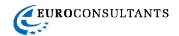# Facilitating Responsible Innovation in South East Europe countries

Παραδοτέο Γ.11.8: Συγγραφή Βιβλιογραφίας για την Υπεύθυνη Καινοτομία

«Σχετική έρευνα και σύνταξη μελέτης»

Σεπτέμβριος 2014

Παραδοτέο Γ.11.6: «Σχετική έρευνα και σύνταξη μελέτης Σχετική Μελέτη»

Συσχετισμός με Δραστηριότητα: «Συγγραφή Βιβλιογραφίας για την Υπεύθυνη Καινοτομία»

Συσχετισμός με Παραδοτέα Σύμβασης: ΠΕ_4: Επιπλέον Παραδοτέο

Θεσσαλονίκη, Σεπτέμβριος 2014

ΠΕΡΙΦΕΡΕΙΑ
ΒΟΡΕΙΟΥ
ΑΙΓΑΙΟΥ

NORTH
AEGEAN
REGION

EUROCONSULTANTS

About Responsible Innovation

The term **Responsible Innovation** describes a development or innovation process that takes into account effects and potential impacts on the environment and society. It can be defined as "a transparent, interactive process by which societal actors and innovators become mutually responsive to each other with a view to the (ethical) acceptability, sustainability and societal desirability of the innovation process and its marketable products in order to allow a proper embedding of scientific and technological advances in our society".

The European Commission (EC) described Responsible Research (RRI) and Innovation as a framework that consisted of six key action points:

1. Engagement: It implies that societal challenges should be framed on the basis of widely representative social, economic and ethical concerns and common principles on the strength of joint participation of all societal actors - researchers, industry, policymakers and civil society.

2. Gender Equality: Addresses the underrepresentation of women, indicating that human resources management must be modernized and that the gender dimension should be integrated in the research and innovation content.

3. Science Education: Faces the challenge to better equip future researchers and other societal actors with the necessary knowledge and tools to fully participate and take responsibility in the research and innovation process.

4. Open Access: States that RRI must be both transparent and accessible. Free online access should be given to the results of publicly funded research (publications and data).

5. Ethics: Requires that research and innovation respects fundamental rights and the highest ethical standards in order to ensure increased societal relevance and acceptability of research and innovation outcomes.

6. <u>Governance</u>: Addresses the responsibility of policymakers to prevent harmful or unethical developments in research and innovation. The latter is a fundamental basis for the development of the rest of the dimensions.

According to literature review, up to now, the research for Responsible Innovation is in the first steps. However, there some books, papers, European projects and conferences around this issue.

Below, are presenting some Books, Papers, Guides from programme, Special issue (from European Union etc) and Conferences.

Guides

- **Norbert Buzás - Miklós Lukovics, *Responsible Innovation,* University of Szeged, Faculty of Economics and Business Administration.**

When first hearing the term „responsible innovation", it is difficult to find out what it actually means: one has conjectures rather than an understanding about it and even those more familiar with the nature of innovation are at a loss what to think of this concept. After some contemplation, one will soon picture ideas or expectations re-garding responsible innovation – but such thinking often deepens the mystery rather than correctly clarifies the meaning.

Putting it very simply, responsible innovation is the interpretation of sustaina- bility in the context of the innovation policy. In the broadest sense, it is *commitment to preserving the future, which can get manifested in the responsible management of science and innovation in the present.* A transparent, interactive process *by which so- cietal actors and innovators become mutually responsive to each other with a view to the (ethical) acceptability, sustainability and societal desirability of the innovation process and its marketable products.* This means that this expanded dimension of re- sponsibility covers and requires the comprehensive and systematic examination of the environmental, social and ethical aspects of innovation.

The term itself refers to an approach which is spreading fast in the

European Union and, according to expectations, *may become a central element of the 2014– 2020-as programming period,* as the European Commission's most recent report, published in November 2013 under the title „*Responsible Research and Innovation (RRI), Science and Technology*", also shows.

Over the course of the past one and a half years, in the framework of the *FaRInn (Facilitating Responsible Innovation in SEE Countries – SEE/D/0252/1.3/X)* project, which was launched for the examination of the regional application of the concept, we have looked at the questions related to the term's definition, examined what key elements its application has and how responsible innovation can be put into practice in the regional units of our project partners. During our research work, we have managed to deliver the concept of responsible innovation to a large number of innovative actors and stakeholders in the region of Szeged University where, as a re- sult, the approach has been translated into practical application. Among other results, the responsible innovation concept has been integrated into Csongrád County's 2014 – 2020 regional development strategy and operative programme.

On 19 May 2014, we organised a scientific conference under the title „*Innova- tion Related Social, Ethical and Environmental Challenges*" at the Faculty of Eco- nomics and Business Administration of Szeged University, participants being the representatives of different fields of science, where we were glad to see that our col- leagues were open to integrating the cornerstones of responsible innovation into their work.

