

Intel Vietnam Workforce Development

Roma Arellano & Jeff Goss

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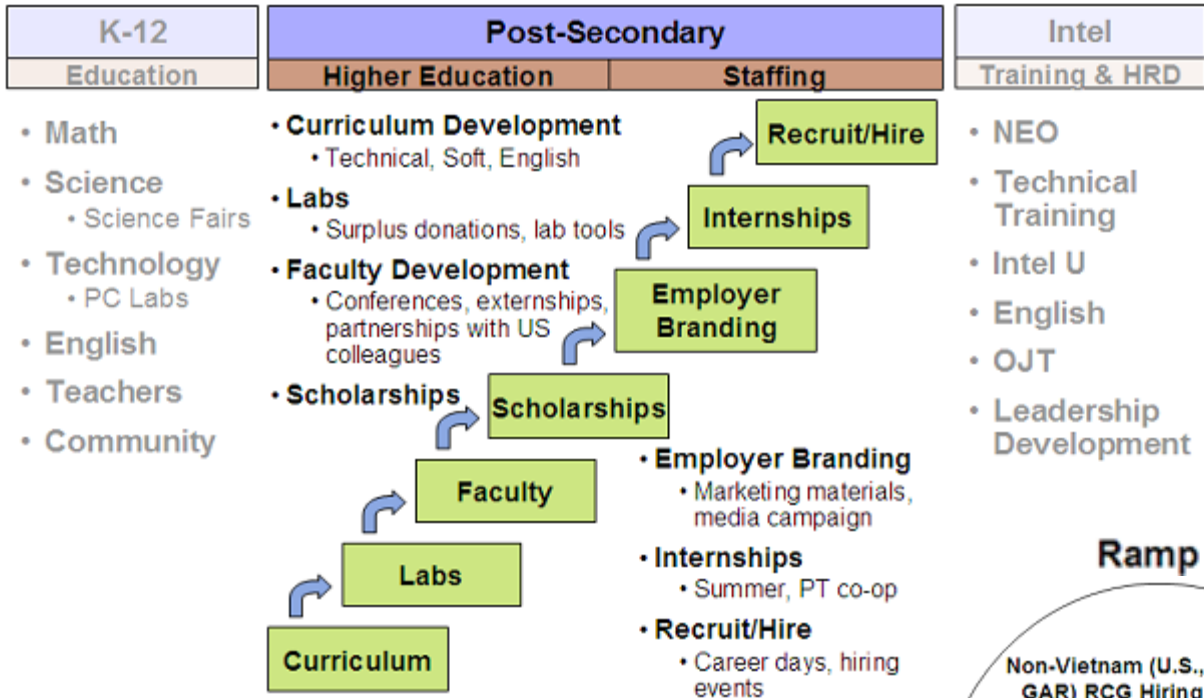
Key Messages

- High-tech industry depends on a strong public higher education system
- Problem statements in a nutshell
 - The Vietnamese university system is solid in Math & Science theory/ academics, but weak in Applied
 - Vocational education programs are outdated and viewed negatively by students and parents
- The Vietnamese government has prioritized education reform, but the pace of change will remain slow without industry participation
- Industry has a key role to play: providing systems thinking, strategic vision, and execution
- Every company in Vietnam has a vested interest in seeing the higher education improve

