

## ■ AGENDA

09.00 – 9.30 Welcome coffe

09.30 – 10.00 Introduzione Darton

10.00 - 11.30 Presentazione muRata

11.30 – 11.50 Presentazione 3M

11.50 – 12.10 Presentazione Soluzioni Internal Management

12.10 – 12.45 Presentazione 3M™ Novec™ Electronic Grade Coatings

12.45 – 14.00 Lunch time

14.00 – 15.30 Domane e approfondimenti

15.30 Fine Lavori



muRata  
INNOVATOR IN ELECTRONICS

Murata Electronics Europe BV  
Italy Branch presenta

**Insieme ogni  
impresa è possibile**

17 Ottobre 2018: Starhotels Villa Michelangelo, Vicenza

Programma:

09.00 – 09.30	Registrazione e Welcome Coffee
09.30 – 10.00	Introduzione alla giornata
10.00 – 12.45	Presentazione prodotti
12.45 – 14.00	Business Lunch
14.00 – 15.30	Open discussion e fine lavori

Per prenotarsi inviare il modulo via e-mail a:  
info@darton.it indicando:

Nome \_\_\_\_\_  
Cognome \_\_\_\_\_  
Azienda \_\_\_\_\_  
Qualifica \_\_\_\_\_  
Via \_\_\_\_\_  
Città \_\_\_\_\_  
E-mail \_\_\_\_\_

Technical day - Darton

Power products  
Timing devices  
Sensors



Coating  
Thermal management



# 3M Corporate Overview

Villa Michelangelo, Vicenza

October 17<sup>th</sup>, 2018



# A proud history since 1902



# A global business



## **Our Vision**

**3M Technology Advancing Every Company**

**3M Products Enhancing Every Home**

**3M Innovation Improving Every Life**

# Our principles are the foundation of 3M's performance



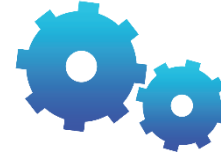
## Code of Conduct

Ethical business practices



## Sustainability

Reducing our own environmental impact  
Helping our customers to address their environmental challenges



## Innovation

More Than A Century of Innovation



## Technology

Ability to share and combine elements of 3M's broad technology portfolio to produce unique, differentiated products, translating to premium margins.



## Ethical business practices

- Recognised by Ethisphere as one of the World's Most Ethical Companies®
- A published Code of Conduct
- All employees globally make an annual commitment to ethical practice
- Mandatory compliance training

# 3M's Code of Conduct

## Be Good

Obey the law and 3M's Code of Conduct.

## Be Honest

Act with uncompromising honesty and integrity.

## Be Fair

Play by the rules, whether working with government, customers, or suppliers.

## Be Loyal

Protect 3M's interests, assets, and information.

## Be Accurate

Keep complete and accurate business records.

## Be Respectful

Respect one another and our social and physical environment around the world.

