Dr. Vasily Vysokov

AGILE DIGITALISATION OF ESG BANKING

BANK CENTER-INVEST

Dr Vasily Vysokov

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This theoretical and practical handbook captures the interplay between the two main development trends in the banking sector: the transition to digital banking, and a business model based on environmental, social and governance (ESG) principles. The author draws on theoretical knowledge and Center-invest Bank's real-life experience of introducing digital technologies, taking into account best international practice of international organisations, financial institutions and regulatory bodies.

Successful digitalisation depends on an integrated approach, recognising the interconnectivity of taxonomy, the governance structure and functions, the business model and strategy, ESG risk management and ESG reporting. Digitalisation provides this interconnectivity of multi-index variables in digital models for the reproduction of all types of capital, constructed with regard for financial indicators, regulatory constraints, traditional and ESG risks, and which permits rapid and reliable payments, accounting and reporting. The recommended methods and solutions have been tested in practice by Center-invest Bank (an ESG bank) and leading participants in the ESG banking market.

This handbook is a conceptual design for the construction of an IT system for ESG banking. It may be used for practical implementation and for educating and retraining employees of banks, banking supervisory and regulatory bodies, students and specialists.

Reviewers:

V.S. Zolotarev, Doctor of Economics, Professor, Honoured Academic of the Russian Federation

Approved as a theoretical and practical handbook by the Rostov State Economics University editorial and publishing board.

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CONTENTS

AUTHOR'S PREFACE

Since its establishment in 1992 by southern Russia's first privatised enterprises, Center-invest Bank has successfully acted as a “reform laboratory” for the region. Applying best international practice, the bank helps businesses and the local population to find solutions to comply with new Russian laws.

Center-invest Bank was the first to assist with the transparent privatisation of over 300 enterprises. It was involved in the creation of a securities market, and it established a range of services for sustainable lending to SMEs. For many years now, the bank has:

- helped to attract investment, including investment by international development institutions;
- helped the population to preserve and multiply their savings;
- financed the introduction of energy-efficiency technologies;
- provided loans for the renovation of apartment buildings;
- been actively involved in addressing social issues in the region;
- worked to improve the financial literacy of the population and supported educational projects in implementation of the Sustainable Development Goals (SDGs) and the Paris Climate Agreement.

The bank's cooperation with international development institutions and leading international partners has enabled it to assimilate and successfully localise best international practice in corporate governance, financial and non-financial reporting in accordance with Russian and international standards, risk management, and information systems development.

Operating within Russia's legal and regulatory framework, the bank has acquired unique experience in managing risks and protecting assets, training and upskilling staff, localising software and modern banking technologies (including the National Payment Card System and the MIR national card, and the Faster Payments System), using marketplaces and identification systems, and opening up a green bonds market. Leading companies greatly value our innovative experience and consider Center-invest Bank a co-innovation partner.

Our accumulated knowledge and experience have allowed Center-invest Bank to successfully master the new global trends in banking: digitalisation and ESG banking.

The bank's Board of Directors approved the development strategy for 2019-2021 “ESG Digitalisation of Center-invest Bank's Ecosystem”. We have continued to successfully implement this strategy despite the new geopolitical challenges and risks of the COVID-19 pandemic. Moreover, our ability to meet these challenges has confirmed that our chosen path is appropriate, and this has been recognised by our customers and partners.

In 2020 the bank published Russia's first handbook on ESG banking, “ESG Banking: Made in Russia[1]”. The bank also helped to produce the “Practical Recommendations of the Banking Community on the Introduction of ESG Banking in Russia[2]”, approved by the Association of Banks of Russia. Center-invest Bank is actively involved in promoting ESG banking in Russia and internationally:

- The bank heads the ESG Banking Project Team of the Association of Banks of Russia.
- The bank is a member of the Global Alliance for Banking on Values (GABV), which brings together banks in a shared mission to use finance to deliver sustainable economic, social and environmental development.
- The bank is a signatory to the UNEP FI Principles for Responsible Banking. This framework brings together over 240 international financial institutions for the purpose of implementing the SDGs and the Paris Climate Agreement.
- Center-invest Bank won the category “Central and Eastern Europe's Best Bank for Corporate Responsibility” in the Euromoney Awards.

The bank is an engaged and committed participant in international organisations and projects. Our reports and proposed solutions generate interest and are influential. Our “ESG Banking: Made in Russia” handbook was translated into English and is available on our partners' websites.

1 *https://centrinvest.com/files/publications/ESG_BANKING_2020.pdf*
2 *https://asros.ru/upload/iblock/164/Practical-recommendations-of-the-banking-community-on-the-introduction-of-ESG-banking-in-Russia.pdf*

The author would like to thank Center-invest Bank's employees and customers who actively participate in seminars, webinars, surveys and public events, and who have contributed to this publication with comments, suggestions and real-life examples. They include: the members of the Board of Directors: Tatiana Vysokova, Per Fischer, Franz-Josef Flosbach, Dr.Andreas Zeisler and Dr.Hans Unterdorfer; the members of the Executive Board and department heads: CEO of the Bank Lidia Simonova, Yuri Bogdanov, Sergei Smirnov, Pavel Matveyev, Irina Kuznetsova, Evgeniy Alekhin, Anastasia Korotun, Alexander Dolganov, Tatiana Ivanova, Stepan Otarov, Maria Khristolyubova, Nikolai Paramonov, Diana Lipinskaya, Anton Kitaev and Evgeniy Uzyanov; and also Natalia Alyabieva and Yulia Fialkovskaya, who have assisted with this publication.

AGILE DIGITALISATION OF ESG BANKING

1. Introduction

1.1 ESG banking encompasses the practical steps taken by banks to implement Environmental, Social and Governance (ESG) principles. ESG banking considers a wider range of risks (environmental, social and governance) across a longer time horizon (in the interests of current and future generations).

1.2 The digitalisation of ESG banking is essential for prompt information processing and decision-making that takes into account the new range of risks and their diversity, combinations, and impact on bank indicators in the interests of a wide range of stakeholders.

1.3 Flexible methods make it possible to manage constant change amid continual crises in an economy of transformations.

1.4 It is impossible to implement ESG banking without digital technologies. It makes no sense to digitalise financial stereotypes without considering ESG factors. As there is no unequivocal understanding as to what constitutes an ESG banking mechanism, everyone involved in the digitalisation of ESG banking should have the expertise to transform slogans, exhortations, wishes and general recommendations into algorithms and programmes:

- senior managers should understand what the digitalisation of ESG banking can realistically achieve.

- specialists should see the full range of permissible options and alternatives when developing the algorithms and programmes that create ESG banking mechanisms.

To achieve KPI targets, it is useful to apply the following rules:

- BE AT THE FOREFRONT OF TRENDS AND IN A STATE OF PERMANENT COMBAT READINESS;

- WHEN YOU GIVE AN INSTRUCTION, TEACH HOW TO DO IT, SUPERVISE, AND THEN DO IT YOURSELF.

1.5 In Russia's first handbook on ESG banking, "ESG Banking: Made in Russia[3]", Center-invest Bank shares its experience of the comprehensive implementation of ESG banking. The Association of Banks of Russia has produced practical recommendations on the introduction of ESG banking for Russian banks[4]. Deloitte has produced an up-to-date assessment of ESG banking in Russia[5].

1.6 An ideal ESG banking model does not exist. In each case, the digitalisation of ESG banking will have its own specific features. There is, however, a list of common decision-making problems and tasks involved in creating an ESG banking design concept. Standard solutions involve identifying a set of situations, options and rules that allow maximum automation of decision-making.

1.7 Another aspect to ESG digitalisation is the regulation of ESG banking. As it is impossible to obtain an ideal ESG banking business model (no solutions in pure strategies), to avoid voluntary steps, the regulator is forced to look for solutions in mixed strategies: to gather and synthesise data on experiences of applying an ESG business model, to identify the more sustainable versions, and to include standard solutions in the ESGTech digital regulatory framework[6].

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[3] https://www.centrinvest.ru/files/smi/pdf/ESG_BANKING_2020.pdf
[4] https://asros.ru/upload/iblock/164/Practical-recommendations-of-the-banking-community-on-the-introduction-of-ESG-banking-in-Russia.pdf
[5] https://asros.ru/upload/iblock/b69/zla2fzxval1625lolh0r15p0ptn2p5gb/ESG_banking-v-Rossii_final_21.05_ITOG_web-versiya.pdf
[6] https://www.finextra.com/finextra-downloads/research/documents/174/finextra-future-of-esgtech-2020.pdf

1.8 The main building blocks for an ESG banking design concept are[7]:

1. **Taxonomy**
2. **Governance structure and functions**
3. **Business model and strategy**
4. **ESG risk management**
5. **ESG reporting**

Following this classification, we will consider standard ESG digitalisation solutions for each block and the principles for their amalgamation in an integrated design concept.

About ESG banking[8]**:**

- ESG banking encompasses the practical steps taken by banks to implement Environmental, Social and Corporate Governance (ESG) principles.

- ESG banking amalgamates the concepts of impact finance and green, responsible, social, sustainable and ethical banking that have emerged as alternatives to speculative banking, including issues relating to implementation of the SDGs and national goals and impact on addressing social, economic and environmental issues.

- Unlike other banking models (state-owned, speculative, Islamic), ESG banking focuses on long-term profits in the real economy, based on growth in customers' businesses and development of the regions in which a bank operates; self-regulation of risk management; the nurturing of employees; and compliance with legislation and best international practice[9].

