

### **Summary**\*

Industry challenges
Value chain
Timeline and expansion
Key figures

Our portfolio
Our expert services
Engineering
Sourcing

Manufacturer
Logistics
Quality
Online PCB ordering

CSR
Client testimonials
Key takeaways
Your sales contact

\*This is a dynamic summary slide, click on the part that interests you and go directly to the slide.







### The hidden costs of compromising on quality



2016 **Auto ignition issues** 

Estimated cost: \$4bn+



2017 **Airbag errors** 

Estimated cost: 25bn+









## 2018 **Exploding phones**

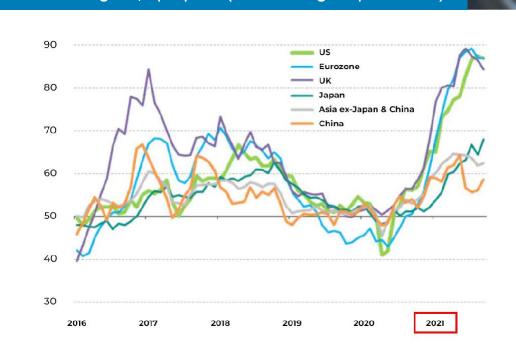
Estimated cost: \$5bn+



# Supply constraints leading to the spiking of prices

### **Producer input prices**

Manufacturing PMI, input prices (50 = no change on prior month)





