# 3M Una historia de innovación

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# Our Vision

3M Technology Advancing Every Company
3M Products Enhancing Every Home
3M Innovation Improving Every Life


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# Cultura de Innovación

- 11,000+ tecnicos alrededor del mundo
- 85 laboratorios globales
- 40 Centros tecnicos de Clientes
- R&D es el  5.4% de las ventas
- 46 plataformas tecnológicas
- Brindando multiples tecnologias para cada cliente
- Cultura emprendedora
- Legado de culturas sin fronteras
- Iniciativa individual ~ 15% del tiempo



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# Un siglo de innovación…

**1921**
3M patented and introduced Wetordry™ waterproof sandpaper -- the world's first water-resistant coated abrasive

**1925**
Scotch™ masking tape introduced

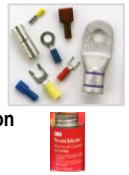
**1930**
Scotch™ Cellulose tape introduced

**1931**
3M began producing Colorquartz™ roofing granules

**1939**
First traffic sign featuring Scotchlite™ reflective sheeting erected in Minneapolis

**1945**
Scotch TM vinyl electrical tape introduced

**1954**
RCA used Scotch™ magnetic tape to record TV programs for the first time



**1952**
Scotchlok™ electrical connectors and Scotchkote™ insulation introduced

**1948**
3M debuted its first surgical drape

3M's first non-woven product-decorative ribbon for gifts introduced

**1947**
Scotch ™ magnetic audiotape introduced

**1979**
Thinsulate™ thermal insulation introduced

**1960**
Scotch™ Brand Magic transparent tape introduced

**1967**
3M developed the first disposable facemasks and respiratory protection products

**1969**
3M products were used in the first moon walk on July 20. Astronaut Neil Armstrong left a footprint in the lunar dust in boots made from Fluorel™ synthetic rubber from 3M

**1985**
Academy of Motion Picture Arts and Sciences gave 3M a Scientific Engineering Award for magnetic film, improving audio capabilities of movie sound tracks

**1980**
3M introduced Post-it® Notes, greatly enhancing office communication

**1995**
3M introduced the first metered dose asthma inhaler, free of ozone depleting chlorofluorocarbons.

**1991**
3M introduced Scotchshield™ window film, shatter-resistant, heat-and cold resistant window protection.

**1996**
New products include flexible circuits for electronic products and HFEs (hydrofluoroethers), replacing ozone depleting chlorofluorocarbons

**2000**
3M introduced the Vikuiti™ brand for light management products that make electronic displays easier to read

**2005**
3M developed Aluminum Conductor Composite Reinforced (ACCR) as a solution to thermally constrained transmission bottlenecks

**2009**
3M™ MPro pocket-sized projector for mobile presentations and sharing photos on the go

**2010**
3M™ Cubitron™ II using precision shaped abrasive granules creating the future of the abrasives industry

**2012**
3M LED advanced light, most energy efficient, longest-lasting light bulb



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# 46 Plataformas Tecnológicas

Crecimiento exitoso por nuevos productos generados de conexiones tecnológicas

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Ab Abrasives | | | | | | | | | | |
| Ad Adhesives | Fi Films | | | | | | | | | Md Medical Data Management |
| Am Advanced Materials | Fl Fluoro-materials | | | | | | | | Ec Energy Components | Mf Mechanical Fasteners |
| Ce Ceramics | Nt Nano-technology | | | | | | | Ac Acoustic Control | Fe Flexible Electronics | Mi Microbial Detection and Control |
| Co Advanced Composites | Nw Nonwoven Materials | Mo Molding | Pe Predictive Engineering & Modeling | Rp Radiation Processing | An Analytical | Fc Flexible Converting & Packaging | Pr Process Design & Control | Bi Biotech | Fs Filtration, Separation, Purification | Op Opto-electronics |
| Do Dental & Orthodontic Materials | Po Porous Materials & Membranes | Mr Micro-replication | Pm Polymer Processing | Su Surface Modification | As Application Software | In Inspection & Measurement | Se Sensors | Dd Drug Delivery | Im Imaging | Tt Track and Trace |
| Em Electronic Materials | Sm Specialty Materials | Pd Particle & Dispersion Processing | Pp Precision Processing | Vp Vapor Processing | Es Electronics & Software | Is Integrated Systems & Design | We Accelerated Weathering | Di Display | Lm Light Management | Wo Wound Management |