# Committed to protecting our planet as we grow our business



## Pollution Prevention Pays

## 2025 Goals

**42 years**  
*Started in 1975*

**25 percent**  
*Increase renewable energy  
to 25% of total electricity use*

**10,000**  
*3P Projects*

**10 percent**  
*Reduce global water use by an  
additional 10% indexed to sales*

**2.1 million**  
*Tons of pollutants  
prevented*

**50 percent**  
*Ensure GHG emissions at least  
50% below 2002 baseline*

**\$2 billion**  
*Saved (USD)*

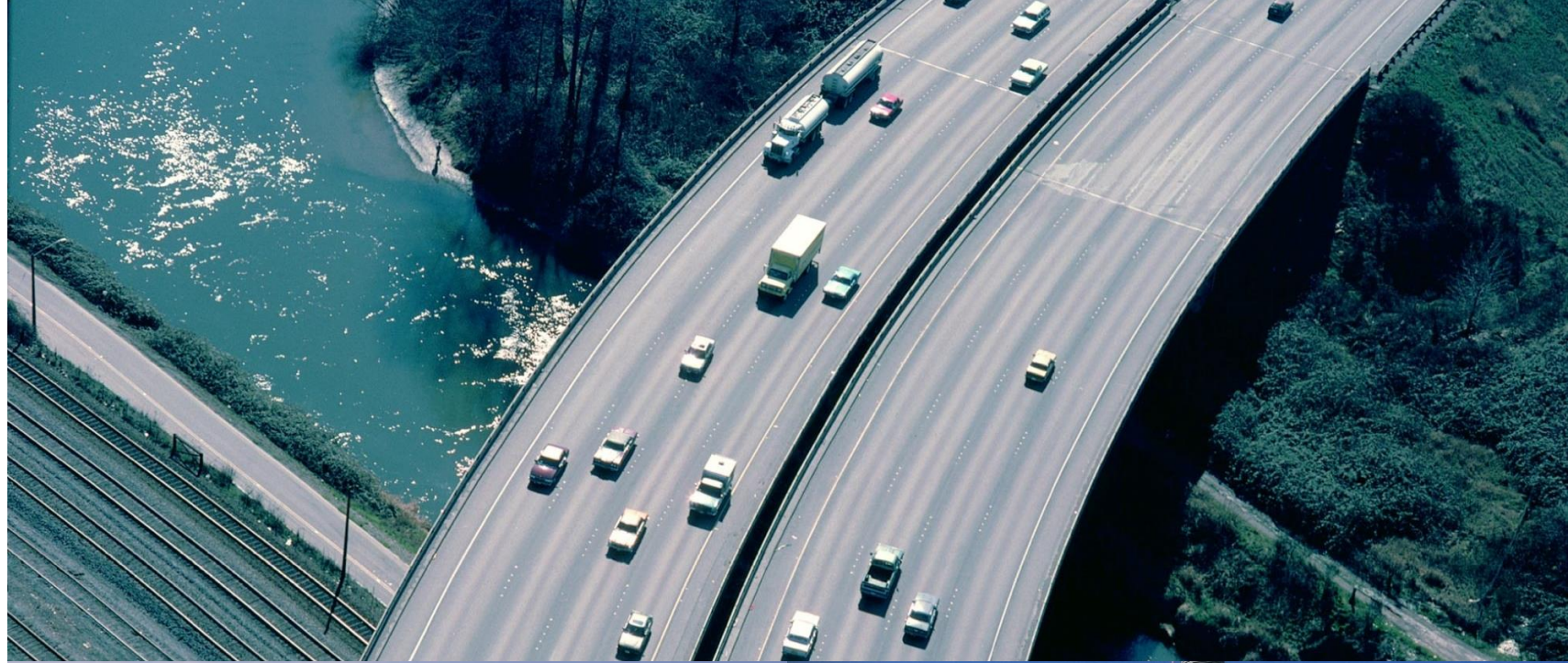
**250 million tons**  
*Help customers reduce GHG's  
by 250M tons with 3M products*





# Helping our customers to manage their impact on the environment

- Glass Bubble technology helps to make vehicles lighter and more fuel efficient
- Solar window films reduce heat transmission through glass, reducing the need for air conditioning and heating
- Inert engineered fluids replace polluting alternatives to cool data centres and extinguish fires





“Management that is destructively critical when mistakes are made kills initiative.

And it’s essential that we have many people with initiative if we are to continue to grow.”

**William L. McKnight**

CEO from 1949 to 1966



# Creative freedom

We understand that ideas need the freedom to grow, which is why we have a culture that works hard to cultivate great thinking. It is found in every corner of our business, from the permission to challenge to encouraging people to explore.








# 105,000 Patents

(1400 in Italy)





# More Than A Century of Innovation



**1921**


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






**1925**

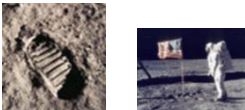
Scotch™ masking tape introduced






**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™ vinyl electrical tape introduced






**1947**


Scotch™ magnetic audiotape introduced






**1948**


3M debuted its first surgical drape






**1952**

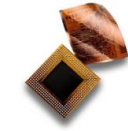
Scotch-Brite™ Non-Woven Web with synthetic fibers, resin and abrasive grains






**1954**

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




**1960**

Scotch™ Magic transparent tape introduced



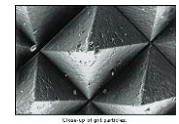
**1967**

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




**1979**

Thinsulate™ thermal insulation introduced




**1980**

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




**1980**

3M VHB tape bond, seal and attach metal, plastic and glass assemblies, replacing traditional mechanical fasteners and such as screws, rivets and welds.