- As proclaimed social values are not underpinned by a legislative and regulatory framework requiring that these social values be reflected directly in financial indicators, bank owners and management can themselves elect to use an ESG banking business model.

- ESG banking requires creative steps to achieve socially important goals at a time when the legislative and regulatory framework to address the divergence between social demands and legislative, regulatory and supervisory requirements is still being established.

- ESG banking has the advantage of using a wider range of options and creative tools enabling banks to adapt more quickly to constant challenges amid continual crises, to attract new customers and investors, to implement new methods, technologies and rules, and to develop new markets and products based on ESG reputation.

- There is no one ideal form of ESG banking (a pure strategy). Rather, ESG banking addresses socially important issues by drawing on accumulated experience of various alternative approaches (mixed strategies). Regulation of ESG banking takes the form of recommendations for the synthesis and replication of best practice.

7 https://asros.ru/upload/iblock/164/Practical-recommendations-of-the-banking-community-on-the-introduction-of-ESG-banking-in-Russia.pdf
8 https://asros.ru/upload/iblock/164/Practical-recommendations-of-the-banking-community-on-the-introduction-of-ESG-banking-in-Russia.pdf
9 https://www.centrinvest.ru/files/smi/pdf/CI_TransformationBank_book_en_small.pdf

2. Taxonomy

2.1. An ESG taxonomy involves identifying, classifying and quantifying phenomena and processes in order to assess the results of ESG banking.

2.2. There is no one correct list of definitions of ESG processes and phenomena. Many such lists are for academic purposes, recommendatory, or promotional. In order that banks can devise and implement stimulus measures, development strategies and risk management, reporting and stakeholder engagement strategies, it is essential that an ESG taxonomy is approved (by government authorities, banks, companies, public associations, and academic communities).

2.3. The various classifications for constructing ESG taxonomies include:

- SASB (Sustainability Accounting Standards Board)[10, 11]
- GRI – Global Reporting Initiative[12]
- TCFD – Task Force for Climate-related Financial Disclosure[13]
- EU Taxonomy
- Climate Bonds Initiative Paris Climate Agreement[14]
- Equator Principles[15]
- UN SDGs – Sustainable Development Goals[16, 17]
- PRI – Principles for Responsible Investing[18]
- PRB – Principles for Responsible Banking[19]

10 https://www.sasb.org
11 https://www.sasb.org/standards/download/
12 https://www.globalreporting.org
13 https://www.fsb-tcfd.org
14 https://www.climatebonds.net/standard/taxonomy
15 https://equator-principles.com
16 https://sdgs.un.org/ru/goals
17 https://unstats.un.org/sdgs/report/2020/The-Sustainable-Development-Goals-Report-2020.pdf
18 https://www.unpri.org
19 https://www.unepfi.org/banking/bankingprinciples/

- GRESB – Global Real Estate Sustainability Benchmark[20]
- CDP – Carbon Disclosure Project[21]
- Public Equities Exchange - ESG reporting requirements[22]
- Value Reporting Foundation[23]
- IR The International Integrated Reporting Council (IIRC)[24]

2.4. ESG factors are generally identified as follows: environmental component (climate change, protecting natural resources, reducing pollution and waste, new green technologies), social component (human capital, product liability, stakeholder relations, access to food, communications, finance, education and healthcare), and governance component (corporate governance, corporate conduct and business ethics). Other classifications of ESG factors are also used. When selecting the ESG factors to be included in a business model, scope to obtain quantitative indicators should be taken into account (see ESG Reporting section) [28].

2.5. A lot of work has been done by the European Banking Authority. It has summarised the options for ESG taxonomies[29] that exist within the frameworks of international and European organisations and industry and general rules, with a breakdown into environmental, social and governance factors. Amalgamation of the frameworks made it possible to identify common ideas about the specific ESG issues that banks should consider in their work.

20 https://gresb.com
21 https://www.cdp.net/en
22 https://sseinitiative.org
23 https://www.valuereportingfoundation.org
24 www.integratedreporting.org
25 https://www.pwc.com/us/en/services/governance-insights-center/esg-guidebook-layout-final.pdf
26 https://www.bafin.de/SharedDocs/Downloads/EN/Merkblatt/dl_mb_Nachhaltigkeitsrisiken_en.html
27 https://assets.kpmg/content/dam/kpmg/uk/pdf/2020/08/esg-brochure.pdf
28 https://www.nasdaq.com/docs/2019/11/26/2019-ESG-Reporting-Guide.pdf
29 https://www.eba.europa.eu/sites/default/documents/files/document_library/Publications/Consultations/2021/Joint%20CP%20on%20Taxonomy–related%20product%20disclosures/964004/JC%202021%2022%20-%20Joint%20consultation%20paper%20on%20taxonomy-related%20sustainability%20disclosures.pdf

Table 1.
The most frequently considered ESG issues

Environmental	Social	Governance
Greenhouse gas emissions Efficiency of consumption of materials, energy and water Air, water and soil pollution Landscape restoration Waste management (water, hard, hazardous) Biodiversity and ecosystems use - impact and dependence Innovation in green products, services and technologies	Labour, remuneration, occupational safety, employee relations Customer safety, health, customer relations Client confidentiality, information and personal data protection Human rights, diversity and equal opportunities (gender rights and rights of minorities) Poverty and social impact Investment in human capital and communities Access to loans and financial integration Supply chain management	Codes of conduct and business principles Independence of the Board of Directors, shareholder rights, composition, structure Executive board diversity and structure Stakeholder responsibilities Reporting, transparency and disclosure Rights, obligations and compensation of senior management Bribery and corruption

2.6. Among approved taxonomies, the EU Taxonomy Regulation should be noted. It states that an activity can be considered sustainable if it helps to achieve at least one of the following six objectives[30]:

- climate change mitigation;
- climate change adaptation;
- the sustainable use and protection of water and marine resources;
- the transition to a circular economy;
- pollution prevention and control;
- the protection and restoration of biodiversity and ecosystems.

A sustainable finance list is being developed on the basis of a special platform[31].

30 https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/eu-taxonomy-sustainable-activities_en
31 https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/overview-sustainable-finance/platform-sustainable-finance_en

2.7. The Russian Government has also set out Goals and Main Areas for the Sustainable (Including Green) Development of the Russian Federation. It has specified the following[32]:

Priority goals relating to positive environmental impact:

- preserving and protecting or improving the environment;
- reducing emissions and discharges of pollutants and (or) preventing their impact on the environment;
- reducing greenhouse gas emissions;
- energy saving and improved resource efficiency.

Main areas of sustainable (including green) development to achieve the goals:

- waste management;
- energy;
- construction;
- industry;
- transport and industrial equipment;
- water supply and waste water management;
- natural landscapes, rivers, water bodies and biodiversity;
- agriculture;
- sustainable infrastructure.

2.8. The state development corporation VEB.RF is producing guidance[33] on “investment in sustainable development and attracting extrabudgetary funds, establishing and updating project verification criteria and requirements, approaches to assessing environmental and climate impact, information support and cooperation with international financial institutions”. The Russian Ministry for Economic Development is starting work on developing a social projects taxonomy[34].

32 http://static.government.ru/media/files/sMdcuCaAX4O5j3Vy3b1GQwCKfa9lszW6.pdf
33 http://publication.pravo.gov.ru/Document/View/0001202011200033
34 https://economy.gov.ru/material/news/ilya_torosov_socialnye_obligacii_stanut_novym_drayverom_ekonomicheskogo_rosta.html

In light of decisions of the Russian Government, VEB.RF is updating:

- the Standards on Classifying Financial Instruments as Instruments for Financing Sustainable (including Green) Development[35],
- the Green Projects Taxonomy[36],
- the Adaptation Projects Taxonomy[37],
- the Regulations on Maintaining a List of Verifiers[38].

2.9. To establish agreed positions and regulatory solutions, banks are proposing their own approaches to the task of classifying their products and services in terms of an ESG taxonomy[39,40,41].

2.10. Agile ESG digitalisation allows a wide range of proposed taxonomies to be used as a set of reference guides for the creation of multi-index variables and data sets when transforming:

- a bank's governance structure and functions,
- the planning / design of business processes,
- risk management,
- reporting to stakeholders.

35 https://veb.ru/files/?file=fff72934a11063666ecb40afb4a3e999.pdf
36 https://veb.ru/files/?file=682fbc93e6d48219bd16393070d67623.pdf
37 https://veb.ru/files/?file=cabe00cae0a42d1754bafd0ac86579dd.pdf
38 https://veb.ru/files/?file=84a376ba3c13f987bfcd83dbe12768e7.pdf
39 https://www.centrinvest.ru/files/smi/pdf/ESG_BANKING_2020.pdf
40 https://home.barclays/content/dam/home-barclays/documents/citizenship/ESG/Barclays-PLC-ESG-Report-2019.pdf
41 https://www.citigroup.com/citi/about/esg/download/2019/Global-ESG-Report-2019.pdf?ieNocache=704

3. ESG Governance Structure, Functions and Culture

3.1. Implementing ESG principles requires that we balance the rights and interests of shareholders, management and employees, and the bank's governance structure should reflect and support this balance: the relationships between shareholders and the supervisory and executive bodies, business units, permanent and ad hoc bodies, with functions, powers, remits, resources and limits specified.

3.2. Company law requires:

- equality of all shareholders in the management of the company (reflecting the number and status of the shares held);
- responsibility of the supervisory bodies for the development strategy, risk management and internal oversight of the executive bodies;
- implementation of approved plans by business units and proper remuneration for the results achieved.

Moreover, all levels of the governance structure shall carry out the tasks assigned to them in good faith, reasonably, transparently and effectively.

