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Essay for the 25th EEAC Annual Conference

Introduction – Identifying issues

This essay aims to present my opinion and viewpoint regarding problems, questions and solutions in connection with sustainability of the world and Europe, and to present my thought provoking ideas. The concept of sustainable development has become one of the most important aspects of everyday life and the future of our world. Sustainability has different levels (global, regional, national and local) and different dimensions (e.g. social, economic, ecologic, etc.). As a result, sustainability has various interpretations, hence every stakeholder has the possibility to define the concept of sustainability according to their interests. In my opinion, this is the biggest challenge that we have to face when implementing a Sustainable Europe.

The concept of sustainability contains a wide range of problems that need to be solved sooner or later, in order to maintain our world suitable for living for a long time. However, there are many people who do not acknowledge the need for action, which is, in my opinion, the hardest part of accomplishing sustainability goals. One of the main problems is climate change, which implies many other issues. There are still many people, some experts and leaders who doubt and dispute the existence and importance of climate change, e.g. Donald Trump, president of the USA. Trump took the following actions in connection with climate change (including but not limited to): shared the following conspiracy theory on Twitter: “The concept of global warming was created by and for the Chinese in order to make U.S. manufacturing non-competitive”²; and quit the Paris Agreement to privilege coal-fired power plants.

Despite the fact that environmental and human problems are very well-known, many people ignore these problems. Here are some issues of everyday life:

- There are still many people in Europe, who ignore the fact that the environment needs help, the earth is running out of resources, there is need for more sustainable ways of everyday living, e.g. I see many people day after day who just throw away their cigarettes, used tissues or the packaging of their food or drink, without any remorse. More effective public service announcements and campaigns are needed to improve the quality of environment in European cities.
- The protection of the environment in general, and furthermore biodiversity, trees, animals and water bodies is not sufficient. Financial resources should be allocated primarily for prevention, not for damage control. Regulation is rather punitive than incentive, this has to be changed.
- Since my university studies are about energy engineering, I see the increase in energy demand and the decrease of energy resources as a big problem. For example, I recently heard the news - at the time of writing this essay - that in 2017 the earth overshoot day falls on August 2, which is the earliest date in

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² <https://twitter.com/realdonaldtrump/>

history.³ The overshoot day means that after that day we have used more from nature than our planet can renew in the whole year.

- Furthermore, the energy supply of Europe, especially Eastern Europe, depends heavily on resources outside Europe, which can be significantly affected by the political relations with Russia and the countries of the Middle East, hence energy security is not sufficient in some parts of Europe, e.g. in Hungary. Energy security should be improved by appropriate measures, e.g. by investigating renewable energy sources, other sources of fuels, etc.
- The actions of the European energy sector taken towards sustainability are mainly the provision of renewable energy sources. However, the effectiveness of these are questioned by many experts, since there is need for replacement capacity because of the availability of renewable energy generation. The often repeated fact is that the wind does not always blow and the sun does not always shine, therefore the highest energy intensity does not meet the highest energy demand. Hence, storage and replacement capacity are inevitable. Energy transmission capacity represents another problem with renewable energy sources. A good example is Germany, where electricity from renewable energy is produced mainly in the northern part of the country by wind turbines, while the biggest electricity consumer territories are located in the southern part, and transmission capacity is a bottleneck. The transmission of the produced electricity can cause disruption in the European network sometimes, too, which affects supply security of many countries. A great solution could be the invention of an electricity storage device with very high efficiency and low costs, which will be realized in a matter of years, as I suppose.
- Peace is essential for sustainable development. When thinking about politics, there are many conflicts nowadays that can possibly generate a world war, which would demolish the foundations of the developing conception of sustainability. A world-wide political conflict would prevent fulfillment of all the goals described in the previous section. That's why maintaining peace is the most important mission of the United Nations.
- Waste is a significant problem, too. Landfill garbage is rising continuously. One reason why this issue is very important is garbage patches on the oceans that are getting bigger and bigger. In July 2017, researchers spotted an island of 2.5 million square kilometre.⁴ New waste management techniques need to be elaborated and implemented, in order to reduce the environmental impacts of waste worldwide.

