MK group
Smart Digital Security

COMPANY PROFILE

https://mkgroup.com.vn

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COMPANY OVERVIEW

MK Group Joint Stock Company (MK Group) was established in 1999 in Vietnam. Over 25 years of growth, MK Group and its members constantly optimized their strengths in mastering core technologies and developing main production and business pillars, including:

- **Smart Cards:** manufacturing smart card products and developing smart card applications and eco-systems
- **Secure ID Documents:** manufacturing and providing a total issuance solution for e-ID cards, e-Passports, driver licenses and other specialized documents
- **Digital Security:** supplying secure authentication solutions for citizens and organizations
- **AI Cameras:** manufacturing and supplying Artificial intelligence (AI) camera systems for security surveillance, fleet management, law enforcement, border control, traffic management and other specific activities

ABOUT US

Vision

MK Group strives to be the leading provider of authentication solutions and smart card products and AI cameras for emerging markets

Mission

- Be a trusted partner for secure authentication solutions, AI cameras, card personalization and smart card products
- Support customers, partners and shareholders of MK Group to develop sustainably in the digital era
- Build a prosperous community for MK Group's members, customers and partners

Core values

- Commitment
- Trust
- Respect
- Open-mindedness
- Teamwork

700
MKERS
all over the world

4
Smart Card factories
in
Vietnam, Brazil, Ethiopia

2
CHIP OPERATING SYSTEMS
owned by MK

Capacity of up to
300
MILLION
cards per year

2 **factories**
AI Cameras & Hi-tech
products in Vietnam

MEMBERS OF MK GROUP

MK technology

MK Technology Joint Stock Company (MK Technology – now MK Group) was established on May 31, 1999 in Vietnam. MK Technology specialized in providing solutions for issuing and personalizing Cards - Smart cards, Identity authentication, Payment security and Entry-exit control. It currently focuses on Smart cards, Secure ID documents, Digital Securiy and AI cameras.

MK vision
Smart Secure Style

MK Vision Joint Stock Company (MK Vision), founded in 2020, has affirmed its ability to fully master AI Camera technology and innovate the best products that match the specific needs of the market.
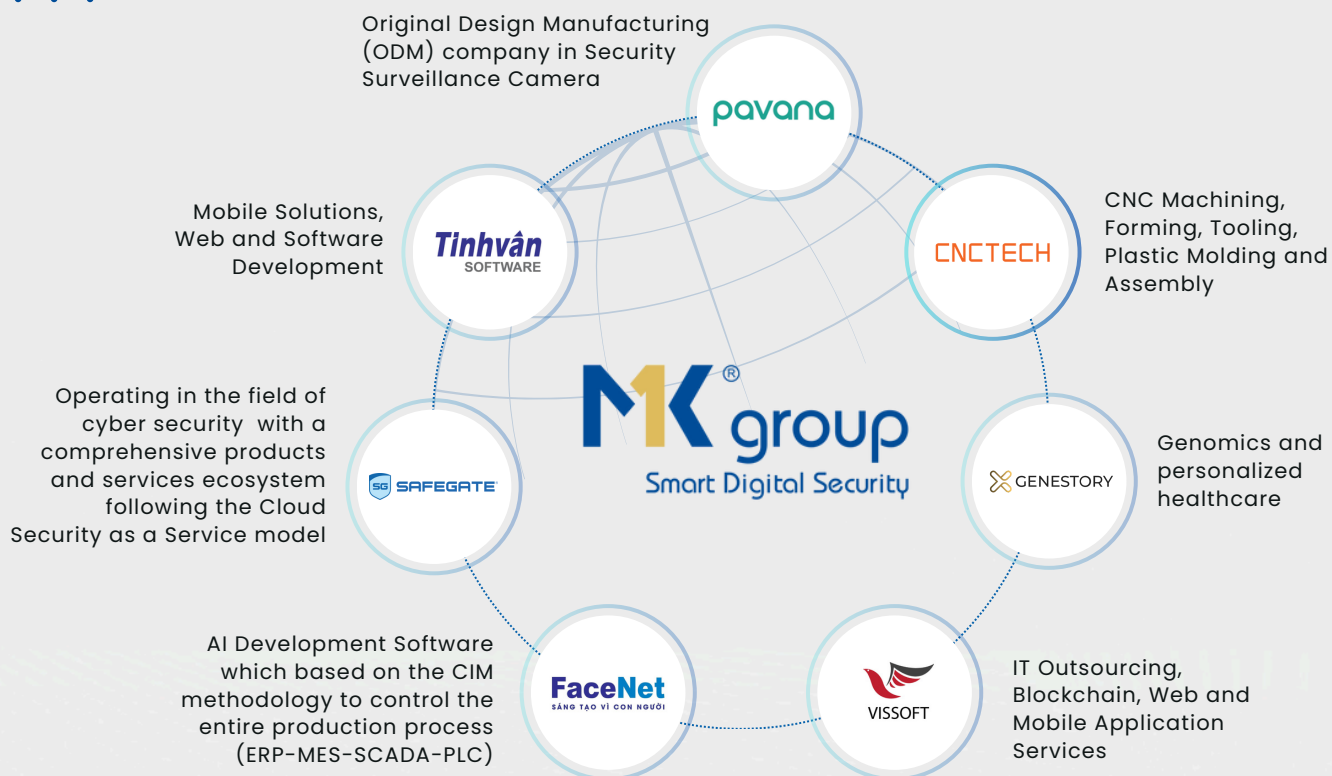
MK Hi-tek
Smart Digital Security

