

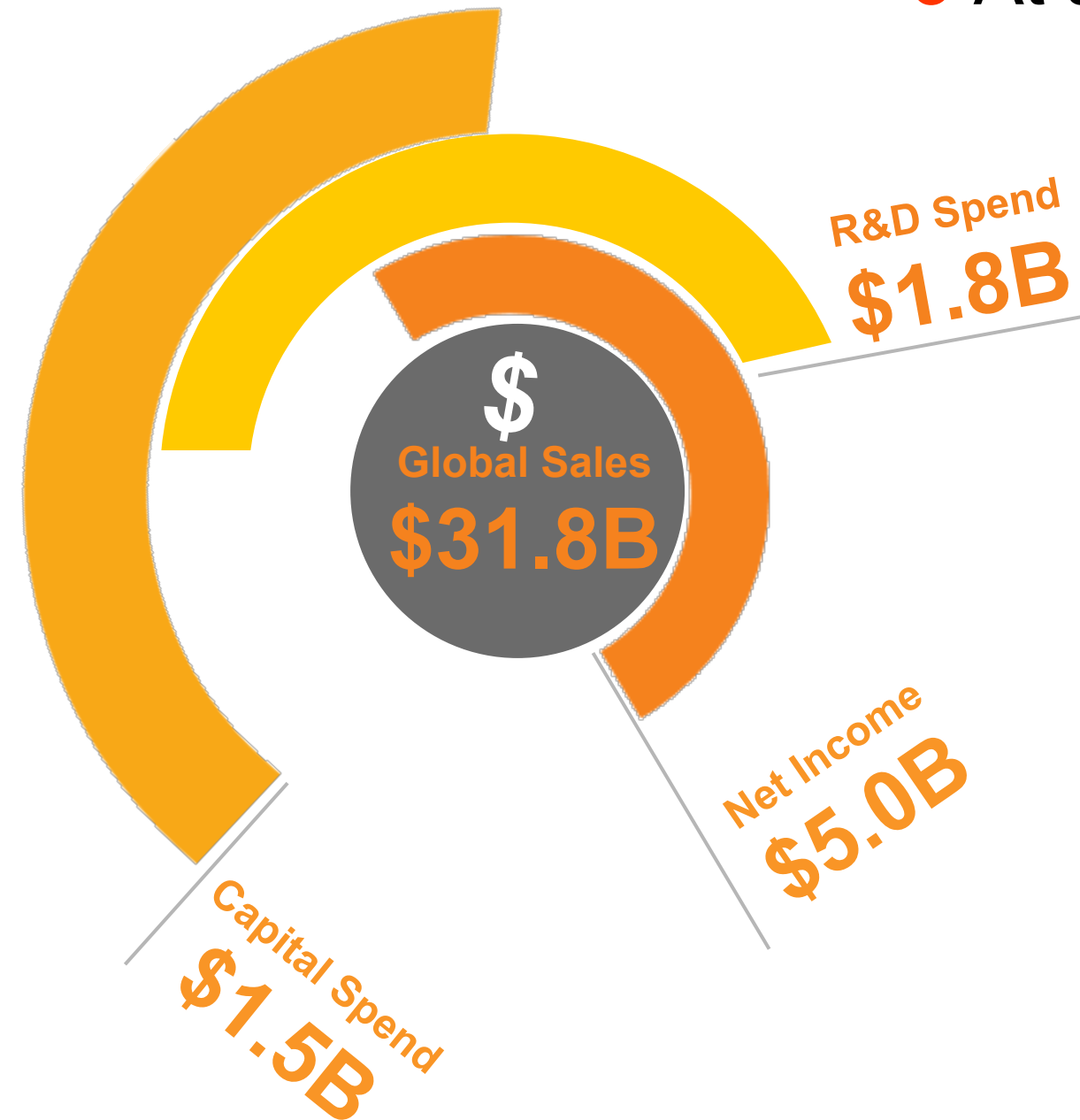
Innovation in Healthcare

Bill Cruise
Vice President, West Europe,
3M Health Care Business Group

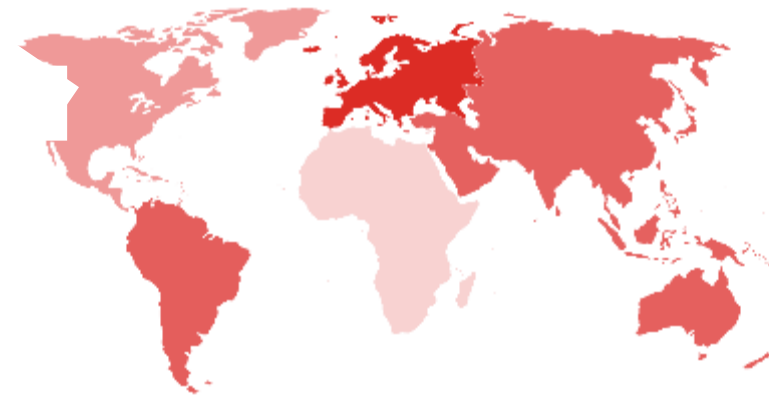
HealthTech UK
December 6, 2016



3 At a Glance

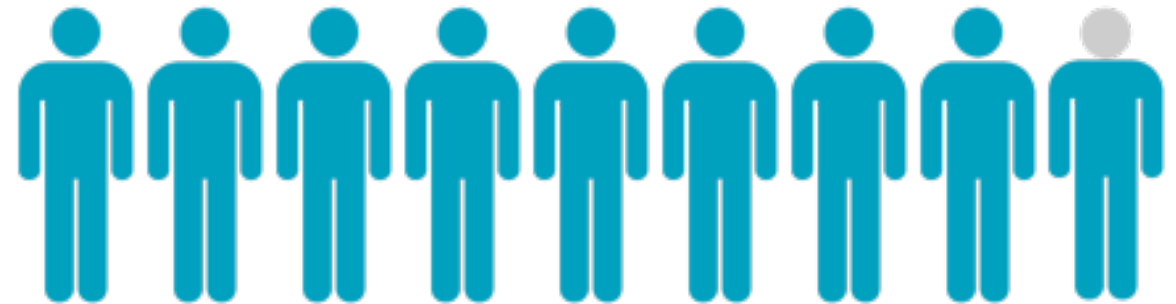


