

TEMPLATE FOR THE GOOD PRACTICE

What is a good practice?

A good practice is not only a practice that is good, but a practice that has been proven to work well and produce good results, and is therefore recommended as a model. It is a successful experience, which has been tested and validated, in the broad sense, which has been repeated and deserves to be shared so that a greater number of people can adopt it.

Please follow the instructions included to fill in the template. You can replace the guiding questions for each element with your description.

Mandatory fields are defined by *

Element	Description
Title*	Cooperative Dual-Training with VinFast: From IC Engine & Mechatronics to Electric Vehicle Curriculum Integration – A Strategic Stepping Stone for the Central Region Energy Efficiency Training Center at HueIC
Name of the VET Provider	Hue Industrial College
Thematic domain	What is the thematic domain covered by this good practice? More than one domain can be indicated • Innovation • Digital • Green • Inclusion • Entrepreneurial • Career guidance
Introduction*	With a 127-year history of foundation and development since 1899, Hue Industrial College (HueIC) under the Ministry of Industry and Trade is one of the oldest and most prestigious public vocational education institutions in Vietnam. In February 2026, HueIC was officially recognized as a National High-Quality College, reaffirming its pioneering position in supplying high-skilled technical human resources. The college currently focuses heavily on key fields including Mechanical & Automotive Engineering, Electrical & Electronics, Mechatronics, Automation, Information Technology, AI, and Energy Efficiency. Embracing the green energy transition, HueIC is actively implementing the National Program on Energy Efficiency and Conservation (under Decisions No. 1613/QĐ-BCT and No. 3235/QĐ-BCT of the Ministry of Industry and Trade), directly addressing the shortage of high-level technical workforce and empowering Central region

enterprises to effectively adapt to stringent international standards such as Net Zero and the Carbon Border Adjustment Mechanism (CBAM).

The training partnership program between Hue Industrial College (HueIC) and VinFast Group has been executed across two strategic phases:

- Phase 1 (From 2020): HueIC signed and executed a dual-training partnership in Gasoline Automotive Engineering and Mechatronics Engineering under a model of 1.5 years on-campus study + 1.5 years practical training at VinFast. A total of 14 students enrolled (9 in Automotive and 5 in Mechatronics). All 14 students graduated in 2023 and are currently working full-time at VinFast automotive showrooms nationwide as well as at the VinFast Automobile Manufacturing Plant.
- Phase 2 (From 2025): HueIC signed an expanded agreement with VinFast to train core technicians in the field of Electric Vehicles (EV). The college proactively greened its curriculum by integrating specialized modules on Electric Vehicle Technology into Semester V of the Automotive Engineering program, officially applied starting from batch 25CD (enrolled in 2025).

The practical success of the VinFast partnership, coupled with years of accumulated greening capacity, not only provides an immediate high-quality workforce for enterprises but also establishes a solid technical foundation and managerial capacity for HueIC to lead the green energy transition. Through this, the college builds tailored and flexible training curricula for the HueIC Energy Efficiency Training Center.

Currently, HueIC is actively implementing the National Program on Energy Efficiency and Conservation pursuant to Decision No. 1613/QĐ-BCT (approving investment policy) and Decision No. 3235/QĐ-BCT (approving budget and preparation tasks) issued by the Ministry of Industry and Trade. These serve as pivotal legal grounds and momentum for the college toward establishing the Central Region Energy Efficiency Training Center, directly tackling the shortage of green technical human resources and accompanying the Central regional business community in meeting stringent international standards such as Net Zero and CBAM.

Stakeholders and Partners

The training partnership program between Hue Industrial College (HueIC) and VinFast Group serves as a paramount practical model for the "greening" strategy in vocational education. Moving beyond traditional internal combustion engine optimization and fuel efficiency solutions, the program has proactively driven a strong transition toward modern Electric Vehicle (EV) technology. The practical success of this action-oriented collaboration provides the crucial technical foundation and strategic launching pad for HueIC to continuously scale up, paving the way toward establishing the Central Region Energy Efficiency Training Center under the Ministry of Industry and Trade's

roadmap in the coming period, leveraging the close participation and coordination of a multi-stakeholder ecosystem as follows:

1. Direct Beneficiaries & Target Groups:

Students: Over 500 HueIC students enrolled in engineering disciplines (Electrical & Electronics, Mechanical & Automotive, Refrigeration & Air Conditioning) and specialized course trainees gain direct access to state-of-the-art facilities and modern equipment.