A programme that defines concrete measures for every stakeholder which have to be undertaken for a Sustainable Europe is not yet available. Despite the fact that there is need for a widely applicable action plan with specific measures, it is important to mention that it seems almost impossible or even if it is not, it will take decades to prepare and implement such a programme. However the action plan “Transforming our world: the 2030 Agenda for Sustainable Development” is a large step towards this goal. The policy defines 17 Sustainable Development Goals, the majority of which denote problems which apply to European countries as well. The following sections include my ideas in connection with sustainability in Europe and the world.

³ <http://www.overshootday.org/>

⁴ <http://www.9news.com.au/world/2017/07/28/17/11/garbage-patch-bigger-than-texas-found-in-south-pacific-ocean>

Sustainable Europe in 2030 – Visions and goals

The following table lists Sustainable Development Goals⁵ and the level to which these apply to Europe in my opinion.

Goals	Goals regarding a Sustainable Europe
Goal 1: End poverty in all its forms everywhere	Ending poverty is one of the most important aspects of sustainability. The institutions of the European Union made great efforts towards eliminating poverty, hence it is not relevant in European countries. These techniques shall be implemented worldwide, there are many highly undeveloped and poor countries and territories e.g. in Africa. Europe should help extremely poor African countries, which could ease the migration pressure on Europe.
Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture	Hunger is not a general problem in European countries. Food security and improved nutrition are achieved by most countries, however sustainable agriculture is an important aspect that needs to improve. The responsibility of European countries is similar to the one described in Goal 1.
Goal 3: Ensure healthy lives and promote well-being for all at all ages	Young people eat too much junk food and other unhealthy food products and exercise too little nowadays. In my opinion, more effective public service announcements and campaigns are needed to promote the importance of healthy living.
Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	In my opinion, European countries have very well developed education systems, apart from a few exceptions. However, the cost of learning shall be reduced continuously, education's share in the government budget shall be raised.
Goal 5: Achieve gender equality and empower all women and girls	This sustainability goal applies to all countries around the world, however gender equality has been an important issue for a long time in Europe. Although gender equality movements have accomplished many of their objectives, there are still many aspects to improve.
Goal 6: Ensure availability and sustainable management of water and sanitation for all	The availability of water is relatively good in most European countries. However, there might be potable water shortages in big Mediterranean cities during summer, e.g. in Rome during summer of 2017. Sustainable management of water is an important issue all over the world, since we are slowly running out of drinking water.

⁵ United Nations: *Transforming our world: the 2030 Agenda for Sustainable Development*, A/RES/70/1, 2015

Goals	Goals regarding a Sustainable Europe
Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all	In my opinion, energy management is a key aspect of sustainability. Europe has to implement measures to improve efficiency and make energy systems more environmentally friendly. The reliability of energy systems and affordability of energy are quite good in Europe, as I see it.
Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	Unemployment rate has decreased significantly since the economic crisis, however further progress is needed to provide decent work for all. Education, economic growth and unemployment are strongly intertwined, their interconnectedness should be taken into account more carefully when developing action plans for each of these areas.
Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	European countries should allocate more government funds to research and development (R&D).
Goal 10: Reduce inequality within and among countries	Inequality among countries is a big problem in Europe and the European Union, this is one of the reasons why the United Kingdom is about to leave the EU and why some EU member countries want a two-speed Europe. Inequality occurs mainly in countries with a well-developed capital city and underdeveloped rural territories. This disparity can be observed in Hungary, too. Institutions of the EU should implement more effective actions to reduce inequality.
Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable	This sustainability goal applies to all cities and human settlements around the world. Good examples are settlements where local authorities and people realized all these features with revolutionary solutions, e.g. Smart city project in Vienna. More of such city programmes should be tested and implemented around Europe.
Goal 12: Ensure sustainable consumption and production patterns	Sustainable attitudes of consumers and the industry have to be strengthened in Europe, too, as I mentioned in the previous section.
Goal 13: Take urgent action to combat climate change and its impacts	Significant progress has been made in this field by countries all over the world in the past few years, from recognizing the risks related to climate change to elaborating action plans to stop it. However, there are many difficulties, as I described in the previous section. More effective action plans should be implemented.
Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development	Many European countries do not have direct access to any ocean or sea, nonetheless it is very important to develop a policy for the protection of major water bodies and marine resources on a European level or to implement international agreements.