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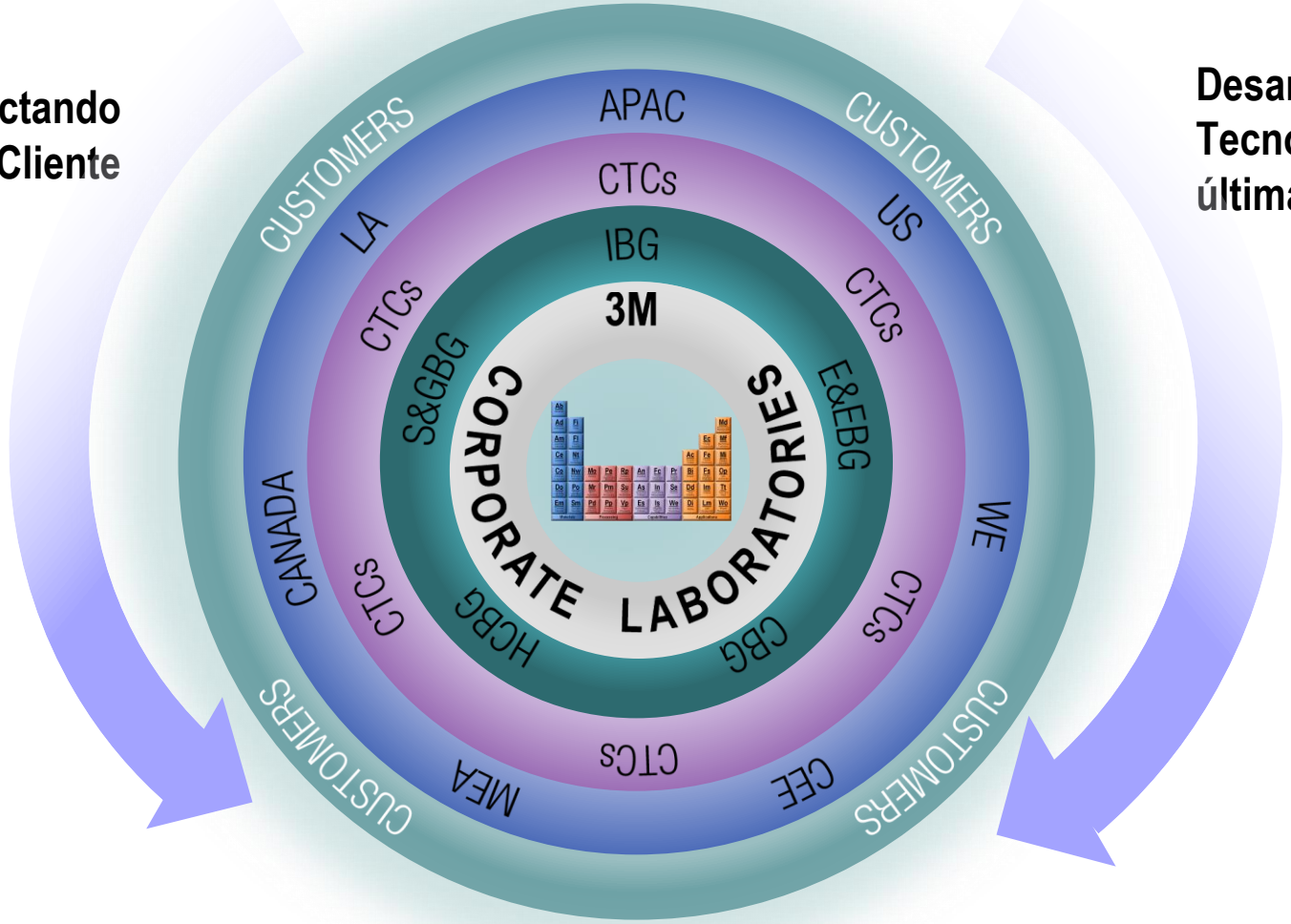
# Conectando Tecnología con nuestros Clientes…

