

# Individual Opinions Regarding Sustainability –from the Potential Leaders of the Future

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*Abstract:* Sustainable development, environmentally responsible operations and the social responsibility of corporations have gone through a more decade long development and learning process - its subject, definitions, role and instruments - both on a theoretical research and practical application level. Personal attitudes, ideas and way of thinking are determining the subject, since although professionals (researchers, practitioners) can develop a line of Corporate Social Responsibility (CSR) tools, if people aren't able or willing to use them, especially in organisational decision making positions. The study focuses on the attitudes – in regards to sustainable development and the social role of corporations - of students from three Hungarian universities, since these same students are the leaders of tomorrow.

*Keywords:* Sustainable Development, CSR, Future generations

## 1. Sustainable development and truly responsible corporations

### 1.1 Sustainability trends, tools and their implementation limitation:

The concept of sustainable development is widely accepted, it was a general answer for global problems. The principles and model set by the Roman Club in 1972 – to avoid catastrophe and to hold back, slow down economic growth – was received with general opposition and refusal. Although in the following years a line of initiatives saw the light of day internationally and in Europe (conferences, implementation plans, researches itd. Láng, 2003), caution was a main and common

element. In the sustainability concept that became mainstream 15 years later (Brundtland et al., 1998) also corresponds to this same caution, furthermore since it is a multidisciplinary subject, it gave grounds for a number of different interpretations, approaches and practical models. This is why there is a line of theories that describe the road for sustainable development. Although these theories acknowledge the importance of the role of technology, corporations, states, consumers and the society at large; they highlight different aspects of them in their researches as a core factor for achieving sustainability. Although Corporate Social Responsibility is understood as a concept from the 20th Century and mainly including practical and theoretical background from the United States, it

should be noted that it has its practices and roots in the 19<sup>th</sup> century (Husted, 2015).

The role of technology is in the core of more theoretical faction's research into sustainability. Eco-effectiveness researches (for eg. Schmidheiny, 1992; von Weizsacher, 1996) describe the importance of sensible and innovative utilization of resources, also the need for gradual and retaining innovation, other thinkers (for eg. Grübler, 1998; Kemp, 2008) describe a need for the diffusion and development of radical approaches and ripping (tensile) technologies. Although the concept of sustainable development is widespread, it should be noted that according to some researchers there is no more time, thus no choices are given, and radical changes are needed in order to promote environmentally aware attitudes (Dondon et al., 2013).

Those considering industrial ecology (Ehrenfeld – Gertler, 1997; McDonough – Braungart, 1998; Fiksel, 2009) assume that industrial processes, production systems are open systems that use natural resources and put pressure on the environment (Szépvölgyi, 2010:260). Industrial ecology states that the understanding of the closed environmental cycles is necessary, and there is a need for the redesign of industrial cycles according to this understanding. It also puts importance on the concepts of “from the cradle to the grave” and the “from the cradle to the cradle”, with emphasis on the methodology of monitoring of material- and energy-flows together with their lifecycle. According to industrial ecology, it is beneficial to have a relatively closed ecosystem of corporation and that these same closely work and cooperate with each other, thus resulting in more efficient exchange of raw, production and other materials (Ehrenfeld – Gertner, 1997).

Natural Capitalism (Hawken et al., 1999) emphasizes the importance of ecosystem-service investment into “natural capital”, together with the substitution of products with services (Kerekess – Fogarassy, 2006). The bio- and eco-mimikri principles (Benyus, 1997; Marshall, 2007) expect common solution to the economic, societal and environmental problems from the technological development inspired by the natural environment. The “blue economy” theory is also part of this line (Pauli, 2010), that incorporates the above introduced principles. Development should be inspired by nature, it should take into consideration the local conditions, strengthening local economic co-connections, supporting innovation with

environmental, societal and economic benefits based on closed cycles.

Those researches into the effects of governmental impacts, focus on the political and organisational agreements and tools, which support processes towards sustainable development. It is important to state that beside the research into the effects of traditional governmental involvement tools, their implementation possibilities and effectiveness (for eg. Fucskó et al., 2001; Pataki et al., 2003) there are new approaches that consider the public participation (for eg. Bass et al., 1995; Beta et al., 2003). The reflexive governance model has been also developed along these principles (Voß et al., 2006).

