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A Journey Toward Sustainable Tourism

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A JOURNEY TOWARD SUSTAINABLE TOURISM

Céline Gabathuler

Abstract:

This study focuses on the topic of the tourism industry, the necessity to promote sustainable tourism (ST) and best practices to achieve ST. In fact, tourism is one of the fastest-growing economic sectors in the world and according to World Tourism Organization (UNWTO), international tourist arrivals are expected to keep increasing. Tourism is promoted by all governments because it creates job opportunities and generates income for the countries. Based on a literature review, this paper gives an understanding of the tourism industry, its impact on the three following dimensions: economic, social and environmental, the concept of sustainable development, sustainability models and concrete best practices. Thanks to business experts' interviews and tourists' interview, it allows to understand not only the offer but also the demand dimensions of sustainability in the tourism industry. It is important to note that the paper represent mostly the Swiss perspective. I have been focusing on Swiss travelers, Swiss government, Swiss business experts and the United Nations.

This paper will reply firstly to the following question "Why it is a necessity to turn tourism into sustainable tourism?". Indeed, while the number of travellers is growing, there are crucial challenges related to greenhouse gas (GHG) emissions, economic leakages, resource management or the impact on local communities and cultural assets that need to be tackled. The tourism industry can also be viewed as a destructive force, associated with negative externalities such as the loss of natural landscapes, congestion, and environmental and cultural degradation. These problems are more likely to be exacerbated in the tourism companies where there is a lack of well-designed planning and non-effective management.

Then this document will reply to the following question "How the tourism industry can turn into a more sustainable industry?". Indeed, various sustainable tourism model will be studied. if the

tourism sector strategy and management are carefully thought-out, it can even help preserve the natural and cultural heritages, empower the host communities, generate trade opportunities that foster peace and intercultural understanding. This paper gives some best sustainable practices and concrete best actions toward sustainable development SD within tourism. It provides guidance based on both theoretical and empirical evidence. This paper also aims to spread awareness in the tourism industry and to all its stakeholders.

Keywords: *Tourism industry - social, environmental, economic dimension - job opportunity – revenue - environmental destruction - land degradation - cultural degradation - sustainable development - best practices.*

Resumen:

El siguiente estudio se concentra en el tema de la industria del turismo, la necesidad de promover el turismo sostenible (TS) y las mejores prácticas para lograr el TS. El turismo es promovido por todos los gobiernos porque crea oportunidades de empleo y genera ingresos para los países. De hecho, el turismo es uno de los sectores económicos que más rápido crece en el mundo. Según la Organización Mundial del Turismo (OMT), las llegadas de turistas internacionales continuaran a aumentar. Este documento se concentra en un entendimiento del sector del turismo y su impacto en las dimensiones económica, social y ambiental. El documento presenta el concepto del desarrollo sostenible, modelos de sostenibilidad y mejores practicas concretas. Gracias a las entrevistas con los expertos profesionales y con los turistas, permite estudiar tanto la dimensión de la oferta sino también la dimensión de la demanda de la sostenibilidad en la industria turística. Es importante señalar que la investigación representa sobre todo la perspectiva suiza ya que se estudia las iniciativas turísticas del gobierno suizo, turistas suizos y expertos de suiza.

El documento responde de un lado a la siguiente pregunta: "¿Por qué es necesario convertir el turismo en turismo sostenible?". Si bien aumenta el número de personas que viajan, existen grandes retos como consecuencia de lo anterior, relacionados con las emisiones de gases de efecto invernadero (GEI), las fugas económicas, la gestión de recursos o el impacto en las comunidades locales. El turismo se puede ver como una fuerza destructiva, asociada con externalidades negativas como el desgaste de paisajes naturales, la contaminación y la degradación ambiental y cultural. Es más probable que estos problemas se agraven en las empresas de turismo, donde hay faltas de planificación bien diseñadas y una gestión no eficaz.

De otro lado, responde a la siguiente pregunta: "Cómo la industria del turismo puede convertirse en una industria más sostenible?". Si la estrategia y la gestión del sector turístico están bien diseñadas, incluso pueden ayudar a preservar los activos del patrimonio natural y cultural,

generar oportunidades de comercio y así fomentar la paz y el entendimiento intercultural. Este documento indica algunas de las mejores prácticas sostenibles y acciones más concretas para el desarrollo sostenible dentro del turismo. Proporciona una guía de las mejores prácticas basadas en un marco teórico y empírico. Además, este documento tiene como objetivo difundir conciencia en la industria del turismo no solo para ésta, sino también para las instituciones gubernamentales, los turistas.

Palabras Claves: *Turismo - dimensión social, económica, ambiental - empleo ingreso - fugas económicas - degradación ambiental, cultural - sostenibilidad - mejores practicas*

Résumé

L'étude suivante se concentre sur le thème de l'industrie du tourisme, la nécessité de promouvoir le tourisme durable (TD) et propose les meilleures pratiques pour l'atteindre. Le tourisme est une activité que tous les gouvernements souhaite développé car il crée des opportunités d'emploi et génère des revenus conséquents pour le pays. Le tourisme est l'un des secteurs économiques à la croissance la plus rapide au monde. Selon l'Organisation mondiale du tourisme (OMT), les arrivées internationales continueront d'augmenter. Ce document se concentre sur une compréhension globale de l'activité et de son impact sur les dimensions économique, sociale et environnementale. Il présente le concept du développement durable, des modèles de durabilité et des meilleures pratiques concrètes. Grâce à des entretiens avec des experts professionnels et des touristes, il permet d'étudier à la fois la dimension de l'offre mais aussi de la demande pour la durabilité dans l'industrie du tourisme. L'étude représente la perspective suisse vu qu'elle se base sur des initiatives du gouvernement suisse, des avis d'experts suisses et de touristes suisses.

*Dans un premier temps, la question suivante sera étudiée « **Pourquoi est-il nécessaire de transformer l'activité touristique en tourisme durable** ? ». En effet, bien que le nombre de personnes voyageant augmente, il y a de grands défis liés aux émissions de gaz à effet de serre (GES), aux fuites économiques, à la gestion des ressources ou à l'impact sur les communautés locales. L'industrie du tourisme peut également être considérée comme une force destructrice, associée à des externalités négatives telles que l'érosion des paysages naturels, la pollution et la dégradation environnementale et culturelle. Ces problèmes sont plus susceptibles d'être exacerbés dans les entreprises touristiques, où il existe des lacunes de planification. D'autre part il répond à la question : « **Comment l'industrie du tourisme peut-elle devenir une industrie plus durable ?** » Si la stratégie et la gestion du secteur du tourisme sont bien conçues, elles peuvent aider à préserver les biens du patrimoine naturel et culturel, générer des opportunités commerciales et favoriser la compréhension interculturelle. Des pratiques*

concrètes pour le développement durable dans le tourisme sont présentées. Ce rapport peut servir de guide car il propose des pratiques durables basées sur un cadre théorique et empirique. En outre, ce document vise à sensibiliser l'industrie du tourisme non seulement pour elle, mais aussi pour les institutions gouvernementales, les touristes.

Mots clés: *Tourisme - dimension sociale, économique, environnementale - emploi - revenu - dégradation environnementale, culturelle - fuites économiques - durabilité - bonnes pratiques.*

About the author:

The author did her bachelor's in hospitality management in Ecole hotelière de Lausanne and have been always very interested by the topic of sustainability in the tourism and hospitality industries. Then she did the 1-year training at CMI in CSR & Sustainability.

She has 2 years of operational experience in the hospitality industry (reception, service and kitchen), in Geneva and in Sevilla, in luxury hotels. After acquiring operational experience, she specialize in marketing and worked for 1 year in Geneva in the logistic and marketing of events in Palexpo, the biggest event company in Switzerland. Then I moved to Madrid to be assistant to the general manager in Hilton Madrid. She's now in Mexico and working on various freelance projects related to entrepreneurship and marketing.

If you want to contact the author, LinkedIn is: Celine Gabathuler.

1. Background & research focus

Only after the last tree has been cut down, only after the last river has been poisoned, only after the last fish has been caught, only then will you find that money can't be eaten.

Cree Indian Prophecy

This famous quote is proof that sustainability has roots in all culture. It means that it is important to use our vital resources in a sustainable way in order to survive in the long-term. This quote shows a sense of responsibility and respect for nature.

Frases clave para citar / Key Quotes for Citation

Classification codes / Clasificación temática:

- **JEL Classification:** Z32, Q56, L83, Q54
- **OECD FOS Code:** 5.02 (Economics and Business) / 5.07 (Social and economic geography)

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Key Quotes / Frases clave:

- **Intention–behaviour gap / Brecha entre intención y conducta:**
  "Among 60 frequent travellers living in Switzerland, most would pay more for accommodation with sustainable practices (91% for ethical and 94% for ecological criteria), yet only 10% usually stay in establishments that offer them." — Gabathuler (2022), *Conscious Management Journal*, 2(1).
  «Entre 60 viajeros frecuentes residentes en Suiza, la mayoría pagaría más por un alojamiento con prácticas sostenibles (91 % por criterios éticos y 94 % por ecológicos), pero solo el 10 % se aloja habitualmente en establecimientos que las ofrecen.»

- **Carbon awareness / Conciencia de emisiones:**
  "In the Swiss case studied, half of respondents do not think about their carbon emissions when travelling, or only vaguely, and those who disregard them prefer flying at equal price and travel time, suggesting that awareness-raising is key to decarbonising tourism." — Gabathuler (2022), *Conscious Management Journal*, 2(1).
  «En el caso suizo estudiado, la mitad de los encuestados no piensa en sus emisiones al viajar o lo hace vagamente, y quienes no las consideran prefieren el avión a igual precio y tiempo, lo que sugiere que sensibilizar es clave para descarbonizar el turismo.»

- **Transparency against greenwashing / Transparencia frente al greenwashing:**
  "Swiss experts and tourists agree that transparency is fundamental to sustainable tourism: suspicion of greenwashing deters bookings of accommodation that advertises ethical practices, and stakeholder trust, once broken, is very difficult to restore." — Gabathuler (2022), *Conscious Management Journal*, 2(1).
  «Expertos y turistas suizos coinciden en que la transparencia es fundamental para el turismo sostenible: la sospecha de greenwashing frena la reserva de alojamientos que comunican prácticas éticas, y la confianza de los grupos de interés, una vez rota, es muy difícil de recuperar.»



Figure 1: Cree Indian Prophecy

Nowadays, there is an increasing global awareness for the topic of sustainability, and it has become an extremely popular term. However, there is no universally agreed definition of sustainability. Etymologically, the word sustainability comes from “sustain”, meaning to give support to. Cambridge dictionary define “sustainability” as the quality of being able to continue in the long-term of the community.

1.1 A bit of history

Indeed, sustainability concept was first centered on environmental questions before that the concept evolves. In fact, an environmental movement appears during the post-western industrial revolution and pointed out that environmental costs were associated with the increasing levels of smoke pollution in the atmosphere. This was mainly due to the consumption of the energy in fossil fuels and coal. In the 1970s, the global community had become dependent on non-renewable energy resources; the humanity footprint exceeded the carrying capacity of earth.

“Our biggest challenge in this new century is to take an idea that seems abstract: – Sustainable Development – and turn it into reality for all the world’s people.”

Kofi Annan – Ghanaian diplomat who served as the seventh UN Secretary General.

In 1972, the first worldwide environmental conference happened in Stockholm on a Swedish initiative. Various NGOs (nongovernmental organizations), 114 countries and 1,200 delegates participated to this environmental conference. During it, the United Nations Environmental Programme (UNEP) was founded, also the World Environment Day were designate on June 5th, finally it was decided that UN environmental conference would be hold every ten years.



Figure 2: Un Environmental Conferences

1.2 Background

1.2.1 Sustainability definition

The World Commission on Environment and Development (WCED) defines today sustainability as*:*

"Paths of progress which meet the needs and aspirations of the present generation without compromising the ability of future generations to meet their needs."

In this definition, the concept takes in consideration the aspects of "needs" and "aspirations".

In order to clarify the concept of sustainability, many models have been created: For instance, the "Edifice of sustainability", the "Venn diagram", and "circle of sustainability".

The "edifice" of sustainability modelized by Professor Volker Stahlmann reflects SD concept.

"The environment is the foundation on which social, cultural and economic pillars are built. Sustainable development represents the roof of the building and is supported by this structure".

Stahlmann

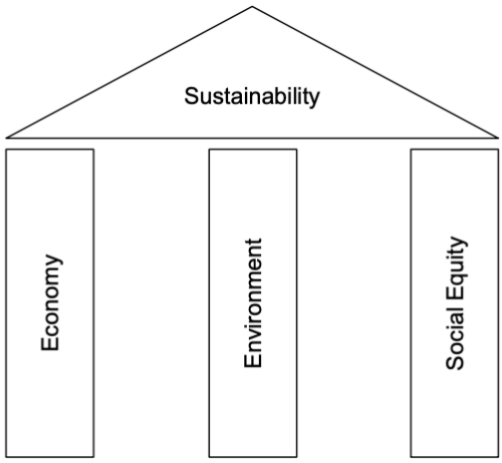

Figure 3: The Three-Pillar Model.

However, critics underline the fact that this model ignores that each pillar is interconnected and that it can bring confusion.

The SD Venn Diagram demonstrates that sustainable development consists of three closely related dimensions: environment, economy and society. SD is the balance between the 3 aspects, in other words, their simultaneous achievement. Any change in one dimension significantly affects the other two and moreover, they are closely interrelated.

- **Environment** sustainability is characterized by a resources management process that let the environments unpolluted with available resources and a healthy ecosystem.
- **Social** sustainability is the ability of a social system that live in harmony, with inclusion, equity, human health, access to education, knowledge, and without war, endemic poverty and injustice.
- **Economic sustainability** demonstrates materialization processes, material goods and services, employment, and wealth creation.

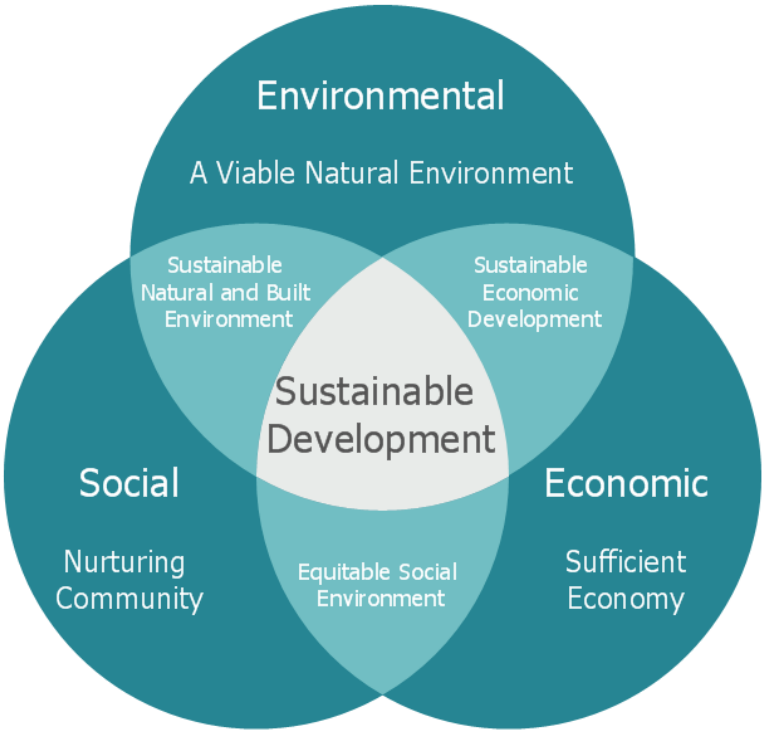

Figure 4: Venn diagram of SD

Circles of sustainability SD Venn Diagram: The concept uses a four-domain model that includes economy, ecology, politics and culture domain and in each of this domain are 7 subdomains. Then this model use colors to indicate the level of each domain and represent it in a circle like in the figure underneath.

