

# Social Accounting - In the Wake of the Sustainability

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## SUMMARY

*Not only the strengthening of global competition and the acceleration of technological evolution, but also the social and governmental claims for sustainability draw up new challenges and expectations against the decision support and accounting, too. Whether would the decision support and accounting be able to perform these challenges and expectations nowadays? The aim of the authors is to present some segments of these changes to the reader by this study.*

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## INTRODUCTION

It can be proved by the multitude of historical examples, that the economic, technical and IT changes incline, incite the decision support and also the accounting for continuous reformation. The aim of the authors is to present the two segments of these changes to the reader by this study. In the first chapter of it an insight can be got into the world of the financial indicators. The phylogeny of the indicators can become known from the classical financial indicators to the Balance Scorecard. The second chapter represents the chronological and functional development of the cost systems. From the early cost-accounting systems to the lifecycle costing, from the financial statement oriented systems to the integrated decision support systems.

In the field of decision support and accounting there are many factors to be adapted to: in addition to increasing global competition and the ever more rapid evolution of technology, a relatively new factor is social and governmental demand for sustainability. How can decision support and accounting face these challenges and expectations? Whether would the To this question, authors hope, the third chapter can give an answer.

This special issue includes papers presenting research carried out on similar issues: sustainable enterprise models (Illés 2016); establishing and operating social enterprises (Várkonyi 2016); the SLEM model created to measure the market potential of local goods supplied by the entrepreneurs of the Cserehát region (Bartha & Molnár 2016); the place of public work in the

employment model of the Cserehát region (G. Fekete 2016); and route-based tourism product development (Nagy & Piskóti 2016).

## *Trends 1 – The Rise and Fall of the Financial Indicators*

Thanks to the advanced IT systems the undertakings, decision makers can meet with the mass of informations and data sets. The compression of informations, the determination of the indicators that have content can support the work of the management have become necessary. Compressing the informations has created more and more complex, labor-intensive and time-consuming solutions. The development of IT systems reduces the work- and time consuming, but the interpretation of the indicators is still and energy-intensive activity. (Szilágyi & Varga 2011)

The informations are compacted into indicators, because we would like to express the facts and contexts by one value. However, the excessive compression threatens with the loss of informations, i.e. the essential elements of the examined phenomenon may be lost. The hazard of information losing can be reduced by the resolution, substitution and expansion of the individual indicators. The resolution means the disaggregation of the numerator and/or the denominator of a fraction to pieces. In case of substitution the numerator and/or the denominator are substituted by an other values, e.g. instead of the revenue the multiplication of the sales volume and the unit price also can be applicable. At the expansion the numerator and/or the denominator of the

original indicator are expanded by the same values. Based on these three technics the indicators can be divided into 2 or 3 sub-indicators, resulting a hierarchical, well-structured indicator system. The most important factors at the formation of an indicator systems:

- the indicators have to be numerical, they have to take on values,
- there can be no contradictory relationship between the individual indicators
- the indicators have to be simultaneous,
- the structure of the indicator systems can not be changed arbitrarily,
- the cost- benefit principle has to be validated, i.e. the cost to get and process the informations has to be consistent with the benefits of the informations.

The traditional financial indicators provide informations about the property, financial and profitability state. They can give a view about the structure of the assets and the liabilities, the effectiveness of the assets, the amount of the debt, the liquidity, the profitability relative to the various projection bases. (Zéman et al. 2016)

One of the most popular indicator system is the Du Pont system. It based on the idea that not the profit- as an absolute indicator- is in the center, but the Return on Investment- as a relative value-. The top indicator of the system is the ROI that can be definable as the ratio of the net outcome and the net asset value. The strength of the ROI that it is not an individual indicator, but an indicator system that elements have important content for the decision-maker. This indicator can be divided to the multiplication of 2 indicators: the profit margin and the turnover rate of the assets to the revenue. These two indicators can be further distributed by the outcome, cost, asset and liability datas belong to the responsibility of the leader of the given decentralised unit.

The advantages of the indicator system are:

- it takes into consideration the return aims of the undertaking,
- it can be usable in case of decentralized organizational units,
- it can give a chance to the analysis of factors and the comparison of the performance of subfields and units.

The disadvantages of the system can be:

- it can not provide information on whether the numerator or the denominator has changed,
- the ROI calculation refers to the units and subfields can lead to the suboptimums instead of the optimum of the total company,
- the short- term tendencies of the profit maximization can be amplified. (Anthony – Govindarajan 2014, Horváth 2009)

Nowadays the economic environment of the companies has significantly changed, the former permanence was replaced by the variability, the marketing was coming into the focus of the operation instead of the production, and the knowledge-focused approach was appeared beside the capital-centered one.

The flexible adaptation to the environmental changes implied the alteration of the management methods, which claimed different kind of corporate governance including different kind of management information system. This reliable, well-structured information system can insure continuous reference for the company's leaders about the:

- processes at the enterprise,
- resources,
- realization of the management decisions,
- environment. (Böcskei et al. 2015; Veresné 2010 2013)

As a recognition of the change Robert S. Kaplan and David P. Norton developed a balanced, strategy-based indicator system, which can assist the management's work effectively.

