EUROTECH
Imagine. Build. Succeed.

Vendor Profile
Eurotech S.p.A
HQ: Via Fratelli Solari 3/a | 33020 Amaro, Udine - ITALY | https://www.eurotech.com/
Founded: 1992
Funding/Key Investors: Eurotech is a public company listed as BIT:ETH
Number of Employees: 302

VDC|Research
Insights for the Connected World

By Dan Mandell, Senior Analyst
and Chris Rommel, Executive Vice President

COMPANY BACKGROUND

Eurotech is a pioneer and leading global supplier of embedded computing technology and intelligent IIoT platforms. The company helped usher great advances in embedded and real-time control through the ages of pervasive and ubiquitous computing. Eurotech has more than 25 years of experience designing, developing, and supporting embedded hardware products, software frameworks, and M2M/IoT connectivity devices. As nearly all industries have become more dependent on data connectivity and management, Eurotech has been at the forefront of business application integration and cross-platform integration/application PaaS functionality. The company has operations in Europe, North America, and Japan, with headquarters in Italy.

Rugged and reliable hardware has been a staple of Eurotech's portfolio and differentiation since its inception, protecting sensitive electronics from extreme environments. As a result, Eurotech has established long-term customer relationships within the aerospace, industrial, military, and transportation sectors where sacrifices to product quality or failure rates are unacceptable. This includes careful and ongoing alignment with industry and carrier certification requirements. Eurotech has also taken a careful approach to building out its mature Everyware IoT platform, an open edge framework and modular cloud infrastructure to connect devices to business analytics and enterprise applications.

Building on this background, the company has turned its attention toward high-performance embedded computing (HPEC) market opportunities to extend the reach of its hardware, software, and cloud platforms. Bringing traditional datacenter technologies to the edge (and in the field) is a tremendous challenge that Eurotech has already been tackling while building edge supercomputing systems for the past several years. As a result, Eurotech has built up valuable systems IP for ruggedized cooling and low-power processing even within mobile environments. The HPEC domain will be critical for Eurotech to drive steady revenue growth going forward.

Exhibit 1: Eurotech Solutions at a Glance
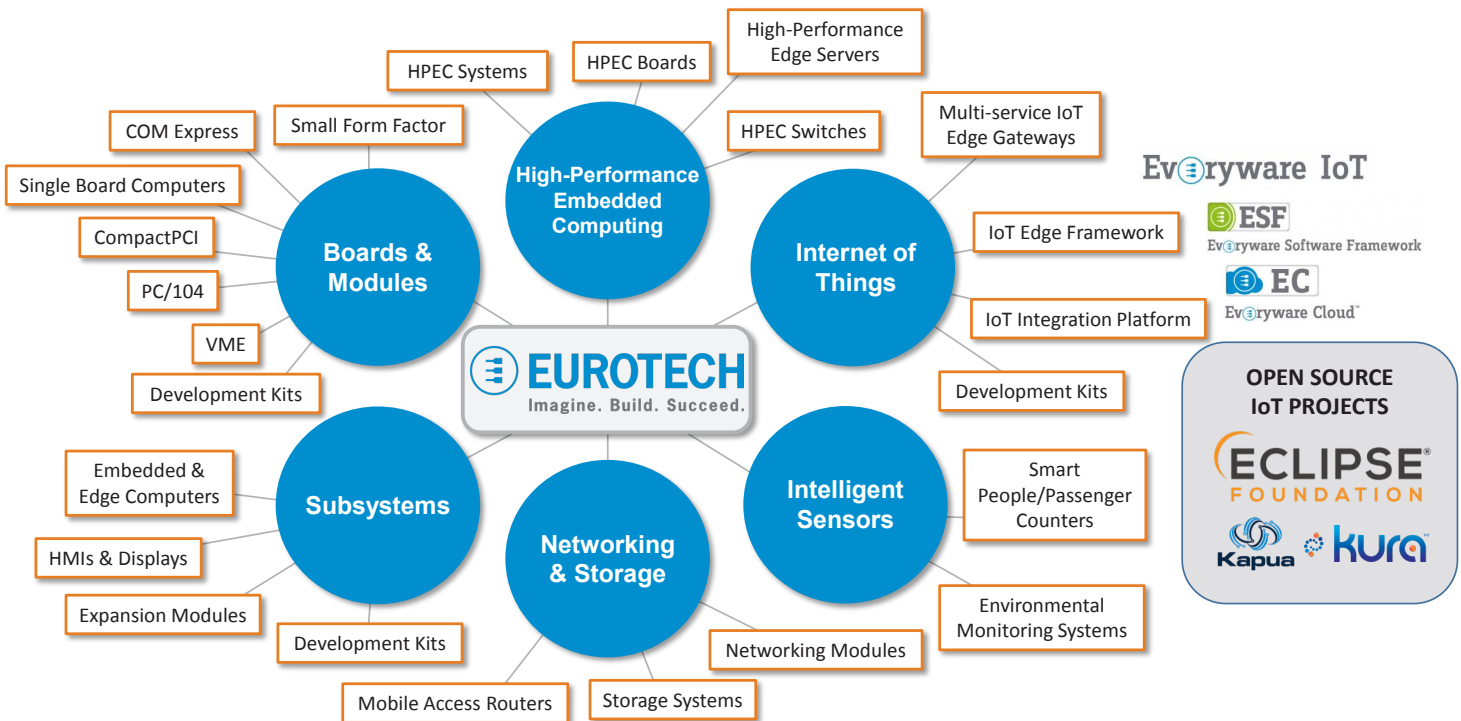
Portfolio and Technical Capabilities