ECONOMICS	*ECOLOGY*	*POLITCS*	*CULTURE*
Produc° - resourcing	Materials – energy	Organiza° - governance	Entity –
Exchange – transfer	Water – air	Law – justic	engagement
Accounting – regula°	Flora – fauna	Communica°-critique	Creativity –
Consump° - use	Habitat – settlements	Representa° – negotia°	recreation
Labour – welfare	Built-form – transport	Security – accord	Memory-project°
Technology –	Embodiment –	Dialogue – reconcilia°	Belief – ideas
infrastructure	sustenance	Ethics - accountability	Gender – genera°
Wealth – distribu°	Emission - waste		Enquiry – learning
			Wellbeing - health

Table 1: The subdomains of the concept of circle of sustainability

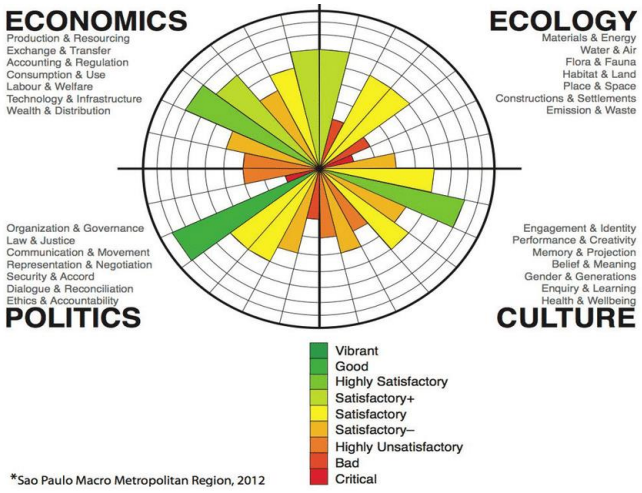

Figure 5: Circles of Sustainability Model example of Sao Paulo – 2012

1.2.2 Tourism definition

The tourism industry has experienced a long and gradual development. Initially, tourism was reserved to aristocracy and bourgoisie, later tourism was also practiced by the middle classes of developed countries. Indeed, tourism generalization was made possible thanks to several factors. The wage society resulting from the industrial revolution, then paid holidays, the consumer society after the second worl war, forged the socio-economic conditions which made tourism a desirable product. The technological development (steam engine, internal combustion engine), the territory planning and the establishment of traffic and reception infrastructures have made tourism more accessible. Nevertheless, to travel, it is necessary to have the financial means to travel for pleasure. This budget surplus is not given to everyone.

"Tourism is a social, cultural and economic phenomenon which entails the movement of people

to countries or places outside their usual environment for personal or business/professional purposes. These people are called visitors (which may be either tourists or excursionists; residents or non-residents) and tourism has to do with their activities, some of which involve tourism expenditure." **(UNWTO Glossary).**

Taking this definition, we can say that tourism is a sector made up of different branches such as transport, accommodation, catering, cultural and sporting activities, which also concern non-tourists. Tourism is also an important sector in the global economy. According to UNWTO, tourism represent 10% of the world's GDP and represent 1/10 of jobs. It can help to preserve cultural heritage, environments and help to develop a country.

1.2.3 Key facts on tourism

In the 2017 annual report of the UNWTO, it is mentioned that:

- The 2017 year was a record year for international tourism.
- Destinations worldwide welcomed 1,323 million tourists, some 84 million more than in 2016.
- The prediction of tourism say that it will continue to grow as an average of 3% during the next decade according to UNWTO.

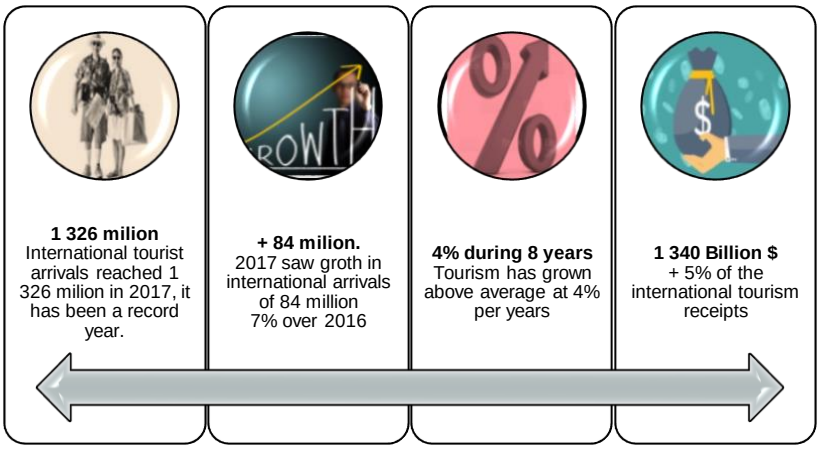

Figure 6: key numbers in the tourism industry taken from the UNWTO 2017 annual report

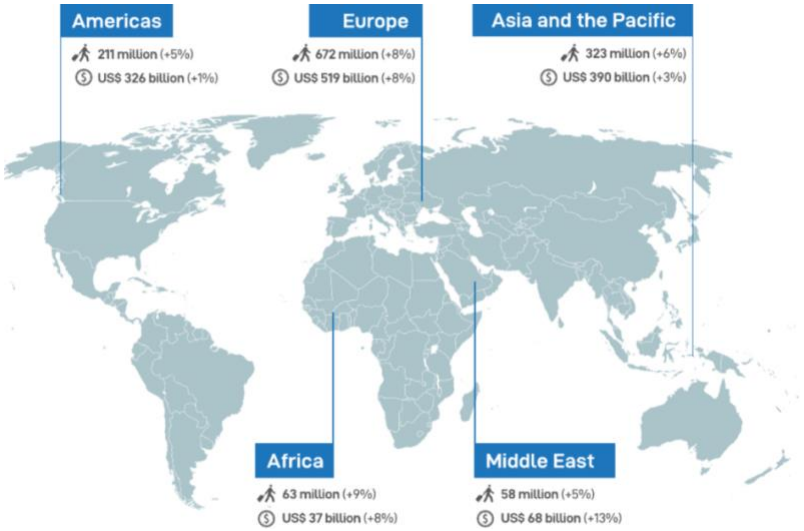

Figure 7: Arrivals and receipts in 2017, taken from the UNWTO 2017 annual report

- Most of the tourists travel in Europe (51%) then, in Asia and the Pacific (24%), then in the Americas (16%), then in Africa (5%) and finally in Middle eat (4%).
- Middle East is the least visited region however, Africa is where there are the less receipts from tourism activity.

1.2.4 Sustainable tourism definition

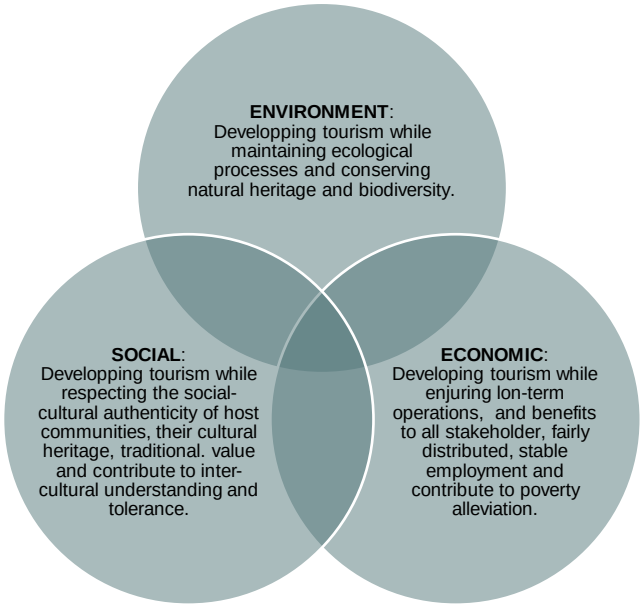

Figure 8: Venn Diagram of sustainability tourism, adapted.

The UNWTO defines ST as:
"a tourism that takes full account of its current and future economic, social and environmental impacts, addressing needs of visitors, the industry, the environment and host communities".

In order to clarify the concept of ST, this "Venn Diagram" explains in detail each aspect to consider in ST:

The balance of the 3 following dimensions: economic, environmental and social is ST roots:

- **Economy**: International tourism global income is significant: in 2017, it achieved 1340 billion. A 3% growth is estimated for the next decade (UNWTO, 2017). Emerging nations need to focus on tourism as a driving force for their economic development.
- **Environment**: A respected and protected environment is doubtless an important criterion in the context of sustainable development. For many destinations it is even the centre of their marketing concept.
- **Social:** Tourism affects the socio-cultural dimension at a destination, because different cultures are interconnected in the same destination. Tourists transfer their habits, lifestyles and cultural attitudes to locals, which may lead to a process of change in the destination areas. A sustainable approach must manage, reduce and prevent expulsion and cultural expropriation of inhabitants at these destinations

1.3 FOCUS OF THE RESEARCH AND OBJECTIVES

As this research paper focus on the case of Switzerland, it is interesting to note that Switzerland was the first country to add the term sustainability to its Federal constitution:

"The swiss confederation supports the common welfare, the SD, the internal cohesion and the cultural diversity of the country".

Article 2, January 1, 2000.

As mentioned, sustainable development needs to become a reality for all the world's people and all the industry, including the tourism industry. We will investigate with details that tourism is far from being a sustainable industry and must incorporate in its design strategy the questions of SD. This paper focus on two main axis which are the "why" and the "how" of the implementation of sustainability in the tourism industry. In Switzerland, the emphasis is on the

environmental sustainability because economic and social development are not primary concern such as other countries in Africa or Asia.

1.3.1 Why sustainable tourism?

Firstly, an understanding of tourism and its impact on the social, economic and environmental dimensions will be described. In other words, the first objective is to investigate on the tourism industry in order to understand "why" it is a necessity to turn the tourism industry into ST. To meet with this first objective, the questions underneath will be replied.

A. What are the negative impacts of the tourism industry on the economic, social and environmental dimensions?

B. What are the predictions of the tourism industry? If we continue to operate the same way, what will be the consequences?

C. Where do main emissions come from in the tourism sector and how can it be reduced?

D. What trends will help tourism to turn into sustainable tourism?

1.3.2 How to process for sustainability in the tourism industry?

The second objective is to give a solution to this un-sustainable tourism industry issue, by giving and listing best practices to implement in the tourism industry. In other words, the second objective focus on the "how" the tourism industry can turn into a more sustainable industry. Expert perspective but also tourist perspective will be studied, and the following underneath questions will be replied:

E. What are the different model and concept applicable to ST?

F. What sustainable initiatives are undertaken in the tourism sector in Switzerland?

G. How tourism should communicate its action towards sustainability?

H. What are the best concrete practices for ST?

2. Methology & research area

The purpose of this chapter is to explain the research methods use in the writing process of this master project writing.

2.1 Overview of research methods and sources information

A mix of qualitative and quantitative information has been used for this paper.



Figure 9: Methodology steps

The combination of three different research methods gives in-depth information and details about the tourism industry and sustainable development in this industry.

2.1.1 Documentary methods

The first step has been to implement documentary research to investigate the tourism impact and the perspective of sustainable tourism. These secondary sources of information have been taken from the UNWTO library, scientific articles, tourism related online journals, expert research papers, government reports and statistical data reports. In total, the literature review is composed of 8 literature lectures and it generated a broad and large overview of the tourism industry and sustainability field. Also, the documentary research helped to pass at the second step as it allowed to prepare the interviews.

2.1.2 Semi-structured interview

Secondly, a few interview and conversation with tourism experts (hotel and tourism operators), experts in sustainability and professionals working either in international organization or at the government, brought some qualitative information to this written paper. It is important to note that providing a detailed introduction about the interviewer and the research objectives was one of the most important factors contributing to the interviews' success. Due to the COVID

19, the interviews were not always in the 'perfect setting' but, special attention was placed on the creation of a relaxing and nonthreatening environment when carrying out interviews.

2.1.3 Questionnaire Survey

Finally, as I wanted to complete the literature overview & business experts overview, I decided to interviews tourists in order to obtain the consumer overview. Therefore, a survey has been conducted with 60 tourists and brings quantitative information on the attitude of tourists, their awareness and responses to both tourism resources and environmentally and ethic friendly practices. I decided to follow a purposive sampling according to two criteria. Firstly, I interviewed people that live in Switzerland and secondly, people that travel often. Therefore, 94% of the people interviewed travel at least once a year for a long-distance and twice a year for short distance trips. As a result, more than 88% of the people interviewed are aged between 18 and 32 years old.

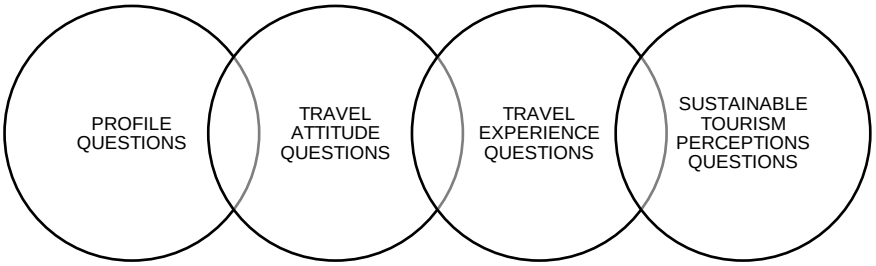

Figure 10: Survey questions categories

Some generalizations have been done because some information have been replicated on the interviews. The survey is composed of four categories of questions. Some generation questions in order to understand the respondents profile (age, nationality, education and gender), then some questions about their habits when they travel (how often they travel, when they are taking the train, and the kind of accommodations), then some questions about their trip experience (if they found hotel with eco or social practices) and finally some questions about their perception of responsible travailing. The detailed questions are available in an appendix.

2.2 Research area

To limit the scope of this research, I decided to focus on Swiss tourism experts, on swiss sustainable experts, and on swiss young professional. It is important to note that the paper

represent mostly the Swiss perspective as I have been focusing on Swiss travelers, Swiss government, The UNWTO, and Swiss tourism initiatives. Also, as I have interviewed people who travel often, it is important to note that the survey analysis consist on a mostly young generation analysis as most of the respondents are age between 18 and 32 years old.

3. Theorical framework

The first objective of this paper is to explain why tourism need to be a more sustainable industry. To understand the necessity between the tourism industry and sustainable development, this theoretical framework parts introduces the negative impact of the tourism industry, the main emissions.

The second objective is to give a solution to this un-sustainable tourism industry and various concept of sustainability in the tourism industry will be studied with a zoom on concrete swiss initiatives undertaken.

3.1 Tourism industry and the negative impacts

Tourism can cause many impacts on the economy, the societies and the environments:

3.1.1 Tourism negative impact



Figure 11: Tourism negative impact, Céline Gabathuler, August 2020

3.1.1.1 Economic Negative Impacts

Countries choose to develop and grow their tourism industry with the aim of generating income. However, in the long term, the income received is often not as valuable as they estimate

it. Underneath some of the economic negative impacts that can happen:

1. **Economic leakage is one of the main economic problem in the tourism industry**.

   The economic benefits of tourist activities are sometimes not fairly redistributed because it is given to the emitting countries rather than the receiving countries. Leakage is a process by which part of the income from foreign currencies is retained by the countries of departure or repatriated to them. In other word, the money given by a tourist is leaving the host country and ended up elsewhere. It can occur in a number of ways such as with imported skills with expatriate labor, imported goods and services, repatriation of. Profits, advertising and marketing efforts abroad. To give an example, in 1992, in South America, tour operators received in average 55% of the prearranged tourism booking prices.

2. **Another important impact is the inflation on local goods and services.**

   Inflation is when the average price level of a basket of selected goods and services in an economy increases. Thus, it indicated a decrease in the purchasing power of a nation's currency. As a result of tourism, the prices of land, houses and food can increase significantly.