The research into consumers and public involvement can highlight research in the fields of sociology and marketing. According to these, the basis of sustainable development are changes in public values, conventions, practices and routines. Pollution can be reduced and prevented, natural resources could be used rationally and the acceptance of new technologies can be made possible directly and indirectly with changes in consumption and life-style behaviour (Nagy, 2011; Schafferné, 2008).

Those researches that focus on the role of socially responsible corporations presume that the core of sustainability is making the operations, behaviour and strategies greener. One side of the research focuses on the size of the corporations, on multinationals (for eg. Prahalad – Hammond, 2002) or small and medium sized businesses (Wüstenhagen et al., 2008; Vickers et al., 2009). The other side of the research is considering the beneficial effect of being environmentally responsible on competitiveness (for eg. Porter – van der Linde, 1995; Lee – Green, 1994; King – Lenox, 2002). This includes research into the amount and size of awareness, the typologies of environmentally friendly strategies (Kovács, 2000; Baranyi, 2001; Pataki, 2000), also the research of the links of sustainability and corporate social responsibility (for eg. Szilávik – Csiginé, 2005; Málóvics, 2009). There is a third mainstream research direction that focuses on the environmental performance of corporations, the analysis and evaluation of the corporate environment-management systems and methods (for eg. Kerekes – Kindler, 1997; Csutora – Kerekes, 2004, Berényi, 2007). The support for the methodology and techniques of environmentally conscious management have greatly improved, some of these should be highlighted:

- An initiative for the measurement of macro-performance by Wackernagel and Rees (1996) became popular, the eco footprint calculation, that brings this measurement onto new grounds. Furthermore because of the development of this model, today it is not only applicable to regions and countries, but also on corporations and private people.
- The environmental mapping by Engel (1997) shows that small and medium sized enterprises, also other organisations can indeed be involved into the development of sustainability (available in Hungarian from 2000).
- The BSI 7750 environmental management principles (standards) came to life in 1992, followed by the ISO 14001 rules in 1997. With these standards – for the first time – corporations received clear instructions how to integrate environmental protection questions into their operations through the rethinking of their organisational coordination tools.
- The Global Reporting Initiative was started in 1997, that is today one of the biggest and most comprehensive sustainability index-number and uniform reporting system.
- The ISO 14031 standard has been put together in 1999, it gives instructions (in coordination with other ISO standards) on how to evaluate environmental performance.
- Similar tendencies are visible in regards to the social responsibility systems, they are becoming wider and wider, some of the worth mentioning standards are the SA8000, OHSAS 18001, AA1000 or the ISO26000.
- Overcoming information deficit: Gathering relevant internal and external information in regards to environmental protection and public problems is not easy. The installation and upkeep of monitoring systems takes time and money, furthermore without professionals, the determination of relevant information is hard. Sárvári et al (2014) determined that although the dynamic development of information technology, the corporations differ in their size and respective industry, these differences in turn cause severe variations in scope and quality of their leadership information systems. It is common, that small and medium sized enterprises are unable to utilise even the possibilities of their existing information and computer technology.
- Overcoming learning and training deficit: Sustainable operation are unimaginable without the people's clear understanding of the concepts of environment and environmental protection, also without professional knowledge that provides flexible possibilities at decision making aimed at sustainability (Dondon et al, 2013). This education should start from a young age (kindergarten), although the education of adults shouldn't be neglected either (because their attitudes, habits and already formed opinion systems, this is difficult, the empirical study is based on this issue).
- Securing available funds: The benefit of environmentally friendly processes are available with rethinking corporate operations and more rational management. These changes can be usually implemented only with investments, these can be huge, and thus corporations – especially with high interest rates on loans – can't afford them. A solution could be financial assistance through tenders, although the corporate possibilities are sometimes hard to align with the regulation of these programs.
- Reinforcing strategic thinking: Strategic thinking is known widely (López – Perez et al., 2007) although its practical implementation is not widespread. The bulk of companies, under the pressure of daily challenges is unable – or unwilling – to think and act like this.