The traditional financial indicators were applied at the benchmark of the enterprises can not provide appropriate informations to the management because of the following reasons:

- The traditional financial indicators inform about the companies' past achievement, they do not have connection with the future,.
- They are unsuitable for the prevention of problems, namely they take into account the effects of the already happened organizizational actions and consumer choices.
- They are short- term approach, that is why they can not serve the aims of the company strategy.
- They are not diagnostic featured, show the problems, but can not to give an answer for the root cause.
- Due to the terms of the money they are not used for displaying the qualitative factors, in turn the achievement of undertakings consists of quantitative and qualitative elements connected to the performance of the tasks assigned by the company.

In today's highly competitive environment the financial indicators alone are not able to give direction for the future, typically they can give view about some actions of the past so are retrospective, post factum indicators. Based on the theoretical and practical experimences in the benchmark both the financial and non- financial indicators are necessary. The balance between them has to be created and they have to be united in a complex indicator system. This is achieved by the Balanced Scorecard (BSC). The viewpoints of the basic model (financial, customer, operational processes, learning and development) are looking for answers for 4 questions:

- What are the expectations of the stakeholders?
- What kind of achievement is expected by the costumers?
- In which processes is it necessary to provide outstanding performance?
- How may the change and developmental ability be maintained in the future? (Kaplan & Norton 1992, 1996, 1998)

However, the basic model was not regarded as a definite model by the model creators. Over the last two

decades different types of further considerations of the basic model have revealed. The range of the stakeholders has expanded; the supplier, the future, the social responsibility and the sustainability have become independent viewpoints. (Batler et al. 2011, Figge et al. 2002a, 2002b, Maltz et al. 2003, Veresné 2013, Zingales – Hockers 2003; Hågen & Borsós 2015)

### *Trends 2 – One System is not enough – the Multilevel Cost Systems*

The achievements, the usage of sources, and through it the follow-up of the cost were always depended on what kind of devices- including the stage of development of the punctuation characters and numerals- were available for the decision supporters in the given age. Clay tablets and papyrus were already used by the early river valley- sociates to measure the inventory. Nevertheless, the advanced accounting techniques that are suitable for the shadowing of value beside quantity and are the basis of present-day accounts had been formed only in the year 1400s. In this time the primary target of the trade accounting was the register of claims and liabilities. The usefulness of accounting was recognized by the executives only with the increase of the complexity of corporate sizes and production processes. The geographical separation of the site, the factory and the central office of the owners demanded new types of information. The headquarter needed informations that were capable to:

- motivate the managers of the remote sites,
- judge the performance of the workers and leaders,
- account the expenses of the labor and conversion process,
- follow-up and compare the productivity.

By the authors dealing with the history of cost systems the birth of the modern cost accounting is traced back in the middle of the 1800s year, when the textile industry, the railway companies of the United States of America, and then the chemical and steel industry had been boomed. By the textile factories the financial datas primary were used for the determination of the real costs of the end products and for the shadowing of the productivity of the labor and consumption of the commodity. The engines of the development of the cost systems were the railway companies in the middle of the 19th century. To the pricing, to the harmonization of the divisions – sometimes with large geographical coverage- and activities, to the assessment of their achievements there was need for cost informations in an environment characterized by few market participants, growing organizational dimensions and complex production process. So scales and indicators were developed (for example costs per tonne kilometer, expenses per passenger kilometer, operation expense ratio) by which the leaders may have formed a judgement on the economicalness of the operation processes. The ideas of

the railway companies were taken over, adapted and improved by the steel industry enterprises.

The appearance of undertakings dealing with complex metal elaboration brought up new problems and questions to be solved of. The metal converter, chopping up firms were manufacturing the wide choice of the products while the single end-products were using the resources in a different proportion up. Therefore, the cost per unit of product was not appropriate indicator to characterize the economicalness of the conversion process.

The innovations of the scientific managerial movement connected to the name of Frederich Taylor and his engineering partners led to the emergence of the standard cost accounting systems. The work- and industrial engineering solutions contributed to the development of the cost accounting. In the first decade of the 20th century sophisticated systems were already used for the fixing and analysis of the differences of the fact expense and the norm expense, in the analysis of the productivity it was possible to compare the actual norms with the norms which can be reached under ideal conditions.

First the delegates of the scientific managerial movement dealt with how can be the overheads assigned to products. The high expenses of the information collection, processing and the relatively low proportion of the overheads resulted simple and cheap methods. The direct work- (working hour, wage cost) based overheads' distribution onto products can be led back to this period. The election of the appropriate projection basis is still an object of the discussions. (Chandler 1995, 1997, Kaplan & Atkinson 2003, Kaplan & Cooper 2001. Loft 1991)

Beside the scientific managerial school the German business management school played an outstanding role in the creation of the theoretical bases of the expense accounting. At the beginning of the last century the evolving of cost centers and the organizational questions received an emphasized role beside the assignment of the resource consumption to product in the cost accounting of the German business management school. The application of more hundred cost collectors resulted informative, but slow and costly system. The central management between the two world wars, the many regulations and directives of the period of National Socialism, and the strong state influence had been led to the spread and integration of the terminology and methodology. (Lázár 2002, Weber 2001)

By the end of the 19th century and the beginning of the 20th century developed cost systems primary concentrated to the accounting of fact costs and the determination of production costs. Both schools' delegates dealt with the question of the assignment of operating overheads to products, however, the treatment of capital costs remained unfinished.

The company union wave of the first decades of the 1900s created huge, vertically and regionally articulated firms. The company leaders were faced with the problem that in this case, how enforceable the total corporate

interests against the sometimes contrary aims of the individual departments. The previous organizational frameworks, the centralized functional management increasingly proved to be inappropriate to synchronize the individual interests.