MK High Technology Joint Stock Company (MK Hi-tek), founded in 2020, conducts research, develops, and manufactures products and solutions in accordance with international standards in order to enhance user.

MK smart
Smart Digital Security

MK Smart Joint Stock Company (MK Smart), founded in 2003, is a pioneering company in the region with card manufacturing and smart card applications.

MK AEROSPACE

MK Aerospace Joint Stock Company (MK Aerospace), founded in 2023, specializes in developing and producing products and solutions for the aerospace industry.

MK TECHNOLOGY ALLIANCE

Original Design Manufacturing (ODM) company in Security Surveillance Camera

pavana

Mobile Solutions, Web and Software Development

Tinhvân SOFTWARE

CNCTECH

CNC Machining, Forming, Tooling, Plastic Molding and Assembly

MK group
Smart Digital Security

Operating in the field of cyber security with a comprehensive products and services ecosystem following the Cloud Security as a Service model

SG SAFEGATE

GENESTORY

Genomics and personalized healthcare

AI Development Software which based on the CIM methodology to control the entire production process (ERP-MES-SCADA-PLC)

FaceNet
SÁNG TẠO VÌ CON NGƯỜI

VISSOFT

IT Outsourcing, Blockchain, Web and Mobile Application Services

Core technologies and solutions

SMART CARDS

SECURE ID DOCUMENTS

DIGITAL SECURITY

AI CAMERAS

ROBOTICS

AUTOMATION

BLOCK CHAIN

CNC PRECISION

SOFTWARE DEVELOPMENT OUTSOURCING SERVICES

- Smart card production
- Card personalization, packaging and mailing solutions and services
- Smart card application solutions
- Secure ID documents and issuance solutions *(e-ID smart cards, e-Passport booklets, inlays, etc.)*
- Secure identification, verification and authentication solutions *(OTP, MFA, PKI and biometrics, etc.)*
- Smart card readers, e-ID cards and biometric devices
- AI Cameras: manufacture and supply AI camera systems for security surveillance, fleet management, law enforcement, border control, traffic management and other specific activities
- MK Networks devices
- Manufacture of plastic molds, precision parts, automation/mechanical equipment, etc.
- F-CIM solutions: develops and provides total production management solutions *(ERP-MES-SCADA-PLC)*
- Automation solution and Robotic process *(RPA for IT, Digitalization)*
- Software development outsourcing services: web and mobile applications, Blockchain, RPA development, etc.
- Library management solution

Government

MK Group provides comprehensive end-to-end solutions from data collection and issuance stage to ID verification and government applications.

- Secure ID document issuance solutions *(National e-ID cards, Driver Licenses, e-Passports, health insurance cards, etc.)*
- Secure authentication solutions *(KeyPass OTP solution, FIDO KeyPass 2FA token, PKI, SSL certificates and biometric authentication)*
- Verification and identification solutions
- Data encryption solution
- Access control and e-Gate solutions *(ticketing cards, smart cards and biometric readers)*
- AI Cameras: manufacture and supply AI camera systems for security surveillance, fleet management, law enforcement, border control, traffic management and other specific activities
- Self-service kiosks *(public services, bill payment, etc.)*

Banking and Payment

MK Group is a trusted partner of banks, payment networks and payment card issuers to bring successful card and transaction programs for financial institutions.