En cualquier lugar y en todo lugar

**Conectando a Cliente**

**Desarrollando Tecnología de última generación**




**Logrando Crecimiento a traves de la Innovación**



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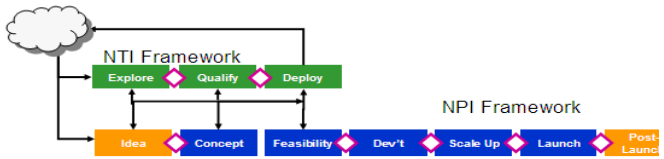
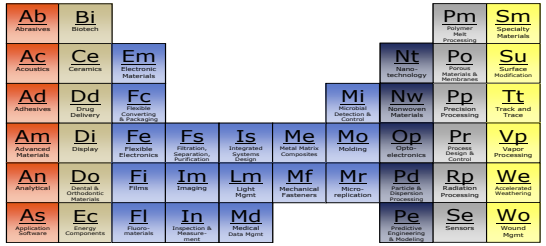
# Cómo 3M provee los productos que los clientes quieren ?

**Voz del cliente**




**NTI / NPI**




**Plataformas tecnológicas**

**Suministro de productos en el mercado**



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# Migración de Productos y Tecnología

## Adhesivos Sensibles a la Presión

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | **Post-it® Notes** | Pop-up Notes<br>Post-it ™ Flags | Super Sticky Notes<br>Easel Pad | | **COMMUNICATION** |
| | | | Solar Control Film | | Brightness Enhancing Film<br>DBEF / IR Film | | **LIGHT MANAGEMENT** |
| **Reflective Sheeting** | Highway Signs | Pavement Marking Tape | Control-Tac™ | Hi-Intensity Sheeting | Control-Tac Plus™ | | **SIGNING** |
| | | | | Ioban™ Transdermal | Transmucosal | | **DRUG DELIVERY** |
| Surgical Drapes | Autoclave Tape | Micropore™<br>Steri-Drapes/Strips™ | Transpore™ / Durapore™<br>Monitoring Electrodes | Tegaderm™ | Active-Strips™<br>Tattoos™ | | **HEALTH CARE** |
| **Vinyl Electrical Tape** | Polyster<br>Film Tape | Silicone Electrical Tape | Electrically<br>Conductive Tape | Z-Axis Conductive Tape | Anti-Static Tape | | **CONDUCTIVITY** |
| Filament Tape | | | Box Sealing Tape | | Structural Sealing Tape | | **SEALING** |
| | Label Stock | PSA Coated Fasteners<br>Diaper Tape | Stick-it<br>Abrasives™ | Filmic Label<br>Laminate Diaper Tape | Command ™<br>Hooks | | **ATTACHING** |
| | | | Isotac T.T.<br>PU Foam Tapes | VHB™<br>Foam | VHB+™<br>Structural Bonding Tape | | **BONDING** |
| | Double-Coated<br>Repulpable | Fibered T.T.<br>Magic Mending | | | Optically Clear<br>Adhesives | | **ASSEMBLING** |
| | Hi-Temp Masking | Filmic Masking | | Transit Tape | Scotch-Blue<br>Painter's Tape | ScotchPrint™<br>Vehicle Wrap Film | **PROTECTING** |
| **1920** | **1940** | **1960** | **1980** | **2000** | | **2010** | |

