Three vertical lines of different colors (red, blue, green) are positioned to the left of the title.

# Transition trends to a CE in Vietnam and Southeast Asia

Identify opportunities from CE for startups

# Trainers' Guides

**Introduction:** 05 minutes

## **The trainers explain the logic of the lesson as follows:**

1. In Module 101, students learn about the circular economy, the trends in circular economy in the world (specifically at a country level) in order to answer the question: What is CE and what is the current shift for a circular economy?
2. In Module 102, students explore deeply into the cyclical potential of new models, thereby clearly seeing gaps (opportunities for startups in CE) and challenges, and business opportunities from new CE policies from governments.
3. Therefore, the content of this course is designed as follows:
  - a. Students learn about trends in Southeast Asia, the similarities and differences of countries in the region;
  - b. Students analyze the current situation in Vietnam;
  - c. Students analyze cases from which helps identify opportunities for start-ups in Vietnam and the region.

# Learning Outcomes

# Learning Outcomes

102 - Day 1

1. Understanding the transition to a circular economy in Southeast Asia, **the similarities and differences of countries in the region**
2. Analyzing the **current situation of transition to the circular economy in Vietnam**
3. Identifying **gaps and business opportunities** for start-ups in the circular economy

# Agenda

102 - Day 1

1. [Warm up](#)
2. [Transition towards CE in Southeast Asia and Vietnam](#)
3. [Current status of the gap between policy and practice in Vietnam](#)
4. [Identify opportunities from circular economy for start-ups](#)

# 1. Warm up

# Warm up

How are you today?



*Image: Unsplash*

# Trainers' Guides

Slide 07 - Warm up

**Objective:** The trainers capture the feelings of the students before entering the classroom. Trainers should adjust classroom activities to maintain positive energy in the class.

**Duration:** 10 minutes

- **PREPARATION:** Trainers need to prepare a Mood Checkin template on Miro or other tools and guide students to familiarize themselves with the tool.
- **TRAINING TIME:** The trainers ask students to fill in their feelings in the template. Trainers can let students use functions on Zoom or other applications or practice some exercise before entering class.

# Which solution are you interested in?



Use waste oil to make soap



Edible food wrap



3D printing concrete from thermal power plant waste

# Trainers' Guides

## Slide 09 - Which solutions are you interested in?

**Objective:** See and evaluate which market students are interested in and guide students to think about their projects/ideas.

**Duration:** 15 minutes

- **PREPARATION:** Trainers need to prepare basic information about these 03 projects. Trainers can choose 3 other projects.
- **Information** about 03 projects in the slide can be found here:
  - Using waste oil to make soap bars ([Papa's Dreamer](#))
  - Edible starch film ([EdiFilm](#))
  - Using waste from thermal power plants to mix into concrete 3D printing materials ([3D PRINTING- QLAT](#))

# Trainers' Guides

## Slide 09 - Which solutions are you interested in?

- **TRAINING TIME:** The trainers briefly introduce 1-2 sentences about each project. Then ask "*Which project do you like? What ideas are possible/not viable for you? Why?*"
- **CONCLUSION:** The trainers share about **the model of Opportunities for themselves - Opportunities for others** to analyze opportunities for themselves based on 02 factors "Feasibility" and "Desired"
  - Feasible: Have the knowledge and resources to deploy
  - Desire: Like/passion to do
  - If the answer to these two factors is no, this is not an opportunity for me, so I should not participate, but should introduce / let others have more suitable capacity and passion to do it.

References:

[https://www.researchgate.net/publication/227763231\\_The\\_Formation\\_of\\_Opportunity\\_Beliefs\\_Overcoming\\_Ignorance\\_and\\_Reducing\\_Doubt](https://www.researchgate.net/publication/227763231_The_Formation_of_Opportunity_Beliefs_Overcoming_Ignorance_and_Reducing_Doubt)

# Tree of Expectation

Work individually

**What do you expect from the session?**



*Image: Pixabay*

# Trainers' Guides

## Slide 12 - Tree of Expectation

**Objective:** This activity helps students **reflect on the expectations** they wish to achieve in this course, as well as the things they bring to contribute to the course. This activity is to hear more about the concerns and experiences of other practitioners. This activity also helps Trainers find out what students want **to achieve through the program**. From there, it is possible to adjust the TRAINING TIME of the program so that it is most suitable to avoid the two sides having too high expectations for each other.