This book is designed to convey to the general public the ideas which the rep- resentatives of the individual fields of science have identified as the points of inter- section between their respective research areas and responsible innovation. Our hopes are to bring the reader closer to understanding and accepting responsible inno- vation and that this concept will soon become integral to the everyday lives of the re- gion's players.

Conferences
- **Third International Conference on Responsible Innovation - Values and Valorisation, 21 – 22 May 2014, Hague, Netherlands.**

It is with great pleasure that the Dutch Research Council (NWO) organizes the third Conference on Responsible Innovation in The Hague 21-22 May 2014. Responsible Innovation is an idea whose time has come. The Dutch Research Council started to reflect on the possibility of a program on Responsible innovation in 2003. Ever since the start of the program in 2008 the international research community has started to work on the topic with enthusiasm and fervor. Journals devote due attention to the subject and even a dedicated journal has recently been launched. Book publications have started to appear, and many events are organized all over the world. Last but not least the European Commission has decided to make available a considerable budget for research and network efforts related to Responsible Research an Innovation in Horizon2020.

The idea of Responsible Innovation leads in a natural way to multidisciplinary collaboration: everyone soon realizes that contributions from ethics, applied science and engineering, law, social sciences, economics are required to shed light on the for midable innovations with which we are confronted in the field of e.g. health, sustainability, safety, security and privacy. Ethics instead of retreating in aloofness and arrogance now takes its place in technological and social practice among other disciplines in medias res where the world, human lives and futures can be affected in both positive and negative ways.

High-tech companies find it easier to relate to ethical issues of innovation in terms of responsible innovation than in terms of Corporate Social Responsibility, although the latter notion does not lose anything of its relevance. Public Policy makers spend good deal of their time nowadays thinking and discussing Innovation so the inclusion of the point of view of responsibility is welcomed in the public sector as well.

This NWO conference brings a wealth of papers together, some of which will be published in the Springer Series Responsible Innovation, that accompanies this series of conferences. The conference also brings together in face to face meetings a rapidly growing community of scholars and practitioners, who will undoubtedly play an important role in the coming decade in further shaping the thinking and research in Responsible Innovation.

- **2nd Conference on RESPONSIBLE INNOVATION, 13-14 December 2012, Hague, Netherlands.**

Prof. Richard Owen (University of Exeter) describes the development of an outline framework for responsible innovation, funded by the UK Research Councils. I will argue that such a framework should be extended to the conduct of science, redefining the role responsibilities of scientists, social scientists, those that fund them and publics. I will briefly describe the foundations and rationale for responsible innovation and commitments emerging within national and EU policy. Asserting that it should have substantive and normative, rather than instrumental motivations, I will pose three challenges for responsible innovation: firstly can the approach provide a means to democratically negotiate, and equitably define, what kind of future we want science and innovation to bring into the world? This will require reflection on values, the governance of intent and the autonomy of science. It will highlight responsible innovation's necessarily political character. Secondly, how do we proceed responsibly under conditions of ignorance and uncertainty, given the messy, unpredictable and often transnational nature of innovation itself? And finally what new or different responsibilities will need to emerge – and what implications might this have for how we fund and undertake science and innovation? With a philosophical anchoring in future-oriented dimensions of responsibility, the framework I will construct to think about these questions is based on integrated dimensions of anticipation, reflection and deliberation well known to social scientists: it is the framework's fourth dimension of responsiveness at different scales – personal, institutional, political- that is critical. I will conclude with some examples that illustrate responsible innovation in practice, to varying degrees, and my own reflections on the need for empathy, capacity and education as a necessary next step.

Books
- **Coenen, C., Dijkstra, A., Fautz, C., Guivant, J.,Milburn, C., Van Lente, H., (2014)**, **Innovation and Responsibility - Engaging with New and Emerging Technologies**, **eds. IOS Press.**

The contributions to this volume engage with diverse aspects of responsible innovation, reflecting on its history and its current form,reporting on success stories and critical discussions, pointing out shortcomings and obstacles, and analyzing the grand narratives that shape discourse on new and emerging fields of technoscience. They scrutinize the roles of major actor groups, including regulators,scientists and civil society organizations, while also addressing key issues of public engagement and participation. In addition tonanotechnology, several other fields of research and development are addressed, such as biotechnology and neuroscience.

- **van den Hoven, J., Doorn, N., Swierstra, T., Koops, B.-J., Romijn,H.,(2014), Responsible Innovation 1, eds. Springer.**

Responsible innovation 1
- **Xavier Pavie, Victor Scholten, Daphné Carthy., (2014), Responsible Innovation:From Concept to Practice, eds. World Scientific.**

At a time when the limits on human progress are ever-decreasing and the consequences of human actions have never been so critical to predict and manage, the responsible nature of innovations has acquired a whole new importance.

Firms now need to find the appropriate balance between achieving positive growth and performance while integrating the concept of responsible innovation at the very core of innovation strategies and processes.