We operate in over **70** Countries



50% have R&D labs
8,500 scientists
50% in international
200+ manufacturing plants in **40** countries

89,800 Employees.



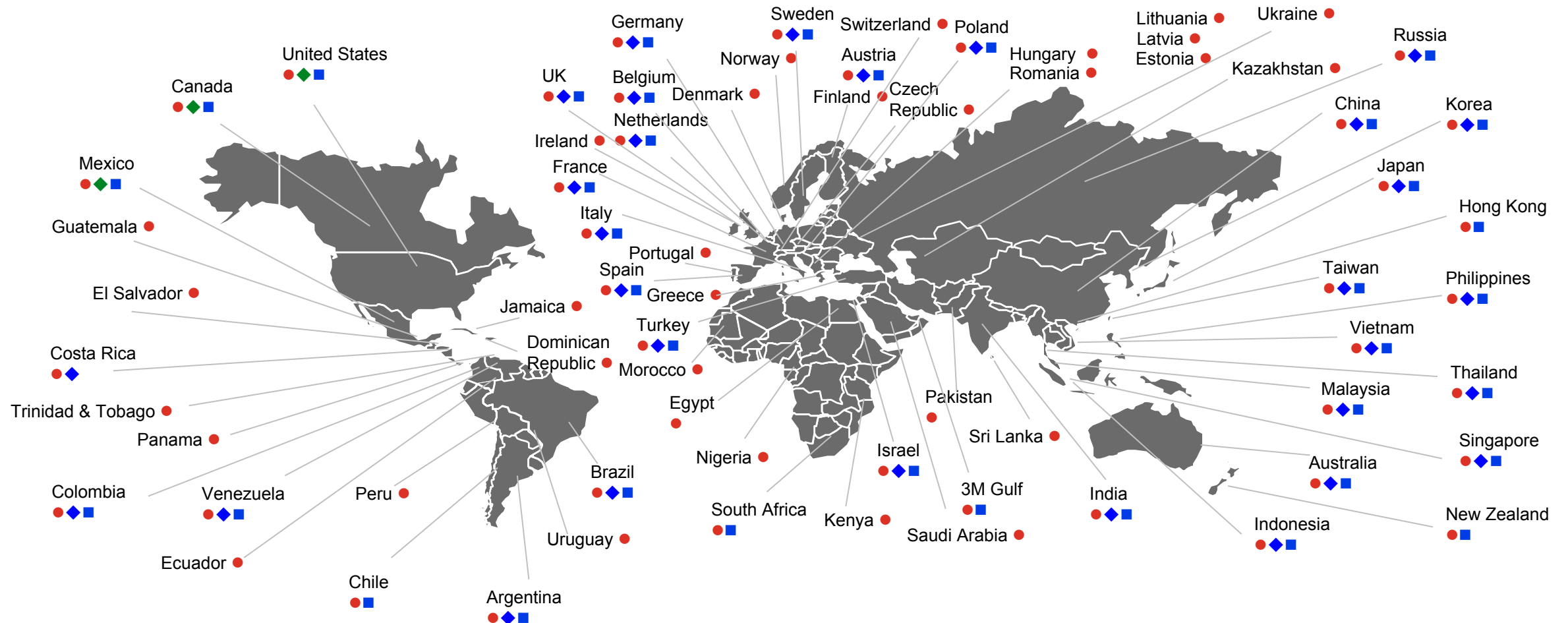
63% of sales & **60%** employees in international.

