Today



Tomorrow

[solarcity.com](http://solarcity.com)

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Nous models de mobilitat

# Blue Sky Coming



[nextev.com](http://nextev.com)

# Forward-Thinking Entrepreneurs Are Driving The Clean Car Revolution

Powered by  
**the guardian**



psfk.com

# Nous usos dels residus




# A Coal Plant That Buries Its Greenhouse Gases

By Peter Fairley | Photographs by Jenn Ackerman and Tim Gruber

The first commercial power plant to use carbon capture and sequestration shows the potential of a crucial technology.

[technologyreview.com](https://www.technologyreview.com)

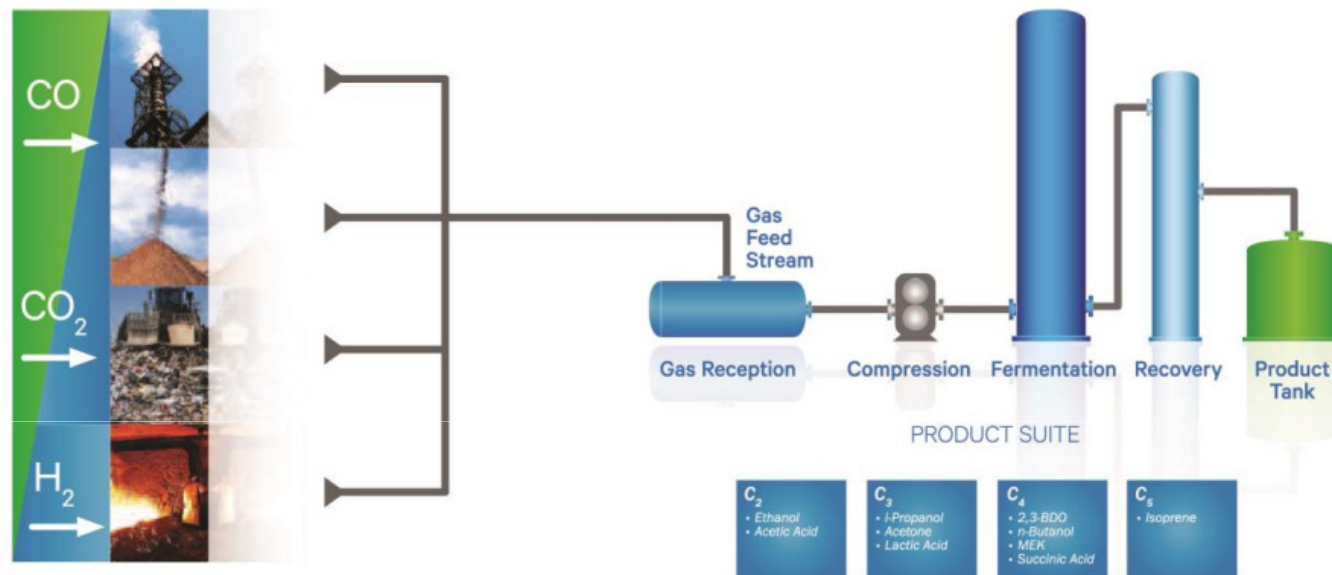




LanzaTech can help meet these  
challenges through innovative  
carbon capture solutions

[lanzatech.com](https://lanzatech.com)

## The LanzaTech Process



Carbon-rich waste or residue gas streams enter a fermentation bioreactor. Proprietary microbes consume the gas and grow biomass, producing ethanol as a byproduct. Valuable products are then separated from the fermentation broth and used directly downstream or as chemical intermediates for products such as plastics, nylons, rubbers, and "drop-in" fuels.

[lanzatech.com](http://lanzatech.com)

# Els residus com a recursos



# THERMAL RECYCLING OF COMPOSITES

[trcsi.com](http://trcsi.com)

No residus

DIRTT  
Build better.

