

## Monitoring of Integrated Accounts Rendering and Non-Financial Information Disclosure to Agricultural Holdings (on the Basis of the Volgograd Region)

A. S. Ovchinnikov<sup>1</sup>, A. N. Tseplyaev<sup>1</sup>, N. N. Balashova<sup>1</sup>, E. Šilerová<sup>2</sup>, V. A. Melikhov<sup>1</sup>

<sup>1</sup> Volgograd state agrarian university, Volgograd, Russia

<sup>2</sup> Faculty of Economics and Management, Czech University of Life Science Prague, Czech Republic

### Anotace

Článek popisuje kvalitu a spolehlivost vytváření reportingů velkých zemědělských podniků a úplné zveřejňování finančních a nefinančních reportingů. Tento dokument zveřejňuje výsledky dlouhodobého sledování a výzkumu prováděného na katedře účetnictví a auditingu na Volgogradské státní zemědělské univerzitě, stejně jako strategii výsledky reportingů Volgogradské oblasti - integrovaného rozvoje venkovských oblastí. V závěru jsou vytvořena doporučení pro vytváření integrovaných zpráv, kterými se upravuje proces účetnictví zemědělských podniků – vytváření reportingů.

### Klíčová slova

Public rendering reporting, souvisle integrovaný reporting, monitoring, zemědělskopotravinářský komplex, účetnictví kvalitní reporting, koncept integrovaného podávání zpráv, zveřejňování nefinančních informací, úplnost hlášení informací zájemcům, doporučení pro reporting, reporting hodnotící kritéria.

### Abstract

The article describes the quality and reliability of the public reporting rendering by large agricultural holdings and full disclosure of financial and non-financial information reporting. The results of long-term monitoring and research carried out at the Department of Accounting and Auditing of the Volgograd state agrarian university as well as the Strategy for integrated development of the rural areas of the Volgograd region results were given here. Recommendations for the coherently integrated reporting adapting in the accounting process of agricultural enterprises were made.

### Key words

Public reporting rendering, coherently integrated reporting, monitoring, agri-industrial holdings, accounting reporting quality, concept of integrated reporting, disclosure of non-financial information, completeness of reporting information interested users, recommendations for reporting, reporting evaluation criteria.

### Introduction

In current economic environment the ability to accomplish information with high accuracy is the most important factor of each company. For data and information processing, it is important to use technological innovations so the firm become more competitive. In recent years a development of automatic systems in agriculture gained increased interest, which lead to the fact that researchers were concerned about the development of rational and adaptable systems based on behavioural approach (Sørensen, et al., 2010). For traditional systems the output (report) is usually created

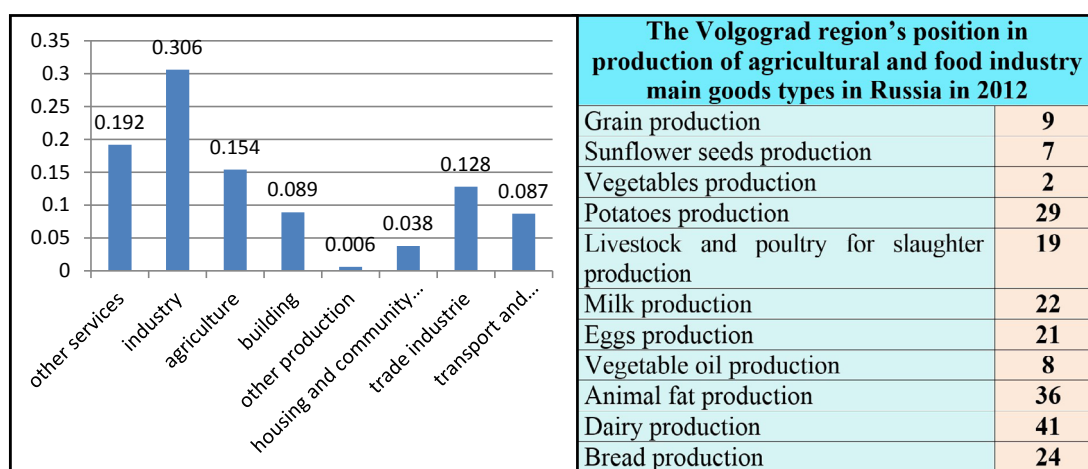
in the form of the documents and the forms. The structure of the current output reports is pre-defined and the farmer obtains the reports periodically where only the data changes. In 2009, the EU funded a project named FutureFarm which would bring a new model and prototype of a new information system for reporting. In their study Sørensen et al. (Sørensen et al., 2010) define and analyse the system boundaries and identify relevant decision processes for farm management information system. Related study of Lawson et al. (Lewis, T , 1998) examined the potential benefit for introducing farm information systems management. The research project FutureFarm