3M's Global Reach

Just around the corner. All around the world.

71 countries, 85 laboratories, 54 Customer Technical Centers (CTCs)

- Sales & Marketing
- ◆ Manufacturing/Converting
- Technical Capabilities



Health Care Business Group

2015 Sales \$5.4B



Infection Prevention: \$1.5B



**Critical & Chronic Care Solutions:
\$1.2B**



Health Information Systems: \$0.8B



Oral Care Solutions: \$1.2B



Drug Delivery Systems: \$0.4B



Food Safety: \$0.3B



An “Uncommon” Culture



Ce
Ceramics



CE
Ceramics



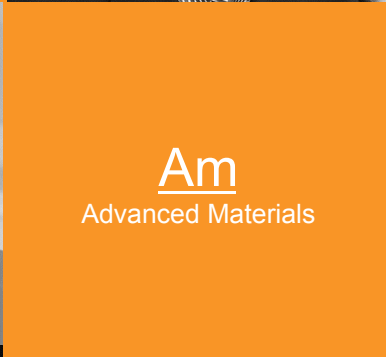
Ad
Adhesives



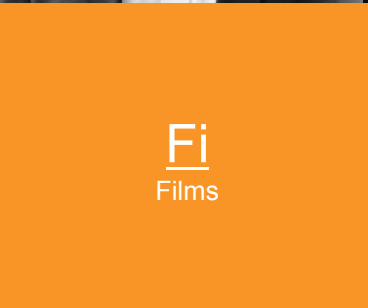
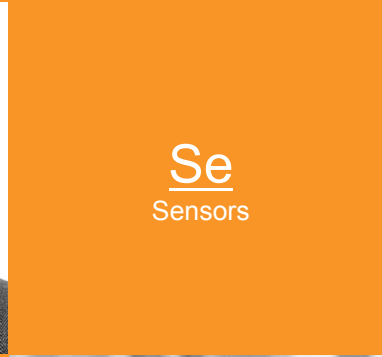
Mr
Micro-replication



Am
Advanced Materials



Se
Sensors



Fi
Films



Es
Electronics Software



The Elements of Innovation at 3M

1. Vision
2. Corporate Culture
3. Technology Platforms
4. Global Network
5. Reward & Recognition
6. Metrics & Results
7. Customer Intimacy