COMPANY CONTACT myDIRTT

SOLUTIONS SUSTAINABILITY RESOURCES

FOR INTERIOR CONSTRUCTION

Build better

WE CAN HELP

dirtt.net



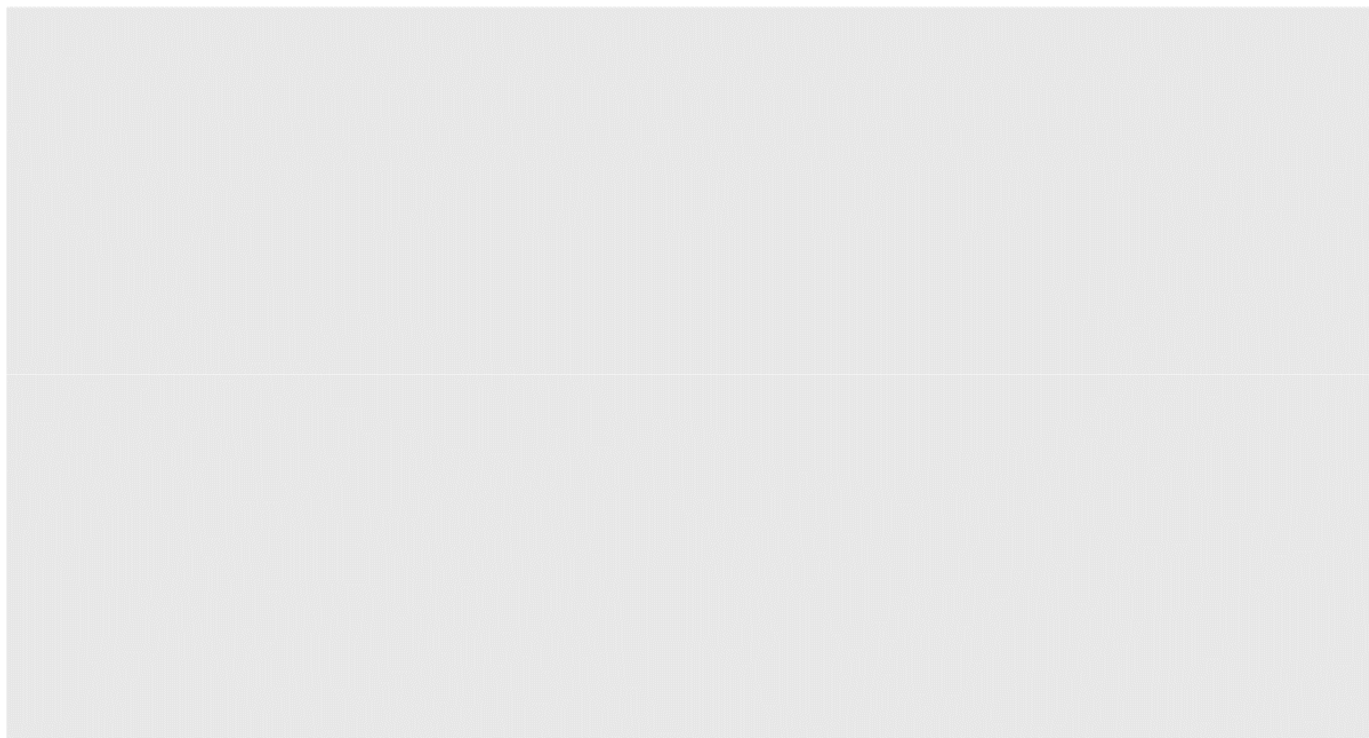




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Repensar  
(dràsticament)  
els processos