**Duration:** 15 minutes

- **PREPARATION:** Trainers create the Tree of Expectation on Miro.com

# Trainers' Guides

## Slide 12 - Tree of Expectation

- **Duration:** Trainers guide students to use Miro, explains and asks Students to fill in each part of the expectation tree
  - **Roots:** Represent skills, attitudes, behaviors and relationships that we bring to the course. So what skills, knowledge and attitudes do you bring to the course? Trainers ask the students to fill in the roots of the tree.
  - **Leaves:** What do you want to achieve after the training course. So what do you expect to achieve after the course? Trainers ask the students to fill in the leaves of the tree
  - **Fruit:** Things that are desired for the long term. Trainers ask the students to fill in their long-term wishes in the Fruit section of the tree
  - To achieve that, we need to agree on the rules to implement the course. That rule will help guide nutrients from the roots to the leaves and fruits. Trainers ask the students to fill in the rules that the students consider important to the course.
- **CONCLUSION:** Trainers need to summarize and agree on classroom expectations and principles.

## 2. Transition to CE in Southeast Asia & Vietnam



## 2. Trends of shifting to circular Economy in Southeast Asia & Vietnam

## Introduction: 10 minutes

**Key points:** Trainers introduce this content by explaining why this is vital. Trainers can choose one of the following parameters to introduce to students to illustrate the statement.

1. Plastic pollution is becoming one of the biggest challenges facing countries. Every year, the amount of plastic waste produced by humans on a global scale is **enough to cover four times the surface of the Earth**, of which **13 million tons of plastic waste are dumped into the ocean**.
2. Vietnam and Southeast Asia are home to the fastest economic growth and consumption in the world. However, for that same reason, the **discharge rate into the environment is also very large** and causes burdens for the environment and is harmful to human health.

# Trainers' Guides

3. Southeast Asia has emerged as a hotbed for plastic pollution due to rapid urbanization and a growing middle class.
  - a. In Thailand, the Philippines and Malaysia, more than **75% of the physical value of plastic that could have been recycled is lost** – the equivalent of \$6 billion a year.
  - b. **Only 18-28%** of plastic is recovered and recycled
4. Faced with such common threats, what strategies have Southeast Asian countries had to tackle pollution, especially strategies to promote the eco-economy?

# Transition to CE in Southeast Asia



Image: Unsplash

## 03 major trends:

- Select focus areas
- Develop policies focused on upstream and downstream
- Cooperate and develop standards to promote cross-border cooperation on CE



## 2.2. Comparison between Vietnam and other countries in the region

# Comparing different markets

<b>Cambodia</b>	Focus on the private sector and encourage knowledge sharing
<b>The Philippines</b>	No legal framework for circular economy
<b>Malaysia</b>	Starting to have roadmaps to discuss the concept of circular economy, there are moves but there is no clear determination
<b>Indonesia</b>	A clear focus on the circular economy, and the state economic sector is also making changes to CE
<b>Singapore</b>	Early integration of circular economy; has the most developed strategy in the region, and is applying some successful models in the world and creating new ways of doing things.
<b>Thailand</b>	Clear changes and strong participation of international organizations in the process of CE
<b>Viet Nam</b>	Start with strong commitments, enabling startups and businesses to transform

# Trainers' Guides

## Slide 21 - Comparing different markets

**Duration:** 45 minutes

### Key points:

1. As mentioned in section 101, countries around the world are making transitions to a green economy.
2. Before comparing, trainers can make a general statement about Asia with two examples of China and India.
  - a. For some Asian countries, the circular economy is also **rooted in the national culture** – even if this is not explicitly called a “circular economy”.
  - b. People in Asia have long **reused, repaired, shared and upcycled products** in what is today considered the cutting-edge model of the circular economy.

