Risk management and internal control

Risk Management and Internal Control
The Executive Board, under the supervision of the Supervisory Board, bears the ultimate responsibility for identifying and managing the risks associated with the company’s strategy and activities. The Executive Board is assisted in carrying out these responsibilities by senior management across the business in managing line management, monitoring (Global Functions), advising (Risk Committee and Compliance Committee) and assurance (Global Internal Audit) activities.

Vopak applies the principles of the COSO Integrated framework - Internal Control and Risk Management - resulting in an integrated cohesive approach starting with identifying the key risks to achieving the strategic objectives and then determining Vopak's risk appetite and how the identified risks are to be managed through internal controls.

Risk Management and internal controls are at the core of the Vopak Control Framework. This comprehensive framework is applied at all layers and locations within the Group.
A cohesive approach: Managing risks and internal control

Enterprise Risk Management
Our Enterprise Risk Management (ERM) Framework, which is based on the principles of the COSO ERM model, is embedded within the quarterly functional (commercial, operational and financial) performance review meetings, the divisional performance meetings and the mandatory Enterprise Risk Management (ERM) reporting which takes place on a biannual basis.

1  Vopak’s Key Control Framework covering 16 processes providing for effective management through effective controls for risks to be within the risk appetite.
2  Control Risk Self-Assessment.
3  Divisional Monitoring Controls Self-Assessment.
Vopak’s Risk Management Framework

- Risks identified by the individual terminals and divisions
- Strategic risk discussions with global senior management
- Global principal risks reviewed by the Risk Committee and agreed with the Executive Board
- Risk appetites of all principal risks are determined by the Executive Board and shared within the organization
- A standard risk management methodology facilitates communication within the group
- Mitigating actions are established for the identified risks and reviewed by the Risk Committee
- Separate action plans are established and executed for risks, which exceed the risk appetite
- Effectiveness of the mitigating actions is monitored across the three lines of defense
- The Risk Committee reviews effectiveness of risk management process and acts as the steward of risk management
- The Risk Committee informs the Executive Board and the Supervisory Board on the principal risks and the effectiveness of the risk management process

Vopak’s ERM process is guided and overseen by the Risk Committee. The ERM process is aimed at ensuring the timely identification and mitigation of risks and risk trends. It requires all operating companies to assess and report their principal risks, the likelihood, financial impact and the mitigating actions in place plus an assessment of the effectiveness of these actions. Divisions review, discuss, supplement and report on these risks as the basis for the biannual discussions between Division Management and representatives of the Risk Committee. A dialogue also takes place with Global Directors and the outcome of the whole process is shared with the full Risk Committee. The dialogue with the Executive Board concludes the process prior to sharing and discussion with the Audit Committee and the Supervisory Board.

Confirmation of the process is provided through the work of Global Internal Audit, which ensures that operating companies have sound ERM process at the local level and our Control Risk Self-Assessment (CRSA). Management accordingly considers our ERM process to be effective.

The Risk Committee, in addition to performing an advisory role to the Executive Board on the identified risks, commits itself to further embedding a ‘risk-conscious’ culture. ‘Risk Moments’ are a standard agenda topic of each Risk Committee meeting, business persons are invited to discuss specific risks at the Committee (for example, environmental risks, the process used for categorizing overall project risk for governance purposes) and consistent risk-impact assessments are used for the biannual risk dialogues. The Risk Committee also recognizes that whereas risk management is a topic owned by the business with the Committee performing a coordination and advisory role, numerous meetings held by the Executive Board and Senior Management also cover risks and opportunities even if not specifically labeled as such. Communication is considered key and having performed a self-assessment to determine gaps in relation to the COSO ERM Integrating Strategy and Performance framework, it has been agreed within the Committee to focus on the topic of ‘Communication and Information Sharing’ per the COSO framework in the forthcoming year. The Risk Committee met nine times during the year.
## Risk-reward appetite
The applicable risk-reward appetite for each risk category (in accordance with COSO) is defined by the Executive Board. The risk appetite reflects the amount and type of risk that Vopak is willing to take in order to meet its strategic objectives, while ensuring compliance with laws and regulations. Our risk-reward appetite throughout 2018 remained unchanged compared to prior year.