3.3. In addition to legal requirements, banks must observe regulatory requirements on risk management, internal control, accounting and reporting, information security, information disclosure, recruitment, and remuneration. These requirements are stipulated in instructions issued by government departments, implementation of which requires the establishment of functional business units and the approval of internal regulations on the performance of these functions and monitoring compliance.

3.4. Even the most up-to-date legislation does not provide for clear-cut decision-making in every situation; it needs to be elaborated on in more detail at the company level. Therefore, every bank, acting within the legal framework and on the basis of ethical standards, establishes its own byelaws, procedures, codes[42], regulations, rules, plans and strategies, so that all participants understand exactly how to act in specific situations. The implementation of the provisions of these numerous documents by shareholders, management and employees forms the bedrock of a corporate culture.

42 http://www.cbr.ru/statichtml/file/59420/inf_apr_1014.pdf

3.5. The Bank of Russia regularly reviews corporate governance in the public companies[43] whose shares are quoted on the Moscow Exchange (about 200 companies), and it provides quantitative assessments of compliance with the principles of the Corporate Governance Code.

3.6. The transition to ESG banking requires a comprehensive inventory and review of the bank's governance structure, functions and culture: looking at the allocation of responsibilities and revising internal regulations to reflect ESG factors. Unless it is accompanied by transparent processes for collective decision-making on other aspects of banking activity, a preoccupation with an organisational approach to introducing ESG banking carries a risk of bureaucratisation and greenwashing[44]. The bank's traditional functions should include procedures for identifying, assessing and recording the impact of ESG factors. Implementation of these procedures should be monitored.

To this end, provisions on recording the impact of ESG factors when forming governance bodies, taking decisions and allocating resources should be added to new and existing internal regulations. Internal regulations should be regularly reviewed and updated with due regard for ESG factors.

3.7. The success of ESG digitalisation depends on the level of competency of the members of the governance bodies and their personal responsibility for the implementation of ESG principles. The functions, allocation of duties, and relationships between all the governance bodies and structures of a bank with regard to the implementation of ESG principles must not be contrary to applicable legislation or to internal regulations that have been duly drawn up and approved. Procedures for resolving potential conflicts between ESG and other management functions should be set out in the Code of Corporate Conduct and other internal documents.

3.8. ESG banking principles should be reflected in personnel policy and in the employee incentive scheme and employee appraisal and remuneration. Together with quantitative criteria, clearly defined qualitative evaluations should be used.

43 https://www.cbr.ru/Collection/Collection/File/31741/Review_corp_14122020.pdf
44 https://www.ebf.eu/wp-content/uploads/2021/02/EBF-response-to-the-DP-on-ESG-Risk.pdf

3.9. All this organisational effort and expenditure can be recouped only if the new corporate ESG culture is digitalised. This should ensure collaborative working between the different levels of management and the business units. The corporate culture should combine:

- sustainable long-term outlooks and innovation policy;
- the interests of shareholders, customers, employees, management and other stakeholders;
- consistency of rules and a readiness for new legislative initiatives;
- the management of skilled and talented personnel.

In view of the new rules of conduct, information overload, data limitations, and the level of ESG competency, success can be achieved only if the senior managers involved in managing transformations take into account the needs of all stakeholders.

3.10. The complexity of the challenges involved in ESG digitalisation of organisational and managerial decisions can be illustrated using the example of making the optimum choice of spouse:

- An unequivocal choice cannot be made by applying the criteria “healthy – rich” (financial ratings) and “intelligent – attractive” (ESG ratings)[45].

- The collective intelligence of family advice will also be useless so long as the mother and grandmother have dictatorial powers.

The impossibility of obtaining a solution in pure strategies forces us to accumulate data from experiments and to use this data to formulate a solution in mixed strategies[46,47]. Over time, the accumulated standard solutions form a corporate culture: a set of rules that are applied automatically.

45 Rating testing shows a fairly high correlation (60% - 70%) of financial ratings and ESG ratings, but among themselves ESG - ratings are still weakly correlated (about 40%).
46 https://e-lub.net/media/mathoflove.pdf
47 https://hannahfry.co.uk/book/the-mathematics-of-love

IT IS IMPORTANT:

- to not make a fetish of the solutions identified;
- to periodically review them and update them on the basis of artificial intelligence and machine learning;
- that best practices in ESG banking in every workplace are identified, shared, promoted, replicated, recorded and reported.

IT departments should provide appropriate flexible platforms and solutions, without sidelining current operational tasks. Plans and reports on the implementation of ESG principles and functions should be regularly examined by the governance bodies, both in their entirety and when discussing other issues.

4. Business Model and Strategy

4.1. A bank's business model[48] should answer the questions: what mission is the bank fulfilling, how does it make a profit, and what value does it create through the transformation of productive, financial, human, information, investment, intellectual, social and natural capital?

4.2. Describing the business model in a digital format means that the following can be included and used when developing strategies and business plans:
- financial statements (assets and liabilities, profit / loss, movement of money and capital);
- balance sheet equations for the reproduction and mutual transformation of all types of capital[49] (financial, operating, intellectual, information, human, social and natural capital);
- restrictions (regulatory requirements, limits, covenants);
- risk probability (operational, credit, market, regulatory, criminal, anthropogenic, social).

Profit and social responsibility[50]
The Friedman doctrine: "The social responsibility of business is to increase its profits"[51] has been criticised on various grounds. But the reality is:
- without profit there is no money to address social issues;
- profit cannot be obtained without meeting the constantly changing needs of society;
- "in pursuit of profit", acting within the law, businesses cannot avoid expenditure that benefits society: paying staff, training staff, health and safety, and environmental protection.

Moreover, in ESG banking, profits should be[52]:
- long-term, which ensures reproduction of all types of capital: financial, productive, natural, intellectual, information, human and social;
- resilient to risks: market, regulatory, criminal, anthropogenic and social.

48 https://www.cbr.ru/StaticHtml/File/117620/20210712_in-06-28_49.pdf
49 https://integratedreporting.org/wp-content/uploads/2017/09/SDGs-and-the-integrated-report_full17.pdf
50 https://www.centrinvest.ru/files/smi/pdf/ESG_BANKING_2020.pdf
51 https://www.nytimes.com/1970/09/13/archives/a-friedman-doctrine-the-social-responsibility-of-business-is-to.html
52 https://www.gabv.org/about-us/our-principles

4.3. Taking into account ESG factors expands the list of variables, equations, restrictions and risks associated with natural, social and governance capital, with the required level of detail for the elements:

- environmental capital (consumption of materials and energy, waste and emissions, environmental impact);
- social capital (labour, remuneration, safety, equal rights, accessibility, impact on society and the supply chain);
- governance capital (codes of conduct, rights and responsibilities, transparency, impact on internal and external processes).

The influence of ESG factors as endogenous variables on the transformation of other types of capital is reflected in balance sheets by:

- adding new elements to balance sheets;
- introducing new restrictions;
- changing the probability parameters of balance sheet indicators.

4.4. Adding ESG factors to a business process model may present challenges due to:

- the simultaneous and multidirectional impact of ESG factors on the financial statements for the transformation of different types of capital;
- the need to assess impact parameters (and to create additional special models);
- recording the impact of informal factors (public opinion, administrative decisions, the occurrence / non-occurrence of events, the results of inspections and directives) which requires the use of variable indicators.

In other respects, the mathematical business process model retains its characteristics.

4.5. The construction of a mathematical business process model is only the first step in the iterative process of developing ESG plans and strategies. Repeated adjustments to the initial model may be required.

4.6. Strategies and plans differ not only in terms of the planning horizon, but conceptually: when developing plans, either the objectives or the resources are predetermined and they are natural constraints. IN STRATEGIES, BOTH THE OBJECTIVES AND THE RESOURCES ARE VIEWED AS VARIABLES, and each variant provides a balanced solution in terms of timescales and executors. The choice between the balanced variants of a strategy is more creative in nature, whereas plans are based on the given KPI.

4.7. An ESG taxonomy allows us to take a fresh look[53] at traditional targets and operating processes and to see:

- new opportunities (linking strategies to global goals);
- new business models (innovative, effective, sustainable and inclusive);
- new markets (education, environment, fight against poverty and inequality);
- new solutions for new markets;
- new communications (indicators, standards, reporting, methods);
- new stakeholders (NPOs, the media, academia and science);
- new mechanisms for interactions between business, society, and government;
- new synergy among partners;
- new rules for markets and institutions, barriers;
- new investments and capital for transformations;
- new sustainability (value chains, brand, new legislation);
- a new view requires creative thinking skills.

4.8. Monitoring information from various sources in accordance with the chosen taxonomy allows a bank to identify short-term, medium-term and long-term phenomena and processes that could affect the sustainable ESG development of the bank, its ecosystem and customers, in terms of sectors, regions, products and services.

53 https://sdgcompass.org/wp-content/uploads/2015/12/019104_SDG_Compass_Guide_2015.pdf

4.9. External and in-house expert assessments, modelling methods, and stress scenarios allow a bank to quantitatively assess emerging risks and resources for effective ESG risk management and exploitation of new opportunities, and also to assess the amount of resources required and the extent of stakeholder engagement.

4.10. Banks should have duly approved strategic documents based on approved ESG taxonomies or voluntarily assumed obligations[54,55,56].

In accordance with the taxonomy adopted by a bank, ESG factors are taken into account and reflected in the strategy, with a sectoral, regional, operational, product and portfolio breakdown, with due regard for external risks, the bank's risk appetite, capital allocation, the quality of the risk management system at the operational level, and compliance and internal audit.