Our Vision

3M Technology Advancing Every Company

3M Products Enhancing Every Home

3M Innovation Improving Every Life

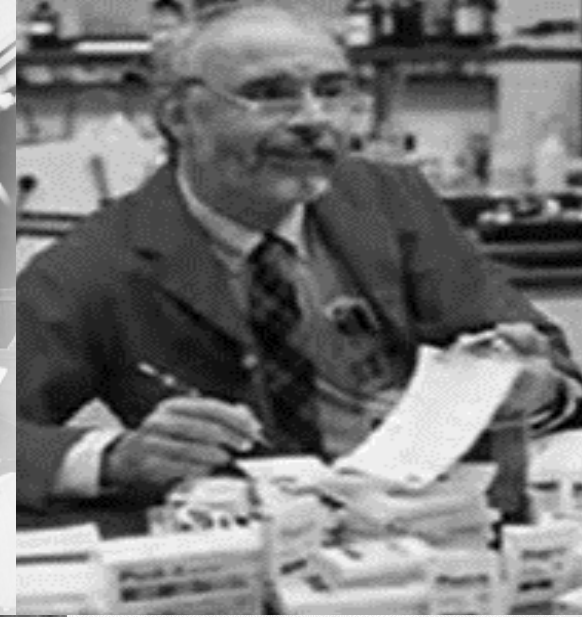


2. Corporate Culture

- 113 Year Innovation Legacy
- Company Myths & Legends
- 15% Free Time
- McKnight Principles
 - Hire good people
 - Let them do their jobs
 - Expect & tolerate mistakes

Innovation

...in the DNA



Sources of innovation: employees

Climate of innovation created by:

- encouraging curiosity
- nurturing problem solving skills
- providing time for creativity (15% culture)

Encouragement to take risks by:

- creating an atmosphere of trust and respect
- accepting mistakes will be made
 - tolerance

Collaboration with each other and externally:

- Technical Forum
- X-functional Engagement
- Customer Inspired Innovation

"The fastest way to succeed is to double your failure rate."

Thomas H. Davenport - Founder & Managing Director, TDWI

"I have a new idea that could be useful to 3M, but it's not related to the business I'm working in right now. Am I allowed to work on it?"

15%
culture

- A **culture/philosophy**, not a time sheet measurement
- **Explore** new technologies / markets
- **Leverage** technical specialists
- **No need** for management **approval**
- Teaches **leadership** and new skills