Goals	Goals regarding a Sustainable Europe
<p>Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss</p>	<p>There are already some international agreements in force, nonetheless it is very important to promote these issues in order to stop destruction of our environment, and loss in biodiversity. Timber products used for constructions should be legally harvested and timber trade should also be supervised somehow. Good practices are sustainability assessment methods, which take into account not only timber products, but other techniques as well to prevent biodiversity loss in the area of the development.</p>
<p>Goal 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels</p>	<p>This Sustainable Development Goal includes important features towards safe and sustainable humanity. There are a lot of things to improve, including in Europe. For example violence is a big problem in Europe nowadays, terrorist attacks are getting increasingly frequent. Despite the lack of an absolute proof for the interrelation of migration and terrorist attacks, in my opinion easing migration pressure is an important aspect for peaceful and inclusive societies. This should be done at the root of the problems that force people to leave their home and come to Europe.</p>
<p>Goal 17: Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development</p>	<p>Implementation of policies and action plans has always been very challenging. Significant improvement has to be achieved in order to implement the goals of 2030 Agenda. Cooperation of EU member and non-member countries can be a key aspect.</p>

Sustainable Europe in 2030 – Suggested strategies and actions

Europe is a leader in the area of sustainability with Europeans wanting to participate increasingly in creating a more sustainable world and Europe. In my opinion, this endeavour will be more powerful in 2030, thanks to changes in people's approach to sustainability, a Europe with bright future will be created. Smart city is a concept, which more and more European cities want to implement and which I believe is a great step towards a sustainable city. The development of public transport will give the opportunity to people to choose sustainable modes of transport without losing time. I think when our and the following generations will grow up we will think more sustainably than our parents, since the problems regarding the sustainability of our world have existed and been well-known since our birth.

There are already many strategies and actions elaborated that support creating a more sustainable way of living in Europe. I become familiar with many interesting solutions during my studies and work, too. One of these is the so-called Life cycle assessment (LCA), which aims to follow the products from cradle to grave, in order to assess environmental impacts of all stages of the products' life. This can support sustainability by implementing LCA before the manufacturing of products, construction of buildings, for making choices for investment, transport possibilities, waste management options, etc. In my opinion, some kind of LCA should be required by law for major projects, e.g. industrial plants, power plants, commercial buildings and newly developed products with potentially high environmental impact.

Sustainability assessment methods for buildings represent another important part of future developments, as I suppose. The number of buildings with sustainability certificates are increasing rapidly, as the numbers indicate in Hungary, too. During these certification processes, a number of different aspects are addressed, inter alia management, energy use, transport, material efficiency, etc. Developers are encouraged to innovate and make effective use of resources, in order to obtain the desired certificate and to make their property investment attractive for future tenants. In my opinion, sustainable certification processes should be an important part of the building industry's future and some type of sustainability examination should be required by law in each country, since these comprehensively assess the projects taking many standards, international and local regulations into account.

From a different perspective, sustainability requires helping each other with ideas and proven practices. In my opinion, some kind of internet forum on European level would be useful. This internet forum should be implemented to promote sustainability as follows:

- Different organisational levels for different stakeholders, e.g. for individuals, for companies, for authorities, etc.
- Employees, leaders, officials, everyday people can share and promote their sustainable solutions, which are not only environmentally friendly, but cost effective, too, or has other benefits.
- The admins of the forum would be sustainability experts, who can give the users of the forum advice if something is not clear, and manage a database of sustainable solutions accessible for everyone.
- This forum would be optimized for European conditions, e.g. climate, development level, etc.
- Some kind of economic incentive would be necessary to reward those who share their ideas or experience on this forum.
- This is only a thought-provoking idea that has to be properly elaborated before implementation.