**1985**

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




**1991**

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




**1995**

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



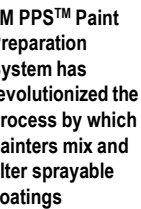
**1996**

3M introduced the first flexible circuits for electronic products and HFEs (hydrofluoroethers), replacing ozone depleting chlorofluorocarbons




**2000**

3M PPS™ Paint Preparation System has revolutionized the process by which painters mix and filter sprayable coatings



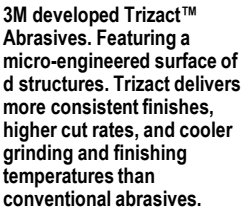
**2000**

3M display films help optimize the performance of displays brightness and color, simplify the design, increase power efficiency, reduce thickness and weight for mobile devices




**2001**

3M developed Trizact™ Abrasives. Featuring a micro-engineered surface of d structures. Trizact delivers more consistent finishes, higher cut rates, and cooler grinding and finishing temperatures than conventional abrasives.



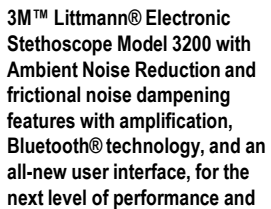
**2005**

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




**2009**

3M™ Littmann® Electronic Stethoscope Model 3200 with Ambient Noise Reduction and frictional noise dampening features with amplification, Bluetooth® technology, and an all-new user interface, for the next level of performance and ease of use.




**2010**

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



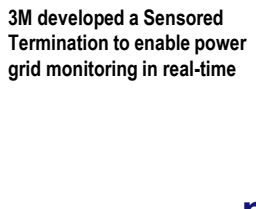
**2012**

3M introduced the True Definition Scanner for Digital Dentistry




**2013**

3M developed a Sensored Termination to enable power grid monitoring in real-time




**2016**

3M opened a state-of-the-art, \$150-million research and development laboratory on its Minnesota campus in St. Paul



...more to come...



# 3M at a glance



More than 55,000 products



One third of our sales come from products developed within the past five years



90,000 employees worldwide



Operations in 70 countries and sales into 200



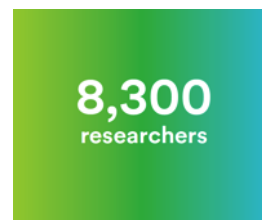
You are likely to come across 3M Science more than 100 times every day



Approximately six per cent of our revenue is reinvested into research and development around the world



Over the past five years we have invested \$8.5 billion in research and development



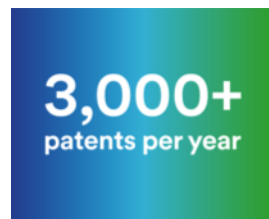
8,300 researchers worldwide



85 research and development facilities spanning 36 countries



54 Customer Innovation Centres around the world

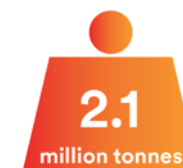


We have 105,000+ registered patents

Our scientists amass patents at an average of more than 3,000 per year



200 manufacturing facilities across 38 countries



More than 2.1 million tonnes of pollutants eliminated since 1975



You are rarely more than three metres away from 3M Science



# Improving life in a multitude of ways



Engineered fluid that can put out fires without damaging electronic equipment



Filters that make water cleaner and safer to drink



Microscopic glass bubbles that make aeroplanes and cars lighter and more fuel efficient



Protective coatings that stop spillages from ruining furniture



Medical tape that removes easily without damaging delicate skin



Lightweight power cables that carry twice the power of standard electricity cables



Brightness enhancing film that reduces power consumption in mobile phones and extends the life of batteries



Auto darkening filters that protect welders' eyesight



Adhesive strips that make it possible to hang pictures without damaging walls



Insulating material that makes clothes warm but still lightweight



Connectors that help to deliver broadband speed and stability



Electronic stethoscopes that enable a doctor to assess a patient's heartbeat remotely