This list of possibilities can be extended further, although in the case of every method the question arises, why have they been unable to achieve fundamental changes until today? Sustainability is understood in the majority of the cases by a burden for corporation, it is being considered only in cases of legal requirements, or they are taken as incentives in case of applications for tender funds. The number of those who implement these programs on a voluntary basis is low and narrow, their practical implementation is questionable. According to the research, the following causes can be pinpointed (beside the economic interests):

Although there is a line of leadership traits that form stereotypes, it should be noted that as the environment of the corporation changes, so does the need for certain traits that are fitting the need, thus there is no perfect managerial style (Zumitzavan, 2014).

In regards to the different directions of research into sustainable development, it can be stated that there are a line of difficulties and barriers in practical implementation (understanding the concept of sustainability on the lines of economies, society and environmental protection). These barriers are complex, badly structured and permanent, that need radical changes on all levels of actors. According to this, those individuals, companies, governmental and private organisations, technologies and institutions are not only part of the sustainability problem, but are also part of the solution. Life-science, natural-science, technical-science and social science developments are necessary in order for future generations to have the same possibilities as we do, according to the present demand and consumption level. The importance of economic and business sciences is not only limited for providing financial backing, it is also involved in the organisation and management, in determining and understanding the needs of the people and for effective communication purposes.

## **1.2 Business approaches and truly responsible corporations:**

The idea of corporate social responsibility – CSR (Ackerman – Bauer, 1976) is older than the principle of sustainable development, although it became wide-known together with it (Husted, 2005). It considers environmental protection and social problems as a business category. Tóth (2007) introduces the concept of “truly responsible corporations”, which brings the subject to a higher level. Core principles (minimising transport distance, maximising fairness, economism avoidance, keeping optimal organisational size and production of sustainable products) take into consideration those areas of intervention, which bring real development.

CSR projects can have a positive effect on innovation, thus in return benefiting corporate competitiveness (Lopez et al., 2014).

It is a critical question, if a corporations confessed responsibility lies on real fundamentals, or it only serves as a tool to convince-deceive consumers

(Putzer, 2010; Orosdy, 2006; Warren et al., 2014). An approach by Szegedi (2012) takes the ethical codex's as a basis, their contents and role. The categories in this research (see Appendix 1) in general express well the attitudes towards this question.

Researchers usually return to Friedman (1970) who described that the aim of a business is to maximise the owners income, and that sustainability measures lowers this income (except if these measures have the aim to make future income higher). Also the question if corporations can become moral agents arises, since morals are a concept that are applied to private individuals.

Organisations comprise of individuals, as owners, leaders, employees, also consumers or groups of consumers are composed of similar individuals. Decisions and rules are made by people not by corporations, thus at some level, corporate output and performance exhibit the people's interest and values (Zumitzavan 2014). These principles can be applied for truly sustainable corporations, and also for those who do this out of a business incentive in becoming green. The question of “how” is answered by the different environmentally consciousness models, that were applied at first in the marketing field. Zsóka (2005) gives a clear introduction to the evolution of these models that are well known also internationally (Appendix 2.)

Beside the question of morale in regards to individuals, business ethics should be dealt with. The U.S. Sentencing Guidelines set certain objectives for business ethics. This in turn leads to an ethical organisational structure (Warren et al., 2015). These, if communicated correctly, can also have positive effects on the consumers.

The research focused on the attitudes and opinions of individuals since the successful use of environmentally conscious and CSR tools, similarly bringing the subject of sustainability and CSR to a strategic level, depends considerable on the preferences and attitudes of decision making individuals.

Corporate Social Responsibility programs can motivate employees through a better working environment, there is a perception of prestige since the employee's do something that they feel more enjoyable (Glavas – Kelley, 2014).

## 2. The role of future generations – questionnaire research and its results

### 2.1 The Characteristics of the sample and the research:

The empirical research cannot, and similarly the aim of it is not to provide answers for all the raised problems. According to our experience, a core question was the relationship of the individual and the organisation in regards to sustainability. To achieve a higher level in sustainability, attitudes on an individual and organisational level need to be changed. There is an assumption of constant and continuous expansion of knowledge, its relevance and availability, although it is understood that these cannot be reckoned with on the short term. If this expansion of knowledge and changing of attitudes can be achieved only on the long term, the aim should be to achieve the best results with taking into consideration present possibilities and not to use up unnecessary energy by ringing the alarm bell.