Eurotech has a broad and growing product portfolio established from its roots as a supplier of embedded computers supporting real-time control with accurate and reliable data collection capabilities. From there, the company evolved into a platform provider facilitating the development of end-to-end solutions interconnecting distributed smart objects with a focus on the movement of data between—not just within—machines. Supporting emerging connectivity technologies, standards, and IoT applications became crucial to meeting the new design requirements of OEMs, system integrators, and other engineering houses. Eurotech was one of the first organizations in the entire embedded space to recognize and help enable this next phase of technological innovation.

Eurotech's hardware portfolio consists of embedded boards and modules featuring a wide variety of form factors, application-ready subsystems and platforms, and commercial devices tailored for several different vertical markets. Its embedded hardware offerings include small-form-factor boards and modules, as well as single board computers supporting popular operating systems such as Linux (Canonical, Everyware Linux / Yocto, Red Hat, Wind River, proprietary), VxWorks, and Windows. The company supplies hardware modules and processor boards with x86, PowerPC and ARM architectures with connectivity support available for interfaces including Wi-Fi, cellular, GPS, Bluetooth, CAN, and more. System-level hardware offerings comprise embedded and edge computers, HMIs and displays, IoT gateways, mobile routers, storage systems, and HPEC switches and servers. Eurotech offers long product life support for its offerings so that customers can be comfortable deploying its technology in systems with refresh cycles stretching more than a decade.

For software and the cloud, the company has been steadily developing its Everyware Software Framework (ESF), a Java-based OSGi middleware framework developed over the past decade. ESF abstracts the IoT edge device in software and simplifies application development on intelligent devices. The framework has evolved through both in-house development and the open source community with the Eclipse Kura project framework for the IoT. Through the various IoT communication protocols supported, ESF can securely connect to Eurotech's Everyware Cloud (EC) IoT Integration Platform, which provides the infrastructure for IoT application enablement by integrating data with (public/ private cloud and on-premise datacenter) business applications and services, enabling configuration management, application lifecycle management, and remote access. ESF also features native/certified integrations with Eclipse Kapua, Software AG's Cumulocity IoT, Microsoft Azure, and other platforms. Strong security is also a key facet of all of Eurotech's offerings, including leveraging PKI, TLS, and TPM 2.0 support, to establish trusted communications and authentication over MQTT, encrypting traffic over SSL connections, and strict firewall rules.

