



ALTYOR

SMART DEVICE
EXPERT

FROM ECODESIGN
TO MANUFACTURING

make hardware better





Our mission

Achieving our clients' ambitions with dedicated teams,
proven industrial expertise and a deep desire to participate
in the ecological and social transition.

We design, develop and produce innovative objects
using bespoke solutions in an eco-responsible approach.

Soon becoming a

Benefit
Corporation



30

YEARS
EXPÉRIENCE

160+

HARDWARE/
SOFTWARE BLOCKS

ÉLECTRONIC
IoT

PLASTIC
METAL...

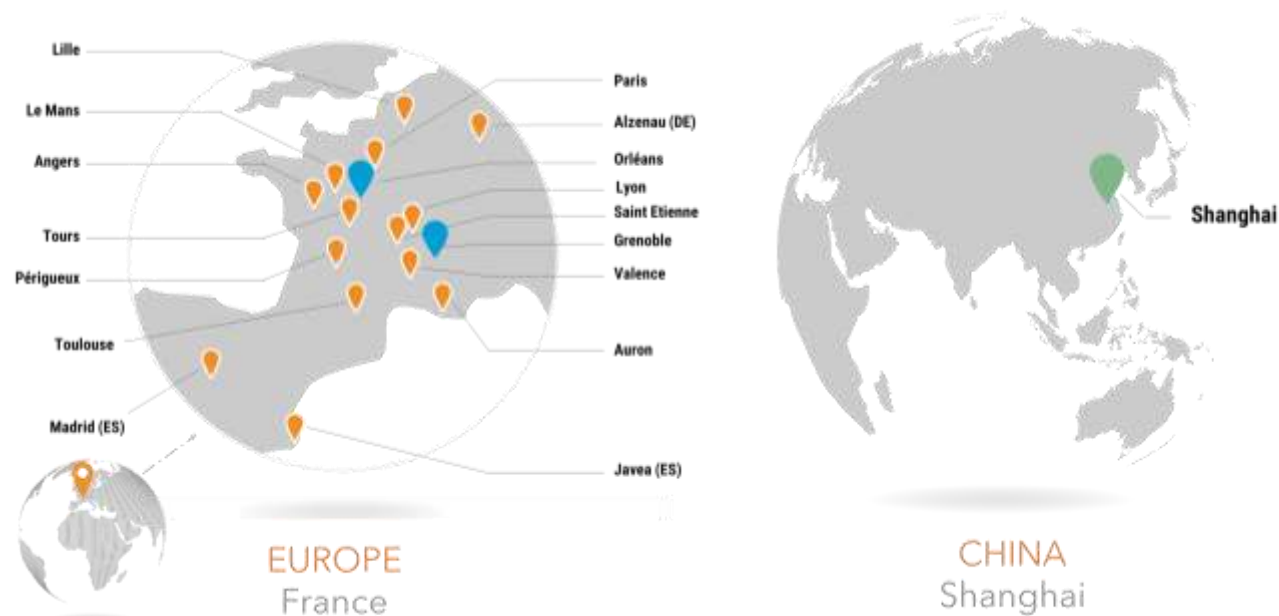
60

EXPERT-
ENGINEERS

270 people worldwide

Orléans, France : headquarters, R&D centre,
production

Shanghai, China : fully-owned production site



More than 120 IoT project launches

Soft mobility



Smart home & Building consumption



Wonderment



Education



and more ●●●



ALTYOR



A PROGRAM FOR EVERY NEED

from strategic innovation
thinking to design and
production of smart devices

TO MANUFACTURING
In an ecoresponsible way 

3 PROGRAMS FOR 3 DESIGN & PRODUCTION NEEDS

- ✓ Define and draw up product specifications
- ✓ Explore technological solutions
- ✓ Conduct a technical audit of your PoC / your product



Support in defining your innovation strategy and your technological project

- ✓ Validate technical feasibility and confirm market interest
- ✓ Create prototypes
- ✓ Use an external development unit



Start-up solution to bring a concept to life with a controlled budget and a limited timeframe

- ✓ Optimize through design for manufacturing and design to cost
- ✓ Benefit from mechatronic expertise and the highest standards of industrialization
- ✓ Procurement of components, packaging and finished product logistics