Based on extensive academic research and illustrated by multiple case studies and examples, this book will help understand the challenges and issues of responsible innovation for leaders and managers. It will also provide a process for implementing responsible innovation into an organization while improving performance sustainably.

- **Richard Owen, John Bessant and Maggy Heintz., (2013), Building Capacity for Responsible Innovation, eds. John Wiley & Sons.**

The term responsible (research and) innovation has gained increasing EU policy relevance in the last two years, in particular

within the European Commission's Science in Society programme, in the context of the Horizon 2020 Strategy. We provide a brief historical overview of the concept, and identify three distinct features that are emerging from associated discourses. The first is an emphasis on the democratic governance of the purposes of research and innovation and their orientation towards the 'right impacts'. The second is responsiveness, emphasising the integration and institutionalisation of established approaches of anticipation, reflection and deliberation in and around research and innovation, influencing the direction of these and associated policy. The third concerns the framing of responsibility itself in the context of research and innovation as collective activities with uncertain and unpredictable consequences. Finally, we reflect on possible motivations for responsible innovation itself.

- **Robin Murray, Julie Caulier-Grice, Geoff Mulgan., (2010), The open book of social innovation,eds. The Young Foundation.**

This volume – part of a series of methods and issues in social innovation – describes the hundreds of methods and tools for innovation being used across the world, as a first step to developing a knowledge base.

It is the result of a major collaboration between NESTA (the National Endowment for Science, Technology and the Arts) and the Young Foundation – two organisations that are committed to the role that social innovation can play in addressing some of the most pressing issues of our time.

The Open Book presents a varied, vibrant picture of social innovation in practice and demonstrates the vitality of this rapidly emerging economy. It is fantastically rich, and demonstrates the diversity of initiatives being led by entrepreneurs and campaigners, organisations and movements worldwide.

Together with the other volumes in this Series, we hope that this work provides a stronger foundation for social innovation based on the different experiences and insights of its pioneers.

- **Richard Owen, John Bessant, Maggy Heintz., (2013), Responsible Innovation: Managing the Responsible Emergence of Science and Innovation in Society, eds.WILEY.**

Science and innovation have the power to transform our lives and the world we live in - for better or worse – in ways that often transcend borders and generations: from the innovation of complex financial products that played such an important role in the recent financial crisis to current proposals to intentionally engineer our Earth's climate. The promise of science and innovation brings with it ethical dilemmas and impacts which are often uncertain and unpredictable: it is often only once these have emerged that we feel able to control them. How do we undertake science and innovation responsibly under such conditions, towards not only socially acceptable, but socially desirable goals and in a way that is democratic, equitable and sustainable? Responsible innovation challenges us all to think

about our responsibilities for the future, as scientists, innovators and citizens, and to act upon these.

This book begins with a description of the current landscape of innovation and in subsequent chapters offers perspectives on the emerging concept of responsible innovation and its historical foundations, including key elements of a responsible innovation approach and examples of practical implementation.

- **Katie Chandler., Journal of Responsible Innovation will focus on intersections of ethics, societal outcomes, and new technologies: New to Routledge 2014, Taylor & Francis Group.**

Papers

- **Richard Owen, Phil Macnaghten and Jack Stilgoe, 2012. Responsible research and innovation: From science in society to science for society, with society, *Science and Public Policy*.**
- **Bernd Carsten Stahl, Grace Edenb, Marina Jirotka, Mark Coeckelbergh, 2014. From computer ethics to responsible research**

and innovation in ICT-The transition of reference discourses informing ethics-related research in information systems, *Information & Management.*

The discourse concerning computer ethics qualifies as a reference discourse for ethics-related IS research. Theories, topics and approaches of computer ethics are reflected in IS. The paper argues that there is currently a broader development in the area of research governance, which is referred to as 'responsible research and innovation' (RRI). RRI applied to information and communication technology (ICT) addresses some of the limitations of computer ethics and points toward a broader approach to the governance of science, technology and innovation. Taking this development into account will help IS increase its relevance and make optimal use of its established strengths.

- **Bernd Carsten Stahl⬚, Neil McBride, Kutoma Wakunuma, Catherine Flick, 2014. The empathic care robot: A prototype of responsible research and innovation,** *Technological Forecasting & Social Change.*

Science fiction prototypes are often used to visualise or represent novel technologies or other techno-scientific innovations. The present paper follows this tradition and describes a prototype of a care robot that is endowed with affective capabilities. The paper describes some of the potential ethical problems arising from such a technology. This aspect of the paper is based on prior research in a European-funded technology foresight project that explored the ethical issues of emerging ICTs. The paper goes beyond the description of technical innovation and its ethical consequences. The recognition of the ethical relevance of research and innovation has spawned a discourse around responsible research and innovation. The paper draws on this discourse, which aims at anticipatory technology governance to ensure the social acceptability and desirability of technologies. The prototype vignette of the paper explores how responsible research and innovation could be realised in practice and how it could be used to address ethical issues such as those of affective care robots. The paper reflects the likely controversies that responsible research and innovation is likely to create and it uses the ethical dilemma of the

care robot to draw the reader's attention to possible theoretical and practical conclusions.

