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International Conference 2022

**INNOVATIVE LEADERSHIP AND MANAGEMENT IN HIGHER EDUCATION:
GLOBAL TRENDS AND PRACTICES IN THE POST COVID-19 PANDEMIC**

SEAMEO RETRAC, July 07-08, 2022

Learning Ecosystem for Education 4.0 Results from EMVITET Project

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EMVITET focuses on developing teacher competencies, divided in three main areas:

PEDAGOGY

Design and implement competence based and student centered learning to match the needs of Industry revolution 4.0

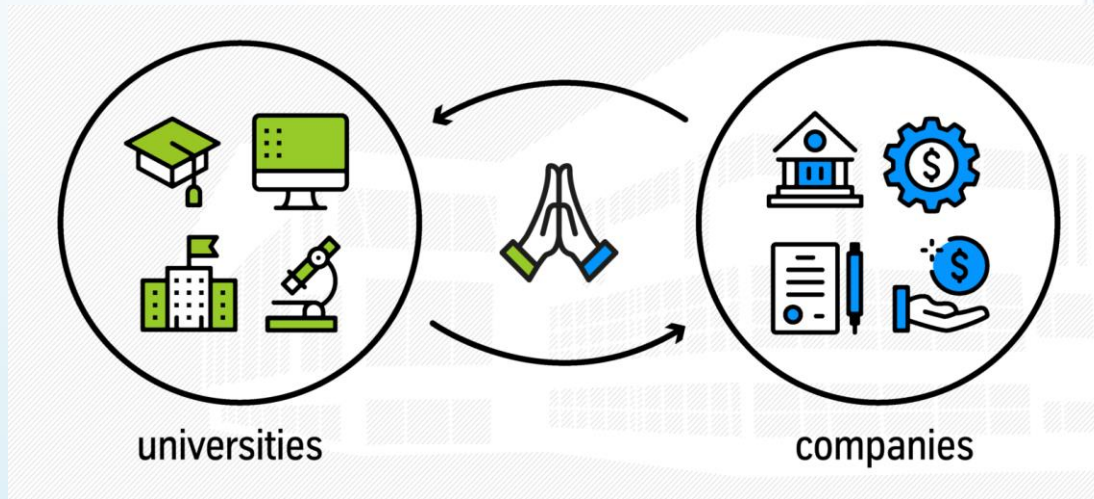
TECHNOLOGY

Effectively use technology to **enhance and transform** teaching and learning practices towards to Edu 4.0

LEARNING ECOSYSTEM

Engage with communities within education and industry to create connections & support collaboration

- **identify** their own strengths in emotional intelligence and self-management
- **identify and utilize** dialogical principles in their own professional development and in team work with other participants
- **build** community of practice in their own school to support development
- **identify** different ways to build **industry-education collaboration** and **reflect** their applicability in Vietnam



Why Industry-Education collaboration?



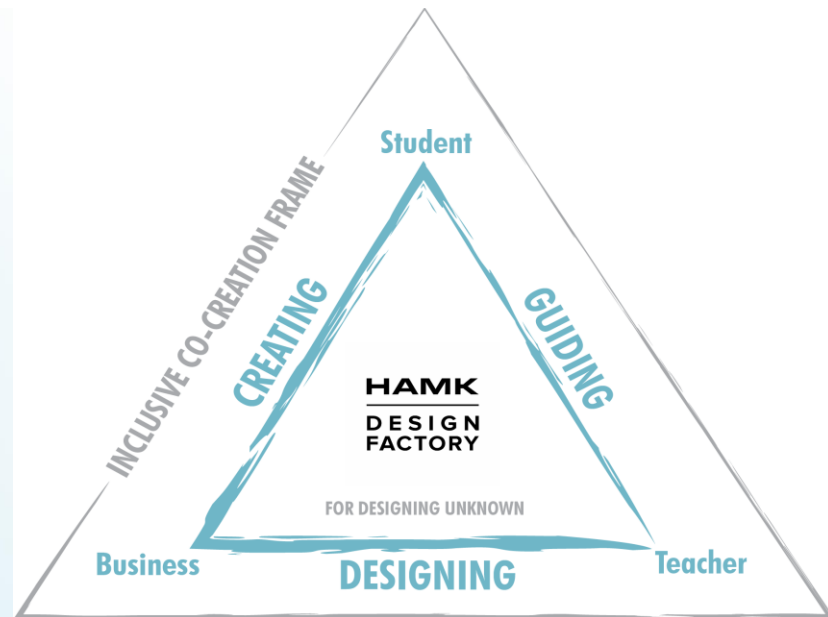
The **rapid changes** in the world of work and in **Industry 4.0** drive educational institutions to further design the **pedagogical practices** and **environments** (Shwab, 2016)