4.11. Strategic decisions about the management of ESG processes should be specified in performance targets for business units and employees, factored into the remuneration and incentive schemes, accounting and reporting for planed implementation.

4.12. The information system should provide analytical accounting and reporting for any indicators that reflect the bank's ESG performance and its contribution to the SDGs and national goals, with a sectoral, regional, product, operational and portfolio breakdown.

4.13. The presentation of an ESG strategy remains an art, conveying a vision for the future, with due regard for the significance of financial and non-financial results.

54 https://www.unepfi.org/banking/bankingprinciples/
55 https://www.unpri.org/
56 https://www.fsb-tcfd.org/

5. Managing ESG Risks

5.1. ESG factors can have positive or negative impacts on financial indicators. This should be factored into prudential risks: credit, market, operational, liquidity and funding risks[57].

In the ESG framework, it is common practice to identify environmental, social and governance risks. These are factors, events or conditions that could have a significant negative impact on the assets, funding base, financial position, profits or reputation of the bank and its counterparties.

Please note that in this section "risks" refer not to the impact of ESG factors on the global economy or society, but to specific financial impacts on the business (or to non-financial impacts that objectively could have financial consequences by triggering other risks).

5.2. Composition of ESG risks:

Environmental risks are divided into:

- ***physical risks:*** natural disasters (hurricanes, floods, fire, heatwaves), long-term changes (change in temperature, rising sea levels, reduction in water resources, loss of biodiversity and changes in land and soil productivity),

- ***transition risks:*** (changes to legislation, technical progress, changes in consumer behaviour, prices, tariffs, taxation, and the regulation of a low carbon economy).

Social risks involve the impact of changes in social ratios (equality, health, security, labour relations, migration, communities). For a bank, social risks primarily involve the level of responsibility for the quality and safety of its products, services, and working conditions. These factors directly influence reputational risk, and through this they have a significant bearing on customer loyalty, liquidity, the cost of funding, the flow of loan applications and so on.

57 https://www.eba.europa.eu/sites/default/documents/files/document_library/Publications/Discussions/2021/Discussion%20Paper%20on%20management%20and%20supervision%20of%20ESG%20risks%20for%20credit%20institutions%20and%20investment%20firms/935496/2020-11-02%20%20ESG%20Discussion%20Paper.pdf?retry=1

Managing risks amid transformations

Transformations are the new economic reality. This requires management of constant change amid continual crises, and creative, socially responsible solutions in the interests of current and future generations, based on best international practice and technical, financial and social engineering.

ESG banking is not about buying and selling risks, but managing risks, which requires expenditure in the initial stages to avoid large losses.
For Center-invest Bank, ESG banking risk management entails:

- balancing profitability, organic growth and the risks assumed;
- a focus on long-term profits;
- knowing the target markets and regional risks so as to avoid excessive risks;
- rejecting speculative transactions and prioritising growth in lending to the real economy;
- nurturing customers and actively managing risks on the basis of detailed analysis of borrowers' businesses;
- regularly re-assessing risks and covering risks with sufficient provisions and capital;
- minimising risks by diversifying sources of funding and prioritising lending to the local population and small business in the regions where the bank operates;
- continually improving the risk management system, combining formal and substantive risk assessment procedures, transparency of deals and transactions;
- stimulating demand for loan products by improving the financial literacy of the population and providing free business advice;
- reducing the level of defaults (fraudulent or due to social and economic factors) by using stimulatory interest rates;
- continuous innovation to satisfy customer requirements and to adapt to the rapidly changing operating and regulatory environment.

Governance risks relate to the procedures used by banks and their counterparties to make management decisions (subordination, fairness, integrity, transparency, rights, obligations, senior management compensation).

5.3. Management of ESG risks should not be considered simply a competitive option. It should be integrated into the existing risk management system by extending the time horizon and through additional identification and assessment of the transmission of ESG risks to traditional banking risks, as wel las their triggers.

5.4. The challenges in integrating ESG risks relate to: a lack of clarity in some of the data, the restriction on using historical factors to assess current and future risks, the longer time horizon, and the multifaceted impact of ESG risks.

Methods for integrating ESG risks can differ greatly, which often leads to very different results for the same company:

- Fitch Ratings considers the significance of ESG factors for specific sectors, regions and companies[58];
- S&P assigns ESG ratings based on scores for ESG factors[59];
- Moody's uses an ESG Score Predictor[60];
- The approaches used by Russian ratings agencies were presented at a meeting of the ESG Banking Project Team of the Association of Banks of Russia[61].

The importance of one and the same ESG factor is often evaluated very differently by the different methodologies, with different weighted coefficients applied to the separate "E", "S" and "G" elements.

The assessment of ESG risks may be based on compatibility with the global goals[62], stress tests[63,64] and sensitivity analysis[65] of ESG ratings.

58 https://www.fitchratings.com/white-papers/esg-in-credit
59 https://www.spglobal.com/_assets/documents/ratings/esg/esg-evaluation-nextera-energy-inc.-04062021.pdf
60 https://www.moodys.com/login?ReturnUrl=http%3a%2f%2fwww.moodys.com%2fresearchdocumentcontentpage.aspx
61 https://asros.ru/events/otkrytoe-zasedanie-proektnoy-gruppy-assotsiatsii-bankov-rossii-esg-banking/?sphrase_id=31818
62 https://www.unepfi.org/banking/bankingprinciples/
63 https://www.unepfi.org/wordpress/wp-content/uploads/2018/07/NAVIGATING-A-NEW-CLIMATE.pdf
64 https://www.imf.org/en/Publications/WP/Issues/2019/09/04/Macroeconomic-and-Financial-Policies-for-Climate-Change-Mitigation-A-Review-of-the-Literature-48612
65 https://www.ngfs.net/sites/default/files/medias/documents/overview_of_environmental_risk_analysis_by_financial_institutions.pdf

ESG BANKING AND CREDIT RISKS

1. Agribusiness is considered a risky sector to lend to. If you lend to agribusiness for a period of three years, two of those years might have poor harvests, resulting in losses for both the customer and the bank. But over a five-year period, there will definitely be two good harvests, meaning that all loans can be repaid. **Using longer-term funding when lending to agribusiness reduces the risks of poor harvests and allows time for modernisation projects.**

2. Small business is also considered a risky sector for lending. To reduce risks, in addition to loans, the bank provides **non-financial services for entrepreneurs:** consulting, audit, outsourced bookkeeping, legal support, business planning, business digitalisation, and tax advice. The modest expenditure on this support reduces the risks of lending to small businesses that are operating legally.

3. Women in business. Lending to female entrepreneurs promotes the principle of gender equality and benefits from their **lower risk appetite**[66]**.** As female entrepreneurs manage risks more carefully, we can lend to them at lower rates. At the same time, we can focus more on the quality of banking services and on establishing trusting relationships between the bank and its customers. We can also attract female mentors. In accordance with the best national traditions: "The secret of women's success in business is love." There has not been one single default on any of Center-invest Bank's loans to female entrepreneurs[67].

4. Youth enterprise is expected to implement creative ideas within the framework of existing rules and barriers to entrepreneurial activity. To support this, the bank provides **training for new entrepreneurs** (http://всеобуч.рф)**,** preferential terms for business bank accounts and loans, and **free advice and mentoring**[68]**.** The bank actively participates in sociological research into the challenges faced by young entrepreneurs[69] and runs projects together with university students[70].

5. Social enterprise[71]**:** 1) addresses community needs on the basis of new and more effective approaches, cost-recovery and financial sustainability; 2) is scalable ("a good programme works even without the developer"); 3) manages risks effectively ("Goodness needs to defend itself"). **Integrity is the best asset of a social entrepreneur,** while continual reproduction based on best international practice and collaboration with partners in the ecosystem is a brilliant strategy. The marketing strategy of social enterprises is to provide services for all, without being ostentatious, in contrast to philanthropy (targeted, discreet), sponsorship (targeted and brash) and show business (for everyone and brash).

66 https://bankir.ru/publikacii/20170307/mariya-khristolyubova-bank-tsentr-invest-po-nashim-kreditam-ne-bylo-ni-odnoi-prosrochki-10008664/
67 https://www.centrinvest.ru/files/smi/pdf/istory2.pdf
68 https://www.centrinvest.ru/files/smi/pdf/Nastavnichestvo.pdf
69 https://expertsouth.ru/articles/my-nashli-optimalnuyu-formu-vzaimosvyazi-pokoleniy/
70 https://www.centrinvest.ru/files/smi/pdf/Malyi_biznes_dlya_molodezhi_Yuga_Rossii.pdf
71 https://www.centrinvest.ru/ru/about/smi/23513/

6. Innovative enterprise is based on creative approaches[72] and **should be an integral part of any entrepreneurial activity.** A wide range of methods and approaches is used to generate creative solutions: "for" and "against", type II error, SWOT analysis, zero-based budgeting, functional cost analysis, GAP analysis, benchmarking, portfolio analysis, market analysis, TRIZ and Agile. Quite often, entrepreneurs sell the interim results of their creative approach: an idea, project, prototype or start-up. The selection of interim stage and the method for attracting investment depends on the specific conditions on the innovation and investment markets[73].