The management accounting with responsibility principle and the divisional organizational form linked to the name of Alfred Sloan, Pierre du Pont and Donaldson Brown meant the solution. The assignment of the units' aims to the total corporate targets, the control of the achievement of those parts of the company that can not be supervised continuously were regarded to solvable so, that the organizational units were developed into responsibility and settlement units. These units can be characterized by predetermined responsibility, the result of their operation can be measured and evaluated by itself, relatively independently from the other units. Three types of the responsibility and settlement units were distinguished based on which operational areas are under the responsibility of the division leaders:

- cost center responsible for the formation of the operating costs,
- profit center responsible for the establishment of the result,
- investment center responsible for the operational earnings beside the financial earnings.

One of the largest innovations being effective until today of the DuPont Company was the elaboration of the scale of the return on invested capital, i.e. ROI (Return on Investment) already mentioned in the Chapter 1 and the related scorecard. With the help of ROI the top managers may have head the capital for the more profitable divisions, this indicator was able to convey the corporate objectives to the divisions and to give feedback to the top management from the efficiency of operational areas. The division leaders became responsible for the efficiency of their own division and for the render of the capital invested in their division.

The ROI scale, the spreading of the divisional organisations created the management accounting with responsibility principle in the 1920s and '30s. So management systems were created that allowed the activities of the corporate entities operating relatively autonomously to be consistent with each other and with the overall corporate goals as well. The tasks of the central leaders changed through decentralization. In addition to the efficient internal allocation of capital the activities of division leaders had to be coordinated, they had to be motivated and evaluated. (Bodnár 1997, Horváth 2009, Loft 1991)

Starting with the 1980s - both in the Anglo-Saxon and German literature - the criticism of the earlier cost accounting systems can be observed. At the early capitalism, the cost accounting systems developed together with the technical and economic evolution as a result of discussion between the state and the technical and economic experts. The cost accounting focused on the determination of the product expenses. The production

technologies were simple, the products went through well-defined manufacturing processes, the ratio of overhead costs was low, and determining the costs of labor and material consumption was also not a special problem. (Ashton et al. 1991, Musinszki 2016)

However, the cost accounting systems developed in the 19th century and early 20th century from the 1920s and 1930s did not change, they did not keep a step with the changes of environment. The European and North American companies were placed at competitive disadvantage opposite their Japanese competitors the 1970s and 1980s. Flexible manufacturing technologies used by the Japanese were able to produce a wider range of products at lower cost and with better quality. While the production has become continually more automated, specialized and flexible – consequently more capital-intensive – the expense accounting and controlling has lived henceforward with the assumption that the created products are homogeneous and labour intensive. Beside the advanced technologies outdated accounting and controlling techniques were applied. According to the approach of several economists dealing with managerial accounting, the companies saw the obstacle to the development in the financial accounting. The management accounting – including the cost accounting also – was subordinated until decades for financial accounting fulfilling the informational claims of external stakeholders in the form of financial reports. (Bhimani & Bromwich 1992)

Johnson and Kaplan drew the conclusion in their study of *Relevance Lost: The Rise and Fall of Management Accounting*, that the management accounting systems applied in the 1980s are not equal to the new challenges of the changing environment. Organisations' cost accounting stuck on the level of the 1920s, diverts the attention of the leaders from the major things, incapable to display the organizations' processes, products, technologies and competitive environments on an undistorted way. Johnson and Kaplan summarize the criticisms of the management accounting, cost accounting in the undermentioned ones:

- cost accounting does not fit the market and technological environment. The expense construction was modified as a result of the modern production technologies, the direct labor cost takes only a little part of the production expense and the represent of the overhead costs take an increasingly bigger proportion, while in the management reports continue pay a great attention to the direct labor costs and labor productivity.
- the traditional calculation methods are misleading, and the so defined expense and first cost data are unsuitable for the decision preparation and to inform the decision makers. The traditional costing systems we developed when the management was characterized by the dominance of narrow range of products and direct labor and material costs. However, the changes in the cost structure and the

grounds of too simply cost allocation methods can not be verified.

- the management accounting was subordinated to the needs of financial accounting, the accounting informations used in managerial decisions meet the expectations against financial accounting.
- the management accounting focuses almost exclusively on the activities within the company, only little attention is paid to examine the external environment of the company. (Johnson & Kaplan 1987)

The strengthening of global competition, the acceleration of technological evolution formulated new challenges and expectations. The claim of interconnection of strategy and controlling arose, the strategic controlling and the strategic management accounting appeared. More, decision-making, long-term profitability and value creation capability supported (costing) procedures were developed.

The life-cycle costing does not examine the expenses only in a – relevant for the financial accounting – period, but it identifies the costs emerged at various stages during the product life-cycle. The considerable part of the expenses can be ordered to the product occur in the planning section, and they have an essential effect on the expenses of the production section. The assignment of the costs to the stages of product life-cycle creates the possibility that the whole life-cycle can be the time horizon of the profitability calculations instead of/beside the business year. (Molnár 2016)

The target costing developed in Japan similarly to the life-cycle expense calculation is a device used in the planning section. The costs are not assigned to the calculation units, but to the benefit perceived by the consumers. The price the consumer is willing to pay for the product which is at the expected quality and functions is the starting point of the target costing. This target price reflects the range of the functions of the products rated by consumers. The target price minus the target profit can get the target cost. If the planned cost exceeds the target cost, the process continues as long as the planned cost does not match the target cost.