<table>
<thead>
<tr>
<th>Risk Category (COSO)</th>
<th>Strategic themes</th>
<th>Vopak’s risk-reward appetite</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strategic risks</strong></td>
<td>• Leading assets in leading locations</td>
<td>Low to high: Vopak evaluates the risk-return profile on a case-by-case basis by consistently applying appropriate metrics taking into account the value creation opportunities existing in both the short and longer term.</td>
</tr>
<tr>
<td><strong>Operational risks</strong></td>
<td>• Operational leadership &lt;br&gt; • Service leadership &lt;br&gt; • Technology leadership &lt;br&gt; • People leadership</td>
<td>Very low: on safety and sustainability issues. Moderate: on other areas/topics with alignment of targets and related cost, and a clear focus on sustainable EBIT growth.</td>
</tr>
<tr>
<td><strong>Legal and compliance risks</strong></td>
<td>• Operational leadership &lt;br&gt; • People leadership</td>
<td>Very low: we operate with the objective to ensure full compliance with legal and regulatory environments.</td>
</tr>
<tr>
<td><strong>Financial and reporting risks</strong></td>
<td></td>
<td>Low: on financial risks. Aligned with the long-term nature of the business, the company’s objective is to ensure a robust financing position and solid cash flow performance and remain compliant with the debt covenants. Furthermore, the objective is to ensure full compliance with financial and non-financial reporting laws and regulations.</td>
</tr>
</tbody>
</table>

### Our principal risks and uncertainties and how we mitigate these
The principal risks that could prevent Vopak from achieving its strategic objectives are described in this section. Mitigating actions applied are also described. When identifying our principal risks, we also take into account the industry-related trends that could lead to future opportunities and uncertainties as described in the chapter ‘Storing vital products with care’ of this Annual Report. Thirteen principal risks are reported; two risks recognized as being more prevalent compared to the 2017 Annual Report are the potential impact of the energy transition in certain regions and inherent risks of increasing digitization arising in today’s operating model.

The nature of Vopak’s business model is long-term, resulting in many risks being enduring in nature. Nonetheless, risks may develop and evolve over time due to internal and external developments. The risk overview can be read carefully when making an assessment of the company’s business model, its historical and potential future performance, and the forward-looking statements contained in this Annual Report. Although the risk management process followed is considered to be effective, there is no absolute certainty that the mitigating actions with respect to the principal risks will be effective or that other risks may be prevented from occurring.
The following matrix and table provide an overview of the principal risks of the company and management’s current view of the effects of the mitigating actions in place:

**From Gross Risks to Residual Risks**

<table>
<thead>
<tr>
<th>Strategic Risks</th>
<th>Operational Risks</th>
<th>Legal and Compliance Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Unable to deliver on growth strategy</td>
<td>7. Climate change</td>
<td>12. Complex and changing laws and regulations</td>
</tr>
<tr>
<td>3. Energy Transition</td>
<td>9. Large complex construction projects</td>
<td></td>
</tr>
<tr>
<td>4. (Crude) Oil and Gas market price movements</td>
<td>10. Unable to deliver digitalization strategy</td>
<td></td>
</tr>
<tr>
<td>5. Geopolitical developments</td>
<td>11. Risk of cyber breach of IT and/or OT systems</td>
<td></td>
</tr>
<tr>
<td>6. Increasing competition and overcapacity</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Key Risks**

- 1. Unlikely
- 2. Low
- 3. Medium
- 4. High
- 5. Very high

**Impact**

- 1. Very low
- 2. Low
- 3. Medium
- 4. High
- 5. Very high

**Likelihood**

- 1. Very low
- 2. Low
- 3. Medium
- 4. High
- 5. Very high

**Additional information**

- Complex and changing laws and regulations
- Behavior not in line with Vopak Values

