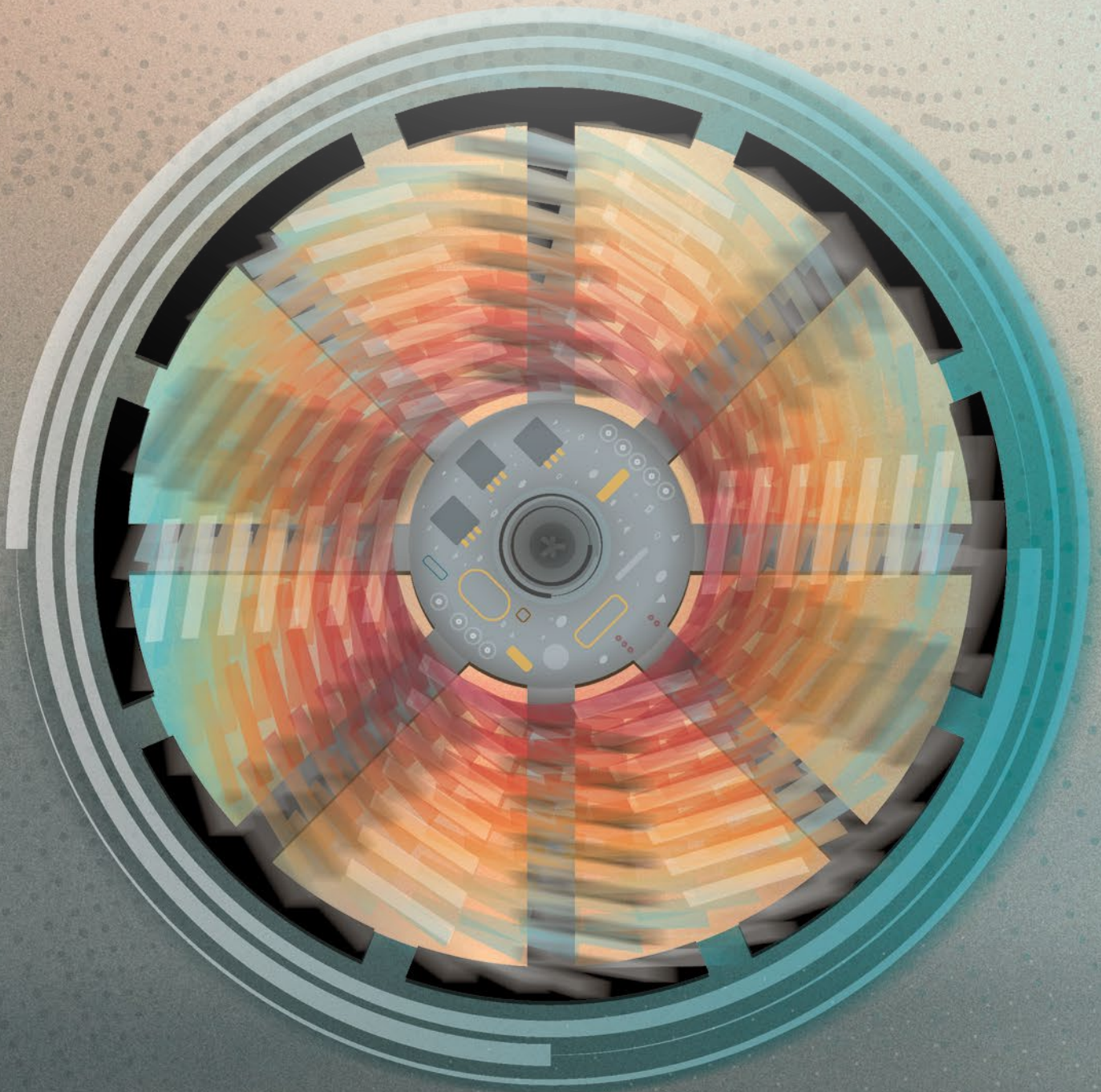


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DIGITAL MOTOR CONTROL

FUTURE MARKETS. DISCOVERED TODAY.