7. Loans for business transformation. In response to COVID-19, government support for small business has been scaled up. Banks are actively participating in all of the employment support programmes offering subsidised rates and preferential lending for specific economic sectors. Most banks have developed their own programmes to support customers during the crisis and in the recovery phase[74]. In a distance economy, **the future of business will depend not on government support, but on business transformation**[75]**.**

8. Energy efficiency. Modern energy efficient technologies reduce energy consumption by one third and cut CO_2 emissions. With the regulation of energy tariffs, simply reducing energy consumption will not deliver rapid payback of project costs. A more detailed ESG risks analysis has shown that the comprehensive **introduction of new technologies generates labour and other resource savings, in addition to energy savings.** This results in a payback period of just 2-3 years for the cost of replacing equipment.

9. Retail lending. Together with the interest paid on deposits, retail lending is another aspect of the social responsibility of ESG banking. **ESG banking finances the happiness of ordinary people.** It does not require customers to pay extra fees or take out loan protection insurance; the loan interest rates are attractive in a competitive market; and the decision-making process is quick and clear. All of these advantages allow the bank to maintain customer confidence and attract new customers.

10. Mortgages. ESG risk management requires a bank to consider the specific characteristics of different groups of the population. Center-invest Bank offers over 20 different types of retail loan, including preferential loans under various government programmes. Mortgage loans, which are the most popular and the least risky loan product, account for two thirds of the bank's retail loan portfolio. The bank helps customers to find the best option for purchasing a property, taking into account incentives under government programmes, the environmental conditions of different locations, and energy efficiency solutions for new homes. In particular, the bank actively participates in a government programme for rural mortgages. The bank's online loan application form contains questions that help the customer to independently assess the purposes and risks of the loan requested.

72 https://www.centrinvest.ru/files/articles/pdf/creative.pdf
73 https://www.centrinvest.ru/files/smi/pdf/buklet-parad-startapov.pdf
74 https://www.gabv.org/wp-content/uploads/Distance-Economy-Design-Concept-by-Dr-Vasily-Vysokov-Chairman-of-the-Board-of-Directors-of-Center-invest-Bank.pdf
75 https://www.centrinvest.ru/ru/biz/programmy-kreditovanija/

5.5. Credit risk management should consider ESG risks at all stages of lending and in sector and geographic risk profiles, risk classification procedures, and collateral valuation. This requires reassessing[76] the cost of risk (expected loss (EL)) and the cost of capital (unexpected loss (UL)) by adjusting the probability of default (PD), exposure at default (EAD) and loss given default (LGD), which could be affected by a change in social norms, demand, weather conditions, physical risks, and collateral devaluation. This reassessment requires portfolio analysis and assessment in terms of the risks of sectoral/geographic concentrations, exposure limits, borrowing strategies, and scenario analysis and / or stress testing. Risk-based loan pricing should reflect risks and costs, including risks arising from ESG factors, through various cost drivers (cost of capital, increase in loan loss provisions, collateral availability and risks, cost of funding, and direct credit risk) and risks of service providers and their impact on reputation and liability risks.

5.6. There are **two main aspects to operational risk management in the ESG framework:**

- the impact of ESG risks on the provision of business continuity, including timely disaster recovery of physical assets (including IT systems) and safe working conditions for personnel. This assessment should factor in the geographical location of the financial institution and that of its partners and service providers, and their impact on reputation and liability risks.

- Effective fraud prevention to protect a bank's customers is an important part of the social ("S") element. In addition to the direct impact on financial losses due to the operational risk occurring, fraud has a significant impact on customer loyalty. In the event of large-scale fraud, it can also impact on social tensions in the regions where the bank operates. Fraud prevention requires the creation of an effective system of organisational and technical fraud monitoring measures, and measures to improve customers' financial literacy and awareness of fraud prevention and online safety.

[76] *http://www.cbr.ru/content/document/file/36682/1.pdf*

5.7. Managing **market risk (including interest-rate risk)** in the ESG context entails the following:

- assessing and stress testing the impact of ESG risks on current market positions and future investments for foreign exchange, commodities, securities and other financial instruments;
- assessing the impact of ESG risks on demand for loan funds;
- assessing the impact of ESG risks on the cost of funding.

A carefully considered credit policy entails:

- refusing to provide foreign currency loans for retail customers, so as to avoid the illusion that it is the bank that bears the currency risk;
- only providing foreign currency loans to business customers who have foreign currency earnings;
- a balanced, fair policy of long-term lending at variable interest rates.

5.8. The management of **liquidity and funding risks** should consider the impact of possible environmental crises and social unrest on the ability to maintain adequate liquidity buffers and the availability and / or stability of financing on the profit and loss account, balance sheet, assets, access to capital and liquidity.

5.9. The following may be used to manage ESG risks:

- **negative screening** (excluding projects, companies, sectors and regions that do not meet the criteria specified),
- **positive screening** (selecting preferred segments with which to work based on ESG criteria),
- **best in class** (selecting customers from limited lists generated by positive screening),
- **integrated screening** based on ESG criteria and international standards,
- **participating in governance bodies**, contractual provisions and obligations concerning the application of ESG principles, and other forms of dialogue with customers and partners,
- **sensitivity analysis and stress-testing.**

5.10. Just as with other risk types, banks should assess the concentration of ESG risks, the concentration of ESG factors, the time horizon, measures to manage ESG risks effectively, and stakeholder engagement. Procedures and methods for identifying, assessing, managing, monitoring and reporting ESG risks should be reviewed regularly, with consideration given to the composition, quantity and quality of the raw data, the data sources and the data processing methods.

5.11. Information about any potential ESG risks should be identified, analysed and included in the decision-making process for front-office staff at the start of the process of examining a transaction with a counterparty or an investment.

5.12. To support management decisions (including decisions about lending / investing) information systems should have tools for identifying, evaluating, monitoring and integrating ESG risks by sectors, regions, segments, current requirements, restrictions and opportunities. The results of ESG risk monitoring should be integrated into management reports and regularly examined by governance bodies.

5.13. The development of plans and strategies entails: monitoring the business environment; taking into account sector and product policies, scenario analysis, the relationship between financial risks, objectives and ESG risk limits; looking at the results of internal capital adequacy assessment and stress testing; and collaboration with stakeholders.

5.14. The Compliance Service should oversee compliance with legal requirements concerning ESG factors and risks, taking into account transition risk trends.

5.15. As part of its comprehensive examination and assessment of the effectiveness of the risk management system, Internal Audit should monitor the proper management of ESG risks. It should also make recommendations on revising the organisational structure and specific functions of business units and governance bodies.

5.16. “Black swans”. ESG risk management includes action plans for emergency situations and responses to unforeseen events that could not have been predicted, but which demand a prompt response. The widely held view that “disaster recovery plans” resolve all possible problems is a misconception; it needs to be understood that as soon as an organisation has such a plan, the situation is no longer an emergency. The essence of this type of risk is that the outcome depends not on whether you have a plan that appeases the supervisory bodies, but whether you have a team that can act quickly and effectively in a non-standard critical situation, drawing on scenario analysis of all possible risks. The COVID-19 pandemic has shown this assertion to be true. Before the pandemic, very few organisations had a response plan for biological threats.

5.17. A practical approach is to adjust the parameters of a bank's existing risk management models. Using a list[77] of the relevant ESG risks, accumulated experience, special research[78], and approved procedures[79] adjustments are made to the probability of default (PD), exposure at default (EAD), and loss given default (LGD) parameters.

5.18. If accumulated experience can be captured in internal regulations, for example, specifying three levels of ESG risks (high, medium, low), then the process of adjusting parameters can be automated, by establishing the correlation between an ESG risk and the corresponding method for assessing traditional banking risks.

77 https://assets.kpmg/content/dam/kpmg/xx/pdf/2021/05/esg-risks-in-banks.pdf
78 https://www.robeco.com/docm/docu-robeco-sustainability-risk-policy.pdf
79 https://assets.ctfassets.net/rwjxomptyc4q/2dzw6dBel6VNaF2wOa5aS4/c3d0a6b9a1e5a29e042cb97f3f08549e/risk-policy.pdf

5.19. We should remember that risk entails a degree of uncertainty about a company's financial results and has a dual nature, as variances can be both on the plus side and on the negative side, and so investment (specifically investment, and not costs) in ESG can give a business the opportunity to:

- attract responsible investors;
- increase customer and employee loyalty;
- enter new markets and attract new categories of customers;
- reduce all types of risks by considering ESG factors;
- have a positive impact on the local operating environment (especially important for a regional bank) in the regions where the business operates, including: growth in customers' businesses, increasing the level of entrepreneurialism, raising the population's standard of living, reducing unemployment, improving financial literacy, reducing social tensions, and improving the effectiveness of the corporate governance of a bank and its customers.

6. ESG Reporting

6.1. ESG banks should report on their ESG performance in financial reporting and non-financial information for stakeholders[80].

6.2. A wide range of people are stakeholders for the purposes of ESG reporting: shareholders, investors, customers, partners, employees, the media, social groups, local communities, government bodies, and professional and academic communities. As well as general issues, each stakeholder is interested in specific aspects of ESG reporting, which may require special reports to be produced.

6.3. ESG reporting policies and procedures require regular, public disclosure of significant information about ESG strategy implementation and risk management.

6.4. ESG reporting should be[81]: 1) material; 2) reliable; 3) balanced (including not only favourable but also unfavourable aspects); 4) understandable; 5) comprehensive but concise; 6) forward-looking; 7) stakeholder orientated; 8) consistent; 9) comparable and 10) accessible ("one click" maximum).

6.5. ESG reporting should disclose the information about environmental, social and governance issues and regulatory and legal compliance that is necessary to understand a bank's development and business model.

6.6. ESG reporting enables banks to determine their strategy, exercise oversight and manage ESG risks in a more informed manner, and also to strengthen their social reputation on the basis of broad dialogue with stakeholders.

