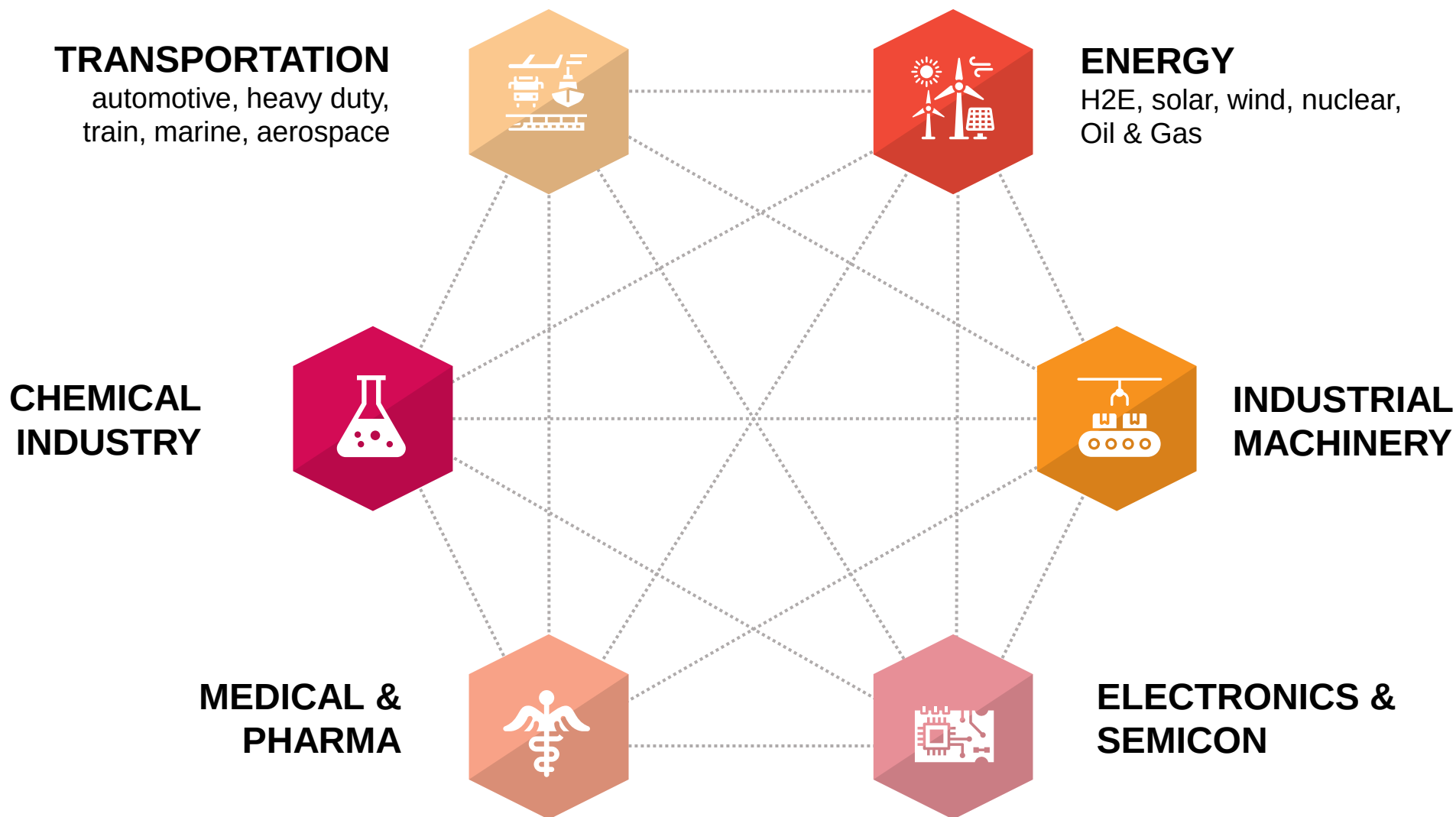


All sectors are connected, one sector cannot exist without the others



ELECTRICAL SYSTEMS, WIRES, CABLES, AND SEMICONDUCTORS

- Semiconductor chips
- Lambda/O2 sensor conduit & grommet
- Electric mirror lubrication
- DC motor bearing lubrication
- Oxygen/NOx Sensor
- Heated seat wire
- Diesel pump wire
- ABS transmission brake sensor wire
- High tension ignition cable
- Battery terminal wire
- Convoluted wire harness conduit
- Cable tie wraps
- Xenon/bi-xenon headlight wire
- Throttle body injection wire
- ABS sensor cables
- Printed Circuit Boards