# L'ECONOMIA CIRCULAR



## TOWARDS THE CIRCULAR ECONOMY

Economic and business rationale  
for an accelerated transition

*Executive Summary*



Founding  
Partners of the  
Ellen MacArthur  
Foundation

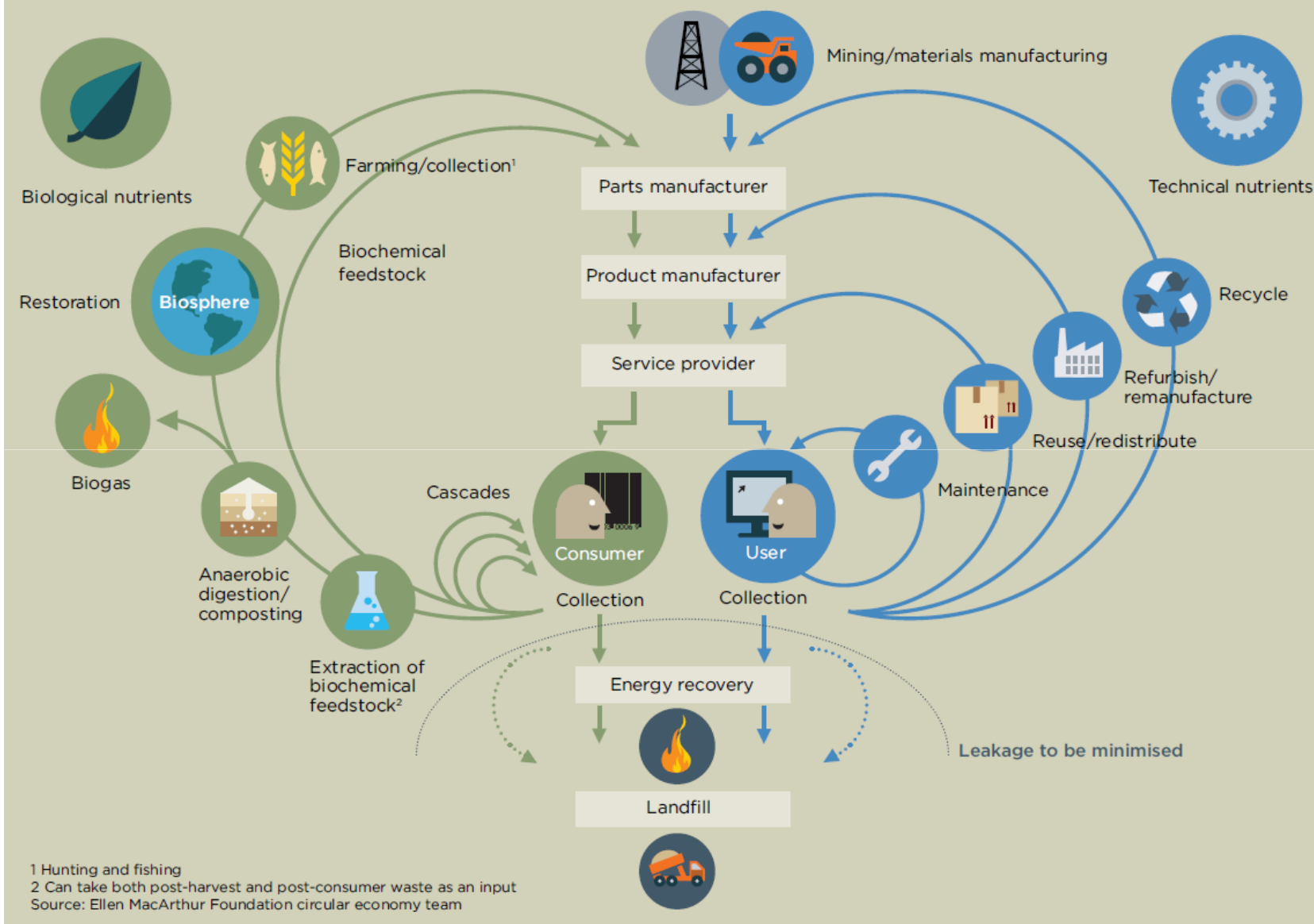


nationalgrid



[ellenmacarthurfoundation.org](http://ellenmacarthurfoundation.org)

The circular economy—an industrial system that is restorative by design







# **L'ECONOMIA CIRCULAR AL COMERÇ**

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Contra el signe dels temps?

## Fulfillment by Amazon

### Help Boost Your Sales with Amazon's World-Class Fulfillment

[Get started](#)[Why Fulfillment by Amazon? ▾](#)[Success Stories](#)[How It Works ▾](#)[Pricing ▾](#)[Resources and Tutorials ▾](#)

### Let Amazon Pick, Pack, and Ship Your Orders

You sell it, we ship it. Amazon has created one of the most advanced fulfillment networks in the world, and your business can benefit from our expertise. With Fulfillment by Amazon (FBA) you store your products in Amazon's fulfillment centers, and we pick, pack, ship, and provide customer service for these products. Best of all, FBA can help you scale your business and reach more customers—in a 2014 survey, 71% of FBA respondents reported that their unit sales increased on Amazon.com more than 20% since joining FBA.

**MAKE-MORE-MONEY-AND-  
GROW-YOUR-BUSINESS-FAST-  
AND-SAVE-TIME-AND-  
DELIGHT-YOUR-CUSTOMERS-  
BY-AMAZON**

### Save Time and Grow Your Business With These Benefits:

FREE TWO-DAY  
SHIPPING WITH  
**amazon.com**  
*Prime*

**FREE**  
Shipping  
ON ORDERS  
OVER \$35.00

Your products are eligible for Amazon Prime Free Two-Day Shipping, FREE Shipping, and other benefits.

