Part One

The creation of a new ITT
About This Book

The book you are reading commemorates the 2011 transformation of ITT Corporation. This is another milestone in our long and storied history. We are evolving from a broad multi-industry company that included water and defense businesses to a more focused and nimble organization, while holding fast to our forward-looking vision and focus on making critical components and highly customized solutions for our many global customers.

About the Title

The title of this book – Part One – reflects our important role as a valued provider of vital components that are part of everyday and advanced applications, from cars and TVs to power plants and satellites. It also tells part one of our company’s history – how we got here – and shows how we are positioned for even greater achievements in the future.
It means...

go, flow, handle, stop, save, move, recline, reduce, connect, control, process, push, pull, open, close, and last a very long time.

And that’s why we are Engineered for life.
Adaptability

The history and future of ITT Corporation isn’t linear. It’s not about straight lines and traveling directly from point A to point B.

Instead this is a company that is awake to possibilities, willing to make bold moves and find – and follow – the connections that will take ITT and its customers in new and exciting directions.

2011 marks the beginning – part one – of the next new adventure for ITT Corporation. With the spin-offs of our water and defense businesses, ITT is now focused on capturing the imagination of customers in search of critical components that solve their hardest technical challenges.

Very often, our components are invisible – part of much larger structures, machines, vehicles and manufacturing processes – but our contributions are invaluable. We make highly engineered parts that make the world run – and help people fly, drive, communicate, explore and stay healthy. Our people are passionate and driven. They go to the heart of customers’ problems and provide solutions that will endure.

The ITT name carries well-earned weight. Our brands have built a reputation for delivering exactly what is needed, when it matters most.

That’s been a hallmark of our company throughout its history, which dates back nearly a century.

We’re not the same company we were yesterday. And we won’t be the same tomorrow. We adapt with the times and with our customers. That’s how great companies grow. Building on a long and storied heritage filled with true innovators and incredible milestones, the new ITT Corporation will tap into the best parts of our shared past and take the next important step into a wide-open future.

“Throughout each chapter in our history, ITT has been known for transformative strategies that create value for shareholders. The 2011 transformation presents the greatest opportunity yet to write the best chapter in our shared history.”

Debasish Ram, CEO and President, ITT Corporation
Origins

It all starts here.

ITT can trace its roots back to the world’s first all-iron pump. It was 1849, and the groundbreaking metal innovation — with its strength, durability and efficiency — gave the world a pump that could stand up to corrosive fluids and make wood pumps obsolete overnight. That water pump was the beginning of one of the companies — Goulds Pumps — that would become part of ITT. Goulds Pumps eventually expanded its product portfolio to include highly engineered pumps used in heavy industrial applications and processes such as oil and gas, power and mining.
The Transformation. 2011: History repeats itself as ITT splits once again into three publicly traded companies. The water and defense businesses are spun off, and ITT Corporation continues today as a multi-industrial company that provides highly engineered components. True to our roots and focused on our future, the latest incarnation of ITT is dedicated to engineering and operational excellence, strong values and leadership, product innovation and superior customer satisfaction.
Pioneers

The businesses that make up ITT today began life at different times in different parts of the world, but each one was born because someone discovered a better way to solve a problem. Their founders had no idea that one day their creations would be part of something bigger and better. Heads down, minds racing, they were busy pursuing their visions with single-minded intensity and building companies that could – and would – help them make meaningful contributions to the world.

1848. Seabury S. Gould purchases a wooden pump company in the tiny space of Scruba Falls, New York. One year later, the Great Gold Rush drives Americans westward and drives Seabury to invent an all-iron pump that gives the gold-prospecting “forty-niners” and pioneers a stronger, more durable and more efficient way to move water. The pump is quickly embraced by railroaders, steel makers, scientists and contributes to the worldwide Technological Revolution, and Seabury opens Goulds Manufacturing Company to keep up with demand.
This is the beginning of ITT’s Industrial Process business.