3. **Also, there is the issue of the opportunities cost**.

   Opportunity cost represents the benefits misses out when choosing one alternative over another. In this context, it is the potential missed opportunities foregone by choosing on investing on tourism. In a coastal area, it would refer to investing in tourism instead of farming, market gardening or fishing. The mobilization of resources (water for example) necessary for the operation of tourist activities can be done at the expense of other activities, such as agriculture for example, which would better meet the basic needs of the populations.

3.1.1.2 Environment Negative Impacts

"Tourism sector contributed to 5% of all man-made CO2 emissions in 2005, and transport represent 75% percent of the overall emissions of the sector."

Climate Change and Tourism" report, UNWTO, 2019

1. **The air quality impact is the major environmental issue of the tourism industry.** The main transport that contributes to global warming is first airlines transport, then the use of car. This can include first the transport of tourism but also transport use for infrastructure constructions for instance.

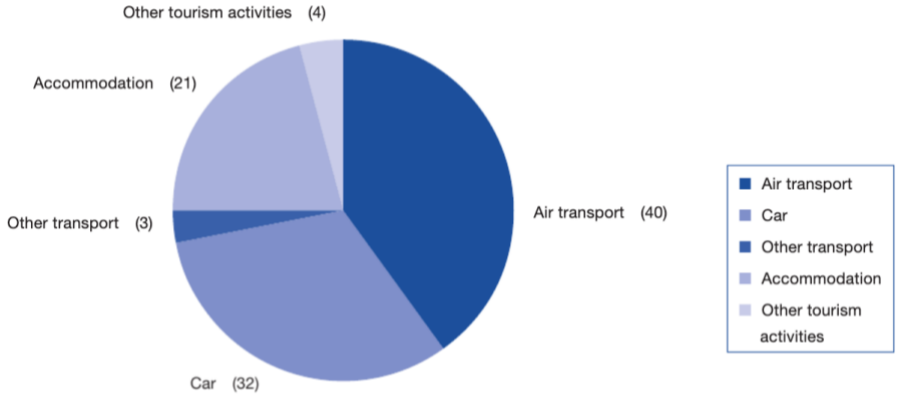

Fig 12: Contribution of various sub-sectors to tourism CO2 emissions (2005, UNWTO).

2. **Local resources can end with an unsustainable tourism exploitation model.** Energy, food and raw materials are available in limited quantities. For instance, in some places too much water is consumed by tourist activity (staying in hotels, using the swimming pool or with the golf lands).

3. **A non-adequate construction strategy model can lead to degradation and loss of biodiversity (soils, fauna, flora)**.
   For instance, it is quite common to uses coral reefs and forest for construction materials. Construction often leads to land clearing, resulting in the destruction of the vegetation. This interrupts natural cycles surrounding ecosystems. Indirect impacts are erosion, disappearance species, soil erosion, landslides and floods.

3.1.1.3 Socio-Cultural Negative Impact:

When a tourist visits another country, it creates a relationship between him and the local population. It creates a relation between different mindsets, culture, lifestyles and it can create some issues. Underneath some of the socio-cultural negative impacts that can happen:

1. **When there is mass tourism, it can create a supersaturated phenomenon, and it generates stress.** In some case it goes further and create conflict between the visitors and the resident, and it can lead to isolation, rejection or exclusion of tourist, sometimes criminality.

2. **Also, a loss of cultural character can be observed in some case with the arrival of tourist.** When a tourist, with a different mindset, culture and lifestyles, visits a country, he can have a "demonstration effect", especially on the young generation. A demonstration effect is an effect on the behavior of someone caused by observation of the action of others. Some young child can be influence toward a consumption model.

3. **Exploitation through tourism can take many different forms: poor wages, dangerous working conditions, prostitution**. Women and children living in poverty in developing countries are particularly vulnerable to these threats. For instance, tourism sex work might appear to provide an escape from the hardship everyday life but can result in far worst long-term hardship such as HIV/AIDS and other transmitted diseases, social dislocation, destitution or drug addiction.

3.1.2 Concrete example, the impact of cruise tourism

The Cruise ship industry and their Stakeholders (their passenger, their suppliers) can have a negative impact on the environment, the economy & society if operated without regulations.

Economic cost	Socio Cultural cost	Environmental cost
Cruise tourism has been criticized for generating less spending per passenger in the local economy than non-cruise tourists, with passengers staying less time and less tax collected from entry via cruise terminal than airport. The majority of revenue from cruise passengers **goes to the cruise line and not local culture.**	The impact of massive arrivals in a destination can lead to **corruption of local businesses.** **Unwanted social change and threats in the cultural heritage** can happen with community disruption.	**Aquatic disruption** (loss of habitats or species in marine environment, coral bleaching). **Marine degradation** **Air pollution** (when ships burn fuel without adequate purification systems). **Noise Pollution** (whales can abandon the natural habitat).

Table 2: Cost of the Cruise Ship Industry, taken from International Maritime Organization

3.1.2.1 Conclusion

To reply to the first questions of this research paper:

Question A: What are the negative impacts of the tourism industry on the economic, social dimension and environmental dimension?

The negative impacts of the tourism sector that can occur in a non-sustainable model are:

Economic cost	Socio Cultural cost	Environmental cost
▪ **Leakages** ▪ **Inflation** ▪ **Opportunity cost**	▪ Loss of tradition ▪ Commercialization ▪ Stress, Conflict ▪ Criminality ▪ Exploitation threats	▪ Air quality ▪ Lack or end of natural and local resources ▪ Fauna, flora degradation ▪ Soil erosion

Table 3: Key cost of the tourism Industry operated with an un-sustainable model, adapted. Taken from the International Maritime Organization.

Question B: What are the predictions of the tourism industry? If we continue to operate the same way, what will be the consequences?

The prediction of tourism say that it will continue to grow as an average of 3% during the next decade according to UNWTO. If we continue to operate the same way, all the negative impact on the economy, the society and the environments studied in this paper, would increase. Therefore, we have the necessity to change tourism practice into sustainable practice.

3.2 Sustainable tourism a necessity

Sustainable tourism is defined by the UNWTO as:

"Tourism that takes full account of its current and future economic, social environmental impacts, addressing the needs of visitors, the industry, the environment and host communities".

The 3 pillars of ST are:

Economic	Socio Cultural	Environmental
• Tangible economic and social benefits to local people in host destinations	• Support for protection of cultural and natural heritage	• Environmentally friendly practices

Table 4: Sustainable tourism main pillars, adapted

3.2.1 Tourism can contribute to all SDGs



"Harnessing tourism's benefits will be critical to achieving the sustainable development goals and implementing the post-2015 development agenda".

Figure 13: UN Secretary-General, Ban Ki-moon on World Tourism Day in 2014



Figure 14: The SDGs of Agenda 2030 of the United Nations

In 2015, governments have adopted the 2030 Agenda for Sustainable Development along with the Sustainable Development Goals (SDGs). The 17 SDGs aim to end extreme poverty, fight inequality and injustice, fix climate change until 2030.

GOAL 1 **NO POVERTY**	As one of the largest and fastest growing economic sectors in the world, tourism is well-positioned to **foster economic development** at all levels and provide income through job creation. Sustainable tourism development, and its impact at community level, can be linked with national poverty reduction goals, those related to promoting entrepreneurship and small businesses, and empowering less favored groups, particularly youth and women.
GOAL 2 **ZERO HUNGER**	Tourism can spur agricultural productivity by promoting the **production, use and sale of local produce in tourist destinations and its full integration in the tourism value chain**. In addition, agro-tourism, a growing tourism segment, can complement traditional agricultural activities. The resulting rise of income in local communities can lead to a more resilient agriculture while enhancing value of tourism experience.
GOAL 3 **GOOD HEALTH AND WELL-BEING**	Tourism's contribution to **economic growth** and **development** can also have a **knock-on effect** on **health and well-being**. Foreign earnings and tax income from tourism can be reinvested in health care and services, which should aim to improve maternal health, reduce child mortality and prevent diseases, among others.
GOAL 4 **QUALITY EDUCATION**	A well-trained and skillful workforce is crucial for tourism to prosper. The tourism industry can provide incentives to invest in education and **vocational** training and assist labor mobility through cross-border agreements on qualifications, standards and certifications. In particular youth, women, senior citizens, indigenous peoples and those with special needs should benefit through educational means, where tourism has the potential to promote inclusiveness, the values of a culture of tolerance, peace, non-violence, and, all aspects of global exchange and citizenship.
GOAL 5 **GENDER EQUALITY**	Tourism can **empower women** in multiple ways, particularly through the provision of jobs and through income-generating opportunities in small and larger-scale tourism and hospitality related enterprises. As one of the sectors with the highest share of women employed and entrepreneurs,

	tourism can be a tool for women to unlock their potential, helping them to become fully engaged and lead in every aspect of society
GOAL 6 **CLEAN WATER AND SANITATION**	Tourism can play a critical role in achieving **water access and security, as well as hygiene and sanitation for all**. The efficient use of water in the tourism sector, coupled with appropriate safety measures, wastewater management, pollution control and technology efficiency can be key to safeguarding our most precious resource.
GOAL 7 **AFFORDABLE AND CLEAN ENERGY**	As a sector that requires substantial energy input, tourism can accelerate the shift toward renewable energy and increase its share in the global energy mix. Consequently, by promoting sound and long-term investments in sustainable energy sources, tourism can help to reduce greenhouse gas emissions, mitigate climate change and contribute to innovative and new energy solutions in urban, regional and remote areas.
GOAL 8 **DECENT WORK AND ECONOMIC GROWTH**	Tourism is one of the driving forces of **global economic growth** and currently provides for 1 in 11 jobs worldwide. By giving access to decent work opportunities in the tourism sector, society –particularly youth and women – can benefit from increased skills and professional development. The sector's contribution to job creation is recognized in Target 8.9 **"By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products"**.
GOAL 9 **INDUSTRY, INNOVATION AND INFRASTRUCTURE**	Tourism development relies on good public and privately supplied infrastructure and an innovative environment. The sector can also incentivize national governments to upgrade their infrastructure and retrofit their industries, making them more sustainable, resource-efficient and clean, as a means to attract tourists and other sources of foreign investment. This should also facilitate further sustainable industrialization, necessary for economic development and innovation.
GOAL 10 **REDUCED INEQUALITIES**	Tourism can be a powerful tool for **community development** and reducing inequalities if it engages local populations and all key stakeholders in its development. Tourism can contribute to urban renewal and rural development and reduce regional imbalances by giving communities the opportunity to prosper in their place of origin. Tourism is also an **effective means for developing countries to take part in the global economy**. In 2014, Least Developed Countries (LDCs) received US$ 16.4 billion in exports from international tourism, up from US$ 2.6

	billion in 2000, making the sector an important pillar of their economies (7% of total exports) and helping some to graduate from the LDC status.
GOAL 11 **SUSTAINABLE CITIES AND COMMUNITIES**	A city that is not good for its citizens is not good for tourists. Sustainable tourism has the potential to advance urban infrastructure and universal accessibility, promote regeneration of areas in decay and preserve cultural and natural heritage, assets on which tourism depends. Greater investment in green infrastructure (more efficient transport facilities, reduced air pollution, conservation of heritage sites and open spaces, etc.) should result in smarter and greener cities from which not only residents, but also tourists, can benefit.
GOAL 12 **RESPONSIBLE CONSUMPTION AND PRODUCTION**	Tourism sector that adopts sustainable consumption and production (SCP) practices can play a significant role in accelerating the global shift towards sustainability. To do so, as set in Target 12.b of Goal 12, it is imperative to **"Develop and implement tools to monitor sustainable development impacts for sustainable tourism which creates jobs, promotes local culture and products". The Sustainable Tourism Programme (STP) of the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns (10YFP)** aims at developing such SCP practices, including resource efficient initiatives that result in enhanced economic, social and environmental outcomes.
GOAL 13 **CLIMATE ACTION**	Tourism contributes to and is affected by climate change. It is, therefore, in the sector's own interest to play a leading role in the global response to climate change. By lowering **energy consumption** and shifting to **renewable energy sources**, especially in the transport and accommodation sector, tourism can help tackle one of the most pressing challenges of our time.
GOAL 14 **LIFE BELOW WATER**	Coastal and maritime tourism, tourism's biggest segments, particularly for Small Island Developing States' (SIDS), rely on healthy marine ecosystems. Tourism development must be a part of Integrated Coastal Zone Management in order to help conserve and preserve fragile marine ecosystems and serve as a vehicle to promote a blue economy, in line with Target 14.7: **"by 2030 increase economic benefits to SIDS and LDCs from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism"**.
GOAL 15 **LIFE ON LAND**	Majestic landscapes, pristine forests, rich biodiversity, and natural heritage sites are often main reasons why tourists visit a destination. **Sustainable**

	tourism can play a major role, not only in conserving and preserving biodiversity, but also in respecting terrestrial ecosystems, owing to its efforts towards the reduction of waste and consumption, the conservation of native flora and fauna, and its awareness-raising activities.
GOAL 16 **PEACE AND JUSTICE**	As tourism revolves around billions of encounters between people of diverse cultural backgrounds, the sector can foster **multicultural and inter-faith tolerance and understanding**, laying the foundation for more peaceful societies. Sustainable tourism, which benefits and engages local communities, can also provide a source of livelihood, strengthen cultural identities and spur entrepreneurial activities, thereby helping to prevent conflict to take root and consolidate peace in post-conflict societies.
GOAL 17 **PARTNERSHIPS FOR THE GOALS**	Due to its cross-sectorial nature tourism has the ability to strengthen **private/public partnerships** and engage **multiple stakeholders** – international, national, regional and local – to work together to achieve the SDGs and other common goals. Indeed, public/public cooperation and public/private partnerships are a necessary and core foundation for tourism development, as is an increased awareness in the role of tourism in the delivery on the post-2015 Development Agenda.

Table 5: Tourism in the 2030 Agenda, (UNWTO), Table adapted

Tourism has the potential to contribute, directly or indirectly, to all of the goals. In particular, it has been included as targets in Goals 8, 12 and 14 on inclusive and sustainable economic growth, sustainable consumption and production (SCP) and the sustainable use of oceans and marine resources, respectively. Sustainable tourism is firmly positioned in the 2030 Agenda. Achieving this agenda, however, requires a clear implementation framework, adequate financing and investment in technology, infrastructure and human resources. **(UNWTO, 2018)**

3.2.2 Necessity to reduce the carbon emissions



Figure 15: Main stakeholder of the tourism industry according to UNWTO, Adapted

As mentioned by UNWTO, Air transport represent 40% of carbon emission in the tourism industry. Therefore, it is necessary to reduce those emissions because it is the most important source of emission in the industry. Then, car transport represents 32% and accommodation 21 % in the tourism industry.

3.2.3 Four strategies to reduce transport emissions

According to UNWTO, 4 major mitigation strategies can reduce GHG emission from the tourism activity:

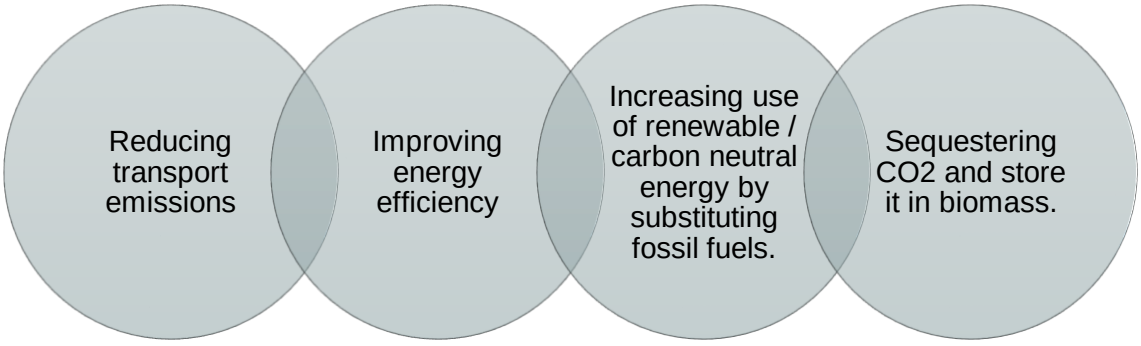

Figure 16: Four strategies to reduce transport emissions, UNWTO

- The first one consists in reducing the carbon emissions use in the transportation of the tourism activity. For example, by choosing rail and public transport instead of car and

airplane. And, reducing business tourism with more videoconferencing.