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# 3M Modelo de Innovación

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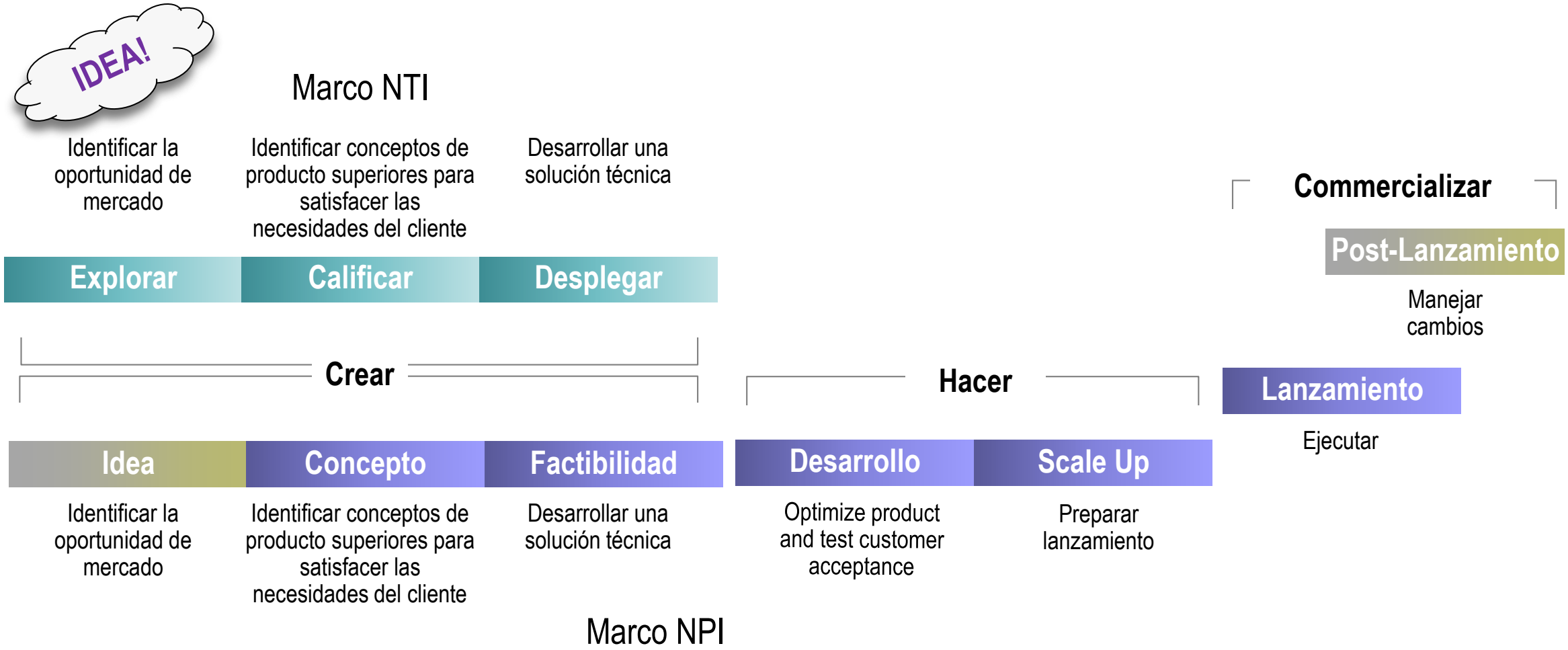
# El Proceso de Introducción de Productos Nuevos

**NTI** – manejando el diseño y desarrollo de una nueva tecnológía
**NPI** – manejando el diseño, desarrollo y lanzamiento de un nuevo producto



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# Innovación Inspirada en el Cliente

- Diálogo con el cliente
- Mapeo del proceso del cliente
- Co-desarrollo
- Proceso del portafolio del cliente