continues with the identification of the content of the “process” entities of the information flow model which represent the usage processes of the information, and of the “information” entities which represent the data elements (Sørensen et al., 2010/1). The collection of the data for agricultural management system is solved for example by Steinberger et al., 2010. Software architecture for farm management information systems in precision agriculture concerns Nikkila et al. (2010). According (Papula, Volná, 2012) must create the proper structure of the report (Sneidere, Vigante, 2014). Schneider is engaged in legislation issues of disclosure and information and generated reports. Problems connected with reporting, audit farms and rural development are also discussed in the works of Lakhtionova (2011), Serrano-Cinca (2013), Demortain (2011).

The scientists of the Volgograd state agrarian university carried out the work on developing the «Strategy for the integrated development of rural areas of the Volgograd region and the effective functioning of the agricultural sector in the WTO, taking into account socio-economic, climatic features» (Strategy for the integrated development of rural areas. 1.2.2014). Under the state contract they carried out the monitoring of the largest region agricultural holdings qualified rendering, accuracy, transparency of accounting and completeness of disclosure of non-financial information in it (social development, ecological safety, etc.). (Melikhov, 2014; Tseplyaeva, Balashova, 2012).

Volgograd region is one of Russia's largest producers of agricultural products (in Russia - 10<sup>th</sup> place, in the Southern Federal District - 3<sup>rd</sup> place) having favorable conditions for stable and progressive development of the agricultural sector in the context of globalization. In the gross regional product increased from 203.2 billion rubles in 2006 to 498.9 billion rubles in 2011, the share of agricultural production was 15.3% (Figure 1). In 78.1 billion got in 2012 the share of agricultural products in the crop production was 62.1% (48.5 billion rubles), livestock production had 37.9% (29.6 billion rubles). The relative share of the area in agricultural production in Russia in 2012 amounted to 2.4%. For the processing of results was also used from Shaposhnikova, Murtazayeva (2009); Skiter (2014).

Increasing of the information transparency and large agricultural companies' openness for all stakeholders is an important factor in the stability of the business and makes a substantial contribution into the socio-economic development of the Volgograd region. Growth in the value of agricultural holdings, reduce of the risks while investing and public confidence in the performance of the largest companies increase largely depend on how open and truthful companies disclose their achievements and problems, the strategy and its implementation, used resources and contribution to the people's, technologies', regions', etc. development. The set of public reporting (financial and non-financial) is one of the mechanisms to ensure transparency



Source: Strategy for the integrated development of rural areas of the Volgograd region and the effective functioning of the agricultural sector in the WTO, taking into account socio-economic, climatic features

Figure 1. The relative share of industries in the Volgograd region in the gross regional product structure, in 2012.

and reliability (Zubova, 2013; Bychkov et al., 2012 ).

Under the current conditions in Russia problem of the agrarian formations reporting quality, prepared according to IFRS or GAAP, international standards of integrated reporting is urgent, but it is important to note that the agribusiness in the Russian Federation should be integrated in the IFRS system by 2016...2018. The list of the public companies at the moment includes not all agricultural holdings (as FZ-208 „On the consolidated financial reporting“). Voluntary formation of reporting according to IFRS does not develop very intensively due to: the high cost of adaptation to international standards; shortage of personnel; agricultural holdings management concerns to represent public reporting (the lack of willingness to disclose material information to competitors) (Federal law on accounting, 8.2.2014). The objects of the research are the largest integrated agroformations of the Volgograd region, which are able to solve the problem of overcoming the disparity in prices for products and services, to change organizational - production structure of activity, to solve the issues of technical rearmament and economic equality between producers and service. Such structures reporting should be of another level and qualities. For processing data were used international standards described in Dalmazzone (2011), De Haan (1999), Schröter et al. (2014), Weber (2007).

### **Research purposes and aims**

In 2012...2013 there were major changes in the international accounting standards in Russia:

1. The publication G4 version of the Guide to reporting on sustainable development GRI; (GRI-G4\_Guidelines-report , 18.1.2014)
2. The International Standard integrated reporting was published (Towards Integrated Reporting, 1.2.2014 and Consultant project of the international structure, 18.12.2013).
3. The National Concept for the development of public non-financial reporting in the Russian Federation and the publication of a new version of the Code of Corporate Governance is getting ready.