Background

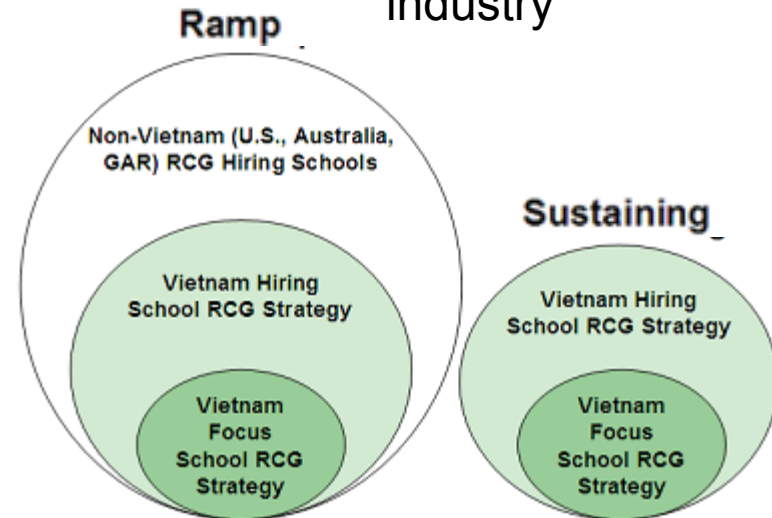
- Vietnam Higher Education system strong in Math & Science theory, weak in Applied, Technology, English, Behavioral
 - Teaching methods emphasize theory and memorization
 - Final exam is main means of student assessment
 - Labs are insufficient and not integrated into courses
 - Courses are not taught in English
 - Faculty are underpaid and not dedicated wholly to universities
 - Central control of curriculum
- Strong early focus on various solutions
- 2010 marks a significant shift in momentum
 - Vision = High-tech workforce competency
 - Major players providing strategic vision and funding

What is Workforce Development?