Like the target costing the kaizen costing is also driven by goals, but the kaizen costing is focused on the manufacturing process instead of the product, and on the production instead of the planning. The main pillar that employees are involved into the development of the processes and thus into the enhancement of the efficiency and the reduction of the cost.

It was recognized that there is a large proportion of the costs of that change is not a function of the amount of emissions. Consequently, the methods by which the overhead cost is loaded onto the individual products in the proportion of the production volume or an indicator can be traced back to this - such as direct material costs and direct labor hours- will necessarily result in a distorted cost data.

To solve this problem techniques applying more projection bases were born that charges the overhead costs onto the products only in the proportion that the products utilized de facto the resources. This method is called as Activity Based Costing in the Anglo-Saxon literature, and as Prozesskostenrechnung in the German literature. The two concepts is based on the same principle, and in the last time the continuous approach of the two theories can be observed. (Drury 2008, Horváth 2009, Kaplan & Atkinson 2003)

As mentioned above, the flexible adaptation to environmental changes implied the change of management methods, which needed other type of corporate governance including another kind of management information (and cost) system. This obviously had an impact also on the functions expected from the cost systems. According to Kaplan and Cooper (Kaplan 1988, Cooper & Kaplan 1988, Kaplan & Cooper, 1997) the cost accounting systems have to meet three main functions:

- the evaluation of stocks in the financial reports (as well as presentation of the impact on profit from stocks),
- the monitoring of the activities, products, services and costs of customers,
- a feedback on the effectiveness of processes for managers and persons responsible for the processes.

Kaplan and Cooper distinguish four levels of the cost accounting systems. In the first-level systems the recordation of the economic events is incomplete or incorrect, closing the books is time- and resource-intensive, the system is unsuited to the compilation of the financial report. The system is opaque, its maintenance is cumbersome.

Surveys suggest that most businesses are second level and have a financial report focusing system. The system complies with the requirements of financial reporting, suitable for inventory valuation, for the determination of the outcome, and to compile the report. It builds on responsibility units, manufacturing, assembly, maintenance and other activities supporting cost centers during the collection of expenses. The system deficiency is mainly in the allocation of indirect costs to products. Only the operating and other manufacturing costs are allocated to the products, which is normally based on the direct labor, or the cost of materials or machine hours.

The third-level systems are customized and provide the assignment of indirect costs to product, but non-integrated systems. Both of the traditional financial accounting systems, the activity-based costing system and the operational feedback system appear in the third level-systems. The third-level systems are suitable for the determination of the activities, processes, products, exact costs of customers and for the operative feedback promoting the financial and non-financial informations, the learning and the development. The system includes a traditional financial system that provides the financial accounting and management functions, evaluates the

stocks, prepares the financial statements, complies with external stakeholders' - such as investors, creditors, tax authorities - information needs. The system includes at least one activity-based costing system that utilizes the data of the traditional financial system and other existing enterprise information systems for the determination of the exact costs of activities, products and customers. The third element of the system provides the operative feedback. It provides actual and accurate financial and non-financial information about the quality, transit time and efficiency of processes for the leaders, decision-makers and, employees working in first-line (who have direct contact with the customers). At this level, companies retain their traditional - second level - financial accounting systems and the existing information are converted into useful information for managers. The second and third elements of the third-level system can be established without the construction of new computing background, the financial system, as well as other information systems of the company typically contain the data required for the other elements of the system (activity-based costing systems, operative feedback system). The significance of the third level precisely resides in that the decision supporters can access data-with little additional effort- to their work that already have been collected in the company.

In the third-level systems more systems are operating side by side. Tempting to reduce the number of systems, merge the activity-based costing systems and operational feedback system, but it entails dangers. The activity-based cost accounting systems suitable for the development of processes, the preparation of strategic decisions, however, inadequate to support the operational control and decision-making. The two systems treat differently the variability of expenses, the frequency and accuracy of reports, and estimation of future costs. The fusion would result a system that no one of the objectives can be achieved. The leaders, whose disturbing is that the systems contain contradictory information such as product profitability, it is advisable to recognise the fourth level costing systems.

At the fourth level appear the activity-based costing systems and operational feedback system linked to each other, and the preparation of the financial reports can be built on the two systems. The methodology of the activity-based costing can be used for the allocation of the overheads properly to the standards of financial accounting. The costs are ordered to product by activity-based costing, but are not a part of the cost according to the accounting standards, the system automatically ignores them. The operative feedback system continuously collects data about actual operation. The extraction of the financial data of the system make the financial reportable. In this way, the managerial aims serving learning-feedback system and the financial system making financial reports for the external stakeholders linked. However, the focus will shift compared to the past. The focus is on the financial reports

at the second level, but at the fourth level it is on the informing of the leaders, decision-makers. Thus the role of financial statements, information and indicators transform. In addition to the financial, production, economic roles get more and more space the social responsibility and sustainability. Therefore the former protagonist will be a minor player of a multi-player game. The Chapter 3 wishes to call the attention for one of the projections of this role is being presented through Global Reporting Initiative (GRI).