- The second consists in improving the energy efficiency by carrying out the same operation but with a lower energy input. This second strategy is possible with the use of new and innovative technology to decrease the energy demand.

- The third one consists in sequestering carbon emission through carbon sinks and store the CO2. In biomass, in aquifer or oceans, and in geological sinks. Afforestation, deforestation, and depleted gas fields would be the following activities.

- The last one is about increasing the use of renewable carbon neutral energy by substituting fossil fuels with energy sources that are not finite and cause lower emissions. This with the use of biomass, hydro, wind and solar energy.

3.2.4 The circular economy concept to reduce carbon emissions

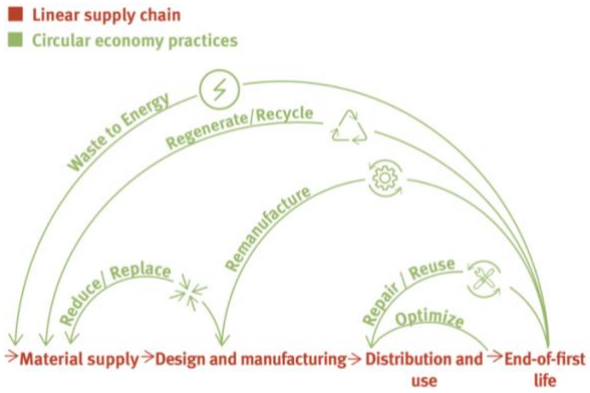

Figure 17: Linear vs Circular Economy practices (UNIDO), 2020

According to the United Nations Industrial Development Organization (UNIDO):

In a circular economy (CE), materials for new products come from old products. As much as possible, everything is reused, re-manufactured or, as a last resort, recycled back into a raw material or used as a source of energy (UNIDO).

The CE concept follows a culture of “no waste” of “re-use”, “repair”, that proposes a closed loop of material flowing in the economy, in opposition to the linear economy that “take, make and dispose”. The concept attempts to harmonize the ambitions of both environmental conservation and economic growth considering the perspectives of life cycle in the entire value chain in the activity such as production, design, transportation, distribution, consumption,

recycling and disposal. In the CE model, all waste should become “food” for another process either by-product or recovered resource for another industrial process.

3.2.5 Tourism industry and the Swiss perspective

The tourism industry growth has a direct impact on natural resources consumption and environments. The adoption of green practices in the tourism industry is gaining more and more attention, in Switzerland.

- **Transport emission reduction**: Switzerland Tourism is promoting bicycle tours and wildlife experiences with measures aimed at reducing carbon footprint and safeguarding the country’s natural heritage. Switzerland Mobility is promoting eco-friendly options to explore the country through carbon-neutral mobility like train, bus, hiking, biking and more. Many hotels are committed to a variety of environmental initiatives such as reducing energy and water consumption and decreasing waste outputs which has led to the emergence of the niche market “green hotels”.

- **Green practices are increasing but they are far from being adopted by a majority.** As the 2019 annual report of the Swiss Hotel Association mention food waste is becoming more a concern, but it is still under-estimated. In the hotel industry in Switzerland, 30% of all food is wasted. This waste is expensive and unnecessarily harms the environment, especially in terms of land use, water consumption and greenhouse gas emissions. This impact on the environment could be massively reduced by making better use of food. **There is a huge reduction potential in this area that is still poorly exploited**. And unlike many other green measures, efforts in this area involve no additional costs or investments. Quite the contrary, since ecology goes hand in hand with savings and establishments always benefit from taking measures in this direction. After a study conducted by the swiss association, food waste comes majoritarly from the production and preparation (41%), and then from guests that did not finish and then from buffet return. The report recommends measuring and weigh the food waste in order to rethink their purchasing process, menu planning, and raise the awareness in the kitchen and service employees.

- As the swiss government official communication mention, since 2005, **Switzerland has seen a surge in the use of renewable energies such as ambient, heat, biomass, wind power and solar panel.** The federal government devised a new national energy

strategy which will be implemented until 2050 and based on three pillars:
More energy-efficient buildings
Machinery and transport
Increased use of renewables (hydropower in particular as it is a country with a lot of water and river).

Conclusion

The following questions found their response in the literature review

Question C: Where do main emissions come from in the tourism sector and how can it be reduced?

As indicated, the main carbon emissions come first from the airline transport, then the car transport and then the accommodation with the following percentages (40%, 32% and 21%). In order to reduce it, the **UN** gave four strategies that consist on:

1. Reducing the airplane and cars and replacing it with rail and bus.
2. Improving the energy efficiency by carrying out the same due to innovation.
3. Sequestering carbon emission through carbon sinks and store the CO2 in biomass, in aquifer or oceans, and in geological sinks (afforestation).
4. Using of renewable carbon neutral energy (biomass, hydro, wind and solar energy).

Question E: What are the different model and concept applicable to ST?

ST can be adopted in the tourism industry following various model that are complementary and interconnected. First the 3 pillars model that base tourism on 3 pillars economic, socio cultural and environmental. Then, ST is possible if the industry follows the SDG of the 2030 agenda for SD and the concept of Circular Economy based on a “no waste & re-use strategy”.

Question F: What sustainable initiatives are undertaken in the Swiss tourism sector?

In Switzerland, there are various iniatives to reduce the transport emission. The government is promoting eco-friendly options to explore the country with discount on train, and developing activities such as biking, hiking.

Green practices in the hospitality industry has been increasing the following year but the government indicate that it could increase more because there is still a lot to do.

Last but not least, the use of renewable energy is increasing in Switzerland with various initiatives.

4. Research Findings

This empirical part gives both experts and consumers perception.

4.1 Experts perspective

As this research paper address the themes of hospitality and sustainability, with a focus on Switzerland, I decided to select an expert panel from Switzerland coming from the sustainable and tourism fields. I found the expert thanks to my network, thanks to LinkedIn and thanks to the sustainability-leaders swiss platform. In the following chapter will be presented and discussed only empirical statements and findings of the empirical study, based on the interviews with these hospitality and sustainability experts, and the findings of the survey. In the annexes, the complete details of the interviews are available.

4.1.1 Main trends

In order to understand the main trends that would impact the future of the companies toward a more sustainable future, the following question has been asked.

In your opinion, what are the main trends that will impact the companies in the future, linked to sustainability?

As the underneath figure illustrates, expert's response can be synthetized with four main trends.

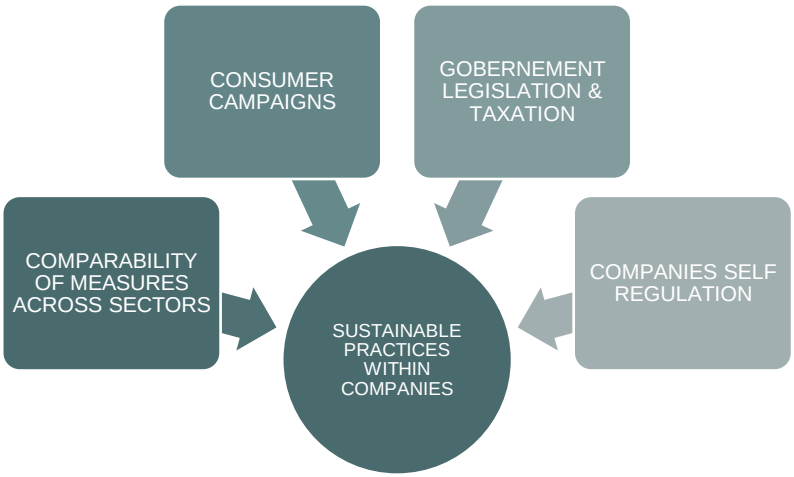

Figure 18: Main trends that will impact the company's sustainability – expert's perspective

The expert perspective about the main trends

Initiatives such as Science Based Targets that provide comparability of measures across companies and sectors.

Consumer-led campaigns have already shown what they can achieve last year by pushing many hospitality companies to consider alternatives or simply ban single-use plastics. It is more likely that we will continue seeing those campaigns across the travel industry calling for a change on any issue from food waste to travel miles.

Governments, via taxation or legislation, will continue to increase the pressure. The many carbon pricing initiatives in place or planned in more than 45 countries or the ban on single-use plastics in the EU coming into effect as of 2021 are two recent examples. We will see this trend continuing and with the EU's Energy Performance of Buildings Directive which requires all new buildings to be nearly zero-energy (NZEB) by the end of 2020 and existing buildings to transition towards NZEB by 2050, investors, developers, owners, architects, brands and hotel operators may finally sit around one table when planning the future of this sector.

The hospitality industry's self-regulation and voluntary codes of conduct will continue to be popular approaches in dealing with sustainability challenges, but with increased scrutiny from civil society.

4.1.2 Main challenges, main barriers and main advices

In order to understand globally the main challenges and main advices in order to operate in a sustainable way the following questions have been asked.

In your opinion, what are the main challenges that companies face every day related to operating environmentally sustainable?

As the underneath figure illustrates, expert's response can be synthetized with three main challenges.



Figure 19: Main challenge for operating with sustainable practices – expert's perspective

The expert perspective about the main challenges

In the hospitality sector, it is extremely important to have motivated, enthusiastic employees you can rely on. Employees can only achieve their full potential if they feel comfortable and there is a positive working atmosphere. This has a direct impact on our guests and I feel sure they notice it.

A sustainability strategy needs to be fully supported by the CEO. If it is just seen as a cost center or even as a necessary nuisance, it is not sustainability.

In terms of risk assessment, investing in carbon neutrality is the best option but there is a lot of reluctance due to short-term economics.

Of course, in the hospitality sector, you need to strike a balance between the needs and demands of your guests and a sustainable approach to your operations. We can't tell our guests how many towels to use or only to take as many products as they can eat at breakfast so that we don't have to throw away valuable food. On the other hand, we do subtly draw their attention to the regional products and to the challenge of food waste (breakfast and evening menu). The biggest challenge, we find, is striking a balance between fulfilling all our guests' wishes and still placing the right emphasis on sustainability.

Lack of foresight – a company may be so indulged in short term adaptations to the competitive environment that they don't take a step back and look at things holistically. Also, you first need to make an investment, which not all companies are willing to make, but it will bring positive returns.

What advices can you share related to operating environmentally sustainable?

The expert advice for operating with sustainable practices:

Tourism can provide socio-economic benefits to regions, and also be a form of personal fulfilment for the tourist. However, it creates pollution and waste. The question is where do we draw the line between the positive and negative impacts of tourism. I would say to all my students be transparent and honest about your business and its impact on nature and

society. If we know what the ecological or social costs or downsides are, then we can be proactive about managing them and improving things. The worst thing any company can do is greenwash – because the trust stakeholders place in a company, once broken, is really difficult to recover..

I would also urge tourism owners or managers to consider how quickly trends can shift. What is acceptable today, for example people deciding to fly to a destination for personal pleasure, may no longer be acceptable tomorrow. What would you do if the perception and norms around travel and tourism changed? In addition, climate change will affect sea level rise, rainfall, drought, and so on. Many tourist destinations rely on things like access to the ocean, or depend on the surrounding natural environment.

Dare to do your best to be authentic and anticipate the needs of clients.

Use local resources to develop and manage your project.

We use solar energy as heating system. We buy local. Wood and stone have been the main raw material for construction. We have our own garden.

As the underneath figure illustrates, expert's give the five main advices.

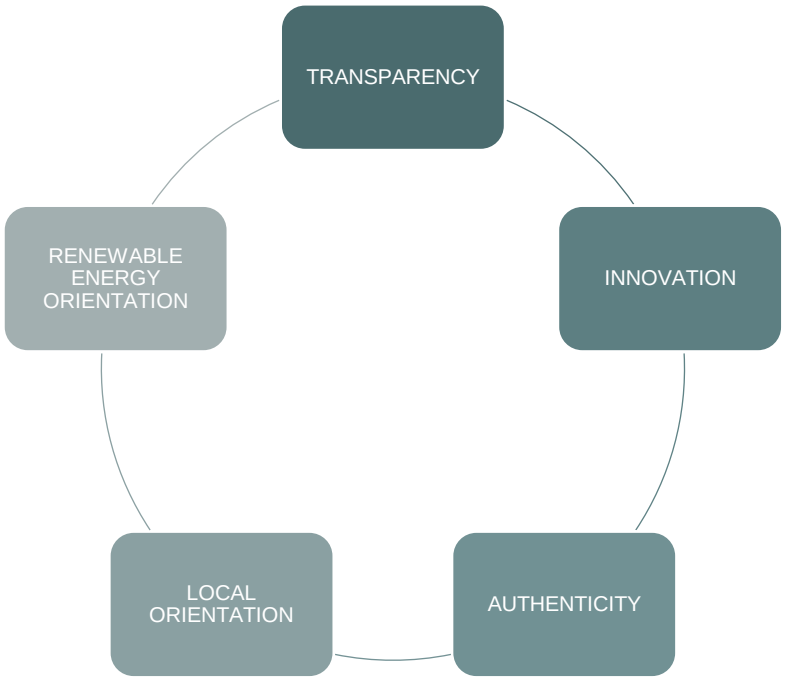

Figure 20: Main advices for operating with sustainable practices – expert's perspective

4.1.2 Sustainability & competitiveness

In order to understand the importance of sustainability for the commercial competitiveness of a company the following question has been asked

How important is a company sustainability performance nowadays for its commercial competitiveness?

There is ample empiric evidence that companies that have a sound sustainability performance and measure related KPIs perform better economically.

Everybody today is looking for more respect for the environment and people want to experience authenticity. So any hotel should walk the talk and create the conditions for their clients to live such experiences.

On the one hand, guests sense the good working atmosphere and feel very comfortable staying with us thanks to our staff. They also appreciate the wide range of regional products on offer, for example in our breakfast buffet. For our guests, the products we offer in our bar and restaurant, where we only serve Swiss drinks, represent a mini voyage of discovery showcasing small but exquisite wares crafted by artisanal manufacturers from all over Switzerland. I don't suppose any of these efforts loom large in guests' minds when they decide to make a reservation, but they certainly are a very important factor for all guests who have already stayed with us once and are thinking of paying us a repeat visit.



Figure 21: Sustainability and competitiveness – expert's perspective

4.1.4 Sustainability & Switzerland

What is the Swiss situation related to sustainability and tourism?