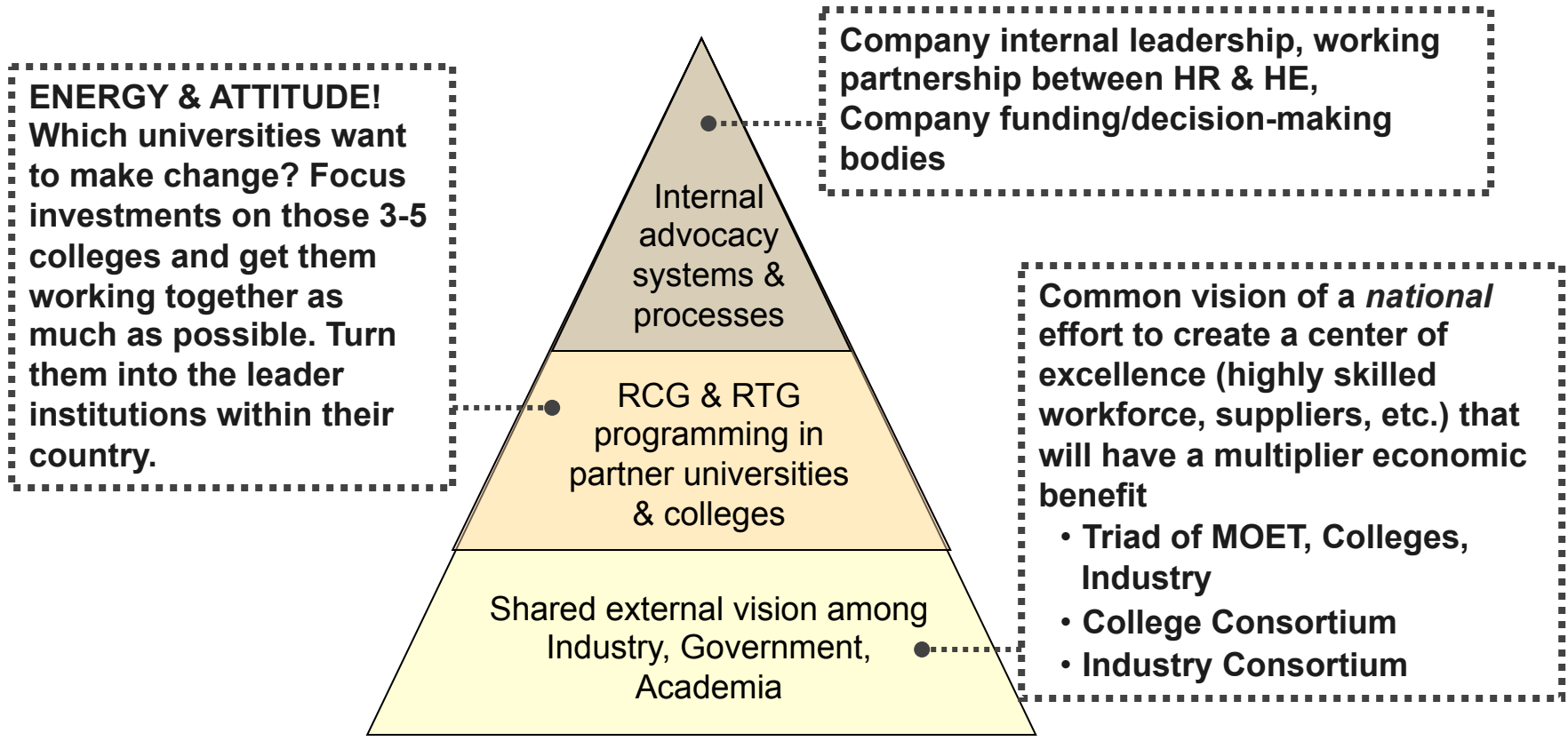


- Where Human Resources and Higher Education intersect
- Externally focused, involving government, academia, and industry

- It is not Staffing
- Generally involves specific types of interventions that can be customized to a particular set of problems



Foundation of successful WFD



FUNDING MODEL	One or two key funders
	Coalition of funders

Intel Products Vietnam Workforce Development

Intel Vietnam Scholars (IVS) Program – 2009-'12

Sponsor 50 students (in two groups) in 3+2 scholarship program that takes top undergrads from VN universities and completes Junior/Senior years of degree at **PSU** – RCGs that can become change agents and future leaders

