TECHNOLOGY TRANSFER AND COMMERCIALIZATION

Triple Helix collaboration for smart green transformation

Insights from GREEN-X, VinUniversity

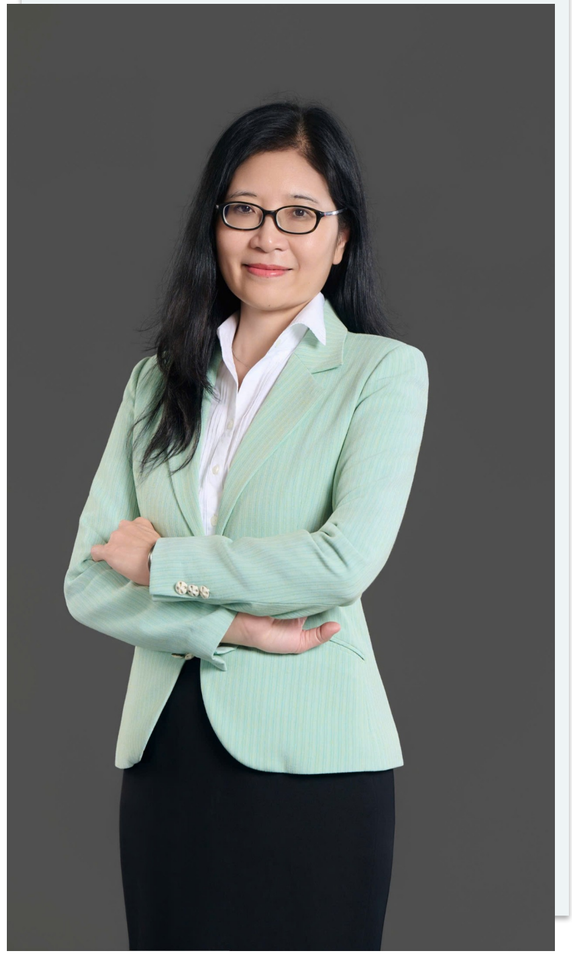
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Associate Vice Provost, VinUniversity

Executive Director, GREEN-X

IRIFF 2026 • Hanoi, 5 November 2026

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RESEARCH INTERESTS

Innovation • Green Transformation • Sustainability

RESEARCH LEADERSHIP

Research grants secured as Principal Investigator

US$3M+ USAID • DANIDA • NAFOSTED • Vingroup

60+ academic publications | 12 books

PhD, University of Fribourg, Switzerland (summa cum laude)

GREEN-X connects university research with local green transformatio

Smart Green Transformation Center

An interdisciplinary research centre at VinUniversity, working with governments and businesses to develop
and implement green-transition solutions.

POLICY INNOVATION + AI & DIGITAL TECHNOLOGY + REAL-WORLD IMPACT

6
local green-transformation plans
4 endorsed; 2 under development

15
smart-green solutions develope
Across priority sectors

1,000+
leaders and business representatives
Capacity building reported by the programme

~24.3M
people within programme reach
Estimated population across partner localities



GREEN-X's Integrated Model: From Strategy to Technology Transfer

01 Green Transformation Strategy & Master Planning



- Identify local priorities and development needs
- Develop Green Transformation Master Plans and standards
- Define measurable targets and project portfolios

02 Research & Smart-Green Technology Development



Co-Design
Translate local needs into research tasks

Develop
Build technologies and prototypes

Pilot & Validate
Test and refine in real-world settings

03 Implementation, Technology Transfer & Scaling



- Support local adoption and co-implementation
- Transfer technologies and build local capacity
- Monitor outcomes and scale successful solutions

From local needs and strategic planning to research, technology development and scalable impact

15 smart-green solutions

3 priority domains (Marine – Circular – Tourism)

GREEN-X's AI-Powered Smart-Green Systems

15 solutions • 3 priority domains • Technology development and field applications

01 SMART GREEN CITIES & CIRCULAR ECONOMY

1. Green Transformation M&E Platform — Khanh Hoa
2. AI Green Lifestyle Chatbot — Citizens
3. AI Green Policy Chatbot — Businesses
4. Smart Waste Treatment System
5. Smart Wastewater Treatment System

02 SMART GREEN TOURISM & SUSTAINABLE MOBILITY

1. Green Tourism Standards Platform — Khanh Hoa
2. V-BEMS — Hotel Energy Management
3. Carbon Footprint Monitoring & Management
4. Bus Transportation Digital Twin — Khanh Hoa
5. Smart EV Charging Stations