This study was carried out to determine the ways of reporting quality perfection in the new conditions and to improve the overall level of corporate reporting development. The main objective

of the research is the integrated analysis of the Volgograd region largest agricultural companies reporting and assessment of their transparency level for creating the conditions for the corporate reporting qualitative evolution.

The main objectives of the research are:

- the large agro-industrial enterprises reporting quality examination of (including non-financial);
- identifying and disseminating best practices in reporting;
- drawing up of corporate reporting ratings.

The research model and methods were approved by the board of the Faculty of Economics. The Working Group and Executives were approved: the Chief of the Department of Accounting and Auditing, the teaching staff, post-graduate students, students in the master's program and students of economic direction.

During the research the Volgograd region agricultural holdings accounting records in 2012 were studied (integrated reports, traditional annual reports and non-financial reports, including reports on sustainable development), as well as other materials on reporting posted on the official corporate websites. 16 major agro-industrial enterprises, including agricultural holdings, enterprises of agricultural segment of large public companies, processing enterprises of Agricultural Industrial Complex were included into the survey sample.

### **Materials and methods**

The research was carried out in three stages. At the first stage the Working Group carried out the reporting survey in accordance with the procedure.

In the second stage the Expert Group made a spot-checking of the survey results; and the verification of preliminary results: the got data was sent to all the companies with the purpose of reconciliation.

In the third stage the survey results were summarized.

The reporting survey was carried out according to six criteria, each of which corresponds to a set of parameters and indicators. Two sets of criteria were used: the quality of accounting information and the quality of reporting.

The criteria selection was largely based on:

- the implementation of international standards: Guidelines GRI, version G3.1;
- draft of the International Standard Integrated Reporting;
- public reporting systems availability in the companies, allowing to prepare annual reports systematically and properly;
- registration of requests to the main companies stakeholders' reporting information (potential reports readers);
- reporting usability.

Such a criterion selection allows to reveal both best practices in terms of compliance with international best practices of corporate reporting (including integrated) and agricultural holdings reporting „bottlenecks“ (Figure 2).

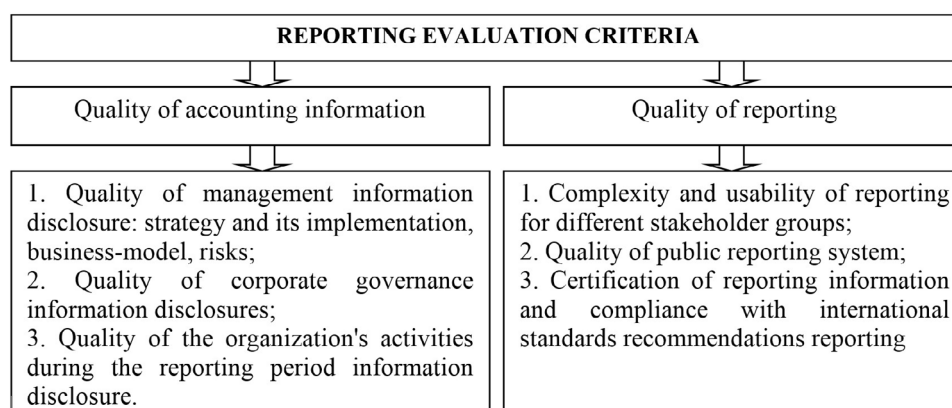
### **Integrated reporting concept**

In the future 6-10 years all Russian large agricultural holdings will move to the preparation of integrated reports or reports SD: either because of the desire to meet corporate reporting modern international standards, or performing exchanges listing and regulatory requirements, both national and international ones. IR-reporting concept is shown in Figure 3.

In the modern conditions of the Volgograd region agricultural holdings operation agroformations business model changes significantly due to the globalization of the economy, the development of production and marketing