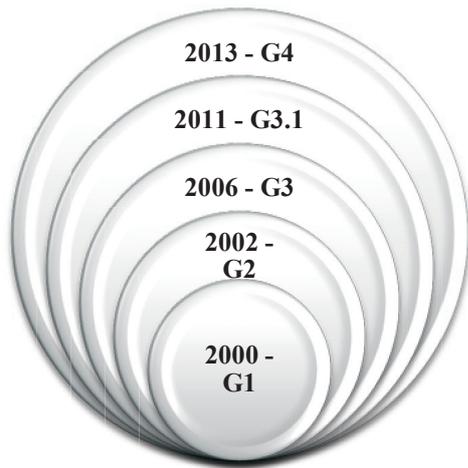
### *In the Wake of the Sustainability – Global Reporting Initiative (GRI)*

Since the millennium, the demand is constantly increasing for the knowledge of non-financial performance of companies, which claims reflected in the number of non-financial reports as well. For the comparison of the informative reports with real data content a well-functioning support systems and applicable guidelines are needed. The activity of a company can not be assessed on the basis of "slices", with a method should give a full, transparent image about it. One of the most widespread means of it is the sustainability report, which describes in addition the data concerning the environment protection the economic, social role of the company. Therefore the sustainability report is an individual and aggregated data transmission, which can present the performance concerning a specified period fairly and balanced.

Before 2014, the Directive 2013/34/EU had regulated the disclosure of non- financial information. It had expounded, that the management report (consolidated management report) are important elements of financial reporting. In this report the information hadn't been restricted to the financial aspects of the business activities, it had been also necessary to analyze the environmental and social aspects of the business methods. The small and medium- sized organizations had got dispensation from this commitment. The Directive 2014/95/EU – which published in the Official Journal of the European Union on 22nd October 2014 –modified the previous guideline from some aspects. The basic provisions of the Directive, that all companies -within the scope of guideline /the scope of the Directive is detailed below/- have to prepare a non-financial report for the financial year starting on 1 January 2017 or during the calendar year 2017. The most important ordinations of the Directive are detailed below.

➤ The Directive's aim. The cardinal purpose that the environmental and social information provided by organizations become transparent, besides the sustainable operation turn the essential principle. This consist in the foundation and dissemination of the integrated benchmarking: the sustainable global economy can be realized by combining long-term profitability with social justice and environment protection. Furthermore the Commission expects the

- supplied informations increase investor and consumer trust, and identify sustainability risks.
- The scope of the Directive. The content of the Directive related to companies that correspond to at least one of the following succeeding three criteria:
    - they are large undertakings according to the Directive 2013/34/EU Chapter 1.,
    - on their balance sheet dates the average number of employees during the financial year more than 500;
    - they are Public Interest Entities (PIEs) /all entities that are governed by the law of a Member State and listed on a regulated market, all credit institutions, all insurance undertakings and entities appointed by Member State as PIEs/.
  - The report's form. The non- financial statement should be included in the management report. Member States may exempt those undertakings from the obligation, that prepare a separate non- financial report corresponding to the same financial year, provided that such separate report is published together with the management report; or not exceeding six months after the balance sheet date, on the company's website.
  - Group of enterprises. The parent company of a large group shall include in the consolidated management report a consolidated non- financial statement in case of exceeding on its balance sheet dates- on consolidated basis- the criterion of the average number of 500 employees during the financial year. Member States may exempt those parent undertakings from the obligation, that prepare a separate non- financial report corresponding to the same financial year, referring to the whole group, provided they observe the deadlines.
  - The content of the statement. The non- financial/ consolidated non- financial statement shall contain informations to the extent necessary for understanding of the company's/ group of enterprises' development, performance and its activities' impact, for at least the following topics:
    - environmental matters (impacts on the environment; the use of renewable and non-renewable energy; greenhouse gas emissions; water and land use; air pollution; and the use of materials);
    - social and employee-related matters (the actions taken to ensure gender equality; implementation of fundamental conventions of the International Labour Organisation; working conditions; social dialogue; the insurance of workers' right to be informed and consulted; respect for trade union rights; health and safety at work; dialogue with local communities and the actions taken to ensure the protection and the development of these communities);
    - respect for human rights (the prevention of human rights abuses); and
    - anti- corruption and bribery matters (instruments of the fight against corruption and bribery).
  - Audit, supervision. Statutory auditors or audit firms should check that the non- financial statement or separate report has been provided, and its information content corresponds to the regulation. Furthermore, they shall disclose an opinion about the results of applied policies, the identified risks and the way how companies try to manage these. In addition, the Member States can require the published informations be verified by an independent assurance services provider.
  - Applicable guidelines. In providing the prescribed informations, companies which are subject of the Directive can rely on the following frameworks: national, Union- based (e.g. EMAS /Eco-Management and Audit Scheme/) or international, e.g.:
    - United Nations (UN) Global Compact;
    - OECD Guidelines for Multinational Enterprises;
    - the International Organisation for Standardisation's ISO 26000,
    - Global Reporting Initiative (GRI).
  - Member States' task. Member States shall bring into force the laws, regulations and administrative instructions, that are necessary to provide the appropriate reporting, and to comply the Directive by 6 December 2016.
- The Global Reporting Initiative is one of the leading systems on the area of the sustainability. GRI's idea was built on the thought of sustainable global economy, which should unite long term profitability with ethical behaviour, social justice and environmental care. With an other word, companies should integrate sustainability into their operation, and control their performance and effects from four viewpoints: economic, environmental, social and governance. For this reason, GRI has developed its Sustainability Reporting Framework, that enjoys synergies with other relevant international initiatives, frameworks and guidance. This reporting system helps the companies to measure, analyze and communicate their information, which are important from the aspect of sustainability. It is used by thousands of organizations of all sizes and sectors, all around the world. The Framework contains the Guidelines and sector guidance. The Guidelines help for the organizations in the preparation of their sustainability reports, independently from their size, sector or location. Figure 1. shows the evolution and interdependence of the Guidelines.