**Governance, risk and compliance**

- Risk management and internal control
## Strategic risks

<table>
<thead>
<tr>
<th>Strategic theme</th>
<th>Risk description</th>
<th>Risk appetite</th>
<th>Mitigating actions</th>
</tr>
</thead>
</table>
| Leading assets in leading locations | **1. Unable to deliver on our growth strategy**  
Non-success could be due to:  
• Not being able to find the right locations and right partners  
• Not having the right skills and capabilities to enable successful business development execution given the complexities involved  
• Anticipated project returns not meeting risk/return requirements  
• Not being able to successfully convert existing terminals to meet customer demands due to changing product flows. | Low to high | Clear growth strategy in place; fully understood by all relevant staff; Project evaluation criteria on a merit-by-merit basis (not one size fits all)  
• Dedicated Divisional Business Development Teams supported by the Global Commercial and Business Development  
• Growth Funnel Execution Focus  
• Relationship programs with customers, port authorities and other potential partners for growth projects  
• Founder’s Mentality instilled in our culture, among others via the LEAD program for senior management  
• Shift to a multi-dimensional and disciplines risk/return approach to growth opportunities. Ensuring appropriate project resources. One Vopak Project Management approach (VPM) and use of a Global engineering department. Support from Global Projects and Global Procurement during execution phase. |
| Leading assets in leading locations | **2. Market volatility resulting in changing product flows with, in some circumstances, unprecedented speed of market change.**  
Changing industry market dynamics leading to structural changes in product flows and increased volatility which are not adequately addressed timely by the company. Noteworthy developments are:  
• Increasing use of gas and renewable energy and the increasing number of electric vehicles  
• IMO 2020 relating to bunker fuels for the shipping industry  
• Changing regulations regarding the use of biofuels  
• Shipping economics  
• Asia & China: softening economic growth  
• Rationalisation in the refinery and petrochemical sector  
• US shale gas developments resulting in cheap chemical feedstock. | Low to high | Successful execution of our strategy:  
Maintaining (including divesting and expanding) a well-diversified global terminal network based on clear strategic criteria for terminals taking long-term scenario considerations into account for certain product/market combinations:  
• Industrial terminals  
• LNG, LPG and Chemical gases terminals  
• Chemical terminals  
• Oil terminals.  
Continuous in-depth analyses of scenarios and global trends by Global Commercial and Business Development in conjunction with Divisions and Local teams with the objective that the company is able to timely identify changing market developments and respond accordingly. Measures may include acquiring and divesting terminals, changing existing infrastructure and reassessing project scope in projects under development, growing in LNG and other gas-related areas, and differing contract durations. |
| Leading assets in leading locations | **3. Energy Transition brings both opportunities and uncertainties.**  
The speed and precise direction of the energy transition is not fully known and remains unclear. However, it is clear that this development impacts global products flows and Vopak:  
• Increased environmental legislation leading to higher capital expenditure levels (e.g.: improved vapor recovering treatment systems) and changing operating requirements  
• Demand for oil-based fuels decreasing in specific regions due to lower economic growth, electrification of vehicles, changes in oil-based fuels (diesel vs gasoline) and more fuel-efficient cars and overall negative sentiment towards fossil fuel usage. This can for example have a negative impact on recruitment possibilities as potential employees inappropriately consider the company a pure fossil fuel player  
Opportunities exist through:  
• Environment-induced regulations also create opportunities (e.g. IMO 2020) with the need for further segregation of products considered to increase in storage tank demand  
• Further facilitation of structural imbalance in energy needs and related storage in the LNG market. LNG being considered a ‘cleaner’ fossil fuel  
• Opportunities for providing hydrocarbon storage. | Low (legislation and infrastructure protection to high (opportunities and adapting to changing market needs) | Strategic assessment program takes into account the long-term impact of the energy transition. Dedicated focus in considering potential energy market transition impacts and opportunities (e.g. future of hydrocarbon fuel). Active role in developments demonstrating commitment to opportunities that the energy transition could bring:  
• Emphasising the company as logistics service provider of vital products for end consumer use demonstrating a broad product base  
• Continuous assessment of the impact on Vopak and the oil and gas industry of agreements and directions per United Nations Global Climate Change Conference (latest being COP24) and development of other international and national agreements  
• Sustainability being “top of mind” in many decision making being made by the company.  
Effective monitoring of:  
• Existing and changing compliance requirements in place and follow up of requirements as necessary  
• Need for reinforcements of infrastructure against adverse weather and climate induced conditions and leverage of Global expertise and technical knowledge for optimal cost-effective solutions. |
<table>
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</table>
| Leading assets in leading locations | Exposure to (crude) oil and gas market price developments leading to risks and opportunities. Fluctuating movements in (crude) oil and gas market pricing have consequences for our customers putting pressure on the value chain although this can offer storage opportunities in the short term. Differences per regions are observed. | Low to high  | Continued focused strategy execution:  
• Providing storage and handling services for structural product flows; limiting exposure to potentially more volatile trading markets  
• Well-diversified global terminal network supporting different product/market combinations  
• Operational and Service leadership focus; continuous Net Promoter Score (NPS) measure introduced end 2018 enabling real-time follow up. Appropriate pricing strategies matching the service leadership and operational leadership. |
| Leading assets in leading locations | Geopolitical developments, unpredictable by nature, continue to present challenges to our business going forward in both emerging and non-emerging markets. Geopolitical developments such as trade sanctions and renegotiation of trade agreements (e.g. USMCA, China/US) can lead to unexpected and significant changes in product flows. New governments (e.g. Brazil, Mexico) can lead to uncertainty due to a potentially changing stance towards energy programs by Governments. | Low to medium | Having a well-diversified global terminal network supporting different product/market combinations, not highly dependent on a limited number of specific locations  
• Avoiding business development projects in countries with an undue high geopolitical risk profile unless the risk can be mitigated or is compensated by higher returns  
• Optimizing our terminal portfolio via (partial) divestments  
• Developments continuously monitored including impact assessments by a combination of local management, division and Global. |
| Service leadership | Increasing competition and overcapacity can affect our market position and earnings potential. Increasing competition (increased storage capacity constructed by existing and new competitors) puts pressure on our occupancy rates, pricing and contract durations. The extent varies per location. Furthermore, ‘newer’ terminals have the opportunity to achieve higher service levels by applying increased efficiencies and newer technologies. | Low to medium | Service Leadership and Operational Leadership are cornerstones of our competitive position.  
• Service improvement objectives, meeting customer needs, and optimisation of assets are key elements of our strategy to at least maintain our competitive position in each market in which we operate  
• Continuous Net Promoter Score (NPS) survey replacing the previous annual survey end 2018  
• Good insight into existing markets combined with local entrepreneurship which ensure that we capture business development opportunities before the competition does  
• All senior management participating in two-year Leadership program (LEAD) aimed at harnessing a better competitive position and improving our way of doing business  
• The successful realization of the cost-efficiency program in the 2017-2019 period will reduce Vopak’s future cost base by at least EUR 40 million  
• Continuous assessment whether highest value can be realized via either divestment or continued operation of the terminal within the Vopak network.  
• Increasing digitisation (MOVES) moving to real-time data to improve service performance and cost efficiency  
• Dedicated program to invest in innovation and new technologies adding to service and operational leadership offering. |
## Operational risks