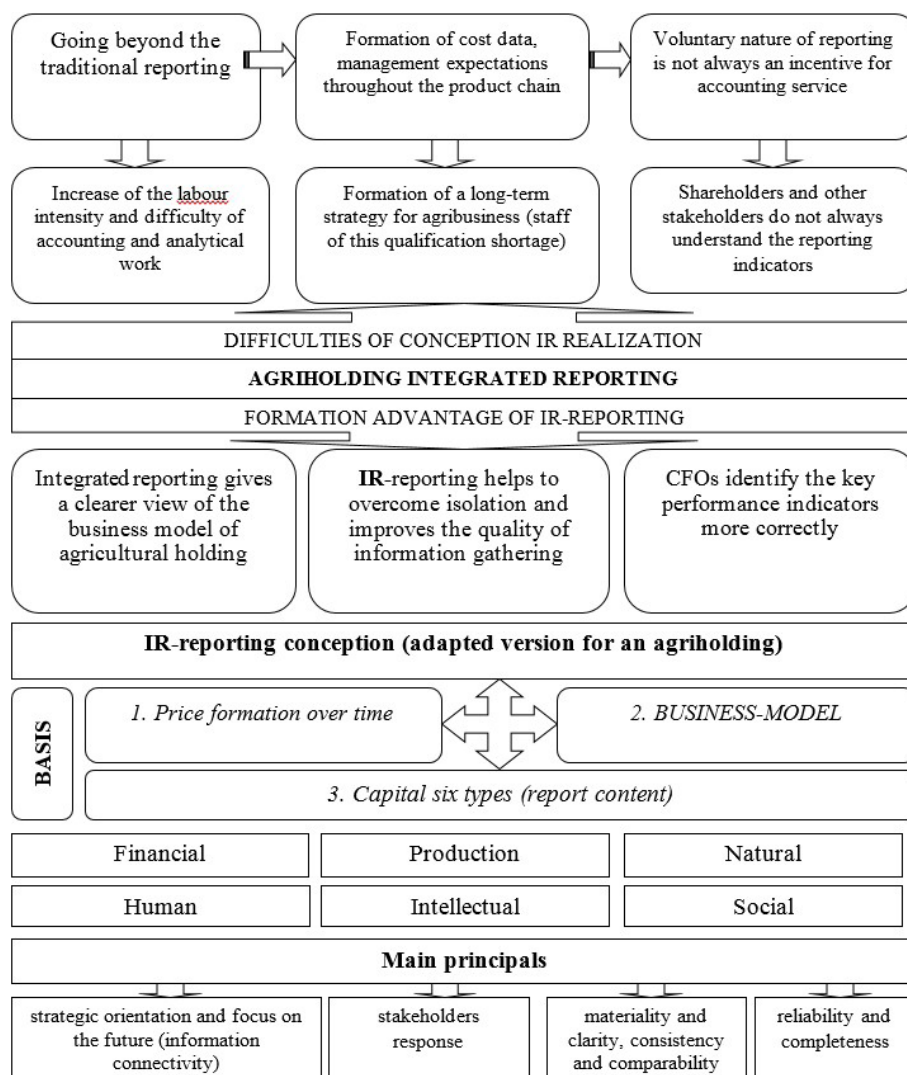
technologies, increasing the agricultural raw materials products consumption (meat, dairy products and juice), environmental and social problems of modern agriculture. In this section the fundamental importance for the formation of the market value of the agricultural holding (Group of companies) acquired the form of reporting, which could represent intangible assets (innovative developments, new products, business-processes, automated accounting and control systems), the holding company investment potential for foreign investors and for internal management decision-making. A single form will allow to disclose consequent information that enables to detect inconsistencies between the financial, non-financial and management information. Over the period of 2010-2013 the International Integrated Reporting Council (IIRS) was created, which published for discussion a consultation project on the concept of the International Integrated Reporting (Zubova, 2013).

Need for the project and the concept has arisen because of a lot of types of the companies' internal and external reporting, which are formed for the management, financial market participants, tax authorities, banks (it is of a different size, structure and nature), which leads to loss of time and financial resources in search for relevant information. The system of coherently and integrated reporting is important for investors, as the traditional annual reports do not create an integrated view of the business due to the lack of information for decision-making regarding whether there are business opportunities and risks.



Source: own processing

Figure 2: Criteria for reporting information quality and agricultural holdings reporting



Source: own processing

Figure 3: Advantages and the complexity of the integrated reporting concept on the basis of its components in the agricultural holdings accounting practice.

## Results and discussion

In this section, we represent the most important results of the agricultural holdings in the Volgograd region public reporting research

According to the Table 1, the level of the agroindustrial enterprises in the Volgograd region reports compliance with IFRS is not very high - 37.5%, 18.7% of agricultural holdings prepare reports in accordance with the Guidelines for reporting on sustainable development The Global Reporting Initiative (G3.1), and 25 % of companies make reports in accordance with the Draft International Standard for integrated

Reporting. We assume that in the near future, Russia will expand the scale of the use of these two international standards (IR and GRI) in connection with existing global trends, as well as in connection with changing the national regulatory framework. Table 2 summarizes the results of a survey of enterprises managers, CFOs and chief accountants.

Agricultural enterprises are potentially ready for the transition to modern types of reports for the period of 2014 ... 2017: integrated reporting plan to generate 56% of the respondents, and sustainable development - 38% of companies.