PTFE, FEP, PFPE, PFA, FKM

ENGINE & POWERTRAIN

- Head cylinder & oil pan gasket
- Transmission & crankshaft seals
- Valve stem seals
- Bearing lubrication
- Flexible O-ring & piston skirt coating
- Front engine accessory drive Throttle body bearings & lubrication
- ETC lubrication
- Actuator assembly; valve belt tensioner
- Air intake manifold gaskets
- Turbocharger hoses
- EV binder for batteries and seals

PTFE, FKM, PFPE



CHASSIS

PTFE, PFA, PFPE, FKM, HFCs, HFO

- ABS interconnected hose
- Hydraulic break lines
- Impulse hose at wheel
- Brake pad clips, shim and wear indicator
- Insulating foams and sound dampening
- Shock struts/absorber piston seals
- Dry Lubricant bearing door hinges

PTFE, FKM, PFPE

TRANSMISSION & TRANSAXLES

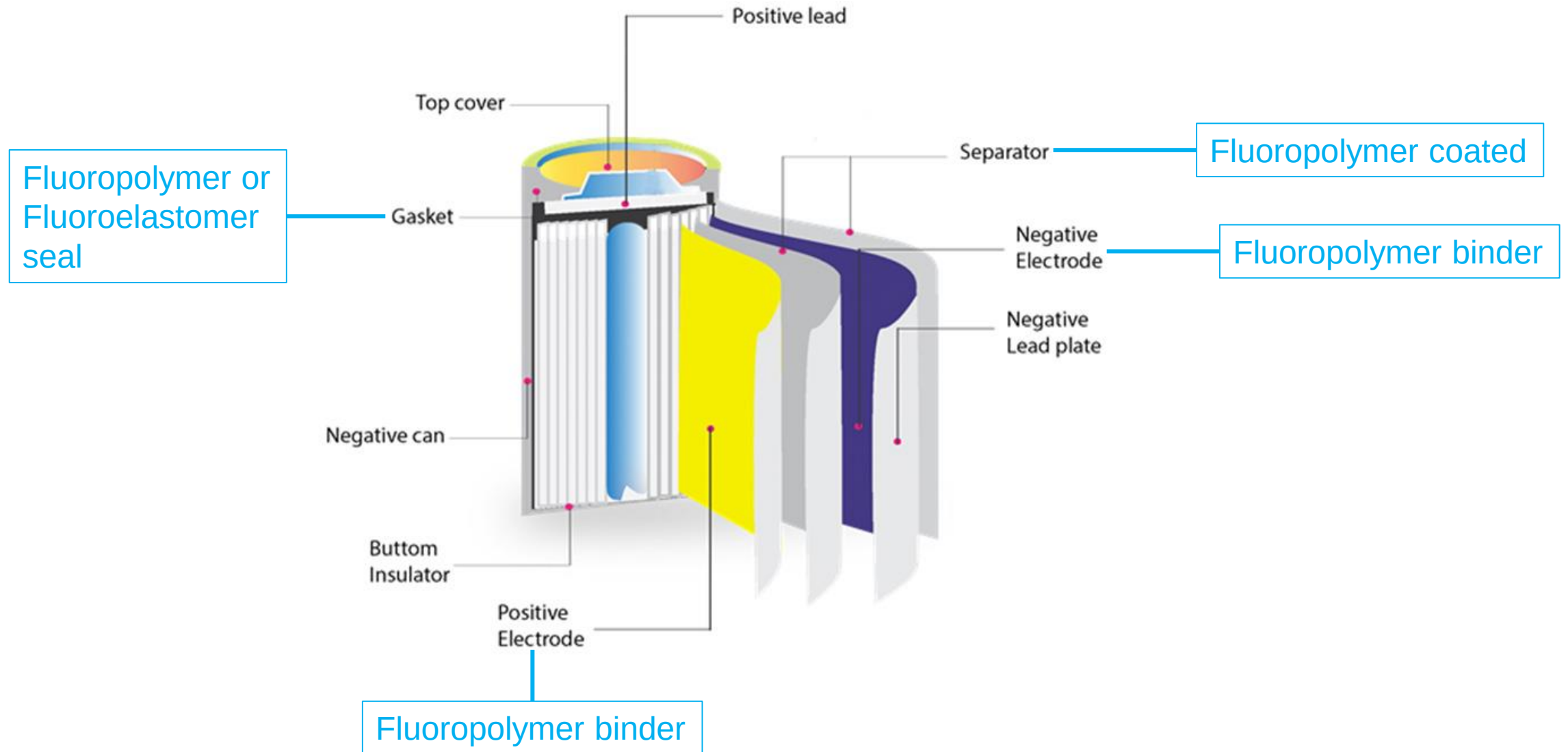
- Internal shift seal ring/clutch piston ring
- Clutch pilot and release bearings
- Clutch bearing lip seals
- Dual mass flywheel replacement
- Auto ORC de-coupler for alternators
- Driveshaft: CV joint lubrication