- **Jack Stilgoea, Richard Owenb, Phil Macnaghtenc, 2013. Developing a framework for responsible innovation,** *Research Policy.*

(paper RI 3)
- **Raveesh Agarwala, Monica Thiel, 2012. A stratagem for responsible business in India and the US: Government innovation or constraint?,** *Procedia - Social and Behavioral Sciences.*

The India and US manufacturing industry is in urgent need of innovation. Globally competitive societies require a robust manufacturing industry. The contribution of government innovation and approaches is vital to increase the competitive advantage in manufacturing sector. Priority must be given to assess the role of government to provide technological innovation and advance economic growth in manufacturing industry. The purpose of writing this paper is to examine India and US government new initiatives and approaches in the manufacturing sector. This paper is based on secondary research. Existing reports related to various initiatives taken by the government of both countries and recommendations of planners/NGOs/consultants/government accountability agencies/key industry experts/ for improving the system in both countries are studied. The paper provides in-depth knowledge about India and US government's new initiatives and approaches in the manufacturing sectors and the scope for further improvement.

The present paper attempts to understand the important role of the government to engage in designing and implementing manufacturing sector initiatives in both countries. This work is original and could be further extended.

- **Walter L Biffl, David A Spain, Angelique M Reitsma, Rebecca M Minter, Jeffrey Upperman, Mark Wilson, Reid Adams, Edward B Goldman, Peter Angelos, Thomas Krummel, Lazar J Greenfield, and The Society of University Surgeons Surgical Innovations Project Team, 2008. Responsible Development and Application of Surgical**

Innovations: A Position Statement of the Society of University Surgeons, *American College of Surgeons*.

Paper RI 5
- **Marina van Geenhuizen, Qing Ye, 2014. Responsible innovators: open networks on the way to sustainability transitions,** *Technological Forecasting and Social Change*.

This paper describes and specifies a new and ambitious approach for dealing with value conflicts in infrastructure projects: Responsible Innovation (RI). Stakeholder involvement and management will be put forward as essential in addressing and preventing value conflicts, which might otherwise arise in relation to large technological projects. The Nansha Port Railway Project, which provides Guangzhou Port with a vital link to its hinterland, is used as a case to explain and detail how RI can be used in designing, developing and managing port infrastructure projects in the context of Chinese society. It will be argued that RI will lead to better projects, especially in terms of policy and decision-making, maximizing the support base and reducing the likelihood of public resistance, because the interests and values of all stakeholders are considered during the whole innovation process.

- **Neil E. Béchervaise, Colin G. Benjamin, 2013. Visionary or criminal: From profit through morality to socially sustainable entrepreneurship,** *Procedia - Social and Behavioral Sciences.*

From pirates and warlords to accountants and corporate raiders, successful business practice has always incorporated a degree of volatility. At the same time, business leaders have too frequently neglected social responsibility in their pursuit of expanded reach, market advantage and, ultimately, increased profit. In a climate of immediate economic uncertainty, the need for responsible practice has become central to recovery from an ongoing global recession.

Strategic differences between commercial, moral and social entrepreneurs point to the need for a more integrated theory of entrepreneurship.

Successful entrepreneurial activity is based in sound moral principles. As a consequence, this paper observes that exploitation, corruption and criminality may masquerade as business in the short term but are

unsustainable in the longer term because they detract from the common good. Instead, it is argued, innovative business is good business when it generates a net increase in social capital. In consequence, effective definitions of entrepreneurship must be grounded in social advantage from which economic advantage must necessarily arise.

Identifying entrepreneurial activity ranging from criminal through opportunistic to well-intentioned and visionary, this paper explores the increasing demand for transparency in business activity, the necessity for a sound moral position undergirding innovation within a culture of entrepreneurship and the complexity of maintaining a socially responsible vision when minor departures might seem to assure profit -stability. Ultimately, when issues of accountability and net benefit are accepted as measures of innovation, creativity and entrepreneurial activity, then good business generates a net increase in social capital.

- **Mihaela Kardos, 2012. The Relationship between Entrepreneurship, Innovation and Sustainable Development. Research on European Union Countries,** *Procedia Economics and Finance.*

The nexus of entrepreneurship, innovation and sustainable development is a subject of great interest nowadays, as society is looking for solutions leading to sustainable development. Given this context, the paper aims to put in connection sustainable entrepreneurship and sustainable development from both the perspectives of conceptual reflection in literature and a research on the European Union countries. The methodology is based on methods of analysis and synthesis, of interpretation and relevant comparisons. The research results point out that sustainable entrepreneurship, seen through the perspective of innovative SMEs, as considered in the research, is part of the support system for sustainable development, as entrepreneurial enterprises are increasingly recognized as a driving force for innovation and competitiveness, as one of the keys to achieving sustainable development. The research may be particularly important for both researchers and policy makers and offers opportunities for future studies on the subject.

