

DIDIER JULIENNE.

METAUX, ÉNERGIES, AGRICULTURE. CHOIX DES THÈMES SUR L'ONGLET "CATÉGORIES"

Coldinnov: cooling the climate with fire

🕒 👤 z 📁 gaz, transition énergétique 💬 0



A major French innovation in refrigeration production reduces global warming and increases global food security.

Imagine making industrial or domestic refrigeration without compressors or liquid-gas absorption, i.e. without hydrofluorocarbons (refrigerant gases attacking the ozone layer), without expensive refrigerant oils, without the mechanical wear and tear of a compressor – therefore without maintenance or spare parts -, without the heat released or the unsustainable noise at night from compressors, without African electricity's generators – therefore without diesel – etc.

These savings and this well-being would trigger a revolution in the profitability of all industrial sectors consuming refrigeration. Here, everyone immediately thinks of the cold chain – the plane or cargo leaving the producer at the other end of the planet, the refrigerated truck and the refrigerated cabinet of the supermarket – but cold is also essential for printing presses, health, automobiles, the entire food industry, data centers, air conditioning for processes, mining industry for deep mining refrigeration, domestic or comfort air conditioning, etc.

CATÉGORIES

acier

afghanistan

afrique

Afrique du sud

agriculture

Allemagne

Alstom

alumine

aluminium

Areva

argent

banques

Barrick

batterie

bauxite

bétail

bitcoin

blé

bore

BP

Bretagne

brexit

While refrigeration accounts for 16% of French electricity consumption, in the United States, where electricity is mainly carbon-based, the share of electricity consumption solely due to air conditioning (excluding domestic, commercial, industrial and process refrigeration) is 14% (and rises to 21% in the south of the country); as for China, where 71% of electricity production is linked to coal and gas, the air conditioning market exploded in 2017.

In total, market for refrigeration industry (compressor or liquid-gas absorption) is estimated to nearly \$100 billion in 2018, and is growing by nearly 10%.

It is this market that a future French unicorn will revolutionize.

Its process eliminates the consumption of materials and natural resources, and, in addition, reduces electricity consumption by 70%. It is an innovation that reduces global warming.

Coldinnov (www.coldinnov.com) is a company with roots in Angers (Christian Cesbron, Jean Louis Juillard) and Toulouse (Lionel Bataille). Its process, a patented, reversible NH₃ solid-gas thermochemical reactor, operates in a closed circuit and requires no maintenance, no additives, no hydrocarbons, no consumables, no harmful gases, etc.

The Coldinnov reactor produces cold from a waste heat source. This fatal heat is that of a machine, an internal combustion engine (car, plane, boat...), a boiler, a generator, a fuel cell (hydrogen), an incineration process, the natural heat of the earth in mining tunnels. It also comes from renewable energies such as thermal solar or biomass.

Because the Coldinnov machine knows how to refrigerate the industrial process of a factory in France, fruits and vegetables on the edge of the field in subtropical regions or even the galleries of a mine in the United States or Africa, it is a technological advance equivalent to the upheaval created by digital photography on silver.

In addition, because the Coldinnov reactor is integrated into the industrial processes, this embedding leads to significant productivity gains.

The Technology Readiness Level (TRL) of the Coldinnov machine is level 6 on a scale of 1 to 9. It is therefore very advanced, and will exceed 7 during the quarter since a first machine will be installed in

BRGM

cac

cacao

cadmium

café

Canada

caoutchouc

carbone

charbon

chine

cinéma

cobalt

coltan

Comptoir Lyon Alemand Louyot
CLAL

consommation compétitive

cop 21

coton

cuivre

dette

diamant

doctrine

dollar

dysprosium

E.ON

eau

économie circulaire

Ecosse

EDF

électricité

émeraude

environnement

a factory in France. That customer's ROI will be two years or less, thanks in particular to the electricity savings and productivity gains already identified. Those that are still hidden are not counted. Here the fertility of the unexpected far exceeds our imaginations, and it also works for the savings generated by the Coldinnov reactor.

It's TRL evolving at high speed towards 9, with a fundraising of 5 to 10 million € Coldinnov and its industrial partners will launch into their first world markets: industrial and agri-food processes. The company will also reach Africa where 40% of the crops are lost due to the lack of cold storage. Photovoltaics, coupled with the Coldinnov machine, will eliminate this great waste. Here the process is radically in line with Environmental, Social and Governance factors.

Finally, immediately afterwards, the company will focus on the domestic and tertiary markets.

The Coldinnov reactor has been the major innovation since the beginning of industrial refrigeration. It combines energy saving, intelligent energy transition, food safety, environmental and ozone layer protection.

In short, Coldinnov uses natural or anthropogenic heat to reduce global warming, and this from now on.

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GAZ

TRANSITION ÉNERGÉTIQUE



« **PRÉCÉDENT**

NBM Africa, a French group in DRC's cobalt and copper

éolien

étain

etf

euro

Europe

fer

finance verte

FMI

fonds d'investissement

fret maritime

gaz

gaz de schiste

Gazprom

Glencore

Grand Jeu

green bonds

guerre commerciale

guerre des métaux

guerre économique

hotel tourisme

hydrogène

indium

inondation paris

Intelligence Economique

investissement

Japon

joaillerie

Junior exploratrice

jus d'orange

lait

lithium

Madagascar

maïs

manganèse

matières critiques

matières stratégiques

médecine

Metaleurop

métaux précieux

métaux stratégiques

métier job

mines

néodyme

nickel

Nouvelle Calédonie

nucléaire

or

pakistan

palladium

péchiney

pétrole

platine

plomb

politique minière

potasse

République Démocratique du
Congo

résilience

ressources naturelles

ressources stratégiques

rhénium

rhodium

riz

rusal

Russie

RWE

soja

solaire

spéculation

stocks stratégiques

stratégies d'influence

stratégies de puissance

sucre

terres rares

thorium

titane

transition énergétique

Trump

tungstène

uramin

uranium

voiture électrique

zinc

RECHERCHE...