Prime members love free Two-Day shipping, and all Amazon.com customers can get free shipping on orders over \$35. FBA Listings on Amazon.com\* benefit from customer awareness of discounted shipping—and because most FBA listings are ranked without a shipping cost, you get an edge when competing! FBA helps improve your performance-based metrics, increasing your chances of winning the Buy Box.



# The New York Times

Monday, December 22, 2014 | Today's Paper | Video | 41°F | Nasdaq +0.21% ↑



Handlers sort packages at the FedEx hub in Memphis.  
Shipment companies are gearing up to avoid holiday delays.  
Andrea Morales for The New York Times

1 of 7



## Crunch Time for Shippers

By HIROKO TABUCHI

FedEx hired 50,000 seasonal workers this year, and UPS almost double that, to handle the Christmas-season workload.



# Re-novar el valor







[Qui Som?](#)

[Què fem?](#)

[Com ho fem?](#)

[Què diuen de nosaltres?](#)

[Im-perfect](#)

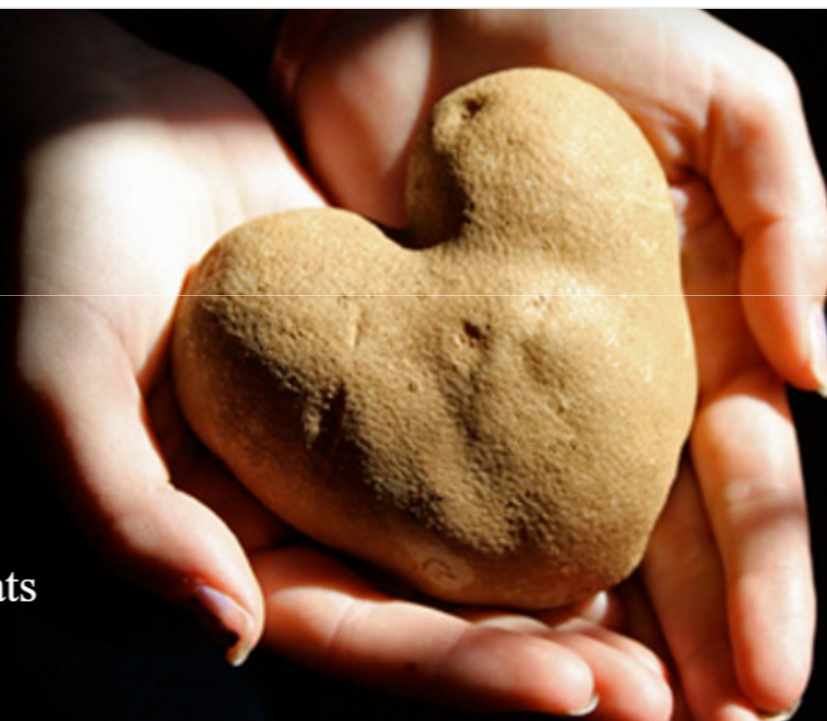
[Col·labora](#)

[Contacte](#)



# Transformant

productes im-perfectes  
en oportunitats



[espigoladors.cat](http://espigoladors.cat)

# Supermercado Online

de productos cerca o fuera de su fecha de consumo preferente y stocks residuales

Empieza a Ahorrar



goodafter.com

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Donar **nova vida**  
als productes

# Giving furniture a second life with IKEA

IKEA offers the "Second Life for Furniture" service to customers. They can bring old IKEA furniture to a store and exchange it for a voucher. This service has been rolled out to all French stores (except Vélizy) since 1 January 2014. The purpose of this service is to help consumers adopt a sustainable and responsible lifestyle while saving money. It also encourages the reuse of furniture, maximising the life of IKEA products.







“ La biblioteca es la más democrática de las instituciones,  
porque nadie en absoluto puede decirnos qué leer, cuándo ni cómo. ”

Doris Lessing

## ENCUÉTRANOS

### CENTRO MADRID CHAMBERÍ

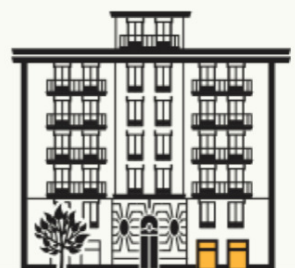
C/Covarrubias, 38  
28010 Madrid  
Tlf. 91 282 1001



Plaza de Chambe

### CENTRO MADRID SALAMANCA

C/Padilla, 78  
28006 Madrid  
Tlf. 91 282 1001



### CENTRO BARCELONA

C/ Planeta 17  
08012 Barcelona  
Tlf. 93 681 4293



[tuuulibreria.org](http://tuuulibreria.org)