PTFE, FEP, ETFE, FKM

FUEL SYSTEMS

- Fuel line: feed return, vapor
- Fuel line quick connector seals
- Interconnect hoses
- Filler neck hose
- Fuel rail crossover
- FIORs
- Fuel sender seal
- Connector o-rings
- Diaphragm pressure regulator
- Anti-expulsion tank valve
- Pressure injection bushing
- EV battery cooling

Lithium battery cross section



AIRFRAME

PTFE, ETFE, FEP, FKM, HFCs, HFOs

- Exterior surface coatings
- Toilet area galleys
- Overhead lockers
- Satellite dishes
- Aircraft wings covers
- Heat shrinkable protective covers
- Air bearings
- Electronic device trays
- Control surfaces
- Integral skin foams
- Paint Replacement Film
- 3D printed and molded parts for repair
- Packaging
- Sleeve items that require light transmission
- Fasteners
- Fire prevention systems

PTFE, ETFE, FEP, FKM, HFCs, HFOs

FUEL SYSTEMS

- Fuel lines and hoses
- Hydraulic systems
- Coating for wire & cable
- Tapes, wires, and cables
- Containment bags, bladders, and tanks
- Tank fuel seals and insulations
- Tank liners
- Tubing liners
- Fluid transfer devices

ENGINE & SYSTEMS

PTFE, FKM, PFPE, PVDF, HFCs, HFOs

- O-rings, gaskets, seals
- Satellite propulsion systems
- Throttle box seals
- Arming components
- Engine and exhaust components
- Battery binders
- Battery separators
- Gears, and slides
- Oxygen systems (propulsion, SCBA)
- Degreasing components and landing gear
- Cabin comfort

PTFE, FEP, ETFE, FKM, HFCs, HFOs

ELECTRICAL/ELECTRONIC SYSTEMS

- Tapes, wires, and cables
- Printed circuit boards
- Coating for wire & cable
- Electrical connectors, insulators
- Flight control systems
- Sensors
- O-rings, gaskets, seals
- Air bearings
- Electric harness parts
- Gears, and slides

Applications in Hydrogen

Hydrogen Production

PFSA, FKM, PTFE

- Ionomer exchange membranes for water electrolysis
- Gaskets and seals to prevent leaks and environmental releases to reduce carbon dioxide emissions into the atmosphere ([Chemours Website - Hydrogen](#))

PFSA, FKM

Transportation

- Fuel cells convert hydrogen to electricity
- Redox flow batteries for energy storage

PTFE, FEP, ETFE, PFSA, FKM, PFPE

Green Energy Production & Storage

- Fuel cells for electricity production from stored hydrogen ([Chemours Website - Energy](#))
- Photovoltaic front sheets protection
- Photovoltaic back sheets insulation
- Junction boxes in photovoltaic vents
- Control centers for offshore wind parks
- Wind turbine paints and coatings
- Release film: support production of composite turbine blades esp. for offshore turbine PTFE bearings
- Flow batteries for energy storage ([Chemours Website - Energy](#))
- A component e.g. binders for energy storage



Applications in semiconductor manufacturing

PFA, PTFE, FKM, FFKM, AF, PFPE, HFCs, HFOs

SEMICON TOOLS

- Valves, Fittings, Tubings
- Pumps, Filters
- Lubricants
- Valve seats
- Valve sealing
- Vacuum pump oil
- Etchant gas
- Pellicle mask
- Flow measurement
- Thermal management
- Heat transfer fluids

PFA, PTFE, FEP, PVDF, FKM, FFKM, HFOs

CHEMICAL DISTRIBUTION SYSTEM

- Valves
- Fittings
- Heat exchanger/insulation
- Flow measurement
- Tubing chemicals primary
- Tubing chemicals secondary containment
- Water system tubing
- Pumps
- Filters
- Seals
- Electronic cleaners