Traditional school environment is **not enough**, it is **crucial to connect** the real-world challenges and work-life partners into the learning process of the future workforce

Educational institutions: can better **assure** that students learn **relevant competencies**

Work-life partners: benefit from the **fresh perspectives** of students and from the **diverse professional expertise** of educational institutions in solving their ambiguous **business challenges**

Design Factory approach and principles in university-industry collaboration



Co-creation pedagogy framework (Jussila et al., 2020)

- [1] **Companies** have demand for solutions for real-life business challenges that provide **authentic learning environments** for students
- [2] **Students** are at the **centre for creating solutions** for companies in authentic learning environments
- [3] **Teachers** work as **facilitators** guiding the process and co-designing the challenge with the companies

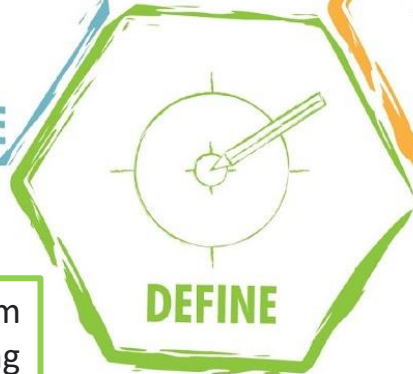
The **new role** of teacher-facilitator in the pedagogical approach highlighting the need to **change mindset** towards **trust in learning** and **development, collaborative work** with work-life partners, experimental attitude with a joy of **uncertainty** and an **acceptance of incompleteness** (Kunnari, 2021).

HAMK design thinking process

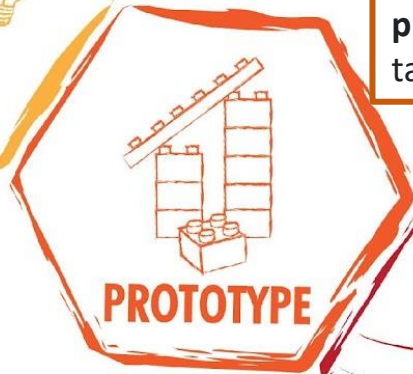
Step 1: students are introduced to the challenge and students start to explore the problem space by **empathizing** with the users and doing desk research



Step 2: students **define** the problem worth solving based on the understanding gained from the user research



Step 3: students **ideate** solutions to the problem worth solving



Step 4: students create one or more **prototypes** to make their ideas more tangible and easier to communicate

Step 5: students **test** the prototype with users

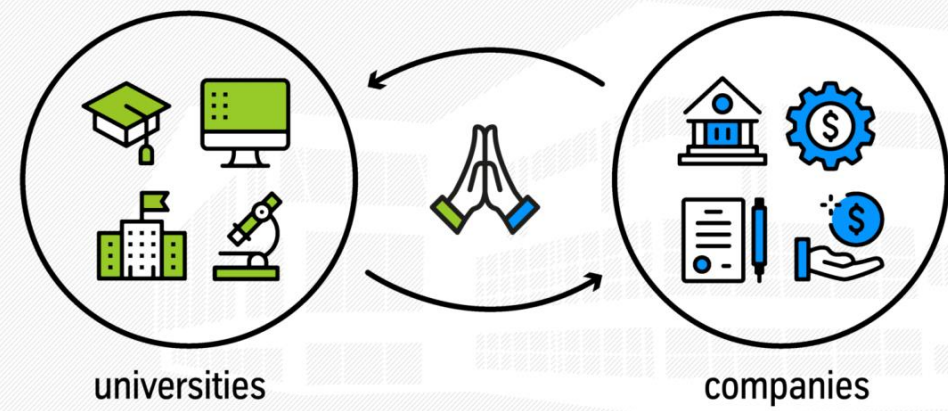


Jussila et al. 2020

Step 6: students **pitch** the solution to the client
NABC-model: Need, Approach, Benefits and Competition

EMVITET partners' cases for developing their innovation spaces

Experts in many fields (Lecturers)
Cheap employees (Students)
Labs (Machines for making prototype)



Market demand (Customers)
Capital investment (Finance)
Workshop (Machines)