# Trainers' Guides

## Slide 21 - Comparing among different markets

- a. **China:** The **first country to adopt circular economy regulations in 2009**. China's Circular Economy Law is based on actual changes to production and consumption processes through **asset recovery. resources and efficient use of resources**
- b. **India: Enacted a law on e-waste.** This law places **new and stricter responsibilities** on manufacturers, collection centers, dealers, electronics retailers, refitters, consumers, volume consumers. large, dismantlers and recyclers engaged in the production, sale, transfer, purchase, collection, storage and disposal of electronic-waste

# Trainers' Guides

## Slide 21 - Comparing among different markets

Some key points in policy among several markets

### 1. Cambodia:

- a. The National Council for Sustainable Development (NCSD), the Ministry of the Environment (MoE), with support from Sweden, Japan and the United Nations Development Program (UNDP), has launched the **Strategy and Plan for National Circular Economy Action**,
- b. To engage the private sector in the transition to a circular economy, building a **platform to share information** on possible measures and actions was introduced with the new strategy.

# Trainers' Guides

## Slide 21 - Comparing among different markets

2. **Philippines:** Although encouraged, the Philippines currently does not have an integrated BEC strategy or policy framework.
3. **Malaysia:**
  - a. Face the challenge of waste management. Malaysia has developed an initiative on waste management regulation but **the government focuses on poverty reduction after COVID-19**
  - b. A number of **financial support mechanisms** are put in place to promote the market for circular economy
  - c. **Drafted a framework for sustainable development** of smart city initiatives until 2024, but so far there has been no new action from the government
  - d. The Malaysian government and NGOs have launched **several awareness-raising campaigns** and have established the 'Malaysian Roadmap Towards Zero Single Use Plastics 2018 2030'

# Trainers' Guides

## Slide 21 - Comparing among different markets

### 4. Indonesia:

- a. **Focus on 05 fields:** F&B, textile, construction, wholesale and retail trade; electronic
- b. **Indonesia's state-owned enterprises actively participate** in bringing the concept of a circular economy into production. For example, Mining Industry Indonesia (MIND ID), Indonesia's holding company for state-controlled mining companies, has announced that it is also implementing the circular economy concept to achieve the level net zero emissions.

### 5. Singapore

- a. **Singapore's first Zero Waste Master Plan** applies a circular economy approach in the value chain through incentives for sustainable production, consumption, resource and waste management.

# Trainers' Guides

## Slide 21 - Comparing among different markets

- b. The ambition to build a **complete circular economy by 2050**, defines a roadmap to 2025, 65% of household waste must be sorted for reuse and by 2030, the raw material usage must be reduced by 50% than that figure in 2019

### 5. Thailand:

- a. Thailand is the 10th largest marine plastic polluter in the world according to the Poorly Managed Plastic Waste Volume ranking. This country is more aware than ever about the threat that plastic waste poses to the ecosystem and the environment.
- b. Thailand is **paving the way towards a sustainable circular industry**, driven by industry transformation and adjustments in the policy framework.

# Trainers' Guides

## Slide 21 - Comparing among different markets

### 7. Vietnam

- a. Currently, about **85% of waste generated in Vietnam is buried without treatment** in landfills, causing enormous adverse impacts on the environment.
- b. Vietnam is gradually transitioning to a circular economy based on a three-pillar system related to the model of “recycling - reuse”, promoting waste reduction and reducing resource extraction through **recycling, reducing and reusing**.

Trainers can provide information for groups to discuss about each country if it works, and students can present the insights