Present day student are tomorrow's employees and leaders. As personal characteristics and attitudes are hard and slow to change, it is more beneficial to understand these peoples opinion about sustainable development and corporate leadership. It can be stated that it is easier to change the present management techniques to accommodate these skills and knowledge, than to actually change the people. The environmental management techniques mentioned at the beginning of the paper can be used as good examples that with appropriate methodology and communication, the range of successful implementations can be greatly expanded.

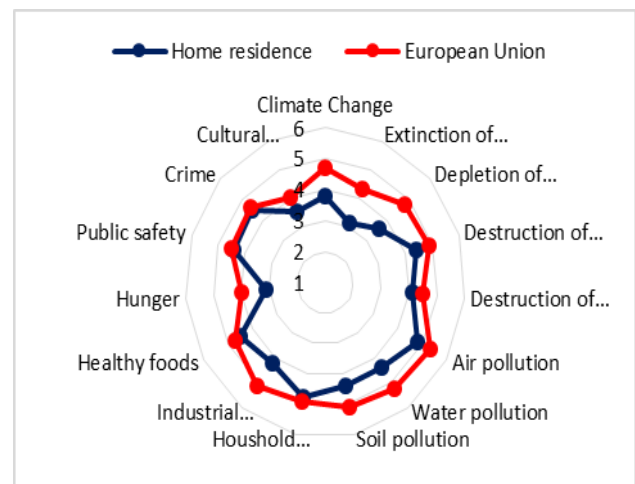
In our research, with the help of a questionnaire in an EV ASYS system, the opinions of university students regarding sustainable development questions were electronically examined. In the questionnaire it was required from the subjects, to choose from a scale or to choose from multiple choices. The questions examined included the following topics: global and local problems, examining the environmental performance according to industries, interpretation of the concept of CSR, personal traits responsible for successful leadership and the personal traits needed for sustainable thinking. Besides examining the general tendencies, it has been evaluated if there are significant differences in judgment of these questions according to geographic segmentation. The examination included 397 people, 115 from the University of Pécs, 181 from the University of

Miskolc and 101 from the University of Nyíregyháza. 89% of these are studying in the field of economics. The processing of the questionnaires was performed with SPSS 22,0 statistical analysis software. Because of the lack of a representative sample, the conclusions were based on the examined sample.

### 2.2 Detection of global problems:

The knowledge and understanding of global problems is crucial for the success of operations that aim for sustainable development. The survey examined, which are those questions that are the most important on a local, European Union and global level in regards to sustainable development. On a global scale, the exhaustion of fuels, air pollution and climate change were the critical problems, the least important problems were security concerns, cultural changes and the deterioration of the built environment. Waste was also considered as a lesser problem, with household waste being chosen by only 34 people as one of the top 3 problems. In regards to sustainable development environmental questions are the most important. At the questions of their local environment and the EU, the responders indicated their own environment better than the one on an EU level (on a scale of 1-6, a higher number indicates greater problem). On the 1<sup>st</sup> figure, the differences in opinions can be seen. It is visible that at the household waste, healthy food, public safety and crime questions, the responders don't feel the situation in their own environment to be better than in the EU.

Figure 1: Sustainability problems in homeland and in the European Union



Source: own calculation

It is also visible which are the most important questions at sustainable development, if they are put in order of importance. Environmental protection is extremely important, the continuation and creation of piece, also conscious shopping were marked (as seen in Table 1.).

Table 1: Main elements of Sustainable Development

Importance	Total sample with grade 5 or 6 (%)	Total sample with grade 1 or 2 (%)
Environmental protection	93,7	0,8
Creating and maintaining peace	79,4	2,5
Conscious shopping	79,1	0,8
Social equality	61,9	2,5
Biotech innovations	60,2	4,6
Simplification of administration	55,7	8,1
Cheaper life	46,6	4,8
Growing profitability of companies	34,7	14,6
Expansion of technical equipment	33	10,4

Source: own model

### 2.3 Leadership traits and the perception of the role of CSR

About half of the sample responded with never learning about CSR, with 40% only on a superficial level. Only 10% of them studied in depth about CSR, 5% never studied but is interested in the subject. The research is not representative, thus comprehensive conclusions cannot be drawn, also there should be no differentiation made according to the universities, although according to the data, it seems that only a small amount attention is given for CSR in education. The best results came in from Pécs, although almost 53% of them only studied it on a superficial level. The questionnaire contains a 6 level scale for statements about CSR, the level indicates how strongly the responder agrees with the statement. In the majority of the questions, there are no relevant differences between the three locations. It is the general opinion that CSR is an effective tool in communicating the sustainability efforts. Table 2. shows beside the general numbers, in a sorted fashion how many of them couldn't or didn't want to provide an answer to the relevance of the question.

