4SUS

SUSTAINABILITY ASSESSMENT TOOL FOR STARTUPS

by **LUT University**

INSTRUCTIONS & VOCABULARY

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1. INTRODUCTION

LUT 4SUS is a simplified self-assessment tool for assessing the sustainability of a business idea, targeted especially for startups.

The tool is divided into 4 categories:

- Need
- Sustainability of the business model
- Impacts and emissions, and
- Materials and energy

The name **LUT 4SUS** refers to the 4 categories relevant to sustainability as well as to the mindset towards sustainability.

FOR SUSTAINABILITY

Need

Sustainability of the business model

Impact and emissions

Materials and energy

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LUT 4SUS IS:

1

A tool for assessing the sustainability of business ideas

- Environmental and social sustainability

- No exact numerical data required

2

A tool for recognizing aspects of the business supporting sustainability

as well as aspects detrimental to sustainability

- Factors detrimental to sustainability can be marked for future consideration

- Factors beneficial to sustainability can be used as opportunities e.g. in business planning

3

A tool for investor pitching process

- One slide covering sustainability for business pitch can be created with this tool

- Brings forth sustainability aspects and supports sustainable investing

2. INSTRUCTIONS

The aim of the **LUT 4SUS** tool is to guide the startup team's thought process in sustainable direction through questions and self-assessment, and thus raise the team's awareness about sustainability in business.

There are questions under each of the **4 categories**. Elaborations for these questions can be found from this instructions document.

In order to complete the assessment the startup team needs to answer the questions. Broader answers can be written on post-it notes, whiteboards, or whatever works the best for the team. Key points can then be written to empty **LUT 4SUS template**.

After answering to the questions the team can self-evaluate their awareness of sustainability in scale from 1 to 4, 1 being not sufficient knowledge of sustainability, and 4 being comprehensive knowledge. The level of awareness can be circled in the template.

Aimed final result of the use of this tool is increased awareness of sustainability as well as one slide summary of the key sustainability aspects regarding the business idea.

3. ELABORATIONS FOR THE QUESTIONS

3.1 Need

Does the business have a clear and identified need? What is it?

- What is the main reason the business is conducted?
- Why is the business needed?

Does the need remain necessary in the long run?

- Is the business and its products / services relevant in the future as well?

What are the biggest sustainability challenges or opportunities of the business?

- Are there clearly recognized challenges or opportunities regarding sustainability?

Does the business create value for the local community?

- How does the business create value?

- Is the business relevant for a local community or for a general community?
- Does the business harm the community in any way or indirectly?
- Does the business affect multiple communities e.g., locally at the material acquisition site and then at the location where the product or service is used?

Does the business aim to solve sustainability challenges, or does it change consumer behavior to more sustainable direction?

- Does the business contribute to solving sustainability challenges such as climate change or social challenges?
- Does the business encourage the customers to change their habits towards sustainability?
- Is sustainability one of the business's main motivations?

3.2 Sustainability of the business model

Is sustainability considered in the business planning?

🌿 How grave is the role of sustainability in the business planning?

🌿 Is sustainability a part of the business strategy?

Are there goals related to sustainability?

🌿 Are there sustainability related goals for the business? How will those be achieved?

🌿 Is business growth the main goal? How is sustainability taken into account when it comes to business growth?

Who are the key stakeholders?

🌿 Are stakeholders identified?

🌿 Who are the most important stakeholders?

🌿 What is their role?

🌿 Are they interlinked? How?

Are there partners? Is the whole supply chain considered from sustainability point of view?

🌿 With which partners is the business conducted?

🌿 Is the sustainability of business partners noted?

🌿 Is the supply chain clearly tracked?

🌿 Are all of the suppliers and subcontractors known?

🌿 Are there sustainability issues in the supply chain?

Will sustainability impacts be measured? How?

🌿 Is there an aim to measure sustainability impacts now or in the future?

🌿 Which assessment or measurement methods are planned to be used?

🌿 Are the methods standardized?