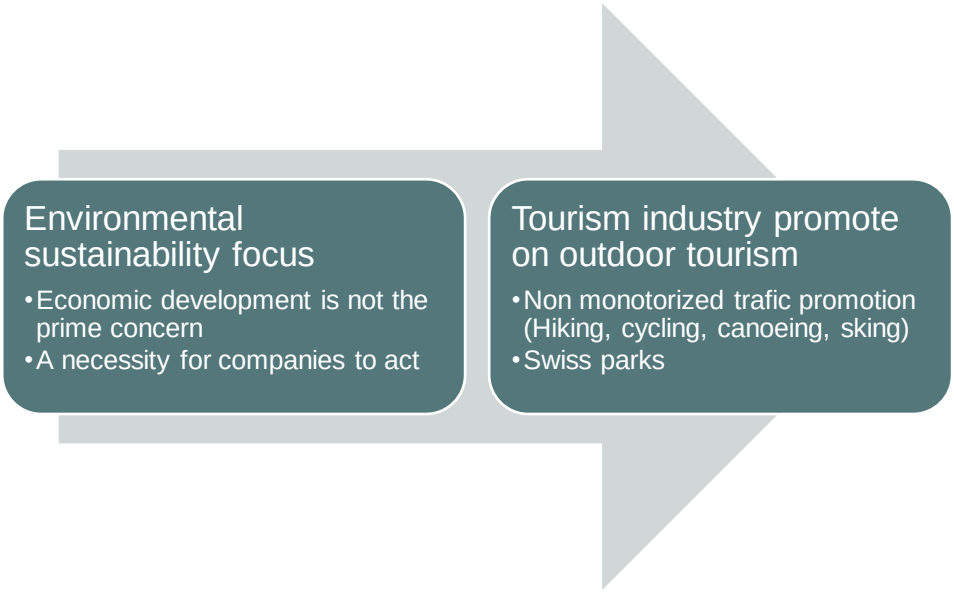

Figure 22: Sustainability and Swiss situation – expert's perspective

In Europe, there has been much more attention to environmental sustainability for a much longer period than in other parts of the world. The South-East Asian region has many other challenges to address, such as poverty. It places a totally different emphasis on environmental sustainability because economic development is usually the prime concern. Europeans generally have a higher awareness of sustainability issues. However, when it comes to companies, there are still many issues to address, for both European companies and those in other regions. In my experience, Asian companies are rapidly catching up when it comes to implementing sustainability strategies, especially the large public companies. But, we have not yet achieved a circular economy, whether in Europe or Asia.

Switzerland is the national network for non-motorized traffic, with a special focus on leisure and tourism (hiking, cycling, mountain biking, skating and canoeing). Switzerland Mobility offers numerous services that make it easier for visitors to enjoy an active experience of Switzerland in many attractive ways. To achieve this, Switzerland Mobility coordinates collaboration between the public sector and private service providers within its network for

non-motorized traffic. Switzerland Mobility also advocates coordinated, high-impact marketing for active recreation in Switzerland. National, regional and local routes have been developed and equipped with uniform signage for all these activities, on the basis of shared rules. This adds up to a selection of the most beautiful routes in Switzerland. They are consolidated with the cantonal and municipal authorities and agreed with the federal and cantonal environmental agencies. Those routes and services are communicated through an extensive website of a quality that is unequalled anywhere in the world, together with ample information about attractions and a wide range of appealing and informative route guides.

There are plenty of examples to show the success that sustainable tourism offerings can achieve in Switzerland: they include the Swiss parks (the National Park and the regional nature parks), the growing popularity of activities such as hiking, cycling and mountainbiking, Switzerland Tourism's wide-ranging campaigns focusing on outdoor tourism – and, of course, the undisputed success of SwitzerlandMobility as well.

4.1.5 Conclusion of the interviews

As a conclusion, the following questions can be replied:

Question D: What trends will help tourism to turn into sustainable tourism?

Experts identify various trends that will impact sustainability in companies in the long term. First, some comparability of measure across companies and sectors. Also, consumer-led campaigns calling for change will push companies to consider sustainable practice. Government taxation/legislation will continue to increase the pressure on companies. Tourism industry self-regulation.

Question F: What sustainable initiatives are undertaken in Switzerland?

Experts identify more attention on the environmental focus. Initiatives such as the promotion of eco-tourism and green mobility are undertaken.

Question G: How tourism should communicate her action towards sustainability?

Expert recommend being transparent because it is difficult to recover from greenwashing.

Question H: What are the best concrete practices for approaching sustainability?

Expert recommend investing in carbon neutrality project, to develop alternative of tourism such as ecotourism, the use of local product and the creation of authentic experience. Experts underline the fundamental principle of transparency and innovation.

4.1 Findings with tourists

A survey was filled out only by travel consumers in order to understand their attitudes, their travel experiences and their perceptions about ST. In this section, we will first see the profile type of the respondents, then discover the attitude and experience of tourists and their perception of ST.

4.2.1 Profile type of the respondents

I decided to follow a purposive sampling according to two criteria. Firstly, I interviewed people that live in Switzerland and secondly, people that travel often. Therefore, 94% of the people interviewed travel at least once a year for a long-distance and twice a year for short distance trips. As a result, more than 88% of the people interviewed are aged between 18 and 32 years old. It is important to note that the sample taken is not representative of the global swiss population.

In order to analyze if a correlation was existing, I first asked question about the profile of the respondents. It has been proven that young people tend to travel more. Indeed, it is easier to travel before having a family.

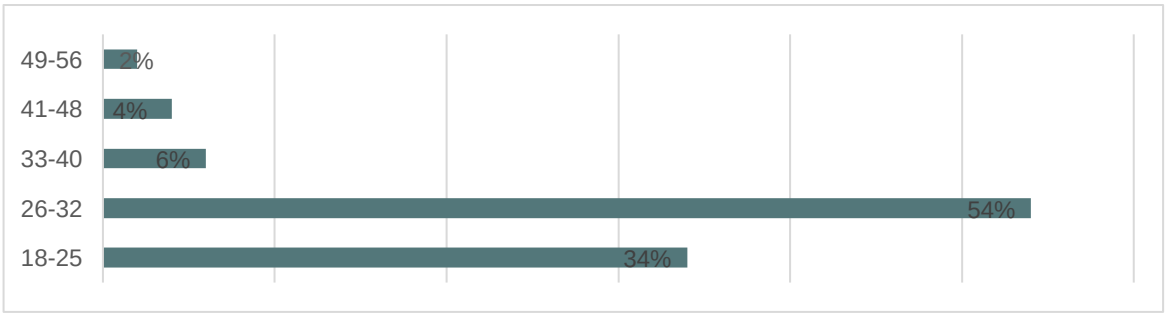

Figure 23: Age of the survey respondents

According to the simple of the 60 interviews, most of the people living in Switzerland and that travels usually have studied. An assumption can be done for a possible. Correlation between studying and travelling. However, it is difficult to prove a correlation between studying and travelling as I haven't interview the swiss population that don't travel.

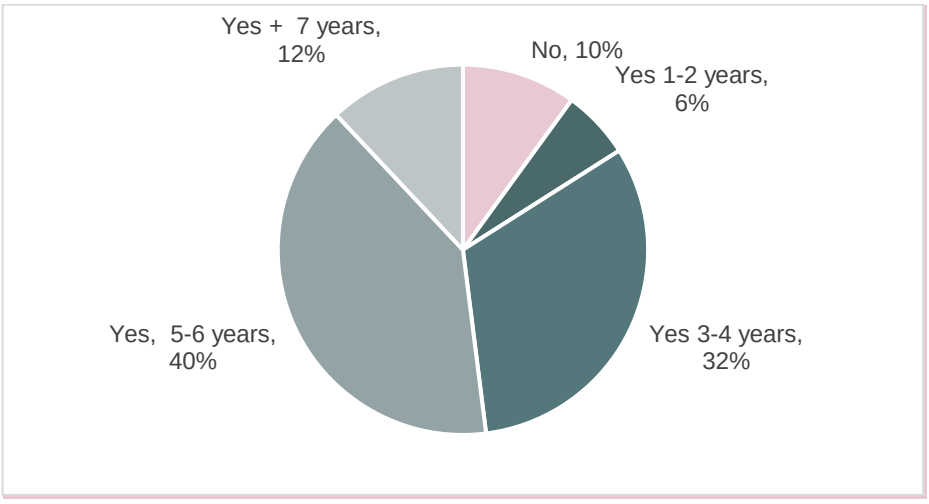

Figure 24: Year of study of the survey respondents

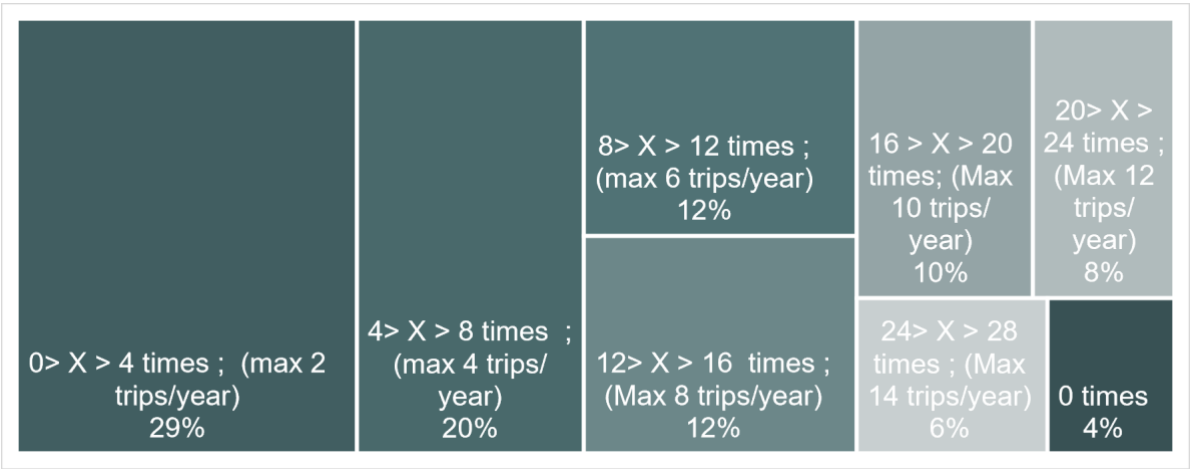

Figure 25: Estimation of SHORT trips done during one year by the survey respondents

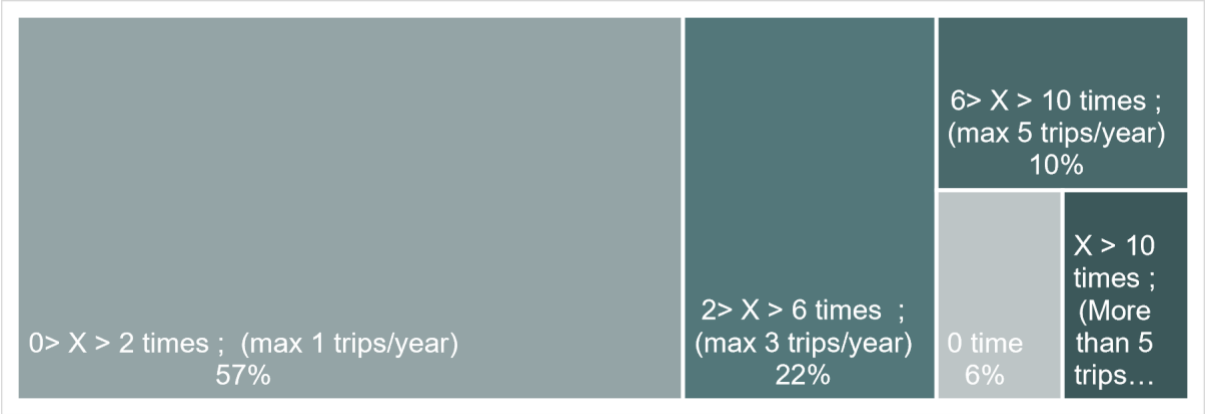

Figure 26: Estimation of LONG trips done during one year by the survey respondents

4.2.2 Travel attitude questions

Questions were asked about how they choose their accommodation, about their sensibilization with fair-trade label, about CO2 Emissions, or how they choose transportation.

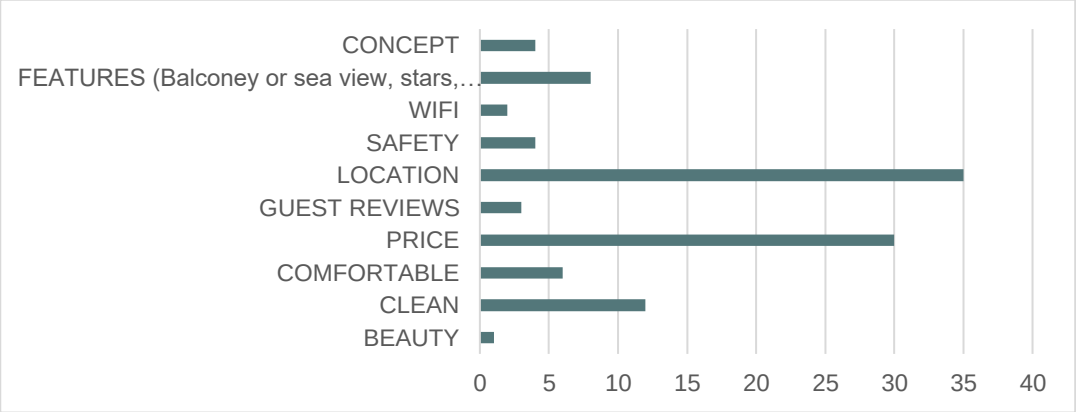

Figure 27: Main criteria choice for accommodations for the survey respondents

- Participants were allowed to put more than one criterion on this question.
- Location & price are main criteria for almost all the participant of the survey.
- Then, cleanliness & features of the accommodation are also important criteria.
- It is interesting to note that CSR & sustainability are not main criteria for participants.

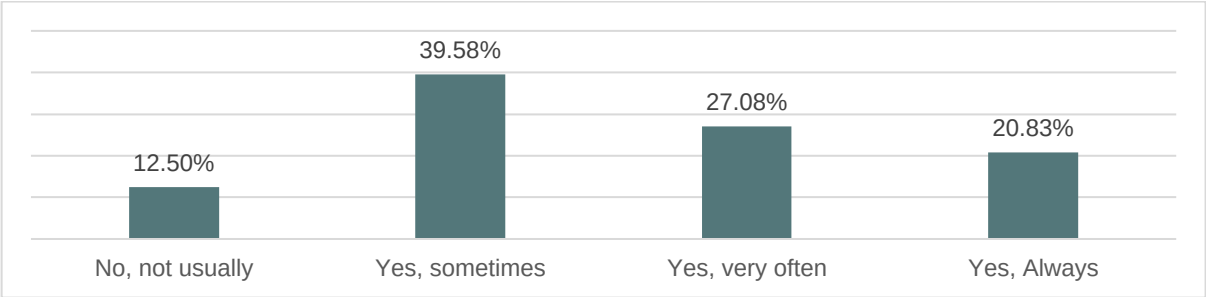

Figure 28: Would respondent stay in an accommodation taking in consideration ethic?

- Generally speaking, the participants seem sensitive to the ethical practices.
- There is a majority of « sometimes » which also shows a certain reluctance.
- There are over 12% of the participant that do not consider the ethics of the company where their money will go.

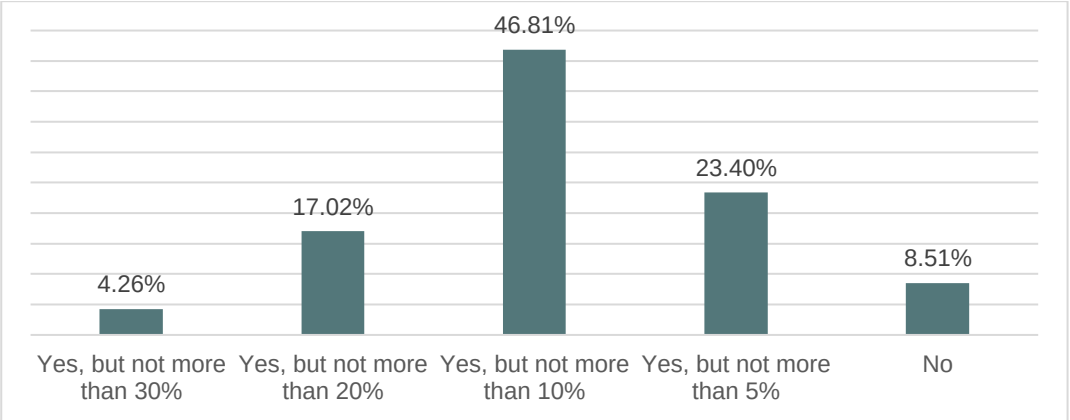

Figure 29: Would the respondent will be willing to pay more to stay in an accommodation taking in consideration ethical theme?