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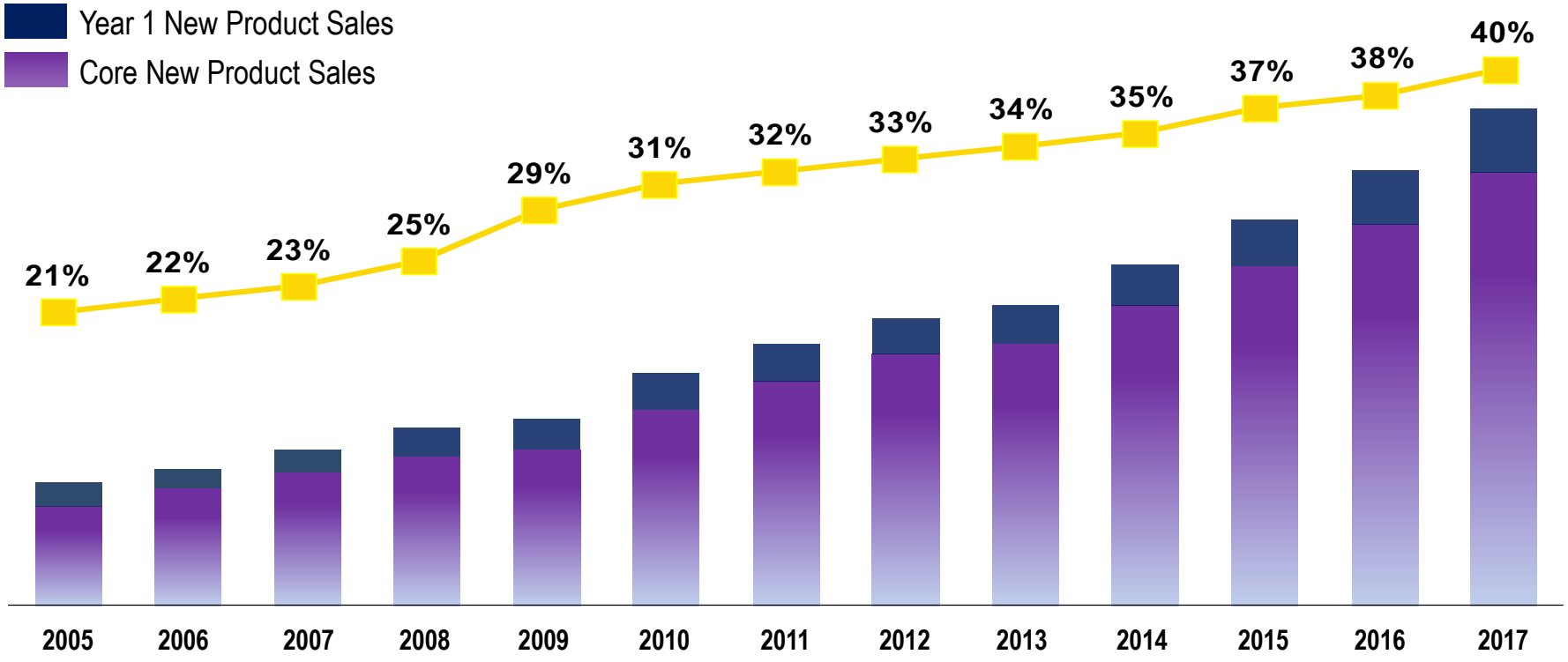
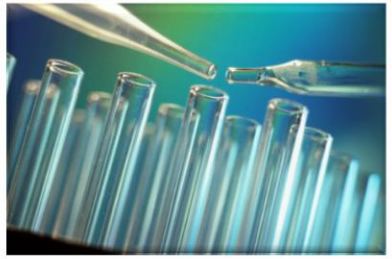
# Nuestra Metrica de Innovación es el NPVI

NPVI = Indice de Vitalidad de Productos Nuevos (productos introducidos en los últimos cinco años, dividido por el total de las ventas)





**Nuevos productos Internacionales ahora ~70% del total**



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# Localización de R&D

## Poland

- Medical & Consumer Healthcare CoE

## Russia

- Customer Technical Center (CTC)
- Focus: Abrasives, Auto
- Consumer & Office CoE

## Korea

- Asia Display Tech Center
- Asia Tape & Adhesives
- Labs: Non-wovens, RFID, Electronics, Energy, Nano

## Germany/France/UK

- Centers of Excellence (CoE): Automotive, Dental, Telecom, Specialty Materials, Polymers, Consumer, Oil & Gas, Drug Delivery

## Japan

- SEMS (software)
- Electronics, Auto
- Technologies:Track & Trace, Microreplication, Liquid Filtration

## China

- China Tech Center
- Global Labs: HV electrical, SMS
- Asia Lab: Telecom
- Technologies/products: Non-woven, Reactors, Medical, Corrosion Protection
- Display backlight center

## Brazil

- Expansion to safety/ orthodontic products
- Technologies: Bio, Nano
- Specialty Materials, Hook/Loop, Molding, Non-PVC Films, Acrylic Foam Tape

## India

- Customer Centers (Mumbai, Delhi), Design Studios
- Engineering Centers: Automotive, Corrosion Protection, Textile products
- Water filtration, fire protection
- Analytical development

## Singapore

- Southeast Asia region: product localization, Corp Research Lab, Medical product development & regulatory
- Electronics, Fine Pitch Flex Circuitry, RFID, Cuno



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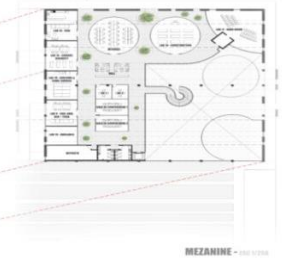



PAISAJISMO

PONDERAR LAS AREAS VERDES EN EL EXTERIOR Y EN EL INTERIOR.

UTILIZACION DE PLANTAS NATIVAS PARA LA PROPUESTA PAISAJISTA.

INTEGRACION ESPACIAL CON EL USO DE CERRAMIENTOS VIRTUALES.

PROPUESTA DE RECORRIDOS EXTERIORES CON AREAS DE DESCANSO.