1837. In Oud Beijerland, Netherlands, Arle de Koning opens a shop for his hand-made leather horse harnesses and upholstery. When it becomes clear that cars are the future, the company takes its high-quality craftsmanship in a new direction. It begins production of automobile radiator and spring covers, metal car panels and, finally, friction shock absorbers. Able to make even the roughest roads feel smooth, KOV shock are an instant hit with automakers and drivers – and the company shifts its focus entirely to shock absorbers.
This is the beginning of the shock absorber portion of ITT’s Motion Technologies business.

1915. Brimming with ideas, James Cannon buys space in downtown Los Angeles for a small electrical specialty shop to manufacture and market his experimental ideas. Three years later, the space is gone but his inventor’s spark remains. Borrowing $100 from a friend, he moves into a one-room shed in his backyard and comes up with ideas for everything from an electric toaster to a nurse call system. Finally, in 1923, he invents a four-prong “M” plug. This connector becomes the catalyst that propels its company and the revolutionary electronics industry to new heights.
This is the beginning of ITT’s Interconnect Solutions business.

1950. For years, auto makers used brake drums to apply pressure to turning tires and slow the car. This led to overheating issues and problems in wet conditions. In 1950, a pair of Italian entrepreneurs – Giuseppe Gallo and Alberto Ferrandino – are among the first producers of surfaced, broad-disc brake pads. Made from a combination of friction materials, they outperform brake drums and help cars stop faster and more safely. Their company begins operations in Turin, Italy, and expands to the nearby town of Bogni as business grows.
This is the beginning of the friction products portion of ITT’s Motion Technologies business.

1966. In a garage in upstate New York, three entrepreneurs - Patrick Lee, Ben Houghton and Rudy Nutz - form Integrated Dynamics, Inc. (IDI) to create shock absorption products for structures and machinery. Ten years later, the growing company renames itself Endine. With an “en” and “ine” surrounding the original ID name, Endine can be read the same way in either direction and speaks to the company’s shock absorber and vibration isolation products, which convert kinetic energy coming in, into thermal energy going out.
This is the beginning of one part of ITT’s Control Technologies business.
Convergence

In trains and subways around the world, ITT connectors feed power to the wheels and roads and enable electricity to flow from one to the next.

ITT’s origins span more than one hundred years from the second industrial revolution to the computer age. One business in our portfolio began when horses were still the primary mode of transportation; another when rockets were racing into space.

During that time, the company expanded through acquisitions to become one of the world’s biggest businesses and then narrowed its focus to achieve a place as one of the top financial performers among multi-industry companies on Wall Street. We didn’t follow the crowd. Instead we created our own path and helped fine-tune the concept of a multi-industry company that generates value from a shared management approach and synergies between our businesses.

There is a core ITT company that began life 90 years ago as a provider of telephone equipment and services, and laid the foundation for our place as an international operating company. But that enterprise is long gone, and today we define ourselves by the businesses that have joined ITT through the years and work together to solve our customers’ — and the world’s — critical needs.

Like streams running into a river, the businesses that represent today’s ITT are interconnected. They came together over time, with strategic foresight. Each business joined ITT at a key juncture and made instant and ongoing contributions to its new parent company — and to its new ITT partner companies.

Still, we are so much more than the sum of our parts. There is an “ITT heart” that beats at the center of our business.

“We are proud to be part of a company with such a great heritage and culture.”

Anita Wang, Customer Service Specialist, Interconnect Solutions, Shanghai, China.
Highly Engineered

Engineering is in our blood.

The Eiffel Tower is a study in engineering marvels. Its curved legs enable it to withstand high wind pressures. Elevators hidden in the legs travel on an angle, and ITT designers created custom, powerful shock absorbers that protect this one-of-a-kind structure and its passengers by decelerating a runaway elevator safely so every ride is as uneventful as it is unforgettable.
Brand New Ways of Thinking

This is what we make:

- Connectors
- Coaxial connectors
- High-value cable harnesses
- IC cables
- Tools and accessories
- Engineered process pumps
- Vertical turbine pumps
- Slurry pumps
- Generator reverse conus systems
- Intelligent pump control and monitoring systems
- Biopharm and engineering valves
- Noise attenuation components
- Shock and vibration isolation components
- Rate controllers
- Actuators
- Valves
- Dampers
- Motion controllers
- Plasma-cutting and torch-height control systems
- Switches and regulators
- Sensor motor
- CNC systems
- Voice-elastic buffers
- Brake pads
- Friction materials
- Back plates
- Voice-elastic buffers
- Shock absorbers and dampers