- Generally speaking, the participants seem sensitive to the ethical practices
- 91% of the participant are willing to pay more.

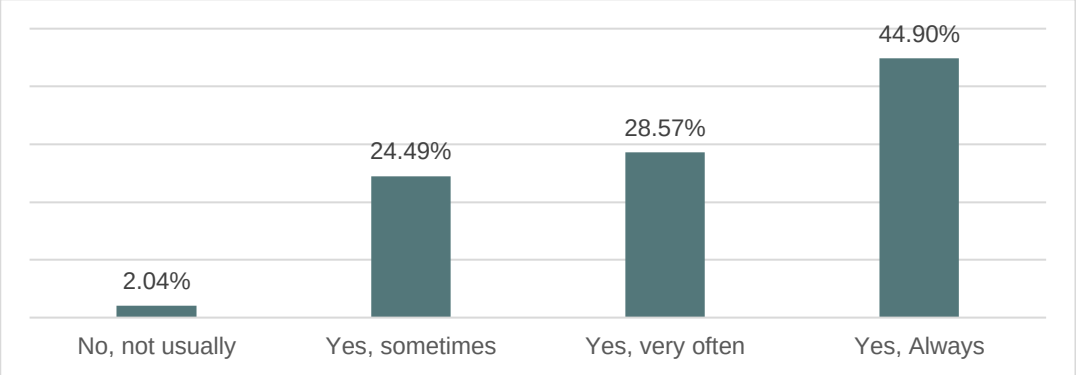

Figure 30: Would the respondent stay in an accommodation taking in consideration ecological theme?

- Generally speaking, the participants seem sensitive to the ecological practices.
- More than 97% of the participant are considering booking this place.
- Interesting to note that participants are more sensible to ecology than ethic topic.

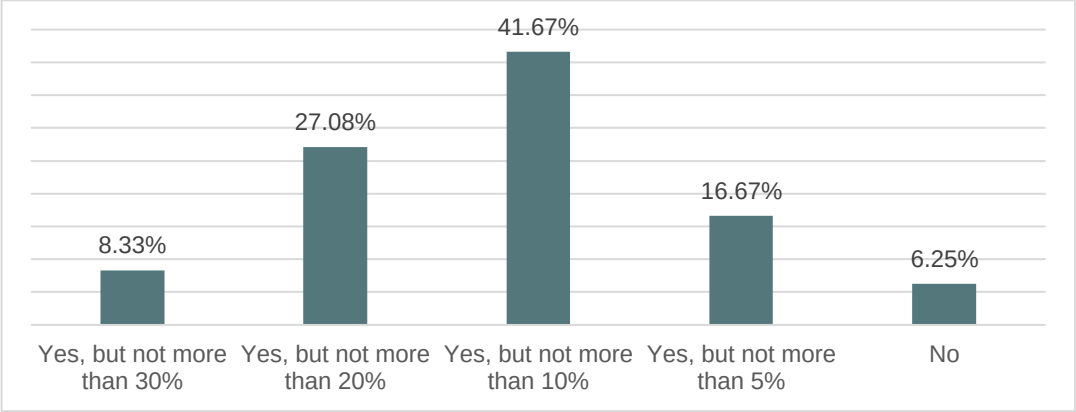

Figure 31: Would the respondent will be willing to pay more to stay in an accommodation taking in consideration ecological theme?

- Generally speaking, the participants seem sensitive to the ecological practices
- 94% of the participant are willing to pay more.

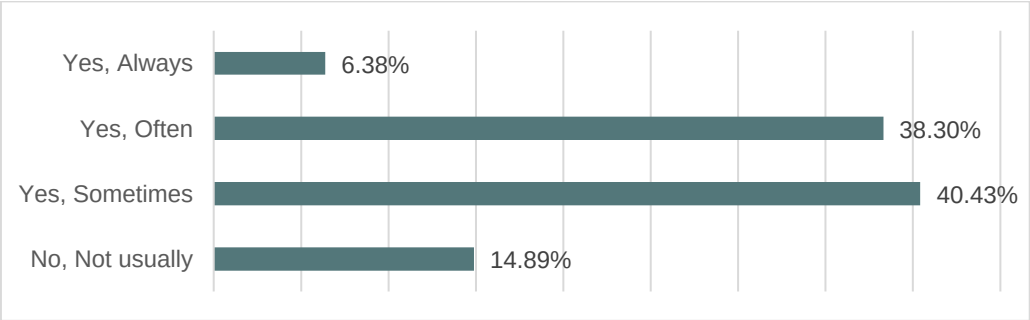

Figure 32: Does fair-trade certification influence the survey respondent purchasing decision?

- It is interesting to note that a minority (approximately 15%) of the participants are not sensible to fair-trade labels.
- Almost 80% of the participant are sensible to fair-trade labels to a certain extent.
- A small minority (approximately 6%) is always sensible to fair-trade labels.

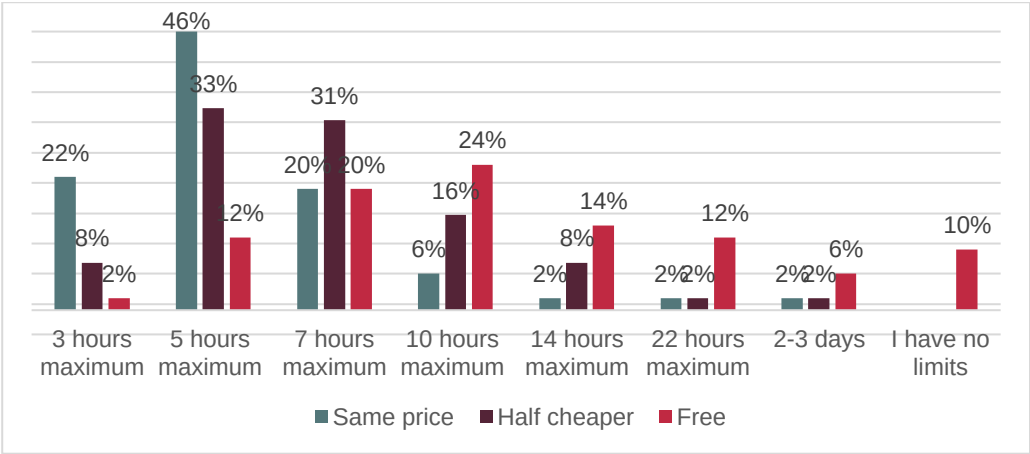

***Figure 33**: Respondent attitudes with train transport in comparison to airplane transport.*

- For an exact same price, almost half of the participant are willing to spend 5 hours maximum in a train. This means that if train had competitive prices, or if airplane tickets were not as cheap, people would travel more by train.
- If train were half cheaper, 1/3 would be willing to take the train until 5 hours, and 1/3 even until 7 hours maximum.
- If train were free, or very price competitive, ¼ would be up to travel until 10 hours, 10% with no time limits, and almost 20% for 1 day.

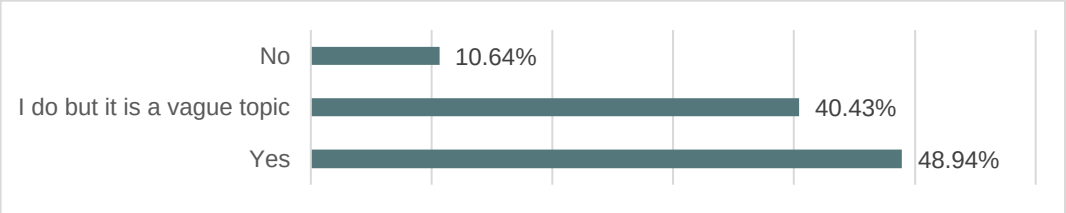

Figure 34: Does the respondents think about his travelling emissions?

- More than half of the respondents don't think about their emission or think vaguely.
- The respondent who replies "no" also replied that they will always choose the plane rather than the train if prices are similar, even for short distance (less than 2 hours of train). There is a correlation between knowing about emissions and acting in consequences.

4.2.3 Travel experience questions

Then, the "travel experience questions" aim to understand first the tourist attitudes and travel choices. Questions were asked about how they choose their accommodation, about their sensibilization with fair-trade label, about CO2 Emissions, or how they choose their transportation.

The survey was intended only for travel consumers or tourists in order to understand first their experience while travelling.

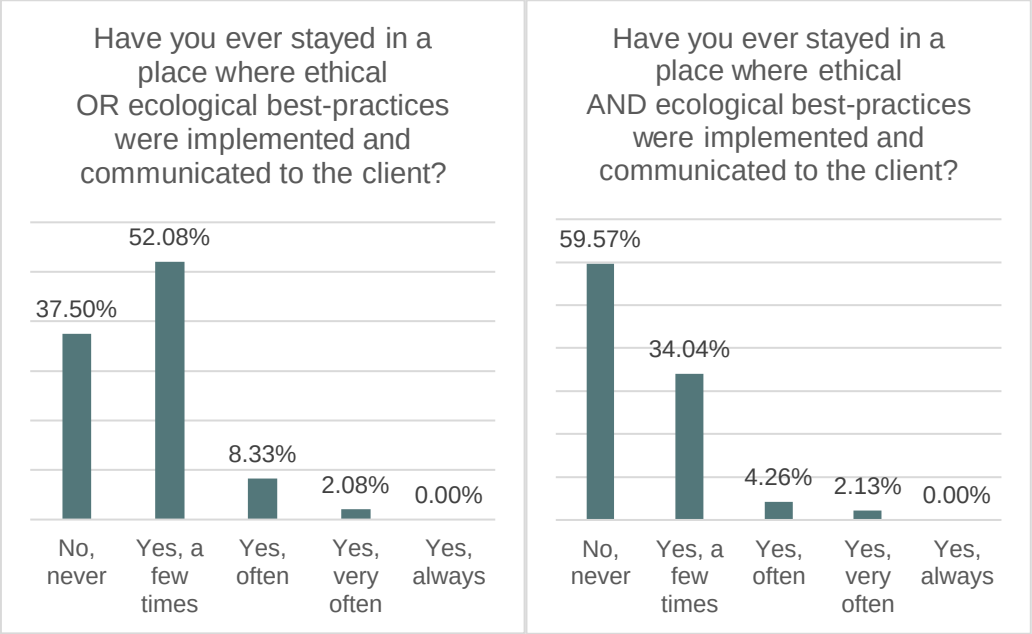

Figure 35: Accommodations experience of the respondents

- It is interesting to note that for all the participant, 37% never stay in a place where either ethical or ecological practice are implemented.
- 50% just a few times, which means it is not common for them.
- And then just a 10% have it regularly.
- For both practice at the same time it is even rarer and there is still some progress from part of the. Hotel industry to work on. It.

4.2.4 Perception of the respondent on sustainability

The survey was intended only for travel consumers or tourists in order to understand their perception of sustainable tourism.

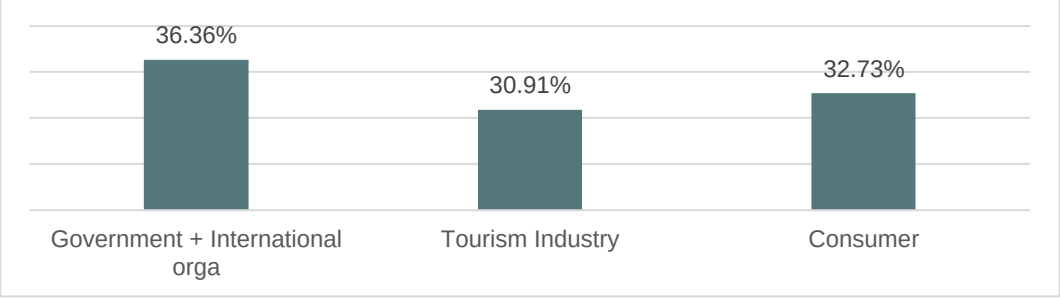

Figure 36: Perception of the respondents about the responsibility of the sustainability with tourism

- According to tourist, the responsibility is shared between stakeholders
- Mains stakeholders are Government, the United Nations, the tourism companies and the consumption on an almost equal level.

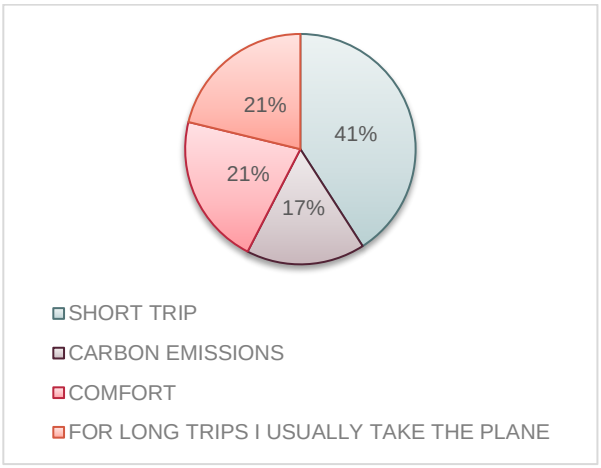

Figure 31: Respondent choice for train transport rather than plane

- More than 40% of the respondents would rather take the train than the plane for short trips because they take into consideration the time wasted for going to the airport, checking in, boarding etc. Also, the train usually goes to the city center.
- A bit more than 20% of the respondents agree than taking the train is more comfortable as there is more space, it is less stressful and they can work during trip.
- A 17% think about their carbon emissions.
- Finally, more than 20% would say that they would not take the train for long distance as they value their time and usually they have limited days of vacations.



Figure 37: Tourist suggestions toward sustainability in the tourism sector

This figure underlines all the suggestions that the tourist's respondents mentioned for a tourism industry more sustainable. This includes various initiatives undertaken by the governments, the tourism industry and the way of consuming.

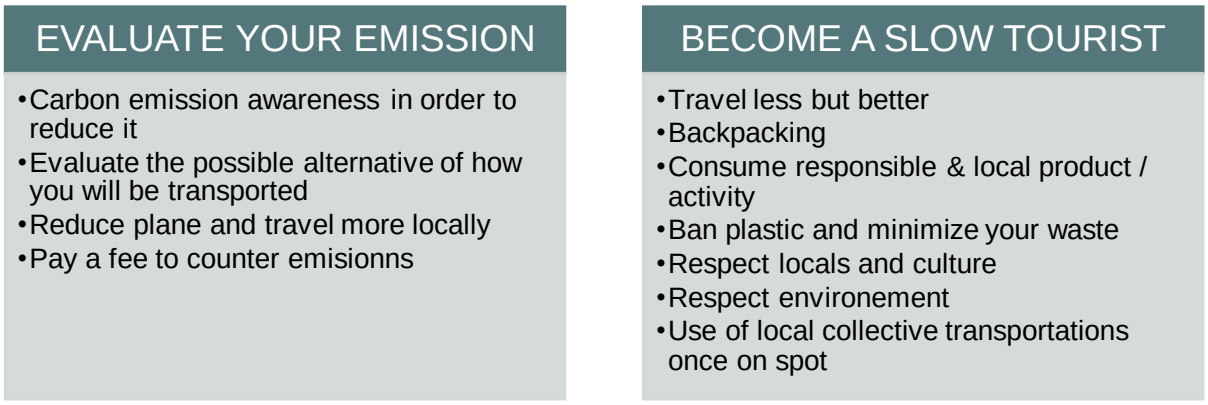

Figure 38: « Responsible travelling » perceptions

For the respondent, travelling responsibly means on the one hand, to be aware of the carbon emission. Indeed, by being aware, it allows to evaluate the best possible alternative for the transport. If the transport is not sustainable, then the respondent suggest to either travel more locally or to pay a fee to counter emissions.

Similarly, the concept of slow tourism has been mentioning for a responsible way of travelling. The slow tourism consists to travel less but better. It includes activities that do not consume that much carbon emission such as hiking, cycling, backpacking for a longer time, it means consuming locally and respect locals, culture, and the environment.