6.7. Of the various approaches to ESG reporting, the ones most frequently used are: the Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)[82], the Global Reporting Initiative (GRI)[83], CDP[84], the Sustainability Accounting Standards Board (SASB)[85],

80 https://www.cbr.ru/StaticHtml/File/117620/20210712_in-06-28_49.pdf
81 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52017XC0705(01)
82 https://assets.bbhub.io/company/sites/60/2020/10/FINAL-2017-TCFD-Report-11052018.pdf
83 https://www.globalreporting.org/
84 https://www.cdp.net/en
85 https://www.cdsb.net/

the International Integrated Reporting Council (IIRC)[86], the European Eco-Management and Audit Scheme (EMAS)[87], including the Impact Management Project (IMP)[88], the ICMA principles[89] and Nasdaq recommendations[90]. A process is underway, steered by the Value Reporting Foundation, to establish a comprehensive system of corporate reporting[91] across the whole range of company value drivers and standards to improve global sustainability performance[92].

6.8. All ESG reporting schemes disclose how ESG factors influence the governance system, strategy, risk management, results achieved, and the system of indicators used:

I) GOVERNANCE (the role of the governance bodies in decisions based on ESG principles and in assessing risks and opportunities),

II) STRATEGY (a description of the ESG risks considered, the impact of risks and opportunities on the strategy and financial plans, consideration of development scenarios),

III) RISK MANAGEMENT (identifying significant risks and processes to manage ESG risks),

IV) INDICATORS AND TARGETS (a description of indicators for ESG risks and opportunities and direct and indirect emissions, targets for indicators).

6.9. It is recommended that integrated reports contain the following sections[93]:

A. Organisational overview and external environment
B. Governance
C. Business model
D. Risks and opportunities
E. Strategy and resource allocation
F. Performance
G. Outlook
H. Basis of preparation and presentation

86 https://integratedreporting.org
87 https://ec.europa.eu/environment/emas/pdf/leaflets/emasleaflet_en.pdf
88 https://impactmanagementproject.com
89 https://www.icmagroup.org
90 https://www.nasdaq.com/docs/2019/11/26/2019-ESG-Reporting-Guide.pdf
91 https://29kjwb3armds2g3gi4lq2sx1-wpengine.netdna-ssl.com/wp-content/uploads/Statement-of-Intent-to-Work-Together-Towards-Comprehensive-Corporate-Reporting.pdf
92 https://sustainalize.com/2020/11/the-value-reporting-foundation/
93 https://integratedreporting.org/wp-content/uploads/2021/06/International-Integrated-Reporting-Framework-January-2021-Russian.pdf

6.10. The Bank of Russia recommends disclosure of information about the following[94]:

- Sustainability strategy
- Governance
- Business model
- Policies and procedures
- Results of implementation of policies and procedures
- Main risks and opportunities
- Non-financial KPIs

In addition, the regulator recommends that companies disclose material topics relating to environmental, social and governance aspects, employee relations, observance of human rights, prevention of corruption, and supply chains. The recommendations are general in nature and not specific to the banking industry.

94 https://www.cbr.ru/StaticHtml/File/117620/20210712_in-06-28_49.pdf

6.11. As an example of recommended indicators for ESG reporting the following classification can be used[95]:

ESG indicators		
Environment (E)	**Social indicators (S)**	**Corporate Governance (G)**
E1.Greenhouse Gas Emissions E2. Emissions Intensity E3. Energy Usage E4. Energy Intensity E5. Energy Mix E6. Water Usage E7.Environmental Operations E8. Climate Oversight / Board of Directors E9. Climate Oversight / Management E10. Climate Risk Mitigation	S1. CEO Pay Ratio S2. Gender Pay Ratio S3. Employee Turnover S4. Gender Diversity S5. Temporary Worker Ratio S6. Non-Discrimination S7. Injury Rate S8. Global Health & Safety S9. Child & Forced Labour S10. Human Rights	G1. Board Diversity G2. Board Independence G3. Incentivized Pay G4. Collective Bargaining G5. Supplier Code of Conduct G6. Ethics and Anti-Corruption G7. Data Privacy G8. ESG Reporting G9. Disclosure Practices G10. External Assurance

Environment (E)	
Indicator	**Measurement. Purpose**
E1. Greenhouse Gas Emissions	Total amount, in CO_2 equivalents Assessment of impact on climate change
E2. Emissions Intensity	CO_2 emissions per output scaling factor reflect economies of scale Used for KPI and competitive benchmarking
E3. Energy Usage	Cost of energy, consumption in MWh or GJ Competitive benchmark, KPI
E4. Energy Intensity	Energy use per output scaling factor (earnings, physical floor space, headcount)
E5. Energy Mix	Energy sources. Transition to renewables
E6. Water Usage	Water consumed and reclaimed, $m3^3$ Water supply and water consumption risks
E7. Environmental Operations	Energy, water and waste policies
E8. Climate Oversight / Board of Directors	Description of internal company rules on climate risk management
E9. Climate Oversight / Management	Description of company's actions to manage climate risks
E10. Climate Risk Mitigation	Description of actions to record physical and transition risks

95 https://www.nasdaq.com/docs/2019/11/26/2019-ESG-Reporting-Guide.pdf

Social Indicators (S)	
Indicator	**Measurement. Purpose**
S1. CEO Pay Ratio	Total CEO compensation to median total compensation To assess the risks of unfair compensation, applying the Dodd-Frank Act (US)
S2. Gender Pay Ratio	Median male compensation to median female compensation Equal pay for equal work
S3. Employee Turnover	Employee turnover during the year, by employee category and employment type. May indicate dissatisfaction among employees or a change in operations
S4. Gender Diversity	Ratio of males to females at different levels of management Eliminating gender inequality, optimizing resources and talent
S5. Temporary Worker Ratio	Total number of part-time employees. Insight into sustainability of business model
S6. Non-Discrimination	Description of anti-harassment/discrimination policy
S7. Injury Rate	Number of injuries relative to the number of employees Occupational health and safety policies
S8. Global Health and Safety	Description of occupational health and safety policy and actions
S9. Child and Forced Labour	Description of child / forced labour policy and actions
S10. Human Rights	Description of policy and actions to improve human capital

Governance Indicators (G)	
Indicator	**Measurement. Purpose.**
G1. Board Diversity	The percentage of female directors and committee chairs Increased diversity and better performance
G2. Board Independence	CEO prohibited from serving as board chair; percentage of independent directors. Assessing the effectiveness of the board and best practice
G3. Incentivized Pay	Financial incentives to perform on ESG. Seriousness of organisational emphasis on ESG
G4. Collective Bargaining	Percentage of employees covered by collective agreements Supporting local employees
G5. Supplier Code of Conduct	Percentage of suppliers complying with code of conduct For ESG management of supply chains
G6. Ethics and Anti-Corruption	Description and actions to prevent illegal activities
G7. Data Privacy	Data privacy description and actions
G8. ESG Reporting	Availability and accessibility of ESG reporting
G9. Disclosure Practices	Information about company's engagement with SDGs
G10. External Assurance	Third-party assurance of ESG reporting

6.12. To help companies make decisions about their ESG reporting options, the World Business Council for Sustainable Development (WBCSD)[96] recommends three steps (evaluate, decide and document) and six key questions:

1. Why? (complying with requirements and voluntary commitments, participating in ratings and indices, aligning with peer practice)

2. For whom? (investors, customers, suppliers, employees, regulators, civil society organisations, local communities, the media, competitors, the academic community)

3. Where? (regulatory reporting, integrated reporting, sustainability report, social report, special reports, data portals, fact sheets, management presentations, investor/analyst presentations, social media, press releases, website articles/blogs, web content, speeches, videos)

4. What? (risks, opportunities, management, compliance, strategy, targets, performance)

5. How to present it? (Information should be clear, balanced, understandable, comparable, material, neutral, useful, reliable, concise, complete, accessible, relevant and future oriented.)

6. How much? (ESG information should be sufficient to answer questions 1-5.)

6.13. There remain considerable challenges in using SDG indicators in ESG reporting[97], but national[98] and regional statistics[99] are being used to address this.

6.14. In light of the new developments regarding Carbon Border Adjustment, there are increasing requirements to record risks and opportunities and to disclose information about the chains of interactions of the bank and its customers.

96 https://docs.wbcsd.org/2019/04/ESG_Disclosure_Handbook.pdf
97 https://unstats.un.org/sdgs/indicators/Global%20Indicator%20Framework%20after%202020%20review_Rus.pdf
98 https://www.gks.ru/free_doc/new_site/m-sotrudn/CUR/cur_main.htm
99 https://rostov.gks.ru/storage/mediabank/7Dwl4Sd7/%D0%A6%D1%83%D1%80_2021_%D1%81%D0%B0%D0%B9%D1%82.pdf

7. ESG Banking for the SDGs and National Goals

7.1. The principles and approaches discussed above can be illustrated using the taxonomies of the Sustainable Development Goals (SDGs)[100] and the national development goals of the Russian Federation to 2030[101]. By aggregating and summarising the accumulated experience of banks, the SDGs and national goals can be integrated into the banking regulation and non-financial reporting systems[102]. The testing of digital reporting technologies on the basis of the SDGs will allow them to be used for other taxonomies also.