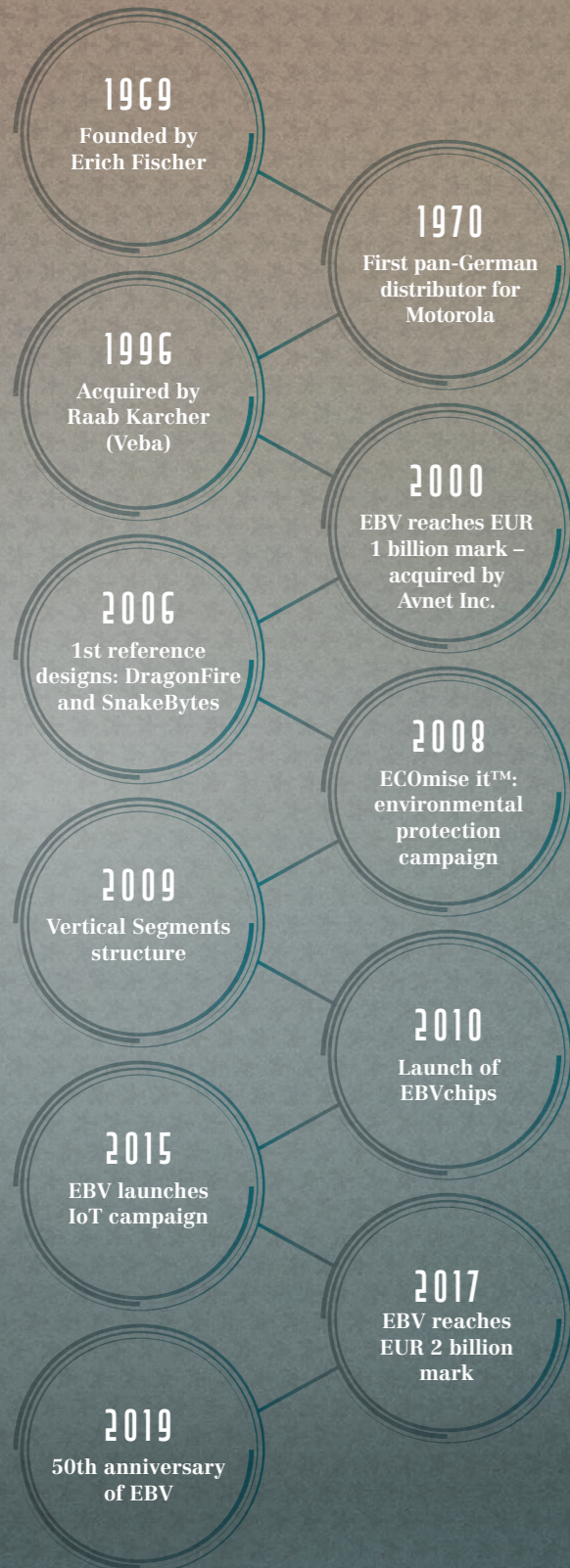


**TECHNOLOGIES
AND POTENTIALS**

**THE FUTURE
OF MOBILITY**

**NEW SERVICES
NEW OPPORTUNITIES**

FIFTY YEARS OF EBV ELEKTRONIK MILESTONES



The integration of semiconductors into drive technology is opening up entirely new fields of application.

**USD
1.8
billion**

Market volume for smart motors in 2025
(Source: Allied Market Research)

8%

Average annual growth rate until 2022 for variable-frequency drive systems
(Source: Market Research Engine)

**USD
6.34
billion**

Market volume for ICs incorporated into drive control systems in 2027
(Source: Future Markets Insight)

A MARKET IN FLUX!



50 years! Since its foundation in 1969, EBV has established itself as an interface between chip manufacturers and users. Back then – exactly one year previously – the first mass-produced inverter was launched onto the market, which ushered in a new era in electrical drive technology. Since then, our company philosophy has been shaped by continuity and innovation – as has the development of drive technology itself.

Continuity as electric drives continue to constitute a stable market in many industries, just as they always have; innovation because digitalisation also opens up entirely new possibilities in this segment, providing the market with further impetus for growth.

Smart motors for industrial applications are just one example: according to Allied Market Research, this market segment alone was worth USD 1.2 billion in 2017, while it is predicted to grow to USD 1.8 billion by 2025. Smart motors are electric motors which facilitate new services such as high-end machine control systems, predictive maintenance or innovative process control through the integration of sensors, processors or other electronic components. Drive

systems actuated by means of frequency inverters are even more widespread, particularly in industrial environments: according to Market Research Engine, the market for such solutions is forecast to be worth more than USD 27 billion by 2022. This corresponds to an average annual growth rate of 8 per cent. However, the growth of segments such as brushless DC motors, whose compact dimensions make them a popular choice for installation in household appliances, for example, demonstrates that the market for digital drive technology extends well beyond such smart industrial motors. Analysts from Technavio anticipate average annual growth of 13 per cent for this sector. By 2022, the market volume is accordingly expected to grow by USD 25 billion.

These digital drive solutions would not be viable without semiconductors. The integration of microcontrollers, application processors or FPGAs into drive components is continuing apace and opening up new fields of application. As such, this segment is becoming an increasingly important market for chip manufacturers as well. For example, the market experts from Future Market Insights anticipate that the market for integrated circuits, which are incorporated into drive control systems, will grow to be worth USD 6.34 billion by 2027. In 2017, the market volume still stood at USD 3.9 billion.