Enterprises list	Compliance with IFRS	Compliance with the Management for sustainable development (GRI)	Compliance with IIRC (IR-reporting)	Compliance with RAS	Internal audit reports
Holding company "Helio-Paks"	+	-	+	+	+
LLC "Vipoyl" (Holding "Vipoyl")	+	-	+	+	+
Agricultural holding "Novoanninskiy"	-	-	-	+	+
Agribusiness "Zarya" (holding "PomidorProm")	-	-	-	+	-
CJSC "Krasnodonskoye" (Mriya "Kopitaniya")	+	+	+	+	+
LLC "Gorodishchenskaya Poultry"	-	-	-	+	-
LLC "Poultry Kamysinskaya"	-	-	-	+	-
CJSC "Agrofirm Vostok"	-	-	-	+	+
Agricultural holding "Agro Invest"	+	+	-	+	+
Agro Holding "Volgograd"	-	-	-	+	-
Agricultural holding "Geteks"	+	-	-	+	+
Agricultural holding "Terra-Invest"	-	-	-	+	-
Group of companies "Agricultural holding"	-	-	-	+	-
Agro Holding Ltd. "Nagavskoe"	-	-	-	+	-
LLC "Agricultural holding Povolzhje"	-	-	-	+	-
JSC "Gardens of Pridonye"	+	+	+	+	+

Source: own processing

Table 1: Compliance of agriholdings in the Volgograd region public reporting .

All in all - almost all of them (99%) plan to disclose information in the reports on the activities in the field of sustainable development. The companies plan to do it fully, producing integrated reports or „two-volumes“ (traditional reports and reports on SD).

We can note that the quality of reporting improves the transition to integrated reporting, the presence of systems for public reporting companies (more than 30% of businesses tend to create it), and the key stakeholders involvement in the preparation of reports, 38% of companies

understand their importance.

In the Table 3, we give the data disclosure on certain groups of parameters (the disclosure of risks, corporate management, etc.). Thus, the disclosure (~ 57%) of the company's strategy is of a high level. A number of parameters (business model, stakeholder involvement, user requests and reports, etc.) are at the average level (~ 56%). It can be assumed that due to the neglecting the requests for reporting information, the information is not claimed and of little value, it is prepared and placed as „wasted.“

Enterprises list	Transition to IR-reportings	Reporting will consist of two volumes (financial and non-financial)	Reports with included information on sustainable development	Public reporting system implementation	Involvement of key stakeholders
Holding company "Helio-Paks"	+	-	+	+	+
LLC "Vipoyl" (Holding "Vipoyl")	+	-	+	-	+
Agricultural holding "Novoanninskiy"	+	-	-	-	-
Agribusiness "Zarya" (holding "PomidorProm")	+	-	-	-	-
CJSC "Krasnodonskoye" (Mriya "Kopitaniya")	+	-	-	+	+
LLC "Gorodishchenskaya Poultry"	-	+	-	-	-
LLC "Poultry Kamyshinskaya"	-	+	-	-	-
CJSC "Agrofirm Vostok"	-	+	+	-	-
Agricultural holding "Agro Invest"	+	-	+	+	+
Agro Holding "Volgograd"	-	+	-	-	-
Agricultural holding "Geteks"	+	-	-	+	-
Agricultural holding "Terra-Invest"	-	+	-	-	-
Group of companies "Agricultural holding"	-	+	-	-	+
Agro Holding Ltd. "Nagavskoe"	-	+	-	-	-
LLC "Agricultural holding Povolzhje"	+	-	+	-	-
JSC "Gardens of Pridonye"	+	-	+	+	+

Source: own processing

Table 2: Planned activities to improve the quality of agriholdings in the Volgograd region reporting for 2014...2017.

We refer the following to poorly disclosed accounting information (18.7%):

- Disclosure of risk information;
- Data on corporate management (information on the relationship performance of companies and the remuneration of top management).

It is also important to note that specific information about the state of the business and the companies' prospects supporting the strategy's implementation (target and forecast figures, indicators dynamics

comments of, etc.) discloses in 25% of cases.

The information disclosure level increase on these aspects will enhance the level of companies' information openness and transparency. However, it is not the fact that it would increase greatly the usefulness of the reports. The key stakeholders' queries examine only 31%. In general, the information which is required by regulators, or the information, which the company stakeholders (such as shareholders) are mostly interested in, is disclosed well.