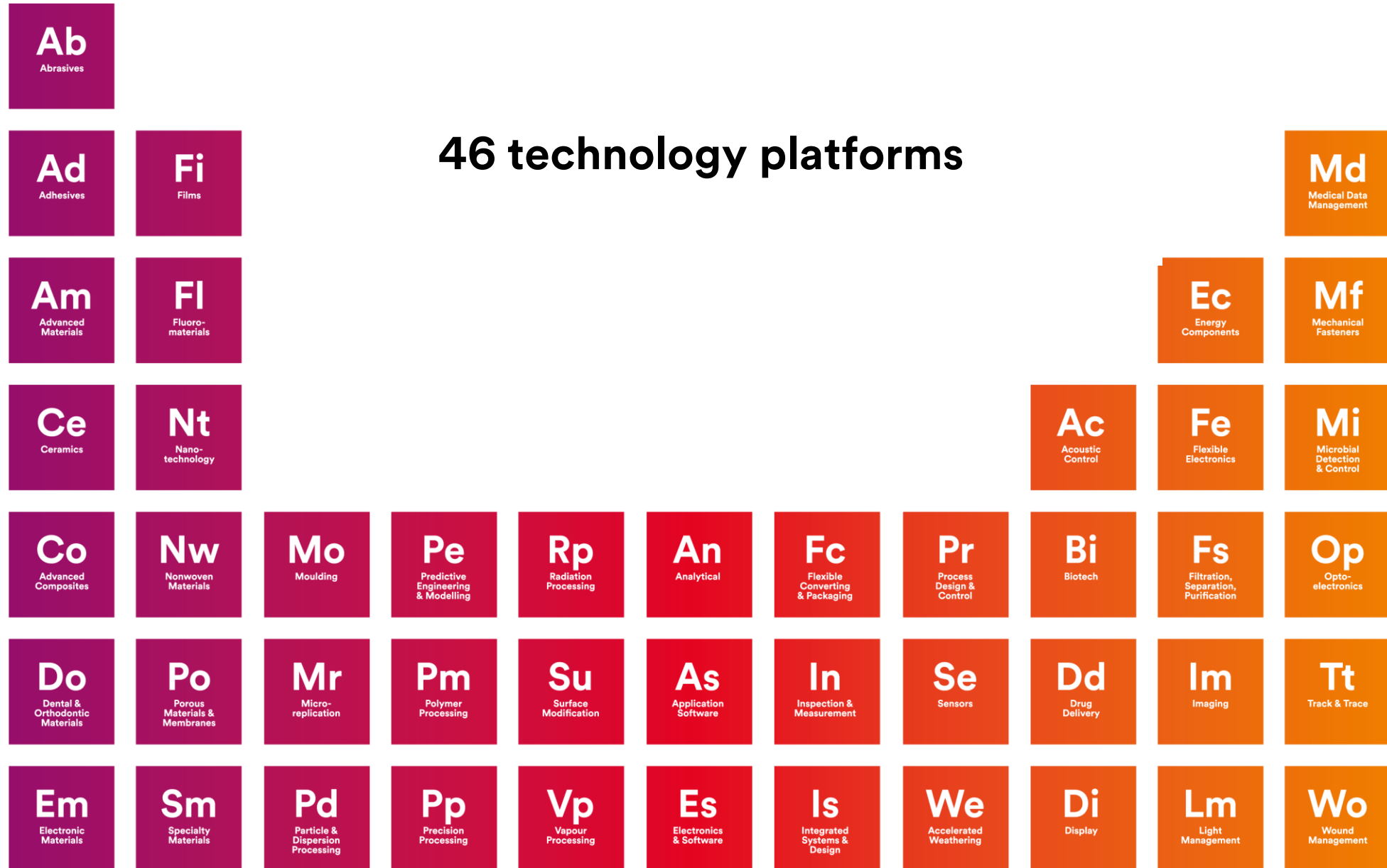


Reflective sheeting that makes road signs brighter and keeps drivers safe



Acoustic insulation in your car that gives you a quieter driving experience

# 46 technology platforms



# Value through Design

Design across high priority company initiatives

Identification of value

Development of value

Delivery of value

## 3M Design

Ensuring a well-designed brand experience across touchpoints to add value for 3M and their customers.