These are our brand names:

- Conext®
- WEAK
- BW Connector Systems
- Gould®
- A-C Pump
- Pneum-R
- Pedestrian
- MED Services
- PumpSmart
- eTotal
- C-Dump
- Da-Flow
- Cam-flow

- Endini®
- Envision®
- Cleveland Motion Controls
- Int’l Dyn’l
- Aerospace Controls
- Serial Systems
- Cleveland-Kidder
- Compact Automation Products
- Turn-Act
- Jamit®
- Ralbum
- Burry
- ContiFlow

- Jamit®
- Gala
- KOHI

These are how we organize our businesses (into Four Value Centers):

- Interconnect Solutions
- Industrial Process
- Control Technologies
- Motion Technologies

These are the end markets where we have strong participation:

- Automotive
- Energy and Mining
- Industrial Processing
- Aerospace and Defense
- General Industrial
- Rail, Bus, Truck
- and Trailer
- Medical

Our product brand names echo back to businesses that began in local garages and small shops and grew to become part of the global ITT family. The spirit of invention and entrepreneurship that brought them to life—and brought them to ITT—is still very much alive today in our role as a leading niche provider serving a broad range of end markets.

“Innovation is the thread that runs through ITT’s history.”

Gene Sabatino, Principal Engineer, Research & Development, Industrial & Marine Industry (at right), with co-worker and Product dresser Mark Paynter
ITT innovations in everyday life

Where do breakthrough product innovations come from? Engineers will tell you they arrive one increment at a time and only through hard work. Business romantics believe they appear in a single flash of insight. There’s truth in both of those explanations, and it’s also true that — however it happens — people from ITT and the companies we acquired through the years have come up with an amazing number of important contributions and quantum leaps forward that have made all of our lives more enriching.

When you “hear” a movie …

In 1927, Cannon engineers pioneered the first intricate, multi-contact plugs for sound equipment for motion picture studios, making the first “talkie” film — and all the great movie moments since then — possible.

When you take a curve …

In 2001, ITT engineers unveiled the first-ever Frequency Selective Damping shock absorber. Before their breakthrough, a shock absorber that delivered both great handling and excellent ride quality proved elusive. But these ITT product developers figured out a way to adjust the oil flow automatically inside the shock so that drivers can keep comfortable while hugging the road.

When you run a plant …

In 1999, ITT engineers developed PumpSmart®, the first truly intelligent flow control system for industrial pumps. Combining software with a smart variable speed drive, PumpSmart provides continuous monitoring of pump operations and automatically makes adjustments to conserve energy by up to 50 percent and reduce breakdowns caused by dry running, low flow and other common causes of failure.

When you fly …

In 2005, ITT engineers came up with an opto-actuator that keeps the fuel tank on commercial aircraft free of potential ignition sources. The actuators open and close to control the flow of fuel throughout the plane, and our patented opto-electronic device uses light instead of electricity to trigger the actuator’s switching mechanism. In addition to eliminating potential ignition sources, the opto-electronic switching process provides increased reliability.

When you operate a computer …

In 1952, Cannon engineers invented the D-sub connector. It was the industry’s first multi-purpose connector, and it quickly became the standard connector for computers. With its ability to reliably send power and signals through the computer, it is still a key component in every desktop and laptop in the world today. In fact, it is the most widely used connector of all time.

“All manufacturing processes require a pump. Whether you’re in the pulp and paper, oil or chemicals industry, or if your factory is making kettle up or beer, you need a pump to move fluids, and ours are custom engineered for every application.”

Robert Regano, Jr., President of Industrial Process, Canna Falls, New York
When you dig down deep...
In 1921, Goulds Pumps engineers created the world’s first rubber-lined slurry pump, capable of handling the thick and abrasive mixture of water, dirt and ore concentrate brought up during the mining and coal-digging processes.

When you take the train...
Throughout the years, engineers from ITT and its acquired companies have been at the forefront of rail innovations, including shock absorbers, buffers, connectors, cable assemblies and seat actuators for metro and commuter trains, locomotives and the next generation of high-speed trains. The ITT breakthroughs deliver comfort, durability, reliability and, above all, safety in critical applications.