🌿 Is it possible to utilize sustainability related standards? Which ones?

How the business differs from its competitors regarding sustainability?

- What kind of sustainability challenges or opportunities the competitors of the business are facing?
- How much of the business's capital expenditure is related to sustainability?

3.3 Impacts and emissions

Does the business have clearly positive / negative environmental or social impacts overall?

- Does the business focus on solving sustainability challenges?
- Does the business create jobs?
- Does business burden the environment?

Do the planned customer actions have environmental or social impacts?

- Is the customer required to use fresh water or electricity when using the business' product / service?
- Does the customer use produce emissions or waste?

Does the business produce emissions to land water, or air?

- Is there production or other actions which cause emissions?

In the use of freshwater required in any process regarding the business? Is the possible water scarcity of the area considered?

- Are there actions related to the business in water scarcity ares?
- Is water scarcity taken into account on a local level?

Is land area required in any process regarding the business? Are the possible bioversity changes of the area considered?

- Do the actions of the business contribute to changes in land or use or deforestation?
- Is biodiversity considered from local perspective?

3.4 Materials and energy

Is the energy used renewable or nonrenewable?

- Is the energy used e.g. wind, water, nuclear, or fossil based, or is some kind of gridmix used?

- Does the energy have a sustainability certificate, e.g. renewable energy certificate?

Where do the raw materials come from?

- Are multiple different materials used? What kind?

- What is the geographical origin of the raw materials used?

- If the material is retrieved from a supplier, does the supplier require raw materials from other suppliers?

- Are any of the materials from recycled origin? Or could recycled material be an alternative?

Does the material acquisition have environmental or social impacts?

- Is the material acquisition a burden to the environment e.g., in the form of emissions?

- Does the material acquisition require physical labor? How it affects the workers or the local community?

Is the end-of-life phase considered?

- Is waste produced?

- Are the used materials recyclable?

- How is the product aimed to be handled after its original use?

- Does the customer use produce something that is necessary to either recycle or handle in other ways at the end-of-life phase?

Which kind of transportation methods are used and is the number of transportation trips known?

- Is transportation or travel required?

- Are the products or necessary components transported?

- What is the used transportation or travel method?

Is the possible traffic fuel used renewable or nonrenewable?

🍃 Is the fuel used renewable or fossil diesel or petrol? If it is renewable, what is the source of the fuel?

🍃 Are sustainable options scouted?

4. VOCABULARY

Bioverisity: the variety of plant and animal life in the world or in a particular habitat

Community: geographically local community or other group of people with a particular characteristic in common

Core activities: the tasks employees must complete in order for a business or organization to operate successfully

End-of-life phase: the phase of the product's use, or the phase after the product's use, where it si no longer usable in its original and planned use

Environmental sustainability: focuses on the responsibility to conserve natural resources and protect global ecosystems to support health and wellbeing, now and in the future.

Need: the reason the business is conducted

Planned customer actions: actions that the customer is expected to conduct while using the product or a service the business offers

Social sustainability: focuses on the impacts of different activities, systems, processes, and organizations on the people and social life

Stakeholder: and individual or a group that has an interest in any decision or activity of the business or are in other ways in the sphere of influence of the business

Sustainability impact: focuses on how the business affects social or environmental sustainability, either in a positive or negative way

Sustainability: "meeting the needs of the present without compromising the ability of future generations to meet their own needs." – 1987 Brundtland Commission report for the United Nations

# 5. APPENDIX AND ADDITIONAL INFORMATION

LUT 4SUS sustainability assessment tool and empty template can be found in the following appendixes.

