



From the MixCache.com library

SAMPLE COPY

TE Connectivity Ltd.

MixCache.com

SAMPLE COPY

Table of Contents

- **Introduction**
- **Chapter 1** Roots of Innovation: The AMP Era (1941-1956)
- **Chapter 2** Solderless Connections: Technologies that Changed Wartime Manufacturing
- **Chapter 3** Postwar Prosperity: AMP Incorporated's Rise in the 1950s and 1960s
- **Chapter 4** Diversification and Growth: New Markets and Expanding Horizons
- **Chapter 5** The Tyco Acquisition: Integration and Turbulence (1999-2007)
- **Chapter 6** Scandal and Restructuring: Lessons from the Tyco Era
- **Chapter 7** Becoming Tyco Electronics: Laying the Foundation for Global Leadership
- **Chapter 8** Rebirth as TE Connectivity: A Strategic Rebranding
- **Chapter 9** Product Portfolio: Connectors, Sensors, and Beyond
- **Chapter 10** Transportation Solutions: Powering Mobility's Future
- **Chapter 11** Revolutionizing Industry: Factory Automation and the Industrial Internet
- **Chapter 12** Communications Solutions: Data, Devices, and the Digital Age
- **Chapter 13** Global Growth: Establishing a Worldwide Presence
- **Chapter 14** Manufacturing Excellence: Operational Strategies and Innovation Hubs
- **Chapter 15** The China Chapter: Expansion and Opportunity in Asia
- **Chapter 16** Leadership and Culture: Guiding Principles and People
- **Chapter 17** Financial Performance: Markets, Margins, and Milestones
- **Chapter 18** Mergers, Acquisitions, and Divestitures: Shaping the Company's Direction
- **Chapter 19** The Role of Research & Development: Creating the Future
- **Chapter 20** Sustainability: Environmental Goals and Achievements
- **Chapter 21** Corporate Social Responsibility: TE's Commitment to People and Community
- **Chapter 22** Engineering Tomorrow: AI, Smart Systems, and Connectivity Solutions
- **Chapter 23** Partnerships and Collaborations: Teaming with Industry and Academia
- **Chapter 24** Navigating Challenges: Supply Chains, Markets, and Geopolitics
- **Chapter 25** The Connected Future: TE's Vision, Prospects, and Legacy

Introduction

TE Connectivity Ltd. stands as a testament to enduring innovation, adaptability, and engineering excellence in the shifting landscape of American and global industry. From its roots in the small city of Harrisburg, Pennsylvania in 1941, what began as Aircraft and Marine Products (AMP) has become a leading S&P 500 technology company, serving customers on nearly every continent and across a staggering diversity of industries. This book is a comprehensive exploration of TE Connectivity's remarkable journey, uncovering how a commitment to connection—both literal and figurative—has driven its evolution, success, and influence across decades of technological change.

The story of TE Connectivity is inextricably linked to some of the most pivotal moments in modern industry. Its early innovations in solderless connections provided the groundwork for more efficient, reliable manufacturing, helping to shape wartime production and the subsequent boom of postwar prosperity. As electronics and technology began to permeate every facet of life, TE Connectivity proved capable of both leading and adapting—venturing into new markets, refining its focus, and embracing the challenges and opportunities of globalization.

The company's path was not free from adversity. The turn of the millennium brought both the opportunity of new ownership under Tyco International and the disruption of financial scandal. Yet, from these challenges emerged a stronger and more focused enterprise. Strategic restructuring and a renewed commitment to core technologies led to the rebranding as TE Connectivity, positioning the company at the forefront of connectivity and sensor solutions for an increasingly interconnected world.

Today, TE Connectivity's reach is global, its workforce extensive, and its role as an industrial technology enabler more vital than ever. The company's deep investments in research and development, its robust culture of collaboration, and its dedication to shaping a sustainable future have set it apart. With over 85,000 employees, operations in approximately 140 countries, and customers in fields ranging from automotive to aerospace and energy to medical, TE Connectivity occupies a singular position at the crossroads of technology and everyday life.

But the story of TE Connectivity is not just one of products and profits. It is also about vision and responsibility. The company's significant strides in sustainability, diversity, and community engagement, as well as its ongoing investments in the next generation of STEM leaders, reveal a broader perspective: one grounded in the belief that connectivity is about more than electrical signals—it is about people, opportunity, and impact.

In the chapters that follow, readers will trace the company's journey from its humble beginnings to its present-day stature as a global innovator. Through profiles of key technologies, detailed examinations of strategic decisions, and insights into an evolving cultural and economic landscape, this book will illuminate not only the past and present of TE Connectivity, but also its future: a future still grounded in the simple but powerful notion that through connection, we can help create a safer, sustainable, productive, and truly connected world.