<table>
<thead>
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<th>Mitigating actions</th>
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</table>
| **Leading assets in leading locations** | Climate Change: a global issue presenting both risks and opportunities for Vopak. The risks can be categorized into the following segments:  
- Transition risks: this includes changes in market dynamics, policy actions, reputation and new technology and product developments  
- Physical risks: this includes acute risks such as increased severity of extreme weather events and chronic risks such as rising sea levels and temperature and precipitation changes  
- Legal risks: this includes reputational risks and legislation (e.g. carbon trading)  
- Increased financial risk of limited capital market access due to the trend of increasingly negative investor sentiment regarding investments in carbon and carbon-related industries. | Low to high | • Senior Leadership involved in understanding the various aspects of climate change over different time horizons  
• Process established with multi-disciplinary team (operational, insurance, legal, public affairs, commercial and financial) to continuously assess developments and create awareness. Engagement on an annual basis with senior leadership. The outcome of the initial engagement is a complete, extended risk- and opportunity-assessment based on the scenarios from the IPCC and the IEA. Aligned also with the TCFD Framework  
• Crisis management plans and investments in place for short-term adverse weather conditions and other climate-related events enabling optimal continuation of operations (e.g. floodwall Hamburg. Flexible loading arms Fujairah). |
| **Operational leadership** | Occurrence of a major personal and/or process safety incident and environmental risk. Incidents negatively affect the lives and health of not only staff working at a Vopak location but also those in close proximity. Our ‘License to Operate’ could be affected impacting our earnings. Indicents expose the company to potential liabilities and will most likely have an adverse effect on the company’s reputation. | Very low | Safety has its highest priority  
• Continuous attention to ensuring our safety culture is at the required level regardless of geographical location and whether it concerns own employees or contractors. Vopak Fundamentals, Safety Standards, Vopak Way Standards are critical tools for clearly providing procedures and instructions for safe working practices  
• Mandatory application of Vopak standards at all locations even in the situation where local laws and regulations are less strict  
• Constant reiteration that safety is of the highest priority, e.g. via Global SHE Day and the annual assessment of the Vopak Fundamentals  
• Specific ‘Assure’ audit program run by Global Operations focussing on the prevention of serious safety incidents through process, assets and persons.  
• Robust maintenance and sustaining capex programs are in place ensuring the highest asset integrity  
• Introduction of ‘Trust and Verify’ Program; the objective is that Leadership verify that tasks are undertaken in line with the prescribed approach (tools and management systems)  
• Behavioral Safety Reviews focusing on local safety culture at the terminal included as part of the Annual Audit Plan. |
| **Technology leadership** | Large complex construction projects  
Most projects under development represent sizeable long-term investments and are recognized as being individually complex due to different business, engineering, financing, environmental, cultural and political circumstances.  
When projects are not effectively managed in terms of safety, cost, time and quality, increased costs and lost revenues can be detrimental to the desired end result. Key is ensuring correct skills and competencies. | Low | Vopak Project Management standard for mandatory application to all projects that fit within the criteria for its usage.  
• A robust multi-disciplinary (capital disciplined) investment proposal decision-making process is in place  
• Guidance is provided by the global functions and external experts during all stages of the project. The level of governance support by Global Projects and Engineering during a project is determined at the Investment Proposal stage by application of a risk classification (Risk category A, B or C)  
• The use of Global Engineering and Global Projects provides a common approach and the sharing of experience in developing new projects  
• Embedded (independent) quality assurance processes (e.g. health check, project readiness reviews, and lessons learned sessions at different stages of project development ensure timely rectification as needed  
• Lessons learned reviews are performed and shared within the company for future developments. |
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<th>Risk appetite</th>
<th>Mitigating actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology leadership</td>
<td>Unable to deliver digitalization strategy</td>
<td>Low</td>
<td>Dedicated approach and governance structure for program management in place for MOVES with full Senior Leadership Focus:</td>
</tr>
<tr>
<td></td>
<td>Key to our strategy is effective digitalization including innovation, organized</td>
<td></td>
<td>• Full embedding of system usage is critical for success</td>
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<tr>
<td></td>
<td>centrally providing improved service offering and process efficiency through real-</td>
<td></td>
<td>• Dedicated sessions at Leadership courses to ensure Senior Leadership is trained to embrace and drive the change that successful digitalisation requires</td>
</tr>
<tr>
<td></td>
<td>time data availability. The impact on our current way of working and organizational</td>
<td></td>
<td>• Full Business Impact Analyses taking place at each location enabling full impact of new systems to be assessed prior to roll-out. Key for ensuring continued operations</td>
</tr>
<tr>
<td></td>
<td>change is significant but necessary in order to harness the full benefits. This</td>
<td></td>
<td>• Ownership of roll-out by the business supported by Global teams.</td>
</tr>
<tr>
<td></td>
<td>requires clear leadership embracing the changes and opportunities offered.</td>
<td></td>
<td>• Robust project management approach unilaterally applied</td>
</tr>
<tr>
<td></td>
<td>Legacy systems until full roll-out of new systems have to be maintained but are</td>
<td></td>
<td>• Robust governance in place ensuring sufficient attention given to the needs of legacy systems.</td>
</tr>
<tr>
<td></td>
<td>aging with the risk of disruption which could negatively impact service delivery.</td>
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</tr>
<tr>
<td></td>
<td>Timing of new roll-out is essential for business improvement.</td>
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<td></td>
</tr>
<tr>
<td>Technology leadership</td>
<td>Risk of cyber breach of our IT and/or OT systems, an increasingly common phenomenon via virus and malware attacks, ransomware and unauthorized access attempts leading to confidentiality, integrity and availability (data) issues for the company, impacting negatively on our reputation, financial position, operations, and, potentially lead to costs related to recovery and forensic activities.</td>
<td>Low</td>
<td>• On-going execution of the IT/OT security program (project name COINS) in place to address IT and OT security globally, addressing cyber risk including dedicated IT-risk office. All companies in network are in scope</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Daily monitoring of ‘cyber’ attacks on our global systems for follow up</td>
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<td></td>
<td></td>
<td></td>
<td>• Clear accountability and ownership of converging IT and OT, centrally managed by the Global Director ICT supported by Global function Operations, Divisions and Operating Companies.</td>
</tr>
</tbody>
</table>
## Legal and compliance risks