More information and background about **LUT 4SUS** sustainability assessment tool for startups can be found from the published thesis below.
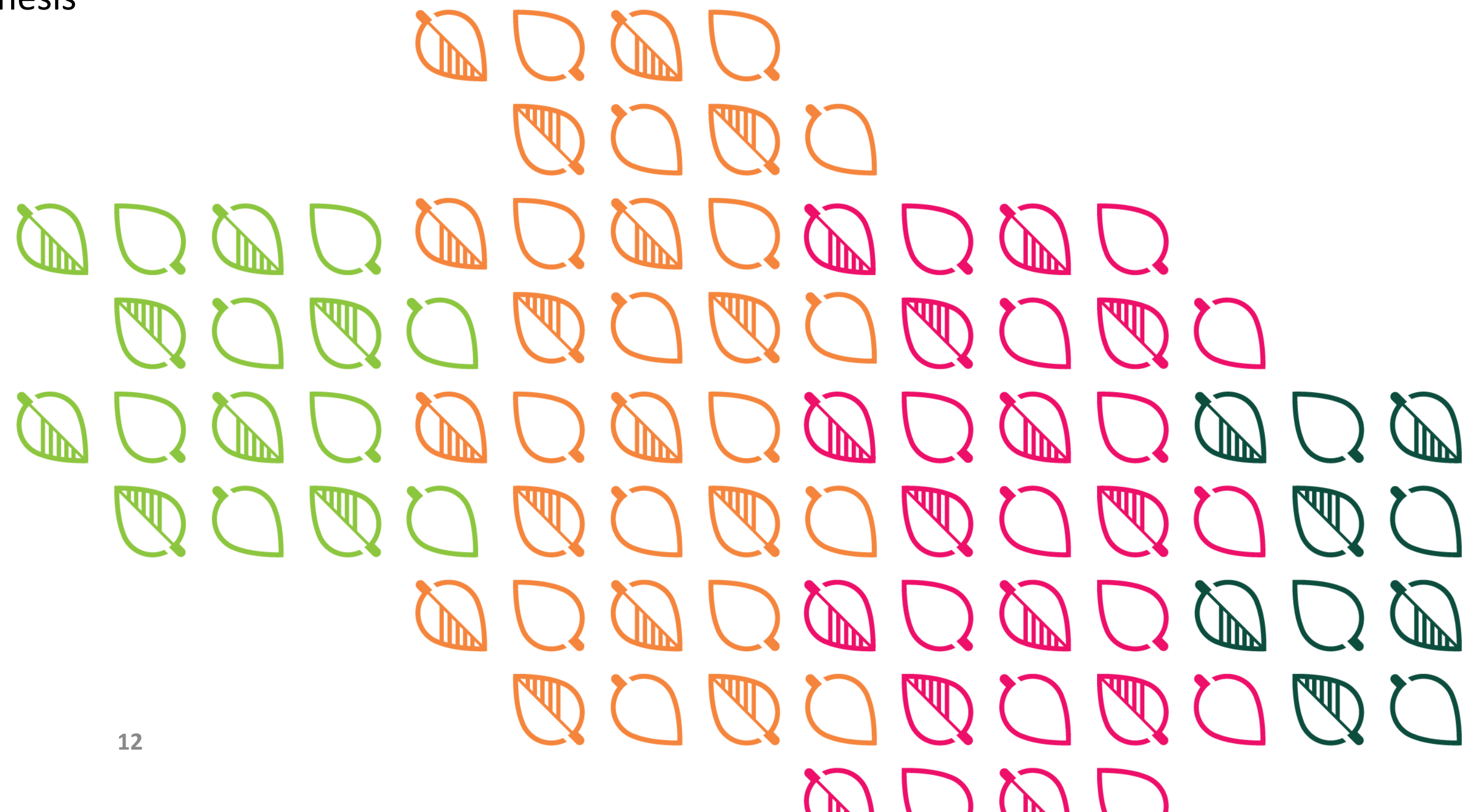
NEED