Post-it® Notes



Multilayer
Optical Film



Structured
Abrasive Belts



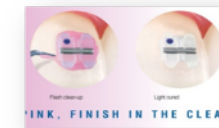
Scotchint™
Auto Window
Film



Display
Protection
Films



Transdermal
Drug Delivery
Adhesive



APC™ PLUS
Color Change
Adhesive



High
Performance
RFID Reader



3. Technology Platforms

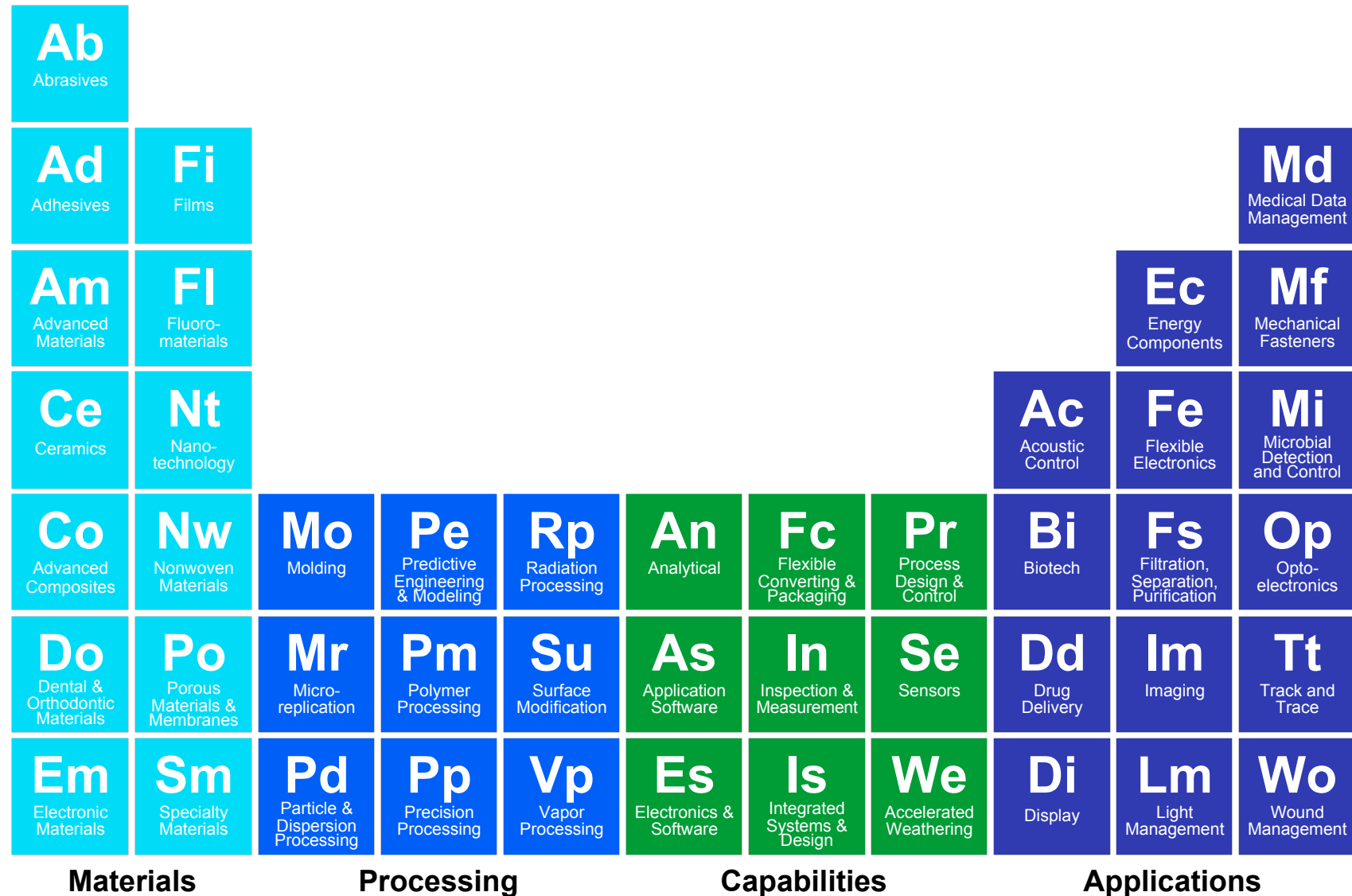
- 46 Technology Platforms
- Owned by the Company, not Individual Business Units
- Hybridized Platforms
- Corporate Research Laboratories
 - Materials Research
 - Process Research
 - Software, Electro-Mechanical Systems

Innovation

*...the Foundation
Stone*



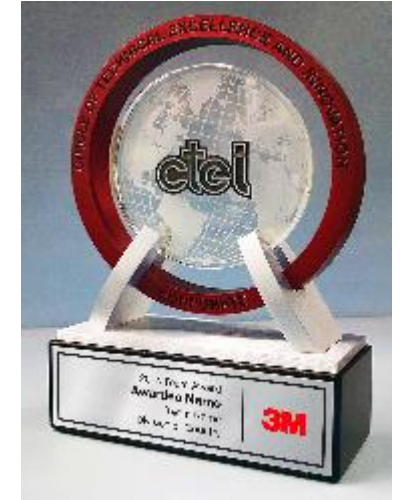
46 core technology platforms...



4. Reward & Recognition

- Innovation is an Expectation
- Dual Ladder Career Structure
- Incubator Funding (Genesis Grants)
- Award Programs
 - Golden Step Award / With Honors / Hall of Fame
 - Circle of Technical Excellence & Innovation
 - Carlton Society

THE
CARLTON
SOCIETY



Innovation

...through Individual Creativity



100,000
patents

5. Global Networking

- Diverse, International Community
- Global Reach through Localized Experts
- Boundaryless Behavior
- Network Events – Posters, v-TIE
 - R&D Laboratories in 35 countries
 - 8,500 scientists, 46% outside U.S.
 - 11,224 members in Tech Forum