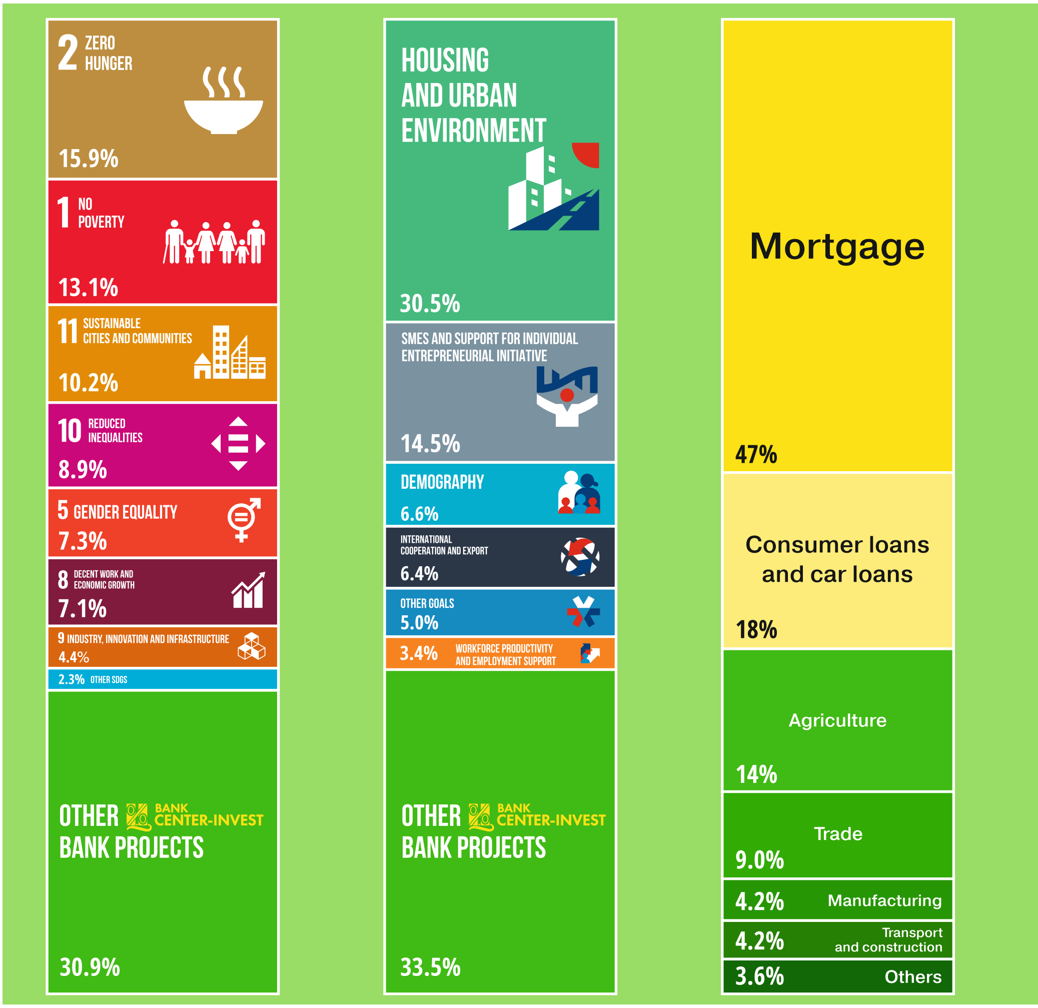
7.2. An inductive approach involves selecting several SDGs and reporting within the framework of this selection. A deductive approach requires statistical and expert analysis and allocation of the results of operating activities across all 17 SDGs, bearing in mind that an activity might simultaneously contribute to several SDGs. To avoid double reporting, an activity's contribution is allocated to the SDG on which it has the greatest impact.

7.3. Compared to other taxonomies, the SDGs have a more precise and regularly updated comparable system[103] of indicators used at the international[104], national[105] and regional[106] level. The correlation of these indicators with our customers' databases allows the bank to produce ESG reporting using the SDG taxonomy and to include it with its financial reporting.

7.4. The bank's balance sheet. The structure of assets and liabilities reflects the most important feature of the bank's ESG business model. The bank, using its capital (14% of liabilities) transforms its customers' funds (82% of liabilities) for lending to the real economy (82% of assets).

100 https://www.un.org/sustainabledevelopment/
101 http://publication.pravo.gov.ru/Document/View/0001202007210012
102 https://www.cbr.ru/StaticHtml/File/117620/20210712_in-06-28_49.pdf
103 https://unstats.un.org/sdgs/indicators/database/?area=RUS
104 https://rosstat.gov.ru/sdghttps://unstats.un.org/sdgs/indicators/Global%20Indicator%20Framework%20after%202019%20refinement_Rus.pdf
105 https://rosstat.gov.ru/sdg
106 https://rostov.gks.ru/storage/mediabank/7Dwl4Sd7/%D0%A6%D1%83%D1%80_2021_%D1%81%D0%B0%D0%B9%

ESG Balance sheet of the Bank



Retail lending

Lending to legal entities

Other assets

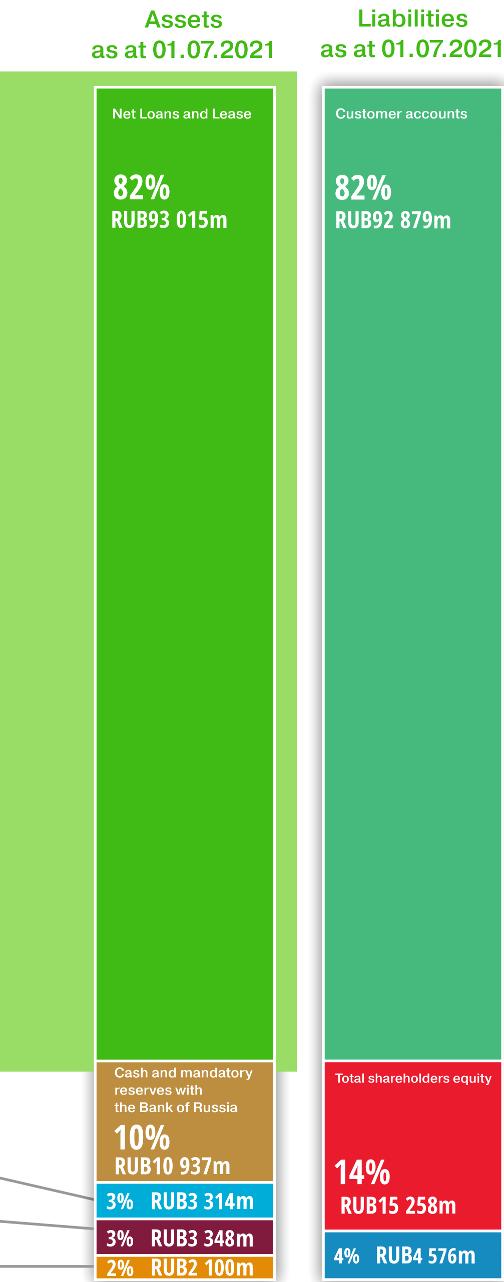
Fixed assets & Intangible assets

Due from other banks

The bank, based on the data analysis method, has developed an innovative methodology for assessing loans issued for achievement of SDGs and Russia's National Projects.

As at 01.07.2021, Center-invest Bank has invested RUB245.2bn in implementation of the UN SDGs and RUB213.5bn in Russia's National Projects.

Assets as at 01.07.2021 | Liabilities as at 01.07.2021



The Bank attracts customers' funds on profitable conditions for the implementation of the UN SDGs and Russia's National Projects in the southern Russia. In 2020, Center-invest Bank introduced a new "Green" deposit account for responsible investors. All of the funds deposited in Green deposit accounts are used for projects that contribute towards the UN Sustainable Development Goals and Russia's National Projects.

Bank's shareholders invest in the UN SDGs and ESG development

Bank's founders - Dr.Vasily Vysokov and Tatiana Vysokova 22.06%
ESG Banks and Funds 53.51%

European Bank for Reconstruction and Development
ERSTE Group
KFW DEG
responsAbility
Raiffeisenlandesbank Oberösterreich

Other shareholders 24.43%

Loans from banks and development institutions

Black Sea Trade & Development Bank
symbiotics
responsAbility

Green bonds, other bonds, bills and others obligations.

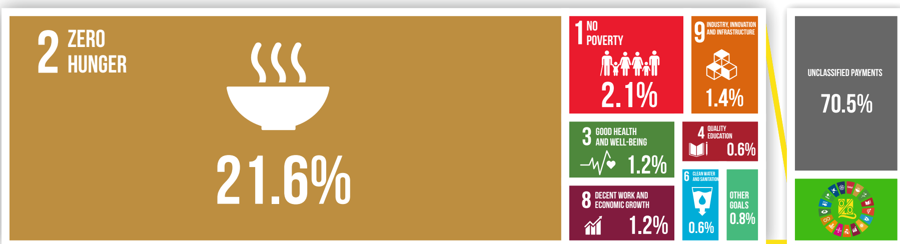
Since 2015 the Bank has formed its “green portfolio” and has invested over RUB 19bn in 21,972 customer projects.

The environmental impact of this work is equal to the annual reduction of CO_2 emissions by 225 550 tons.

The bank's balance sheet presented in terms of the SDGs emphasises this feature of the ESG business model: customer funds are used to implement the SDGs. The sources of ESG funding remain marginal and the bank transforms the funds of its retail and business customers for implementation of the global goals. Likewise, the digital model of ESG banking allows us to present the transformation of retail customers' funds for implementation of the National Projects.

7.5. ESG payments. The bank used big data technologies to analyse its retail and business customer payments. Over 30% of its customer payments relate to implementation of the SDGs. This includes payments for educational and medical services and other services provided by social institutions and companies. In the first half of 2021, customer payments totalled RUB244.1bn.