**8.5%** 

On average in February 2023



USA inflation **6.0%** 

On average in February 2023



China inflation **8.5**%

On average in February 2023

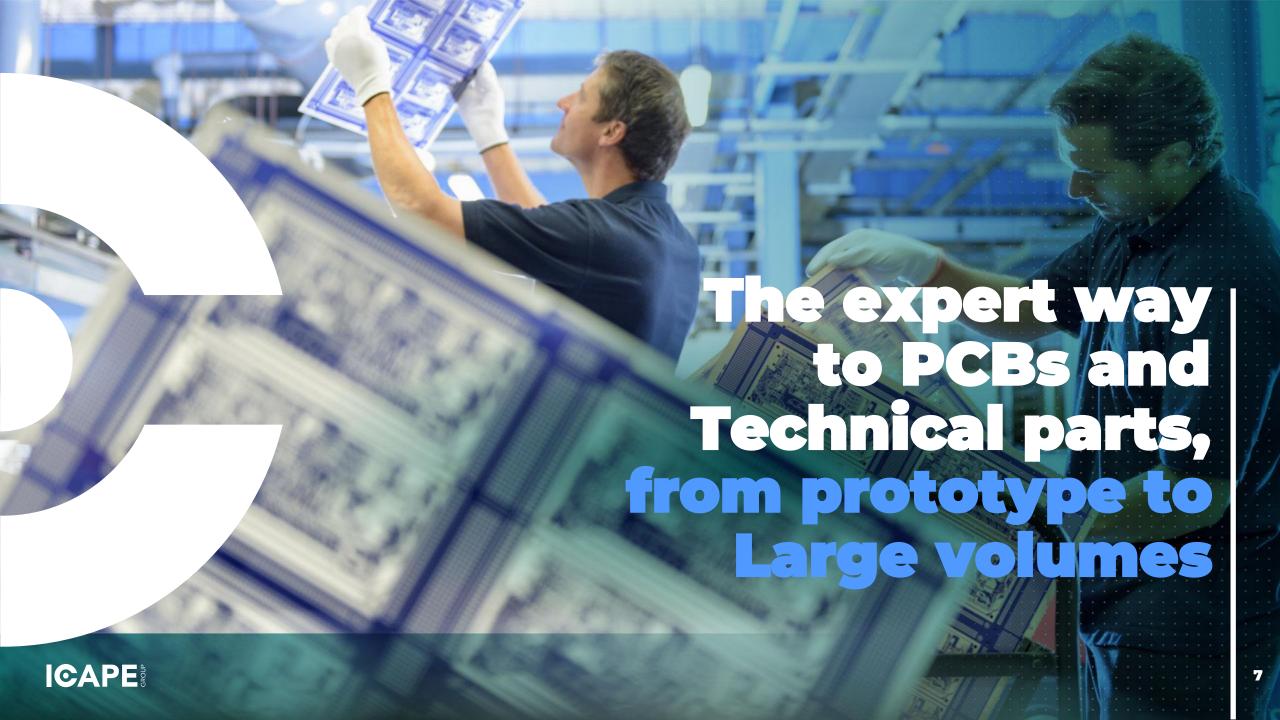


**Crude oil WTI +59.1%** 

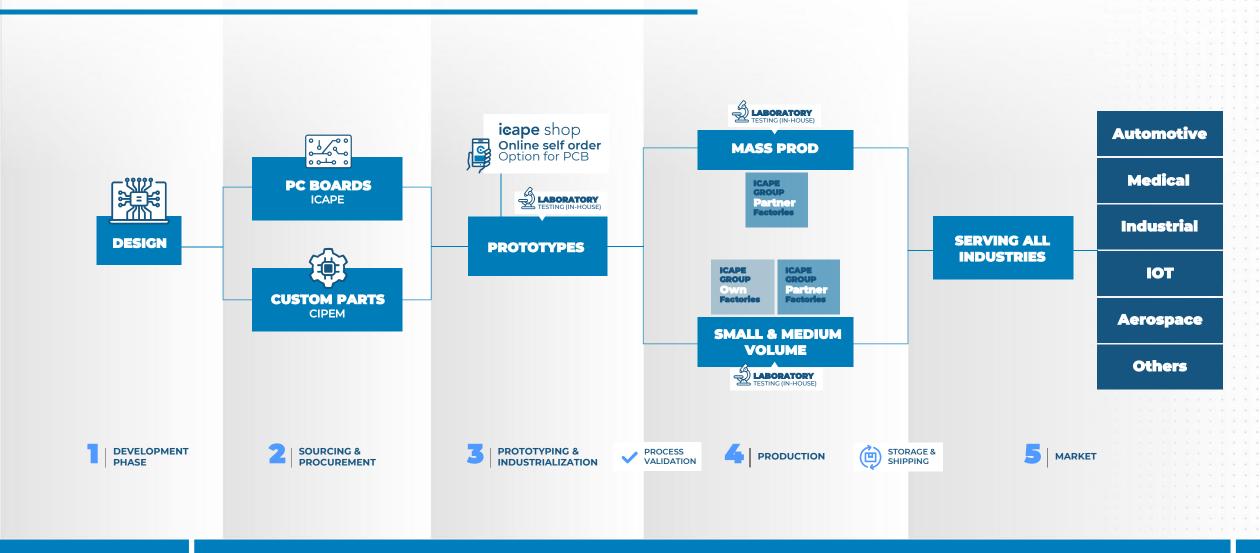
From 2020 to 2023



**Increasing** 

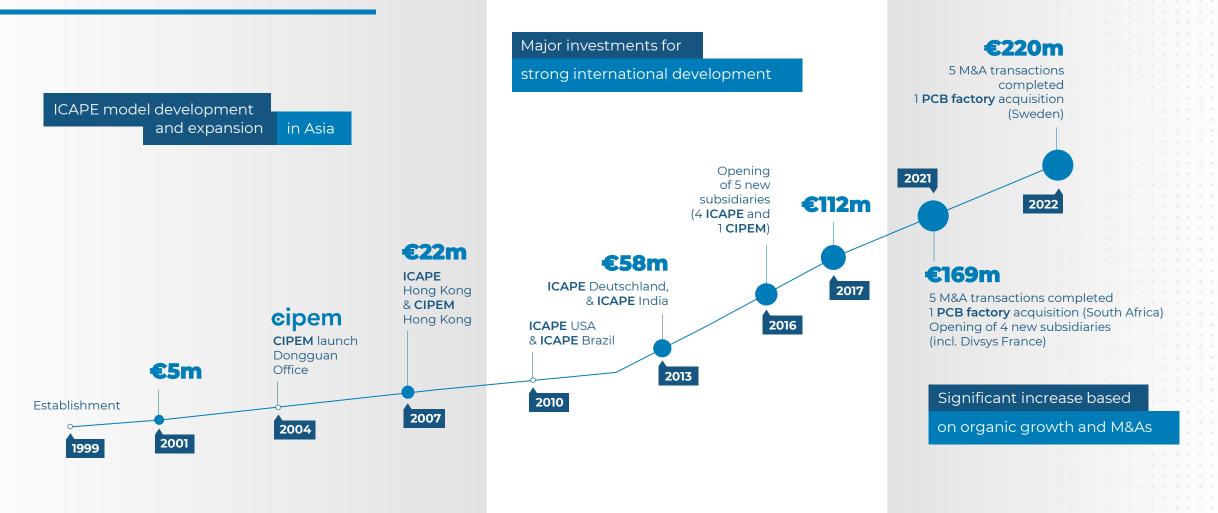


# Our goal is to add value at every stage of the product creation chain





## A history of growth and geographical expansion(1)





9

### **ICAPE** Group at a glance







## icape | Circuit boards



#### **High-density connection - HDI**

I HDI with 1, 2, or 3 levels or ELIC construction (with laser microvia)



#### **Rigid-flex**

- I Rigid part (4-16L), FR4
- I Flexible parts (1, 2, 4L)
- I EMI Shield Film on Flexible area



#### **Aluminium (IMS)**

- I Power & Lighting applications
- I Raw material on metallic base: aluminum, copper, steel



#### **Semi-flex**

- Economic 3D PCB in FR4 (1 4L)
- I Lamination/routing process, cost advantage vs Rigid-Flex



#### Flex

- I Standard products (1, 2, 4L) with coverlays or PHI.
- I FR4 Stiffeners
- I EMI Shield Film



#### Black panel/Heavy copper

- Power Electronics
- I High layer count (up to 64 layers)



#### Multilayer

- I Standard products (4-6L), FR4, photo-sensitive Solder Mas
- I Special types (thick copper, thin core, hard gold, etc)
- I High layer count (8 to 64 layers)



#### Microwave/RF

I Radio frequency and antenna applications