Table 2: Personal notions about CSR activities

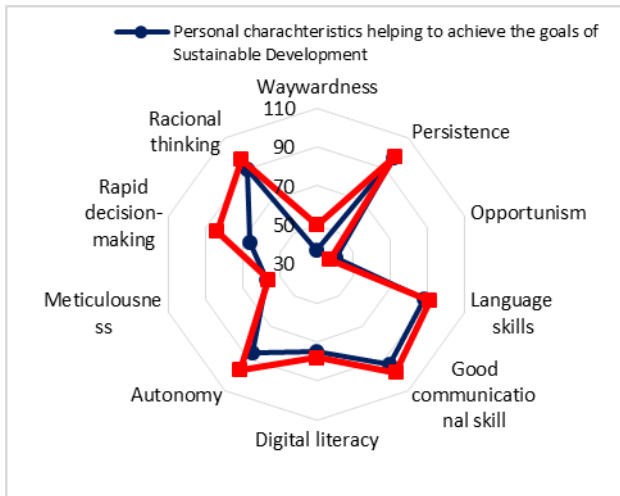
CSR tartalma	Average values	Miskolc	Pécs	Nyiregyháza	No answer (whole sample %)
Excellent marketing communicational tool	4,6	4,6	4,7	4,5	9
CSR can help to achieve the goals of sustainable development	4,4	4,2	4,4	4,5	13
Another tool for companies to generate profit	3,8	3,8	3,7	4	13
CSR can help companies to coordinate and bring together their different goals and pursuits	4,2	4,2	4,2	4,3	14
These actions represents only greenwashing (main problems are hidden)	3,4	3,5	3,1	3,7	15
CSR can only be successful in the case of large companies	3,4	3,5	3,1	3,7	17
CSR implementation is expensive	4,3	4,1	4,3	4,6	21

Source: own calculation

According to the Kruskal-Wallis non-parametric procedures it can be stated (Jánosa, 2011) that the level of knowledge about CSR doesn't influence the opinion about CSR. Only in regards to corporate implementation of CSR is it visible, that those having deeper knowledge or are interested in CSR usually refute the notion that exclusively big corporations use it.

Early management theory schools emphasised on the importance of the traits of a good leader. According to these, personal traits and competences cannot be separated from environmentally responsible behaviour. The survey wishes to locate those traits that assist a person becoming a good leader, also if these help or hinder sustainable thinking. The examined traits were chosen according to the traits that are important in life-long-learning and competence studies. According to the whole sample, it can be stated that the traits that make a good leader, and the ones that make someone a leader conscious for sustainable development are correlating with a medium covariance. Figure No. 2. shows the ratio of those marking a 5 or 6 on the scales at questions that are important for becoming good leaders and environmentally conscious leaders.

Figure 2: Personal characteristics of “good managers” and characteristics needed to achieve Sustainability



Source: own calculation

According to the average value of the variables it can be stated that sustainable thinking is best assisted by the following traits: endurance, language knowledge, good communication abilities and rational thinking. The judgement of stubbornness and compromising was mixed (there is a big deviation in the answers), although 34% of them think that these are negatively effecting the question of sustainability. According to the answers, the most important traits of becoming a good leader are almost the same as to becoming a leader conscious for sustainable development, the variance of compromising is relatively the same, although in the fields of stubbornness, individualism (self-sufficiency) and fast decision making rank higher. According to the data, there is no relevant difference in the answers of economics and non-economics students. According to the traits of good leaders, there are differences in the importance of passion between economics and non-economics students, also generally the trait of meticulousness is generally more important for becoming a sustainability aware leader for non-economics students.