Source: the authors own editing

Figure 1. The evolution of the GRI Guidelines

GRI accepts reports based on G3 or G3.1, but those disclosed after 31 December 2015 should be managed in accordance with the G4 Guidelines. The sector guidance makes the different sector's reports more accurate and understandable. (www.globalreporting.org; GRI's G4 Guidelines: the impact on reporting 2013)

The G3 Guideline - launched in 2006-consists of two major part:

- Part 1: Reporting Principles and Guidance- answer the question how to report (the most important principles

are materiality, stakeholder inclusiveness, sustainability context and completeness);

- Part 2: Standard Disclosures- answer the question what should be reported. The Standard Disclosures define informations are relevant for organizations and stakeholders. The Disclosures are structured in three main topic: Strategy and Profile, Management Approach and Performance Indicators.
  - The section of Strategy and Profile contains the informations to understand the background of the organization's performance, such as its strategy, profile and governance. The most senior decision-maker of the company make a statement about why sustainability so important for the company and its strategy. Also have to present the key impacts, risks, opportunities and the relevant information about the organizational profile. It is necessary to expound the parameters of the report (its profile, scope and boundary; GRI content index and assurance); the governance structure; the sustainability charters, principles or other initiatives are subscribed or endorsed by the company; and the types of stakeholders have connection with the organization.
  - The section of Management Approach illustrates how the company approaches the different type of topics.
  - The Performance Indicators give comparable information about the company's performance in the areas of Figure 2.



Source: the authors own editing

Figure 2. The categories of G3's Performance Indicators

The Economic Indicators try to exemplify the flow of capital, and companies' economic impacts all of the society. The Management Approach is presented from the succeeding Economic Aspects: Economic Performance, Market presence and Indirect Economic Impacts, that data content expands on the following:

- the generated and distributed direct economic value (revenues, operating costs, employee compensation,

donations, and payments to capital providers and governments);

- the climate change's effects on the organization's activities (financial implications, other risks and opportunities);
- coverage of the benefit plan obligations;
- the financial assistance from the government;
- the ratios of standard entry level wage compared to local minimum wage;

- the features of the supplier contacts (policy, practices and proportion of spending);
- procedures for the local workforce's application;
- development and impacts of infrastructure investments and services; and
- the significant indirect economic impacts.

The environmental dimension means the company's influences on the living and non-living natural systems (ecosystems, land, air and water). The Environmental Indicators embrace the performance related to inputs (e.g. material, energy, water) and outputs (e.g. emissions, effluents, waste). On the other hand, they also measure the environmental expenditure, and impacts of product and services. Organizations have to disclose their Management Approach from the succeeding Environmental Aspects:

- materials (used and recycled input materials);
- energy (direct and indirect energy consumption; improvements to save energy; application of renewable energy; reduction of the indirect energy consumption);
- water (total water utilization by source; relation of water recycled and reused);
- biodiversity (location and size of land owned or managed in protected areas; the activities' significant impacts on biodiversity; protected or restored

habitats; strategies and actions for the protection of biodiversity);

- emissions, effluents and waste (total direct/ indirect greenhouse gas emissions and the initiatives to reduce them; emissions of ozone-depleting substances and NOx, SOx, other significant air; total water and waste discharge);
- products and services (initiatives to modify environmental impacts of products and services; the proportion of sold and reclaimed packaging materials);
- compliance (monetary value and non-monetary sanctions of significant fines);
- transport (environmental influences of transporting products, materials or workforce); and
- overall (total environmental protection expenditures).

The Social Performance means the company's effect on the social systems. It has four focuspoint: Labor Practices, Human Rights, Society, Product responsibility. (GRI G3 Guidelines Including Technical Protocol 2006)

The G3.1 Guidelines- launched in 2011- are an update and completion of G3 Guidelines. G3.1 comprise extended guidance for reporting on human rights, local community impacts and gender. (GRI G3.1 Guidelines Including Technical Protocol 2011) The changes can see in Figure 3.



Source: the authors own editing

Figure 3. The G3.1 Guidelines' extended indicators

The G4 Guidelines- launched in 2013- are the newest generation of GRI Guidelines. There are six significant changes in G4.

- The structure. The Guidelines are published in two parts:

- Part 1: Reporting Principles and Standard Disclosures;
- Part 2: Implementation Manual.

The first part contains Reporting Principles, Standard Disclosures (General and Specific), the criteria to be employed by any company to create its sustainability

report 'in accordance' with G4, and the key definitions. The second part includes supporting guidance on the first.

- 'In accordance' criteria. The former Application Levels (A, B and C) reflect the extent to which GRI Framework has been applied in the report. It has been replaced by 'in accordance with GRI' criteria, which offer companies two options to complete their report based on the Guidelines:
  - Core option: includes the essential elements of a report;
  - Comprehensive option: builds on the Core option, and requires some additional disclosures.
- Materiality. Everything is about materiality. According to G4, the only relevant performance indicators that companies should report related to their material issues. First the companies collect those specific issues that will be material during their reporting period. For the "Core", organizations should report at least one of the relevant performance indicators for a given material aspect. For "Comprehensive," companies should published all of the relevant performance indicators for a given material aspect.
- General Standard Disclosures. There are some new elements have to be reported:
  - company's material aspects;
  - the description of organization's supply chain;
  - 10 new disclosures inside Governance section (mostly about the board oversight /e.g. of sustainability - related impacts/ and the remuneration ratios);
  - section of Ethics and Integrity; and
  - some other existing sections were completed with additional requirements.