- Physical payment card issuance solutions *(VISA, MasterCard, JCB, UPI)*
- Digital payment card solution
- EMV migration solution
- Payment card outsourcing services
- Payment card quality control, sorting, packaging and mailing solutions
- e-PIN delivery solution
- Verification and identification solutions
- Data encryption solution
- Access control and e-Gate solutions *(smart cards and biometric readers)*
- AI Cameras: Manufacture and supply AI camera systems for security surveillance, fleet management, law enforcement, border control, traffic management and other specific activities
- Self-service kiosks *(deposit, money transfer, loan payment, micro-savings, bill payment, etc.)*

Transportation

MK Group implements transportation solutions to ensure a safe, seamless and convenient journey.

- E-ticketing solutions for public transportation
- Access control and electronic gate systems
- AI Cameras: Manufacture and supply AI camera systems for security surveillance, fleet management, law enforcement, border control, traffic management and other specific activities.
- Body-worn camera
- Automated fare collection solution
- Self-service kiosks *(Top-up and bill payment)*

Enterprise

MK Group deploys enhanced solutions for identification and authentication to improve customer experience and sustainable development.

- Smart card issuance and personalization solutions *(contact/ contactless/ dual-interface cards, etc.)*
- Smart card multi-applications
- Identity enterprise solutions
- Secure authentication solutions *(KeyPass OTP solution, FIDO KeyPass 2FA token, PKI, SSL certificates and biometric authentication)*
- Verification and identification solutions
- Data encryption solution
- Mobile app protection solution Licel
- Access control and e-Gate solutions *(ticketing card, smart card and biometric readers)*
- AI Cameras: Manufacture and supply AI camera systems for security surveillance, fleet management, law enforcement, border control, traffic management and other specific activities
- Business forms *(VAT receipts, bills of lading, POS receipts, envelopes, etc.)*
- Self-service kiosks *(Top-up and bill payment)*

Telecommunication

MK Group provides the latest SIM/e-SIM products with secure element solutions.

- Smart card *(SIM, eSIM, PKI, SIM/U-SIM/RUIM and prepaid cards)*
- Secure authentication solutions *(SIM cards with OTP/PKI/biometrics authentication application integrated)*
- Self-service kiosk system *(Top-up and bill payment)*

Certificates and Membership
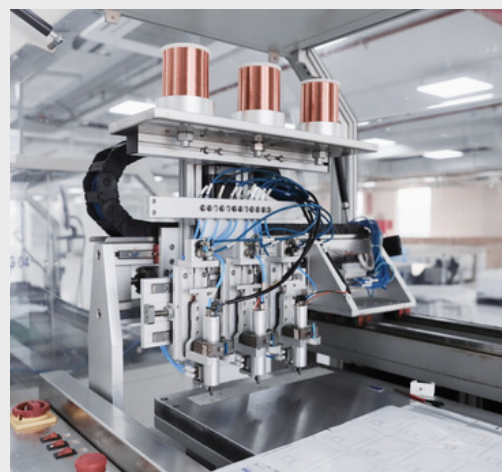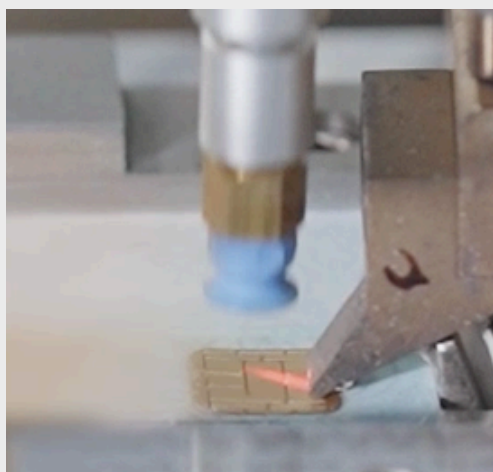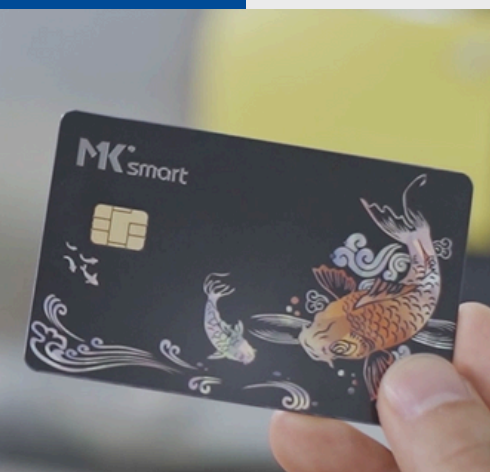
OUR PRODUCTS AND SOLUTIONS