<table>
<thead>
<tr>
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<th>Mitigating actions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operational leadership</strong></td>
<td><strong>Complex and changing laws and regulations can negatively impact being Business, Operational and Environmental compliant</strong>&lt;br&gt;Obtaining, renewal and/or revisions to permits and licenses for product storage from local and national governments, as well as compliance with local laws and regulations are essential to start or continue operating our terminals. Governments are becoming stricter often due to failings/incidents in the industry, regulations are frequently changing and/or can be unclear making 100% compliance at all times at all locations globally a challenge. However, Vopak’s objective is to ensure full compliance. Uncertainties given changing or unclear requirements can also arise when applying for permit renewals/applications. More stringent demands on environmental requirements as required by our permits may lead to additional sustaining capex investments. Fines and penalties in the event of being non-compliant can be sizeable.</td>
<td>Very low</td>
<td>Operating and Business compliance is non-negotiable&lt;br&gt;• Terminal management is primarily responsible for maintaining a robust general and permit compliance program. Division/Global support and involvement of external specialists are used when unclear&lt;br&gt;• Monitoring operating permit compliance at various levels within the company is a critical element of Vopak’s Global Assure program&lt;br&gt;• Permit status is considered a critical path in all project development activity and is actively monitored through Steering Committees&lt;br&gt;• Global policies and guidelines are in place addressing business compliance requirements. The compliance committee, through functional owners, ensures that appropriate compliance processes are in place for dedicated compliance topics (sanctions compliance, anti-bribery and corruption, anti-fraud and whistleblower, anti-competition, permits and licenses, privacy, insider trading) and that the principal compliance risks are identified and mitigated.</td>
</tr>
<tr>
<td><strong>Leading assets in leading locations</strong></td>
<td><strong>Behavior not in line with Vopak values</strong>&lt;br&gt;Individuals and/or groups of individuals can behave in a manner that is not in line with our values which can lead to financial, business and reputational consequences. It is recognized that certain regions/countries are more susceptible to having a culture not in line with the Vopak Values. The risk is not increasing, and persons are actively requested to report irregularities which increases the number of matters coming to management’s attention and action.</td>
<td>Very low</td>
<td>Clear guidance on culture, values and behavior for every employee; incidents investigated&lt;br&gt;• At all levels of the company management sets the highest standards in respect of desired culture, values and behavior based on the five global Vopak Values (Care for Safety, Health &amp; Environment, Integrity, Team Spirit, Commitment and Agility) and the Vopak Code of Conduct&lt;br&gt;• Vopak values are positively and actively embedded in the culture and expected to be demonstrated by all&lt;br&gt;• The Vopak values are Globally implemented. A revised Code of Conduct has been rolled out in 2017 and a Code of Conduct awareness training was completed by Vopak company employees in the first half of 2018. Whistleblower rules are available globally for all terminals. All whistleblower cases are followed up in line with the company policies&lt;br&gt;• Status of Code of Conduct is monitored via Global Internal Audit&lt;br&gt;• All reported incidents investigated; appropriate actions taken; learnings from (potential) irregularities are actively shared throughout the organization anonymously.</td>
</tr>
</tbody>
</table>
## Other general (inherent) risks not considered principal risks