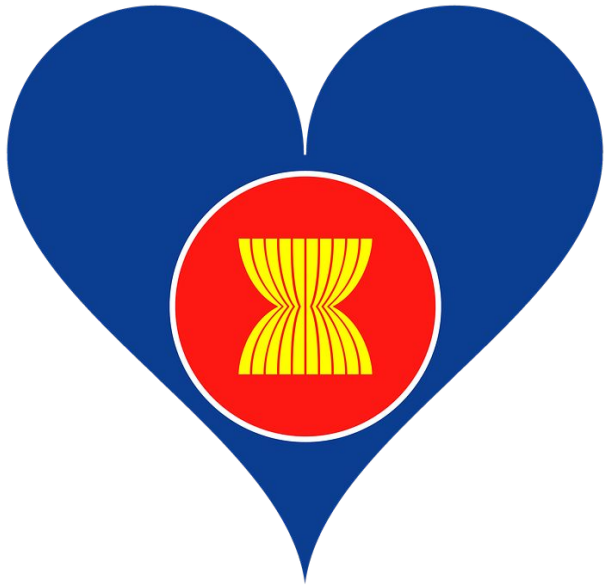
# Trainers' Guides

## Slide 21 - Comparing among different markets

### References:

1. <https://www.undp.org/cambodia/press-releases/cambodia-sets-sights-circular-economy-launch-new-strategy>
2. <https://www.philstar.com/business/2022/02/26/2163360/circular-economy-pushed-philippines-faces-waste-crisis>
3. <https://www.rvo.nl/sites/default/files/2022/03/Malaysia%20Booster%20Programme.pdf>;
4. <https://www.mida.gov.my/circular-economy-where-are-we-now-and-how-do-we-even-begin/>
5. <https://observerid.com/making-a-circular-economy-more-down-to-earth-in-indonesia/>
6. <https://www.channelnewsasia.com/commentary/singapore-circular-economy-sustainability-community-climate-315981>
7. <https://www.worldbank.org/en/news/press-release/2022/06/29/circular-economy-key-to-supporting-thailand-s-resilient-recovery-amidst-rising-global-risks>
8. <https://www.rvo.nl/sites/default/files/2021/08/Thailand-Factsheet-Circular-Economy-2021.pdf>

# Current Status



- The Southeast Asian countries **have transitioned to the circular economy, but not equally.**
  - Leading countries: Singapore, Indonesia
- **General area issue:**
  - Plastic pollution
  - Ocean pollution
  - Low recycling rate
  - Rapid consumption is placing a heavy burden on the environment
- **No clear joint action** (as of 2.2023)

# Trainers' Guides

## Slide 30 - Current Status

**Duration:** 15 minutes

**Key points:**

1. Lectures can enable students to summarize overview as stated above but encourage them to share their own viewpoints.
2. Lectures might ask follow up questions:
  - a. *If start up in CE, which markets will you choose? Why?*

# 3. Current status of the gap between policy and practice in **Vietnam**

# CE policy in Vietnam



Decision 889/QĐ-TTg dated June 24, 2020 of the Prime Minister **approving the National Action Program on sustainable production and consumption** for the period 2021-2030



**The concept of "Circular Economy" has been updated and is considered as one of the important contents of the Law on Environmental Protection in 2020**, which officially legalizes the regulation of the eco-economy.

**Resolution of the 13th Party Congress** affirms the policy:

- Build a green economy, a circular economy, friendly with the environment,
- Build a roadmap, mechanisms, policies and laws to form it

## Project on Development of Knowledge Economy in Vietnam (Decision 687/QĐ-TTg)

- Clarify the target of reducing the intensity of greenhouse gas emissions per GDP by at least 15% by 2030
- Towards net zero emissions by 2050

# The gap between policy and practice in Vietnam



## 1/ The policy framework

for the development of the circular economy model has not been clearly and specifically formulated.



## 2/ Resources for the transition

to CE remain insufficient due to limited investments in technology for the CE



3/ Awareness of the CE and the necessity of the transition is still limited

# The gap between policy and practice in Vietnam



## 4/ Small and medium enterprises

accounting for 95% in Vietnam find it difficult to invest in technological innovation. Few enterprises have the technology capacity to recycle and reuse used products.



5/ The production and consumption behaviors today are difficult to change without top-down regulations

# Trainers' Guides

Slide 33 - 35 - CE policy & The gap between policy and practice in Vietnam

In this part, Trainers should read about the mentioned Resolutions and Projects to understand more about the policies that have been introduced.