Enterprises list	Disclosure of the company's strategy information	Business-model description	Disclosure of risks information	Data on corporate management system	Interaction with stakeholders
Holding company "Helio-Paks"	+	+	+	-	+
LLC "Vipoyl" (Holding "Vipoyl")	+	-	-	-	-
Agricultural holding "Novoanninskiy"	+	+	-	-	+
Agribusiness "Zarya" (holding "PomidorProm")	-	-	-	-	-
CJSC "Krasnodonskoye" (Mriya "Kopitaniya")	+	+	-	+	+
LLC "Gorodishchenskaya Poultry"	-	-	-	-	-
LLC "Poultry Kamyshinskaya"	-	-	-	-	-
CJSC "Agrofirm Vostok"	+	-	-	-	-
Agricultural holding "Agro Invest"	+	+	+	+	+
Agro Holding "Volgograd"	-	-	-	-	-
Agricultural holding "Geteks"	+	-	-	-	-
Agricultural holding "Terra-Invest"	-	-	-	-	-
Group of companies "Agricultural holding"	-	-	-	+	-
Agro Holding Ltd. "Nagavskoe"	-	-	-	-	-
LLC "Agricultural holding Povolzhje"	+	-	-	-	-
JSC "Gardens of Pridonye"	+	+	+	-	+

Source: own processing

Table 3. Disclosure of individual parameters characterizing the management quality control in the agricultural holdings reports.

Analyzing the current practice and the concept of forming a coherently integrated reporting of the Group companies, we consider that its implementation in the accounting process is the competitive advantage of agroindustrial enterprises. In this case, the traditional financial reporting is added by the disclosures of the social, environmental, managerial, organizational matters. In the given concept it is recommended to disclose nature protection activities costs, reserves, showing the impact of climate change on their activities, describing

the agribusiness main risks, key personnel, the level of business processes automation, etc.

The largest Agricultural Industrial Complex enterprises in the Volgograd region pay enough attention to the environmental activities information disclosure (environmental protection, modern sewage treatment plants, the calculation of deviations, the influence of environmental regulations, investment, skills) - 56 % of the sample. Aspects of social activity are represented in 43% of the non-financial reports rendering. It is interesting



Enterprises list	Ecological activity	Social activity	Investment and innovative activity	Personnel policy (health, work conditions)	Production organization
Holding company "Helio-Paks"	+	+	+	+	+
LLC "Vipoyl" (Holding "Vipoyl")	+	+	+	-	-
Agricultural holding "Novoanninskiy"	+	+	+	-	-
Agribusiness "Zarya" (holding "PomidorProm")	-	-	-	-	-
CJSC "Krasnodonskoye" (Mriya "Kopitaniya")	+	+	+	+	
LLC "Gorodishchenskaya Poultry"	-	-	-	-	-
LLC "Poultry Kamysinskaya"	-	-	-	-	-
CJSC "Agrofirm Vostok"	-	-	-	-	-
Agricultural holding "Agro Invest"	+	+	+	+	+
Agro Holding "Volgograd"	-	-	+	-	-
Agricultural holding "Geteks"	+	-	+	-	-
Agricultural holding "Terra-Invest"	-	-	-	-	-
Group of companies "Agricultural holding"	+	-	+	-	-
Agro Holding Ltd. "Nagavskoe"	-	-	-	-	-
LLC "Agricultural holding Povolzhje"	+	+	-	-	-
JSC "Gardens of Pridonye"	+	+	+	+	+

Source: own processing

Table 4. Level of non-financial information disclosure in the Volgograd region agriholdings reporting.

that investment and innovation activity is widely represented (~ 57%): agricultural holdings describe the mechanisms of the investments, calculate their liquidity and return, reveal innovative products and business processes. The personnel policy and the production organization information disclosure are not so popular - 25 % and 19 %, respectively (Table 4).

## Conclusion

The figure 4 shows the main key performance indicators that were obtained from the results

of the monitoring.

In conclusion, we can say that about 43% of agricultural holdings are planning to release „two-volumes“, i. e. two reports: the annual traditional and non-financial (sustainability report, social report, ecological, etc.). Only 18 % prepare annual reports that include varying degrees of information on sustainable development. Integrated reports are prepared by 4 agriholdings (25%). Third of holdings (38%) are planning to prepare reports (integrated or non-financial) in accordance with the Guidelines GRI. Slightly