**LAC HONG
DESIGN FACTORY**
Bring us your ideas and receive your products!

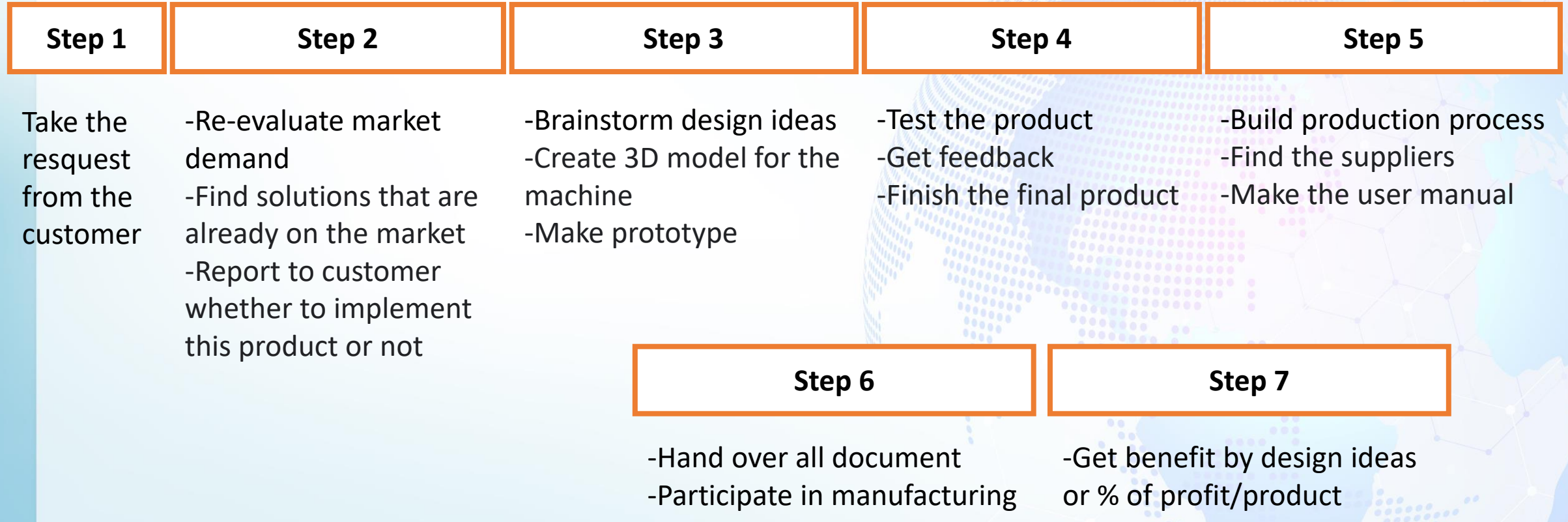


Maker space for students
Free tools and machines, free space for making entertainment creation and vocational guidance



R&D Department for SME companies
Learn the steps to solve real problems from the market

Design thinking process in Lac Hong Design Factory



Performance results of Lac Hong Design Factory

No	Company name	Project	Number of students	Name of projects
1	Lixil Global Manufacturing Vietnam Co., LTD	18	54	Tape gluing machine Rubber threading machine Taro machine Threading Machine Automatic packing machine Aluminum stamping machine
2	Chi Thanh Telecom Co., Ltd	1	8	Solar Cleaning robot
3	Gold Label Co., LTD	2	10	Automatic shoelace and glue dispenser machine
4	An Cuong Wood Joint Stock Company	1	5	PVC thread measuring and winding machine

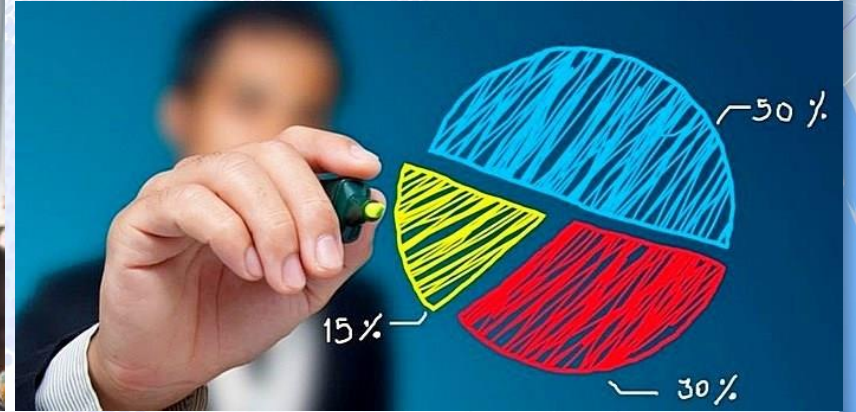
Biggest difficulty in implementation Design factory model



Students
Graduation



Teachers
Lesson



Worklife partners
Market
Profit
Dealine



BCCIE



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