## Customer Experience

Behavioral, Physical, Digital

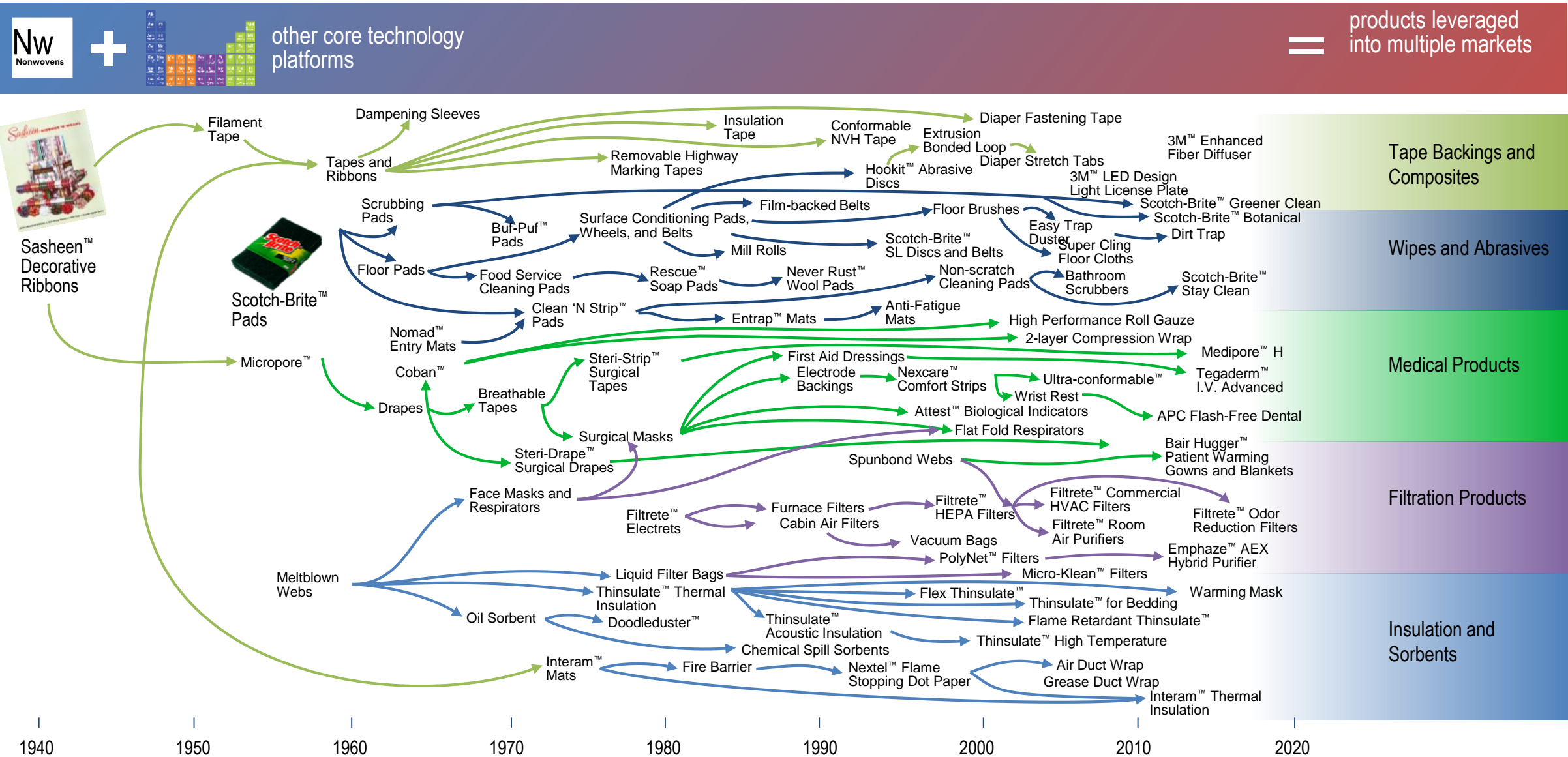
Innovation

Brand

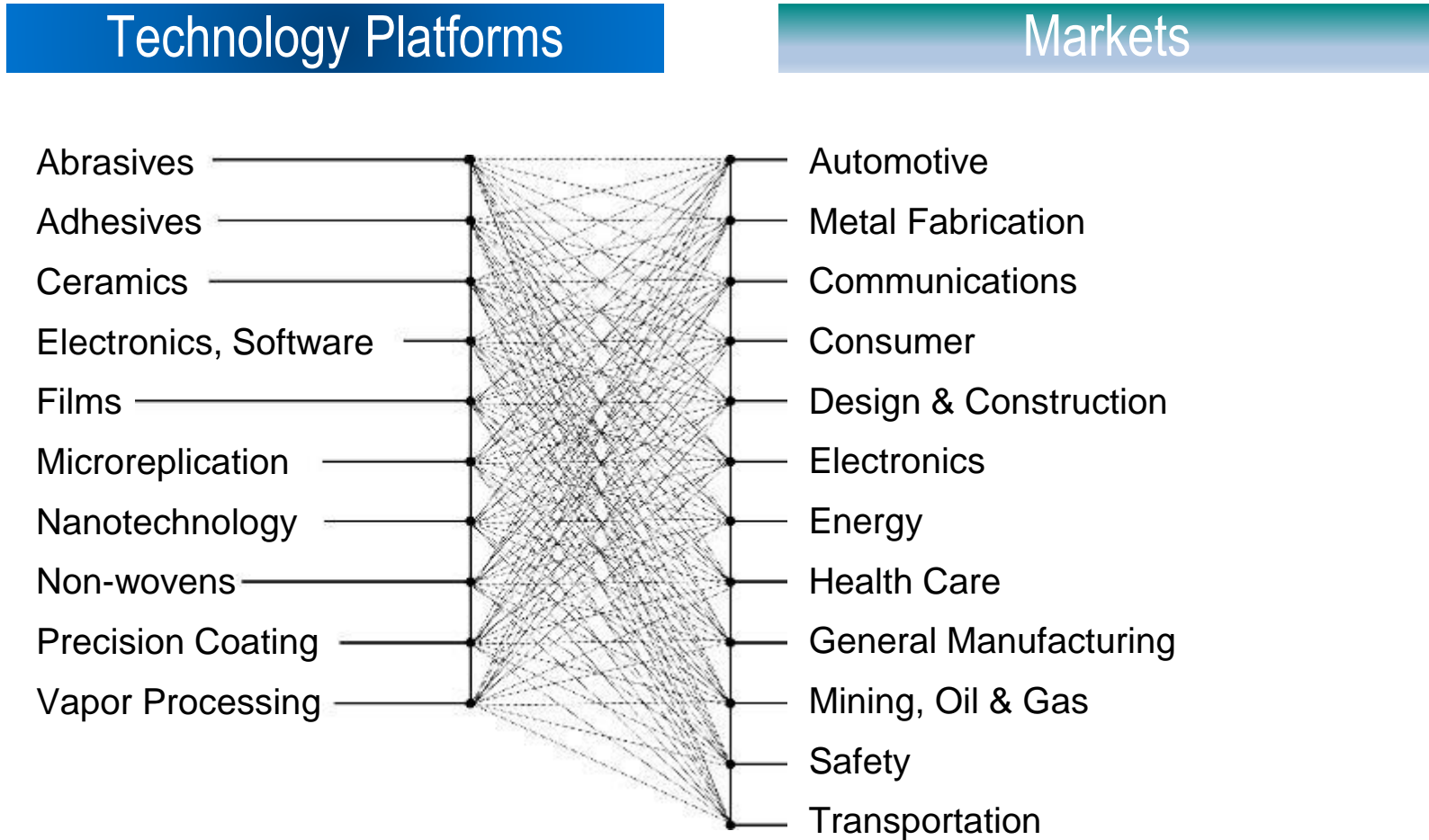




# Nonwoven Technology Platform Migration



## ... from Technology Platforms to markets



# Our markets and industries



Transportation



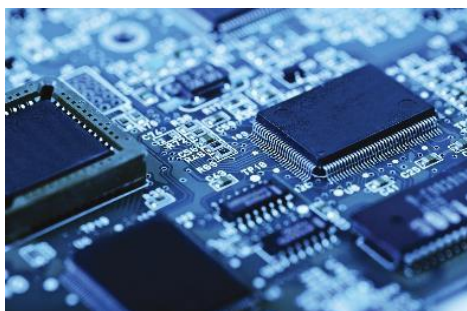