Non-financial reporting audit – <b>14%</b>	Management responsibility - <b>24%</b>	Stakeholders' involvement <b>56%</b>	Interactive reportings- <b>12%</b>
Indices dynamics comments- <b>19%</b>	IFRS reporting system – <b>31%</b>	Transition to IR-reports – <b>56 %</b>	GRI reportings – <b>18%</b>
Strategy – <b>57%</b>	Targets for the future – <b>24%</b>	Conformity with IIRC– <b>25%</b>	Business-model – <b>56%</b>
Public reassurance - <b>6%</b>	Reward for KPI – <b>25%</b>	Transition to financial and non-financial reportings – <b>43%</b>	

Source: own processing

Figure 4. Analysis of key performance indicators.

less than half of holdings (42%) prepare electronic reports posted on the sites. The report users' reliance to the accounting information is largely based on the provided information confirmation by an external independent person. There are no problems with the reliability of financial information (the company complies with the legislation), and the accuracy of the non-financial information (production, human, environmental and other data) can cause users' great questions, as only 14 % of companies carry out the audit of non-financial reporting. All agricultural holdings have the conclusion on the financial audit. 10 % of the companies have the conclusion of the internal control and audit. Conclusion on non-financial audit (assurance of non-financial information) is not available.

The sense of reports' public assurance is to confirm the representatives of the main stakeholders (potential readers of the report) in materiality and completeness of the given accounting information, as well as the company's response to their requests and suggestions.

Conclusion regarding the public verification is represented by 2 companies, i.e. 6% of the companies have the verification from their stakeholders that the useful for them information is placed in the reports. The auditor's opinion on the involvement of stakeholders and the company responses during the reporting period isn't submitted; the auditor's opinion regards the significance of the given data - 5 holdings.

*Corresponding author:*

*Ing. Edita Šilerová, Ph.D.*

*Department of Information Technologies, Faculty of Economics and Management*

*Czech University of Life Sciences Prague, Kamýčká 129, Prague 6 - Suchbát, 165 00, Czech Republic*

*E-mail: silerova@pef.czu.cz*

## References

- [1] Bychkov, M. F., Ponomarchenko, I. A., Volgograd State Agricultural Univ., Olejnik, O. S., Russian Federal State Statistics Service, Moscow. Volgograd Territorial Office. Dairy subcomplex formation and functioning mechanisms estimation (on the example of the Volgograd region). Herald of the N.I. Vavilov Saratov State Agrarian Univ.. 2012; no. 3
- [2] Consultant project of the international structure [Online] Available: IR// [www.ir.org.ru/attachments/article/13/23.11.12](http://www.ir.org.ru/attachments/article/13/23.11.12) - Consultation Draft of the International Framework-Russian. pdf.] [Accessed: 8.12.2013].
- [3] Dalmazzone, S., La Notte, A. Multi-scale environmental accounting: Methodological lessons from the application of NAMEA at sub-national levels (Article) Journal of Environmental Management. November 2013, Vol. 130, 30. p. 405-416. ISSN 0301-4197.