SAMPLE COPY

CHAPTER ONE: Roots of Innovation: The AMP Era (1941-1956)

The year 1941 was a watershed moment in American history, marking the nation's imminent entry into World War II. As industrial output across the country geared up for the impending conflict, a quiet but significant event unfolded in Harrisburg, Pennsylvania, that would lay the groundwork for a future global technology leader. It was here that Uncas A. Whitaker, a mechanical engineer, electrical engineer, and lawyer with a keen eye for practical solutions, founded Aircraft and Marine Products (AMP).

Whitaker, having spent two years as a senior engineer for American Machine & Foundry in New York, possessed a unique understanding of the challenges faced by manufacturers, particularly in the burgeoning aerospace and naval sectors. He recognized a critical need for faster, more reliable electrical connections, especially in the cramped and demanding environments of aircraft and marine vessels. The traditional method of soldering wire connections was labor-intensive, time-consuming, and prone to issues in harsh conditions.

His innovative answer was deceptively simple yet revolutionary: the solderless electrical connection. This ingenious device consisted of a short metal tube with a ring at one end, coupled with a specialized crimping tool. The beauty of this invention lay in its ability to create quick, removable wire connections without the need for a heating element or flux. This not only streamlined production processes but also significantly enhanced the reliability and durability of electrical systems, a crucial factor for wartime applications where failure could have catastrophic consequences.

The concept was an instant hit. From a modest office in New Jersey, Aircraft and Marine Products quickly secured supply contracts with some of the largest industrial manufacturers of the era. The timing was, perhaps inadvertently, impeccable. Less than three months after AMP's inception, the United States officially entered World War II. The nation's industrial might rapidly pivoted towards the war effort, with companies like Boeing, Consolidated Vultee, Ford, and Electric Boat redirecting their production lines to churn out essential war materiel.

As warplanes soared and battleships plied the seas, the demand for sophisticated electrical devices within military equipment skyrocketed. Increasingly, these critical components were being assembled with AMP's groundbreaking solderless connections. The company's business thrived under the intense pressure of war production, necessitating a move to a larger facility in Glen Rock, Pennsylvania, to accommodate

the burgeoning demand.

The exigencies of war accelerated innovation across American industry. Factories that once produced automobiles or sewing machines rapidly retooled to manufacture jeeps, tanks, bomber planes, or bullet casings. While modern military equipment is vastly more complex, the wartime manufacturing surge of the 1940s demonstrated an unparalleled national capacity to adapt and respond. In this environment, AMP's readily adaptable components proved invaluable, fitting seamlessly into various critical applications.

A subsequent move in 1943 saw AMP's headquarters relocate to Harrisburg, Pennsylvania. This transition, however, wasn't without its challenges. The city's chamber of commerce initially expressed reluctance to welcome new businesses, citing concerns about inadequate housing. A fire at the Glen Rock plant further compounded the difficulties of relocation. Despite these hurdles, AMP continued its innovative streak, introducing the pre-insulated terminal, an improved version of its existing product. This advancement reduced the incidence of shorted circuits by leaving only the terminal ring exposed, further enhancing connection reliability.

The end of World War II brought a dramatic shift in the economic landscape. Military contracts were terminated across a broad spectrum of American industries, leading to bankruptcies, acquisitions, and drastic reductions in operations for many of AMP's customers. The transition from a wartime economy to a peacetime one was stressful for Aircraft and Marine Products.

However, AMP possessed a distinct advantage: its versatile connections were components rather than specialized finished products, requiring less product conversion to adapt to the postwar economy. The company weathered this period through stringent austerity measures and crucial financial support from Midland Investment Company, its primary benefactor.

Uncas Whitaker, however, emerged from this period with a degree of bitterness regarding the company's experiences with military contracts and procurement controls. This sentiment likely reinforced AMP's subsequent focus on the commercial market, where it sought more stable and predictable growth.

In 1952, Aircraft and Marine Products decisively re-entered the commercial market with another new product: the strip-formed terminal. This marked a pivotal moment in the company's post-war strategy. To spearhead this renewed commercial push, AMP created a dedicated marketing unit, AMP Special Industries.

This period saw unprecedented growth for the company, driven by sales of existing products and the introduction of new connectors for pin and sockets, coaxial cables, and printed circuits. These innovations were crucial for the burgeoning

telecommunications and cable television industries, which were rapidly expanding in the post-war era.

Rather than relying on acquisitions for expansion, AMP pursued a sales-led growth strategy throughout the 1950s. This organic expansion saw the establishment of international subsidiaries in Australia, Britain, the Netherlands, Italy, Japan, Mexico, and West Germany. This early global footprint was a testament to the universal applicability of AMP's connection solutions and a harbinger of the company's future worldwide presence.

By 1956, the company had matured significantly. Recognizing its expanded scope and its role as a leading manufacturer of electrical components, Aircraft and Marine Products officially changed its name to AMP Incorporated and became a public company. This rebranding marked the end of its initial phase as a wartime innovator and the beginning of its journey as a publicly traded entity, poised for further growth and diversification in the rapidly evolving world of electronics.

SAMPLE COPY

This is a sample preview. Purchase the book to read the full content.

Visit MixCache.com to purchase the complete book.

SAMPLE COPY