- Does the business have a clear and identified need? What is it?
- Does the need remain necessary in the long run?
- What are the biggest sustainability challenges or opportunities of the business?
- Does the business create value for the local community?
- Does the business aim to solve sustainability challenges, or does it change consumer behavior to more sustainable direction?
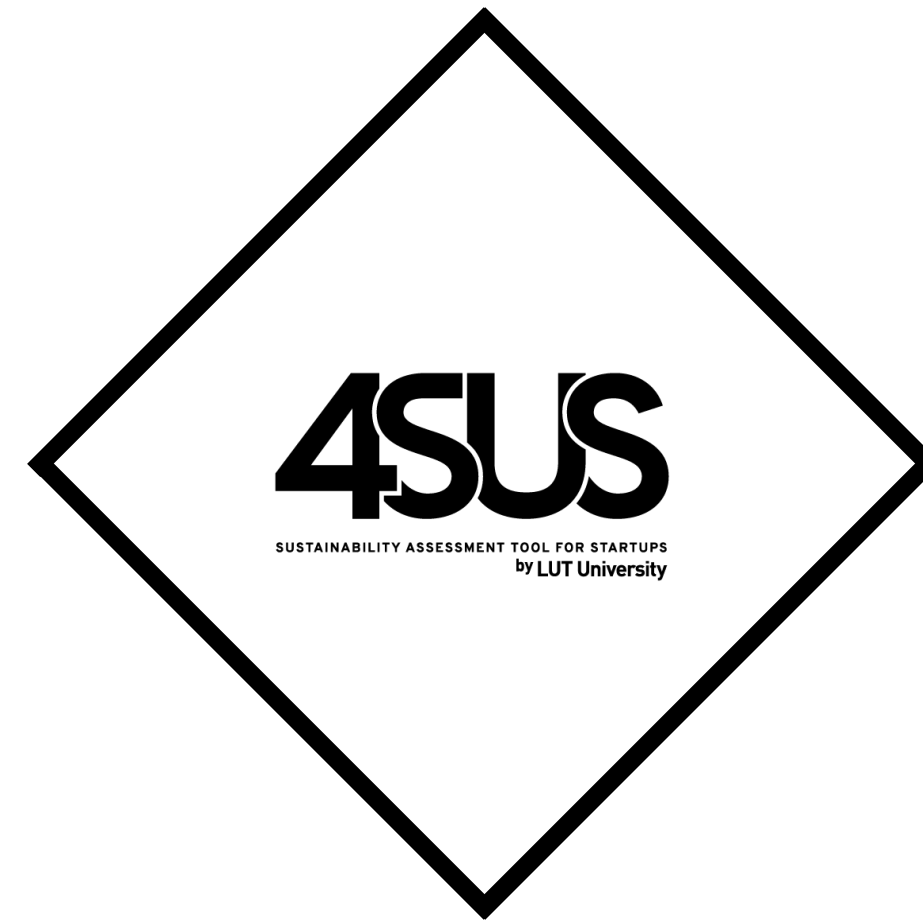
SUSTAINABILITY OF THE BUSINESS MODEL

- Is sustainability considered in the business planning?
- Are there goals related to sustainability?
- Who are the key stakeholders?
- Are there partners? Is the whole supply chain considered from sustainability point of view?
- Will sustainability impacts be measured? How?
- How the business differs from its competitors regarding sustainability?

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Sustainability awareness

1. **below basic**
2. **basic**
3. **proficient**
4. **advanced**

IMPACTS AND EMISSIONS

- Does the business have clearly positive / negative environmental or social impacts overall?
- Do the planned customer actions have environmental or social impacts?
- Does the business produce emissions to land, water, or air?
- Is the use of freshwater required in any process regarding the business? Is the possible water scarcity of the area considered?
- Is land area required in any process regarding the business? Are the possible biodiversity changes of the area considered?

MATERIALS AND ENERGY

- Is the energy used renewable or nonrenewable?
- Where do the raw materials come from?
- Does the material acquisition have environmental or social impacts?
- Is the end-of-life phase considered?
- Which kind of transportation methods are used and is the number of transportation trips known?
- Is the possible traffic fuel used renewable or nonrenewable?

① ② ③ ④

① ② ③ ④

NEED

SUSTAINABILITY OF THE BUSINESS MODEL

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Sustainability awareness

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IMPACTS AND EMISSIONS

MATERIALS AND ENERGY

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