- [4] De Haan, M. On the international harmonization of environmental accounting: Comparing the National Accounting Matrix including Environmental Accounting of Sweden, Germany, the UK, Japan and the Netherlands (Article)/ M. De Haan// Tructural Change and Economic Dynamics. 1999, Vol. 10, Iss. 1, p. 151-160. ISSN 0954-349X.
- [5] De Haan, M. Document On the international harmonization of environmental accounting. Comparing the National Accounting Matrix including Environmental Accounts of Sweden, Germany, the UK, Japan and the Netherlands Source of the Document Structural Change and Economic Dynamics. Number of Documents that reference this Document4.
- [6] Demortain, D. Scientists and the regulation of risk: Standardising control. Edward Elgar Publishing Ltd. London. 2011, p.284. ISBN 978-184980943-6.
- [7] Federal law on accounting [Online] Available: 402-FZ//base.consultant.ru/cons/cgi/online.cgi. [Accessed: 8.2.2014].
- [8] GRI-G4\_Guidelines-report. [Online] Available: GRI-G4\_Guidelines-report//www.ey.com/Publication/vwLUAssets/EY-GRIG4\_Guidelines-report-Newsletter-Rus. [Accessed: 18.01.2014]
- [9] Lakhtionova, L., Kirichenko, N. Model of the analysis of financial results according to the financial reporting for decision-making on management of the company at the time of financial crisis in conditions of globalization of economy. International Conference on New Socio-Economic Challenges of Development in Europe. Univ Latvia, Riga, Latvia. 2011, p. 372 – 381. ISBN 978-9984-45-363-7.
- [10] Lewis, T. Evolution of farm management information systems. Computers and Electronics in Agriculture, 1998, 19, p. 233–248. ISSN 0168-1699.
- [11] Melikhov, V. A. Perspectives of international integrated reporting formation on agricultural and processing enterprises of agricultural holding, in> V. A. Melikhov, L.N. Pavlova, Proceedings of nizhnevolzskiy agrouniversity complex: science and higher vocational education, 2014-№1
- [12] Nikkila, R., Seilonen, I., Koskinen, K. Software architecture for farm management information systems in precision agriculture. Computers and Electronics in Agriculture, 2010, Vol. 70, p. 328–336. ISSN 0168-1699.
- [13] Papula, J., Volná, J. A Content Analysis of Intellectual Capital Reporting within Slovak Companies. 4<sup>th</sup> European Conference on Intellectual Capital (ECIC). Arcada Univ Appl Sci, Helsinki, Finland. 2012, p. 363 – 370. ISBN: 978-1-908272-31-7.
- [14] Schröter, M. Barton, D. N., Remme, R. P., Hein, L. Accounting for capacity and flow of ecosystem services: A conceptual model and a case study for Telemark, Norway (Article). Ecological Indicators. 2014, Vol. 36, p. 539-551. ISSN 1470-160X.
- [15] Serrano-Cinca, C., Gutiérrez-Nieto, B. A decision support system for financial and social investment. Applied Economics. 2013, Vol. 45, Iss. 28, p. 4060-4070. ISSN 00036846.
- [16] Shaposhnikova, O. A., Murtazayeva, R. N., Volgograd State Agricultural Academy. Bread-producing enterprises marketing formation under the influence of consumers' behavior. 2009.
- [17] Skiter, N. N. Statistical analysis of agricultural production distribution in small forms of managing in the Volgograd. in: N.N. Skiter, N. I. Mazeva, E. E. Smotrova, Economy of agricultural and processing enterprises. 2014, No. 1, p. 51-54.
- [18] Sneidere, R., Vigante, I. Legislative basis for corporate social responsibility reporting. Economic Annals-XXI, 2014, Vol. 3-4, Iss.1, p. 58-62. ISSN 17286220.
- [19] Sørensen, C. G., Fountasb, S., Nashf, E., Pesonend, L., Bochtisa, D., Pedersene, S. M., Bassoc, B., Blackmoreg S. B. Conceptual model of a future farm management information system. Computers and Electronics in Agriculture. 2010, Vol. 72, p. 37–47. ISSN 0168-1699.

- [20] Sørensen, C. G., Fountasb, S., Nashf, E., Pesonend, L., Bochtisa, D., Pedersene, S. M., Bassoc, B., Blackmoreg S. B. Conceptual model of a future farm management information system. *Computers and Electronics in Agriculture*. January 2010, Vol. 72, p. 37–47. ISSN 0168-1699.
- [21] Steinberger, G., Rothmund, M., Auernhammer, H. Mobile farm equipment as a data source in an agricultural service architecture. *Computers and electronics in agriculture*. 2009, Vol. 65, p. 238–246. ISSN 0168-1699.
- [22] Strategy for the integrated development of rural areas of the Volgograd region and the effective functioning of the agricultural sector in the WTO, taking into account socio-economic, climatic features. [Online] Available: [http://ksh.volganet.ru/folder\\_3/folder\\_5](http://ksh.volganet.ru/folder_3/folder_5) [Accessed: 1.2.2014].
- [23] Towards Integrated Reporting – Communicating Value in the 21<sup>st</sup> Century. [Online] Available: [http://www.ir.org.ru/attachments/article-IR\\_Discussion\\_Paper-2011.pdf](http://www.ir.org.ru/attachments/article-IR_Discussion_Paper-2011.pdf). [Accessed: 1.2.2014].
- [24] Tsepilyaeva, M. V., Balashova, N. N., Volgograd State Agricultural Univ.. Biological assets in agricultural enterprises calculation system perfection. *Proceedings of the Lower Volga Agricultural University Complex: Science and Higher Professional Education*. 2012, No. 3.
- [25] Weber, J. L. Document Implementation of land and ecosystem accounts at the European Environment Agency Source of the Document Ecological Economics. Number of Documents that reference this Document25.
- [26] Weber, J.-L. Implementation of land and ecosystem accounts at the European Environment Agency (Article)/ J.-L. Weber// *Ecological Economics*. Vol. 61. Is. 4. 15 March 2007. p. 695-707, ISSN 0921-8009.
- [27] Zubova, O. G., Volgograd State Agricultural Univ.. Workforce capacity as component of multifunctional competitive environment of agrarian sector: regional aspect. *Bulletin of Altai State Agrarian University*. 2013, No. 2.