All together, the sections of General Standard Disclosures are the following: Strategy and Analysis; Organizational Profile; Identified Material Aspects and Boundaries; Stakeholder Engagement; Report Profile; Governance; Ethics and Integrity.
- DMA (Disclosures on Management Approach) /part of Specific Standard Disclosures/. The new DMA reporting framework focuses on three areas:

- why a given aspect is material;
- how can manage the aspects; and
- how can management improves its approach.
- Performance Indicators /part of Specific Standard Disclosures/. Some new Performance Indicators were added, which connected to the following areas:
  - intensity of greenhouse gas emissions;
  - energy use in company's supply chain;
  - supply chain impacts related to environment, labor practices, human rights and society;
  - some other existing indicators were reviewed; and
  - everything focus on the materiality.

(GRI G4 Part1 (Reporting Principles and Standard Disclosures) 2013, GRI G4 Part2 (Implementation Manual) 2013; GRI's G4 Guidelines: the impact on reporting 2013; www.greenbiz.com)

## RESULTS AND CONCLUSION

As it was described in Chapter 2, according to Kaplan and Cooper the importance of the third level precisely lies in that the decision supporters can use – with little additional effort – datas for their work, which already have been collected. At the exploration of the relationship between the 2014/95/EU Directive and the GRI G4 Guidelines (the new generation of the GRI Guidelines) the following key issues are: are the GRI G4 Guidelines based report able to meet the related EU Directive? The answer is important, because in the world from year 2014 to 2016 there are 9014 companies have made a GRI-based sustainability report, in which system – from the end of 2015 the conversion onto the G4 Guidelines is highly recommended.

In the Tables 1-4. are summarized the identified synergies between the expectations of the EU Directive and G4 Performance Indicators. The classification is based on that the EU drew up in all priority areas the scope of informations to be presented, which were coupled to the reporting promoter Performance Indicators for each category.

*Table 1*  
 The linkages between the environmental matters of Directive 2014/95/EU  
 and the G4 Guidelines Performance Indicators

<b>EU</b>	<b>impacts on the environment</b>	<b>the use of renewable and non-renewable energy</b>	<b>greenhouse (GHG) gas emissions</b>	<b>water and land use</b>	<b>air pollution</b>	<b>the use of materials</b>
<b>G4</b>	<p><u>Economic</u></p> <ul style="list-style-type: none"> <li>➤ impacts of infrastructure investments</li> <li>➤ indirect economic influences</li> </ul> <p><u>Environmental</u></p> <ul style="list-style-type: none"> <li>➤ impacts on biodiversity</li> <li>➤ emission, effluents and waste</li> <li>➤ effects of:                             <ul style="list-style-type: none"> <li>➤ products and services</li> <li>➤ transport</li> <li>➤ supply chain</li> </ul> </li> </ul> <p><u>Social- Society</u></p> <ul style="list-style-type: none"> <li>➤ impacts on local communities</li> <li>➤ influences of supply chain</li> </ul>	<p><u>Environmental</u></p> <ul style="list-style-type: none"> <li>➤ energy consumption</li> <li>➤ energy saving improvements</li> <li>➤ renewable energy application</li> <li>➤ energy use in supply chain</li> </ul>	<p><u>Environmental</u></p> <ul style="list-style-type: none"> <li>➤ greenhouse gas emission</li> <li>➤ intensity of emission</li> <li>➤ emission reduction</li> </ul>	<p><u>Environmental</u></p> <ul style="list-style-type: none"> <li>➤ water consumption</li> <li>➤ water recycled and reused</li> <li>➤ land use in protected areas</li> <li>➤ protection of biodiversity and habitats</li> </ul>	<p><u>Environmental</u></p> <ul style="list-style-type: none"> <li>➤ emissions of harmful substances</li> <li>➤ GHG gas</li> <li>➤ ozone depleting substances</li> <li>➤ NOx, SOx and other air pollutants</li> </ul>	<p><u>Environmental</u></p> <ul style="list-style-type: none"> <li>➤ used input materials</li> <li>➤ recycled input materials</li> </ul>

Source: the authors own editing

*Table 2*  
 The linkages between the social and employee-related matters of Directive 2014/95/EU  
 and the G4 Guidelines Performance Indicators

<b>EU</b>	<b>ensuring gender equality</b>	<b>implementation of conventions of ILO</b>	<b>working conditions</b>	<b>social dialogue</b>
<b>G4</b>	<p><u>Social- Labor Practices</u></p> <ul style="list-style-type: none"> <li>➤ new employee hires and employee turnover by gender</li> <li>➤ participation in trainings by gender</li> <li>➤ employees' career development reviews by gender</li> <li>➤ composition of governance bodies</li> <li>➤ ratio of basic salary and remuneration of women to men</li> <li>➤ return to work and retention rates after parental leave</li> </ul>	<p><u>Social- Labor Practices</u></p> <p>This Indicator category based on - among other things- the International Labour Organization (ILO) Declaration (Declaration on Fundamental Principles and Rights at Work, 1998), which builds upon eight core Conventions of the ILO.</p>	<p><u>Social- Labor Practices</u></p> <ul style="list-style-type: none"> <li>➤ fluctuation of total workforce</li> <li>➤ minimum notice time period in case of operational changes</li> <li>➤ rates of injuries, occupational diseases and work- related fatalities</li> <li>➤ labor practices                             <ul style="list-style-type: none"> <li>➤ at the company</li> <li>➤ in the supply chain</li> </ul> </li> </ul>	<p><u>Social- Labour Practices</u></p> <p>This Indicator category based on bipartite (labor and management) and tripartite (government, labour and management) social dialogues.</p>