- **Giulia Faggio, Olmo Silva, 2012. Self-Employment and Entrepreneurship in Urban and Rural Labour Market,** *Journal of Urban Economics***.**

We study the link between self-employment and some salient aspects of entrepreneurship – namely business creation and innovation – in urban and rural labour markets. In order to do so, we combine individual and firm-level data for Britain aggregated at the Travel-to-Work Area level. We find that a higher incidence of self-employment positively and strongly correlates with business creation and innovation in urban areas, but not in rural areas. We also document that more rural than urban workers become self-employed in areas with comparably poor labour market opportunities, although this heterogeneity is not evident when focussing on entrepreneurship. Finally, we show that the misalignment between self-employment and our proxies for entrepreneurship in rural areas disappears once we account for local labour market conditions. Our results suggest that self-employment, business creation and innovation are well lined-up in urban areas because they capture the same economic phenomenon – namely, genuine entrepreneurship. This is not the case for rural areas.

- **Shahrom Md Zaina, Noor Ezlin Ahmad Basria, Nur Ajlaa Mahmooda, Hassan Basria, Mashitoh Yaacobb, Maisarah Ahmadc, 2012. Sustainable Education and Entrepreneurship Triggers Innovation Culture in 3R,** *Procedia - Social and Behavioral Sciences.*

3R stands for the concept of reduction, reuse and recycling. How can the 3R concept include the sustainability of educational innovation and entrepreneurship for students at Universiti Kebangsaan Malaysia (UKM)? This paper examines how the components of sustainability and entrepreneurship can present an advantage for higher education institutions by focusing on a case study of UKM's operation of a recycling center that is fully run by students at the graduate and undergraduate levels. Problems and constraints in terms of operating the recycling center can be resolved with the involvement of the students and the support of UKM's Development and Maintenance Department, which is responsible for solid waste management at UKM and can provide guidance in the form of entrepreneurial knowledge. The UKM recycling center began operating in May 2011 as a result of a research and strategic action grant (UKM-PTS-096-2010) and

through research cooperation with Alam Flora Sdn Bhd. This context is consistent with the requirements of the National Accreditation Board for the achievement of learning outcomes for program sustainability and entrepreneurship education at the university. The students involved are from various educational disciplines through cooperation between the Faculty of Engineering & Built Environment and the Centre for General Studies UKM.

- **Mihai Lisetchia, Laura Brancu, 2014. The entrepreneurship concept as a subject of social innovation**, *Procedia - Social and Behavioral Sciences*.

What is essentially innovation occurs at the level of social behavioural patterns, routines, practices and settings. An innovation is therefore social to the extent that, either conveyed by the market or the non-profit sector, it is socially accepted and widely diffused throughout the society or in certain societal sub-domains, transformed depending on circumstances and ultimately institutionalized as new social practices or routines emerge. The field of social innovation turns critical societal problems into opportunities by actively involving the community actors.

In the last years, we have identified that in the international academic debate a discussion is evolving around a number of interconnected concepts which intrinsically include two apparently contradictory dimensions: social and economic. Among them, one of the most visible is the social entrepreneurship concept. Social economy organizations, representing the outputs of the social entrepreneurship process, are extensively innovating; both in terms of the organizational forms they developed and in the manner they perform managerial activities. They are solving in new and innovative ways the tasks of planning, organizing, leading, motivating and controlling resources and people in order to achieve effectively and efficiently their purpose and objectives, fundamentally connected to social needs.

Our paper contributes to clarifying the relation between the two concepts of innovation and social innovation by exploring the "socializing" trend that is conditioning relevant economic concepts. Meantime, by revealing the historic background and generic definition of the social entrepreneurship concept, we are advocating for the

social innovation dimension of the social entrepreneurship concept.

- **Merle Küttima, Marianne Kallastea, Urve Venesaara, Aino Kiisb, 2014. Entrepreneurship education at university level and students' entrepreneurial intentions, *Procedia - Social and Behavioral Sciences*.**

There is a growing interest in entrepreneurship education expressed by politicians, higher education institutions and students. Entrepreneurship education has been shown to contribute to the development of students' entrepreneurial intentions, although the findings are not entirely conclusive. The theoretical foundation of the current paper was the theory of planned behavior, TPB (Ajzen, 1991, 2005). The aim of the study was to identify the content of university entrepreneurship education and its impact for students' entrepreneurial intentions. The study design used was cross-sectional study and the sample consisted of the students from 17 European countries that have been grouped for the purpose of analysis by the level of economic development into two

country groups: efficiency-driven and innovation-driven economies (Porter et al., 2002). Frequencies and binary logistic regression was used to analyze the impact of different factors, including participation in entrepreneurship education, for entrepreneurial intentions. Results indicate that what is offered is not necessarily the most demanded in entrepreneurship education as lectures and seminars are provided more, but networking and coaching activities are expected more by the students. Participation in entrepreneurship education was found to exert positive impact on entrepreneurial intentions.