FEP, ETFE, HFCs, HFOs

INFRASTRUCTURE

- Duct coating
- Air conditioning
- Humidity control
- Fire protection

PFA, FKM

WAFER TRANSPORT

- Wafer carrier
- FOUP sealing

PTFE, PFA

CHEMICAL PACKAGING

- Container lining
- Drums
- Tanks lining

Applications in Data Centers

Electrical/Electronic Systems

- Tapes, wires and cables, especially where reliability in high volume data transmission is key, incl. Mini and micro coax cables
- Coating for wire & cable
- Electrical connectors, insulators
- Sensors
- Displays, touch screens
- Anti-drip, easy clean, non-adhesive additives for computers and other electronic devices
- Printed Circuit Boards

Construction

- Building Foam Insulation - SPF
- Unitary HVAC Equipment
Foam Insulation
- Local Area Network Cables

PFA, PTFE, FEP

HFCs, HFOs

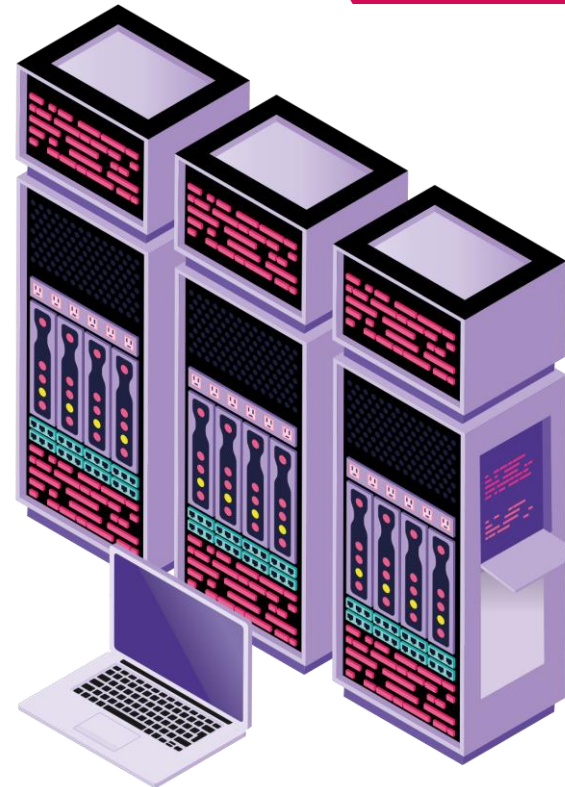
Maintenance

- Fiber optic end-face cleaners
- Defluxing and degreasing of servers or server components
- Fire protection of data centers

HFCs, HFOs

Air Conditioning & Cooling

- Temperature and humidity control
- Air-cooled cabinets and direct expansion systems
- Two-phase and single-phase immersion cooling
- Waste heat recovery



Applications in Medical

Medical devices and applications

- Surgically implantable medical devices such as vascular grafts
- Surgical mesh
- Heart patches
- Catheters
- Carrier fluid for the deposition of lubricants on medical devices and catheters
- Dielectric insulators in defibrillators, pacemakers
- Diaphragm pumps
- Membranes for filtering and venting purposes
- Sterile container filters, needle retrieval systems, Tracheostomy, catheter guide wire for laparoscopy, valves, fittings, pumps, tubing and medicine inhaler canister coatings
- Labware
- Medicine Packaging
- Items that need sterilization
- Metered Dose Inhalers

PTFE, FEP, PFA, ETFE, HFCs

Infrastructure

HFOs, HFCs

- Transport and stationary refrigeration systems
- AC, heat pump, & humidity control for:
 - Patient rooms
 - Special areas (OR, ICU, etc.)
- Thermal management for labs and equipment
- Refrigeration and insulation for Food Services and distribution of vaccines and pharmaceuticals
- Cleaning of supplemental oxygen systems for breathing air
- Foam insulation for cryogenic tanks
- Thermodynamic sanitary hot water tanks
- Fire protection



Medical imaging & analysis

- Semiconductor chips
- O-rings, gaskets, seals
- Coating for wire & cable
- Tapes, wires, and cables
- Bearings and assemblies
- Degreasing

PTFE, FEP, PFA, FKM, PFPE, HFOs

Fluoropolymer Manufacturing Process