## CÓMO FUNCIONA



[tuuulibreria.org](http://tuuulibreria.org)

## Managing sustainability

## Products

[Demanding health, quality and sustainability standards](#)[Exhaustive controls](#)[Product testing](#)[Our benchmark laboratories](#)[Raw materials](#)[Animal welfare](#)[Product use and end-of-life](#)

## Employees

## Suppliers

## Community

## Environment

## Product use and end-of-life management



As part of its commitment to the environment, Inditex concerns itself with the need for better management of apparel and footwear products at the end of their useful lives. Working on more efficient use of environmental resources by consumers throughout and at the end of its products' life cycles is a priority.

Inditex believes that the best way to reuse a garment or textile waste is that which modifies the product as little as possible. The reuse of the garment as it was produced is therefore the preferred option, followed by the reuse of subproducts deriving from discarded garments and recycling to obtaining products of the same or greater value. The disposal unit must be the last option, preceded by incineration (for energy production).

---

Avances conseguidos en los últimos cuatro años con la implantación del **plan estratégico medioambiental** del Grupo 2011-2015:

- Tienda **energéticamente eficiente**
- **Trazabilidad** de las materias y la producción
- Procesos más sostenibles (ej: lavandería)

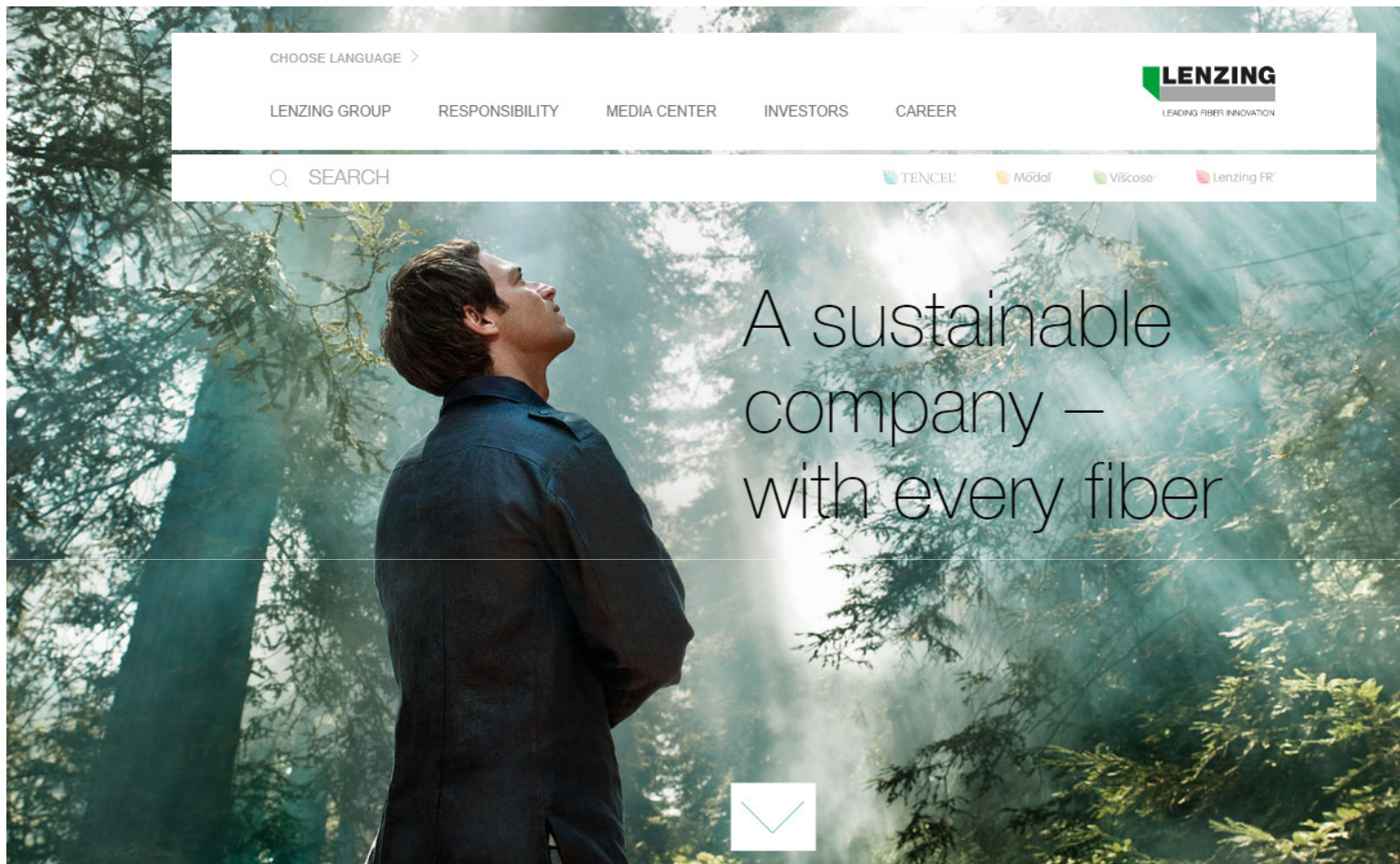
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El presidente de Inditex, Pablo Isla, ha aprovechado la Junta de Accionistas 2016 para presentar las nuevas iniciativas estratégicas de la empresa, entre ellas destaca un **ambicioso plan de reciclaje que ofrecerá la recogida gratuita de ropa a domicilio** a través del servicio de compra online