When you climb above the clouds...
In 2007, Enidine engineers developed customized dampers for the amazing Grand Canyon Skywalk, a glass-bottomed, horseshoe-shaped footbridge that perches visitors 3,800 feet above the canyon floor. It’s the highest man-made structure in the world. The view isn’t for the faint of heart, but the footbridge will withstand 100 mile-an-hour winds and a magnitude 8 earthquake thanks to the ITT dampers.

When you take one giant leap for mankind...
In the early 1960s, Cannon engineers created the first "micro connectors" in response to the need for smaller components on space missions. Their small size met the needs of NASA, and ITT connectors have been on U.S. space missions since the first countdown.

When you need your pump to work...
In 1923, Goulds Pumps engineers developed the world’s first self centering centrifugal pump. Centrifugal pumps need liquid in their "wells" to work properly. Air is the enemy: when it gets into the system, it binds the pump and requires the user to "prime the pump" manually by adding more liquid. These inventors created a novel pump design that mixed air with water and would never need manual repriming. This revolutionary design created an entire new pump market in the process.

“Today, you will do something or use something that is made possible by ITT.”
Devin Brown, Director of Corporate Development, ITT Corporation
The ITT way
This is how we operate.

A lot of thought went into this think tank. When we opened our Motion Technologies research and development facility in 2010, it encompassed many of the initiatives that are at the forefront of our current operating philosophy: geographic expansion, getting closer to customers, operations that run on renewable energy, and an open work environment that energizes employees.
Global

Green

We have sales and service capabilities in more than 125 countries and major operations in more than 15 countries on five continents.

Lean

True

We strive to do better each day in all dimensions of environmental sustainability.

Value-Based Lean Six Sigma drives continuous improvement in our plants and offices around the world.

We are guided by and remain true to our core values of Respect, Responsibility and Integrity.
Truly Global
Our connectors business is headquartered in California, but its products are on rockets in India, trains in Europe and smart phones in China. Our industrial pumps, which were invented in upstate New York, are now in growing demand in Brazil, China, India and other emerging markets. And since starting its life in Italy, our friction technologies business has grown into a global provider that sells 120,000 friction pads a day to vehicle manufacturers and other customers in Europe, North America, South America, Korea and China.

Green Thinking
We are committed to improving the way we work and what we make to lessen our impact on the environment.
That’s why we developed a new infrared technology that lowers energy consumption and generates less carbon-carrying soot than the traditional scorching method used to produce brake pad friction materials.

No problem. 没问题

That’s why we installed solar panels at one of our sites in China, built a heart recovery co-generation system at another plant in Italy, and designed our world headquarters building in New York with smart lighting and cooling systems.
These are just some of the examples of the type of “green thinking” that exists throughout the ITT organization. There’s much more we can do – and will do in the years ahead.

“We believe that environmental responsibility is part of our stewardship as a value-creating company and want it to be second nature in everything we do.”
Marcio Ferrara, President of Control Technologies, Valencia, California

"Through the years, our business has continued to become more global, most recently through major expansions into China, India and Brazil."
—Marcio Ferrara, President of Control Technologies, Orchard Park, New York
Lean Believers

There’s a Zen-like quality to lean, and ITT employees have embraced its less-is-more mentality because it makes sense on so many different levels.

By simplifying processes, eliminating waste and finding the most efficient way to get the job done, we can move our highly engineered solutions through our plants in record time and deliver them to customers without any delays.

Lean lets the people who know the most about the process – the frontline workers and supervisors – have the biggest voice in how we can continually improve our product flow, quality control and back office procedures. Now, reconfiguring a product assembly cell or redesigning a shipping process is essential work – not extra work.

With lean, our work environments are cleaner, brighter, safer and more energized. With less clutter and wasted effort, a positive energy flows through our facilities. ITT employees feel good about their jobs, and ITT customers see the results.

True to Our Values

ITT is a caring company. It starts at home, where we have gone to great measures to create an open and transparent environment. Guided by our core values of Respect, Responsibility and Integrity, our employees are empowered to make suggestions and raise concerns. And our leaders know that inclusion and active listening are the right way to inspire people and achieve goals.