#### **Double-sided PTH**

- I High-density products
- Special types



#### Single-sided & double-sided STH

- I With conductive jumpers: carbon, silver, or copper pastes
- Silver Through Holes (STH) or Copper Paste Through Holes (CPTH)



## cipem | Custom parts



#### **Cables & connectors**

- I Customized Cable Assemblies & Common Cables Assemblies
- I Wire Harnesses & Customized Connectors



#### **Adapters**

- I Wall Mount Adapters & Interchangeable Adapters
- I Desktop Adapters & Open Frame Power & LED Drivers



#### **Transformers & coils**

- I High & Low Frequency Transformers
- I Air Coils & Filters & Toroids, Coils & Inductors



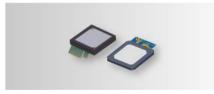
#### Keypad

- I Membrane Switch Keypads
- I Overlays & Silicone Keypads



#### **Batteries**

- Li-ion & Li-Po & Ni-Mh & Lead Acid
- I Primary Batteries



#### Displays

- I TFT & VA Type
- I TN & HTN & STN & FSTN & DFSTN Types



#### Plastic & silicone

- I Plastic Injection Parts & Plastic Injection Molding
- I Silicone Mechanical Parts



#### Metal

- Stampings Parts
- I Shields & Heatsinks



#### **Remote control units**

- I IR InfraRed
- I BT Bluetooth & RF Radio Frequency



#### **Sub-assemblies**

- I Electromechanical Assemblies
- I PCB Assemblies



## The largest portfolio in the industry covering all your needs

## icape

**Printed Circuit Boards** 



+10 technologies



27 factories

Three complimentary branches for all electronic needs

HDI I Rigid-flex I Aluminum (IMS)