Global development and manufacturing solution with state-of-the-art industrial processes

FROM STRATEGIC THINKING TO PRODUCTION



A SINGLE POINT OF CONTACT FROM A TO Z



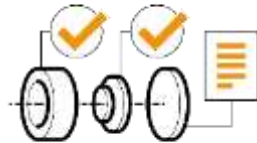
UnLock program

Support solution to define
your innovation strategy and your technological project

YOUR EXPECTATIONS



Define and draw up
your product
specifications



Exploring technological
solutions to meet your
product needs



Perform a technical audit
of your PoC / v1, to move
on to the next step
(Design to Cost, Indus...)



Consulting



Altyor partners hub



Project
specifications

OUR SOLUTIONS



More than 20 years of experience in the industrialization of smart devices to **define your complete IoT solution (hardware, software)** with a quantified vision of development and production



Expert engineers to **help you overcome a technical challenge** and propose solutions corresponding to your product use



Expertise in eco-design, enabling us to support you and offer **recommendations for reducing the environmental footprint of your product**



Access to the **Altyor partners hub** with qualified companies for your cloud developments, applications, etc.



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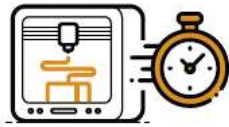
LaunchPad program

Solution de démarrage pour donner vie à un concept

YOUR EXPECTATIONS



Validate technical
feasibilities & market
interests



Get prototypes within
an optimized time frame
and budget



Use an external
development unit



PRODUCT
R&D



PROTOTYPE
WORKSHOP



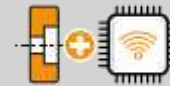
MINI-BATCH
ASSEMBLY LINE

Prototype manufacturing
from 2 to 200 pcs

OUR SOLUTIONS



A **unique low-risk program** with
commitment by milestones and controlled
investments



Mechanical & electronic R&D to define the
overall architecture (sizing, wireless
protocols, power optimization, etc.)



Simplified design with industrialization in
mind and **state-of-the-art prototyping**



Proactive advice from experts driven by
passion for innovation



ALTYOR

ScaleUp program

One-stop-shop for industrialization and manufacturing of your product

YOUR EXPECTATIONS



Optimize through design for manufacturing and design to cost



Benefit from mechatronic expertise and the highest standards of industrialization



Procurement of components, packaging and finished product logistics



Mass production from 2k to 200k units

OUR SOLUTIONS



Comprehensive approach encompassing R&D, **industrialization, manufacturing** and supply chain, guided by a project timeline



Proactive, involved and agile experts with **a dedicated project team** for close follow-up

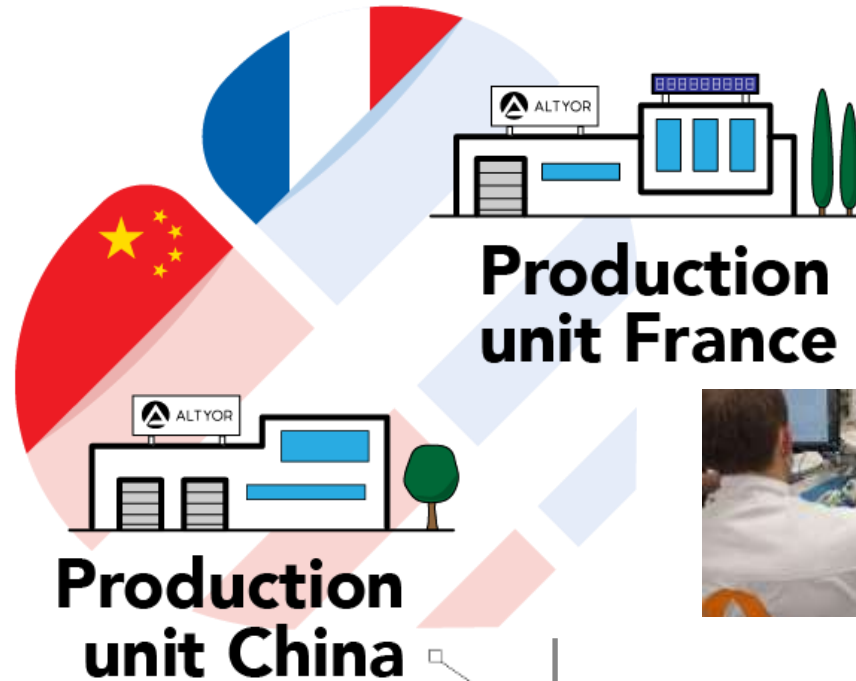


360° quality management system to ensure the **highest standards** and **reliable** mass production