Undergraduate
Engineering Hires

Higher Engineering Education Alliance Program (HEEAP) - 2010-'13

Working with mentor institution **ASU**, modernize Bachelor of Science in Electrical and Mechanical Engineering by training Vietnamese faculty in ABET outcomes and methods that are ported back to VN

Undergraduate
Engineering Education
(Public)

Vocational Program - 2010-'13

Working with mentor institution **ASU** (Polytechnic division), modernize Associates of Applied Science in Electronics (and related) Technology AND change perception of vocational education and careers, especially among young women and their parents

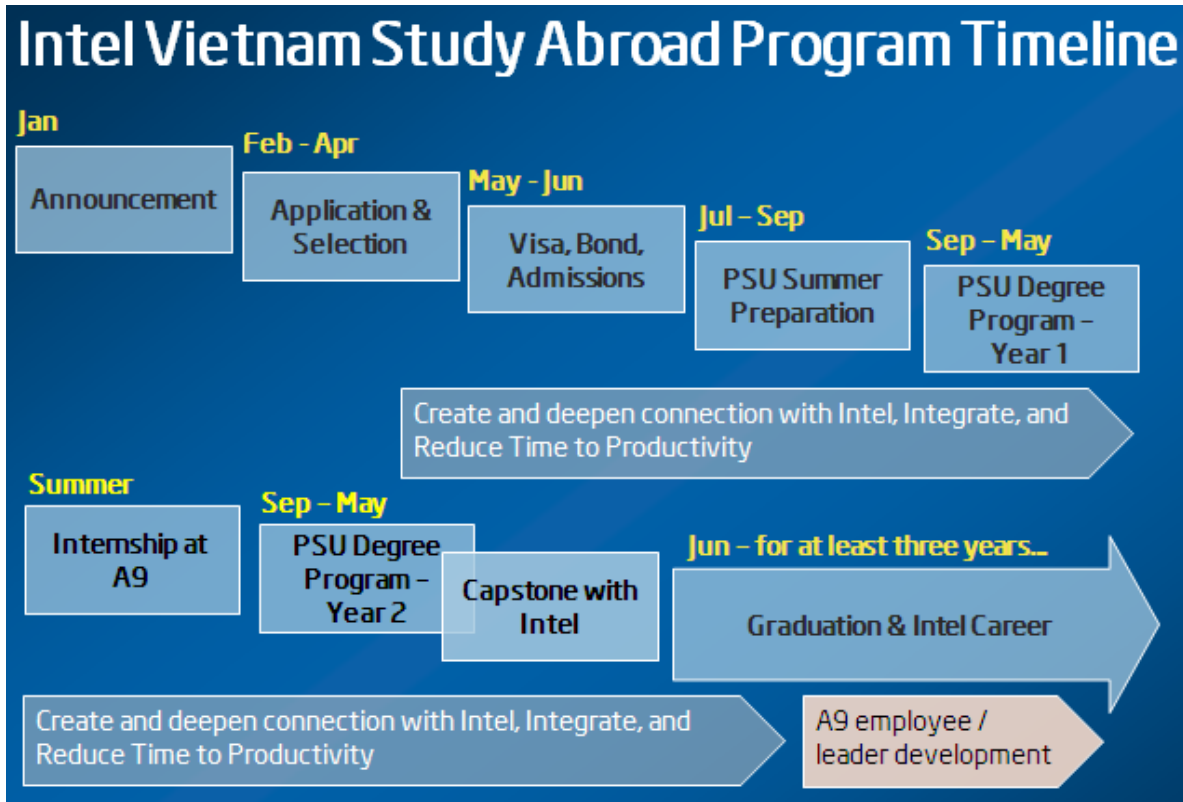
Technician Education
(Public)