4.2.5 Conclusion of the survey



Figure 39: Survey questions synthesis

As a conclusion, this survey demonstrates that even if the concept of sustainability is still vague for the majority, there is an awareness for sustainability. Swiss tourist are willing to pay

more for sustainable practices. The responsibility to turn tourism in a more sustainable industry is shared into many stakeholders. The following questions can be replied:

Question E: What are the different model and concept applicable to ST?

Slow tourism

Question G: How tourism should communicate the action towards sustainability?

The survey demonstrate that sustainability, ethical topics and carbon emission are vague topic for the majority. More clarity is a necessity to communicate the action towards sustainability.

Question H: What are the best concrete practices for approaching sustainability?

Three categories of initiatives are identified to help tourism to become ST:

GOVERNEMENT INITIATIVES	TOURISM INDUSTRY INITIATIVES	TOURIST - CONSUMER
***Legislation & taxation initiative*:** If governments increase plane price and decrease train price, consumers'll use train more.	***Integration of a local project:*** *T*he use of local or regional product, hiring local employee, using local materials.	***Slow tourism project*: For long distance trip**: traveling longer period, consuming locally sourced product and using local transportation. ***Slow tourism project:* for shorter distance,** using more sustainable way of transportation.
Investment in renewable energy: for cleaner travelling methods.	***Integration of a circular economy project***: Reducing waste, ban plastic, recycling and use recycle items.	
Education initiative*:* Awareness & information project to spread the issue of sustainability.	***Label project***: The use of certification to communicate the sustainability of the product or service.	***Circular economy concept:*** Banning plastic & minimizing waste.

Table 6: Key initiatives for ST in the tourism industry – survey respondent's

5. Synthesis

5.1 Links

5.1.1 Sustainable accommodation, a competitive advantage and a proven necessity:

On both empirical and theorical evidence, there is a necessity to offer sustainable accommodation.

- First of all, it has been proven by expert that travelers are very sensible to sustainability and that it is a factor for them to repeat the visit. Expert says as well that having sustainable practice is a way to save cost.
- Also, the survey demonstrates that ethic and environments topic in the hospitality industry, is part of the traveler consideration. The majority of the travelers are willing to pay more if the place is using sustainable practice.
- However, only 10% of the survey respondents says that they usually stay in place that offer sustainable practices. This means that it is not common for the respondent's travelers to visit places with sustainable practices. This idea can be linked to the fact that the swiss hotel association recommends hotel to increase the sustainability in the hospitality industry. The Swiss hotel association indicates that there is still a lot to do.
- A link can be done with the SDG 11 "Sustainable cities". By offering sustainable accommodations, with green infrastructure, in the tourism industry.
- To go further, if a traveler visits sustainable place, it will be as well an example to reproduce sustainable practices in his home. Therefore, offering sustainable accommodations can only impact positively the daily practices in the housing of the travelers.

5.1.2 The necessity to increase information, awareness and education:

On both empirical and theorical evidence, there is a proven evidence to increase the awareness on the topic of sustainability in order to reduce the carbon emission.

- First of all, it has been demonstrated in the theorical evidence that sustainable development is a large concept with various model, pillars of sustainability, circle of sustainability, SDGs, the Venn diagram and that there is not only one definition. This indicates that the topic is complex.
- It has been also proven by the survey that sustainability is a vague topic. For instance, many travelers would book "sometimes" an accommodation with ethical topic for an

exact same price. This demonstrate that ethic is not a clear topic and a lack of understanding of the concept brings a lack of implementation.

- Also, it has been demonstrated that half of the survey respondents do not think about their carbon emission when they travel, or they think about it but vaguely.
- The survey indicates a correlation between knowing about the emissions and acting in consequences to reduce it with the an alternative. In fact, the respondents who don't think about their carbon emission while travelling from Belgium to London would rather take the plane id it is the exact same price and time. Therefore, there is an important challenge to increase the awareness in order to reduce the carbon emissions for the travelers.
- For the employee, expert recommend training them in order to increase the motivation and enthusiasm on the sustainability topic. A link can be done with the SDG 4 "quality and education", tourism has the potential to promote inclusiveness, the value of a culture of tolerance, and the UN recommend investing in vocational training in order to educate the employee.

5.1.3 Transparency is fundamental

On both empirical and theorical evidence, there is a proven evidence to practice transparency.

- Sustainability is indeed closely related to the debate about "green washing", making unjustified claims about the environmental friendliness of a business. There is a real ethical alternative, against the parties who claim it to be a marketing ploy, and concluded that at the time there did not seem to be enough evidence? To use sustainability as a basis of marketing.
- This is demonstrated typically with the reluctance in the ethic practice. Consumer are not always motivated to book accommodations that communicate ethical practices because there is the idea of greenwashing.
- It has been recommended by experts to be transparent and honest about the business and its impact on nature and society. It is very important to avoid green wash, because the trust stakeholders place in a company, once broken, is really difficult to recover.

5.1.4 The necessity to follow a local strategy

On both empirical and theorical evidence, there is a clear suggestion to operate in a circular economy model.

- The importance of local is demonstrated both in the theory with the circular economic model, the Venn diagram and in the empiric evidence with the expert recommendation to use regional product and that guest prefer it.
- It can be link to the SDG 12 “responsible consumption and production”. The UN recommend promoting local culture and product in the tourism industry and to hire local employee, in order to enhance the economic, social and environmental outcome.
- As seen in the first part, if the local concept is not use, it can bring economic and socio-cultural cost such economic leakages and a loss of tradition.

5.1.4 Sustainable transports, a strategy to follow:

On both empirical and theorical evidence, there is a clear call-to action to find alternative in the transportation.

- The main carbon emissions come from the transports of the travelers (plane and car), then comes the accommodation emission. The United Nations recommends four strategies to reduce the emission of the transport emission. These are: replacing as much as possible the airplane and cars with rail and bus, improving the energy efficiency with innovation, sequestering carbon emission through carbon sinks and store the CO2 in biomass, in aquifer or oceans, and in geological sinks, using of renewable carbon neutral energy (biomass, hydro, wind and solar energy).
- Also, in the survey, more than 40% of the respondents would rather take the train than the plane for short trips because they take in consideration the time wasted for going to the airport, checking in, boarding and because train goes to the city center.
- The SDG 13 “Climate action”, recommend promoting renewable energy source, especially in the transport and accommodations sector and to lower the energy consumption.
- As seen, the air quality is one of the main environmental cost of the tourism industry.
- Switzerland Mobility is developing project related to green mobility and underline the growing activities such as hiking, cycling and biking.

5.1.6 Alternative tourism, a growing concept:

On both empirical and theorical evidence, there is a clear call-to action to find alternative in the tourism.

- In the theory, sustainable-tourism concept has been explained taking in consideration the 3 pillars: Economic, Socio-Cultural, Environmental.
- Switzerland tourism is promoting eco-tourism with the development of mountain and biking activities. Eco-tourism means traveling in the natural environments without damaging it or disturbing habitats. It means responsible travel to natural areas, conserving the environments and improving the well-being of the local people.
- The survey findings suggest to the travelers to follow the slow tourism concept which call. For responsibility to consume local product, and activity that has zero impact on the environments. It is a type of travel that calls for local culture respect and that use collective transportation on the spot.

5.1.7 Conclusion

To conclude, all those points are interconnected and aim to reduce the carbon emission. For instance, in order to reduce the carbon emission of the transportation, some information and awareness is necessary. Travelling with the slow tourism concept means consuming a local and using the most sustainable alternative as transport and accommodations.

5.2 Circular tourism model

"It is easier to see how the concepts of circular economy can affect the manufacturing sectors rather than the service sectors as, for instance, the tourism industry".

"When a tourist is starting his consummation of tourism, first, he prepares his trip, then he travels. When reaching his destination, he likely uses local transports, he settles in his chosen accommodation, consumes food and partakes in some local activities. Finally, he travels back. All seven steps are compatible with circular economy."

Profesor Luciano – École Hotelière de Lausanne

Integrating circular economy while traveling would be following the underneath steps

- **For short distance trip:**

Use the train and sustainable transport to go to the place, then stay in a sustainable accommodation, doing eco-touristic activities, eating local product and generate no waste, then going back with a sustainable transportation.

- **For long distance trip:**

Taking the plane implies the emission of greenhouse gases. However, it is possible to compensate the carbon emission by paying in compensation project such as afforestation, for instance. Then, the exact same concept to use local and sustainable in all the plan actions.

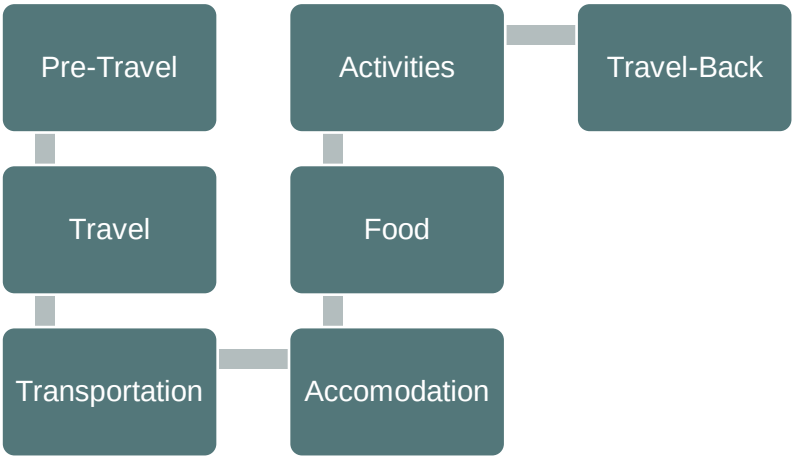

Figure 40: The seven steps of tourism activity – Pr. Luciano – EHL

5.3 Best practices

The tourism industry should develop project related to sustainability and engage all the stakeholders. Considering theorical and empirical evidence, it is a worldwide challenge. The survey analysis shows that consumer is really sensible to ethic and ecofriendly practice, and expert interviews as well. This part will introduce the best practices for the tourism industry.

5.3.1 How to decrease food waste?

It is an important topic in the hospitality industry and the swiss association recommend the hotel industry to considerate this topic.

1. **Communicate with your producers in order to reduce food waste**. In Switzerland, 30% of the farmer production is rejected because it does not meet the expected standards. Asking to your producer to give you all kind of vegetables without discrimination concerning shape, size is ideal to save cost and against food waste.



Figure 41: Vegetables with a shape and size that do not follow the esthetic standards

2. **Use an open language in your restaurant menu**. For instance, “winter salad” let all the possibilities for adjusting with the product that you have in your stocks, it gives you more flexibility and is ideal to fight against food waste.

3. **Rethink your portions size**. According to. “hotellerie Suisse”, most of food waste in the hotel industry come from the plate (40%). If regularly some food is not eaten by the guests, you could consider adjusting the size of the portion, offering some portion size and adapt the offer consequently.

4. **Give the option to use a food box to your guest.** Food box is a great thing to avoid food waste. Estimations explain that 16% of food waste can be save with a food box.



Figure 42: Food box example

5. **Measure the food waste so you can reduce it.** If you measure the amount of waste and motivate the entire team to reduce it. Measuring the waste make it tangible and easier to increase the team consciousness.

6. **Give what you will not use**. It exists various local association that are taking in consideration this topic. In Switzerland, “Table Suisse” or “Table couvre-toi” or “too good to go” are some examples.

5.3.2 How to recycle more the soap product in the hospitality industry?

Every day, millions of bars of soap and bottle of shampoo, conditioner, body wash and moisturizers are used in hotels around the world. Once used, it goes into bin bags and it is sent off to landfill sites. The soap is an important topic as well in the hospitality industry and the swiss association recommend the hotel industry to considerate this topic.

7. **Use some refillable dispenser bottle with organic soap**. Some hotels have reported that travelers find them easier to use as you don’t have to open it.

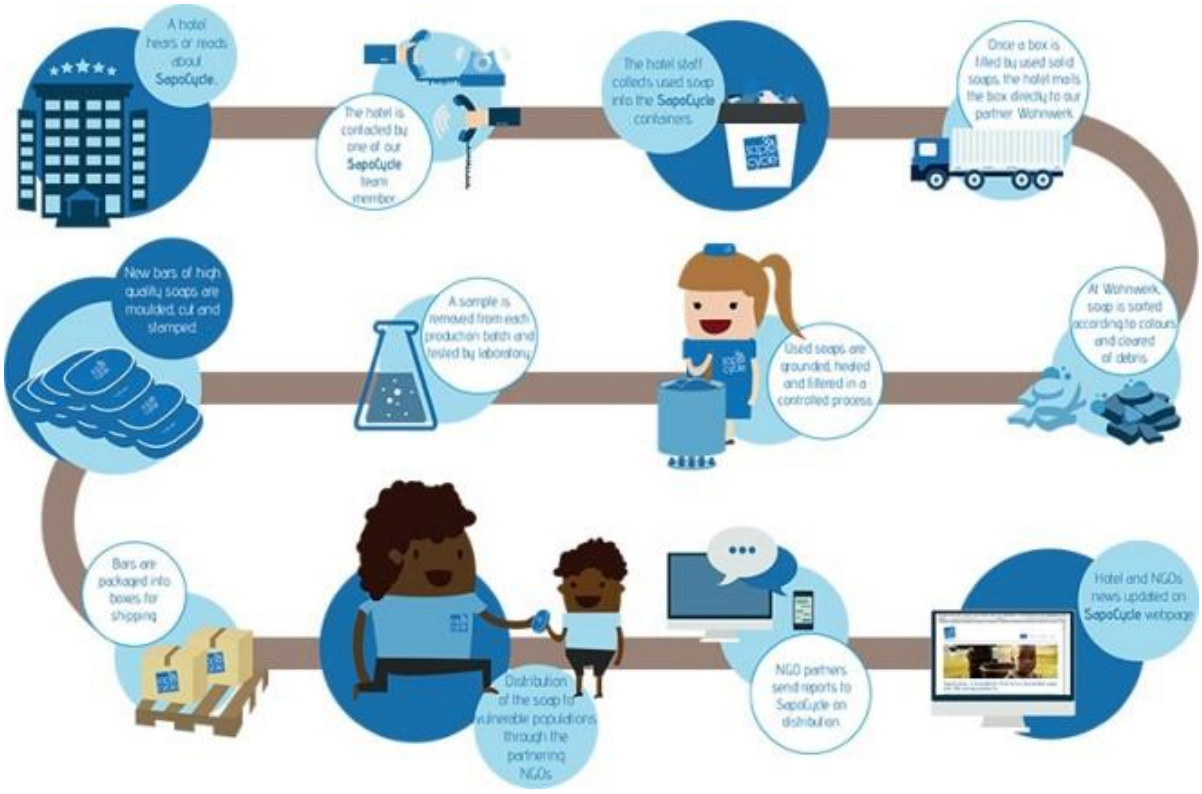

Figure 43: Sapocycle company model

8. **If you want to keep your bottle and your soap, do a partnership with Sapocycle.** Sapocycle is a swiss NGO that recycles the soap and give it to the population in needs, giving a better hygiene and while helping people with a handicap to find a job in society.

5.3.3 How to reduce the water consumption?

9. **The use of a Faucet and spray breaker is recommended by the swiss government to reduce the water consumption in the hospitality industry.** The reduction of CO2 emission requires to save hot water in order to reduce both electricity and water costs. This technic is approved by the federal office for the environments in Switzerland.

5.3.4 How to achieve carbon neutrality?

10. **Use local product**. It has been demonstrated that clients appreciate the local and regional product when they visit a place, it is part of their experience to try the local

wine, the local cheese and the local product.

11. **Motivate your guest to save energy.** A few initiatives are already undertaken by some sustainability hotel champions. For instance, it is common to see in the room a little paper that ask the clients to not use all the towel in order to save water. A similar initiative can be done with the buffet of food at breakfast, asking the clients to take small portion in order to avoid waste. Some hotel are offering discount to their clients that travel with a sustainable transportation such as train, bicycle or electric car.