Safety



Consumer



Mining, oil and gas



Electronics



Manufacturing



Automotive



Commercial solutions



Energy



Healthcare



Communications



Design and construction



# 3M Italy

Carpiano



Malaspina Park-Pioltello



Rome – Piazza Ss. Apostoli



Marcallo



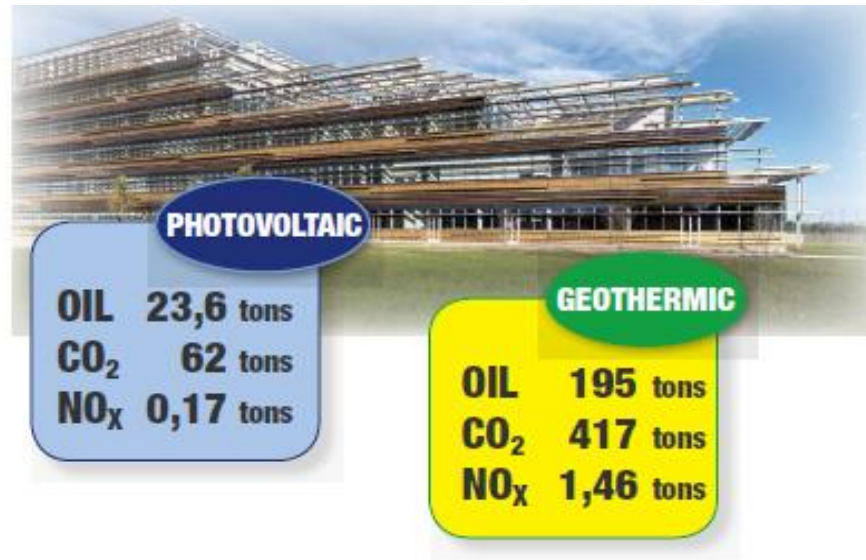