## 2.4 The opinions on the environmental effects of specific industries and job aspirations

The respondents consider the following industries as the most responsible for pollution: energy industry, machine industry, vehicle production, paper-industry and the electronic industry, while the least

polluting ones are the agriculture, logistics, trade, hospitality and tourism industry. According to the study, the industries doing the most for making environmental problems better are the energy industry, the agriculture, the electronic industry and vehicle production, while the least is being done in the mining, textile and the construction industry. In general it can be stated that those having more information and knowledge about CSR consider agriculture as a bigger polluter, it is notable that those having no or limited information about CSR consider the tourism and machine industry the less polluting than those having knowledge about CSR, also those with more knowledge about CSR consider logistics as more polluting than the rest of the responders. All in all it can be stated that the answers of the students are not in line with mainstream professional opinion, although in cases that they are, it will also appear in the decision making of future leaders.

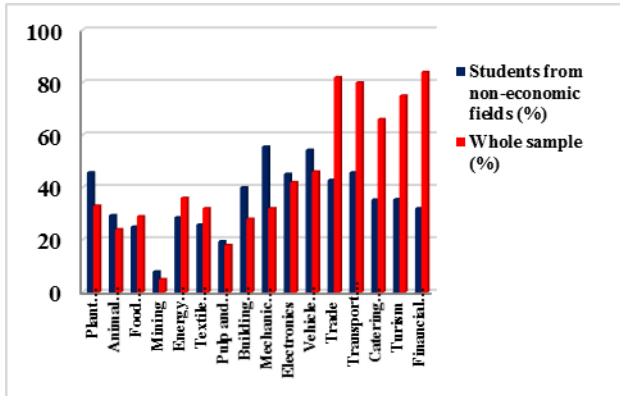
Besides considering the most polluting industries and those that are pioneers in sustainable development, the question of job aspirations of future generations should be considered. The most popular ones are the finance, trade, logistics, tourism and hospitality, although one fourth/fifth of responders don't know if they would work there:

- The financial sector is attractive for 84% of responders, while in Pécs this is 92%.
- In trade, 82% of the people would gladly work, the highest rank (85%) comes from Nyíregyháza.
- Logistics is attractive for 80% of them, although there is a bigger variation between the samples, Nyíregyháza 85%, Pécs only 77%.
- Tourism accounts for 75%, hospitality in general for 65, while the highest ranks coming from Nyíregyháza, respectively 85% and 81%.
- Agriculture and the food industry is the least appealing, the electronic and vehicle production received mixed results, and more than half of the sample would definitely not work there.

Because of the majority of responders studying economics, it is worthwhile examining the job aspirations of non-economics students. As it is

pictured in Figure No. 3. this sub-sample – in contrast to the whole sample – considers machine industry, building industry, vehicle production, electronic industry, agriculture and mining more attractive.

Figure 3: Attractiveness of specific sectors



Source: own calculation

It is also worth mentioning that the sample shows little or no significant relationship and correspondence between the economic impact of the industry, the individual job aspiration and the respective industries efforts for sustainable development.

## 2.5 Opinion differences between the universities:

One of the objectives in the study was to examine if it is feasible to break down the whole sample into homogenous groups, also if there is a difference between the perceptions of the students from different universities in the main fields of interest: (1) sustainable development, (2) corporate social responsibility, (3) environmental impact of the specific industries and (4) leadership traits that aid sustainable development goals. According to this objective the variables of each question group, also all variables of the questionnaire samples were subject to more cluster-analysis. It is important to state that none of these analysis's resulted in results that would have satisfactory explanatory power for the ratings, thus they cannot be the fundament of new determinations. All results considered according to the questionnaire results, it can be stated that the university (respective location) has no relevant impact.