Tailor-made **extra services**: design, electronic and mechanical engineering, product certification, packaging, logistics, ecodesign, ...

OUR PRODUCTION FACILITIES



2 assembly units

Expert engineers in proximity

Network of qualified partners in France

Logistics platform



10,000 m² factory in Shanghai

2 electronic and mechanical assembly workshops

1 injection and mould maintenance workshop on site

OUR INDUSTRIAL FACILITIES



R&D CENTER

Nearly thirty mechanical and electronic engineers
+160 mechanical and electronic bricks mastered



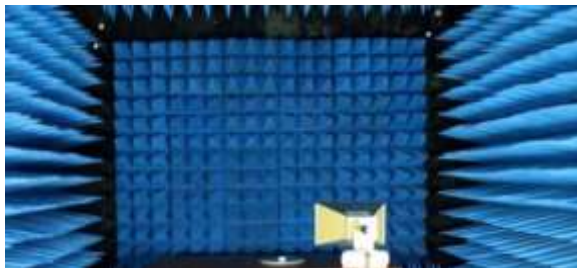
ELECTRONICS & MECHANICS LAB

Equipment for the testing of technical functions and the creation of prototypes



PROTOTYPING LAB

3D printers available on site:
SLA/DLP/FDM



QUALIFICATION LAB

Wide range of test equipment: anechoic chamber, pendulum IK test, climatic chamber, cycling bench, traction bench...



ALTYOR

Design for Tomorrow

by  ALTYOR

OUR ECO-RESPONSIBLE APPROACH

DURABILITY & REPARABILITY

Our ecodesign experts develop products that last and whose design allows their repair.



OPTIMIZATION OF CONSUMPTION

Optimizing consumption aims at selecting the technologies that correspond to the use of the product, not more, not less.



PRODUCT & PACKAGING SOBRIETY

Our engineering teams strive for product and packaging sobriety to design products with a reduced carbon footprint.



END-OF-LIFE MANAGEMENT

End-of-life is an integral part of the product life cycle that must be anticipated as early as possible and managed intelligently.

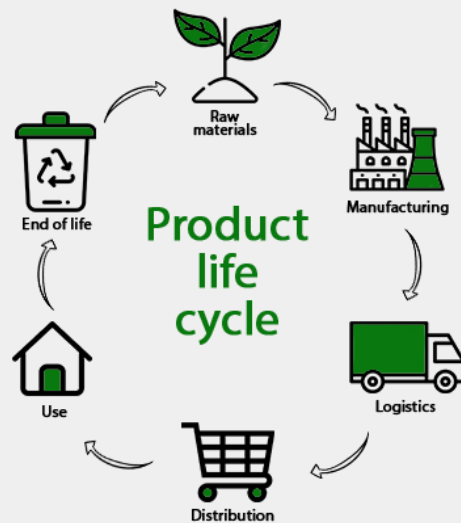


DESIGN FOR TOMORROW TOOLS

Life Cycle Analysis

LCA is the most advanced tool that allows for a **global and multi-criteria evaluation of the entire manufacturing and use cycle of a product.**

Systematically proposed to our clients, LCA allows them to implement **the right actions to reduce the environmental footprint of products.**



Design for Tomorrow scoring

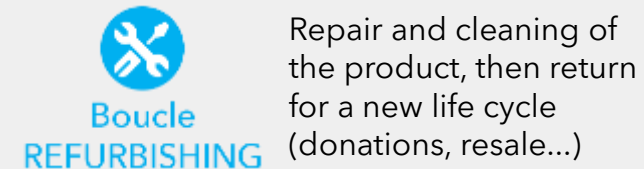
The Design for Tomorrow scoring aims to **evaluate the eco-responsibility of products** with several levels of progression.