**Duration:** 15 minutes

## Key points:

1. After stating 5 gaps, trainers should ask students:
  - a. *Which of the above 5 gaps is affecting startups in the circular economy the most in Vietnam in your opinion?*
  - b. *Will you choose to start a circular economy in the form of B2B (sales to businesses/organizations) or B2C (sales to B2C end users) ? Why?*

## References

1. [https://www.cibgp.com/article\\_11692\\_d20ba363275b3ad133842c18cf530a6e.pdf](https://www.cibgp.com/article_11692_d20ba363275b3ad133842c18cf530a6e.pdf)
2. <https://vca.org.vn/du-thao-bao-cao-tong-ket-thuc-hien-chien-luoc-phat-trien-kinh-te-xa-hoi-10-nam-2011-2020-xay-dung-chien-luoc-phat-trien-kinh-te-xa-hoi-10-nam-2021-2030-vb219.html>

# 4. Identifying challenges and opportunities from the CE for startups

# Trainers' Guides

## Introduction: 05 minutes

### Key points:

1. After understanding the general context of the ASEAN region and the current situation in Vietnam, students are able to explore some in-depth examples, analytical tools to understand the model, and their own opportunities when starting a business in CE

# Cyclic Potential Assessment Tool- Circular Economy Toolkit

The Circular Economy | Toolkit | Assessment Tool | Workshops | About

Answer the questions below to find potential improvements in your organisation:

\* Company type: Manufacturer  
 \* Product type: Catalytic Converter  
 \* Use: Just playing Serious

**Design, Manufacture and Distribute**

No material is used in excess, product is totally dematerialised

100% Biodegradable

100% Recycled materials used

High waste of material, could be reduced through redesign

High percentage of technical, non-biodegradable materials

High percentage of virgin, non-recycled materials

Improve Potential  
 High Medium Low

(a)

**CIRCULARITY TEST - CEIP SCORE**

Version: 1.0  
 Contact: info@falkfoundation.org

1 GENERAL INFORMATION

Company Name: Borealis Components  
 Site Code: ...  
 Assessment Date: November 2018  
 Assessment by: Michael Sackel

2 QUESTIONNAIRE

The questionnaire intends to measure the potential to improve the circularity of the product between the Circular Economy principles throughout its different lifecycle stages.

3 RESULTS

Product Rating	Points
Scored	Available
42%	Good
64	152

Lifecycle	# Questions	Scored	Available	Rating	Ranking
Design/Package	8	12	27	44%	Good
Manufacturing	2	7	25	28%	Fair
Commercialisation	3	10	30	33%	Good
End of Use	4	12	35	34%	Fair
End of Life	3	18	35	51%	Good
TOTAL	15	44	102	43%	Good

End of Use: Design/Package, Manufacturing, Commercialisation, End of Life

## Evaluation on 06 components of circular economy

1. Design
2. Use
3. Maintenance/repair
4. Reuse
5. Reproduce
6. Recycling

Image: Circular Economy Toolkit

# Trainers' Guides

## Slide 39 - Circular Economy Potential Assessment Tool

Trainers should spend time trying out the [Circular Economy Toolkit](#) first to understand how it works.

**Duration:** 15 minutes

### Key points:

1. Currently, there are 03 popular measurement tools - *Circular Economy Toolkit* (CET), *Material Circular Indicator* (MCI) and *Circular Economy Indicator Prototype* (CEIP);
2. For newly established projects, it is advisable to use *CET tool* as a tool frame of reference for project evaluation.

# Trainers' Guides

## Slide 39 - Circular Economy Potential Assessment Tool

### References:

1. Other assessment tools:
  - a. <https://ellenmacarthurfoundation.org/material-circularity-indicator>
  - b. <https://circulareconomy.europa.eu/platform/en/measuring-circular-economy>
2. <https://www.mdpi.com/2313-4321/2/1/6>

# Practice

Work individually

Try using Circular Economy Toolkit and estimate project measurement

1. [Papa's Dreamer](#)
2. [Dấu chân xanh](#)
3. [Ông sây Mana.st](#)



Image: Unsplash

# Trainers' Guides

## Slide 42 - Practice

**Duration:** 30 minutes

**Key points:**

- **PREPARATION:**

- Trainers divide the class into groups of 3-5 students and send them into the Breakout Rooms
- Trainers choose the project/startup of Module 2 - Day 2 for students to measure.

- **TRAINING TIME:**

- Trainers provide basic information about products and services for students to learn and self-assess
- **Practice:** 15 minutes/enterprise
- **Presentation:** Trainers invites 2-3 groups to present their results. Each group has 5 minutes.