Allocation of business customer payments to the SDGs



Allocation of retail customer payments to the SDGs

7.6 The bank's loan portfolio. Traditional financial reporting breaks down lending by type of borrower, sector and maturities. ESG reporting allows banks to assess both the total contribution to the SDGs and a breakdown of the loan portfolio by borrower categories.

The business loan portfolio contributes to the following SDGs:

- *SDG 2 (Zero Hunger)*, as the bank successfully finances the sustainable growth of the agribusiness sector in southern Russia on the basis of new technologies to meet demand for food items at home and abroad;
- *SDG 8 (Decent Work and Economic Growth)* reflects the bank's targeted lending for the transformation of SMEs and the introduction of new technologies;
- *SDG 9 (Industry, Innovation and Infrastructure)* involves continuous innovative development of the operations of the bank and its customers on the basis of new technologies and methods, localisation of best international practice, and staff training;
- *SDG 11 (Sustainable Cities and Communities)* reflects the bank's role in providing loans for construction of residential housing, modernisation of the housing and utilities sector, and homeowners' associations;
- *SDG 3 (Good Health and Well-Being)* means loans for medical institutions, fitness clubs and the wellness sector;
- *SDG 12 (Responsible Consumption and Production)* involves financing energy saving and resource saving technologies;
- *SDG 4 (Quality Education)* involves financing educational institutions, including those that train students for jobs with social impact.

The residential mortgage loan portfolio contributes to the following SDGs:

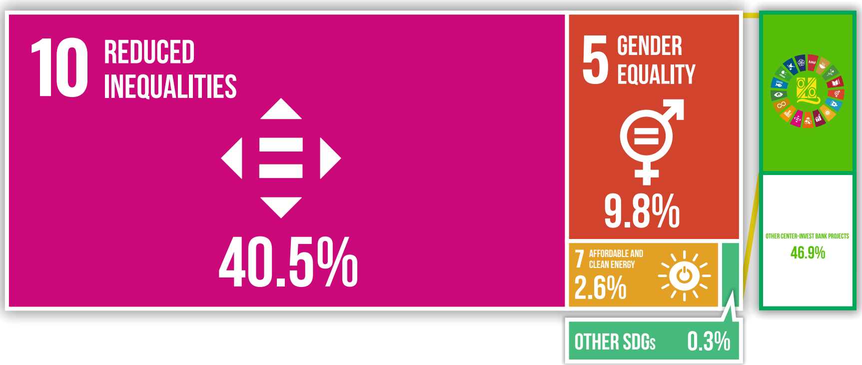
- *SDG 1 (No Poverty)* involves improving the living conditions of poorer sectors of society;
- *SDG 11 (Sustainable Cities and Communities)* means loans to replace obsolete housing with new, more comfortable housing;
- *SDG 5 (Gender Equality)* as new housing is purchased by women, including mothers with children;
- *SDG 10 (Reduced Inequalities)* as mortgages raise borrowers' social status and standard of living.

More than 40% of **the retail loan portfolio** helps to achieve SDG 10 (Reduced Inequalities), while 10% relates to SDG 5 (Gender Equality) and 3% relates to SDG 7 (Affordable and Clean Energy) with loans for more efficient household appliances.

Allocation of business loan portfolio to SDGs as at 01.07.2021

Allocation of mortgage loan portfolio to SDGs as at 01.07.2021

Allocation of retail loan portfolio to SDGs as at 01.07.2021



7.7. Profit and income. Traditional financial reporting uses profitability indicators to measure a bank's performance. ESG reporting uses a broader financial indicator, looking at the bank's income and how that income is generated and used. ESG reporting allows us to evaluate more precisely a bank's work with the real economy and to emphasise its social role as a source of income for the population, employees and shareholders, and also as a taxpayer and a mechanism for long-term growth. For many years now, Center-invest Bank has obtained 81% of its income from lending to the real economy and it has allocated its income to: the population (interest paid on deposits) – 33%; partners and suppliers – 26%; employees and the state – 19%; and shareholders (dividends and development) – 22%.

7.8. Staff development. ESG banking requires talented employees, but a team spirit is even more important. For the reproduction of human capital, an atmosphere of trust is essential, where any employee can address any question to any level of management and receive a comprehensive answer. The birth rate among our employees, which is four times higher than the Russian national average, is an indicator of the high level of employee trust at Center-invest Bank and its positive impact on financial performance.

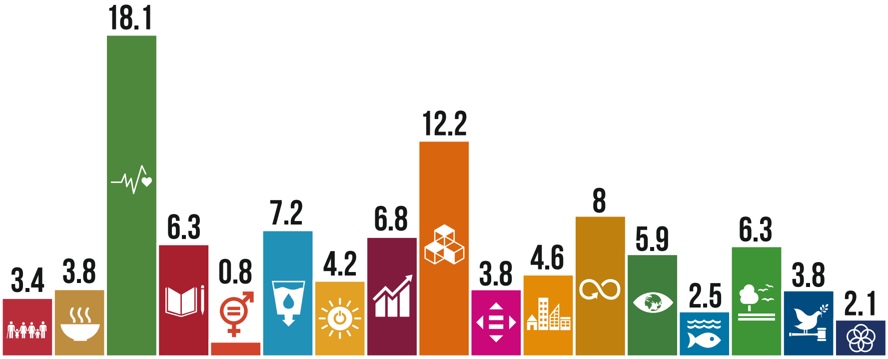
The proportion of women in the governance bodies in Center-invest Bank: Board of Directors – 14%, and Executive Board – 43%, while 70% of our department and branch managers are women. In a year, 40% of staff receive further training.

7.9. Assessing ESG impact. By analysing a large quantity of data, the bank has established the interlinkage between the SDG indicators, our own products and our customers' activities. As a result, we can easily evaluate stakeholders' initiatives in terms of the SDGs. For example, Center-invest Bank's experts assessed the planned establishment of breakthrough laboratories for young scientists in the Rostov region for consistency with the SDGs. This is a project of Southern Russia's Scientific Educational Centre[107].

Center-invest Bank was one of the organisers of the "SDGs and Me" competition[108] Applications were open to youth projects that can demonstrate how they contribute to the SDGs. While all of the SDGs were targeted, the largest number of applications related to SDG 3 (Good Health and Well-Being), SDG 9 (Industry, Innovation and Infrastructure), SDG 8 (Decent Work and Economic Growth), SDG 6 (Clean Water and Sanitation), SDG 15 (Life on Land) and SDG 4 (Quality Education).

107 https://www.юноц.рф
108 https://17sdg.ru/

Distribution of “SDGs and Me” competition entries, %



8. Conclusion

8.1. Russian banks have the most developed IT systems, which allows them to switch to the new model of ESG banking rapidly enough, despite the uncertainty about terminology, regulatory requirements and quantitative assessments of ESG risks.

8.2. Agile digitalisation allows banks to benefit from the principles of ESG banking:

- to move from declarations to practical actions;
- to quantitatively assess the development prospects for their own business and for the businesses of their customers and stakeholders;
- to rapidly consider a wider range of options for adapting to new challenges;
- to generate, in a more responsible way, creative solutions to attract new customers and investors, implement new methods, technologies and rules, and develop new markets and products;
- to adapt more rapidly to the new regulatory requirements.

8.3. ESG digitalisation increases the requirements for a bank to rapidly adapt its technical and application systems. It is a good test of an IT system's resilience and readiness for transformation as a result of:

- new requirements for automation of the business processes used by business units and staff;
- the use of new methods and technologies for data processing and analysis;
- the use of new sources of data;
- the development of new application systems and interfaces;
- the risks of cybercrime;
- establishing interconnectivity of new information systems.

8.4. Agile digitalisation of ESG banking boosts the development of new areas for the application of digital technologies in the ESG field:

- establishing a new financial market landscape: interaction with digital platforms and ecosystems, digital technologies for remote services for an ESG-competent generation of users and customers;

- digitalisation of lean production initiatives and projects: information and other types of support for the operation of lean laboratories and the ideas/projects of bank employees relating to lean production;
- business analysis information systems and application of data science to operating activities: developing management accounting, including on the basis of business warehouse and business intelligence systems, incorporating ESG taxonomies in the perimeter of the bank's management accounts, speeding up decision-making, predictive product offering for bank customers, identifying fraudulent transactions, etc;
- Information systems for managing human resources: competency assessments, producing individual development plans, automated generation of employee training plans;
- information systems for improving the financial literacy of the population, online financial advisors available via customers' mobile applications to help advance the social element of ESG banking, etc.

8.5. At a time when there is considerable uncertainty about factors, risks, rules and regulatory requirements, the digitalisation of ESG banking requires flexible management methods[109, 110], including methods that reflect national historical experience[111].

“Cossack lava is not a formation controlled by precisely defined commands that require harmonious and simultaneous execution, but tactical actions of cavalry without specific forms and formations. Lava takes the formation that promises the greater success at the moment. Its success depends on the resourcefulness and intelligence of its commander and all ordinary riders. Lava requires the independence of each individual fighter, while attention to the sign and order of the commander unites the actions of the whole lava, and striving for the one goal, which should be clear to everyone."

Count F. Keller
Several Cavalry Questions, Saint Petersburg, 1910[112].

109 http://www.petromarket.ru/upload/iblock/306/CBAM_Petromarket_08_2021.pdf
110 https://www.itru.ru/wp-content/uploads/2019/04/Борис_Вольфсон_Гибкие_методологии.pdf
111 https://gosagile.cdto.ranepa.ru/
112 https://expertsouth.ru/articles/ot-kazachey-lavy-k-esg/