The ITT values extend beyond the walls of our business. We believe in fairness and honesty with customers, and we pursue a wide range of citizenship efforts that touch our communities in important ways.

In Ostrava, Czech Republic, our company raised money to sponsor outdoor activities for children at a neighboring facility who are dealing with severe physical and mental issues.

In Shenzhen, China, employees fanned out into the city to distribute reusable, washable and recyclable fabric shopping bags to help reduce “white pollution” caused by plastic bags.

And in Seneca Falls, New York – where the U.S. women’s rights movement and our industrial pump business both started in 1848 – we are the founding sponsor of the National Women’s Hall of Fame, which is dedicated to honoring the outstanding achievements of women.

There’s no common catalyst for the many different community-based efforts, except for the fact that they reflect our values and involve ITT employees. And that quite possibly is the best explanation of all.

“We had a barn fire when I was young and everybody at Goulds Pumps were the volunteer firemen. Goulds is now part of ITT, but our town and your company are still interwoven. We just go together.”

Eleanor T. Barrett, Education Director, Seneca Falls Historical Society, Seneca Falls, New York
The future belongs to those who see it coming.

The next generation of cars is charging over the horizon. Today, one in every 100 cars sold around the world are quieter, cleaner-running hybrid or electric vehicles. By 2020, it will be closer to one in 10. At ITT, we are keeping pace with the resolution by building cable harnesses and connectors for electric car charging stations and designing a new breed of brake pad that delivers safe stopping power and less noise.
The shape of things to come

We have 160 years of success at our back and a set of core strengths that will keep us advancing smartly into the future.

- We tackle the hard stuff – and take on the toughest technical challenges where the cost of failure is high.
- We create solutions for high-wear, harsh and critical applications.
- We enable success for key industries that are central contributors to our modern way of life.
- We target growth industries and provide them high-value, specialty solutions.
- We are experts in our chosen fields and practical problem-solvers.
- We focus on understanding our customers’ problems and seek to anticipate what they need before they ask for it.
- We operate in global markets, but work as a single company united by our core values.
- We provide highly engineered and highly customized solutions for each unique customer situation.
- We provide durable, lasting solutions that our customers can rely on.
- We stand behind everything we do.
- We have businesses and brands with global reach and recognition.
- We make products that align with the world’s macro-trends and issues that impact us all, such as the emerging middle class, resource scarcity and increasing urbanization.

And we do all this with Respect, Responsibility and Integrity, and with a focus on delivering beyond our customers’ expectations.
Enduring Impact

More than 100 years when one of our Goulds brand pumps was installed in China. “It’s a vital presence in the country and well positioned to grow in this key emerging market.”

If you are lucky enough to tour the Forbidden City, which served as the home of China’s emperors for 500 years before becoming a museum in 1925, you will see a metal hand pump in the middle of the grounds. The pump is more modern than many of the buildings, but still a relic of times gone by. Inching closer, you will see that it is a Goulds Pumps product made years ago in Seneca Falls, New York.

Today, Goulds is part of ITT, and we still manufacture pumps in Seneca Falls. Like the hand pump for its age, our current industrial pumps are advanced technologies for their era – smart, efficient, powerful and robust. That’s the thread that runs through ITT. We are connected to our past without being bound by it. Over the course of 90 years, the businesses and people that have joined ITT have coalesced into a company that today provides highly engineered solutions valued by customers and appreciated by end-users around the globe.

There’s a special spirit that defines ITT. Our people are constantly looking forward, trying to find ways to create breakthrough components and parts that will have an enduring impact for the next generation… and the next after that. In the process, they are building a business of the future.

With our 2011 transformation, we added another bold, exciting part to our business legacy – and embarked on a new period of growth. It begins today. This is part one, and there is so much more to come.

“I see ITT growing to become a much larger company. Our people have a laser-like focus on growth and will continue to produce products that make our customers successful.”

Ang Tao, Manager of Human Resources, ITT Corporation, White Plains, New York
grow, succeed, satisfy, expand, solve, lead, and last a very long time.

And that’s why we are Engineered for life.