Inditex ha firmado un acuerdo con **Lenzing**, empresa austríaca productora de la fibra textil sostenible de origen vegetal Lyocell TENCEL, para **fabricar materia prima textil de primera calidad a partir del residuo textil** generado por Inditex.





With Lenzing fibers you immediately feel it: they come from Nature itself. There is a piece of Nature in every product made of Lenzing fibers, and they accompany the user all day long.

[lenzing.com](https://lenzing.com)

# Tenir un **propòsit**

# Toward a circular economy in food

The French food and water company Danone has a history of environmental awareness. In this interview with McKinsey partner Clarisse Magnin, CEO Emmanuel Faber discusses his commitment to resource efficiency.

**I grew up in the Alps**, where the beauty of the natural cycles seeded in me the underlying importance of something that we as managers can often lose sight of—namely, that **life is more than ideas, mathematical models, and software**. I later spent three years in Asia, including Indonesia and China, where I saw firsthand **how fast resources were being depleted** in emerging markets.

# Canvis en la cadena de valor

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When we're asking people to move toward a circular model, we're asking them to **change** product design, **change** their business models, **change** the way their supply chain is set up.

You have to have **all those people** at the table working together to make that happen.

**Emmanuel Faber:** To embed the principles of the circular economy in our operations, we have started managing our three key resources—water, milk, and plastic—as cycles rather than as conventional linear supply chains.

One example of this is what we are doing in yogurt. To make Greek yogurt, you use a “strained” technology with a membrane, extracting a lot of acid whey. Instead of just seeing this acid whey as an effluent, we are testing technology solutions in five or six countries and working with different partners to find ways to use whey as a resource. We are already using whey protein, for instance, in our Early Life Nutrition business, and we will soon be able to use it for animal feed, fertilizers, and energy. What we’re doing is turning something that is a challenge today into something that will have value tomorrow.



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- You also need an **investment-payback period** that is longer than it is in today's traditional model—five years instead of three; seven years instead of five.
- the **yearly bonus attached to CO<sub>2</sub> reduction** was equivalent to the yearly bonus attached to profit generation.
- **Consumers are interested** in what is at work in the products they eat, how these products were produced and delivered, and what is their effect on the body.

# Why the circular economy is all about retaining value

October 2016



By reassessing where waste is most prevalent in their value chains, companies can learn to close those loops to get more from the resources and materials they use.

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How can we **capture  
more of the value** that's  
lost in a traditional linear  
system?



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Great examples here are the **transition from product to service** in a lot of industries.

Product-as-a-service examples would be instead of buying tires, you buy kilometers. And instead of buying a jet engine, you buy hours of time in the air.

There are very few supply chains that are **set up with robust reverse-logistics networks**, so we need to make sure that by whatever circular-economy levers we're applying, **we're generating enough value that we overcome the additional challenges**, the additional costs associated with implementing those reverse logistics.

# Conclusions



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# Consumidor ?

# Usuari

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# Compra ?



# Contracte

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Estalvi matèries primeres:  
300.000 M€/any

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Impacte general:  
1.800.000 M€/any

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It requires realigning the incentives on  
**a different set  
of key performance indicators**  
(KPIs)  
and it starts with the top management



[www.infonomia.com](http://www.infonomia.com)

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