Service and Support

Eurotech has teams deployed in various countries for localized technical and professional services. The company has been expanding its consulting, product, and solution design services in response to OEMs' growing demand for more application-specific support developing and deploying IoT and high-performance embedded computing solutions. Modified-off-the-shelf hardware is a strength for Eurotech as the company features a rich line of standard products that can be tweaked to meet many application-specific requirements enabling savings in cost and time-to-market for customers downstream. Eurotech's engineering services capabilities also support fully customized embedded boards, subsystems, and certified devices for a variety of target applications. The company's product design and manufacturing services include specification and design of hardware and software at the edge, selection and integration of wireless technology, and design and development of the user interface, web and mobile applications.

Eurotech is a pioneer in the IoT industry, and the company's steady investments and focus in the area have engrained intelligent connectivity into the DNA of its services and support. Relying on over 20 years of experience in defining, designing, deploying, and executing complex solutions, Eurotech's IoT services provide an end-to-end system approach that ranges design services, business process analysis, data collection/management/storage strategy, device provisioning, security services, and analytics.

BUSINESS MODEL

Since its founding in 1992, Eurotech has concentrated its expansion on four guiding principles, which have propelled the company to become the embedded champion for IT/OT convergence. These include employing a fabless production model, innovation for future sustainability, excellence with market standards, and products focused on interconnectivity and ease of use. The vast majority of the company's revenues are generated through sales of its hardware, with software licensing and professional services comprising a minor, albeit growing, share of the business. Eurotech distributes and markets its solutions globally, both directly and through qualified partners. The direct channel had long been dominant for Eurotech solutions, but the company has been pulled into more indirect sale opportunities as of late, driving the company to focus on further strengthening both channels moving forward.

The company offers different licensing models that can accommodate a variety of customer needs. For simple deployments, the user can choose a SaaS approach based on features and services enabled. For more demanding and complex projects, Eurotech offers an on-premise/private high-availability subscription model with different options based on the amount of data generated/stored, data throughput, and the number of connected devices. In addition, Eurotech offers a large portfolio of long-term support services for its customers.

Exhibit 2: Eurotech Industries Served

Energy & Utilities	Industrial & Automation	Medical & Healthcare	Transportation & Mobility	Other
Energy Management	Machine Diagnostics	Autonomous Machine Operations	Connected Infrastructure	C2/C4 On the Move & C4ISR Situational Awareness
Intelligent Buildings	Real-time Equipment Monitoring	Connected Healthcare	Intelligent Mobility	Cybersecurity
Oil/Gas Exploration & Extraction	Robotics	Data Analysis & Monitoring	Public Transport	Digital Surveillance
Smart Grid & Power Distributions	Supply Chain Management	Remote Device Management	Rolling Stock & Railway Management	Electronic-Warfare

Ecosystem and Supply Chain

The importance of the growing Eurotech partnership ecosystem to the company's growth prospects cannot be overstated. Eurotech has worked closely with select partners, the open source community and, specifically, the Eclipse foundation to broaden the adoption and appeal of ESF and EC for device middleware and application enablement. Technology partnerships have been forged over the years with leading IT technology companies, including Red Hat, IBM, Oracle, Microsoft and VMware. For the cloud, Eurotech is partners with Amazon Web Services and Microsoft Azure. Eurotech embedded computing products rely on embedded processors from Intel, NVIDIA, NXP, and Texas Instruments. The company's distribution channel partners include Arrow, Avnet, and Mouser Electronics.