- **Dohar Bob M. Situmoranga, Isti Raafaldini Mirzanti, 2012. Social entrepreneurship to develop ecotourism, *Procedia Economics and Finance*.**

Ecotourism sounds unfamiliar to the most of the Indonesian's ear up to now, although this term was first introduced in the early decades of the 90s. Ecotourism offers a form of travel that is different from mass tourism. More than just offering beautiful unspoiled panoramic, ecotourism provides a learning process to protect and to care the nature, and to improve the welfare of local communities surrounding or within the area of ecotourism destination.

A study was conducted to find appropriate approaches for developing ecotourism. The main focus is given to the potential of a regional ecotourism, including human, culture, and supporting resources. Research was also conducted to determine the perspectives of tourists, because their needs' fulfilment cannot be separated from sustainability of destination.

Analysis of data suggested, that the development of ecotourism areas should be based on empowering local communities by education, social entrepreneurship, and cultural preservation programs. Social entrepreneurship can lead to social change for the better welfare and education. Social entrepreneurship will educate people about their nature as social beings, who have the responsibility to improve people's lives and to maintain their environment.

- **Hasan Tutara, Mehmet Altınözb, Demet Çakıroğlu, 2011. Perception of managers as to the ethical responsibility and competition strategy: A survey**, *Procedia Social and Behavioral Sciences.*

Seeking an answer for the questions such as when determining strategy, are the business managers only acting from the concern of being long dated, returning profit over the average and determining a position as regards the competitors in any cases or do they have any responsibility concerns like social responsibility or ethical responsibility? Since the primary objective of the business is to return profit and to continue its existence, then are the managers acting only with economic concerns and profit motive or do the variables like social sensitivity, voluntary sensitivity that have an impact upon its decisions have any effect for the realization of the aforesaid objectives of the managers? Are the sensitivity factors like social responsibility, social sensitivity, ethical and voluntary responsibility of the business managers necessary in terms of the continuation of the business' existence and considering as being possessed and highly regarded within the framework of the activities? Constitute the primary objective of this research.

Another objective of the research is to draw attention for the requirement of acting as well within the scope of the ethical responsibility upon the strategic decisions under the market conditions where the businesses are tightly controlled by the internal and external

environment. Free market conditions necessitate the consideration of the ethical responsibility and competitive strategy together. This is especially the requirement of the reputation management that has a place on the business management in the recent period. In keeping the assets of the businesses reputation insomuch as the profit is considered as a significant factor. According to the analysis results of those assumptions it is ascertained that there is a difference between ethical responsibility perceptions and competitive strategy perceptions of the managers. Furthermore, with regard to the results of the correlation analysis carried out, it is determined that there is a medium-level relation between the competitive strategy perceptions and ethical responsibility perceptions of the managers.

- **Saed Adnan Mustafaa, Abdul Rahim Othmana, Selvan Perumal, 2012. Corporate Social Responsibility And Company Performance In The Malaysian Context,** *Procedia - Social and Behavioral Sciences.*

The concept of social responsibility of corporations has engendered considerable interest in Malaysia in recent years. While previous research on the relationship between corporate social responsibility and company performance has largely been based on international data, this paper reviews the relationship between the adoption of corporate social responsibility and the company performance of public listed companies. 200 responses were received from a population that had already working in Malaysian public listed companies. The results derived from multi-group structural equation modeling within AMOS 7.0. Furthermore this paper found a significant relationship between CSR and company performance. The findings imply the need for public listed companies, particularly main and ACE board, to strategically leverage the effect of CSR on company performance.

- **Dr. Mridula Goela, Preeti E. Ramanathan, 2014. Business Ethics and Corporate Social Responsibility – Is there a dividing line?,** *Procedia Economics and Finance.*

There is growing research in all areas of ethics and CSR that govern the activities of a firm and the value systems that underlie their business activities. In our paper we have explored the concepts of Business Ethics and Corporate Social Responsibility with a perspective that meaningfully CSR should be seen in the context of an overall paradigm of Business Ethics. We have studied CSR through

the framework of the stakeholder theory of the firm and posit that CSR as practiced today is a subset of Business Ethics with other dimensions of an overall ethics framework still uncovered.

- **Oana Staiculescu, 2014. Quality and social responsibility: a pathway to the future*, Procedia - Social and Behavioral Sciences*.**

Quality is a polyvalent concept, which transcends the desire to obtain economic benefits through an ethical manner, aiming not only for entrepreneurship, but also for social and environmental concerns. Basically, the interest falls upon the convergence of social responsibility with quality and also the management commitment to a new way of making a business successful. Social responsibility is an extensive topic, but also a part of the organizational culture of the company. In this context, top management objectives should target to maximize the positive impact, which the company has on society, and to minimize the negative effects. The consequences of such an approach can only be good for business, both financially and morally. The purpose of this article is to present a way for each company in order to promote equally quality and social responsibility as two essential components in ensuring a sustainable future for everyone.