ESPEJO DE AGUA QUE CIRCUNDA EL EDIFICIO, QUE APORTA EN EL TEMA LEED Y SIRVE COMO UN SISTEMA DE RIEGO PARA LAS AREAS VERDES.

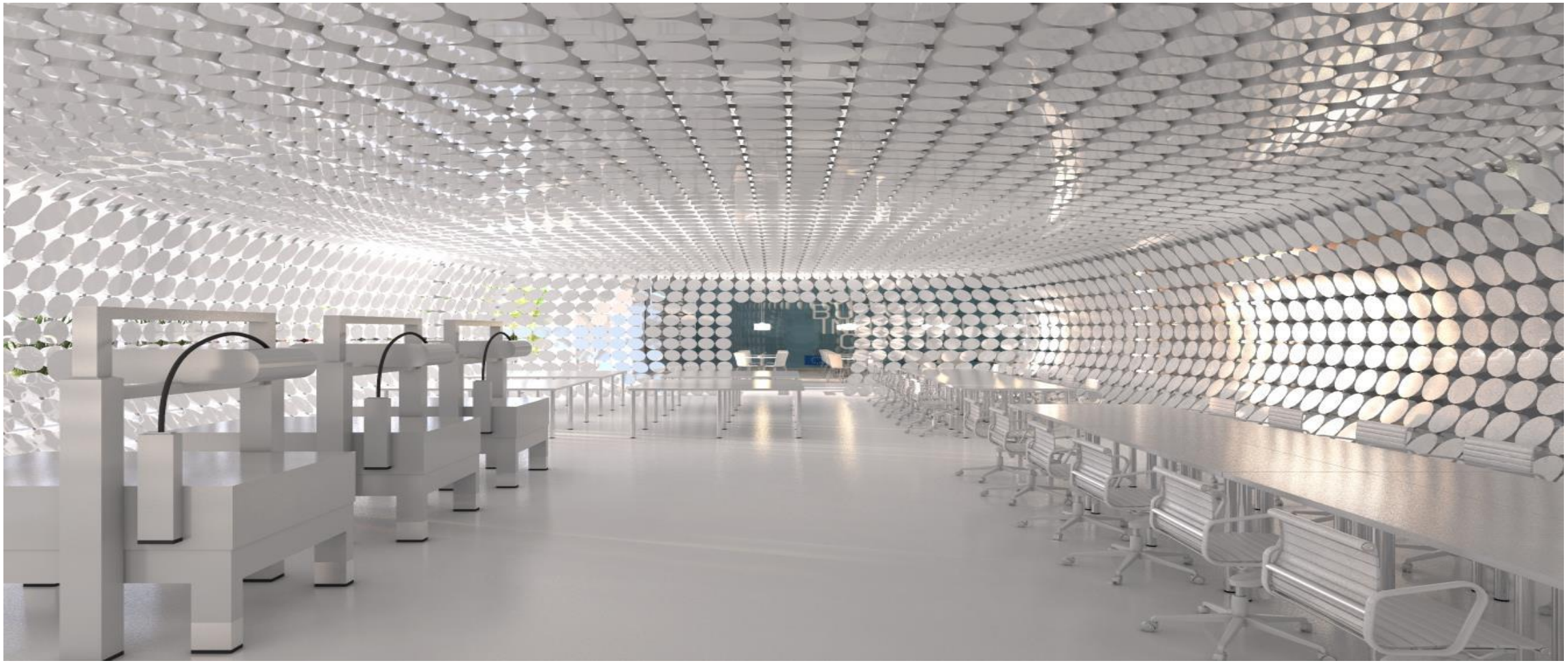
PRIMER PISO

SE ENCUENTRA EL ATRIO DE INGRESO, EL CUAL TE DISTRIBUYE A LOS LABORATORIOS A TRAVES DE RECORRIDOS INTERACTIVOS. ADEMAS, SE UBICAN AREAS DE APOYO COMO SUM, SALAS DE ENTRENAMIENTO Y SERVICIOS.

MEZANINE

SE CONECTA CON EL PRIMER PISO A TRAVES DE UNA ESCALERA HELICOIDAL. SE UBICAN LABORATORIOS, SALAS DE REUNIONES, ASI COMO AREAS DE DESCANSO.

## LABORATORIO IATD



# Al final del día…..

**"*Investigación* es la tranformación de dinero en conocimiento."**

**"*Innovación* es la tranformación de conocimiento en dinero. "**



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