4 main families are taken into account in the score: **electronics, mechanics, packaging and bonus points.**

Circular economy with Altyor

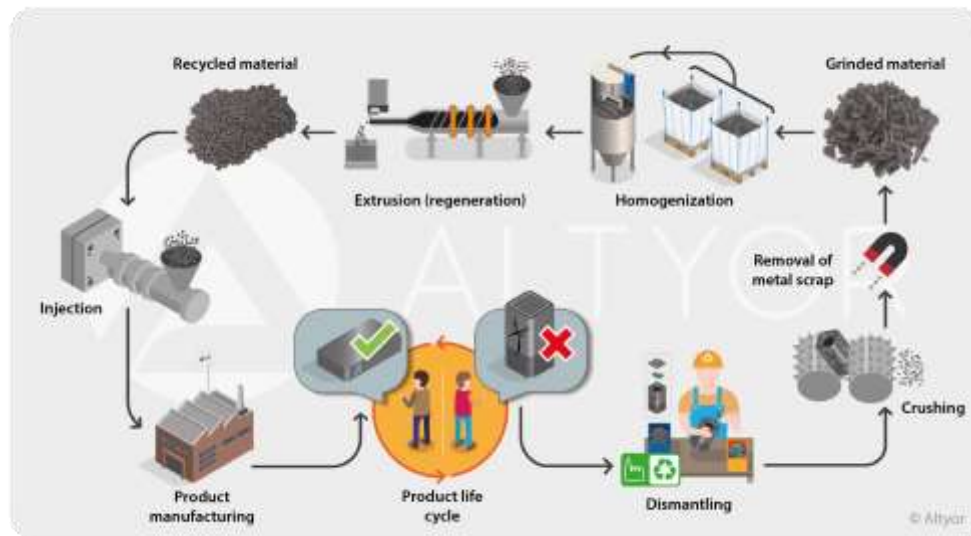
Altyor offers its customers circular economy solutions through **recovery loops.**





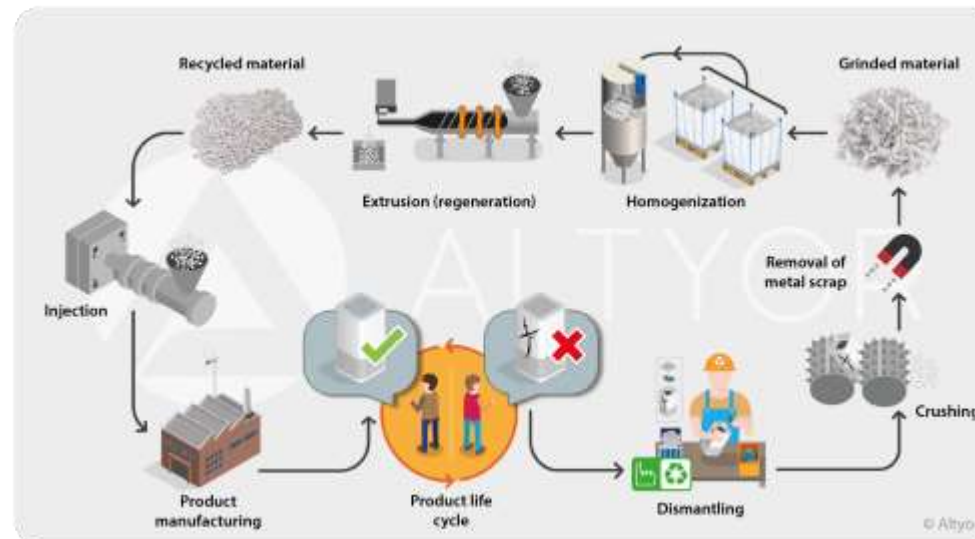
The open RECYCLING loop

The product is recovered and the materials are recycled to make **a new type of product**



The closed RECYCLING loop

The product is recovered and the materials are recycled to manufacture **the same product reference**



80%

of plastic used was
recycled material
in the first half of 2022



Manufacturing with recycled
materials can reduce your
footprint by **70%**



Design for
Tomorrow

A hand holding a white smartphone displaying a website with a grid of product images. The background is a teal-tinted image of a wooden door with a silver handle.