Grassobbio



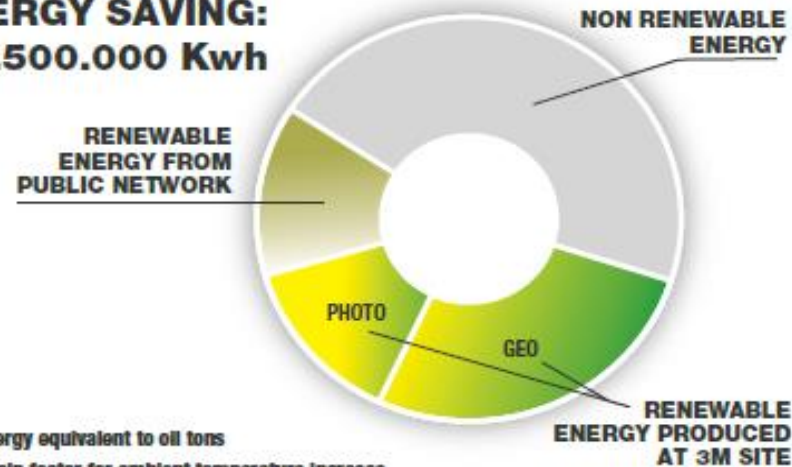
# 3M HQ Malaspina



# Yearly Energy and Emissions Saving



**ENERGY SAVING:  
1.500.000 Kwh**



OIL: energy equivalent to oil tons  
CO<sub>2</sub>: main factor for ambient temperature increase  
NO<sub>x</sub>: nitrogen's oxides main cause for acid rains