SMART CARDS

2 Chip Operating Systems owned and developed by MK Group. We enable:

- The development and integration of multiple applicatons on the chip (identification, payment, security, e-ticketing and other purposes for card issuers)
- Personalization of all chip cards, such as chip EMV and domestic chip cards, e-ID cards, e-Passports, driver licenses, etc.
- Research and produce smart cards and biometric readers

MK Group has 4 card manufacturing factories:

- Located in Hanoi and Ho Chi Minh City (Vietnam), Minas Geras (Brazil), Addis Ababa (Ethiopia)
- Equipped with specialized production lines and advanced printing technologies
- Quality management process meets international standards
- Our card production capacity is up to 300 million cards per year, including:
    - Chip dual-interface personalized up to 500.000 cards/day
    - Chip contactless personalized up to 800.000 cards/day
    - Chip card with laser printing or embossing up to 200.000 cards/day

MK Group supplies:

- Card personalization solutions to create highly secure financial card programs and secure ID cards for government, coporations, hospitals and education organizations
- Card personalization systems with a modular architecture, high capacity, compact design and multi-level security
- Card quality control solutions for fully personalized smart card checking in various industries, including financial cards and identity cards

Materials and Custom artwork

- **Card body:** PVC, PC, Composite, Transparent, Metallic, Woody, Leather-effect, Color-core, ISO or non-ISO standard size
- **Card effects:** 3D Hologram, Spot UV printing, Rainbow printing, Perfume, Special magnetic stripe (small, hidden, color)
- **Wearable payment devices:** necklace, ring, bracelet, tag

Card Interface:
Contact, Contactless, Dual-interface, Hybrid

Multi-applications:
Identity, Payment, SIM/e-SIM, Security, Access control, e-Ticketing, Gift/Loyalty, etc.

Security features:
Biometric with Match-on- Card (MoC) technology, OTP, PKI, 2FA authentication

Secure printing:
- Tactile empressor
- UV printing
- Microtext printing
- Security laminate
- Laser engraving
- Hologram

Global and Local Payment Standard

- VISA, MasterCard, JCB, UnionPay, VCCS, Pre-paid, etc.
- Digital payment (Apple Pay, Google Pay, Samsung Pay, Garmin Pay, Pay by account)

Card issuance solutions and services

- Central/Instant card issuance solution
- High-volume card issuance systems and desktop card printers
- Card personalization software
- Digital card solution
- Card on-demand solution
- Card design, printing and outsourcing services
- Smart card readers
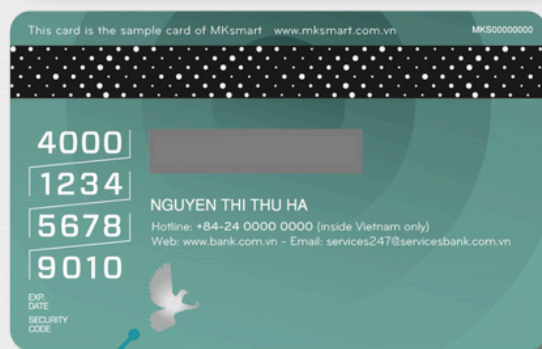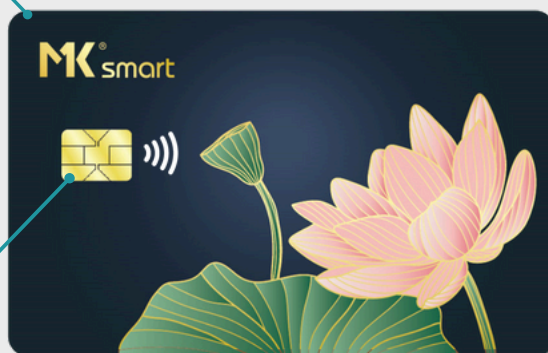
SECURE ID DOCUMENTS

e-ID cards | e-Passports | Driver Licenses | other secure documents

MK Group provides total solutions:

- **Chip-based ID (e-ID) card:** multi-applets supported including ICAO-compliant identification applications, MoC - biometric matching-on-card applications, PKI digital signature applications, etc.
- **Data enrollment with MK ABIS** - based on multi-method biometric identification technology including fingerprints and face
- **Data preparation software:** to standardize the enrolled data for the next stage
- **Card personalization system:** modular architecture with the latest security printing technology, which allows issuers to choose from high-volume personalization systems for centralized card issuance or desktop personalization machines for distributed card issuance
- **Quality control solution:** the post-personalization card quality control system is ideal for fully personalized smart card checking in various industries, including financial cards, identity cards, etc.; Suitable for card programs that require quality control of personalized data on the chip or surface printing
- **Other applications:** after issuance, the e-ID/ePassport can be used for identification and verification in multiple sectors: government, banking, finance, telecommunications, social insurance, etc.

DIGITAL SECURITY

BIOMETRIC AUTHENTICATION SOLUTION
Identification and verification using biometrics Matching-on-Card (MoC) or at the back-end (ABIS)

e-ID CARD IDENTIFICATION AND VERIFICATION SOLUTION
Apply biometric authentication technology Matching-on-card (MoC), Public Key Infrastructure (PKI) and ICAO standards.

KEYPASS OTP AUTHENTICATION SOLUTION
- One-Time-Password authentication
- Two-factor authentication FIDO U2F/FIDO2
- Public Key Infrastructure (PKI)

TOKENIZATION TECHNOLOGY
Allow digitalization of payment cards and transactions without a physical card
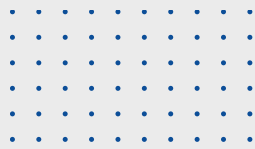
PRIM'X DATA ENCRYPTION SOLUTION
Protect information infrastructure, data, shared content, and more

LICEL MOBILE APP PROTECTION SOLUTION
Layers of app security provided to against a variety of threats on mobile devices

OTHERS: HSM, SSL Certificates, etc.

AI CAMERAS

MK Vision has pioneered the development of AI camera products endowed with the edge-computing capabilities.
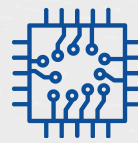
APPLICATIONS:

- Surveillance camera
- Dash camera
- Bodyworn camera
- Traffic violation monitoring system
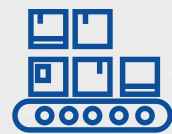
OUR PRODUCTION CAPACITY

- Both software and hardware are studied, developed and manufactured in Vietnam.
- Customized to meet the needs of surveillance and specific management of different customers

Factory in Vietnam	02 SMT Lines	22 assembly lines
150 injection presses	500 molds/years	2 million products/year

We own AI camera value chain and provide Original Design Manufacturer (ODM) services

Design → Supply → Manufacture

WHY MK GROUP

EXPERIENCE
25 year+ of industry expertise with a strong legacy across government and financial verticals

COMMITMENT
Genuine interest in delivering excellence for the government and citizens. Ensuring all expectations are exceeded

PARTNERSHIP
Engaging with a capable and committed technology partner

MULTI-YEAR STRATEGIC ENGAGEMENT
Creating long-term benefits by providing a road map to organizational success

SUSTAINABLE DEVELOPMENT

Established in 1999, MK Group has grown enormously in scale and portfolio of products and solutions. Since first launching an innovative card product, MK Group has developed strongly, cooperating and investing with many Vietnamese technology enterprises in the fields of precision engineering, software, security authentication, ODM, etc. to set up a Vietnamese technology alliance led by MK Group, towards the goal of "self-reliance in manufacturing - ownership of technology - continuous innovation and improvement."

In order to find new opportunities for business expansion and to maintain sustainable development as we have achieved, MK Group regularly innovates and makes strategic investments in business operations including:

- Investing in upgrading infrastructure helps with faster data processing, improved application performance, and reduced downtime. Modern infrastructure is designed to readily scale and adapt to evolving business needs. This provides agility for MK Group to launch new products and services, expand to international markets, and accommodate growing user bases
- Investing in modern machinery and equipment that automates repetitive tasks and strategic work, leads to increased output, faster processes, and overall efficiency
- Expanding and strengthening the global partner network to access specialized skills and resources. The geographical expansion enables MK Group to expand its network, reach new markets, scale production efficiently, and tap into larger talent pools, thereby enhancing its global competitiveness and mastering the supply chain.
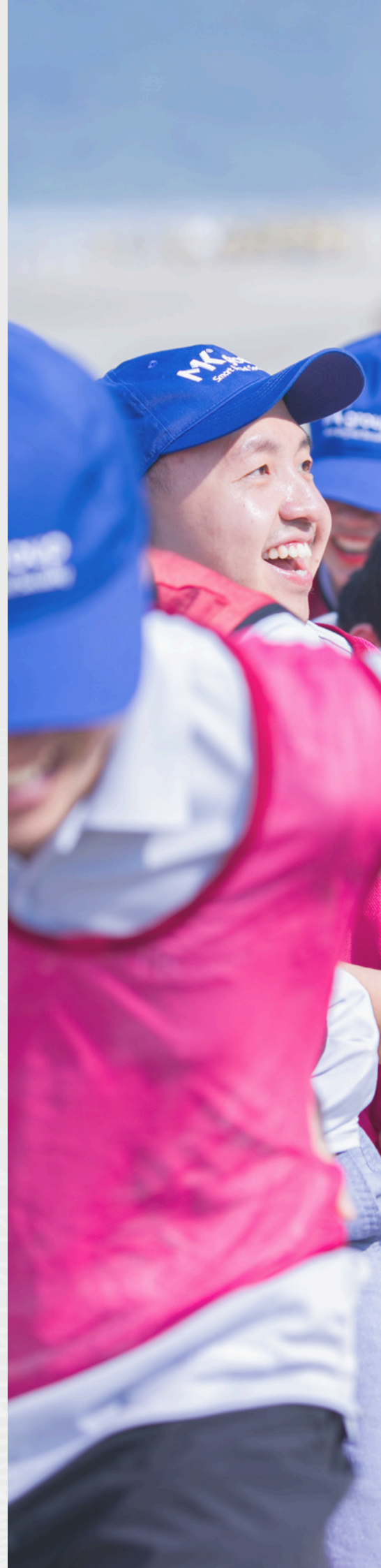
SOCIAL RESPONSIBILITIES

MK Group's Board of Directors has always prioritized and created conditions for social activities to become regular activities of the company. The social activities of MK Group and its members focus on targets such as MKers who always keep moving forward even during times of great difficulties in life, students and teachers at remote schools, victims of domestic and international natural disasters, as well as many other meaningful volunteer activities.

These things help MK Group build a good relationship with the communities, which is the beauty of MK culture that has been passed down through many generations.

"

We want our business to be able to participate in the global core technology supply chain, contributing to our country's development and helping other countries. During 25 years of building and developing MK Group, I have always been steadfast in the philosophy of 'built to last' rather than 'built to sell'. In the upcoming period, we will continue to realize the goal of 'self-reliance in manufacturing – ownership of technology - continuous innovation and improvement' with a Vietnamese spirit.

Mr. Nguyen Trong Khang - Chairman of MK Group

25TH

ANNIVERSARY

1999 - 2024

MK group
Smart Digital Security

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Tel: (+84-24) 7100 6781

MK Group Branch:
7th floor, Thien Son Building, No. 5 Nguyen Gia Thieu Str.,
Ward 6, District 3, Ho Chi Minh City, Vietnam
Tel: (+84-28) 3930 5023

Smart card factories
Vietnam
MK Smart Joint Stock Company
Hanoi: Lot 40, Quang Minh IZ, Me Linh | Tel: (+84-24) 3813 4646
Ho Chi Minh City: Lot I3-3, N2 Rd., Saigon Hi-tech Park, District 9, Thu Duc City | Tel: (+84-28) 3736 1446

Ethiopia:
MK Digital Security Solutions PLC
ICT Park Factory, Bole, Woreda 11, Addis Ababa, Ethiopia | Tel: (+251) 91 121 5100

Brazil
Alterosa MK
City of Contagem, State of Minas Gerais, at Av. Tom Jobim, no. 2700, Cidade Industrial

AI Camera factory
MK Vision Joint Stock Company
Lot C-1B, Thang Long III Industrial Park,
Thien Ke Commune, Binh Xuyen District, Vĩnh Phuc Province, Vietnam
Tel: (+84-24) 3813 4646

e-ID and Biometric device factory
MK Hi-tek Joint Stock Company
Lot C-1A, Thang Long III Industrial Park,
Thien Ke Commune, Binh Xuyen District, Vĩnh Phuc Province, Vietnam
Tel: (+84-24) 3813 4646

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