RMIT Vietnam Master of Engineering – 2010-'14

Formerly Royal Melbourne Institute of Technology, RMIT Vietnam is establishing a Masters degree program with up to 40 Intel students, which expands advanced engineering capacity in Vietnam

Graduate Engineering
Education (Private)

Intel Vietnam Study Abroad Program



- Cohort 1: 28 (@Intel Spring'11)
- Cohort 2: 22 (@ Intel Spring'12)
- Top Engineering students from best Vietnamese universities
- BS EE or ME at PSU
- Intel pays costs minus RT air
- Education + Career with Intel in Vietnam
- Criteria:
 - GPA 7.0 or above
 - Strong English
- Intel Oregon infrastructure
- Intel Vietnam internships
- Leadership development focus post hire

An Opportunity to Become a Leader

Students selected for the **Intel Vietnam Study Abroad Program** will be among the best and brightest, destined to become future leaders with Intel and play an important role in this fast-changing country. Intel and PSU are seeking students with strong academic performance, English capacity, and desire to learn and grow. Above all, we want individuals who are committed to making a difference with Intel in Vietnam.

IVS Program showed us where to focus efforts for reforming Vietnamese Engineering Education

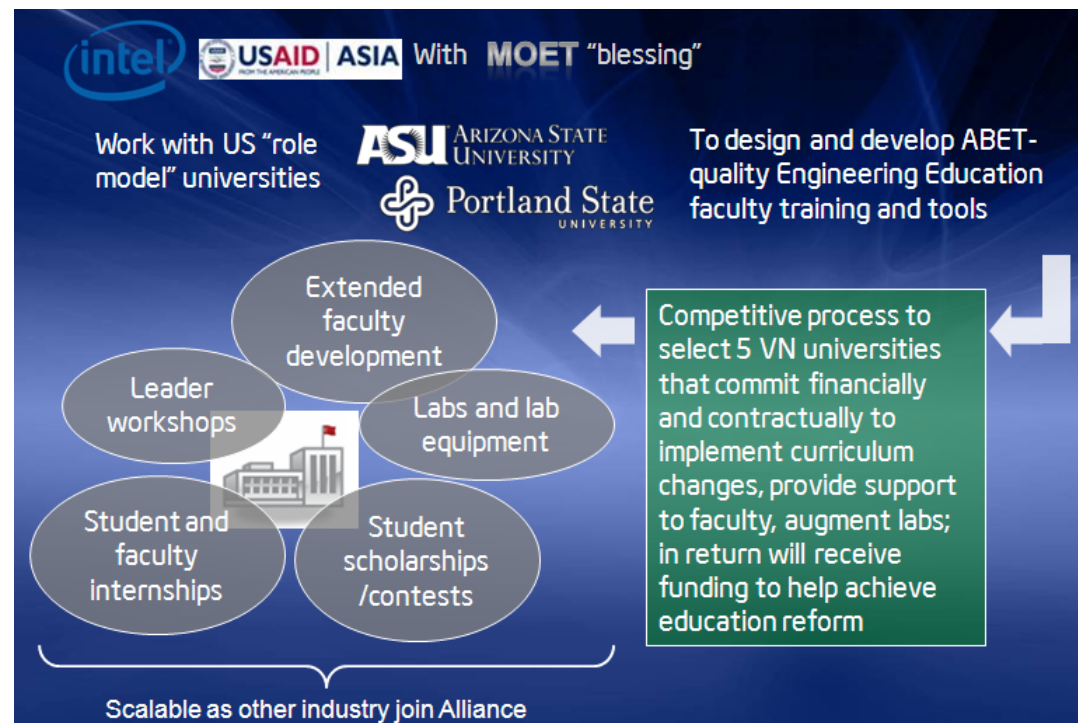
- The Intel Vietnam Scholars are not just doing well – “they’re setting the curve”
 - PSU Junior average GPA: 3.15 Electrical Engineering and 2.93 Mechanical Engineering
 - IVS Junior average GPA: 3.87 Electrical Engineering and 3.81 Mechanical Engineering