Innovation

...a Team Sport

1951



Tech Forum – 60+ Years Young



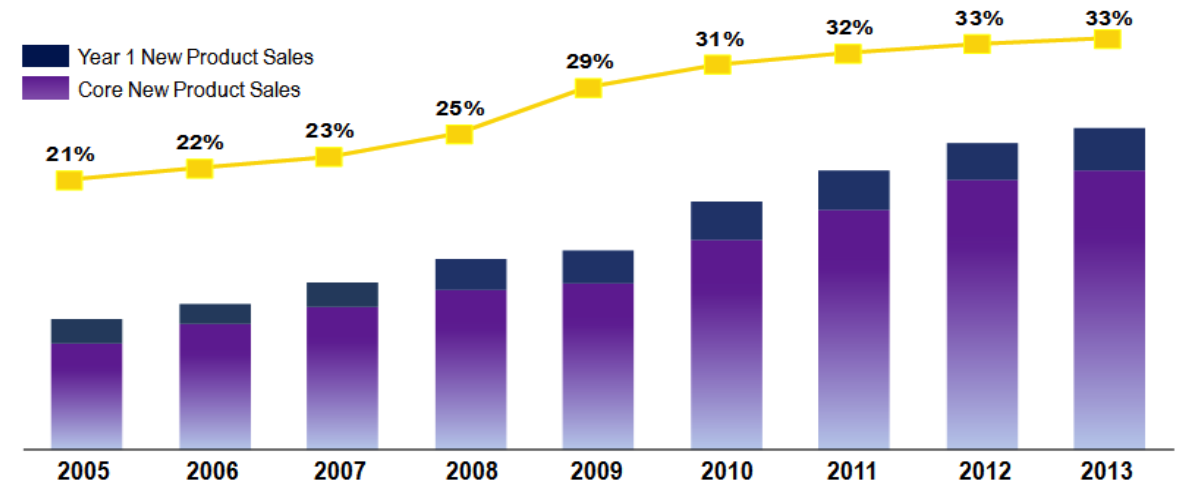
TECH FORUM

2011



6. Metrics & Results

- 625 US Patents in 2014, Total 3,342
- Preferred Supplier / Peer Recognition
- 25 New Products Every Week
- New Product Vitality Index
 - \$10.4 billion NPI sales in 2014
 - 33% of total sales in 2014
 - Target 40% to sales in 2019



Innovation

...a Driver of Sustainable Growth

7. Customer Intimacy

- Listen to the Voice of the Customer
- Understand Customer Needs
- Provide Practical & Ingenious Solutions
- 54 Customer Technical Centers worldwide
 - Doorway to 3M global technologies
 - Access to 3M global expertise
 - Local solutions to customer problems

Innovation

...Customer Inspired



3M's First Customer Inspired Innovation... 'Need based Innovation'



Paper + Rubber + Resin = **Masking Tape**

Ad
Adhesives

Fi
Films

Research is the transformation of money into knowledge

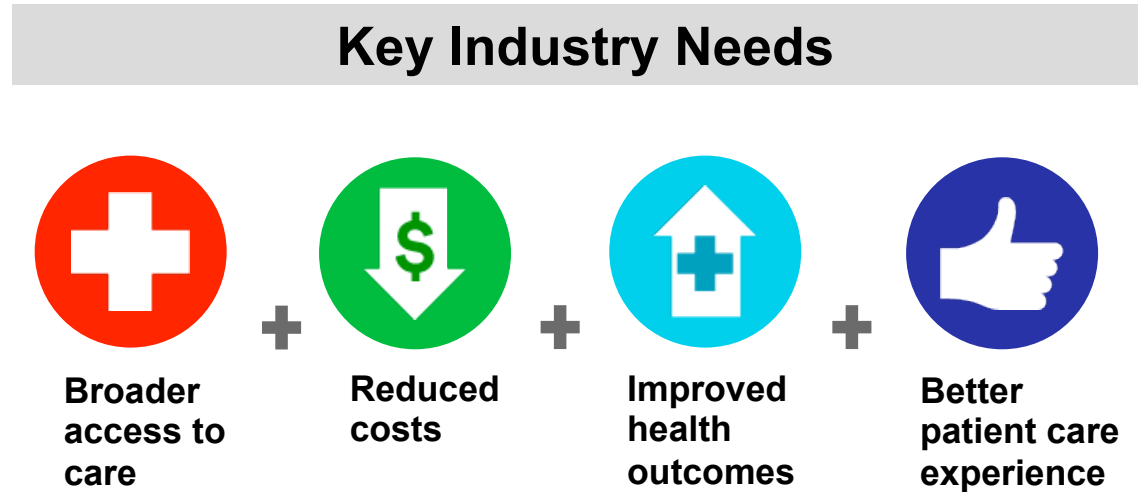


Innovation is the transformation of knowledge into money



Making “Uncommon Connections”