& SHOWROOM REFERENCES



UNISTELLAR

eVScope



Engineering
Mechanical & electronic



Industrialization



Manufacturing

KINÉIS

Satellite multisensor & tracker



Engineering
Mechanical & electronic



Industrialization



Manufacturing



MONEY WALKIE

Smart NFC wallet



Engineering
Mechanical



Industrialization



Manufacturing

AVEINE

Smart wine aerator



Engineering
Mechanical & electronic



Industrialization



Manufacturing

GLUE HOME

Smart door lock



Engineering
Mechanical & electronic



Industrialization



Manufacturing

SOMFY

Smarthome alarm



Engineering
Mechanical



Industrialization



Manufacturing

SHARELOCK

Smart lock



Industrialization



Manufacturing



WEEN

Smart thermostat



Engineering
Mechanical & electronic



Industrialization



Manufacturing

TORI

Game accessories



Engineering
Mechanical



Industrialization



Manufacturing

3D RUDDER

3D game accessories



Engineering
Mechanical



Industrialization



Manufacturing

TOUCHE

Electro musical instrument



Engineering
Mechanical & electronic



Industrialization



Manufacturing

OSMOSE

Musical instrument



Engineering
Mechanical & electronic



Industrialization



Manufacturing

BUTAGAZ

Smart lock



Engineering
Mechanical & electronic



Industrialization



Manufacturing



INFORAD

Danger zone alarm



Engineering
Mechanical



Industrialization



Manufacturing

SOLAR BROTHER

Solar firelighter



Engineering
Mechanical



Industrialization



Manufacturing

ROBEAU

Flowmeter



Graphic design



Engineering
Mechanical & electronic



Industrialization



Manufacturing

KEEKER

Multimedia robot



Engineering
Mechanical

CLICME

Sigfox/ LoRa button



Graphic design



Engineering
Mechanical & electronic



Industrialization



Manufacturing

ZIBLUE

Dongle for
home automation box



Graphic design



Engineering
Mechanical



Industrialization



Manufacturing

SEATAG

Emergency wristband



Graphic design



Engineering
Mechanical & electronic



Industrialization



Manufacturing

HUG ONE

Sleep assistant



Engineering
Mechanical & electronic



Industrialization



Manufacturing

NODON

Smart building devices



Graphic design



Engineering
Mechanical & electronic



Industrialization



Manufacturing

ENGIE / ELECTRABEL

Retrofittable energy meter reader



Industrialization



Manufacturing

BUBBLE

Advertising loader



Engineering
Mechanical & electronic



Industrialization



Manufacturing

ISKN

Drawing pad



Engineering
Mechanical



Industrialization



Manufacturing

SIGFOX

Sens'it
Multisensors



Graphic design



Engineering
Mechanical



Industrialization



Manufacturing

EUROP ASSISTANCE

Sigfox button



Graphic design



Engineering
Mechanical & electronic



Industrialization



Manufacturing

OLED COMM

Lifi Lamp



Engineering
Mechanical



Industrialization



Manufacturing

FREE

Internet box



Manufacturing



Supply chain

ALDES

Ventilation



Industrialization



Manufacturing

TECHNAL

Window supplies



Industrialization



Manufacturing

TOUPRET

Coating tools



Graphic design



Engineering
Mechanical & electronic



Industrialization



Manufacturing

LACIE

External hard drive



Engineering
Mecatronics



Industrialization



Manufacturing

FAMOCO

Bus ticket validator



Graphic design



Engineering
Mecatronic



Industrialization



Manufacturing

JANASENSE

Environmental and lifestyle habits control



Engineering
Mecatronic



Prototyping

HUB + SENSORS

Securing of windows



Engineering
Mecatronic



Prototyping



CONTACT US



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ZOOM ON ALTYOR'S EXPERTISE





From client ideas or from a blank page

Design modifications made according to the customer's desires and technical constraints

Design from both mechatronic and industrial viewpoints





All-in-one packaging service

Graphic design of container and leaflet

Realistic views



COMPETENCIES

Architecture
Electronic schematic
PCB routing
Firmware
Industrial review
Certification



RADIO BLOCKS



SENSORS

Accelerometer
Gyroscope
Magnetometer
Brightness
Infrared
UV
Temperature
Captive button
VOC
Pressure
Humidity...