### CONCLUSION:

- Results from this exercise can be used as reference to ask guest speakers on Day 2
- **Trainers ask the students:**
  - *Do you find it easy or difficult to use the tool? If difficult, then at what point?*  
(Suggested answer: The advantage is that it's easy to use for non-experts and it's free; the downside is that it uses a quantitative method, so users tend to choose the middle / positive answer, some questions are hard to answer example hard to understand what is High Performance Materials)

- **Suggestion to use:**

- For the first stage project, it is recommended to use specific reference tools and select a number of criteria to consider and focus on adjusting the business model in a circular direction.
- Can combine with industry standards (eg TCCS).
- Each criterion should be quantified by sub-indices to be measured and evaluated.
  - For example, the criterion “*100% use of biodegradable materials*” can be assessed by answering the question:
    - What is the standard of complete biodegradation?
    - How much has the product decomposed and for how long?

# Work individually

**What are the opportunities for you if you run a project in CE in the future**



*Image: Unsplash*

# Trainers' Guides

## Slide 46 - Individual assignment

**Objective:** Help students think about the **opportunities they can get** when running a project in CE in the near future based on current policies and transformation trends in Vietnam and Southeast Asia.

**Duration:** 05 minutes

- **PREPARATION:** Trainers prepare a whiteboard with Miro's name or a question on Menti for students to answer
- **TRAINING TIME:** Trainers ask the students to answer the questions individually
- **CONCLUSION:** Trainers encourage students to think about following questions:
  - *How can you take advantage of this opportunity?*
  - *How do you plan to use what they have learned before and during the program to do so?*

# Opportunities for you



**Developing materials to replace plastic** as consumers are gradually moving towards non-plastic materials



**Post-harvest and preservation/processing technology**



**Food technology** to ensure food security and protect the environment



**Aquaculture** technology and processing



**Circular Agriculture**



**Sustainable fashion** and green cleaning technology



Technology towards **reducing emissions**

# Trainers' Guides

Slide 48 - Opportunities for you

**Duration:** 05 minutes

**Key points:** Some industries in Vietnam have the advantage of shifting to the circular economy

1. **Agriculture:** With the advantage of having a diversified agriculture, many products and models, and having also implemented models close to circular economy, the startup has a lot of potential to develop new technology products to serve for businesses in the industry under the B2B model or serving consumers under the B2C model
2. **Fashion:** Vietnam is a fashion exporter to the world, the trend of exporting sustainable fashion is emerging and is an opportunity for the emergence of economic models, adding value to users and protecting the environment. school.

## References:

- <https://www.eco-business.com/news/curbs-on-greenwashing-coming-to-asia-cautious/y-experts/?sw-signup=true>
- <https://nhipcaudautu.vn/Kinh-doanh/dua-thoi-trang-ben-vung-ra-the-gioi-3339409>



# Wrap-up

Write down 03 things you like in today's lesson (5 minutes)



# Assignments

## Learn about the business you will meet in the next session about:

- What are their products/services?
- How do they make money?
- What is their circular potential? (Recommended to use Circular Economy Toolkit)

# Copyright

Copyright and citation



The material was developed, tested and evaluated by KisImpact as part of the Circular Innovation Pilot Training program funded by the ICM Falk Foundation.

Copyright of the teaching materials belongs to the ICM Falk Foundation. The Teaching Materials Kit is licensed to you under [CC BY-SA 4.0](https://creativecommons.org/licenses/by-sa/4.0/) This means that you are allowed to use, adapt, build your materials on this teaching material in any way with the following conditions: citation is required (See next page).

The certificate also allows you to use it for commercial purposes. If you adapt or build on the document, you need to use the same certificate.



# Citation

For citation purposes, kindly use the following:

## In Vietnamese:

- Short version: *Quỹ ICM Falk (2022) [CC BY-SA 4.0]*
- Full version: *Bộ tài liệu giảng dạy năm trong Chương trình đào tạo thí điểm Khởi nghiệp Đổi mới sáng tạo trong Kinh tế tuần hoàn 2022 tài trợ bởi Quỹ ICM Falk, xây dựng, thử nghiệm, đánh giá bởi KisImpact*

## In English:

- Short version: *ICM Falk Foundation (2022) [CC BY-SA 4.0]*
- Full version: *Lesson support was developed from Circular Innovations pilot program 2022, funded by ICM Falk Foundation and implemented by KisImpact*