<table>
<thead>
<tr>
<th>Strategic theme</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Foreign Exchange</strong></td>
<td>As a globally-operated company, Vopak is confronted with money flows that are not in its functional (Euro) currency. Operating globally provides an extent of “natural hedging” but foreign exchange exposure risk exists. This risk is continuously reviewed and measures taken to limit the exposure in line with the foreign exchange policy of Global Treasury. Our financial risks are described in detail in Section 6 of the Consolidated Financial Statements.</td>
</tr>
<tr>
<td><strong>Refinancing and liquidity</strong></td>
<td>Vopak is a capital-intensive company with long-term investments. Long-term access to funds is critical for achieving the strategic objectives of the company. Refinancing and liquidity risks are not considered principal risks due to the effectiveness of the mitigating actions. Vopak’s funding strategy is focused on ensuring continued access to capital markets so that funding capital is available at a time of our choice and at acceptable cost. The development of our Senior Net Debt: EBITDA ratio is continuously monitored and discussed on a regular basis in the Strategic Finance Committee, the Executive Board, the Audit Committee and the Supervisory Board to ensure that the company remains within its covenant ratios. A clear funding policy with respect to subsidiaries and joint ventures is in place. Group liquidity requirements are monitored continuously. Long-term liquidity risks are reviewed each quarter and before every significant investment. Active cash management takes place on a daily basis. Liquidity risks are described in more detail in Section 6 of the Consolidated Financial Statements.</td>
</tr>
<tr>
<td><strong>Insurance</strong></td>
<td>A general business risk exists that losses are suffered due to inappropriate coverage of the incident by third-party insurers. Our Global Insurance Policy aims to strike the right balance between arranging insurance to cover Vopak’s risks and financing adverse implications ourselves. The principal factors underlying our insurance policy are risk tolerance and risk transfer costs. On this basis, Vopak has purchased worldwide insurance cover for a wide range of risks, such as environmental and third-party liability, property damage, business interruption and cyber-related activities. The financial credit ratings of the insurance companies involved are reviewed on a regular basis and, where appropriate, risks are spread across several insurance companies.</td>
</tr>
<tr>
<td><strong>Tax and Tax related</strong></td>
<td>Vopak operates terminals and other activities in many different countries. As tax laws and regulations differ per country and can be complex, the company runs the inherent risk of non-compliance with the local tax legislation and the tax policy of the company. The Vopak Control Framework has a dedicated section stipulating the internal controls to address the risks related to tax and which enforce compliance with the group tax policy. Furthermore, the Global Tax department assist local and divisional management in complying with the tax requirements and monitoring the effectiveness of the internal controls relating to tax as well as the tax position of the group. The company has no principal risks related to taxes.</td>
</tr>
</tbody>
</table>
**Internal Control**