In the IVS own words:

- *In Vietnam we don't have enough equipment to do projects*
 - *What's different? Labs we can access – computer labs, electronics labs*
 - *Fewer students in class and more chances to contact professors*
 - *Friendly environment so students can ask questions*
 - *I'm surprised that I can do much more than in Vietnam*
- Goal is to bring that kind of learning and instruction to Vietnam

Higher Engineering Education Alliance Program (HEEAP)

- ABET outcomes are the gold standard
- Introduces active instruction and learning for BS Electrical and Mechanical Engineering
 - New courses and revamping existing courses and multidisciplinary approaches to teaching
 - Integrated labs
 - Changes in student assessment (quizzes, midterms, projects) and use of senior capstone
 - English-language teaching
- Accountability for donations
- Scalable model

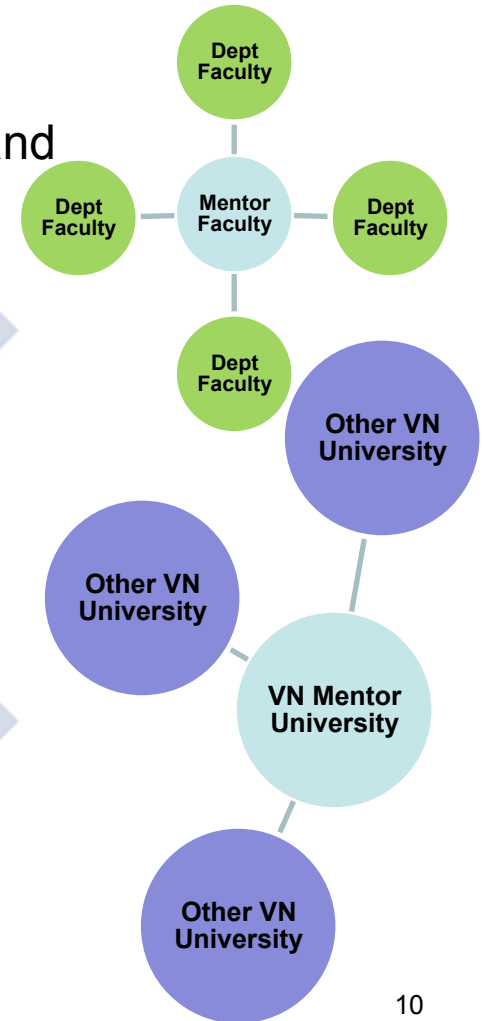
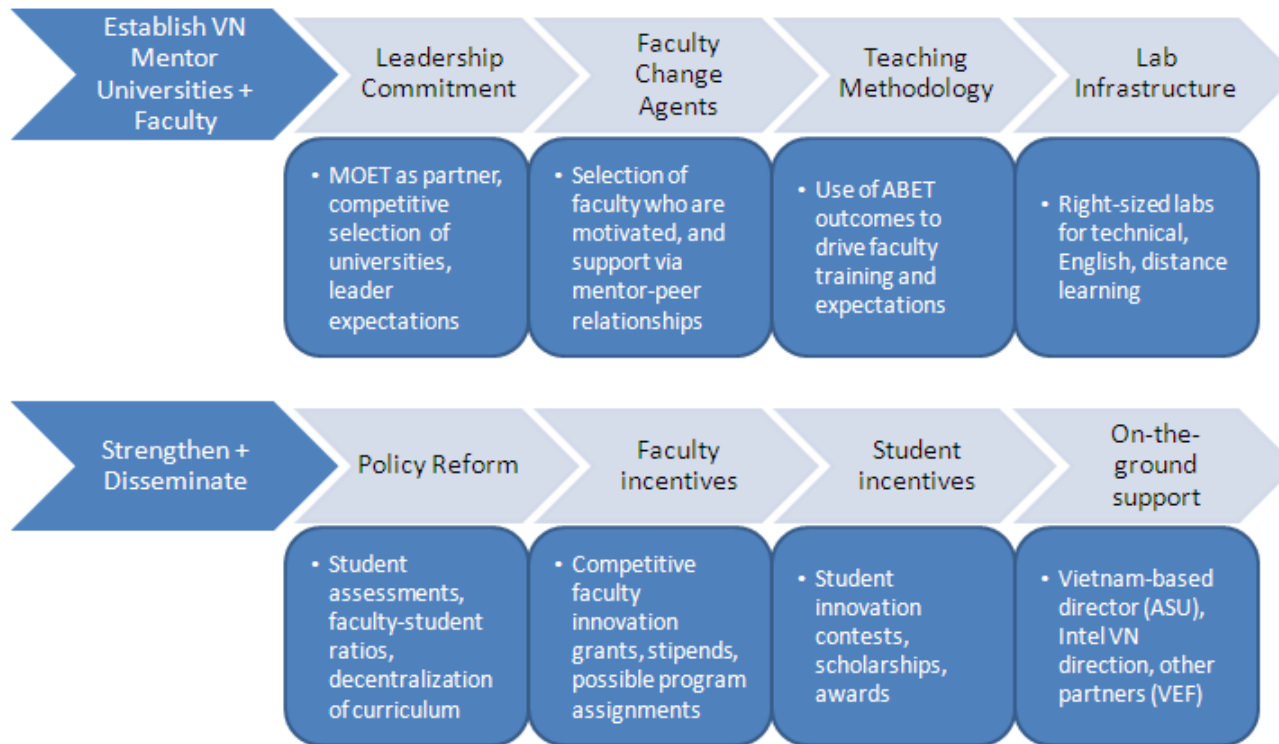


In the faculty's own words:

<http://www.youtube.com/user/ASUFultonEngineering?feature=mhum>

The HEEAP framework is a Systems approach that addresses root causes

- Includes Policy (MOET) and Leadership commitment (Rectors, Vice-Rectors, Deans)
- Affects faculty and students, curriculum and labs
- Peer-mentor (Train-the-Trainer) model within universities and among universities



Vocational program uses HEEAP model but with Perception component

- Vocational colleges (especially Applied Technologies) in crisis
 - Parents and young people aspire to professional class
 - If students fail the University Entrance Exams, families are deflated
 - Students who do enter Vocational choose IT, Business, Hospitality & Tourism
 - Young women especially stay away from “hard” studies
 - “Factory” work seen as dirty
- MOLISA and VCCI already addressing some of these issues
- Room for industry to get involved
 - Modernize curriculum (economies of scale with HEEAP)
 - Change perception among education decision makers of vocational colleges, ET, technician career
 - Provide equal opportunity for young women
 - Provide pathway for young people in economically disadvantaged areas

Why should you join us?

- Corporate Social Responsibility
- Positive employer branding
- Goodwill
- **Viability in the long term**