Faculty & Internal Experts: Nearly 100 lecturers, technicians, and energy auditors undergo advanced Training of Trainers (ToT) capacity-building schemes, elevating their energy auditing and management competencies to meet national and international standards.

2. Employing Enterprises & Key Industrial Partners:

Major industrial, electronics, automotive, and hospitality/tourism corporations (such as Mitsubishi Electric, Daikin, Panasonic, VinFast) collaborate through technology transfer, practical equipment sponsorship, and direct post-training recruitment.

Impact*

The automotive technology training partnership model with VinFast at Hue Industrial College (HueIC)—transitioning from traditional engine fuel efficiency solutions to a comprehensive shift toward modern Electric Vehicle (EV) technology—has generated positive, comprehensive, and far-reaching impacts across multiple dimensions:

1. Positive Impact on Learners and Human Resource Quality:

- Students: Direct hands-on access to VinFast’s advanced EV technology and energy-saving technical solutions drastically elevates practical skillsets, directly meeting the high-quality recruitment requirements of VinFast and major industrial corporations. Notably, the program actively promotes gender inclusion by encouraging and supporting female students to pursue Automotive Engineering. Female graduates have demonstrated exceptional competence in diagnostics, smart energy systems, and technical management, breaking gender stereotypes and expanding career opportunities in the green economy
- Faculty: Core lecturers from the Mechanical - Automotive Department, alongside faculty from satellite departments, undergo competency standardization and access modern technology transfer, establishing a qualified core technical team ready to lead the future Energy Efficiency Training Center.

2. Social Impact & Green Transition Promotion:

- Drives mindset shifts among students, youth, and local communities toward green mobility and sustainable energy utilization.
 - Creates high-quality employment opportunities with competitive incomes for young laborers in the Central region,
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helping reduce labor migration to major metropolitan areas and supporting social welfare.

3. Environmental, Economic, and Regional Resilience Impact:

- Environmental: Accelerating EV technical training directly advances greenhouse gas emission (CO₂) reduction roadmaps and combats urban traffic pollution, directly supporting national Net Zero targets.
- Economic & Resilience: Enables the college and enterprises to lower operational fuel costs through energy optimization solutions, while cultivating a green workforce that enhances the Central region's economic resilience against global fossil fuel price volatility.
- Stepping Stone for Center Establishment: Practical success from the VinFast program serves as a technical launching pad and operational springboard, enabling HuelC to confidently execute the mandates of the Central Region Energy Efficiency Training Center in the upcoming phase.

4. Evidence and Tangible Proof of Impact:

- High immediate post-graduation employment rate among students enrolled in the VinFast partnership program.
- Successful deployment and operational efficiency of EV practical workshops and energy-saving simulation systems on campus.
- Official recognition of HuelC as a National High-Quality College (February 2026).

Innovation and Success Factors * Contribution to Innovation:

- Action-Oriented Training Innovation: Pioneering an industry-partnered co-training model with VinFast, actively transitioning from traditional engine fuel-efficiency modules to modern Electric Vehicle (EV) technology, battery systems, smart energy management, and charging infrastructure.
- Greening TVET: Embedding sustainability and energy transition mindsets into the automotive engineering curriculum, building a strong technical launching pad ready to execute energy auditing and management training for the upcoming Regional Energy Efficiency Training Center.
- Digitalization & Smart Learning Integration: Leveraging digital technologies, including virtual simulation software for EV diagnostics, interactive digital learning platforms (LMS), and smart energy monitoring tools to enhance practical training efficiency and flexible learning.
- Comprehensive Campus Greening: Greening initiatives extend beyond academic programs to encompass synchronized, institutional-wide activities aimed at creating a fully green school environment.

Critical Success Factors & Conditions:

- Institutional: Strong strategic commitment from HuelC leadership paired with direct guidance and policy steering from the Ministry of Industry and Trade (via Decision No. 1613/QĐ-BCT and Decision No. 3235/QĐ-BCT).
- Economic & Enterprise Partnership: Active co-investment in practical training equipment, technology transfer, and strong graduate employment commitments from major industrial leaders like VinFast.
- Social & Environmental: Strong student enthusiasm for green technology careers and strategic alignment with regional Net Zero emission targets.