## 3. Conclusions:

It is less and less possible to deny the importance of corporations in the field of social responsibility and sustainable development. As the literature review highlights, - beside the public, the government and technologies - corporations also have an important role in achieving the goals of sustainable development. As it has been highlighted in the study, there are a line of tools both in regards to the environmentally conscious management and social responsibility. The success of the application of these tools depends on the individual attitudes of those in decision making positions (see also: Glavas – Kelly, 2014). The aim of the research was to determine the opinions of future leaders regarding the following questions: (1) sustainable development, (2) environmental awareness of specific industries and (3) corporate social responsibility. As a closing remark, according to the analysis of the 397 questionnaires – in terms of the future significant -, from the conclusions, two should be highlighted: Firstly that according to the questioned, those traits that assist the efforts of sustainable development are also found among the traits of good leaders, and secondly according to the answers, the opinion and attitude-influencing effect of education and knowledge-transfer should be emphasized.

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#### Appendix 1: Code of ethics and its potential roles

<b>Window decoration</b>	If an ethical codex is made only so that the organisation can showcase it, than it has no practical benefit. These regulations are usually superficial, they provide ambiguous and disruptive answers on ethical questions.
<b>Rulebook</b>	Although an ethical codex has rules and regulation, it is more important that it also holds core values. It can be degraded into a rulebook with a negative connotation, if it only lists accountability practices of employees.
<b>Mirror</b>	The code of ethics mirrors and confirms the expected and acceptable behaviour.
<b>Direction indicator</b>	The ethical codex acts as a compass, which highlights right and wrong behaviour practices. Beside the employees, this can be utilised by external partners and future employees of the organisation.
<b>Shield</b>	Ethical regulation works as a shield protecting the organisation against incorrect attitude.
<b>Support</b>	The code of ethics helps to create and maintain the reputation among the lines of

	stakeholders. It also assists members of an organisation in decision making.
<b>Smoke detector</b>	The code of ethics measures operational experience and acts as a smoke detector by drawing attention to improper tendencies before the situation escalates.
<b>Base</b>	Similarly to the quality and environmental policies, the codex sets boundaries and frames so that ethical programs can be developed and their effectiveness measured and assessed.
<b>First step</b>	An ethical codex is the first step in the creation of an ethical organisational functions (in our case in a sustainable fashion). The codex by itself doesn't guarantee ethical behaviour, for that other tools of organisation control is needed.

Source: Szegedi (2012)

## Appendix 2: Models of individual environmentally conscious behaviour

Author	Model	Main consequences	Advantages	Disadvantages
Dispoto 1977, Loundbury - Tournatsky 1977	Early models	The individuals ecological knowledge determines attitudes and the two together determine the behaviour of the same individual.	Research in the correlation of knowledge, attitudes and activity from an environmental perspective.	Simplified, does not reflect the real complexity
Ajzen-Fishbein, 1980	Theory of thought-out action (TORA)	The attitude and the subjective norms, the relative importance of these effects the action intent, this in turn determines behaviour. Behind attitudes, there are evaluative beliefs, behind subjective norms, there are normative beliefs.	The attitude and subjective norms can be distinguished and weighted, also the action intent that precedes behaviour is incorporated into the model.	It assumes that personal behaviour is rational, that doesn't examine the differences between action intent and actual action.
Ajzen 1985, 1991	Theory of Planned behaviour (TPB)	Beside the attitude and subjective norms – with beliefs in the background – action intent and also action is effected by the observed behavioural control.	The definition of observed behaviour control, the refining of the TORA model.	The relationship between the action intent and behaviour.
Hines et al. 1986	The Model of responsible environmental behaviour	The attitudes, the observed behavioural control, also individual sense of responsibility influence personal traits. The knowledge of these and the environmental problems, the action strategies and action ability in turn shape action intent. Behaviour is additionally influenced by the present situation.	The widening of the action intent factors, also the incorporation of the situation factors that cause a difference between the action intent and actual behaviour into the model.	It doesn't examine the effect of knowledge if environmental problems on attitudes, additionally on an indirect basis it considers the value system of the individual through the sense of responsibility.
Kollmuss és Agyeman 2002	The Model of environmentally conscious behaviour	The individual environmentally conscious behaviour is effected internally by the motivation, knowledge, values, attitudes, consciousness, emotional attachment, observed behavioural control, responsibility, priority and habits, and externally by the institutions, economic, socio-cultural, political and demographic factors.	There is a differentiation between internal and external factors, also the stimulating and hindering viewpoints are presented together. The integration of results of previous models.	Very complicated, consistency among the elements are hardly measurable, not usable for empirical studies.

Source: Zsóka (2005, 23)