- **Dr. Randa El Bedawy, Dr. Zeinab Shawky, 2013. Upholding competitive advantage through endorsing corporate social responsibility: case study Pepsico Egypt, *Procedia - Social and Behavioral Sciences*.**

Paper RI 24
- **Campopiano Giovannaa, De Massis Alfredo, Cassia Lucio, 2012. Corporate Social Responsibility: A Survey among SMEs in Bergamo*, Procedia - Social and Behavioral Sciences*.**

This study provides some insights on the topic of CSR in small- and medium-sized family vs. non-family firms. Though preliminary, the results emerged from an explorative survey on 19 SMEs show that they are generally unaware of the concept of CSR, do not report their initiatives, but are still engaged in social actions towards their closest stakeholders. Family business owners are especially found to be in charge of social activities towards employees and the local community,

e.g. sport clubs, church, and local associations. We discuss this behavior in light of the social capital theory, according to which relationships and the interrelation with environment and communities are relevant for the sustainability of these businesses.

- **Cornel Nicolae Jucana, Mihaela Sabina Dolf Baier, 2012. The ICT implication on CSR in the tourism in of emerging markets**, *Procedia Economics and Finance*.

Tourism has a significant environmental, social and human impact. No other sector provides jobs and ensures wealth across poor countries in the same way as tourism. In the context of sustainable responsible tourism, the concept of Corporate Social Responsibility (CSR) has gained increased importance: CSR is a company's understanding of the role it plays in society, the environment in which it operates the values it upholds and its awareness of the intended and unintended consequences of its actions. ICT can create many environmental benefits and there have been several optimistic assessments of the overall relationship between e-business and sustainable development. ICT-based services can improve the efficiency of processes and systems, can help to make CSR information more readily available to stakeholders and create new technical possibilities of linking information on individual company impacts with other sources. The aim of the paper is to present some major implications of the use of the web for CSR activities in tourism businesses in emerging markets and of the relationships between e-sustainability and competitiveness.

- **Gadaf Rexhepia, Selma Kurtishib, Gjilnaipe Bexhetic, 2013. Corporate Social Responsibility (CSR) and Innovation-The drivers of business growth?**, *Procedia - Social and Behavioral Sciences.*

Nowadays, CSR and Innovation are the foundation of business competencies. CRS and innovation has emerged slowly over the past decade. Improvements in the CRS process can refer to as social innovation. Companies should do more to tackle the issues such as: social justices, poverty and climate change. The only successful brands of the future will be the ones that see these challenges as opportunities for innovation, rather than risks to be alleviated. As stated by the department of Trade and Industry in the United Kingdom,

CSR represent company govern itself, fulfils its mission, lives by its value, engages with its stakeholders, measures its impact and reports in its activities.

Further, we analyze the main four topics related to CRS and innovation, starting with Corporate Social Innovation; which will refer to a product innovation with a social purpose, in addition we will focus on the important subtheme of corporate social innovation focused on low-income market - Base of the Pyramid (BOP). Moreover, Social Entrepreneurship will be analyzed since they act as the change agents for society, seizing opportunities others miss and improving systems, inventing new approaches, and creating solutions to change society for the better. Likewise, the paper will point the significance of Eco Innovation as a new discipline with the purpose of describing products and processes that contribute to sustainable development.

- **Emilia Hermana , Maria Ana Georgescub, Andrada Georgescu, 2012. Ethics between theory and practice social responsibility in the Romanian business environment,** *Procedia - Social and Behavioral Sciences***.**

The present paper represents a socio-economic interdisciplinary perspective and is the result of a study on the way in which social responsibility in business is turned from a theoretical approach, one highly promoted by the European Union, at present, into a concrete action. We have carried out a qualitative research, based on an in-depth interview, on the opinions of 46 managers from a provincial area, the Mures County and from the top business area in Romania Bucharest. We have reached three main conclusions. Firstly, the interviewees do not correlate the current problems of the Romanian society with active entrepreneurship; they do not find real solutions to these problems through entrepreneurial activities. Secondly, the subjects appreciate that social responsibility actions are mainly performed for economic reasons. Thirdly, the implementation of social responsibility is connected to the size of the enterprise. Big companies are more likely to develop SR actions within a strategic vision.

- **Bernd Carsten Stahl, Grace Eden, Marina Jirotka, Mark Coeckelbergh, 2014. From computer ethics to responsible research and innovation**

in ICT: The transition of reference discourses informing ethics-related research in information systems, *Information & Management*.