Semi-flex | Heavy Copper & Back Panel

Multilayer | Microwave /RF

**Double-sided PTH** 

Single-sided & double-sided STH



**Technical Parts** 



+10 commodities



**61 factories** 

Cables & Connectors I Adapters

Transformers & Coils | Keypads

Batteries I Displays I Plastic & Silicone

Metal I Remote control units

Sub assemblies

Complete electronics products



**Turnkey products** 

Ideas to full-fledged Design

Prototypes to series production

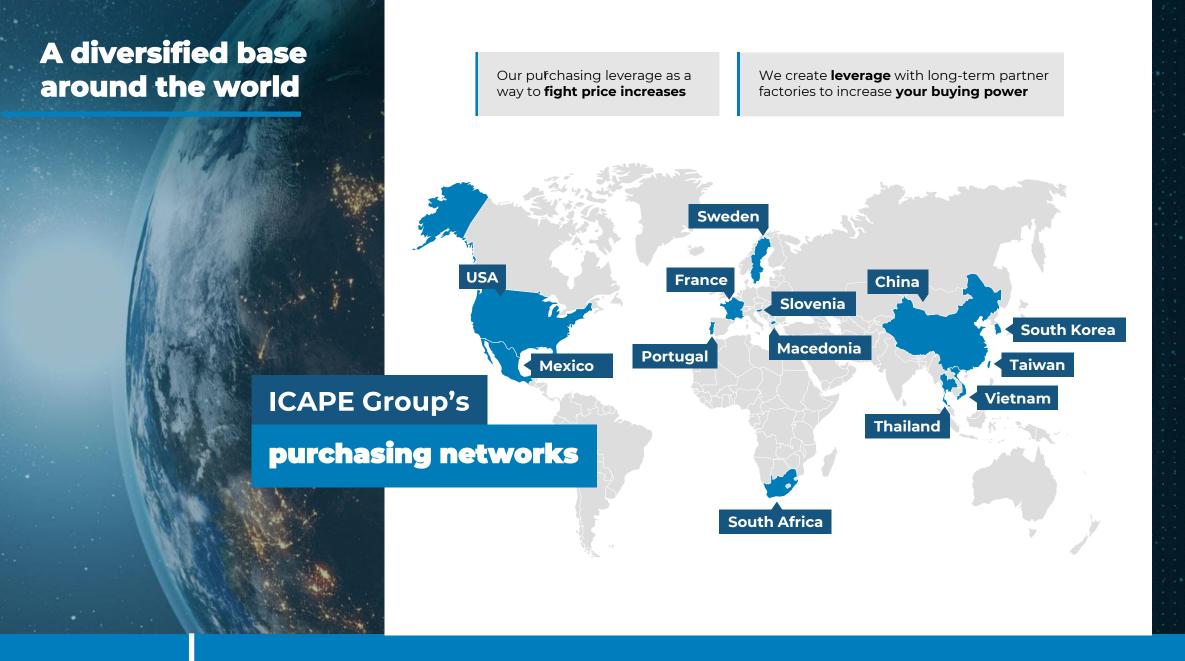
**R&D** - Industrialization production





**ICAPE** 

The breadth of our services allows us to master the entire value chain and offer you the opportunity to reduce your costs, favorable pricing and payment terms, reduce your time to market, and benefit from compliance and quality control processes







# A logistics network that spans the world

- Systematic consolidation and optimization
- Multiple logistics platforms
- I Tracking of goods in real time
- Inventory management (VMI/CMI/Call-off)
- Sustainability and eco-friendly shipping practices



97%

On Time Delivery



Air Freight 10 to 14 days



**Sea Freight** 6 to 8 weeks



**Ground Freight** 

3 to 5 days (Europe only)









Sub-contracted warehouses







#### Prototyping and small series **PCB** lab testing services









### **QUALITY CONTROL**

- I Product Liability Analysis & Assurance
- Low defect rate
- Several controls on all batches (over 30 tests)