# 3M Customer Innovation Center, Malaspina





# 3M Technical Centers

Tecnologie Abrasive - Carpiano



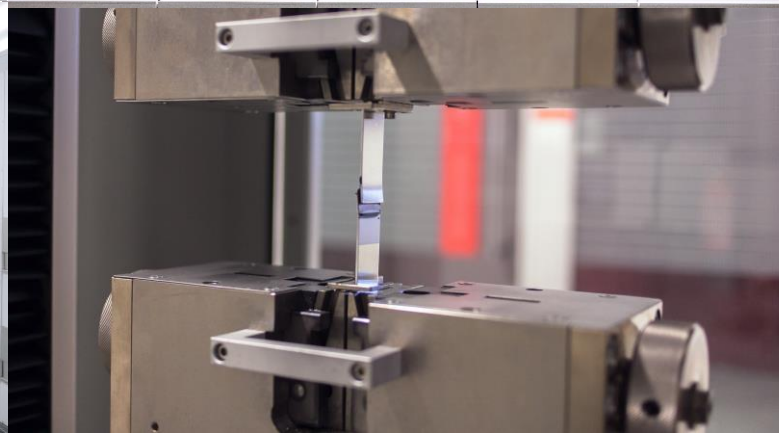
Sicurezza



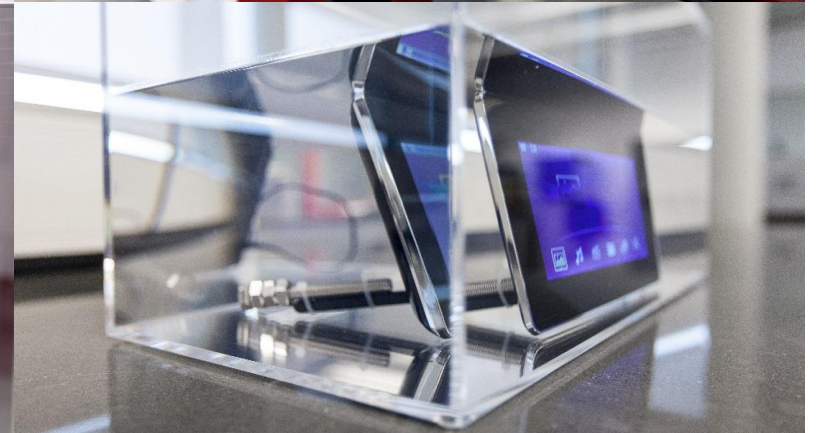
Decorazione



Tecnologie Autocarrozzeria – Carpiano



Tecnologie Adesive

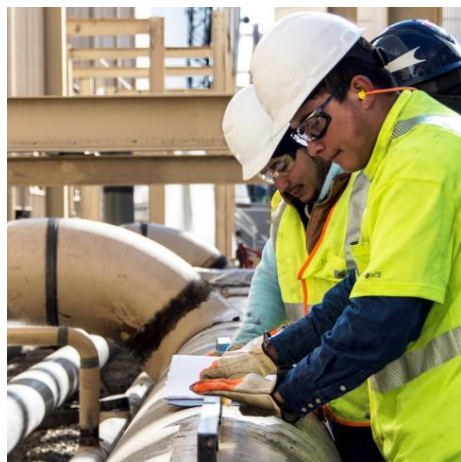


Smart Grid

# Introduction to our business groups



**Health Care**



**Safety & Graphics**



**Consumer**



**Industrial**



**Electronics & Energy**



# Health Care

From preventing  
infections to making  
smiles brighter





# Safety and Graphics

From protecting people and information to enhancing brands





# Consumer

Making life easier and more productive at home and at work





# Industrial

From purification to  
aerospace: changing  
how industry works





# Electronics and Energy

Enabling tomorrow's lifestyle today by contributing to power, communications and electronics



# Electronics and Energy

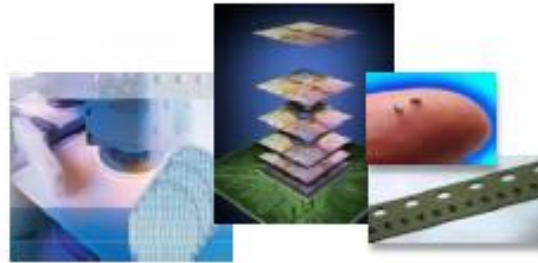


Enabling tomorrow's lifestyle today by contributing to power, communications and electronics

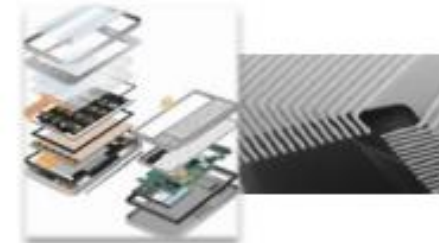
# Electronics Materials Solutions

## Semiconductors Solutions

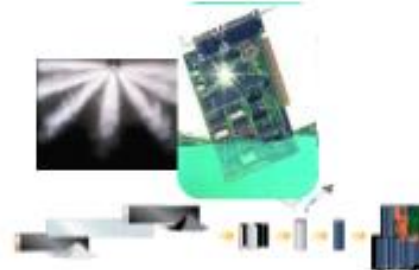
*Intersect key customer roadmaps with 3M technologies, new products, systems and solutions to enable their semiconductor processes, electronic signal management and consumer electronics devices*



Materials for Semiconductor & LED Processing, Packaging & Transport



Tapes, Adhesives & Flex for Device Assembly



Novec™ Fluids for sustainable fire protection, cleaning, cooling, coating, insulation ...& battery materials



Connectors & Cables for high speed data & datacenter





**Advancing a Connected World**