Constraints*

Challenges Encountered:

- Rapid Technological Evolution: Electric vehicle technology from VinFast and modern renewable energy management equipment update rapidly, placing high demands on faculty to continuously upgrade their specialized knowledge and advanced practical skillsets.
- High Infrastructure Investment Costs: Advanced EV diagnostic equipment, battery cutaway/educational models, and energy-saving simulation systems require substantial financial investment that exceeds regular institutional budgets.
- Community Perception & Mindset: Traditional mindsets and behavioral habits persist among the general public, with a significant segment of the population yet to actively pay attention to or engage in greening practices.

How They Have Been Addressed:

- Technology & Human Resources: Deploying faculty directly to technology transfer training courses hosted by VinFast, combined with participating in International Training of Trainers (ToT) capacity-building programs on energy efficiency supported by international organizations (EU, GIZ, UNIDO, GGGI).
- Infrastructure Optimization: Maximizing the shared-use enterprise workshop model with VinFast while proactively renovating the existing Workshop X1 to establish the physical base for the upcoming Energy Center.
- Community Engagement: Partnering continuously with local government authorities and the school network to raise public awareness, promote green initiatives, and advocate for policies aligned with sustainable transition trends.

Lessons learned *

Industry Partnership is Key: Strategic cooperation with VinFast—transitioning from fuel efficiency optimization to electric vehicle technology—ensures training programs tightly align with real-world market demands

Proactive Faculty Upskilling Ahead of Time: Proactively deploying lecturers to technology transfer courses and energy capacity-building schemes (UNIDO, GGGI, GIZ) ensures technical mastery prior to project implementation.

Infrastructure Optimization: Combining shared-use enterprise workshops with the renovation of existing facilities (such as Workshop X1) maximizes resources, laying a solid foundation for the upcoming Energy Center.

Community Consensus is the Key to Success: Fostering strong community unity and public alignment serves as the ultimate key to driving and sustaining successful green transitions

Replicability and/or up-scaling

Possibilities of Extension & Replication:

- **Replication of Green Industry Co-Training Model:** The collaborative model between HueIC and VinFast—transitioning from traditional internal combustion fuel-efficiency training to advanced Electric Vehicle (EV) technology—serves as a complete blueprint ready for immediate replication across the network of technical colleges and universities nationwide to meet green transition human resource demands.
- **Scaling Up to a Regional Energy Hub:** Practical achievements and hands-on experience from the VinFast program serve as a technical foundation and managerial springboard, enabling HueIC to scale into the Central Region Energy Efficiency Training Center under the Ministry of Industry and Trade's roadmap. The Center will deliver energy auditing training programs, Net Zero advisory services, and energy conservation solutions to thousands of enterprises, industrial parks, and tourism-service sectors throughout the Central region.

Required Conditions for Replicability & Upscaling:

- **Co-Investment & Commitment from Industry Leaders:** Direct involvement from major industrial/technology corporations (such as VinFast, Daikin, Mitsubishi) through practical equipment sponsorship, technology transfer, and firm graduate employment commitments.
- **Faculty Upskilling & ToT Standardization:** Prioritizing international-standard Training of Trainers (ToT) capacity-building schemes for core faculty (via partnerships with EU, GIZ, UNIDO, GGGI) to guarantee technological autonomy and flexible adaptation when transferring programs to other educational institutions.
- **Digitalization & Modular Curricula Transfer:** Packaging training frameworks, simulation kits, and digital lectures on EV technology and energy auditing into standardized modules, enabling rapid and cost-effective adoption in other localities.

Contact details

- Dr Le Van Luan
- Role: Vice Rector, Hue Industrial College
- Email: lvanluan@hueic.edu.vn
- Phone: 0914114488

URL of the practice

College website: <https://hueic.edu.vn/>

Related resources that have been developed

A selection of visual resources, including official photographs and video documentations of the practical training implementation, is provided alongside this report. Regarding the detailed curricula, course syllabi, and training manuals, these materials are protected under intellectual property rights and confidentiality agreements with our industry partner (VinFast), and therefore cannot be publicly disclosed.