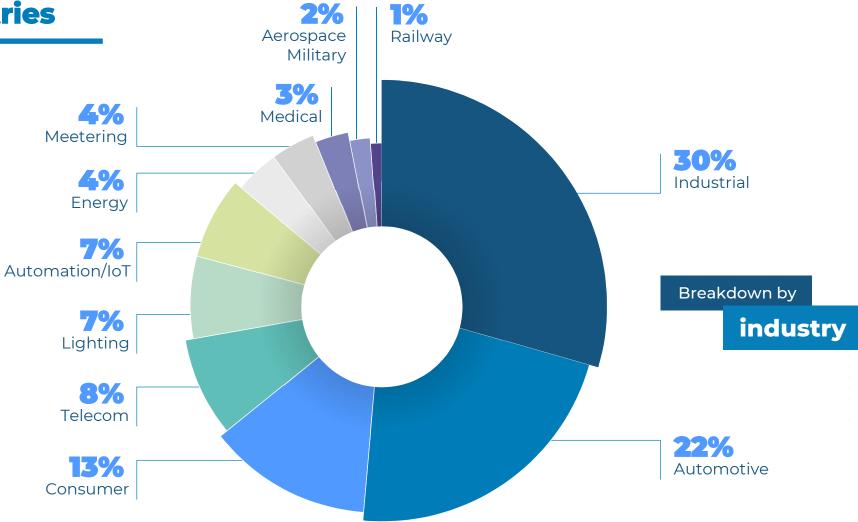
### **ENGINEERING TEAM**

- I Team of 6 PCB engineers available 16 hours/day and 6 days/week
- I Accelerate product development cycle
- A complete set of services (DFM, UCAMCO Report, Working Gerber, Stencil)





## Mapping Revenue Across Industries



# Credentials that Count: Our Certifications in Every Industry











































# Let us be the right partner for your projects



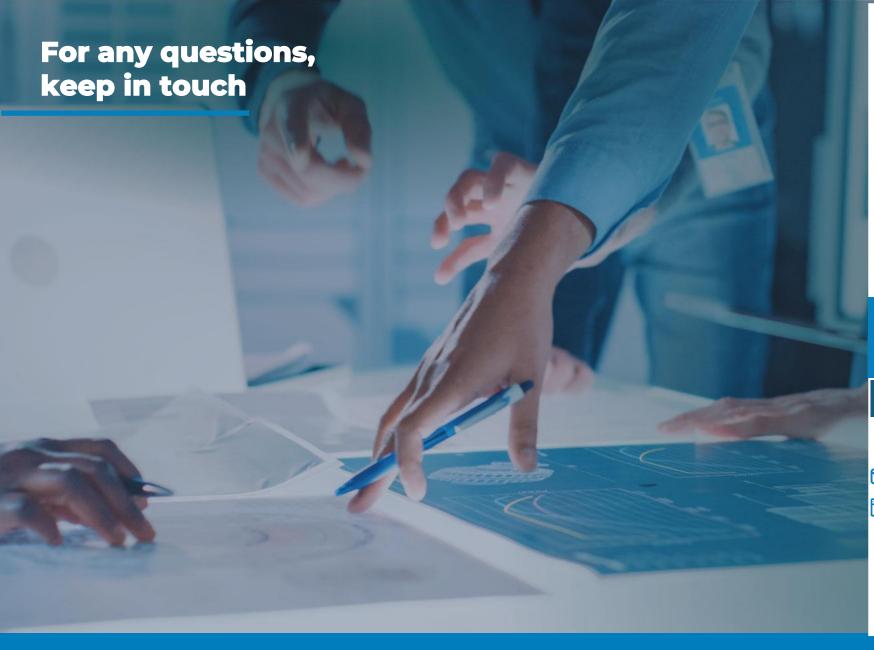
The most diversified portfolio in the industry



Unmatched **Technical Expertise** 



A **global company** with a **local approach** to better serve you



## JOHN FREDY **GARZON R.**

Account Manager

+52 55 4365 3820

Jf.garzon@icapemexico.com

www.icape.group.com