MCU/CPU

Single board computer
System on module
ARM cortex M
ARM cortex A
PIC

GENERIC FUNCTIONS

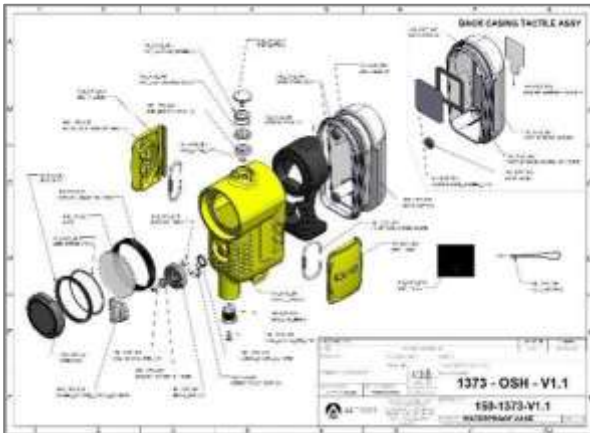
Buzzer
Vibrator
Motor
Battery charger
Inductive charging

MULTIMEDIA

Screen
Loudspeaker
Audio system
Microphone

COMPETENCIES

Mechatronic integration
3D design
Layout
Functional dimensioning
Industrialization review



MATERIAL

Plastic
Aluminium
Zamak
Rubber
Silicone
Metal
Wood
Glass
Ceramic...



ASSEMBLY PROCESS

Clipping
Screwing
Crimping
UV bonding
Ultrasonic welding

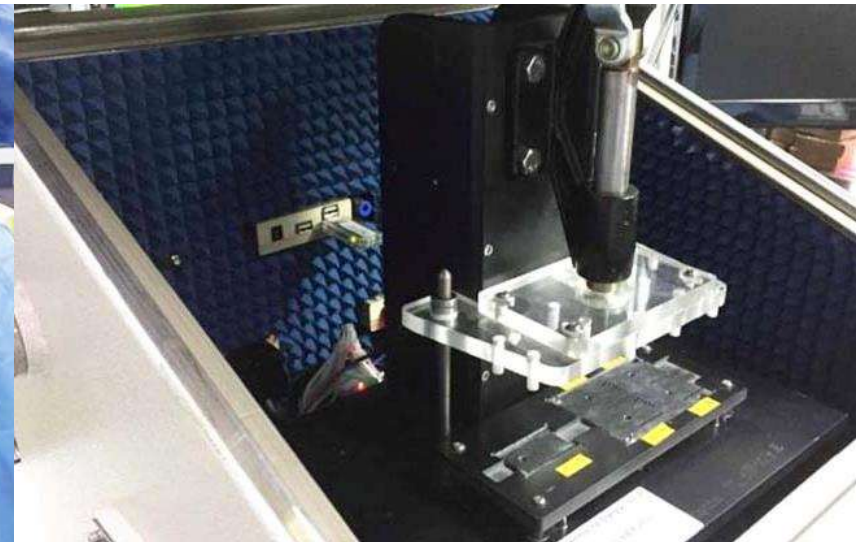
MATERIAL TRANSFORMATION PROCESS

Injection
Compression
Extrusion
Stamping
Machining
Surface treatment and finishing
Marking...

Layout
Functional dimensioning
Electronic routing review

Molds and tooling
Test benches

Assembly instructions
Inspection specifications
Packaging instruction sheet



PROCESS AND PROJECT QUALITY

ISO 9001:V2015 quality management
Organizational excellence: DFMEA, PFMEA,
continuous improvement



COMPANY QUALITY

Supplier relationship management
Ethical charter and social responsibility
Security and health charter

PRODUCT QUALITY

In-house qualification tests (shock and water resistance,
ageing, CEM compliance ...)
Follow up of product certifications (Made in France
certification possible)
Traceability management (from component to product)
Quality control (in prototyping and production phase)
94%+ service rate





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