	<p><i>Social- Human rights</i></p> <ul style="list-style-type: none"> <li>➤ discriminative incidents and corrective actions</li> <li>➤ grievances about human rights and their solution</li> </ul>		<p><i>Social - Human rights</i></p> <ul style="list-style-type: none"> <li>➤ discriminative, detrimental incidents and corrective actions</li> <li>➤ situations which have had a risk for incidents of child or forced labor</li> <li>➤ respect for human rights in the supply chain</li> </ul>	
<b>EU</b>	<b><i>workers' right to be informed and consulted</i></b>	<b><i>respect for trade union rights</i></b>	<b><i>health and safety</i></b>	<b><i>local communities</i></b>
<b>G4</b>	<p><i>Social- Labor Practices</i></p> <ul style="list-style-type: none"> <li>➤ employee s' participation in trainings</li> <li>➤ programs for skills management and lifelong learning</li> <li>➤ employees' carrier development reviews</li> <li>➤ minimum notice time period in case of operational changes</li> </ul>	<p><i>Social- Human rights</i></p> <ul style="list-style-type: none"> <li>➤ operations and suppliers in which employee rights to exercise freedom of association</li> </ul>	<p><i>Social- Labor Practices</i></p> <ul style="list-style-type: none"> <li>➤ composition of health and safety committees</li> <li>➤ rates of injuries, occupational diseases and work- related fatalities</li> <li>➤ risk program regarding diseases</li> </ul>	<p><i>Social- Society</i></p> <ul style="list-style-type: none"> <li>➤ the operations related to local communities</li> <li>➤ development programs</li> <li>➤ the potential and actual negative impacts on local communities</li> <li>➤ the prevention and mitigation measures of negative influences</li> </ul>

Source: the authors own editing

*Table 3*  
*The linkages between the human rights- related matters of Directive 2014/95/EU and the G4 Guidelines Performance Indicators*

<b>EU</b>	<b><i>the prevention of human rights abuses</i></b>
<b>G4</b>	<p><i>Social- Human rights</i></p> <p>the investment agreements which include human rights clauses  employee training on human rights policies  discriminative incidents and corrective actions  situations which have had a risk for incidents of child or forced labor  the operations related to human rights reviews  the grievances related to human rights filed  suppliers and partners that have passed screening on human rights  actual and potential negative human rights impacts in the supply chain</p>

Source: the authors own editing

*Table 4*  
*The linkages between the anti-corruption and bribery- related matters of Directive 2014/95/EU and the G4 Guidelines Performance Indicators*

<b>EU</b>	<b><i>instruments of the fight against corruption and bribery</i></b>
<b>G4</b>	<p><i>Social- Society</i></p> <ul style="list-style-type: none"> <li>➤ operations assessed for risks related to corruption</li> <li>➤ identification of significant risks</li> <li>➤ communication and training on anti- corruption policies</li> <li>➤ reactions for the incidents of corruption</li> <li>➤ analysis of business units for risk of corruption</li> <li>➤ participation in public policy</li> </ul>

Source: the authors own editing

*Table 5*  
*The linkages between the additional information required by the Directive 2014/95/EU*  
*and the G4 Guidelines Part 2.- Implementation Manual*

<b>EU</b>	<b><i>business model</i></b>	<b><i>policies applied</i></b>	<b><i>outcome of policies</i></b>	<b><i>capital risks and their management</i></b>	<b><i>non-financial performance indicators</i></b>
<b>G4</b>	<u><i>General Standard Disclosures</i></u> ➤ Strategy and Analysis ➤ Organizational Profile	<u><i>Specific Standard Disclosures</i></u> ➤ Aspect-specific Disclosures on Management Approach	<u><i>Specific Standard Disclosures</i></u> ➤ Aspect-specific Disclosures on Management Approach	<u><i>Specific Standard Disclosures</i></u> ➤ Aspect-specific Disclosures on Management Approach	<u><i>Specific Standard Disclosures</i></u> ➤ Performance Indicators for the different Aspect

Source: the authors own editing

It's also described in the Directive, that within the topics should be detailed any further informations. The Table 5. illustrates where can be found these information service obligations in G4 Guidelines.

Based on the foregoing, the G4 generation of GRI includes all test areas and elements that are relevant for the European Union. Clear links can be found among the elements of information content considered relevant, as well as in the field of data content detailing and the structure. Following the recommendations of the G4 every business is able to take turn the relevant elements and risks in terms of its activity, and to make them measurable after providing the necessary systems. It is timely to start the task, namely the preparation of the reports - according to the present knowledges - will become due to 2017.

As a final thought get acquainted with the situation in Hungary. Examining Hungary indispensable to take the initial steps, namely 56 non-financial reports has made in total since the year 2014, and only 14 of them applied the G4 Guidelines, which significantly falls short of the number of companies will be subject of the EU requirements. (GRI Sustainability Disclosure Database)

Therefore, the problem is twofold. The companies should develop their existing reports keeping in mind the G4. The other range of businesses (which do not prepare sustainability report at this time) should recognize the obligation of making statements and start the process as soon as possible to meet the requirements of the relevant information services. To this can give a hand the theory of multi-level (cost) systems and the GRI Framework.

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