12. **Try to have a little garden.** If you have your own herbs, and you can provide some produce directly from your garden, it will reduce the. carbon emission of the transport of the product.

13. **Use energy-efficient building** such as renewable solar energy, electric car and you can offer bike service and electric bike service to your guest.

5.3.5 How to contribute to a great work place your employee?

14. **Try to fulfill all request.** It is so important for the employee to have a great balance between work and family. A worker that have a great life balance is more motivated and performant in a company.

15. **Gender equality is a must.** No matter if man or woman, it is important to offer equal pay for the same job. Equality is an important value to have loyal, satisfied and motivated employees.

16. **Offer training to young people.** It is important to equip young people with essential skills for their future.

17. **Take part into charitable project**. Many charitable projects are possible, for instance it can be to do some food donation in the communities that need it. You can also collect some cloth from the employee and give it to the community. You can organize some events for the children that have no parents and animate children with music and games.

18. **Celebrate all the goal that your team have achieved, even the small one**. Celebrating is ideal to give recognition to employees and keep them motivated.

19. **Celebrate the employee's birthday and their personal achievement**. Celebrating personal events makes employees feel included and part of a company culture.

20. **Organize some exciting event for your employee in order to nourish the company culture.** It can be dinners for christmas, new year or various activities in order to increase team spirit.

21. **Offer benefit to your employee**. For instance, you can offer the possibility to have a medical consultation every year with a doctor and some reduction on some partners.

5.3.6 How to create a woow effect?

22. **Communicate the sustainability of your company.** If you make sustainability an always-present topic within the company, and across the destination, the consumer is usually impressed, and it influence positively a positive additional visit.

23. **Offer authentic experience relate to ecotourism**. Visit in the alps, cycling close by the rivers in Switzerland, wine tasting of the wine region are some example that will create a wow experience.

24. **Make you company accessible to everyone**. It is important to give accessibility to guest with physical disabilities and people with special needs.

Promote circular economy. This by recycling at the maximum, asking employees. To not print anymore and even further by sending the invoice by email to the customers, banning plastic, offering some organic and certified product. Labels transmit information on the quality on the origin, and many more other dimensions. For instance, "green globe" is recognized internationally by the UNWTO, ATR "act for tourism responsible", value the operators that promotes sustainable tourism. Trip Advisor developed an Eco leader Trip Advisor that promotes eco-responsible places.

Conclusion

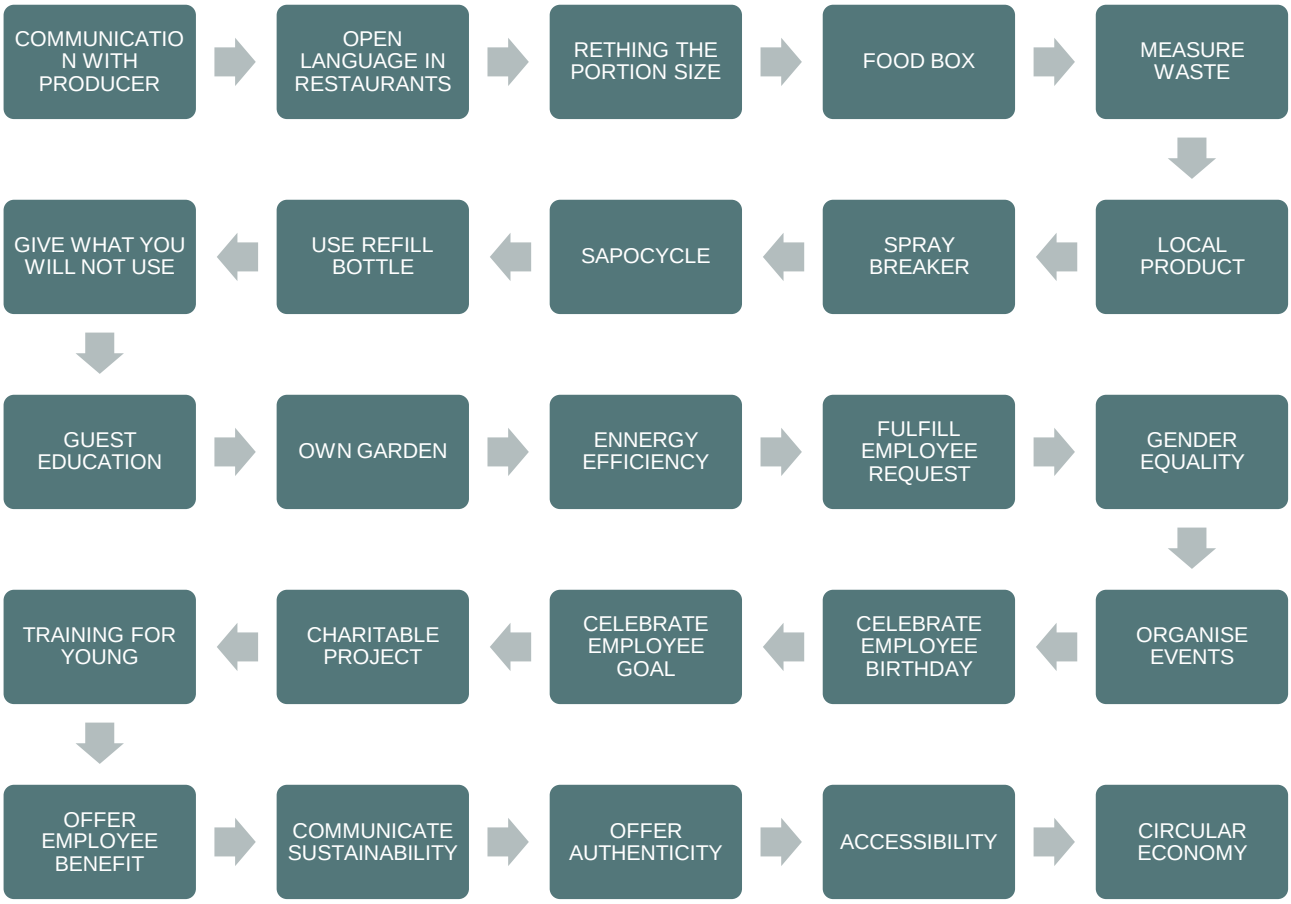

Figure 44: Best practices categories.

The 25 following best practices strengthen a sustainable strategy in the tourism industry. These best practices must be enhanced by a communication strategy. Having a sustainable model is also revealing exclusive offers and the attractiveness of the tourism establishment.

6. Conclusion and research agenda

Sustainability exist since ever, but the topic became serious 40 years ago during the post-industrial time. It has been a need for most companies to become more sustainable and in the tourism industry as well.

"***Why sustainable tourism***?"

As the tourism activity is increasing, sustainable tourism is necessary for the economic, socio-cultural and environmental cost. It produces long-term growth without endangering the cultural and environment. In addition, experts have underlined that sustainability is a must to perform better economically not only because of cost saving but also because travelers are

sensible to sustainable practice. Indeed, the survey prove that iswiss travellers seems to be really sensible to sustainability.

"***How to process for sustainability in the tourism industry***?"

The tourism industry should get inspiration from various model: The 3 pillars model, the SDGs of the 2030 Agenda, the Circular economy, Eco tourism and slow tourism.

The responsibility to develop sustainable tourism is shared between three main actors:

- **The tourism industry**, by implementing best practices such as the one listed. Those concrete measures aim to reduce the carbon footprint in the entire tourism sector. Those concrete measure can also raise awareness among customers and staff on climate change impacts and engage them in.
- **The government,** by regulating the tourism industry with law related to sustainability, giving financial support for investment in infrastructure, providing education and waste management program to tourism destinations and operators.
- **The consumer**, by seeking low impact on their travel destinations which they can enjoy and also be informed of their eco-footprint. By following the eco-tourist or slow tourist concept, described by "their avoidance of products that have negative impacts." These products can be related to health, environment, use of large amounts of resources, unnecessary waste, animal cruelty, or by having adverse affects on other countries or cultures.

It is important to be transparent and clear in the communication.

6.1 Key findings

Thanks to the theorical and empirical evidences, the summary of this paper provides key elements to the following questions:

Why sustainable tourism?

Question A: What are the negative impacts of the tourism industry on the economic, social dimension and environmental dimension?

The negative impacts of the tourism sector that can occur in a non-sustainable model are:

Economic cost	Socio Cultural cost	Environmental cost
▪ **Leakages** ▪ **Inflation** ▪ **Opportunity cost**	▪ Loss of tradition ▪ Commercialization ▪ Stress, Conflict ▪ Criminality ▪ Exploitation threats	▪ Air quality ▪ Lack or end of natural and local resources ▪ Fauna, flora degradation ▪ Soil erosion

Table 3: Key cost of the tourism Industry operated with an un-sustainable model, adapted. taken from the International Maritime Organization.

Question B: What are the predictions of the tourism industry? If we continue to operate the same way, what will be the consequences?

The prediction of tourism say that it will continue to grow as an average of 3% during the next decade according to UNWTO. If we continue to operate the same way, all the negative impact on the economy, the society and the environments studied in this paper, would increase. Therefore, we have the necessity to change tourism practice into sustainable practice.

Question C: Where do main emissions come from in the tourism sector and how can it be reduced?

As indicated, the main carbon emissions come first from the airline transport, then the car transport and then the accommodation with the following percentages (40%, 32% and 21%). In order to reduce it, the **UN** gave four strategies that consist on:

1. Reducing the airplane and cars and replacing it with rail and bus.
2. Improving the energy efficiency by carrying out the same due to innovation.
3. Sequestering carbon emission through carbon sinks and store the CO2 in biomass, in aquifer or oceans, and in geological sinks (afforestation.
4. Using of renewable carbon neutral energy (biomass, hydro, wind and solar energy).

Question D: What trends will help tourism to turn into sustainable tourism?

Experts identify various trends that will impact sustainability in companies in the long term. First, some comparability of measure across companies and sectors. Also, consumer-led campaigns calling for change will push companies to consider sustainable practice. Government taxation/legislation will continue to increase the pressure on companies. Tourism industry self-regulation.

How to process for sustainability in the tourism industry?

Question E: What are the different model and concept applicable to ST?

ST can be adopted in the tourism industry following various model that are complementary and interconnected. First the 3 pillars model that base tourism on 3 pillars economic, socio cultural and environmental. Then, ST is possible if the industry follows the SDG of the 2030 agenda for SD and the concept of Circular Economy based on a “no waste & re-use strategy”.

Question F: What sustainable initiatives are undertaken in the Swiss tourism sector?

In Switzerland, there are various actions to reduce the transport emission. The government is promoting eco-friendly options to explore the country with discount on train, and developing activities such as biking, hiking.

Green practices in the hospitality industry has been increasing the following year but the government indicate that it could increase more because there is still a lot to do.

Last but not least, the use of renewable energy is increasing in Switzerland with various initiatives.

Experts identify more attention on the environmental focus. Initiatives such as the promotion of eco-tourism and green mobility are undertaken.

Question G: How tourism should communicate the action towards sustainability?

Expert recommend being transparent because it is difficult to recover from greenwashing.

The survey demonstrate that sustainability, ethical topics and carbon emission are vague topic for the majority of swiss travelers. More clear information is a necessity to communicate the action towards sustainability.

Question H: What are the best concrete practices for approaching sustainability?

Expert recommend investing in carbon neutrality project, to develop alternative of tourism such as ecotourism, the use of local product and the creation of authentic experience. Experts underline the fundamental principle of transparency and innovation

Three categories of initiatives are identified by survey respondants to help tourism to become ST:

GOVERNEMENT INITIATIVES	TOURISM INDUSTRY INITIATIVES	TOURIST - CONSUMER
***Legislation & taxation initiative*:** If governments increase plane price and decrease train price, consumers'll use train more.	***Integration of a local project:*** *T*he use of local or regional product, hiring local employee, using local materials.	***Slow tourism project*: For long distance trip**: traveling longer period, consuming locally sourced product and using local transportation. ***Slow tourism project:*** **for shorter distance,** using more sustainable way of transportation.
Investment in renewable energy: for cleaner travelling methods.	***Integration of a circular economy project***: Reducing waste, ban plastic, recycling and use recycle items.	
Education initiative*:* Awareness & information project to spread the issue of sustainability.	***Label project***: The use of certification to communicate the sustainability of the product or service.	***Circular economy concept:*** Banning plastic & minimizing waste.

Table 6: Key initiatives for ST in the tourism industry – survey respondent's

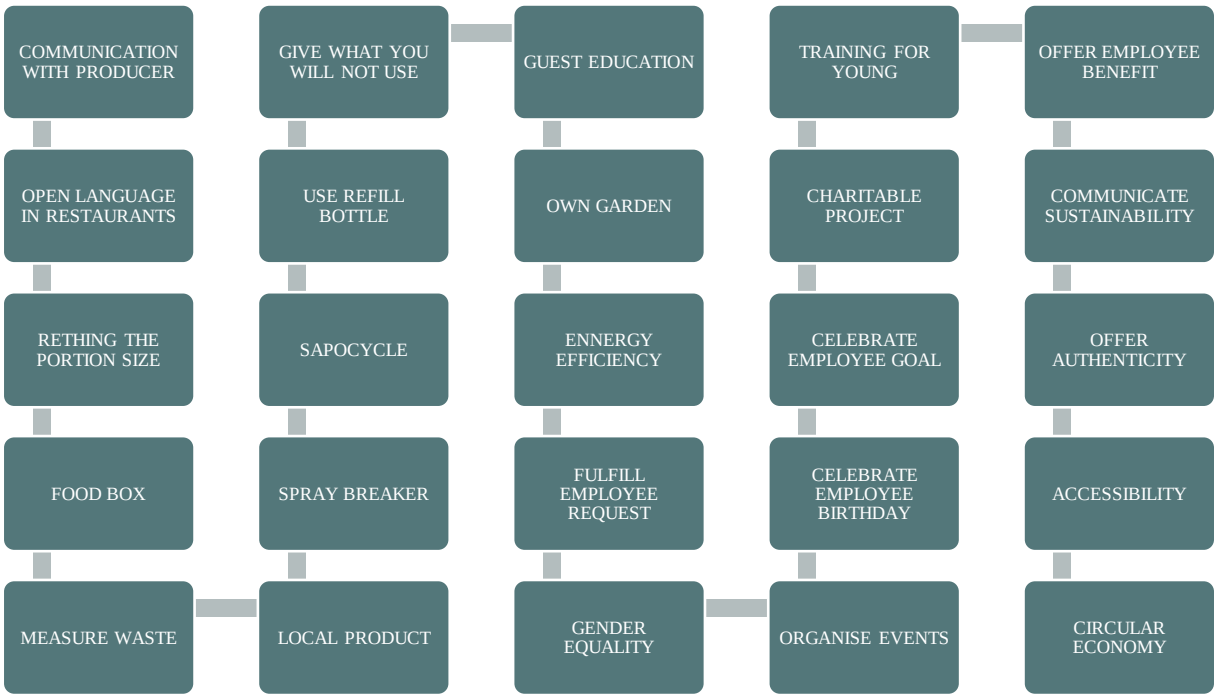

Figure 35: 25 best practices categories.

6.2 NEW RESEARCH AGENDA

The tourism economy has been heavily hit by the coronavirus (COVID-19) and this pandemic has triggered an unprecedented crisis. Beyond immediate measures to support the crisis, countries are also working on recovery measure and it includes on rethink the tourism sector for the future. The United Nations recommends to all company to include sustainability and climate change in their post-COVID-19 reconstruction plan. Therefore, this research paper invites to think about the impact of the COVID-19 on the tourism industry. Indeed, people seems to travel more locally, to prefer outdoor activities and to have more budget because they travel less. Is the COVID 19 will be a trigger to a more sustainable tourism model that will be followed in the future?

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