Vopak has identified sixteen key business processes and has internal controls, designed in a principle-based manner, to address risks foreseen in each of the processes. This principle-based internal control framework is rolled out to all operating companies. Local management (‘first line’), supported by Divisions and Global Functions, is responsible for ensuring this framework is implemented, operating effectively and key risks are managed. Divisions and Global Functions are ‘second line’ responsible for the monitoring of internal controls locally including assessing their effectiveness. The ‘third line’ is Global Internal Audit providing independent assurance on internal control existence and effectiveness.

**Internal control framework**

In addition to audits executed by Global Internal Audit, which includes a separate fraud vulnerability assessment when a business process audit is executed, the maturity of key control implementation per operating company is assessed each year through the completion of the Control Risk Self-Assessment (CRSA). The CRSA covers all sixteen key processes and related controls including those specifically directed at fraud and corruption. Complementing the CRSA, are a number of additional functional specific monitoring activities undertaken throughout the year by the Global Functions (e.g.: Operational (Assure) audits by the Global Operations Department, Sourcing and Procurement Self-Assessments by Global Procurement, Commercial Reviews by Global Commercial and Business Development, Insurance reviews by Global Insurance; all with the objective to assess the extent of implementation and effectiveness of expected controls and establish further improvements from a functional responsibility perspective.

Policies continued to be updated as appropriate during 2018. Monitoring of timely updates is undertaken by the Compliance Committee supported by Global Internal Audit. Adding to the further effectiveness of existing working practices and guidance are ‘alerts’ distributed by various functions throughout the year. Notable are those distributed by Global Operations following incidents and Global Internal Audit on specific fraud topics. The introduction of new (automated IT) systems via the MOVES program improves our control environment through the further standardization of processes, systems and allowing for increased transparency and monitoring of actions.

Our Divisional governance structure requires Divisions to execute monitoring activities of terminals. The effectiveness of these activities is assessed on an annual basis through the Divisional Monitoring Control Self-Assessment, which is also coordinated by Global Internal Audit at the same time as the CRSA.

As referred to in the Corporate Governance chapter, the Executive Board is assisted in fulfilling its responsibilities by the Risk Committee, the Compliance Committee and the Disclosure Committee. These three Committees have an important role in the company’s overall internal control framework by providing cross-functional and cross-divisional advisory insight on key topics directly to the Executive Board.

**Internal Controls Periodically Updated**

The principle-based internal control framework is reviewed and updated periodically to ensure control design and guidance remains relevant and effective for the organization. This process is coordinated with the Global Functions through the joint effort of Global Control & Business Analysis and Global Internal Audit. A thorough review was undertaken in 2017 resulting in a revised absolute number of key controls and additional explicit guidance being given as to what is expected for a given maturity level per control. A maturity scale of 1 to 5 is used. This additional guidance serves to both educate and assist in fair (self) assessments. The 2018 framework includes updated guidelines given the extent of the 2017 review. It is expected that future updates are likely to include increased reference to the self-monitoring opportunities enabled by the new IT systems in development. Furthermore, the initiative to centralize the transactional finance activities together with the implementation of new finance systems will lead to a more standardized and sharpened internal control framework.
Management Review Cycle
Key to the control process is the regular reporting cycle. Monthly and quarterly management reports are prepared by all operating companies and Divisions including joint ventures in line with clearly defined mandatory reporting requirements. The reports and related discussions between senior management, including but not limited to the Executive Board, cover not only financial but also key operational, sustainability, human resources and commercial performance indicators aimed at monitoring the achievement of strategic objectives. A critical element of these discussions is comparing progress against prior-year performance and Vopak's Annual Budget which, together with the two subsequent plan years, is reviewed and approved by the Executive Board for all Divisions and operating companies each year.