Health care industry trends and needs continue to evolve



Industry Success Enablers



Prevention



Care Pathways Innovation



Digitization



Health economics based decisions

Industry trends are accelerating the drive towards maximizing value for the patient

Care Pathways for our businesses in health care



Infection Prevention Business

- Surgical site protection
- Core body temperature regulation
- De-contamination reprocessing



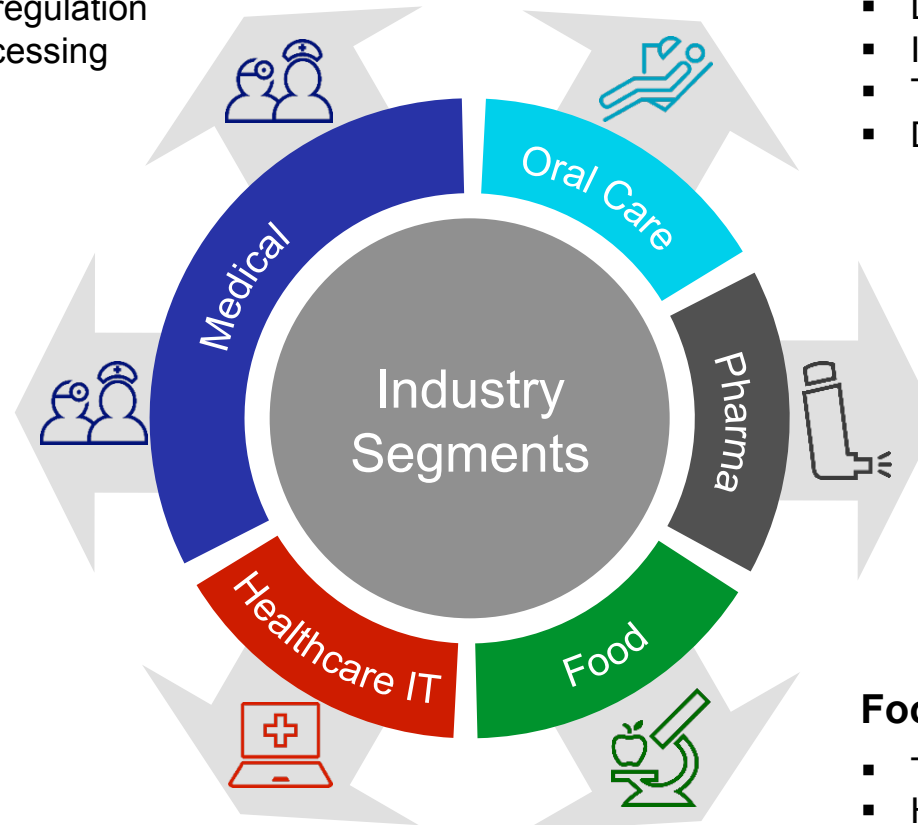
Critical & Chronic Care Solutions Business

- Vascular access
- Wound & skin care
- Securement



Health Information Systems Business

- Computer-assisted physician documentation
- Preventing high-cost events
- Automating compliance



Oral Care Solutions Business



- Diagnostics & prevention
- Direct restoration
- Indirect replacement
- Traditional orthodontics
- Digital orthodontics

Drug Delivery Systems Business



- Inhalation drug delivery
- Transdermal drug delivery

Food Safety Business



- Testing and detection
- Hygiene monitoring

Intelligent control inhaler for respiratory disease management

Market Needs

- Intuitive usability
- Patient feedback
- Consistent drug delivery
- Engagement in self-care
- Monitoring by caregiver/payer

3M Enablers

- Innovation track record in inhalation
- Pharmaceutical manufacturing expertise
- Drug agnostic platform

1956



1st press & breathe inhaler

1993



1st breath actuated inhaler

2016

Electronic inhaler
with patient app
and data transfer

3M Science.
Applied to Life.™



**Say hello to smarter
respiratory drug delivery**



Introduced in April 2016

Promotes adherence, connects patients with caregivers to reduce the cost of care

Sustainability is core to our solutions

- Key strategies focused on:
 - Innovating to advance the industry
 - Delivering excellence in operations
 - Enriching our community
- Established the first ever customer-focused Health Care Sustainability Leadership Summit in 2015
 - **Next summit September 15, 2016**



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