2019	Announced a new initiative with Azul Systems, a leader in Java runtime solutions, to offer tested and certified open source build of OpenJDK for Java developers building solutions on Eurotech hardware. Eurotech also began to work more closely with Infineon Technologies, leveraging the company's Trusted Platform Module to help protect Eurotech's IoT edge gateways.
2018	Launched a co-opetition strategy signing partnerships with AAEON Technology to integrate ESF into AAEON's industrial IoT gateways and with Software AG to integrate its Cumulocity IoT platform with Eurotech's ESF. Eurotech also empowered its open source strategy teaming with Cloudera and Red Hat with new security features for secure end-to-end device management and analytics.
2017	Began working with VMware for its own IoT systems, and the companies will work together to integrate monitoring and management for near field nodes.
2016	Teamed up with Red Hat to combine their complementary technologies to build an end-to-end IoT architecture aimed at facilitating IT/OT convergence. That year, they launched a co-sponsored project, Eclipse Kapua, which is a modular platform for managing smart IoT edge devices.

Competitive Positioning

Eurotech is a market share leader in several key embedded and IoT markets. The company is among the top-six global suppliers of both embedded/stackable class motherboards and mezzanine cards and the market share leader for PC/104 family modules in 2018. In addition, Eurotech is a leading provider of small-form-factor boards, computer-on-modules, single-board computers, high-performance embedded hardware, edge computers, and multi-service gateways. The company's closest competitors in the hardware space include Advantech, ADLINK, and Kontron S&T. Eurotech's differentiation is driven through software and cloud enablement, which has been critical to maintaining a competitive edge against some significantly larger competitors in the hardware market. A rich history and experience supporting a variety of projects with stringent environmental, mobility, and high-performance requirements fill out Eurotech's value proposition and are a strong foundation for the company's expansion in the high-performance embedded computing domain.

VDC OPINION

Eurotech has been making all of the right moves in recent years, opening up its strategic alliances with industry leaders and its distribution channels to compete with much larger organizations in the age of IoT. With an established core of both ruggedized and high-performance embedded hardware, combined with the mature and continuously expanding Everyware IoT framework, Eurotech is on the right track for catering to the design and solution needs of many high-growth industries. Going forward, the chief challenge for Eurotech will be pushing back on pricing pressures for its lower-end products. The HPEC domain, however, represents a massive opportunity for Eurotech to shift its product mix toward more valuable high-performance offerings.

ABOUT THE AUTHORS

Dan Mandell supports a variety of syndicated market research programs and custom consulting engagements in the IoT and Embedded Technology practice. He leads VDC's annual research services for embedded processors, boards, integrated systems, IoT gateways, and other computing hardware. Dan's insights help leading technology providers align their go-to-market planning and competitive strategies with the dynamic embedded landscape and its constantly evolving buyer behaviors, technology adoption, and application requirements. His working relationship with VDC dates back to 2005 and includes time supporting Business Development as well as the AutoID practice. Dan holds a B.S. in Information Systems Management from Bridgewater State University.

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Chris Rommel is responsible for syndicated research and consulting engagements focused on development and deployment solutions for intelligent systems. He has helped a wide variety of clients respond to and capitalize on the leading trends impacting next-generation device markets, such as security, the Internet of Things, and M2M connectivity, as well as the growing need for system-level lifecycle management solutions. Chris has also led a range of proprietary consulting projects, including competitive analyses, strategic marketing initiative support, ecosystem development strategies, and vertical market opportunity assessments. Chris holds a B.A. in Business Economics and a B.A. in Public and Private Sector Organization from Brown University.

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ABOUT VDC RESEARCH

Founded in 1971, VDC Research provides in-depth insights to technology vendors, end users, and investors across the globe. As a market research and consulting firm, VDC's coverage of AutoID, enterprise mobility, industrial automation, and IoT and embedded technologies is among the most advanced in the industry, helping our clients make critical decisions with confidence. Offering syndicated reports and custom consultation, our methodologies consistently provide accurate forecasts and unmatched thought leadership for deeply technical markets. Located in Natick, Massachusetts, VDC prides itself on its close personal relationships with clients, delivering an attention to detail and a unique perspective that is second to none.

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