03 SMART MARICULTURE & MARINE CONSERVATION

1. AquaOS — Smart Mariculture: Van Phong / Nam Du (Australis)
2. FarmOS — AI/IoT Aquaculture: Nha Phu / RIA3
3. Ocean Robotics — Khanh Hoa Pilot
4. AI/IoT Coral Reef Conservation — Nha Trang Bay
5. Satellite-Based Coral Reef Monitoring — Khanh Hoa

COMMON TECHNOLOGY FOUNDATION

SENSING & DATA ACQUISITION

Sensors • Satellites • Drones
Underwater devices • IoT networks

→

INTEGRATED DATA PLATFORM

Storage • Integration • Governance
Processing • Digital twins

→

AI & DECISION SUPPORT

AI models • Analytics • Policy support
Real-world applications

Case #1
SMART MARICULTURE

From field monitoring to industry co-development

VINUNIVERSITY GREEN-X × AUSTRALIS

From Research to Technology Transfer: Smart Mariculture in Action



GREEN-X researchers conducting field testing of the AI–IoT monitoring system in Khanh Hoa.

SMART MARICULTURE VIDEO



VinUniversity officially handing over its AI–IoT Smart Mariculture Platform to Khanh Hoa authorities, October 2026.

From University–Industry Collaboration to National R&D Support

Joint Farm OS research proposal under evaluation by NAFOSTED

VinUniversity / GREEN-X

Research + technology

— Research expertise and methods
— AI–IoT and system integration

— Joint implementation resources

Australis Aquaculture

Production + operating expertise

— Production sites and infrastructure
— Operational expertise and staff
— Co-development and field validation

NAFOSTED

Public research support

— Additional research resources

— Advanced R&D and validation

— Potential for wider application

Co-develop → Advance R&D → Validate → Scale Impact

From Technology Transfer to Wider Commercialization

PROPOSED FRAMEWORK — UNDER FINALIZATION

01
TRANSFER PACKAGE

What is handed over?

Runnable software + AI models

Data links + operating guidance

Training + agreed support

02
PARTNER USE

How can Australis use it?

Non-exclusive operational use

Use within an agreed network

Data access + safeguards

03
WIDER COMMERCIALIZATION

How can the results scale?

Project-result rights at VinUni

Licensing to additional users

Protect partner rights and data

BEFORE WIDER DEPLOYMENT

Validate performance, user acceptance and economic value.

THE PARTNERSHIP BALANCE

Enable partner use while keeping a route to wider adoption.



Case #2
SMART GREEN TOURISM

From green standards to real-world implementation

VINUNIVERSITY GREEN-X × KHÁNH HÒA DEPARTMENT OF CULTURE, SPORTS AND TOURISM

Green Tourism: From Research to Business Action

An official, voluntary programme linking standards, digital tools and recognition

01 RESEARCH-BASED STANDARDS

Resource use • Emissions • Green practices
Official provincial standards (2025)

02 DIGITAL APPLICATION

Businesses self-assess → Submit evidence → Improve

03 GOVERNMENT-LED RECOGNITION

Professional review → Certification → Monitoring



Provincial standards launch • June 2025

THREE COMPLEMENTARY ROLES

VinUni — research & digital platform
Khanh Hoa — standards & verification
Businesses — evidence & improvement

Turning provincial green policy into practical business action.

Green tourism in action: the platform, the handover, the



GREEN TOURISM VIDEO

From Technology Transfer to Business Adoption

120

REGISTERED

Businesses participating

50

EVIDENCE PREPARATION

Preparing or supplementing evidence

3

CERTIFIED

Businesses certified



Technology platform handover



Green Tourism Certification Ceremony

PLATFORM HANDOVER

Khanh Hoa • 24 October 2026

Hotels named at the ceremony:

Champa Island Nha Trang
The Anam Cam Ranh
Vinpearl Resort Nha Trang

From Research to Commercialization: Three Lessons from GREEN-X

A CONTINUOUS LEARNING & INNOVATION CYCLE

R&D → FIELD USE → USER FEEDBACK → BETTER R&D

↶ FEEDBACK FUELS NEW RESEARCH

01 Sustain R&D & AI Innovation

Fund continued research after deployment.

Multimodal AI • AI-enabled tourism

02 Enable Co-Investment

Share resources, risks and benefits.

Government • University • Industry

03 Support Adoption & Scaling

Fund implementation and improvement.

Training • Evaluation • Replication

Technology transfer is a milestone—not the end of innovation.

VINUNIVERSITY

Develop the solution. Build the partnership that can put it to work.

GREEN-X bridges research, policy and real-world implementation.

How can government, universities, and industry co-invest in continuous R&D, technology adoption, and scalable impact?

THANK YOU • GREEN-X, VinUniversity