Digital drive technology offers a multitude of advantages – from considerably better energy efficiency, increased convenience during setup and operation through to entirely new revenue streams thanks to innovative services. This will bring a variety of opportunities for the semiconductor industry and manufacturers of machinery and devices alike. On that note, I hope you enjoy reading this new edition of our knowledge magazine, The Quintessence. You will learn exactly what is behind digital drive technology and be inspired by innovative, practical application examples.

Slobodan Puljarevic
President of EBV Elektronik

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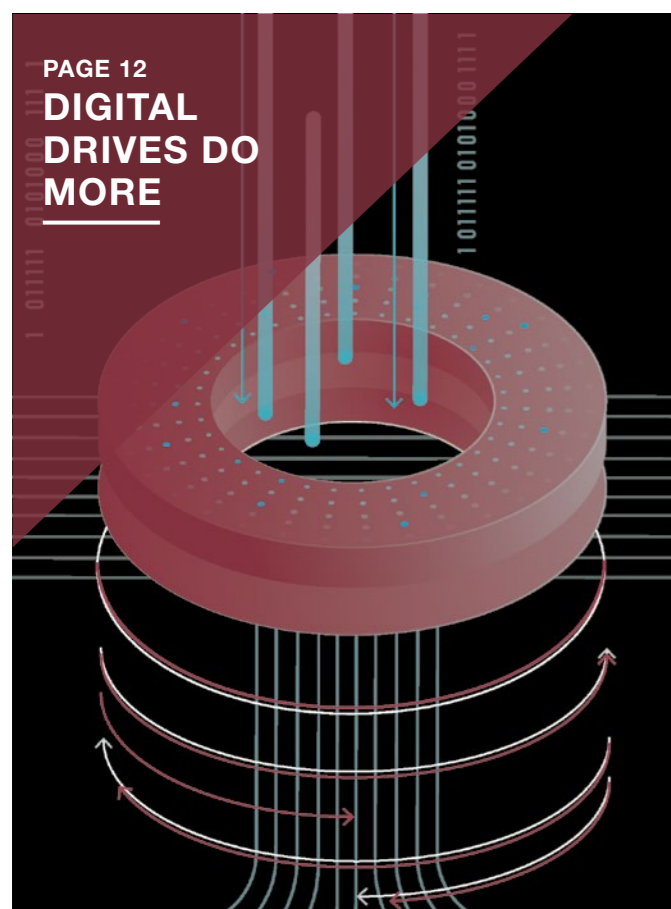
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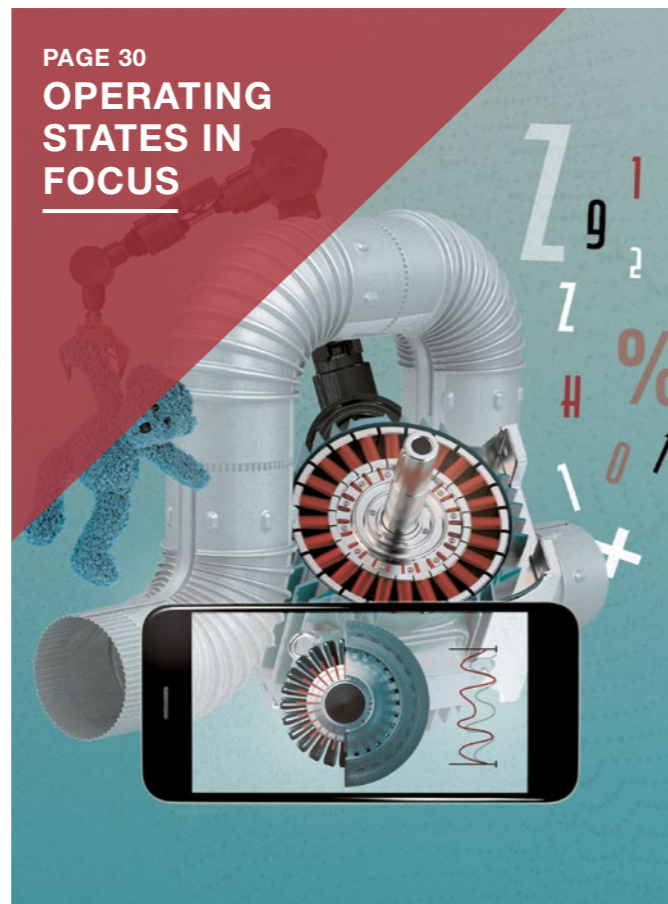
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New microprocessors specially developed for motor control are becoming game-changers.