The discourse concerning computer ethics qualifies as a reference discourse for ethics-related IS research. Theories, topics and approaches of computer ethics are reflected in IS. The paper argues that there is currently a broader development in the area of research governance, which is referred to as 'responsible research and innovation' (RRI). RRI applied to information and communication technology (ICT)addresses some of the limitations of computer ethics and points toward a broader approach to the governance of science, technology and innovation. Taking this development into account will help IS increase its relevance and make optimal use of its established strengths.

- **David H. Guston**, **Responsible innovation: a going concern**, *Journal of Responsible Innovation.*
- **Şebnem Aslan, Aslan Şendoğdu**, http://www.sciencedirect.com/science/article/pii/S1877042812045090_-_aff0010 **2012. The Mediating Role of Corporate Social Responsibility in Ethical Leader's Effect on Corporate Ethical Values and Behavior,** *Procedia - Social and Behavioral Sciences*.

In this study, the correlation between ethical leadership, corporate ethical values, ethical behavior and corporate social responsibility is investigated. The research was carried out in SMEs operating in Konya province of Turkey. In the study, the behaviors scale developed by Baker, Hunt, & Andrews (2006) and social responsibility scale developed by the researchers based on responsibility positively, and social responsibility in turn affects corporate ethical values and behaviors positively. Besides, partial mediating role of corporate social responsibility was also determined in the study.

Special Issue

- **OECD 2010:** *Social Entrepreneurship and Social Innovation* **in SMEs Entrepreneurship and Innovation, OECD.**

The chapter (Chapter 5) outlines social entrepreneurship and social innovation before going onto provide concrete examples. While it may be argued that these fields require better exploration and articulation, that does not mean that their role should be underestimated. They have already proved to be effective tools to meet social challenges and needs and contribute to sustainable development. Policy makers and investors are looking with growing interest at these areas, and have an important role to play in the provision of tailored support to aid their development.

- **WIPO Economics & Statistics Series 2011: World Intellectual Property Report-The Changing Face of Innovation.**

The changing face of innovation wipo

- **Victor Scholten, Xavier Pavie, Daphné Carthy, Simon O'Rafferty.,** *Responsible Innovation: In the context of the Karim project*, **Euroepan Union.**

The sustainability agenda draws from the same reasoning provided by Gro Harlem Brundtland in 1987, when she defined sustainability as 'a development which satisfies the present needs without compromising the ability of future generations to satisfy their own'. In that respect, sustainability addresses the impact of innovations on the Triple Bottom Line, which translates into social, economic and environmental impacts. Various studies have identified that if the current lifestyle in developed countries continues and emerging countries also start adopting these, the resources of about 2.5 planets will be required by the year 2050 to support the population. When applying this theory to a business context, the message is clear: we need to keep innovating; however we need to do it differently, that is: more responsibly.

The challenges provide significant opportunities for creating alternative products and services, new business models and ways of working as well as more efficient approaches to resource exploitation and energy consumption. The dominant logic, heuristics and current practices involved with today's problem solving are not satisfactory since they tend not to break with the existing ones. Innovators that search for a solution in landscapes more distant from existing ones are facing two
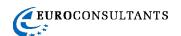
major challenges. The first challenge is the uncertainty surrounding the innovation context, making it impossible to accurately predict impacts which innovations may have on the Triple Bottom Line. The second challenge concerns the moral dilemmas which may ensue from recognising the impacts caused by the innovation and balancing them.

The responsible innovation method is a strategy and process which guides organisations through innovation by taking into account the real and potential impacts of the project as it is being developed and once the finished product or service has been launched on the market. This is done through the three axes of responsible innovation which question the solutions to develop in response to consumer need; monitor and manage the direct impacts of the innovation on social, economic and environmental factors and consider the indirect consequences of innovation. The responsible innovation process is not designed to replace the innovation process, but rather to complement it in order to deal with the uncertainties surrounding innovation.

This guiding document will begin by providing a detailed analysis of the responsible innovation concept, starting by a dissection of the term, to clearly define what the terms 'innovation' and 'responsibility' mean in their own respect. It will then progress to the practicalities of the concept and suggest a method for integrating responsible innovation into a firm's strategy and how it translates into a process. This will include an analysis of the opportunities provided by the concept for entrepreneurs, SMEs and technology-based start-ups. Furthermore, the discussions and recommendations aim to provide entrepreneurs directions for increasing their competitive advantage through responsible innovation, whose ultimate objective is to reconcile the firm's need for performance with the need to be accountable for its actions and innovations. Finally, implications of these thoughts for policy makers at regional and national level will be discussed, including directions on how to include the perspectives of responsible innovation at policy level and the benefits of introducing the concept as part of curricula within third-level education programmes.

- **Hilary Sutcliffe, *A report on Responsible Research & Innovation*, Prepared for DG Research and Innovation, European Commission.**

responsible innovation
odgovorno inoviranje
felelősségteljes innováció
innovazione responsabile
Υπεύθυνη Καινοτομία
inovare responsabilă
odgovorna inovativnost