Executive Board members both collectively and individually visit terminals and Divisions in the course of the year outside of the periodic (fixed) management review cycle. This includes, for example, the annual full Executive Board two-to-three day Comprehensive Review for each Division, Joint Venture Board meetings attendance, Annual Safety Day terminal visits and additional visits. These and similar interactions by Global Directors provide valuable insight into the performance (including behavioral, cultural and internal control factors) of the company.

Role of Internal Audit
The primary role of Global Internal Audit is to provide independent assurance and advise the Executive Board in its responsibility of ensuring both the existence and effectiveness of internal controls, in order to safeguard the company’s strategic goals. A broad range of audits are executed of an operational, investigative and compliance nature with the audit of external financial statements being the responsibility of Vopak’s external auditor. The Executive Board in addition to internal audit outcomes, recognize the themes of the external auditor’s management letter and follow up accordingly. Advising (consulting) activities also take place providing internal control input to key projects undertaken by the organization (e.g. new system implementations such as those falling under MOVES) supporting the functional owners, the expected controls and monitoring that can be expected of Global Functions and Divisions and in addition the expected maturity levels of internal control requirements based on the principal based internal control framework.

Global Internal Audit reports directly to the full Executive Board. Its activities are also overseen by the (Audit Committee of the) Supervisory Board. The Internal Audit Charter is endorsed by the Executive Board and the Audit Committee. A core audit team is located at the Global Head office, often supplemented by subject matter experts either from the business or external support as appropriate.

The annual internal audit plan executed by Global Internal Audit is developed using a risk-based approach focusing on key strategic objectives of the company and risks relating to those objectives. The Global Internal audit universe includes all processes, entities and activities within the company, including Global and Divisional functions. The plan is developed in dialogue with Senior Leadership. Throughout the year, the results of all audits and advisory activities are shared and discussed with the Executive Board and discussed each quarter with the Audit Committee. Progress against the plan is reported.
The follow up of audit findings is the responsibility of the auditee with monitoring thereof and subsequent closure being the responsibility of the Division and/or Global as appropriate. The outcome of this process is formalized biannually with reporting to Global Internal Audit through the ‘audit findings follow-up’ system. Exceptions to what is expected are followed up proactively with Divisions by Global Internal Audit. The audit findings follow-up meetings also take into account follow-up from reviews undertaken by commercial and external financial auditors.

Continuous evaluation of the Global Internal Audit function takes place through various stakeholder feedback tools such as evaluation forms completed by both the auditee and subject matter experts. The results are reported to the Executive Board and Audit Committee on an annual basis. In addition, an externally performed quality assurance audit by the Dutch Institute of Internal Auditors takes place on a five-year basis. The first review at the end of 2016 was positive and re-confirmed that work is performed in accordance with the International Internal Auditing Standards. An evaluation of the function by the Executive Board and the Audit Committee has taken place.

Management assessment, Letters of Representation and In-Control Statement

Management consider that the processes in place as described including those in the Corporate Governance chapter are of a maturity that enables implementation and effectiveness of risk management and internal control to be assessed with the view that there have been no material deficiencies in the internal risk management and control systems relating to the risks observed during the financial year. Further improvements noted, such as policy refinement and automated systems, serve to further improve our maturity level and not to change the processes. The view that there are no material deficiencies is underpinned by the Letter of Representation that is signed by Terminal Management, Divisional Finance Directors, Division Presidents and Global Directors at the end of each half year and full year. This Letter represents the key elements of internal control and full disclosure of deviations to that control as appropriate. The results of this process including deviations are specifically discussed with the Executive Board and, together with the results of the various monitoring and assurance activities as described above (which are explicitly re-evaluated by both Global Control & Business Analysis and Global Internal Audit for the purposes of the In-Control Statement at year end) provide input for the In-control statement issued by our Executive Board.

The In-Control Statement issued by the Executive Board is included directly after the Financial Statements.